BC Hydro
Power smart

Acid Rock Drainage and Metal Leachate Management Plan – Water Quality Annual Report: January 1 to December 31, 2019

Site C Clean Energy Project

March 31, 2020

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Acronyms

AFDE	Aecon, Flatiron, Dragados, and EBC
ARD/ML	acid rock drainage/metal leaching (or leachate)
CEMP	construction environmental management plan
DIC	diversion inlet cofferdam
DOC	diversion outlet cofferdam
DTIP	diversion tunnel inlet portal
DTOP	diversion tunnel outlet portal
EAC	Environmental Assessment Certificate
EPP	environmental protection plan
GSS	generating station and spillways
IDZ	initial dilution zone
IEM	Independent Environmental Monitor
LBDT	left bank drainage tunnel
LBex	left bank excavation
LC50	lethal concentration 50
MCW	main civil works
MWTF	mobile water treatment facility
Non-PAG/NPAG	non-potentially acid generating
PAG	potentially acid generating
PRHP	Peace River Hydro Partners
RBDT	right bank drainage tunnel
RCC	roller compacted concrete
RSEM	relocated surplus excavated materials (area)
SBIAR	south bank initial access road
TPSA	temporary PAG storage area/facility
TSS	total suspended solids
QP	Qualified Professional

1. Acid Rock Drainage and Metal Leachate Management Plan

The Acid Rock Drainage and Metal Leachate Monitoring Plan has been developed in accordance with the following regulatory conditions:

1. Condition 7 of the Site C Project's Federal Decision Statement, issued to BC Hydro on October 14, 2014 and re-issued November 25, 2014, which requires BC Hydro to:

   "*…develop, in consultation with Environment Canada and Natural Resources Canada, a water quality management plan to address environmental effects to the aquatic environment from the Designated Project, including acid rock drainage and metal leaching."*

2. Condition 3 of the Site C Project's Environmental Assessment Certificate, (EAC #E14-02), issued to BC Hydro on October 14, 2014, which requires BC Hydro to:

   "*…develop a water quality monitoring program, [which] must be detailed in the Acid Rock Drainage and Metal Leachate Management Plan."*

The Site C Project's Construction Environmental Management Plan (CEMP; Revision 6 - July 15, 2019), Appendix E – Acid Rock Drainage and Metal Leachate Management Plan fulfills the requirements of the water quality management plan referenced in the above conditions.

This update satisfies the annual reporting requirements specified by these conditions, covering the reporting period from January 1 to December 31, 2019.

2. Overview of Site Activities in 2019

2.1 General Description of Site Activities

Major construction activities conducted as part of the Site C Clean Energy Project in 2019 involving ground disturbance included earthworks in preparation for the dam site foundations, construction of additional relocated surplus excavated materials (RSEM) management facilities, off-site quarry operations, construction of the 85th avenue conveyor, and construction of water conveyance and containment structures.

The water quality monitoring programs that have been implemented on site by BC Hydro and their contractors have been developed to fulfill requirements of the CEMP within the RSEM facilities, water conveyance structures, and within the Peace River.

Bedrock material (including weathered bedrock and colluvium) underlying the Dam Site is characterized to be potentially acid generating (PAG). Environmental management protocols are implemented in all construction areas by BC Hydro to prevent or mitigate the development of acid rock drainage and metal leaching (ARD/ML) conditions. Overburden and soil materials are not potentially acid generating (Non-PAG) and are not managed the same as excavated PAG materials at the Dam Site. The primary PAG mitigation strategy employed at site is material management and the secondary strategy is water management.

Each construction area is required to have a BC Hydro approved environmental protection plan (EPP) which describes ARD/ML mitigation and management plans relevant to the site work as

per the CEMP Appendix E. A chance find procedure is included in the EPP document where exposure or disturbance of bedrock is not anticipated as part of the construction activities. As of December 31, 2019 (cumulatively since the start of project construction), 1,116 EPPs (including revisions) have been reviewed by BC Hydro. In the calendar year 2019, 222 EPPs (including revisions) were submitted to and reviewed by BC Hydro). Implementation of these plans is the responsibility of site contractors, and is overseen by BC Hydro, the Independent Environmental Monitor (IEM) and ARD/ML Qualified Professionals (QPs).

The location of construction areas and water management structures relevant to ARD/ML material management are described below and are shown on Figure 1. The areas are categorized per their location on the Right (south) Bank or Left (north) Bank of the Peace River, and are listed by excavation site, followed by either the temporary or permanent storage facility.

The water management system is continuously adapted as earthworks are undertaken and utilizes a series of temporary ponds and sumps. Ultimately, PAG contact water is diverted to one of 5 RSEM sediment ponds for discharge to the Peace River, or through the MWTF for treatment prior to discharge to an RSEM sediment pond. The active sediment ponds on site are as follows:

- RSEM R5a;
- RSEM R5b;
- RSEM R6;
- RSEM L5; and
- RSEM L6.

Dam site excavation of PAG bedrock totalled approximately 1,700,000 m^3 in 2019. The details of excavated materials from construction areas are detailed below. In total, approximately 900,000 m^3 of water was discharged from the sediment ponds to the Peace River in 2019.

2.2 Right Bank RSEMs

There are three catchment areas within the construction site on the Right Bank, including three RSEMs:

- RSEM Area R5a catchment and sediment pond area which includes the area where the majority of excavated PAG material will be deposited on the west side of the Moberly River;
- RSEM Area R5b catchment and sediment pond, which includes the Approach Channel and Area 23; and
- RSEM Area R6 catchment and sediment pond, which includes Area 20/21, Area A, the Right Bank Drainage Tunnel (RBDT), and Roller Compacted Concrete (RCC) Buttress Excavation.

Activities within each of these areas is further highlighted below.

2.2.1 RSEM R5a

Construction of the RSEM R5a facility commenced in December 2016 and it began receiving material in January 2017. The facility will be upstream from the dam and is permitted for permanent storage of up to approximately 9,300,000 m^3 of PAG material and 1,250,000 m^3 of NPAG material. Material resulting from excavation activities within the RCC Cofferdam Excavation and the Spillway Approach channel was transported into the facility. By the end of 2019, RSEM R5a contained a total volume of 5,298,254 m^3.

Surface water runoff from the RSEM Area R5a catchment drains to a series of four long sediment pond cells constructed adjacent to the perimeter dike. The eastern outflow channel for the non-contact intercept ditch upgradient of the RSEM area was completed in 2018; this discharges to the Moberly River south of the confluence with the Peace River. There has generally been little accumulation of surface water observed in the ponds in 2019, although a small amount of water discharged from these ponds in March 2019. The accumulation of water in the ponds was managed via trucking and pumping following this event to prevent future discharge events.

Monitoring of the bedrock geochemistry was completed by Lorax on behalf of PRHP (Appendix A). Monitoring of surface water quality is summarised in Section 3.2.1and 3.3.1. Monitoring of the groundwater quality at RSEM R5a is referenced below in Section 3.6.1.

Additional details of PAG management on the Left Bank are presented in Section 2.4.

2.2.2 RSEM R5b

The RSEM R5b facility was approved for PAG placement as of July 2016. Construction of the RSEM R5b facility was completed and began receiving PAG in early October 2016. The facility will be located upstream of the dam.

The RSEM storage capacity was reached by the end of 2016, and the facility received only approximately 3,500 m^3 in 2017, with total stored volume of approximately 357,000 m^3. No additional material was stored in this facility in 2018 or 2019. A compacted low permeability cover was previously installed to isolate the RSEM material from moisture and oxygen.

Surface water runoff from the ultimate footprint of the Approach Channel, Dam and Core Buttress, Area 32A/32B, and from the surface of the relatively small RSEM Area R5b are conveyed to the RSEM R5B sediment pond. Water from these aforementioned areas may be directed to the MWTF pre-treatment pond based on field observations, and once treated is released into the sludge/polishing pond which is then diverted to RSEM R5b.

Monitoring of the water in the RSEM R5b sediment pond is conducted by daily water quality sampling and through use of continuous data logger probes (pH, turbidity, temperature and conductivity) and instantaneous discharge flow meters.

The water quality monitoring with the RSEM R5b pond catchment is described by Lorax (Appendix A). Monitoring of the water in the RSEM R5b pond is referenced in Section 3.2.2 and 3.3.2. Monitoring of the groundwater quality at RSEM R5b is referenced below in Section 3.6.1.

2.2.3 RSEM R6

The RSEM R6 facility is not permitted for long term storage of PAG material and has only a small short-term storage area for stockpiling of surplus excavated bedrock material from RBDT development. Bedrock material placed in the facility is relocated to RSEM R5a.

The long term RSEM R6 sediment was constructed and completed in April 2017 and is permitted to receive some PAG contact water, into one of an eastern or western pond cell depending on water levels and water quality within each cell. Surface water runoff from the south (Area 20/21, SBIAR, and RBDT) and west (RCC Buttress Excavation) is conveyed to the RSEM Area R6 sediment ponds (east and west ponds). Water is pumped between the east and west ponds to provide additional retention time for particulate settling, when needed. Monitoring of the water in the RSEM R6 sediment pond is conducted by daily water quality sampling and

through use of continuous data logger probes (pH, turbidity, temperature and conductivity) and instantaneous discharge flow meters. The work was completed by Lorax (Appendix A) and is summarised in Section 3.2.3 and by Ecofish in Section 3.3.3.

2.3 Left Bank RSEMs

The Left Bank is divided into five main areas to describe water management:

- L5 catchment area and sediment pond, which includes the Left Bank Excavation (LBEX) area.
- Diversion Tunnel Inlet Portal (DTIP) and Diversion Tunnel Outlet Portal (DTOP) working areas, from which contact water is retained in storage tanks and generally transferred to the Mobile Water Treatment Facility (MWTF) on the Right Bank.
- Left Bank Cofferdam area which collects water in sumps, is treated for pH, and transferred to the RSEM L5 sediment pond.
- RSEM L6 catchment area and sediment pond.
- RSEM L3 in which NPAG material was placed.

2.3.1 RSEM L3

Water management and monitoring in the L3 catchment were undertaken by BC Hydro and its consultants, starting in early 2018 and continued throughout 2019. The RSEM L3 facility was constructed to contain Non-PAG surplus material from the LBEX and reached capacity (as per the original design) in mid-2016. L3 Creek channel was subsequently re-contoured to allow for drainage of the natural watercourse. L3 Creek drains into the Peace River approximately 1.5 km from RSEM L3. L4 Creek is a small tributary with naturally-occurring PAG contact water which flows into L3 Creek. This watercourse is not subject to ARD/ML monitoring requirements as no construction related activities have exposed bedrock or caused PAG contact water to flow into L3 Creek; however, BC Hydro is maintaining records of water quality within the drainage system as described by Tetra Tech (Appendix D).

2.3.2 RSEM L5 and RSEM L5 Extension

Construction of the RSEM L5 area commenced in late 2016 and began receiving bedrock material excavated from the Left Bank (Left Bank Drainage Tunnel, LBEX, and Left Bank Temporary Storage Area) at the end of June 2017. The RSEM L5 Extension started to receive PAG material from Left Bank excavation activities in 2019. At the end of 2019, RSEM Area L5 contained a total of 922,232 m^3 of PAG material, and the RSEM Area L5 Extension contained 385,843 m^3. These facilities will be upstream from the dam and are permitted for long term storage of PAG material. Construction of the Phase 1 of the long term RSEM ponds was complete at the end of 2018; this pond was approved for, and began discharging, water in Spring 2019.

No material was added to the L5 Garbage Creek stockpile in 2019; however, 24,120 m^3 of PAG material remains stockpiled and covered with NPAG at this location. Additional details of PAG management on the Left Bank are presented in Section 2.5.

The Garbage Creek diversion channel was constructed in late September 2016 and was operational for spring freshet of 2017, 2018, and 2019[1] to divert non-contact waters around RSEM L5 and into the Peace River via a lined channel. Diverted Garbage Creek water is

[1] The freshet period is somewhat variable but occurred from March through to mid-June in 2019 (similar to 2017, 2018) in the Peace River in the vicinity of the Site C dam construction.

impacted by natural bedrock exposures in upstream waters. The Garbage Creek diversion is located at the east end of RSEM Area L5. During freshet 2019, surface water runoff overtopped the diversion and accumulated in RSEM Area L5. This water was pumped into the lower diversion channel and flowed out to the Peace River. Construction activities were completed in 2019 in order to reconfigure the Garbage Creek head pond and diversion channel in order to accommodate future freshet surge flows.

Description of bedrock material geochemical monitoring and water quality monitoring within the RSEM L5 facility is included in the Lorax Annual Report (Appendix A).

2.3.3 RSEM L6

The RSEM Area L6 starter dyke and sediment pond were completed in December 2018. A total of 62,200 m^3 of PAG is now stored in RSEM Area L6 at the close of 2019. The RSEM L6 area has reached its storage capacity, and an NPAG cover has been placed over the facility. The facility will be downstream of the dam and permitted for long term storage of PAG and NPAG material subject to covering and isolation of the PAG from air. The RSEM Pond was approved for discharge in September 2019, however passive discharge has not yet occurred.

2.4 Right Bank PAG Material Management

On the Right bank PAG was primarily excavated from the Approach Channel and Spillway (550,877 m^3), the Dam Core Buttress (574,018 m^3). Smaller volumes of PAG were excavated from other areas around the Right Bank, with a detailed accounting presented below and in Figure 2-1 in Appendix A.

- RSEM Area R5A non-contact ditch (207 m^3);
- Laydown Area 32A and 32B (2,172 m^3);
- RCC Excavation (654 m^3);
- RBDT (1,512 m^3);
- Area 23 (2,794 m^3);
- Dam Core Buttress (574,018 m^3); and
- Approach Channel and Spillway (550,877 m^3).

All of the material excavated on the Right Bank was deposited in RSEM Area R5a. At the end of 2019, RSEM Area R5a contained approximately 5,298,254 m^3 of PAG.

2.4.1 Right Bank Drainage Tunnel

The RBDT is being constructed to control groundwater conditions underlying the foundation of the southern dam abutment. The RBDT portal was covered with shotcrete and completed in October 2016, allowing for advancement of the tunnel in 2017 and 2018. The majority of tunnel excavation was completed by 2019, with small amounts of PAG excavated during 2019 (1,512 m^3).

Surface runoff and seepage water collected from within the tunnel was collected and conveyed to the pond within RSEM R6.

2.4.2 Spillway Approach Channel and Dam/Core Buttress

Bedrock excavation forming the foundation for the Spillway Approach Channel area constitutes a major earthworks project on the Dam Site. In 2019, approximately 550,877 m^3 of bedrock was excavated and transported to RSEM R5a. Runoff from the spillway channel is being directed to the MWTF for treatment as PAG-contact, metals-laden water; this system was commissioned on-site in mid-2018 and continued operation through 2019. Following treatment, the water passed through a sludge/clarifying pond and was subsequently diverted to the RSEM R5b pond.

Bedrock Excavation within the Dam and Dam Core Buttress represents another major earthworks component on the Right Bank. Material volumes from this excavation totalled approximately 574,018 m^3 of PAG which was hauled to RSEM R5a. Runoff from the Dam and Dam Core Buttress is being directed to the MWTF for PAG-contact, metals-laden water prior to being diverted to the RSEM R5b pond, which was brought to site in mid-2018 and continued operation through 2019.

A summary of bedrock geochemical monitoring, runoff water quality monitoring, and inventory of material volumes by month are included in the Annual Report by Lorax Environmental in Appendix A.

2.4.3 Area 32A and 32B

Area 32A/32B is between the Approach Channel and Dam Core/Core buttress. PAG Excavated in this area totaled 2,172 m3 and was transported to RSEM R5a. Runoff from Area 32A/32B is being collected and transported to the MWTF for treatment.

2.4.4 RCC Buttress Excavation Area

Downstream of the Approach Channel, and within the RSEM R6 area, a small amount of bedrock was excavated (654 m^3) within the RCC Buttress Excavation Area. In 2019, work in this area focused around construction and surfacing of the RCC Buttress and continued work on the powerhouse and related structures and equipment. Runoff water from these areas is contained within the RCC cofferdam and is pumped to the RSEM R6 sediment pond.

Monitoring of the bedrock geochemistry and water quality of the RCC Excavation itself was completed by Lorax on behalf of PRHP (refer to Appendix A). Monitoring of the bedrock geochemistry and water quality of the powerhouse and related structures are completed by the Generating Station and Spillways (GSS) contractor, Aecon, Flatiron, Dragados, and EBC (AFDE).

2.4.5 South Bank Initial Access Road (SBIAR)

Between February and March of 2017, a road cut was constructed on the Right Bank to enable two-way haulage and site vehicle access from the upper terrace near Area A and Area 21 down to the floodplain level in RSEM R6. This excavation involved removal of approximately 139,000 m^3 of bedrock, and placement of approximately 206,000 m^3 of embankment fill material. The bedrock material was transported to RSEM R5a and runoff water is channelled to RSEM R6. No additional excavation has occurred at SBIAR during 2019.

Routine monitoring of runoff water quality from approximately 12,500 m^2 of exposed bedrock was completed by Tetra Tech on behalf of BC Hydro (Appendix D).

2.4.6 Area 23 Excavation

The Area 23 excavation is located on a terrace of the Right Bank and lies immediately west of the Substation and south of the Approach Channel Excavation. The 2019 excavation had initially anticipated the generation of 1,770,000 m^3 NPAG material for use within the Generating Station Laydown within RSEM R6. Excavating material in the area resulted in a chance find of 2,794 m^3 of PAG material which was transported to RSEM R5a.

2.5 Left Bank PAG Material Management

Excavation on the Left Bank during 2019 amounted to a total of 604,746 m^3 of PAG rock being disturbed and relocated. These construction activities were mainly conducted around the DTIP,

the DTOP, and the Central Cofferdam excavation. Excavation from these areas occurred throughout the year. Smaller volumes of PAG were excavated from other areas around the Left Bank, with a detailed accounting presented below and in Figure 2-1 in Appendix A.

- DTIP (94,401 m^3);
- DTOP (29,987 m^3);
- LBEX (15,570 m^3);
- Central Cofferdam (455,131 m^3);
- Inlet Cofferdam (10,097 m^3);
- Garbage Creek (105 m^3); and
- Left Bank Drainage Adit (4,185 m^3).

Most of the material excavated on the Left Bank was transported the RSEM Area L5 and RSEM Area L5 Extension. Small amounts were placed in RSEM Area L6 and the Left Bank Dam Core. At the end of 2019, RSEM Area L5 contained 922,232 m^3 of PAG, the RSEM Area L5 Extension contained 385,843 m^3, RSEM Area L6 contained 62,200 m^3, and the Left Bank Dam Core contained 12,345 m^3. No new material was added to the Garbage Creek Stockpile in 2019, however, a small volume was removed (105 m^3), leaving 24,120 m^3 stockpiled at this location.

2.5.1 Left Bank Excavation and Haul Road

During 2019 approximately 48,570 m^3 of PAG was exposed during excavation activities to support future dam construction. Excavated PAG was transported to the RSEM Area L5 and L5 Extension, as well as RSEM Area L6. Contact water was conveyed either to the RSEM L5 sediment pond or on occasion to the MWTF for treatment through to the end of 2019. The LBEX pond was decommissioned and infilled in Q3 2019.

A PAG exposure on the northwestern edge of the LBEX slope remains exposed from previous years excavation (noted in 2018 annual report). The exposure is being mitigated via water management on-site.

Descriptions of the PAG material geochemical monitoring and water quality monitoring are included in the PRHP Annual Report (Appendix A).

2.5.2 Diversion Tunnels (DTIP and DTOP)

Pre-construction of the Left Bank Diversion Tunnels (LBDT) commenced in 2017 and portal construction was completed in 2018. Construction progressed in 2019 on two parallel 12 m diameter tunnels which will divert river water during construction of the dam core, with tunnel excavations being completed and tunnel linings ongoing. Bedrock excavated during tunnel excavation was relocated to RSEM L5, L5 Extension, and RSEM L6. Three isolated cofferdams have been constructed outboard of the DTIP, DTOP and the Dam Core excavation area to isolate these construction areas from having hydraulic connectivity with the Peace River. Sumps within the cofferdam areas are used to collect PAG contact water which was then transported to the MWTF.

2.5.3 Central Cofferdam

Substantial work progressed on excavation activities at the central cofferdam, and a total of 421,741 m^3 was excavated from this area. Excavation occurred throughout 2019 on the Central Cofferdam and was transported to RSEM L5, L5 Extension, and RSEM L6. The risk of ARD/ML due to exposed bedrock was lined with shotcrete, where possible. PAG contact water within the central cofferdam was collected in sumps and transported to the MWTF.

2.5.4 Left Bank Drainage Adit

Construction of the Left Bank Drainage Adit commenced in October 2019. Small amounts of PAG (4,185 m^3) of PAG were excavated during construction of the portal for the Left Bank Drainage Adit. PAG contact water was redirected to the RSEM L5 sediment pond, and PAG was relocated to RSEM L5 and L5 Extension.

2.5.5 River Road

River Road was constructed by the early works contractor, Morgan Construction and Environmental Ltd., in 2015 to serve as the main access route between the upper and lower benches along the right bank. The road remains active as the main site access road along the Left Bank.

The area of bedrock which remains exposed from excavation activities required during road construction down through the Left Bank bluff is referred to as Blind Corner. Surface runoff from bedrock outcrop at Blind Corner and from the upper cut-off ditch in the Howe Pit bench is captured within a limestone rip-rap lined ditch which conveys water along River Road and is diverted to a broad expanse of ditch between culverts RR-8 and RR-9 and is not directly discharged to the Peace River. Routine monitoring of water quality within this catchment, as per CEMP Appendix E, S.5.2.1.7, is described by Tetra Tech in Appendix D.

2.5.6 Howe Pit

The Howe Pit area comprises an area which was previously disturbed by extraction of soil and bedrock material for use as construction aggregate. Bedrock remains exposed in the area. No additional disturbance of the site has been conducted as part of the Site C construction activities.

Surface runoff from the Howe Pit area drains into the L3 Creek via a pond and natural drainage channels. Water quality within the L3 Creek is being monitored by BC Hydro and is described by Tetra Tech (Appendix D).

Future management options for this area are being considered by BC Hydro.

2.6 Offsite Locations

2.6.1 West Pine Quarry

PRHP estimates that in 2019 approximately 340,000 m^3 of NPAG material was blasted at the West Pine Quarry for use at Site C. The material is periodically transported by rail to Site C to be used as feedstock for the roller compacted concrete (RCC) and riprap for the dam construction.

2.6.2 Portage Mountain Quarry

Pre-production development continued at Portage Mountain Quarry through 2019. Work activities included installation of erosion and sediment control systems, construction of the quarry access road. Material extracted from the quarry is being stockpiled on site.

2.6.3 85th Avenue Till Conveyor

The 85th avenue till conveyor was constructed over the course of 2019 and involved excavation of NPAG material. A total of 7 samples were collected from road cuts or stockpiles during excavation activities for elemental analysis and acidity testing. All material tested on the Till Conveyor corridor was classified as NPAG.

3. Overview of Water Quality Monitoring Programs related to Acid Rock Drainage and Metal Leachate Management

The CEMP Appendix E identifies responsibilities specific to BC Hydro and the contractor. In 2019, BC Hydro, as owner, and Peace River Hydro Partners, as MCW contractor, engaged qualified professionals in ARD/ML to assist with implementation of the various water quality monitoring programs identified in Table 1.

In addition to overseeing these water quality monitoring programs, Peace River Hydro Partners' qualified professional, Lorax Environmental, provided general materials management and professional advice on the topic of ARD/ML, and BC Hydro's qualified professional, Tetra Tech Canada Inc., acted in the capacity of auditor of contractor compliance with CEMP Appendix E, while also providing professional advice on the topic of ARD/ML to BC Hydro. These roles were filled in accordance with CEMP Appendix E, S.6.1.2.

Table 1 Individual Water Quality Monitoring Programs related to the ARD/ML Management Plan (CEMP Appendix E)

	Program Description	CEMP Appendix E Reference	Frequency	Duration	Geographic Extent	Program Responsibility	Monitoring Program Qualified Professional (QP), 2019
Monitoring associated with PAG-contact RSEM Sediment Ponds	**Collected/Contained Water**						
	PAG-contact RSEM Sediment Pond Water Quality Water quality sampling, and installation and operation of data loggers for measurement of pH, turbidity and electrical conductivity from PAG containing RSEM sediment ponds.	7.3.2	Hourly (*in situ* measurements) Daily (water quality sampling)	Ongoing from December 2016	Permitted PAG containing RSEM sediment ponds	Contractor (Peace River Hydro Partners)	Lorax Environmental
	RSEM Sediment Pond Toxicity Collection of acute toxicity tests (96hr LC50) from water in PAG-contact RSEM sediment ponds	7.2.1, 7.3.1	Prior to February 27, 2019: Bi-weekly (3), then monthly (12), then quarterly Following February 27, 2019: Bi-monthly. In event of failure, additional sample 96 hours after first failed sample, additional samples every 96 hours until sample passes. Targeted acute toxicity if pH drops below 6.5 for more than one hour	Ongoing from November 2016	Permitted PAG containing RSEM sediment ponds	BC Hydro	Ecofish Research Ltd. and Ecofor Consulting Ltd.
	Groundwater						
	Groundwater Monitoring Install groundwater monitoring wells upgradient and downgradient of RSEM R5a and R5b, and water quality monitoring of groundwater.	7.2.5, 7.3.3	Quarterly	Ongoing from October 2016	RSEM R5a and RSEM R5b	Contractor (Peace River Hydro Partners)	Lorax Environmental
	Peace River Surface Water						
	Peace River Mixing Dynamics and Water Quality Monitoring Field verification of modelled river mixing dynamics for the RSEM discharge sites, assessment of appropriateness of Initial Dilution Zone (IDZ) sample sites through discharge plume characterization, and collection of surface water quality samples at established upstream, far-field downstream and IDZ locations in the Peace River.	6.1.1, 7.2.3, 7.3.4	Monthly and during RSEM discharge events.	Ongoing from December 2016	Peace River at locations upstream and downstream of PAG containing RSEM areas	BC Hydro	Ecofish Research Ltd. and Ecofor Consulting Ltd.
Other Monitoring	**Surface Water**						
	Dam Site Road Cut Water Quality Monitoring Water quality monitoring at construction-related road cuts into PAG material.	5.2.1.7	Monthly (except while dry/frozen)	Ongoing from fall 2016	Throughout the dam site (left and right Peace River banks)	BC Hydro & Contractor (Peace River Hydro Partners), in their respective work areas	Tetra Tech Canada Inc. (on behalf of BC Hydro) Lorax Environmental (on behalf of Peace River Hydro Partners)
	Highway 29 Realignment Segments and Hudson's Hope Shoreline Protection *Water quality monitoring at excavations into PAG or potentially ML material during construction of these project components.*	*5.2.2*	*Monthly (except while dry/frozen)*	*N/A in 2019 (construction not yet begun)*	*N/A in 2019 (construction not yet begun)*	*BC Hydro (or the Contractor)*	*N/A in 2019 (construction not yet begun)*

3.1 Summary of Implementation Status: Monitoring Programs associated with PAG-contact RSEM Sediment Ponds

A summary of RSEMs that are designated to contain PAG material and/or PAG-contact water, and an indication of those that were operational with sediment ponds in 2019, is provided in Table 2.

Table 2 Summary of PAG-contact RSEM Sediment Pond Operational Status in 2019

RSEM	Status in 2019
Right Bank	
RSEM R5a[1]	Operational
RSEM R5b	Operational
RSEM R6[2]	Operational
Left Bank	
RSEM L5 (Phase 1)	Constructed and operational
RSEM L5 (Phase 2)	Constructed, not operational
LBEX-SP[3]	Decommissioned and infilled in 2019
RSEM L6	Operational but not currently discharging

NOTES:
[1] RSEM R5a sediment ponds were constructed in 2017 but are managed to avoid passive discharge.
[2] RSEM R6 does not receive PAG material, but its sediment ponds receive PAG-contact water.
[3] LBEX-SP is not a true RSEM sediment pond.

The focus of the monitoring programs described below is on those PAG-contact RSEMs with operational sediment ponds in 2019 only.

3.2 PAG-contact RSEM Sediment Pond Water Quality

A brief summary of monitoring undertaken at PAG-contact RSEM sediment ponds is provided below; a detailed description is included in Appendix A.

In general, operational PAG-contact RSEM sediment ponds are subject to the following monitoring regime:

- Continuous (minimum hourly) measurements of pH, turbidity, and electrical conductivity via *in situ* sonde.
- Continuous measurements of discharge to the Peace River.
- Daily collection of water quality samples for laboratory analysis of total and dissolved metals, pH, total suspended solids (TSS), turbidity, sulphate, nitrates, conductivity, temperatures, conductivity, and hardness (plus hydrocarbons, if applicable due to a spill event).

These monitoring measures are undertaken except when the pond is dry or frozen.

PAG-contact RSEM sediment pond water quality is subject to end-of-pipe discharge limits, as described in the CEMP Appendix E (Table 2), for the following parameters: total metals (cadmium, cobalt, copper, zinc), TSS, and pH. Water quality and flow data are used to calculate metals loading of each PAG-contact RSEM sediment pond to the Peace River on a daily basis.

3.2.1 RSEM R5a

The RSEM R5a facility construction was completed in early 2017. An intercept ditch upgradient of the RSEM area was completed in 2018, which discharges into the Moberly River south of the confluence with the Peace River. There are four sediment ponds (A, B, C and D) located between the RSEM and the Peace River. These ponds receive water from direct precipitation and runoff from the RSEM footprint only. Given that the large volume of shale material placed in this area retained the majority of snowmelt and precipitation, there was very little water that accumulated in the ponds. Consequently, there was no installation of sondes for *in situ* water quality measurements, or continuous flow meters, and only occasional water quality sampling for laboratory analysis. The equipment required to install, and commission sondes is available on site and will be installed in the event the ponds retain sufficient water to necessitate the systems.

The RSEM R5a ponds discharge into a riparian zone/side channel of the Peace River, and as such, are not currently approved for passive discharge. Ponds A through C discharged 2,337 m^3 between March 18th and March 22nd (combined), 2019 due to a rapid snowmelt event, but otherwise were managed throughout 2019 to prevent passive discharge to the Peace River. Pond D did not discharge to the Peace River. A pumping plan was developed and adopted in 2019 in the event the ponds require dewatering to avoid passive discharge such that discharge would occur directly to the main stem of the Peace River; this plan has not yet been utilized due to low water volumes in ponds.

During the discharge period in March, the EOP discharges exceeded short-term BC WQG at Pond A (March 18 through 21st), Pond B (March 19th through 21st), and the R5a diversion ditch (March 19th) for one or a combination of the following parameters: TSS, T-Ag, T-As, T-Cu, T-Fe, T-Mn, and T-Zn (Table 3-28, Appendix A). During this same period, the long-term BC WQG were exceeded for TSS, T-As, T-Co, T-Cu, T-Fe, T-Pb, T-Se, and T-Zn at RSEM Pond R5a Pond C (Table 3-29, Appendix A).

Metal loading calculations indicate that monthly loadings contributed from discharges of water from RSEM R5a represent only a minor fraction relative to overall metal loads in the Peace River, as measured a short distance upstream of the construction site (see Appendix A, Table 4-19 and Table 4-23 for further detail).

3.2.2 RSEM R5b

RSEM R5b sediment pond was operational as of early December 2016. In 2019, water received by the RSEM R5b sediment pond was conveyed from intercepted groundwater above the Approach Channel and from within the core trench excavation areas, runoff from the Approach Channel itself and treated effluent from the MWTF, and surface runoff from the RSEM R5b-W ditch. Surface runoff from Area A North Ditch was periodically transferred to RSEM R5b pond. There was more or less continuous discharge from this sediment pond during the year, except during frozen conditions and a brief period in early September 2019, in which the pond was completely drained to dredge sediments which had accumulated in the base of the pond. During this period the discharge from the MWTF was routed directly to the discharge pipe for the R5b pond.

The MWTF was utilized to treat potentially metals-laden, PAG-contact water throughout 2019 after its installation upgradient of RSEM R5b in July 2018. Water from the partly excavated Approach Channel was normally directed to the pre-treatment pond, located adjacent to the MWTF, and once treated, was released into the sludge pond which discharges into the

Approach Channel Diversion Channel and flows by gravity to the RSEM R5b sediment pond. The pre-treatment collection pond is upgradient of the MWTF and is used to collected PAG contact water requiring treatment. This pond is lined and received water from other PAG contact locations around the site and is transported via pumping or by truck. Following treatment in the MWTF, water is discharged to a polishing pond for sedimentation of treated effluent, which discharges to the RSEM R5b sediment pond via the Approach Channel Diversion Channel (ACDC).

The following monitoring was undertaken in RSEM R5b in 2019 (except when pond frozen):

- Continuous *in situ* measurements of pH, turbidity, and electrical conductivity with a sonde device
- Continuous measurements of flow rates to the Peace River with an ultrasonic area velocity flow meter
- Daily collection of water quality samples for laboratory analysis of total and dissolved metals, pH, TSS, turbidity, sulphate, nitrates, conductivity, temperatures, conductivity, and hardness

Exceedances of end-of-pipe limits associated with discharges from the RSEM R5b pond occurred between March 14th through 21st (TSS, Cd, Cu, Zn where metals exceedances attributable to TSS) and August 22nd to August 24th (Cd, Zn where metals attributable to dissolved Cd and Zn). Exceedance periods were short lived, and concentrations rapidly declined following the reportable exceedances.

As a result of the low pH discharge events which occurred on September 9 and 10, 2018, additional water management features were constructed on the right bank Approach Channel to increase the storage capacity and effectiveness of the care of water plan. These measures included:

- Construction of an additional 720 m^3 lined storage for PAG contact water completed July 2019;
- Construction of berms around the MWTF pre-treatment collection pond to prevent inflow of surface runoff and to increase the holding capacity to accommodate the 10-year, 24-hour storm completed March 2019;
- Construction of a groundwater diversion ditch completed July 2019; and
- Installation of remotely accessible sondes in all discharging ponds for real-time access to RSEM pond water quality data. These sensors are currently operational for all discharging ponds completed May 2019.

In addition to the above, PRHP is currently in the process of redesigning an upgradient surface water intercept ditch to divert upland runoff water to the Moberly river to reduce the potential for construction contact and PAG contact water.

Metal loading calculations indicate that monthly loadings contributed from discharges of water from RSEM R5b represent only a minor fraction relative to overall metal loads in the Peace River, as measured a short distance upstream of the construction site (see Appendix A, Table 4-21 and Table 4-23 for further detail).

3.2.3 RSEM R6

RSEM R6 sediment pond is comprised of an east and west pond (separated by a berm), each with a separate discharge outfall to the Peace River. These ponds were operational as of spring 2017, concurrent with completion of the RSEM facility construction, and continued operation

throughout 2019. The RSEM R6 facility receives only non-PAG material, hence, the runoff from this facility is non PAG-contact water, although other water reporting to the pond is PAG-contact, and thus, the pond is managed in accordance with the monitoring requirements of CEMP Appendix E.

Water reporting to the RSEM R6 East sediment ponds in 2019 originated from the CVC Batch Plant via the SBIAR ditch, as well as water transferred from the RSEM R6 West pond, Area A North Ditch, and the RCC area. In early June the 1500 Pumphouse tank near the Peace river was emptied and directed to the RSEM R6 East pond. In mid-June a carbon dioxide sparging system was installed to reduce newly noted high pH levels recorded at the EOP discharge. The RSEM R6 East pond was intermittently dewatered to the RSEM R6 West pond to prevent discharge.

From January through September 2019 the RSEM R6 West pond received water from RCC, AK pond, and Area A North Ditch. In early April a small amount of water from the AFDE R6 pond was discharged to the RSEM R6 West pond. The pond was intermittently dewatered to the MWTF pre-treatment collection pond to prevent discharge. Following September, the RSEM R6 west pond was managed to maintain low water levels by pumping water to the RSEM R6 East pond; monitoring records indicate the R6 West pond did not discharge following September. *In situ* monitoring (sonde) was in place in the RSEM R6 West pond until mid-December.

The following monitoring was undertaken in RSEM R6 East and West ponds in 2019 (except when pond frozen):

- Continuous *in situ* measurements of pH, turbidity, and electrical conductivity with a sonde device.
- Continuous measurements of flow rates to the Peace River with an ultrasonic area velocity flow meter.
- Daily collection of water quality samples for laboratory analysis of total and dissolved metals, pH, TSS, turbidity, sulphate, nitrates, conductivity, temperatures, conductivity, and hardness.

The RSEM R6 East sediment pond exceeded the RSEM EOP limit on two occasions in 2019; on June 29th (Zn) and November 26th (Cd). In both cases the exceedances appeared anomalous as the preceding days and days following the exceedances did not show high levels of either metal. Monitoring data suggests that the elevated concentrations were associated with dissolved metals (Zn) and TSS (Cd).

The RSEM R6 West sediment pond exceeded the RSEM EOP limit on several occasions:

- January 30th (Cu and Zn) however no discharge occurred;
- June 29th (Zn);
- July 6th (field pH greater than 9.0)
- August 16th to August 18th (TSS).

Exceedances of metals at the RSEM R6 West pond are attributed to dissolved forms of the metals. Concentrations of exceeded parameters typically declined after the noted exceedance except in Q1 as the ponds were not regularly discharging due to low inflows/active dewatering.

As described for RSEM R5b, metal loading calculations indicate that monthly loadings contributed from discharges of water from RSEM R6 represent only a minor fraction relative to

overall metal loads in the Peace River, as measured a short distance upstream of the construction site (see Appendix A, Table 4-22 and Table 4-23 for further detail).

3.3 RSEM Sediment Pond Toxicity

A brief summary of toxicity testing undertaken at PAG-contact RSEM sediment ponds in 2019 is provided below; a detailed description is included in Appendix B.

In general, acute toxicity of RSEM pond water was monitored before initial pond discharge, and at regular intervals thereafter (bi-weekly, monthly, and quarterly, depending on discharge frequency). Acute toxicity was evaluated using a standard laboratory assay (Rainbow trout 96-h LC50 test) performed on water samples collected directly from the outflow of each RSEM pond (or the pond itself when not discharging).

Changes were made to the RSEM Sediment Pond toxicity sampling program as per the Ecofish November 2018 memorandum[2], and as per the CWR Section 93 Order (February 27, 2019). The sampling program implemented in 2019 is as follows:

- A routine monitoring program in which samples are collected on a bi-monthly basis for acute toxicity (96-hour LC_{50} test) for each constructed pond in which sufficient water is present to sample. A sample for water chemistry shall be collected at the same time. In the event a routine test result fails the toxicity test, an additional sample shall be collected to confirm pond water quality conditions. This additional sample will be collected 96-hours following the failure of the first sample. Additional samples will be collected every 96-hours until a sample passes. After a test passes, routine monitoring will resume on a bi-monthly basis from the date of the passed sample.
- A targeted monitoring program to be initiated if a trigger is exceeded that suggests there might be elevated risk to aquatic biota due to poor water quality. Targeted sampling will be conducted on each pond with poor water quality, whether discharging or not. The trigger used to determine the need for targeted monitoring is the presence of low pH conditions in the pond. If the pH of any RSEM pond drops below a pH of 6.5, based on *in situ* monitoring devices for a period of longer than 1 hour then an acute toxicity sample will be collected, as well as water quality chemistry sample. Note that the trigger for this event is more conservative than the EOP discharge limit of pH 6.0. Once the pH in the pond has increased to within the acceptable range (defined by the discharge limits), or the rate of change in pH units has stabilized (i.e., less than -0.5 pH units/3 hour period), for 96 hours, a second sample should be collected for Rainbow Trout acute toxicity testing to confirm that water in the PAG containing sediment pond passes the acute toxicity test.

A summary of toxicity sampling for each pond is provided below.

3.3.1 RSEM R5a

Toxicity testing was initiated in the RSEM R5a temporary sediment pond in May/June 2017, until it was decommissioned. In mid-July 2017, the more permanent ponds were subsequently constructed, with design consisting of four individual cells (A, B, C, and D). Since completion, these cells have contained little water and have only discharged to the Peace River on one

[2] Ecofish Research Limited memorandum on the Evaluation and Recommendations for Site C Toxicity Testing and Peace River Initial Dilution Zone Sampling in Response to the November 2, 2018 Water Sustainability Act Order Requirements. November 16, 2018

occasion during March 2019, at which point 2,337 m^3 of water were discharged. Sampling from the ponds occurred 15 times in RSEM R5a.

In 2019, all 15 acute toxicity samples collected from the RSEM R5a ponds (cells A, B, C, and D) passed the acute toxicity test.

3.3.2 RSEM R5b

Toxicity testing was initiated in the RSEM R5b sediment pond on November 30, 2016 and continued at the prescribed frequency throughout 2017 and 2018. In 2019, based on the new toxicity sampling program implemented at site, a total of 6 acute toxicity samples were collected from this pond.

In 2019, all of the samples collected from the RSEM R5b pond passed the acute toxicity test.

3.3.3 RSEM R6

Toxicity testing was initiated in the RSEM R6 sediment ponds (west and east cells) in March and April 2017, respectively, and continued at the original prescribed frequency throughout 2017 and 2018. In 2019, based on the new toxicity sampling program implemented at site, a total of 13 acute toxicity samples were collected from this pond.

In 2019, all 13 toxicity samples (6 samples from the east pond and 7 samples from the west pond) collected from the RSEM R6 sediment ponds passed the acute toxicity test.

3.3.4 RSEM L5

Construction of the RSEM L5 ponds (two cells, east and west, divided by a berm) was completed in December 2018. The initial dilution zone (IDZ) characterization program commenced in Spring 2019, and the pond has been passively discharging since that point.

Nine samples were collected from RSEM L5 in 2019 (five samples from L5E and four from L5W). All samples from RSEM L5 passed the acute toxicity test.

3.3.1 RSEM L6

The initial dilution zone (IDZ) characterization program for RSEM L6 was completed in September 2019 during a period when the pond was drained via pumping through the discharge pipe. The pond has not passively discharged since its initial draining.

Five samples were collected from RSEM L6; all samples passed the acute toxicity test.

3.4 Peace River Mixing Dynamics and Water Quality Monitoring

A brief summary of Peace River mixing dynamics and water quality monitoring work undertaken in relation to discharge from PAG-contact RSEM sediment ponds is provided below; a detailed description is included in Appendix B.

3.4.1 Initial Dilution Zone Mixing Study

Prior to the construction of RSEM sediment ponds and any associated discharges, water quality modelling was undertaken by the project to examine the predicted mixing capacity of the Peace River through a 100 m initial dilution zone (IDZ). Field-verified mixing coefficients were obtained in 2019 at the IDZ for RSEM L5 in March 2019 and RSEM L6 in September 2019 using variances between the electrical conductivity in the discharge water and the water in the Peace River as a natural tracer.

These studies were used to verify the IDZ mixing model for each discharging RSEM pond. RSEM L5 began discharging on March 15, 2019 and RSEM L6 is planned for discharge in 2020.

3.5 RSEM Discharge/Peace River Surface Water Quality Monitoring

To evaluate compliance with water quality limits applicable at the IDZ locations downstream of each PAG-contact RSEM sediment pond discharge location (CEMP Appendix E, Table 2), a full suite of water quality parameters (including physical parameters, nutrients, anions, total metals and dissolved metals) was measured *in situ* and/or sampled for laboratory analysis. Sampling was undertaken on a monthly basis throughout the year for those ponds that were discharging in that month, and on a 5 in 30-day schedule during a period of high and a period of low flow in the year. Sampling was conducted at the IDZ locations, and also at a site upstream (upstream of all Site C construction influences), immediately upstream (just upstream of individual RSEM discharge locations), and far-field downstream (downstream of all Site C construction influences). TSS discharge limits at end-of-pipe, which are prescribed as the BC water quality guidelines for freshwater aquatic life (CEMP Appendix E, Table 2) and thus, are dependent upon background Peace River water clarity conditions, were determined through measurements collected by automated turbidity gauges located on either bank of the Peace River, upstream of the confluence with the Moberly River. A site-specific TSS:turbidity relationship was determined through frequent sampling through a range of Peace River and tributary flow conditions.

Overall, water quality criteria were occasionally exceeded at all monitoring locations due to naturally occurring Peace River conditions. There were no water quality exceedances at IDZ locations that were attributable to discharge of water from RSEM sediment ponds. The range in water quality parameter concentrations measured in 2019 were similar to those measured in 2017 and 2018 and were within historical water quality data ranges observed in the Peace River.

3.6 Groundwater Monitoring

A brief summary of groundwater monitoring undertaken at PAG-contact RSEMs is provided below.

3.6.1 RSEM R5a and RSEM R5b

Groundwater monitoring wells were installed in advance of the operation of RSEM areas R5b and R5a to monitor and characterize potential effects to groundwater due to seepage from the RSEM facility. Groundwater is monitored in four wells installed at RSEM R5a: three are installed downgradient of the RSEM (GW-1, GW-2, GW-3), and one is installed upgradient (GW-4). Similarly, at RSEM R5b, four groundwater wells have been installed for monitoring: three downgradient (GW-6, GW-7, GW-8), and one upgradient (GW-10b).

Baseline sampling was undertaken in 2016, and each well was sampled quarterly in 2017 (4 to 5 times), 2018 (10 to 11 times to account for additional monitoring requirements that were triggered based on previous results).
2019 sampling occurred as follows at RSEM R5a:

- GW-1: 4 times;
- GW-2: 4 times;
- GW-3: 4 times;
- GW-4A: 4 times;

2019 sampling occurred as follows at RSEM R5b:

- GW-6: 4 times;
- GW-7: 10 times;
- GW-8: 10 times;
- GW-10B: 4 times

The installation of wells prior to RSEM operations allows for temporal comparison of monitoring results, while the location of wells upgradient and downgradient of the RSEM facilities allows for spatial comparison at a particular point in time.

In accordance with the requirements of the CEMP Appendix E (S.7.2.5), groundwater quality is to be compared spatially (upgradient vs. downgradient) during each monitoring event. In response to baseline monitoring data indicating that concentrations of indicator parameters exceeded upgradient concentrations at both RSEM areas R5a and R5b, a *Groundwater Quality Mitigation Plan for RSEM Areas R5a and R5b* was prepared by the MCW Contractor's QP, Lorax Environmental, in June 2017. This mitigation plan presents a decision matrix with a series of compliance targets relative to baseline (2016) groundwater quality results for each RSEM, which, if exceeded, trigger additional actions, and mitigations if warranted.

In 2019 the MCW Contractor's QP (ARDML) Lorax Environmental produced a report detailing further groundwater quality monitoring and mitigation plans as Trigger 2 compliance targets had been exceeded. This report detail loading assessments due to groundwater to the Peace River. This report also establish Trigger 4 compliance targets to which future groundwater samples would be compared[3].

At RSEM R5a in 2019 the groundwater had circumneutral pH (6.3 to 6.9) and the major ion compositions at all four wells remained within the range previously characterized in 2016/2017/2018, except at the upgradient well (GW-4A), where slightly higher concentrations bicarbonate relative to previous sampling was observed. In several instances Trigger 3 compliance targets were exceeded by PAG indicator parameters in the groundwater samples.

At RSEM R5b, 2019 groundwater also had circumneutral pH (6.8 to 7.5) and is within ranges previously reported for 2017 and 2018. Downgradient groundwater quality was found to have changed as of Q4 2017 in relation to background (baseline) water quality, exceeding certain compliance triggers (as developed through the preparation of the *Groundwater Quality Mitigation Plan for RSEM Areas R5a and R5b, "the Plan"*) for PAG seepage indicator parameters (conductivity, total dissolved solids, sulphate, sodium, chloride, and cobalt or cadmium (depending on the well). These results triggered additional monitoring events (above just quarterly sampling) throughout 2018 and 2019. This also led to the development of the aforementioned groundwater loading model and Trigger 4 compliance targets. No trigger 4 compliance targets were exceeded.

Groundwater major ion concentrations in 2019 were consistent with 2018. In accordance with the Plan, these results also triggered the development of a conceptual groundwater model for RSEM Area R5b (in May 2018), and a geochemical loading model for RSEM Area R5b to assess loading rates to the Peace River and define critical groundwater loading values (August 2019).

[3] Groundwater Loading Assessment Report for RSEM R5b. Delivered by PRHP on September 4, 2019

Groundwater quality is reported on a quarterly basis under separate cover, with a compilation of annual data available in the 2019 Q4 report[4].

3.7 Dam Site Road Cut Water Quality Monitoring

Two large double lane Dam Site road cuts referred to as River Road (2015) on the Right Bank between Howe Pit and the Peace River, and the SBIAR (early 2017) on the Right Bank between Area A and RSEM R6 have been constructed to allow site vehicle access from the upper terrace to the lower flood plain. Continued exposure of bedrock materials from both of these road cuts requires that routine water quality monitoring be conducted by BC Hydro in reference the CEMP Appendix E S.5.2.1.7. Surface runoff along River Road, which contacts bedrock at Bind Corner, discharges to the Peace River through culvert RR-11. Surface runoff which contacts the bedrock at SBIAR is channelled via a lined ditch to RSEM R6 pond and does not have a direct downstream receptor. No discharge was noted to coincide with 2019 sampling events at RR-11.

Water quality sampling was attempted on a routine monthly basis from four of the River Road catchment locations as detailed in Appendix D, 1) in the lower chimney drain (LBRR-LC), 2) upstream of the lower chimney drain within the River Road ditch (LBRR-12+500), 3) at the end of the diversion pipe (LBRR-EDP), and 4) at the discharge of culvert RR-11 (LBRR-DD). Water quality data was collected from two locations and in situ measurements were collected at eight locations of a total twelve observed locations along the River Road catchment from January to December 2019, in continuation of the 2017 and 2018 monitoring periods.

Water quality measurements along River Road have indicated that run-off water quality is influenced by active ARD-ML processes within the ditch catchment. However, in past monitoring years where acidic water was noted, in 2019 the measured field pH was neutral to alkaline (between 7.59 and 9.20). Although flows are generally low and ephemeral, or inaccessible underneath the limestone rip-rap, there is some potential for run-off to impact downstream water quality. Flows in the river road ditch are currently diverted from direct discharge to the Peace River via a pipe in the ditch. This allows the water to bypass the discharge and collect further downgradient in a ditch for infiltration. No observed discharges coincided with monthly sampling events in 2019.

A total of five (5) monitoring locations are established at the SBIAR location, including the western upstream and downstream SBIAR ditch (RBSBIAR-DS and -US), eastern upstream and downstream SBIAR ditch (RBSBIAR-EDS and -EUS), and within a preserved portion of the Peace River side channel down-gradient of the SBIAR facility (RBSC-DS), to monitor for potential long-term influence of the side channel water quality from construction of the SBIAR facility. The side channel remains hydraulically connected to the Peace River. Effluent water from SBIAR is conveyed to RSEM R6 for management prior to being discharged to the Peace River.

Sampling at the RBSBIAR monitoring locations was conducted quarterly in 2018, and monthly in 2017 and 2019. The monitoring program concluded that ARD/ML processes are active on exposed bedrock at SBIAR locations. Alkalinity and pH indicate that the waters in SBIAR have consistently remained alkaline during the 2017, 2018 and 2019 monitoring periods. Screening of analytical data for the downstream ditch locations resulted in identification at the western

[4] Peace River Hydro Partners. 2019. Site C Clean Energy Project: 2019 Q4 Groundwater Quality – Monitoring Report for RSEM Areas R5a and R5b (Rev 0). PRHP Document No. SCCEP-PRHP-EN-RPT-000680. Submitted to BC Hydro on January 30, 2020.

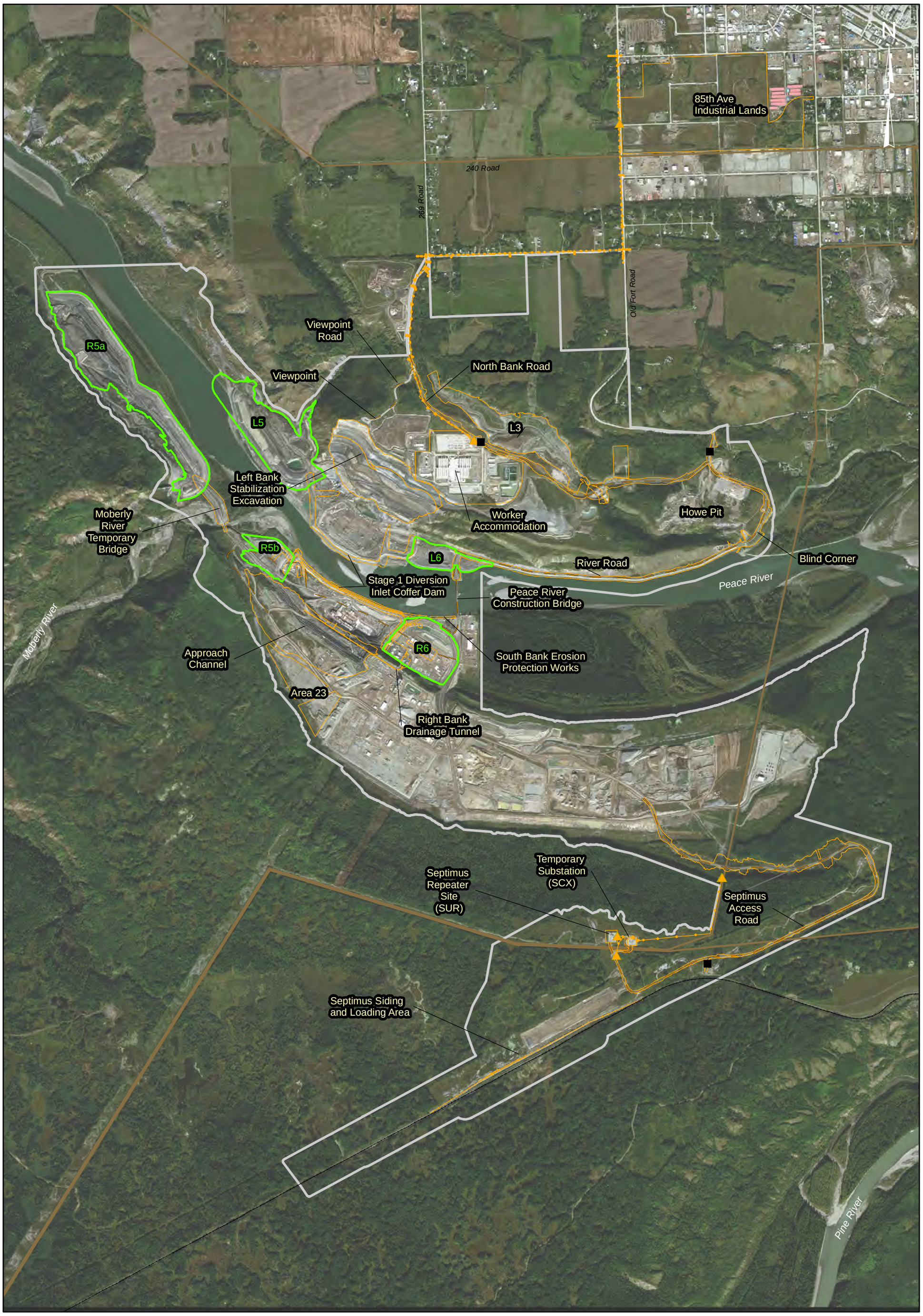
downstream monitoring location of SBIAR of four parameters (total iron and zinc, dissolved iron and aluminum) and at the eastern downstream monitoring location of SBIAR of five parameters (total iron, arsenic, copper, zinc and dissolved aluminum) that exceeded BCAWQG guidelines during 2019.

Further description of the water quality monitoring program is included in Appendix D. As per CEMP Appendix E Section 5.2.1.7, it is recommended that water quality monitoring is continued on a monthly basis at the established locations within the River Road catchment and SBIAR catchment in 2020. Continuous monitoring will enable the effectiveness of mitigation strategies that are implemented on the shale at Blind Corner.

4. Site Audits

BC Hydro has engaged Tetra Tech as QP(ARD), in accordance with the CEMP Appendix E S. 6.1.2, to inspect and monitor various construction areas with potential for ARD/ML since June 2016. Similar to 2017 and 2018, Tetra Tech completed four site audits in 2019 (March 26-27, May 29-31, July 24-25, and September 26, 2019). Tetra Tech's summary of the audit findings is included as Appendix C.

The site audits included visual observation of the ARD/ML mitigation and PAG material management practices being conducted on site, review of the practices in accordance with the construction area Environmental Protection Plans (EPPs), and observation of any chance find bedrock exposures on site. Several samples were collected during audits to check for rinse pH and *in situ* water quality requirements to assist in the audit process.



Map Notes:
1. Datum: NAD83
2. Projection: UTM Zone 10N
3. Dam Site Imagery © Digital Globe Sep. 19, 2018.

Legend

- PAG-contact RSEMs
- Components
- Dam Site Area

1:30,000

0 0.5 1 km

BC Hydro

Overview Figure

Date	Feb. 22, 2019	DWG NO	1016-N11-00362	R 0

Construction of the Site C Clean Energy Project is subject to required regulatory and permitting approvals.

Path: X:\ArcGISProjects\MonitoringWaterQuality\2018AnnRep_ARD_1016_N11_00362.mxd

Appendix A

PEACE RIVER HYDRO PARTNERS

Site C Clean Energy Project

Acid Rock Drainage and Metal Leachate

2019 Annual Report

PRHP Document No.	SCCEP-PRHP-ENV-RPT012-000001
BC Hydro Document No.	#
Contract Ref No.	Schedule 7 [Environmental Obligations]
Revision Number	0

Document

Acid Rock Drainage and Metal Leachate - 2019 Annual Report

PRHP Document No. SCCEP-PRHP-ENV-RPT012-000001

BC Hydro Document No. #

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Revision Number: 0

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23 March 2020

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Table 2 – Document Approval

Name		Signature	Date
Prepared by:	Neil Mallen Lorax Environmental Services Jennifer Stevenson Lorax Environmental Services Patrick Mueller Lorax Environmental Services Glady Oka Lorax Environmental Services	Original Signed by: <Original signed by> Neil Mallen, M.Sc., EP, PMP Senior Environmental Scientist <Original signed by> Jennifer Stevenson, M.Sc., GIT Environmental Scientist <Original signed by> Patrick Mueller, B.Sc., P.Chem. Environmental Chemist <Original signed by Gladys Oka, M.Sc. Environmental Scientist	2020-03-23
Reviewed by:	Bruce Mattson Lorax Environmental Services	Original Signed by: Reviewed by: <Original signed by> Bruce Mattson, M.Sc., P.Geo. Senior Environmental Geoscientist	2020-03-23
Environmental Manager's Approval: Approved by:	Katie Hill, P.Ag.	<Original signed by>	2020-03-25
Construction Directors Approval Approved by:	Erasmo Bassano	<Original signed by>	

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Appendices

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PEACE RIVER
HYDRO PARTNERS

Site C Clean Energy Project
Acid Rock Drainage
and
Metal Leachate Management
2019 Annual Report

Project No. A416-1
23 March 2020

LORAX
ENVIRONMENTAL

Executive Summary

PEACE RIVER
HYDRO PARTNERS

Executive Summary

This report summarizes the results of acid rock drainage and metal leachate (ARD/ML) monitoring undertaken in 2019 as part of the Main Civil Works Contract for the Site C Clean Energy Project ('the Project'). This report has been prepared for Peace River Hydro Partners (PRHP), which holds the Main Civil Works Contract, by Lorax Environmental Services Ltd. (Lorax), PRHP's Qualified Professional (QP) for ARD/ML.

This report is intended to summarize the results of monitoring undertaken by PRHP to meet the requirements of the ARD/ML Management Plan prepared by BC Hydro for the Project (BC Hydro, 2016a), which is included as Appendix E of the Construction Environmental Management Plan (CEMP; BC Hydro, 2016b). This report has been prepared to address the annual reporting requirements, which are set out in Section 7.5 of the ARD/ML Management Plan. It describes monitoring from January 1st to December 31st, 2019.

This report summarizes:

- Observations and tests to assess the geochemical characteristics of bedrock that has been disturbed in the course of construction, including bedrock that has been exposed and excavated and relocated (Section 2);
- Monitoring of surface water quality within the construction site (Section 3);
- A summary of key findings, including onset of ARD/ML within the site, mitigation measures employed, a summary of exceedances of project-specific water quality discharge limits, and metal loads discharged to the Peace River (Section 4); and
- Conclusions and recommendations (Section 5).

Monitoring of groundwater wells installed at the site is reported under separate cover on a quarterly basis. Surface water quality monitoring for areas outside of PRHP's work areas, and in the Peace River, is undertaken by others on behalf of BC Hydro, and also reported under separate cover.

Excavations and Deposition

The CEMP states that bedrock at the Dam Site has a high potential for ARD and should be designated as potentially acid generating (PAG) or acid generating (AG). A total of more than 1.7M m^3 of bedrock was excavated in 2019. This included approximately 609,000 m^3 on the Left Bank, mostly from the Central Cofferdam and Diversion Tunnel

Inlet Portal (DTIP), and approximately 1,132,000 m^3 on the Right Bank, mostly from Dam and Core Buttress and the Spillway Approach Channel. For comparison, roughly 490,000 m^3 was excavated from the Left Bank in 2018, and just under 600,000 m^3 of bedrock was excavated on the Right Bank in 2018.

The majority of bedrock excavated on the Left Bank in 2019 was from the Central Cofferdam (455,131 m^3), DTIP (94,401 m^3) and Diversion Tunnel Outlet Portal (DTOP; 29,987 m^3) excavations. The excavated material was placed in Relocated Surplus Excavated Material (RSEM) Area L5 and the L5 Extension that was constructed to the west of the RSEM in 2019. RSEM Area L5 and L5 Extension contained 1,308,075 m^3 of bedrock at the end of 2019 Excavated bedrock was also placed in the Dam Core (12,345 m^3) and RSEM Area L6 (62,200 m^3) that was largely completed by the end 2019. .

On the Right Bank, a total of 550,877 m^3 of bedrock was excavated from the Approach Channel in 2019 to mitigate the release of ARD/ML. Additional bedrock excavations on the Right Bank included the Roller Compacted Concrete (RCC) Buttress area (574,018 m^3). Minor amounts were excavated from the Area 23 (2,794 m^3), Area 32 Laydown (2,172 m^3), Right Bank Drainage Tunnel (RBDT) area (1,798 m^3), RCC Excavation (654 m^3), and the RSEM Area R5A Diversion Ditch (207 m^3). All material excavated on the Right Bank in 2019 was placed in RSEM Area R5A. This RSEM pile contained 5,298,254 m^3 of bedrock at the end of 2019.

PAG Bedrock Monitoring

ARD/ML monitoring is undertaken in areas where bedrock is exposed or where these materials are stored. Appropriate sampling locations are determined as construction activities proceed (rather than routinely sampling at fixed monitoring stations).

Geochemical analysis of samples collected during the monitoring program include onsite rinse pH measurements to determine surface pH, as well as offsite acid-base accounting (ABA) and metal analysis. In 2019, a total of 339 samples were collected for rinse pH analysis from various locations on the Left and Right Banks (compared with 272 in 2018). Of these, 69 samples underwent more extensive geochemical testing including ABA and metals analysis (compared with 42 last year). The program was effective at identifying the onset of ARD/ML, and identification of areas where mitigation is needed, or is likely to be required.

Any bedrock exposed or excavated as part of the Main Civil Works Contract is expected to be PAG, with most stratigraphic units expected to become acidic within one year of being exposed to the atmosphere. Geochemical monitoring undertaken to date has confirmed that this is the case in several locations on both the Left and Right Banks.

Left Bank samples collected from exposed surfaces in the Central Cofferdam, Diversion Tunnel Inlet Portal and Diversion Tunnel Outlet Portal excavations have become acidic. Shotcrete has been applied to stabilize the steep benches excavated into the slopes above the portals, which also serve to minimize contact with precipitation and neutralize most ARD/ML that may have otherwise resulted. The majority of RSEM Area L5 is covered with NPAG material; however, several AG samples were collected from bedrock deposited in the southeast part of this stockpile in 2019.

On the Right Bank, a relatively large area (approximately 8 ha) of weathered bedrock was exposed in the Approach Channel throughout much of 2019 and the weathered material was generally acidic. Bedrock that has been exposed in the RCC for over a year is early stages of ARD with pH < 7.0, however, exposures are being covered by concrete structures and runoff neutralized with alkaline waters from shotcrete and cement. Samples collected in RSEM Area R5A had variable geochemical character. In general, recently placed material remains neutral while more weathered material has a lower rinse pH.

Surface Water Quality Monitoring

Surface water quality sampling was undertaken at a total of 94 stations in 2019 (as compared with 61 stations in 2018), including 36 stations on the Left Bank and 58 stations on the Right Bank. Laboratory results for a total of 2,760 surface water quality samples obtained in 2019 from these stations are summarized in this report (as compared with 1,728 in 2018). The program was effective in identifying trends and anticipating areas where mitigation is required.

In addition, instruments and dataloggers were installed and record continuous *in situ* measurements of surface water quality (pH, conductivity and turbidity) in the RSEM Area L5, R6 and R5B sediment ponds during times that the ponds were managed to discharge. Field measurements of these parameters were also obtained at the RSEM ponds and other locations to provide insight into conditions across the site.

End-of-pipe discharge limits from RSEM sediment ponds for pH, TSS, Cd, Co, Cu and Zn are set out in Table 2 in the BC Hydro ARD/ML Management Plan (BC Hydro, 2016a). Any exceedance of these limits in water discharged from RSEM sediment ponds to the Peace River is reported within 24 hours of receiving analytical results from the laboratory, and all exceedances in RSEM sediment ponds, whether discharged or not, are noted in weekly reports. The project-specific discharge limits for TSS, Cd, Cu and Zn are based on an assumed hardness of 50 mg/L as $CaCO_3$. The hardness of water discharged from the RSEM ponds, and in the Peace River is generally higher. Consequently, minor

exceedances of discharge limits for these parameters do not necessarily reflect any meaningful effect on aquatic community health.

There were minor exceedances of water discharged from PAG-containing RSEM sediment ponds to the Peace River in 2019 as a result of snow melt and larger precipitation events. There were five of these events including: (i) a minor exceedance in water discharged from the RSEM Area R6 pond on January 30th following a brief thaw; (ii) exceedances in discharge from the RSEM Area R5B and R5A ponds (A, B and C) following a major thaw starting in mid-March; (iii) exceedances in discharge from the RSEM Area R6 ponds following heavy rain in late June; (iv) exceedances in discharge from the RSEM Area L5E, R6W, and R5B ponds following approximately 60 mm of rain over several days in late August; and (v) exceedances in the discharge from the RSEM L5E and R6E ponds following rapid snow melt in late November. These are discussed in detail in the Report.

Mitigation

Mitigation measures that are being implemented to minimize exceedances of end-of-pipe discharge limits due to ARD/ML include material management (excavating or covering bedrock exposure), water management to contain water that may be influenced by ARD/ML, and water treatment to neutralize pH and remove total and dissolved metals.

Material management is the primary ARD/ML mitigation strategy to limit the exposure of AG material and the generation of PAG contact water that may trigger the implementation of additional water management. Weathered material that has been exposed for several months and is becoming acidic is monitored to determine when mitigation is required. In addition, material that is placed in RSEM disposal areas is monitored, and weathered material is covered with recently excavated bedrock or overburden.

Water management is a secondary mitigation strategy. Non-contact run-off from above the project is diverted around the site. Contact water is managed so that as much as possible is retained within the site. Water that must be released is directed to RSEM sediment control ponds, from which it is discharged to the Peace River.

Water treatment is the tertiary management strategy. Contact water that is not anticipated to meet end-of-pipe discharge limits is conveyed to a water treatment facility. An MWTF was commissioned on the Right Bank near the west end of the Approach Channel in mid-2018. Water requiring treatment is transferred to a Pre-Treatment pond and treated by the MWTF prior to discharge via the RSEM Area R5B sediment pond.

Effective mitigation of ARD/ML and preventing exceedance of the project-specific discharge limits during snowmelt and storm events will require the continued excavation or covering of weathered PAG material, and adequate water retention capacity. Excavation of weathered material in the Approach Channel was undertaken in 2019, and construction of additional storm water retention capacity within and downgradient of the Approach Channel was constructed in early 2019.

PAG-contact water from RSEM Area L6 and R5A was managed effectively in 2019, mainly by retaining it within the site and avoiding discharge. Minimal PAG-contact water was generated in RSEM Area L5 and R6. Water is transferred to the MWTF from these areas when necessary. PAG contact water from the Approach Channel was treated prior to discharge through the RSEM Area R5B sediment pond.

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PEACE RIVER
HYDRO PARTNERS

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Acronyms

PEACE RIVER
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Acronyms

ABA	Acid-Base Accounting
ACA	Average Crustal Abundance
ACDC	Approach Channel Drainage Channel
AG	Acid Generating
AP	Acid Potential
ARD/ML	Acid Rock Drainage and Metal Leachate
asl	Above Sea Level
BV	Bureau Veritas Laboratories, Burnaby, Canada
CALA	Canadian Association for Laboratory Accreditation
CBE	Charge Balance Error
CCME	Canadian Council of Ministers of the Environment
CEMP	Construction Environmental Management Plan
CoA	Certificate of Analysis
CSR	B.C. Contaminated Sites Regulation
CVC	Conventional Vibrated Concrete
DI	De-ionized Water
DIC	Diversion Inlet Cofferdam
DOC	Diversion Outlet Cofferdam
DQO	Data Quality Objective
DTIP	Diversion Tunnel Inlet Portal
DTOP	Diversion Tunnel Outlet Portal
EOP	End-of-Pipe
FLNRO	B.C. Ministry of Forests, Lands and Natural Resource Operations
IDZ	Initial Dilution Zone
IEM	Independent Environmental Monitor
LBEX	Left Bank Excavation
MDL	Method Detection Limit
MOE	B.C. Ministry of Environment
MWTF	Mobile Water Treatment Facility
NP	Neutralization Potential

NPAG	Not Potentially Acid Generating
NPR	Net Potential Ratio
PAG	Potentially Acid Generating
PRHP	Peace River Hydro Partners
QA/QC	Quality Assurance / Quality Control
QP	Qualified Professional
RBCD	Right Bank Cofferdam
RBCT	Right Bank Core Trench
RBDT	Right Bank Drainage Tunnel
RCC	Roller Compacted Concrete
RDL	Reported Detection Limit
RPD	Relative Percent Difference
RSEM	Relocated Surplus Excavated Material
SBIAR	South Bank Initial Access Road
SC	Specific Conductance
SWE	Surface Water Equivalent
TPSA	Temporary PAG Stockpile Area
TDS	Total Dissolved Solids
TSS	Total Suspended Solids
WQG	B.C. water quality guideline for the protection of aquatic life

Chemical elements are generally referred to using their one or two letter atomic symbol. Cd denotes cadmium, for example. A T- or D- preceding the symbol denotes the total or dissolved fraction, respectively (D-Cd, for example). Molecules, functional groups, or polyatomic ions may be referred to either by name (*e.g.*, sulphate) or chemical formula (*e.g.*, SO_4).

1. Introduction

PEACE RIVER
HYDRO PARTNERS

1. Introduction

This report summarizes the results of acid rock drainage and metal leaching (ARD/ML) monitoring undertaken in 2019 as part of the Main Civil Works Contract for the Site C Clean Energy Project ('the Project'). This report has been prepared for Peace River Hydro Partners (PRHP) by Lorax Environmental Services Ltd. (Lorax), the Qualified Professional (QP) for Acid Rock Drainage (ARD) for the Main Civil Works Contract.

1.1 Purpose

ARD/ML monitoring is undertaken in accordance with the requirements of the ARD/ML Management Plan for the Project. The ARD/ML Management Plan is documented in Appendix E (Revision 5.2, dated July 26, 2016; BC Hydro, 2016a) of BC Hydro's Construction Environmental Management Plan ('CEMP', Rev. 4, BC Hydro, 2016b). In addition to the requirements outlined in the CEMP, this report is also intended to address information requirements that PRHP has received from BC Hydro to meet requests from the Independent Environmental Monitor (IEM) and B.C. Ministry of Forests, Lands and Natural Resources (FLNRO) Comptroller of Water Rights, since the last revision of the CEMP.

1.2 Scope and Outline

This report has been prepared to address the annual reporting requirements, which are set out in Section 7.5 of the ARD/ML Management Plan. It describes monitoring activities within the Main Civil Works contract work, as well as analytical results and interpretation, from January 1st to December 31st, 2019.

The ARD/ML monitoring program includes four main components:

- Observations and tests to assess the geochemical characteristics of bedrock that has been disturbed in the course of construction, including bedrock that has been exposed and excavated and relocated (Section 2).
- Monitoring of surface water quality within PRHP work areas (Section 3).
- Compiling and reviewing this information to assess the onset of ARD/ML, the effectiveness of mitigation measures including water treatment, surface water quality exceedances, and metal loads discharged to the Peace River (Section 4).
- Identifying relevant conclusions and recommendations (Section 5).

Groundwater monitoring at Relocated Surplus Excavated Material (RSEM) areas R5A and R5B is also undertaken by Lorax and PRHP and is reported on a quarterly basis under separate cover.

More specifically, this report includes a summary of:

- Monitoring of rinse pH and Acid Base Accounting (ABA) of acid generating (AG) and potentially acid generating (PAG) material excavated, and placed in RSEM areas, in accordance with Section 5.2.1.2 of the BC Hydro ARD/ML Management Plan (Appendix E of the CEMP).
- Water quality monitoring results in RSEM area sumps and sediment ponds, which receive water that has contacted PAG material. This monitoring is required pursuant to Sections 7.3.2 and 7.5.2 of the BC Hydro ARD/ML Management Plan.
- Monitoring at Dam Site road cuts in accordance with Section 5.2.1.7 of the BC Hydro ARD/ML Management Plan.
- Work conducted in 2019 in support of the planning, management, and implementation of a progressive water treatment program, based on the results of rinse pH testing and contact water quality monitoring, in accordance with Section 5.2.1.2 of the BC Hydro ARD/ML Management Plan.

This report does not include the results of monitoring undertaken in the Peace River, including monitoring in the Initial Dilution Zone (IDZ) downstream of RSEM sediment pond discharges to the Peace River, or surface water quality monitoring that is undertaken for purposes other than ARD/ML management. The results of monitoring in the Peace River may be noted or summarized only to provide context for exceedance of discharge limits and estimated metal loading from RSEM area sediment ponds. Other monitoring programs and reporting for the Project are undertaken by PRHP, and by others, on behalf of BC Hydro.

Information on geochemical monitoring is provided in Section 2, and the results of surface water quality monitoring are discussed in Section 3, as noted above. In addition, this report includes in Section 4:

- The relationship that has been established between turbidity (as measured using portable instruments in RSEM area PAG-contact sediment ponds) and total suspended solids (TSS), as determined from laboratory analysis of water quality samples (Section 4.1).
- The status in 2019 of the onset of ARD/ML (Section 4.2).

- A summary of work conducted to mitigate ARD/ML, including water management, an evaluation of water treatment requirements, and a summary of water treatment undertaken (in Section 4.3).
- A summary of any exceedances of end-of-pipe discharge limits in water discharged from PAG-contact RSEM area sediment ponds, and information on any exceedances of applicable B.C. water quality guidelines for the protection of freshwater aquatic life (WQG) at other discharge locations (Section 4.4).
- An estimation of metal loads discharged from the construction site to the Peace River, from all discharge points on both the Left Bank and Right Bank, and a comparison with metal loads carried by the Peace River (Section 4.5).
- Recommendations made by Lorax to PRHP based on 2019 monitoring results (in Section 4.6).

Section 5 summarizes conclusions and recommendations related to the geochemical monitoring program (Section 5.1), the water quality monitoring program (Section 5.2), as well as water management and water treatment within the construction site (Section 5.3).

1.3 Site Conditions

Weather conditions are relevant to the ARD/ML monitoring program. Weather affects the timing, volume and dilution of ARD/ML products that are generated and rinsed from bedrock.

In general, Site C experiences four distinct seasons, during which relatively consistent conditions occur:

- Winter – the site is mostly frozen from December until mid-March, and a snowpack accumulates. Ice accumulates over open water, except on the Peace River which does not freeze over. Intermittent thaws may occur (usually only lasting a few days) that diminish the snowpack.
- Spring – snow and ice melt from roughly to mid-March to mid-April (the timing and duration vary from year to year). This time of year is normally relatively dry.
- Summer – infrequent, relatively intense rainstorms occur, contrasting with otherwise warm and dry weather. These relatively large rain events account for a large proportion of annual precipitation.
- Autumn – infrequent storms occur. This season may include colder weather (with or without precipitation) that may result in the development of a thin snowpack, alternating with warmer weather that may result in melting of accumulated snow.

Surface water freezes with the onset of cold weather in November or December, except the Peace River which does not freeze.

The area in which the Project is located is relatively dry, with average annual precipitation of 444.7 mm, based on Canadian Climate Normals from 1981-2010 (Government of Canada, 2017) at the Fort St. John Airport (FSJA) weather station. This station is located approximately 11 km ENE of Site C, at an elevation of 695 m asl. A weather station has also been installed on the Left Bank at Site C (*i.e.*, the North Camp station), near the ATCO Two Rivers Lodge, at an elevation of 583 m asl (Figure 1-5).

1.3.1 Temperature

Daily temperature maximum and minimum values are recorded at the Site C weather station. Monthly average, maximum and minimum temperatures for 2019 are presented in Table 1-1 below. Daily maximum and minimum temperature values for 2019 are shown in Figure 1-1.

Table 1-1:
Comparison of 2019 Average Min. and Max. Temperatures at Site C Weather Station to Min. and Max. Temperatures at Fort St. John Airport (FSJA) Weather Station and Canadian Climate Normals at FSJA

	2019 Average Temperature at Site C Station (°C)		2019 Average Temperature at FSJA Station (°C)		Long-Term (1981-2010) Average Temperature at FSJA Station (°C)	
Month	**Maximum**	**Minimum**	**Maximum**	**Minimum**	**Maximum**	**Minimum**
January	-5.5	-12.1	-5.2	-13.2	-8.7	-16.9
February	-13.6	-22.0	-14.8	-23.5	-5.1	-14.0
March	4.4	-6.9	2.9	-8.1	0.1	-9.2
April	9.5	0.2	8.9	-1.9	9.1	-1.3
May	17.7	6.2	16.9	4.5	15.5	4.0
June	20.0	10.1	19.6	7.9	19.6	8.6
July	21.4	11.2	21.4	10.1	21.7	10.7
August	19.1	9.6	18.8	7.8	20.5	9.2
September	14.9	6.9	14.8	5.3	15.2	4.9
October	7.5	0.1	6.7	-1.7	7.7	-0.6
November	-0.1	-6.6	-0.5	-8.2	-2.9	-10.2
December	-4.7	-11.4	-4.5	-12.1	-7.4	-15.3

The average maximum and minimum temperatures at both Site C and FSJA in February, were cold, about 8°C colder than the long-term average. In contrast, average temperatures were about 3°C or more above the long-term average in January, March, November and December. Otherwise, average maximum and minimum temperatures at both Site C and FSJA were within 2.5°C of the long-term average at FSJA.

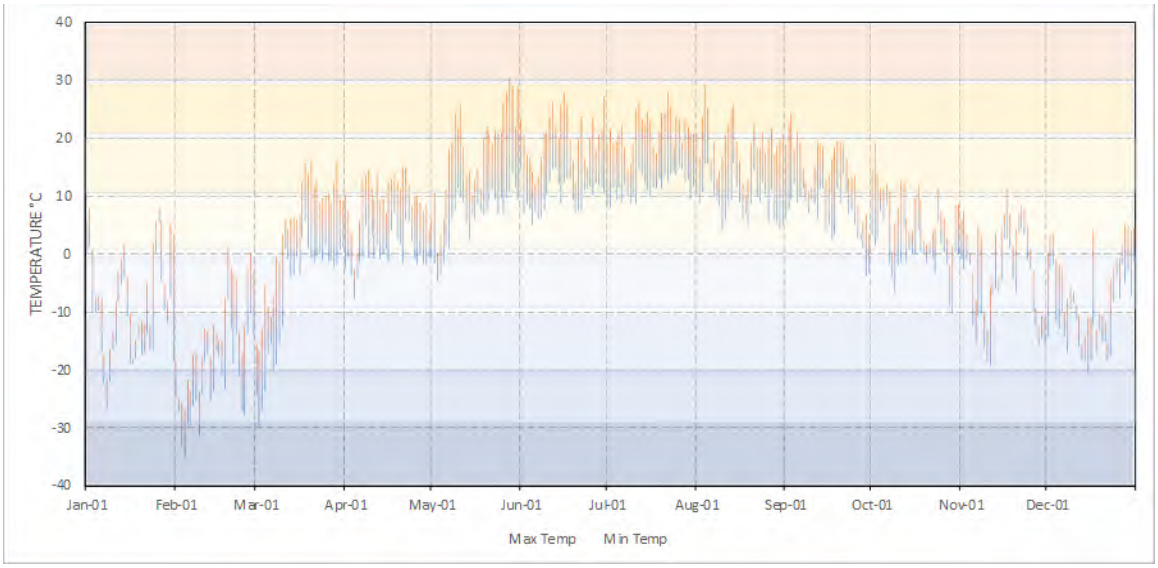


Figure 1-1: Daily Temperature Range at Site C - 2019

1.3.2 Precipitation

Precipitation affected the timing and magnitude of surface water runoff that rinsed ARD/ML products from acid-generating rock in 2019. The snowpack, daily precipitation, as measured at both FSJA and Site C weather stations, and maximum temperature recorded at Site C are shown in Figure 1-2 below. Snow accumulated during freezing periods and melted during brief autumn and winter thaws and spring freshet when maximum daily temperatures were above 0 ºC.

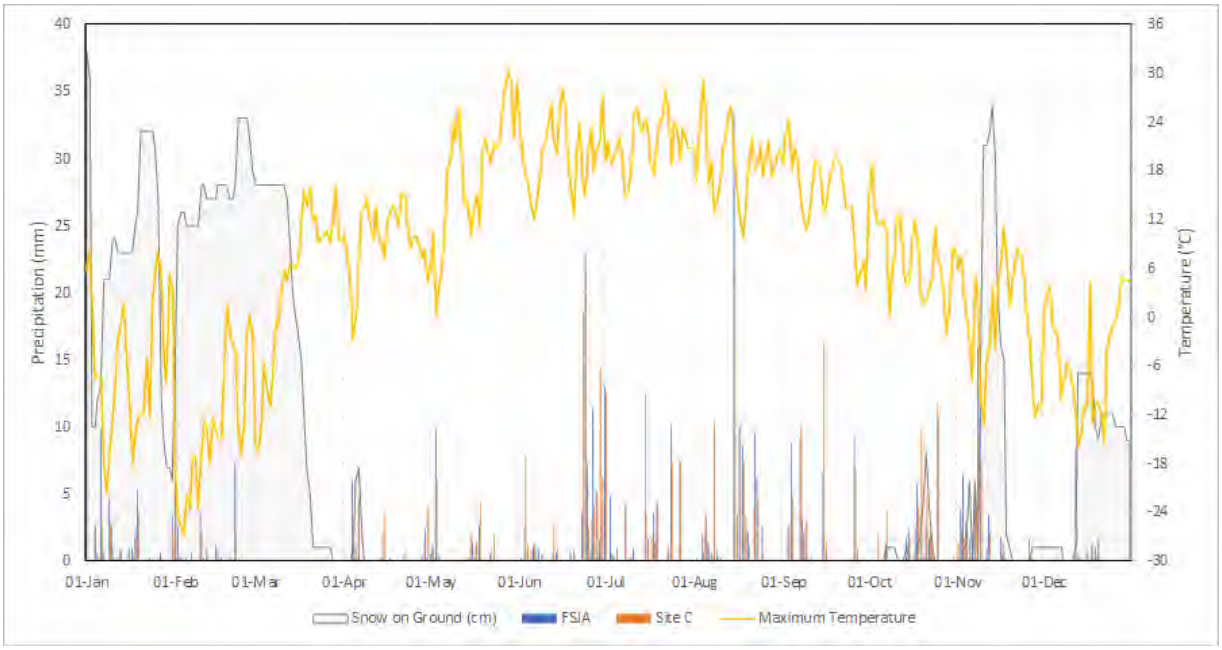


Figure 1-2: Maximum Temperature at Site C; Daily Precipitation – FSJAand Site C; and Snow on Ground at FSJA - 2019

There was a snowpack from the beginning of the year through mid-March. The snowpack reached a maximum depth of just over 30 cm in late January, decreased significantly in a short-lived thaw at the end of the month, and was renewed and sustained at a depth of more than 25 cm from early February through mid-March.

There was an intermittent snowpack in 2019 Q4. A snowpack formed in mid-November, then melted. The snowpack was renewed in mid-December, to a depth of around 10 cm, lasting until the end of the year.

Periods of heavy rain, mixture of rain and snow (greater than 10 mm) or heavy snowmelt occurred in:

- Late January when the snowpack melted rapidly during a brief thaw.
- Mid-March when the snowpack melted rapidly.
- During a rainy period in late June.
- During a major rain event in mid-August.
- During a localized rain event in mid-September.
- When a snowpack that had accumulated melted rapidly in mid-November.

Each of these events except the one in mid-September resulted in minor exceedances of end-of-pipe limits in discharge from RSEM ponds (these are discussed in more detail in Section 4.4 below).

Monthly precipitation totals recorded at the FSJA and Site C weather stations are shown in Figure 1-3 below, along with the FSJA long-term monthly average precipitation from the 1981-2010 Canadian Climate Normals. Total monthly precipitation measured at FSJA exceeds the long-term average in January, February, August and November. It was significantly below the long-term average only in March and December. In contrast, total monthly precipitation recorded at the Site C weather station significantly exceeded the long-term average at FSJA only in June and August. It was significantly below the long-term average in January, February and March, and in May, July and December. The annual totals at FJSA (477 mm) and Site C (408 mm) are roughly 8% higher, and 7% lower, respectively, compared with the long-term average at FSJA (445 mm).

Measurements of precipitation vary between the FSJA and Site C stations. The discrepancy may be due to three potential factors:

- The difference in elevation between the two sites. The higher elevation of the FSJA is expected to generally result in greater precipitation at that station, due to the orographic effect.
- The localized nature of summer rain events, which may result in more or less rainfall at FJSA as compared with Site C. Significantly higher precipitation is evident at both FSJA and at Site C from individual rain events (Figure 1-2) and for specific months in summer (Figure 1-3).
- Differences in the methodology employed at the two stations to measure snowfall. It is measured independently and converted to precipitation at a ratio of 10:1 at the FSJA station, while snowfall is melted and converted to surface water equivalent (SWE) at Site C.

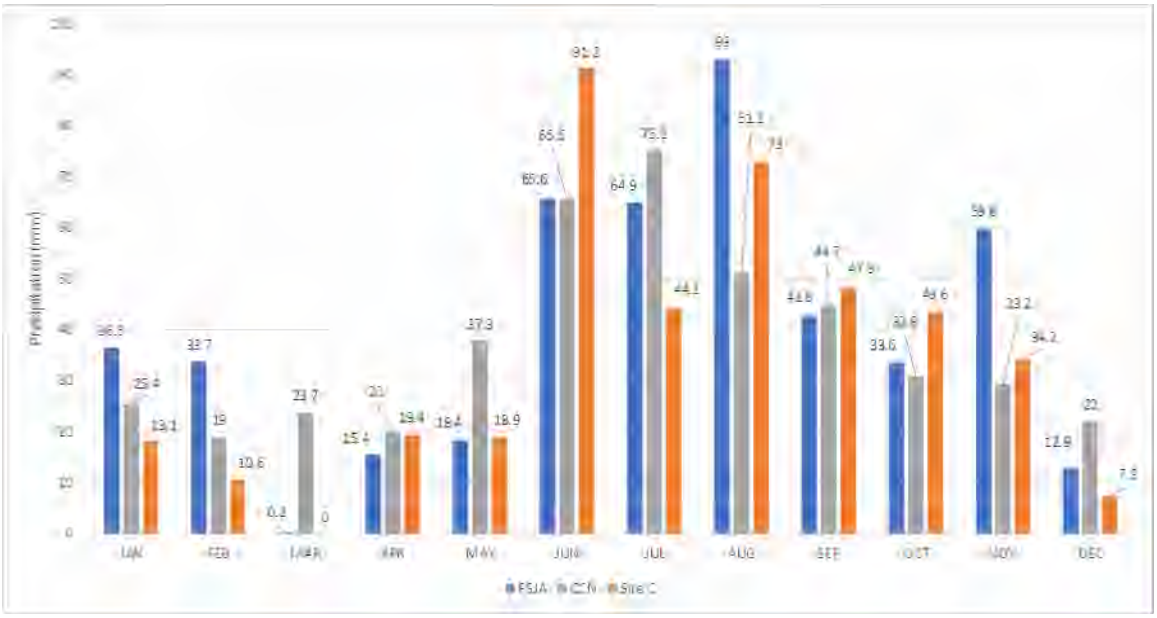


Figure 1-3: Monthly Precipitation at FSJA, Canadian Climate Normals (CCN) for FSJA and Monthly Precipitation at Site C – 2019

1.3.3 Peace River Flow

The flow in the Peace River determines available assimilative capacity and is managed by BC Hydro primarily in response to energy demand (BC Hydro, 2009). The average daily flow in the Peace River at the Water Survey of Canada Station on the Peace River near Taylor (Station 07FD002) is shown in Figure 1-4 below (daily data is not tabulated in this report).

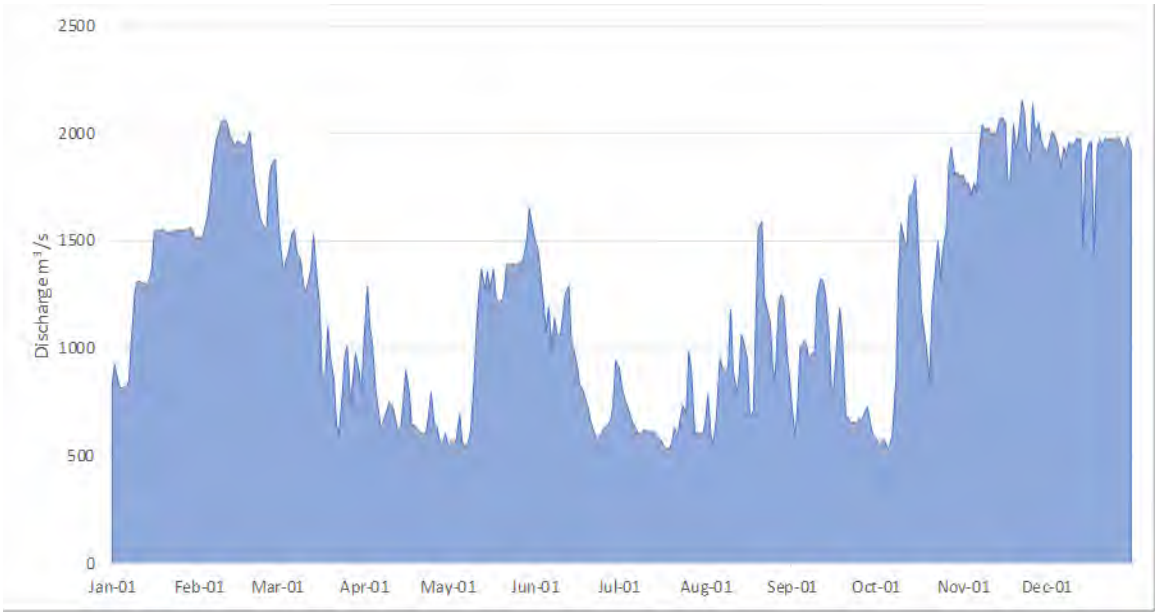


Figure 1-4: Average Daily Flow Rate at Peace River Near Taylor, Station 07FD002 (from Water Survey of Canada, 2019)

The flow in the Peace River varied from a little more than 500 m^3/s in May, July, August and October to peaks of over 2,000 m^3/s in February, November and the beginning of December. More specifically:

- The flow rate increased steadily from a rate of just over 800 m^3/s early in the year to a peak of 2,065 m^3/s on February 10th, 2019. It then declined irregularly to a low of 549 m^3/s on May 7th. This is due to regulation of reservoir levels and flow to meet demand for power generation.
- The flow rate then increased rapidly to a peak of 1,290 m^3/s on June 13th. It then decreased rapidly to a low of 586 m^3/s on June 23-24. This may have been due to snowmelt upstream of the Station in the Peace River drainage basin.
- The flow was variable between a little more than 500 m^3/s to a little more than 1,500 m^3/s through the summer months. The peaks are assumed to be due mainly to runoff from summer rain events upstream of the Station.
- The flow rate increased rapidly from 532 m^3/s on October 5th to 1,787 m^3/s on October 18th. The flow subsided to a low of 847 m^3/s on October 20th, and then surged back up to rates greater than 1,800 m^3/s through the autumn, with the exception of brief drops below 1,500 m^3/s on December 14th and 18th. The higher flow rates in November and December are due to regulation of reservoir levels and flow to meet demand for power generation.

Mixing within the IDZ for each sediment pond discharge occurs with only a portion of the total flow in the Peace River. Mixing in IDZs has been assessed by Ecofish Research Ltd. (Ecofish, 2017a, 2017b) on behalf of BC Hydro. Water quality monitoring in the Peace River is also undertaken by Ecofish and reported monthly.

1.4 Construction Activity

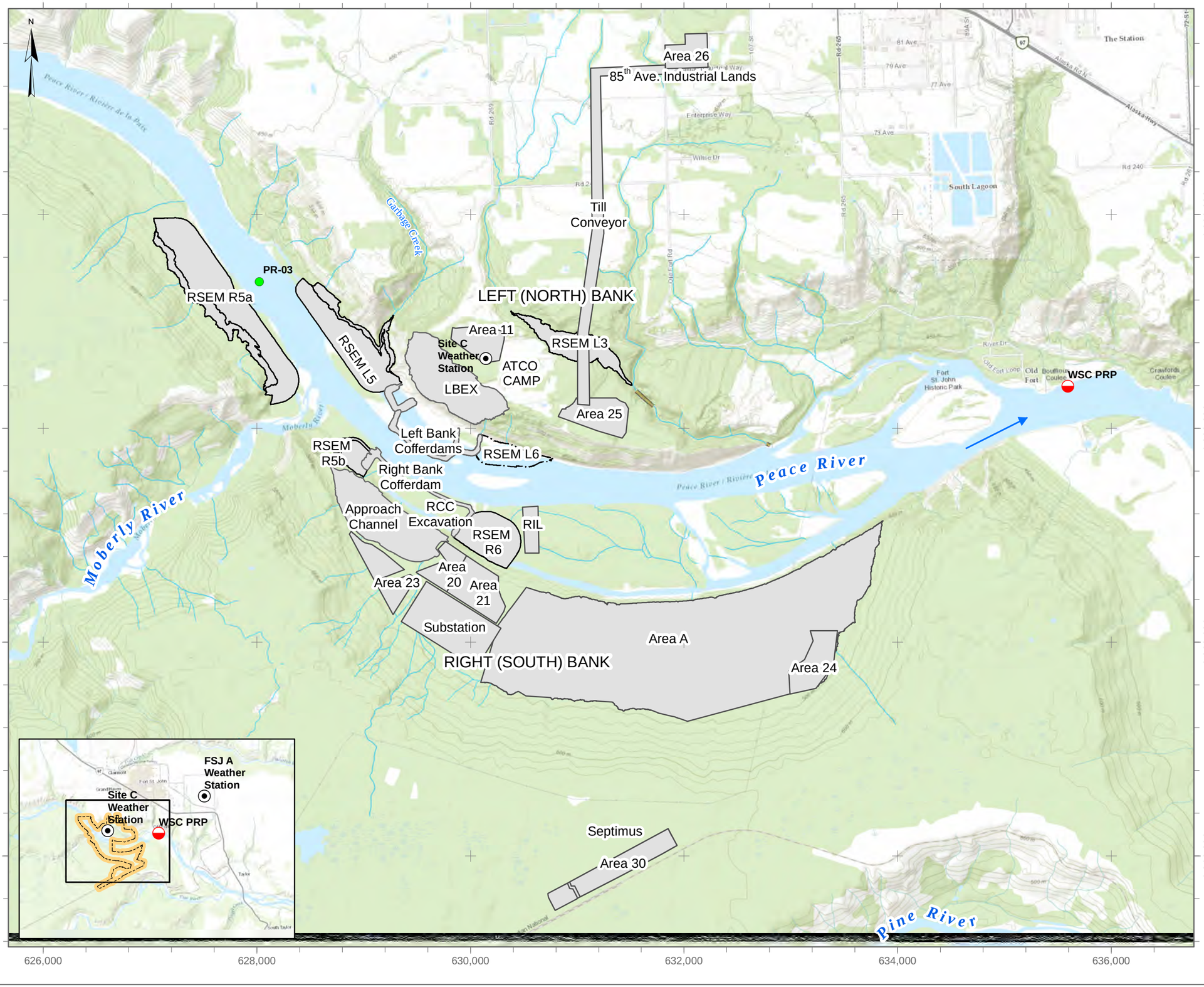
Construction of the Site C Clean Energy Project was initiated by BC Hydro in July 2015 and is scheduled to be completed in 2024. The general progression of construction has involved site preparation and construction of access roads, preparation of RSEM disposal areas and excavations on both banks of the river, and excavation of twin diversion tunnels on the left bank. Once the river is diverted through the diversion tunnels (scheduled to occur in Q3 2020), the isolated section of the river channel will be dewatered, and the dam core will be placed and compacted. Finally, the dam, generating station, and spillways will be completed. More information is available from BC Hydro at https://www.sitecproject.com/construction-activities.

RSEM areas are designated for disposal of excavated materials that are unsuitable for use in construction. Minimizing potential ARD/ML from this material is an important environmental protection measure for the project, as discussed in Section 5.0 of the CEMP (BC Hydro, 2016b). During construction, sediment ponds established within each RSEM area will capture surface water runoff that contacts PAG or acid generating (AG) material. This water can then be sampled, and treated if necessary, prior to discharge. The majority of PAG and AG material will be stored within the future reservoir footprint, which will slow reaction rates, and ARD/ML to minimal levels, once the material is permanently submerged in the reservoir.

A brief summary of construction activity and ARD/ML monitoring undertaken in 2019 is provided below. The volumes of PAG material excavated are discussed in Section 2.2. A plan showing the construction site and the main areas within it, is included as Figure 1-5.

The main excavations on the Left Bank in 2019 were from the Diversion Tunnels and behind the Cofferdam. Some material was also excavated from the Inlet and Outlet Portals over the same period. The excavated material was placed in the RSEM Area L5 Extension or in the Dam Core.

On the Right Bank, a large volume of PAG material was excavated from the Dam and Core Buttress and Core Trench, and a lesser volume was excavated from the Approach Channel and Spillway. This material was all placed in RSEM Area R5A.



Legend

- Site C Boundary
- Work Area
- Water Survey of Canada, Peace River @ Pine Hydrometric Station
- Weather Station
- Water Quality Station

0 0.5 1 1.5 Km

1:35,000

DATE SAVED: Mar 24, 2020 **REVIEWED:** NM

DRAWN BY: AL **VERSION:** 1

CLIENT:

PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project ARD/ML 2019 Annual Report

TITLE:

Site Map of Site C Main Civil Works Area

PROJECT #: A416 *FIGURE:* 1-5

Coordinate System: *NAD 1983 UTM Zone 10N* **Datum:** *North American 1983* **Units:** *Meter*

Path: *P:\@Drafting\Site\Drafting Figures\MXD\2018AnnualReport\Fig 1_4_1_Overall_SiteMap_20190312.mxd*

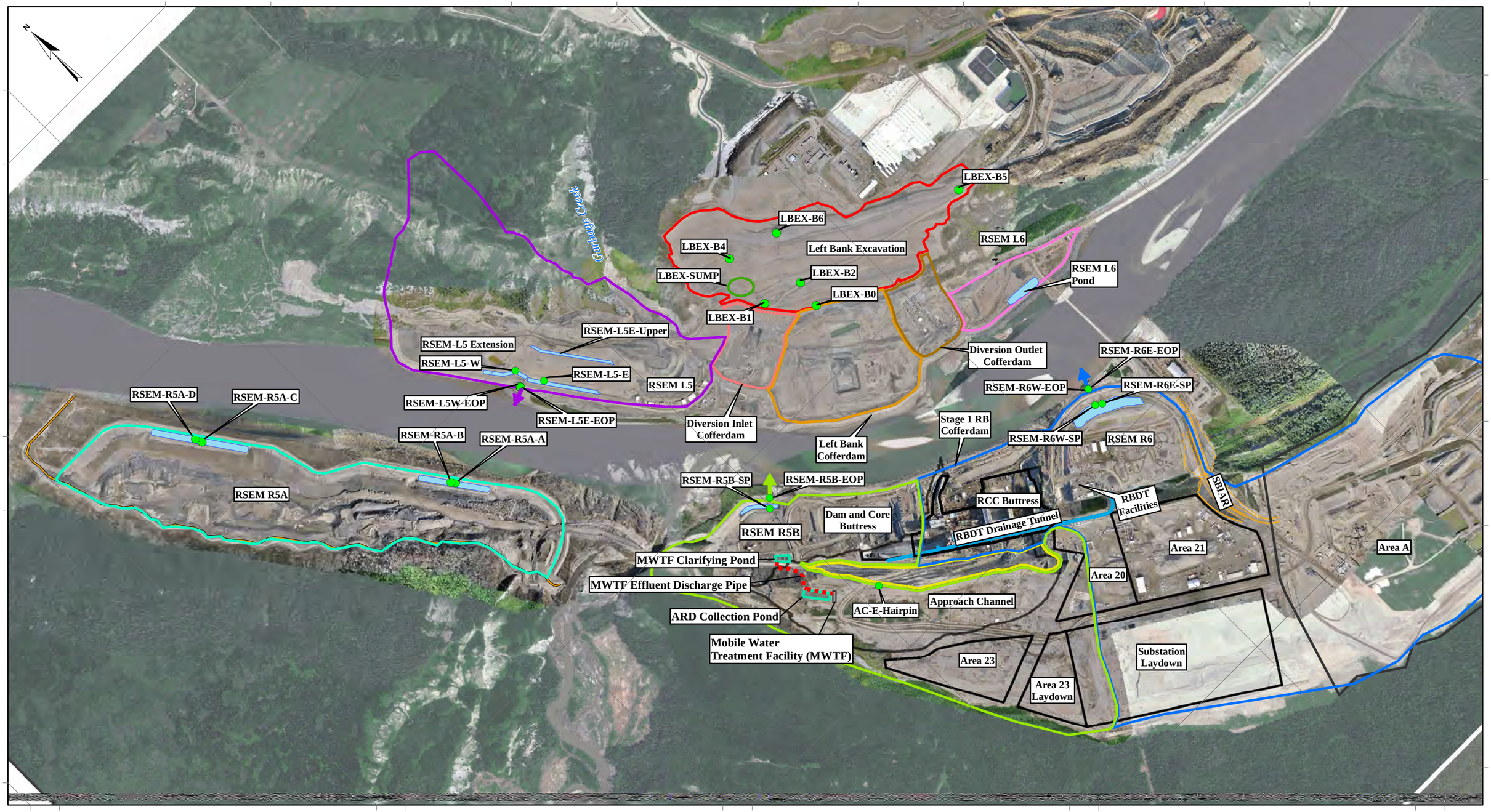
1.5 Water Management

The water management system is continuously adapted as earthworks are undertaken. The site is subdivided into a series of catchment areas for the purpose of water management. Surface water runoff and other contact water from these areas is collected and conveyed to a series of RSEM area sediment ponds (Figure 1-6). Water is transferred to the Mobile Water Treatment Facility (MWTF) for treatment, as needed. Transfers between catchments are also periodically conducted to improve water management efficiency and ensure contact waters are routed through an RSEM sediment control pond prior to discharge. Source and destination locations for water movement are indicated in Figure 1-7.

1.5.1 Left Bank

There is one large and several smaller catchment areas on the Left Bank. Contact water catchments on the Left Bank are:

- The combined RSEM Area L5 and LBEX catchment area, from which contact water is conveyed to the RSEM Area L5 sediment control pond;
- The Diversion Tunnel Inlet Portal (DTIP) and Outlet Portal (DTOP) working areas, from which contact water is retained in storage tanks and generally conveyed to the MWTF on the Right Bank;
- The Left Bank Cofferdam area, in which surface water runoff and cement contact water are collected in sumps, treated for pH and directed to the RSEM Area L5 sediment control pond; and
- The small RSEM Area L6, from which contact water is generally conveyed to the RSEM Area L6 sediment pond.



Legend

- Water Quality Monitoring Location
- Water Conveyance Pipe
- Non-Contact Diversion
- RSEM-L5 NPAG/PAG Catchment
- RSEM-L6 Catchment
- LBCD Catchment
- DOC Catchment
- RSEM-R5B Catchment
- Left Bank Excavation
- MWTF Catchment
- RSEM-R5A Catchment
- RSEM-R5B Catchment
- RSEM-R6 Catchment
- Sediment Pond

Note: Site C aerial imagery collected between May 2019 - Oct 2019.

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REVIEWED:	BM
VERSION:	1

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

0 200 400
Meters

CLIENT: PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT: **Site C Clean Energy Project ARD/ML 2019 Annual Report**

TITLE: Water Quality Monitoring & Sediment Pond Catchments

PROJECT #: A416-1

FIGURE: 1.6

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LEGEND

PAG Contact Water Collection Areas

Note: Site C aerial imagery collected between May 2019 - Oct 2019.

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

1:15,000

0 200 400 Meters

DATE SAVED:	Mar 24, 2020
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PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2019 Annual Report

TITLE:

Overview of PAG Contact Water Transfer to the MWTF and Between Catchment Areas in 2019

PROJECT #: A416-1

FIGURE: 1-7

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1.5.2 Right Bank

There are four catchment areas within the construction site on the Right Bank:

- Area A from which, contact water is directed to North ditch and transferred to R6 East or R6 West sediment control ponds;
- RSEM Area R6 (which includes Area 20/21, the Right Bank Drainage Tunnel (RBDT) and associated facilities to the south, and Roller Compacted Concrete (RCC) Buttress Excavation to the west, adjacent to the future power house), from which contact water is conveyed to the RSEM Area R6 sediment ponds;
- RSEM Area R5B (which includes the Approach Channel, Area 23 and treated effluent from the MWTF), from which contact water is conveyed to the RSEM Area R5B sediment pond; and
- RSEM Area R5A (which includes the area where the majority of excavated PAG material is being deposited on the west side of the Moberly River), from which contact water is conveyed to the RSEM Area R5A sediment ponds.

1.6 RSEM Area Sediment Pond Discharge

1.6.1 Left Bank

A total of just over 100,000 m^3 of water was discharged from the Left Bank in 2019. The RSEM Area L5 Sediment Control Ponds were completed in Q4 2018 and the first discharge commenced mid-March 2019. Most of the water discharged was from the RSEM L5 East Pond (RSEM L5E). Water was generally transferred from RSEM L5 West Pond (RSEM L5W) to RSEM L5E for discharge, as needed. Only a small volume of water was discharged from RSEM L5W early in the year. RSEM Area L6 Sediment Control Pond (RSEM L6) was commissioned in May. There was no passive discharge from RSEM L6 in 2019, however water stored in the pond was actively pumped out to the Peace River on September 5th as part of a mixing zone study. RSEM L6 was approved for discharge on November 22nd and was actively dewatered December 18th to minimize the potential for discharge. The total volumes discharged from the Left Bank are shown in Table 1-2 below, the daily volumes for each pond are presented in Appendix 1-A.

Table 1-2:
Total Volume of PAG Contact Water Discharged from Left Bank - 2019

Sediment Control Pond	Volume Discharged (m^3) 2019
RSEM L5E	99,140
RSEM L5W	834
RSEM L6	2,383
Total	**102,357**

RSEM L5E discharged daily from mid-March, with peak discharge (greater than 10 L/s) occurring during snow melt and major rain events. The daily discharge from RSEM L5E is shown in Figure 1-8 below.

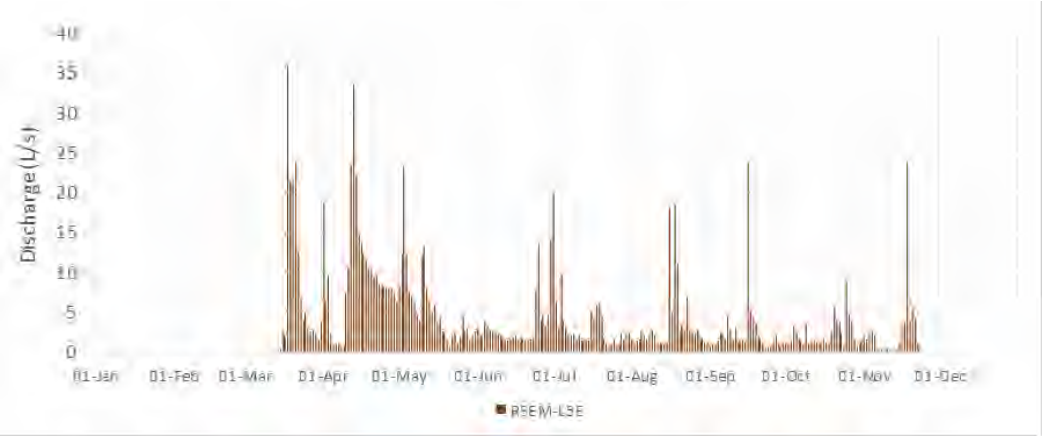


Figure 1-8: Average Daily Discharge from RSEM Area L5 East Sediment Control Pond (RSEM L5E) – 2019

1.6.2 Right Bank

A total volume of just over 800,000 m^3 of water was discharged from the Right Bank in 2019. This included roughly 300,000 m^3 from each of the RSEM Area R6 East and West Sediment Control Ponds (RSEM R6E and RSEM R6W), and just under 200,000 m^3 from the RSEM Area R5B Sediment Control Pond (RSEM R5B). A relatively small volume (a little over 2,300 m^3) was also discharged from the RSEM Area R5A Sediment Control Ponds (RSEM R5A Ponds A to D) for a few days in late March during a thaw which caused the accumulated snowpack to melt rapidly. The total volumes discharged from the sediment control ponds on the Right Bank in 2019 are shown in Table 1-3 below. Daily volumes for each pond are presented in Appendix 1-A.

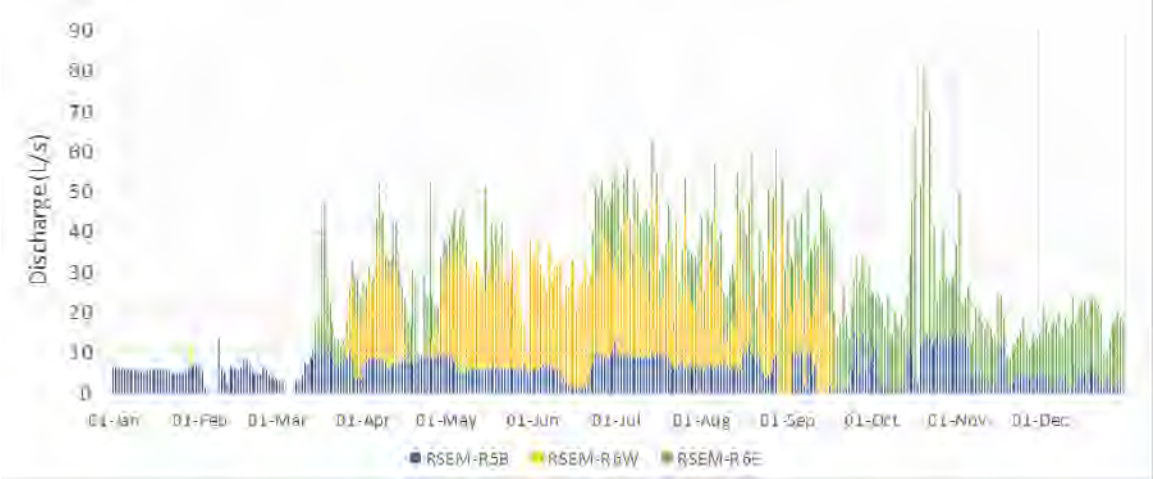
Table 1-3:
Total Volume of PAG Contact Water Discharged from Right Bank - 2019

Sediment Pond	Volume Discharged (m^3) 2019
RSEM R6E	297,609
RSEM R6W	310,655
RSEM R5B	197,790
RSEM R5A:	
Pond A	884
Pond B	452
Pond C	1,001
Pond D	0
Total	**808,391**

The individual and total average daily discharge rates to the Peace River from the Right Bank RSEM R5A, R5B, R6E and R6W ponds in 2019 are shown in Figure 1-9. Discharge from RSEM R5B was generally continuous and was typically between about 4 and 10 L/s. Discharge ceased on the following occasions:

1. From February 4th to 7th, and March 4th to 7th, when ice obstructed the RSEM R5B discharge pipe.
2. From August 29th to September 15th, when the RSEM R5B pond was bypassed to allow it to be dewatered and so that accumulated sediments could be removed from the pond. From September 3rd to 11th MWTF treated and clarified effluent was routed by pipeline directly to the RSEM R5B discharge pipe and logged as RSEM R5B discharge. There was no discharge while the pond refilled from September 12th to 15th.

The daily average discharge rates for RSEM R5B are shown in Figure 1-10 below.



Note: Graph shows combined flow from RSEM R5B, R6W and R6E (stacked bars) on days when there was discharge from multiple ponds.

Figure 1-9: Total of Average Daily Discharge Rates from Right Bank Sediment Control Ponds – 2019

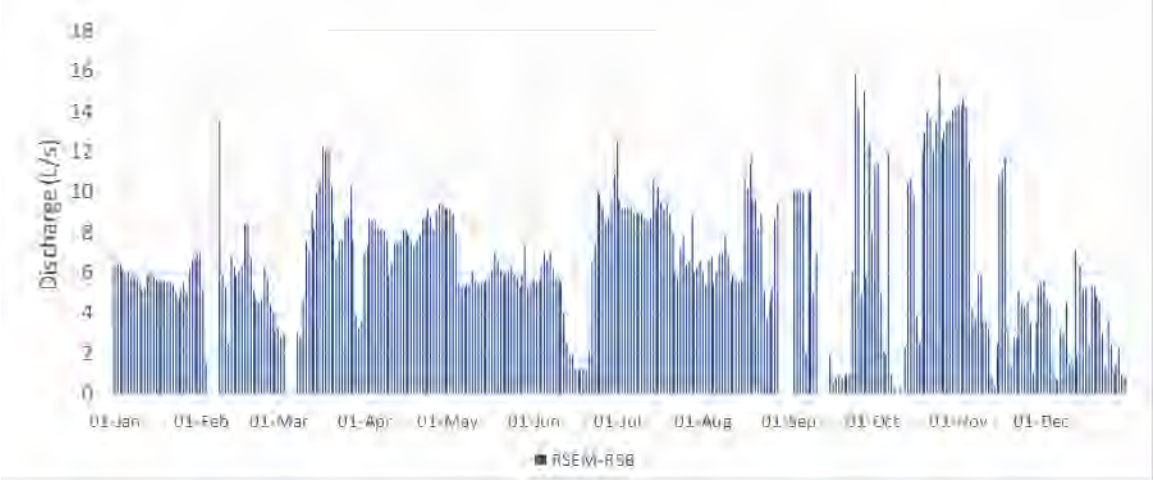
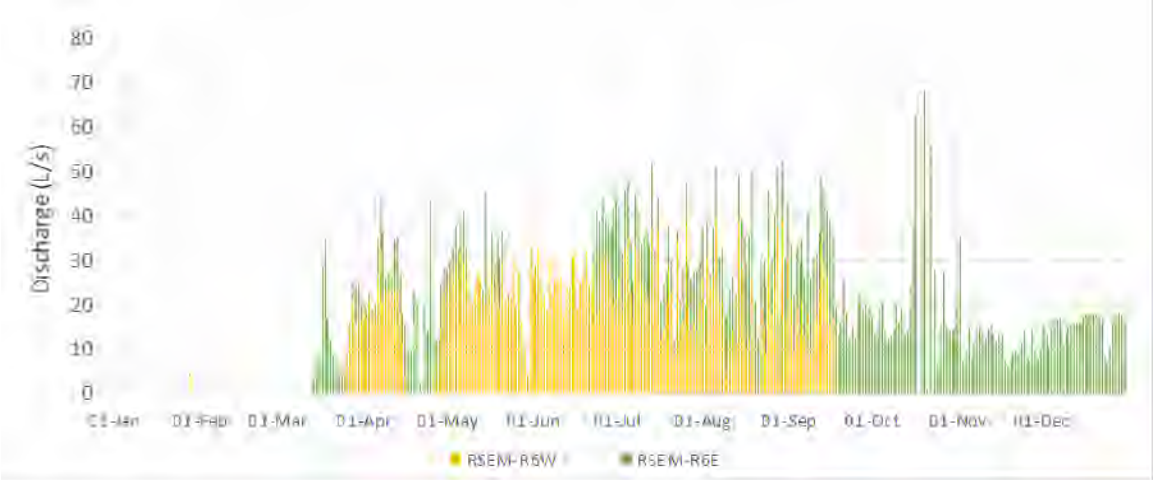


Figure 1-10: Discharge from RSEM-R5B Sediment Control Pond – 2019

A total of over 600,000 m^3 of water was discharged from the RSEM R6E and R6W ponds in 2019. Figure 1-11 below shows daily average total discharge rates from the ponds. Small volumes were discharged from RSEM R6W starting in late January for a few days due to snow melt. Discharge resumed in late March until late April. There was no discharge from April 18-24. This was a result of diminished inflows due to RCC water being diverted to the MWTF. Discharge recommenced on April 25th and continued until September 18th. Discharge from RSEM R6W ceased from mid-September through to the end of December, as the pond was managed to maintain low water levels, and not discharge, by pumping water to RSEM R6E when necessary. During 2019, the combined discharge from the RSEM R6E and R6W ponds was generally above 20 L/s, and combined peak flows exceeded 40 L/s for short durations.



Note: Graph shows combined flow from R6W above R6E as stacked bars on days when there was discharge from both.

Figure 1-11: Discharge from RSEM-R6 Sediment Control Ponds – 2019

There was continuous discharge from the RSEM R6E pond from mid-March until late May, and then again from late June to the end of the year. Negligible to very low discharge from RSEM R6E was measured from late May to late June, coinciding with dryer than average conditions (discharge from RSEM R6W was due to dewatering of the RCC Buttress area). Discharge from RSEM R6E typically exceeded 10 L/s and peak flows exceeded 40 L/s for short durations.

1.7 Data Management

A large volume of monitoring data has been compiled since the ARD/ML monitoring program was initiated in autumn 2016. Data from the Bureau Veritas (BV, formerly Maxxam Analytics) laboratory in Burnaby, B.C. is provided in database-ready Electronic Data Deliverable (EDD) format to streamline data entry and minimize potential data entry errors. A customized water quality EDD format was developed by BV to include data for early detection of QA/QC issues. EDDs are imported directly into a proprietary database system called EQWin that is capable of efficient data retrieval and reporting, and erroneous or invalid data detection. A customized data entry program called CERES, developed by Lorax using Microsoft Access software, allows multiple PRHP staff to simultaneously enter field water quality, flow measurements and sample metadata while scrutinizing the data for potential transcriptions errors. The CERES data is further imported into EQWin to create an aggregated database of laboratory analytical and field water quality data. Both solid phase (ARD/ML analytical results, including the results of rinse pH, ABA and metals analyses) and surface water quality results (both field and laboratory measurements) are stored in the EQWin database.

2. PAG Bedrock Monitoring

PEACE RIVER
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2. PAG Bedrock Monitoring

2.1 Purpose and Objectives

PRHP is required to monitor AG and PAG rock exposures and excavations in areas affected by work undertaken as part of the Main Civil Works Contract in accordance with the BC Hydro and PRHP Acid Rock Drainage and Metal Leaching Management Plans (Appendix E of the CEMP; BC Hydro, 2016a and Appendix A of EMP; Rev. 9, PRHP, 2017a, respectively). The specific objectives of this monitoring program are to:

- Confirm that the ARD/ML potential of bedrock is consistent with the original geochemical characterization work undertaken for the project that was used as the basis for the Environmental Assessment and water quality predictions;
- Monitor PAG rock exposures to provide early warning of any that have become acidic;
- Provide continuous geochemical characterization of excavated material disposed in various RSEM facilities; and
- Monitor the effectiveness of mitigation measures that have been implemented.

The baseline geochemical characterization of bedrock determined that all bedrock units that will be disturbed by dam site construction activities are PAG (KCB, 2015). This report specifies that bedrock should be assumed to be PAG or AG, unless direct sampling and analyses determine otherwise. ARD/ML monitoring is recommended for areas where bedrock is excavated and where these materials are stored. A summary of the material excavated and disposed in 2019 is included in Section 2.2.

2.2 Material Balance

Bedrock material excavation and disposal was tracked throughout 2019. A total in excess of 1.7M m^3 was excavated in 2019. This included 609,476 m^3 on the Left Bank, mostly from the Central Cofferdam and the Diversion Tunnel Inlet Portal (DTIP), and 1,132,520 m^3 on the Right Bank, mostly from the Approach Channel and Spillway and the Dam and Core Buttress and Core Trench. Most of the material excavated on the Left Bank was placed in RSEM Area L5 and the RSEM Area L5 Extension. On the Right Bank all material was placed in RSEM Area R5A.

The locations of site facilities where excavation and monitoring have occurred are illustrated in Figure 2-1.

627,000 628,000 629,000 630,000 631,000

6,232,000 6,231,000 6,230,000 6,229,000

RSEM Area R5A

RSEM Area L5 Extension

RSEM Area L5

RSEM Area L6

RSEM Area R5A Non-Contact Ditch (207 m^3)
-Deposited in RSEM R5A

Garbage Creek (105 m^3)
-Deposited in the L5 Extension

DTIP (94,356 m^3)
-Deposited in RSEM-L5, the L5 Extension and RSEM-L6

LBEX (15,570 m^3)
-Deposited in RSEM-L5, the L5 Extension and RSEM-L6

DTOP (29,957 m^3)
-Deposited in RSEM-L5, the L5 Extension and RSEM-L6

Inlet Cofferdam (10,097 m^3)
-Deposited in RSEM-L5, the L5 Extension and RSEM-L6

Dam Core deposition area

Central Cofferdam (421,741 m^3)
-Deposited in RSEM-L5, the L5 Extension, the Dam Core and RSEM-L6

Left Bank Drainage Adit (4,185 m^3)
-Deposited in RSEM-L5 and the L5 Extension

Laydown Area 32A and 32B (2,172 m^3)
-Deposited in RSEM R5A

Dam and Core Buttress (574,018 m^3)
-Deposited in RSEM R5A

RCC Excavation (654 m^3)
-Deposited in RSEM R5A

Approach Channel and Spillway (550,877 m^3)
-Deposited in RSEM-R5A

RBDT (1,512 m^3)
-Deposited in RSEM R5A

Area 23 (2,794 m3)
-Deposited in RSEM R5A

N

LEGEND

- Excavation Area
- Deposition Area

Note: Site C aerial imagery collected between May 2019-Oct 2019.

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

1:15,000

0 200 400 Meters

DATE SAVED:	Jan 28, 2020
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LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2019 Annual Report

TITLE: Site Facility Layout Map Showing Excavations and Deposition Areas

PROJECT #: A416-2 *FIGURE:* 2-1

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2.2.1 Left Bank

The largest excavations on the Left Bank in 2019 occurred as a result of construction activities around the Central Cofferdam and the DTIP. In 2019, 455,131 m^3 was excavated from the Central Cofferdam and 94,401 m^3 was excavated from the DTIP (Table 2-1). Excavation in the Central Cofferdam occurred throughout 2019, with the largest volumes excavated in May and July (Figure 2-2). The majority of the excavation from the DTIP occurred from January to May.

PAG bedrock was also excavated from a number of other locations on the Left Bank. These included the Diversion Tunnel Outlet Portal (DTOP; 29,957 m^3), Left Bank Excavation (LBEX; 15,570 m^3), Inlet Cofferdam (10,097 m^3), Left Bank Drainage Adit (4,185 m^3), and Garbage Creek (105 m^3). The material excavated from Garbage Creek was previously placed PAG material.

In total, 609,476 m^3 of PAG material was stockpiled on the Left Bank in 2019. The majority of the PAG material was placed in RSEM Area L5 and the RSEM Area L5 Extension. Relatively minor amounts were placed in RSEM Area L6 and the Left Bank Dam Core. At the end of the year, RSEM Area L5 contained 922,232 m^3, the RSEM Area L5 Extension contained 385,843 m^3, RSEM Area L6 contained 62,200 m^3, and the Left Bank Dam Core contained 12,345 m^3 (Table 2-2; Figure 2-3). Material was removed from RSEM Area L5 in July and relocated to the RSEM Area L5 Extension (22,845 m^3). No material was added to the L5 Garbage Creek stockpile in 2019; however, a small volume (105 m^3) was removed. There is 24,120 m^3 of PAG material remaining at this location.

Table 2-1:
Summary of excavated PAG volumes on the Left Bank in 2019

Excavation Site	Material Excavated (m^3)				
	Q1	Q2	Q3	Q4	Total
Diversion Tunnel Inlet Portal (DTIP)	41,249	47,925	2,632	2,595	94,401
Diversion Tunnel Outlet Portal (DTOP)	9,310	780	19,852	45	29,987
Left Bank Excavation (LBEX)	7,830	7,740	0	0	15,570
Central Cofferdam	25,185	193,231	132,104	104,611	455,131
Inlet Cofferdam	0	9,287	495	315	10,097
Garbage Creek	0	0	105	0	105
Left Bank Drainage Adit	0	0	0	4,185	4,185
Total	*83,574*	*258,963*	*155,188*	*111,751*	*609,476*

Note: Due to the frequency of data tabulation, "Q1" includes volumes excavated from December 30, 2018 to March 30, 2019, "Q2" includes volumes excavated from March 31 to June 29, "Q3" includes volumes excavated from June 30 to September 28, and "Q4" includes volumes excavated from September 29 to January 4, 2020.

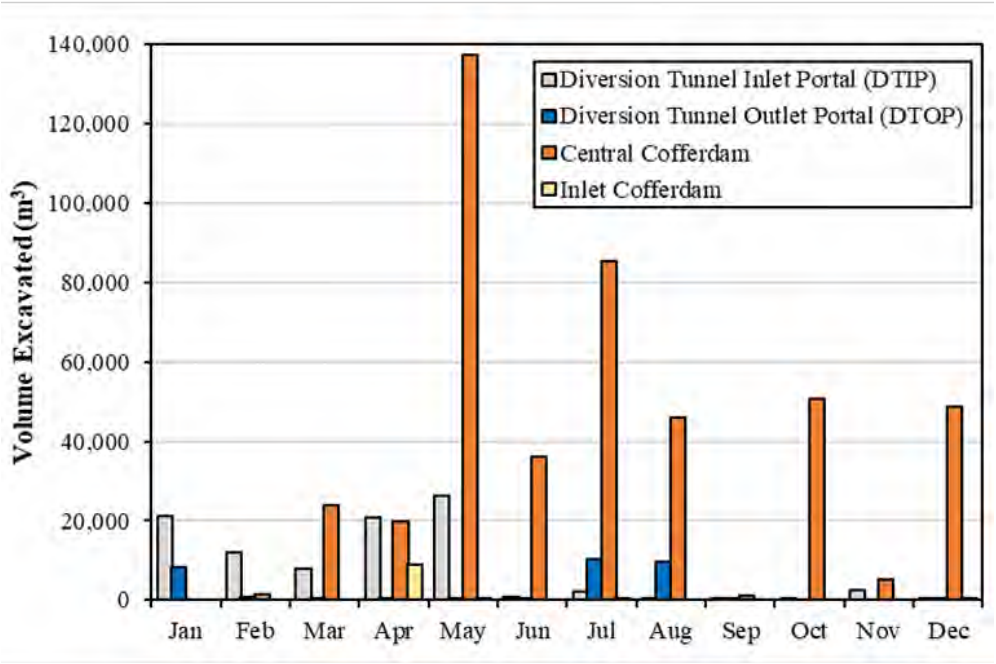


Figure 2-2: Overview of volumes excavated on the Left Bank in 2019 (the relatively minor volumes excavated from the LBEX (February to May – 15,570 m³), Garbage Creek (August – 105 m³), and the Left Bank Drainage Adit (October – 4,185 m³) are not shown).

Table 2-2:
Cumulative volume of PAG material in Left Bank stockpiles at the end of each quarter in 2019

Stockpile	Cumulative Volume Stockpiled (m³)			
	Q1	Q2	Q3	Q4
RSEM Area L5	801,104	920,185	917,207	922,232
RSEM Area L5 Extension	0	135,336	281,157	385,843
RSEM Area L6	55,614	60,160	60,160	62,200
L5 Garbage Creek	24,225	24,225	24,120	24,120
Left Bank Dam Core	0	0	12,345	12,345
Cumulative total	*880,943*	*1,139,906*	*1,294,989*	*1,406,740*

Note: Due to the frequency of data tabulation, "Q1" includes volumes excavated from December 30, 2018 to March 30, 2019, "Q2" includes volumes excavated from March 31 to June 29, "Q3" includes volumes excavated from June 30 to September 28, and "Q4" includes volumes excavated from September 29 to January 4, 2020.

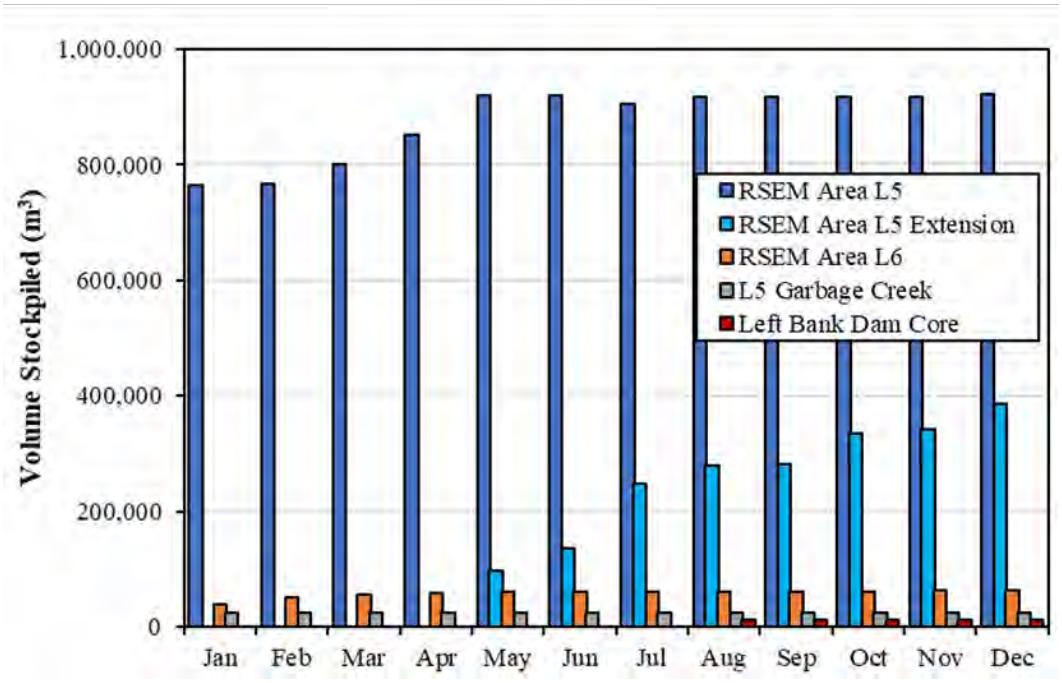


Figure 2-3: Overview of cumulative PAG material volumes stored on the Left Bank through 2019.

2.2.2 Right Bank

Excavations on the Right Bank of the Site C Project during 2019 amounted to a total of 1,132,520 m^3 of PAG bedrock. Most of this material was produced from excavations in the Dam and Core Buttress and Core Trench (574,018 m^3) and the Approach Channel and Spillway (550,877 m^3) (Table 2-3). The remaining volume was excavated from Area 23 (2,794 m^3), Laydown Areas 32A and 32B (2,172 m^3), the Right Bank Drainage Tunnel (RBDT; 1,798 m^3), the RCC area (654 m^3), and the RSEM Area R5A Non-Contact Ditch (207 m^3). An overview of the PAG material movement from these locations is given in Figure 2-4.

All of the material excavated on the Right Bank was deposited in RSEM Area R5A which, at the end of 2019, contained 5,298,254 m^3 of PAG rock (Table 2-4; Figure 2-5). The PAG material previously deposited in RSEM Area R5B remains covered by NPAG material. No additional PAG material was placed here in 2019.

Table 2-3:
Summary of excavated PAG volumes on the Right Bank in 2019

Excavation Site	Material Excavated (m^3)				
	Q1	**Q2**	**Q3**	**Q4**	**Total**
Dam and Core Buttress (including Core Trench)	0	197,201	333,054	43,763	574,018
Approach Channel and Spillway	313,794	98,279	7,602	131,202	550,877
Right Bank Drainage Tunnel (RBDT)	1,512	0	0	286	1,798
RCC Excavation Area	0	654	0	0	654
Laydown Area 32A and 32B	0	0	0	2,172	2,172
Area 23	0	44	0	2,750	2,794
RSEM Area R5A Non-Contact Ditch	0	207	0	0	207
Total	*315,306*	*296,385*	*340,656*	*180,173*	*1,132,520*

Note: Due to the frequency of data tabulation, "Q1" includes volumes excavated from December 30, 2018 to March 30, 2019, "Q2" includes volumes excavated from March 31 to June 29, "Q3" includes volumes excavated from June 30 to September 28, and "Q4" includes volumes excavated from September 29 to January 4, 2020.

Table 2-4:
Summary of cumulative volume of PAG material in the Right Bank stockpiles at the end of each month in 2019

Stockpile	Cumulative Volume Stockpiled (m3)			
	Q1	**Q2**	**Q3**	**Q4**
RSEM Area R5A	4,481,040	4,777,425	5,118,081	5,298,254
RSEM Area R5B	363,618	363,618	363,618	363,618
Cumulative total	*4,844,658*	*5,141,043*	*5,481,699*	*5,661,872*

Note: Due to the frequency of data tabulation, "Q1" includes volumes excavated from December 30, 2018 to March 30, 2019, "Q2" includes volumes excavated from March 31 to June 29, "Q3" includes volumes excavated from June 30 to September 28, and "Q4" includes volumes excavated from September 29 to January 4, 2020.

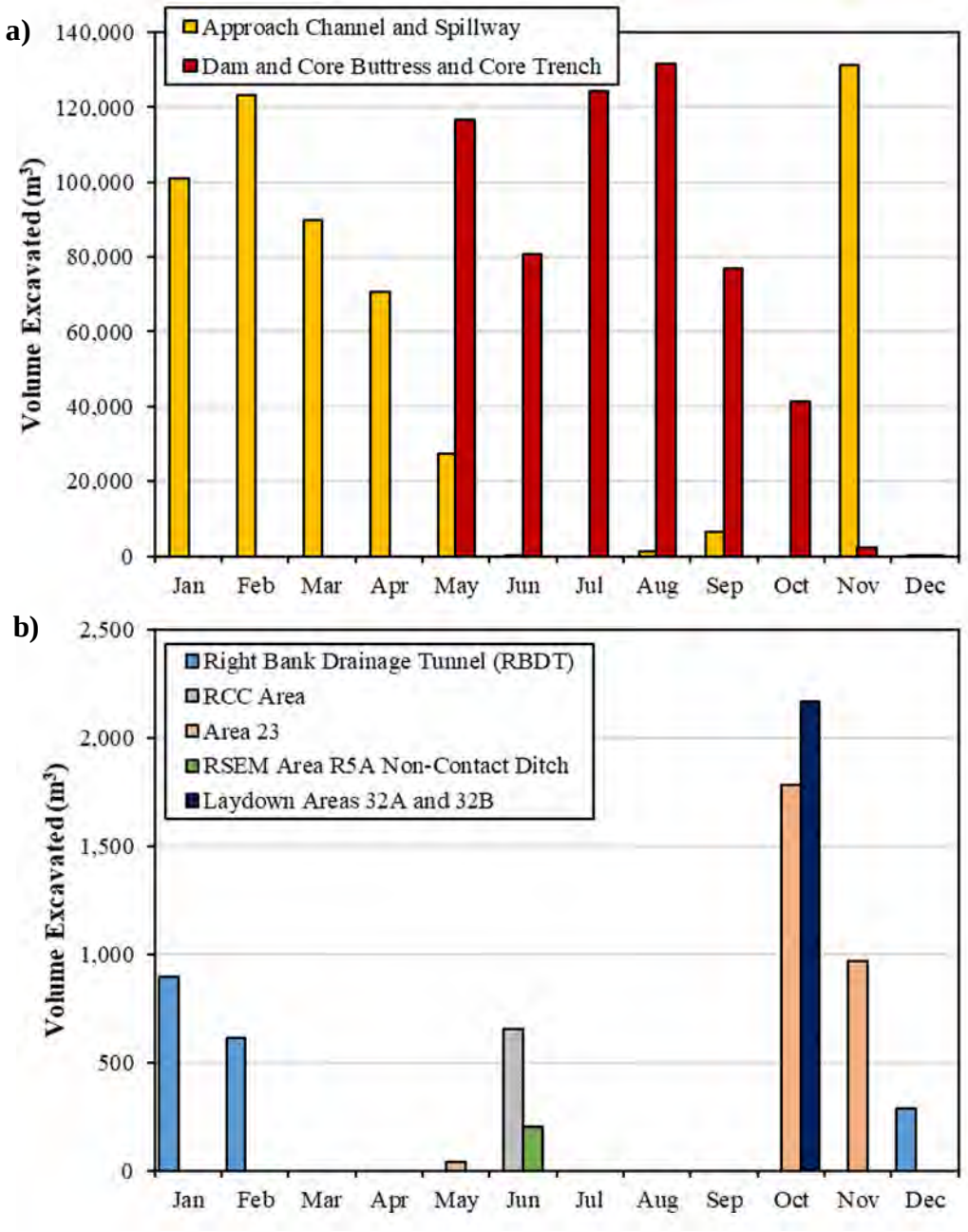


Figure 2-4: Overview of PAG bedrock excavations on the Right Bank in 2019, (a) shows major excavations and (b) shows minor excavations.

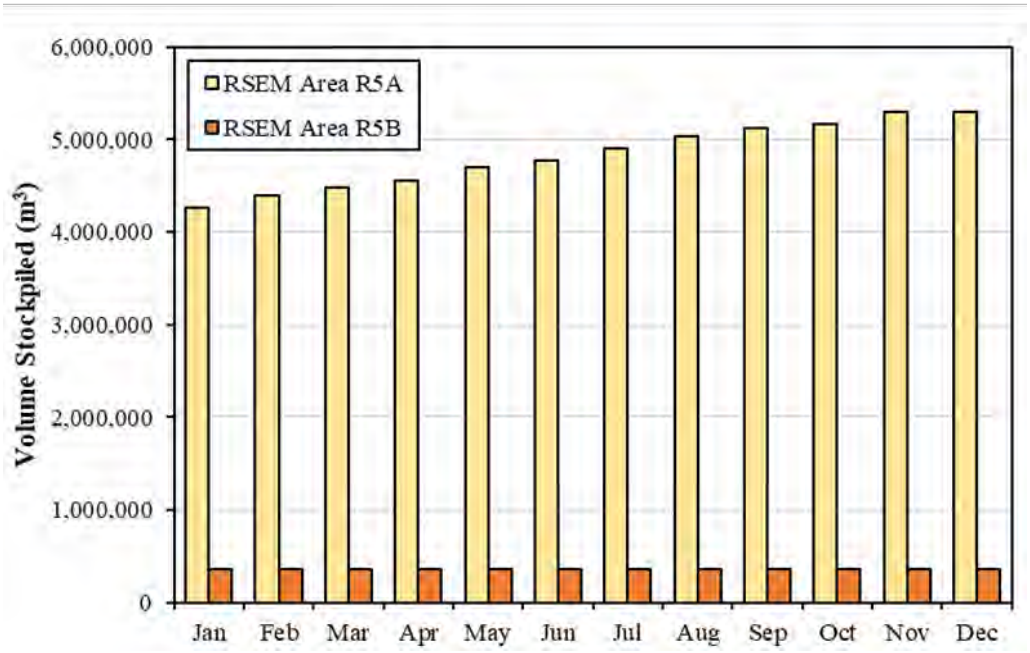


Figure 2-5: Overview of cumulative PAG material volumes stored in the RSEM R5A and RSEM R5B disposal areas in 2019

2.3 Monitoring Program Summary

ARD/ML monitoring is undertaken in areas where bedrock is excavated or where these materials are deposited. Appropriate sampling locations are determined as construction activities proceed rather than routinely sampling at fixed monitoring stations.

Geochemical analysis of samples collected during the monitoring program include rinse pH measurements to determine surface pH, as well as acid-base accounting (ABA) and solid phase metals analysis. Rinse pH monitoring is generally only conducted where samples were previously identified to produce circumneutral to alkaline drainage (rinse pH > 5.5). Where acidic drainage is prevalent, ARD mitigation strategies are identified and recommended. The original monitoring framework is described in PRHP's Acid Rock Drainage and Metal Leachate Management Plan (PRHP, 2017b) which is Appendix A of PRHP's Environmental Management Plan (PRHP, 2017a).

A proposed revision to this management plan is that an annual ARD/ML Sampling Plan be developed in the first quarter of each calendar year based on current site conditions and the additional operational experience gained in the previous year. The 2019 sampling plan recommends that new and confirmatory samples are collected from the major active and inactive excavation sites, RSEM deposition areas, and temporary PAG stockpiles (Lorax, 2019a). This sampling will direct material handling and storage strategies such as the placement of a cover or fresh PAG within RSEM areas.

In 2019, geochemical sampling was completed during seven sampling visits by Lorax personnel. Sampling occurred in January, February, April (two visits), late July/early August, and October. The site visits early in the year focussed on specific areas of the site. In January, only RSEM Area L6 was sampled, in February only the Approach Channel and RSEM Area L6 were sampled, and in the first of the April site visits only Area A and the 85th Avenue Conveyor area were sampled. The remaining site visits covered the full site. PRHP personnel collected two additional samples along the 85th Avenue Conveyor in May and assisted with the October sampling. An additional three samples were collected by BC Hydro personnel within the RCC excavation in early August. In total, 339 samples were analyzed for rinse pH (Table 2-5). Of these, 69 samples underwent more extensive geochemical testing including ABA and metals analysis.

2.3.1 Sample Collection

Sample collection methods varied depending on the type of material being sampled. Samples collected from excavation sites were collected as linear trench samples, where a pick or hammer was used to excavate an approximately 1 m cut into the excavation face perpendicular to the bedding plane. Samples collected from the surface of PAG stockpiles and other graded or compacted areas were collected from shallow trenches, approximately 1 to 2 cm in depth. Trenches were dug with a pick. A sample was collected from the entire length of the trench (ranging from about 20–100 cm) at each location.

Table 2-5:
Overview of Sample Distribution and Analyses Conducted

Location	Rinse pH	ABA and Metals
Left Bank		
RSEM Area L5	46	4
RSEM Area L5 Extension	22	4
RSEM Area L6	30	23
Left Bank Excavation (LBEX)[a]	7	0
Central Cofferdam and Dam Core	9	4
85th Avenue Conveyor	7	5
Right Bank		
RSEM Area R5A	87	7
Approach Channel	92	8
RCC Excavation	7	4
Right Bank Dam Core	5	2
Area 23	1	1
Area A – Excavation	13	2
Area A – Phase 2 Crusher Stockpile	13	5
Total	**339**	**69**

Note:
[a]Includes a sample collected from the LBEX Bluff

2.3.2 Analytical Methods

The surface rinse pH is conducted on the <2 mm particle size fraction (sorted by dry sieve) with no particle comminution. The procedure is based on that described in the Prediction Manual for Drainage Chemistry from Sulphidic Geologic Materials (Price, 2009). The rinse pH analyses were conducted at BV in Burnaby, BC, except for the three BC Hydro samples collected in August and all of the October samples which were analyzed on site.

ABA and metals analyses are conducted at BV Labs as follows:

- Neutralization potential (NP) is determined using a Modified Neutralization Potential method, following the method outlined in Marchant and Lawrence (1991).
- Total sulphur (S) is determined using a LECO furnace.
- Sulphate-S is determined by the procedure outlined in ASTM D2492-02, *Standard Test Method for Forms of Sulphur in Coal*. In this procedure, sulphate-S is dissolved with HCl.
- Sulphide-S is determined by difference (Total S – Sulphate S).
- Solid phase metals analyses are conducted on pulverized samples by digesting 0.50 g in *aqua regia* at 95°C for one hour. The extract is then diluted to 10.0 mL and analyzed for metals by inductively coupled plasma mass spectrometry (ICP- MS).

2.3.3 Classification of ARD Potential

The ARD potential of different geologic materials was defined prior to the start of construction, to facilitate effective material management. The criteria for determining the ARD potential of geologic materials that are excavated at the Project are defined by its Technical Specifications (IET, 2015). The acid generating potential of overburden and bedrock is also defined in Appendix E of BC Hydro's CEMP (BC Hydro, 2016a).

ABA criteria for classifying excavated material as PAG or NPAG were defined by the ratio of NP to acid potential (AP) as per IET, 2015. The NP/AP ratio, or net potential ratio (NPR), was used to identify PAG and NPAG mine rock. It is calculated from modified NP and total S AP, and is defined as:

- PAG: Material with an NPR ≤ 2; and
- NPAG: Material with an NPR > 2.

In addition to the above ABA criteria, a sample is considered AG that has a pH < 5.5 when tested using traditional paste or rinse pH methods.

The potential for ARD from various geologic materials disturbed at the Project site has been assessed by a variety of geochemical test work (KCB, 2015). These initial analyses show that the shale bedrock units are PAG, while the overburden materials are NPAG. Since site excavations have been initiated, additional refinement was required for material types that cannot be readily classified as 'bedrock' or 'overburden'. These material types are largely restricted to the area around the Left Bank Excavation (LBEX) and include:

- Bedrock colluvium;
- Overburden colluvium;
- Weathered bedrock; and
- the transition zone between bedrock and overburden.

The ARD/ML designation of these materials was not included in Appendix E of BC Hydro's CEMP (BC Hydro, 2016a) or geochemical baseline studies (KCB, 2015). Based on ARD/ML monitoring data, classifications have since been developed by Lorax, which are shown in Table 2-6 below. A more detailed description of the rationale and details of the classification system is provided in the *Field Classification of Potentially Acid Generating Materials* (Lorax, 2017).

Table 2-6:
Acid Rock Drainage Classification for Different Geologic Material Types

Material Type	ARD Classification
Overburden[1]	NPAG
Overburden Colluvium[2]	NPAG
Transition Zone (<15% shale)[1]	NPAG
Transition Zone (>15% shale)[1]	PAG or AG*
Bedrock Colluvium[2]	AG
Weathered Bedrock[2]	AG
Fresh Bedrock[1]	PAG

[1] Defined in CEMP (BC Hydro, 2016b)
[2] Defined in LBEX (Lorax, 2017)
*Classified as AG or NPAG depending on weathered shale content.

2.3.4 Quality Assurance and Quality Control

The quality assurance and quality control (QA/QC) program for ABA and metals analyses involves a variety of internal laboratory protocols. These protocols involve

duplicate samples and analytical standard analysis. About one duplicate was measured for every 10 samples at BV Labs. Internal laboratory quality control at BV Labs adheres to a precision specification of ±20% for metals and ±30% for sulphur and carbon species.

Neutralization potential precision specifications at BV Labs vary depending on the quantity of NP:

NP > 20 kg $CaCO_3$/t = ± 15%;

NP < 20 and > 10 kg $CaCO_3$/t = ± 20%; and

NP < 10 kg $CaCO_3$/t = ± 5 kg$CaCO_3$/t.

Any laboratory duplicate result or standard that does not adhere to the precision specifications triggers a re-analysis. Complete documentation of analytical QA/QC protocols are provided in Appendix 2-A.

The rinse pH testing for the October 2019 samples was conducted on site by PRHP personnel. In order to confirm the reproducibility of results from the October field rinse pH measurements, a duplicate from approximately 1 in 10 field samples was submitted to BV Labs for analysis. The QA/QC results from October 2019 confirm that the field rinse pH measurements are sufficient to identify acidic samples, given the correlation between field and laboratory rinse pH shown in Figure 2-6 below.

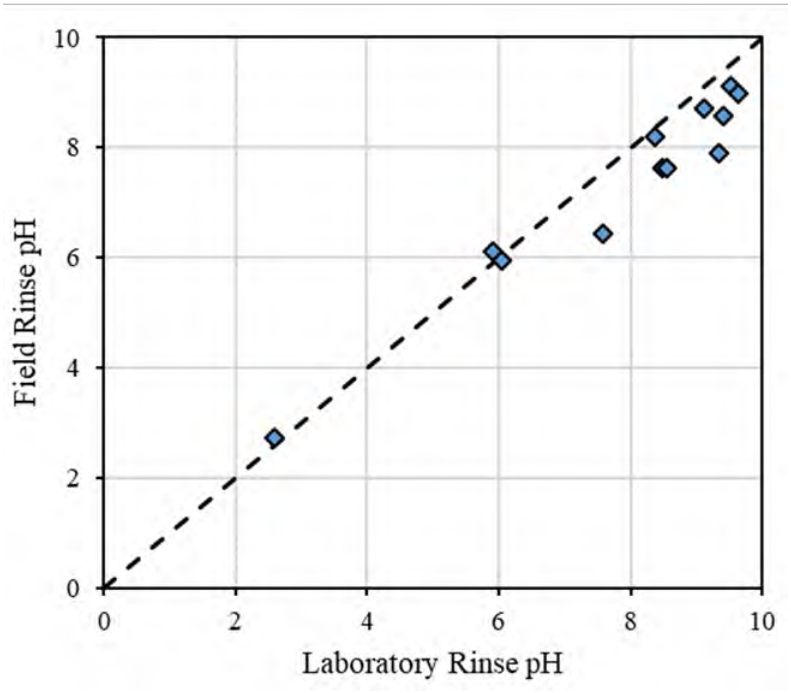


Figure 2-6: Comparison of field and laboratory rinse pH measurements for October 2019 samples

2.4 Geochemical Results

2.4.1 Rinse pH

Rinse pH was identified as the primary geochemical parameter to assess whether a bedrock excavation or storage site is actively releasing net acidic drainage. The rinse pH values are used to group the samples into three categories representing neutral/alkaline (pH ≥ 7), slightly acidic/inert (5.5 < pH < 7), and acidic character (pH < 5.5). Permanent stockpiles in which acidic rock is identified require further mitigation such as covering with overburden. Management measures for excavation faces may include the collection and management of runoff or application of shotcrete. Geochemical monitoring is continued in areas where circumneutral rinse pH values are measured. The full database of rinse pH values for the 2019 samples is shown in Appendix 2-B, Table 1.

2.4.1.1 Left Bank

In 2019, samples on the Left Bank were collected at RSEM Area L5 (n = 46), the RSEM Area L5 Extension (n = 22), RSEM Area L6 (n = 30), the Central Cofferdam and Dam Core (n = 9), the LBEX (n = 6), the Left Bank Bluff (n = 1), and the 85th Ave Conveyor (n = 7) (Figure 2-7).

Samples from RSEM Area L5 and the RSEM Area L5 Extension were collected from the locations where PAG material was visible at the surface. The area between the two sampling regions has been covered with overburden. Both of these stockpiles were sampled in Q2 through Q4 2019. The majority of samples from RSEM Area L5 (31 of 46 samples) and the RSEM Area L5 Extension (17 of 22 samples) had neutral/alkaline rinse pH. Of the remaining samples from RSEM Area L5, six had rinse pH between 5.5 and 7 and nine samples were currently acidic (rinse pH < 5.5). Acidic samples were collected from RSEM Area L5 during each of the sampling events and these were generally restricted to the lower slopes on the eastern end of the RSEM Area L5 pile. It is recommended that the exposed PAG bedrock in this stockpile is covered with overburden in order to restrict acidic runoff from the exposed PAG surface from entering the RSEM Area L5 sediment pond. The AG rock in RSEM Area L5 should be relocated to allow for resloping of the RSEM Area L5 stockpile to a grade that can be covered with neutral PAG rock or NPAG overburden to limit the ingress of oxygen and water into the AG material.

Four samples with rinse pH between 5.5 and 7 and a single acidic sample (rinse pH 3.6) were collected from the RSEM Area L5 Extension in 2019. Overall, the proportion of samples with rinse pH < 7 has increased in each quarter and the median rinse pH has decreased. It is recommended that the exposed PAG material in the RSEM Area

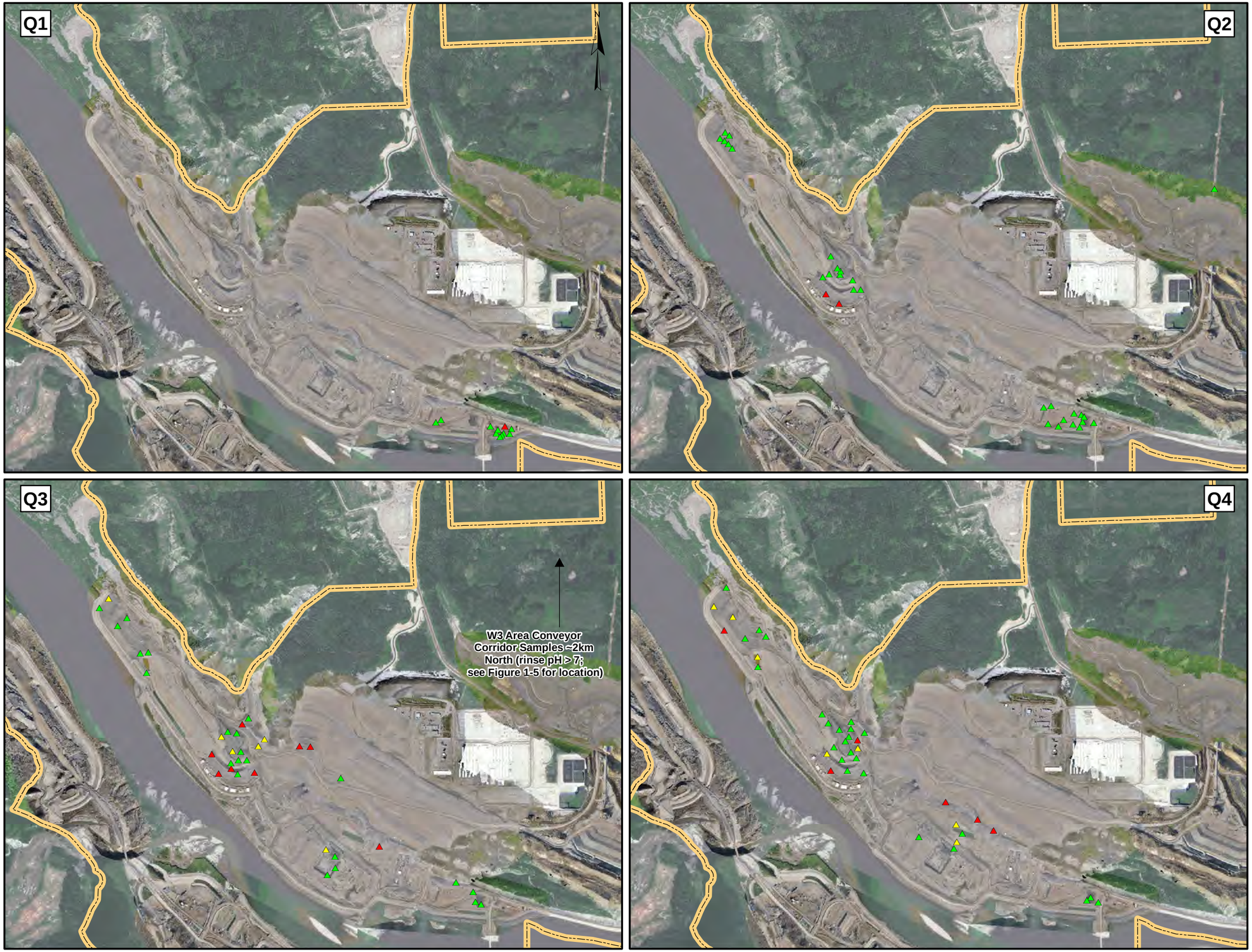
L5 Extension is covered with fresh PAG rock or overburden once the snow has melted in order to prevent the development of acidic runoff from the stockpile.

Samples were collected from RSEM Area L6 in each quarter of 2019. Coverage of this area with overburden was underway at the end of Q1 and the majority of the surface was covered by the end of Q2. The exposed PAG material in Q3 and Q4 was generally restricted to the sampled areas west of the road to the bridge connecting the Left and Right Banks. One AG sample was collected in Q1 2019 and all other samples have had rinse pH values above 7. The exposed PAG material should be covered with overburden or moved to another stockpile prior to becoming acidic.

The majority of the material exposed in the LBEX is overburden; however, shale is exposed near the northwestern edge of the LBEX and at the base of the LBEX along Bench 0. In Q3, two samples were collected from the northwestern exposure and confirmed that this material is AG. An overburden sample was also collected from the LBEX and had neutral rinse pH. Three samples were collected along Bench 0 in Q4 and all were AG. The ponded water near these sampling locations was acidic (field pH < 4). The bluff below the LBEX was sampled in Q3. This sample was AG, which is in agreement with the results of the 2018 sampling in this area.

Shale has been excavated from the Central Cofferdam and was exposed on the floor of the excavation. Samples were collected from this area in Q3 and Q4 2019. All samples either had rinse pH between 5.5 and 7 (3 of 9 samples) or neutral/alkaline rinse pH (6 of 9 samples). One of the Q4 samples with neutral rinse pH was mixed shale and overburden that was placed in the Left Bank Dam Core. All other samples were either of stockpiled PAG material or bedrock exposed at the edge of the excavation. Continued monitoring of exposed PAG material within this excavation is recommended.

Material was sampled along the 85th Avenue Conveyor construction corridor in Q2 and Q3. These samples were either collected from road cuts or from stockpiles along the corridor. Two of seven samples were collected from a road cut approximately 0.8 km northeast of the ATCO camp. The remaining five samples were collected from the W3 area, located approximately 3.5 km northeast of the main construction area. All samples were clay to silty clay and had neutral rinse pH values between 7.1 and 8.3.



LEGEND

Rinse pH

- <5.5
- 5.5-7
- >7
- Site C Boundary

Note: Site C aerial imagery collected between May 2019-Oct 2019.

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Projection: *Transverse Mercator*
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LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project ARD/ML 2019 Annual Report

TITLE:

Left Bank 2019
Rinse pH Sampling Results

PROJECT #:	*FIGURE:*
A416-1	2-6

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Table 2-7:
Statistical Overview of Rinse pH for 2019 Sampling Locations

Location	Statistic	Q1	Q2	Q3	Q4	Overall
Left Bank						
RSEM Area L5 (n = 46)	Min	-	4.20	3.09	2.35	2.35
	Median	-	9.64	6.49	8.16	8.16
	Max	-	10.2	9.57	8.84	10.2
RSEM Area L5 Extension (n = 22)	Min	-	8.01	6.50	3.60	3.60
	Median	-	9.20	8.19	7.58	8.15
	Max	-	9.35	9.78	9.11	9.78
RSEM Area L6 (n = 30)	Min	3.93	8.22	7.11	7.37	3.93
	Median	9.82	10.1	8.62	7.63	9.85
	Max	10.1	10.3	9.15	7.84	10.3
Left Bank Excavation (LBEX)[a] (n = 7)	Min	-	-	2.30	2.12	2.12
	Median	-	-	2.61	2.30	2.46
	Max	-	-	7.90	2.49	7.90
Left Bank Cofferdam and Dam Core (n = 9)	Min	-	-	6.37	5.78	5.78
	Median	-	-	8.06	7.18	7.64
	Max	-	-	9.10	7.66	9.10
85th Ave Conveyor (n = 7)	Min	-	7.08	7.63	-	7.08
	Median	-	7.53	7.65	-	7.65
	Max	-	8.28	7.67	-	8.28
Right Bank						
RSEM Area R5A (n = 87)	Min	-	2.41	2.74	2.33	2.33
	Median	-	9.36	8.46	7.77	8.42
	Max	-	10.4	9.97	9.24	10.4
Approach Channel (n = 92)	Min	2.25	2.37	2.39	2.34	2.25
	Median	2.59	4.76	3.66	2.73	3.03
	Max	9.14	7.67	7.11	6.24	9.14
RCC Excavation (n = 7)	Min	-	5.56	5.67	5.95	5.56
	Median	-	-	6.50	-	6.10
	Max	-	6.96	7.71	6.10	7.71
Right Bank Dam Core (n = 5)	Min	-	-	-	7.90	7.90
	Median	-	-	-	8.38	8.38
	Max	-	-	-	8.98	8.98
Area 23 (n = 1)	Sample a	-	-	-	7.86	7.86
Area A – Excavation (n = 13)	Min	-	4.88	2.54	2.28	2.28
	Median	-	5.69	7.41	-	5.57
	Max	-	8.65	7.80	2.37	8.65
Area A – Phase 2 Crusher Stockpile (n = 13)	Min	-	8.61	-	-	8.61
	Median	-	8.78	-	-	8.78
	Max	-	9.00	-	-	9.00

Note:
[a]Includes a sample collected from the LBEX Bluff

2.4.1.2 Right Bank

Right Bank sampling in 2019 focused on RSEM Area R5A (n = 87) and the Approach Channel (n = 92). Samples were also collected from the RCC area (n = 7), the Right Bank Dam Core (n = 5), Area 23 (n = 1), and Area A (n = 26). The Area A samples include bedrock samples from the excavation (n = 13) and overburden samples from the Phase 2 Crusher stockpile (n = 13).

RSEM Area R5A was sampled in Q2 through Q4 2019 (Figure 2-8). Overall, material placement in RSEM Area R5A has minimized the exposures of AG material at the surface through both placement of overburden and fresh PAG rock. The majority of samples collected in 2019 were neutral/alkaline (67% overall); however, approximately 20 to 25% of samples collected in each round of sampling were AG. In Q2, weathered AG material remained exposed in two areas along the slope at the western edge of RSEM Area R5A and a third area along a berm on the eastern edge above RSEM R5A Pond B. In Q3, AG samples were collected from near the central portion and from near the southern end of RSEM Area R5A. Sampling in Q4 confirmed that one of the areas along the slope at the western edge identified in Q2 remains exposed and is AG. Three additional AG samples were collected in Q4. Two of these samples were from relatively minor stockpiles near the northern edge of RSEM Area R5A and the third was from a natural slope that contained a mixture of soil and weathered shale. Coverage of the moderate priority (rinse pH 5.5 to 7.0) to high priority (rinse pH < 5.5) areas with fresh bedrock and/or overburden should continue in order to minimize the surface exposure of AG material.

The Approach Channel was sampled in Q1 through Q4 (Figure 2-9). The purpose of the Q1 round of sampling was to determine if the amount of excavation that took place in Q4 2018 on the Approach Channel benches was sufficient to expose less weathered bedrock. Unweathered PAG bedrock has previously had a higher rinse pH (> 7.0), with runoff from this material having acceptable water quality. The majority (67.5%) of the samples collected in the Q1 sampling event were AG and further excavation would be required to expose unweathered material. Following this sampling excursion, it was decided that rather than conducting further excavations to remove the weathered surface material, the runoff from the Approach Channel would be collected in a pond constructed at the base of the northwestern side of this area. The water from this pond would then be treated at the MWTF. In Q2 and Q3, the majority of samples from the Approach Channel were AG (64%) and only 3 of 39 samples collected in these two sampling events had rinse pH > 7. In Q4, 11 of 13 samples (85%) were AG and no samples had rinse pH > 7. Significant excavation of the Approach Channel is expected in 2020, which will expose fresh bedrock surface.

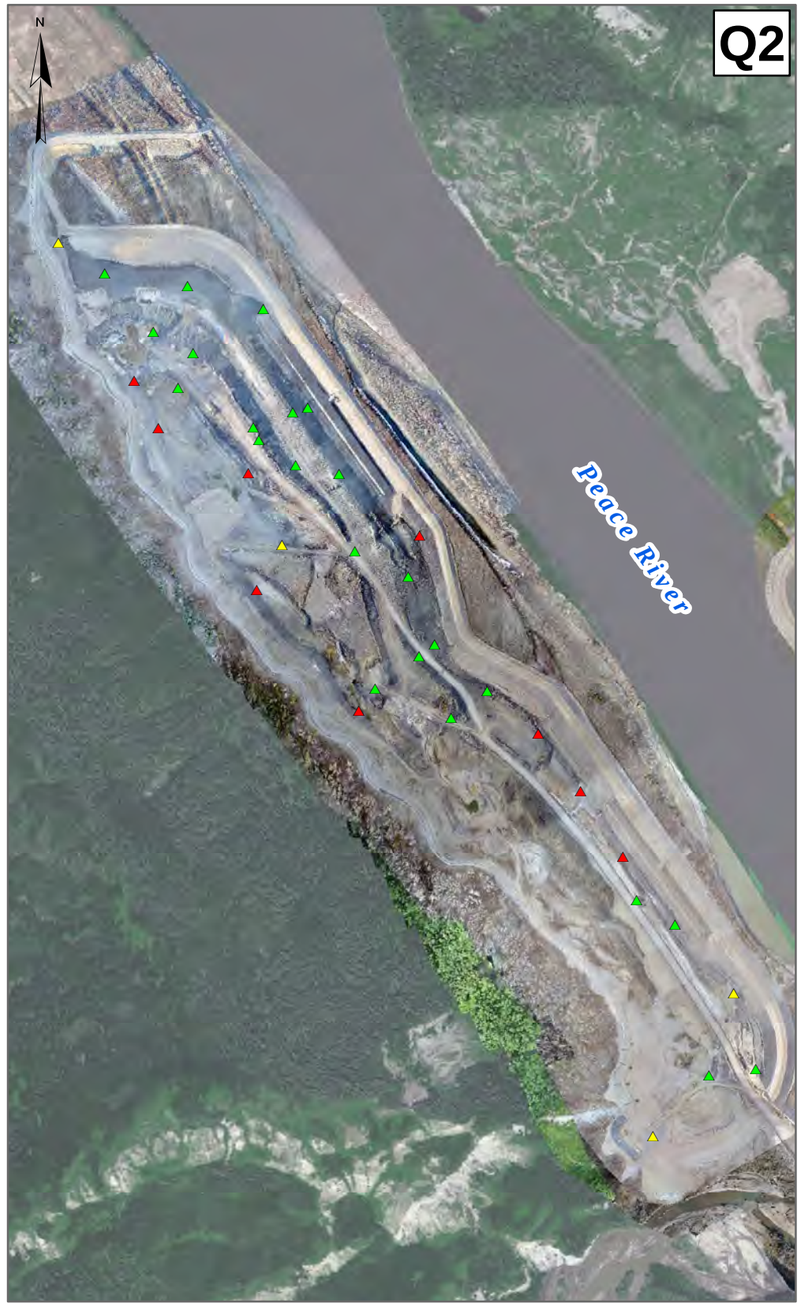
Limited sampling was conducted in the RCC Excavation area in Q2 through Q4 2019 (n = 7). The majority of samples had rinse pH values between 5.5 and 7. The Q3 samples were collected by BC Hydro personnel and analyzed in triplicate. Two of the three rinse pH measurements for one of the samples were less than 5.5; however, the average of the three values was above 5.5. Continued monitoring of any exposed PAG slopes with the RCC Excavation is recommended until the slopes are covered with shotcrete.

The Right Bank Dam Core excavation area was sampled for the first time in Q4 2019. Samples were collected from the base and sides of the excavation, and from minor stockpiles within the area (n = 5). All samples were neutral to alkaline with rinse pH values ranging from 7.9 to 9.0 (Figure 2-9).

A dark grey clay unit was sampled in Area 23 during the October 2019 site visit. The sample from this area had a rinse pH of 7.9 and a low total S (0.08%) and high NP (145 kg $CaCO_3$/t. This non-bedrock sample is NPAG.

In Area A, both exposed bedrock and the overburden stockpile were sampled in 2019. Weathered bedrock has been exposed at the base of the excavation in Area A. Areas of exposed shale are relatively minor overall and generally restricted to the areas near the sampled locations. Samples were collected in Area A in Q2 through Q4 2019. In Q2, three of the eight samples collected from Area A were AG and an additional four samples had rinse pH values between 5.5 and 7.0. Only one sample, which was mixed overburden and weathered shale, had rinse pH > 7. The three samples collected in Q3 included mixed overburden and shale (pH 7.80), fresh shale (pH 7.41), and weathered shale (pH 2.54). Weathered shale was sampled from two locations in Q4 and both samples were AG.

The Phase 2 Crusher stockpile in Area A was sampled in April 2019 to determine if there was any ARD/ML potential associated with processing this material. Minor shale (<5%) was encountered at two locations, which were both sampled. In total, 13 samples of overburden material were collected from or directly below the stockpile. All samples collected as part of this study had rinse pH > 7 (range: 8.6 to 9.0).



LEGEND

Rinse pH

- ▲ <5.5
- △ 5.5-7
- ▲ >7

Notes:
1. *Imagery for Q2 taken May 1st, 2019*
2. *Imagery for Q3 taken September 21, 2019*
3. *Imgary for Q4 taken October 17th, 2019*
4. *No samples were collected for rinse pH testing in Q1 2019*

Note: Site C aerial imagery collected between May 2019-Oct 2019.

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LORAX ENVIRONMENTAL

PROJECT: **Site C Clean Energy Project**
ARD/ML 2019 Annual Report

TITLE: RSEM Area R5A 2019
Rinse pH Sampling Results

PROJECT #: A416-1 *FIGURE:* 2-7

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LEGEND

Rinse pH

- <5.5
- 5.5-7
- >7
- Phase 2 Crusher Stockpile Sample (rinse pH>7)
- Site C Boundary

Note: Site C aerial imagery collected between May 2019-Oct 2019.

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
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LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project ARD/ML 2019 Annual Report

TITLE:

Approach Channel, RCC Excavation and Area A 2019 Rinse pH Sampling Results

PROJECT #:	*FIGURE:*
A416-1	2-8

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2.4.2 Solid-Phase Geochemistry

This section presents the solid-phase geochemical results for the samples submitted for ABA and solid phase metals testing in 2019. Complete monitoring results are presented in Appendix 2-B. Total sulphur AP and modified NP are used to calculate NPR for the majority of samples. All samples with NPR values <2 are classified as PAG, and samples with a rinse pH or paste pH <5.5 are classified as AG (Section 2.2.1). Metal enrichment is determined by comparing metal concentrations to average upper continental crustal abundance (ACA) as per Rudnick and Gao (2014) (Table 2-8).

Table 2-8:
Average upper continental crust abundance used to evaluate metal enrichment

Element	units	Average Continental Abundance
Ag	ppb	53
Al	%	8.15
As	ppm	4.8
Ba	ppm	628
Bi	ppm	0.16
Ca	%	2.57
Cd	ppm	0.09
Co	ppm	17.3
Cr	ppm	92
Cu	ppm	28
Fe	%	3.92
Hg	ppm	0.05
K	%	2.32
La	ppm	31
Mg	%	1.50
Mn	ppm	774
Mo	ppm	1.1
Na	%	2.43
Ni	ppm	47
P	%	0.065
Pb	ppm	17
Sb	ppm	0.4
Se	ppm	0.09
Sr	ppm	320
Th	ppm	10.5
U	ppm	2.7
Zn	ppm	67

2.4.2.1 Left Bank

Forty of the 122 samples collected on the Left Bank in 2019 were submitted for further geochemical analysis, including samples from RSEM Area L5 (n = 4), RSEM Area L5 Extension (n = 4), RSEM Area L6 (n = 23), the Central Cofferdam and Dam Core (n = 4), and the 85th Avenue Conveyor Corridor (n = 5). The rinse and paste pH measurements generally show good agreement for the Left Bank samples (Table 2-9). This indicates that there is no additional stored acidity or buffering capacity within the particles. One of the samples from RSEM Area L6 had a slightly lower paste pH relative to rinse pH (8.40 vs. 9.96). This indicates that there is some stored acidity within the particles that is released when pulverized for the paste pH analysis. Both rinse and paste pH values are circumneutral to alkaline for the majority of samples. Only one sample collected from RSEM Area L6 in January 2019 had acidic pH values (paste pH = 4.5; rinse pH = 3.9).

The total S for 2019 Left Bank samples ranges from 0.51% (RSEM Area L6; Central Cofferdam) to 2.1% (RSEM Area L5 Extension), excluding the conveyor samples (Table 2-9). The 85th Avenue Conveyor samples had lower total S (0.14 to 0.28%). The sulphur balance is made up of variable proportions of sulphate S and sulphide S. Sulphide S is typically an acid generating form of sulphur, whereas sulphate S may be in either acid generating or non-acid generating forms. The total S for the 2019 Left Bank samples is present dominantly as sulphide S (Figure 2-10). The AG sample collected from RSEM Area L6 had an elevated sulphate value (0.72%), which is likely due to the sample being more weathered. The sulphur for the 85th Avenue Conveyor samples is dominantly sulphate S (0.11 to 0.23%). Sulphide S is less than 0.1% in all conveyor samples.

Due to the presence of an acidic sulphate salt precipitate in some samples previously collected at site, the total S is typically used to calculate the acid potential (AP). A more detailed characterization of samples from the W3 area of the 85th Avenue Conveyor Corridor was conducted and included sulphur speciation and petrographic descriptions (Lorax, 2019). This analysis concluded that the sulphate S present in these samples did not contribute to the AP and that an AP calculated based on the sulphide S was more appropriate for samples from this area.

Modified NP was <30 kg $CaCO_3$/t in all samples, except for two of the samples from the 85th Avenue Conveyor Corridor. The conveyor samples had variable modified NP with three samples having low modified NP (≤6.5 kg $CaCO_3$/t) and two samples having high modified NP (≥99.5 kg $CaCO_3$/t). Excluding the conveyor samples, all other Left Bank samples submitted for ABA had NPR < 2 and were designated as AG (one sample) or PAG (Figure 2-11). The conveyor samples are NPAG (NPR > 2) when sulphide S is used to calculate the NPR.

Table 2-9:
Summary of 2019 Left Bank ABA Results

Area	Date Sampled	Material Type	Paste pH	Rinse pH	Total S	Sulphate S	Sulphide S[a]	TAP	SAP	Modified NP	NPR[b]
					wt%	wt%	wt%	kg $CaCO_3$/t	kg $CaCO_3$/t	kg $CaCO_3$/t	n/a
RSEM Area L5 (n = 4)	18-Apr-19	Weathered shale	9.67	10.1	0.91	0.010	0.90	28.4	28.1	24.3	0.85
	01-Aug-19	Fresh shale	9.21	9.57	0.52	0.010	0.51	16.3	15.9	9.7	0.60
	22-Oct-19	Fresh shale	8.35	8.38	0.62	0.050	0.57	19.4	17.8	19.0	0.98
	22-Oct-19	Weathered shale	8.74	9.12	0.70	0.020	0.68	21.9	21.3	15.0	0.69
RSEM Area L5 Extension (n = 4)	18-Apr-19	Fresh shale	9.22	9.30	2.1	0.020	2.03	64.1	63.4	12.3	0.19
	18-Apr-19	Fresh shale	9.12	9.16	2.1	0.020	2.10	66.3	65.6	9.0	0.14
	01-Aug-19	Weathered shale	9.41	9.09	0.56	0.020	0.54	17.5	16.9	23.0	1.31
	22-Oct-19	Fresh shale	9.28	9.51	0.65	0.020	0.63	20.3	19.7	11.8	0.58
RSEM Area L6 (n = 23)	Min	Includes both fresh and weathered shale	4.52	3.93	0.51	0.010	0.50	15.9	8.13	-5.5	-0.14
	Median		9.62	9.96	0.87	0.010	0.81	27.2	22.2	14.0	0.61
	Max		10.1	10.3	1.3	0.72	1.28	40.0	40.0	27.9	1.22
Central Cofferdam (n = 4)	31-Jul-19	Weathered shale	6.95	6.37	0.87	0.030	0.84	27.2	26.3	7.0	0.26
	31-Jul-19	Weathered shale	8.12	8.04	0.63	0.030	0.60	19.7	18.8	14.0	0.71
	31-Jul-19	Weathered shale	8.08	8.07	0.51	0.010	0.50	15.9	15.6	12.8	0.80
	23-Oct-19	Fresh shale	7.99	7.59	0.98	0.040	0.94	30.6	29.4	17.5	0.57
85th Ave Conveyor (n = 5)[c, d]	Min	Overburden; Claystone to siltstone	7.03	7.08	0.14	0.11	0.03	4.38	<0.60	5.0	2.60
	Median		7.15	7.65	0.22	0.15	0.06	6.88	0.94	6.5	3.20
	Max		8.07	8.28	0.28	0.23	0.08	8.75	2.50	110	106

Notes:
SAP - Sulphide Acid Potential; TAP - Total S Acid Potential; NPR - Net Potential Ratio
[a]Sulphide S determined by difference [Sulphide Sulphur = (Total Sulphur)-(Sulphate Sulphur)]
[b]NPR is calculated as Modified NP / TAP, except for the 85th Ave Conveyor samples
[c]Rinse pH was done at 1:2 solids to liquid ratio for one of the samples collected in April 2019. When done at 1:1 solids to liquid ratio, sample absorbed all water and no supernatant was formed
[d]NPR is calculated using the non-sulphate sulphur acid potential
Grey shading indicates an NPR < 2.0

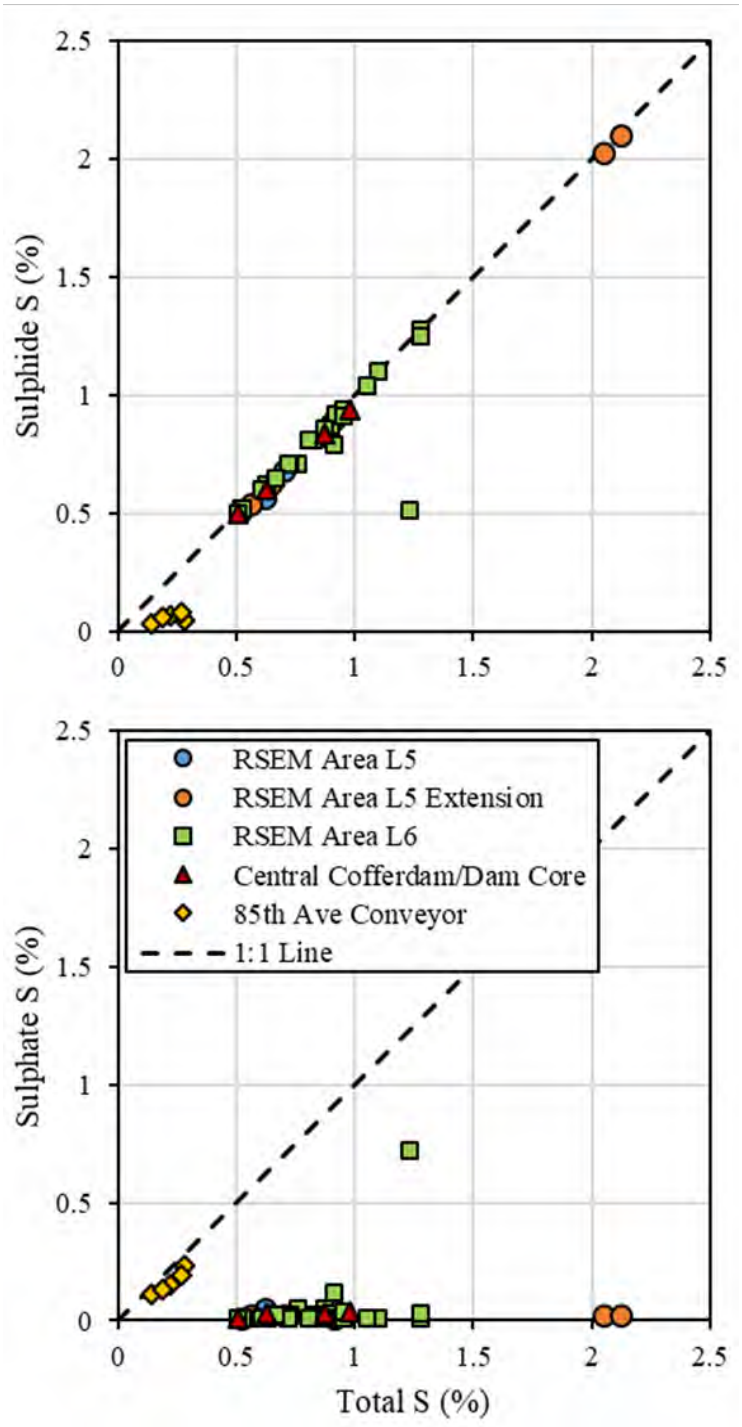

Figure 2-10: Sulphur species *versus* Total Sulphur for 2019 Left Bank samples
Note: Sulphide S is calculated as total S minus sulphate S.

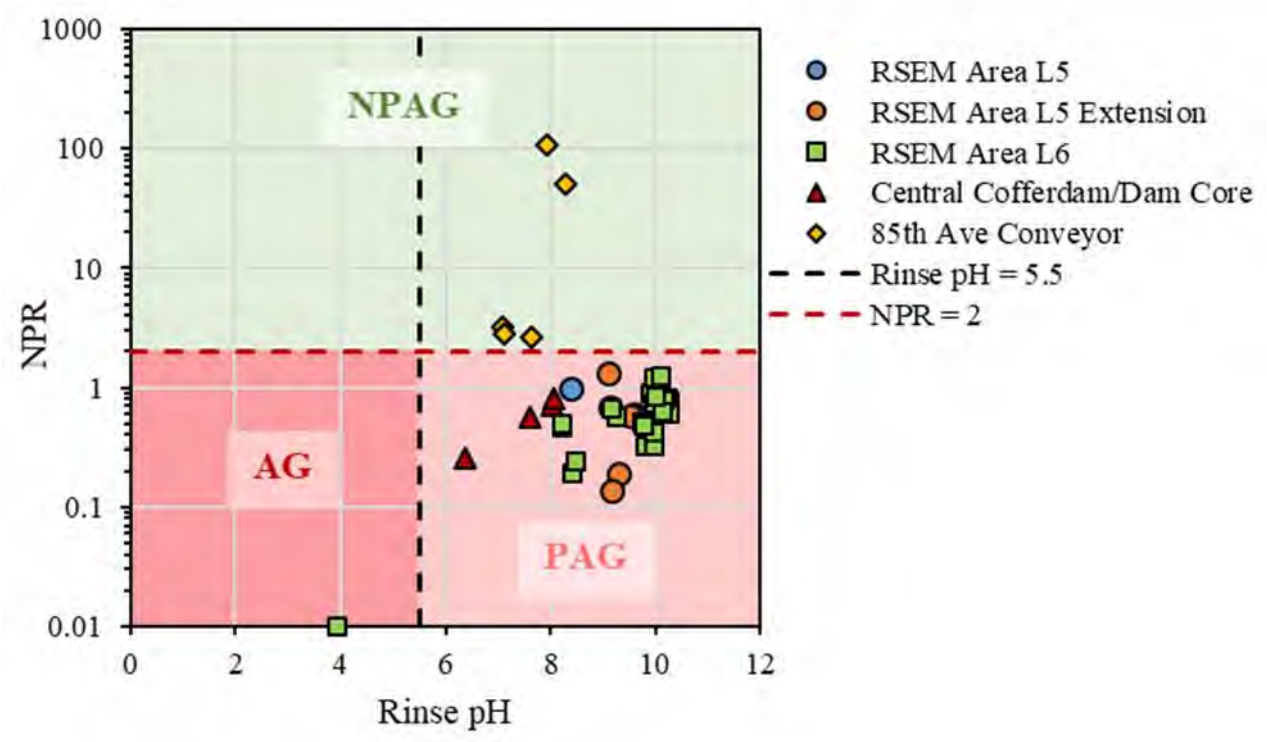

Figure 2-11: NPR *versus* Rinse pH for 2019 Left Bank samples
Note: NPAG: NPR > 2; PAG: NPR ≤ 2; AG: NPR ≤ 2 and rinse pH < 5.5.

Metals and metalloids generally exceeding 3x the ACA give an indication of metal enrichment, and include Ag, As, Au, Bi, Cd, Hg, Mn, Mo, Pb, and Se (Table 2-10). Elements above 3x the ACA in at least 25% of the samples collected in 2019 on the Left Bank include Ag, As, Bi, Cd, and Se. Of these elements, Se contents were often greater than 10x the ACA (18 of 40 samples), while Ag and Cd were greater than 10x the ACA in three samples each. Elements that were rarely above 3x the ACA included Au, Hg, and Pb, which were only above 3x the ACA in one sample each. A similar set of elements were elevated in both the shale samples and the overburden samples collected along the 85th Avenue Conveyor corridor.

There are several factors that influence the leaching rates of elements, including the mineral association and stability, as well as the chemistry of the water in contact with the rocks, ambient temperature, and exposed surface area of the reactive material. Metal enrichment does not necessarily result in metal leaching. Water quality monitoring will continue to screen for these parameters and assess the relationship between solid-phase content of a species and its concentration in drainage.

Table 2-10:
Summary of 2019 Left Bank Solid Phase Metals Results

Element	Units	RSEM Area L5 (n = 4)		RSEM Area L5 Extension (n = 4)		RSEM Area L6 (n = 23)		Central Cofferdam (n = 4)		85th Ave Conveyor (n = 5)	
		Median	Max	Median	Max	Median	Max	Median	Max	Median	Max
Ag	ppb	347	401	443	540	335	639	239.5	376	288	315
Al	%	0.915	0.990	0.865	0.940	0.910	1.12	0.860	1.04	1.88	2.14
As	ppm	12.4	15.8	18.7	27.8	11.9	19.2	10.8	12.1	11.3	15.3
Au	ppb	0.30	1.7	0.80	2.1	0.30	1.8	0.40	7.3	2.2	2.9
B	ppm	<20	<20	<20	<20	<20	20	<20	<20	<20	<20
Ba	ppm	350	404	240	491	426	582	217.5	447	403	555
Bi	ppm	0.245	0.910	0.765	1.49	0.430	0.880	0.200	0.230	0.340	0.650
Ca	%	0.825	0.990	0.520	0.950	0.660	1.18	0.650	0.820	0.560	3.78
Cd	ppm	0.285	0.330	0.610	0.930	0.270	0.800	0.245	0.260	0.600	1.66
Co	ppm	9.40	10.1	9.55	10.3	9.20	12.1	8.85	10.0	11.6	12.8
Cr	ppm	24.6	32.7	22.1	32.0	19.6	25.4	22.2	36.7	35.9	41.8
Cu	ppm	30.9	32.2	34.4	39.0	30.0	33.7	23.1	30.2	33.4	47.1
Fe	%	2.70	3.92	2.20	2.26	1.95	4.27	1.95	2.08	2.76	3.09
Ga	ppm	2.55	2.70	2.30	2.80	2.30	2.80	2.25	3.00	5.90	6.10
Hg	ppb	82.5	99.0	95.0	128	88.0	158	74.0	95.0	76.0	93.0
K	%	0.240	0.280	0.245	0.260	0.250	0.300	0.230	0.270	0.350	0.410
La	ppm	4.85	5.40	4.30	5.30	4.60	5.60	4.25	5.10	16.7	18.4
Mg	%	0.390	0.620	0.255	0.390	0.290	0.530	0.320	0.330	0.710	1.00
Mn	ppm	158	263	86.5	248	124	290	104.5	145	204	538
Mo	ppm	0.835	1.13	3.26	5.93	0.770	1.71	0.610	0.790	1.07	2.60
Na	%	0.190	0.261	0.191	0.244	0.235	0.297	0.059	0.090	0.050	0.060
Ni	ppm	27.5	27.7	30.4	39.7	26.4	33.4	24.25	24.7	43.1	44.8
P	%	0.093	0.114	0.0735	0.092	0.093	0.146	0.085	0.111	0.077	0.106
Pb	ppm	18.8	22.5	21.45	23	16.6	113	12.4	26.1	23.2	31.3
S	%	0.675	0.92	1.38	2.13	0.76	1.3	0.715	1.02	0.18	0.29
Sb	ppm	0.385	0.400	0.425	0.660	0.260	0.650	0.200	0.810	0.120	0.780
Sc	ppm	4.75	5.00	4.10	4.40	4.30	4.80	3.70	4.20	6.60	8.10
Se	ppm	0.85	1.00	1.40	2.10	1.00	1.40	0.45	1.00	0.80	1.90
Sr	ppm	62.0	76.2	61.7	66.6	69.2	114	54.1	56.3	82.9	125
Th	ppm	7.10	7.80	6.45	7.10	6.50	8.50	7.20	7.90	9.30	10.9
Ti	%	<0.001	0.0020	<0.001	0.0050	0.0020	0.0020	0.0020	0.0030	0.0030	0.0060
Tl	ppm	0.060	0.130	0.175	0.280	0.100	0.340	0.090	0.110	0.190	0.370
U	ppm	1.35	1.50	1.35	1.60	1.30	1.60	1.35	1.50	2.30	2.50
V	ppm	24.5	27.0	26.5	28.0	24.0	30.0	23.5	28.0	57.0	64.0
W	ppm	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Zn	ppm	125	136	137	181	123	191	103	123	132	169

Notes:
Values shaded in light grey exceed 3x the ACA (Average upper continental crustal abundance; Rudnick and Gao, 2014)
Values shaded in dark grey exceed 10x the ACA

2.4.2.2 Right Bank

Twenty-nine of the 219 samples collected on the Right Bank in 2019 were submitted for further geochemical analyses. This included samples from RSEM Area R5A (n = 7), the Approach Channel (n = 8), the RCC area (n = 4), the Right Bank Dam Core excavation (n = 2), Area 23 (n = 1), and Area A (n = 7). The Area A samples include two shale samples from the excavation and five overburden samples from the Phase 2 Crusher stockpile. A summary of the geochemical results for the Right Bank samples that were submitted for the additional analyses are included in Table 2-11.

The paste pH values range from 2.5 to 9.9 and are generally comparable to the corresponding rinse pH values. The paste pH of three of the RCC area samples and one of the Area A samples were greater than one pH unit higher than the rinse pH values for these samples. This indicates that there may be some stored neutralization capacity within the particle clasts that is released during pulverization.

The total S content of the bedrock samples collected from shale exposures and stockpiles ranged from 0.25% (Right Bank Dam Core) to 2.0% (Approach Channel) (median: 1.1%). Sulphide is the dominant form of sulphur for the majority of these samples and ranges from 0.23 to 2.0% (Figure 2-12). Only three samples from the Approach Channel had a higher proportion of sulphate S relative to sulphide S. The sulphate S is likely related to the presence of an acidic sulphate precipitate. The overburden samples from Area 23 and from the Area A stockpile had lower total S (<0.35%). These samples all have low sulphate S (≤0.020%) and the sulphur balance is dominated by sulphide S (0.030 to 0.32%).

The modified NP was low (<20 kg $CaCO_3$/t) in the bedrock samples while the overburden samples had higher modified NP (Area 23 – 145 kg $CaCO_3$/t; Area A > 80 kg $CaCO_3$/t). The NPR is calculated as the ratio of modified NP to AP. For all Right Bank samples, the AP is calculated using the total S content. To understand the relationship between PAG and currently acidic (AG) material, rinse pH values are plotted against NPR (Figure 2-12). This plot illustrates that the overburden samples from Area 23 and Area A are NPAG and all bedrock samples are AG or PAG. The four AG samples were all collected from the Approach Channel.

Table 2-11:
Summary of 2019 Right Bank ABA Results

Sample ID	Date Sampled	Material Type	Paste pH	Rinse pH	Total S	Sulphate S	Sulphide S[a]	TAP	SAP	Modified NP	NPR[b]
Units					**wt%**	**wt%**	**wt%**	**kg $CaCO_3$/t**	**kg $CaCO_3$/t**	**kg $CaCO_3$/t**	**n/a**
RSEM Area R5A (n = 7)	Min	Includes both fresh & weathered shale	7.93	7.07	0.47	<0.01	0.47	14.7	14.7	7.7	0.16
	Median		9.02	9.40	0.73	0.020	0.71	22.8	22.2	12.5	0.54
	Max		9.88	10.35	1.50	0.040	1.46	46.9	45.6	18.4	0.85
Approach Channel (n = 8)	Min	Includes both fresh & weathered shale	2.45	2.43	0.92	0.020	0.26	28.8	8.13	-20.1	-0.32
	Median		5.46	5.05	1.40	0.10	1.02	43.6	31.9	0.15	-0.01
	Max		9.02	8.62	2.02	1.13	1.98	63.1	61.9	9.5	0.20
RCC Excavation (n = 4)	17-Apr-19	Weathered shale	6.53	5.56	0.84	0.050	0.79	26.3	24.7	5.3	0.20
	17-Apr-19	Weathered shale	8.53	6.96	0.94	0.040	0.90	29.4	28.1	7.0	0.24
	21-Oct-19	Fresh shale	7.26	5.90	1.08	0.060	1.02	33.8	31.9	5.7	0.17
	21-Oct-19	Fresh shale	7.47	6.05	1.40	0.060	1.34	43.8	41.9	6.2	0.14
Right Bank Dam Core (n = 2)	21-Oct-19	Fresh shale	8.95	9.34	0.25	0.020	0.23	7.81	7.19	11.0	1.4
	21-Oct-19		9.06	9.64	0.31	0.010	0.30	9.69	9.38	9.3	0.96
Area 23	22-Oct-19	Clay	8.07	7.86	0.08	0.010	0.07	2.50	2.19	145	58
Area A – Excavation (n = 2)	03-Apr-19	Weathered shale	6.32	5.80	1.83	0.080	1.75	57.2	54.7	6.5	0.11
	03-Apr-19		6.87	5.57	0.55	0.060	0.49	17.2	15.3	5.7	0.33
Area A - Crushed fines stockpile (n = 5)	Min	Overburden	7.87	8.61	0.04	0.010	0.030	1.25	0.94	81	7.6
	Median		8.17	8.75	0.09	0.010	0.080	2.81	2.50	101	36
	Max		8.54	8.78	0.34	0.020	0.32	10.6	10.0	105	84

Notes:
[a]Sulphide S calculated by difference (Total S – Sulphate S)
[b]NPR is calculated as Mod. NP / TAP
Modified NP – Modified Neutralization Potential, NPR – Net Potential Ratio
Grey shading indicates an NPR < 2.0

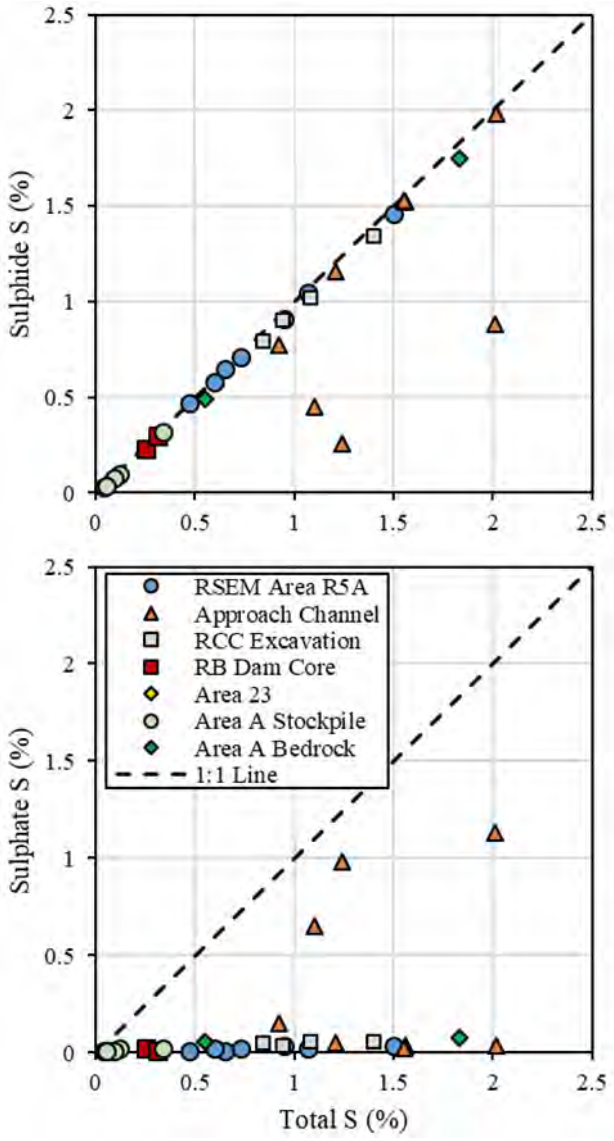

Figure 2-12: Sulphur species *versus* Total Sulphur for 2019 Right Bank samples
Note: Sulphide S is calculated as total S minus sulphate S.

With respect to metals and metalloids, Ag, As, Au, Bi, Cd, Cu, Hg, Mn, Mo, Pb, Sb, Se, and Zn are above 3x the ACA in at least one of the Right Bank samples (Table 2-12). Several of these elements are also above 10x the ACA in at least one of the samples, including Ag, As, Au, Bi, Cd, Cu, Hg, Pb, Sb, and Se; however, only Ag, Cd, and Se are above 10x the ACA in more than 25% of the samples. As stated in the discussion on the Left Bank samples, metal leaching is dependent on a number of factors and metal enrichment does not necessarily imply the potential for metal leaching. The majority of elements that are above 3x the ACA have higher values in the bedrock samples in comparison to the overburden samples. When comparing the median values for all overburden and bedrock samples, the only element with a median greater than five times higher in the overburden samples is Mn (median 462 ppm vs. 81 ppm).

Table 2-12:
Summary of 2019 Right Bank Solid Phase Metals Results

Element	Units	RSEM Area R5A (n = 7)		Approach Channel (n = 8)		RCC Excavation (n = 4)		Right Bank Dam Core (n = 2)		Area 23 (n = 1)	Area A - Excavation (n = 2)		Area A - Stockpile (n = 5)	
		Median	Max	Median	Max	Median	Max						Median	Max
Ag	ppb	662	8350	524	888	545	655	524	394	492	494	471	157	365
Al	%	0.830	1.18	0.815	0.850	0.885	0.950	0.690	0.670	1.86	0.960	0.970	0.650	0.810
As	ppm	14.9	877	16.1	44.1	18.3	27.5	9.50	7.10	6.90	14.8	15.4	8.10	12.7
Au	ppb	2.4	60	1.0	2.9	0.45	1.5	<0.2	0.40	<0.2	0.30	1.2	1.4	6.2
B	ppm	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
Ba	ppm	331	569	232	302	211	328	355	350	316	195	924	249	685
Bi	ppm	0.350	102	0.345	4.58	0.795	2.83	0.150	0.160	0.220	0.320	0.290	0.090	0.590
Ca	%	0.510	0.730	0.390	0.490	0.340	0.430	0.410	0.390	5.06	0.500	0.510	3.44	3.68
Cd	ppm	0.290	0.790	0.735	2.15	0.355	0.730	0.490	0.260	1.18	0.870	1.01	0.700	2.08
Co	ppm	10.2	11.2	9.40	11.4	9.00	10.9	7.90	7.50	14.7	8.60	7.40	5.20	6.30
Cr	ppm	18.8	23.8	15.9	20.6	23.0	34.3	46.3	38.8	42.5	16.5	20.9	57.2	84.0
Cu	ppm	31.9	366	40.6	54.2	35.1	38.0	21.5	21.1	44.2	35.7	30.6	26.5	115
Fe	%	1.73	3.09	2.105	2.78	1.79	1.95	2.96	1.54	3.36	2.29	2.36	2.39	2.81
Ga	ppm	2.60	3.20	2.20	2.30	2.40	2.80	2.00	2.10	5.00	2.60	2.60	1.90	2.40
Hg	ppb	94.0	3180	111	212	112	185	47.0	58.0	57.0	112	92.0	51.0	113
K	%	0.240	0.250	0.245	0.270	0.245	0.290	0.190	0.190	0.280	0.270	0.260	0.070	0.080
La	ppm	4.40	5.20	4.10	5.10	4.15	4.70	4.00	4.10	15.0	4.50	8.50	5.10	6.40
Mg	%	0.270	0.390	0.265	0.340	0.245	0.250	0.380	0.200	1.50	0.300	0.270	0.640	0.790
Mn	ppm	98.0	269	70.0	101	56.0	158	178	109	568	84.0	169	423	519
Mo	ppm	0.930	1.46	4.47	4.81	1.20	3.39	0.510	0.590	1.35	4.57	3.44	1.62	1.89
Na	%	0.204	0.314	0.097	0.256	0.194	0.267	0.147	0.152	0.021	0.011	0.010	0.015	0.030
Ni	ppm	26.8	29.7	33.5	53.9	30.4	42.5	18.7	20.1	42.6	32.6	22.5	15.3	18.6
P	%	0.076	0.095	0.068	0.101	0.084	0.093	0.087	0.092	0.082	0.084	0.071	0.080	0.111
Pb	ppm	49.0	499	19.5	34.8	24.0	25.8	42.0	23.4	27.1	16.1	53.2	26.6	126
S	%	0.770	1.51	1.42	2.05	1.08	1.46	0.240	0.310	0.090	1.74	0.500	0.070	0.310
Sb	ppm	1.35	32.1	0.240	1.28	0.515	0.980	0.960	0.560	1.02	0.180	0.350	0.890	2.58
Sc	ppm	4.00	4.80	4.25	5.30	4.25	4.90	3.90	4.10	5.90	4.70	4.50	2.60	3.00
Se	ppm	0.90	1.70	1.60	3.40	1.25	1.50	0.50	0.50	0.50	2.20	2.10	0.20	1.80
Sr	ppm	59.1	74.9	56.8	76.8	51.4	59.8	41.2	44.5	120	31.2	43.4	75.6	88.0
Th	ppm	6.60	9.70	7.35	9.00	6.30	6.60	5.30	5.20	7.20	6.50	5.90	2.00	2.70
Ti	%	0.0010	0.0020	<0.001	0.0010	<0.001	0.0010	<0.001	<0.001	0.023	<0.001	0.0010	0.030	0.042
Tl	ppm	0.110	0.270	0.205	0.390	0.115	0.180	0.030	0.030	0.170	0.240	0.270	0.170	0.470
U	ppm	1.10	1.40	1.25	1.90	1.25	1.40	1.20	1.20	1.20	1.30	1.10	0.600	0.700
V	ppm	22.0	24.0	22.5	24.0	23.0	28.0	23.0	20.0	52.0	28.0	30.0	29.0	34.0
W	ppm	<0.1	0.50	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.05	<0.05	<0.1	<0.1
Zn	ppm	118	205	142	269	136	152	127	98.8	145	145	169	103	559

Notes:
Values shaded in light grey exceed 3x the ACA (Average upper continental crustal abundance; Rudnick and Gao, 2014)
Values shaded in dark grey exceed 10x the ACA

One Q2 sample (R5A-2019-APR-17-04) had Au, Bi, Cu, Hg, Pb, and Sb contents above 10x the ACA. In past rounds of sampling, Au, Bi, Cu, Hg, Pb, and Sb, have not typically been elevated above 3x the ACA. No Right Bank samples collected in Q3 and Q4 2019 had Au, Bi, Cu, or Hg above 3x the ACA, indicating that the high values were anomalous in the RSEM Area R5A sample from Q2. One sample collected in RSEM Area R5A in Q4 had Pb and Sb above 3x the ACA; however, the values were considerably lower than in the Q2 sample and there is no indication that the recent excavations are consistently elevated in these elements.

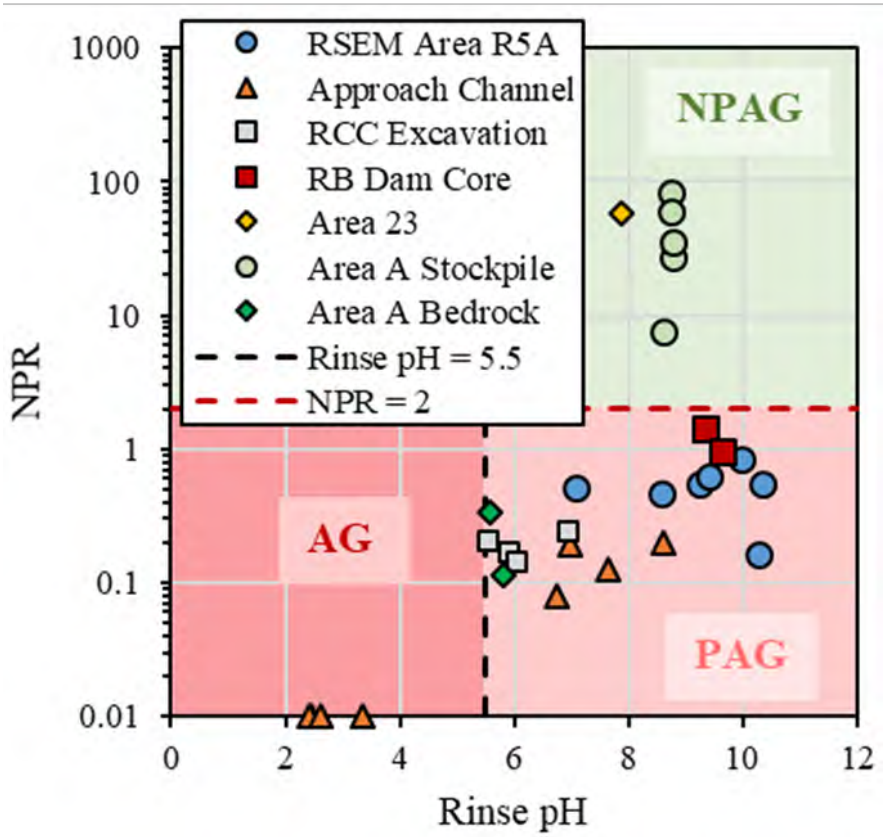

Figure 2-13: NPR *versus* Rinse pH for 2019 Right Bank samples
Note: NPAG: NPR > 2; PAG: NPR ≤ 2; AG: NPR ≤ 2 and rinse pH < 5.5.

2.4.3 Shake Flask Extractions

Shake flask extractions (SFE) were completed on the 13 samples collected from or directly below the Phase 2 Crusher stockpile in Area A (Lorax, 2019c). Metal contents measured in SFE tests provide a measure of the mass of readily soluble metals which will be immediately available for leaching upon exposure to infiltrating water. The procedure consists of agitating a representative sample in water, typically at a water to solids ratio

of 3:1, for 24 hours. The leachate chemistry can be used as a cursory tool in determining the potential leachate chemistry of water in contact with disturbed rock or sediment.

The leachate from the SFE tests was slightly basic (8.58 to 9.07; Table 2-13). The maximum pH falls outside the range specified in the BC freshwater aquatic life water quality guidelines (WQG; BC MOE, 2018). In general, the concentrations of the metals in the SFE leachate remain low and below the BC WQG. The only metals exceeding the BC WQG are Al (all samples) and Sb (one sample). The sample with elevated Sb in the leachate (AREA-A-2019-APR-03) also had the highest solid phase Sb. However, overall, the leachate Sb concentrations and the solid phase Sb contents do not show a strong correlation. These tests indicate that material from the Phase 2 Crusher stockpile is not expected to release elevated concentrations of dissolved metals to the wash waters. As long as there are low concentrations of dissolved metals in the water used to wash the fine material, and no contaminants are introduced from other sources, wash water should not pose significant environmental risk as long as the water is retained in a sediment pond for an adequate period of time to settle suspended solids.

Table 2-13:
Shake Flask Extraction Results

Parameter	Units	BC WQG[a]		AREA-A-2019-APR3-01	AREA-A-2019-APR3-03	AREA-A-2019-APR3-07	AREA-A-2019-APR3-09	AREA-A-2019-APR3-13
		Short-term	Long-term					
pH	pH	6.5-9.0	-	8.87	8.58	9.07	8.87	8.97
Conductivity	µS/cm	-	-	75.7	158.3	63.6	87.3	70.0
SO_4[b]	mg/L	-	309	6.0	41.8	2.6	10.3	3.2
Total Alkalinity	mg/L	-	-	27	24	25	24	24
Chloride	mg/L	600	150	1.4	4.0	0.6	2.2	<0.5
Hardness $CaCO_3$	mg/L	-	-	31.5	67.8	23.9	35.2	26.5
Dissolved Metals								
Aluminum (Al)	mg/L	0.10	0.050	0.23	0.071	0.20	0.14	0.23
Antimony (Sb)	mg/L	-	0.0090	0.000690	0.0169	0.000446	0.00658	0.000321
Arsenic (As)	mg/L	0.0050	-	0.00122	0.00142	0.000780	0.00124	0.00120
Barium (Ba)	mg/L	-	1.0	0.0861	0.181	0.0849	0.268	0.0600
Beryllium (Be)	mg/L	-	0.00013	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Boron (B)	mg/L	-	1.2	<0.050	<0.050	<0.050	<0.050	<0.050
Cadmium (Cd)[b]	mg/L	0.00071	0.00024	0.0000100	0.000233	0.0000150	0.0000400	<0.0000050
Calcium (Ca)	mg/L	-	-	10.2	22.4	7.74	11.3	8.77
Chromium (Cr)	mg/L	-	0.0010	0.00029	<0.00010	0.00024	0.00016	0.00025
Cobalt (Co)	mg/L	0.11	0.0040	0.000112	0.000527	0.000131	0.0000950	0.0000600
Copper (Cu)b	mg/L	0.013	0.0048	0.00119	0.00100	0.000412	0.000423	0.000899
Iron (Fe)	mg/L	0.35	-	0.101	0.0216	0.0764	0.0404	0.0840
Lead (Pb)[b]	mg/L	0.10	0.0073	0.000294	0.00716	0.000158	0.00174	0.000183
Lithium (Li)	mg/L	-	-	0.00141	0.00180	0.00170	0.00214	0.00102
Magnesium (Mg)	mg/L	-	-	1.47	2.86	1.12	1.70	1.11
Manganese (Mn)[b]	mg/L	1.9	1.1	0.00374	0.00588	0.00147	0.00204	0.00193
Mercury (Hg)	mg/L	-	0.00002	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Molybdenum (Mo)	mg/L	2.0	1.0	0.00220	0.00599	0.00281	0.00540	0.00164
Nickel (Ni)[b]	mg/L	-	0.11	0.000579	0.00205	0.000781	0.000388	0.000443
Potassium (K)	mg/L	-	-	1.36	1.39	1.34	1.58	1.24
Selenium (Se)	mg/L	-	0.0020	0.000794	0.00116	0.000277	0.000706	0.000263
Silicon (Si)	mg/L	-	-	1.53	1.27	1.26	1.36	1.47
Silver (Ag)[b]	mg/L	0.0030	0.0015	0.0000140	0.0000150	0.0000060	0.0000100	0.0000050
Sodium (Na)	mg/L	-	-	0.779	0.853	0.489	0.593	0.490
Strontium (Sr)	mg/L	-	-	0.0239	0.0471	0.0207	0.0313	0.0182
Thallium (Tl)	mg/L	-	0.00080	0.0000080	0.000168	0.0000160	0.0000570	0.0000120
Thorium (Th)	mg/L	-	-	0.0000060	<0.0000050	0.0000130	0.0000080	0.0000150
Titanium (Ti)	mg/L	-	-	0.00393	0.00181	0.00269	0.00147	0.00452
Tungsten (W)	mg/L	-	-	0.000042	0.000084	0.000030	0.000053	0.000034
Uranium (U)	mg/L	-	0.0085	0.000144	0.000182	0.0000980	0.000188	0.000104
Vanadium (V)	mg/L	-	-	0.00116	0.00027	0.00089	0.00050	0.00105
Zinc (Zn)[b]	mg/L	0.056	0.030	0.00154	0.00411	0.00101	0.00168	0.00068

Notes:
[a]BC WQG – British Columbia Water Quality Guidelines for the Protection of Aquatic Life
These guidelines apply to total metals, except for D-Al, D-Cd and D-Fe.
[b]Hardness dependent guidelines are based on a hardness of 120 mg/L

3. Surface Water Quality Monitoring

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3. Surface Water Quality Monitoring

3.1 Purpose and Objectives

The purpose of the surface water quality monitoring program is to meet PRHP's water quality monitoring requirements for PAG-contact water, which are stated in the BC Hydro and PRHP ARD/ML Management Plans. The specific objectives of the program are:

- To verify water quality predictions;
- To assess water quality within the construction site, including RSEM ponds and upgradient areas that affect them;
- To guide water management and verify the effectiveness of sediment pond operation; and
- To analyze water quality in PAG-containing RSEM sediment ponds that discharge to the Peace River, so as to assess compliance with end-of-pipe discharge limits.

3.2 Monitoring Program and Results

Monitoring and compliance requirements are set out in Sections 7.2, 7.3 and 7.4.2 of the BC Hydro ARD/ML Management Plan. This report addresses the surface water quality monitoring and reporting requirements noted in Section 7.2.2 (RSEM end of pipe water quality), 7.3.2 (PAG containing RSEM material and contact water monitoring) and 7.4.2 (Exceedance Response Plan).

Other requirements are addressed separately. These include requirements related to toxicity (Sections 7.2.1 and 7.3.1 of the BC Hydro ARD/ML Management Plan), Peace River water quality downstream of each RSEM (7.2.3), groundwater below PAG contact RSEMs (7.2.5 and 7.3.3), and Peace River water quality monitoring (7.3.4). These requirements are addressed in other documents.

The aspects of the monitoring program that are addressed in this report are:

- Hourly collection of *in situ* measurements of pH, turbidity and electrical conductivity in each PAG-contact sediment pond;
- Current turbidity and TSS relationships for PAG containing RSEM ponds;

- Daily monitoring of water quality in each PAG containing RSEM (when there is sufficient water in the pond and/or when not frozen); and
- Continuous monitoring of discharge flow from each RSEM sediment pond discharge pipe.

The network of monitoring stations has been adapted as site conditions change. Some stations that were established early in the construction phase are no longer in use. Some new stations have been added. The network of monitoring stations where samples were obtained in 2019 Q3 is discussed in Section 3.2.1 (Left Bank) and Section 3.2.2 (Right Bank).

Analytical measurements are described by station. Measurements included general water chemistry and total and dissolved metals. All analyses were completed by BV at their laboratories in Burnaby, B.C., and Calgary, AB, which are accredited by the Canadian Association for Laboratory Accreditation (CALA) for parameters listed on the Scope of Testing for each facility.

Water quality at stations within the construction site upgradient of RSEM sediment ponds are compared to RSEM end of pipe limits by PRHP to inform water management. Water that accumulates at these stations is not discharged directly to the Peace River. It is conveyed to RSEM sediment ponds, where it mixes with water from other sources, or is trucked to the MWTF if deemed appropriate. Consequently, water quality at these stations that exceeds RSEM end of pipe limits does not indicate non-compliance with RSEM end of pipe limits. It indicates only that water management is required. The RSEM end of pipe discharge limits were derived to protect aquatic life. The stations within the construction site are in water storage or conveyance systems that are generally inaccessible to aquatic life and do not provide habitat. RSEM sediment pond discharge is assessed independently.

Results from PAG-containing RSEM sediment ponds have been compared against the end of pipe (EOP) discharge limits specified in BC Hydro's ARD/ML Management Plan (in the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23), except the RSEM Area R5A ponds which were compared to British Columbia Water Quality Guidelines. The end of pipe limits are reproduced as Table 3-1 for reference.

Table 3-1:
End-of-Pipe (EOP) Discharge Limits for PAG-containing RSEM Sediment Ponds

Parameter	Units	End-of-Pipe Discharge Limit
TSS	mg/L	BC Water Quality Guidelines[1]
pH	pH units	6.0 – 9.0
Cadmium	mg/L	0.00029
Cobalt		0.55
Copper		0.011
Zinc		0.033

1. Approved British Columbia Water Quality Guidelines for the Protection of Aquatic Life (2018)

Available data from other construction areas are compared against the applicable limits shown in the CEMP Rev. 4, Section 4.14 (Surface Water Quality Management), Table 3 (page 62). The information from this table is reproduced below in Table 3-2 for reference.

Table 3-2:
Limits for Construction Areas
Not Specified in Environmental Requirements

Parameter	Maximum Allowable
Suspended solids	• Change from background[1] of 25 mg/L at any one time for a duration of 24 hours in all waters during clear flows or in clear waters • Change from background[1] of 5 mg/L at any one time for a duration of 30 days in all waters during clear flows or in clear waters • Change from background[1] of 10 mg/L at any time when background is 25-100 mg/L during high flows or in turbid waters • Change from background[1] of 10% when background is >100 mg/L at any time during high flows or in turbid waters
Turbidity	• Change from background[1] of 8 NTU at any one time for a duration of 24 hours in all waters during clear flows or in clear waters • Change from background[1] of 2 NTU at any one time for a duration of 30 days in all waters during clear flows or in clear waters • Change from background[1] of 5 NTU at any time when background is 8-50 NTU during high flows or in turbid waters • Change from background[1] of 10% when background is >50 NTU at any time during high flows or in turbid waters
Streambed Substrate Composition	• % fines not to exceed: 10% < 2 mm, 19% <3 mm, 28% < 6.35 mm at salmonid spawning sites • Geometric mean diameter not less than 12 mm (minimum 30-day intra-gravel dissolved oxygen of 6 mg/L) • Fredle number not less than 5 mm (minimum 30-day intra-gravel dissolved oxygen of 8 mg/L)
pH	• 6.5 – 9.0
Oil and Grease	• The surface water should be virtually free of petroleum, animal or vegetable oils

1. Background is the measured concentration for specified parameters in the Peace River

Any analytical results from samples of non-construction contact surface water are compared against approved B.C. water quality guidelines (BC WQGs) for the protection of aquatic life (BC MOE 2018), in accordance with Section 5.2.1.7 of BC Hydro's ARD/ML Management Plan. Water quality guideline values that are calculated as a function of pH, temperature, and/or hardness were derived using the most conservative values per station for the week in which the laboratory results were obtained (minimum pH, hardness and maximum temperature).

Water quality results for the 2019 ARD program are provided in:

- Appendix 3-A –2019 *In situ* Water Quality data (*i.e.*, continuous data obtained from fixed probes);
- Appendix 3-B –2019 Water Quality Analytical Results (tabulated); (including results for RSEM pond discharges);
- Appendix 3-C –2019 Water Quality Field Data; and
- Appendix 3-D –2019 Water Quality Field Blank Data.

The results of the 2019 ARD program are summarized below for the Left Bank (Section 3.2.1) and the Right Bank (Section 3.2.2), followed by an overview of the program Quality Assurance/Quality Control (QA/QC) monitoring results in Section 3.2.3.

3.2.1 Left Bank

Water quality monitoring on the Left Bank was conducted at EOP and upstream locations within the RSEM Area L5, RSEM Area L6, Left Bank cofferdams, LBEX-SP, Area 25 and RSEM Area L3 catchments. The 2019 monitoring stations are listed in Table 3-3 and Table 3-4, and an overview of water quality and management in each catchment area for the Left Bank are presented in the sections below. The monitoring stations are shown in Figure 3-1. Sampling within the catchment areas (Table 3-3 and Table 3-4) was conducted as follows:

- Left Bank Excavation and RSEM Area L5 – analytical samples were obtained from sumps in the LBEX upper benches, and from the RSEM Area L5 East and West sediment control ponds from within the ponds or EOP when the ponds were discharging. Upstream and downstream samples were also collected from Garbage Creek which is directed through culverts and ditches to bypass construction in RSEM Area L5;
- Left Bank cofferdams – analytical samples were collected from sumps and baker tanks that are used collect and manage water within the cofferdams. Residual non-construction surface contact water within the central cofferdam (LBCD) was sampled EOP when discharging to Peace River;

- LBEX-SP – analytical samples were obtained from the LBEX-SP sediment control pond and historic Adit 4;
- RSEM Area L6 – sampling was conducted within the pond or EOP when the pond was discharging; and,
- Area 25 / RSEM Area L3 – analytical samples were obtained from the Area 25 sediment control pond, from within the pond or EOP when the ponds were discharging, and from L3 stream at stations upstream of the Area 25 sediment pond. Several samples of a groundwater seep flowing into L3 stream were also collected.

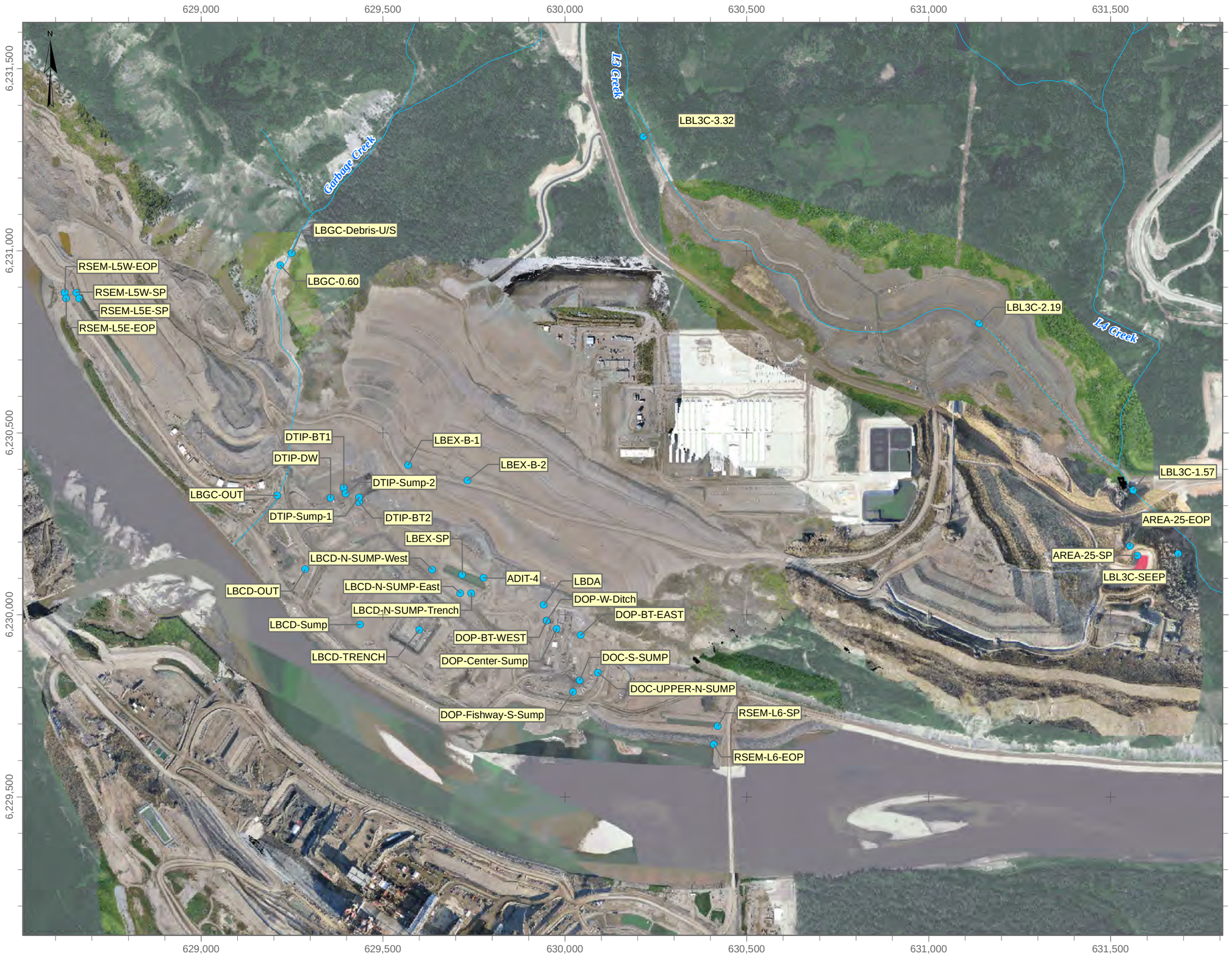
Table 3-3:
Water Quality Monitoring Stations (Left Bank) –2019

Station ID	Easting	Northing	Description
LEFT BANK EXCAVATION AND RSEM AREA L5			
RSEM AREA L5 SUBCATCHMENT - LBEX			
LBEX-B-2	629733	6230369	LBEX Bench 2 Sump
LBEX-B-1	629569	6230412	LBEX Bench 1 Sump
RSEM AREA L5 SUBCATCHMENT – RSEM AREA L5 DEPOSITION AREA			
RSEM-L5-EP-SP/EOP	628625	6230886	RSEM L5 East Sediment Pond / EOP
RSEM-L5-WP-SP/EOP	628657	6230886	RSEM L5 West Sediment Pond / EOP
RSEM AREA L5 SUBCATCHMENT – GARBAGE CREEK DIVERSION			
LBGC-Debris-U/S	629249	6230994	Garbage Creek 30 m upstream of diversion inlet sump
LBGC-0.60	629218	6230960	Garbage Creek at diversion inlet sump
LBGC-OUT	629209	6230328	Garbage Creek diversion culvert outlet
LEFT BANK COFFERDAMS			
DIVERSION INLET COFFERDAM			
DTIP-BT1	629392	6230350	Green tank at DTIP work area (drilling water)
DTIP-BT2	629435	6230309	Baker tank along the east side of DTIP
DTIP-Sump-1	629435	6230323	Sump that collects runoff from tunnel 1
DTIP-Sump-2	629397	6230333	Sump that collects runoff from tunnel 2
DTIP-DW	629356	6230321	Dewatering well (groundwater infiltrating tunnels)
NATURAL PAG BLUFF BETWEEN DTIP AND DTOP			
ADIT-4	629777	6230102	Base of slope where historic Adit 4 water discharged
LBEX-SP	629758	6230062	Historic LBEX sediment pond below natural PAG bluff
CENTRAL COFFERDAM			
LBDA	629942	6230027	Left Bank Drainage Adit
LBCD-TRENCH	629600	6229959	Left Bank Central Cofferdam Trench
LBCD-N-SUMP-East	629712	6230060	Upper Core Trench East groundwater collection sump
LBCD-N-SUMP-Trench	629743	6230060	Upper Core Trench Central groundwater collection sump
LBCD-N-SUMP-West	629635	6230125	Upper Core Trench West groundwater collection sump
LBCD-Sump	629437	6229973	Left Bank Central Cofferdam water collection sump
LBCD-Out	629209	6230324	Left Bank Central Cofferdam water collection sump outlet
DIVERSION OUTLET COFFERDAM			
DOC-UPPER-N-SUMP	630091	6229842	Non-contact water upper Diversion Outlet Cofferdam area
DOP-W-DITCH	629950	6229984	Sump located at the DOP-BT-WEST location prior to placement of a baker tank.
DOC-S-SUMP	630041	6229821	Original sump in southern part of area behind DOC
DOP-Fishway-S-Sump	630022	6229789	Sump at southern edge of the DOC at the planned fishway
DOP-BT-EAST	630043	6229944	Baker tank used to hold outlet tunnel contact water
DOP-BT-WEST	629950	6229984	Baker tank used to hold outlet tunnel contact water
DOP-Center-Sump	629977	6229961	Contact water on floor of DOP excavation
RSEM AREA L6			
RSEM-L6-SP/EOP	630371	6229699	RSEM L6 Sediment Pond
Area 25 and L3 Creek			
LBL3C-3.32	630216	6231314	L3 Creek head pond
LBL3C-2.19	631139	6230801	Closure channel at crest of chute
LBL3C-1.57	631562	6230343	Box culvert inlet under Gully Road
AREA-25-SP	631574	6230163	Area 25 sediment pond
AREA-25-EOP	631553	6230189	Area 25 sediment pond discharge at end of pipe
LBL3C-SEEP (AREA-25-GW-SEEP)	631686	6230168	Groundwater seep on the L3 Creek valley well, downstream of the Area 25 pond discharge

Table 3-4:
Summary of Water Quality Monitoring (Left Bank) – 2019

Station ID*	*In situ* Monitoring? (Y / N)**	Lab Analyses (No.)	Monitoring Frequency† (D / W / M)
LEFT BANK EXCAVATION AND RSEM AREA L5			
RSEM L5 SUBCATCHMENT – LEFT BANK EXCAVATION			
LBEX-B-2	N	2	P
LBEX-B-1	N	24	W
RSEM L5 SUBCATCHMENT – RSEM AREA L5 DEPOSITION AREA			
RSEM-L5-EP-SP/EOP	I	6 / 245	D / P
RSEM-L5-WP-SP/EOP	Y	42 / 14	D / P
RSEM L5 SUBCATCHMENT – GARBAGE CREEK			
LBGC-Debris-U/S	N	9	M
LBGC-0.60	N	28	W
LBGC-OUT	N	50	W
LEFT BANK DIVERSION COFFERDAMS			
DIVERSION INLET COFFERDAM			
DTIP-BT1	N	6	P
DTIP-BT2	N	6	P
DTIP-Sump-1	N	1	P
DTIP-Sump-2	N	2	P
DTIP-DW	N	26	W (until Sep)
NATURAL PAG BLUFF BETWEEN DTIP AND DTOP			
ADIT-4	N	1	P
LBEX-SP	N	21	W (until July)
CENTRAL COFFERDAM			
LBDA	N	1	P
LBCD-TRENCH	N	1	P
LBCD-N-SUMP-East	N	3	P
LBCD-N-SUMP-Trench	N	1	P
LBCD-N-SUMP-West	N	1	P
LBCD-Sump	N	34	W (beginning May)
LBCD-Out	N	6	P
DIVERSION OUTLET COFFERDAM			
DOC-UPPER-N-SUMP	N	28	W (until October)
DOP-BT-EAST	N	20	W / M
DOP-BT-WEST	N	15	W / M
DOP-W-DITCH	N	1	P
DOC-S-SUMP	N	29	W / M
DOP-Fishway-S-Sump	N	2	P
RSEM AREA L6			
RSEM-L6-SP/EOP	Y	145 / 1	D (to end of July, periodic thereafter)
Area 25 and L3 Creek			
LBL3C-3.32	N	6	M
LBL3C-2.19	N	6	M
LBL3C-1.57	N	6	M
AREA-25-SP/EOP	N	6 / 5	M
LBL3C-SEEP (AREA-25-GW-SEEP)	N	2	P

*SP = in-pond sample; EOP = end-of-pipe sample
** Y = Yes; N = No; I = Intermittent deployment, as conditions
†Intended monitoring frequency when flow or water level is adequate to obtain uncontaminated surface water sample; (D = Daily (when discharging, otherwise periodic), W = Weekly (when there is sufficient water), M = Monthly (when there is sufficient water), P = Periodic (as needed).



LEGEND

- Monitoring Location

Note: Site C aerial imagery collected between May 2019-Oct 2019.

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

1:10,000

0 200 400
Meters

DATE SAVED:	Feb 18, 2020
DRAWN BY:	AL
REVIEWED:	NM
VERSION:	1

CLIENT:

PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2019 Annual Report

TITLE:

Left Bank Water Quality Sampling Locations

PROJECT #: A416-1 *FIGURE:* 3-1

P:\@Drafting\SiteC\Drafting Figures\MXD\2019_AnnualReport\2019_Annual_LB_WQ.mxd

3.2.1.1 LBEX Sumps

The LBEX sumps are developed along the LBEX benches to collect surface runoff. During 2019, monitoring records indicate water that collected in higher elevation LBEX bench sumps (*e.g.,* LBEX-B2) was directed to the lower elevation LBEX-B1 sump. Dewatering of LBEX-B1 was directed, as needed, to RSEM Area L5 East sediment control pond (January through November), and the RSEM Area L5 West pond (December). Permanent water management structures to convey LBEX runoff to the RSEM L5 ponds are planned.

The LBEX bench sump water quality was circum-neutral with moderate to elevated sulphate concentrations (Table 3-5). TSS was often elevated above 100 mg/L and higher concentrations of Cd, Cu and Zn in several samples are attributed to elevated TSS (*e.g.*, LBEX-B1, maximum values).

Table 3-5:
LBEX Lower Benches 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		**-**	**6.0-9.0**	**-**	**WQG**	**-**	**0.00029**	**0.55**	**0.011**	**0.033**
LBEX-B-1 (n=24, 139 Field pH)	Min	8.06	7.0	623	8.8	167	<0.00001	0.00022	0.00074	<0.005
	Max	8.42	8.8	2440	610	1140	0.00108	0.0115	0.0458	0.158
	Median	8.23	8.2	1520	77.7	383	0.000065	0.00078	0.00211	<0.01
LBEX-B-2 (n=2, 1 Field pH)	Min	7.83	7.6	1620	92.0	197	0.000133	0.00139	0.00483	0.0141
	Max	7.97		1990	149	452	0.000155	0.00199	0.00741	0.0146
	Median	7.90		1805	121	325	0.000144	0.00169	0.00612	0.0144

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, however the limits are included here for context.
TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.

3.2.1.2 RSEM Area L5 Sediment Control Ponds

The lower RSEM Area L5 East and West sediment control ponds collect surface runoff from within the RSEM Area L5 catchment, as well as water transferred from the RSEM Area L5 East Upper sediment control pond, Central Cofferdam sump and LBEX sumps. The ponds are divided by a berm which isolates the two ponds from each other. The berm was designed to allow the cells to merge in a large (greater than 1 in 10 year 24-hour) storm event. The East and West ponds discharge through separate culverts onto a shared rip rap protected outfall, which descends the bank to the Peace River. Two stations have

been established at the pond, one station within the pond itself (the SP station), and another for sampling discharge from the end-of-pipe (the EOP station).

The lower RSEM Area L5 sediment control ponds were completed in Q4 2018 and began discharging in mid-March 2019 during spring snowmelt. Monitoring records indicate the West pond stopped discharging by mid-April and did not discharge for the remainder of 2019, whereas the East pond discharges continued through late November. From late November through December both RSEM Area L5 ponds were managed to maintain low water levels in order to prevent discharge, and site records indicate there was no end of pipe discharge from either pond.

In early May the West pond was temporarily decommissioned in advance of construction. Shortly thereafter, work commenced to realign the northeastern end of the West pond further east, adjacent to the bank of the Peace River, and to construct a haul road bisecting the West pond. Both halves of the West pond are connected through culverts placed under the haul road. During construction, a portion of the West pond was used as a temporary sump for contact water collection from the work area. Residual waters in the West pond, and the temporary sump, were directed to the East pond during decommissioning and construction. After the completion of construction in October low water levels were maintained in the West pond by dewatering to the East pond, as needed. However, site reports indicate minimal to no water accumulation in the West pond, therefore water transfer ceased at the end of October.

A carbon dioxide sparging system was installed and operated in RSEM L5 East sediment control pond, from mid-September through November, to reduce the pH of East pond discharges. In late November, after field monitoring data indicated possible ARD/ML influence in the East pond, water levels were drawn down to prevent discharge by transferring water to the West pond. Dewatering of the LBEX and Central Cofferdam sumps was subsequently directed to the West pond.

Water quality monitoring of RSEM Area L5 East and West sediment control pond waters, and end of pipe discharges, was conducted from January to late July (West pond), and to early December (East pond). Analytical samples and field measurements reported for RSEM-L5-WP-SP, from mid-May through July, were collected from the West pond temporary sump described previously. Instrumentation for *in situ* measurements of pond water quality was deployed when there was sufficient water. The ponds were instrumented from late March to early May, and late March to early December, for the West and East ponds, respectively.

The 2019 analytical data and field pH measurements for RSEM L5 East and West sediment control ponds are summarized in Table 3-6, and plotted in Figure 3-2 through

Figure 3-11. The monitoring data indicate sediment pond waters were circum-neutral to slightly alkaline with typically moderate sulphate concentrations that elevate to 1,000 mg/L in the east pond. TSS in discharges was well managed, and all parameters were within RSEM EOP discharge limits in most analytical samples. TSS was briefly elevated in the East and West ponds during the onset of freshet in mid-March. In September Environmental Monitors noted an increasing pH trend in the East pond, therefore treatment with carbon dioxide was initiated to lower pH in East pond discharges. The treatment was effective, as indicated by the lower field pH measurements observed mid-September onwards (Figure 3-2).

Discharges from the East pond slightly exceeded RSEM EOP limits for Cd in analytical samples collected August 19th, 21st, 22nd, 23rd, and November 21st to 23rd (Figure 3-4). The Cd exceedances followed heavy surface runoff from rain (August) and snow melt (November), and were accompanied by an increase in other ARD/ML indicator parameters (*i.e.*, sulphate, conductivity, Cd, Mn and Zn), particularly in November. It is speculated the heavy runoff events rinsed soluble ARD oxidation products from exposed PAG surfaces into the waters directed to RSEM L5 East pond.

Table 3-6:
RSEM-L5 East and West pond 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit		**-**	**6.0-9.0**	**-**	**WQG**	**-**	**0.00029**	**0.55**	**0.011**	**0.033**
RSEM-L5-EP-SP (n=6, 12 Field pH)	Min	7.53	7.1	392	1.7	96	0.00005	0.00051	<0.001	0.0092
	Max	7.98	8.5	2440	***114***	1090	***0.000411***	0.0109	0.0024	0.033
	Median	7.90	8.0	1212	11.6	482	0.000198	0.00545	0.0018	0.0239
RSEM-L5-EP-EOP (n=245, 236 Field pH)	Min	6.95	6.9	448	<1	129	<0.00001	<0.0002	<0.0005	<0.005
	Max	8.95	8.8	2200	***142***	1000	***0.000406***	0.0103	0.00729	0.0281
	Median	8.07	8.2	1400	5.6	490	0.00004	0.00066	0.00124	<0.005
RSEM-L5-WP-SP (n=45, 55 Field pH)	Min	7.67	7.0	314	<4	92	<0.00001	<0.0002	0.00069	<0.005
	Max	8.30	***9.6***	1650	***121***	699	***0.000355***	0.0076	0.0082	***0.043***
	Median	7.98	8.3	627	11.2	213	0.000033	0.00023	0.00117	<0.005
RSEM-L5-WP-EOP (n=14, 17 Field pH)	Min	7.77	7.8	415	<4	146	0.000032	<0.0002	0.00069	<0.005
	Max	7.97	8.5	898	***75.2***	339	0.000103	0.00136	0.00452	0.0182
	Median	7.91	8.0	607	7.6	202	0.000038	0.00023	0.0012	<0.005

Notes:
TSS = Total suspended solids
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.
Gold italics indicate exceedance of an RSEM EOP limit.

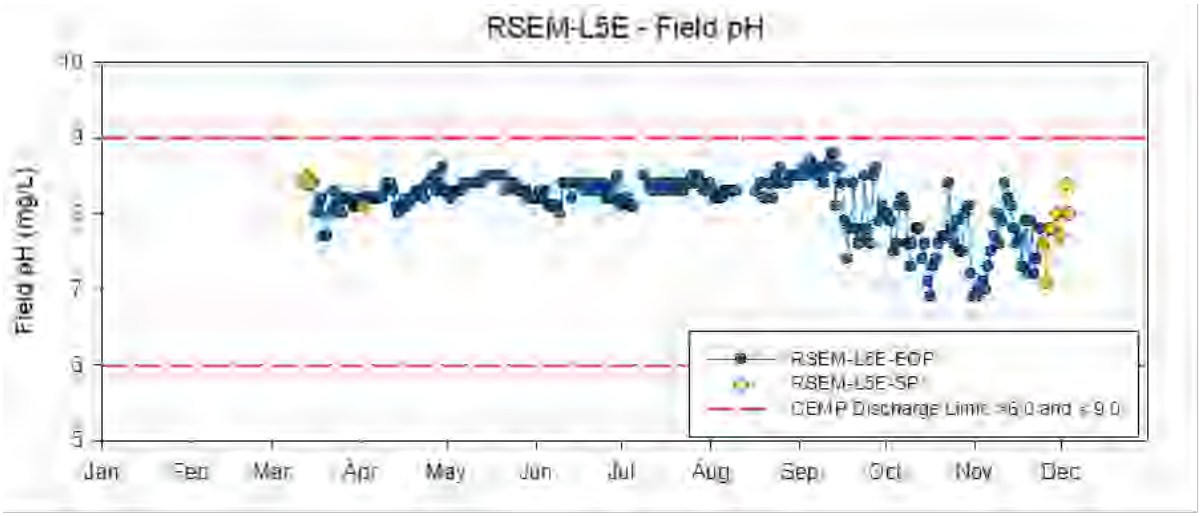


Figure 3-2: Time series profile for field pH in RSEM-L5 East compared to RSEM EOP Limits. EOP – End of Pipe; SP – Sediment Pond.

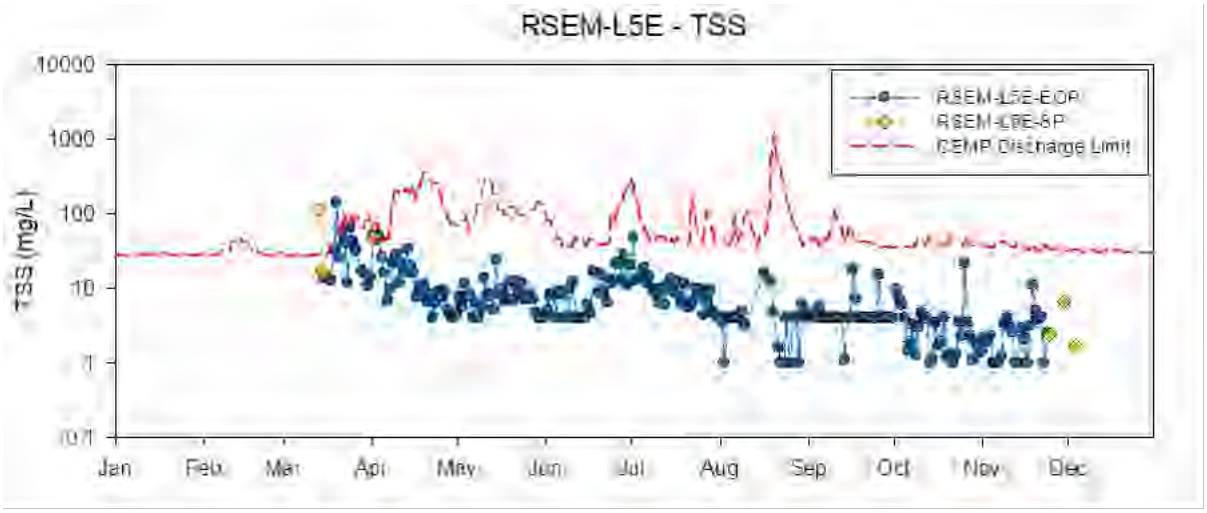


Figure 3-3: Time series profile for total suspended solids (TSS) in RSEM-L5 East compared to RSEM EOP Limits. TSS is plotted on a logrithmic scale. EOP – End of Pipe; SP – Sediment Pond.

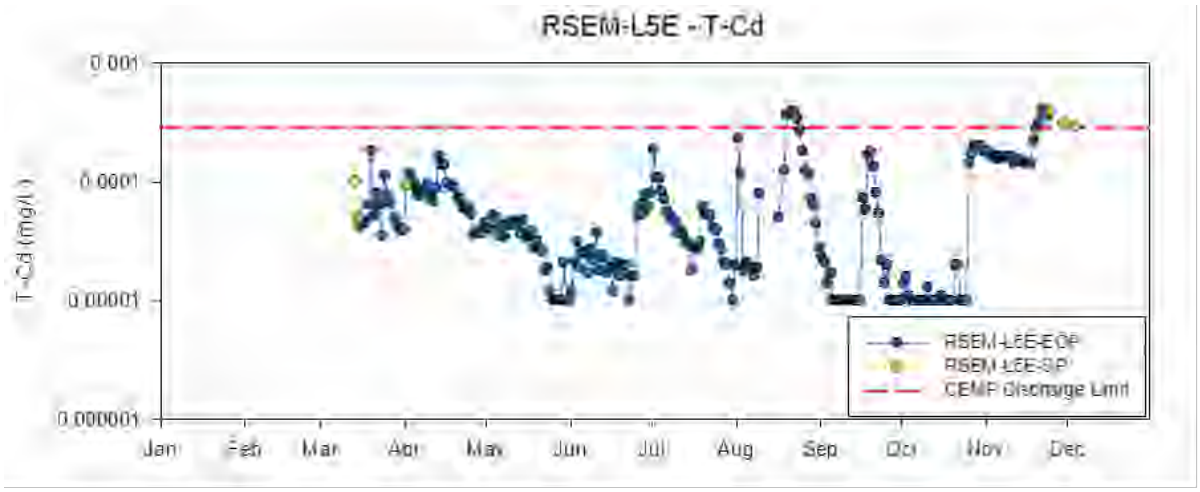


Figure 3-4: Concentrations of cadmium (Cd) for RSEM-L5 East compared to RSEM EOP Limits. T-Cd is plotted on a logrithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

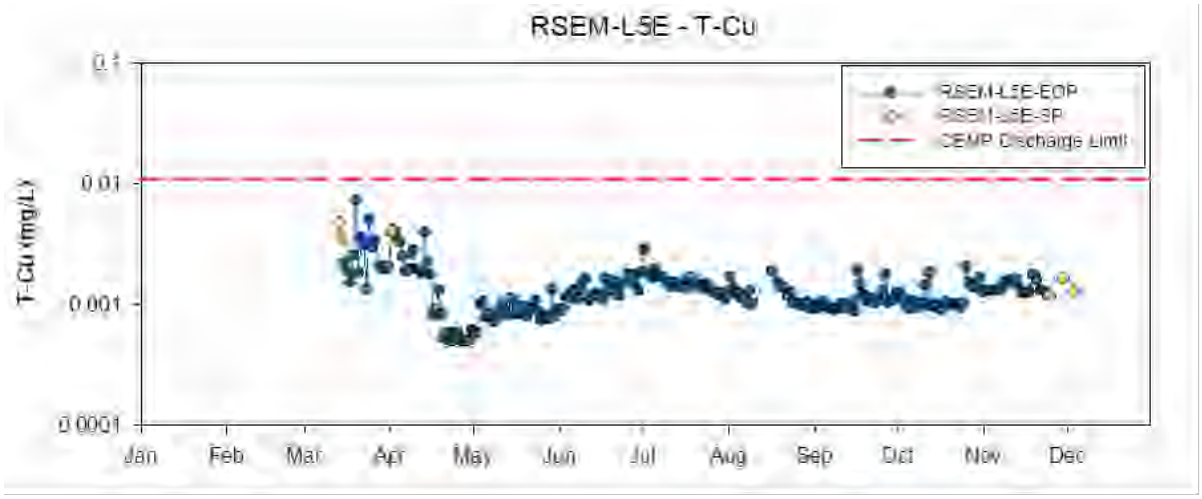


Figure 3-5: Concentrations of copper (Cu) for RSEM-L5 East compared to RSEM EOP Limits. T-Cu is plotted on a logrithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

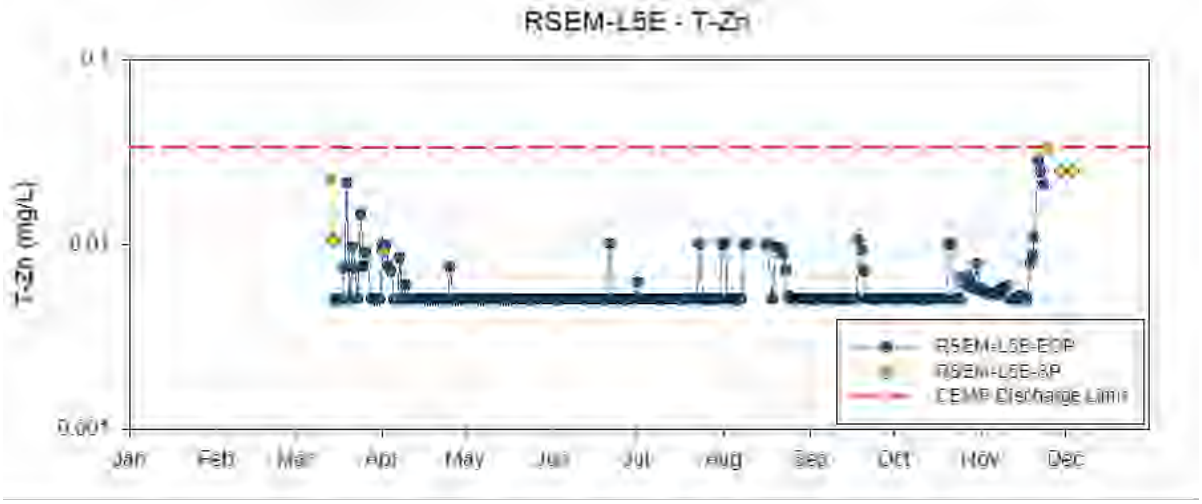


Figure 3-6: Concentrations of zinc (Zn) for RSEM-L5 East compared to RSEM EOP Limits. T-Zn is plotted on a logrithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

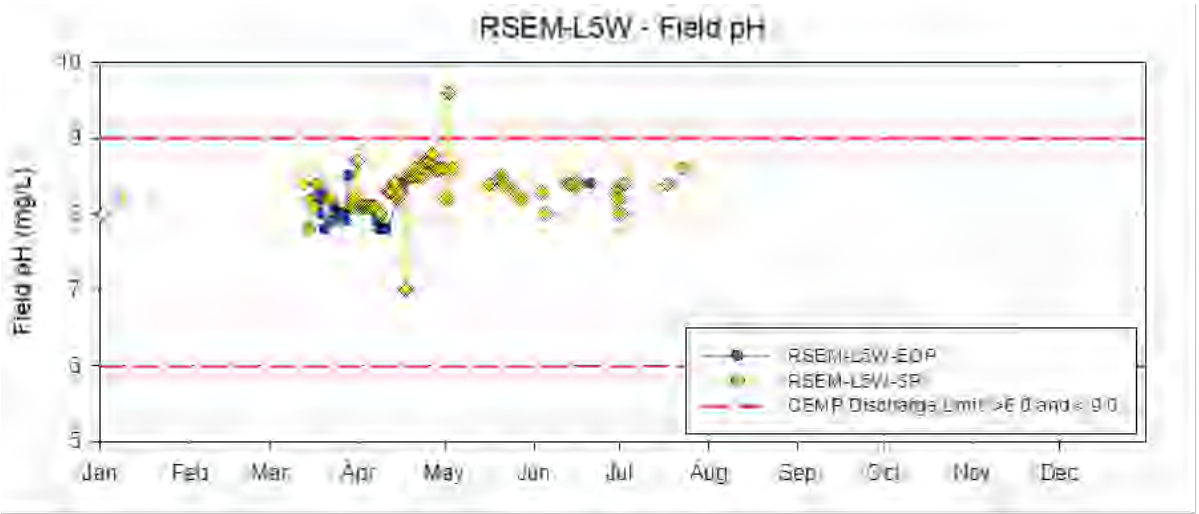


Figure 3-7: Time series profile for field pH in RSEM-L5 West compared to RSEM EOP Limits. EOP – End of Pipe; SP – Sediment Pond.

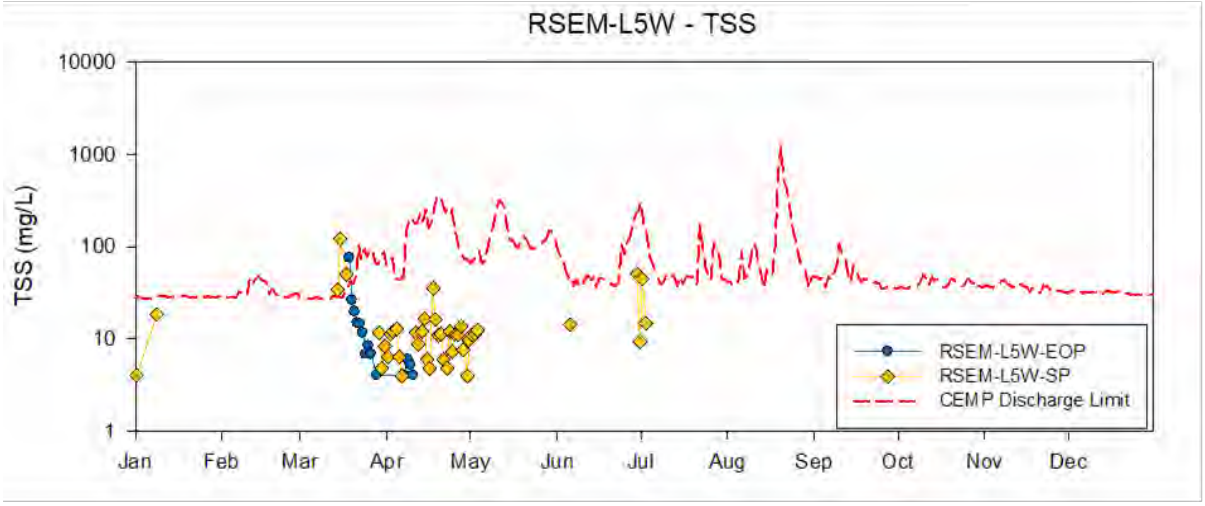


Figure 3-8: Time series profile for total suspended solids (TSS) in RSEM-L5 West compared to RSEM EOP Limits. TSS is plotted on a logrithmic scale. EOP – End of Pipe; SP – Sediment Pond.

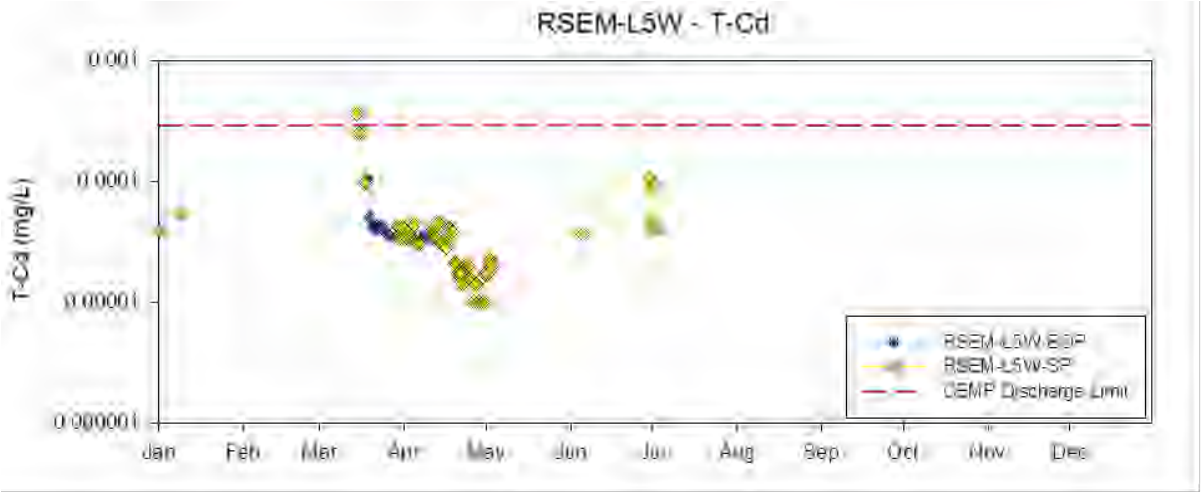


Figure 3-9: Concentrations of cadmium (Cd) for RSEM-L5 West compared to RSEM EOP Limits. T-Cd is plotted on a logrithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

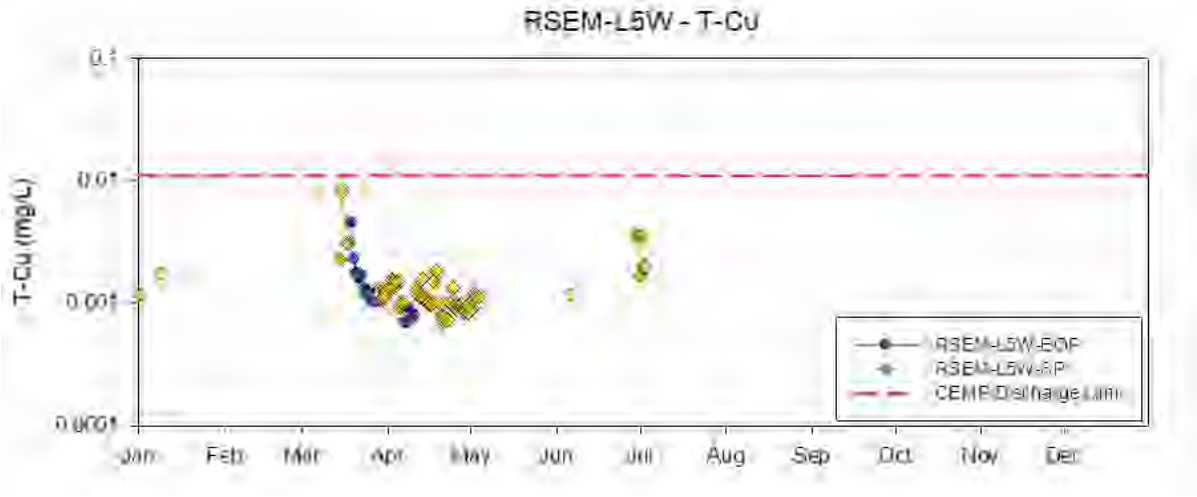


Figure 3-10: Concentrations of copper (Cu) for RSEM-L5 West compared to RSEM EOP Limits. T-Cu is plotted on a logrithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

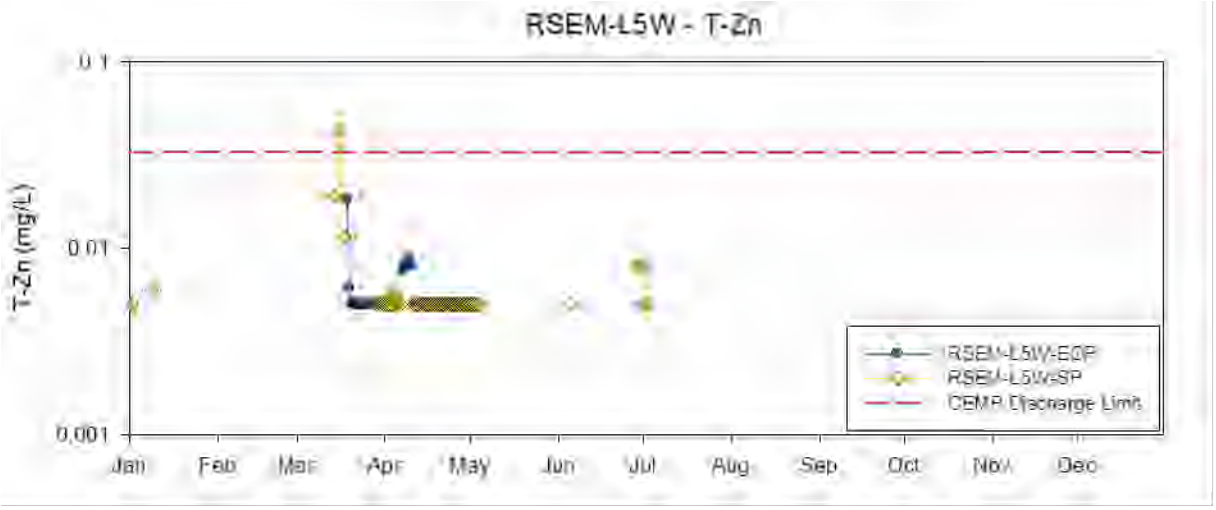


Figure 3-11: Concentrations of zinc (Zn) for RSEM-L5 West compared to RSEM EOP Limits. T-Zn is plotted on a logrithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

3.2.1.3 Garbage Creek Diversion

Garbage Creek diversion runs between RSEM Area L5 and the LBEX area and is isolated from construction activities. The creek water has a natural ARD/ML signature from contact with PAG bedrock as it descends through a small valley to the Peace River, and is conveyed by a pipeline from the inlet culvert upgradient of RSEM Area L5 to the down gradient rip-rap channel that discharges to the Peace River. There was major erosion upstream of the construction site in spring 2018. Since then, the creek is often turbid with

elevated TSS upstream of the Left Bank construction area. From January through September there was intermittent construction at the diversion inlet and discharge channel. During construction, the creek flows were temporarily diverted around the construction areas.

Garbage Creek is non-construction contact surface water. Monitoring records indicate the creek was generally frozen during winter months in 2019. Analytical samples and field measurements were typically collected daily during high flow periods, at upstream and discharge locations, from late-March through November. Analytical samples were tested for turbidity and TSS in 2019. Overall, the Garbage Creek water quality was circum-neutral with elevated turbidity and TSS at all stations (Table 3-7). Excluding the maximum values reported for LBGC-OUT on June 30, for which a corresponding upstream sample was not collected due to unsafe access, the monitoring data indicate the elevated TSS at LBGC-OUT is due to water flowing through the unstable streambed upstream of the Project.

Table 3-7:
Garbage Creek Diversion 2019 Annual Water Quality Summary

Parameter		Field pH	Turbidity	TSS
Units		**-**	**NTU**	**mg/L**
LBGC-Debris-US (n=66 Field pH, 9 Turbidity & TSS)	Min	7.6	28	45.2
	Max	8.8	9880	7200
	Median	8.2	4520	4050
LBGC-0.60 (n=54 Field pH, 25 Turbidity, 28 TSS)	Min	7.1	60.2	1330
	Max	8.6	17500	14700
	Median	8.1	5570	7510
LBGC-OUT (n=231 Field pH, 42 Turbidity, 49 TSS)	Min	7.1	0.38	<4
	Max	8.8	27600 [1]	23300 [1]
	Median	8.3	4375	5400

Notes:
TSS = Total suspended solids
[1] Maximum values were observed June 30, however a corresponding upstream sample was not collected on that day due to unsafe upstream access. Excluding June 30, the maximum values are 17700 NTU (turbidity) and 13800 mg/L (TSS).

3.2.1.4 Diversion Tunnel Inlet Cofferdam

The Diversion Tunnel Inlet Cofferdam (DIC) isolates the Diversion Tunnel Inlet Portal (DTIP) from the Peace River during construction of the parallel diversion tunnels. Contact water and groundwater from tunneling operations are collected at the Diversion Tunnel Inlet Portal (DTIP). The water is collected in Baker tanks (DTIP- BT1, DTIP-BT2) or in sumps (DTIP-1-SUMP, DTIP-2-SUMP and DTIP-DW) and is periodically

transported to the MWTF for treatment prior to discharge through the RSEM Area R5B sediment control pond.

Monitoring data indicate the DTIP waters were acidic in January and circum-neutral the remainder of the year. Moderate to elevated levels above 1,000 mg/L sulphate were observed at all stations except DTIP-BT1, which had low sulphate levels. TSS was generally elevated (above 100 mg/L) and contributed to higher concentrations of Cd, Cu Co and Zn. Monitoring data indicate these waters are PAG influenced and Cd, Cu and Zn were often present in dissolved form, therefore DTIP water was directed to the MWTF for treatment of dissolved metals, as appropriate, in 2019. The monitoring data are summarized in Table 3-8.

Table 3-8:
Diversion Tunnel Inlet Cofferdam 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		-	-	µS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM EOP Limit[1]		-	**6.0-9.0**	-	**WQG**	-	**0.00029**	**0.55**	**0.011**	**0.033**
DTIP-BT1 (n=6, 7 Field pH)	Min	7.82	8.2	456	6.8	34.1	0.000018	0.00037	0.00063	<0.005
	Max	8.30	8.9	740	748	158	0.000157	0.0077	0.0258	0.157
	Median	8.12	8.7	513	436	78.9	0.000134	0.006	0.01855	0.1024
DTIP-BT2 (n=6, 3 Field pH)	Min	7.69	8.1	369	68.4	79.8	0.000054	0.00174	0.0071	0.009
	Max	9.63	8.6	7300	5400	3120	0.00237	0.0735	0.231	0.753
	Median	8.20	8.6	1494	351	443.5	0.000112	0.00335	0.0112	0.048
DTIP-Sump-1 (n=1)	Min	7.59	-	3690	129	1820	0.000426	0.00946	0.0047	0.046
	Max									
	Median									
DTIP-Sump-2 (n=2)	Min	7.66	-	1940	100	860	0.000121	0.00189	0.006	0.028
	Max	8.07		3570	686	1540	0.000699	0.00755	0.0195	0.139
	Median	7.86		2755	393	1200	0.00041	0.00472	0.0128	0.084
DTIP-DW (n=26, 24 Field pH)	Min	4.52	4.8	1500	16.8	640	0.000049	0.00051	0.00091	<0.005
	Max	8.48	8.6	5840	35700	2460	0.0505	0.394	0.275	4.69
	Median	8.04	8.1	2020	162	984	0.00032	0.00527	0.01355	0.108

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, however the limits are included here for context.
TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.

3.2.1.5 Natural PAG Bluff Between DTIP and DTOP

There is an extensive natural shale (PAG) bluff situated between the DTIP and DTOP, below the LBEX. A sediment pond at the base of the bluff (LBEX-SP) was established as

a sump in 2017 to contain runoff from the bluff and drainage from historic Adit 4. Grouting of Adit 4 was undertaken to infill the void beginning in late 2018 and was completed in late January 2019. Site records indicate it no longer produces water. For the first half of 2019, LBEX-SP was intermittently dewatered to RSEM L5 East and RSEM R6 West sediment control ponds, to the DTOP (for use in tunneling operations) and to the MWTF. Runoff from the bluff and the excavation area was managed within the Central Cofferdam for the remainder of 2019.

Monitoring data indicate ADIT 4 and LBEX-SP waters were circum-neutral to alkaline with elevated sulphate. TSS was generally low (<100 mg/L). Higher concentrations of Cd, Cu, Co and Zn are attributed to the dissolved component of these parameters. Sediment pond dewatering was carefully managed and decisions by Environmental Monitors on where to direct the water were informed by monitoring data from analytical samples. Results are summarized in Table 3-9 below.

Table 3-9:
Natural PAG Bluff 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		**-**	**6.0-9.0**	**-**	**WQG**	**-**	**0.00029**	**0.55**	**0.011**	**0.033**
ADIT-4 (n=1, 27 Field pH)	Min	10.0	5.0	4140	66.4	1440	<0.00005	<0.001	<0.0025	<0.025
	Max		12.8							
	Median		8.4							
LBEX-SP (n=20, 35 Field pH)	Min	7.48	6.6	1600	6.00	584	<0.00005	0.00079	0.002	<0.01
	Max	10.4	12.4	5570	148	2520	0.0043	0.0549	0.0401	0.454
	Median	7.83	8.7	2665	19.6	1275	0.000217	0.00296	0.00486	<0.025

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, however the limits are included here for context.
TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.

3.2.1.6 Central Cofferdam

The Central Cofferdam isolates the Left Bank portion of the dam footprint from the Peace River during excavation and dam construction. In July, after decommissioning LBEX-SP sediment pond, the cofferdam catchment size increased to include runoff from the natural PAG bluff between DTIP and DTOP. Construction of the Left Bank Drainage Adit (LBDA) portal commenced in October. Monitoring records indicate residual non-construction contact water (LBCD-Out) was directed to the stilling basin, adjacent to the Diversion Inlet Cofferdam, for exfiltration to the Peace River from January to mid-

March, after which all water within the Central Cofferdam was managed as PAG-contact water and redirected to the RSEM Area L5 ponds from April through December.

The LBCD-sump was installed in May and sampled approximately weekly through December. Analytical samples were collected from LBCD-Out in Q1, when non-construction contact water was pumped to the stilling basin adjacent to Peace River. The Q1 discharges of LBCD-Out to the Peace River met short term BC Water Quality Guidelines.

All waters in the Central Cofferdam were circum-neutral with variable TSS, and moderate to elevated sulphate concentrations, except the LBDA sample which had low pH and elevated sulphate concentration. Higher concentrations of Cd, Cu, Co and Zn in some samples are generally attributable to TSS, however the dissolved form of these parameters was present in some samples. The strong PAG influence at LBDA portal likely originated from weathered PAG through which the portal was installed. Results are summarized in Table 3-10 below.

Table 3-10:
Central Cofferdam 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		**-**	**6.0-9.0**	**-**	**WQG**	**-**	**0.00029**	**0.55**	**0.011**	**0.033**
LBDA (n=1)	Min	3.58	-	44400	510	94000	0.986	17.1	4.79	263
	Max									
	Median									
LBCD-TRENCH (n=1)	Min	8.10	8.5	672	10	195	0.000068	0.00052	0.00091	<0.005
	Max									
	Median									
LBCD-N-SUMP-East (n=3, 2 Field pH)	Min	7.47	8.2	4800	18	2900	0.000142	0.0165	<0.0025	<0.025
	Max	8.23	8.3	6500	124	4000	0.000986	0.0728	0.0026	<0.1
	Median	8.16	8.3	6170	32	3870	<0.0002	0.0428	<0.01	0.054
LBCD-N-SUMP-Trench (n=1)	Min	8.21	-	6400	40	3900	0.000217	0.0436	<0.0025	0.083
	Max									
	Median									
LBCD-N-SUMP-West (n=1)	Min	7.64	-	7100	160	4700	0.000744	0.215	<0.0025	0.332
	Max									
	Median									
LBCD-Sump (n=34, 189 Field pH)	Min	7.91	4.6	602	<1	140	<0.00001	0.00029	<0.0005	<0.005
	Max	9.03	9.9	4800	93000	1800	0.0237	0.791	2.85	8.78
	Median	8.20	8.3	1455	32.7	451	0.00003	0.00096	0.00119	<0.005
LBCD-Out (n=4, 6 TSS, 22 Field pH)	Min	7.96	7.6	1030	<4	326	<0.00001	0.00023	<0.0005	<0.005
	Max	8.12	8.8	1280	6.8	460	0.000031	0.00032	0.0042	0.0051
	Median	8.08	8.3	1040	<4	340	0.000024	0.00029	0.00052	<0.005

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, however the limits are included here for context.
TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.

3.2.1.7 Diversion Tunnel Outlet Cofferdam

The Diversion Tunnel Outlet Cofferdam (DOC) isolates the Diversion Tunnel Outlet Portal (DTOP or DOP) from the Peace River during construction of the parallel diversion tunnels. Contact water and groundwater from tunneling operations were collected in sumps and baker tanks located near the DTOP, and sumps were used in adjacent areas of the DOC to collect surface runoff. The waters collected in the cofferdam were transferred to the MWTF for treatment prior to discharge through the RSEM Area R5B sediment control pond. When hydrosheens were detected, water was collected and disposed at a licenced offsite facility.

The DOC and DOP waters were circum-neutral to alkaline, and sulphate was generally elevated (> 1,000 mg/L) indicating PAG influence in these waters (Table 3-11). Sulphate concentrations were much lower at DOC-S-SUMP and DOP-Fishway-S-Sump. Concentrations of Cd, Cu and Zn generally increased with TSS, except at DOP-BT-WEST where TSS was low (< 100 mg/L), but Cd and Zn were elevated and primarily in dissolved form.

Table 3-11:
Diversion Outlet Cofferdam 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		**-**	**6.0-9.0**	**-**	**WQG**	**-**	**0.00029**	**0.55**	**0.011**	**0.033**
DOC-UPPER-N-SUMP (n=28, 27 Field pH)	Min	7.96	7.0	1320	5.2	430	0.000021	0.00048	0.0006	<0.005
	Max	8.35	8.8	9950	686	6350	0.00132	0.0268	0.0187	0.081
	Median	8.12	7.9	5545	12.4	2425	0.000122	0.00775	<0.0025	<0.025
DOP-W-DITCH (n=1)	Min	7.58	-	2800	74.4	1450	0.00048	0.0719	0.007	0.337
	Max									
	Median									
DOC-S-SUMP (n=29)	Min	8.14	7.9	1020	3.2	170	<0.00001	0.00024	<0.0005	<0.005
	Max	8.61	9.1	1900	74.8	640	0.000053	0.00259	0.00356	0.018
	Median	8.37	8.3	1160	7.6	250	0.000021	0.00054	0.00069	0.0059
DOP-Fishway-S-Sump (n=2)	Min	8.12	-	889	7.2	203	0.000023	0.00211	0.00087	<0.005
	Max	8.2		1000	11.6	300	0.000024	0.00237	0.00109	0.008
	Median	8.16		944	9.4	251.5	0.000024	0.00224	0.00098	0.007
DOP-BT-EAST (n=20, 18 Field pH)	Min	7.79	8.1	2240	11	922	0.000053	0.0025	0.0018	0.029
	Max	10.1	11.8	8020	20000	4080	0.0203	0.343	0.667	3.9
	Median	8.41	8.5	3660	136	1545	9.75E-05	0.00545	0.00835	0.07
DOP-BT-WEST (n=15, 10 Field pH)	Min	7.74	7.4	2910	8.8	1200	0.000024	0.0025	0.0015	0.047
	Max	8.47	8.6	9710	92	5400	0.00156	0.152	0.0058	0.701
	Median	8.27	8.0	7280	24.2	3490	0.000115	0.0319	0.0046	0.093
DOP-Center-Sump (n=1)	Min	8.60	-	3700	24.8	1200	0.000073	0.0027	0.0039	<0.025
	Max									
	Median									

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, however the limits are included here for context.
TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.

3.2.1.8 RSEM Area L6 Sediment Control Pond

The RSEM Area L6 PAG stockpile and sediment control pond are located downstream of the future dam alignment, adjacent to the Diversion Tunnel Outlet Cofferdam. The RSEM Area L6 sediment control pond was commissioned in May after the pond discharge infrastructure was installed and instrumented. Prior to commissioning, in late March, the pond was used as a sump for storage of small amounts of water from the Left Bank DIC and DOC areas, and the Right Bank RCC area. The pond has a small catchment and, due to limited water accumulation, the pond did not passively discharge in 2019. In order to evaluate the assimilative capacity of the Peace River adjacent to the sediment pond discharge a controlled mixing study was conducted September 5th by actively discharging (*i.e*., pumping) the RSEM L6 pond water to the Peace River. Following the receipt of the mixing study, BC Hydro approved the pond for discharge on November 22nd. The pond was actively dewatered on December 18th to provide storage in advance of 2020 Spring freshet.

Water quality monitoring of RSEM Area L6 sediment control pond waters was initiated when water accumulated after spring freshet late March and continued at daily or weekly frequency until the pond was dewatered early September. Two additional analytical samples were collected in Q4 prior to the second dewatering in December. Instrumentation for *in situ* measurements of pond water quality was deployed from June through mid-August.

Analytical data and field pH measurements indicate the RSEM Area L6 sediment control pond was circum-neutral to slightly alkaline with moderate sulphate and low TSS concentrations (Table 3-12). The pond water exceeded RSEM EOP limits for Cu and Zn in late March, after small amounts DIC, DOC and RCC waters were stored in the pond, however the pond did not discharge. The elevated Cu and Zn concentrations were due to the dissolved form of these metals, indicating PAG influence, and followed the addition of DIC, DOC and RCC water to RSEM L6. Cu and Zn rapidly declined in April and remained well below limits through December. Discharges from the pond met RSEM EOP limits based on analytical data from an EOP sample (September 5th) and pond water (December 16th). The monitoring data are plotted in Figure 3-12 through Figure 3-16 below.

Table 3-12:
RSEM-L6-SP/EOP 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit		**-**	**6.0-9.0**	**-**	**WQG**	**-**	**0.00029**	**0.55**	**0.011**	**0.033**
RSEM-L6-SP (n=145, 137 Field pH)	Min	7.31	7.4	1100	1.6	314	<0.00001	<0.0002	0.00126	<0.005
	Max	8.83	***9.4***	1710	***70***	677	0.000161	0.00622	***0.0167***	***0.0335***
	Median	8.18	8.5	1530	5.2	518	<0.00002	0.00041	0.00193	<0.005
RSEM-L6-EOP (n=1)	Min	7.31	-	1500	5.2	570	0.000024	<0.0002	0.00146	<0.005
	Max									
	Median									

Notes:
TSS = Total suspended solids
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.
Gold italics indicate exceedance of an RSEM EOP limit.

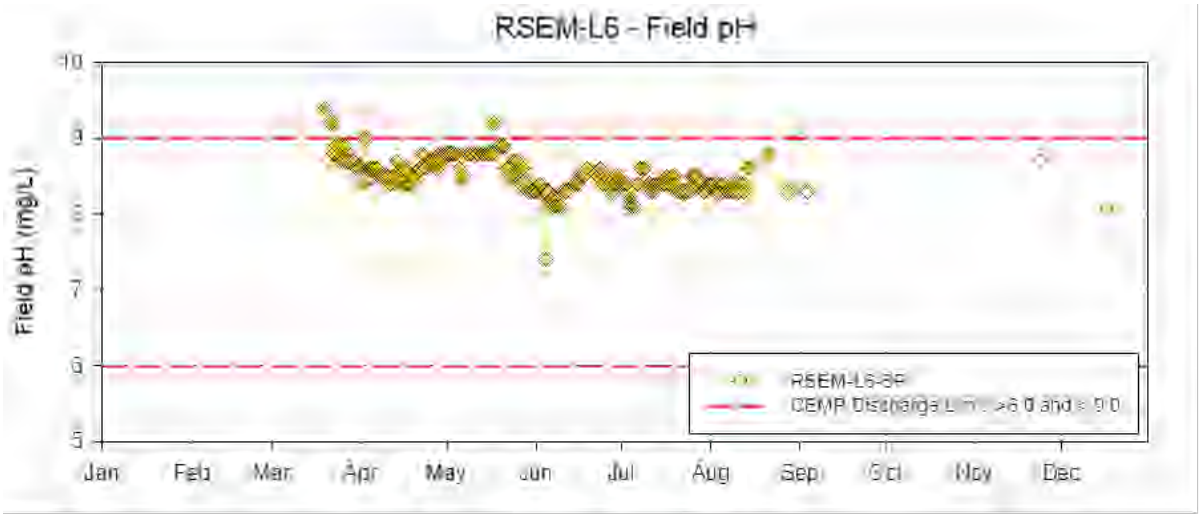


Figure 3-12: Time series profile for field pH in RSEM-L6 compared to RSEM EOP Limits. EOP – End of Pipe; SP – Sediment Pond.

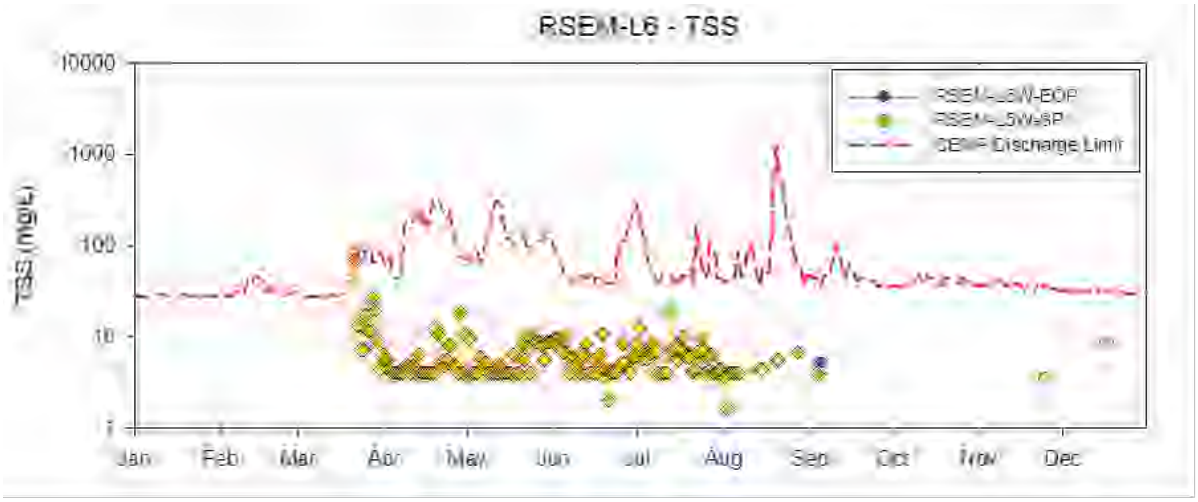


Figure 3-13: Time series profile for total suspended solids (TSS) in RSEM-L6 compared to RSEM EOP Limits. TSS is plotted on a logrithmic scale. EOP – End of Pipe; SP – Sediment Pond.

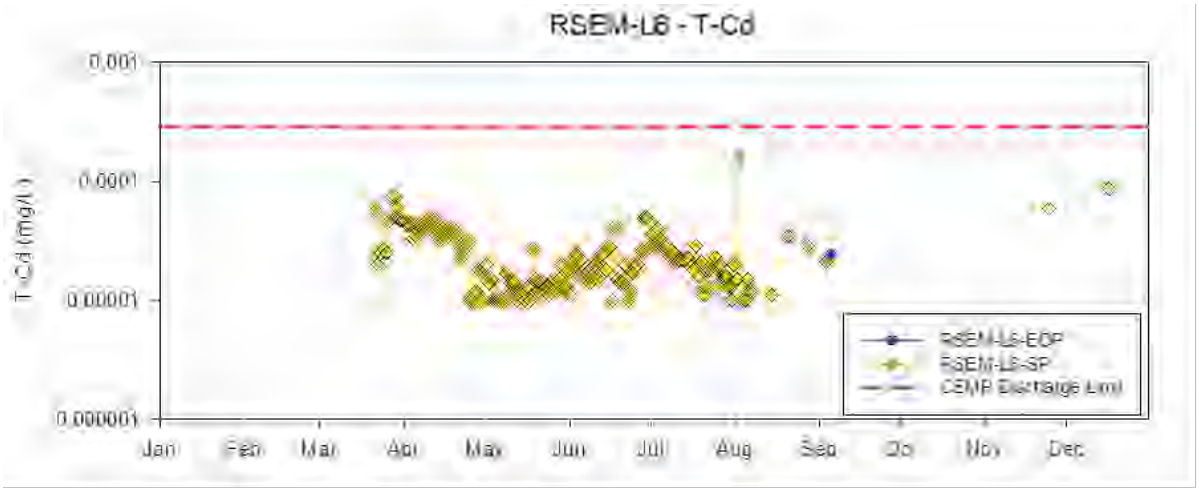


Figure 3-14: Concentrations of cadmium (Cd) for RSEM-L6 compared to RSEM EOP Limits. T-Cd is plotted on a logrithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

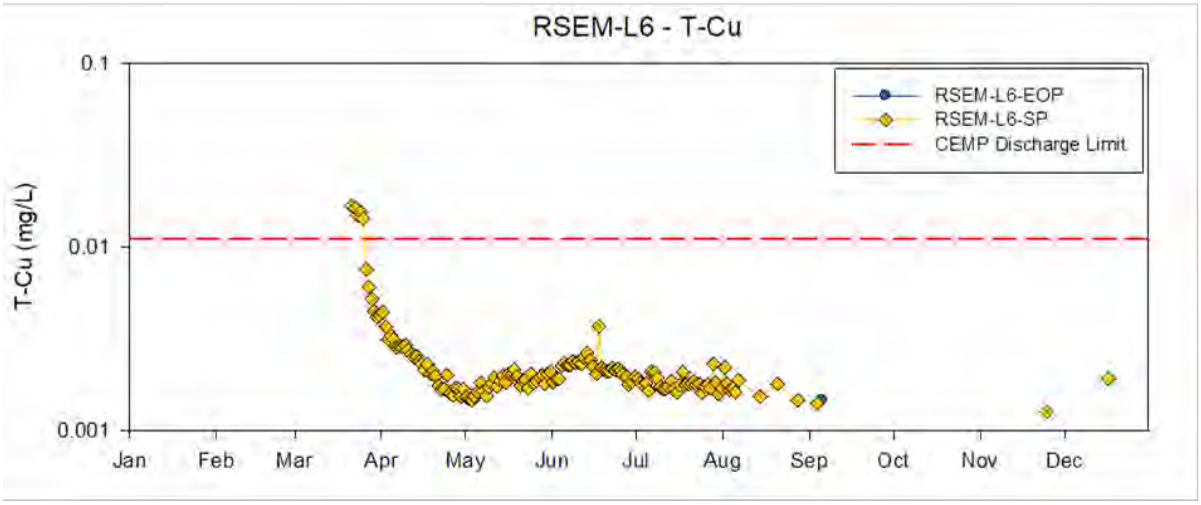


Figure 3-15: Concentrations of copper (Cu) for RSEM-L6 compared to RSEM EOP Limits. T-Cu is plotted on a logrithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

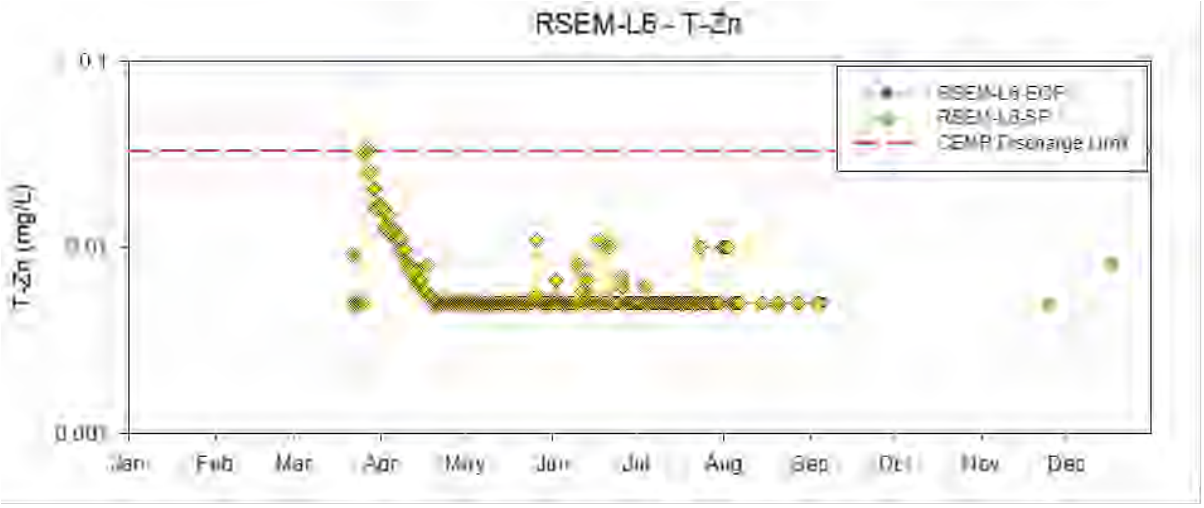


Figure 3-16: Concentrations of zinc (Zn) for RSEM-L6 compared to RSEM EOP Limits. T-Zn is plotted on a logrithmic scale. EOP – End of Pipe; SP – Sediment Pond; T – Total Concentrations.

3.2.1.9 Area 25 / RSEM Area L3

The Area 25 sediment control pond is located on the upper Left Bank adjacent to, and downgradient of, the Two River Lodge camp accommodations, and is situated above the deeply incised L3 stream catchment area. The pond collects non-PAG contact runoff from Area 25 and is designed to exfiltrate to ground but also has an overflow spillway that discharges to L3 Creek.

RSEM Area L3 receives NPAG overburden material, primarily from the LBEX. It is situated along the original course of an unnamed stream (now referred to as L3 Creek). BC Hydro assumed responsibility for this area in mid-2018.

Water quality samples and field measurements were primarily collected early in the year, late March through April when runoff flows were elevated due to spring freshet. The sediment pond and L3 Creek waters were circum-neutral. TSS concentrations were variable in L3 Creek. Area 25 sediment pond discharges, and seepage on the bank of L3 Creek below the pond, were low in TSS relative to analytical measurements at the nearby upstream station on L3 (LBL3C-1.57). Monitoring data are summarized in Table 3-13.

Table 3-13:
Area 25 and L3 Creek 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Turbidity	TSS
Units		**-**	**-**	**NTU**	**mg/L**
Discharge Limit[1]		**-**	**6.5 – 9.0**	**WQG**	**WQG**
Area-25-SP (n=6, 12 Field pH)	Min	7.82	7.5	8.0	6.4
	Max	8.03	9.0	653	351
	Median	7.84	8.1	77.0	117.7
Area-25-EOP (n=5, 13 Field pH)	Min	-	8.0	16.6	17.6
	Max	-	9.0	94.3	88
	Median	-	8.3	22.9	46.4
LBL3C-SEEP (Area-25-GW-SEEP) (n=2)	Min	8.07	-	5.23	26.4
	Max	8.13		67	136
	Median	8.10		36	81
LBL3C-3.32 (n=6, 46 Field pH)	Min	-	7.1	12.1	12
	Max	-	8.8	313	410
	Median	-	8.2	26.6	23.8
LBL3C-2.19 (n=6, 41 Field pH)	Min	-	2.8	7.56	8.4
	Max	-	8.4	69.6	126
	Median	-	8.1	13.0	63.4
LBL3C-1.57 (n=6, 51 Field pH)	Min	-	6.9	76.3	122
	Max	-	8.2	421	508
	Median	-	7.6	277	326

Notes:
[1]Discharge Limit only applies to Area 25 sediment pond discharges.
TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit per the CEMP Rev. 4, Section 4.14 (Surface Water Quality Management), Table 3, page 62. TSS guideline is dependent on background TSS readings at LBL3C-1. 57.

3.2.2 Right Bank

The water quality monitoring network that was utilized on the Right Bank in 2019 included several stations in Area 30, Area A, RSEM Area R6 and R5B catchments, and at the RSEM R6, R5B and R5A sediment ponds. The station locations and sampling frequencies are listed in Table 3-14 and Table 3-15, respectively. An overview of water quality and management in each catchment area presented in the sections below. The monitoring locations are shown in Figure 3-17 (RSEM Area R5B and RSEM Area R6 catchments) and Figure 3-18 (RSEM Area R5A catchment). Sampling within the catchment areas (Table 3-14 and Table 3-15) was as follows:

- Area 30 – samples were collected adjacent to Septimus rail siding at the storage and transfer area for construction aggregate, and at Area 30 sediment control pond;
- Area A – samples were obtained from ponded water in Area A at the North Ditch and ponded water at the toe of NPAG gravel piles;
- RSEM Area R6 – sampling was conducted at Right Bank Drainage Tunnel (RBDT) Treatment Centre facilities and at several stations within the tunnel. Note that the RBDT Treatment Centre differs from the MWTF in that it is used to settle solids and reduce the elevated pH in water produced during tunnel construction. Samples were also collected from various sumps within the RCC, the AK pond, CVC facilities and the 1500 Pumphouse tank (located at the Peace River pumping station, downstream of the river crossing). Inflow to RSEM R6 EP was sampled at RSEM- R6- EP-US-SD and RSEM-R6-EP-IN. Samples were routinely obtained from RSEM-R6-WP and RSEM-R6-EP, from within the ponds, or EOP when the ponds were discharging;
- RSEM Area R5B - samples were collected from the RBAC Seep and Sump, the RB East Conveyor, historic Adit 3, various sumps within the Approach Channel, the Right Bank Core Trench sump, and the MWTF treated effluent (RB-MWTF-SLP). Daily samples were obtained from RSEM R5B sediment control pond or discharge (RSEM-R5B-SP or RSEM-R5B-EOP); and,
- RSEM Area R5A –Samples were obtained from each of the four RSEM sediment pond cells in RSEM Area R5A in pond or EOP when discharging.

Table 3-14:
Water Quality Monitoring Stations in 2019 (Right Bank)

Station ID	Easting	Northing	Description
AREA 30			
W-SEPTIMUS-HILL	631177	6225853	Located in Area 30 gravel transfer area
AREA 30-EOP	630980	6225761	Area 30 sediment control pond discharge
AREA A			
AREA-A-N-DITCH	631200	6228345	Ditch along the northern edge of Area A
CRUSHER-FEED-PIT-POND-1	631996	6228008	Ponded water in the excavated area at the base of gravel stockpiles, east side
CRUSHER-FEED-PIT-POND-2	632242	6228009	Ponded water in the excavated area at the base of gravel stockpiles, middle pond
CRUSHER-FEED-PIT-POND-3	632491	6228053	Ponded water in the excavated area at the base of gravel stockpiles, west side
CRUSHER-SLP	631234	6228029	Sludge pond adjacent to Phase 2 Crusher settling pond
RSEM AREA R6			
RSEM R6E SUBCATCHMENT – CVC BATCH PLANT			
CVC-BOILER	630194	6228553	Adjacent to CVC plant, within the RSEM Area R6 catchment
CVC-TRUCKS	630212	6228539	Adjacent to CVC plant, within the RSEM Area R6 catchment
CVC-RECLAIMER	630212	6228405	Adjacent to CVC plant, within the RSEM Area R6 catchment
RSEM R6E SUBCATCHMENT – RIGHT BANK DRAINAGE TUNNEL (RBDT)			
RBDT-Station-14177	630006	6228842	Station 14177 inside the RBDT at the portal
RBDT-Station-495	629709	6228974	Station 495 inside the RBDT
RBDT-BT	629972	6228895	RBDT baker tank, beside RBDT and within the RSEM Area R6 catchment
RBDT-MUDPOND	629956	6228997	Baker tank adjacent to RBDT-NSP
RBDT-NSP	629958	6228995	RBDT North Sediment Pond
RBDT-TC	629955	6228905	RBDT treatment centre baker tank
RBDT-TPSA-CP	630067	6228914	RBDT temporary PAG storage area collection ditch
RBDT-TUNNELDUCT	630005	6228827	The tunnel duct outside the RBDT portal
RSEM R6W SUBCATCHMENT – RCC			
RCC-NE-SUMP	629845	6229188	Final sump in RCC area, pH treatment is applied using carbon dioxide sparging
RCC-SPILLWAY-E-SUMP	629746	6229078	Intermediate sump in RCC Spillway area
RCC-SPILLWAY-W-SUMP	629781	6229073	Intermediate sump in RCC Spillway area
RCC-MID-POWERHOUSE	629556	6229216	Intermediate sumps in E-central part of RCC buttress area
RCC-W-SUMP	629607	6229198	Temporary sump west of the RCC area
RCC-SUNKEN-BT	629932	6229078	Sunken Baker Tank for RCC concrete contact water
AK POND	629907	6229011	Lined pond near the RCC
RSEM R6E SEDIMENT POND			
1500-PH-TANK	630566	6229268	Tank that holds river water from the 1500 Pumphouse
RSEM-R6-EP-US-SD	630422	6228901	Ditch along SBIAR Road upstream of culvert
RSEM-R6E-SP	630250	6229153	RSEM R6 East sediment control pond
RSEM-R6E-EOP	630274	6229218	RSEM R6 East sediment control pond end of pipe
RSEM R6W SEDIMENT POND			

Station ID	Easting	Northing	Description
AFDE-POND	630096	6229170	AFDE pond water discharge location
RSEM-R6-WP-IN	630114	6229177	Discharge from RCC_NE-SUMP to west corner of the R6 West Pond
RSEM-R6-WP-W-SUMP	630097	6229170	Sump at western end of the R6 West Pond
RSEM-R6W-SP	630240	6229161	RSEM R6 West sediment control pond
RSEM-R6W-EOP	630273	6229219	RSEM R6 West pond EOP
RSEM AREA R5B			
RSEM R5B SUBCATCHMENT – APPROACH CHANNEL			
AC-EAST-CONVEYOR	629618	6228930	Pooled water north of conveyor
AC-E-SUMP	629228	6229210	Collection sump at the base of the AC excavation, east side
AC-MIXED	629105	6229231	Upper AC ditch upstream from AC East Hairpin sump
AC-E-GW-SUMP	629629	6228939	Collection sump at groundwater seep adjacent to East Conveyor
AC-W-SUMP	629034	6229456	Collection sump at the base of the AC benches, west side
AC-WASHBAY-SEEP	629453	6229051	Groundwater seep west of Tire Truck Washbay
RBAC-SEEP	629594	6228841	Groundwater seep at southeast end of Approach Channel
RBAC-SUMP	629675	6228870	Groundwater sump at southeast end of Approach Channel
R5B-EAST-SEEP	629054	6229762	Ditch line along east of the R5B pond
R5B-WEST-SEEP	628738	6229872	Pooling water at groundwater well GW-6 in RSEM Area R5B
RB-MWTF-SLP	628921	6229604	MWTF Sludge Pond spillway (treated water)
RB-MWTF-SLP-Cell-3	628898	6229617	MWTF Sludge Pond cell 3 (in-pond water)
RSEM R5B SUBCATCHMENT – ADIT 3			
BLEED-GROUT-WATER	629306	6229278	Adit 3 grout bleed water
AREA-32A-SUMP	629258	6229343	Sump for Adit 3 dewatering
ADIT 3	629306	6229278	Historic geotechnical adit
RSEM R5B SUBCATCHMENT – RIGHT BANK CORE TRENCH			
RB-Core-Trench-Sump	629347	6229490	Core trench sump
RSEM R5B SEDIMENT POND			
RB-R5B-ACDC	628917	6229591	Approach Channel ditch above confluence with MWTF discharge
RSEM-R5B-W	628738	6229872	RSEM R5B west ditch
RSEM-R5B-SP	629010	6229803	RESM R5B sediment control pond
RSEM-R5B-EOP	629024	6229796	RSEM R5B sediment control pond end of pipe
RSEM AREA R5A			
RSEM-R5A-NCD	628074	6230275	Eastern end of RSEM Area R5A Non-Contact Ditch
RSEM-R5A-A-SP	628158	6230787	RSEM R5A sediment control pond A
RSEM-R5A-A-EOP	628190	6230802	RSEM R5A sediment control pond A end of pipe
RSEM-R5A-B-SP	628146	6230801	RSEM R5A sediment control pond B
RSEM-R5A-B-EOP	628188	6230803	RSEM R5A sediment control pond B end of pipe
RSEM-R5A-C-SP	627544	6231637	RSEM R5A sediment control pond C
RSEM-R5A-C-EOP	627576	6231660	RSEM R5A sediment control pond C end of pipe
RSEM-R5A-D-SP	627535	6231664	RSEM R5A sediment control pond D

Table 3-15:
Summary of Water Quality Monitoring in 2019 (Right Bank)

Station ID *	*In situ* Monitoring? (Y / N) **	Lab Analyses (No.)	Monitoring Frequency (D / W / M / P) †
SEPTIMUS HILL			
W-SEPTIMUS-HILL	N	1	P
AREA-30-EOP	N	25	W
AREA A			
AREA-A-N-DITCH	N	11	M
CRUSHER-FEED-PIT-POND-1	N	1	P
CRUSHER-FEED-PIT-POND-2	N	1	P
CRUSHER-FEED-PIT-POND-3	N	1	P
CRUSHER-SLP	N	1	P
RSEM AREA R6			
RSEM R6 SUBCATCHMENT – CVC BATCH PLANT			
CVC-BOILER	N	1	P
CVC-TRUCKS	N	1	P
CVC-RECLAIMER	N	1	P
RSEM R6 SUBCATCHMENT – RIGHT BANK DRAINAGE TUNNEL			
RBDT-Station-14177	N	1	P
RBDT-Station-495	N	1	P
RBDT-BT	N	7	M
RBDT-MUDPOND	N	1	P
RBDT-NSP	N	5	M
RBDT-TC	N	7	M
RBDT-TPSA-CP	N	2	P
RBDT-TUNNELDUCT	N	1	P
RSEM R6 SUBCATCHMENT – RCC EXCAVATION AREA			
RCC-NE-SUMP	N	42	W
RCC-SPILLWAY-E-SUMP	N	6	P
RCC-SPILLWAY-W-SUMP	N	4	P
RCC-MID-POWERHOUSE	N	10	M
RCC-W-SUMP	N	10	P
RCC-SUNKEN-BT	N	9	P
AK POND	N	9	P
RSEM R6 SEDIMENT PONDS			
1500-PH-TANK	N	1	P
RSEM-R6-EP-US-SD	N	3	P
RSEM-R6E-SP / EOP	Y	102 / 260	D
ADFE-POND	N	1	P
RSEM-R6-WP-IN	N	8	P
RSEM-R6-WP-W-SUMP	N	1	P
RSEM-R6W-SP / EOP	Y	97 / 165	D

Station ID *	*In situ* Monitoring? (Y / N) **	Lab Analyses (No.)	Monitoring Frequency (D / W / M / P) †
RSEM AREA R5B			
RSEM R5B SUBCATCHMENT – APPROACH CHANNEL			
AC-E-CONVEYOR	N	3	P
AC-E-SUMP	N	5	M
AC-MIXED	N	1	P
AC-E-GW-SUMP	N	4	M
AC-W-SUMP	N	4	M
AC-WASHBAY-SEEP	N	1	P
RBAC-SEEP	N	8	M
RBAC-SUMP	N	12	M
R5B-EAST-SEEP	N	1	P
R5B-WEST-SEEP	N	1	P
RB-R5B-ACDC	N	21	M
RB-MWTF-SLP	N	34	M
RB-MWTF-SLP-Cell-3	N	1	P
RSEM R5B SUBCATCHMENT – ADIT 3			
BLEED-GROUT-WATER	N	1	P
AREA-32A-SUMP	N	1	P
ADIT 3	N	2	P
RSEM R5B SUBCATCHMENT – RIGHT BANK CORE TRENCH			
RB-CORE-TRENCH-SUMP	N	1	P
RSEM R5B SEDIMENT POND			
RSEM-R5B-W	N	1	P
RSEM-R5B-SP / EOP	Y	18 / 338	D
RSEM AREA R5A			
RSEM-R5A-NCD	N	1	P
RSEM-R5A-A-SP / EOP	N	20 / 4	D
RSEM-R5A-B-SP / EOP	N	20 / 3	D
RSEM-R5A-C-SP / EOP	N	19 / 2	D
RSEM-R5A-D-SP	N	20	D

* SP = in-pond sample; EOP = end-of-pipe sample
** Y = Yes; N= No
† Intended monitoring frequency when flow or water level is adequate to obtain uncontaminated surface water sample; (D = Daily (when discharging, otherwise periodic), W = Weekly (when there is sufficient water), M = Monthly (when there is sufficient water), P = Periodic (as needed).

LEGEND

- Monitoring Location

Note: Site C aerial imagery collected between May 2019-Oct 2019.

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

1:10,000

0 200 400 Meters

DATE SAVED:	Feb 14, 2020
DRAWN BY:	AL
REVIEWED:	NM
VERSION:	1

CLIENT:

PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2019 Annual Report

TITLE:

RSEM Area R5B, RSEM Area R6, Area A and Area 30 Water Quality Sampling Locations

PROJECT #: A416-1	*FIGURE:* 3-17

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627,000 627,500 628,000 628,500 629,000

6,232,000 6,231,500 6,231,000 6,230,500

N

RSEM-R5A-D-SP
RSEM-R5A-C-EOP
RSEM-R5A-C-SP
RSEM-R5A-B-SP
RSEM-R5A-B-EOP
RSEM-R5A-A-EOP
RSEM-R5A-A-SP
RSEM-R5A-NCD
Peace River

LEGEND

- Monitoring Location

Note: Site C aerial imagery collected between May 2019-Oct 2019.

Coordinate System: *NAD 1983 UTM Zone 10N*
Projection: *Transverse Mercator*
Datum: *North American 1983*
Units: *Meter*

1:7,500

0 200 400
Meters

DATE SAVED:	Feb 18, 2020
DRAWN BY:	AL
REVIEWED:	NM
VERSION:	1

CLIENT:

PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2019 Annual Report

TITLE: RSEM Area R5A Water Quality Sampling Locations

PROJECT #: A416-1 *FIGURE:* 3-18

P:\@Drafting\Site C\Drafting Figures\MXD\2019_AnnualReport\Figure 3-8 R5A WQ.mxd

3.2.2.1 Area 30

Area 30 includes the rail loadout facility located on Septimus Hill that that receives, and stockpiles, aggregate from the West Pine Quarry. Runoff is directed to a sediment control pond along the northern edge of Area 30 which discharges to the adjacent wetlands.

A water quality sample was collected in Area 30 of the Right Bank on March 30 to determine whether aggregate from the West Pine Quarry stockpiled in this location may be influencing water quality. The result from the West Septimus Hill sample indicates that Se (0.00014 mg/L) is not elevated. Additionally, sulphate was very low and there was no indication of PAG influence on water quality.

The sediment pond discharge (Area 30-EOP) was sampled mid-March through June. The analytical data and field measurements indicate the discharge was circum-neutral to slightly alkaline. TSS concentrations were variable but were typically below 25 mg/L except late March when TSS increased to 576 mg/L (Table 3-16)

Table 3-16:
Area 30 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Se	T-Zn
Units		-	-	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
Discharge Limit[1]		-	-	-	**WQG**	-	-	-	-	-	-
W-SEPTIMUS-HILL (n=1)	Min	7.72	-	113	44.4	1.7	0.000094	0.0015	0.00481	0.00014	0.0179
	Max										
	Median										
Area-30-EOP (n=25, 110 Field pH)	Min	-	6.5	-	<4	-	-	-	-	-	-
	Max	-	9.5	-	***576***	-	-	-	-	-	-
	Median	-	8.2	-	15.2	-	-	-	-	-	-

Notes:
[1]Discharge Limit only applies to Area 30 sediment pond discharges.
TSS = Total suspended solids.
WQG = BC short-term Water Quality Guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for construction areas not specified in environmental requirements per the CEMP Rev. 4, Section 4.14 (Surface Water Quality Management), Table 3 (page 62). TSS guideline is dependent on background TSS readings in the receiving waters and was assumed to zero.
Red italics indicate a value that exceeds the TSS BC short-term Water Quality Guideline for the protection of aquatic life.

3.2.2.2 Area A

NPAG overburden and aggregate were excavated in Area A, east of the SBIAR. This material was transported to the Phase 2 Crusher to produce aggregate that is temporarily stockpiled for use at the construction site. Water ponds in three low lying areas in eastern side of Area A. Phase 2 Crusher water is directed to a sludge pond to settle TSS, and clarified water is recycled within the crusher circuit. The North Ditch runs along the northern edge of Area A, between SBIAR and the crusher, and receives runoff from the

slope northwest of the crusher. To prevent discharge, North Ditch was periodically dewatered to RSEM Area R6 or RSEM Area R5B sediment control ponds throughout 2019.

Analytical water quality samples were collected monthly from the North Ditch (Area-A-N-DITCH). The Phase 2 Crusher pit ponds and sludge pond were sampled in July. All samples were circum-neutral with low sulphate levels. TSS was generally low (<100 mg/L) and Cd, Co, Cu and Zn were not detected or present at trace levels. The monitoring data indicate the Area A waters were not PAG influenced in 2019. Monitoring data are summarized in Table 3-17.

Table 3-17:
Area A 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		-	-	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		-	**6.0-9.0**	-	**WQG**	-	**0.00029**	**0.55**	**0.011**	**0.033**
Area-A-N-DITCH (n=11, 42 Field pH)	Min	7.25	7.1	53.2	1.5	4.6	<0.00001	<0.0002	0.00055	<0.005
	Max	8.22	8.7	794	169	44.2	0.000127	0.00212	0.00614	0.022
	Median	7.98	7.6	640	14	29	0.000015	0.00026	0.0007	<0.005
CRUSHER-SLP (n=1)	Min	8.01	-	467	18.8	38.2	0.000033	0.00043	0.00155	<0.005
	Max									
	Median									
CRUSHER-FEED-PIT-POND-1 (n=1)	Min	8.32	-	590	5.5	90	0.000012	<0.0002	0.00103	<0.005
	Max									
	Median									
CRUSHER-FEED-PIT-POND-2 (n=1)	Min	8.14	-	960	6.5	220	0.000019	0.00026	0.00133	<0.005
	Max									
	Median									
CRUSHER-FEED-PIT-POND-3 (n=1)	Min	8.26	-	380	1.7	46	<0.00001	<0.0002	<0.0005	<0.005
	Max									
	Median									

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, however the limits are included here for context.
TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.

3.2.2.3 CVC Batch Plant

The CVC Batch Plant produces concrete and is located on the northeastern side of Area 21. CVC Boiler and concrete truck wash water is periodically discharged via the SBIAR ditch to the RSEM Area R6 East pond. Water Quality samples were collected in January

from the boiler and a truck, and in April from the CVC Reclaimer. The reclaimer was decommissioned in 2019 and did not discharge.

The CVC waters were circum-neutral to slightly alkaline, with variable sulphate, Cd, Cu and Zn levels. Monitoring data indicate metal concentrations were primarily associated with TSS (CVC-BOILER) or dissolved metals (CVC-RECLAIMER). Results are presented in Table 3-18.

Table 3-18:
Phase 2 Crusher and CVC Batch Plant 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		**-**	**6.0-9.0**	**-**	**WQG**	**-**	**0.00029**	**0.55**	**0.011**	**0.033**
CVC-BOILER (n=1)	Min	8.95	11.3	2740	-	374	<0.00005	0.0063	0.784	1.57
	Max									
	Median									
CVC-TRUCKS (n=1)	Min	7.88	8.4	195	<4	15.0	0.00002	<0.0002	0.00534	<0.0001
	Max									
	Median									
CVC-RECLAIMER (n=1)	Min	7.95	-	3410	30	3.0	0.00258	0.0022	0.0213	0.221
	Max									
	Median									

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, however the limits are included here for context.
TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.

3.2.2.4 RBDT Area

The RBDT area is within in RSEM Area R6, south of the sediment control ponds. The area hosts the equipment and facilities needed to support tunneling operations including a treatment centre that removes TSS and reduces pH in tunnel drainage. Water is managed to prevent discharge and is recycled within the RBDT area. The RBDT waters were sampled at various water management locations in the surface and underground facilities with most of the samples collected Q1 through Q3, 2019.

Overall the waters were circum-neutral to alkaline with variable sulphate and TSS levels, depending on sampling location. Samples elevated in TSS had higher concentrations of Cd, Cu and Zn, and monitoring data indicate these parameters were almost entirely attributable to TSS present in the samples. The results are summarized in Table 3-19 below.

Table 3-19:
Right Bank Drainage Tunnel 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		**-**	**6.0-9.0**	**-**	**WQG**	**-**	**0.00029**	**0.55**	**0.011**	**0.033**
RBDT-Station-14177 (n=1)	Min	8.62	-	2100	14	470	<0.00002	0.00041	0.0021	0.01
	Max									
	Median									
RBDT-Station-495 (n=1)	Min	11.4	-	6010	13000	1500	0.00327	0.117	0.444	1.82
	Max									
	Median									
RBDT-BT (n=7, 8 Field pH)	Min	8.97	9.2	1050	3110	232	0.000624	0.0307	0.1	0.359
	Max	10.1	11.0	5430	18200	1790	0.00788	0.233	0.78	2.65
	Median	9.25	9.6	3050	13400	826	0.00212	0.116	0.408	1.28
RBDT-MUDPOND-BT (n=1)	Min	8.67	-	1840	456	376	0.000173	0.0103	0.0343	0.128
	Max									
	Median									
RBDT-NSP (n=5, 6 Field pH)	Min	7.62	8.0	237	40.8	27.3	0.000031	0.00076	0.00334	0.0107
	Max	8.33	9.6	1420	211	258	0.000133	0.00447	0.0218	0.0647
	Median	8.07	8.7	417	122	37.8	0.000056	0.0034	0.0112	0.0338
RBDT-TC (n=7, 8 Field pH)	Min	8.81	9.1	979	337	184	0.000077	0.00621	0.0196	0.0566
	Max	9.6	10.5	5620	19700	1660	0.00472	0.223	0.732	2.64
	Median	9.18	9.7	2210	4060	511	0.000661	0.0372	0.144	0.606
RBDT-TPSA-CP (n=2, 1 Field pH)	Min	8.42	10.1	1090	97.6	182	0.000055	0.00362	0.0115	0.0377
	Max	9.25		1360	1200	260	0.00636	0.197	0.608	1.86
	Median	8.84		1225	648.8	221	0.003208	0.10031	0.3098	0.9488
RBDT-TUNNELDUCT (n=1)	Min	10.8	-	4010	131000	885	0.048	1.16	4.69	18.7
	Max									
	Median									

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, however the limits are included here for context.
TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.

3.2.2.5 RCC Area

The future powerhouse, spillway and related facilities are located within the RCC area. Water that accumulated on the floor of the RCC excavation was collected in intermediate sumps and directed to a final sump (RCC-NE-SUMP) where the water was sparged with carbon dioxide to reduce pH. From there water was sent directly to RSEM R6 West sediment control pond, or, at various times, was routed there via AK-POND, where carbon dioxide sparging was also conducted. In late Q4 RCC water was redirected to RSEM R6 East pond. Shotcrete contact water from the RCC Spillway sumps was transferred to the MWTF in Q1.

Water quality samples were collected weekly from the RCC-NE-SUMP, and periodically at other locations. RCC waters were circum-neutral to alkaline with low to moderate sulphate and variable TSS concentrations. Cd, Cu and Zn concentrations increased periodically and were attributable to elevated TSS, except at the temporary RCC-W-SUMP where PAG influence was observed in late Q1 when excess Approach Channel runoff was directed to the sump for storage. The results are summarized in Table 3-20.

Table 3-20:
RCC Excavation 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		**-**	**6.0-9.0**	**-**	**WQG**	**-**	**0.00029**	**0.55**	**0.011**	**0.033**
RCC-NE-SUMP (n=42, 260 Field pH)	Min	7.21	6.6	4.5	4.8	67	0.00002	0.00025	0.00078	<0.005
	Max	9.98	12.1	2480	6210	267	0.00506	0.0909	0.281	1.1
	Median	8.28	8.4	1005	61.8	185	0.000053	0.001	0.00466	0.015
RCC-SPILLWAY-E-SUMP (n=5)	Min	8.85	9.4	988	221	105	0.00018	0.004	0.0174	0.05
	Max	10.5	11.3	1630	8670	299	0.00178	0.0896	0.27	0.673
	Median	9.60	10.1	1510	2380	205	0.00143	0.0243	0.0642	0.19
RCC-SPILLWAY-W-SUMP (n=4, 5 Field pH)	Min	8.91	9.4	1010	210	150	<0.00001	0.0087	0.00916	0.0185
	Max	11.4	12.2	2090	7350	340	0.00072	0.0431	0.263	0.493
	Median	9.60	10.0	1640	449	238	0.00054	0.0142	0.0558	0.129
RCC-MID-POWERHOUSE (n=10, 9 Field pH)	Min	8.17	8.7	598	42.8	129	<0.00005	0.0007	0.003	0.0128
	Max	9.78	10.2	3670	1780	1280	0.000701	0.0197	0.0776	0.24
	Median	8.62	9.4	1400	248	237	0.000112	0.002425	0.0115	0.0412
RCC-W-SUMP (n=10, 12 Field pH)	Min	7.63	7.4	1110	<4	192	0.00002	0.00068	0.00102	<0.005
	Max	8.33	9.7	1920	504	340	0.00161	0.0561	0.0255	0.348
	Median	7.88	8.4	1725	23.8	283	0.000321	0.0151	0.00572	0.0386
RCC-SUNKEN-BT (n=9, 12 Field pH)	Min	6.68	8.5	362	<1.2	<1	<0.00001	<0.0002	0.00332	<0.005
	Max	12.4	12.8	4500	2060	174	0.00053	0.0108	0.0498	0.269
	Median	11.6	12	1720	23.2	140	0.000048	0.00077	0.0057	0.014
AK-POND (n=9, 36 Field pH)	Min	7.62	6.8	383	4.5	84.4	<0.00001	<0.0002	0.00101	<0.005
	Max	9.62	11.7	1170	50	264	0.000059	0.0014	0.00438	0.0142
	Median	8.22	8.6	903	24	166	0.000021	0.00037	0.00194	<0.005

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, however the limits are included here for context.
TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.

3.2.2.6 RSEM Area R6 Sediment Control Ponds

The RSEM Area R6 East and West sediment control ponds are divided by a berm which isolates the two ponds from each other. The berm was designed to allow the cells to

merge in a large (greater than 1 in 10 year 24-hour) storm event. The East and West ponds discharge through separate culverts onto a shared rip rap protected outfall, which descends the bank to the Peace River. Two stations have been established in each pond, one station within the pond itself (the SP station), and another for sampling discharge from the end-of-pipe (the EOP station). The EOP station is sampled when the pond is discharging.

In 2019, the RSEM Area R6 East sediment control pond received surface runoff and periodic discharges from the CVC Batch Plant via the SBIAR ditch, as well as water transferred from RSEM R6 West pond, Area A North Ditch and the RCC area. In early June, the 1500 Pumphouse tank, located near the Peace River adjacent to the RSEM Area R6, was emptied and directed to the RSEM R6 East pond. In mid-June a carbon dioxide sparging system was installed to reduce pH levels in East pond EOP discharges. From January through mid-March the East pond was intermittently dewatered to the MWTF to prevent discharge.

From January through mid-September RSEM Area R6 West sediment control pond received water from RCC, AK Pond and Area A North Ditch. A small amount of water from the AFDE Pond was discharged to the West pond early April. The pond was intermittently dewatered to the MWTF January through mid-March to prevent discharge. Small volumes of water were discharged late January following a brief period snowmelt when runoff flowed along the surface of the pond ice cover to the discharge pipe. From mid-September onwards the RSEM R6 West pond was managed to maintain low water levels by pumping to the East Pond, and in December, water from the RCC area was redirected from the West pond to the East pond. Monitoring records indicate the RSEM R6 West Pond did not discharge mid-September through December.

Water quality monitoring of RSEM Area R6 East and West sediment control pond waters, and EOP discharges, was conducted throughout 2019. Instrumentation for *in situ* measurements of pond water quality was deployed throughout 2019 at the East Pond and until mid-December in West Pond.

RSEM Area R6 East Catchment

Analytical water quality data and field pH measurements for RSEM R6 East pond stations are summarized in Table 3-21 and trends in water quality in the east sediment pond are illustrated in Figure 3-19 through Figure 3-23.

The 2019 monitoring data indicate the RSEM Area R6 East sediment control pond waters and EOP discharges were circum-neutral to slightly alkaline, with sulphate concentrations less than 420 mg/L. From January to mid-March, Zn concentrations from the East pond water samples occasionally exceeded the RSEM EOP discharge limits,

however inflows were low, and the pond was actively dewatered and did not discharge over this period. In mid-June Environmental Monitors noted an increasing pH trend in the East pond, therefore treatment with carbon dioxide was initiated, and used as needed to lower pH in East pond discharges. The treatment was effective as indicated by the lower field pH measurements observed mid-June onwards (Figure 3-19). Overall, TSS was well controlled and RSEM R6 East pond discharges met RSEM EOP limits for all parameters, except on June 29th (Zn) and November 26th (Cd). In both instances Zn and Cd concentrations were low in the days prior to, and immediately after, the exceedance.

East pond influent waters at RSEM-R6-EP-US-SD (the inlet to the RSEM R6 East pond catchment) and in the 1500-PH-TANK were circum-neutral, with low sulphate levels and variable TSS concentrations. Concentrations of Cd, Cu and Zn at RSEM-R6-EP-US-SD are attributed primarily to TSS, and to a lesser degree, dissolved metals (Zn).

Table 3-21:
RSEM R6 East Pond 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		**-**	**6.0-9.0**	**-**	**WQG**	**-**	**0.00029**	**0.55**	**0.011**	**0.033**
1500-PH-TANK (n=1)	Min	8.06	-	241	1560	<1	0.00277	0.0146	0.0413	0.165
	Max									
	Median									
RSEM-R6-EP-US-SD (n=3, 273 Field pH)	Min	7.68	6.4	693	8.0	50.7	0.000031	<0.0002	0.00051	0.011
	Max	8.22	9.4	6380	5730	238	0.00592	0.0688	0.18	1.09
	Median	8.14	8.4	707	22.4	70.1	0.000093	0.00097	0.00249	0.0469
RSEM-R6E-SP (n=102, 105 Field pH)	Min	7.62	7.1	205	1.1	33.3	<0.00001	0.00021	0.00071	<0.005
	Max	8.45	9.0	1770	48	420	0.000073	0.00228	0.00665	***0.334***
	Median	8.13	8.0	901	5	159	0.000043	0.00074	0.001825	0.00805
RSEM-R6E-EOP (n=261, 256 Field pH)	Min	7.25	7.3	365	1.5	34.1	<0.00001	0.00021	0.00083	<0.005
	Max	8.53	9.0	1400	101	250	***0.00036***	0.00395	0.0045	***0.0335***
	Median	8.09	8.3	842	5.5	139	0.000025	0.00108	0.00136	<0.005

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, upstream monitoring station are not screened against the limits.
TSS = Total suspended solids
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.
Gold italics indicate exceedance of an RSEM EOP limit at an RSEM sediment control pond. Upstream stations are not screened.

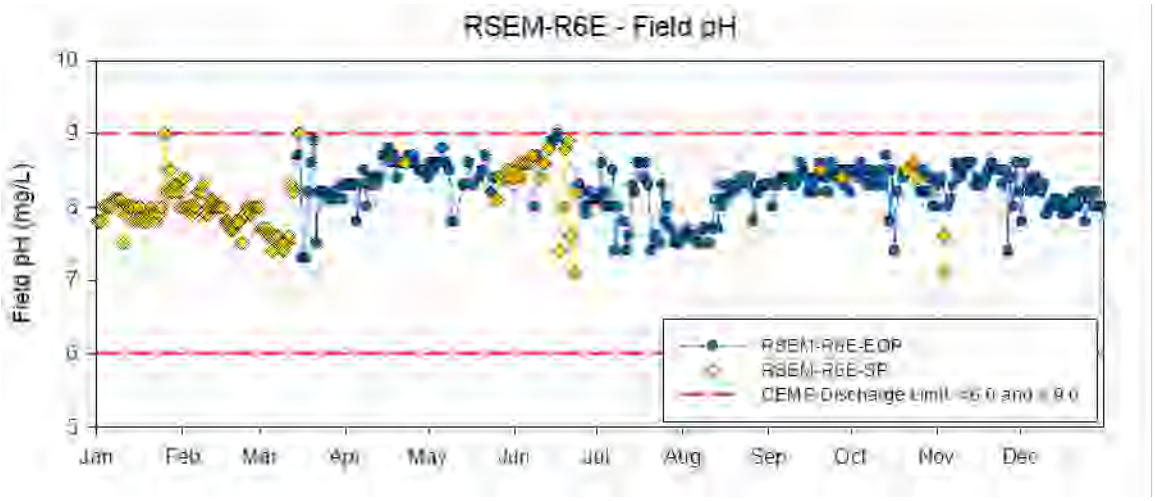

Figure 3-19: Time series profile for field pH in RSEM-R6 East compared to RSEM EOP Limits. EOP – End of Pipe; SP – Sediment Pond.

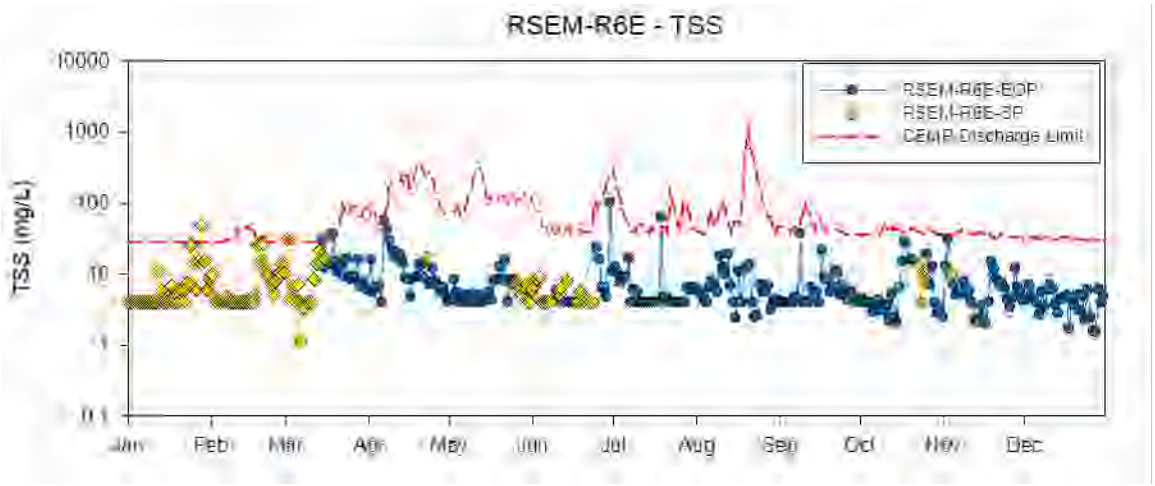

Figure 3-20: Time series profile for total suspended solids (TSS) in RSEM-R6 East compared to RSEM EOP Limits. EOP – End of Pipe; SP - Sediment Pond.

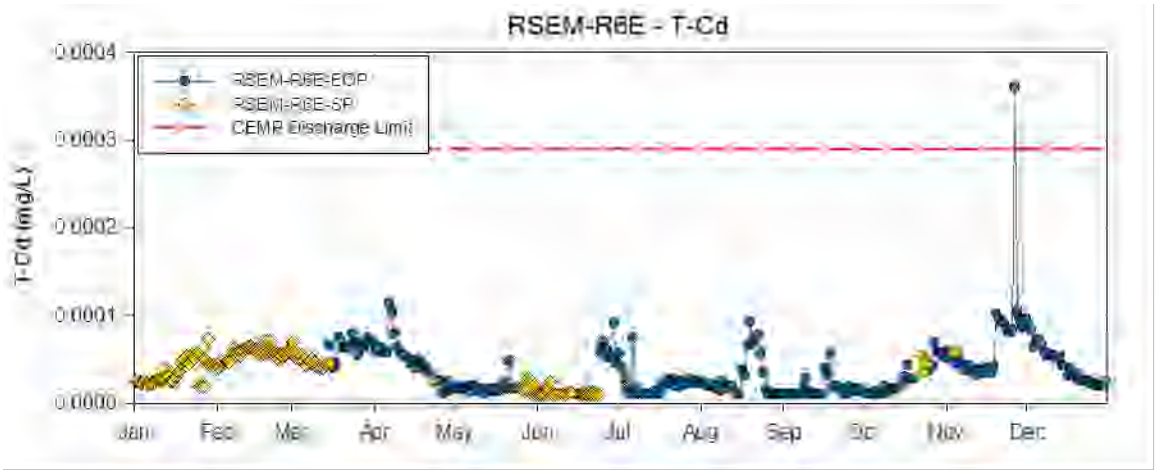

Figure 3-21: Concentrations of cadmium (Cd) for RSEM-R6 East compared to RSEM EOP Limits. EOP – End of Pipe; SP - Sediment Pond; T – Total Concentrations.

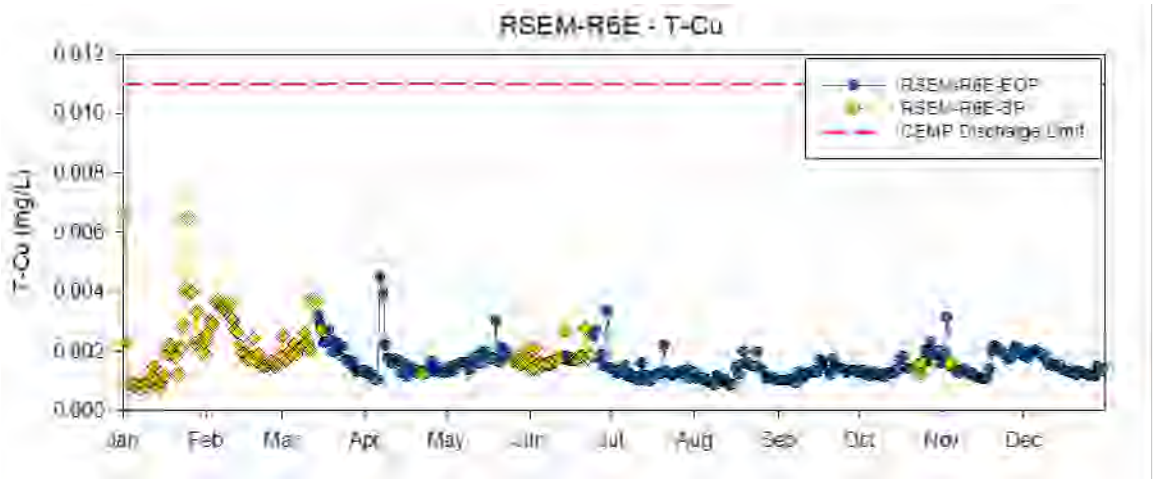

Figure 3-22: Concentrations of copper (Cu) for RSEM-R6 East compared to RSEM EOP Limits. EOP – End of Pipe; SP - Sediment Pond; T – Total Concentrations.

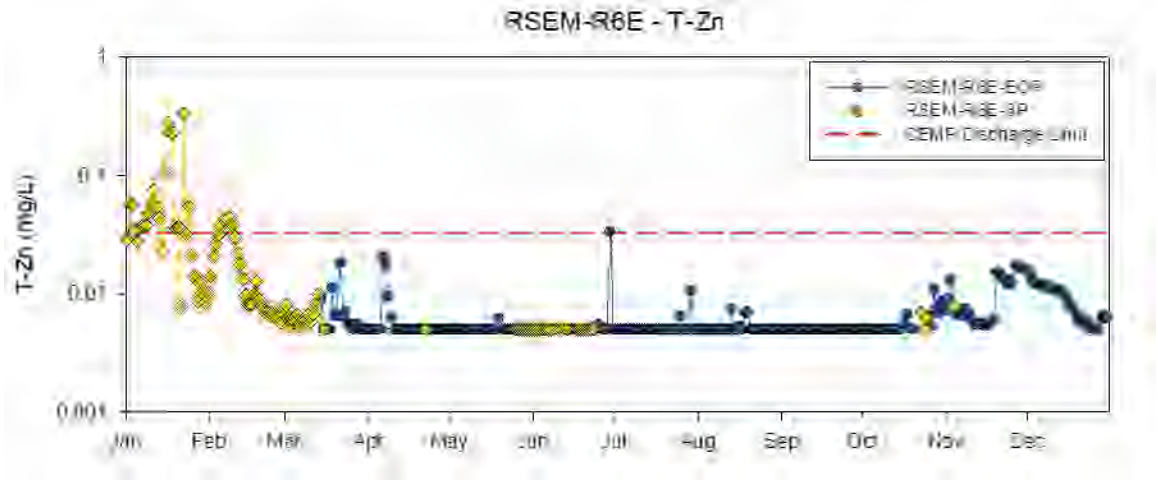

Figure 3-23: Concentrations of zinc (Zn) for RSEM-R6 East compared to RSEM EOP Limits. EOP – End of Pipe; SP - Sediment Pond; T – Total Concentrations.

RSEM Area R6 West Catchment

Results for RSEM R6 West pond stations are summarized in Table 3-22 and water quality trends from the West sediment control pond and the end of pipe discharge are illustrated in Figure 3-24 through Figure 3-28.

The 2019 monitoring data indicate the RSEM Area R6 West sediment control pond waters and EOP discharges were circum-neutral to slightly alkaline, with sulphate concentrations less than 330 mg/L. From January to mid-March, Cu and Zn concentrations from the West pond water samples occasionally exceeded the RSEM EOP discharge limits, however the pond did not discharge over this period. Exceedances of the RSEM EOP limit were observed in RSEM R6 West sediment control pond discharge on January 30th (Cu, Zn), June 29th (Zn), July 6th (field pH) and August 16th to 18th (TSS). Concentrations typically declined after the exceedance, except in Q1, when the ponds were not regularly discharging due to low inflows and active dewatering. The Cu and Zn exceedances are attributable primarily to dissolved forms of these metals and to a lesser degree, TSS (June 29th).

In the RSEM R6 West pond area, AFDE-POND and RSEM-R6-WP-W-SUMP water quality is characterized as circum-neutral with moderate TSS and low sulphate, Cd, Cu and Zn concentrations. Water pumped from RCC (RCC-NE-SUMP) was discharged to RSEM R6 West pond at RSEM-R6-WP-IN. The water was circum-neutral to alkaline, with sulphate concentrations less than 275 mg/L. However, concentrations of Cd, Cu and Zn often increased in association with increases of TSS up to 7,000 mg/L.

Table 3-22: RSEM R6 West Pond 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		**-**	**6.0-9.0**	**-**	**WQG**	**-**	**0.00029**	**0.55**	**0.011**	**0.033**
AFDE-POND (n=1)	Min	7.83	-	289	43.2	41.3	0.000046	0.00108	0.0049	0.02
	Max									
	Median									
RSEM-R6-WP-W-SUMP (n=1)	Min	6.70	-	23.8	67.2	4.1	0.000058	0.00076	0.00292	0.0218
	Max									
	Median									
RSEM-R6-WP-IN (n=8, 52 Field pH)	Min	7.62	7.3	680	<4	134	0.000011	0.00022	0.00125	<0.005
	Max	9.04	9.8	1400	7010	275	0.000968	0.0292	0.108	0.32
	Median	8.27	8.15	1150	145.4	217	0.000148	0.00325	0.01185	0.0377
RSEM-R6W-SP (n=97, 108 Field pH)	Min	7.14	7.5	66.3	<4	83.5	<0.00001	0.00022	0.00177	<0.005
	Max	8.57	***9.3***	1850	106	329	0.000114	0.00186	***0.0498***	***0.223***
	Median	8.32	8.3	1500	7.6	260	0.000016	0.00039	0.00271	0.0089
RSEM-R6W-EOP (n=165, 160 Field pH)	Min	7.96	7.7	653	2.0	110	<0.00001	<0.0002	0.00122	<0.005
	Max	8.56	8.7	1500	***122***	304	0.000134	0.00211	0.0104	***0.0406***
	Median	8.30	8.4	976	8.4	190	0.000018	0.00035	0.0024	<0.005

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, upstream monitoring station are not screened against the limits.
TSS = Total suspended solids
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.
Gold italics indicate exceedance of an RSEM EOP limit at an RSEM sediment control pond. Upstream stations are not screened.

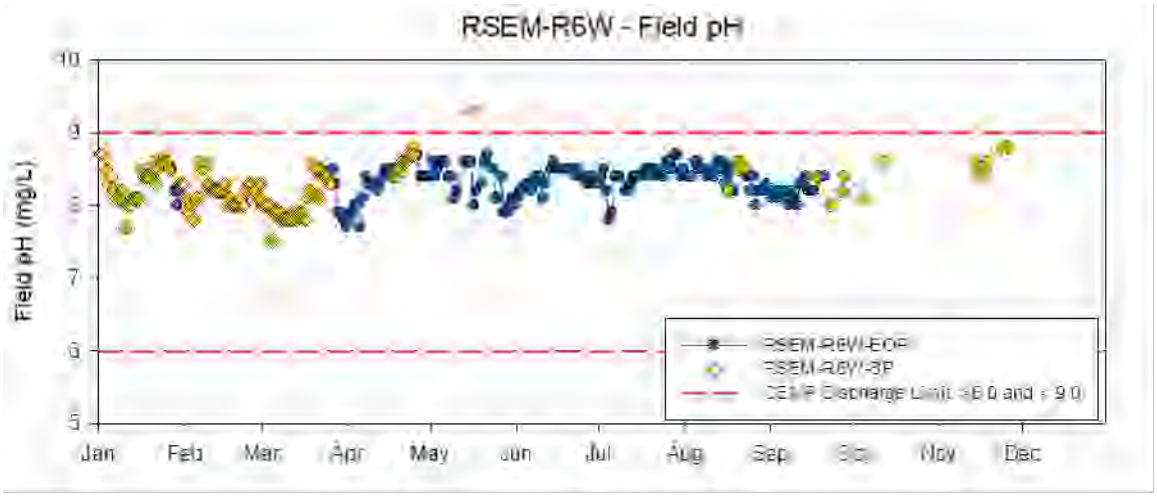

Figure 3-24: Time series profile for field pH in RSEM-R6 West compared to RSEM EOP Limits. EOP – End of Pipe; SP – Sediment Pond.

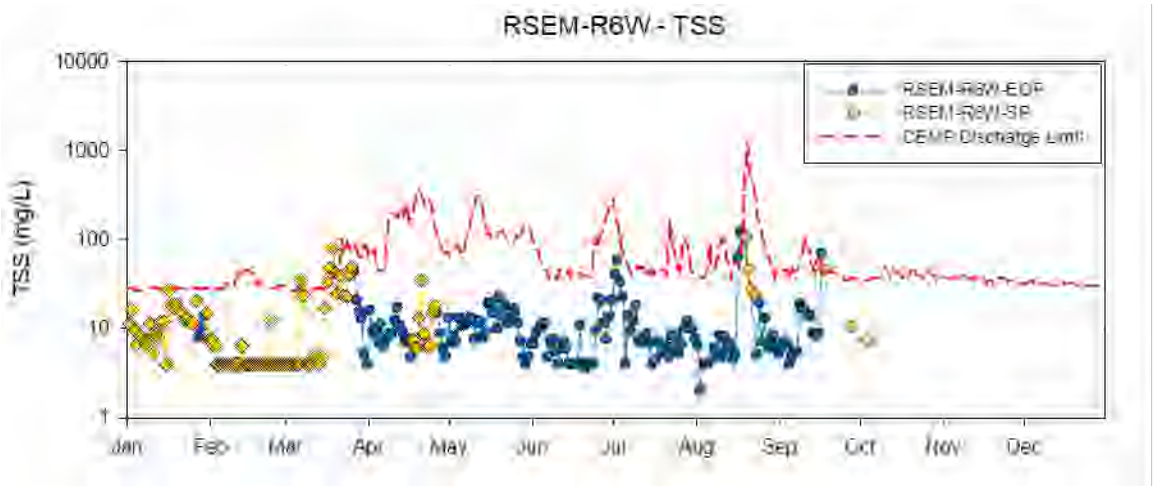

Figure 3-25: Time series profile for total suspended solids (TSS) in RSEM-R6 West compared to RSEM EOP Limits. EOP – End of Pipe; SP- Sediment Pond.

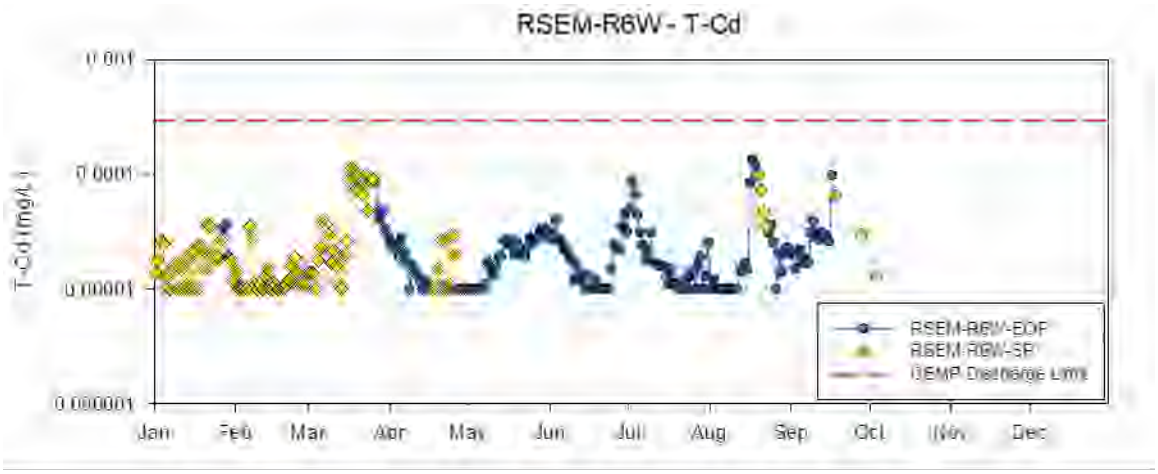

Figure 3-26: Concentrations of cadmium (Cd) for RSEM-R6 West compared to RSEM EOP Limits. EOP – End of Pipe; SP - Sediment Pond; T – Total Concentrations.

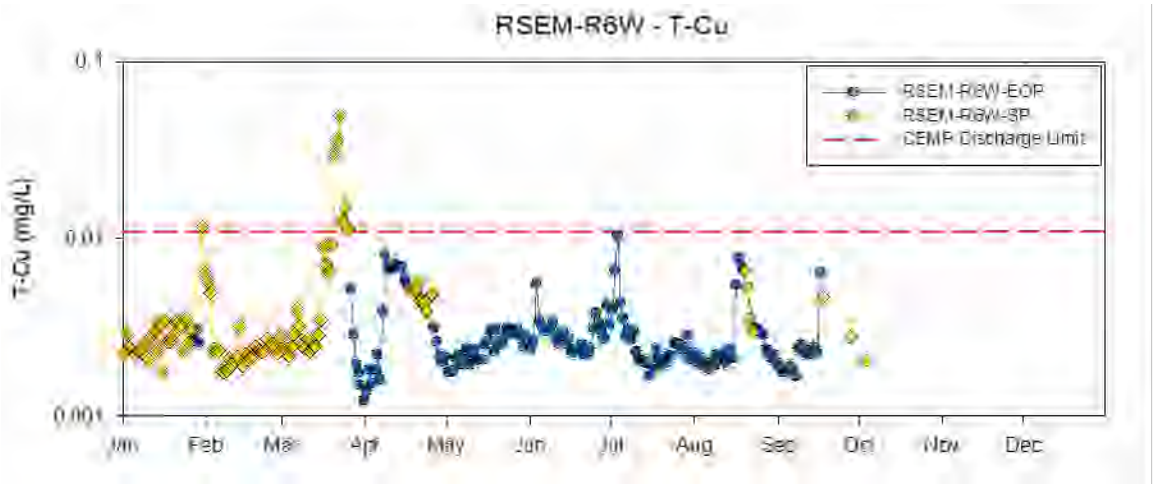

Figure 3-27: Concentrations of copper (Cu) for RSEM-R6 West compared to RSEM EOP Limits. EOP – End of Pipe; SP - Sediment Pond; T – Total Concentrations.

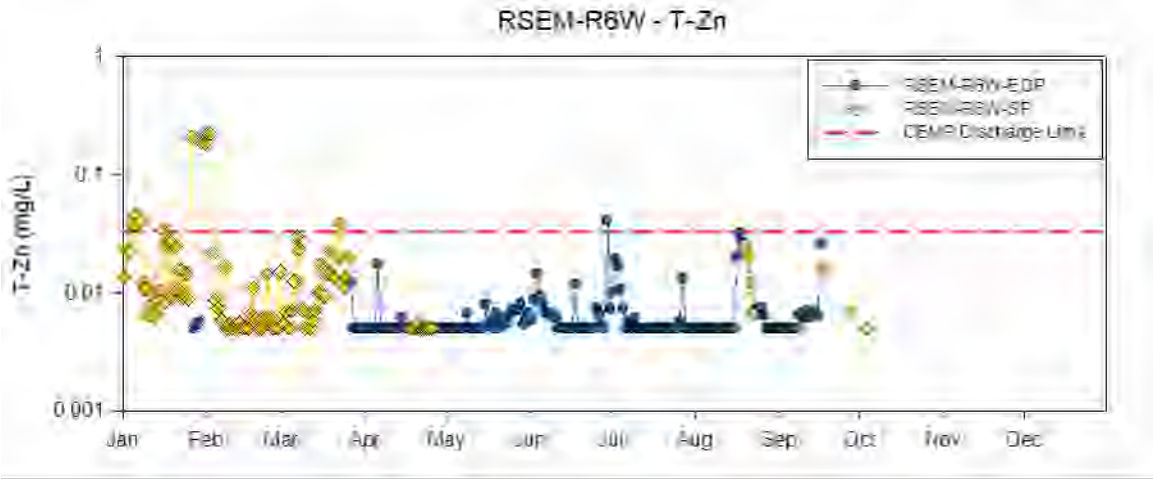

Figure 3-28: Concentrations of zinc (Zn) for RSEM-R6 West compared to RSEM EOP Limits. EOP – End of Pipe; SP - Sediment Pond; T – Total Concentrations.

3.2.2.7 Approach Channel

Located on the PAG bench south of the Right Bank Cofferdam, the Approach Channel area extends from Area 21 northwest to RSEM Area R5B. The PAG bedrock slope facing the Right Bank Core Trench (RBCT) excavation was partially excavated in previous years exposing fresh PAG surfaces.

In 2019, surface runoff and groundwater seepage were intercepted with a network of sumps, ditches and active water management (*i.e.*, pumps, hoses and water trucks). Groundwater seepage from the Approach Channel and Right Bank Core Trench (RBCT) excavation was routed to the intermediate AC East Hairpin sump. From there, water was re-directed to the MWTF or RSEM R5B sediment control pond, as appropriate. PAG-contact surface runoff within the Approach Channel was collected in sumps and transferred directly to the MWTF. At the end of Q1, when PAG-contact water flows increased in response to freshet snowmelt, surplus Approach Channel water was conveyed to the temporary RCC-W-SUMP for storage.

Water quality samples were typically collected monthly from AC-E-Sump, AC-W-Sump and AC-E-GW-Sump, RBAC-SEEP, RBAC-SUMP, RB-R5B-ACDC, and periodically at other locations. Water quality stations are grouped together as sub-areas and described below. Results are summarized in Table 3-23.

The upper Approach Channel stations (RBAC-SEEP, RBAC-SUMP, AC-Mixed) were typically circum-neutral (except Jan sample from RBAC-SUMP) with to moderate sulphate concentrations. TSS is typically low (<100). Concentrations of Cd, Cu and Zn were variable and occasionally due to TSS, but generally associated with dissolved metals.

At the downslope East Conveyor stations (AC-E-Conveyor and AC-E-GW-SUMP) water quality was typically circum-neutral, except an AC-E-Conveyor sample collected in March which was low pH (3.4). Sulphate was variable and elevated to 990 mg/L at AC-E-GW-SUMP and 1,220 mg/L at AC-E-Conveyor. TSS was typically below 100 mg/L and Cd, Cu, Zn were elevated in AC-E-Conveyor and generally low in the AC-E-GW-SUMP, and were usually associated with dissolved metals.

Along the base of the excavated PAG benches, the AC-E-SUMP and AC-W-SUMP were circumneutral with moderate sulphate concentrations except at AC-E-SUMP collected late March (11,300 mg/L). TSS was low and Cd, Cu, Zn were variable and typically associated with dissolved metals. A single sample collected from the AC-Washbay-Seep was alkaline, with low concentrations of sulphate, TSS, Cd, Cu and Zn.

Approach Channel water directed to RSEM R5B sediment control pond is monitored at RB-R5B-ACDC, upstream of the MWTF-SLP discharge. In 2019, the water was circum-neutral, and sulphate concentrations were low to moderate. TSS was variable. Concentrations of Cd, Cu and Zn were typically low, elevated concentrations are associated with TSS (March 8th) and dissolved metals (April 2nd).

Table 3-23:
Approach Channel 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		**-**	**6.0-9.0**	**-**	**WQG**	**-**	**0.00029**	**0.55**	**0.011**	**0.033**
AC-EAST-CONVEYOR (n=3, 135 Field pH)	Min	6.58	3.4	432	71.6	127	0.000249	0.00621	0.0121	0.207
	Max	7.79	8.7	2430	161	1220	0.00711	0.167	0.157	2.58
	Median	7.76	7.9	2040	90.8	819	0.00145	0.051	0.0133	0.448
AC-E-SUMP (n=5, 159 Field pH)	Min	7.03	6.0	1100	9.2	210	0.000065	0.00357	0.00163	0.0225
	Max	8.28	8.6	15800	49.6	11300	0.0153	1.23	<0.01	11.1
	Median	8.21	8.2	1500	25.2	460	0.000288	0.0101	0.00217	0.109
AC-MIXED (n=1)	Min	8.14	-	1420	1960	462	0.00461	0.0626	0.154	0.887
	Max									
	Median									
AC-E-GW-SUMP (n=4, 3 Field pH)	Min	7.86	8.2	1000	5.1	180	0.000034	0.00098	0.00108	0.0071
	Max	8.38	8.3	2460	18	990	0.000185	0.0126	0.00169	0.031
	Median	8.32	8.2	1050	10	225	0.000052	0.0016	0.00148	0.0128
AC-W-SUMP (n=4, 128 Field pH)	Min	8.18	6.7	1200	<4	300	0.000053	0.00054	0.00113	0.0084
	Max	8.32	8.5	1400	33.2	420	0.000141	0.00238	0.00178	0.0256
	Median	8.25	8.1	1340	4.6	302	0.000089	0.00112	0.00134	0.0161
AC-WASHBAY-SEEP (n=1)	Min	10.1	-	570	32	180	0.000102	0.00273	0.00517	0.024
	Max									
	Median									
RBAC-SEEP (n=8)	Min	8.16	7.4	930	1.5	21.2	<0.00001	<0.0002	<0.0005	<0.005
	Max	8.46	8.1	1580	1000	149	0.0016	0.0272	0.0132	0.324
	Median	8.32	7.6	1085	7.8	39.8	0.000128	0.00178	0.00098	0.025
RBAC-SUMP (n=12, 13 Field pH)	Min	4.09	5.7	312	<4	67.6	0.000012	0.00047	0.0008	<0.005
	Max	8.49	8.8	1900	55.2	473	0.00295	0.0627	0.0379	0.519
	Median	8.23	7.9	1195	14.6	128.5	0.000524	0.0113	0.004875	0.1172
RB-R5B-ACDC (n=21, 312 Field pH)	Min	8.01	5.9	690	1.2	128	<0.00001	<0.0002	<0.0005	<0.005
	Max	8.27	8.9	1300	764	380	0.00213	0.053	0.0346	0.526
	Median	8.19	8.3	932	11.6	170	0.000058	0.00107	0.00109	0.0095

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, however the limits are included here for context.
TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.

3.2.2.8 Adit 3

Located west of the RCC area at the base of the Approach Channel bench, historic Adit 3 is a former geotechnical exploration adit that is required to be plugged in advance of dam construction. Installation of the grout plug commenced Q2, 2019. Drainage from Adit 3 accumulated in AREA-32A-SUMP, and later the sump was replaced by baker tanks. Water quality samples were collected Q2, 2019.

The bleed grout water was alkaline, with elevated TSS, sulphate, Cd, Cu and Zn. Ammonia and TOC were also elevated (data not shown). Adit 3 drainage was similarly elevated, except the waters were circum-neutral and TOC was not present. The AREA-32A-SUMP had the lowest concentrations and was circum-neutral. Results are presented in Table 3-24. Water from AREA-32A-SUMP was transported off site for disposal at a licensed facility.

Table 3-24:
Adit 3 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit		**-**	**6.0 - 9.0**	**-**	**WQG**	**-**	**0.00029**	**0.55**	**0.011**	**0.033**
BLEED-GROUT-WATER (n=1)	Min	12.6	-	16500	1260	2000	0.0007	0.0588	0.545	1.36
	Max									
	Median									
AREA-32A-SUMP (n=1)	Min	8.31	-	2890	10.0	807	<0.00002	0.00124	0.0019	<0.01
	Max									
	Median									
ADIT 3 (n=2)	Min	8.21	7.9	8070	30.0	2700	0.000328	0.0014	0.0736	0.231
	Max	8.30	8.1	8480	3760	3260	0.00055	0.0151	0.0961	0.974
	Median	8.26	8.0	8275	1895	2980	0.000439	0.0082	0.0849	0.602

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, however the limits are included here for context.
TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.

3.2.2.9 Right Bank Core Trench

The Right Bank Core Trench excavation commenced in 2019 within the Right Bank Cofferdam. Water from groundwater seeps and surface runoff accumulated on the floor of the excavation. PAG-contact water was conveyed to the MWTF and groundwater was directed to RSEM R5B Sediment Control Pond or the MWTF via the intermediate Approach Channel East Hairpin sump.

Groundwater seepage on the floor of the Core Trench excavation accumulated in the RB-Core-Trench-Sump. A water quality sample collected in August was alkaline with a sulphate level of 160 mg/L and elevated TSS (above 100 mg/L). Copper and Zn concentrations are associated with TSS rather than an ARD signature. Results are shown in Table 3-25.

Table 3-25:
Right Bank Cofferdam Core Trench Excavation 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Lmit[1]		**-**	**6.0-9.0**	**-**	**WQG**	**-**	**0.00029**	**0.55**	**0.011**	**0.033**
RB-Core-Trench-Sump (n=1, 2 Field pH)	Min	8.94	8.6	1900	196	160	0.00013	0.006	0.0241	0.046
	Max		9.4							
	Median		9.0							

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, however the limits are included here for context.
TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.

3.2.2.10 Mobile Water Treatment Facility

The MWTF facilities are located on the western end of the Approach Channel area. The Mobile Water Treatment Facility (MWTF) received PAG-contact water from the Approach Channel and other catchments in the Project area (RSEM Areas R5A and R6 sediment control ponds, LBEX-SP, DIC/DTIP, LBCD, DOC/DTOP, RCC and RBCT) as directed by site Environmental Monitors and based on field measurements and analytical data. The MWTF is used to treat PAG contact water to meet the RSEM discharge limits. Treated water discharges through a series of three sludge collection cells to settle solids and is sparged with carbon dioxide to reduce pH. The clarified water passively discharges from Cell 3 at a rate of 3 - 10 L/s via the lower Approach Channel Diversion Channel (ACDC) to the RSEM Area R5B sediment control pond. Sludge was periodically removed from the collection cells and disposed of off-site at a licensed facility or in RSEM Area R5A.

The MWTF treated effluent was monitored weekly at the sludge pond spillway (RB-MWTF-SLP) from April through August, and monthly thereafter. In February, a sample was collected from within the sludge pond (RB-MWTF-SLP-Cell-3), upstream of final pH adjustment. The in-pond sample was alkaline and elevated Cu, Cd and Zn were associated with TSS. Discharge from the pond was circum-neutral and concentrations of sulphate were moderate and elevated to 1,650 mg/L. Concentrations of TSS, Cd, Cu and

Zn were low or below the analytical detection limit. Results are summarized in Table 3-26.

Table 3-26:
MWTF Sludge Pond 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		**-**	**-**	**µS/cm**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
RSEM EOP Limit[1]		**-**	**6.0-9.0**	**-**	**WQG**	**-**	**0.00029**	**0.55**	**0.011**	**0.033**
RB-MWTF-SLP (n=23, 312 Field pH)	Min	6.82	6.3	1210	1.3	359	<0.00001	<0.0002	<0.0005	<0.005
	Max	8.25	9.9	3410	6.8	1650	0.000041	0.00267	0.00209	0.11
	Median	7.89	7.7	1580	<4	570	<0.00001	0.00026	0.00080	<0.005
RB-MWTF-SLP-Cell-3 (n=1)	Min	9.31	-	1220	-	293	0.0051	0.136	0.0785	0.681
	Max									
	Median									

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, however the limits are included here for context.
TSS = Total suspended solids.
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.

3.2.2.11 RSEM Area R5B Sediment Control Pond

The RSEM Area R5B sediment control pond is located adjacent to the northwest portion of the Right Bank Cofferdam. The pond passively discharges through a pipe to a rip rap protected outfall, which descends the bank to the Peace River. Two stations have been established at the pond, one station within the pond itself (the SP station), and another for sampling discharge from the end-of-pipe (the EOP station).

The RSEM Area R5B sediment control pond received water from several sources in 2019. These include groundwater from seeps in the Approach Channel and Core Trench Excavation areas, and MWTF treated effluent that was routed to RSEM R5B pond through the R5B ACDC Ditch, and surface runoff from RSEM-R5B-W ditch. Area A North Ditch water was periodically transferred to RSEM R5B pond throughout 2019. During heavy surface runoff from snowmelt or precipitation, untreated waters from the Approach Channel and Core Trench excavation were frequently monitored by site staff for PAG-influence in the sumps and ditches used to convey water from the Approach Channel to the RSEM R5B sediment control pond. If an increasing PAG-influence trend was measured, these waters were redirected to the MWTF to treat for dissolved metals prior to discharge through the RSEM Area R5B pond.

The RSEM R5B pond discharged most days in 2019, except early February and early March, when the discharge pipe was blocked by ice for several days and discharges stopped until the ice blockage was removed, and from August 29 through September 11 when the RSEM R5B pond was temporarily dewatered and dredged to remove sediments that accumulated in the pond. While dredging, the MWTF Sludge Pond treated effluent was pumped directly to the RSEM R5B pond discharge. The sediment pond dredgeate was permanently stored in RSEM Area R5A. Sparging with carbon dioxide was implemented early May to reduce elevated pH in RSEM R5B EOP discharges. Instrumentation for continuous *in situ* measurements of pond water quality was deployed throughout 2019, except in Q3 when the pond was dewatered for dredging.

Water quality sampling was conducted throughout 2019 at the RSEM R5B sediment control pond, and once late-October at RSEM-R5B-W ditch. All waters were circum-neutral to slightly alkaline. A TSS concentration of 4,260 mg/L at RSEM-R5B-W produced elevated Cd, Cu and Zn concentrations relative to the sediment control pond concentrations. In contrast, the RSEM R5B sediment control pond typically had low TSS, Cd, Cu and Zn, however, when detected, the metals were often present in dissolved form and not attributable to TSS. Discharge from the pond met RSEM EOP limits, except on the dates indicated below.

The R5B-EAST-SEEP, R5B-WEST SEEP samples collected in May were circum-neutral. Concentrations of sulphate were below 600 mg/L and TSS was below 10 mg/L. Cadmium, Cu and Zn concentrations were low in the West Seep, elevated in the East Seep, and are attributed to dissolved metals. Water quality results are summarized in Table 3-27, and Figure 3-29 through Figure 3-33.

Exceedances of the RSEM EOP limit were observed at RSEM R5B sediment control pond discharges March 14th through 21st (TSS, Cd, Cu, Zn – varied by day), with the metal exceedances primarily attributable to TSS. The August 22nd to 24th exceedances (Cd, Zn - varied by day) are attributable to dissolved Cd and Zn. Concentrations rapidly declined below the discharge limits following each exceedance period.

Table 3-27:
RSEM-R5B 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Cd	T-Co	T-Cu	T-Zn
Units		-	-	µS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM EOP Limit[1]		-	**6.0-9.0**	-	**WQG**	-	**0.00029**	**0.55**	**0.011**	**0.033**
R5B-EAST-SEEP (n=1)	Min	7.29	6.3	1490	7.6	571	0.00111	0.026	0.011	0.252
	Max									
	Median									
R5B-WEST-SEEP (n=1)	Min	8.27	-	1660	5.7	526	0.0000174	0.000175	0.00145	0.0011
	Max									
	Median									
RSEM-R5B-W (n=1, 81 Field pH)	Min	8.01	7.2	906	4260	290	0.00401	0.0599	0.165	0.615
	Max		8.8							
	Median		8.4							
RSEM-R5B-SP (n=18, 22 Field pH)	Min	7.88	7.3	665	1.2	131	<0.00001	0.00026	0.00088	<0.005
	Max	8.41	8.9	2590	5.2	741	0.000262	0.00516	0.00456	***0.0422***
	Median	8.21	8.2	1285	<4	397	0.0000245	0.000635	0.00209	0.00595
RSEM-R5B-EOP (n=339, 335 Field pH)	Min	6.95	7.1	392	<1	109	<0.00001	0.00021	<0.0005	0.0012
	Max	8.55	***9.1***	2360	***446***	1050	***0.00054***	0.0189	***0.0219***	***0.093***
	Median	8.11	8.2	1450	<4	455	0.00003	0.00076	0.00112	<0.005

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, upstream monitoring station are not screened against the limits.
TSS = Total suspended solids
WQG = BC water quality guideline for aquatic life. The BC WQG for TSS is used as the discharge limit for PAG-containing RSEM pond EOP limits, per the CEMP, Appendix E Rev. 5.2, Section 7, Table 2, page 23. TSS guideline is dependent on background TSS readings in Peace River.
Gold italics indicate exceedance of an RSEM EOP limit. Upstream stations are not screened.

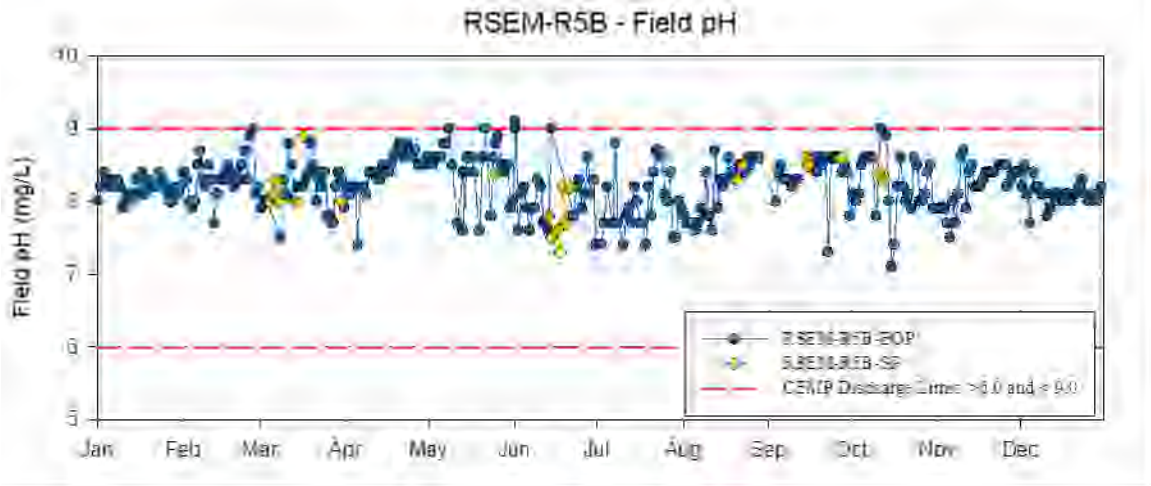

Figure 3-29: Time series profile for pH in RSEM-R5B compared to Construction Environmental Management Plan (CEMP) Discharge Limits. EOP – End of Pipe; SP – Sediment Pond.

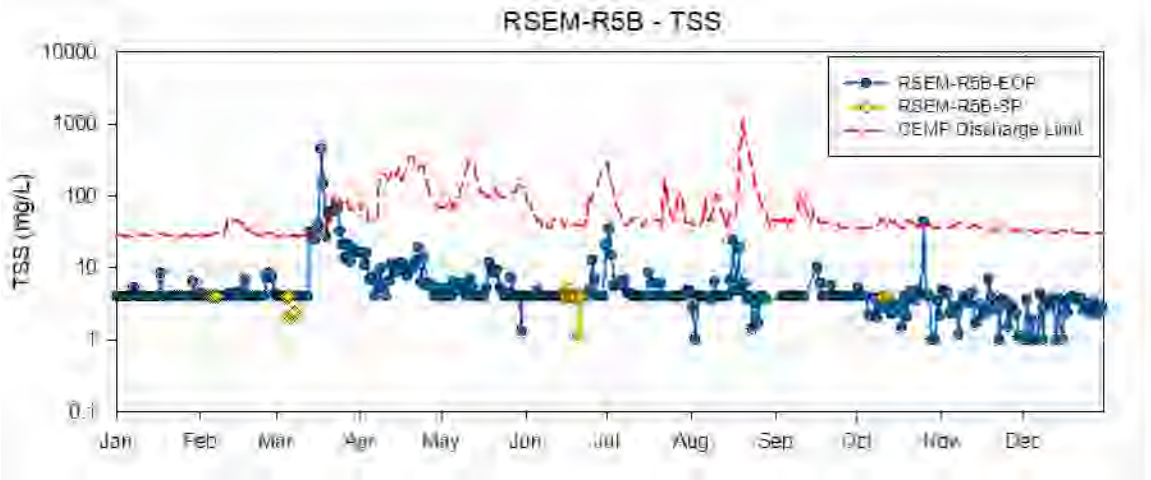

Figure 3-30: Time series profile for total suspended solids (TSS) in RSEM-R5B compared to RSEM EOP Limits. EOP – End of Pipe; SP - Sediment Pond.

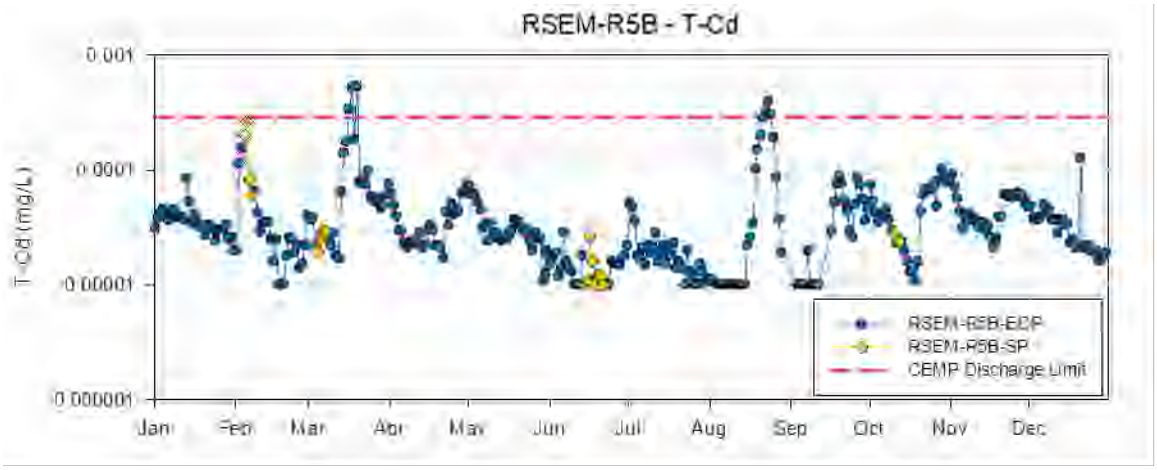

Figure 3-31: Concentrations of cadmium (Cd) for RSEM-R5B compared to RSEM EOP Limits. EOP – End of Pipe; SP - Sediment Pond; T – Total Concentrations.

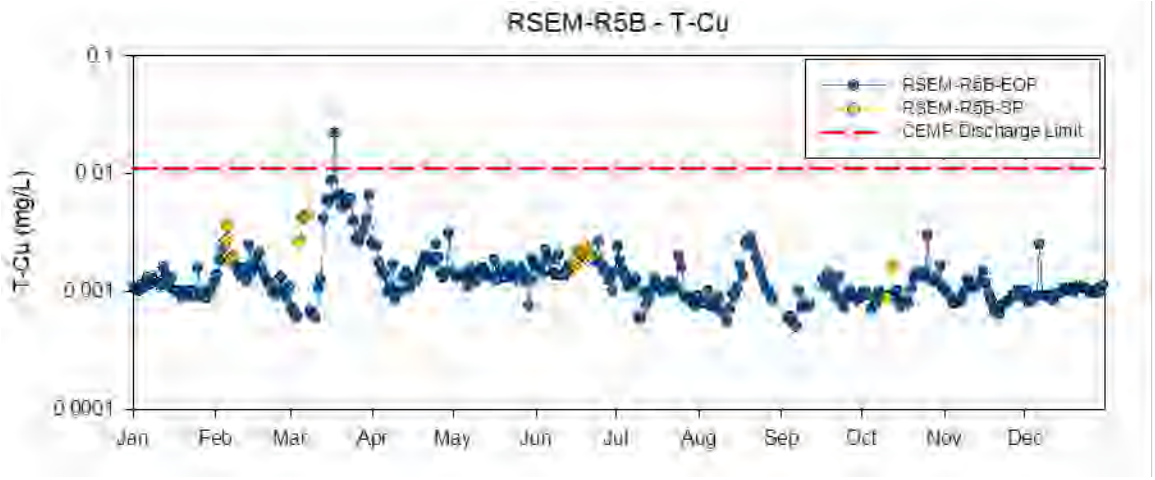

Figure 3-32: Concentration of copper (Cu) for RSEM-R5B compared to RSEM EOP Limits. EOP – End of Pipe; SP - Sediment Pond; T – Total Concentrations.

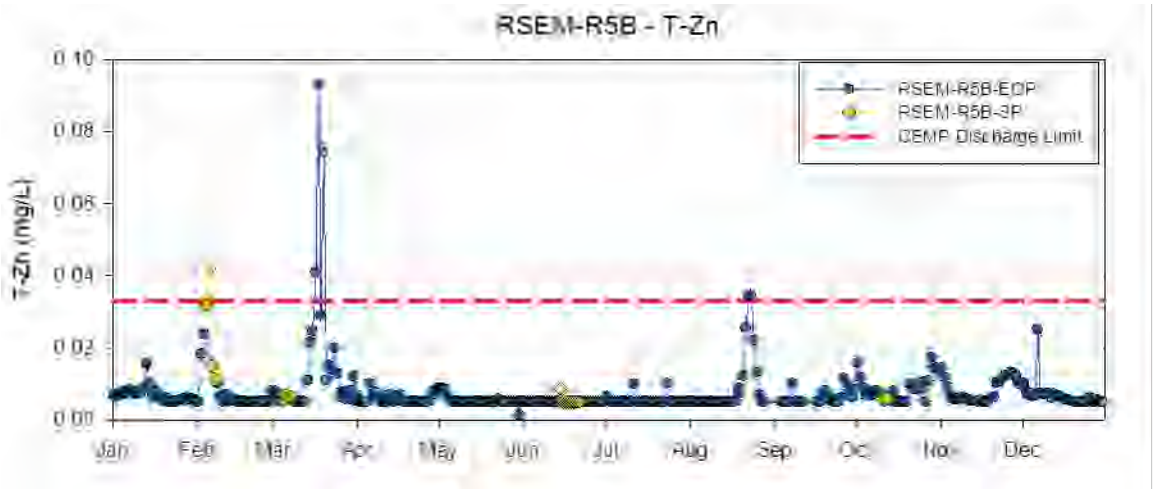

Figure 3-33: Concentration of zinc (Zn) for RSEM-R5B compared to RSEM EOP Limits. EOP – End of Pipe; SP - Sediment Pond; T – Total Concentrations.

3.2.2.12 RSEM Area R5A Sediment Control Ponds

The RSEM Area R5A sediment control ponds receive surface runoff from within the RSEM Area R5A footprint which extends roughly 2 km from northwest to southeast. A diversion ditch intercepts non-contact water originating upgradient of the RSEM Area R5A and conveys this water to the Peace River. The four sediment control ponds associated with this RSEM Area were constructed in 2017 and have been in use since 2018. Two ponds extend over the length of the southeastern half (ponds A and B) of the

RSEM area, and two run the length of the northwestern half of the RSEM area (ponds C and D). Outfalls have been constructed that convey discharge from the southeast ponds into a riparian area adjacent to the river (ponds A / B) and from the northwest ponds to a side channel of the Peace River (ponds C / D). There are two water quality monitoring stations at each pond one station within the pond itself (the SP station), and another for sampling discharge from the end-of-pipe (the EOP station).

The RSEM Area R5A sediment control ponds have not been authorized for direct passive discharge to Peace River. In 2019, the ponds were managed to maintain waters levels below 50% of the discharge elevation by pumping water between the RSEM R5A ponds and by dewatering and transporting water to the RSEM R5B pond (late Q1/early Q2) and the MWTF (balance of 2019). However, in late Q1, rapid snowmelt led to runoff inflows that exceeded dewatering rates. Monitoring records indicate that, collectively, RSEM R5A ponds A, B and C discharged 2,337 m^3 in 2019 (March 18th to March 22nd) a relatively small volume compared to the over 900,000 m^3 combined discharge from the PAG-containing RSEM sediment control ponds on the Right and Left Banks (Section 1.5.2). Pond D did not discharge.

Water quality samples were collected from the RSEM R5A ponds in Q1 and Q2 at in-pond and EOP stations. The diversion ditch (RSEM-R5A-NCD) was sampled once during Q1. Pond water quality was screened against British Columbia Water Quality Guidelines (BC WQG), with short-term guidelines applied to ponds A and B and long-term guidelines applied to ponds C and D. In addition to parameters with an RSEM-EOP limit, only results for parameters which exceeded the BC WQG are included in Table 3-28 and Table 3-29

Overall, RSEM Area R5A sediment control ponds A through D, and RSEM-R5A-NCD, were circum-neutral to alkaline pH with low sulphate concentrations that, in late Q1, elevate to 696 mg/L (pond B) and 1,460 mg/L (pond C). TSS was variable ranging from 21 to 2,680 mg/L. Elevated concentrations of Cd, Cu and Zn were associated with TSS. Discharges from the RSEM R5A ponds were below BC WQG except for the parameters discussed below.

The EOP discharges from RSEM R5A ponds A and B, and diversion ditch water (RSEM-R5A-NCD), exceeded short-term BC WQG March 18th to 21st (pond A), March 19th to 21st (pond B) and March 19th (RSEM-R5A-NCD) for some or all of the following: TSS, T-Ag, T-As, T-Cu, T-Fe, T-Mn and T-Zn (Table 3-28). The long-term BC WQG were exceeded for TSS, T-As, T-Co, T-Cu, T-Fe, T-Pb, T-Se and T-Zn at RSEM R5A pond C EOP, March 19th to 21st (Table 3-29).

Table 3-28:
RSEM-R5A-NCD, RSEM-R5A-A-SP/EOP, and RSEM-R5A-B-SP/EOP 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Ag	T-As	T-Cd	T-Co	T-Cu	T-Fe	T-Pb	T-Mn	T-Zn
Units		-	-	µS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM EOP Limit[1]		-	**6.0-9.0**	-	**WQG**	-	-	-	**0.00029**	**0.55**	**0.011**	-	-	-	**0.033**
Short-term BC WQG[2]		-	**6.5-9.0**	-		-	**0.0001**	**0.005**		**0.11**	**0.0047**	**1**	**0.016**	**0.853**	**0.033**
RSEM-R5A-NCD (n=1)	Min	7.25	8.0	623	***64***	281	<0.00002	0.00131	0.000332	0.00511	0.00328	***2.09***	0.00113	0.154	0.0177
	Max														
	Median														
RSEM-R5A-A-SP (n=20, 27 Field pH)	Min	7.50	7.5	183	***21***	52.6	<0.00002	0.00092	0.00004	0.0008	0.00284	***1.39***	0.00089	0.0265	0.0076
	Max	8.17	8.6	592	***414***	241	***0.00046***	***0.0127***	0.00101	0.0251	***0.0767***	***45.3***	***0.0298***	0.651	***0.27***
	Median	7.82	8.4	433	***46.2***	120	0.000039	0.00149	0.00008	0.00158	***0.00524***	***2.81***	0.00164	0.0572	0.019
RSEM-R5A-A-EOP (n=4, 6 Field pH)	Min	7.54	8.2	285	***39.6***	68.5	0.000052	0.00158	0.000089	0.0013	0.0043	***3.07***	0.00173	0.0441	0.0322
	Max	8.05	8.7	523	***2680***	137	***0.000839***	***0.0231***	0.00217	0.045	***0.129***	***81.8***	***0.0532***	***1.12***	***0.469***
	Median	7.80	8.4	294	***314.6***	75.1	***0.000145***	***0.006215***	0.000386	0.00868	***0.0258***	***14.47***	0.00995	0.2135	***0.1068***
RSEM-R5A-B-SP (n=20, 32 Field pH)	Min	7.44	7.5	110	***28***	20.8	<0.00002	0.00101	0.000054	0.00083	0.0033	0.71	0.00085	0.032	0.0066
	Max	***9.21***	***9.8***	2250	***338***	696	***0.000175***	***0.0179***	0.000331	0.0104	***0.0299***	***16***	0.0111	0.197	***0.097***
	Median	8.09	8.5	1515	***130.5***	456	<0.0001	***0.00967***	0.000158	0.00451	***0.01565***	***6.945***	0.00492	0.0787	***0.047***
RSEM-R5A-B-EOP (n=3, 4 Field pH)	Min	7.57	7.7	252	***37.2***	69	0.000041	0.00187	0.000087	0.00158	***0.00566***	***3.04***	0.00207	0.0424	0.0246
	Max	8.23	8.3	1010	***229***	239	***0.000146***	***0.00589***	0.000365	0.00817	***0.0332***	***13.3***	0.00898	0.195	***0.0958***
	Median	8.04	8.1	794	***46***	216	0.000062	0.00201	0.000119	0.00227	***0.0234***	***3.44***	0.00245	0.0624	***0.0349***

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond approved for discharge, however the limits are included here for context
[2]Approved BC short-term water quality guideline for protection of aquatic life. Calculated guidelines (*i.e.*, those based on hardness, pH, temperature or chloride levels) are based on the minimum data statistic measured at the stations in Q3 2019. Temperature of 15°C assumed.
TSS guideline is dependent on background TSS readings in Peace River.
Red italics indicate a value that exceeds BC short-term Water Quality Guidelines for the protection of aquatic life. Because calculated guidelines shown are based on corresponding minimum hardness statistic, discrepancies may exist between exceeding values shown in table and reported exceedances.
RSEM EOP limits are presented for context only, the data are not screened against these limits.

Table 3-29:
RSEM-R5A-C-SP/EOP and RSEM-R5A-D-SP 2019 Annual Water Quality Summary

Parameter		Lab pH	Field pH	Conductivity	TSS	Sulphate	T-Ag	T-Be	T-Cd	T-Co	T-Cu	T-Cr	T-Pb	T-Ni	T-Se	T-Zn
Units		-	-	µS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM EOP Limit[1]		-	**6.0-9.0**	-	**WQG**	-	-	-	**0.00029**	**0.55**	**0.011**	-	-	-	-	**0.033**
Long-term BC WQG[2]		-	**6.5-9.0**	-		-	**0.00005**	**0.00013**	-	**0.004**	**0.002**	**0.0089**	**0.004**	**0.025**	**0.002**	**0.0075**
RSEM-R5A-C-SP (n=19, 28 Field pH)	Min	7.29	7.7	315	15.2	108	<0.00002	<0.0001	0.000031	0.00066	0.00164	0.0012	0.00051	0.0036	***0.00382***	0.0052
	Max	8.24	***9.8***	3760	***2200***	1460	***<0.0001***	***<0.0005***	0.000112	***0.0051***	***0.00726***	0.0081	0.00289	0.0186	***0.0743***	***<0.025***
	Median	8.01	8.3	2320	45.6	893	<0.00004	***<0.0002***	0.000057	0.00158	***0.0031***	0.0046	<0.001	0.0068	***0.0314***	***0.012***
RSEM-R5A-C-EOP (n=2, 4 Field pH)	Min	7.35	8.2	241	30.8	69.2	0.000023	0.00013	0.000047	0.00146	***0.00251***	0.0057	0.00094	0.0056	***0.00339***	***0.0089***
	Max	7.37	8.6	572	***790***	191	***0.000196***	***0.00053***	0.00051	***0.00815***	***0.0196***	***0.0119***	***0.00963***	***0.026***	***0.00733***	***0.0942***
	Median	7.36	8.35	406	***410***	130.1	***0.00011***	***0.00033***	0.000278	***0.0048***	***0.01106***	0.0088	***0.00528***	0.0158	***0.00536***	***0.0516***
RSEM-R5A-D-SP (n=20, 31 Field pH)	Min	7.11	7.7	77.8	<4	16.7	<0.00002	<0.0001	<0.00001	<0.0002	0.0012	<0.001	<0.0002	0.0021	0.00071	***<0.005***
	Max	8.10	***9.6***	1020	***74***	373	0.00005	***0.00026***	0.000172	0.0035	***0.00647***	***0.0101***	0.00228	0.0105	***0.00396***	***0.0422***
	Median	7.67	8.2	451.5	17.2	149.6	0.000021	0.0001	0.000098	0.001025	***0.002565***	0.00145	0.00081	0.0041	0.00171	***0.01175***

Notes:
[1]RSEM EOP Limit only applies to RSEM sediment control pond discharges, however the limits are included here for context.
[2]Approved BC long-term Water Quality Guideline for protection of aquatic life. Calculated guidelines (*i.e.*, those based on hardness, pH, temperature or chloride levels) are based on the minimum data statistic measured at the stations in Q3 2019. Temperature of 15°C assumed.
TSS guideline is dependent on background TSS readings in Peace River.
Red italics indicate a value that exceeds BC long-term water quality guidelines for the protection of aquatic life. Because calculated guidelines shown are based on corresponding minimum hardness statistic, discrepancies may exist between exceeding values shown in table and reported exceedances.
RSEM EOP limits are presented for context only, the data are not screened against these limits.

3.2.3 Quality Assurance and Quality Control

A quality assurance / quality control (QA/QC) program has been developed and implemented for ARD/ML related surface water quality monitoring for PRHP's Main Civil Works contract. It is intended to validate monitoring data, and to identify potential deficiencies of the monitoring program. The QA/QC program is described in more detail in Appendix 3-E.

This section summarizes the results of the QA/QC program for 2019. The program included an evaluation of field blanks, replicate samples, total *vs*. dissolved metal, hold time exceedances and comparison of field, continuous data logger (*in situ)* and lab measurements for key parameters, further described below. The British Columbia Field Sampling Manual (BC ENV, 2013) indicates QA/QC samples (*e.g.,* blanks and duplicates) should typically constitute 20% to 30% of the water quality samples obtained as part of the monitoring program. A total of 619 QA/QC samples were obtained (302 blanks and 317 duplicates) in 2019 out of a total set of 2760 samples collected as part of the ARD water quality monitoring program (including blanks and duplicates). QA/QC samples therefore represented approximately 22% of total samples collected, within the 20% to 30% range outlined in the BC Field Sampling Manual.

The analytical laboratory, BV Labs, was instructed to screen water quality data against RSEM pond discharge limits starting in Q1 of 2017, where applicable, and to issue exceedance notifications at the time of reporting. This approach has been useful to ensure rapid detection of potential exceedances in site or discharged water, particularly as the number of discharge locations has increased as construction has extended over a greater area.

3.2.3.1 Blanks

A total of 302 field blanks were collected as part of the 2019 surface water quality monitoring program (Appendix 3-C). These data indicate good overall contamination control, with the majority of parameter values (98%, not including pH, which is always detectable) in blank samples falling below the laboratory reported detection limit (RDL) as shown in Table 3-30. In total, 87 parameter values out of the 27, 395 measured (*i.e.*, 0.3%) were greater than the data quality objective (DQO) of 2-times the RDL. The proportion of parameters exceeding the DQO ranged from 0.1% to 0.5% per quarter.

Parameters which account for the greatest occurrence of DQO failures include turbidity, sulphate, Al (total or dissolved), Ca (total or dissolved) and DOC (Table 3-31). The majority of these anomalies may be attributed to minor environmental sources or contributions associated with the laboratory materials (*e.g.,* DI water, laboratory bottles)

and sampling procedure. Overall, parameters detected in field blanks rarely occurred at concentrations observed in ARD monitoring samples. Further, parameters for which end-of-pipe discharge limits exist were rarely detected in field blanks. Therefore, 2019 results for field blanks are not suggestive of measurable or systemic contamination that could affect the interpretation of environmental monitoring data.

Table 3-30:
Comparison of number and type of detected parameters in field blanks in 2019

Quarter	Number of Field Blanks Collected	Number of Parameters Analyzed in Field Blanks	Number of Detected Parameters > RDL	Number of Detected Parameters > 2x RDL	Top Parameters with Detected Values > 2x RDL (Number of Times)
1	37	3,316	61	9	Turbidity, T-Hg (2); HCO_3, SO_4, T-Al, D-Ca, D-Hg (1)
2	85	7,650	115	27	Ammonia (5); Cl, TDS (3); T-Al, D-Al (2)
3	89	8,151	148	44	DOC (20); SO_4 (6); T-Ca, T-Mo, D-Mo (3)
4	91	8,278	81	7	DOC (4); Turbidity (3)

Notes: RDL- Reported Detection Limit

3.2.3.2 Field Duplicates

A total of 317 field duplicates were collected as part of the 2019 surface water quality sampling program. In general, water quality results were generally similar between field duplicates. Table 3-31 shows the number of duplicates containing parameters with Relative Percent Difference (RPD) values greater than the acceptability criteria of 20% and 50% (calculated only if the reported parameter value was greater than five-times the RDL in at least one of the sample duplicates). Overall, the relative proportion of analyte pairs with RPDs greater than 50% was low throughout the program, ranging from 0.2% to 0.4%, with exception to Q2, to be discussed in greater detail below. Parameters that show the highest variability between samples include nitrogen species, TOC, chloride, turbidity, T-Al, T-Fe, T-Mn, T-Ni and T-Zr. In general, these parameters are similar to those flagged in previous annual reports.

In Q2, the proportion of parameters exceeding an RPD of 50% was 1.2%, higher than in other quarters in 2019 (Table 3-31). Three duplicate pairs suspected of being mislabeled were collected in May and account for the majority of parameters not meeting the acceptability criteria. These include RSEM-L5E-EOP collected on May 19th; RSEM-L5E-EOP collected on May 29th; and RSEM-L6-SP collected on May 20th. There has been no confirmation of labelling errors either in the field or at the lab during analysis of these samples; thus, the findings of this investigation remain inconclusive.

Of the parameters for which end-of-pipe discharge limits are approved (Cd, Co, Cu, TSS, Zn, and pH), four duplicate pairs for T-Cu, two for TSS and one for T-Co and T-Cd had RPD values greater than 50% in 2019 (Table 3-32). In all cases, the measured concentrations of each parameter fell below the RSEM end-of-pipe discharge limit.

Variability in concentrations between field duplicates may be attributed to environmental heterogeneity at the pond sampling location, minor changes to sample composition after collection, or potential sample contamination. Such variability is not expected to measurably alter the interpretation of the data.

Table 3-31:
Comparison of duplicate and parameter counts with RPDs greater than 20% and 50% by quarter

Quarter	Total Number of Duplicates	Total Number of Parameters Analyzed in Duplicates	Number of Parameters with RPD > 20%	Number of Parameters with RPD > 50%
1	39	3,535	47	15
2	94	8,539	236	103
3	92	8,520	76	29
4	92	9,298	89	17

Notes: RPD- Relative Percent Difference

Table 3-32:
Comparison of 2019 duplicate RPDs greater than 50% for parameters with end-of-pipe discharge limits

Quarter	Station Code	Collection Date	Parameter	Concentration (mg/L)			RPD (%)
				RDL	Sample	Duplicate	
2	RSEM-L5W-SP	17/04/2019	T-Cu	0.0005	0.00152	0.00261	53
	RSEM-R5B-EOP	01/04/2019	T-Cu	0.0005	0.00248	0.00463	60
	RSEM-R5B-EOP	29/04/2019	T-Cu	0.0005	0.00309	0.00141	75
	RSEM-R6W-EOP	21/06/2019	TSS	4	4	32	156
3	RSEM-R5B-EOP	22/07/2019	T-Cu	0.0005	0.00104	0.00528	134
	RSEM-R5B-EOP	15/08/2019	TSS	1	6.8	3.6	62
	RSEM-R6E-EOP	09/09/2019	T-Co	0.0002	0.00114	0.00206	58
4	RSEM-R5B-EOP	20/12/2019	T-Cd	0.00001	0.000128	0.000022	141

Notes: **RDL- Reported Detection Limit**

3.2.3.3 Total versus Dissolved Metals

Out of 85,542 total and dissolved parameter pairs compared in the 2019 dataset, 293 dissolved metal values were flagged as being higher than their corresponding total metal value (0.34%) (Table 3-33). Overall, this proportion was higher in the first quarter (0.61%) and similar through Q2 to Q4 (0.22% to 0.30%). Dissolved parameters that most frequently exceeded their total values were K, Li, Mo, Sb and Si. These parameters are consistent with those reported in previous annual reports.

For the purpose of the present data evaluation, a second data quality objective of 150% was also used to identify parameters with the greatest magnitude of exceedances (Table 3-31). The proportion of dissolved parameters that exceed the secondary DQO is low and range from 0.01% to 0.13% per quarter. There is no direct explanation for this variability across quarters; however, high TSS events have in some cases coincided with the occurrence of dissolved parameters exceeding total values. In general, Mo and Sb account for the majority of flagged values, which may indicate that values reported for these parameters may be associated with a higher degree of uncertainty. Overall, these results reflect a reasonable confidence in the data.

Table 3-33:
Number of Sample Metal Pairs in 2019 for which the Dissolved Concentration Exceeded the Total by 120% and 150%

Quarter	Total Number of Sample Collected	Number of Parameters with D>120% T	Number of Parameters with D>150% T
1	524	109	24
2	894	91	29
3	612	45	10
4	488	48	2

3.2.3.4 Hold Time Exceedances

PRHP makes every effort to have samples delivered to BV Labs within recommended hold times, and in 2019 all samples met this criterion. Once delivered to the laboratory, samples enter a queue for processing and analysis, and may be analyzed marginally outside of recommended hold times (*e.g.*, by one day). The parameters most commonly analyzed by the laboratory outside the recommended hold times were orthophosphate, turbidity, nitrite+nitrate, and TDS. Analysis outside of the recommended hold time does not mean than the sample is compromised but may increase the uncertainty of the sample results.

The hold time for pH is short (15 minutes) making it impossible to submit the samples to the analytical laboratory within the recommended time frame. This limitation is mitigated by PRHP by monitoring pH in the field.

3.2.3.5 Data Import Screening

A data import screening system was developed for water quality monitoring data entered into the EQWIN database in Q1 2017. Lorax and PRHP asked BV to implement a system by which laboratory flags or notes are included as EDD comments with each water sample Certificate of Analysis (CoA) in Q2 2017. These comments include screening notes for the following flags:

- Dissolved metals measurably higher than totals;
- Nitrite higher than nitrate;
- Calculated charge balance greater than 10%;
- Hold time exceedances; and
- Raised detection limits.

These notes are imported into EQWIN as part of the data import screening process for further review.

Weekly ARD reporting has included summaries of the first four flags listed since mid-2017. This process has been a useful tool to provide high-level data QA/QC on a weekly basis and complements the more-detailed QA/QC analysis conducted on a quarterly basis. This approach has proven to be an effective way to address QA/QC concerns in reported water quality data in a timely and expedient manner.

In addition to QA/QC flags reported weekly, a screening step was implemented for *in situ* continuous measurements from probes installed in active RSEM ponds. As part of weekly ARD reporting, Lorax and PRHP review conductivity, turbidity and pH statistics collected over the weekly reporting period and qualitatively compare results to corresponding laboratory analytical data. Comparison of *in situ* data collected by data loggers to the laboratory analytical data for the same time period serves as a reasonable check for logger values. A logger value that is measurably higher or lower than the analytical value may indicate the logger requires servicing or may provide an indication of an issue related to data representativeness (*e.g.*, based on logger's deployment location in pond).

In addition to the *in situ* continuous measurement data collected by data loggers in active RSEM ponds, PRHP field staff also collect *in situ* field measurements using hand-held

meters at the time of analytical sample collection. A quantitative comparison of *in situ* field data from hand-held meters *versus* corresponding analytical measurements is presented in the next section.

3.2.3.6 Field Measurements

Field data for pH, turbidity, and conductivity are collected by PRHP field staff using hand-held meters at the time of analytical sample collection. These data are compared here to corresponding analytical measurements to provide an indication of the relative accuracy of field measurements.

Field data are used to inform real-time water management decisions, given that analytical results are typically reported one to two weeks after sample collection. Further, certain parameters in analytical samples have very short hold times, notably pH, which has a hold time of 15 minutes. This limitation is mitigated by PRHP by monitoring pH in the field. Currently, field pH measured at EOP is used to evaluate regulatory compliance with the discharge limit.

Median statistics are summarized to eliminate the effect of a minority of extremely high or low values which may bias an average calculation. A positive median difference shown in Table 3-34 suggests that field measurements tended to be biased higher than analytical results, while a negative median difference suggests field measurements tended to be biased lower.

In general pH, conductivity and turbidity field measurements in 2019 were higher than analytical measurements (Figure 3-34). Across RSEM stations, field and analytical pH measurements were comparable within a median difference of less than 4%. By comparison, conductivity measurements show a greater median difference of 8%.

The 2019 results suggest that variability and bias in field and analytical results for turbidity is influenced by the turbidity level (Figure 3-34). Overall turbidity measurements show a median difference of up to 68% between analytical and field measurements. However, values above 30 NTU show a negative bias and potentially higher variability of field relative to analytical results. While the data indicate that field turbidity measurements are generally suitable for informing TSS management decisions, the turbidity measurement uncertainty should be considered during data interpretation and when establishing and management decision triggers.

Table 3-34:
Comparison of 2019 Field and Analytical Measurements for pH, Conductivity and Turbidity

Station ID	Number of Samples					Annual Median Difference*	Annual Median Relative Percent Difference**
	Q1	Q2	Q3	Q4	Total		
pH						**s.u.**	**%**
RSEM-L5-EP-SP/EOP	18	83	82	57	240	0.11	2.4
RSEM-L5-WP-SP/EOP	17	33	2	-	52	0.26	3.7
RSEM-R5B-SP/EOP	86	84	78	90	338	0.15	3.3
RSEM-R6E-SP/EOP	91	84	91	89	355	0.15	3.1
RSEM-R6W-SP/EOP	90	85	79	1	255	0.03	1.9
Conductivity						**µS/cm**	**%**
RSEM-L5-EP-SP/EOP	18	82	82	57	239	14	5.6
RSEM-L5-WP-SP/EOP	17	33	2	-	52	29	10
RSEM-R5B-SP/EOP	86	84	78	90	338	90	7.7
RSEM-R6E-SP/EOP	91	83	91	89	354	58	7.7
RSEM-R6W-SP/EOP	90	85	79	1	255	97	8.3
Turbidity						**NTU**	**%**
RSEM-L5-EP-SP/EOP	18	83	82	57	240	1.7	62
RSEM-L5-WP-SP/EOP	17	33	2	-	52	2.0	49
RSEM-R5B-SP/EOP	86	84	78	90	338	1.6	68
RSEM-R6E-SP/EOP	91	84	91	89	355	1.9	41
RSEM-R6W-SP/EOP	90	85	79	1	255	0.4	18

* Median difference between corresponding field measurements (results reported by PRHP staff from hand-held meters) and analytical measurements. Difference was calculated by subtracting the analytical value from the field value.

**Median absolute relative percent difference between corresponding field and analytical measurements. Relative difference was calculated by dividing the absolute difference between corresponding field and analytical measurements, by the average of the corresponding field and analytical measurements.

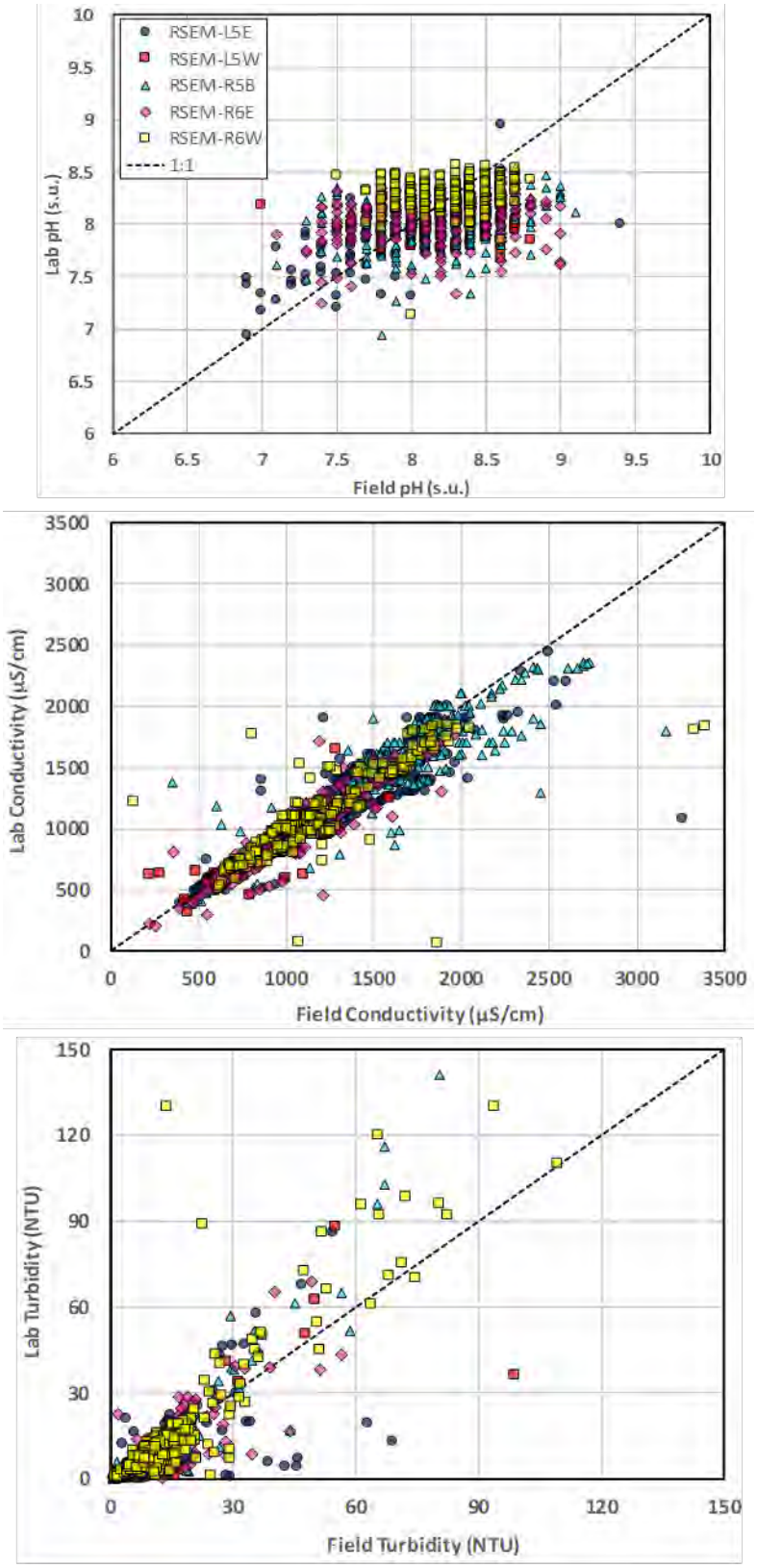

Figure 3-34: Field versus lab measurements for pH, electrical conductivity and turbidity for 2019

3.2.3.7 Continuous In Situ Measurements

Continuous *in situ* measurements for pH, conductivity and turbidity are monitored using a sonde probe which regularly logs a data point every 15 minutes. The *in situ* measurement that most closely corresponds to the time of analytical sample collection is compared to the corresponding analytical measurements to provide validation of continuous *in situ* readings.

Similar to field measurements, continuous *in situ* results are used to inform real-time water management decisions as part of the water management plan at Site C. Analogous to the comparison conducted between field and analytical results, median statistics for absolute difference and relative percent difference between *in situ* and analytical measurements are summarized in Table 3-35. The spatial difference between the location of the sonde probe relative to where analytical samples are collected can result in disagreement between continuous *in situ* measurements and analytical results. Across RSEM stations, a lower number of corresponding *in situ* and analytical results were obtained, relative to corresponding field and analytical results. This may be due to the fact that at times the probe can malfunction or be removed for maintenance.

In general, pH, conductivity and turbidity showed a positive bias towards higher continuous *in situ* measurements, compared to analytical measurements (Figure 3-35). The median difference between *in situ* and analytical results was low for pH (less than 4%) and slightly higher for conductivity (less than 13%), consistent with findings for the comparison of field to analytical results. While turbidity measurements show higher variability with a median difference of up to 144%, the positive bias towards *in situ* measurements is unaffected by the turbidity level. Overall, continuous *in situ* measurements for pH and conductivity show adequate agreement with the analytical results, comparable to the agreement between field and analytical measurements.

Table 3-35:
Comparison of 2019 In Situ and Analytical Measurements for pH, Conductivity and Turbidity

Station ID	Number of Samples					Annual Median Difference*	Annual Median Relative Percent Difference**
	Q1	Q2	Q3	Q4	Total		
pH						**s.u.**	**%**
RSEM-L5-EP-SP/EOP	-	79	76	57	212	0.11	3.4
RSEM-L5-WP-SP/EOP	-	25	2	-	27	0.08	2.5
RSEM-R5B-SP/EOP	81	79	67	87	315	0.15	4.0
RSEM-R6E-SP/EOP	80	78	83	88	329	0.03	3.5
RSEM-R6W-SP/EOP	90	85	79	1	255	-0.01	2.8
Conductivity						**µS/cm**	**%**
RSEM-L5-EP-SP/EOP	-	79	76	57	212	126	9.2
RSEM-L5-WP-SP/EOP	-	25	2	-	27	59	9
RSEM-R5B-SP/EOP	81	79	67	87	315	30	6.1
RSEM-R6E-SP/EOP	80	78	83	88	329	114	13
RSEM-R6W-SP/EOP	90	85	79	1	255	31	3.1
Turbidity						**NTU**	**%**
RSEM-L5-EP-SP/EOP	-	79	76	57	212	4.1	123
RSEM-L5-WP-SP/EOP	-	25	2	-	27	14	144
RSEM-R5B-SP/EOP	81	79	67	87	315	2.0	92
RSEM-R6E-SP/EOP	80	78	83	88	329	2.2	70
RSEM-R6W-SP/EOP	90	85	79	1	255	10	69

* Median difference between corresponding in situ measurements (results from sonde probe) and analytical measurements. Difference was calculated by subtracting the analytical value from the in situ value.

** Median absolute relative percent difference between corresponding in situ and analytical measurements. Relative difference was calculated by dividing the absolute difference between corresponding in situ and analytical measurements, by the average of the corresponding in situ and analytical measurements.

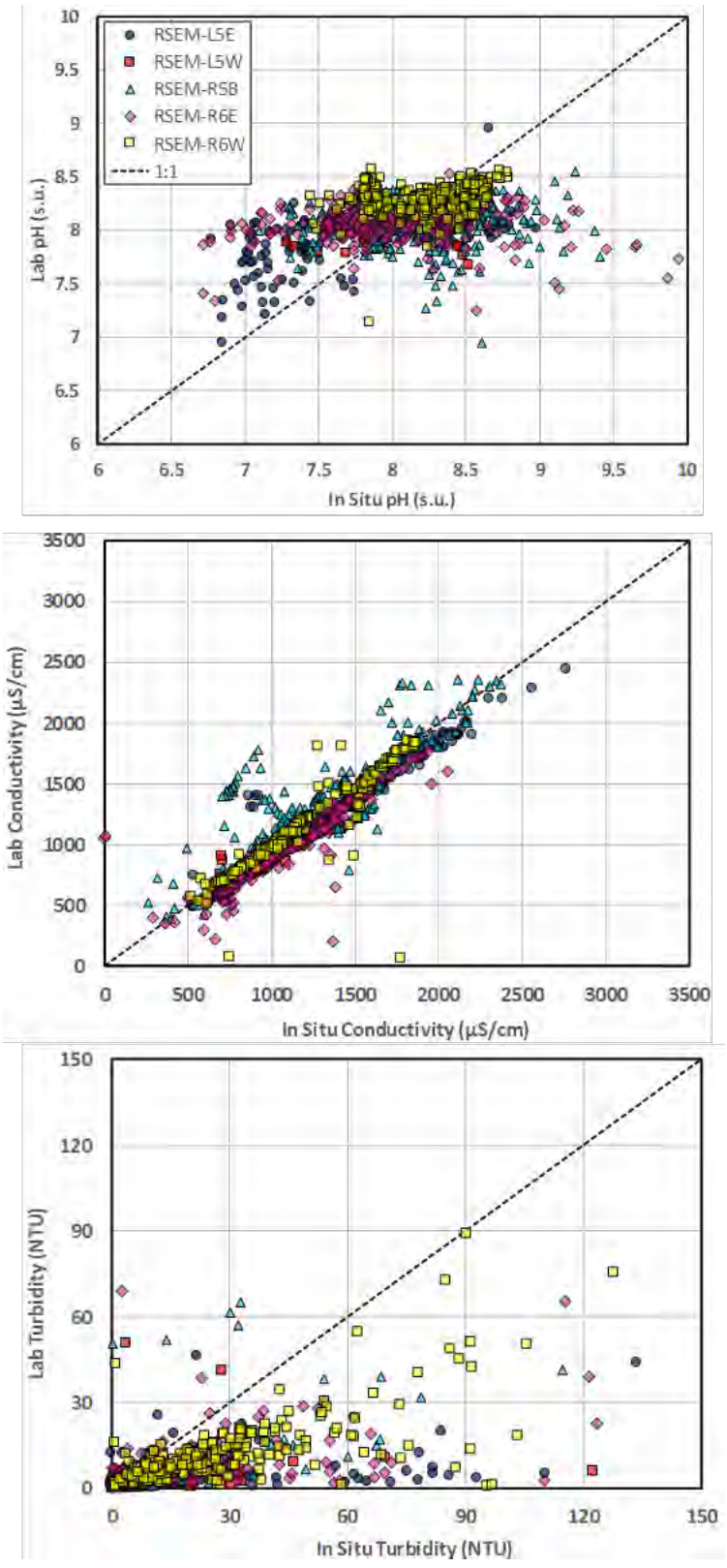

Figure 3-35: In situ versus lab measurements for pH, electrical conductivity and turbidity for 2019

3.2.3.8 Turbidity – TSS Relationship

Validation of the turbidity-TSS relationships developed by PRHP in 2018 for the RSEM sediment ponds (as described in Section 4.1) was conducted using 2019 data for the RSEM Area R5B, R6E and R6W (combined), L5E and L5W (combined), and L6 sediment control ponds. In Figure 3-36 through Figure 3-39, field (hand-held meter)turbidity results are plotted against the analytical TSS measurement for the corresponding water quality samples. Turbidity measurements were considered outliers and removed from analysis when values were approximately10x greater than the 90th percentile of each RSEM. Inclusion of these results can disproportionately shift the R^2 value and slope of the best fit line. A reference line calculated using the relationships developed by PRHP is plotted relative to a best fit linear relationship of the 2019 data. In addition, a new TSS-turbidity relationship for L6 has is presented. as PRHP had not previously developed a TSS-turbidity relationship for this pond because approval to discharge from the RSEM Area L6 pond was not received until 2019 Q4.

Across all sites, field measurements collected using hand-held meters showed good agreement with the existing PRHP TSS-turbidity relationships.

Notably, the majority of field turbidity measurements across RSEM stations are below 20 NTU, while linear relationships are primarily driven by a relatively small number of samples containing high turbidity levels. Moderate R^2 values ranging from 0.56 to 0.76 provide validation of a linear relationship between lab TSS and field turbidity at the RSEM Area R5B, R6 and L5 sediment control ponds. By comparison, this relationship is much weaker at L6 where turbidity levels are predominantly low (below 12 NTU). Overall the 2019 data provides supporting evidence of a comparable linear TSS-turbidity relationship to those developed by PRHP at RSEM Area R5B, R6 and L5 sediment control ponds. The relationships will continue to be evaluated and updated with more data in subsequent years to provide a more robust correlation.

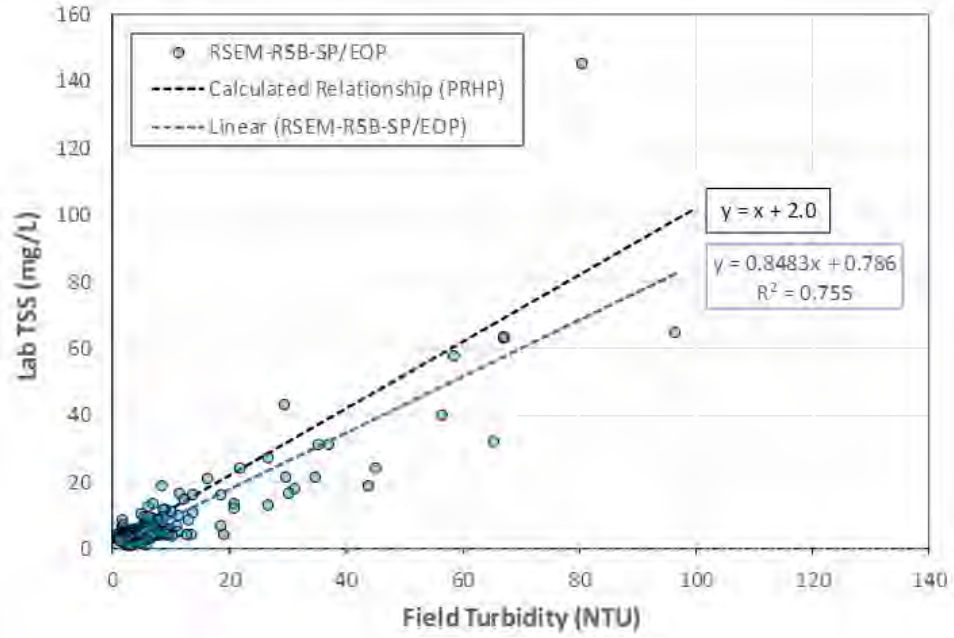

Figure 3-36: Lab TSS versus field turbidity at RSEM-R5B for 2019. Field turbidity results from March 17 (1,544 NTU) were not included to develop the TSS-turbidity relationship presented.

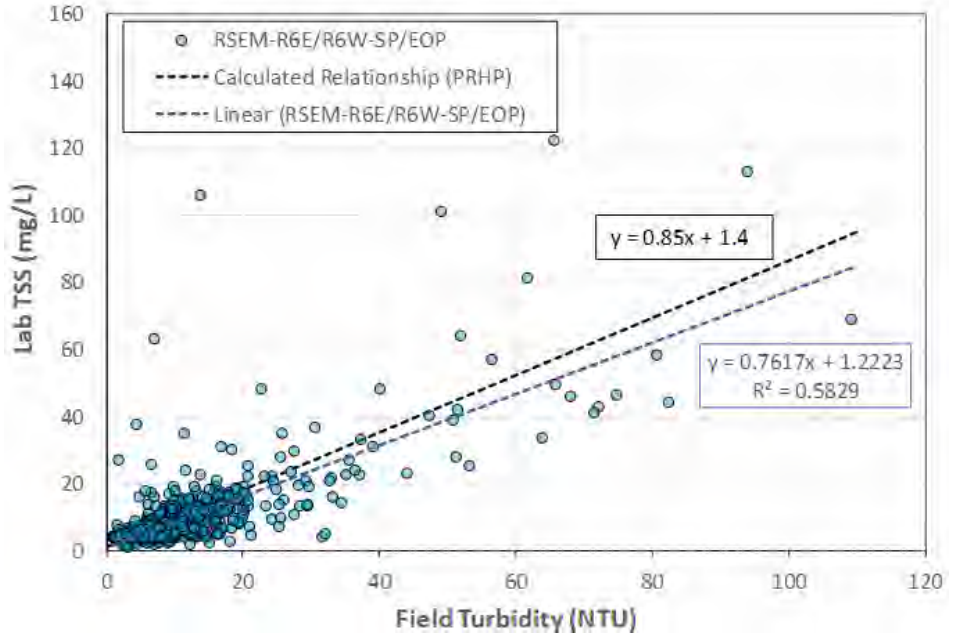

Figure 3-37: Lab TSS versus field turbidity at RSEM-R6E/R6W for 2019

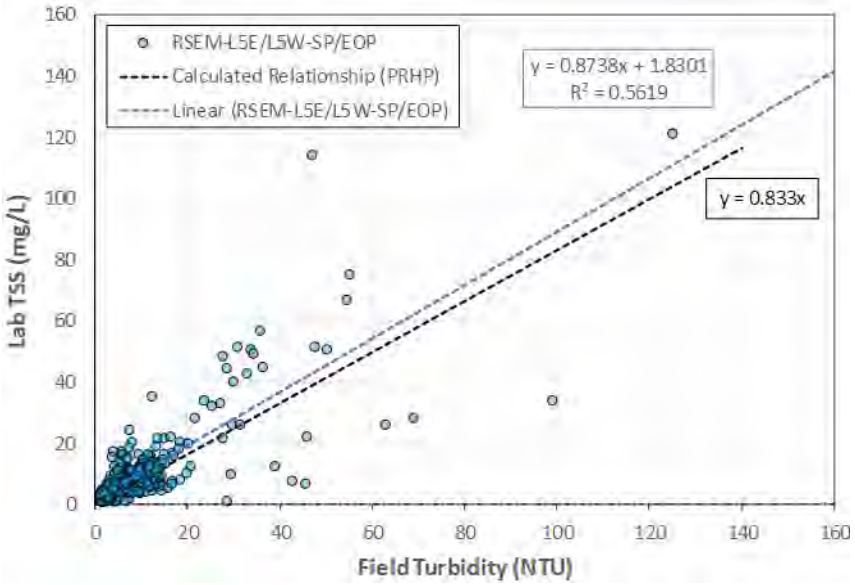

Figure 3-38: Lab TSS versus field turbidity at RSEM-L5E/L5W for 2019.

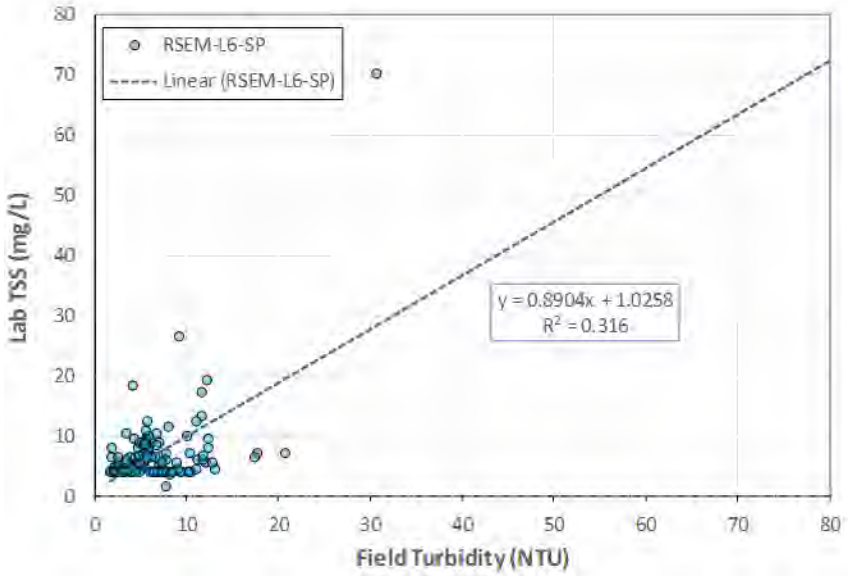

Figure 3-39: Lab TSS versus field turbidity at RSEM-L6 in 2019

3.2.3.9 Conclusions

Overall, the QA/QC results for the 2019 sampling program provide a reasonable level of confidence in the water quality data for field (hand-held and continuous) and analytical measurements. Minor issues associated with sample representativeness are noted but are not expected to measurably alter the interpretation of sampling data. Trends noted in the sections above will continue to be monitored and appropriate action will be taken to minimize potential sample contamination and data variability.

4. Key Findings

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4. Key Findings

The purpose of this section is to provide additional information that is required by the BC Hydro ARD/ML Management Plan or has been specifically requested by BC Hydro. It includes the updated relationship between turbidity and TSS, an assessment of the onset of ARD/ML, a summary of mitigation measures that were employed in 2019, a summary of exceedances of project-specific discharge limits that occurred in 2019, and an estimation of metal loads discharged to the Peace River.

4.1 Turbidity – TSS Relationship

The preliminary TSS-Turbidity relationship for all RSEM Area sediment ponds was derived prior to the start of construction and is presented in the Environmental Protection Plans (EPPs) that were developed for each construction area. The preliminary relationship was:

$$\text{TSS (mg/L)} = 0.83 \times \text{Turbidity (NTU)}$$

PRHP maintains current turbidity – TSS relationships for each RSEM sediment pond where field measurements are obtained. These relationships are reviewed periodically. The relationships in use in 2019 are summarized in Table 4-1 below.

Table 4-1:
Turbidity to TSS Conversion Relationships for In Situ Monitoring Equipment

Location	Conversion
RSEM-L5-SP	TSS = 0.833 × (Turbidity)
RSEM-R5B-SP	TSS = 1 × (Turbidity) + 2.0
RSEM-R6-SP	TSS = 0.85 × (Turbidity) + 1.4
Peace River*	TSS =0.73 × (Turbidity)

* Calculated at PAM stations (Peace River, above Moberly River); Ganshorn *et al.* (2019)

4.2 Onset of ARD/ML

Surface water quality and geochemical monitoring data are reviewed on a weekly and quarterly basis, respectively, to identify trends in the onset of ARD/ML. Monitoring results confirm previous evidence of localized acidic rock on both the Left Bank and Right Bank.

There is one large and several smaller catchment areas on the Left Bank. Contact water catchments on the Left Bank include the: RSEM Area L5 and LBEX catchment area; DTIP and DTOP working areas; Left Bank Cofferdam area; and RSEM Area L6. PAG

material was sampled in each of the Left Bank catchment areas, except for the DTIP and DTOP working areas as the PAG material excavated from the DTIP and DTOP is generally trucked directly to a RSEM Area approved for PAG disposal.

There are five catchment areas within the construction site on the Right Bank including Area A, South Bank Initial Access Road (SBIAR), RSEM Area R6 (which includes Area 20/21, RBDT and RCC), RSEM Area R5B (Approach Channel and Area 23) and RSEM Area R5A. PAG material samples were collected in the Area A, RSEM Area R6, RSEM Area R5A, and RSEM Area R5B catchments in 2019. No material samples were collected from the SBIAR catchment in 2019 as the SBIAR cut is currently managed by BC Hydro.

4.2.1 Left Bank

Key observations with respect to the onset of ARD/ML on the Left Bank in 2019 are as follows:

- AG material was identified in RSEM Area L5, the RSEM Area L5 Extension, RSEM Area L6, the LBEX, and the natural bluff below the LBEX. No samples in the Left Bank Cofferdam/Dam Core area were AG at the time of sampling.
- The RSEM L5E, L5W, and L6 sediment ponds remained circumneutral to basic throughout 2019. The metal concentrations generally remained low and below the discharge limits in these sediment ponds. However, T-Cd concentrations exceeded the discharge limits from August 19-23 and from November 20-23 in discharge from the RSEM L5 East sediment pond (see Section 4.5). These exceedances were related to rainfall and snow melt events which washed exposures of weathered shale in the southeast end of RSEM Area L5 and mobilized soluble ARD/ML products.
- Occasional acidic field pH measurements (pH < 6.0) were recorded at surface water monitoring stations in 2019, including:
    - Two measurements at DTIP-DW; and
    - Single measurements at ADIT-4, LBCD-SUMP, and LBDA.

    Results at these stations are influenced by ARD/ML runoff from the naturally weathered bluff located adjacent to the sample locations.
- In addition, a single measurement at LBL3C-2.19 had a pH < 6.0. However, this measurement is not consistent with the rest of the monitoring data at this site and is not considered indicative of ARD/ML onset in RSEM Area L3, which was not permitted for storage of PAG material.

4.2.2 Right Bank

Water quality and ARD monitoring on the Right Bank led to the following key observations:

- AG material was identified in the Approach Channel, parts of RSEM Area R5A and small bedrock exposures in Area A. The samples from the RCC Excavation indicate that the rinse pH of material in this area is decreasing but remains marginally above a rinse pH of 5.5. No AG samples were collected from the Right Bank Dam Core.
- The RSEM R6 East and West sediment ponds remained circumneutral to slightly basic. There were occassional exceedances of the discharge limits in 2019 (see Section 4.5). Discharge from the RSEM R6 East sediment pond exceeded the discharge limit for T-Zn on June 29 and T-Cd on November 26. Discharge from the RSEM R6 West sediment pond exceeded the discharge limits on the following days: January 30 (T-Cu, T-Zn) and June 29 (T-Zn). These exceedances were generally attributed to PAG-influenced runoff from snowmelt (January and November) or rainfall events (June).
- The R5B sediment control pond was circumneutral to basic. The following metal concentrations exceeded the discharge limits in 2019: T-Cd (March 14-21; August 22-24), T-Cu (March 14-21), and T-Zn (March 14-21; August 22-23) (see Section 4.5). These exceedances are from PAG influenced runoff associated with snowmelt in March and rainfall in August. The precipitation washes soluble ARD/ML products, including Cd, Cu, and Zn, from PAG exposures in the Approach Channel.
- Acidic field pH measurements were recorded at AC-EAST-CONVEYOR during brief periods in late March and late June/early July 2019 (eight days in total). The low pH values measured at this monitoring station are related to acidic runoff from the exposed AG rock in the Approach Channel. The pH returned to circumneutral following these events. Other surface water stations near the Approach Channel occasionally had acidic field pH readings. One acidic field pH value was record at RBAC-SUMP (January 2019) and RB-R5B-ACDC (March 2019).
- The RSEM R5A Ponds remained circumneutral, although several metals were above the applicable guidelines in the discharged water (see Section 4.5). These elevated values were likely due to snow and ice melt causing turbid runoff in RSEM Area R5A.

4.3 Mitigation

Given the onset of ARD/ML in exposed PAG material on both the Left Bank and Right Bank, mitigation has been implemented to minimize effects on surface water and groundwater quality. Potential environmental effects from ARD/ML are mitigated primarily through covering of weathered PAG material with unweathered PAG or NPAG material, water management and water treatment. These key mitigation measures that were employed in 2019 are summarized below.

4.3.1 Material Management

Weathered PAG material was excavated or covered to minimize potential ARD/ML on both the Left and Right Banks. The timely excavation or cover of weathered material is a key mitigation strategy in the RSEM Area L5 and RSEM Area R5A disposal areas. The potential for ARD/ML due to bedrock exposed as a result of excavations in the vicinity of the Diversion Inlet and Outlet Portals and in the Central Cofferdam was mitigated with the application of shotcrete to the exposed PAG bedrock slopes.

The southeastern edge of the RSEM Area L5 stockpile has remained uncovered for an extended period of time and is becoming acidic. Collection of water in the ditch below this edge of the stockpile was implemented as a temporary mitigation measure and the ditch is periodically dewatered to the MWTF for treatment prior to discharge.

The Approach Channel excavation was initiated in Autumn 2016 and mostly completed by the end of Q2 2017. The excavated faces have remained exposed since that time and are at advanced stages of weathering. Since the original excavation, several minor excavations have scraped material off of the exposed faces; however, the majority of samples have had a rinse pH below 7 with several samples being classified as currently AG (rinse pH < 5.5). Until further excavation occurs in the Approach Channel to expose unweathered bedrock, the acidic runoff from this area is collected and treated, as needed. Excavation of the Approach Channel is expected to resume in early 2020.

The requirements of Section 7.2.4 (BC Hydro, 2016a) related to PAG contact RSEM sediment were triggered at RSEM R5B, as this pond was dredged in early September. The dredgeate was transferred to RSEM R5A for long term storage.

4.3.2 Water Management

PAG-contact surface water runoff was stored on both banks through 2019 in Approach Channel sumps and Cofferdam sumps on the Left Bank. Water requiring treatment was conveyed (by water truck or pumped from the Approach Channel) to the MWTF. The MWTF was operated consistently through 2019.

On the Left Bank PAG-contact surface water runoff was managed to prevent direct discharge to the Peace River. PAG-contact water from DTIP and DTOP was held in

several temporary ponds and was trucked to the MWTF for treatment. Water from the LBEX Pond (until decommissioned) and Central Cofferdam was directed to the MWTF for treatment or RSEM L5 East sediment control pond for discharge. Similarly, water from the LBEX sumps was transferred to RSEM L5 sediment ponds.

On the Right Bank, surface water runoff is conveyed to the RSEM Area R6, R5B or R5A sediment ponds. In general, surface water runoff in RSEM Area R6 was managed so that it remained within project-specific discharge limits and was discharged via the RSEM Area R6 sediment ponds. In the RSEM Area R5B catchment, surface water runoff was directed to the R5B pond and PAG influenced runoff from the East Conveyor Seep, RBAC Sump, RBAC Seep and the upper Approach Channel ditch was directed to the MWTF Pre-Treatment Pond. Small amounts of water that collected in the RSEM R5A ponds were transferred to the RSEM R5B pond in 2019.

4.3.3 Mobile Water Treatment Facility

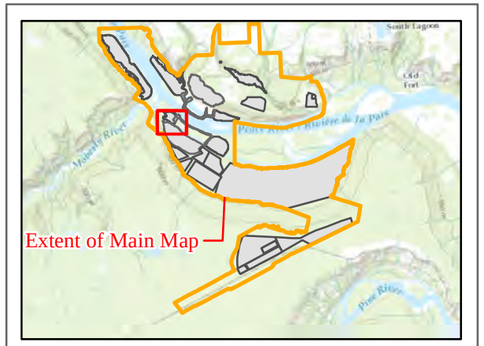
PRHP commissioned the MWTF in 2018 Q3. The MWTF is located on a pad south of RSEM Area R5B. PAG-contact water is pumped to the Pre-Treatment Pond which is located adjacent to the MWTF. The capacity of the Pre-Treatment Pond was increased in 2019 to store greater quantities of PAG contact water when inflow exceeds the MWTF treatment rate during high runoff events. Treated effluent from the MWTF is discharged to a sludge pond, which is divided into three sequential cells by lined berms. Discharge from the final cell is directed to the RSEM R5B sediment pond through the AC DC ditch. This configuration is shown in Figure 4-1 below.

Surface water runoff from the Approach Channel and water from other locations (RSEM Areas R5A and R6 sediment control ponds, LBEX-SP, DIC/DTIP sumps, DOC/DTOP sumps, LCBD sumps, East Conveyor seep, RCC, RBAC sump and RBAC Seep) was directed to the Pre-Treatment Pond during 2019. The MWTF process was effective at buffering pH and reducing metal concentrations to within the project-specific discharge limits in treated water.

The treatment process adds a lime slurry to the influent to increase pH into the target range of 9.6 - 9.8, which precipitates metals as insoluble metal hydroxides. A flocculant is added to facilitate the coagulation and settling of the freshly precipitated solids. The process produces a gelatinous sludge with slow settling characteristics. The effluent pH is reduced to acceptable levels prior to discharge by sparging CO_2 into the settling pond final cell.

The treatment process effluent contains suspended particulates that are settled in the MWTF sludge collection cells. Accumulated sludge from the collection cells was removed and disposed off-site at a licensed disposal facility:

- Feb. 25 – Mar. 4
- Jun. 12 – Jun 15



Legend

Direction of Flow

Note: Site C aerial imagery collected between May 2019-Oct 2019.

0 50 100 Meters 1:2,500

DATE SAVED: Nov 07, 2019 **REVIEWED:** NM

DRAWN BY: AL **VERSION:** 1

CLIENT:

PEACE RIVER HYDRO PARTNERS

LORAX ENVIRONMENTAL

PROJECT:

Site C Clean Energy Project
ARD/ML 2019 Annual Report

TITLE:

MWTF Flow Configuration

PROJECT #: A416-1 *FIGURE:* 4-1

Coordinate System: *NAD 1983 UTM Zone 10N* ***Datum:*** *North American 1983* ***Units:*** *Meter*

Path: *P:\@Drafting\SiteC\Drafting Figures\MXD\2018AnnualReport\Fig 4_3_1_MWTF InflowsOutflow_20190313.mxd*

Sludge was removed by vacuum truck and transported to RSEM R5A for dewatering in geotextile bags in 2019 Q3 and Q4. Transfers occurred on:

- Aug. 23-24 (6 bags);
- Sept. 14-15 (4 bags);
- Oct. 17-18 (6 bags); and
- Nov. 28 -29 (4 bags).

The MWTF operated through 2019, except in the instances noted above treatment was temporarily suspended to allow for sludge collection. In addition, active water treatment was temporarily suspended in the later portion of Q4 when sub-zero temperatures at site limited the amount of water that required treatment. During these periods untreated MWTF discharge is recirculated to the Pre-Treatment pond, as needed, to accumulate water in the pond and maintain operability of the MWTF through winter conditions.

Additional water treatment capacity may be warranted should material management and water management measures be unable to sustain acceptable water quality in discharges from RSEM sediment ponds. Material management and water management are the primary and secondary mitigation strategies as noted above, and additional water treatment will also be considered as a contingency measure, if necessary.

4.4 ML/ARD Risk Levels

4.4.1 Comparison of Predicted and Measured RSEM Discharge

A water quality model for the Project was developed as part of the Environmental Assessment (EA), to predict whether discharge from RSEM areas would exceed allowable concentrations (KCB, 2014). Predicted concentrations were initially compared against Metal Mine Effluent Regulations (MMER) Schedule 4 criteria limits, and predictions were only provided for metals with MMER limits. Subsequently, more stringent limits were specified in Appendix E (Revision 5.2, dated July 26, 2016) of the CEMP (BC Hydro, 2016a). The predicted concentrations discussed in the following section are limited to T - Cu and T-Zn to demonstrate key observations.

The water quality model indicated that Upper Case loading rates (95^{th} percentile rates for Humidity Cells and Field Bins), which were believed to represent larger rainstorm "flush" events, could result in concentrations exceeding MMER Schedule 4 limits in discharges from RSEM Area R5B and R5A, unless mitigated (KCB, 2014). The maximum monthly average predictions for T-Cu and T-Zn are shown in Table 4-2. These predicted exceedances are caused primarily by the area of PAG shale exposed as a result

of the excavation of the Approach Channel in the RSEM R5B catchment (assumed to reach a maximum of 17.7 ha), and by the exposed PAG shale expected to be deposited (9.3M m^3) in RSEM Area R5A late in the construction phase of the Project (KCB, 2014).

Table 4-2:
Comparison of Maximum Monthly Water Quality Predictions for T-Cu and T-Zn (from KCB, 2014), CEMP requirements, and MMER Schedule 4 limits for discharge from RSEM Areas R5B and R5A

Parameter	CEMP discharge limit (mg/L)	MMER 30 day limit (mg/L)	R5B maximum prediction (mg/L)	R5A maximum prediction (mg/L)
T-Cu	0.011	0.3	0.14	2.4
T-Zn	0.033	0.5	0.72	13

The mitigation proposed was placement of overburden or recently excavated shale to cover acidic material. It was determined that at 70% cover, some water quality objectives were still not achieved, but they were met with 100% cover, and it was estimated that 80% to 90% cover would be required to meet the MMER criteria (KCB, 2014) in discharge from the RSEM R5B and R5A ponds.

In a subsequent report (KCB, 2016), it was noted that covering the Approach Channel excavations on the Right Bank may be impractical, and for this reason only the unmitigated scenario for R5B (0% of PAG material covered) was modelled. In RSEM Area R5A, covering deposited material is practical, and mitigated scenarios for R5A (70% and 100% of PAG material covered) were modelled. These results exceed the discharge limits set out in the CEMP, without additional mitigation (water treatment), as shown in Table 4-3 below.

Table 4-3:
Comparison of Maximum Monthly Water Quality Predictions for T-Cu and T-Zn (from KCB, 2016), CEMP requirements, and MMER Schedule 4 limits for discharge from RSEM Areas R5B and R5A

Parameter	CEMP discharge limit (mg/L)	MMER 30 day limit (mg/L)	R5B maximum prediction (mg/L)	R5A maximum prediction (mg/L)
T-Cu	0.011	0.3	0.15	2.5
T-Zn	0.033	0.5	0.7	13.3

The predictions cited above are for the maximum monthly average concentrations for the period included in the water quality model, from October 2014 through 2024. The predictions are based on the assumptions (KCB, 2014) that:

- A maximum extent of 17.7 ha of PAG shale would be exposed in the Approach Channel in the RSEM Area R5B catchment; and

- Approximately 10.6 Mm^3 of material, including 9.3M m^3 of (PAG) rock and 1.25M m^3 of overburden, would be placed in RSEM Area R5A.

At the end of 2019, the area of exposed PAG shale in the Approach Channel was approximately 8.9 ha, or about 50% of the area that will ultimately be exposed. The total volume of PAG rock deposited in RSEM Area R5A is approximately 5.1M m^3, or approximately 55% of the total volume that was expected to be deposited by this time (to the end of 2019 Q3), which includes almost all of the material that was expected to be deposited to the completion of the project, as shown in Table 4-4 below. This is primarily due to the temporary deferral of the remaining Approach Channel excavation.

Table 4-4:
Comparison of scheduled and reported volumes of material placed in RSEM Areas R5A (scheduled volumes, KCB, 2014, Page 80, Table 39)

Construction Stage	Time	Scheduled Rock (PAG) Material added[1] (m^3)	Reported PAG material added[2,3] (m^3)	Scheduled Cumulative volume of Rock (PAG) stockpiled (m^3)	Reported Cumulative volume of PAG stockpiled (m^3)	%
Diversion Stage 1	4Q15 – 3Q16	2,827,600	0	2,827,600	0	0%
	4Q16 to 3Q17	4,151,200	3,541,397	6,978,800	3,541,397	38%
	4Q17 to 3Q18	487,300	454, 045	7,466,100	3,995,442	43%
	4Q18 to 3Q19	1,818,800	1,122,639	9,284,900	5,118,081	55%
Diversion Stage 2	4Q19 to 3Q20	-	-	-	-	
	4Q20 to 3Q21	-	-	-	-	
	4Q21 to 3Q22	21,000	-	9,305,900	-	

[1]Values from KCB, 2014; Table 39.
[2] Values from Lorax Quarterly ML/ARD Reports.
[3]It is assumed that all rock volumes are PAG.

The predicted (KCB, 2016) and measured concentrations for total Cu and Zn for RSEM Area R5B (no mitigation) are shown in Figure 4-2 and Figure 4-3. Predicted total Cu and Zn concentrations (KCB, 2016) for RSEM Area R5A (0% and 100% cover) and the measured concentrations for RSEM R5A Pond C are shown in Figure 4-4 and Figure 4-5. The MMER and CEMP discharge limits are shown for comparison.

The water quality model results for RSEM Area R5B indicate that Cu and Zn concentrations would almost always exceed the CEMP discharge limits without mitigation, assuming upper case geochemical source terms, which were stated to be representative of large precipitation events. Water treatment was initiated in July 2018 and the water management system was modified in October 2018 to capture PAG impacted surface water during large storm events and direct it to the MWTF.

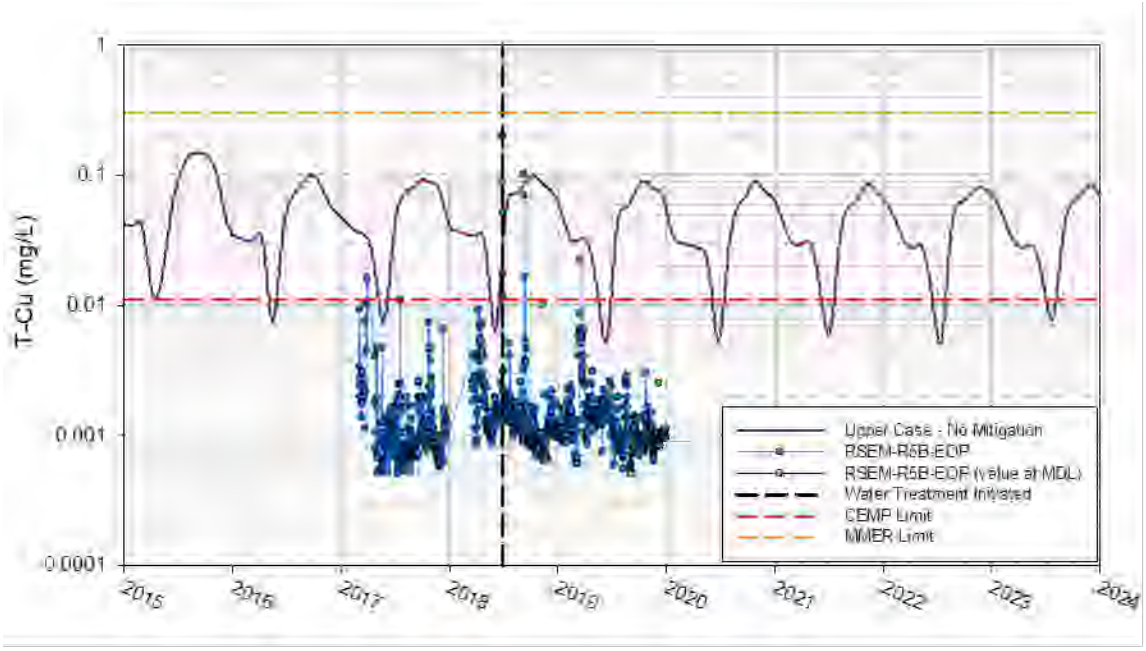


Figure 4-2: Cu at RSEM R5B – Measured and Predicted Upper Case – No Mitigation

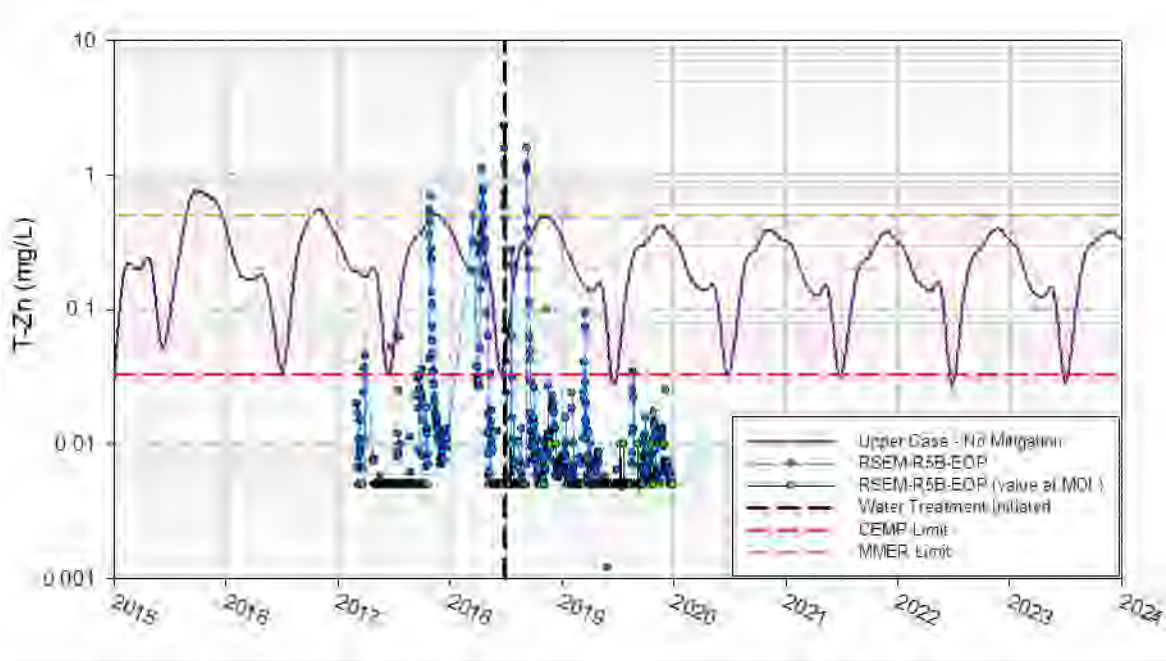


Figure 4-3: Zn at RSEM R5B – Measured and Prediced Upper Case – No Mitigation

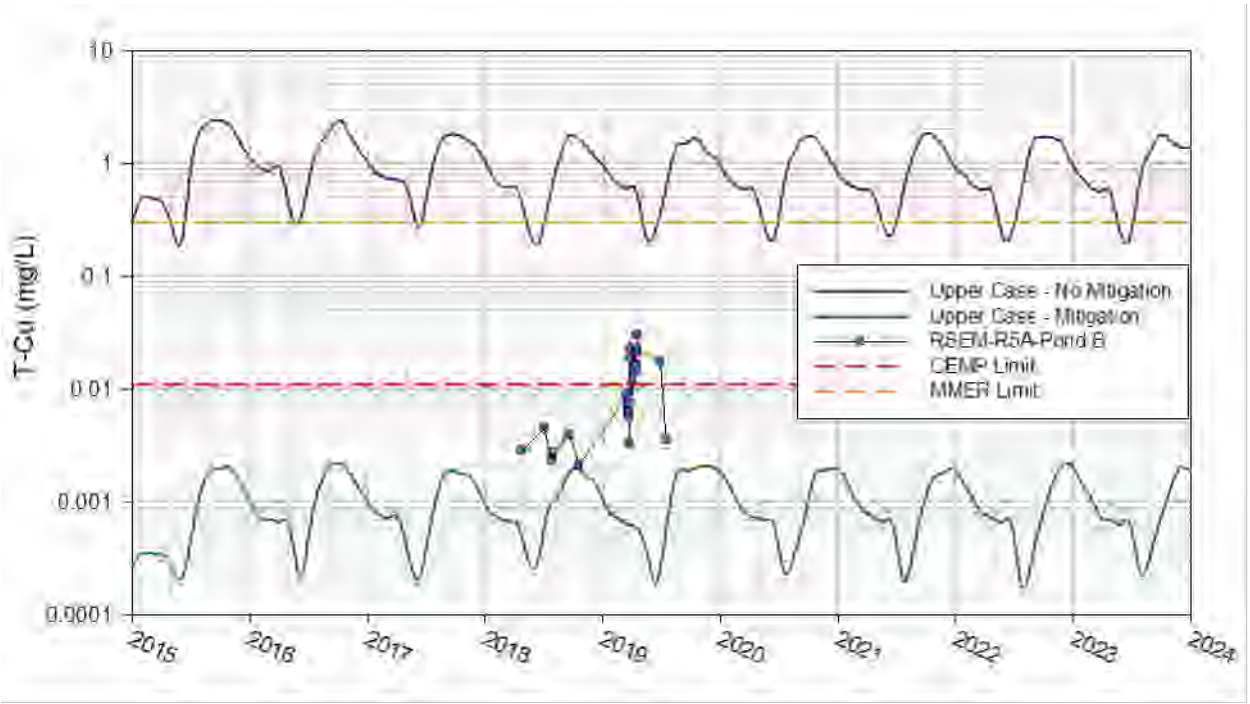


Figure 4-4: T-Cu at RSEM R5A, Measured and Predicted with No Mitigation and 100% Mitigation

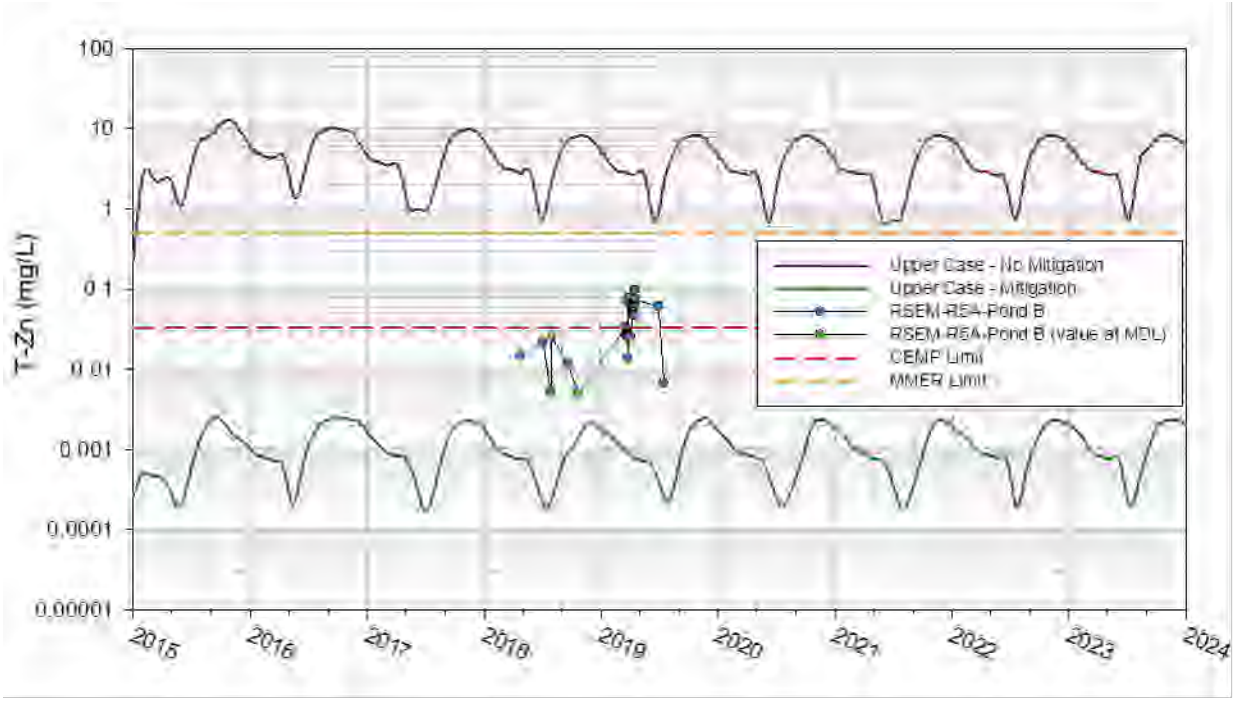


Figure 4-5: Zn at RSEM R5A – Measured and Predicted with No Mitigation and 100% Mitigation

The water quality monitoring results for RSEM Area R5A indicate that Cu and Zn concentrations are generally slightly elevated relative to the concentrations predicted with implementation of mitigation (100% cover), which is consistent with actual conditions in the field (the % cover in the latter half of 2019 was estimated to be approximately 75%). These plots also indicate that Cu and Zn concentrations approach or exceed RSEM sediment pond discharge limits and underscore the importance of continued mitigation in RSEM Area R5A.

These results confirm that the inherent risk in the RSEM Area R5B and R5A catchments without mitigation is high, and that avoiding exceedances in both catchments will require diligent and consistent implementation of mitigation measures. In the RSEM Area R5B catchment, it is necessary to collect and treat water that contacts weathered shale in the Approach Channel excavation. The surface area of this excavation is expected to increase substantially in 2020. In the RSEM Area R5A catchment, covering PAG shale with freshly excavated material is necessary, and the volume of PAG material that will be deposited is also expected to increase substantially as excavation of the Approach Channel resumes.

A consideration for RSEM Area R5A in 2020 through to the establishment of the permanent reservoir behind the dam is the ability to cover exposed PAG surface to limit the extent of AG surfaces. It is currently Lorax's understanding that the difference between the cumulative volume of scheduled (9.3M m^3) and reported (5.3M m^3) PAG rock at the end of 2019 (4M m^3), will be deposited in RSEM Area R5A in 2020. Subsequent to this there will be relatively small volumes of additional material placed in the RSEM area to cover the PAG exposure and limit weathering of the PAG surface and reduce the amount of PAG runoff. The outer surfaces of the PAG bedrock in the RSEM will be progressively covered with granular fill to limit the release of ARD.

4.4.2 Risk Rating Matrix

A risk rating matrix was included in the Exceedance Response Plan (PRHP, 2017c) that was finalized in June 2017. It is intended to facilitate the advanced planning and strategic implementation of water treatment, recognizing that procurement, construction and commissioning of a water treatment facility requires some lead time.

A water quality risk rating of low, moderate or high is assigned to each of the water collection systems on site. Consideration has been given to active PAG-containing RSEM sediment ponds including the RSEM Area L5, R5B, and R5A sediment ponds.

The rating system employed for the RSEM ponds reflects:

- The current geochemical risk in the catchment area upgradient of the sediment pond, as determined primarily from the proportion of exposed material with low (< 5.5) rinse pH values;
- The quality of the water that has accumulated in the pond, as determined primarily by the sulphate concentration, field pH and field conductivity; and
- Other information determined to be relevant.

The current risk ratings are summarized in Table 4-5 below. The general intent of the risk ratings is to trigger action when the onset of ARD/ML is evident (moderate rating) and when water treatment may soon be required to maintain compliance with EOP discharge limits (high rating).

A total of just over 1.3M m^3 of PAG material was placed in RSEM Area L5 and the L5 extension by the end of 2019, with a total of just over 1.4M m^3 stored on the Left Bank in total. The Reference Concept Report assumed that a total of 780,000 m^3 of (PAG) rock would be stored in RSEM Area L5 and progressively co-placed and encapsulated with overburden clays (KCB, 2014). The current volume is approximately 160% of the expected volume. In 2019, this material originated primarily from the Central Cofferdam and DTIP areas. Some PAG material stockpiled in the southeastern part of RSEM Area L5 was relocated and further PAG relocation is expected later in the year. The L5 Extension Area was commissioned for use starting in 2019 Q2.

The RSEM Area L5 is rated as moderate risk due to the larger than anticipated volume of PAG rock now stored in it, and the proportion of this material with rinse pH less than 5.5 in specific areas within RSEM Area L5, currently including an area at the southeast end of the facility. In addition, sulphate and conductivity in the L5E pond are elevated, and concentrations of Mn and dissolved Cd increased in 2019 Q4 indicating a greater PAG influence during Q4.

The RSEM Area L6 sediment pond has a small catchment area. It is excluded from the Risk Rating Matrix as the water in this pond would be transferred to the existing MWTF if treatment was required, rather than installing a water treatment facility specifically for this pond.

The LBEX Sediment Pond was decommissioned and the pond area was excavated in 2019 Q3. Consequently, the LBEX pond has been removed from the Risk Rating Matrix.

Table 4-5:
Risk Rating Matrix for PAG-Containing RSEM Sediment Ponds in Q3 2019

Factor	Sediment Pond(s)			
	L5	**R6**	**R5B[1]**	**R5A[2]**
% of exposed material with rinse pH < 5.5	~ 25%	< 10%		~ 25%
pH (in sediment pond)	lab pH > 6.8 in all samples	lab pH > 7 in all samples		lab pH ≥ 7.5 in all samples
Sulphate (in sediment pond)	sulphate median > 400 mg/L in E pond	sulphate < 310 mg/L in E and W pond EOP samples		Maximum sulphate > 650 mg/L in pond B samples[3]
Conductivity (in sediment pond)	lab conductivity median > 1300 µS/cm in E Pond	lab conductivity < 1500 µS/cm in E and W Pond		Maximum lab conductivity > 2,000 µS/cm in pond B samples[3]
Risk Rating				
Rinse pH of exposed material in catchment	Moderate	Low		Moderate
pH (in sediment pond)	Moderate	Low		Low
Sulphate (in sediment pond)	Moderate	Moderate		Moderate
Conductivity (in sediment pond)	Moderate	Low		Moderate
Overall Risk Rating	**Moderate**	**Low**	**High**	**Moderate**

Notes:
1. Ratings are no longer provided for RSEM R5B since water treatment has been implemented in this catchment.
2. Water quality sampling at RSEM R5A is less frequent than the R5B and R6 sediment ponds, as the pond is managed to prevent discharge to the Peace River from this pond.
3. Maximum concentrations in ponds A and C were higher, but influenced by high concentrations of TSS, and therefore not clearly indicative of ML/ARD influence.

On the Right Bank, there is an estimated area of 8.9 ha of exposed PAG shale in the RSEM Area R5B catchment. The requirement for water treatment was triggered in 2018, and the MWTF commissioned for this purpose. For this reason, a high risk rating has been assigned. PAG influenced runoff from the Approach Channel is diverted to the MWTF for treatment prior to discharge to RSEM R5B pond, thereby mitigating the risk of RSEM discharge limit exceedances from these waters. The treatment process was effective throughout 2019. All Approach Channel runoff was stored for treatment prior to discharge.

In 2019, PAG deposition reached an estimated 5,298,254 m^3 in RSEM Area R5A. The material originated primarily from the Dam and Core Buttress, Core Trench and the Spillway (included in the Approach Channel total). The risk is mitigated by covering PAG material before the onset of ML/ARD. The RSEM R5A ponds are currently rated as moderate risk, indicating that the onset of ARD/ML is evident in the upgradient catchment. Sulphate and conductivity were trending higher in Pond B in 2019 Q4. Dissolved concentrations of Cd, Cu and Zn were somewhat elevated but below EOP discharge limits.

There is little PAG material in the RSEM Area R6 catchment and the ML/ARD risk is low. Some exposed PAG material is located along the South Bank Initial Access Road (SBIAR). However, this relatively minor risk is managed by BC Hydro. Bedrock exposure in the RCC excavation is reduced by cover with roller compacted concrete. ARD that may be produced in the area is neutralized by the alkaline water released by concrete structures being built in this area.

Additional management measures to mitigate risk include: 1) minimizing exposures of acid generating surfaces by placement of fresh PAG and non-PAG material to cover weathered PAG materials, which will limit contact of surface runoff with acid generating materials; and, 2) active management of water levels in the RSEM R5A ponds to prevent discharges. Active management options could include adding additional temporary water storage, pumping water between the different RSEM R5A ponds or transporting water by truck to the MWTF or other sediment ponds on site.

4.5 Water Quality Exceedances

Any exceedance of EOP discharge limits in laboratory analysis of water discharged from PAG-containing RSEM sediment ponds to the Peace River is reported within 24 hours of receiving the analytical water quality results. Exceedances are also noted in weekly reports.

Exceedances in surface water runoff discharged from the construction site in 2019 occurred as a result of snow melt and periodic larger precipitation events. This resulted in exceedances on both the Left and Right Banks as summarized below.

4.5.1 Snow Melt in Late January and Mid-March

There was a minor exceedance in the discharge from the RSEM R6W pond on January 30th, 2019, following a short-lived thaw in late January, and exceedances in discharge from the RSEM R5B and R5A ponds (A, B and C) when the snowpack rapidly melted during warm weather from March 10th through March 21st. These are summarized in Table 4-6 below. Further details are provided for each exceedance below.

Table 4-6:
Summary of Exceedances in Water Discharged from PAG-Containing RSEM Sediment Ponds in January and March, 2019

Date(s)	Station	Parameter(s)	Date Results Received*	Cause
30 January	RSEM-R6-WP	T-Cu T-Zn	7 February	Snow melt accumulated over ice and discharged for approximately 2.5 hours
14–21 March	RSEM-R5B-EOP	TSS T-Cd T-Cu T-Zn	21 March – 1 April	Snowmelt rinsing Approach Channel
18–21 March	RSEM-R5A-A	T-Ag T-As T-Cu T-Fe T-Zn TSS	27–29 March	Snow and Ice Melt causing turbid runoff in RSEM Area A
19–21 March	RSEM-R5A-B	TSS T-Ag T-As T-Cu T-Fe T-Zn	27 March	Snow and Ice Melt causing turbid runoff in RSEM Area A
19–21 March	RSEM-R5A-C	TSS T-As T-Co T-Cu T-Fe T-Pb T-Se T-Zn	27 March	Snow and Ice Melt causing turbid runoff in RSEM Area A

*Represents the date results were reported by the analytical laboratory to PRHP and Lorax. Results were reported by Lorax to PRHP in an Exceedance Report within 24 hours of receipt of analytical results.

Site temperatures were above freezing January 25–27, 2019, reaching 8ºC on January 26. During this time melt water accumulated on top of the ice covering RSEM R6 West sediment pond. The accumulated water discharged from the pond for a short period. The exceedance is summarized in more detail in Table 4-7 below.

Table 4-7:
Summary of Exceedance for RSEM-R6-WP on January 30th, 2019

Sample No. (Pond ID)	Date Sampled	Date Results Received	Parameter	Measured Concentration (mg/L)	Discharge Limit (mg/L)	Estimated Volume Discharged (m^3)
VE2161	30 January	7 February	T-Cu	0.0117	0.011	4.2
			T-Zn	0.186	0.033	

Site reports indicate site temperatures increased to above freezing beginning March 10 and thawing conditions continued through March 21. TSS exceedances were driven by turbid meltwater generated during this thaw and directed to the RSEM R5B pond and R5A ponds A, B and C. Coincident T-Cd, T-Cu, and T-Zn exceedances are attributed to elevated TSS. These exceedances are summarized in more detail in Table 4-8, Table 4-9, Table 4-10 and Table 4-11 below.

Table 4-8:
Summary of Exceedances for RSEM-R5B-EOP on March 14–21, 2019

Sample No.	Date Sampled	Date Results Received	Parameter	Measured Concentration (mg/L)	Discharge Limit (mg/L)	Estimated Volume Discharged (m^3)
VJ4045	14 March	25 March	TSS	31.2	28.7	708
VJ4023	15 March	25 March	TSS	61.4	28.3	861
VJ7200	16 March	21 March	T-Cd	0.000337	0.00029	912
			T-Zn	0.0408	0.033	
			TSS	40	28.5	
VJ7218	17 March	23 March	T-Cd	0.00052	0.00029	1,356
			T-Cu	0.0219	0.011	
			T-Zn	0.093	0.033	
			TSS	446	30.7	
VJ6958	18 March	28 March	TSS	145	35.7	1,039
VK0939	19 March	28 March	T-Cd	0.00054	0.00029	1,043
			T-Zn	0.0743	0.033	
VK3716	20 March	29 March	TSS	57.6	39.5	891
VK3818	21 March	1 April	TSS	62.8	47	730

Table 4-9:
Summary of Exceedances for RSEM-R5A-A-EOP on March 18–21, 2019

Sample No.	Date Sampled	Date Results Received	Parameter	Measured Concentration (mg/L)	Discharge Limit* (mg/L)	Estimated Volume Discharged (m^3)
VJ6957	18 March	27 March	T-As	0.0231	0.005	432
			T-Cu	0.129	0.022	
			T-Fe	81.8	1.0	
			T-Zn	0.469	0.127	
			TSS	2680	35.7	
VK0908	19 March	27 March	T-Ag	0.00024	0.00010	346
			T-As	0.0093	0.005	
			T-Cu	0.0384	0.0108	
			T-Fe	22.7	1.0	
			T-Zn	0.160	0.0356	
			TSS	544	42.2	
VK2370	20 March	29 March	T-Cu	0.0133	0.0081	97
			T-Fe	6.23	1.0	
			T-Zn	0.0537	0.033	
			TSS	85.2	39.5	
VK3786	21 March	29 March	T-Fe	3.07	1.0	9

*Approved BC short-term (acute) water quality guideline for protection of freshwater aquatic life. For calculated guidelines, the corresponding sample hardness, pH, temperature or chloride levels were used for the calculation.

Table 4-10:
Summary of Exceedances for RSEM-R5A-B-EOP on March 19–21, 2019

Sample No.	Date Sampled	Date Results Received	Parameter	Measured Concentration (mg/L)	Discharge Limit* (mg/L)	Estimated Volume Discharged (m^3)
VK0909	19 March	27 March	T-Ag	0.00015	0.0001	173
			T-As	0.0059	0.005	
			T-Cu	0.0234	0.0081	
			T-Fe	13.3	1.0	
			T-Zn	0.0958	0.0330	
			TSS	229	42.2	
VK2372	20 March	29 March	T-Cu	0.0332	0.0125	270
			T-Fe	3.04	1.0	
			TSS	46	39.5	
VK3787	21 March	29 March	T-Fe	3.44	1.0	9
			T-Zn	0.0623	0.033	

*Approved BC short-term (acute) water quality guideline for protection of freshwater aquatic life. For calculated guidelines, the corresponding sample hardness, pH, temperature or chloride levels were used for the calculation.

Table 4-11:
Summary of Exceedances for RSEM R5A-C-EOP on March 19–21, 2019

Sample No.	Date Sampled	Date Results Received	Parameter	Measured Concentration (mg/L)	Discharge Limit* (mg/L)	Estimated Volume Discharged (m^3)
VK0910	19 March	27 March	T-As	0.0079	0.005	346
			T-Co	0.0082	0.004	
			T-Cu	0.0196	0.0046	
			T-Fe	16.1	1.0	
			T-Pb	0.00963	0.00716	
			T-Se	0.00339	0.002	
			T-Zn	0.0942	0.0270	
			TSS	790	22.2	
VK2373	20 March	29 March	T-Cu	0.0030	0.0021	638
			T-Fe	1.41	1.0	
			T-Se	0.0038	0.002	
			T-Zn	0.0117	0.0075	
VK3788	21 March	29 March	T-Fe	1.6	1.0	17
			T-Se	0.0073	0.002	
			T-Zn	0.0089	0.0075	
			TSS	30.8	27.0	

*Approved BC long-term (chronic) water quality guideline for protection of freshwater aquatic life. For calculated guidelines, the corresponding sample hardness, pH, temperature or chloride levels were used for the calculation.

4.5.2 Rain in Late June

There was a slight exceedance of the discharge limit for T-Zn from the RSEM R6W and R6E ponds on June 29, 2019. These exceedances were attributed to rain contacting shale exposures in SBIAR ditch and the Right Bank Cofferdam RCC area. Recorded precipitation at the North Camp weather station was 69.1 mm from June 23 – 29. These exceedances are summarized in Table 4-12 and Table 4-13 below.

Table 4-12:
Summary of Exceedance for RSEM R6W on June 29, 2019

Sample No.	Date Sampled	Date Results Received*	Parameter	Measured Concentration (mg/L)	Discharge Limit (mg/L)	Volume Discharged on Day of Exceedance (m^3)
VZ9025	29 June	9 July	T-Zn	0.0406	0.033	1050

*Represents the date results were reported by the analytical laboratory to PRHP and Lorax. Results were reported by Lorax to PRHP in an Exceedance Report within 24 hours of receipt of analytical results.

Table 4-13:
Summary of Exceedance for RSEM R6E on June 29, 2019

Sample No.	Date Sampled	Date Results Received*	Parameter	Measured Concentration (mg/L)	Discharge Limit (mg/L)	Volume Discharged on Day of Exceedance (m^3)
VZ9024	29 June	9 July	T-Zn	0.0335	0.033	2195

*Represents the date results were reported by the analytical laboratory to PRHP and Lorax. Results were reported by Lorax to PRHP in an Exceedance Report within 24 hours of receipt of analytical results.

4.5.3 Rain in Late August

There were minor exceedances in the discharge from the RSEM L5E pond on the Left Bank and from the RSEM R6W and R5B ponds on the Right Bank between August 16th and 23rd. These are summarized in Table 4-14, Table 4-15 and Table 4-16 below. A total of 21.4 mm of rain fell on August 15th, and an additional 38.4 mm fell through August 23rd.

The RSEM-R6W sediment pond exceedances were TSS-related due to heavy rain from August 15-19, as noted above. A turbidity curtain was installed on August 16 to reduce turbidity in the pond. Flocculant was added to the pond from August 18th to the 20th.

Table 4-14:
Summary of Exceedances for RSEM-L5E on August 19-23, 2019

Sample No.	Date Sampled	Date Results Received*	Parameter	Measured Concentration (mg/L)	Discharge Limit (mg/L)	Volume Discharged on Day of Exceedance (m^3)
WI2770	19 Aug	28 Aug	T-Cd	0.000361	0.00029	957
WI5133	21 Aug	29 Aug		0.000385		295
WI9247	22 Aug			0.000388		234
WI9312	23 Aug			0.000338		594

*Represents the date results were reported by the analytical laboratory to PRHP and Lorax. Results were reported by Lorax to PRHP in an Exceedance Report within 24 hours of receipt of analytical results.

Table 4-15:
Summary of Exceedances for RSEM-R6W on August 16-18, 2019

Sample No.	Date Sampled	Date Results Received*	Parameter	Measured Concentration (mg/L)	Discharge Limit (mg/L)	Volume Discharged on Day of Exceedance (m^3)
WH8440	16 Aug	26 Aug	TSS	64	56.1	1063
WI0634	17 Aug	26 Aug		122	49.6	864
WI0686	18 Aug	26 Aug		113	98	1075

*Represents the date results were reported by the analytical laboratory to PRHP and Lorax. Results were reported by Lorax to PRHP in an Exceedance Report within 24 hours of receipt of analytical results.

Table 4-16:
Summary of Exceedances for RSEM-R5B on August 22-24, 2019

Sample No.	Date Sampled	Date Results Received*	Parameter	Measured Concentration (mg/L)	Discharge Limit (mg/L)	Volume Discharged on Day of Exceedance (m^3)
WI9244	22 Aug	29 Aug	T-Cd	0.000323	0.00029	774
			T-Zn	0.0342	0.033	
WI9309	23 Aug	29Aug	T-Cd	0.000398	0.00029	445
			T-Zn	0.0345	0.033	
WJ3006	24 Aug	05 Sep	T-Cd	0.000301	0.00029	318

*Represents the date results were reported by the analytical laboratory to PRHP and Lorax. Results were reported by Lorax to PRHP in an Exceedance Report within 24 hours of receipt of analytical results.

4.5.4 Snow Melt in Late November

Rapid snow melt resulted in minor exceedances in discharge from the RSEM L5E pond from November 20-23, and from the RSEM R6E pond on November 26, 2019, as summarized in Table 4-17 and Table 4-18 below. These were due to a rapid thaw in mid-November when the high temperature reached a maximum of 11.2°C on November 17th. The snowpack rapidly diminished from a peak of 34 cm (as measured at the FSJA station) on November 13th to 0 cm by the 20th.

Table 4-17:
Summary of Exceedance(s) for RSEM L5E on November 20-23, 2019

Sample No.	Date Sampled	Date Reported	Parameter	Measured Concentration (mg/L)	RSEM Discharge Limit (mg/L)	Volume Discharged on Day of Exceedance (m^3/day) [A]
WZ2234	20/11/2019	02/12/2019	T-Cd	0.000311	0.00029	624
WZ4248	21/11/2019	02/12/2019		0.000406	0.00029	353
WZ4474	22/11/2019	02/12/2019		0.000379	0.00029	88
WZ7699	23/11/2019	27/11/2019		0.00035	0.00029	33

[A] Discharge volume is calculated from the logged 24-hour flow for the calendar date sampled.

Table 4-18:
Summary of Exceedance(s) for RSEM R6E on November 26, 2019

Sample No.	Date Sampled	Date Reported	Parameter	Measured Concentration (mg/L)	RSEM Discharge Limit (mg/L)	Volume Discharged on Day of Exceedance (m^3/day) [A]
XA1648	26/11/2019	04/12/2019	T-Cd	0.000360	0.00029	695

[A] Discharge volume is calculated from the logged 24-hour flow for the calendar date sampled.

4.6 Metal Loads

Calculation of metal loading to the Peace River on a weekly basis is a requirement of section 7.3.2 of Appendix E of the CEMP. In order from upstream to downstream, quarterly loading to the Peace River from the RSEM R5A (there were loads discharged in March only), RSEM L5 (combined loading from L5E and L5W, no loads were discharged in January or February), RSEM R5B, and RSEM R6 (combined loading from R6W and R6E) sediment ponds in 2019 are presented in Table 4-19, Table 4-20, Table 4-21 and, Table 4-22, respectively.

Table 4-19:
Summary of Quarterly Loading to Peace River from RSEM R5A Sediment Ponds - 2019

Parameter	Estimated Load Discharged to Peace River (kg)				
	Q1	Q2	Q3	Q4	Total
TSS	1730.00	0	0	0	1730
Cl	10.5	0	0	0	10.50
F	0.342	0	0	0	0.34
D-SO_4	176	0	0	0	176
N-NH_3	0.65	0	0	0	0.65
N-NO_2	0.058	0	0	0	0.06
N-NO_3	3.06	0	0	0	3.06
T-Sb	0.00149	0	0	0	0.001
T-As	0.0188	0	0	0	0.019
T-Cd	0.00152	0	0	0	0.002
T-Co	0.0307	0	0	0	0.031
T-Cu	0.0935	0	0	0	0.094
T-Fe	54.1	0	0	0	54.1
T-Pb	0.0357	0	0	0	0.036
T-Mn	0.791	0	0	0	0.791
T-Mo	0.00586	0	0	0	0.006
T-Se	0.00661	0	0	0	0.007
T-Ag	0.000573	0	0	0	0.001
T-Zn	0.348	0	0	0	0.348
D-Al	0.0512	0	0	0	0.051
D-Cd	0.0000416	0	0	0	0.000
D-Co	0.000791	0	0	0	0.0008
D-Cu	0.00183	0	0	0	0.002
D-Fe	0.0521	0	0	0	0.052
D-Zn	0.0117	0	0	0	0.012

Table 4-20:
Summary of Quarterly Loading to Peace River from RSEM L5 Sediment Pond -2019

Parameter	Estimated Load Discharged to Peace River (kg)				
	Q1	Q2	Q3	Q4	Total
TSS	796	686	279	60.5	1821.5
Cl	185	803	641	354	1983
F	2.93	7.64	7.89	2.61	21.07
D-SO_4	2350	17000	15900	5910	41160
N-NH_3	7.7	7.16	2.53	0.651	18.041
N-NO_2	0.878	0.604	1.15	0.205	2.837
N-NO_3	18.7	12.6	43.1	28.4	102.8
T-Sb	0.0108	0.0467	0.025	0.00954	0.09204
T-As	0.0192	0.0391	0.0172	0.00845	0.08395
T-Cd	0.00121	0.00315	0.00238	0.00155	0.00829
T-Co	0.0148	0.0341	0.0473	0.0357	0.1319
T-Cu	0.0503	0.0709	0.0369	0.0152	0.1733
T-Fe	26.3	19.6	6.53	1.95	54.38
T-Pb	0.0161	0.0165	0.0071	0.0025	0.0422
T-Mn	1.47	6.24	4.05	2.5	14.26
T-Mo	0.152	0.374	0.252	0.079	0.857
T-Se	0.0491	0.103	0.197	0.0695	0.4186
T-Ag	0.00038	0.001	0.00054	0.000237	0.002157
T-Zn	0.141	0.261	0.147	0.0825	0.6315
D-Al	0.0496	0.243	0.292	0.0957	0.6803
D-Cd	0.000332	0.00198	0.00199	0.00149	0.005792
D-Co	0.00355	0.0245	0.0423	0.0343	0.10465
D-Cu	0.0118	0.033	0.0239	0.0112	0.0799
D-Fe	0.135	0.486	0.262	0.115	0.998
D-Zn	0.0678	0.244	0.132	0.0724	0.5162

Table 4-21:
Summary of Quarterly Loading to Peace River from RSEM R5B Sediment Pond – 2019

Parameter	Estimated Load Discharged to Peace River (kg)				
	Q1	Q2	Q3	Q4	Total
TSS	1150	354	307	207	2018
Cl	2200	2170	3230	2640	10240
F	16.3	20.3	24.9	24.7	86.2
D-SO_4	11500	20700	32100	30900	95200
N-NH_3	24.7	7.99	8.12	17.2	58.01
N-NO_2	2.73	1.59	3.9	2.28	10.5
N-NO_3	38.6	31.9	48.3	51.9	170.7
T-Sb	0.0525	0.056	0.0639	0.056	0.2284
T-As	0.0725	0.0458	0.0469	0.0315	0.1967
T-Cd	0.00345	0.00153	0.00234	0.00236	0.00968
T-Co	0.0789	0.0376	0.0978	0.0766	0.2909
T-Cu	0.128	0.0798	0.0602	0.052	0.32
T-Fe	38.8	7	7.79	5.17	58.76
T-Pb	0.027	0.0104	0.0117	0.011	0.0601
T-Mn	1.96	1.1	3.05	1.43	7.54
T-Mo	0.908	0.626	0.629	0.666	2.829
T-Se	0.157	0.191	0.256	0.222	0.826
T-Ag	0.00111	0.00103	0.0011	0.00101	0.00425
T-Zn	0.572	0.285	0.367	0.411	1.635
D-Al	1.23	1.56	1.16	0.883	4.833
D-Cd	0.00219	0.00112	0.002	0.00217	0.00748
D-Co	0.0538	0.028	0.0866	0.0679	0.2363
D-Cu	0.0626	0.0532	0.0411	0.0391	0.196
D-Fe	0.473	0.63	1.28	0.48	2.863
D-Zn	0.322	0.258	0.326	0.36	1.266

Table 4-22:
Summary of Quarterly Loading to Peace River from RSEM R6 Sediment Ponds – 2019

Parameter	Estimated Load Discharged to Peace River (kg)				
	Q1	Q2	Q3	Q4	Total
TSS	612	2250	2730	1020	6612
Cl	1560	10200	23100	9750	44610
F	7.56	47.8	70.2	36.4	161.96
D-SO_4	3430	38100	44200	15800	101530
N-NH_3	6.28	16.8	20.9	14.2	58.18
N-NO_2	2.13	12.1	12.5	2.76	29.49
N-NO_3	20.1	159	151	124	454.1
T-Sb	0.0377	0.272	0.33	0.115	0.7547
T-As	0.0642	0.356	0.43	0.162	1.0122
T-Cd	0.00153	0.00491	0.00613	0.00548	0.01805
T-Co	0.0292	0.109	0.183	0.204	0.5252
T-Cu	0.0823	0.571	0.523	0.196	1.3723
T-Fe	27	68.1	108	31.1	234.2
T-Pb	0.0159	0.0577	0.0852	0.0305	0.1893
T-Mn	1.33	3.68	7.17	6.55	18.73
T-Mo	0.503	2.57	4.9	2.31	10.283
T-Se	0.0974	0.83	0.582	0.167	1.6764
T-Ag	0.000565	0.00416	0.0051	0.00253	0.0123
T-Zn	0.208	1.34	1.56	0.981	4.089
D-Al	0.58	9.43	24.2	7.81	42.02
D-Cd	0.000875	0.00312	0.00338	0.00363	0.0110
D-Co	0.0174	0.0699	0.128	0.171	0.3863
D-Cu	0.0407	0.424	0.31	0.123	0.8977
D-Fe	0.256	3.13	4.46	1.43	9.276
D-Zn	0.131	1.11	1.3	0.74	3.281

Daily loads for each RSEM sediment pond were calculated by applying the concentration measured in the daily EOP grab sample to the total volume of water discharged on that day, as recorded by the pond's flow meter. Daily loading estimates were then summed for each month to obtain the monthly load discharged to the Peace River, providing an estimate of the total load discharged from the Project site.

To provide context for RSEM pond loading, average monthly metal loads for Cd, Cu, and Zn in the Peace River were calculated using available information on Peace River flows and water quality at station PR-3.88 (formerly PR-3) to provide benchmarks to which

metal loading from Site C (above) can be compared. The dissolved, rather than total, metal fraction measured at PR-3.88 was used in the calculation to minimize the potential influence of high turbidity water on the metal loading values. These loads are presented in Table 4-23. Flow data is available for all calendar months, with a total of 90 samples available in the dataset.

Table 4-23:
Estimated Mean Monthly Load in Peace River (station PR-3.88) for Cd, Cu and Zn

Parameter	Monthly mean loads (kg)											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	n=2	**n=1**	**n=4**	**n=10**	**n=16**	**n=12**	**n=9**	**n=5**	**n=6**	**n=16**	**n=5**	**n=4**
Cd	*28*	*29*	*73*	*347*	*258*	*101*	*74*	*188*	*81*	*69.7*	*54.7*	*46.4*
Cu	*2239*	*2300*	*3046*	*9590*	*9466*	*3167*	*2744*	*5108*	*3201*	*2470*	*3140*	*3280*
Zn	*4035*	*4035*	*6455*	*28928*	*21510*	*6792*	*6635*	*15735*	*7800*	*3510*	*3470*	*7360*

Notes: n = the number of water quality samples for a given month, data range is from April 2007 to December 2019. Values reported as less than the detection limit were set equal to the detection limit value for loading calculations.

The analysis is considered adequate to provide approximate 'order-of-magnitude' estimates of metal loads carried in the Peace River in the vicinity of the Site C Clean Energy Project, for the purpose of providing some preliminary context for the metal loads discharged from RSEM area sediment ponds. Overall, the metal load contributed from the ponds in 2019 was very minor relative to the metal loads carried by the Peace River.

5. Conclusions and Recommendations

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5. Conclusions and Recommendations

5.1 Geochemical Monitoring

The expectation that all bedrock exposed or excavated as part of the Main Civil Works Contract will be PAG, with most units expected to become acidic within one year of disturbance was confirmed by geochemical monitoring undertaken to date. Small exposures of bedrock have become acidic at several locations on both the Left Bank and Right Bank. The combined ARD/ML mitigation measures of material placement, water management and water treatment has been effective in restricting the exceedance discharge limits from water discharging to the Peace River. General observations from 2019 are noted below, followed by the conclusions from the monitoring undertaken on the Left and Right Banks.

5.1.1 General Observations

- All bedrock samples collected on both the Left Bank and the Right Bank in 2019 are AG or PAG. This excludes the samples collected along the 85th Avenue conveyor corridor, which are classified as NPAG; and
- Metals and metalloids exceeding 3x the ACA in the majority of samples include Ag, Cd, and Se. This provides an indication of metal enrichment in the excavated material; however, metal enrichment does not necessarily correspond to increased risk of metal leaching for these parameters.

5.1.2 Left Bank

- In 2019, 609,476 m^3 of PAG bedrock was excavated on the Left Bank. The majority of the material was excavated from the Central Cofferdam (455,131 m^3) and the DTIP (94,401 m^3). The remaining volumes were excavated from the DTOP (29,957 m^3), the LBEX (15,570 m^3), the Inlet Cofferdam (10,097 m^3), the Left Bank Drainage Adit (4,185 m^3), and Garbage Creek (105 m^3);
- The majority of PAG material excavated on the Left Bank in 2019 was placed in RSEM Area L5 (165,618 m^3) and the RSEM Area L5 Extension (385,843 m^3). The material placed in the Extension included 22,845 m^3 that was relocated from the RSEM Area L5 stockpile in July 2019. At the end of 2019, engineering records indicate that RSEM Area L5 and the L5 Extension contained 922,232 and 385,843 m^3 of PAG, respectively.

- PAG material was also placed in RSEM Area L6 and the Left Bank Dam Core area in 2019. A total of 45,670 m^3 of PAG material was placed in RSEM Area L6 and at the end of 2019, this stockpile contained 62,200 m^3 of PAG rock. PAG material totalling 12,345 m^3 was placed in the Left Bank Dam Core area. No PAG material had been stockpiled in this area in previous years. No new PAG material was placed in Garbage Creek in 2019 but previously placed PAG rock remains stockpiled in this area (24,120 m^3);
- The rinse pH results indicated that the majority of material exposed in RSEM Area L5 and L5 Extension remains pH-neutral. However, there is AG rock exposed along the lower edges at the southeast extent of the RSEM Area L5 stockpile and a single AG sample was collected from the RSEM Area L5 Extension in 2019;
- AG exposures remain near the northwestern edge of the LBEX, in the bluff below the LBEX, and along Bench 0;
- Samples from RSEM Area L5, the L5 Extension, RSEM Area L6, and the Central Cofferdam/Dam Core had total S > 0.5%. The dominant form of sulphur in these samples was sulphide S with relatively minor sulphate S. One sample collected in Q1 2019 from RSEM Area L6 had higher sulphate and was AG (rinse pH < 5.5). All other samples from these areas on the Left Bank were classified as PAG; and
- The 85th Avenue conveyor corridor samples had relatively low total S (≤0.28%), which was dominantly sulphate S. Based on a detailed analysis of the sulphur speciation of the samples, all samples from along the conveyor corridor are classified as NPAG.

5.1.3 Right Bank

- On the Right Bank, excavations during 2019 amounted to a total of 1,132,520 m^3 of PAG bedrock. Most of this material was produced from the Dam and Core Buttress and Core Trench (574,018 m^3) and the Approach Channel and Spillway (550,877 m^3). Relatively minor amounts of PAG material were excavated from Area 23 (2,794 m^3), Laydown Areas 32A and 32B (2,172 m^3), the RBDT (1,798 m^3), the RCC Excavation area (654 m^3), and the RSEM Area R5A Non-Contact Ditch (207 m^3);
- All of the material excavated on the Right Bank was deposited in RSEM Area R5A which, at the end of 2019, contained 5,298,254 m^3 of PAG rock. The PAG material previously deposited in RSEM Area R5B (363,618 m^3) remains covered by NPAG material;

- Overall, material placement in RSEM Area R5A has minimized the exposures of AG material at the surface through placement of overburden and fresh PAG rock. However, 19 of 87 samples collected in RSEM Area R5A in 2019 were AG samples. The location of the AG samples was used to direct placement of new material in the RSEM Area to cover the AG material and minimize the surface exposure;
- The majority of the samples from the Approach Channel were AG (52 of 79 samples). Runoff from the weathered bedrock exposed in the Approach Channel was directed to the MWTF;
- AG samples were collected from exposed bedrock at the base of the excavation in Area A (6 of 13 samples);
- The total S content of the bedrock samples collected from shale exposures and stockpiles ranged from 0.25% (Right Bank Dam Core) to 2.0% (Approach Channel) (median: 1.1%). The dominant form of sulphur in the majority of samples was sulphide S, with little or no sulphate S detected. Only three samples from the Approach Channel had a higher proportion of sulphate S relative to sulphide S, which is likely due to the presence of an acidic sulphate weathering product; and
- There is little or no potential for ARD/ML as a result of processing of the Phase 2 Crusher stockpile material, based on the work undertaken, which included ABA, solid phase elemental analysis and SFE.

5.2 Surface Water Quality Monitoring

The results of surface water quality monitoring have been used to better understand and predict the timing, magnitude and duration of ARD/ML on surface water runoff from the construction site, to measure the effectiveness of mitigation measures, and to verify compliance with EOP discharge limits. The surface water quality monitoring program is intensive and includes sampling and analysis from a dynamic set of stations across the site, and analysis of water quality samples from the RSEM Area L5, L6, R5A, R5B and R6 sediment ponds and discharges.

The surface water quality monitoring program has generally been effective. The high frequency sampling and laboratory analyses are reliable to allow trends in the RSEM area sediment ponds, and within upgradient catchments, to be identified, and the magnitude and duration of potential effects from ARD/ML to be verified.

5.3 Mitigation

Mitigation measures that are being implemented to minimize exceedances of EOP discharge limits due to ARD/ML include material management (excavating weathered rock in excavations and covering weathered rock in the RSEM R5B, RSEM R5A, RSEM L5, and RSEM L6 deposition areas), water management to contain water that may be influenced by ARD/ML, and water treatment to remove total and dissolved metals.

Material management is the primary ARD/ML mitigation strategy on site. Weathered material (material that has been exposed for several months and is becoming acidic) is monitored and periodically excavated from the construction area. In addition, material that is placed in RSEM disposal areas is monitored, and weathered material is covered with newly placed material (PAG bedrock or overburden).

Water management is a secondary mitigation strategy. Surface water quality is monitored. Contact water is generally contained within the site, or directed to RSEM sediment ponds, from which it is discharged to the Peace River. Contact water that is not anticipated to meet EOP discharge limits is retained and transferred to the pre-treatment pond. Water from this pond is treated by the Mobile Water Treatment Facility (MWTF) prior to discharge.

On the right bank the MWTF effectively treated water to remove dissolved metals and produced effluent that met the RSEM end of pipe limits. The accumulated sludge in the MWTF Sludge Collection Cells was removed by vacuum truck in February and June and transferred off-site for disposal. Removal of sludge in August, September, October and November was transferred to RSEM Area R5A stockpile.

The Left Bank waters are moderately PAG influenced, however, the RSEM L5E sediment control pond discharge only exceeded EOP limits on two occasions, in August and again in November. Water management allowed for all discharges from RSEM Area L5W and L6 sediment control ponds to meet EOP limits. In early September the L6 sediment control pond was pumped to Peace River to conduct a mixing zone study. Passive discharge from the RSEM Area L6 pond was authorized in November. PAG influenced waters from DIC, DOC and LBCD were transferred to the MWTF for treatment.

The implementation of various erosion and sediment control measures at site has reduced the frequency of TSS-related exceedance of EOP discharge limits from RSEM Area sediment ponds since the monitoring program was initiated in autumn 2016. TSS related exceedances are now typically only associated with high precipitation events.

Elevated pH in the RSEM R5B pond was observed from mid-May onwards and is attributed to influence of warmer temperatures and rapid plant growth in the pond. Treatment for elevated pH in the RSEM R5B pond upstream of the end of pipe was implemented on May 8 and continued through August. The RSEM R5B sediment control pond was drained and dredged early September to remove accumulated sediment and plant growth.

Elevated pH was also noted in the RSEM Area R6E and L6E sediment control ponds primarily due to the introduction of cement and shotcrete contact waters into the ponds. Sparging with CO_2 was implemented at the RSEM R6E pond mid-June through December and at the RSEM L5E pond and mid-September through November.

5.4 Recommendations

In its role as Qualified Professional for ARD/ML, Lorax provided a number of recommendations through 2019. These have been communicated in technical memorandums, weekly conference calls, and in email correspondence. Key recommendations are summarized for the Left Bank and Right Bank below and reflect ongoing ARD/ML management priorities.

- The geochemical monitoring program is effectively characterizing PAG rock exposures throughout the site. The program should continue with adjustments to sampling frequency and locations as site development proceeds;
- The water quality monitoring program should continue to adjust monitoring locations and frequency in tandem with site development, weather conditions and in response to monitoring data;
- The AG rock exposed in the slope on the southeast end of RSEM Area L5 should be relocated to allow for resloping of L5 to a grade that can be covered with NPAG overburden to limit the ingress of oxygen and water into the AG material. Interim measures to monitor and collect runoff in a sump at the base of the slope and transferred to the MWTF should be continued until final mitigation is implemented.
- Continued monitoring of exposed PAG in RSEM Area R5A and RSEM Area L5 should be used to direct placement of new material to limit weathering and water contact with AG material. By the end of 2020, the majority of material placement in the PAG-containing RSEMs will be complete. The RSEM design requires that the excavated bedrock is placed in 5 m thick layers and the surface compacted with 6 passes of a heavy vibratory compactor, which will limit the rate of infiltration. The final surface configuration of the RSEM should use NPAG

material rather than fresh PAG material to reduce the amount of PAG-influenced runoff and lower risk of a water treatment requirement through to the end of construction when the final mitigation will be applied, flooding of the RSEMs.

- In the event insufficient new material is available to cover exposures of AG in RSEM Area R5A prior to the 2020 spring melt, ensure there is adequate water storage available within the RSEM Area to store runoff water for transport to the MWTF, if necessary.
- The selected mitigation from LBEX Bench 0 area is water management. The strategy is to divert runoff water and seepage water from the upper LBEX benches away from Bench 0 to prevent it from coming into contact with the exposed AG. Direct precipitation is collected in sumps and transported to the MWTF. Monitoring of water in this area is recommended. It is recommended that prior to spring snow melt events, PRHP confirms that the water diversion and water management structures are intact and there is adequate storage to implement these mitigation measures.
- Material placement in RSEM Area L6 has reached capacity and a NPAG cover has been placed over the facility. It is recommended that PRHP confirm that the surface of the RSEM and adjacent areas where precipitation runoff is directed to the RSEM L6 sediment control pond are fully covered to reduce the risk from L6 discharge.
- Runoff from weathered bedrock exposed in the Approach Channel will continue to require treatment at the MWTF. Significant excavations in the Approach Channel are planned for 2020 that should reduce the area of weathered AG bedrock exposed in the Approach Channel through 2020.
- Recommended that quarterly monitoring continue for RSEM Area Sediment control ponds that are managed not to discharge.

6. Closure

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6. Closure

This report was prepared for the use of PRHP, which has the right to reproduce, use and rely upon this ARD/ML Management 2019 Annual report in planning, construction ad reporting for the Site C Clean Energy Project. The report was prepared by the Lorax technical personnel listed below based on information provided by PRHP site personnel, observations during site visits and test results reported by BV. Please contact the undersigned should you have any questions or concerns or require additional information in support of this work.

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List of Appendices

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Appendix 1-A: RSEM Sediment Control Pond Daily Discharge Volumes

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Appendix 1-A: RSEM Sediment Control Pond Daily Discharge Volumes

Date	RSEM-R5B	RSEM-R6E	RSEM-R6W	RSEM-L5E	RSEM-L5W	RSEM-L6	RSEM-R5A-A	RSEM-R5A-B	RSEM-R5A-C	RSEM-R5A-D
	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)
2019-01-01	554	0	0	0	0	0	0	0	0	0
2019-01-02	559	2.7	0	0	0	0	0	0	0	0
2019-01-03	561	0	0	0	0	0	0	0	0	0
2019-01-04	533	0	0	0	0	0	0	0	0	0
2019-01-05	519	0	0	0	0	0	0	0	0	0
2019-01-06	520	0	0	0	0	0	0	0	0	0
2019-01-07	496	0	0	0	0	0	0	0	0	0
2019-01-08	503	0	0	0	0	0	0	0	0	0
2019-01-09	487	0	0	0	0	0	0	0	0	0
2019-01-10	470	0	0	0	0	0	0	0	0	0
2019-01-11	445	0	0	0	0	0	0	0	0	0
2019-01-12	448	0	0	0	0	0	0	0	0	0
2019-01-13	507	0	0	0	0	0	0	0	0	0
2019-01-14	519	0	0	0	0	0	0	0	0	0
2019-01-15	501	0	0	0	0	0	0	0	0	0
2019-01-16	487	0	0	0	0	0	0	0	0	0
2019-01-17	487	0	0	0	0	0	0	0	0	0
2019-01-18	484	0	0	0	0	0	0	0	0	0
2019-01-19	484	0	0	0	0	0	0	0	0	0
2019-01-20	474	0	0	0	0	0	0	0	0	0
2019-01-21	477	0	0	0	0	0	0	0	0	0
2019-01-22	467	0	0	0	0	0	0	0	0	0
2019-01-23	434	0	0	0	0	0	0	0	0	0
2019-01-24	410	0	0	0	0	0	0	0	0	0
2019-01-25	446	0	0	0	0	0	0	0	0	0
2019-01-26	481	0	0	0	0	0	0	0	0	0
2019-01-27	427	0	0.1	0	0	0	0	0	0	0
2019-01-28	541	0	424	0	0	0	0	0	0	0
2019-01-29	568	0.2	447	0	0	0	0	0	0	0
2019-01-30	574	0.1	4.2	0	0	0	0	0	0	0
2019-01-31	596	0	0	0	0	0	0	0	0	0
2019-02-01	605	0	0	0	0	0	0	0	0	0
2019-02-02	446	0	0.7	0	0	0	0	0	0	0
2019-02-03	134	0	0	0	0	0	0	0	0	0
2019-02-04	0	0	3.1	0	0	0	0	0	0	0
2019-02-05	0	0	0	0	0	0	0	0	0	0
2019-02-06	0	0	0	0	0	0	0	0	0	0
2019-02-07	0	0	0.2	0	0	0	0	0	0	0
2019-02-08	1168	0	0.2	0	0	0	0	0	0	0
2019-02-09	513	0	0	0	0	0	0	0	0	0
2019-02-10	453	0	0	0	0	0	0	0	0	0
2019-02-11	216	0	0	0	0	0	0	0	0	0
2019-02-12	592	0	0	0	0	0	0	0	0	0
2019-02-13	546	0	0	0	0	0	0	0	0	0
2019-02-14	508	0	0	0	0	0	0	0	0	0
2019-02-15	523	0	0	0	0	0	0	0	0	0
2019-02-16	546	0	0	0	0	0	0	0	0	0
2019-02-17	725	0	0	0	0	0	0	0	0	0
2019-02-18	724	0	0	0	0	0	0	0	0	0
2019-02-19	582	0	0	0	0	0	0	0	0	0
2019-02-20	441	0	0	0	0	0	0	0	0	0
2019-02-21	412	0	0	0	0	0	0	0	0	0
2019-02-22	392	0	0	0	0	0	0	0	0	0
2019-02-23	404	0	0	0	0	0	0	0	0	0
2019-02-24	538	0	0	0	0	0	0	0	0	0
2019-02-25	491	0	0	0	0	0	0	0	0	0
2019-02-26	387	0	0	0	0	0	0	0	0	0
2019-02-27	349	0	0	0	0	0	0	0	0	0
2019-02-28	267	0	0	0	0	0	0	0	0	0
2019-03-01	283	0	0	0	0	0	0	0	0	0
2019-03-02	248	0	0	0	0	0	0	0	0	0
2019-03-03	259	0	0	0	0	0	0	0	0	0
2019-03-04	0	0	0	0	0	0	0	0	0	0
2019-03-05	0	0	0	0	0	0	0	0	0	0
2019-03-06	0	0	0	0	0	0	0	0	0	0
2019-03-07	0	0	0	0	0	0	0	0	0	0
2019-03-08	261	0	0	0	0	0	0	0	0	0
2019-03-09	249	0	0	0	0	0	0	0	0	0
2019-03-10	404	0	0	0	0	0	0	0	0	0
2019-03-11	651	0	0	0	0	0	0	0	0	0
2019-03-12	615	0	0	0	0	0	0	0	0	0
2019-03-13	784	0	0	0	0	0	0	0	0	0
2019-03-14	709	254	0	0	0	0	0	0	0	0

Notes:
Discharge volume is calculated from the logged 24-hour end of pipe flow for each calendar date.
Occasionally, instantaneous flow measurements are used when logged flows are not available.

Appendix 1-A: RSEM Sediment Control Pond Daily Discharge Volumes

Date	RSEM-R5B	RSEM-R6E	RSEM-R6W	RSEM-L5E	RSEM-L5W	RSEM-L6	RSEM-R5A-A	RSEM-R5A-B	RSEM-R5A-C	RSEM-R5A-D
	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)
2019-03-15	860	655	0	40	0	0	0	0	0	0
2019-03-16	913	726	0	236	0	0	0	0	0	0
2019-03-17	1058	2474	0	171	0	0	0	0	0	0
2019-03-18	1039	3021	0	3107	86	0	432	173	346	0
2019-03-19	1043	1443	0	1845	130	0	346	270	638	0
2019-03-20	891	1033	0	1871	69	0	97	9	17	0
2019-03-21	730	759	0.1	2071	0	0	9	0	0	0
2019-03-22	579	601	0.2	1082	95	0	0	0	0	0
2019-03-23	652	544	0.8	583	130	0	0	0	0	0
2019-03-24	655	345	0.3	343	22	0	0	0	0	0
2019-03-25	748	368	0	435	43	0	0	0	0	0
2019-03-26	754	225	553	271	0	0	0	0	0	0
2019-03-27	893	195	1155	222	0	0	0	0	0	0
2019-03-28	662	382	1802	237	259	0	0	0	0	0
2019-03-29	335	909	1201	213	0	0	0	0	0	0
2019-03-30	280	766	1378	135	0	0	0	0	0	0
2019-03-31	312	307	1414	330	0	0	0	0	0	0
2019-04-01	600	197	1547	1620	0	0	0	0	0	0
2019-04-02	632	194	1474	557	0	0	0	0	0	0
2019-04-03	749	192	1761	825	0	0	0	0	0	0
2019-04-04	745	184	1455	191	0	0	0	0	0	0
2019-04-05	738	194	1539	81	0	0	0	0	0	0
2019-04-06	715	734	2309	81	0	0	0	0	0	0
2019-04-07	708	1020	2786	103	0	0	0	0	0	0
2019-04-08	701	1411	1738	68	0	0	0	0	0	0
2019-04-09	658	210	2029	57	0	0	0	0	0	0
2019-04-10	514	187	2119	631	0	0	0	0	0	0
2019-04-11	559	393	1906	914	0	0	0	0	0	0
2019-04-12	640	1016	2002	2016	0	0	0	0	0	0
2019-04-13	639	1021	2013	2903	0	0	0	0	0	0
2019-04-14	660	772	1554	1918	0	0	0	0	0	0
2019-04-15	700	568	999	1263	0	0	0	0	0	0
2019-04-16	699	972	365	1177	0	0	0	0	0	0
2019-04-17	682	822	30	1068	0	0	0	0	0	0
2019-04-18	648	841	0	994	0	0	0	0	0	0
2019-04-19	630	1999	0	905	0	0	0	0	0	0
2019-04-20	654	1827	0	898	0	0	0	0	0	0
2019-04-21	678	172	0	811	0	0	0	0	0	0
2019-04-22	751	43	0	823	0	0	0	0	0	0
2019-04-23	757	1773	0	747	0	0	0	0	0	0
2019-04-24	797	1256	0	747	0	0	0	0	0	0
2019-04-25	759	3758	4.5	714	0	0	0	0	0	0
2019-04-26	706	901	454	693	0	0	0	0	0	0
2019-04-27	785	440	612	692	0	0	0	0	0	0
2019-04-28	806	546	491	677	0	0	0	0	0	0
2019-04-29	808	829	1277	634	0	0	0	0	0	0
2019-04-30	794	451	1975	529	0	0	0	0	0	0
2019-05-01	795	438	1960	706	0	0	0	0	0	0
2019-05-02	789	474	2090	1068	0	0	0	0	0	0
2019-05-03	778	645	2197	2015	0	0	0	0	0	0
2019-05-04	689	771	2470	1069	0	0	0	0	0	0
2019-05-05	471	604	2213	648	0	0	0	0	0	0
2019-05-06	447	596	2744	606	0	0	0	0	0	0
2019-05-07	451	990	2556	542	0	0	0	0	0	0
2019-05-08	467	589	2234	402	0	0	0	0	0	0
2019-05-09	466	0	2103	350	0	0	0	0	0	0
2019-05-10	523	0	1700	1070	0	0	0	0	0	0
2019-05-11	485	0	2110	1158	0	0	0	0	0	0
2019-05-12	474	0	2350	676	0	0	0	0	0	0
2019-05-13	476	0	2234	555	0	0	0	0	0	0
2019-05-14	477	118	1896	438	0	0	0	0	0	0
2019-05-15	488	2252	1700	522	0	0	0	0	0	0
2019-05-16	491	0	2086	336	0	0	0	0	0	0
2019-05-17	524	919	2207	367	0	0	0	0	0	0
2019-05-18	601	493	2044	230	0	0	0	0	0	0
2019-05-19	564	922	2095	218	0	0	0	0	0	0
2019-05-20	534	989	1655	134	0	0	0	0	0	0
2019-05-21	509	625	2520	57	0	0	0	0	0	0
2019-05-22	519	32	1827	181	0	0	0	0	0	0
2019-05-23	520	112	1795	208	0	0	0	0	0	0
2019-05-24	539	0	1881	89	0	0	0	0	0	0
2019-05-25	508	0	2583	174	0	0	0	0	0	0
2019-05-26	492	0	1639	391	0	0	0	0	0	0

Notes:
Discharge volume is calculated from the logged 24-hour end of pipe flow for each calendar date.
Occasionally, instantaneous flow measurements are used when logged flows are not available.

Appendix 1-A: RSEM Sediment Control Pond Daily Discharge Volumes

Date	RSEM-R5B	RSEM-R6E	RSEM-R6W	RSEM-L5E	RSEM-L5W	RSEM-L6	RSEM-R5A-A	RSEM-R5A-B	RSEM-R5A-C	RSEM-R5A-D
	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)
2019-05-27	457	0	2371	219	0	0	0	0	0	0
2019-05-28	506	0	1374	259	0	0	0	0	0	0
2019-05-29	628	0	864	130	0	0	0	0	0	0
2019-05-30	449	0	389	187	0	0	0	0	0	0
2019-05-31	461	0	2795	228	0	0	0	0	0	0
2019-06-01	493	0	2277	275	0	0	0	0	0	0
2019-06-02	480	0	2494	189	0	0	0	0	0	0
2019-06-03	486	0	2838	173	0	0	0	0	0	0
2019-06-04	547	0	2228	330	0	0	0	0	0	0
2019-06-05	600	0	1903	291	0	0	0	0	0	0
2019-06-06	570	0	1619	247	0	0	0	0	0	0
2019-06-07	600	0	2628	224	0	0	0	0	0	0
2019-06-08	541	0	1876	218	0	0	0	0	0	0
2019-06-09	494	0	2200	198	0	0	0	0	0	0
2019-06-10	492	0	2194	186	0	0	0	0	0	0
2019-06-11	483	0	2281	146	0	0	0	0	0	0
2019-06-12	348	0	1480	135	0	0	0	0	0	0
2019-06-13	218	0	2095	123	0	0	0	0	0	0
2019-06-14	163	86	2013	154	0	0	0	0	0	0
2019-06-15	167	43	2661	167	0	0	0	0	0	0
2019-06-16	103	43	2699	183	0	0	0	0	0	0
2019-06-17	101	0	1659	131	0	0	0	0	0	0
2019-06-18	100	0	2144	168	0	0	0	0	0	0
2019-06-19	100	0	2251	135	0	0	0	0	0	0
2019-06-20	99	0	2788	135	0	0	0	0	0	0
2019-06-21	183	0	2127	125	0	0	0	0	0	0
2019-06-22	563	0	1984	135	0	0	0	0	0	0
2019-06-23	640	304	2488	145	0	0	0	0	0	0
2019-06-24	866	2019	1552	679	0	0	0	0	0	0
2019-06-25	852	1707	1663	1179	0	0	0	0	0	0
2019-06-26	793	1103	2710	341	0	0	0	0	0	0
2019-06-27	734	796	2591	396	0	0	0	0	0	0
2019-06-28	753	1013	2263	280	0	0	0	0	0	0
2019-06-29	841	1050	2195	404	0	0	0	0	0	0
2019-06-30	936	1886	1724	1206	0	0	0	0	0	0
2019-07-01	1081	1928	1840	1731	0	0	0	0	0	0
2019-07-02	829	1413	2236	556	0	0	0	0	0	0
2019-07-03	796	1109	1611	267	0	0	0	0	0	0
2019-07-04	793	1096	2837	838	0	0	0	0	0	0
2019-07-05	801	1111	3016	330	0	0	0	0	0	0
2019-07-06	800	947	1967	272	0	0	0	0	0	0
2019-07-07	774	726	1489	191	0	0	0	0	0	0
2019-07-08	773	989	2879	184	0	0	0	0	0	0
2019-07-09	778	813	2711	191	0	0	0	0	0	0
2019-07-10	768	729	2153	141	0	0	0	0	0	0
2019-07-11	754	1146	1945	176	0	0	0	0	0	0
2019-07-12	740	1348	1864	121	0	0	0	0	0	0
2019-07-13	754	1689	1167	116	0	0	0	0	0	0
2019-07-14	921	1270	3213	138	0	0	0	0	0	0
2019-07-15	799	693	2083	117	0	0	0	0	0	0
2019-07-16	887	669	3153	428	0	0	0	0	0	0
2019-07-17	819	770	1038	378	0	0	0	0	0	0
2019-07-18	788	891	1251	507	0	0	0	0	0	0
2019-07-19	807	662	1720	542	0	0	0	0	0	0
2019-07-20	773	764	2487	387	0	0	0	0	0	0
2019-07-21	685	623	1950	149	0	0	0	0	0	0
2019-07-22	521	269	767	100	0	0	0	0	0	0
2019-07-23	491	188	2979	82	0	0	0	0	0	0
2019-07-24	626	500	1293	85	0	0	0	0	0	0
2019-07-25	672	987	1414	135	0	0	0	0	0	0
2019-07-26	552	791	3288	85	0	0	0	0	0	0
2019-07-27	563	779	1707	81	0	0	0	0	0	0
2019-07-28	762	1021	1201	209	0	0	0	0	0	0
2019-07-29	519	999	1371	140	0	0	0	0	0	0
2019-07-30	539	1154	1226	197	0	0	0	0	0	0
2019-07-31	566	764	1784	214	0	0	0	0	0	0
2019-08-01	522	933	2296	142	0	0	0	0	0	0
2019-08-02	471	783	921	81	0	0	0	0	0	0
2019-08-03	571	705	2647	118	0	0	0	0	0	0
2019-08-04	581	236	2053	145	0	0	0	0	0	0
2019-08-05	481	909	2290	234	0	0	0	0	0	0
2019-08-06	525	993	3424	189	0	0	0	0	0	0
2019-08-07	601	952	1701	145	0	0	0	0	0	0

Notes:
Discharge volume is calculated from the logged 24-hour end of pipe flow for each calendar date.
Occasionally, instantaneous flow measurements are used when logged flows are not available.

Appendix 1-A: RSEM Sediment Control Pond Daily Discharge Volumes

Date	RSEM-R5B	RSEM-R6E	RSEM-R6W	RSEM-L5E	RSEM-L5W	RSEM-L6	RSEM-R5A-A	RSEM-R5A-B	RSEM-R5A-C	RSEM-R5A-D
	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)
2019-08-08	603	1025	1818	188	0	0	0	0	0	0
2019-08-09	673	1084	405	235	0	0	0	0	0	0
2019-08-10	584	1038	469	186	0	0	0	0	0	0
2019-08-11	479	1004	1024	114	0	0	0	0	0	0
2019-08-12	508	1000	1260	99	0	0	0	0	0	0
2019-08-13	485	1029	923	86	0	0	0	0	0	0
2019-08-14	473	963	3323	84	0	0	0	0	0	0
2019-08-15	485	981	2409	106	0	0	0	0	0	0
2019-08-16	920	1983	1063	1574	0	0	0	0	0	0
2019-08-17	881	1623	864	429	0	0	0	0	0	0
2019-08-18	1029	2005	1075	1601	0	0	0	0	0	0
2019-08-19	832	2109	2252	957	0	0	0	0	0	0
2019-08-20	835	1797	0	224	0	0	0	0	0	0
2019-08-21	715	1083	0	295	0	0	0	0	0	0
2019-08-22	774	1059	1681	234	0	0	0	0	0	0
2019-08-23	445	1348	1271	594	0	0	0	0	0	0
2019-08-24	318	1302	760	262	0	0	0	0	0	0
2019-08-25	403	1034	2920	220	0	0	0	0	0	0
2019-08-26	450	1059	1511	203	0	0	0	0	0	0
2019-08-27	751	1122	2350	245	0	0	0	0	0	0
2019-08-28	814	1143	3281	156	0	0	0	0	0	0
2019-08-29	0	1280	262	146	0	0	0	0	0	0
2019-08-30	0	1183	3366	115	0	0	0	0	0	0
2019-08-31	0	1156	1485	104	0	0	0	0	0	0
2019-09-01	0	1079	2623	58	0	0	0	0	0	0
2019-09-02	0	1064	1826	81	0	0	0	0	0	0
2019-09-03	864	1069	849	76	0	0	0	0	0	0
2019-09-04	864	1175	1715	130	0	0	0	0	0	0
2019-09-05	864	1339	1142	216	0	1728	0	0	0	0
2019-09-06	864	1185	1798	195	0	0	0	0	0	0
2019-09-07	173	1143	1113	145	0	0	0	0	0	0
2019-09-08	864	1973	1527	394	0	0	0	0	0	0
2019-09-09	864	1465	767	260	0	0	0	0	0	0
2019-09-10	432	1430	1204	145	0	0	0	0	0	0
2019-09-11	605	1197	1539	275	0	0	0	0	0	0
2019-09-12	0	1109	2031	105	0	0	0	0	0	0
2019-09-13	0	1356	2920	134	0	0	0	0	0	0
2019-09-14	0	1376	2575	133	0	0	0	0	0	0
2019-09-15	0	1279	2280	107	0	0	0	0	0	0
2019-09-16	167	1989	1389	2063	0	0	0	0	0	0
2019-09-17	53	1582	1486	452	0	0	0	0	0	0
2019-09-18	64	1678	0	377	0	0	0	0	0	0
2019-09-19	74	1147	0	312	0	0	0	0	0	0
2019-09-20	78	1388	0	169	0	0	0	0	0	0
2019-09-21	80	2194	0	152	0	0	0	0	0	0
2019-09-22	85	1562	0	102	0	0	0	0	0	0
2019-09-23	88	1078	0	54	0	0	0	0	0	0
2019-09-24	518	1302	0	59	0	0	0	0	0	0
2019-09-25	1365	1065	0	60	0	0	0	0	0	0
2019-09-26	1225	1723	0	146	0	0	0	0	0	0
2019-09-27	432	1988	0	181	0	0	0	0	0	0
2019-09-28	1296	1663	0	100	0	0	0	0	0	0
2019-09-29	492	1747	0	69	0	0	0	0	0	0
2019-09-30	1073	1676	0	107	0	0	0	0	0	0
2019-10-01	691	1480	0	87	0	0	0	0	0	0
2019-10-02	985	1175	0	96	0	0	0	0	0	0
2019-10-03	980	1093	0	128	0	0	0	0	0	0
2019-10-04	432	1645	0	292	0	0	0	0	0	0
2019-10-05	179	1792	0	230	0	0	0	0	0	0
2019-10-06	167	1236	0	131	0	0	0	0	0	0
2019-10-07	1026	1084	0	128	0	0	0	0	0	0
2019-10-08	85	1130	0	86	0	0	0	0	0	0
2019-10-09	22	1224	0	316	0	0	0	0	0	0
2019-10-10	4	1767	0	98	0	0	0	0	0	0
2019-10-11	22	1393	0	127	0	0	0	0	0	0
2019-10-12	4	1660	0	120	0	0	0	0	0	0
2019-10-13	199	1135	0	104	0	0	0	0	0	0
2019-10-14	896	1186	0	101	0	0	0	0	0	0
2019-10-15	921	2062	0	91	0	0	0	0	0	0
2019-10-16	853	3262	0	158	0	0	0	0	0	0
2019-10-17	333	5417	0	103	0	0	0	0	0	0
2019-10-18	217	0	0	89	0	0	0	0	0	0
2019-10-19	1031	3390	0	233	0	0	0	0	0	0

Notes:
Discharge volume is calculated from the logged 24-hour end of pipe flow for each calendar date.
Occasionally, instantaneous flow measurements are used when logged flows are not available.

Appendix 1-A: RSEM Sediment Control Pond Daily Discharge Volumes

Date	RSEM-R5B	RSEM-R6E	RSEM-R6W	RSEM-L5E	RSEM-L5W	RSEM-L6	RSEM-R5A-A	RSEM-R5A-B	RSEM-R5A-C	RSEM-R5A-D
	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)	Discharge (m^3)
2019-10-20	1117	5889	0	486	0	0	0	0	0	0
2019-10-21	1211	96	0	362	0	0	0	0	0	0
2019-10-22	1172	4854	0	323	0	0	0	0	0	0
2019-10-23	1041	0	0	210	0	0	0	0	0	0
2019-10-24	1164	2405	0	65	0	0	0	0	0	0
2019-10-25	1366	596	0	766	0	0	0	0	0	0
2019-10-26	1090	1312	0	416	0	0	0	0	0	0
2019-10-27	1122	2386	0	338	0	0	0	0	0	0
2019-10-28	1169	1274	0	137	0	0	0	0	0	0
2019-10-29	1171	1215	0	65	0	0	0	0	0	0
2019-10-30	1217	1251	0	80	0	0	0	0	0	0
2019-10-31	1225	1255	0	123	0	0	0	0	0	0
2019-11-01	1240	1933	0	162	0	0	0	0	0	0
2019-11-02	1236	3082	0	143	0	0	0	0	0	0
2019-11-03	1268	642	0	191	0	0	0	0	0	0
2019-11-04	1229	845	0	219	0	0	0	0	0	0
2019-11-05	995	1303	0	187	0	0	0	0	0	0
2019-11-06	362	708	0	39	0	0	0	0	0	0
2019-11-07	321	991	0	26	0	0	0	0	0	0
2019-11-08	505	1295	0	22	0	0	0	0	0	0
2019-11-09	516	1304	0	26	0	0	0	0	0	0
2019-11-10	308	1207	0	43	0	0	0	0	0	0
2019-11-11	307	1079	0	20	0	0	0	0	0	0
2019-11-12	285	1235	0	16	0	0	0	0	0	0
2019-11-13	76	1338	0	19	0	0	0	0	0	0
2019-11-14	31	1158	0	19	0	0	0	0	0	0
2019-11-15	208	1017	0	88	0	0	0	0	0	0
2019-11-16	940	1170	0	276	0	0	0	0	0	0
2019-11-17	956	1148	0	322	0	0	0	0	0	0
2019-11-18	1015	640	0	2065	0	0	0	0	0	0
2019-11-19	263	519	0	326	0	0	0	0	0	0
2019-11-20	114	619	0	460	0	0	0	0	0	0
2019-11-21	245	806	0	353	0	0	0	0	0	0
2019-11-22	240	818	0	88	0	0	0	0	0	0
2019-11-23	439	756	0	33	0	0	0	0	0	0
2019-11-24	382	976	0	0	0	0	0	0	0	0
2019-11-25	376	1251	0	0	0	0	0	0	0	0
2019-11-26	391	695	0	0	0	0	0	0	0	0
2019-11-27	300	629	0	0	0	0	0	0	0	0
2019-11-28	97	1263	0	0	0	0	0	0	0	0
2019-11-29	308	834	0	0	0	0	0	0	0	0
2019-11-30	464	712	0	0	0	0	0	0	0	0
2019-12-01	471	816	0	0	0	0	0	0	0	0
2019-12-02	486	1412	0	0	0	0	0	0	0	0
2019-12-03	401	1153	0	0	0	0	0	0	0	0
2019-12-04	383	904	0	0	0	0	0	0	0	0
2019-12-05	147	1287	0	0	0	0	0	0	0	0
2019-12-06	64	1475	0	0	0	0	0	0	0	0
2019-12-07	55	1458	0	0	0	0	0	0	0	0
2019-12-08	274	1476	0	0	0	0	0	0	0	0
2019-12-09	253	924	0	0	0	0	0	0	0	0
2019-12-10	391	1192	0	0	0	0	0	0	0	0
2019-12-11	128	1273	0	0	0	0	0	0	0	0
2019-12-12	143	1338	0	0	0	0	0	0	0	0
2019-12-13	618	1397	0	0	0	0	0	0	0	0
2019-12-14	167	1361	0	0	0	0	0	0	0	0
2019-12-15	546	1379	0	0	0	0	0	0	0	0
2019-12-16	446	1523	0	0	0	0	0	0	0	0
2019-12-17	449	1526	0	0	0	0	0	0	0	0
2019-12-18	212	1474	0	0	0	655	0	0	0	0
2019-12-19	462	1531	0	0	0	0	0	0	0	0
2019-12-20	464	1532	0	0	0	0	0	0	0	0
2019-12-21	419	1543	0	0	0	0	0	0	0	0
2019-12-22	398	1502	0	0	0	0	0	0	0	0
2019-12-23	265	1476	0	0	0	0	0	0	0	0
2019-12-24	121	707	0	0	0	0	0	0	0	0
2019-12-25	315	596	0	0	0	0	0	0	0	0
2019-12-26	213	910	0	0	0	0	0	0	0	0
2019-12-27	86	1416	0	0	0	0	0	0	0	0
2019-12-28	121	1453	0	0	0	0	0	0	0	0
2019-12-29	195	1580	0	0	0	0	0	0	0	0
2019-12-30	82	1532	0	0	0	0	0	0	0	0
2019-12-31	75	1493	0	0	0	0	0	0	0	0

Notes:
Discharge volume is calculated from the logged 24-hour end of pipe flow for each calendar date.
Occasionally, instantaneous flow measurements are used when logged flows are not available.

Appendix 2-A: Bureau Veritas QA/QC Protocols

PEACE RIVER
HYDRO PARTNERS

Bureau Veritas Laboratories

Quality Assurance & Quality Control

COR FCD-00180 / 4

Move Forward with Confidence

BUREAU VERITAS

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1.0 Laboratory Company Profile

Founded over 45 years ago, Bureau Veritas Laboratories is the market leader in analytical services and solutions to the energy, environmental, food and DNA industries. Our 2,200 dedicated employees proudly lead the industry in depth of technical and scientific expertise and serve customers through the only national network of laboratories. In processing over 2.4 million samples and generating in excess of 43 million results annually, we skilfully combines efficiency and customer service with rigorous science and uncompromising quality management. We are committed to success with responsibility – to its stakeholders, to its communities, and to the environment.

Our Mission is clear - We are a science company that is passionately committed to delivering good science through exceptional service.

A major focus is analytical services for an exhaustive list of environmental contaminants. Solid wastes, effluents, potable water, receiving waters, ground waters, soils, sediments, stack emissions, ambient air, plant, animal and fish tissues are analysed for everything from pH to Dioxins.

We provides these services to a wide range of customers, in North America and over 20 foreign countries. Our clients include consulting engineers, industry, businesses, all levels of government as well as private individuals.

Our laboratories function as a tight network operating under a single Quality Management System, utilizing the strengths of each and working together to ensure customer requirements are met. All major laboratories provide the full range of environmental testing services using a uniform Quality System and IT infrastructure to deliver a standardized high quality service across the country. In addition, certain locations have special areas of expertise, such as seawater analysis at our Burnaby and Bedford facilities and High Resolution Dioxin analysis in our Mississauga and Ville St-Laurent facilities.

Operating within one Laboratory Information and Quality System across Canada provides uniform report formats, management performance measurements, turnaround time measurements, corrective action management, and a number of other key performance indicators making us a reliable partner.

2.0 Quality Program

Bureau Veritas Laboratories currently employs 40 full-time Quality Assurance (QA) staff. This group reports to the Senior Quality Assurance Manager, whose responsibility it is to ensure consistency of approach and program independence from operations. The QA team is strengthened through a web-based document control and management system that ensures consistent formats while minimizing routine administrative tasks. Authorized staff have immediate secure access to all corporate and individual laboratory SOPs and support documentation.

The Quality Program is designed to comply with or exceed the data quality objectives of Industry, Canadian Regulators, United States EPA and the International Standards Organization (ISO). The QA team is assisted in performing audits with the help of many trained "internal auditors" that are composed of operations and support services personnel. This brings many benefits to the customer and to our company. These benefits include improved client and accreditation audits, increased communication between groups within our company, greater variety of work for staff and increased understanding of ISO/IEC 17025 customer and our own quality requirements.

The keys to the Quality Program are Prevention and Verification.

2.1 Prevention through Quality Assurance

Extensive control charting practices ensure that analyses with biases or which are potentially out of control are recognized early so that potential problems can be rectified before exceedences occur. Comprehensive internal audits of methods, Quality Control (QC) practices, sample analyses, and quality system elements confirm adherence to Standard Operating Procedures. Regular system reviews and a structured Continuous Improvement Program combine to provide the strongest possible Quality System.

Evaluated monthly, score carding of key performance indicators such as Proficiency Testing Performance, Corrective Action Reports, Nonconformance Reports and Method Audits, drives the Program, defining successes and highlighting areas for improvement. We also have a corporate Management of Change procedure whereby substantive changes in the laboratory are adequately reviewed, communicated and documented.

2.2 Training

Upon hire, personnel are required to participate in the Corporate New Employee Orientation Program (NEOP) where they are trained on the quality management system, Ethics & Integrity, and the Environment, Health and Safety program. In addition to their initial training, they are provided technical training, delivered by designated individuals (supervisor or senior analyst level) with comprehensive working knowledge and experience in the area they are training. To ensure full traceability and auditability, training records for all employees are maintained in our online

document control system and in the employee's personal training file, which is maintained by his/her supervisor.

Analyst competence is essential to the production of accurate data. Prior to beginning work in the laboratory, technicians and analysts are required to thoroughly understand the QA objectives and the relevant SOP. This, in conjunction with hands-on training from a senior analyst, ensures successful transfer of information is effective. Demonstration of acceptable performance on laboratory control samples or reference materials by the analyst is required for final certification to perform the method. Ongoing demonstration of capability is provided through blind performance evaluation samples, audits and annual recertification.

2.3 Customer Complaints

Formal responses are required to any customer complaints, discrepancies, deficiencies or quality issues. The deficiencies are recorded in an electronic database and cascade to the supervisor and the analyst for immediate attention. An acknowledgment of the deficiency is required within a specified timeframe accompanied by an action plan, which must include any corrective measures taken along with results of these actions. A follow-up report on the same form must be completed and returned documenting the effectiveness of the improvements implemented. If closure of the issue is not done in the required timeframe the issue is escalated to the next management level promoting prompt resolution of the issue. The effective response to client issues is score-carded as a key performance indicator.

2.4 Ethics and Data Integrity

All employees are required to undergo annual ethics training and to read and sign an Ethics and Data Integrity Agreement annually, promising to not knowingly commit an unethical act or through inaction, allow a coworker to do so. Senior management reinforces the program through presentations, discussion and written tests.

2.5 Verification through Quality Control

Public safety, environmental impact and major financial decisions are routinely based on our analytical data. Legal data defensibility is essential to these activities and is verified through a comprehensive quality control program. The protocols and procedures described below are routinely employed and are described in detail in our Standard Operating Procedures (SOPs) for analysis, laboratory practice and staff training. The quality assurance objectives are translated into specific requirements that are written into all standard operating procedures.

2.6 Quality Control Protocols

Each project is conducted under a defined quality control program. Our standard quality control protocols meet or exceed the requirements of Canadian and United States regulators. In addition

to this, most large projects have a defined Quality Assurance Project Plan (QAPP) that includes all required data quality objectives. The following table outlines the quality control practices routinely employed in all laboratories. Additional elements or different limits may be used on a project specific basis.

Elements of Quality Control		
Element	**Frequency**	**Limits***
Field QC		
Sample Containers	Precleaned to EPA Spec's	Non Detect
Traveling Blanks	Project Specific	<RDL
Field Duplicates	Project Specific	Project Specific
Run QC, All Methods		
Method Blanks	1 in 20 or 1/batch	<RDL
Blank Spikes	1 in 20 or 1/batch	CCME or Provincial limits
Matrix Spikes	1 in 20 or 1/batch	CCME or Provincial limits
Duplicates Analysis	1 in 20 or 1/batch	± 20%-50%
Real Time Control Charts	Key parameters, all tests	± 3 SD, trend analysis
Inorganic QC		
Instrument Calibration	Multipoint Daily	>0.995 correlation
Calibration Verification	Daily (second source)	± 10% of initial
Continuing Cal. Verification	Every 20 samples & at end	± 10% of initial
Standard Reference Material	Daily – As Required (if available)	SRM limits
Organic QC		
Instrument Calibration	Multipoint	RSD ± 20%
Calibration Verification	Daily (second source)	± 20% of initial
Continuing Cal. Verification	Verified every 12 hr	RF or RRF ± 30% of initial
Surrogate Standards	All samples, all organic analyses	CCME or Provincial limits
Internal Standards (IS)	All Samples (method specific)	-50% to +100% of IS in Cal'n
Standard Reference Material	As required (if available)	SRM limits
External QC		
Interlaboratory Comparisons	>50/year	Top 10% overall, >95% acceptable
Double Blind Program	Annually (Inorganic and Organic where applicable)	Statistical Limits
Internal QC Checks	As required	In house limits

* Typical QC acceptance criteria. Values may vary for specific tests.

2.7 Accreditation

Bureau Veritas Laboratories hold several accreditations granted by Canadian and United States regulatory organizations. The intent of accreditation is to document through laboratory audit, check samples, and round robin studies, each laboratory's conformance to ISO/IEC 17025, an internationally accepted quality system. The accreditation process is also an integral part of our philosophy of Continuous Improvement. The following organizations have endorsed our quality

system. These endorsements are granted on a facility specific basis. In addition, many tier one industries have audited and approved our laboratories.

- Canadian Association for Laboratory Accreditation (CALA)
- Standards Council of Canada (SCC)
- Ministère de l'Environnement et de la Lutte contre les changements climatiques (MELCC)
- National Environmental Laboratory Accreditation (NELAC)
- U.S. Environmental Protection Agency Contract Laboratory
- American Industrial Hygiene Association (AIHA)
- Various US States

2.8 Proficiency Testing

Our laboratories participate in many national and international proficiency testing and double blind check sample programs. As per ISO 17025 requirements, we are required to successfully participate in proficiency testing programs for tests included on our scope of accreditation. We go above and beyond these minimum requirements. Some of the programs we are currently participating include:

- Corporate Double Blind Program
- Canadian Association for Laboratory Accreditation (CALA)
- AWAC
- CMPT
- NWRI (Env. Canada)
- NAPT
- WUCMUC
- State of New York – Environmental Laboratory Approval Program

2.9 Double Blind Program

The Double Blind Program was implemented to measure the quality of data and service provided to customers. Proficiency testing samples are required as part of standard accreditation programs (ISO 17025), however they do not adequately simulate lab performance for client samples since the lab knows it is being tested. The double blind program involves using a sample from an accredited proficiency-testing provider and having the sample “disguised” as a client sample so the lab is completely unaware their performance is being evaluated. The sample is sent to our laboratories as a regular sample, which upon completion is assessed by the Quality Assurance Department for turnaround time (TAT), data accuracy and traceability. This program best simulates lab performance for real client samples.

2.10 Customer Service / Project Management

The quality process extends beyond accreditations, methods and staff expertise. It includes the management system for all activities from project awards to follow-up customer satisfaction

surveys. The heart of the process is the Project Management (PM) team, the largest laboratory customer service team in Canada. This team consists of dedicated professionals whose responsibility it is to ensure the customer gets the tests meeting their requirements, when promised. Project managers are also aware of current and emerging regulations and thus are able to assist customers in choosing the correct testing protocol.

Supporting the PM team is our unique Laboratory Information Management System (MaxxLIMS). MaxxLIMS tracks and monitors all project information and provides a direct link between analysis and reporting. Employing barcodes, MaxxLIMS monitors each sample's progress through the lab as it is received and logged, extracted, analyzed and the resulting data is approved, validated and reported. Comprehensive sample tracking, combined with instrument capacity and staff commitment to customer service, allows clients to be confident in our ability to deliver quality data on time. Customer feedback and PM process insight has driven a number of innovations, mostly made possible through MaxxLIMS.

- Client website access to approved data
- Client website access to project status
- On line bottle orders
- Sample integrity forms
- Custom electronic and hard copy deliverables packages.
- Regulatory reports
- Consolidated invoicing
- Project summary performance reports
- Real time, automated sample log-in and data checks

2.11 The Quality Promise

The Quality Pyramid summarizes our quality promise to our customers. Each component of the pyramid strengthens the overall customer experience and ultimately converges at a single point, the promise to deliver accurate, defensible data to our clients.

Appendix 2-B: 2019 ARD Results

PEACE RIVER
HYDRO PARTNERS

Table 1: 2019 Rinse pH Results

Sample ID	Sample Location	Date Sampled	Material Type	Comments	Easting	Northing	Elevation	Rinse pH	Duplicate Rinse pH
Left Bank									
L5-2019-APR-18-01	RSEM L5	18-Apr-19	Fresh shale	Top of PAG pile	629096	6230542	474	10.17	
L5-2019-APR-18-02	RSEM L5	18-Apr-19	Fresh shale	Mixed with some soil	629099	6230559	472	9.64	
L5-2019-APR-18-03	RSEM L5	18-Apr-19	Fresh shale		629083	6230575	465	7.93	
L5-2019-APR-18-04	RSEM L5	18-Apr-19	Fresh shale		629047	6230639	458	9.87	
L5-2019-APR-18-05	RSEM L5	18-Apr-19	Weathered shale	Lower corner of L5 PAG pile	629206	6230463	431	8.95	
L5-2019-APR-18-06	RSEM L5	18-Apr-19	Weathered shale		629169	6230462	441	10.10	
L5-2019-APR-18-07	RSEM L5	18-Apr-19	Weathered shale	From base of PAG pile	629164	6230513	441	9.23	
L5-2019-APR-18-08	RSEM L5	18-Apr-19	Weathered shale		629039	6230544	440	9.97	
L5-2019-APR-18-09	RSEM L5	18-Apr-19	Weathered shale	From base of lower PAG pile	629004	6230528	439	10.09	
L5-2019-APR-18-10	RSEM L5	18-Apr-19	Weathered shale	Heavily weathered	629092	6230389	416	4.20	
L5-2019-APR-18-11	RSEM L5	18-Apr-19	Weathered shale	Near base of pile	629021	6230440	419	4.41	
L5-2019-AUG-01-01	RSEM L5	01-Aug-19	Fresh shale		629084	6230560	457	6.01	
L5-2019-AUG-01-02	RSEM L5	01-Aug-19	Weathered shale		629116	6230513	456	8.42	
L5-2019-AUG-01-03	RSEM L5	01-Aug-19	Fresh shale		629128	6230557	455	9.39	
L5-2019-AUG-01-04	RSEM L5	01-Aug-19	Weathered shale		629059	6230664	458	8.64	
L5-2019-AUG-01-05	RSEM L5	01-Aug-19	Weathered shale		629106	6230658	455	9.17	
L5-2019-AUG-01-06	RSEM L5	01-Aug-19	Mixed weathered shale and overburden (<10%)	Garbage Creek area of L5	629136	6230705	446	5.10	
L5-2019-AUG-01-07	RSEM L5	01-Aug-19	Fresh shale	Current dumping area	629169	6230736	451	9.57	
L5-2019-AUG-01-08	RSEM L5	01-Aug-19	Fresh shale	Minor overburden (<5%), edge of Garbage Creek area	629254	6230624	441	6.11	
L5-2019-AUG-01-09	RSEM L5	01-Aug-19	Fresh shale	Minor overburden (<5%), edge of Garbage Creek area	629223	6230585	446	6.19	
L5-2019-AUG-01-10	RSEM L5	01-Aug-19	Weathered shale		629025	6230636	454	6.49	
L5-2019-AUG-01-11	RSEM L5	01-Aug-19	Weathered shale		629160	6230513	437	7.36	
L5-2019-AUG-01-12	RSEM L5	01-Aug-19	Weathered shale		629201	6230448	430	3.35	
L5-2019-AUG-01-13	RSEM L5	01-Aug-19	Weathered shale		629112	6230440	454	8.63	
L5-2019-AUG-01-14	RSEM L5	01-Aug-19	Weathered shale		629078	6230470	440	5.09	
L5-2019-AUG-01-15	RSEM L5	01-Aug-19	Weathered shale		629076	6230497	443	7.92	
L5-2019-AUG-01-16	RSEM L5	01-Aug-19	Weathered shale		628975	6230546	435	3.46	
L5-2019-AUG-01-17	RSEM L5	01-Aug-19	Weathered shale		629010	6230442	421	3.09	
L5-2019-OCT-22-01	RSEM L5	22-Oct-19	Weathered shale	Top of lower ridge, below PAG pil	629107	6230439	449	8.55	
L5-2019-OCT-22-02	RSEM L5	22-Oct-19	Weathered shale		629154	6230506	439	8.77	
L5-2019-OCT-22-03	RSEM L5	22-Oct-19	Weathered shale	Graded slope	629078	6230496	437	7.48	
L5-2019-OCT-22-04	RSEM L5	22-Oct-19	Weathered shale	Graded slope, area to the west is covered with overburden	629035	6230561	439	7.67	
L5-2019-OCT-22-05	RSEM L5	22-Oct-19	Weathered shale	Edge of lower ridge	628998	6230530	434	6.57	6.73
L5-2019-OCT-22-06	RSEM L5	22-Oct-19	Weathered shale	Very weathered, lower edge of lower ridge; measurements in ditch at base of slope: conductivity 8.10mS/cm, pH 4.5, temperature 3.7°C	629019	6230438	416	2.35	
L5-2019-OCT-22-07	RSEM L5	22-Oct-19	Weathered shale	Lower edge of lower ridge	629192	6230425	416	8.08	
L5-2019-OCT-22-08	RSEM L5	22-Oct-19	Weathered shale	Graded slope	628973	6230737	442	8.35	
L5-2019-OCT-22-09	RSEM L5	22-Oct-19	Weathered shale	Graded slope	629005	6230688	446	8.12	
L5-2019-OCT-22-10	RSEM L5	22-Oct-19	Weathered shale	PAG pile	629162	6230557	435	6.79	
L5-2019-OCT-22-11	RSEM L5	22-Oct-19	Fresh shale	PAG pile	629115	6230619	442	8.20	
L5-2019-OCT-22-12	RSEM L5	22-Oct-19	Fresh shale	PAG pile	629064	6230656	443	8.33	
L5-2019-OCT-22-13	RSEM L5	22-Oct-19	Weathered shale	Top of PAG pile	629125	6230536	448	8.72	
L5-2019-OCT-22-14	RSEM L5	22-Oct-19	Weathered shale	PAG pile	629096	6230593	453	8.05	
L5-2019-OCT-22-15	RSEM L5	22-Oct-19	Weathered shale	Graded slope at end of Garbage Creek	629197	6230640	447	8.84	8.80
L5-2019-OCT-22-16	RSEM L5	22-Oct-19	Weathered shale	Graded slope at end of Garbage Creek	629126	6230698	447	8.42	
L5-2019-OCT-22-17	RSEM L5	22-Oct-19	Weathered shale	Base of PAG pile	629125	6230659	444	8.28	
L5-2019-OCT-22-18	RSEM L5	22-Oct-19	Weathered shale	Base of PAG pile	629161	6230598	436	2.52	
L5EX-2019-APR-18-01	L5 Extension	18-Apr-19	Fresh shale		628486	6231297	425	9.35	
L5EX-2019-APR-18-02	L5 Extension	18-Apr-19	Fresh shale		628459	6231264	422	8.01	
L5EX-2019-APR-18-03	L5 Extension	18-Apr-19	Fresh shale		628483	6231250	423	9.30	
L5EX-2019-APR-18-04	L5 Extension	18-Apr-19	Fresh shale		628504	6231235	422	9.23	
L5EX-2019-APR-18-05	L5 Extension	18-Apr-19	Fresh shale		628524	6231211	424	9.16	
L5EX-2019-APR-18-06	L5 Extension	18-Apr-19	Fresh shale		628509	6231282	427	8.11	
L5EX-2019-AUG-01-01	L5 Extension	01-Aug-19	Weathered shale		628427	6231371	423	6.50	
L5EX-2019-AUG-01-02	L5 Extension	01-Aug-19	Mixed shale and overburden (~20% shale)		628379	6231320	423	7.63	
L5EX-2019-AUG-01-03	L5 Extension	01-Aug-19	Fresh shale	Within current dumping area	628474	6231224	430	9.78	
L5EX-2019-AUG-01-04	L5 Extension	01-Aug-19	Fresh shale	Majority of piles in area are overburden	628524	6231268	430	9.09	
L5EX-2019-AUG-01-05	L5 Extension	01-Aug-19	Fresh shale		628596	6231079	428	8.19	
L5EX-2019-AUG-01-06	L5 Extension	01-Aug-19	Fresh shale		628638	6231083	429	7.53	
L5EX-2019-AUG-01-07	L5 Extension	01-Aug-19	Mixed weathered shale and overburden (<10%)	Lower ridge of weathered shale below area of the extension where they are actively dumping	628630	6230977	419	8.63	
L5EX-2019-OCT-22-01	L5 Extension	22-Oct-19	Weathered shale	Small shale stockpile, nearby areas have been graded and partially covered (mixed shale and overburden)	628464	6231410	422	7.58	

Note: **Rinse pH was done at 1:2 solids to liquid ratio. When done at 1:1 solids to liquid ratio, sample absorbed all water and no supernatant was formed.

Table 1: 2019 Rinse pH Results

Sample ID	Sample Location	Date Sampled	Material Type	Comments	Easting	Northing	Elevation	Rinse pH	Duplicate Rinse pH
L5EX-2019-OCT-22-02	L5 Extension	22-Oct-19	Mixed shale and overburden	Varies from 30-60% shale, graded slope	628399	6231310	426	5.66	
L5EX-2019-OCT-22-03	L5 Extension	22-Oct-19	Weathered shale	Edge of graded slope above pond, sampled area that was mostly shale but surrounding areas are mixed, up to 80% overburden	628453	6231181	418	3.60	
L5EX-2019-OCT-22-04	L5 Extension	22-Oct-19	Mixed shale (60%) and overburden (40%)	Stockpile	628630	6231041	428	5.67	
L5EX-2019-OCT-22-05	L5 Extension	22-Oct-19	Fresh shale	Stockpile	628632	6230989	421	8.50	
L5EX-2019-OCT-22-06	L5 Extension	22-Oct-19	Weathered shale	Graded slope	628498	6231252	436	6.95	
L5EX-2019-OCT-22-07	L5 Extension	22-Oct-19	Fresh shale	Graded slope	628565	6231139	433	7.86	
L5EX-2019-OCT-22-08	L5 Extension	22-Oct-19	Fresh shale	Stockpile	628639	6231184	436	9.00	
L5EX-2019-OCT-22-09	L5 Extension	22-Oct-19	Fresh shale	Stockpile	628674	6231150	440	9.11	
L6-2019-JAN-16-01	RSEM L6	16-Jan-19	Weathered material	Collected from a berm	630600	6229721	-	9.74	
L6-2019-JAN-16-02	RSEM L6	16-Jan-19	Weathered material	Collected from a berm	630559	6229697	-	9.82	
L6-2019-JAN-16-03	RSEM L6	16-Jan-19	Fresh rock	Collected from south side of pile	630519	6229698	-	9.27	
L6-2019-JAN-16-04	RSEM L6	16-Jan-19	Weathered material	Weathered material from base of bluff west of DTOP	630565	6229733	-	3.93	
L6-2019-JAN-16-05	RSEM L6	16-Jan-19	Weathered material	Collected from a berm	630488	6229733	-	9.92	
L6-2019-JAN-16-06	RSEM L6	16-Jan-19	Competent rock	Collected from south side of pile	630591	6229694	-	9.96	
L6-2019-JAN-16-07	RSEM L6	16-Jan-19	Fresh rock	Collected from south side of pile	630550	6229688	-	9.98	
L6-2019-JAN-16-08	RSEM L6	16-Jan-19	Weathered material	Collected from north side, upper lift	630527	6229716	-	9.79	
L6-2019-FEB-12-01	RSEM L6	12-Feb-19	Fresh shale		630200	6229755	410	9.88	
L6-2019-FEB-12-02	RSEM L6	12-Feb-19	Fresh shale		630227	6229769	409	10.1	
L6-2019-FEB-12-03	RSEM L6	12-Feb-19	Fresh shale	From eastern edge of L6, only stockpile here at time of sampling	630539	6229679	412	8.26	
L6-2019-APR-18-01	RSEM L6	18-Apr-19	Fresh shale		630215	6229845	414	10.25	
L6-2019-APR-18-02	RSEM L6	18-Apr-19	Fresh shale		630176	6229839	414	10.23	
L6-2019-APR-18-03	RSEM L6	18-Apr-19	Fresh shale		630337	6229806	417	10.27	
L6-2019-APR-18-04	RSEM L6	18-Apr-19	Mixed	Shale and overburden, sampled edge of road	630201	6229751	413	10.18	
L6-2019-APR-18-05	RSEM L6	18-Apr-19	Weathered shale	Moderate weathering	630283	6229772	413	9.98	
L6-2019-APR-18-06	RSEM L6	18-Apr-19	Weathered shale		630255	6229737	414	10.02	
L6-2019-APR-18-07	RSEM L6	18-Apr-19	Weathered shale		630332	6229749	416	9.96	
L6-2019-APR-18-08	RSEM L6	18-Apr-19	Weathered shale		630368	6229732	415	10.15	
L6-2019-APR-18-09	RSEM L6	18-Apr-19	Weathered shale		630376	6229800	414	10.02	
L6-2019-APR-18-10	RSEM L6	18-Apr-19	Weathered shale		630384	6229763	410	10.10	
L6-2019-APR-18-11	RSEM L6	18-Apr-19	Weathered shale		630391	6229788	405	8.22	
L6-2019-APR-18-12	RSEM L6	18-Apr-19	Weathered shale		630442	6229757	409	8.22	
L6-2019-JUL-30-01	RSEM L6	30-Jul-19	Weathered shale		630271	6229864	413	9.15	
L6-2019-JUL-30-02	RSEM L6	30-Jul-19	Weathered shale	Near road, at edge below overburden cover	630362	6229816	411	7.11	
L6-2019-JUL-30-03	RSEM L6	30-Jul-19	Weathered shale	From base of hole behind L6 pond	630403	6229747	405	8.84	
L6-2019-JUL-30-04	RSEM L6	30-Jul-19	Fresh shale	Sample is from one of five piles in this area	630373	6229762	412	8.40	
L6-2019-OCT-22-01	RSEM L6	22-Oct-19	Weathered shale	Edge of RSEM Area L6 above pit	630378	6229793	403	missing	
L6-2019-OCT-22-02	RSEM L6	22-Oct-19	Weathered shale		630396	6229767	403	7.84	
L6-2019-OCT-22-03	RSEM L6	22-Oct-19	Weathered shale	Less weathered than samples 1 and 2	630377	6229751	412	7.63	
L6-2019-OCT-22-04	RSEM L6	22-Oct-19	Weathered shale		630438	6229738	406	7.37	
LBEX-2019-JUL-31-01	LB Excavation	31-Jul-19	Weathered shale	Mixed with minor overburden (<5%)	629498	6230585	486	2.30	
LBEX-2019-JUL-31-02	LB Excavation	31-Jul-19	Overburden	Silty clay	629659	6230417	482	7.90	
LBEX-2019-JUL-31-03	LB Excavation	31-Jul-19	Weathered shale	Yellow-orange precipitate visible below	629441	6230587	482	2.75	
LBEX-2019-OCT-23-01	LB Excavation	23-Oct-19	Weathered shale	Collected on Bench 0, Ponded water on Bench 0 is dark red in colour; measurements: conductivity 16.73mS/cm, pH 2.9, temperature 5.4°C	629881	6230121	459	2.12	
LBEX-2019-OCT-23-02	LB Excavation	23-Oct-19	Weathered shale	Bench 0 is below overburden units and above shotcreted face	629797	6230178	453	2.49	
LBEX-2019-OCT-23-03	LB Excavation	23-Oct-19	Weathered shale	Ponded water measurements: conductivity 4.70mS/cm, pH 3.5, temperature 4.6°C	629627	6230271	455	2.13	
LB-BLUFF-2019-JUL-31-01	LBEX Bluff	31-Jul-19	Weathered shale	Material has sluffed off bluff	629864	6230055	418	2.46	
LBCD-2019-JUL-31-01	LB Cofferdam/Dam Core	31-Jul-19	Weathered shale	Some white precipitate on surface	629581	6230039	391	6.37	
LBCD-2019-JUL-31-02	LB Cofferdam/Dam Core	31-Jul-19	Fresh shale	Pile within the LB Cofferdam	629629	6230003	392	9.10	
LBCD-2019-JUL-31-03	LB Cofferdam/Dam Core	31-Jul-19	Weathered shale	Edge of excavation, bedrock	629630	6229942	389	8.04	
LBCD-2019-JUL-31-04	LB Cofferdam/Dam Core	31-Jul-19	Weathered shale	Back corner of excavation	629588	6229903	386	8.07	
LBDC-2019-OCT-23-01	LB Cofferdam/Dam Core	23-Oct-19	Fresh shale	Stockpile in dam core	629671	6230025	396	7.66	
LBDC-2019-OCT-23-02	LB Cofferdam/Dam Core	23-Oct-19	Fresh shale	Material at edge of excavation	629687	6230061	394	6.45	
LBDC-2019-OCT-23-03	LB Cofferdam/Dam Core	23-Oct-19	Weathered shale	Below shotcreted face, unit directly below overburden	629683	6230153	405	5.78	
LBDC-2019-OCT-23-04	LB Cofferdam/Dam Core	23-Oct-19	Weathered shale	Bench above current excavation	629716	6230105	396	7.18	
LBDC-2019-OCT-23-05	LB Cofferdam/Dam Core	23-Oct-19	Mixed shale (30%) and overburden (70%)	Initial Zone 8 Placement area	629486	6230087	408	7.64	
CONVEYOR-2019-APR-4-01	85th Ave Conveyor	04-Apr-19	Overburden	Clay, collected from road cut	631067	6230993	-	8.28**	
CONVEYOR-2019-APR-4-02	85th Ave Conveyor	04-Apr-19	Overburden	Clay, collected from road cut	631082	6230997	-	7.93	
85TH TILL CONVEYOR IN-SITU	85th Ave Conveyor	May-19	Overburden	Collected by PRHP; claystone to siltstone	631175	6233350	-	7.08	
85TH TILL CONVEYOR EX-SITU	85th Ave Conveyor	May-19	Overburden	Collected by PRHP; claystone to siltstone	631185	6233338	-	7.13	
W3-2019-JUL-31-01	85th Ave Conveyor	31-Jul-19	Overburden	Silty clay, at corner of conveyor	631183	6233342	650	7.65	
W3-2019-JUL-31-02	85th Ave Conveyor	31-Jul-19	Overburden	Silty clay, collected from a stockpile	631256	6233337	653	7.67	
W3-2019-JUL-31-03	85th Ave Conveyor	31-Jul-19	Overburden	Silty clay, collected from a stockpile	631167	6233043	645	7.63	

Note: **Rinse pH was done at 1:2 solids to liquid ratio. When done at 1:1 solids to liquid ratio, sample absorbed all water and no supernatant was formed.

Table 1: 2019 Rinse pH Results

Sample ID	Sample Location	Date Sampled	Material Type	Comments	Easting	Northing	Elevation	Rinse pH	Duplicate Rinse pH
Right Bank									
R5A-2019-APR-17-01	RSEM R5A	17-Apr-19	Mixed	Mix of weathered shale and overburden	627037	6231938	412	6.33	
R5A-2019-APR-17-02	RSEM R5A	17-Apr-19	Weathered shale		627123	6231881	433	10.04	
R5A-2019-APR-17-03	RSEM R5A	17-Apr-19	Weathered shale		627276	6231859	439	10.06	
R5A-2019-APR-17-04	RSEM R5A	17-Apr-19	Weathered shale	Less weathered than previous	627415	6231816	415	10.27	
R5A-2019-APR-17-05	RSEM R5A	17-Apr-19	Weathered shale	Heavily weathered	627177	6231684	447	2.71	
R5A-2019-APR-17-06	RSEM R5A	17-Apr-19	Weathered shale		627212	6231774	445	9.58	
R5A-2019-APR-17-07	RSEM R5A	17-Apr-19	Weathered shale		627286	6231734	446	10.19	
R5A-2019-APR-17-08	RSEM R5A	17-Apr-19	Weathered shale	Heavily weathered	627222	6231596	451	2.62	
R5A-2019-APR-17-09	RSEM R5A	17-Apr-19	Weathered shale		627258	6231671	444	8.08	
R5A-2019-APR-17-10	RSEM R5A	17-Apr-19	Weathered shale		627407	6231575	444	9.93	
R5A-2019-APR-17-11	RSEM R5A	17-Apr-19	Weathered shale	Heavily weathered	627387	6231513	447	2.41	
R5A-2019-APR-17-12	RSEM R5A	17-Apr-19	Weathered shale	Heavily weathered	627403	6231298	445	2.45	
R5A-2019-APR-17-13	RSEM R5A	17-Apr-19	Weathered shale		627450	6231381	446	6.15	
R5A-2019-APR-17-14	RSEM R5A	17-Apr-19	Weathered shale		627469	6231625	438	10.32	
R5A-2019-APR-17-15	RSEM R5A	17-Apr-19	Weathered shale		627555	6231511	436	10.35	
R5A-2019-APR-17-16	RSEM R5A	17-Apr-19	Weathered shale		627475	6231528	438	10.16	
R5A-2019-APR-17-17	RSEM R5A	17-Apr-19	Weathered shale		627397	6231597	443	9.92	
R5A-2019-APR-17-18	RSEM R5A	17-Apr-19	Fresh shale	Near where they are currently dumping	627584	6231370	432	10.41	
R5A-2019-APR-17-19	RSEM R5A	17-Apr-19	Fresh shale	Competent	627702	6231176	427	10.40	
R5A-2019-APR-17-20	RSEM R5A	17-Apr-19	Mixed	Mixed shale and overburden	627731	6231197	426	9.47	
R5A-2019-APR-17-21	RSEM R5A	17-Apr-19	Mixed	Mixed shale and overburden	627703	6231399	420	4.44	
R5A-2019-APR-17-22	RSEM R5A	17-Apr-19	Fresh shale		627683	6231323	424	10.28	
R5A-2019-APR-17-23	RSEM R5A	17-Apr-19	Weathered shale	Heavily weathered	627591	6231075	443	5.14	
R5A-2019-APR-17-24	RSEM R5A	17-Apr-19	Weathered shale		627621	6231116	439	9.25	
R5A-2019-APR-17-25	RSEM R5A	17-Apr-19	Mixed	Mixed shale and overburden, ~20% overburden	627762	6231062	428	9.85	
R5A-2019-APR-17-26	RSEM R5A	17-Apr-19	Fresh shale		627828	6231112	427	10.38	
R5A-2019-APR-17-27	RSEM R5A	17-Apr-19	Weathered shale		627922	6231033	422	2.50	
R5A-2019-APR-17-28	RSEM R5A	17-Apr-19	Weathered shale		628000	6230926	421	2.70	
R5A-2019-APR-17-29	RSEM R5A	17-Apr-19	Weathered shale		628078	6230806	420	2.60	
R5A-2019-APR-17-30	RSEM R5A	17-Apr-19	Weathered shale		628174	6230681	419	8.66	
R5A-2019-APR-17-31	RSEM R5A	17-Apr-19	Weathered shale		628104	6230726	422	9.85	
R5A-2019-APR-17-32	RSEM R5A	17-Apr-19	Mixed	Shale and overburden, sampled graded surface	628133	6230290	423	5.84	
R5A-2019-APR-17-33	RSEM R5A	17-Apr-19	Weathered shale		628237	6230403	411	9.92	
R5A-2019-APR-17-34	RSEM R5A	17-Apr-19	Weathered shale	Heavily weathered	627497	6231633	417	7.63	
R5A-2019-APR-17-35	RSEM R5A	17-Apr-19	Weathered shale	Heavily weathered	628323	6230414	417	8.92	
R5A-2019-APR-17-36	RSEM R5A	17-Apr-19	Weathered shale	Heavily weathered	628282	6230554	416	6.84	
R5A-2019-JUL-31-01	RSEM R5A	31-Jul-19	Weathered shale		627066	6231901	428	9.14	
R5A-2019-JUL-31-02	RSEM R5A	31-Jul-19	Weathered shale	Along graded slope	627237	6231889	437	9.04	
R5A-2019-JUL-31-03	RSEM R5A	31-Jul-19	Weathered shale, mixed with some gravel/pebbles		627155	6231796	452	9.26	
R5A-2019-JUL-31-04	RSEM R5A	31-Jul-19	Weathered shale	Directly above one of the R5A ponds	627413	6231824	416	9.32	
R5A-2019-JUL-31-05	RSEM R5A	31-Jul-19	Weathered shale	At edge of dumped PAG, below is covered with cobbles, gravel, overburden	627524	6231603	426	9.74	
R5A-2019-JUL-31-06	RSEM R5A	31-Jul-19	Weathered shale	Edge of graded slope	627682	6231434	420	4.51	
R5A-2019-JUL-31-07	RSEM R5A	31-Jul-19	Weathered shale, mixed with overburden (<10%)	Edge of graded slope, overburden is gravel and pebbles	627757	6231189	422	7.26	
R5A-2019-JUL-31-08	RSEM R5A	31-Jul-19	Weathered shale		628026	6230896	422	6.17	
R5A-2019-JUL-31-09	RSEM R5A	31-Jul-19	Weathered shale		628084	6230802	424	7.88	
R5A-2019-JUL-31-10	RSEM R5A	31-Jul-19	Very weathered shale		628168	6230706	420	8.46	
R5A-2019-JUL-31-11	RSEM R5A	31-Jul-19	Weathered shale		628289	6230551	425	4.11	
R5A-2019-JUL-31-12	RSEM R5A	31-Jul-19	Weathered shale		628325	6230410	428	9.04	
R5A-2019-JUL-31-13	RSEM R5A	31-Jul-19	Weathered shale	Near end of non-contact ditch	628120	6230272	435	3.71	
R5A-2019-JUL-31-14	RSEM R5A	31-Jul-19	Weathered shale		628265	6230391	421	3.47	
R5A-2019-JUL-31-15	RSEM R5A	31-Jul-19	Fresh shale	Current dumping area	627758	6231042	440	7.07	
R5A-2019-JUL-31-16	RSEM R5A	31-Jul-19	Weathered shale		627272	6231760	446	9.44	
R5A-2019-JUL-31-17	RSEM R5A	31-Jul-19	Weathered shale	Highest bench, approximately level with upper road	627204	6231681	446	7.72	
R5A-2019-JUL-31-18	RSEM R5A	31-Jul-19	Fresh shale	Pile within overburden covered area	627287	6231677	442	9.40	
R5A-2019-JUL-31-19	RSEM R5A	31-Jul-19	Weathered shale	Ridge above slope to ponds	627357	6231652	440	7.67	
R5A-2019-JUL-31-20	RSEM R5A	31-Jul-19	Weathered shale	Along ridge from 19, above here is overburden, below is PAG	627442	6231528	441	9.39	
R5A-2019-JUL-31-21	RSEM R5A	31-Jul-19	Weathered shale	Minor ridge along road, near end of overburden cover	627519	6231371	437	2.74	
R5A-2019-JUL-31-22	RSEM R5A	31-Jul-19	Fresh shale	Fresh shale pile near acidic slope at back of R5A (which remains exposed)	627482	6231297	440	9.97	
R5A-2019-JUL-31-23	RSEM R5A	31-Jul-19	Weathered shale	Near edge of main road, pile is in an area where there are also overburden piles	627600	6231273	437	6.33	
R5A-2019-JUL-31-24	RSEM R5A	31-Jul-19	Fresh shale	Along side of road (upper edge)	627952	6230866	432	8.56	
R5A-2019-JUL-31-25	RSEM R5A	31-Jul-19	Fresh shale	Along side of road	628086	6230693	425	9.70	
R5A-2019-OCT-21-01	RSEM R5A	21-Oct-19	Weathered shale	At edge of R5A Pond D, small amount of PAG remains exposed within a covered area	627416	6231833	419	7.45	
R5A-2019-OCT-21-02	RSEM R5A	21-Oct-19	Weathered shale	Minor cobbles on surface	627487	6231512	440	8.33	
R5A-2019-OCT-21-03	RSEM R5A	21-Oct-19	Fresh shale		627421	6231648	439	8.47	
R5A-2019-OCT-21-04	RSEM R5A	21-Oct-19	Weathered shale	Piles in this area are mixed (overburden, cement and shale)	627228	6231787	440	3.99	

Note: **Rinse pH was done at 1:2 solids to liquid ratio. When done at 1:1 solids to liquid ratio, sample absorbed all water and no supernatant was formed.

Table 1: 2019 Rinse pH Results

Sample ID	Sample Location	Date Sampled	Material Type	Comments	Easting	Northing	Elevation	Rinse pH	Duplicate Rinse pH
R5A-2019-OCT-21-05	RSEM R5A	21-Oct-19	Weathered shale		627095	6231753	445	7.45	7.57
R5A-2019-OCT-21-06	RSEM R5A	21-Oct-19	Weathered shale	Below non-contact ditch road	627383	6231294	452	2.37	2.45
R5A-2019-OCT-21-07	RSEM R5A	21-Oct-19	Weathered shale	Below non-contact ditch road	627525	6231143	454	2.33	
R5A-2019-OCT-21-08	RSEM R5A	21-Oct-19	Fresh shale		627708	6230971	452	8.58	
R5A-2019-OCT-21-09	RSEM R5A	21-Oct-19	Fresh shale	Piles in area are both shale and overburden	627807	6230930	449	8.42	
R5A-2019-OCT-21-10	RSEM R5A	21-Oct-19	Fresh shale		627877	6230949	436	8.46	
R5A-2019-OCT-21-11	RSEM R5A	21-Oct-19	Fresh shale		627934	6230886	433	6.13	
R5A-2019-OCT-21-12	RSEM R5A	21-Oct-19	Weathered shale (60%) and overburden (40%)		628136	6230301	423	5.94	
R5A-2019-OCT-21-13	RSEM R5A	21-Oct-19	Weathered shale (>95%) and overburden (<5%)		627577	6231390	429	8.59	
R5A-2019-OCT-21-14	RSEM R5A	21-Oct-19	Weathered shale	Area is mixed overburden and weathered shale, area sampled is all shale	627648	6231168	434	7.56	
R5A-2019-OCT-21-15	RSEM R5A	21-Oct-19	Fresh shale	Minor berm (1-5m wide) along edge of road	627708	6231145	432	7.92	
R5A-2019-OCT-21-16	RSEM R5A	21-Oct-19	Weathered shale		627686	6231096	433	7.89	
R5A-2019-OCT-21-17	RSEM R5A	21-Oct-19	Weathered shale	Pile is mixed overburden and shale but area sampled is weathered shale with minor cobbles (<5%)	627812	6231026	432	7.64	
R5A-2019-OCT-21-18	RSEM R5A	21-Oct-19	Weathered shale		627966	6230805	438	8.8	
R5A-2019-OCT-21-19	RSEM R5A	21-Oct-19	Weathered shale	Minor berm (1-2m wide) along side of road, below stripped area	628095	6230628	434	9.24	
R5A-2019-OCT-21-20	RSEM R5A	21-Oct-19	Mixed overburden and weathered shale	Natural slope; Duplicate temp 17.4°C	628195	6230403	422	4.37	4.37
R5A-2019-OCT-21-21	RSEM R5A	21-Oct-19	Weathered shale	Exposed shale below overburden stockpiles	628267	6230384	416	9.21	
R5A-2019-OCT-21-22	RSEM R5A	21-Oct-19	Weathered shale	Very weathered, minor pile (5-10m wide)	628252	6230304	414	6.9	
R5A-2019-OCT-22-01	RSEM R5A	22-Oct-19	Weathered shale	Above RSEM Ponds A and B	628178	6230678	413	8.76	
R5A-2019-OCT-22-02	RSEM R5A	22-Oct-19	Weathered shale	Above RSEM Ponds A and B	628142	6230732	415	9.11	
R5A-2019-OCT-22-03	RSEM R5A	22-Oct-19	Weathered shale	Above RSEM Ponds A and B; measurements from seep below where sample was collected: conductivity 3.42mS/cm, pH 6.9, temperature 10.9°C	628034	6230887	413	6.38	
R5A-2019-OCT-22-04	RSEM R5A	22-Oct-19	Weathered shale	Minor (~10m x 10m) shale exposure in far corner of RSEM Area R5A	627056	6231930	412	2.87	
AC-2019-FEB-11-01	Approach Channel	11-Feb-19	Mixed shale and overburden		628950	6229516	437	7.00	
AC-2019-FEB-11-02	Approach Channel	11-Feb-19	Shale (bedrock)		629018	6229430	432	6.74	
AC-2019-FEB-11-03	Approach Channel	11-Feb-19	Weathered shale		629089	6229356	426	9.14	
AC-2019-FEB-11-04	Approach Channel	11-Feb-19	Weathered shale		629158	6229289	427	3.57	
AC-2019-FEB-11-05	Approach Channel	11-Feb-19	Weathered shale		629051	6229410	428	7.41	
AC-2019-FEB-11-06	Approach Channel	11-Feb-19	Weathered shale	Crumbly shale	628976	6229460	435	5.88	
AC-2019-FEB-11-07	Approach Channel	11-Feb-19	Weathered shale	Crumbly shale	629031	6229381	442	8.03	
AC-2019-FEB-11-08	Approach Channel	11-Feb-19	Weathered shale	Crumbly shale	629114	6229302	441	8.80	
AC-2019-FEB-11-09	Approach Channel	11-Feb-19	Weathered shale	Crumbly shale	629129	6229299	436	4.97	
AC-2019-FEB-11-10	Approach Channel	11-Feb-19	Weathered shale	Crumbly shale	629019	6229413	436	7.56	
AC-2019-FEB-11-11	Approach Channel	11-Feb-19	Mixed shale and overburden		628952	6229466	445	2.63	
AC-2019-FEB-11-12	Approach Channel	11-Feb-19	Weathered shale	Along downgradient wall of ditch	628965	6229459	441	2.80	
AC-2019-FEB-11-13	Approach Channel	11-Feb-19	Weathered shale	Along upgradient wall of ditch	628997	6229407	441	2.44	
AC-2019-FEB-11-14	Approach Channel	11-Feb-19	Weathered shale	More weathered than -13	629045	6229337	442	2.31	
AC-2019-FEB-11-15	Approach Channel	11-Feb-19	Weathered shale	Next to orange stained ice	628982	6229423	433	2.54	
AC-2019-FEB-12-01	Approach Channel	12-Feb-19	Weathered shale		629536	6229000	438	2.50	
AC-2019-FEB-12-02	Approach Channel	12-Feb-19	Weathered shale	On downslope edge of ditch along top of AC	629189	6229145	453	2.54	
AC-2019-FEB-12-03	Approach Channel	12-Feb-19	Weathered shale	On downslope edge of ditch along top of AC	629353	6229045	453	2.32	
AC-2019-FEB-12-04	Approach Channel	12-Feb-19	Weathered shale	On upslope side of ditch	629384	6229021	457	2.26	
AC-2019-FEB-12-05	Approach Channel	12-Feb-19	Weathered shale	On upslope side of ditch	629457	6228977	456	2.54	
AC-2019-FEB-12-06	Approach Channel	12-Feb-19	Weathered shale	On downslope edge of ditch along top of AC	629512	6228936	452	2.40	
AC-2019-FEB-12-07	Approach Channel	12-Feb-19	Weathered shale	Along ditch that drains to sump	629677	6228873	458	2.53	
AC-2019-FEB-12-08	Approach Channel	12-Feb-19	Weathered shale	Along highest bench	629602	6228886	457	2.26	
AC-2019-FEB-12-09	Approach Channel	12-Feb-19	Weathered shale		629549	6228922	452	2.26	
AC-2019-FEB-12-10	Approach Channel	12-Feb-19	Weathered shale		629475	6228976	455	2.48	
AC-2019-FEB-12-11	Approach Channel	12-Feb-19	Weathered shale		629317	6229086	457	2.41	
AC-2019-FEB-12-12	Approach Channel	12-Feb-19	Mixed shale and overburden		629214	6229144	454	2.25	
AC-2019-FEB-12-13	Approach Channel	12-Feb-19	Weathered shale	Crumbly shale, can see layer of OVB above shale	629170	6229192	443	6.01	
AC-2019-FEB-12-14	Approach Channel	12-Feb-19	Weathered shale	Crumbly	629265	6229135	442	7.64	
AC-2019-FEB-12-15	Approach Channel	12-Feb-19	Weathered shale	Rusty staining on surface	629346	6229076	445	2.43	
AC-2019-FEB-12-16	Approach Channel	12-Feb-19	Weathered shale	Staining visible between -15 and -16	629460	6228998	444	2.27	
AC-2019-FEB-12-17	Approach Channel	12-Feb-19	Weathered shale		629555	6228930	446	2.53	
AC-2019-FEB-12-18	Approach Channel	12-Feb-19	Weathered shale	Knob at eastern end of AC, near conveyor	629648	6228888	449	2.27	
AC-2019-FEB-12-19	Approach Channel	12-Feb-19	Weathered shale		629619	6228894	443	2.64	
AC-2019-FEB-12-20	Approach Channel	12-Feb-19	Weathered shale	Rusty staining on surface, bench below samples 13-17	629575	6228919	437	2.91	
AC-2019-FEB-12-21	Approach Channel	12-Feb-19	Weathered shale		629521	6228961	439	2.51	
AC-2019-FEB-12-22	Approach Channel	12-Feb-19	Weathered shale	Crumbly, fresher in comparison to -21	629439	6229024	441	8.62	
AC-2019-FEB-12-23	Approach Channel	12-Feb-19	Weathered shale		629339	6229094	442	8.04	
AC-2019-FEB-12-24	Approach Channel	12-Feb-19	Weathered shale	Rusty staining, at entrance to Donkey Rd	629109	6229259	445	3.20	
AC-2019-FEB-12-25	Approach Channel	12-Feb-19	Weathered shale	Lower knob at eastern end of AC, near conveyor	629618	6228921	438	5.96	
AC-2019-APR-17-01	Approach Channel	17-Apr-19	Weathered shale	Rusty staining on surface	628994	6229480	432	3.35	

Note: **Rinse pH was done at 1:2 solids to liquid ratio. When done at 1:1 solids to liquid ratio, sample absorbed all water and no supernatant was formed.

Table 1: 2019 Rinse pH Results

Sample ID	Sample Location	Date Sampled	Material Type	Comments	Easting	Northing	Elevation	Rinse pH	Duplicate Rinse pH
AC-2019-APR-17-02	Approach Channel	17-Apr-19	Weathered shale	One bench higher than 01	629004	6229447	434	5.36	
AC-2019-APR-17-03	Approach Channel	17-Apr-19	Weathered shale	One bench higher than 02	628948	6229502	440	6.56	
AC-2019-APR-17-04	Approach Channel	17-Apr-19	Weathered shale	Area appears to have been more recently excavated	628998	6229432	441	6.53	
AC-2019-APR-17-05	Approach Channel	17-Apr-19	Weathered shale	Above ponded orange-coloured water	628924	6229496	446	3.33	
AC-2019-APR-17-06	Approach Channel	17-Apr-19	Fresh shale	Sampled floor of approach channel area, crumbly	629167	6229300	435	6.96	
AC-2019-APR-17-07	Approach Channel	17-Apr-19	Weathered shale	Lowest bench in this area	629178	6229271	436	4.76	
AC-2019-APR-17-08	Approach Channel	17-Apr-19	Weathered shale	Upper bench, less weathered than other areas	629108	6229306	442	6.00	
AC-2019-APR-17-09	Approach Channel	17-Apr-19	Weathered shale	Middle bench, white precipitate on surface	629086	6229340	437	6.80	
AC-2019-APR-17-10	Approach Channel	17-Apr-19	Weathered shale	Middle bench, white precipitate on surface	629162	6229271	439	7.67	
AC-2019-APR-17-11	Approach Channel	17-Apr-19	Weathered shale	Edge of lower bench, below Donkey Rd	629152	6229250	438	3.83	
AC-2019-APR-17-12	Approach Channel	17-Apr-19	Weathered shale	Bench above Donkey Rd, white precipitate on surface	629279	6229145	437	5.18	
AC-2019-APR-17-13	Approach Channel	17-Apr-19	Weathered shale	Material than has sluffed off upper bench	629215	6229187	434	4.51	
AC-2019-APR-17-14	Approach Channel	17-Apr-19	Weathered shale	Upper bench, below ditch	629213	6229147	450	5.25	
AC-2019-APR-17-15	Approach Channel	17-Apr-19	Weathered shale	One bench lower than 14	629246	6229146	449	5.58	
AC-2019-APR-17-16	Approach Channel	17-Apr-19	Weathered shale	Above entrance to Donkey Rd	629122	6229242	443	5.63	
AC-2019-APR-17-17	Approach Channel	17-Apr-19	Weathered shale	Under converyor, next to shotcreted area	629676	6228922	433	7.23	
AC-2019-APR-17-18	Approach Channel	17-Apr-19	Mixed	Weathered shale (~90%) and overburden (~10%) that has sluffed down to slope, lowest bench	629213	6229227	431	3.04	
AC-2019-APR-17-19	Approach Channel	17-Apr-19	Weathered shale	Upper bench	629370	6229046	446	2.44	
AC-2019-APR-17-20	Approach Channel	17-Apr-19	Weathered shale	Upper bench	629452	6228993	445	2.37	
AC-2019-APR-17-21	Approach Channel	17-Apr-19	Weathered shale	End of upper bench, rusty staining on surface	629582	6228898	447	2.50	
AC-2019-APR-17-22	Approach Channel	17-Apr-19	Weathered shale	One bench lower than 21	629540	6228942	450	2.61	
AC-2019-APR-17-23	Approach Channel	17-Apr-19	Weathered shale	Same bench as 22	629591	6228902	443	2.43	
AC-2019-APR-17-24	Approach Channel	17-Apr-19	Weathered shale	One bench lower than 21/22, covered with yellow precipitate (~10%)	629599	6228903	447	2.62	
AC-2019-APR-17-25	Approach Channel	17-Apr-19	Weathered shale	End of approach channel excavation	629642	6228876	451	2.76	
AC-2019-JUL-30-01	Approach Channel	30-Jul-19	Weathered shale	Bottom bench, directly above lined ditch, rusty staining on surface	628991	6229493	438	7.11	
AC-2019-JUL-30-02	Approach Channel	30-Jul-19	Weathered shale	Above upper lined ditch, water is seeping through the slope	628952	6229488	446	5.61	
AC-2019-JUL-30-03	Approach Channel	30-Jul-19	Weathered shale	On lower bench, above ditch	629068	6229391	435	3.17	
AC-2019-JUL-30-04	Approach Channel	30-Jul-19	Fresh shale	Near middle of AC, by road, above lower ditch	629166	6229286	432	6.98	
AC-2019-JUL-30-05	Approach Channel	30-Jul-19	Weathered shale	Upper bench	629129	6229286	436	6.18	
AC-2019-JUL-30-06	Approach Channel	30-Jul-19	Weathered shale	Middle bench	629110	6229318	433	5.34	
AC-2019-JUL-30-07	Approach Channel	30-Jul-19	Very weathered shale	Upper bench	629319	6229093	450	3.39	
AC-2019-JUL-30-08	Approach Channel	30-Jul-19	Weathered shale	Upper bench, above Donkey Rd, water (pH 7.2) running down the face	629123	6229236	440	6.27	
AC-2019-JUL-30-09	Approach Channel	30-Jul-19	Weathered shale	Middle bench	629247	6229172	439	3.92	
AC-2019-JUL-30-10	Approach Channel	30-Jul-19	Weathered shale	Entrance to Donkey Rd	629182	6229221	438	2.43	
AC-2019-JUL-30-11	Approach Channel	30-Jul-19	Very weathered shale	Edge of AC, under conveyor	629652	6228935	433	3.01	
AC-2019-JUL-30-12	Approach Channel	30-Jul-19	Weathered shale	Other end of Donkey Rd	629552	6229001	430	2.68	
AC-2019-JUL-30-13	Approach Channel	30-Jul-19	Very weathered shale	Upper Bench	629497	6228972	461	2.46	
AC-2019-JUL-30-14	Approach Channel	30-Jul-19	Very weathered shale		629643	6228882	458	2.39	
AC-2019-OCT-21-01	Approach Channel	21-Oct-19	Mixed shale (60%) and overburden (40%)	Natural bluff next to shotcreted area	629148	6229446	403	missing	
AC-2019-OCT-21-02	Approach Channel	21-Oct-19	Weathered shale	Upper bench, below ditch; minor cobbles on surface (5-10%)	628984	6229440	442	2.75	
AC-2019-OCT-21-03	Approach Channel	21-Oct-19	Weathered shale	Lowest bench	629080	6229375	426	2.46	
AC-2019-OCT-21-04	Approach Channel	21-Oct-19	Weathered shale	Rusty staining on surface, lowest bench above lower ditch	628986	6229487	429	6.24	
AC-2019-OCT-21-05	Approach Channel	21-Oct-19	Weathered shale		629097	6229317	438	2.34	2.33
AC-2019-OCT-21-06	Approach Channel	21-Oct-19	Weathered shale	Lowest bench above Approach Channel lined pond; yellow-white precipitate on surface	629252	6229197	433	2.73	
AC-2019-OCT-21-07	Approach Channel	21-Oct-19	Weathered shale	Near turn off to Donkey Road	629147	6229242	437	2.56	2.63
AC-2019-OCT-21-08	Approach Channel	21-Oct-19	Weathered shale	Upper bench, along new Donkey Road	629210	6229179	444	2.47	
AC-2019-OCT-21-09	Approach Channel	21-Oct-19	Weathered shale	Measurements from nearby pond: conductivity 8.75mS/cm, pH 7.5, temperature 5.5°C	629586	6228979	429	2.69	
AC-2019-OCT-21-10	Approach Channel	21-Oct-19	Weathered shale	Measurements from nearby pond: conductivity 6.33mS/cm, pH 3.5, temperature 5.5°C	629615	6228931	425	2.88	
AC-2019-OCT-21-11	Approach Channel	21-Oct-19	Weathered shale	Appears to have been more recently scraped compared to other samples sites	629480	6229009	436	5.86	5.79
AC-2019-OCT-21-12	Approach Channel	21-Oct-19	Weathered shale		629354	6229076	443	2.85	
AC-2019-OCT-21-13	Approach Channel	21-Oct-19	Fresh shale	Material appears to be placed on top of Approach Channel benches	629518	6228951	442	5.22	5.5
AC-2019-OCT-21-14	Approach Channel	21-Oct-19	Weathered shale		629633	6228879	455	2.67	
RCC-2019-APR-17-01	RCC Excavation	17-Apr-19	Weathered shale	Edge of RCC	629277	6229303	418	5.56	
RCC-2019-APR-17-02	RCC Excavation	17-Apr-19	Weathered shale	Above large water collection pond, white precipitate on surface	629242	6229416	409	6.96	
BC Hydro-RCC-Location 1	RCC Excavation	01-Aug-19	n/a	Collected from PAG slope by BC Hydro - Location 1	n/a	n/a	n/a	7.60	
		01-Aug-19	n/a	Collected from PAG slope by BC Hydro - Location 1	n/a	n/a	n/a	7.72	
		01-Aug-19	n/a	Collected from PAG slope by BC Hydro - Location 1	n/a	n/a	n/a	7.80	
		Average	n/a		n/a	n/a	n/a	7.71	
BC Hydro-RCC-Location 2	RCC Excavation	01-Aug-19	n/a	Collected from PAG slope by BC Hydro - Location 2	n/a	n/a	n/a	6.20	
		01-Aug-19	n/a	Collected from PAG slope by BC Hydro - Location 2	n/a	n/a	n/a	5.45	
		01-Aug-19	n/a	Collected from PAG slope by BC Hydro - Location 2	n/a	n/a	n/a	5.36	
		Average	n/a		n/a	n/a	n/a	5.67	

Note: **Rinse pH was done at 1:2 solids to liquid ratio. When done at 1:1 solids to liquid ratio, sample absorbed all water and no supernatant was formed.

Table 1: 2019 Rinse pH Results

Sample ID	Sample Location	Date Sampled	Material Type	Comments	Easting	Northing	Elevation	Rinse pH	Duplicate Rinse pH
BC Hydro-RCC-Location 3	RCC Excavation	01-Aug-19	n/a	Collected from PAG slope by BC Hydro - Location 3	n/a	n/a	n/a	6.10	
		01-Aug-19	n/a	Collected from PAG slope by BC Hydro - Location 3	n/a	n/a	n/a	6.65	
		01-Aug-19	n/a	Collected from PAG slope by BC Hydro - Location 3	n/a	n/a	n/a	6.76	
		Average	n/a		n/a	n/a	n/a	6.50	
RCC-2019-OCT-21-01	RCC Excavation	21-Oct-19	Fresh shale		629581	6229030	431	6.10	
RCC-2019-OCT-21-02	RCC Excavation	21-Oct-19	Fresh shale		629642	6228971	433	5.95	
RBDC-2019-OCT-21-01	RB Dam Core	21-Oct-19	Fresh shale	Sampled floor of dam core excavation	629284	6229489	386	7.9	
RBDC-2019-OCT-21-02	RB Dam Core	21-Oct-19	Fresh shale	Stockpile at edge of excavation	629235	6229449	390	8.32	8.23
RBDC-2019-OCT-21-03	RB Dam Core	21-Oct-19	Fresh shale	Stockpile at edge of road into Dam Core	629225	6229383	388	8.98	
RBDC-2019-OCT-21-04	RB Dam Core	21-Oct-19	Fresh shale	Area 32B, near south edge of Dam Core	629256	6229345	390	8.52	
RBDC-2019-OCT-21-05	RB Dam Core	21-Oct-19	Fresh shale	On upper bench of excavation	629314	6229401	393	8.38	
Area23-2019-OCT-22-01	Area 23	22-Oct-19	Clay	Dark grey, soft and malleable	629263	6228398	455	7.86	
AREA-A 2019-APR-3-01	Area A	03-Apr-19	Overburden	Crushed fines (-19mm) stockpile	631789	6227991	469	8.61	
AREA-A 2019-APR-3-02	Area A	03-Apr-19	Overburden	Crushed fines (-19mm) stockpile	631791	6228004	467	9.00	
AREA-A 2019-APR-3-03	Area A	03-Apr-19	Overburden	Crushed fines (-19mm) stockpile	631801	6228069	464	8.78	
AREA-A 2019-APR-3-04	Area A	03-Apr-19	Overburden	Crushed fines (-19mm) stockpile	631802	6228104	461	8.78	
AREA-A 2019-APR-3-05	Area A	03-Apr-19	Overburden	Crushed fines (-19mm) stockpile	631826	6227994	482	8.90	
AREA-A 2019-APR-3-06	Area A	03-Apr-19	Overburden	Crushed fines (-19mm) stockpile	631838	6227987	482	8.97	
AREA-A 2019-APR-3-07	Area A	03-Apr-19	Overburden	Crushed fines (-19mm) stockpile	631841	6228059	482	8.76	
AREA-A 2019-APR-3-08	Area A	03-Apr-19	Overburden	Crushed fines (-19mm) stockpile	631851	6228077	481	8.93	
AREA-A 2019-APR-3-09	Area A	03-Apr-19	Overburden	Crushed fines (-19mm) stockpile	631840	6227995	487	8.75	
AREA-A 2019-APR-3-10	Area A	03-Apr-19	Overburden	Crushed fines (-19mm) stockpile	631937	6227923	459	8.98	
AREA-A 2019-APR-3-11	Area A	03-Apr-19	Overburden	Crushed fines (-19mm) stockpile	631927	6227970	458	8.73	
AREA-A 2019-APR-3-12	Area A	03-Apr-19	Overburden	Native material below -19mm pile	631930	6227981	459	8.80	
AREA-A 2019-APR-3-13	Area A	03-Apr-19	Overburden	Crushed fines (-19mm) stockpile	631902	6227992	464	8.74	
AREA-A 2019-APR-3-14	Area A	03-Apr-19	Weathered shale	Weathered shale from floor of excavation	632025	6227970	457	5.80	
AREA-A 2019-APR-3-15	Area A	03-Apr-19	Weathered shale	Weathered shale from floor of excavation	632008	6227960	449	5.10	
AREA-A 2019-APR-3-16	Area A	03-Apr-19	Weathered shale	Weathered shale from floor of excavation	631970	6227960	451	4.88	
AREA-A 2019-APR-3-17	Area A	03-Apr-19	Weathered shale	Weathered shale from floor of excavation	632225	6228054	445	5.57	
AREA-A 2019-APR-3-18	Area A	03-Apr-19	Mixed overburden and weathered shale	Mix of weathered shale and overburden from floor of excavation	632218	6228000	451	5.44	
AREA-A 2019-APR-3-19	Area A	03-Apr-19	Weathered shale	Weathered shale from floor of excavation	632247	6227871	449	6.22	
AREA-A 2019-APR-3-20	Area A	03-Apr-19	Mixed overburden and weathered shale	Mix of weathered shale and overburden from floor of excavation	632612	6228255	452	8.65	
AREA-A 2019-APR-3-21	Area A	03-Apr-19	Weathered shale	Weathered shale from floor of excavation	632530	6228083	455	6.40	
AREAA-2019-JUL-30-01	Area A	30-Jul-19	Mixed overburden and shale (<10% shale)	Spread over bottom of excavation	632736	6228091	464	7.80	
AREAA-2019-JUL-30-02	Area A	30-Jul-19	Fresh shale	On floor of excavation	632014	6227980	460	7.41	
AREAA-2019-JUL-30-03	Area A	30-Jul-19	Very weathered shale	White preciptiate on surface	632010	6227954	461	2.54	
AreaA-2019-OCT-23-01	Area A	23-Oct-19	Weathered shale	Exposed shale on floor of excavation; measurements in pond: conductivity 3.30mS/cm, pH 8.5, temperature 2.2°C; orange staining on pond bottom	632037	6227949	447	2.28	
AreaA-2019-OCT-23-02	Area A	23-Oct-19	Weathered shale	Stockpile; measurements in pond: conductivity 1162µS/cm, pH 9.2, temperature 3.7°C; some red staining in pond	632006	6227990	448	2.37	

Note: **Rinse pH was done at 1:2 solids to liquid ratio. When done at 1:1 solids to liquid ratio, sample absorbed all water and no supernatant was formed.

Table 2: 2019 ABA Results, Left Bank and Right Bank

Sample ID	Paste pH	Rinse pH (on <2mm)	Total S	HCl Extractable Sulphur	HNO_3 Extractable Sulphur	Non Extractable Sulphur (by diff.)	Sulphide Sulphur (by diff.)	TAP	SAP	Mod. ABA Neutralization Potential	Net Neutralization Potential	Net Potential Ratio	Fizz Rating
Units	**pH Units**	**pH Units**	**wt%**	**wt%**	**wt%**	**wt%**	**wt%**	**kg $CaCO_3$/t**	**kg $CaCO_3$/t**	**kg $CaCO_3$/t**	**kg $CaCO_3$/t**	**(Mod. NP/TAP)**	**N/A**
Left Bank													
L5-2019-APR-18-06	9.67	10.1	0.91	0.010	-	-	0.90	28.4	28.1	24.3	-3.8	0.85	SLIGHT
L5-2019-AUG-01-07	9.21	9.57	0.52	0.010	-	-	0.51	16.3	15.9	9.7	-6.2	0.60	NONE
L5-2019-OCT-22-11	8.35	8.38	0.62	0.050	-	-	0.57	19.4	17.8	19.0	1.2	0.98	SLIGHT
L5-2019-OCT-22-13	8.74	9.12	0.70	0.020	-	-	0.68	21.9	21.3	15.0	-6.3	0.69	SLIGHT
L5EX-2019-APR-18-03	9.22	9.30	2.05	0.020	-	-	2.03	64.1	63.4	12.3	-51.1	0.19	SLIGHT
L5EX-2019-APR-18-05	9.12	9.16	2.12	0.020	-	-	2.10	66.3	65.6	9.0	-56.6	0.14	NONE
L5EX-2019-AUG-01-04	9.41	9.09	0.56	0.020	-	-	0.54	17.5	16.9	23.0	6.1	1.31	SLIGHT
L5EX-2019-OCT-22-09	9.28	9.51	0.65	0.020	-	-	0.63	20.3	19.7	11.8	-7.9	0.58	SLIGHT
L6-2019-JAN-16-01	9.17	9.74	0.87	0.050	0.11	0.71	0.82	27.2	25.6	14.0	10.6	0.51	SLIGHT
L6-2019-JAN-16-02	9.49	9.82	0.83	0.020	0.46	0.35	0.81	25.9	25.3	8.5	-5.9	0.33	SLIGHT
L6-2019-JAN-16-03	9.21	9.27	0.76	0.050	0.42	0.29	0.71	23.8	22.2	13.3	0.2	0.56	SLIGHT
L6-2019-JAN-16-04	4.52	3.93	1.23	0.720	0.03	0.48	0.51	38.4	15.9	-5.5	-6.4	-0.14	NONE
L6-2019-JAN-16-05	9.36	9.92	0.90	0.030	0.42	0.45	0.87	28.1	27.2	25.5	12.4	0.91	SLIGHT
L6-2019-JAN-16-06	8.40	9.96	0.63	0.010	0.17	0.45	0.62	19.7	19.4	6.3	1.0	0.32	NONE
L6-2019-JAN-16-07	9.65	9.98	0.61	0.010	0.34	0.26	0.60	19.1	18.8	8.0	-2.6	0.42	NONE
L6-2019-JAN-16-08	9.83	9.79	0.73	0.020	0.38	0.33	0.71	22.8	22.2	11.0	-0.9	0.48	SLIGHT
L6-2019-APR-18-01	9.82	10.3	0.52	<0.01	-	-	0.52	16.3	16.3	12.3	-4.0	0.76	SLIGHT
L6-2019-APR-18-02	9.85	10.2	0.92	<0.01	-	-	0.92	28.8	28.8	22.9	-5.9	0.80	SLIGHT
L6-2019-APR-18-03	9.79	10.3	1.10	<0.01	-	-	1.10	34.4	34.4	21.0	-13.4	0.61	SLIGHT
L6-2019-APR-18-04	10.1	10.2	0.87	0.010	-	-	0.86	27.2	26.9	21.4	-5.5	0.79	SLIGHT
L6-2019-APR-18-05	9.68	9.98	0.72	0.010	-	-	0.71	22.5	22.2	16.6	-5.6	0.74	SLIGHT
L6-2019-APR-18-06	9.65	10.0	0.95	0.010	-	-	0.94	29.7	29.4	27.9	-1.5	0.94	SLIGHT
L6-2019-APR-18-07	9.62	9.96	0.53	0.010	-	-	0.52	16.6	16.3	19.8	3.5	1.20	SLIGHT
L6-2019-APR-18-08	9.64	10.2	1.28	<0.01	-	-	1.28	40.0	40.0	25.1	-14.9	0.63	SLIGHT
L6-2019-APR-18-09	9.63	10.0	0.81	<0.01	-	-	0.81	25.3	25.3	21.4	-3.9	0.85	NONE
L6-2019-APR-18-10	9.70	10.1	0.51	0.010	-	-	0.50	15.9	15.6	19.5	3.9	1.22	SLIGHT
L6-2019-APR-18-11	8.51	8.22	0.91	0.120	-	-	0.79	28.4	24.7	13.1	-11.6	0.46	NONE
L6-2019-APR-18-12	8.07	8.22	0.95	0.040	-	-	0.91	29.7	28.4	14.8	-13.6	0.50	SLIGHT
L6-2019-JUL-30-01	8.86	9.15	0.67	0.020	-	-	0.65	20.9	20.3	13.8	-6.5	0.66	SLIGHT
L6-2019-JUL-30-04	8.45	8.40	1.28	0.030	-	-	1.25	40.0	39.1	7.7	-31.4	0.19	NONE
L6-2019-OCT-22-03	8.13	8.49	1.05	0.010	-	-	1.04	32.8	32.5	8.0	-24.5	0.24	NONE
LBCD-2019-JUL-31-01	6.95	6.37	0.87	0.030	-	-	0.84	27.2	26.3	7.0	-19.3	0.26	NONE
LBCD-2019-JUL-31-03	8.12	8.04	0.63	0.030	-	-	0.60	19.7	18.8	14.0	-4.8	0.71	NONE
LBCD-2019-JUL-31-04	8.08	8.07	0.51	0.010	-	-	0.50	15.9	15.6	12.8	-2.8	0.80	NONE
LBDC-2019-OCT-23-02	7.99	7.59	0.98	0.040	-	-	0.94	30.6	29.4	17.5	-11.9	0.57	SLIGHT
CONVEYOR-2019-APR-4-01	8.07	8.28**	0.22	0.150	-	-	0.07	6.88	2.19	110	107	50	MODERATE
CONVEYOR-2019-APR-4-02	7.92	7.93	0.14	0.110	-	-	0.03	4.38	0.94	99.5	98.6	106	SLIGHT
85TH TILL CONVEYOR IN-SITU	7.15	7.08	0.28	0.230	<0.01	0.05	0.05	8.75	1.56	5.0	5.0	3.2	NONE
85TH TILL CONVEYOR EX-SITU	7.03	7.13	0.19	0.130	<0.01	0.06	0.06	5.94	1.88	5.3	5.3	2.8	NONE
W3-2019-JUL-31-01	7.06	7.65	0.27	0.190	-	-	0.08	8.44	2.50	6.5	4.0	2.6	NONE

Table 2: 2019 ABA Results, Left Bank and Right Bank

Sample ID	Paste pH	Rinse pH (on <2mm)	Total S	HCl Extractable Sulphur	HNO_3 Extractable Sulphur	Non Extractable Sulphur (by diff.)	Sulphide Sulphur (by diff.)	TAP	SAP	Mod. ABA Neutralization Potential	Net Neutralization Potential	Net Potential Ratio	Fizz Rating
Units	**pH Units**	**pH Units**	**wt%**	**wt%**	**wt%**	**wt%**	**wt%**	**kg $CaCO_3$/t**	**kg $CaCO_3$/t**	**kg $CaCO_3$/t**	**kg $CaCO_3$/t**	**(Mod. NP/TAP)**	**N/A**
Right Bank													
R5A-2019-APR-17-04	9.59	10.3	1.50	0.040	-	-	1.46	46.9	45.6	7.7	-37.9	0.16	NONE
R5A-2019-APR-17-15	9.88	10.4	0.65	<0.01	-	-	0.65	20.3	20.3	11.0	-9.3	0.54	NONE
R5A-2019-APR-17-24	9.02	9.25	1.07	0.020	-	-	1.05	33.4	32.8	18.4	-14.4	0.55	SLIGHT
R5A-2019-JUL-31-15	7.93	7.07	0.95	0.040	-	-	0.91	29.7	28.4	15.3	-13.1	0.52	SLIGHT
R5A-2019-JUL-31-22	9.73	9.97	0.47	<0.01	-	-	0.47	14.7	14.7	12.5	-2.2	0.85	NONE
R5A-2019-OCT-21-08	8.62	9.40	0.73	0.020	-	-	0.71	22.8	22.2	14.5	-7.7	0.64	NONE
R5A-2019-OCT-21-17	8.07	8.56	0.60	0.020	-	-	0.58	18.8	18.1	8.8	-9.3	0.47	NONE
AC-2019-FEB-11-02	7.01	6.74	1.56	0.040	-	-	1.52	48.8	47.5	3.8	-43.7	0.078	NONE
AC-2019-FEB-11-13	2.90	2.44	1.10	0.650	-	-	0.45	34.4	14.1	-7.0	-21.1	-0.20	NONE
AC-2019-FEB-12-14	8.16	7.64	2.02	0.040	-	-	1.98	63.1	61.9	8.0	-53.9	0.13	NONE
AC-2019-FEB-12-22	9.02	8.62	1.55	0.020	-	-	1.53	48.4	47.8	9.5	-38.3	0.20	NONE
AC-2019-APR-17-01	3.90	3.35	0.92	0.150	-	-	0.77	28.8	24.1	-3.5	-27.6	-0.12	NONE
AC-2019-APR-17-23	2.45	2.43	2.01	1.130	-	-	0.88	62.8	27.5	-20.1	-47.6	-0.32	NONE
AC-2019-JUL-30-04	7.61	6.98	1.21	0.050	-	-	1.16	37.8	36.3	7.3	-29.0	0.19	NONE
AC-2019-OCT-21-06	3.10	2.60	1.24	0.980	-	-	0.26	38.8	8.1	-3.8	-11.9	-0.10	NONE
RCC-2019-APR-17-01	6.53	5.56	0.84	0.050	-	-	0.79	26.3	24.7	5.3	-19.4	0.20	NONE
RCC-2019-APR-17-02	8.53	6.96	0.94	0.040	-	-	0.90	29.4	28.1	7.0	-21.1	0.24	NONE
RCC-2019-OCT-21-01	7.26	5.90	1.08	0.060	-	-	1.02	33.8	31.9	5.7	-26.2	0.17	NONE
RCC-2019-OCT-21-02	7.47	6.05	1.40	0.060	-	-	1.34	43.8	41.9	6.2	-35.7	0.14	NONE
RBDC-2019-OCT-21-01	8.95	9.34	0.25	0.020	-	-	0.23	7.81	7.19	11.0	3.8	1.41	NONE
RBDC-2019-OCT-21-03	9.06	9.64	0.31	0.010	-	-	0.30	9.69	9.38	9.3	-0.1	0.96	NONE
AREA23-2019-OCT-22-01	8.07	7.86	0.08	0.010	-	-	0.07	2.50	2.19	145	142	58	MODERATE
AREA-A-2019-APR3-01	8.03	8.61	0.34	0.020	-	-	0.32	10.6	10.0	80.6	70.6	7.59	STRONG
AREA-A 2019-APR-3-03	7.87	8.78	0.12	0.020	-	-	0.10	3.75	3.13	101	97.7	26.9	MODERATE
AREA-A-2019-APR3-07	8.30	8.76	0.09	0.010	-	-	0.08	2.81	2.50	101	98.3	35.9	STRONG
AREA-A 2019-APR-3-09	8.54	8.75	0.04	0.010	-	-	0.03	1.25	0.94	105	104	84.0	MODERATE
AREA-A-2019-APR3-13	8.17	8.74	0.05	0.010	-	-	0.04	1.56	1.25	93.5	92.2	59.8	STRONG
AREA-A 2019-APR-3-14	6.32	5.80	1.83	0.080	-	-	1.75	57.2	54.7	6.5	-48.2	0.11	NONE
AREA-A 2019-APR-3-17	6.87	5.57	0.55	0.060	-	-	0.49	17.2	15.3	5.7	-9.6	0.33	NONE

Notes:

**Rinse pH was done at 1:2 solids to liquid ratio. When done at 1:1 solids to liquid ratio, sample absorbed all water and no supernatant was formed.

[a]Net Potential Ratio is calculated using the non-sulphate sulphur acid potential.

Paste pH - Field and Laboratory Methods Applicable to Overburdens and Minesoils, (EPA 600 / 2-78-054, March 1978).

Rinse pH (on <2mm) - MEND PREDICTION MANUAL, (MEND Report 1.20.1, December 2009).

Total sulphur, total carbon & carbonate carbon (CO_2; HCl direct method) by Leco.

HCl Extractable Sulphur and HNO_3 Extractable Sulphur is based on a modified version of ASTM Method D 2492-02

HCl Extractable Sulphur is based on a modified version of ASTM Method D 2492-02

Non Extractable Sulphur = (Total Sulphur)-(HCl Extractable Sulphate Sulphur)-(HNO_3 Extractable Sulphide Sulphur)

Sulphide Sulphur = (Total Sulphur)-(Sulphate Sulphur)

TAP = Total Acid Potential = Total S x 31.25

SAP = Sulphide Acid Potential = Sulphide S x 31.25

Mod. ABA Neutralization Potential - MEND Acid Rock Drainage Prediction Manual, MEND Project 1.16.1b (pages 6.2-11 to 17), March 1991.

Net Neutralization Potential = (Modified ABA Neutralization Potential)-(Acid Generation Potential (HNO3 Extr))

Net Potential Ratio = (Neutralization Potential)/(Acid Generation Potential)

Grey shading indicates an NPR <2

Fizz Rating - Reference method used is based on NP method.

Table 3: 2019 Solid-Phase Elemental Results, Left Bank and Right Bank

Sample ID	Ag	Al	As	Au	B	Ba	Bi	Ca	Cd	Co	Cr	Cu	Fe	Ga	Hg	K	La	Mg	Mn	Mo	Na	Ni	P	Pb	S	Sb	Sc	Se	Sr	Te	Th	Ti	Tl	U	V	W	Zn
Units	ppb	%	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppb	%	ppm	%	ppm	ppm	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm
Left Bank																																					
L5-2019-APR-18-06	302	0.93	15.8	0.4	<20	404	0.91	0.99	0.27	9.0	16.5	31.5	3.92	2.4	99	0.25	4.9	0.62	263	0.63	0.261	26.5	0.093	17.1	0.92	0.38	4.6	0.9	76.2	0.08	7.1	0.001	0.13	1.1	25	<0.1	118
L5-2019-AUG-01-07	282	0.90	9.3	1.7	<20	400	0.220	0.40	0.27	9.6	32.7	27.3	1.83	2.7	81	0.22	5.4	0.28	120	0.83	0.203	27.3	0.085	13.7	0.43	0.17	3.9	0.8	60	0.09	7.8	0.002	0.08	1.50	24	<0.1	109
L5-2019-OCT-22-11	392	0.99	12.0	<0.2	<20	300	0.240	0.96	0.33	9.2	28.0	30.2	3.17	2.6	68	0.28	4.8	0.48	195	1.13	0.169	27.6	0.093	22.5	0.64	0.39	5.0	1.0	61.8	0.06	6.6	<0.001	0.04	1.30	27	<0.1	136
L5-2019-OCT-22-13	401	0.86	12.8	<0.2	<20	222	0.250	0.69	0.30	10.1	21.1	32.2	2.22	2.5	84	0.23	4.8	0.30	119	0.84	0.176	27.7	0.114	20.4	0.71	0.40	4.9	0.7	62.2	0.06	7.1	<0.001	0.03	1.40	23	<0.1	131
L5EX-2019-APR-18-03	540	0.81	27.8	0.4	<20	240	1.49	0.52	0.81	10.3	18.6	39.0	2.26	2.3	128	0.25	4.3	0.24	74	5.73	0.187	39.7	0.071	23.0	2.08	0.66	4.1	2.1	65.1	0.09	6.4	<0.001	0.26	1.5	27	<0.1	157
L5EX-2019-APR-18-05	504	0.79	25.0	1.2	<20	239	1.30	0.32	0.93	10.2	18.7	36.3	2.18	2.2	120	0.24	4.1	0.23	62	5.93	0.195	35.8	0.070	20.4	2.13	0.51	4.1	1.9	55.3	0.06	6.0	<0.001	0.28	1.6	28	<0.1	181
L5EX-2019-AUG-01-04	197	0.92	10.5	2.1	<20	491	0.180	0.95	0.41	8.9	32.0	24.3	2.22	2.8	54	0.22	5.3	0.39	248	0.62	0.179	22.4	0.092	10.9	0.44	0.20	3.5	0.4	67	0.06	7.1	0.005	0.09	1.20	26	<0.1	89
L5EX-2019-OCT-22-09	382	0.94	12.4	<0.2	<20	219	0.230	0.52	0.29	8.8	25.5	32.4	1.92	2.3	70	0.26	4.3	0.27	99	0.79	0.244	25.0	0.076	22.5	0.68	0.34	4.4	0.9	58.3	0.06	6.5	<0.001	0.03	1.20	23	<0.1	117
L6-2019-JAN-16-01	639	0.74	12.5	0.4	<20	426	0.22	0.7	0.8	10.2	21.8	27.5	2.37	2	158	0.2	3.8	0.3	157	1	0.221	26	0.093	113	0.75	0.54	4.1	1.1	63.6	0.04	5.6	0.002	0.34	1.3	20	<0.1	191
L6-2019-JAN-16-02	335	0.77	10	<0.2	<20	409	0.23	0.45	0.24	9.8	20.4	26.7	2.02	2	98	0.21	4	0.26	131	0.69	0.232	25.8	0.089	26.5	0.76	0.23	4.3	0.9	61.8	0.04	6.1	0.002	0.1	1.4	19	<0.1	106
L6-2019-JAN-16-03	303	0.77	12.2	0.4	<20	387	0.23	0.56	0.27	10.1	16.4	26.5	1.76	2.1	73	0.2	3.8	0.27	111	0.6	0.236	24.9	0.082	20.5	0.62	0.18	4.4	0.7	62.7	0.07	6.2	0.002	0.07	1.4	19	<0.1	113
L6-2019-JAN-16-04	383	0.76	8.6	1.4	<20	243	0.22	0.79	0.42	6	16.4	28.2	1.95	1.6	85	0.19	2.9	0.2	47	0.9	0.108	22.8	0.078	19.6	1.12	0.21	4.5	0.7	114	0.06	5.6	0.001	0.1	1.3	19	<0.1	95.5
L6-2019-JAN-16-05	237	0.68	9.4	0.4	<20	335	0.27	1.05	0.22	10.6	18	26.9	1.89	1.8	75	0.19	3.8	0.42	182	0.67	0.229	26.4	0.083	23.4	0.84	0.2	3.8	0.6	71	0.06	6.4	0.002	0.07	0.9	16	<0.1	110
L6-2019-JAN-16-06	286	0.75	8.5	0.2	<20	479	0.24	0.31	0.25	12.1	16.6	26.4	1.71	2	78	0.2	3.9	0.24	111	0.75	0.237	27.9	0.082	18.1	0.51	0.16	4.5	0.8	58.2	0.05	5.9	0.002	0.05	1.3	19	<0.1	114
L6-2019-JAN-16-07	285	0.71	7.6	<0.2	<20	457	0.17	0.46	0.31	9.3	18.6	21.8	1.46	1.8	87	0.19	4.6	0.2	89	1.07	0.184	25.7	0.146	21.3	0.5	0.24	3.9	0.6	51.9	0.04	5.3	0.002	0.06	1.6	19	<0.1	131
L6-2019-JAN-16-08	291	0.75	11.1	0.7	<20	464	0.24	0.55	0.26	10.3	16.4	27.9	1.75	2.1	74	0.2	3.7	0.25	113	0.65	0.235	25	0.086	23.3	0.63	0.2	4.4	0.8	68.7	0.05	6.2	0.002	0.06	1.3	18	<0.1	109
L6-2019-APR-18-01	357	0.95	15.4	<0.2	<20	581	0.78	0.46	0.22	8.6	17.2	32.3	1.47	2.3	72	0.25	4.6	0.26	69	0.71	0.264	25.8	0.078	16.1	0.49	0.36	4.1	1.0	69.4	0.10	6.7	0.001	0.10	1.2	23	<0.1	123
L6-2019-APR-18-02	345	0.91	17.0	0.5	<20	402	0.83	0.93	0.31	8.6	17.8	30.0	1.86	2.4	97	0.25	4.7	0.26	95	0.77	0.238	25.5	0.100	14.9	0.87	0.38	4.1	1.0	72.9	0.07	6.1	0.001	0.11	1.3	24	<0.1	116
L6-2019-APR-18-03	363	0.97	19.2	0.6	<20	419	0.84	0.94	0.35	8.0	19.6	32.3	3.35	2.6	100	0.28	5.4	0.41	193	0.86	0.249	27.5	0.132	17.0	1.07	0.45	4.1	1.1	77.5	0.09	6.5	0.002	0.13	1.3	28	<0.1	123
L6-2019-APR-18-04	340	0.88	15.6	<0.2	<20	391	0.88	0.78	0.20	9.1	23.6	27.9	2.51	2.3	104	0.24	4.3	0.42	153	0.75	0.229	25.8	0.082	15.9	0.89	0.42	3.7	1.0	64.4	0.08	6.6	0.001	0.12	1.0	22	<0.1	92.6
L6-2019-APR-18-05	287	0.94	13.2	0.3	<20	483	0.58	0.66	0.24	9.2	18.5	29.9	2.69	2.2	88	0.25	4.9	0.36	183	0.68	0.231	26.5	0.122	15.5	0.67	0.33	4.0	1.0	69.8	0.10	7.2	0.001	0.10	1.1	23	<0.1	115
L6-2019-APR-18-06	348	0.95	16.1	<0.2	<20	409	0.71	1.18	0.36	8.9	24.5	32.1	2.01	2.4	91	0.27	4.9	0.31	124	1.22	0.235	27.5	0.093	15.5	0.95	0.36	4.5	1.3	74.4	0.09	6.6	0.002	0.11	1.2	27	<0.1	130
L6-2019-APR-18-07	265	1.04	11.7	0.5	<20	546	0.57	0.87	0.22	10.8	18.9	31.2	3.45	2.8	56	0.28	5.6	0.52	290	0.65	0.273	28.2	0.138	15.7	0.50	0.27	4.7	0.9	77.7	0.08	7.5	0.002	0.11	1.0	25	<0.1	125
L6-2019-APR-18-08	328	1.04	16.9	<0.2	<20	423	0.56	1.10	0.37	8.6	20.1	33.3	4.27	2.7	105	0.29	5.5	0.53	252	0.86	0.244	29.2	0.138	16.0	1.30	0.40	4.6	1.3	81.1	0.07	6.7	0.002	0.16	1.2	30	<0.1	129
L6-2019-APR-18-09	366	1.12	14.4	0.7	<20	479	0.46	0.53	0.26	10.5	21.6	31.3	1.92	2.8	99	0.30	4.9	0.29	99	1.12	0.246	33.4	0.096	14.6	0.75	0.26	4.5	1.1	69.3	0.06	6.5	0.001	0.12	1.3	27	<0.1	126
L6-2019-APR-18-10	322	1.03	11.1	0.3	<20	582	0.47	0.70	0.22	8.6	20.9	32.1	1.31	2.6	53	0.28	4.7	0.25	68	0.67	0.257	24.8	0.072	15.4	0.47	0.20	4.4	1.3	76.8	0.09	6.6	0.001	0.09	1.1	25	<0.1	126
L6-2019-APR-18-11	369	1.11	12.8	<0.2	<20	446	0.56	0.57	0.31	9.4	25.4	32.0	2.31	2.7	91	0.30	5.0	0.34	150	0.99	0.297	30.9	0.106	16.6	0.90	0.26	4.8	1.2	69.2	0.07	7.0	0.001	0.10	1.4	28	<0.1	137
L6-2019-APR-18-12	314	1.05	11.7	<0.2	20	433	0.43	0.76	0.20	11.2	18.8	31.3	2.16	2.7	83	0.28	5.3	0.32	208	0.91	0.054	32.6	0.106	16.0	1.00	0.23	4.1	1.4	52.7	0.10	7.3	0.001	0.11	1.5	25	<0.1	121
L6-2019-JUL-30-01	317	0.93	10.9	1.8	<20	522	0.280	0.57	0.28	8.8	19.6	29.4	2.30	2.5	69	0.25	5.5	0.36	150	0.55	0.221	26.0	0.094	16.1	0.59	0.17	4.2	0.6	67	0.06	8.5	0.002	0.09	1.40	26	<0.1	127
L6-2019-JUL-30-04	380	0.87	10.9	1.5	<20	282	0.280	0.28	0.48	8.7	21.3	32.2	1.78	2.3	89	0.26	4.2	0.26	74	1.71	0.252	29.0	0.065	17.7	1.18	0.17	3.9	0.9	56	0.07	8.4	0.001	0.12	1.00	25	<0.1	137
L6-2019-OCT-22-03	592	0.88	11.9	<0.2	<20	109	0.270	0.36	0.43	8.3	22.1	33.7	1.82	2.1	104	0.28	3.9	0.27	78	1.34	0.184	29.6	0.062	27.0	1.10	0.65	4.5	0.9	53.8	0.06	6.3	<0.001	0.05	0.90	25	<0.1	129
LBCD-2019-JUL-31-01	225	0.85	12.1	0.6	<20	280	0.190	0.58	0.26	10.0	20.9	21.7	1.88	2.3	75	0.21	4.5	0.31	119	0.79	0.026	23.9	0.091	12.3	0.85	0.25	3.3	0.5	39	0.06	7.9	0.003	0.09	1.40	24	<0.1	97
LBCD-2019-JUL-31-03	229	1.04	10.4	0.2	<20	447	0.210	0.72	0.23	8.9	36.7	23.9	2.02	3.0	73	0.27	5.1	0.33	145	0.46	0.067	24.7	0.111	12.4	0.58	0.15	4.1	0.4	56	0.06	7.5	0.002	0.11	1.50	28	<0.1	103
LBCD-2019-JUL-31-04	250	0.75	10.2	7.3	<20	155	0.18	0.48	0.25	8.8	23.5	22.3	1.38	2.2	57	0.2	4	0.32	83	0.49	0.05	21.3	0.079	11.4	0.42	0.15	3.1	0.3	52	0.06	6.9	0.002	0.09	1.3	20	<0.1	102
LBDC-2019-OCT-23-02	376	0.87	11.1	<0.2	<20	81	0.230	0.82	0.24	7.7	15.9	30.2	2.08	2.1	95	0.25	3.8	0.32	90	0.73	0.090	24.6	0.077	26.1	1.02	0.81	4.2	1.0	56.1	0.07	6.4	<0.001	0.04	1.00	23	<0.1	123
85TH TILL CONVEYOR IN-SITU	315	2.14	15.3	2.9	<20	403	0.51	0.56	0.52	11.6	39.2	47.1	2.76	6.1	76	0.41	17.9	0.71	170	1.06	0.054	42.6	0.077	22.8	0.29	0.11	8.1	0.7	82.4	0.08	10.9	0.002	0.17	2.5	64	<0.1	132
85TH TILL CONVEYOR EX-SITU	288	1.96	13.3	2.5	<20	379	0.65	0.50	0.60	12.8	35.9	46.2	2.71	6.1	77	0.35	18.4	0.65	176	1.07	0.036	43.1	0.069	23.2	0.17	0.11	7.9	0.8	82.9	0.07	9.3	0.002	0.18	2.3	60	<0.1	127
CONVEYOR-2019-APR-4-01	249	1.47	9.1	0.6	<20	555	0.260	3.78	1.66	10.7	27.0	29.5	2.81	4.3	93	0.27	10.0	1.00	538	2.57	0.060	44.2	0.106	31.3	0.18	0.76	6.3	1.9	125	0.08	6.3	0.004	0.32	1.70	56	<0.05	169
CONVEYOR-2019-APR-4-02	311	1.55	11.3	0.8	<20	467	0.290	3.51	1.43	12.1	23.3	31.9	3.09	4.6	73	0.27	11.5	0.94	493	2.60	0.037	44.8	0.105	25.1	0.13	0.78	6.3	1.2	119	0.07	6.9	0.006	0.37	1.60	53	<0.05	169
W3-2019-JUL-31-01	223	1.88	10.6	2.2	<20	355	0.34	0.55	0.44	10.9	41.8	33.4	2.56	5.9	70	0.38	16.7	0.67	204	0.98	0.05	39.6	0.074	19.9	0.24	0.12	6.6	0.7	77.2	0.08	10	0.003	0.19	2.3	57	<0.1	113
Right Bank																																					
R5A-2019-APR-17-04	8350	0.98	877	60.1	<20	350	102	0.22	0.40	9.7	16.6	366	1.98	2.8	3180	0.24	3.8	0.28	169	1.46	0.307	26.1	0.066	499	1.51	32.1	4.0	1.7	67.7	1.15	6.6	0.001	0.27	1.2	20	0.5	130
R5A-2019-APR-17-04 (rework)	7758	0.86	894	40.7	<20	388	121	0.21	0.39	8.1	14.7	338	1.97	2.6	2878	0.21	3.6	0.28	184	1.33	0.286	23.6	0.073	455	1.44	29.5	4.3	1.5	73.5	1.19	8.7	0.002	0.22	1.2	19	0.6	127
R5A-2019-APR-17-15	919	1.18	89.5	4.9	<20	541	10.5	0.32	0.29	11.2	19.8	55.8	3.09	3.2	314	0.24	4.8	0.39	269	0.93	0.314	29.7	0.095	61.3	0.61	3.04	4.8	1.0	71.2	0.16	7.8	0.002	0.12	1.4	24	<0.1	118
R5A-2019-APR-17-24	849	0.75	66.9	5.7	<20	302	7.72	0.71	0.29	7.6	18.7	46.3	1.58	2.0	301	0.22	3.9	0.24	74	1.17	0.197	27.4	0.074	49.0	1.06	2.47	3.5	1.3	57.8	0.15	6.1	0.001	0.18	1.0	20	<0.1	102
R5A-2019-JUL-31-15	386	0.74	8.4	2.4	<20	331	0.230	0.73	0.30	7.1	21.4	26.4	1.46	2.2	94	0.22	4.5	0.24	68	0.97	0.093	25.1	0.076	15.2	0.91	0.18	3.3	0.7	59.1	0.05	7.7	0.001	0.11	1.10	22	<0.1	102
R5A-2019-JUL-31-22	225	0.96	9.8	0.7	<20	569	0.350	0.47	0.18	10.2	17.4	31.3	1.66	2.6	44	0.25	5.2	0.29	148	0.44	0.293	25.3	0.076	16.7	0.36	0.11	4.0	0.6	74.9	0.10	9.7	0.002	0.07	1.00	21	<0.1	124
R5A-2019-OCT-21-08	662	0.80	14.9	<0.2	<20	209	0.230	0.63	0.79	10.3	23.8	27.6	1.93	2.6	90	0.22	4.1	0.24	98	0.89	0.204	26.8	0.089	63.1	0.77	1.35	4.4	0.9	56.7	0.06	5.9	<0.001	0.04	1.30	22	<0.1	205
R5A-2019-OCT-21-17	434	0.83	12.2	<0.2	<20	239	0.260	0.51	0.27	10.2	18.8	31.9	1.73	2.4	72	0.24	4.4	0.27	76	0.59	0.069	28.1	0.082	19.8	0.63	0.34	4.7	0.8	55.8	0.07	6.6	<0.001	0.04	1.10	23	<0.1	117
AC-2019-FEB-11-02	669	0.81	18.7	1.7	<20	262	0.49	0.37	2.15	10.9	17.9	54.2	2.09	2.3	125	0.25	5.1	0.24	50	4.72	0.012	53.9	0.071	28.3	1.48	0.34	4.9	3.4	33.5	0.09	7.7	<0.001	0.39	1.6	23	<0.1	269
AC-2019-FEB-11-13	499	0.65	7.8	0.9	<20	206	0.34	0.49	0.14	1.6	14.3	21.6	1.56	2.2	118	0.27	3.1	0.14	22	4.73	0.013	7.0	0.028	19.6	1.11	0.13	2.6	1.6	33.2	0.07	2.3	<0.001	0.24	0.3	21	<0.1	35.3
AC-2019-FEB-12-14	479	0.81	16.8	0.4	<20	195	0.33	0.41	0.76	9.5	14.2	41.3	2.4	2.2	103	0.24	4.2	0.28	67	4.81	0.105	36	0.073	19.2	1.94	0.2	4.7	2.1	55.9	0.09	7.1	<0.001	0.21	1.3	23	<0.1	149
AC-2019-FEB-12-22	401	0.84	15.4	<0.2	<20	226	0.35	0.36	0.71	9.8	17.2	39.9	2.12	2.3	115	0.25	4.9	0.26	81	2.93	0.247	33.1	0.084	19.3	1.6	0.17	4.4	1.6	76.8	0.08	7.6	0.001	0.17	1.5	24	<0.1	135
AC-2019-APR-17-01	606	0.82	44.1	1.6	<20	266	4.58	0.12	0.88	9.3	18.9	46.7	1.48	2.0	212	0.22	3.7	0.17	42	1.10	0.009	33.9	0.065	34.8	0.95	1.28	4.1	1.2	44.5	0.10	6.8	<0.001	0.20	1.2	18	<0.1	154
AC-2019-APR-17-23	888	0.85	17.3	1.1	<20	238	0.40	0.42	1.08	11.4	14.1	45.5	2.33	2.1	107	0.25	4.2	0.34	101	4.51	0.088	43.6	0.101	16.9	2.05	0.28	5.3	1.8	57.7	0.06	9.0	<0.001	0.25	1.9	23	<0.1	187
AC-2019-JUL-30-04	380	0.82	14.0	2.9	<20	302	0.320	0.28	0.33	8.0	20.6	31.0	1.78	2.2	91	0.23	4.0	0.27	73	1.37	0.256	27.8	0.062	18.3	1.16	0.14	3.7	0.7	59.7	0.07	8.0	0.001	0.13	1.00	21	<0.1	105
AC-2019-OCT-21-06	549	0.69	9.8	<0.2	<20	78	0.290	0.47	0.41	4.8	14.6	29.5	2.78	1.9	95	0.24	3.6	0.32	81	4.42	0.163	17.7	0.035	28.6	1.35	0.40	3.5	1.4	59.0	0.07	5.1	<0.001	0.10	0.60	22	<0.1	97
RCC-2019-APR-17-01	554	0.77	27.5	0.7	<20	320	2.83	0.39	0.31	8.0	20.0	34.1	1.27	2.0	185	0.23	4.7	0.24	51	0.74	0.017	42.5	0.079	25.8	0.87	0.98	3.8	0.9	34.5	0.09	6.3	0.001	0.18	1.1	20	<0.1	145
RCC-2019-APR-17-02	389	0.90	23.8	1.5	<20	328	1.31	0.26	0.40	10.9	17.7	33.3	1.92	2.3	110	0.23	3.9	0.25	158	0.83	0.267	29.3	0.093	18.6	1.01	0.61	4.1	1.2	59.8	0.06	6.6	0.001	0.14	1.4	21	<0.1	116
RCC-2019-OCT-21-01	535	0.87	11.4	<0.2	<20	102	0.280	0.29	0.30	8.6	26.0	36.1	1.66	2.5	81	0.26	3.9	0.24	45	1.57	0.193	29.8	0.088	22.5	1.15	0.31	4.4	1.3	52.3	0.08	6.2	<0.001	0.06	1.20	25	<0.1	126
RCC-2019-OCT-21-02	655	0.95	12.8	<0.2	<20	80	0.240	0.43	0.73	9.4	34.3	38.0	1.95	2.8	113	0.29	4.4	0.25	61	3.39	0.195	30.9	0.080	25.4	1.46	0.42	4.9	1.5	50.5	0.09	6.3	<0.001	0.09	1.30	28	<0.1	152
RBDC-2019-OCT-21-01	524	0.69	9.5	<0.2	<20	355	0.150	0.41	0.49	7.9	46.3	21.5	2.96	2.0	47	0.19	4.0	0.38	178	0.51	0.147	18.7	0.087	42.0	0.24	0.96	3.9	0.5	41.2	0.05	5.3	<0.001	0.03	1.20	23	<0.1	127
RBDC-2019-OCT-21-03	394	0.67	7.1	0.4	<20	350	0.160	0.39	0.26	7.5	38.8	21.1	1.54	2.1	58	0.19	4.1	0.20	109	0.59	0.152	20.1	0.092	23.4	0.31	0.56	4.1	0.5	44.5	0.04	5.2	<0.001	0.03	1.20	20	<0.1	99
AREA23-2019-OCT-22-01	492	1.86	6.9	<0.2	<20	316	0.220	5.06	1.18	14.7	42.5	44.2	3.36	5.0	57	0.28	15.0	1.50	568	1.35	0.021	42.6	0.082	27.1	0.09	1.02	5.9	0.5	120.0	0.04	7.2	0.023	0.17	1.20	52	<0.1	145
AREA-A-2019-APR3-01	339	0.81	12.7	6.2	<20	197	0.59	3.02	2.08	6.3	55.0	115.0	2.81	2.4	96	0.06	4.1	0.79	501	1.62	0.030	16.9	0.078	48.2	0.31	1.50	2.6	1.8	66.7	0.04	2.0	0.042	0.36	0.5	34	<0.1	559
AREA-A 2019-APR-3-03	365	0.65	9.7	1.8	<20	685	0.05	3.68	1.84	5.2	51.2	14.1	2.14	2.1	113	0.07	5.0	0.64	380	1.36	0.014	14.7	0.092	126.0	0.11	2.58	2.5	0.1	75.6	0.06	1.8	0.033	0.47	0.6	29	<0.05	220
AREA-A-2019-APR3-07	157	0.56	6.4	0.2	<20	201	0.13	3.43	0.58	4.9	84.0	39.5	1.91	1.8	37	0.07	5.1	0.63	325	1.74	0.020	15.3	0.080	16.5	0.07	0.73	2.5	0.3	81.2	0.02	2.0	0.027	0.14	0.6	24	<0.1	103
AREA-A 2019-APR-3-09	122	0.66	7.2	0.7	<20	403	0.07	3.62	0.70	4.8	57.2	12.0	2.39	1.9	42	0.08	6.4	0.77	423	1.58	0.013	14.4	0.079	26.6	0.03	0.89	2.6	0.1	88.0	0.03	2.7	0.030	0.17	0.7	30	<0.05	72
AREA-A-2019-APR3-13	118	0.57	8.1	1.4	<20	249	0.09	3.44	0.49	5.5	59.4	26.5	2.62	1.9	51	0.06	5.3	0.61	519	1.89	0.015	18.6	0.111	11.2	0.04	0.87	3.0	0.2	72.3	0.02	2.1	0.028	0.16	0.7	28	<0.1	64
AREA-A 2019-APR-3-14	494	0.96	14.8	0.3	<20	195	0.320	0.50	0.87	8.6	16.5	35.7	2.29	2.6	112	0.27	4.5	0.30	84	4.57	0.011	32.6	0.084	16.1	1.74	0.18	4.7	2.2	31.2	0.10	6.5	<0.001	0.24	1.30	28	<0.05	145
AREA-A 2019-APR-3-17	471	0.97	15.4	1.2	<20	924	0.290	0.51	1.01	7.4	20.9	30.6	2.36	2.6	92	0.26	8.5	0.27	169	3.44	0.010	22.5	0.071	53.2	0.50	0.35	4.5	2.1	43.4	0.08	5.9	0.001	0.27	1.10	30	<0.05	169
ACA	*53*	*8.15*	*4.80*	1.5	*17*	*628*	*0.16*	*2.57*	*0.09*	*17.3*	*92*	*28.0*	*3.92*	*17.50*	*50*	*2.32*	*31.0*	*1.50*	*77.4*	*1.10*	*2.43*	*47.0*	*0.066*	*17.0*	*0.062*	*0.40*	*14*	*0.090*	*320*	-	*11*	*0.384*	*0.90*	*2.70*	*97*	*1.90*	*67.0*

Notes:
ACA: Average Upper Continental Crustal Abundance (Rudnick & Gao, 2014)
Values shaded in light grey exceed 3x the ACA
Values shaded in dark grey exceed 10x the ACA

Table 4: 2019 Shake Flask Extraction Results - Area A

Parameter	Units	BC WQG[a]		AREA-A-2019-APR3-01	AREA-A-2019-APR3-03	AREA-A-2019-APR3-07	AREA-A-2019-APR3-09	AREA-A-2019-APR3-13
		Short-term	Long-term					
Sample Weight	g	-	-	250	250	250	250	250
Volume Used	ml	-	-	750	750	750	750	750
pH	pH Units	6.5-9.0	-	8.87	8.58	9.07	8.87	8.97
EC	µS/cm	-	-	75.7	158.3	63.6	87.3	70.0
SO_4[b]	mg/L	-	309	6.0	41.8	2.6	10.3	3.2
Acidity to pH4.5	mg/L	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Acidity to pH8.3	mg/L	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Total Alkalinity	mg/L	-	-	27	24	25	24	24
Bicarbonate	mg/L	-	-	33	29	30	30	30
Carbonate	mg/L	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Hydroxide	mg/L	-	-	<0.5	<0.5	<0.5	<0.5	<0.5
Dissolved Chloride	mg/L	600	150	1.4	4.0	0.6	2.2	<0.5
Hardness $CaCO_3$	mg/L	-	-	31.5	67.8	23.9	35.2	26.5
Dissolved Metals								
Aluminum (Al)	mg/L	0.10	0.050	0.23	0.071	0.20	0.14	0.23
Antimony (Sb)	mg/L	-	0.0090	0.000690	0.0169	0.000446	0.00658	0.000321
Arsenic (As)	mg/L	0.0050	-	0.00122	0.00142	0.000780	0.00124	0.00120
Barium (Ba)	mg/L	-	1.0	0.0861	0.181	0.0849	0.268	0.0600
Beryllium (Be)	mg/L	-	0.00013	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Bismuth (Bi)	mg/L	-	-	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Boron (B)	mg/L	-	1.2	<0.050	<0.050	<0.050	<0.050	<0.050
Cesium (Cs)	mg/L	-	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Cadmium (Cd)[b]	mg/L	0.00071	0.00024	0.0000100	0.000233	0.0000150	0.0000400	<0.0000050
Calcium (Ca)	mg/L	-	-	10.2	22.4	7.74	11.3	8.77
Chromium (Cr)	mg/L	-	0.0010	0.00029	<0.00010	0.00024	0.00016	0.00025
Cobalt (Co)	mg/L	0.11	0.0040	0.000112	0.000527	0.000131	0.0000950	0.0000600
Copper (Cu)[b]	mg/L	0.013	0.0048	0.00119	0.00100	0.000412	0.000423	0.000899
Lanthanum (La)	mg/L	-	-	0.000056	<0.000050	0.000083	<0.000050	0.000066
Iron (Fe)	mg/L	0.35	-	0.101	0.0216	0.0764	0.0404	0.0840
Lead (Pb)[b]	mg/L	0.10	0.0073	0.000294	0.00716	0.000158	0.00174	0.000183
Lithium (Li)	mg/L	-	-	0.00141	0.00180	0.00170	0.00214	0.00102
Magnesium (Mg)	mg/L	-	-	1.47	2.86	1.12	1.70	1.11
Manganese (Mn)[b]	mg/L	1.9	1.1	0.00374	0.00588	0.00147	0.00204	0.00193
Phosphorus (P)	mg/L	-	-	0.0192	0.0080	0.0129	0.0079	0.0226
Molybdenum (Mo)	mg/L	2.0	1.0	0.00220	0.00599	0.00281	0.00540	0.00164
Nickel (Ni)b	mg/L	-	0.11	0.000579	0.00205	0.000781	0.000388	0.000443
Potassium (K)	mg/L	-	-	1.36	1.39	1.34	1.58	1.24
Rubidium (Rb)	mg/L	-	-	0.000512	0.000485	0.000632	0.000707	0.000494
Selenium (Se)	mg/L	-	0.0020	0.000794	0.00116	0.000277	0.000706	0.000263
Silicon (Si)	mg/L	-	-	1.53	1.27	1.26	1.36	1.47
Silver (Ag)[b]	mg/L	0.0030	0.0015	0.0000140	0.0000150	0.0000060	0.0000100	0.0000050
Sodium (Na)	mg/L	-	-	0.779	0.853	0.489	0.593	0.490
Strontium (Sr)	mg/L	-	-	0.0239	0.0471	0.0207	0.0313	0.0182
Sulphur (S)	mg/L	-	-	<10	15	<10	<10	<10
Tellurium (Te)	mg/L	-	-	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020
Thallium (Tl)	mg/L	-	0.00080	0.0000080	0.000168	0.0000160	0.0000570	0.0000120
Thorium (Th)	mg/L	-	-	0.0000060	<0.0000050	0.0000130	0.0000080	0.0000150
Tin (Sn)	mg/L	-	-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Titanium (Ti)	mg/L	-	-	0.00393	0.00181	0.00269	0.00147	0.00452
Tungsten (W)	mg/L	-	-	0.000042	0.000084	0.000030	0.000053	0.000034
Uranium (U)	mg/L	-	0.0085	0.000144	0.000182	0.0000980	0.000188	0.000104
Vanadium (V)	mg/L	-	-	0.00116	0.00027	0.00089	0.00050	0.00105
Zinc (Zn)[b]	mg/L	0.056	0.030	0.00154	0.00411	0.00101	0.00168	0.00068
Zirconium (Zr)	mg/L	-	-	<0.00010	<0.00010	0.00016	<0.00010	0.00015
Mercury (Hg)	mg/L	-	0.00002	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050

Notes:

[a]BC WQG - British Columbia Water Quality Guidelines for the Protection of Aquatic Life

[b]Hardness dependent guidelines are based on a hardness of 120 mg/L

Values shaded in light grey are above the long-term BC WQG

Values shaded in dark gray are above the short-term BC WQG

Appendix 3: Water Quality Data

PEACE RIVER
HYDRO PARTNERS

APPENDIX 3-A: 2019 IN SITU WATER QUALITY DATA

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-1-19 0:00	-0.07	1581	7.88	2.4	1-1-19 0:00	0.01	1087	7.85	0.0	1-1-19 0:00	-0.03	1601	8.75	39.8	5-31-19 17:30	23.01				3-31-19 11:15	7.09	694	8.11	25.2	3-31-19 11:15	0.88	655	7.82	16.2
1-1-19 0:15	-0.08	1552	7.88	2.5	1-1-19 0:15	0.01	1083	7.85	0.0	1-1-19 0:15	-0.01	1602	8.75	40.5	5-31-19 17:45	18.54	1413	8.63	6.4	3-31-19 11:30	7.10	694	8.11	25.2	3-31-19 11:30	0.87	651	7.81	13.6
1-1-19 0:30	-0.08	1552	7.88	2.4	1-1-19 0:30	0.01	1088	7.85	0.0	1-1-19 0:30	0.01	1604	8.75	41.5	5-31-19 18:00	18.37	1436	8.56	6.4	3-31-19 11:45	7.04	694	8.11	29.6	3-31-19 11:45	1.03	643	7.82	13.5
1-1-19 0:45	-0.07	1540	7.89	4.2	1-1-19 0:45	0.01	1086	7.85	0.0	1-1-19 0:45	0.02	1604	8.75	40.9	5-31-19 18:15	18.31	1475	8.54	6.7	3-31-19 12:00	7.03	693	8.11	30.3	3-31-19 12:00	1.00	656	7.81	17.7
1-1-19 1:00	-0.07	1552	7.88	2.4	1-1-19 1:00	0.01	1085	7.85	0.0	1-1-19 1:00	0.00	1582	8.75	35.2	5-31-19 18:30	18.32	1476	8.54	6.3	3-31-19 12:15	6.96	691	8.12	35.2	3-31-19 12:15	1.00	663	7.82	18.3
1-1-19 1:15	-0.07	1568	7.87	2.7	1-1-19 1:15	0.01	1084	7.85	0.0	1-1-19 1:15	0.01	1581	8.75	35.4	5-31-19 18:45	18.39	1441	8.54	7.2	3-31-19 12:30	6.87	689	8.12	38.7	3-31-19 12:30	1.02	666	7.82	19.7
1-1-19 1:30	-0.07	1569	7.88	2.5	1-1-19 1:30	0.01	1090	7.85	0.0	1-1-19 1:30	-0.01	1578	8.75	38.1	5-31-19 19:00	18.50	1478	8.55	5.6	3-31-19 12:45	6.93	692	8.12	35.5	3-31-19 12:45	1.04	665	7.82	20.8
1-1-19 1:45	-0.07	1569	7.88	2.4	1-1-19 1:45	0.01	1089	7.86	0.0	1-1-19 1:45	0.00	1581	8.76	36.5	5-31-19 19:15	18.58	1482	8.56	6.7	3-31-19 13:00	6.82	687	8.12	41.8	3-31-19 13:00	0.97	664	7.82	21.4
1-1-19 2:00	-0.07	1568	7.87	2.4	1-1-19 2:00	0.01	1086	7.85	0.0	1-1-19 2:00	-0.01	1599	8.75	40.3	5-31-19 19:30	18.68	1486	8.58	7.9	3-31-19 13:15	6.49	675	8.13	57.4	3-31-19 13:15	1.02	668	7.82	23.3
1-1-19 2:15	-0.08	1552	7.87	2.5	1-1-19 2:15	0.02	1088	7.85	0.0	1-1-19 2:15	0.00	1601	8.75	40.3	5-31-19 19:45	18.74	1488	8.61	6.2	3-31-19 13:30	6.67	682	8.12	51.6	3-31-19 13:30	1.19	668	7.81	24.9
1-1-19 2:30	-0.07	1551	7.88	2.4	1-1-19 2:30	0.02	1084	7.85	0.0	1-1-19 2:30	0.01	1601	8.75	40.6	5-31-19 20:00	18.83	1485	8.64	6.5	3-31-19 13:45	6.58	680	8.13	54.7	3-31-19 13:45	1.31	669	7.81	26.0
1-1-19 2:45	-0.07	1551	7.87	2.4	1-1-19 2:45	0.02	1084	7.85	0.0	1-1-19 2:45	0.02	1601	8.75	39.9	5-31-19 20:15	18.93	1492	8.67	6.0	3-31-19 14:00	6.97	686	8.12	45.0	3-31-19 14:00	1.46	669	7.81	26.4
1-1-19 3:00	-0.07	1551	7.87	2.4	1-1-19 3:00	0.02	1083	7.85	0.0	1-1-19 3:00	0.00	1583	8.76	35.1	5-31-19 20:30	19.03	1492	8.71	7.0	3-31-19 14:15	7.27	686	8.11	41.8	3-31-19 14:15	1.46	640	7.81	15.6
1-1-19 3:15	-0.06	1570	7.87	2.6	1-1-19 3:15	0.02	1082	7.85	0.0	1-1-19 3:15	0.02	1585	8.76	35.8	5-31-19 20:45	19.15	1493	8.75	6.0	3-31-19 14:30	7.32	686	8.11	39.3	3-31-19 14:30	1.39	639	7.81	14.7
1-1-19 3:30	-0.07	1571	7.88	2.4	1-1-19 3:30	0.02	1081	7.85	0.0	1-1-19 3:30	0.00	1582	8.76	37.0	5-31-19 21:00	19.27	1493	8.78	6.8	3-31-19 14:45	7.39	686	8.11	40.3	3-31-19 14:45	1.33	646	7.80	15.9
1-1-19 3:45					1-1-19 3:45	0.02	1081	7.85	0.0	1-1-19 3:45	0.01	1583	8.76	35.9	5-31-19 21:15	19.37	1495	8.80	6.9	3-31-19 15:00	7.31	684	8.11	40.3	3-31-19 15:00	1.37	646	7.80	15.1
1-1-19 4:00	-0.07	1571	7.87	2.4	1-1-19 4:00	0.02	1082	7.85	0.0	1-1-19 4:00	0.03	1600	8.76	41.0	5-31-19 21:30	19.46	1492	8.81	7.2	3-31-19 15:15	7.33	683	8.11	41.5	3-31-19 15:15	1.45	645	7.80	14.8
1-1-19 4:15	-0.07	1549	7.87	2.4	1-1-19 4:15	0.02	1081	7.85	0.0	1-1-19 4:15	0.02	1599	8.75	39.7	5-31-19 21:45	19.63	1491	8.81	6.5	3-31-19 15:30	7.16	681	8.11	43.4	3-31-19 15:30	1.32	649	7.80	14.8
1-1-19 4:30	-0.07	1549	7.88	2.4	1-1-19 4:30	0.02	1085	7.85	0.0	1-1-19 4:30	0.02	1600	8.75	39.6	5-31-19 22:00	19.74	1492	8.81	5.9	3-31-19 15:45	7.20	681	8.11	43.6	3-31-19 15:45	1.31	653	7.81	16.2
1-1-19 4:45	-0.07	1549	7.87	2.3	1-1-19 4:45	0.02	1089	7.85	0.0	1-1-19 4:45	0.01	1597	8.75	39.5	5-31-19 22:15	19.93	1497	8.80	8.8	3-31-19 16:00	7.05	681	8.12	46.4	3-31-19 16:00	1.38	654	7.80	16.0
1-1-19 5:00	-0.07	1549	7.87	2.4	1-1-19 5:00	0.02	1083	7.85	0.2	1-1-19 5:00	0.02	1582	8.76	37.5	5-31-19 22:30	20.08	1496	8.80	6.5	3-31-19 16:15	7.05	682	8.12	47.5	3-31-19 16:15	1.52	650	7.80	14.8
1-1-19 5:15	-0.08	1582	7.87	2.7	1-1-19 5:15	0.02	1080	7.85	0.0	1-1-19 5:15	0.03	1583	8.76	36.2	5-31-19 22:45	20.12	1496	8.80	6.6	3-31-19 16:30	7.20	682	8.12	43.0	3-31-19 16:30	1.47	654	7.80	16.3
1-1-19 5:30	-0.07	1584	7.88	2.4	1-1-19 5:30	0.02	1081	7.86	0.0	1-1-19 5:30	0.03	1580	8.77	34.2	5-31-19 23:00	20.20	1499	8.80	6.7	3-31-19 16:45	7.32	682	8.11	44.1	3-31-19 16:45	1.47	656	7.80	15.5
1-1-19 5:45	-0.07	1584	7.88	2.3	1-1-19 5:45	0.02	1081	7.85	0.0	1-1-19 5:45	0.02	1580	8.76	35.6	5-31-19 23:15	20.61	1500	8.79	6.5	3-31-19 17:00	7.34	684	8.11	45.6	3-31-19 17:00	1.54	654	7.80	15.5
1-1-19 6:00	-0.07	1584	7.88	2.3	1-1-19 6:00	0.02	1077	7.85	0.0	1-1-19 6:00	0.03	1601	8.77	43.1	5-31-19 23:30	20.48	1499	8.80	7.5	3-31-19 17:15	7.10	680	8.12	52.1	3-31-19 17:15	1.45	656	7.80	15.8
1-1-19 6:15	-0.07	1547	7.87	2.6	1-1-19 6:15	0.02	1076	7.85	0.0	1-1-19 6:15	0.03	1600	8.76	41.9	5-31-19 23:45	21.10	1504	8.78	6.8	3-31-19 17:30	6.78	681	8.13	54.5	3-31-19 17:30	1.36	650	7.81	20.4
1-1-19 6:30	-0.07	1547	7.88	2.3	1-1-19 6:30	0.02	1077	7.85	0.0	1-1-19 6:30	0.02	1601	8.76	42.2	6-1-19 0:00	21.43	1502	8.77	6.8	3-31-19 17:45	6.39	677	8.13	55.1	3-31-19 17:45	1.80	651	7.81	25.8
1-1-19 6:45	-0.07	1547	7.88	2.3	1-1-19 6:45	0.02	1084	7.85	0.0	1-1-19 6:45	0.03	1600	8.77	43.6	6-1-19 0:15	21.70	1503	8.77	6.8	3-31-19 18:00	6.22	674	8.13	58.8	3-31-19 18:00	1.82	652	7.81	32.3
1-1-19 7:00	-0.07	1547	7.88	2.3	1-1-19 7:00	0.02	1078	7.85	0.0	1-1-19 7:00	0.02	1576	8.78	38.1	6-1-19 0:30	21.77	1498	8.77	6.2	3-31-19 18:15	6.01	674	8.13	57.5	3-31-19 18:15	1.20	646	7.81	15.8
1-1-19 7:15	-0.07	1566	7.87	2.6	1-1-19 7:15	0.02	1078	7.85	0.0	1-1-19 7:15	0.01	1579	8.77	39.1	6-1-19 0:45	21.39	1496	8.77	6.6	3-31-19 18:30	5.95	674	8.13	57.1	3-31-19 18:30	1.11	650	7.82	15.4
1-1-19 7:30	-0.06	1567	7.89	2.3	1-1-19 7:30	0.02	1082	7.85	0.0	1-1-19 7:30	0.01	1577	8.78	38.1	6-1-19 1:00	21.79	1497	8.78	6.7	3-31-19 18:45	6.06	677	8.14	55.6	3-31-19 18:45	1.19	648	7.82	14.3
1-1-19 7:45	-0.07	1567	7.88	2.3	1-1-19 7:45	0.03	1081	7.85	0.0	1-1-19 7:45	0.01	1578	8.78	38.5	6-1-19 1:15	22.58	1511	8.75	6.2	3-31-19 19:00	6.33	676	8.13	57.1	3-31-19 19:00	1.21	647	7.82	16.8
1-1-19 8:00	-0.07	1567	7.88	2.3	1-1-19 8:00	0.03	1081	7.85	0.0	1-1-19 8:00	0.03	1598	8.78	43.8	6-1-19 1:30	22.56	1511	8.75	6.7	3-31-19 19:15	6.56	683	8.13	59.1	3-31-19 19:15	1.14	648	7.81	17.8
1-1-19 8:15	-0.07	1545	7.88	2.4	1-1-19 8:15	0.02	1077	7.86	0.0	1-1-19 8:15	0.02	1597	8.77	42.2	6-1-19 1:45	22.61	1515	8.75	6.5	3-31-19 19:30	6.61	683	8.13	56.9	3-31-19 19:30	1.07	652	7.81	16.7
1-1-19 8:30	-0.07	1545	7.89	2.2	1-1-19 8:30	0.02	1078	7.85	0.0	1-1-19 8:30	0.01	1598	8.77	43.6	6-1-19 2:00	22.55	1505	8.76	6.0	3-31-19 19:45	6.55	682	8.13	53.3	3-31-19 19:45	1.05	649	7.82	17.5
1-1-19 8:45	-0.07	1544	7.89	2.2	1-1-19 8:45	0.02	1070	7.85	0.0	1-1-19 8:45	0.03	1598	8.78	45.5	6-1-19 2:15	22.54	1506	8.75	6.4	3-31-19 20:00	6.55	682	8.13	51.0	3-31-19 20:00	1.00	646	7.82	17.4
1-1-19 9:00	-0.07	1544	7.89	2.3	1-1-19 9:00	0.02	1076	7.85	0.0	1-1-19 9:00	0.03	1577	8.79	39.0	6-1-19 2:30	22.42	1259	8.76	5.5	3-31-19 20:15	6.57	682	8.13	53.4	3-31-19 20:15	0.92	648	7.82	16.4
1-1-19 9:15	-0.07	1571	7.89	2.6	1-1-19 9:15	0.02	1076	7.85	0.0	1-1-19 9:15	0.02	1578	8.79	38.3	6-1-19 2:45	22.21	1509	8.77	5.2	3-31-19 20:30	6.56	682	8.13	49.9	3-31-19 20:30	0.84	650	7.82	16.4
1-1-19 9:30	-0.07	1572	7.89	2.1	1-1-19 9:30	0.02	1071	7.85	0.0	1-1-19 9:30	0.01	1578	8.78	37.3	6-1-19 3:00	21.71	1505	8.77	5.7	3-31-19 20:45	6.54	682	8.13	47.7	3-31-19 20:45	0.80	651	7.82	16.1
1-1-19 9:45	-0.07	1572	7.90	2.1	1-1-19 9:45	0.02	1077	7.85	0.0	1-1-19 9:45	0.02	1579	8.78	40.2	6-1-19 3:15	21.07	1503	8.77	6.5	3-31-19 21:00	6.52	682	8.13	49.7	3-31-19 21:00	0.69	652	7.83	16.0
1-1-19 10:00	-0.06	1572	7.90	2.1	1-1-19 10:00	0.02	1075	7.85	0.0	1-1-19 10:00	0.05	1599	8.78	44.8	6-1-19 3:30	21.16	1507	8.77	6.3	3-31-19 21:15	6.46	682	8.13	46.2	3-31-19 21:15	0.63	654	7.83	16.1
1-1-19 10:15	-0.07	1540	7.89	2.4	1-1-19 10:15	0.02	1074	7.85	0.0	1-1-19 10:15	0.02	1596	8.77	43.0	6-1-19 3:45	21.27	1510	8.76	6.5	3-31-19 21:30	6.45	682	8.14	48.9	3-31-19 21:30	0.57	655	7.83	16.3
1-1-19 10:30	-0.06	1539	7.91	2.3	1-1-19 10:30	0.02	1076	7.85	0.0	1-1-19 10:30	0.01	1594	8.76	39.5	6-1-19 4:00	21.26	1510	8.80	6.5	3-31-19 21:45	6.42	682	8.14	47.5	3-31-19 21:45	0.53	656	7.83	16.8
1-1-19 10:45	-0.06	1539	7.90	2.2	1-1-19 10:45	0.02	1072	7.85	0.0	1-1-19 10:45	0.02	1596	8.77	42.9	6-1-19 4:15	21.18	1512	8.80	6.0	3-31-19 22:00	6.38	682	8.14	45.9	3-31-19 22:00	0.50	656	7.83	17.0
1-1-19 11:00	-0.06	1539	7.92	2.2	1-1-19 11:00	0.02	1075	7.85	0.0	1-1-19 11:00	0.02	1577	8.78	37.7	6-1-19 4:30	21.09	1514	8.79	6.8	3-31-19 22:15	6.33	682	8.14	42.1	3-31-19 22:15	0.47	656	7.83	16.2
1-1-19 11:15	-0.06	1557	7.91	2.5	1-1-19 11:15	0.02	1075	7.86	0.0	1-1-19 11:15	0.01	1577	8.78	36.2	6-1-19 4:45	21.06	1514	8.79	6.1	3-31-19 22:30	6.30	682	8.14	44.1	3-31-19 22:30	0.43	657	7.83	16.7
1-1-19 11:30	-0.05	1557	7.93	2.2	1-1-19 11:30	0.02	1075	7.85	0.0	1-1-19 11:30	0.00	1580	8.78	39.9	6-1-19 5:00	20.98	1512	8.79	6.1	3-31-19 22:45	6.24	682	8.14	45.1	3-31-19 22:45	0.39	657	7.83	16.5
1-1-19 11:45					1-1-19 11:45	0.02	1077	7.85	0.0	1-1-19 11:45	0.03	1580	8.78	39.0	6-1-19 5:15	20.82	1515	8.80	7.3	3-31-19 23:00	6.23	682	8.14	44.4	3-31-19 23:00	0.35	658	7.83	16.9
1-1-19 12:00	-0.05	1557	7.93	2.2	1-1-19 12:00	0.02	1071	7.85	0.0	1-1-19 12:00	0.05	1598	8.78	44.2	6-1-19 5:30	20.57	1516	8.79	6.5	3-31-19 23:15	6.15	682	8.14	40.8	3-31-19 23:15	0.33	657	7.83	16.9
1-1-19 12:15	-0.05	1533	7.92	2.2	1-1-19 12:15	0.02	1074	7.85	0.0	1-1-19 12:15	0.04	1598	8.78	43.2	6-1-19 5:45	20.70	1518	8.77	6.5	3-31-19 23:30	6.12	682	8.14	40.4	3-31-19 23:30	0.31	657	7.83	17.3
1-1-19 12:30	-0.05	1532	7.94	2.2	1-1-19 12:30	-0.02	1065	7.85	0.0	1-1-19 12:30	0.27	1594	8.79	48.3	6-1-19 6:00	20.77	1520	8.75	6.0	3-31-19 23:45	6.10	682	8.14	41.4	3-31-19 23:45	0.29	657	7.83	16.7
1-1-19 12:45	-0.05	1532	7.94	2.2	1-1-19 12:45	-0.02	1065	7.85	0.0	1-1-19 12:45	0.21	1593	8.79	46.0	6-1-19 6:15	20.74	1515	8.76	6.0	4-1-19 0:00	6.08	682	8.14	41.1	4-1-19 0:00	0.28	657	7.83	16.7
1-1-19 13:00	-0.05	1532	7.93	2.2	1-1-19 13:00	-0.02	1070	7.85	0.0	1-1-19 13:00	0.20	1576	8.79	42.5	6-1-19 6:30	20.64	1514	8.76	6.2	4-1-19 0:15	6.04	682	8.14	38.7	4-1-19 0:15	0.26	657	7.83	16.7
1-1-19 13:15	-0.06	1552	7.93	2.5	1-1-19 13:15	-0.02	1059	7.85	0.0	1-1-19 13:15	0.20	1577	8.79	40.2	6-1-19 6:45	20.61	1521	8.75	5.8	4-1-19 0:30	5.99	682	8.14	38.6	4-1-19 0:30	0.24	657	7.83	17.5
1-1-19 13:30	-0.06	1553	7.93	2.1	1-1-19 13:30	-0.02	1061	7.85	0.0	1-1-19 13:30	0.18	1575	8.79	40.1	6-1-19 7:00	20.61	1519	8.75	5.9	4-1-19 0:45	5.98	683	8.14	39.5	4-1-19 0:45	0.23	657	7.84	16.9
1-1-19 13:45	-0.06	1550	7.93	2.1	1-1-19 13:45	-0.02	1061	7.85	0.0	1-1-19 13:45	0.18	1578	8.79	41.7	6-1-19 7:15	20.62	1517	8.75	5.9	4-1-19 1:00	5.97	683	8.14	39.1	4-1-19 1:00	0.22	657	7.84	16.8
1-1-19 14:00	-0.05	1550	7.94	2.1	1-1-19 14:00	-0.02	1073	7.85	0.0	1-1-19 14:00	0.21	1597	8.78	47.0	6-1-19 7:30	20.56	1518	8.75	5.5	4-1-19 1:15	5.98	683	8.14	39.9	4-1-19 1:15	0.22	655	7.83	15.7
1-1-19 14:15	-0.06	1533	7.93	2.4	1-1-19 14:15	-0.03	1050	7.85	5.9	1-1-19 14:15	0.22	1597	8.78	46.9	6-1-19 7:45	20.48	1522	8.75	5.5	4-1-19 1:30	5.96	683	8.14	38.9	4-1-19 1:30	0.21	655	7.84	14.3
1-1-19 14:30	-0.06	1533	7.94	2.2	1-1-19 14:30	-0.03	1053	7.85	4.8	1-1-19 14:30	0.20	1598	8.79	46.9	6-1-19 8:00	20.41	1521	8.75	5.7	4-1-19 1:45	5.91	683	8.14	38.4	4-1-19 1:45	0.21	655	7.84	14.7
1-1-19 14:45	-0.06	1533	7.93	2.1	1-1-19 14:45	-0.03	1074	7.85	6.4	1-1-19 14:45	0.18	1598	8.78	47.1	6-1-19 8:15	20.35	1522	8.74	5.3	4-1-19 2:00	5.89	683	8.14	38.8	4-1-19 2:00	0.20	654	7.84	14.2
1-1-19 15:00	-0.06	1532	7.92	2.1	1-1-19 15:00	-0.03	1056	7.85	3.5	1-1-19 15:00	0.16	1578	8.79	42.4	6-1-19 8:30	20.29	1522	8.74	5.6	4-1-19 2:15	5.89	683	8.14	38.8	4-1-19 2:15	0.20	653	7.83	13.4
1-1-19 15:15	-0.07	1554	7.93	2.4	1-1-19 15:15	-0.03	1056	7.85	4.7	1-1-19 15:15	0.18	1578	8.79	42.7	6-1-19 8:45	20.23	1522	8.74	5.7	4-1-19 2:30	5.85	683	8.14	38.5	4-1-19 2:30	0.19	653	7.83	13.4
1-1-19 15:30	-0.07	1554	7.94	2.2	1-1-19 15:30	-0.03	1070	7.85	7.2	1-1-19 15:30	0.17	1577	8.79	43.3	6-1-19 9:00	20.17	1523	8.74	5.8	4-1-19 2:45	5.85	683	8.14	38.8	4-1-19 2:45	0.18	653	7.83	13.5
1-1-19 15:45	-0.07	1554	7.93	2.1	1-1-19 15:45	-0.03	1069	7.85	6.3	1-1-19 15:45	0.18	1579	8.79	43.7	6-1-19 9:15	20.10	1523	8.73	5.7	4-1-19 3:00	5.78	683	8.14	37.6	4-1-19 3:00	0.17	653	7.83	13.5
1-1-19 16:00	-0.07	1554	7.93	2.2	1-1-19 16:00	-0.03	1051	7.85	4.7	1-1-19 16:00	0.18	1595	8.79	46.9	6-1-19 9:30	20.03	1525	8.73	6.2	4-1-19 3:15	5.81	683	8.14	37.9	4-1-19 3:15	0.17	653	7.83	13.1
1-1-19 16:15	-0.07	1531	7.93	2.2	1-1-19 16:15	-0.03	1054	7.85	5.4	1-1-19 16:15	0.15	1597	8.79	46.7	6-1-19 9:45	19.98	1521	8.73	5.9	4-1-19 3:30	5.79	684	8.14	37.5	4-1-19 3:30	0.16	653	7.83	13.0
1-1-19 16:30	-0.07	1531	7.94	2.1	1-1-19 16:30	-0.03	1056	7.85	6.3	1-1-19 16:30	0.18	1596	8.79	46.5	6-1-19 10:00	19.94	1531	8.73	5.9	4-1-19 3:45	5.76	685	8.14	38.6	4-1-19 3:45	0.15	654	7.83	12.9
1-1-19 16:45	-0.07	1531	7.93	2.2	1-1-19 16:45	-0.02	1057	7.85	0.0	1-1-19 16:45	0.24	1598	8.79	46.6	6-1-19 10:15	19.90	1525	8.73	5.9	4-1-19 4:00	5.82	685	8.14	37.9	4-1-19 4:00	0.14	654	7.83	12.8
1-1-19 17:00	-0.07	1531	7.93	2.1	1-1-19 17:00	-0.02	1055	7.85	6.7	1-1-19 17:00	0.27	1578	8.79	44.7	6-1-19 10:30	19.85	1526	8.72	6.1	4-1-19 4:15	5.82	686	8.14	41.4	4-1-19 4:15	0.14	654	7.83	12.9
1-1-19 17:15	-0.08	1556	7.93	2.4	1-1-19 17:15	-0.02	1022	7.85	3.6	1-1-19 17:15	0.22	1579	8.79	43.1	6-1-19 10:45	19.78	1524	8.72	5.6	4-1-19 4:30	5.81	685	8.14	40.1	4-1-19 4:30	0.13	654	7.83	12.9
1-1-19 17:30	-0.07	1558	7.94	2.2	1-1-19 17:30	-0.02	1047	7.85	4.3	1-1-19 17:30	0.16	1579	8.79	42.1	6-1-19 11:00	19.73	1523	8.72	5.9	4-1-19 4:45	5.74	685	8.14	40.8	4-1-19 4:45	0.13	654	7.83	13.0
1-1-19 17:45	-0.07	1558	7.94	2.1	1-1-19 17:45	-0.02	1042	7.85	8.3	1-1-19 17:45	0.16	1579	8.79	43.2	6-1-19 11:15	19.69	1524	8.72	6.0	4-1-19 5:00	5.74	687	8.14	40.9	4-1-19 5:00	0.13	654	7.83	12.6
1-1-19 18:00	-0.07	1558	7.94	2.1	1-1-19 18:00	-0.02	1041	7.85	4.3	1-1-19 18:00	0.17	1596	8.79	46.5	6-1-19 11:30	19.65	1524	8.72	6.0	4-1-19 5:15	5.75	685	8.14	46.0	4-1-19 5:15	0.12	654	7.83	12.7

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-1-19 18:15	-0.07	1532	7.93	2.1	1-1-19 18:15	-0.02	1041	7.85	4.6	1-1-19 18:15	0.19	1596	8.79	46.0	6-1-19 11:45	19.61	1529	8.72	6.0	4-1-19 5:30	5.73	664	8.15	84.2	4-1-19 5:30	0.12	654	7.83	12.2
1-1-19 18:30	-0.08	1532	7.94	2.1	1-1-19 18:30	-0.03	1041	7.85	3.6	1-1-19 18:30	0.19	1597	8.78	45.6	6-1-19 12:00	19.56	1527	8.72	6.9	4-1-19 5:45	5.75	669	8.14	75.6	4-1-19 5:45	0.12	654	7.83	12.0
1-1-19 18:45	-0.07	1532	7.93	2.1	1-1-19 18:45	-0.02	1047	7.85	0.2	1-1-19 18:45	0.14	1595	8.78	44.9	6-1-19 12:15	19.53	1524	8.72	6.0	4-1-19 6:00	5.72	675	8.14	63.7	4-1-19 6:00	0.12	654	7.83	12.1
1-1-19 19:00	-0.07	1532	7.93	2.1	1-1-19 19:00	-0.02	1051	7.85	5.1	1-1-19 19:00	0.15	1577	8.79	42.4	6-1-19 12:30	19.47	1526	8.71	5.8	4-1-19 6:15	5.69	675	8.14	61.7	4-1-19 6:15	0.12	654	7.83	11.7
1-1-19 19:15	-0.08	1544	7.92	2.4	1-1-19 19:15	-0.03	1037	7.86	4.5	1-1-19 19:15	0.20	1576	8.79	41.9	6-1-19 12:45	19.44	1524	8.71	5.7	4-1-19 6:30	5.70	676	8.14	62.9	4-1-19 6:30	0.13	653	7.83	12.0
1-1-19 19:30	-0.07	1545	7.92	2.1	1-1-19 19:30	-0.03	1039	7.86	2.5	1-1-19 19:30	0.21	1577	8.79	42.0	6-1-19 13:00	19.40	1523	8.72	5.4	4-1-19 6:45	5.66	673	8.15	68.3	4-1-19 6:45	0.12	653	7.83	12.2
1-1-19 19:45	-0.07	1545	7.92	2.1	1-1-19 19:45	-0.03	1040	7.86	4.9	1-1-19 19:45	0.17	1576	8.79	42.5	6-1-19 13:15	19.38	1529	8.72	6.0	4-1-19 7:00	5.67	674	8.14	67.4	4-1-19 7:00	0.12	654	7.83	12.2
1-1-19 20:00	-0.08	1545	7.92	2.1	1-1-19 20:00	-0.03	1049	7.85	1.1	1-1-19 20:00	0.22	1598	8.79	46.2	6-1-19 13:30	19.33	1529	8.72	7.3	4-1-19 7:15	5.65	672	8.14	69.4	4-1-19 7:15	0.13	654	7.83	12.2
1-1-19 20:15	-0.08	1513	7.93	2.3	1-1-19 20:15	-0.03	1037	7.86	4.9	1-1-19 20:15	0.21	1598	8.79	45.9	6-1-19 13:45	19.31	1525	8.72	5.8	4-1-19 7:30	5.62	669	8.15	72.4	4-1-19 7:30	0.13	654	7.83	12.5
1-1-19 20:30	-0.07	1512	7.94	2.1	1-1-19 20:30	-0.03	1047	7.86	2.8	1-1-19 20:30	0.19	1596	8.79	45.8	6-1-19 14:00	19.29	1524	8.73	6.7	4-1-19 7:45	5.64	664	8.15	79.8	4-1-19 7:45	0.15	654	7.83	12.2
1-1-19 20:45	-0.07	1512	7.93	2.1	1-1-19 20:45	-0.03	1044	7.86	2.9	1-1-19 20:45	0.22	1595	8.79	45.9	6-1-19 14:15	19.28	1531	8.72	5.6	4-1-19 8:00	5.61	660	8.15	86.2	4-1-19 8:00	0.15	653	7.84	12.7
1-1-19 21:00	-0.07	1511	7.93	2.1	1-1-19 21:00	-0.03	1045	7.86	4.8	1-1-19 21:00	0.22	1577	8.79	42.9	6-1-19 14:30	19.27	1530	8.73	6.3	4-1-19 8:15	5.60	662	8.14	80.0	4-1-19 8:15	0.18	654	7.84	13.7
1-1-19 21:15	-0.07	1559	7.92	2.5	1-1-19 21:15	-0.03	1047	7.86	2.9	1-1-19 21:15	0.21	1578	8.79	42.1	6-1-19 14:45	19.28	1531	8.73	5.5	4-1-19 8:30	5.64	663	8.14	83.7	4-1-19 8:30	0.23	653	7.84	14.5
1-1-19 21:30	-0.07	1559	7.93	2.1	1-1-19 21:30	-0.03	1044	7.86	4.2	1-1-19 21:30	0.22	1576	8.79	42.6	6-1-19 15:00	19.31	1530	8.73	5.2	4-1-19 8:45	5.62	658	8.15	81.2	4-1-19 8:45	0.27	653	7.84	14.0
1-1-19 21:45					1-1-19 21:45	-0.03	1045	7.86	4.0	1-1-19 21:45	0.22	1576	8.79	41.8	6-1-19 15:15	19.35	1531	8.73	6.2	4-1-19 9:00	5.58	658	8.15	87.7	4-1-19 9:00	0.33	651	7.84	15.7
1-1-19 22:00	-0.07	1559	7.92	2.1	1-1-19 22:00	-0.03	1063	7.86	4.1	1-1-19 22:00	0.23	1592	8.78	47.2	6-1-19 15:30	19.38	1531	8.74	6.6	4-1-19 9:15	5.59	653	8.15	82.3	4-1-19 9:15	0.40	651	7.83	14.2
1-1-19 22:15	-0.08	1532	7.92	2.2	1-1-19 22:15	-0.03	1041	7.86	11.8	1-1-19 22:15	0.22	1592	8.78	46.7	6-1-19 15:45	19.37	1533	8.74	6.2	4-1-19 9:30	5.63	653	8.15	85.2	4-1-19 9:30	0.47	651	7.83	15.9
1-1-19 22:30	-0.08	1531	7.94	2.1	1-1-19 22:30	-0.03	1055	7.86	4.7	1-1-19 22:30	0.21	1596	8.78	47.1	6-1-19 16:00	19.37	1532	8.75	5.8	4-1-19 9:45	5.64	657	8.14	75.6	4-1-19 9:45	0.54	651	7.83	16.3
1-1-19 22:45	-0.08	1531	7.93	2.2	1-1-19 22:45	-0.03	1047	7.86	3.2	1-1-19 22:45	0.22	1596	8.78	46.7	6-1-19 16:15	19.42	1532	8.74	6.8	4-1-19 10:00	5.63	654	8.15	87.4	4-1-19 10:00	0.61	652	7.83	15.3
1-1-19 23:00	-0.07	1531	7.93	2.2	1-1-19 23:00	-0.03	1046	7.86	6.2	1-1-19 23:00	0.21	1576	8.78	43.2	6-1-19 16:30	19.46	1532	8.75	5.4	4-1-19 10:15	5.61	649	8.15	84.0	4-1-19 10:15	0.69	652	7.83	14.6
1-1-19 23:15	-0.08	1545	7.92	2.5	1-1-19 23:15	-0.03	1043	7.86	3.7	1-1-19 23:15	0.19	1577	8.78	42.6	6-1-19 16:45	19.50	1531	8.75	6.0	4-1-19 10:45	5.78	646	8.14	82.6	4-1-19 10:45	0.82	650	7.82	24.6
1-1-19 23:30	-0.07	1545	7.89	2.2	1-1-19 23:30	-0.03	1034	7.85	3.2	1-1-19 23:30	0.20	1577	8.78	42.4	6-1-19 17:00	19.57	1497	8.75	6.5	4-1-19 11:00	5.69	638	8.14	88.8	4-1-19 11:00	0.91	648	7.82	13.9
1-1-19 23:45	-0.07	1545	7.89	2.1	1-1-19 23:45	-0.03	1039	7.85	6.3	1-1-19 23:45	0.20	1576	8.78	43.0	6-1-19 17:15	19.66	1535	8.75	7.0	4-1-19 11:15	5.70	638	8.14	90.2	4-1-19 11:15	0.94	654	7.82	17.1
1-2-19 0:00	-0.07	1545	7.90	2.1	1-2-19 0:00	-0.03	1036	7.85	7.2	1-2-19 0:00	0.20	1597	8.78	46.6	6-1-19 17:30	19.81	1535	8.76	6.7	4-1-19 11:30	5.77	632	8.14	83.8	4-1-19 11:30	1.02	657	7.82	19.2
1-2-19 0:15	-0.08	1526	7.91	2.3	1-2-19 0:15	-0.02	1033	7.85	3.3	1-2-19 0:15	0.19	1599	8.78	46.2	6-1-19 17:45	19.93	1530	8.76	6.0	4-1-19 11:45	5.85	635	8.14	89.7	4-1-19 11:45	1.11	656	7.82	20.3
1-2-19 0:30	-0.07	1527	7.93	2.1	1-2-19 0:30	-0.02	1026	7.85	41.6	1-2-19 0:30	0.17	1598	8.78	46.6	6-1-19 18:00	20.27	1530	8.75	6.2	4-1-19 12:00	5.95	636	8.14	91.4	4-1-19 12:00	1.14	656	7.81	17.1
1-2-19 0:45	-0.07	1527	7.92	2.2	1-2-19 0:45	-0.02	1029	7.85	4.0	1-2-19 0:45	0.18	1599	8.78	45.9	6-1-19 18:15	20.35	1540	8.75	7.5	4-1-19 12:15	6.01	632	8.14	94.6	4-1-19 12:15	1.21	656	7.81	16.4
1-2-19 1:00	-0.07	1526	7.93	2.2	1-2-19 1:00	-0.02	1041	7.86	4.8	1-2-19 1:00	0.17	1576	8.79	43.9	6-1-19 18:30	20.62	1333	8.75	7.4	4-1-19 12:30	6.12	622	8.14	98.7	4-1-19 12:30	1.29	656	7.81	16.4
1-2-19 1:15	-0.07	1560	7.92	2.5	1-2-19 1:15	-0.02	1029	7.85	3.7	1-2-19 1:15	0.17	1576	8.79	41.9	6-1-19 18:45	20.64	1531	8.76	8.2	4-1-19 12:45	5.92	624	8.14	101.6	4-1-19 12:45	1.40	656	7.81	15.9
1-2-19 1:30	-0.07	1561	7.93	2.1	1-2-19 1:30	-0.02	1031	7.86	3.8	1-2-19 1:30	0.18	1577	8.79	42.5	6-1-19 19:00	20.79	1538	8.74	10.6	4-1-19 13:00	5.96	636	8.14	86.3	4-1-19 13:00	1.46	656	7.81	15.6
1-2-19 1:45	-0.07	1561	7.93	2.2	1-2-19 1:45	-0.02	1028	7.85	6.2	1-2-19 1:45	0.17	1576	8.79	42.3	6-1-19 19:15	20.59	1542	8.75	8.3	4-1-19 13:15	6.00	638	8.14	84.0	4-1-19 13:15	1.41	657	7.81	14.4
1-2-19 2:00	-0.07	1561	7.92	2.2	1-2-19 2:00	-0.02	1025	7.86	3.3	1-2-19 2:00	0.17	1596	8.78	45.7	6-1-19 19:30	20.52	1251	8.75	7.2	4-1-19 13:30	6.11	633	8.14	94.7	4-1-19 13:30	1.47	658	7.81	14.7
1-2-19 2:15	-0.08	1531	7.91	2.3	1-2-19 2:15	-0.02	1029	7.86	4.7	1-2-19 2:15	0.17	1597	8.78	45.4	6-1-19 19:45	20.67	1545	8.75	7.3	4-1-19 13:45	6.30	625	8.13	91.6	4-1-19 13:45	1.55	654	7.81	14.6
1-2-19 2:30					1-2-19 2:30	-0.02	1035	7.86	4.0	1-2-19 2:30	0.18	1597	8.78	45.7	6-1-19 20:00	20.93	1545	8.75	9.5	4-1-19 14:00	6.39	621	8.13	94.0	4-1-19 14:00	1.61	656	7.80	14.2
1-2-19 2:45	-0.07	1530	7.94	1532.4	1-2-19 2:45	-0.02	1042	7.86	5.9	1-2-19 2:45	0.18	1596	8.78	45.4	6-1-19 20:15	20.98	1545	8.74	8.3	4-1-19 14:15	6.50	619	8.13	100.2	4-1-19 14:15	1.65	653	7.80	12.6
1-2-19 3:00	-0.07	1531	7.94	2.2	1-2-19 3:00	-0.02	1027	7.86	6.9	1-2-19 3:00	0.18	1576	8.79	43.0	6-1-19 20:30	21.03	1540	8.75	8.1	4-1-19 14:30	6.47	618	8.13	96.9	4-1-19 14:30	1.69	655	7.80	15.1
1-2-19 3:15	-0.08	1544	7.93	2.4	1-2-19 3:15	-0.02	1020	7.86	6.0	1-2-19 3:15	0.18	1577	8.79	42.8	6-1-19 20:45	21.10	1543	8.75	7.8	4-1-19 14:45	6.53	617	8.13	93.2	4-1-19 14:45	1.70	658	7.80	15.4
1-2-19 3:30	-0.07	1544	7.94	2.1	1-2-19 3:30	-0.03	1029	7.86	4.4	1-2-19 3:30	0.18	1577	8.79	42.0	6-1-19 21:00	21.17	1240	8.75	9.8	4-1-19 15:00	6.54	618	8.13	95.7	4-1-19 15:00	1.82	657	7.80	13.8
1-2-19 3:45	-0.07	1543	7.93	2.1	1-2-19 3:45	-0.03	1026	7.86	0.9	1-2-19 3:45	0.18	1579	8.79	42.6	6-1-19 21:15	21.76	1547	8.74	7.7	4-1-19 15:15	6.66	614	8.13	94.9	4-1-19 15:15	1.78	658	7.80	13.4
1-2-19 4:00	-0.07	1544	7.94	2.1	1-2-19 4:00	-0.03	1033	7.86	3.1	1-2-19 4:00	0.17	1599	8.78	45.3	6-1-19 21:30	21.93	1265	8.74	7.6	4-1-19 15:30	6.72	613	8.13	102.5	4-1-19 15:30	1.86	655	7.80	14.2
1-2-19 4:15	-0.07	1531	7.92	2.3	1-2-19 4:15	-0.03	1031	7.86	3.8	1-2-19 4:15	0.15	1597	8.78	45.6	6-1-19 21:45	21.95	1550	8.73	6.8	4-1-19 15:45	6.76	611	8.13	99.7	4-1-19 15:45	1.89	655	7.80	14.2
1-2-19 4:30	-0.07	1531	7.94	2.2	1-2-19 4:30	-0.03	1029	7.86	4.2	1-2-19 4:30	0.11	1598	8.79	44.7	6-1-19 22:00	21.90	1264	8.73	10.2	4-1-19 16:00	6.82	610	8.13	103.4	4-1-19 16:00	1.79	658	7.80	14.5
1-2-19 4:45	-0.07	1530	7.94	2.1	1-2-19 4:45	-0.03	1035	7.86	4.5	1-2-19 4:45	0.08	1598	8.78	43.6	6-1-19 22:15	21.95	1552	8.73	7.5	4-1-19 16:15	6.75	609	8.13	103.8	4-1-19 16:15	1.81	658	7.80	14.6
1-2-19 5:00	-0.07	1530	7.93	2.2	1-2-19 5:00	-0.03	1027	7.86	3.8	1-2-19 5:00	0.05	1578	8.79	39.4	6-1-19 22:30	21.96	1260	8.73	7.6	4-1-19 16:30	6.73	608	8.13	101.6	4-1-19 16:30	1.67	658	7.80	14.5
1-2-19 5:15	-0.08	1542	7.93	2.4	1-2-19 5:15	-0.03	1029	7.86	6.8	1-2-19 5:15	0.01	1580	8.79	38.5	6-1-19 22:45	21.91	1552	8.74	8.0	4-1-19 16:45	6.97	609	8.13	95.8	4-1-19 16:45	1.66	657	7.80	14.0
1-2-19 5:30	-0.07	1543	7.94	2.1	1-2-19 5:30	-0.03	1032	7.86	5.7	1-2-19 5:30	0.09	1578	8.78	39.7	6-1-19 23:00	21.96	1476	8.74	9.2	4-1-19 17:00	7.12	607	8.13	92.1	4-1-19 17:00	1.54	660	7.80	15.0
1-2-19 5:45	-0.07	1543	7.94	2.1	1-2-19 5:45	-0.03	1038	7.86	3.8	1-2-19 5:45	0.08	1580	8.78	39.1	6-1-19 23:15	22.00	1553	8.74	9.8	4-1-19 17:15	7.21	607	8.13	84.2	4-1-19 17:15	1.45	656	7.81	13.7
1-2-19 6:00	-0.07	1543	7.94	2.2	1-2-19 6:00	-0.03	1036	7.86	5.1	1-2-19 6:00	0.12	1599	8.78	43.5	6-1-19 23:30	21.90	1489	8.73	9.6	4-1-19 17:30	7.13	602	8.13	93.3	4-1-19 17:30	1.78	655	7.80	14.7
1-2-19 6:15	-0.08	1531	7.93	2.3	1-2-19 6:15	-0.03	1028	7.86	3.6	1-2-19 6:15	0.11	1595	8.78	43.6	6-1-19 23:45	21.84	1553	8.73	9.5	4-1-19 17:45	7.18	600	8.13	89.6	4-1-19 17:45	2.11	654	7.79	16.6
1-2-19 6:30	-0.07	1531	7.94	2.2	1-2-19 6:30	-0.02	1040	7.86	0.5	1-2-19 6:30	0.07	1596	8.78	42.4	6-2-19 0:00	21.80	1485	8.74	10.9	4-1-19 18:00	7.25	600	8.13	84.6	4-1-19 18:00	1.55	659	7.80	15.8
1-2-19 6:45	-0.07	1530	7.94	2.1	1-2-19 6:45	-0.03	1032	7.86	5.1	1-2-19 6:45	0.08	1596	8.78	42.9	6-2-19 0:15	21.81	1555	8.74	10.8	4-1-19 18:15	7.24	597	8.13	91.3	4-1-19 18:15	1.65	656	7.80	16.4
1-2-19 7:00	-0.07	1530	7.94	2.1	1-2-19 7:00	-0.02	1028	7.86	3.8	1-2-19 7:00	0.08	1578	8.78	39.6	6-2-19 0:30	21.84	1492	8.74	11.0	4-1-19 18:30	7.23	598	8.14	83.9	4-1-19 18:30	2.24	648	7.80	15.0
1-2-19 7:15	-0.08	1545	7.93	2.6	1-2-19 7:15	-0.02	1038	7.86	0.0	1-2-19 7:15	0.09	1580	8.78	40.4	6-2-19 0:45	21.75	1555	8.74	13.1	4-1-19 18:45	7.23	599	8.14	84.0	4-1-19 18:45	2.51	634	7.80	13.2
1-2-19 7:30	-0.07	1545	7.94	2.1	1-2-19 7:30	-0.02	1026	7.86	3.5	1-2-19 7:30	0.08	1580	8.78	40.4	6-2-19 1:00	21.75	1488	8.74	11.1	4-1-19 19:00	7.20	597	8.14	82.8	4-1-19 19:00	2.28	644	7.80	14.7
1-2-19 7:45	-0.07	1545	7.94	2.1	1-2-19 7:45	-0.02	1033	7.86	0.2	1-2-19 7:45	0.09	1580	8.78	40.4	6-2-19 1:15	21.65	1555	8.74	9.8	4-1-19 19:15	7.20	597	8.14	88.0	4-1-19 19:15	2.02	624	7.81	13.2
1-2-19 8:00	-0.07	1545	7.93	2.1	1-2-19 8:00	-0.02	1017	7.86	2.7	1-2-19 8:00	0.09	1599	8.78	43.4	6-2-19 1:30	21.64	1556	8.74	10.6	4-1-19 19:30	7.21	597	8.14	81.8	4-1-19 19:30	1.72	628	7.82	12.5
1-2-19 8:15	-0.08	1532	7.92	2.3	1-2-19 8:15	-0.02	1040	7.86	4.8	1-2-19 8:15	0.09	1599	8.78	43.3	6-2-19 1:45	21.63	1557	8.74	9.4	4-1-19 19:45	7.21	597	8.14	77.5	4-1-19 19:45	1.93	631	7.81	12.8
1-2-19 8:30	-0.07	1532	7.94	2.0	1-2-19 8:30	-0.02	1027	7.86	4.6	1-2-19 8:30	0.06	1600	8.78	42.8	6-2-19 2:00	21.55	1489	8.74	9.7	4-1-19 20:00	7.18	597	8.14	81.4	4-1-19 20:00	1.91	628	7.82	13.2
1-2-19 8:45	-0.07	1532	7.94	351.8	1-2-19 8:45	-0.02	1025	7.86	4.7	1-2-19 8:45	0.07	1600	8.78	42.4	6-2-19 2:15	21.46	1557	8.74	10.1	4-1-19 20:15	7.19	597	8.14	81.7	4-1-19 20:15	1.39	611	7.83	11.9
1-2-19 9:00	-0.07	1532	7.94	2.2	1-2-19 9:00	-0.02	1025	7.86	4.0	1-2-19 9:00	0.04	1578	8.78	39.6	6-2-19 2:30	21.35	1558	8.74	8.7	4-1-19 20:30	7.17	597	8.14	78.5	4-1-19 20:30	1.46	602	7.83	10.1
1-2-19 9:15	-0.08	1543	7.93	2.3	1-2-19 9:15	-0.02	1026	7.86	3.2	1-2-19 9:15	0.06	1578	8.78	38.7	6-2-19 2:45	21.28	1558	8.74	10.6	4-1-19 20:45	7.16	597	8.14	79.6	4-1-19 20:45	1.47	596	7.84	10.5
1-2-19 9:30	-0.08	1543	7.95	2.1	1-2-19 9:30	-0.02	1036	7.86	4.3	1-2-19 9:30	0.08	1577	8.78	38.6	6-2-19 3:00	21.17	1492	8.74	10.2	4-1-19 21:00	7.13	597	8.14	76.8	4-1-19 21:00	1.37	614	7.83	11.5
1-2-19 9:45	-0.08	1543	7.95	2.0	1-2-19 9:45	-0.02	1022	7.86	6.0	1-2-19 9:45	0.10	1576	8.78	39.4	6-2-19 3:15	21.06	1558	8.73	11.3	4-1-19 21:15	7.07	597	8.14	71.6	4-1-19 21:15	0.96	651	7.82	15.9
1-2-19 10:00	-0.08	1543	7.94	2.0	1-2-19 10:00	-0.02	1018	7.86	5.0	1-2-19 10:00	0.11	1593	8.78	43.0	6-2-19 3:30	20.98	1493	8.73	9.8	4-1-19 21:30	7.02	597	8.14	80.0	4-1-19 21:30	1.19	649	7.82	14.2
1-2-19 10:15	-0.08	1533	7.93	2.1	1-2-19 10:15	-0.02	1021	7.86	3.7	1-2-19 10:15	0.11	1593	8.78	43.3	6-2-19 3:45	20.83	1558	8.73	8.8	4-1-19 21:45	6.99	596	8.14	76.5	4-1-19 21:45	1.57	638	7.82	13.3
1-2-19 10:30					1-2-19 10:30	-0.02	1018	7.86	0.0	1-2-19 10:30	0.10	1593	8.78	42.9	6-2-19 4:00	20.76	1558	8.72	9.1	4-1-19 22:00	6.83	584	8.15	83.6	4-1-19 22:00	1.84	632	7.82	13.2
1-2-19 10:45	-0.07	1533	7.94	2.1	1-2-19 10:45	-0.02	1017	7.86	3.1	1-2-19 10:45	0.06	1595	8.77	42.3	6-2-19 4:15	20.62	1559	8.72	9.4	4-1-19 22:15	6.77	580	8.15	80.0	4-1-19 22:15	1.70	619	7.82	12.3
1-2-19 11:00	-0.07	1533	7.95	2.0	1-2-19 11:00	-0.02	1017	7.86	5.0	1-2-19 11:00	0.06	1576	8.78	38.1	6-2-19 4:30	20.53	1492	8.72	9.3	4-1-19 22:30	6.70	577	8.15	83.8	4-1-19 22:30	1.30	632	7.82	12.1
1-2-19 11:15	-0.08	1549	7.94	2.2	1-2-19 11:15	-0.02	1020	7.86	4.7	1-2-19 11:15	0.07	1579	8.78	38.9	6-2-19 4:45	20.41	1559	8.71	10.2	4-1-19 22:45	6.41	573	8.16	79.3	4-1-19 22:45	1.25	637	7.83	13.0
1-2-19 11:30	-0.07	1561	7.95	2.0	1-2-19 11:30	-0.01	1025	7.86	0.9	1-2-19 11:30	0.07	1577	8.78	39.3	6-2-19 5:00	20.30	1492	8.70	8.5	4-1-19 23:00	6.48	576	8.15	78.6	4-1-19 23:00	1.35	638	7.82	11.2
1-2-19 11:45	-0.07	1560	7.95	2.0	1-2-19 11:45	-0.02	1014	7.86	6.2	1-2-19 11:45	0.09	1579	8.78	39.7	6-2-19 5:15	20.22	1559	8.70	8.7	4-1-19 23:15	6.58	577	8.15	81.3	4-1-19 23:15	1.20	648	7.82	12.2
1-2-19 12:00	-0.07	1560	7.94	2.0	1-2-19 12:00	-0.02	1013	7.86	6.5	1-2-19 12:00	0.07	1595	8.78	42.9	6-2-19 5:30	20.13	1493	8.69	8.3	4-1-19 23:30	6.49	578	8.15	75.6	4-1-19 23:30	0.97	635	7.83	12.2
1-2-19 12:15	-0.08	1530	7.93	2.0	1-2-19 12:15	-0.02	1019	7.86	4.4	1-2-19 12:15	0.05	1595	8.78	41.7	6-2-19 5:45	20.00	1560	8.69	8.3	4-1-19 23:45	6.45	578	8.15	78.6	4-1-19 23:45	0.93	635	7.84	12.9

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-2-19 12:30	-0.08	1511	7.95	2.0	1-2-19 12:30	-0.04	1018	7.87	6.2	1-2-19 12:30	0.05	1595	8.78	41.8	6-2-19 6:00	19.83	1559	8.68	11.8	4-2-19 0:00	6.43	579	8.15	75.7	4-2-19 0:00	0.84	640	7.84	12.0
1-2-19 12:45	-0.07	1517	7.95	2.0	1-2-19 12:45	-0.03	1028	7.87	3.9	1-2-19 12:45	0.02	1589	8.78	40.0	6-2-19 6:15	19.64	1559	8.66	12.4	4-2-19 0:15	6.33	577	8.15	73.9	4-2-19 0:15	0.91	645	7.83	11.8
1-2-19 13:00	-0.08	1519	7.94	1.9	1-2-19 13:00	-0.02	1017	7.87	4.7	1-2-19 13:00	0.02	1573	8.78	36.5	6-2-19 6:30	19.55	1560	8.65	10.0	4-2-19 0:30	6.27	577	8.16	72.2	4-2-19 0:30	0.79	647	7.84	12.1
1-2-19 13:15	-0.08	1542	7.93	2.3	1-2-19 13:15	-0.02	1032	7.87	7.2	1-2-19 13:15	0.05	1571	8.78	38.7	6-2-19 6:45	19.44	1560	8.65	9.8	4-2-19 0:45	6.23	573	8.16	66.9	4-2-19 0:45	0.79	650	7.82	11.1
1-2-19 13:30	-0.07	1542	7.94	2.0	1-2-19 13:30	-0.01	1026	7.87	6.4	1-2-19 13:30	0.13	1569	8.78	38.1	6-2-19 7:00	19.34	1559	8.64	9.0	4-2-19 1:00	6.10	565	8.16	85.1	4-2-19 1:00	0.89	651	7.82	11.9
1-2-19 13:45	-0.07	1542	7.95	2.1	1-2-19 13:45	-0.01	1018	7.87	5.8	1-2-19 13:45	0.11	1568	8.78	38.5	6-2-19 7:15	19.28	1560	8.63	11.9	4-2-19 1:15	6.08	566	8.16	84.2	4-2-19 1:15	0.76	650	7.81	12.2
1-2-19 14:00	-0.06	1541	7.95	2.0	1-2-19 14:00	-0.01	1020	7.87	6.8	1-2-19 14:00	0.08	1587	8.78	40.8	6-2-19 7:30	19.21	1491	8.63	10.5	4-2-19 1:30	6.05	563	8.16	85.2	4-2-19 1:30	1.04	646	7.81	12.0
1-2-19 14:15	-0.07	1531	7.94	2.3	1-2-19 14:15	-0.01	1009	7.87	5.8	1-2-19 14:15	0.06	1586	8.78	41.0	6-2-19 7:45	19.17	1560	8.63	8.6	4-2-19 1:45	5.80	556	8.16	79.6	4-2-19 1:45	0.83	641	7.82	12.3
1-2-19 14:30	-0.06	1531	7.95	2.0	1-2-19 14:30	-0.01	1011	7.87	4.0	1-2-19 14:30	0.09	1583	8.77	41.4	6-2-19 8:00	19.14	1561	8.63	8.9	4-2-19 2:00	5.73	561	8.16	83.8	4-2-19 2:00	0.80	642	7.82	12.6
1-2-19 14:45	-0.06	1531	7.95	2.1	1-2-19 14:45	-0.01	1014	7.87	4.9	1-2-19 14:45	0.09	1584	8.77	41.0	6-2-19 8:15	19.09	1561	8.63	8.8	4-2-19 2:15	5.46	548	8.17	87.2	4-2-19 2:15	0.81	639	7.82	12.3
1-2-19 15:00	-0.06	1531	7.95	1.9	1-2-19 15:00	-0.01	1011	7.87	7.4	1-2-19 15:00	0.06	1565	8.78	36.7	6-2-19 8:30	19.03	1482	8.64	9.0	4-2-19 2:30	5.44	552	8.17	77.9	4-2-19 2:30	0.87	644	7.82	12.1
1-2-19 15:15	-0.07	1543	7.94	2.3	1-2-19 15:15	-0.01	1010	7.87	5.2	1-2-19 15:15	0.07	1565	8.78	38.2	6-2-19 8:45	18.96	1561	8.64	8.7	4-2-19 2:45	5.52	552	8.17	87.4	4-2-19 2:45	0.87	636	7.82	13.0
1-2-19 15:30	-0.07	1543	7.95	2.0	1-2-19 15:30	-0.01	1012	7.87	5.0	1-2-19 15:30	0.05	1565	8.78	38.0	6-2-19 9:00	18.83	1492	8.65	9.5	4-2-19 3:00	5.32	547	8.17	86.6	4-2-19 3:00	0.86	642	7.82	12.3
1-2-19 15:45	-0.06	1139	7.95	2.2	1-2-19 15:45	-0.01	1011	7.87	8.2	1-2-19 15:45	0.03	1565	8.78	37.2	6-2-19 9:15	18.86	1562	8.65	8.4	4-2-19 3:15	5.38	553	8.17	77.4	4-2-19 3:15	0.77	635	7.82	12.9
1-2-19 16:00	-0.07	1539	7.95	2.0	1-2-19 16:00	-0.01	1013	7.87	3.6	1-2-19 16:00	0.04	1586	8.77	40.8	6-2-19 9:30	18.81	1494	8.65	8.8	4-2-19 3:30	5.37	554	8.16	79.8	4-2-19 3:30	0.72	634	7.83	14.1
1-2-19 16:15	-0.07	1525	7.93	2.2	1-2-19 16:15	-0.01	1030	7.87	3.2	1-2-19 16:15	0.05	1586	8.77	41.0	6-2-19 9:45	18.68	1561	8.65	9.3	4-2-19 3:45	5.47	556	8.16	77.3	4-2-19 3:45	0.73	629	7.83	13.0
1-2-19 16:30	-0.07	1525	7.95	1.9	1-2-19 16:30	-0.01	1025	7.87	5.1	1-2-19 16:30	0.04	1589	8.77	40.5	6-2-19 10:00	18.60	1494	8.65	8.1	4-2-19 4:00	5.46	555	8.16	78.7	4-2-19 4:00	0.73	631	7.83	14.0
1-2-19 16:45	-0.06	1525	7.94	1.8	1-2-19 16:45	-0.01	1022	7.87	6.2	1-2-19 16:45	0.03	1587	8.77	40.5	6-2-19 10:15	18.56	1561	8.65	9.0	4-2-19 4:15	5.56	557	8.16	78.9	4-2-19 4:15	0.60	613	7.84	20.7
1-2-19 17:00	-0.07	1525	7.95	1.8	1-2-19 17:00	-0.01	1015	7.88	5.2	1-2-19 17:00	0.02	1564	8.78	37.7	6-2-19 10:30	18.54	1494	8.65	8.8	4-2-19 4:30	5.52	560	8.16	78.9	4-2-19 4:30	0.59	614	7.84	16.0
1-2-19 17:15	-0.07	1539	7.94	2.2	1-2-19 17:15	-0.01	1012	7.87	2.9	1-2-19 17:15	0.01	1562	8.78	36.2	6-2-19 10:45	18.47	1561	8.66	8.5	4-2-19 4:45	5.63	563	8.15	75.9	4-2-19 4:45	0.22	630	7.84	15.7
1-2-19 17:30	-0.07	1540	7.95	1.9	1-2-19 17:30	-0.01	946	7.87	3.3	1-2-19 17:30	0.00	1561	8.78	35.5	6-2-19 11:00	18.37	1498	8.65	8.6	4-2-19 5:00	5.68	565	8.15	74.1	4-2-19 5:00	0.20	653	7.84	16.4
1-2-19 17:45	-0.07	1539	7.95	1.9	1-2-19 17:45	-0.01	1020	7.87	4.6	1-2-19 17:45	0.02	1566	8.78	36.9	6-2-19 11:15	18.30	1561	8.65	8.8	4-2-19 5:15	5.68	567	8.15	70.9	4-2-19 5:15	0.21	642	7.85	15.8
1-2-19 18:00	-0.07	1539	7.94	1.9	1-2-19 18:00	-0.01	1013	7.87	4.6	1-2-19 18:00	0.03	1589	8.77	40.2	6-2-19 11:30	18.21	1497	8.65	8.2	4-2-19 5:30	5.60	566	8.15	66.9	4-2-19 5:30	0.37	633	7.84	16.6
1-2-19 18:15	-0.07	1524	7.94	2.0	1-2-19 18:15	-0.01	1007	7.88	4.2	1-2-19 18:15	0.03	1591	8.77	40.2	6-2-19 11:45	18.14	1562	8.65	8.2	4-2-19 5:45	5.60	566	8.15	68.9	4-2-19 5:45	0.49	615	7.85	21.4
1-2-19 18:30	-0.07	1524	7.95	1.9	1-2-19 18:30	-0.01	1010	7.88	4.8	1-2-19 18:30	0.02	1589	8.77	40.0	6-2-19 12:00	18.07	1495	8.65	9.3	4-2-19 6:00	5.53	568	8.16	66.8	4-2-19 6:00	0.58	609	7.85	22.6
1-2-19 18:45	-0.07	1524	7.94	2.0	1-2-19 18:45	-0.01	1007	7.87	3.9	1-2-19 18:45	0.01	1590	8.77	40.0	6-2-19 12:15	18.02	1562	8.65	7.6	4-2-19 6:15	5.42	567	8.16	68.0	4-2-19 6:15	0.53	611	7.85	22.8
1-2-19 19:00	-0.07	1524	7.94	2.0	1-2-19 19:00	-0.01	1006	7.87	4.7	1-2-19 19:00	0.01	1574	8.78	37.9	6-2-19 12:30	17.84	1561	8.65	12.4	4-2-19 6:30	5.20	563	8.16	62.6	4-2-19 6:30	0.50	612	7.85	21.3
1-2-19 19:15	-0.07	1559	7.93	2.2	1-2-19 19:15	-0.01	1008	7.87	4.1	1-2-19 19:15	0.01	1572	8.78	37.1	6-2-19 12:45	17.85	1562	8.65	8.0	4-2-19 6:45	5.11	564	8.17	61.1	4-2-19 6:45	0.46	612	7.85	21.0
1-2-19 19:30	-0.07	1559	7.94	1.9	1-2-19 19:30	-0.01	1016	7.87	3.7	1-2-19 19:30	0.01	1572	8.78	36.9	6-2-19 13:00	17.77	1497	8.65	8.5	4-2-19 7:00	5.08	565	8.17	60.3	4-2-19 7:00	0.45	612	7.85	21.2
1-2-19 19:45	-0.07	1559	7.94	2.1	1-2-19 19:45	-0.01	1006	7.87	8.7	1-2-19 19:45	0.00	1572	8.78	35.1	6-2-19 13:15	17.68	1562	8.65	8.7	4-2-19 7:15	4.88	560	8.17	61.9	4-2-19 7:15	0.45	613	7.85	21.0
1-2-19 20:00	-0.07	1560	7.93	2.0	1-2-19 20:00	-0.01	1013	7.87	4.8	1-2-19 20:00	0.00	1592	8.77	39.5	6-2-19 13:30	17.63	1498	8.65	9.5	4-2-19 7:30	5.01	559	8.17	59.9	4-2-19 7:30	0.46	612	7.85	19.7
1-2-19 20:15	-0.07	1527	7.93	2.0	1-2-19 20:15	-0.01	1010	7.87	5.6	1-2-19 20:15	-0.01	1592	8.77	39.3	6-2-19 13:45	17.57	1563	8.65	9.4	4-2-19 7:45	4.99	556	8.16	60.9	4-2-19 7:45	0.47	612	7.85	20.4
1-2-19 20:30	-0.07	1528	7.94	1.9	1-2-19 20:30	-0.01	1005	7.87	4.7	1-2-19 20:30	0.00	1594	8.77	39.8	6-2-19 14:00	17.58	1563	8.65	8.4	4-2-19 8:00	5.00	553	8.16	66.5	4-2-19 8:00	0.48	613	7.85	20.0
1-2-19 20:45	-0.07	1527	7.93	1.9	1-2-19 20:45	-0.01	999	7.87	4.9	1-2-19 20:45	0.05	1598	8.77	40.8	6-2-19 14:15	17.53	1562	8.66	7.7	4-2-19 8:15	4.99	551	8.16	65.9	4-2-19 8:15	0.52	612	7.85	19.8
1-2-19 21:00	-0.07	1527	7.94	1.7	1-2-19 21:00	-0.01	1010	7.87	3.6	1-2-19 21:00	0.08	1581	8.77	39.1	6-2-19 14:30	17.52	1493	8.66	7.6	4-2-19 8:30	5.06	552	8.16	63.9	4-2-19 8:30	0.57	612	7.84	18.8
1-2-19 21:15	-0.07	1544	7.94	2.3	1-2-19 21:15	-0.01	1003	7.87	4.3	1-2-19 21:15	0.10	1582	8.77	39.3	6-2-19 14:45	17.54	1563	8.66	9.8	4-2-19 8:45	5.09	550	8.16	64.9	4-2-19 8:45	0.61	612	7.84	19.2
1-2-19 21:30	-0.07	1542	7.94	2.0	1-2-19 21:30	-0.01	1002	7.87	5.8	1-2-19 21:30	0.11	1582	8.77	39.5	6-2-19 15:00	17.56	1563	8.67	7.1	4-2-19 9:00	5.11	549	8.15	66.8	4-2-19 9:00	0.67	612	7.84	19.0
1-2-19 21:45	-0.06	1542	7.95	2.0	1-2-19 21:45	-0.01	1005	7.87	6.6	1-2-19 21:45	0.10	1581	8.77	38.4	6-2-19 15:15	17.60	1563	8.67	8.0	4-2-19 9:15	5.25	551	8.15	65.1	4-2-19 9:15	0.74	611	7.84	18.8
1-2-19 22:00	-0.05	1540	7.96	2.1	1-2-19 22:00	-0.01	1017	7.87	5.2	1-2-19 22:00	0.10	1605	8.77	42.0	6-2-19 15:30	17.63	1494	8.68	8.0	4-2-19 9:30	5.25	550	8.16	60.7	4-2-19 9:30	0.83	611	7.83	19.0
1-2-19 22:15	-0.05	1490	7.95	2.3	1-2-19 22:15	-0.01	1006	7.87	7.0	1-2-19 22:15	0.16	1602	8.77	42.8	6-2-19 15:45	17.66	1563	8.68	7.4	4-2-19 9:45	5.52	552	8.15	83.0	4-2-19 9:45	0.91	611	7.84	18.7
1-2-19 22:30	-0.04	1492	7.97	2.1	1-2-19 22:30	-0.01	1016	7.87	6.4	1-2-19 22:30	0.20	1599	8.76	44.2	6-2-19 16:00	17.75	1565	8.68	7.8	4-2-19 10:00	5.73	548	8.15	132.0	4-2-19 10:00	1.00	610	7.84	17.9
1-2-19 22:45	-0.04	1493	7.97	2.3	1-2-19 22:45	-0.01	1009	7.87	3.1	1-2-19 22:45	0.14	1600	8.76	41.7	6-2-19 16:15	17.84	1565	8.69	7.3	4-2-19 10:15	5.85	545	8.15	118.1	4-2-19 10:15	1.01	613	7.83	16.4
1-2-19 23:00	-0.04	1492	7.97	3.7	1-2-19 23:00	-0.01	1004	7.87	3.3	1-2-19 23:00	0.15	1580	8.76	40.0	6-2-19 16:30	17.88	1565	8.69	7.0	4-2-19 10:30	6.00	544	8.15	133.5	4-2-19 10:30	1.08	616	7.83	16.0
1-2-19 23:15	-0.04	1522	7.96	2.5	1-2-19 23:15	-0.01	1019	7.87	0.0	1-2-19 23:15	0.11	1580	8.77	37.0	6-2-19 16:45	18.01	1565	8.69	8.5	4-2-19 11:00	6.13	545	8.15	97.4	4-2-19 11:00	1.20	626	7.82	17.9
1-2-19 23:30	-0.05	1521	7.97	2.0	1-2-19 23:30	-0.01	1016	7.87	6.2	1-2-19 23:30	0.14	1582	8.76	37.7	6-2-19 17:00	18.11	1500	8.69	8.2	4-2-19 11:15	6.18	546	8.15	97.9	4-2-19 11:15	1.14	629	7.82	16.5
1-2-19 23:45	-0.05	1521	7.97	2.2	1-2-19 23:45	-0.01	1002	7.87	0.1	1-2-19 23:45	0.11	1579	8.76	38.4	6-2-19 17:15	18.21	1567	8.69	7.9	4-2-19 11:30	6.12	547	8.14	108.6	4-2-19 11:30	1.22	630	7.82	16.2
1-3-19 0:00	-0.05	1521	7.97	2.1	1-3-19 0:00	-0.01	1006	7.87	2.3	1-3-19 0:00	0.11	1600	8.74	42.1	6-2-19 17:30	18.32	1502	8.69	8.6	4-2-19 11:45	6.17	549	8.15	89.2	4-2-19 11:45	1.29	626	7.82	16.7
1-3-19 0:15	-0.05	1517	7.96	2.1	1-3-19 0:15	-0.01	1009	7.87	0.0	1-3-19 0:15	0.11	1599	8.74	42.2	6-2-19 17:45	18.45	1567	8.69	8.2	4-2-19 12:00	6.41	551	8.15	81.7	4-2-19 12:00	1.40	624	7.82	15.3
1-3-19 0:30	-0.05	1516	7.97	2.1	1-3-19 0:30	-0.01	1005	7.87	0.0	1-3-19 0:30	0.12	1597	8.72	42.8	6-2-19 18:00	18.52	1503	8.69	8.5	4-2-19 12:15	6.42	550	8.14	89.6	4-2-19 12:15	1.42	623	7.82	15.4
1-3-19 0:45	-0.05	1516	7.96	2.1	1-3-19 0:45	-0.01	1009	7.87	0.0	1-3-19 0:45	0.12	1597	8.69	43.1	6-2-19 18:15	18.64	1568	8.69	7.7	4-2-19 12:30	6.62	550	8.14	89.5	4-2-19 12:30	1.55	619	7.82	15.6
1-3-19 1:00	-0.05	1516	7.96	2.0	1-3-19 1:00	-0.01	1006	7.87	0.0	1-3-19 1:00	0.07	1579	8.72	39.7	6-2-19 18:30	18.76	1505	8.69	8.2	4-2-19 12:45	6.76	550	8.14	87.3	4-2-19 12:45	1.81	620	7.81	14.7
1-3-19 1:15	-0.06	1532	7.96	2.4	1-3-19 1:15	-0.01	1009	7.87	0.0	1-3-19 1:15	0.16	1579	8.72	41.8	6-2-19 18:45	18.92	1570	8.69	9.8	4-2-19 13:00	7.03	550	8.14	82.9	4-2-19 13:00	1.79	620	7.81	15.7
1-3-19 1:30	-0.06	1532	7.97	2.0	1-3-19 1:30	-0.01	1017	7.87	0.0	1-3-19 1:30	0.09	1578	8.72	38.5	6-2-19 19:00	18.98	1509	8.69	7.6	4-2-19 13:15	7.13	549	8.13	78.2	4-2-19 13:15	1.84	622	7.81	15.2
1-3-19 1:45	-0.06	1532	7.97	2.0	1-3-19 1:45	-0.01	1012	7.87	0.0	1-3-19 1:45	0.09	1578	8.72	40.3	6-2-19 19:15	19.05	1569	8.69	7.4	4-2-19 13:30	7.15	548	8.13	71.2	4-2-19 13:30	1.85	628	7.81	14.7
1-3-19 2:00	-0.05	1532	7.95	2.1	1-3-19 2:00	-0.01	1007	7.87	4.2	1-3-19 2:00	0.11	1595	8.70	43.8	6-2-19 19:30	19.36	1504	8.68	8.4	4-2-19 13:45	7.50	551	8.14	73.1	4-2-19 13:45	2.31	637	7.80	160.0
1-3-19 2:15	-0.06	1514	7.95	2.5	1-3-19 2:15	-0.01	1009	7.87	0.0	1-3-19 2:15	0.12	1599	8.73	44.2	6-2-19 19:45	19.43	1569	8.68	7.7	4-2-19 14:00	7.70	551	8.13	75.4	4-2-19 14:00	2.18	631	7.80	27.1
1-3-19 2:30	-0.06	1513	7.97	2.0	1-3-19 2:30	-0.01	1008	7.87	0.0	1-3-19 2:30	0.18	1599	8.72	44.0	6-2-19 20:00	19.56	1505	8.68	8.6	4-2-19 14:15	7.73	549	8.13	78.0	4-2-19 14:15	2.37	631	7.80	29.1
1-3-19 2:45	-0.06	1513	7.97	2.0	1-3-19 2:45	-0.01	1006	7.87	0.0	1-3-19 2:45	0.07	1594	8.72	42.2	6-2-19 20:15	19.78	1574	8.68	13.1	4-2-19 14:30	7.77	550	8.13	73.2	4-2-19 14:30	2.65	636	7.79	37.1
1-3-19 3:00	-0.06	1513	7.96	2.0	1-3-19 3:00	-0.01	1016	7.87	0.6	1-3-19 3:00	0.09	1580	8.73	40.8	6-2-19 20:30	19.80	1507	8.67	8.5	4-2-19 14:45	7.81	549	8.13	73.9	4-2-19 14:45	2.70	626	7.79	24.3
1-3-19 3:15	-0.07	1528	7.96	2.4	1-3-19 3:15	-0.01	1005	7.87	0.1	1-3-19 3:15	0.09	1577	8.74	38.6	6-2-19 20:45	19.79	1570	8.67	8.1	4-2-19 15:00	7.83	549	8.13	70.6	4-2-19 15:00	3.09	626	7.79	25.1
1-3-19 3:30	-0.06	1529	7.97	2.0	1-3-19 3:30	-0.01	1006	7.87	0.0	1-3-19 3:30	0.08	1575	8.71	38.9	6-2-19 21:00	20.09	1509	8.67	7.4	4-2-19 15:15	7.95	550	8.13	66.1	4-2-19 15:15	3.02	632	7.79	28.9
1-3-19 3:45	-0.06	1529	7.96	2.0	1-3-19 3:45	-0.01	1005	7.87	0.0	1-3-19 3:45	0.08	1574	8.67	39.4	6-2-19 21:15	20.11	1573	8.67	8.1	4-2-19 15:30	7.89	550	8.13	63.8	4-2-19 15:30	3.09	630	7.79	25.4
1-3-19 4:00	-0.06	1529	7.96	2.0	1-3-19 4:00	-0.01	1002	7.87	0.3	1-3-19 4:00	0.10	1595	8.63	43.2	6-2-19 21:30	20.16	1510	8.67	7.9	4-2-19 15:45	7.91	550	8.13	73.7	4-2-19 15:45	3.07	636	7.79	29.1
1-3-19 4:15	-0.07	1512	7.96	2.1	1-3-19 4:15	-0.01	1006	7.87	0.0	1-3-19 4:15	0.10	1590	8.62	43.6	6-2-19 21:45	20.17	1573	8.67	8.2	4-2-19 16:00	8.00	550	8.13	86.7	4-2-19 16:00	3.03	649	7.79	40.2
1-3-19 4:30	-0.06	1512	7.97	2.0	1-3-19 4:30	-0.01	1001	7.87	0.0	1-3-19 4:30	0.13	1590	8.58	44.9	6-2-19 22:00	20.20	1502	8.67	7.5	4-2-19 16:15	8.02	550	8.14	99.8	4-2-19 16:15	3.10	646	7.79	35.1
1-3-19 4:45	-0.07	1511	7.97	1.9	1-3-19 4:45	-0.01	1004	7.87	0.0	1-3-19 4:45	0.16	1588	8.51	47.1	6-2-19 22:15	20.38	1574	8.66	8.4	4-2-19 16:30	7.93	550	8.13	81.9	4-2-19 16:30	3.11	648	7.78	37.0
1-3-19 5:00	-0.06	1511	7.97	1.9	1-3-19 5:00	-0.01	999	7.87	0.0	1-3-19 5:00	0.18	1566	8.45	44.5	6-2-19 22:30	20.39	1504	8.67	7.4	4-2-19 16:45	7.90	550	8.14	78.3	4-2-19 16:45	3.07	658	7.78	44.4
1-3-19 5:15	-0.07	1535	7.96	2.2	1-3-19 5:15	-0.01	995	7.87	0.0	1-3-19 5:15	0.17	1564	8.42	44.3	6-2-19 22:45	20.45	1574	8.67	7.5	4-2-19 17:00	7.81	550	8.13	73.0	4-2-19 17:00	2.91	653	7.78	54.6
1-3-19 5:30	-0.07	1535	7.97	2.0	1-3-19 5:30	-0.01	1004	7.87	0.0	1-3-19 5:30	0.17	1563	8.39	44.4	6-2-19 23:00	20.59	1502	8.66	8.4	4-2-19 17:15	7.78	549	8.14	70.2	4-2-19 17:15	2.93	654	7.79	50.9
1-3-19 5:45	-0.06	1535	7.97	2.1	1-3-19 5:45	-0.01	1005	7.87	0.0	1-3-19 5:45	0.20	1564	8.35	45.1	6-2-19 23:15	20.53	1575	8.66	9.0	4-2-19 17:30	7.81	550	8.14	74.2	4-2-19 17:30	2.89	661	7.78	47.8
1-3-19 6:00	-0.06	1535	7.97	1.9	1-3-19 6:00	-0.01	1007	7.87	0.0	1-3-19 6:00	0.19	1582	8.35	51.1	6-2-19 23:30	20.58	1505	8.66	8.9	4-2-19 17:45	7.73	550	8.14	72.2	4-2-19 17:45	2.73	680	7.76	50.6
1-3-19 6:15	-0.07	1510	7.96	2.0	1-3-19 6:15	-0.01	1003	7.87	0.0	1-3-19 6:15	0.17	1581	8.34	50.5	6-2-19 23:45	20.68	1576	8.66	9.0	4-2-19 18:00	7.62	550	8.14	75.1	4-2-19 18:00	2.61	690	7.76	55.5
1-3-19 6:30	-0.07	1509	7.97	1.9	1-3-19 6:30	-0.01	1010	7.87	0.0	1-3-19 6:30	0.20	1581	8.34	49.9	6-3-19 0:00	20.58	1506	8.66	9.9	4-2-19 18:15	7.55	551	8.14	70.7	4-2-19 18:15	2.68	689	7.76	53.4

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-3-19 6:45	-0.07	1509	7.97	1.9	1-3-19 6:45	-0.01	1005	7.88	0.0	1-3-19 6:45	0.21	1582	8.35	49.8	6-3-19 0:15	20.44	1577	8.66	15.0	4-2-19 18:30	7.52	551	8.14	69.9	4-2-19 18:30	2.55	699	7.75	64.1
1-3-19 7:00	-0.07	1509	7.96	1.8	1-3-19 7:00	-0.01	1003	7.88	0.0	1-3-19 7:00	0.18	1564	8.35	47.7	6-3-19 0:30	20.34	1505	8.66	8.2	4-2-19 18:45	7.49	551	8.14	70.1	4-2-19 18:45	2.46	695	7.77	53.6
1-3-19 7:15	-0.07	1532	7.96	2.2	1-3-19 7:15	-0.01	1004	7.88	0.0	1-3-19 7:15	0.17	1563	8.35	45.1	6-3-19 0:45	20.29	1576	8.66	8.3	4-2-19 19:00	7.46	551	8.15	80.6	4-2-19 19:00	2.42	693	7.77	65.6
1-3-19 7:30	-0.07	1532	7.98	1.9	1-3-19 7:30	-0.01	1003	7.88	0.0	1-3-19 7:30	0.16	1563	8.35	45.8	6-3-19 1:00	20.26	1511	8.66	7.8	4-2-19 19:15	7.41	551	8.14	74.8	4-2-19 19:15	2.41	694	7.78	48.5
1-3-19 7:45	-0.06	1532	7.97	1.9	1-3-19 7:45	0.00	1003	7.89	0.1	1-3-19 7:45	0.16	1562	8.35	46.3	6-3-19 1:15	20.22	1576	8.66	8.4	4-2-19 19:30	7.35	551	8.15	75.5	4-2-19 19:30	2.41	694	7.77	47.3
1-3-19 8:00	-0.06	1532	7.97	1.8	1-3-19 8:00	0.00	1003	7.89	0.0	1-3-19 8:00	0.14	1585	8.34	49.0	6-3-19 1:30	20.18	1507	8.66	8.3	4-2-19 19:45	7.30	551	8.15	71.4	4-2-19 19:45	2.32	694	7.78	43.6
1-3-19 8:15	-0.07	1508	7.96	1.9	1-3-19 8:15	0.00	1011	7.89	0.1	1-3-19 8:15	0.14	1583	8.34	49.4	6-3-19 1:45	20.15	1576	8.66	11.8	4-2-19 20:00	7.22	551	8.15	70.3	4-2-19 20:00	2.15	697	7.78	45.8
1-3-19 8:30	-0.06	1508	7.97	1.9	1-3-19 8:30	0.00	1002	7.89	0.0	1-3-19 8:30	0.17	1587	8.33	50.7	6-3-19 2:00	20.08	1508	8.66	7.0	4-2-19 20:15	7.20	551	8.15	71.5	4-2-19 20:15	2.10	697	7.79	41.7
1-3-19 8:45	-0.06	1507	7.97	1.9	1-3-19 8:45	0.00	1011	7.89	0.0	1-3-19 8:45	0.25	1587	8.32	51.2	6-3-19 2:15	20.02	1576	8.66	8.0	4-2-19 20:30	7.11	551	8.15	66.5	4-2-19 20:30	2.04	698	7.79	43.7
1-3-19 9:00	-0.06	1507	7.98	1.8	1-3-19 9:00	0.00	1001	7.89	0.0	1-3-19 9:00	0.24	1565	8.33	45.9	6-3-19 2:30	19.95	1504	8.66	7.0	4-2-19 20:45	7.05	551	8.15	71.5	4-2-19 20:45	2.08	696	7.79	47.9
1-3-19 9:15	-0.07	1528	7.96	2.2	1-3-19 9:15	0.00	1006	7.89	0.0	1-3-19 9:15	0.23	1567	8.36	45.2	6-3-19 2:45	19.83	1575	8.66	7.3	4-2-19 21:00	6.95	551	8.16	66.6	4-2-19 21:00	2.16	697	7.78	49.3
1-3-19 9:30	-0.07	1529	7.98	1.9	1-3-19 9:30	0.00	1004	7.89	0.0	1-3-19 9:30	0.19	1565	8.35	46.3	6-3-19 3:00	19.82	1485	8.66	7.0	4-2-19 21:15	6.92	552	8.16	71.9	4-2-19 21:15	1.97	696	7.78	48.1
1-3-19 9:45	-0.07	1529	7.98	1.8	1-3-19 9:45	0.00	1000	7.89	0.0	1-3-19 9:45	0.17	1566	8.35	45.7	6-3-19 3:15	19.77	1576	8.65	8.1	4-2-19 21:30	6.90	551	8.16	68.4	4-2-19 21:30	1.81	695	7.79	49.2
1-3-19 10:00	-0.06	1529	7.97	1.9	1-3-19 10:00	0.00	1002	7.88	0.0	1-3-19 10:00	0.22	1591	8.35	49.2	6-3-19 3:30	19.74	1509	8.65	8.2	4-2-19 21:45	6.88	552	8.16	71.8	4-2-19 21:45	1.78	696	7.79	49.1
1-3-19 10:15	-0.06	1507	7.96	2.0	1-3-19 10:15	-0.01	1002	7.88	0.0	1-3-19 10:15	0.33	1588	8.36	49.1	6-3-19 3:45	19.68	1576	8.65	10.0	4-2-19 22:00	6.82	552	8.16	70.9	4-2-19 22:00	1.74	695	7.79	49.8
1-3-19 10:30	-0.06	1507	7.98	2.0	1-3-19 10:30	0.00	1002	7.89	0.0	1-3-19 10:30	0.32	1587	8.34	48.4	6-3-19 4:00	19.66	1507	8.65	8.2	4-2-19 22:15	6.76	552	8.16	70.4	4-2-19 22:15	1.60	694	7.80	45.7
1-3-19 10:45	-0.06	1507	7.98	2.0	1-3-19 10:45	0.00	973	7.88	0.0	1-3-19 10:45	0.21	1583	8.34	47.1	6-3-19 4:15	19.63	1576	8.65	7.5	4-2-19 22:30	6.71	552	8.16	74.7	4-2-19 22:30	1.62	685	7.80	47.2
1-3-19 11:00	-0.06	1507	7.98	2.0	1-3-19 11:00	0.00	1001	7.89	0.0	1-3-19 11:00	0.18	1566	8.34	44.0	6-3-19 4:30	19.49	1510	8.65	7.7	4-2-19 22:45	6.69	552	8.16	69.6	4-2-19 22:45	1.60	684	7.81	45.2
1-3-19 11:15	-0.07	1521	7.98	2.3	1-3-19 11:15	0.00	1002	7.89	0.0	1-3-19 11:15	0.17	1566	8.34	43.6	6-3-19 4:45	19.47	1576	8.65	9.7	4-2-19 23:00	6.67	552	8.16	65.5	4-2-19 23:00	1.56	682	7.81	45.0
1-3-19 11:30	-0.06	1521	7.99	2.0	1-3-19 11:30	0.00	1004	7.89	0.0	1-3-19 11:30	0.21	1569	8.34	42.9	6-3-19 5:00	19.42	1510	8.65	7.5	4-2-19 23:15	6.60	552	8.16	64.6	4-2-19 23:15	1.49	683	7.81	44.2
1-3-19 11:45	-0.06	1521	7.99	2.1	1-3-19 11:45	0.00	997	7.89	0.0	1-3-19 11:45	0.12	1564	8.34	44.6	6-3-19 5:15	19.36	1576	8.64	8.9	4-2-19 23:30	6.58	552	8.16	64.3	4-2-19 23:30	1.26	683	7.82	43.3
1-3-19 12:00	-0.07	1521	7.99	2.0	1-3-19 12:00	0.00	999	7.89	0.0	1-3-19 12:00	0.14	1587	8.34	47.6	6-3-19 5:30	19.32	1506	8.64	8.2	4-2-19 23:45	6.58	552	8.16	63.9	4-2-19 23:45	1.00	682	7.83	41.4
1-3-19 12:15	-0.07	1507	7.98	2.1	1-3-19 12:15	0.00	1002	7.89	0.1	1-3-19 12:15	0.12	1583	8.34	46.6	6-3-19 5:45	19.25	1575	8.64	7.1	4-3-19 0:00	6.51	552	8.16	64.2	4-3-19 0:00	0.99	682	7.83	39.6
1-3-19 12:30	-0.07	1507	7.99	2.0	1-3-19 12:30	0.00	1002	7.89	0.0	1-3-19 12:30	0.08	1586	8.33	45.5	6-3-19 6:00	19.16	1505	8.64	7.6	4-3-19 0:15	6.45	552	8.16	62.3	4-3-19 0:15	0.99	683	7.83	38.9
1-3-19 12:45	-0.07	1507	7.98	2.0	1-3-19 12:45	0.00	982	7.89	0.0	1-3-19 12:45	0.10	1587	8.33	46.1	6-3-19 6:15	19.10	1576	8.63	7.3	4-3-19 0:30	6.37	552	8.17	66.3	4-3-19 0:30	0.86	684	7.83	38.4
1-3-19 13:00	-0.08	1507	7.98	1.9	1-3-19 13:00	0.00	991	7.89	0.0	1-3-19 13:00	0.12	1571	8.34	43.9	6-3-19 6:30	19.05	1510	8.63	8.3	4-3-19 0:45	6.36	552	8.17	62.4	4-3-19 0:45	0.90	678	7.83	34.5
1-3-19 13:15	-0.08	1519	7.98	2.2	1-3-19 13:15	0.00	1002	7.89	0.0	1-3-19 13:15	0.14	1569	8.33	44.5	6-3-19 6:45	18.99	1576	8.63	7.2	4-3-19 1:00	6.38	552	8.16	63.4	4-3-19 1:00	0.89	677	7.82	35.7
1-3-19 13:30	-0.08	1519	7.99	1.8	1-3-19 13:30	0.00	998	7.89	0.0	1-3-19 13:30	0.17	1568	8.32	44.4	6-3-19 7:00	18.90	1511	8.63	8.8	4-3-19 1:15	6.34	553	8.16	60.4	4-3-19 1:15	0.82	678	7.82	34.0
1-3-19 13:45	-0.08	1519	7.98	1.8	1-3-19 13:45	0.00	999	7.89	0.0	1-3-19 13:45	0.18	1568	8.32	42.7	6-3-19 7:15	18.81	1576	8.63	7.7	4-3-19 1:30	6.25	552	8.17	62.0	4-3-19 1:30	0.79	680	7.82	34.2
1-3-19 14:00	-0.07	1519	7.98	1.9	1-3-19 14:00	-0.03	1017	7.89	0.7	1-3-19 14:00	0.24	1582	8.34	45.6	6-3-19 7:30	18.76	1504	8.62	7.6	4-3-19 1:45	6.25	552	8.16	61.5	4-3-19 1:45	0.71	679	7.82	33.0
1-3-19 14:15	-0.08	1509	7.97	2.2	1-3-19 14:15	-0.02	1009	7.89	0.1	1-3-19 14:15	0.19	1581	8.33	45.2	6-3-19 7:45	18.74	1576	8.62	7.9	4-3-19 2:00	6.21	552	8.17	61.0	4-3-19 2:00	0.77	681	7.82	33.8
1-3-19 14:30					1-3-19 14:30	-0.02	1009	7.90	1.3	1-3-19 14:30	0.19	1584	8.33	44.7	6-3-19 8:00	18.66	1508	8.62	7.3	4-3-19 2:15	6.14	553	8.17	59.7	4-3-19 2:15	0.76	680	7.82	36.2
1-3-19 14:45	0.04	1510	8.00	2.1	1-3-19 14:45	-0.02	1007	7.89	3.2	1-3-19 14:45	0.17	1586	8.32	45.3	6-3-19 8:15	18.58	1576	8.62	8.2	4-3-19 2:30	6.10	552	8.17	61.3	4-3-19 2:30	0.93	681	7.82	35.5
1-3-19 15:00	-0.05	1508	8.00	1.8	1-3-19 15:00	-0.02	999	7.90	4.6	1-3-19 15:00	0.20	1566	8.31	44.3	6-3-19 8:30	18.46	1509	8.62	7.1	4-3-19 2:45	6.01	552	8.17	60.5	4-3-19 2:45	0.79	679	7.82	31.7
1-3-19 15:15	-0.07	1524	7.99	2.2	1-3-19 15:15	-0.01	1012	7.90	4.9	1-3-19 15:15	0.19	1565	8.30	43.5	6-3-19 8:45	18.41	1576	8.61	7.6	4-3-19 3:00	6.00	552	8.17	62.4	4-3-19 3:00	0.52	679	7.83	30.8
1-3-19 15:30	-0.07	1525	8.00	1.8	1-3-19 15:30	-0.01	1004	7.89	4.6	1-3-19 15:30	0.15	1563	8.30	42.7	6-3-19 9:00	18.36	1511	8.61	8.4	4-3-19 3:15	5.93	552	8.17	60.5	4-3-19 3:15	0.55	680	7.83	30.4
1-3-19 15:45	-0.07	1525	8.00	1.8	1-3-19 15:45	-0.02	1002	7.89	5.8	1-3-19 15:45	0.17	1565	8.29	42.5	6-3-19 9:15	18.28	1576	8.61	7.5	4-3-19 3:30	5.91	553	8.17	60.9	4-3-19 3:30	0.50	679	7.83	28.9
1-3-19 16:00	-0.07	1526	7.99	1.8	1-3-19 16:00	-0.02	1017	7.89	4.6	1-3-19 16:00	0.15	1581	8.28	46.1	6-3-19 9:30	18.15	1511	8.61	6.8	4-3-19 3:45	5.80	552	8.17	59.6	4-3-19 3:45	0.45	677	7.83	30.4
1-3-19 16:15	-0.07	1507	7.98	2.1	1-3-19 16:15	-0.01	1002	7.89	5.6	1-3-19 16:15	0.14	1581	8.28	46.0	6-3-19 9:45	18.12	1577	8.60	7.6	4-3-19 4:00	5.81	552	8.17	60.0	4-3-19 4:00	0.40	678	7.83	27.7
1-3-19 16:30	-0.07	1507	8.00	1.8	1-3-19 16:30	-0.01	1001	7.89	8.1	1-3-19 16:30	0.15	1580	8.27	46.3	6-3-19 10:00	18.05	1509	8.60	7.7	4-3-19 4:15	5.83	552	8.17	59.0	4-3-19 4:15	0.41	679	7.83	29.7
1-3-19 16:45	-0.07	1507	7.99	1.9	1-3-19 16:45	-0.01	996	7.89	4.1	1-3-19 16:45	0.14	1580	8.27	46.9	6-3-19 10:15	17.98	1576	8.60	7.2	4-3-19 4:30	5.75	552	8.17	58.6	4-3-19 4:30	0.42	679	7.83	28.7
1-3-19 17:00	-0.07	1507	7.99	1.8	1-3-19 17:00	-0.01	997	7.88	7.1	1-3-19 17:00	0.17	1566	8.27	45.0	6-3-19 10:30	17.85	1515	8.60	7.4	4-3-19 4:45	5.66	552	8.17	60.8	4-3-19 4:45	0.30	676	7.84	23.6
1-3-19 17:15	-0.07	1528	7.97	2.1	1-3-19 17:15	-0.01	1003	7.88	5.1	1-3-19 17:15	0.23	1566	8.27	43.1	6-3-19 10:45	17.79	1577	8.60	7.6	4-3-19 5:00	5.64	552	8.17	57.0	4-3-19 5:00	0.27	677	7.84	25.7
1-3-19 17:30	-0.07	1528	7.99	1.9	1-3-19 17:30	-0.01	997	7.88	3.6	1-3-19 17:30	0.29	1564	8.26	43.7	6-3-19 11:00	17.76	1513	8.59	7.1	4-3-19 5:15	5.65	551	8.17	57.2	4-3-19 5:15	0.23	678	7.84	24.3
1-3-19 17:45	-0.07	1528	7.98	1.8	1-3-19 17:45	-0.01	1012	7.88	5.3	1-3-19 17:45	0.20	1563	8.26	44.2	6-3-19 11:15	17.72	1576	8.59	7.5	4-3-19 5:30	5.60	552	8.17	58.0	4-3-19 5:30	0.34	673	7.84	29.4
1-3-19 18:00	-0.07	1528	7.98	1.8	1-3-19 18:00	-0.01	1023	7.88	3.8	1-3-19 18:00	0.13	1582	8.26	45.9	6-3-19 11:30	17.56	1512	8.59	8.0	4-3-19 5:45	5.57	552	8.17	56.4	4-3-19 5:45	0.32	672	7.84	28.4
1-3-19 18:15	-0.07	1508	7.96	2.0	1-3-19 18:15	-0.01	1018	7.88	4.6	1-3-19 18:15	0.15	1583	8.27	46.2	6-3-19 11:45	17.49	1576	8.59	7.4	4-3-19 6:00	5.55	552	8.17	55.7	4-3-19 6:00	0.28	674	7.84	27.0
1-3-19 18:30	-0.07	1507	7.98	1.7	1-3-19 18:30	-0.01	999	7.88	4.4	1-3-19 18:30	0.13	1582	8.26	46.6	6-3-19 12:00	17.44	1514	8.59	7.9	4-3-19 6:15	5.52	552	8.17	55.1	4-3-19 6:15	0.29	673	7.84	26.0
1-3-19 18:45	-0.07	1507	7.98	1.8	1-3-19 18:45	-0.01	1001	7.88	4.3	1-3-19 18:45	0.06	1580	8.26	45.1	6-3-19 12:15	17.42	1577	8.59	7.2	4-3-19 6:30	5.43	551	8.17	57.0	4-3-19 6:30	0.25	675	7.84	25.9
1-3-19 19:00	-0.07	1507	7.97	1.7	1-3-19 19:00	-0.01	1013	7.88	6.9	1-3-19 19:00	0.07	1562	8.26	43.7	6-3-19 12:30	17.27	1512	8.59	7.0	4-3-19 6:45	5.42	552	8.18	54.4	4-3-19 6:45	0.20	676	7.84	25.1
1-3-19 19:15	-0.07	1531	7.96	2.0	1-3-19 19:15	-0.01	992	7.88	4.0	1-3-19 19:15	0.09	1562	8.27	40.9	6-3-19 12:45	17.19	1577	8.59	7.8	4-3-19 7:00	5.36	552	8.18	56.3	4-3-19 7:00	0.18	677	7.84	24.4
1-3-19 19:30	-0.07	1533	7.98	1.8	1-3-19 19:30	-0.01	1003	7.88	3.1	1-3-19 19:30	0.11	1563	8.27	41.9	6-3-19 13:00	17.14	1515	8.59	7.0	4-3-19 7:15	5.35	552	8.18	59.0	4-3-19 7:15	0.11	678	7.84	20.0
1-3-19 19:45	-0.07	1533	7.98	1.7	1-3-19 19:45	-0.01	1012	7.88	4.3	1-3-19 19:45	0.13	1563	8.27	41.7	6-3-19 13:15	17.07	1577	8.59	7.6	4-3-19 7:30	5.34	552	8.18	58.9	4-3-19 7:30	0.17	677	7.84	23.1
1-3-19 20:00	-0.07	1533	7.97	1.7	1-3-19 20:00	-0.01	1009	7.88	4.0	1-3-19 20:00	0.15	1580	8.26	45.9	6-3-19 13:30	16.95	1576	8.59	7.4	4-3-19 7:45	5.33	551	8.18	59.7	4-3-19 7:45	0.18	678	7.84	22.7
1-3-19 20:15	-0.08	1505	7.97	1.9	1-3-19 20:15	-0.01	1000	7.88	4.3	1-3-19 20:15	0.14	1579	8.25	45.4	6-3-19 13:45	16.94	1577	8.58	7.9	4-3-19 8:00	5.30	550	8.18	54.2	4-3-19 8:00	0.22	678	7.83	22.2
1-3-19 20:30	-0.08	1505	7.98	1.8	1-3-19 20:30	-0.01	1016	7.88	4.6	1-3-19 20:30	0.13	1578	8.25	45.2	6-3-19 14:00	16.95	1510	8.59	7.4	4-3-19 8:15	5.28	549	8.18	60.5	4-3-19 8:15	0.21	678	7.83	21.4
1-3-19 20:45	-0.07	1504	7.98	1.7	1-3-19 20:45	-0.01	1010	7.88	18.1	1-3-19 20:45	0.17	1580	8.23	46.8	6-3-19 14:15	16.94	1576	8.59	7.2	4-3-19 8:30	5.26	546	8.18	74.6	4-3-19 8:30	0.24	678	7.83	21.8
1-3-19 21:00	-0.07	1505	7.97	1.8	1-3-19 21:00	-0.01	1000	7.88	4.6	1-3-19 21:00	0.18	1561	8.19	44.8	6-3-19 14:30	16.95	1508	8.60	7.0	4-3-19 8:45	5.18	540	8.19	87.6	4-3-19 8:45	0.26	678	7.83	21.2
1-3-19 21:15	-0.07	1522	7.97	2.0	1-3-19 21:15	-0.01	993	7.88	10.0	1-3-19 21:15	0.20	1561	8.16	45.0	6-3-19 14:45	16.99	1577	8.60	7.6	4-3-19 9:00	5.26	541	8.18	83.3	4-3-19 9:00	0.29	678	7.83	21.0
1-3-19 21:30	-0.07	1523	7.99	1.7	1-3-19 21:30	-0.01	1003	7.88	6.9	1-3-19 21:30	0.21	1560	8.15	45.4	6-3-19 15:00	17.01	1507	8.60	7.7	4-3-19 9:15	5.26	542	8.18	76.7	4-3-19 9:15	0.36	674	7.84	27.5
1-3-19 21:45	-0.07	1523	7.98	1.8	1-3-19 21:45	-0.01	1011	7.88	3.4	1-3-19 21:45	0.21	1561	8.15	43.7	6-3-19 15:15	17.06	1576	8.61	8.2	4-3-19 9:30	5.31	543	8.18	72.8	4-3-19 9:30	0.42	675	7.84	22.7
1-3-19 22:00	-0.07	1523	7.98	1.7	1-3-19 22:00	0.00	1001	7.88	3.5	1-3-19 22:00	0.20	1580	8.15	47.9	6-3-19 15:30	17.13	1508	8.61	7.4	4-3-19 9:45	5.38	543	8.18	68.8	4-3-19 9:45	0.45	674	7.84	21.8
1-3-19 22:15	-0.08	1506	7.97	1.9	1-3-19 22:15	0.00	1005	7.88	71.1	1-3-19 22:15	0.17	1579	8.15	47.2	6-3-19 15:45	17.16	1578	8.62	8.4	4-3-19 10:00	5.40	542	8.18	68.3	4-3-19 10:00	0.48	674	7.83	21.6
1-3-19 22:30	-0.07	1502	7.98	1.7	1-3-19 22:30	0.00	999	7.88	5.0	1-3-19 22:30	0.17	1577	8.14	48.0	6-3-19 16:00	17.26	1511	8.62	8.7	4-3-19 10:15	5.47	542	8.18	66.0	4-3-19 10:15	0.54	673	7.83	22.5
1-3-19 22:45					1-3-19 22:45	0.00	1002	7.88	5.1	1-3-19 22:45	0.17	1578	8.15	47.6	6-3-19 16:15	17.34	1579	8.62	8.5	4-3-19 10:30	5.54	542	8.18	70.4	4-3-19 10:30	0.60	672	7.83	21.9
1-3-19 23:00	-0.07	1502	7.98	1.7	1-3-19 23:00	0.00	998	7.88	4.8	1-3-19 23:00	0.16	1561	8.15	45.0	6-3-19 16:30	17.37	1511	8.63	7.5	4-3-19 10:45	5.60	542	8.17	64.4	4-3-19 10:45	0.67	672	7.83	21.3
1-3-19 23:15	-0.08	1521	7.97	2.0	1-3-19 23:15	0.00	1001	7.88	4.7	1-3-19 23:15	0.16	1561	8.15	44.8	6-3-19 16:45	17.56	1580	8.63	9.1	4-3-19 11:00	5.63	543	8.18	65.6	4-3-19 11:00	0.72	672	7.83	20.7
1-3-19 23:30	-0.07	1521	7.98	1.8	1-3-19 23:30	0.00	999	7.88	4.1	1-3-19 23:30	0.15	1562	8.15	45.1	6-3-19 17:00	17.64	1512	8.63	8.0	4-3-19 11:15	5.69	543	8.17	63.8	4-3-19 11:15	0.78	672	7.82	20.7
1-3-19 23:45	-0.07	1521	7.98	1.7	1-3-19 23:45	0.00	1008	7.88	0.0	1-3-19 23:45	0.15	1562	8.15	44.7	6-3-19 17:15	17.69	1580	8.63	8.8	4-3-19 11:30	5.72	543	8.18	63.7	4-3-19 11:30	0.84	671	7.82	20.3
1-4-19 0:00	-0.07	1521	7.98	1.8	1-4-19 0:00	0.00	1011	7.88	0.0	1-4-19 0:00	0.15	1578	8.15	47.2	6-3-19 17:30	17.75	1512	8.63	8.0	4-3-19 11:45	5.73	544	8.17	62.1	4-3-19 11:45	0.89	670	7.82	20.1
1-4-19 0:15	-0.07	1506	7.96	1.9	1-4-19 0:15	0.00	1005	7.88	0.0	1-4-19 0:15	0.12	1577	8.15	46.5	6-3-19 17:45	17.78	1581	8.63	7.5	4-3-19 12:00	5.78	545	8.17	61.4	4-3-19 12:00	0.95	670	7.83	20.2
1-4-19 0:30	-0.07	1506	7.98	2.0	1-4-19 0:30	0.00	1005	7.88	55.3	1-4-19 0:30	0.12	1579	8.15	46.1	6-3-19 18:00	17.81	1513	8.63	8.1	4-3-19 12:15	5.88	545	8.17	58.5	4-3-19 12:15	1.01	669	7.83	20.1
1-4-19 0:45	-0.07	1506	7.98	1.7	1-4-19 0:45	0.00	1006	7.88	0.0	1-4-19 0:45	0.12	1580	8.16	46.1	6-3-19 18:15	17.77	1581	8.63	7.5	4-3-19 12:30	5.90	545	8.17	55.6	4-3-19 12:30	1.07	669	7.82	21.2

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-4-19 1:00	-0.07	1506	7.97	1.6	1-4-19 1:00	0.00	1002	7.88	3.5	1-4-19 1:00	0.11	1561	8.16	44.1	6-3-19 18:30	17.78	1516	8.63	8.0	4-3-19 12:45	6.00	545	8.17	58.8	4-3-19 12:45	1.13	669	7.83	21.3
1-4-19 1:15	-0.08	1526	7.97	2.0	1-4-19 1:15	0.00	1007	7.88	8.2	1-4-19 1:15	0.10	1561	8.17	43.2	6-3-19 18:45	17.76	1581	8.63	7.3	4-3-19 13:00	6.06	544	8.17	56.8	4-3-19 13:00	1.23	668	7.83	20.9
1-4-19 1:30	-0.07	1528	7.99	1.7	1-4-19 1:30	0.00	1009	7.88	0.0	1-4-19 1:30	0.10	1561	8.17	42.9	6-3-19 19:00	17.72	1515	8.63	7.8	4-3-19 13:15	6.16	544	8.17	58.8	4-3-19 13:15	1.33	669	7.82	21.4
1-4-19 1:45	-0.07	1528	7.99	1.7	1-4-19 1:45	0.00	999	7.88	1.8	1-4-19 1:45	0.09	1559	8.17	42.9	6-3-19 19:15	17.79	1581	8.63	8.0	4-3-19 13:30	6.10	544	8.16	58.7	4-3-19 13:30	1.43	669	7.82	19.1
1-4-19 2:00	-0.08	1528	7.98	1.8	1-4-19 2:00	0.00	1006	7.88	2.6	1-4-19 2:00	0.09	1579	8.16	46.1	6-3-19 19:30	17.72	1518	8.63	7.2	4-3-19 13:45	6.00	545	8.17	59.2	4-3-19 13:45	1.53	669	7.82	17.7
1-4-19 2:15	-0.08	1506	7.97	1.8	1-4-19 2:15	0.00	1018	7.88	0.9	1-4-19 2:15	0.09	1579	8.16	45.3	6-3-19 19:45	17.73	1582	8.63	7.9	4-3-19 14:00	5.92	544	8.16	59.9	4-3-19 14:00	1.66	668	7.82	19.2
1-4-19 2:30	-0.07	1506	7.98	1.7	1-4-19 2:30	0.00	1014	7.88	3.3	1-4-19 2:30	0.08	1578	8.16	45.3	6-3-19 20:00	17.80	1516	8.63	8.1	4-3-19 14:15	5.85	545	8.16	59.1	4-3-19 14:15	1.81	669	7.81	18.4
1-4-19 2:45	-0.08	1506	7.96	1.6	1-4-19 2:45	0.00	1010	7.88	0.0	1-4-19 2:45	0.08	1578	8.16	45.1	6-3-19 20:15	17.81	1582	8.63	7.4	4-3-19 14:30	5.96	546	8.17	60.6	4-3-19 14:30	1.93	666	7.81	18.6
1-4-19 3:00	-0.08	1505	7.97	1.7	1-4-19 3:00	0.00	1009	7.88	0.0	1-4-19 3:00	0.07	1562	8.16	42.2	6-3-19 20:30	17.94	1514	8.63	7.7	4-3-19 14:45	5.86	546	8.17	58.6	4-3-19 14:45	2.02	664	7.81	17.5
1-4-19 3:15	-0.08	1519	7.97	2.0	1-4-19 3:15	0.00	1006	7.88	3.2	1-4-19 3:15	0.07	1562	8.16	42.2	6-3-19 20:45	18.05	1583	8.63	7.6	4-3-19 15:00	5.92	546	8.16	60.5	4-3-19 15:00	2.12	665	7.81	21.0
1-4-19 3:30	-0.07	1519	7.98	1.7	1-4-19 3:30	0.00	1003	7.88	4.5	1-4-19 3:30	0.07	1562	8.16	42.7	6-3-19 21:00	18.09	1514	8.63	8.1	4-3-19 15:15	5.99	545	8.16	61.4	4-3-19 15:15	2.27	665	7.81	22.0
1-4-19 3:45	-0.08	1520	7.97	1.6	1-4-19 3:45	0.00	1003	7.88	5.8	1-4-19 3:45	0.07	1561	8.16	42.2	6-3-19 21:15	18.33	1584	8.62	10.5	4-3-19 15:30	6.19	546	8.16	60.6	4-3-19 15:30	2.40	664	7.81	24.5
1-4-19 4:00	-0.07	1520	7.97	1.6	1-4-19 4:00	0.00	1014	7.88	6.0	1-4-19 4:00	0.08	1580	8.16	45.4	6-3-19 21:30	18.22	1517	8.62	8.9	4-3-19 15:45	6.29	545	8.15	61.5	4-3-19 15:45	2.47	665	7.80	26.5
1-4-19 4:15	-0.08	1507	7.96	1.7	1-4-19 4:15	0.00	1006	7.88	4.9	1-4-19 4:15	0.07	1580	8.16	44.9	6-3-19 21:45	18.09	1583	8.63	7.4	4-3-19 16:00	6.38	543	8.16	60.9	4-3-19 16:00	2.50	667	7.80	30.1
1-4-19 4:30	-0.07	1507	7.97	1.6	1-4-19 4:30	0.00	1007	7.88	1.7	1-4-19 4:30	0.07	1581	8.16	44.8	6-3-19 22:00	18.11	1515	8.63	7.8	4-3-19 16:15	6.29	544	8.16	59.9	4-3-19 16:15	2.48	667	7.79	32.4
1-4-19 4:45	-0.07	1507	7.97	1.6	1-4-19 4:45	0.00	999	7.88	4.2	1-4-19 4:45	0.07	1580	8.16	44.8	6-3-19 22:15	18.13	1584	8.63	7.5	4-3-19 16:30	6.21	544	8.16	59.4	4-3-19 16:30	2.42	667	7.80	34.6
1-4-19 5:00	-0.08	1507	7.97	1.6	1-4-19 5:00	0.00	1009	7.88	6.8	1-4-19 5:00	0.07	1563	8.16	41.2	6-3-19 22:30	18.09	1518	8.62	7.9	4-3-19 16:45	6.08	544	8.16	60.2	4-3-19 16:45	2.31	670	7.80	39.8
1-4-19 5:15	-0.08	1530	7.97	1.9	1-4-19 5:15	0.00	1004	7.88	6.1	1-4-19 5:15	0.07	1563	8.16	42.1	6-3-19 22:45	17.97	1582	8.62	9.0	4-3-19 17:00	6.04	544	8.16	58.7	4-3-19 17:00	2.22	674	7.80	42.3
1-4-19 5:30	-0.08	1532	7.98	1.7	1-4-19 5:30	0.00	1013	7.88	0.0	1-4-19 5:30	0.07	1563	8.16	41.3	6-3-19 23:00	17.99	1512	8.62	8.0	4-3-19 17:15	5.95	545	8.17	60.7	4-3-19 17:15	2.00	674	7.80	54.2
1-4-19 5:45	-0.08	1532	7.98	1.6	1-4-19 5:45	0.00	1011	7.88	0.0	1-4-19 5:45	0.07	1564	8.16	42.1	6-3-19 23:15	17.92	1578	8.62	9.3	4-3-19 17:30	6.06	544	8.17	61.1	4-3-19 17:30	1.88	679	7.80	56.3
1-4-19 6:00	-0.08	1532	7.98	1.6	1-4-19 6:00	0.00	1012	7.88	0.2	1-4-19 6:00	0.08	1581	8.16	44.7	6-3-19 23:30	17.87	1508	8.62	8.3	4-3-19 17:45	6.11	544	8.16	61.0	4-3-19 17:45	1.83	681	7.80	62.9
1-4-19 6:15	-0.08	1507	7.97	1.7	1-4-19 6:15	0.00	1014	7.88	0.0	1-4-19 6:15	0.08	1583	8.16	44.5	6-3-19 23:45	17.77	1573	8.62	11.7	4-3-19 18:00	6.15	543	8.16	57.0	4-3-19 18:00	1.80	683	7.80	68.1
1-4-19 6:30	-0.07	1506	7.98	1.6	1-4-19 6:30	0.00	1024	7.88	0.4	1-4-19 6:30	0.07	1583	8.16	44.5	6-4-19 0:00	17.79	1512	8.62	9.8	4-3-19 18:15	6.19	543	8.17	57.7	4-3-19 18:15	1.73	685	7.80	65.3
1-4-19 6:45					1-4-19 6:45	0.00	1024	7.88	0.6	1-4-19 6:45	0.07	1582	8.16	44.3	6-4-19 0:15	17.78	1578	8.62	8.5	4-3-19 18:30	6.18	543	8.17	61.0	4-3-19 18:30	1.64	691	7.80	78.8
1-4-19 7:00	-0.07	1506	7.98	1.6	1-4-19 7:00	0.00	1015	7.88	0.0	1-4-19 7:00	0.07	1564	8.16	42.1	6-4-19 0:30	17.76	1512	8.62	10.5	4-3-19 18:45	6.20	542	8.17	63.8	4-3-19 18:45	1.58	695	7.80	87.8
1-4-19 7:15	-0.08	1515	7.97	1.8	1-4-19 7:15	0.00	1015	7.88	0.0	1-4-19 7:15	0.07	1562	8.16	41.8	6-4-19 0:45					4-3-19 19:00	6.22	541	8.17	60.9	4-3-19 19:00	1.54	698	7.80	84.6
1-4-19 7:30	-0.08	1517	7.99	1.6	1-4-19 7:30	0.00	1015	7.88	0.0	1-4-19 7:30	0.07	1563	8.16	41.3	6-4-19 1:00					4-3-19 19:15	6.21	540	8.17	61.4	4-3-19 19:15	1.47	700	7.80	85.7
1-4-19 7:45	-0.07	1517	7.98	1.6	1-4-19 7:45	0.00	1013	7.88	0.0	1-4-19 7:45	0.07	1561	8.16	41.8	6-4-19 1:15					4-3-19 19:30	6.21	539	8.17	63.6	4-3-19 19:30	1.41	701	7.80	87.2
1-4-19 8:00	-0.07	1517	7.98	1.6	1-4-19 8:00	0.00	1018	7.88	0.0	1-4-19 8:00	0.07	1580	8.16	43.6	6-4-19 1:30					4-3-19 19:45	6.18	540	8.17	57.9	4-3-19 19:45	1.30	701	7.81	80.6
1-4-19 8:15	-0.08	1505	7.97	1.7	1-4-19 8:15	0.00	1014	7.88	0.0	1-4-19 8:15	0.07	1580	8.16	43.5	6-4-19 1:45					4-3-19 20:00	6.11	539	8.18	59.4	4-3-19 20:00	1.03	702	7.81	80.4
1-4-19 8:30					1-4-19 8:30	0.00	1014	7.88	0.0	1-4-19 8:30	0.06	1580	8.16	43.0	6-4-19 2:00					4-3-19 20:15	6.12	539	8.18	61.5	4-3-19 20:15	1.13	706	7.81	89.4
1-4-19 8:45	-0.08	1505	7.98	1.6	1-4-19 8:45	0.00	1015	7.88	0.9	1-4-19 8:45	0.07	1580	8.16	43.1	6-4-19 2:15					4-3-19 20:30	6.12	539	8.18	64.3	4-3-19 20:30	1.05	706	7.81	80.1
1-4-19 9:00	-0.08	1505	7.98	1.6	1-4-19 9:00	0.00	1014	7.88	0.0	1-4-19 9:00	0.06	1562	8.16	40.6	6-4-19 2:30					4-3-19 20:45	6.07	538	8.18	68.0	4-3-19 20:45	1.11	708	7.81	85.2
1-4-19 9:15	-0.09	1517	7.97	1.9	1-4-19 9:15	0.01	1025	7.88	0.0	1-4-19 9:15	0.06	1563	8.16	40.8	6-4-19 2:45					4-3-19 21:00	6.03	538	8.19	67.1	4-3-19 21:00	1.07	708	7.81	83.9
1-4-19 9:30	-0.08	1518	7.99	1.7	1-4-19 9:30	0.01	1015	7.88	0.0	1-4-19 9:30	0.06	1562	8.16	41.1	6-4-19 3:00					4-3-19 21:15	5.99	538	8.19	65.2	4-3-19 21:15	0.98	709	7.81	80.7
1-4-19 9:45	-0.08	1518	7.98	1.6	1-4-19 9:45	0.01	1017	7.88	0.0	1-4-19 9:45	0.06	1562	8.16	41.3	6-4-19 3:15					4-3-19 21:30	5.96	538	8.19	66.8	4-3-19 21:30	0.90	709	7.81	77.1
1-4-19 10:00	-0.08	1518	7.98	1.6	1-4-19 10:00	0.01	1017	7.88	0.0	1-4-19 10:00	0.06	1583	8.15	43.0	6-4-19 3:30					4-3-19 21:45	5.92	538	8.19	61.5	4-3-19 21:45	0.94	710	7.81	78.2
1-4-19 10:15	-0.09	1505	7.97	1.7	1-4-19 10:15	0.01	1017	7.88	0.0	1-4-19 10:15	0.06	1583	8.15	43.1	6-4-19 3:45					4-3-19 22:00	5.90	538	8.19	62.7	4-3-19 22:00	0.74	711	7.82	71.7
1-4-19 10:30	-0.08	1505	7.98	1.7	1-4-19 10:30	0.01	1015	7.88	0.0	1-4-19 10:30	0.06	1581	8.15	42.8	6-4-19 4:00					4-3-19 22:15	5.86	538	8.19	66.1	4-3-19 22:15	0.79	713	7.81	77.2
1-4-19 10:45	-0.08	1505	7.98	1.6	1-4-19 10:45	0.01	1015	7.88	0.0	1-4-19 10:45	0.05	1584	8.15	42.6	6-4-19 4:15					4-3-19 22:30	5.84	538	8.19	63.4	4-3-19 22:30	0.79	713	7.81	75.8
1-4-19 11:00	-0.09	1505	7.98	1.6	1-4-19 11:00	0.00	1016	7.88	0.0	1-4-19 11:00	0.05	1561	8.16	39.6	6-4-19 4:30					4-3-19 22:45	5.83	538	8.19	60.3	4-3-19 22:45	0.84	715	7.81	79.7
1-4-19 11:15	-0.09	1525	7.97	1.9	1-4-19 11:15	0.01	1010	7.88	0.4	1-4-19 11:15	0.05	1562	8.16	39.8	6-4-19 4:45					4-3-19 23:00	5.81	537	8.19	61.5	4-3-19 23:00	0.83	715	7.81	76.7
1-4-19 11:30	-0.08	1526	7.99	1.6	1-4-19 11:30	0.00	1016	7.88	0.0	1-4-19 11:30	0.05	1561	8.16	39.7	6-4-19 5:00					4-3-19 23:15	5.76	537	8.19	63.4	4-3-19 23:15	0.78	715	7.81	73.4
1-4-19 11:45	-0.08	1526	7.98	1.7	1-4-19 11:45	0.00	1011	7.88	0.0	1-4-19 11:45	0.04	1563	8.16	39.8	6-4-19 5:15					4-3-19 23:30	5.72	537	8.19	62.9	4-3-19 23:30	0.81	716	7.81	76.5
1-4-19 12:00	-0.08	1526	7.98	1.6	1-4-19 12:00	0.00	1011	7.88	0.3	1-4-19 12:00	0.04	1581	8.15	42.4	6-4-19 5:30					4-3-19 23:45	5.69	538	8.19	61.9	4-3-19 23:45	0.78	716	7.81	78.8
1-4-19 12:15	-0.09	1506	7.97	1.7	1-4-19 12:15	0.00	1007	7.88	2.3	1-4-19 12:15	0.04	1583	8.15	42.4	6-4-19 5:45					4-4-19 0:00	5.67	537	8.19	60.4	4-4-19 0:00	0.74	716	7.81	72.9
1-4-19 12:30	-0.08	1506	7.98	1.6	1-4-19 12:30	0.00	1015	7.88	0.0	1-4-19 12:30	0.04	1582	8.15	42.0	6-4-19 6:00					4-4-19 0:15	5.65	537	8.19	63.3	4-4-19 0:15	0.73	716	7.81	71.6
1-4-19 12:45	-0.08	1506	7.98	1.6	1-4-19 12:45	-0.02	1010	7.88	2.2	1-4-19 12:45	0.03	1582	8.15	42.8	6-4-19 6:15					4-4-19 0:30	5.62	537	8.19	64.3	4-4-19 0:30	0.71	717	7.81	65.2
1-4-19 13:00	-0.05	1534	7.96	2.0	1-4-19 13:00	-0.03	1009	7.88	1.3	1-4-19 13:00	0.11	1555	8.17	37.5	6-4-19 6:30					4-4-19 0:45	5.59	537	8.19	63.1	4-4-19 0:45	0.67	717	7.81	66.1
1-4-19 13:15	-0.06	1527	7.98	1.8	1-4-19 13:15	-0.03	1025	7.88	3.4	1-4-19 13:15	0.08	1559	8.17	37.7	6-4-19 6:45					4-4-19 1:00	5.57	537	8.20	64.6	4-4-19 1:00	0.67	717	7.81	71.6
1-4-19 13:30	-0.06	1525	8.00	1.6	1-4-19 13:30	-0.02	1012	7.88	3.7	1-4-19 13:30	0.08	1560	8.16	38.2	6-4-19 7:00					4-4-19 1:15	5.55	537	8.20	65.4	4-4-19 1:15	0.40	716	7.82	47.4
1-4-19 13:45	-0.06	1525	7.99	1.6	1-4-19 13:45	-0.02	1016	7.88	2.0	1-4-19 13:45	0.06	1553	8.16	36.8	6-4-19 7:15					4-4-19 1:30	5.52	537	8.20	66.4	4-4-19 1:30	0.52	719	7.82	60.7
1-4-19 14:00	-0.06	1524	7.99	1.6	1-4-19 14:00	-0.02	1014	7.88	1.2	1-4-19 14:00	0.07	1579	8.16	41.2	6-4-19 7:30					4-4-19 1:45	5.49	536	8.20	62.6	4-4-19 1:45	0.55	720	7.81	67.3
1-4-19 14:15	-0.07	1504	7.97	83.5	1-4-19 14:15	-0.02	1011	7.88	2.1	1-4-19 14:15	0.06	1578	8.16	39.5	6-4-19 7:45					4-4-19 2:00	5.44	536	8.20	65.5	4-4-19 2:00	0.58	720	7.81	72.2
1-4-19 14:30	-0.06	1504	8.00	1.5	1-4-19 14:30	-0.02	1014	7.88	1.4	1-4-19 14:30	0.05	1576	8.16	39.7	6-4-19 8:00					4-4-19 2:15	5.39	536	8.20	65.6	4-4-19 2:15	0.56	721	7.81	70.4
1-4-19 14:45	-0.06	1504	7.99	1.5	1-4-19 14:45	-0.02	1013	7.88	6.5	1-4-19 14:45	0.03	1578	8.16	39.3	6-4-19 8:15					4-4-19 2:30	5.35	536	8.20	64.3	4-4-19 2:30	0.56	721	7.81	72.1
1-4-19 15:00	-0.06	1504	7.99	1.5	1-4-19 15:00	-0.02	1020	7.88	1.2	1-4-19 15:00	0.03	1559	8.16	37.7	6-4-19 8:30					4-4-19 2:45	5.29	535	8.20	62.0	4-4-19 2:45	0.54	722	7.81	66.1
1-4-19 15:15	-0.06	1518	7.98	1.7	1-4-19 15:15	-0.01	1016	7.88	2.2	1-4-19 15:15	0.02	1559	8.16	37.3	6-4-19 8:45					4-4-19 3:00	5.28	535	8.20	62.5	4-4-19 3:00	0.53	722	7.81	64.8
1-4-19 15:30	-0.06	1518	7.99	1.5	1-4-19 15:30	-0.01	1022	7.88	2.9	1-4-19 15:30	0.02	1559	8.16	36.0	6-4-19 9:00					4-4-19 3:15	5.25	535	8.20	64.4	4-4-19 3:15	0.49	725	7.81	67.3
1-4-19 15:45	-0.07	1519	7.99	1.5	1-4-19 15:45	-0.01	1013	7.88	1.8	1-4-19 15:45	0.02	1559	8.15	36.4	6-4-19 9:15					4-4-19 3:30	5.17	534	8.20	62.8	4-4-19 3:30	0.47	725	7.81	70.1
1-4-19 16:00	-0.07	1519	7.99	1.5	1-4-19 16:00	-0.01	1006	7.87	2.4	1-4-19 16:00	0.02	1578	8.15	39.3	6-4-19 9:30					4-4-19 3:45	5.16	535	8.20	64.8	4-4-19 3:45	0.47	725	7.81	67.9
1-4-19 16:15	-0.07	1505	7.97	1.6	1-4-19 16:15	-0.01	1005	7.88	1.5	1-4-19 16:15	0.01	1577	8.14	39.1	6-4-19 9:45					4-4-19 4:00	5.16	535	8.20	63.8	4-4-19 4:00	0.43	725	7.81	64.9
1-4-19 16:30	-0.07	1505	7.99	1.5	1-4-19 16:30	-0.01	1005	7.88	0.9	1-4-19 16:30	0.01	1578	8.14	38.9	6-4-19 10:00					4-4-19 4:15	5.10	535	8.20	64.0	4-4-19 4:15	0.37	727	7.81	56.9
1-4-19 16:45	-0.07	1505	7.99	1.5	1-4-19 16:45	-0.01	995	7.88	1.5	1-4-19 16:45	0.01	1576	8.14	38.9	6-4-19 10:15					4-4-19 4:30	5.07	535	8.20	63.0	4-4-19 4:30	0.35	727	7.81	51.7
1-4-19 17:00	-0.07	1505	7.99	1.5	1-4-19 17:00	-0.01	993	7.89	0.5	1-4-19 17:00	0.00	1560	8.14	36.4	6-4-19 10:30					4-4-19 4:45	5.09	535	8.20	65.3	4-4-19 4:45	0.33	728	7.81	55.9
1-4-19 17:15	-0.07	1520	7.97	1.8	1-4-19 17:15	-0.01	993	7.88	0.2	1-4-19 17:15	0.00	1560	8.15	36.4	6-4-19 10:45					4-4-19 5:00	5.04	535	8.20	63.4	4-4-19 5:00	0.30	728	7.82	51.5
1-4-19 17:30	-0.06	1521	7.99	1.5	1-4-19 17:30	-0.01	1003	7.89	1.4	1-4-19 17:30	0.00	1560	8.15	36.2	6-4-19 11:00					4-4-19 5:15	4.98	533	8.21	63.4	4-4-19 5:15	0.30	727	7.82	57.6
1-4-19 17:45	-0.06	1521	7.98	1.5	1-4-19 17:45	-0.01	993	7.89	0.0	1-4-19 17:45	0.00	1559	8.15	36.1	6-4-19 11:15					4-4-19 5:30	4.96	534	8.21	63.1	4-4-19 5:30	0.29	726	7.82	54.4
1-4-19 18:00	-0.07	1521	7.98	1.5	1-4-19 18:00	-0.01	988	7.89	0.0	1-4-19 18:00	0.00	1578	8.14	39.2	6-4-19 11:30					4-4-19 5:45	4.90	534	8.21	65.8	4-4-19 5:45	0.27	726	7.82	53.1
1-4-19 18:15	-0.07	1503	7.97	1.5	1-4-19 18:15	-0.01	994	7.89	0.7	1-4-19 18:15	0.00	1578	8.14	39.0	6-4-19 11:45					4-4-19 6:00	4.92	534	8.21	64.0	4-4-19 6:00	0.27	726	7.82	52.0
1-4-19 18:30	-0.07	1503	7.99	1.5	1-4-19 18:30	-0.01	996	7.89	0.0	1-4-19 18:30	0.00	1578	8.14	38.8	6-4-19 12:00					4-4-19 6:15	4.84	534	8.21	66.7	4-4-19 6:15	0.26	726	7.82	55.1
1-4-19 18:45	-0.07	1503	7.99	1.5	1-4-19 18:45	-0.01	995	7.89	3.6	1-4-19 18:45	0.00	1577	8.14	38.8	6-4-19 12:15					4-4-19 6:30	4.79	534	8.21	65.7	4-4-19 6:30	0.27	726	7.82	53.3
1-4-19 19:00	-0.07	1503	7.99	1.5	1-4-19 19:00	-0.01	985	7.89	0.0	1-4-19 19:00	0.00	1559	8.15	36.5	6-4-19 12:30					4-4-19 6:45	4.76	533	8.21	64.8	4-4-19 6:45	0.27	726	7.82	58.0

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-4-19 19:15	-0.07	1519	7.97	1.7	1-4-19 19:15	-0.01	990	7.89	5.8	1-4-19 19:15	0.00	1559	8.14	35.8	6-4-19 12:45					4-4-19 7:00	4.69	534	8.21	64.0	4-4-19 7:00	0.24	727	7.82	52.9
1-4-19 19:30	-0.07	1520	7.99	1.5	1-4-19 19:30	-0.01	997	7.89	0.9	1-4-19 19:30	0.00	1557	8.14	35.0	6-4-19 13:00					4-4-19 7:15	4.70	534	8.21	63.8	4-4-19 7:15	0.22	726	7.82	52.9
1-4-19 19:45	-0.07	1520	7.99	1.5	1-4-19 19:45	-0.01	992	7.89	4.0	1-4-19 19:45	0.00	1558	8.14	35.5	6-4-19 13:15					4-4-19 7:30	4.70	534	8.21	63.9	4-4-19 7:30	0.21	727	7.82	51.3
1-4-19 20:00	-0.07	1520	7.98	1.4	1-4-19 20:00	-0.01	989	7.89	6.8	1-4-19 20:00	0.00	1580	8.13	38.3	6-4-19 13:30					4-4-19 7:45	4.67	533	8.21	64.3	4-4-19 7:45	0.21	726	7.82	48.2
1-4-19 20:15	-0.07	1505	7.97	1.5	1-4-19 20:15	-0.01	1002	7.89	4.6	1-4-19 20:15	0.00	1580	8.13	38.2	6-4-19 13:45					4-4-19 8:00	4.63	533	8.21	65.5	4-4-19 8:00	0.22	727	7.82	38.7
1-4-19 20:30					1-4-19 20:30	-0.01	990	7.89	1.0	1-4-19 20:30	0.00	1579	8.13	38.0	6-4-19 14:00					4-4-19 8:15	4.57	533	8.21	65.4	4-4-19 8:15	0.23	727	7.82	35.9
1-4-19 20:45	-0.07	1505	7.98	1.5	1-4-19 20:45	-0.01	988	7.89	4.2	1-4-19 20:45	0.00	1579	8.13	37.6	6-4-19 14:15					4-4-19 8:30	4.55	532	8.21	64.4	4-4-19 8:30	0.24	728	7.82	34.4
1-4-19 21:00	-0.07	1505	7.98	1.5	1-4-19 21:00	-0.01	995	7.89	5.3	1-4-19 21:00	0.00	1559	8.13	35.4	6-4-19 14:30					4-4-19 8:45	4.55	533	8.21	64.9	4-4-19 8:45	0.26	726	7.82	36.5
1-4-19 21:15	-0.08	1518	7.97	1.6	1-4-19 21:15	-0.01	983	7.89	3.3	1-4-19 21:15	0.00	1558	8.13	35.1	6-4-19 14:45					4-4-19 9:00	4.52	533	8.21	64.7	4-4-19 9:00	0.26	726	7.82	36.6
1-4-19 21:30	-0.07	1518	7.99	1.5	1-4-19 21:30	-0.01	1001	7.89	5.0	1-4-19 21:30	0.00	1560	8.13	33.8	6-4-19 15:00					4-4-19 9:15	4.52	533	8.21	62.5	4-4-19 9:15	0.27	726	7.82	38.7
1-4-19 21:45	-0.07	1518	7.99	1.5	1-4-19 21:45	-0.01	990	7.89	0.6	1-4-19 21:45	0.00	1558	8.13	34.6	6-4-19 15:15					4-4-19 9:30	4.52	533	8.21	63.5	4-4-19 9:30	0.29	727	7.82	38.4
1-4-19 22:00	-0.07	1518	7.98	1.4	1-4-19 22:00	-0.01	988	7.89	3.3	1-4-19 22:00	0.00	1576	8.12	37.9	6-4-19 15:30					4-4-19 9:45	4.51	533	8.21	63.7	4-4-19 9:45	0.31	728	7.82	36.6
1-4-19 22:15	-0.08	1506	7.97	1.5	1-4-19 22:15	-0.01	985	7.89	8.6	1-4-19 22:15	0.00	1578	8.12	37.3	6-4-19 15:45					4-4-19 10:00	4.41	532	8.21	64.1	4-4-19 10:00	0.33	727	7.82	37.0
1-4-19 22:30	-0.07	1506	7.99	1.5	1-4-19 22:30	-0.01	982	7.89	4.3	1-4-19 22:30	0.00	1578	8.12	37.1	6-4-19 16:00					4-4-19 10:15	4.42	532	8.21	65.5	4-4-19 10:15	0.35	727	7.81	37.7
1-4-19 22:45	-0.07	1506	7.98	1.4	1-4-19 22:45	-0.01	985	7.89	0.0	1-4-19 22:45	0.00	1578	8.12	36.9	6-4-19 16:15					4-4-19 10:30	4.38	532	8.21	66.0	4-4-19 10:30	0.38	727	7.81	35.1
1-4-19 23:00	-0.07	1506	7.98	1.4	1-4-19 23:00	-0.01	980	7.90	2.9	1-4-19 23:00	0.00	1559	8.12	34.6	6-4-19 16:30					4-4-19 10:45	4.38	532	8.21	60.9	4-4-19 10:45	0.40	727	7.81	37.4
1-4-19 23:15	-0.08	1520	7.97	1.6	1-4-19 23:15	-0.01	999	7.90	6.0	1-4-19 23:15	0.00	1559	8.12	33.7	6-4-19 16:45					4-4-19 11:00	4.39	532	8.21	61.9	4-4-19 11:00	0.44	726	7.81	34.1
1-4-19 23:30	-0.07	1520	7.98	1.4	1-4-19 23:30	-0.01	982	7.90	5.6	1-4-19 23:30	0.00	1558	8.12	34.0	6-4-19 17:00					4-4-19 11:15	4.41	532	8.21	64.4	4-4-19 11:15	0.49	726	7.81	31.1
1-4-19 23:45	-0.07	1520	7.98	1.4	1-4-19 23:45	-0.01	981	7.90	6.5	1-4-19 23:45	0.00	1556	8.12	33.9	6-4-19 17:15					4-4-19 11:30	4.43	532	8.21	60.6	4-4-19 11:30	0.52	726	7.81	34.9
1-5-19 0:00	-0.07	1520	7.98	1.4	1-5-19 0:00	-0.01	977	7.90	3.5	1-5-19 0:00	0.00	1578	8.11	36.8	6-4-19 17:45					4-4-19 11:45	4.46	532	8.21	58.7	4-4-19 11:45	0.56	726	7.81	35.7
1-5-19 0:15	-0.08	1504	7.97	1.4	1-5-19 0:15	-0.01	981	7.90	3.3	1-5-19 0:15	0.00	1577	8.11	36.3	6-4-19 18:00					4-4-19 12:00	4.52	532	8.21	63.3	4-4-19 12:00	0.60	726	7.81	35.5
1-5-19 0:30	-0.07	1504	7.98	1.4	1-5-19 0:30	-0.01	981	7.90	6.7	1-5-19 0:30	0.00	1576	8.11	36.2	6-4-19 18:15					4-4-19 12:15	4.52	531	8.21	62.3	4-4-19 12:15	0.62	727	7.81	37.2
1-5-19 0:45	-0.07	1504	7.98	1.4	1-5-19 0:45	-0.01	976	7.90	4.7	1-5-19 0:45	0.00	1577	8.11	36.2	6-4-19 18:30					4-4-19 12:30	4.46	531	8.21	61.6	4-4-19 12:30	0.66	727	7.81	31.9
1-5-19 1:00	-0.07	1504	7.98	1.4	1-5-19 1:00	-0.01	989	7.90	4.5	1-5-19 1:00	0.00	1560	8.11	34.6	6-4-19 18:45					4-4-19 12:45	4.51	531	8.21	60.9	4-4-19 12:45	0.72	725	7.81	28.6
1-5-19 1:15	-0.08	1521	7.98	1.6	1-5-19 1:15	-0.01	979	7.90	2.1	1-5-19 1:15	0.00	1559	8.11	34.2	6-4-19 19:00					4-4-19 13:00	4.65	532	8.21	62.4	4-4-19 13:00	0.78	724	7.81	27.0
1-5-19 1:30	-0.07	1522	7.99	1.4	1-5-19 1:30	-0.01	976	7.90	0.1	1-5-19 1:30	0.00	1559	8.11	33.5	6-4-19 19:15					4-4-19 13:15	4.57	531	8.21	62.1	4-4-19 13:15	0.80	723	7.81	27.8
1-5-19 1:45	-0.07	1522	7.98	1.4	1-5-19 1:45	-0.01	969	7.90	0.9	1-5-19 1:45	0.00	1559	8.11	33.6	6-4-19 19:30					4-4-19 13:30	4.66	532	8.21	59.7	4-4-19 13:30	0.87	723	7.81	26.9
1-5-19 2:00	-0.07	1522	7.97	1.4	1-5-19 2:00	-0.01	976	7.90	0.2	1-5-19 2:00	0.00	1576	8.11	36.4	6-4-19 19:45					4-4-19 13:45	4.69	531	8.21	62.1	4-4-19 13:45	0.92	723	7.80	26.4
1-5-19 2:15	-0.07	1504	7.97	1.5	1-5-19 2:15	-0.01	977	7.90	0.0	1-5-19 2:15	0.00	1577	8.11	35.9	6-4-19 20:00					4-4-19 14:00	4.67	530	8.21	61.4	4-4-19 14:00	0.96	722	7.80	24.6
1-5-19 2:30	-0.07	1504	7.98	1.4	1-5-19 2:30	-0.01	976	7.90	0.1	1-5-19 2:30	-0.01	1576	8.11	35.7	6-4-19 20:15					4-4-19 14:15	4.71	531	8.21	63.3	4-4-19 14:15	1.00	721	7.80	20.6
1-5-19 2:45	-0.07	1504	7.97	1.4	1-5-19 2:45	-0.01	971	7.90	0.3	1-5-19 2:45	-0.01	1577	8.11	35.8	6-4-19 20:30					4-4-19 14:30	4.76	531	8.21	62.8	4-4-19 14:30	1.03	719	7.81	19.1
1-5-19 3:00	-0.06	1504	7.97	1.4	1-5-19 3:00	-0.01	984	7.90	0.0	1-5-19 3:00	-0.01	1558	8.11	33.7	6-4-19 20:45					4-4-19 14:45	4.76	530	8.21	61.7	4-4-19 14:45	1.08	717	7.80	20.5
1-5-19 3:15	-0.07	1524	7.97	1.6	1-5-19 3:15	-0.01	974	7.90	0.0	1-5-19 3:15	-0.01	1559	8.10	33.1	6-4-19 21:00					4-4-19 15:00	4.83	530	8.21	62.3	4-4-19 15:00	1.09	720	7.80	21.2
1-5-19 3:30	-0.06	1525	7.98	1.3	1-5-19 3:30	-0.01	977	7.90	0.0	1-5-19 3:30	-0.01	1557	8.10	32.1	6-4-19 21:15					4-4-19 15:15	4.88	531	8.21	58.3	4-4-19 15:15	1.12	719	7.80	19.8
1-5-19 3:45	-0.06	1526	7.97	1.3	1-5-19 3:45	-0.01	969	7.90	0.0	1-5-19 3:45	-0.01	1559	8.10	32.8	6-4-19 21:30					4-4-19 15:30	4.98	531	8.20	58.7	4-4-19 15:30	1.17	716	7.80	17.2
1-5-19 4:00	-0.07	1526	7.97	1.3	1-5-19 4:00	-0.01	974	7.90	0.0	1-5-19 4:00	-0.01	1575	8.09	35.2	6-4-19 21:45					4-4-19 15:45	5.10	531	8.20	58.7	4-4-19 15:45	1.23	712	7.81	15.0
1-5-19 4:15	-0.07	1504	7.96	1.5	1-5-19 4:15	-0.01	976	7.90	0.0	1-5-19 4:15	-0.01	1577	8.09	34.7	6-4-19 22:00					4-4-19 16:00	5.14	530	8.20	56.1	4-4-19 16:00	1.25	711	7.81	16.2
1-5-19 4:30	-0.07	1504	7.98	1.4	1-5-19 4:30	-0.01	992	7.90	0.0	1-5-19 4:30	-0.01	1575	8.08	34.8	6-4-19 22:15					4-4-19 16:15	5.14	530	8.20	59.4	4-4-19 16:15	1.27	710	7.81	16.4
1-5-19 4:45	-0.06	1504	7.97	1.4	1-5-19 4:45	-0.01	969	7.90	0.1	1-5-19 4:45	-0.01	1576	8.08	34.4	6-4-19 22:30					4-4-19 16:30	4.97	530	8.20	58.7	4-4-19 16:30	1.26	709	7.81	16.4
1-5-19 5:00	-0.06	1504	7.97	1.3	1-5-19 5:00	-0.01	971	7.90	0.0	1-5-19 5:00	-0.01	1558	8.08	31.0	6-4-19 22:45					4-4-19 16:45	4.91	531	8.21	51.1	4-4-19 16:45	1.25	712	7.81	17.7
1-5-19 5:15	-0.07	1527	7.96	1.6	1-5-19 5:15	-0.01	974	7.90	0.0	1-5-19 5:15	-0.01	1558	8.08	32.1	6-4-19 23:00					4-4-19 17:00	4.86	530	8.21	60.5	4-4-19 17:00	1.24	711	7.82	16.9
1-5-19 5:30	-0.07	1527	7.98	1.4	1-5-19 5:30	-0.01	977	7.91	0.0	1-5-19 5:30	-0.01	1558	8.08	31.4	6-4-19 23:15					4-4-19 17:15	4.85	530	8.21	58.8	4-4-19 17:15	1.22	710	7.82	16.6
1-5-19 5:45	-0.07	1528	7.98	1.3	1-5-19 5:45	-0.02	976	7.90	0.0	1-5-19 5:45	-0.01	1560	8.08	31.6	6-4-19 23:30					4-4-19 17:30	4.98	530	8.21	57.7	4-4-19 17:30	1.17	711	7.82	16.1
1-5-19 6:00	-0.07	1527	7.97	1.3	1-5-19 6:00	-0.02	972	7.90	3.9	1-5-19 6:00	-0.01	1576	8.07	34.5	6-4-19 23:45					4-4-19 17:45	4.99	530	8.21	52.6	4-4-19 17:45	1.15	710	7.82	16.5
1-5-19 6:15	-0.07	1505	7.96	1.3	1-5-19 6:15	-0.02	970	7.91	9.8	1-5-19 6:15	-0.01	1575	8.07	34.0	6-5-19 0:00					4-4-19 18:00	4.94	531	8.22	49.9	4-4-19 18:00	1.07	712	7.82	16.3
1-5-19 6:30	-0.07	1505	7.98	1.4	1-5-19 6:30	-0.02	979	7.91	0.9	1-5-19 6:30	-0.01	1577	8.07	33.6	6-5-19 0:15					4-4-19 18:15	4.86	530	8.22	46.3	4-4-19 18:15	1.02	712	7.83	16.1
1-5-19 6:45	-0.07	1505	7.98	1.3	1-5-19 6:45	-0.02	975	7.91	0.3	1-5-19 6:45	-0.01	1577	8.06	33.5	6-5-19 0:30					4-4-19 18:30	4.76	531	8.22	45.5	4-4-19 18:30	0.95	713	7.83	16.0
1-5-19 7:00	-0.07	1505	7.97	1.3	1-5-19 7:00	-0.02	972	7.91	0.1	1-5-19 7:00	-0.01	1559	8.06	31.9	6-5-19 0:45					4-4-19 18:45	4.69	531	8.23	51.4	4-4-19 18:45	0.90	714	7.83	15.6
1-5-19 7:15	-0.07	1522	7.96	1.5	1-5-19 7:15	-0.02	963	7.91	1.0	1-5-19 7:15	-0.01	1559	8.06	29.6	6-5-19 1:00					4-4-19 19:00	4.65	531	8.23	55.0	4-4-19 19:00	0.86	716	7.83	16.1
1-5-19 7:30	-0.07	1523	7.98	1.4	1-5-19 7:30	-0.02	970	7.91	0.2	1-5-19 7:30	-0.01	1558	8.06	31.2	6-5-19 1:15					4-4-19 19:15	4.62	531	8.23	52.9	4-4-19 19:15	0.81	715	7.83	15.9
1-5-19 7:45	-0.07	1523	7.98	1.3	1-5-19 7:45	-0.02	976	7.91	1.4	1-5-19 7:45	-0.01	1560	8.06	31.1	6-5-19 1:30					4-4-19 19:30	4.59	531	8.22	52.6	4-4-19 19:30	0.75	715	7.83	16.1
1-5-19 8:00	-0.07	1523	7.97	1.3	1-5-19 8:00	-0.02	968	7.91	0.0	1-5-19 8:00	-0.01	1577	8.05	33.3	6-5-19 1:45					4-4-19 19:45	4.65	530	8.22	50.9	4-4-19 19:45	0.73	716	7.83	15.3
1-5-19 8:15	-0.07	1506	7.96	1.3	1-5-19 8:15	-0.02	964	7.91	1.0	1-5-19 8:15	-0.01	1577	8.05	32.7	6-5-19 2:00					4-4-19 20:00	4.61	530	8.22	53.1	4-4-19 20:00	0.68	718	7.83	15.5
1-5-19 8:30	-0.07	1506	7.98	1.4	1-5-19 8:30	-0.02	968	7.91	0.0	1-5-19 8:30	-0.01	1577	8.04	33.0	6-5-19 2:15					4-4-19 20:15	4.58	531	8.22	51.2	4-4-19 20:15	0.65	718	7.83	15.0
1-5-19 8:45	-0.07	1506	7.97	1.4	1-5-19 8:45	-0.02	968	7.91	0.2	1-5-19 8:45	-0.01	1577	8.04	32.4	6-5-19 2:30					4-4-19 20:30	4.53	530	8.22	49.7	4-4-19 20:30	0.60	718	7.83	15.0
1-5-19 9:00	-0.07	1506	7.98	1.3	1-5-19 9:00	-0.02	976	7.91	2.0	1-5-19 9:00	-0.01	1558	8.04	30.4	6-5-19 2:45					4-4-19 20:45	4.40	531	8.23	48.2	4-4-19 20:45	0.57	717	7.83	14.6
1-5-19 9:15	-0.08	1536	7.96	1.5	1-5-19 9:15	-0.02	966	7.91	0.0	1-5-19 9:15	-0.01	1559	8.04	30.0	6-5-19 3:00					4-4-19 21:00	4.39	531	8.22	48.0	4-4-19 21:00	0.51	719	7.83	15.0
1-5-19 9:30	-0.07	1537	7.98	1.3	1-5-19 9:30	-0.02	965	7.91	0.3	1-5-19 9:30	-0.01	1558	8.04	29.4	6-5-19 3:15					4-4-19 21:15	4.36	531	8.23	46.5	4-4-19 21:15	0.50	719	7.83	15.2
1-5-19 9:45	-0.08	1538	7.97	1.4	1-5-19 9:45	-0.02	972	7.91	1.7	1-5-19 9:45	-0.01	1558	8.04	30.4	6-5-19 3:30					4-4-19 21:30	4.37	531	8.22	46.8	4-4-19 21:30	0.47	718	7.83	14.6
1-5-19 10:00	-0.07	1538	7.98	1.4	1-5-19 10:00	-0.02	959	7.91	4.6	1-5-19 10:00	-0.01	1578	8.03	32.7	6-5-19 3:45					4-4-19 21:45	4.33	531	8.22	47.6	4-4-19 21:45	0.44	719	7.83	15.4
1-5-19 10:15	-0.08	1507	7.96	1.4	1-5-19 10:15	-0.02	972	7.91	1.5	1-5-19 10:15	-0.01	1575	8.03	32.1	6-5-19 4:00					4-4-19 22:00	4.40	531	8.22	50.2	4-4-19 22:00	0.41	720	7.83	15.4
1-5-19 10:30	-0.08	1507	7.98	1.4	1-5-19 10:30	-0.02	957	7.91	5.5	1-5-19 10:30	-0.01	1575	8.03	31.8	6-5-19 4:15					4-4-19 22:15	4.39	531	8.22	48.3	4-4-19 22:15	0.39	719	7.83	14.8
1-5-19 10:45	-0.08	1507	7.98	1.4	1-5-19 10:45	-0.02	973	7.91	1.8	1-5-19 10:45	-0.01	1577	8.02	32.0	6-5-19 4:30					4-4-19 22:30	4.12	532	8.23	44.9	4-4-19 22:30	0.36	721	7.83	13.5
1-5-19 11:00	-0.08	1507	7.97	1.3	1-5-19 11:00	-0.02	959	7.91	1.7	1-5-19 11:00	-0.01	1557	8.03	29.7	6-5-19 4:45					4-4-19 22:45	3.73	533	8.25	39.8	4-4-19 22:45	0.34	720	7.83	14.2
1-5-19 11:15	-0.08	1518	7.97	1.6	1-5-19 11:15	-0.02	972	7.91	1.1	1-5-19 11:15	0.00	1558	8.02	30.0	6-5-19 5:00					4-4-19 23:00	3.74	532	8.25	38.6	4-4-19 23:00	0.34	720	7.83	14.7
1-5-19 11:30	-0.08	1519	7.98	1.4	1-5-19 11:30	-0.02	965	7.91	2.3	1-5-19 11:30	0.00	1559	8.02	29.4	6-5-19 5:15					4-4-19 23:15	3.71	532	8.24	38.9	4-4-19 23:15	0.33	720	7.83	15.0
1-5-19 11:45	-0.08	1519	7.98	1.4	1-5-19 11:45	-0.02	956	7.91	0.6	1-5-19 11:45	-0.01	1555	8.02	27.9	6-5-19 5:30					4-4-19 23:30	3.76	533	8.24	42.1	4-4-19 23:30	0.31	721	7.83	13.5
1-5-19 12:00	-0.08	1519	7.97	1.3	1-5-19 12:00	-0.01	963	7.91	0.5	1-5-19 12:00	-0.01	1577	8.01	30.9	6-5-19 5:45					4-4-19 23:45	3.77	532	8.24	41.5	4-4-19 23:45	0.28	721	7.83	12.8
1-5-19 12:15	-0.09	1513	7.96	1.4	1-5-19 12:15	-0.01	960	7.91	1.1	1-5-19 12:15	-0.01	1578	8.01	31.0	6-5-19 6:00					4-5-19 0:00	3.90	532	8.23	44.1	4-5-19 0:00	0.27	722	7.83	12.2
1-5-19 12:30	-0.08	1513	7.97	1.4	1-5-19 12:30	-0.02	963	7.91	0.5	1-5-19 12:30	-0.01	1578	8.01	30.6	6-5-19 6:15					4-5-19 0:15	3.98	532	8.23	45.4	4-5-19 0:15	0.27	722	7.83	13.3
1-5-19 12:45	-0.08	1512	7.97	1.3	1-5-19 12:45	-0.01	973	7.91	0.8	1-5-19 12:45	-0.01	1577	8.01	30.2	6-5-19 6:30					4-5-19 0:30	4.05	531	8.22	44.9	4-5-19 0:30	0.25	723	7.83	14.0
1-5-19 13:00	-0.08	1513	7.97	1.3	1-5-19 13:00	-0.01	965	7.91	0.7	1-5-19 13:00	-0.01	1556	8.01	27.9	6-5-19 6:45					4-5-19 0:45	3.95	532	8.23	42.3	4-5-19 0:45	0.24	722	7.82	13.5
1-5-19 13:15	-0.09	1534	7.97	1.5	1-5-19 13:15	-0.01	963	7.91	1.1	1-5-19 13:15	-0.01	1557	8.01	27.8	6-5-19 7:00					4-5-19 1:00	3.92	531	8.23	41.7	4-5-19 1:00	0.23	722	7.83	13.2

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-5-19 13:30	-0.08	1534	7.98	1.3	1-5-19 13:30	-0.03	974	7.92	0.0	1-5-19 13:30	0.02	1549	8.08	28.9	6-5-19 7:15					4-5-19 1:15	4.00	532	8.22	43.7	4-5-19 1:15	0.22	724	7.83	12.0
1-5-19 13:45	-0.08	1534	7.97	1.3	1-5-19 13:45	-0.03	977	7.92	5.7	1-5-19 13:45	-0.01	1555	8.03	28.6	6-5-19 7:30					4-5-19 1:30	3.86	530	8.23	41.0	4-5-19 1:30	0.22	723	7.83	12.8
1-5-19 14:00	-0.08	1533	7.98	1.4	1-5-19 14:00	-0.02	973	7.92	5.3	1-5-19 14:00	-0.01	1573	8.01	30.7	6-5-19 7:45					4-5-19 1:45	3.86	531	8.23	43.3	4-5-19 1:45	0.21	723	7.82	12.9
1-5-19 14:15	-0.09	1510	7.97	1.4	1-5-19 14:15	-0.02	966	7.92	1.1	1-5-19 14:15	0.00	1573	8.02	30.7	6-5-19 8:00					4-5-19 2:00	3.79	531	8.23	39.0	4-5-19 2:00	0.20	723	7.82	12.0
1-5-19 14:30	-0.07	1510	7.98	1.4	1-5-19 14:30	-0.02	964	7.92	2.5	1-5-19 14:30	0.00	1572	8.02	30.3	6-5-19 8:15					4-5-19 2:15	3.33	532	8.24	38.2	4-5-19 2:15	0.20	723	7.82	12.6
1-5-19 14:45	-0.08	1510	7.98	1.4	1-5-19 14:45	-0.02	967	7.92	2.2	1-5-19 14:45	0.00	1574	8.02	29.8	6-5-19 8:30					4-5-19 2:30	3.36	533	8.24	38.6	4-5-19 2:30	0.18	724	7.82	12.5
1-5-19 15:00	-0.07	1510	7.98	1.3	1-5-19 15:00	-0.02	968	7.92	0.2	1-5-19 15:00	0.00	1556	8.02	28.8	6-5-19 8:45					4-5-19 2:45	3.49	532	8.24	43.0	4-5-19 2:45	0.18	724	7.82	11.4
1-5-19 15:15	-0.08	1524	7.97	1.8	1-5-19 15:15	-0.02	966	7.92	1.2	1-5-19 15:15	-0.01	1557	8.02	28.7	6-5-19 9:00					4-5-19 3:00	3.63	532	8.23	48.1	4-5-19 3:00	0.17	725	7.82	11.4
1-5-19 15:30	-0.07	1524	7.90	1.3	1-5-19 15:30	-0.02	970	7.92	0.0	1-5-19 15:30	-0.01	1557	8.02	28.5	6-5-19 9:15					4-5-19 3:15	3.65	531	8.23	56.9	4-5-19 3:15	0.17	724	7.82	12.0
1-5-19 15:45	-0.07	1525	7.88	1.4	1-5-19 15:45	-0.02	967	7.92	1.3	1-5-19 15:45	-0.01	1558	8.02	29.0	6-5-19 9:30					4-5-19 3:30	3.68	531	8.23	59.3	4-5-19 3:30	0.17	725	7.82	12.0
1-5-19 16:00	-0.07	1525	7.88	1.4	1-5-19 16:00	-0.03	966	7.92	0.5	1-5-19 16:00	0.00	1576	8.02	30.3	6-5-19 9:45					4-5-19 3:45	3.67	530	8.23	59.4	4-5-19 3:45	0.16	725	7.82	11.1
1-5-19 16:15	-0.08	1508	7.94	1.4	1-5-19 16:15	-0.03	967	7.92	0.9	1-5-19 16:15	0.00	1576	8.01	29.9	6-5-19 10:00					4-5-19 4:00	3.69	529	8.22	52.2	4-5-19 4:00	0.16	725	7.82	11.5
1-5-19 16:30	-0.08	1507	7.96	1.4	1-5-19 16:30	-0.03	966	7.92	0.4	1-5-19 16:30	-0.01	1574	8.01	29.4	6-5-19 10:15					4-5-19 4:15	3.54	527	8.23	48.2	4-5-19 4:15	0.16	725	7.82	11.8
1-5-19 16:45	-0.08	1508	7.97	1.3	1-5-19 16:45	-0.03	968	7.92	0.3	1-5-19 16:45	-0.01	1577	8.01	29.4	6-5-19 10:30					4-5-19 4:30	3.46	528	8.23	49.4	4-5-19 4:30	0.14	727	7.82	10.8
1-5-19 17:00	-0.08	1508	7.97	1.3	1-5-19 17:00	-0.02	969	7.92	0.4	1-5-19 17:00	-0.01	1558	8.01	26.7	6-5-19 10:45					4-5-19 4:45	3.45	528	8.23	54.3	4-5-19 4:45	0.15	726	7.82	11.2
1-5-19 17:15	-0.08	1526	7.97	1.6	1-5-19 17:15	-0.02	962	7.92	0.0	1-5-19 17:15	-0.01	1558	8.02	28.6	6-5-19 11:00					4-5-19 5:00	3.52	529	8.23	50.1	4-5-19 5:00	0.14	727	7.82	10.5
1-5-19 17:30	-0.08	1528	7.98	1.4	1-5-19 17:30	-0.03	966	7.92	0.0	1-5-19 17:30	0.00	1559	8.02	28.6	6-5-19 11:15					4-5-19 5:15	3.47	529	8.23	50.0	4-5-19 5:15	0.14	727	7.83	9.7
1-5-19 17:45	-0.07	1527	7.97	1.3	1-5-19 17:45	-0.02	966	7.92	0.0	1-5-19 17:45	0.00	1559	8.02	27.2	6-5-19 11:30					4-5-19 5:30	3.44	528	8.23	49.4	4-5-19 5:30	0.13	727	7.83	10.0
1-5-19 18:00	-0.08	1527	7.97	1.3	1-5-19 18:00	-0.02	963	7.92	0.0	1-5-19 18:00	0.00	1578	8.02	29.6	6-5-19 11:45					4-5-19 5:45	3.39	529	8.23	47.0	4-5-19 5:45	0.12	728	7.83	9.1
1-5-19 18:15	-0.08	1506	7.96	1.4	1-5-19 18:15	-0.02	968	7.92	0.1	1-5-19 18:15	0.00	1577	8.02	29.4	6-5-19 12:00					4-5-19 6:00	3.34	528	8.23	51.6	4-5-19 6:00	0.11	728	7.83	9.4
1-5-19 18:30	-0.07	1506	7.97	1.4	1-5-19 18:30	-0.02	955	7.92	0.0	1-5-19 18:30	0.00	1577	8.03	29.1	6-5-19 12:15					4-5-19 6:15	3.37	530	8.23	51.2	4-5-19 6:15	0.12	728	7.83	10.0
1-5-19 18:45	-0.07	1506	7.97	1.3	1-5-19 18:45	-0.02	953	7.92	0.6	1-5-19 18:45	0.00	1576	8.03	28.8	6-5-19 12:30					4-5-19 6:30	3.30	529	8.23	51.1	4-5-19 6:30	0.11	729	7.83	9.2
1-5-19 19:00	-0.07	1506	7.97	1.3	1-5-19 19:00	-0.02	956	7.92	4.6	1-5-19 19:00	-0.01	1557	8.03	28.2	6-5-19 12:45					4-5-19 6:45	3.37	529	8.23	48.8	4-5-19 6:45	0.11	729	7.83	9.3
1-5-19 19:15	-0.08	1523	7.96	1.6	1-5-19 19:15	-0.02	952	7.92	0.4	1-5-19 19:15	-0.01	1557	8.03	27.8	6-5-19 13:00					4-5-19 7:00	3.28	530	8.23	47.2	4-5-19 7:00	0.11	728	7.82	10.2
1-5-19 19:30	-0.07	1523	7.98	1.3	1-5-19 19:30	-0.02	966	7.92	0.7	1-5-19 19:30	-0.01	1556	8.03	27.7	6-5-19 13:15					4-5-19 7:15	3.30	529	8.23	45.2	4-5-19 7:15	0.11	728	7.83	9.7
1-5-19 19:45	-0.07	1523	7.98	1.3	1-5-19 19:45	-0.02	954	7.92	3.5	1-5-19 19:45	-0.01	1558	8.03	27.4	6-5-19 13:30					4-5-19 7:30	3.28	529	8.23	44.2	4-5-19 7:30	0.12	729	7.83	9.8
1-5-19 20:00	-0.07	1523	7.98	1.3	1-5-19 20:00	-0.02	953	7.92	4.7	1-5-19 20:00	-0.01	1576	8.03	29.0	6-5-19 13:45					4-5-19 7:45	3.27	530	8.23	45.2	4-5-19 7:45	0.12	729	7.83	9.6
1-5-19 20:15	-0.08	1507	7.96	1.4	1-5-19 20:15	-0.02	949	7.92	4.0	1-5-19 20:15	-0.01	1575	8.02	28.9	6-5-19 14:00					4-5-19 8:00	3.31	529	8.22	44.1	4-5-19 8:00	0.12	729	7.83	9.3
1-5-19 20:30	-0.07	1507	7.98	1.3	1-5-19 20:30	-0.02	943	7.93	4.5	1-5-19 20:30	-0.01	1575	8.01	28.5	6-5-19 14:15					4-5-19 8:15	3.30	529	8.23	43.4	4-5-19 8:15	0.13	729	7.83	9.3
1-5-19 20:45	-0.07	1507	7.97	1.3	1-5-19 20:45	-0.02	937	7.93	4.6	1-5-19 20:45	-0.01	1577	8.01	28.9	6-5-19 14:30					4-5-19 8:30	3.26	530	8.23	44.2	4-5-19 8:30	0.13	729	7.83	9.0
1-5-19 21:00	-0.07	1507	7.97	1.3	1-5-19 21:00	-0.02	945	7.93	4.5	1-5-19 21:00	-0.01	1559	8.01	28.0	6-5-19 14:45					4-5-19 8:45	3.31	530	8.23	42.1	4-5-19 8:45	0.15	729	7.83	9.1
1-5-19 21:15	-0.08	1523	7.96	1.5	1-5-19 21:15	-0.02	947	7.93	5.9	1-5-19 21:15	-0.01	1559	8.02	27.8	6-5-19 15:00					4-5-19 9:00	3.38	530	8.23	41.3	4-5-19 9:00	0.17	729	7.83	9.1
1-5-19 21:30	-0.07	1522	7.97	1.3	1-5-19 21:30	-0.02	946	7.93	0.0	1-5-19 21:30	-0.02	1559	8.02	27.8	6-5-19 15:15					4-5-19 9:15	3.45	530	8.22	39.3	4-5-19 9:15	0.19	729	7.83	9.0
1-5-19 21:45	-0.07	1522	7.97	1.3	1-5-19 21:45	-0.01	946	7.93	4.9	1-5-19 21:45	-0.02	1559	8.03	25.8	6-5-19 15:30					4-5-19 9:30	3.33	531	8.23	42.2	4-5-19 9:30	0.31	733	7.83	25.2
1-5-19 22:00	-0.07	1522	7.97	1.3	1-5-19 22:00	-0.01	945	7.93	6.7	1-5-19 22:00	-0.02	1578	8.03	29.2	6-5-19 15:45					4-5-19 9:45	3.41	530	8.23	45.6	4-5-19 9:45	0.25	730	7.83	14.6
1-5-19 22:15	-0.08	1509	7.96	1.4	1-5-19 22:15	-0.02	941	7.93	13.4	1-5-19 22:15	-0.02	1578	8.03	28.5	6-5-19 16:00					4-5-19 10:00	3.49	530	8.23	49.4	4-5-19 10:00	0.28	730	7.83	12.2
1-5-19 22:30	-0.07	1509	7.97	1.3	1-5-19 22:30	-0.02	946	7.93	4.4	1-5-19 22:30	-0.02	1576	8.03	28.1	6-5-19 16:15					4-5-19 10:15	3.50	530	8.23	54.1	4-5-19 10:15	0.27	730	7.83	12.2
1-5-19 22:45	-0.07	1508	7.97	1.3	1-5-19 22:45	-0.02	943	7.93	5.7	1-5-19 22:45	-0.02	1578	8.02	28.1	6-5-19 16:30					4-5-19 10:30	3.57	530	8.23	46.0	4-5-19 10:30	0.28	730	7.83	11.7
1-5-19 23:00	-0.07	1509	7.96	1.2	1-5-19 23:00	-0.02	942	7.93	0.0	1-5-19 23:00	-0.02	1559	8.02	27.6	6-5-19 16:45					4-5-19 10:45	3.63	530	8.23	45.7	4-5-19 10:45	0.30	730	7.83	11.1
1-5-19 23:15	-0.07	1528	7.95	1.5	1-5-19 23:15	-0.02	933	7.93	5.9	1-5-19 23:15	-0.01	1559	8.01	27.0	6-5-19 17:00					4-5-19 11:00	3.69	529	8.23	41.1	4-5-19 11:00	0.32	729	7.83	10.9
1-5-19 23:30	-0.07	1528	7.97	1.3	1-5-19 23:30	-0.02	942	7.93	25.2	1-5-19 23:30	-0.01	1558	8.01	27.1	6-5-19 17:15					4-5-19 11:15	3.70	529	8.23	47.0	4-5-19 11:15	0.35	729	7.83	10.3
1-5-19 23:45	-0.07	1528	7.96	1.3	1-5-19 23:45	-0.02	952	7.93	4.9	1-5-19 23:45	-0.01	1559	8.01	25.4	6-5-19 17:30					4-5-19 11:30	3.74	529	8.22	45.6	4-5-19 11:30	0.36	729	7.83	10.3
1-6-19 0:00	-0.07	1528	7.96	1.3	1-6-19 0:00	-0.02	955	7.93	4.1	1-6-19 0:00	-0.01	1578	8.00	28.1	6-5-19 17:45					4-5-19 11:45	3.79	529	8.22	44.6	4-5-19 11:45	0.39	729	7.82	10.0
1-6-19 0:15	-0.08	1512	7.95	1.3	1-6-19 0:15	-0.02	943	7.93	4.7	1-6-19 0:15	-0.01	1577	8.00	27.6	6-5-19 18:00					4-5-19 12:00	3.81	529	8.22	44.1	4-5-19 12:00	0.41	729	7.82	9.9
1-6-19 0:30	-0.07	1511	7.97	1.3	1-6-19 0:30	-0.02	949	7.93	28.3	1-6-19 0:30	-0.01	1577	7.99	27.4	6-5-19 18:15					4-5-19 12:15	3.83	529	8.23	43.2	4-5-19 12:15	0.42	729	7.82	10.4
1-6-19 0:45	-0.07	1511	7.96	1.3	1-6-19 0:45	-0.02	941	7.93	6.2	1-6-19 0:45	-0.02	1577	7.99	27.2	6-5-19 18:30					4-5-19 12:30	3.88	529	8.22	46.7	4-5-19 12:30	0.43	729	7.82	10.1
1-6-19 1:00	-0.07	1511	7.96	1.3	1-6-19 1:00	-0.02	941	7.93	3.5	1-6-19 1:00	-0.02	1558	7.99	26.9	6-5-19 18:45					4-5-19 12:45	3.92	529	8.23	44.6	4-5-19 12:45	0.46	728	7.81	9.4
1-6-19 1:15	-0.07	1531	7.95	1.6	1-6-19 1:15	-0.02	962	7.93	0.7	1-6-19 1:15	-0.02	1558	8.00	26.0	6-5-19 19:00					4-5-19 13:00	3.92	529	8.23	46.7	4-5-19 13:00	0.49	727	7.82	8.9
1-6-19 1:30	-0.07	1531	7.96	1.3	1-6-19 1:30	-0.01	937	7.93	3.1	1-6-19 1:30	-0.02	1559	8.00	26.6	6-5-19 19:15					4-5-19 13:15	3.94	529	8.22	45.4	4-5-19 13:15	0.52	727	7.82	8.2
1-6-19 1:45	-0.07	1530	7.96	1.3	1-6-19 1:45	-0.02	938	7.93	0.0	1-6-19 1:45	-0.02	1558	8.00	26.6	6-5-19 19:30					4-5-19 13:30	3.96	529	8.22	42.3	4-5-19 13:30	0.54	727	7.81	7.8
1-6-19 2:00	-0.07	1531	7.96	1.3	1-6-19 2:00	-0.01	935	7.93	3.2	1-6-19 2:00	-0.02	1576	7.99	27.2	6-5-19 19:45					4-5-19 13:45	3.99	529	8.23	46.1	4-5-19 13:45	0.56	728	7.81	8.1
1-6-19 2:15	-0.07	1511	7.94	1.5	1-6-19 2:15	-0.02	939	7.93	6.3	1-6-19 2:15	-0.02	1577	7.99	27.1	6-5-19 20:00					4-5-19 14:00	4.01	529	8.23	46.6	4-5-19 14:00	0.57	728	7.81	7.9
1-6-19 2:30	-0.07	1511	7.97	1.4	1-6-19 2:30	-0.02	937	7.93	6.7	1-6-19 2:30	-0.02	1576	7.99	26.8	6-5-19 20:15					4-5-19 14:15	4.00	529	8.23	42.5	4-5-19 14:15	0.56	728	7.82	8.2
1-6-19 2:45	-0.07	1511	7.96	1.3	1-6-19 2:45	-0.02	937	7.93	3.6	1-6-19 2:45	-0.02	1576	7.99	26.6	6-5-19 20:30					4-5-19 14:30	4.03	529	8.23	44.5	4-5-19 14:30	0.57	727	7.81	8.1
1-6-19 3:00	-0.07	1511	7.95	1.3	1-6-19 3:00	-0.02	939	7.93	5.7	1-6-19 3:00	-0.02	1559	7.99	26.2	6-5-19 20:45					4-5-19 14:45	3.99	529	8.23	43.1	4-5-19 14:45	0.58	728	7.81	8.1
1-6-19 3:15	-0.08	1523	7.95	1.5	1-6-19 3:15	-0.02	941	7.93	3.4	1-6-19 3:15	-0.02	1560	7.99	26.1	6-5-19 21:00					4-5-19 15:00	4.03	529	8.23	41.2	4-5-19 15:00	0.59	727	7.81	7.3
1-6-19 3:30	-0.08	1523	7.97	1.3	1-6-19 3:30	-0.02	936	7.93	1.0	1-6-19 3:30	-0.02	1559	7.99	24.6	6-5-19 21:15					4-5-19 15:15	4.02	528	8.23	38.8	4-5-19 15:15	0.60	726	7.81	7.3
1-6-19 3:45	-0.07	1523	7.96	1.3	1-6-19 3:45	-0.02	939	7.94	13.2	1-6-19 3:45	-0.02	1559	7.99	25.7	6-5-19 21:30					4-5-19 15:30	4.04	529	8.23	40.2	4-5-19 15:30	0.61	726	7.81	7.1
1-6-19 4:00	-0.07	1523	7.95	1.3	1-6-19 4:00	-0.02	934	7.94	3.2	1-6-19 4:00	-0.02	1578	7.99	26.8	6-5-19 21:45					4-5-19 15:45	4.07	529	8.23	40.5	4-5-19 15:45	0.63	725	7.81	7.3
1-6-19 4:15	-0.08	1515	7.94	1.3	1-6-19 4:15	-0.02	935	7.94	3.5	1-6-19 4:15	-0.02	1577	7.98	26.4	6-5-19 22:00					4-5-19 16:00	4.10	529	8.23	38.6	4-5-19 16:00	0.63	725	7.82	6.8
1-6-19 4:30	-0.07	1514	7.96	1.3	1-6-19 4:30	-0.02	934	7.93	3.6	1-6-19 4:30	-0.02	1578	7.98	26.3	6-5-19 22:15					4-5-19 16:15	4.06	529	8.23	37.8	4-5-19 16:15	0.63	725	7.81	7.7
1-6-19 4:45	-0.07	1514	7.96	1.3	1-6-19 4:45	-0.02	945	7.94	64.8	1-6-19 4:45	-0.02	1577	7.98	26.1	6-5-19 22:30					4-5-19 16:30	3.99	529	8.23	37.1	4-5-19 16:30	0.63	724	7.81	7.8
1-6-19 5:00					1-6-19 5:00	-0.02	928	7.94	4.7	1-6-19 5:00	-0.02	1559	7.98	25.2	6-5-19 22:45					4-5-19 16:45	3.96	529	8.23	38.4	4-5-19 16:45	0.62	724	7.81	8.5
1-6-19 5:15					1-6-19 5:15	-0.02	930	7.94	3.2	1-6-19 5:15	-0.02	1560	7.98	22.9	6-5-19 23:00					4-5-19 17:00	3.97	529	8.23	40.3	4-5-19 17:00	0.62	724	7.81	8.5
1-6-19 5:30	-0.07	1527	7.95	1.3	1-6-19 5:30	-0.02	933	7.94	3.5	1-6-19 5:30	-0.02	1558	7.98	24.5	6-5-19 23:15					4-5-19 17:15	3.95	529	8.23	38.2	4-5-19 17:15	0.60	724	7.81	8.5
1-6-19 5:45	-0.07	1527	7.95	1.3	1-6-19 5:45	-0.02	931	7.94	2.7	1-6-19 5:45	-0.02	1560	7.97	24.7	6-5-19 23:30					4-5-19 17:30	3.95	529	8.23	36.3	4-5-19 17:30	0.58	724	7.81	9.5
1-6-19 6:00	-0.08	1527	7.94	1.3	1-6-19 6:00	-0.02	935	7.94	7.3	1-6-19 6:00	-0.02	1578	7.97	26.4	6-5-19 23:45					4-5-19 17:45	3.92	529	8.23	36.0	4-5-19 17:45	0.57	725	7.81	10.2
1-6-19 6:15	-0.08	1515	7.94	1.4	1-6-19 6:15	-0.02	929	7.94	4.8	1-6-19 6:15	-0.02	1578	7.97	25.8	6-6-19 0:00					4-5-19 18:00	3.89	529	8.24	38.7	4-5-19 18:00	0.55	724	7.81	9.3
1-6-19 6:30					1-6-19 6:30	-0.02	931	7.94	4.5	1-6-19 6:30	-0.02	1577	7.97	25.5	6-6-19 0:15					4-5-19 18:15	3.88	529	8.24	37.6	4-5-19 18:15	0.53	724	7.80	10.3
1-6-19 6:45	-0.07	1514	7.95	1.3	1-6-19 6:45	-0.02	935	7.94	0.4	1-6-19 6:45	-0.02	1578	7.97	25.3	6-6-19 0:30					4-5-19 18:30	3.85	530	8.24	38.8	4-5-19 18:30	0.51	724	7.81	10.8
1-6-19 7:00	-0.07	1514	7.93	1.3	1-6-19 7:00	-0.02	935	7.94	4.7	1-6-19 7:00	-0.02	1558	7.97	23.5	6-6-19 0:45					4-5-19 18:45	3.84	529	8.24	40.7	4-5-19 18:45	0.49	724	7.81	10.4
1-6-19 7:15	-0.08	1537	7.94	1.5	1-6-19 7:15	-0.02	931	7.94	2.1	1-6-19 7:15	-0.02	1559	7.97	24.2	6-6-19 1:00					4-5-19 19:00	3.81	529	8.24	41.0	4-5-19 19:00	0.47	726	7.81	10.5
1-6-19 7:30	-0.07	1537	7.94	1.3	1-6-19 7:30	-0.01	935	7.94	0.0	1-6-19 7:30	-0.02	1559	7.97	23.6	6-6-19 1:15					4-5-19 19:15	3.81	529	8.24	40.7	4-5-19 19:15	0.47	726	7.81	11.5

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-6-19 7:45	-0.07	1537	7.93	1.3	1-6-19 7:45	-0.02	940	7.94	1.8	1-6-19 7:45	-0.02	1558	7.97	23.1	6-6-19 1:30					4-5-19 19:30	3.79	529	8.24	40.1	4-5-19 19:30	0.46	726	7.81	11.2
1-6-19 8:00	-0.07	1537	7.93	1.2	1-6-19 8:00	-0.02	924	7.94	3.9	1-6-19 8:00	-0.02	1580	7.96	24.7	6-6-19 1:45					4-5-19 19:45	3.78	529	8.24	40.9	4-5-19 19:45	0.44	725	7.81	10.8
1-6-19 8:15	-0.07	1516	7.93	1.4	1-6-19 8:15	-0.02	937	7.94	135.3	1-6-19 8:15	-0.03	1577	7.96	24.2	6-6-19 2:00					4-5-19 20:00	3.78	529	8.24	40.9	4-5-19 20:00	0.42	726	7.81	10.8
1-6-19 8:30	-0.07	1515	7.95	1.3	1-6-19 8:30	-0.02	928	7.94	4.5	1-6-19 8:30	-0.03	1578	7.96	24.4	6-6-19 2:15					4-5-19 20:15	3.72	530	8.24	36.9	4-5-19 20:15	0.41	726	7.81	10.4
1-6-19 8:45	-0.07	1515	7.93	1.3	1-6-19 8:45	-0.02	927	7.94	6.6	1-6-19 8:45	-0.03	1580	7.96	24.9	6-6-19 2:30					4-5-19 20:30	3.70	530	8.24	37.7	4-5-19 20:30	0.40	726	7.81	11.1
1-6-19 9:00	-0.07	1516	7.93	1.2	1-6-19 9:00	-0.02	942	7.94	5.3	1-6-19 9:00	-0.03	1559	7.96	24.2	6-6-19 2:45					4-5-19 20:45	3.64	530	8.24	33.3	4-5-19 20:45	0.39	726	7.81	11.3
1-6-19 9:15	-0.08	1539	7.93	1.4	1-6-19 9:15	-0.02	937	7.94	5.5	1-6-19 9:15	-0.03	1560	7.96	24.3	6-6-19 3:00					4-5-19 21:00	3.69	530	8.24	34.1	4-5-19 21:00	0.38	725	7.82	10.7
1-6-19 9:30	-0.08	1540	7.95	1.4	1-6-19 9:30	-0.02	938	7.94	2.5	1-6-19 9:30	-0.03	1560	7.96	24.6	6-6-19 3:15					4-5-19 21:15	3.67	529	8.24	31.9	4-5-19 21:15	0.37	725	7.82	11.0
1-6-19 9:45	-0.07	1541	7.95	1.3	1-6-19 9:45	-0.02	933	7.94	2.1	1-6-19 9:45	-0.03	1559	7.96	24.4	6-6-19 3:30					4-5-19 21:30	3.67	529	8.24	31.5	4-5-19 21:30	0.35	726	7.81	11.3
1-6-19 10:00	-0.07	1528	7.95	1.3	1-6-19 10:00	-0.02	929	7.94	1.9	1-6-19 10:00	-0.03	1578	7.96	25.5	6-6-19 3:45					4-5-19 21:45	3.73	529	8.23	34.6	4-5-19 21:45	0.34	726	7.81	11.2
1-6-19 10:15	-0.08	1518	7.94	1.4	1-6-19 10:15	-0.02	925	7.94	3.5	1-6-19 10:15	-0.03	1578	7.96	25.1	6-6-19 4:00					4-5-19 22:00	3.78	529	8.23	34.3	4-5-19 22:00	0.34	726	7.81	11.1
1-6-19 10:30	-0.08	1518	7.95	1.3	1-6-19 10:30	-0.02	923	7.94	4.7	1-6-19 10:30	-0.03	1578	7.96	25.1	6-6-19 4:15					4-5-19 22:15	3.78	529	8.23	35.0	4-5-19 22:15	0.32	724	7.81	11.1
1-6-19 10:45	-0.08	1518	7.95	1.3	1-6-19 10:45	-0.02	918	7.94	0.5	1-6-19 10:45	-0.03	1579	7.96	24.5	6-6-19 4:30					4-5-19 22:30	3.76	529	8.23	34.0	4-5-19 22:30	0.31	724	7.81	10.5
1-6-19 11:00	-0.08	1518	7.95	1.2	1-6-19 11:00	-0.02	933	7.94	6.4	1-6-19 11:00	-0.03	1559	7.96	23.9	6-6-19 4:45					4-5-19 22:45	2.90	531	8.26	26.4	4-5-19 22:45	0.31	724	7.81	10.3
1-6-19 11:15	-0.08	1541	7.94	1.4	1-6-19 11:15	-0.02	927	7.94	2.9	1-6-19 11:15	-0.03	1559	7.96	23.8	6-6-19 5:00					4-5-19 23:00	3.14	530	8.25	26.9	4-5-19 23:00	0.30	726	7.81	10.7
1-6-19 11:30	-0.08	1542	7.96	1.3	1-6-19 11:30	-0.02	930	7.94	4.1	1-6-19 11:30	-0.03	1560	7.96	24.3	6-6-19 5:15					4-5-19 23:15	3.37	531	8.24	29.5	4-5-19 23:15	0.30	725	7.81	11.3
1-6-19 11:45	-0.08	1541	7.96	1.2	1-6-19 11:45	-0.02	922	7.94	6.1	1-6-19 11:45	-0.02	1560	7.96	24.3	6-6-19 5:30					4-5-19 23:30	3.56	530	8.24	31.3	4-5-19 23:30	0.28	725	7.81	11.0
1-6-19 12:00	-0.08	1541	7.95	1.3	1-6-19 12:00	-0.03	935	7.94	5.1	1-6-19 12:00	-0.02	1577	7.95	24.9	6-6-19 5:45					4-5-19 23:45	3.52	530	8.24	30.4	4-5-19 23:45	0.27	724	7.81	10.9
1-6-19 12:15	-0.08	1520	7.93	1.3	1-6-19 12:15	-0.03	940	7.95	0.0	1-6-19 12:15	0.02	1569	8.02	23.2	6-6-19 6:00					4-6-19 0:00	3.57	530	8.24	31.4	4-6-19 0:00	0.27	725	7.81	11.0
1-6-19 12:30	-0.07	1520	7.94	1.3	1-6-19 12:30	-0.03	950	7.95	8.5	1-6-19 12:30	0.00	1573	7.99	24.1	6-6-19 6:15					4-6-19 0:15	3.62	529	8.23	32.3	4-6-19 0:15	0.27	726	7.81	10.8
1-6-19 12:45	-0.08	1445	7.94	1.2	1-6-19 12:45	-0.02	935	7.95	3.1	1-6-19 12:45	-0.01	1576	7.98	24.1	6-6-19 6:30					4-6-19 0:30	3.66	529	8.23	31.6	4-6-19 0:30	0.27	727	7.81	10.3
1-6-19 13:15	-0.09	1540	7.94	1.4	1-6-19 13:00	-0.02	932	7.95	5.0	1-6-19 13:00	-0.02	1557	7.97	22.5	6-6-19 6:45					4-6-19 0:45	3.66	529	8.23	32.2	4-6-19 0:45	0.27	727	7.81	10.4
1-6-19 13:30	-0.08	1537	7.96	1.2	1-6-19 13:15	-0.02	930	7.95	1.8	1-6-19 13:15	-0.02	1558	7.97	22.0	6-6-19 7:00					4-6-19 1:00	3.66	529	8.23	32.4	4-6-19 1:00	0.25	726	7.81	10.5
1-6-19 13:45	-0.09	1538	7.96	1.2	1-6-19 13:30	-0.01	936	7.95	0.0	1-6-19 13:30	-0.03	1559	7.96	21.0	6-6-19 7:15					4-6-19 1:15	3.54	530	8.23	30.9	4-6-19 1:15	0.24	725	7.81	10.3
1-6-19 14:00	-0.07	1537	7.96	1.1	1-6-19 13:45	-0.02	928	7.95	4.1	1-6-19 13:45	-0.03	1558	7.96	21.5	6-6-19 7:30					4-6-19 1:30	2.55	528	8.26	26.1	4-6-19 1:30	0.23	724	7.81	9.9
1-6-19 14:15	-0.07	1523	7.95	1.2	1-6-19 14:00	-0.01	936	7.95	0.0	1-6-19 14:00	-0.03	1577	7.95	23.1	6-6-19 7:45					4-6-19 1:45	2.90	530	8.25	28.2	4-6-19 1:45	0.24	724	7.81	10.0
1-6-19 14:30	-0.06	1522	7.96	1.2	1-6-19 14:15	-0.02	932	7.95	0.6	1-6-19 14:15	-0.03	1578	7.95	23.1	6-6-19 8:00					4-6-19 2:00	3.16	530	8.24	29.9	4-6-19 2:00	0.23	724	7.81	9.8
1-6-19 14:45	-0.06	1522	7.95	1.1	1-6-19 14:30	-0.02	929	7.95	5.2	1-6-19 14:30	-0.03	1578	7.94	23.2	6-6-19 8:15					4-6-19 2:15	2.87	529	8.25	28.1	4-6-19 2:15	0.23	725	7.81	10.1
1-6-19 15:00	-0.06	1522	7.95	1.2	1-6-19 14:45	-0.02	925	7.95	5.1	1-6-19 14:45	-0.03	1578	7.94	23.3	6-6-19 8:30					4-6-19 2:30	3.22	531	8.24	31.2	4-6-19 2:30	0.23	726	7.81	9.3
1-6-19 15:15	-0.07	1538	7.95	1.3	1-6-19 15:00	-0.02	946	7.95	0.4	1-6-19 15:00	-0.03	1561	7.94	21.7	6-6-19 8:45					4-6-19 2:45	3.47	530	8.23	31.0	4-6-19 2:45	0.22	726	7.81	9.1
1-6-19 15:30	-0.07	1539	7.96	1.1	1-6-19 15:15	-0.02	938	7.95	0.0	1-6-19 15:15	-0.03	1561	7.94	21.5	6-6-19 9:00					4-6-19 3:00	3.15	530	8.23	30.0	4-6-19 3:00	0.22	725	7.81	8.9
1-6-19 15:45	-0.07	1538	7.96	1.2	1-6-19 15:30	-0.03	930	7.95	0.0	1-6-19 15:30	-0.04	1561	7.94	21.6	6-6-19 9:15					4-6-19 3:15	3.18	530	8.24	29.6	4-6-19 3:15	0.21	725	7.81	8.8
1-6-19 16:00	-0.07	1538	7.96	1.2	1-6-19 15:45	-0.02	929	7.95	17.7	1-6-19 15:45	-0.04	1562	7.94	21.4	6-6-19 9:30					4-6-19 3:30	3.42	530	8.23	31.1	4-6-19 3:30	0.20	724	7.81	8.9
1-6-19 16:15	-0.07	1520	7.94	1.2	1-6-19 16:00	-0.02	929	7.95	5.6	1-6-19 16:00	-0.04	1579	7.94	23.4	6-6-19 9:45					4-6-19 3:45	3.41	529	8.23	30.5	4-6-19 3:45	0.20	725	7.81	8.8
1-6-19 16:30	-0.07	1520	7.96	1.1	1-6-19 16:15	-0.02	935	7.95	0.0	1-6-19 16:15	-0.04	1579	7.94	23.1	6-6-19 10:00					4-6-19 4:00	3.20	530	8.23	29.8	4-6-19 4:00	0.19	724	7.81	8.6
1-6-19 16:45	-0.07	1520	7.95	1.2	1-6-19 16:30	-0.02	931	7.95	5.7	1-6-19 16:30	-0.04	1580	7.94	23.1	6-6-19 10:15					4-6-19 4:15	3.24	530	8.24	29.0	4-6-19 4:15	0.19	725	7.81	8.8
1-6-19 17:00	-0.06	1520	7.95	1.1	1-6-19 16:45	-0.02	942	7.95	5.9	1-6-19 16:45	-0.04	1580	7.95	23.0	6-6-19 10:30					4-6-19 4:30	3.30	530	8.24	29.9	4-6-19 4:30	0.20	725	7.81	8.8
1-6-19 17:15	-0.07	1530	7.94	1.3	1-6-19 17:00	-0.02	931	7.95	5.5	1-6-19 17:00	-0.04	1561	7.95	21.7	6-6-19 10:45					4-6-19 4:45	3.34	530	8.23	29.7	4-6-19 4:45	0.19	725	7.81	8.8
1-6-19 17:30	-0.07	1530	7.96	1.2	1-6-19 17:15	-0.02	925	7.95	9.9	1-6-19 17:15	-0.04	1562	7.95	21.9	6-6-19 11:00					4-6-19 5:00	3.43	530	8.23	30.3	4-6-19 5:00	0.17	725	7.81	8.4
1-6-19 17:45	-0.07	1530	7.95	1.1	1-6-19 17:30	-0.02	931	7.95	2.4	1-6-19 17:30	-0.04	1562	7.95	21.6	6-6-19 11:15					4-6-19 5:15	3.53	531	8.23	30.8	4-6-19 5:15	0.16	723	7.81	7.6
1-6-19 18:00	-0.07	1531	7.96	1.1	1-6-19 17:45	-0.02	934	7.95	0.0	1-6-19 17:45	-0.04	1561	7.95	21.5	6-6-19 11:30					4-6-19 5:30	3.57	536	8.23	33.2	4-6-19 5:30	0.16	723	7.81	7.2
1-6-19 18:15	-0.07	1524	7.94	1.2	1-6-19 18:00	-0.02	934	7.95	4.0	1-6-19 18:00	-0.04	1579	7.94	23.3	6-6-19 11:45					4-6-19 5:45	3.64	541	8.23	35.9	4-6-19 5:45	0.18	724	7.81	8.1
1-6-19 18:30	-0.07	1524	7.95	1.2	1-6-19 18:15	-0.02	961	7.95	2.3	1-6-19 18:15	-0.05	1579	7.94	22.9	6-6-19 12:00					4-6-19 6:00	3.70	541	8.23	34.9	4-6-19 6:00	0.18	724	7.81	8.1
1-6-19 18:45	-0.07	1524	7.95	1.1	1-6-19 18:30	-0.02	939	7.95	0.2	1-6-19 18:30	-0.05	1579	7.94	22.8	6-6-19 12:15					4-6-19 6:15	3.73	538	8.23	35.5	4-6-19 6:15	0.18	725	7.81	8.1
1-6-19 19:00	-0.07	1524	7.95	1.1	1-6-19 18:45	-0.02	931	7.95	3.1	1-6-19 18:45	-0.05	1578	7.94	22.5	6-6-19 12:30					4-6-19 6:30	3.76	541	8.23	35.5	4-6-19 6:30	0.18	724	7.81	8.1
1-6-19 19:15	-0.07	1546	7.94	1.3	1-6-19 19:00	-0.02	928	7.95	0.3	1-6-19 19:00	-0.05	1560	7.94	21.0	6-6-19 12:45					4-6-19 6:45	3.77	541	8.23	35.8	4-6-19 6:45	0.18	724	7.81	7.7
1-6-19 19:30	-0.07	1546	7.95	1.1	1-6-19 19:15	-0.02	925	7.95	1.6	1-6-19 19:15	-0.04	1563	7.94	21.3	6-6-19 13:00					4-6-19 7:00	3.77	544	8.23	37.9	4-6-19 7:00	0.17	724	7.81	7.8
1-6-19 19:45	-0.07	1546	7.95	1.1	1-6-19 19:30	-0.02	931	7.95	0.0	1-6-19 19:30	-0.04	1563	7.94	20.9	6-6-19 13:15					4-6-19 7:15	3.75	549	8.24	39.2	4-6-19 7:15	0.17	724	7.81	7.9
1-6-19 20:00	-0.07	1546	7.95	1.1	1-6-19 19:45	-0.01	936	7.95	0.0	1-6-19 19:45	-0.04	1561	7.94	20.6	6-6-19 13:30					4-6-19 7:30	2.93	539	8.25	31.7	4-6-19 7:30	0.17	724	7.81	7.7
1-6-19 20:15	-0.07	1524	7.93	1.2	1-6-19 20:00	-0.02	928	7.95	0.0	1-6-19 20:00	-0.04	1582	7.94	22.6	6-6-19 13:45					4-6-19 7:45	3.08	543	8.25	30.2	4-6-19 7:45	0.18	724	7.81	7.2
1-6-19 20:30	-0.06	1524	7.95	1.1	1-6-19 20:15	-0.02	927	7.95	0.0	1-6-19 20:15	-0.04	1583	7.94	22.4	6-6-19 14:00					4-6-19 8:00	2.93	539	8.26	29.0	4-6-19 8:00	0.19	724	7.81	7.4
1-6-19 20:45	-0.06	1524	7.94	1.1	1-6-19 20:30	-0.02	928	7.95	0.0	1-6-19 20:30	-0.04	1583	7.93	22.4	6-6-19 14:15					4-6-19 8:15	3.18	539	8.25	30.1	4-6-19 8:15	0.20	724	7.81	7.8
1-6-19 21:00	-0.07	1524	7.94	1.2	1-6-19 20:45	-0.02	929	7.95	0.0	1-6-19 20:45	-0.04	1582	7.93	22.1	6-6-19 14:30					4-6-19 8:30	3.03	539	8.25	29.6	4-6-19 8:30	0.23	725	7.81	7.8
1-6-19 21:15	-0.07	1544	7.94	1.2	1-6-19 21:00	-0.02	926	7.95	0.1	1-6-19 21:00	-0.04	1562	7.93	21.1	6-6-19 14:45					4-6-19 8:45	2.95	539	8.25	28.8	4-6-19 8:45	0.25	724	7.81	7.8
1-6-19 21:30	-0.07	1545	7.95	1.1	1-6-19 21:15	-0.02	923	7.95	0.0	1-6-19 21:15	-0.04	1562	7.93	21.3	6-6-19 15:00					4-6-19 9:00	3.21	537	8.25	28.9	4-6-19 9:00	0.28	724	7.81	7.5
1-6-19 21:45	-0.07	1545	7.95	1.1	1-6-19 21:30	-0.02	927	7.95	0.0	1-6-19 21:30	-0.04	1563	7.93	20.7	6-6-19 15:15					4-6-19 9:15	3.33	535	8.24	28.1	4-6-19 9:15	0.32	724	7.81	7.3
1-6-19 22:00	-0.07	1545	7.95	1.1	1-6-19 21:45	-0.02	927	7.95	0.4	1-6-19 21:45	-0.04	1564	7.93	20.8	6-6-19 15:30					4-6-19 9:30	3.45	535	8.24	28.6	4-6-19 9:30	0.36	723	7.81	6.1
1-6-19 22:15	-0.07	1527	7.93	1.1	1-6-19 22:00	-0.02	924	7.95	0.2	1-6-19 22:00	-0.04	1582	7.93	22.2	6-6-19 15:45					4-6-19 9:45	3.56	534	8.23	28.7	4-6-19 9:45	0.41	722	7.82	5.7
1-6-19 22:30	-0.06	1527	7.95	1.1	1-6-19 22:15	-0.02	927	7.95	3.1	1-6-19 22:15	-0.04	1582	7.93	21.7	6-6-19 16:00					4-6-19 10:00	3.64	534	8.23	28.1	4-6-19 10:00	0.45	721	7.81	5.2
1-6-19 22:45	-0.07	1527	7.94	1.1	1-6-19 22:30	-0.02	924	7.95	0.2	1-6-19 22:30	-0.04	1582	7.93	21.8	6-6-19 16:15					4-6-19 10:15	3.61	535	8.23	28.4	4-6-19 10:15	0.49	721	7.81	5.4
1-6-19 23:00	-0.07	1527	7.94	1.1	1-6-19 22:45	-0.02	931	7.95	1.6	1-6-19 22:45	-0.04	1582	7.93	21.9	6-6-19 16:30					4-6-19 10:30	3.39	535	8.23	26.2	4-6-19 10:30	0.52	722	7.81	6.1
1-6-19 23:15	-0.07	1537	7.94	1.2	1-6-19 23:00	-0.02	923	7.95	4.9	1-6-19 23:00	-0.04	1560	7.93	20.4	6-6-19 16:45					4-6-19 10:45	3.30	534	8.24	26.3	4-6-19 10:45	0.56	722	7.82	6.1
1-6-19 23:30	-0.06	1537	7.94	1.1	1-6-19 23:15	-0.02	922	7.95	0.0	1-6-19 23:15	-0.04	1561	7.93	20.3	6-6-19 17:00					4-6-19 11:00	3.52	532	8.24	26.6	4-6-19 11:00	0.58	721	7.82	5.7
1-6-19 23:45	-0.06	1537	7.94	1.0	1-6-19 23:30	-0.01	921	7.95	7.1	1-6-19 23:30	-0.04	1561	7.93	20.1	6-6-19 17:15					4-6-19 11:15	3.48	530	8.23	24.8	4-6-19 11:15	0.65	728	7.81	13.5
1-7-19 0:00	-0.06	1537	7.94	1.0	1-6-19 23:45	-0.02	924	7.95	0.0	1-6-19 23:45	-0.04	1562	7.93	20.0	6-6-19 17:30					4-6-19 11:30	3.55	528	8.23	24.5	4-6-19 11:30	0.68	726	7.81	13.7
1-7-19 0:15	-0.07	1529	7.93	1.1	1-7-19 0:00	-0.01	917	7.95	4.1	1-7-19 0:00	-0.04	1581	7.93	22.1	6-6-19 17:45					4-6-19 11:45	3.63	528	8.24	23.5	4-6-19 11:45	0.69	724	7.81	13.0
1-7-19 0:30	-0.07	1529	7.94	1.1	1-7-19 0:15	-0.01	921	7.95	5.3	1-7-19 0:15	-0.04	1579	7.92	21.5	6-6-19 18:00					4-6-19 12:00	3.62	526	8.23	22.8	4-6-19 12:00	0.71	723	7.81	10.9
1-7-19 0:45	-0.07	1529	7.94	1.1	1-7-19 0:30	-0.02	921	7.95	3.6	1-7-19 0:30	-0.04	1579	7.92	21.6	6-6-19 18:15					4-6-19 12:15	3.77	527	8.23	24.2	4-6-19 12:15	0.75	724	7.81	10.0
1-7-19 1:00	-0.06	1528	7.94	1.1	1-7-19 0:45	-0.02	924	7.95	6.6	1-7-19 0:45	-0.04	1578	7.92	21.5	6-6-19 18:30					4-6-19 12:30	3.67	530	8.23	25.8	4-6-19 12:30	0.80	723	7.81	9.4
1-7-19 1:15	-0.07	1551	7.93	1.2	1-7-19 1:00	-0.02	918	7.95	3.7	1-7-19 1:00	-0.04	1561	7.92	19.9	6-6-19 18:45					4-6-19 12:45	2.66	469	8.25	9.6	4-6-19 12:45	0.83	723	7.80	9.6
1-7-19 1:30	-0.07	1552	7.94	1.0	1-7-19 1:15	-0.02	920	7.95	12.0	1-7-19 1:15	-0.04	1560	7.92	19.8	6-6-19 19:00					4-6-19 13:00	2.97	493	8.25	15.2	4-6-19 13:00	0.93	719	7.81	7.7
1-7-19 1:45	-0.07	1552	7.94	1.1	1-7-19 1:30	-0.02	922	7.96	4.8	1-7-19 1:30	-0.04	1561	7.92	20.1	6-6-19 19:15					4-6-19 13:15	3.17	499	8.24	18.6	4-6-19 13:15	1.02	718	7.81	7.6
1-7-19 2:00	-0.06	1552	7.94	1.0	1-7-19 1:45	-0.02	920	7.95	4.2	1-7-19 1:45	-0.04	1561	7.92	19.7	6-6-19 19:30					4-6-19 13:30	3.37	499	8.24	18.3	4-6-19 13:30	1.07	717	7.81	6.9

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-7-19 2:15	-0.07	1529	7.93	1.3	1-7-19 2:00	-0.02	914	7.95	3.3	1-7-19 2:00	-0.04	1580	7.92	21.4	6-6-19 19:45					4-6-19 13:45	3.75	510	8.24	21.7	4-6-19 13:45	1.13	717	7.80	6.7
1-7-19 2:30	-0.06	1529	7.94	1.1	1-7-19 2:15	-0.02	919	7.96	5.2	1-7-19 2:15	-0.04	1579	7.92	20.7	6-6-19 20:00					4-6-19 14:00	4.22	511	8.23	20.9	4-6-19 14:00	1.23	715	7.80	6.8
1-7-19 2:45	-0.07	1529	7.94	1.1	1-7-19 2:30	-0.02	919	7.95	3.7	1-7-19 2:30	-0.04	1579	7.91	20.9	6-6-19 20:15					4-6-19 14:15	4.86	521	8.23	25.2	4-6-19 14:15	1.33	713	7.80	6.8
1-7-19 3:00	-0.06	1529	7.94	1.1	1-7-19 2:45	-0.02	922	7.96	3.0	1-7-19 2:45	-0.04	1580	7.91	20.5	6-6-19 20:30					4-6-19 14:30	5.17	523	8.22	28.0	4-6-19 14:30	1.39	713	7.80	6.9
1-7-19 3:15	-0.07	1542	7.93	1.3	1-7-19 3:00	-0.02	918	7.95	4.4	1-7-19 3:00	-0.04	1561	7.91	19.1	6-6-19 20:45					4-6-19 14:45	5.18	519	8.22	26.2	4-6-19 14:45	1.46	711	7.80	6.9
1-7-19 3:30	-0.06	1543	7.94	1.1	1-7-19 3:15	-0.02	930	7.95	2.8	1-7-19 3:15	-0.04	1561	7.91	19.4	6-6-19 21:00					4-6-19 15:00	5.29	521	8.22	25.5	4-6-19 15:00	1.53	708	7.80	7.2
1-7-19 3:45	-0.06	1543	7.94	1.0	1-7-19 3:30	-0.02	916	7.96	3.1	1-7-19 3:30	-0.04	1560	7.91	19.4	6-6-19 21:15					4-6-19 15:15	5.36	522	8.21	24.6	4-6-19 15:15	1.64	707	7.80	7.7
1-7-19 4:00	-0.06	1543	7.94	1.1	1-7-19 3:45	-0.02	915	7.96	4.4	1-7-19 3:45	-0.04	1561	7.90	19.2	6-6-19 21:30					4-6-19 15:30	5.50	522	8.21	24.6	4-6-19 15:30	1.69	710	7.80	7.9
1-7-19 4:15	-0.07	1532	7.93	1.1	1-7-19 4:00	-0.02	916	7.96	6.3	1-7-19 4:00	-0.04	1579	7.90	20.8	6-6-19 21:45	13.76	1	7.77	0.7	4-6-19 15:45	5.99	524	8.21	25.2	4-6-19 15:45	1.75	714	7.79	8.2
1-7-19 4:30	-0.07	1532	7.94	1.1	1-7-19 4:15	-0.02	917	7.95	4.5	1-7-19 4:15	-0.04	1578	7.90	20.4	6-6-19 22:00	15.69	1685	8.36	11.2	4-6-19 16:00	6.08	523	8.21	30.8	4-6-19 16:00	1.86	715	7.79	8.4
1-7-19 4:45	-0.07	1532	7.93	1.1	1-7-19 4:30	-0.02	931	7.96	3.3	1-7-19 4:30	-0.04	1578	7.90	20.3	6-6-19 22:15	16.10	1682	8.35	10.7	4-6-19 16:15	6.16	524	8.22	32.7	4-6-19 16:15	1.93	712	7.78	8.3
1-7-19 5:00	-0.07	1532	7.93	1.1	1-7-19 4:45	-0.02	919	7.96	3.1	1-7-19 4:45	-0.04	1580	7.90	20.1	6-6-19 22:30	16.04	1676	8.34	10.6	4-6-19 16:30	6.21	524	8.22	30.4	4-6-19 16:30	1.99	714	7.78	8.7
1-7-19 5:15	-0.07	1548	7.92	1.2	1-7-19 5:00	-0.02	928	7.96	3.1	1-7-19 5:00	-0.04	1561	7.90	19.1	6-6-19 22:45	16.03	1676	8.34	10.6	4-6-19 16:45	6.16	525	8.22	27.8	4-6-19 16:45	2.03	708	7.78	8.4
1-7-19 5:30	-0.06	1548	7.93	1.1	1-7-19 5:15	-0.02	920	7.95	3.6	1-7-19 5:15	-0.04	1561	7.90	19.1	6-6-19 23:00	16.01	1676	8.34	11.2	4-6-19 17:00	6.26	526	8.22	35.8	4-6-19 17:00	1.97	711	7.78	8.8
1-7-19 5:45	-0.06	1548	7.93	1.0	1-7-19 5:30	-0.02	918	7.95	11.8	1-7-19 5:30	-0.04	1561	7.90	18.9	6-6-19 23:15	16.03	1676	8.34	10.9	4-6-19 17:15	6.03	526	8.23	30.5	4-6-19 17:15	1.93	709	7.79	9.1
1-7-19 6:00	-0.06	1548	7.93	1.0	1-7-19 5:45	-0.02	930	7.96	3.3	1-7-19 5:45	-0.04	1561	7.90	19.1	6-6-19 23:30	16.01	1675	8.34	10.8	4-6-19 17:30	5.96	526	8.22	30.8	4-6-19 17:30	1.84	715	7.79	8.9
1-7-19 6:15	-0.06	1534	7.92	1.1	1-7-19 6:00	-0.02	920	7.96	3.8	1-7-19 6:00	-0.04	1580	7.89	20.2	6-6-19 23:45	16.02	1676	8.34	9.4	4-6-19 17:45	5.89	527	8.23	29.2	4-6-19 17:45	1.69	716	7.79	9.3
1-7-19 6:30	-0.06	1535	7.93	1.1	1-7-19 6:15	-0.02	940	7.96	2.6	1-7-19 6:15	-0.04	1579	7.89	19.9	6-7-19 0:00	15.99	1676	8.34	10.5	4-6-19 18:00	5.82	527	8.24	32.9	4-6-19 18:00	1.64	718	7.79	9.6
1-7-19 6:45	-0.06	1535	7.93	1.0	1-7-19 6:30	-0.02	918	7.96	4.7	1-7-19 6:30	-0.04	1578	7.89	19.6	6-7-19 0:15	15.99	1675	8.34	9.9	4-6-19 18:15	5.76	527	8.23	31.1	4-6-19 18:15	1.57	719	7.79	10.3
1-7-19 7:00	-0.06	1535	7.93	1.1	1-7-19 6:45	-0.02	920	7.96	4.6	1-7-19 6:45	-0.04	1580	7.89	19.7	6-7-19 0:30	16.00	1678	8.34	10.6	4-6-19 18:30	5.70	527	8.24	33.3	4-6-19 18:30	1.51	722	7.79	10.5
1-7-19 7:15	-0.06	1547	7.92	1.2	1-7-19 7:00	-0.02	918	7.96	3.4	1-7-19 7:00	-0.04	1561	7.89	17.3	6-7-19 0:45	15.95	1676	8.34	10.9	4-6-19 18:45	5.61	528	8.24	33.2	4-6-19 18:45	1.58	715	7.80	9.8
1-7-19 7:30	-0.06	1548	7.93	1.0	1-7-19 7:15	-0.02	922	7.96	4.0	1-7-19 7:15	-0.03	1560	7.89	17.1	6-7-19 1:00	15.94	1676	8.34	11.3	4-6-19 19:00	5.63	528	8.24	26.5	4-6-19 19:00	1.55	720	7.79	10.9
1-7-19 7:45	-0.06	1548	7.93	1.0	1-7-19 7:30	-0.02	918	7.96	3.6	1-7-19 7:30	-0.03	1562	7.89	18.6	6-7-19 1:15	15.93	1678	8.34	10.6	4-6-19 19:15	5.64	527	8.24	26.0	4-6-19 19:15	1.52	722	7.79	10.6
1-7-19 8:00	-0.06	1548	7.93	1.0	1-7-19 7:45	-0.02	917	7.96	4.1	1-7-19 7:45	-0.03	1559	7.89	17.3	6-7-19 1:30	15.85	1675	8.35	9.6	4-6-19 19:30	5.62	528	8.23	26.1	4-6-19 19:30	1.51	710	7.80	9.8
1-7-19 8:15	-0.06	1536	7.92	1.0	1-7-19 8:00	-0.02	920	7.96	3.2	1-7-19 8:00	-0.03	1580	7.88	19.5	6-7-19 1:45	15.83	1679	8.35	11.1	4-6-19 19:45	5.50	528	8.24	25.4	4-6-19 19:45	1.46	710	7.80	9.2
1-7-19 8:30	-0.06	1536	7.93	1.0	1-7-19 8:15	-0.02	923	7.96	2.5	1-7-19 8:15	-0.04	1579	7.88	19.1	6-7-19 2:00	15.81	1676	8.35	10.8	4-6-19 20:00	5.49	528	8.24	24.6	4-6-19 20:00	1.38	722	7.80	10.1
1-7-19 8:45	-0.06	1535	7.93	1.0	1-7-19 8:30	-0.02	916	7.96	3.7	1-7-19 8:30	-0.04	1578	7.88	19.1	6-7-19 2:15	15.78	1679	8.35	10.6	4-6-19 20:15	5.37	528	8.24	24.3	4-6-19 20:15	1.29	718	7.80	10.8
1-7-19 9:00	-0.07	1536	7.92	0.9	1-7-19 8:45	-0.02	918	7.96	4.4	1-7-19 8:45	-0.04	1579	7.88	19.0	6-7-19 2:30	15.73	1677	8.35	10.7	4-6-19 20:30	5.17	528	8.25	23.6	4-6-19 20:30	1.28	722	7.79	10.2
1-7-19 9:15	-0.07	1561	7.91	1.1	1-7-19 9:00	-0.02	923	7.96	3.2	1-7-19 9:00	-0.04	1560	7.88	18.5	6-7-19 2:45	15.71	1678	8.35	10.9	4-6-19 20:45	5.21	528	8.24	23.8	4-6-19 20:45	1.22	720	7.80	10.0
1-7-19 9:30	-0.07	1562	7.93	1.0	1-7-19 9:15	-0.02	919	7.96	3.5	1-7-19 9:15	-0.04	1560	7.88	18.0	6-7-19 3:00	15.66	1678	8.35	10.5	4-6-19 21:00	5.17	528	8.25	23.9	4-6-19 21:00	1.14	714	7.80	10.9
1-7-19 9:45	-0.07	1562	7.92	1.0	1-7-19 9:30	-0.02	924	7.96	3.7	1-7-19 9:30	-0.04	1560	7.88	18.1	6-7-19 3:15	15.63	1677	8.35	10.4	4-6-19 21:15	5.17	529	8.25	23.8	4-6-19 21:15	1.12	714	7.80	11.3
1-7-19 10:00	-0.07	1562	7.92	1.0	1-7-19 9:45	-0.02	921	7.96	5.9	1-7-19 9:45	-0.03	1561	7.88	18.0	6-7-19 3:30	15.61	1676	8.35	9.9	4-6-19 21:30	5.14	529	8.25	24.1	4-6-19 21:30	1.12	715	7.80	11.5
1-7-19 10:15	-0.08	1539	7.91	1.0	1-7-19 10:00	-0.02	931	7.96	4.7	1-7-19 10:00	-0.03	1584	7.88	19.1	6-7-19 3:45	15.56	1676	8.35	10.2	4-6-19 21:45	5.11	529	8.25	23.3	4-6-19 21:45	1.06	713	7.80	10.2
1-7-19 10:30					1-7-19 10:15	-0.02	928	7.96	4.7	1-7-19 10:15	-0.04	1581	7.88	19.1	6-7-19 4:00	15.50	1677	8.35	10.8	4-6-19 22:00	5.08	529	8.25	23.2	4-6-19 22:00	1.01	715	7.80	11.7
1-7-19 10:45	-0.07	1539	7.92	1.0	1-7-19 10:30	-0.02	922	7.96	4.4	1-7-19 10:30	-0.03	1583	7.88	18.9	6-7-19 4:15	15.44	1677	8.35	10.6	4-6-19 22:15	5.02	528	8.25	22.6	4-6-19 22:15	0.91	712	7.81	9.4
1-7-19 11:00	-0.07	1539	7.92	1.0	1-7-19 10:45	-0.03	931	7.96	4.0	1-7-19 10:45	-0.03	1582	7.88	19.0	6-7-19 4:30	15.43	1674	8.35	10.5	4-6-19 22:30	5.08	529	8.25	24.0	4-6-19 22:30	0.87	715	7.81	10.1
1-7-19 11:15					1-7-19 11:00	-0.04	933	7.96	0.0	1-7-19 11:00	-0.01	1563	7.90	17.8	6-7-19 4:45	15.39	1676	8.35	12.0	4-6-19 22:45	5.11	529	8.25	24.0	4-6-19 22:45	0.86	714	7.81	9.9
1-7-19 11:30	-0.09	1578	7.93	1.1	1-7-19 11:15	-0.03	934	7.97	0.2	1-7-19 11:15	-0.01	1561	7.91	16.6	6-7-19 5:00	15.34	1675	8.35	10.8	4-6-19 23:00	5.18	529	8.24	23.3	4-6-19 23:00	0.85	714	7.81	9.8
1-7-19 11:45	-0.09	1577	7.93	1.0	1-7-19 11:30	-0.02	934	7.96	3.7	1-7-19 11:30	-0.01	1559	7.92	16.7	6-7-19 5:15	15.32	1676	8.35	11.9	4-6-19 23:15	5.22	529	8.24	23.8	4-6-19 23:15	0.82	712	7.81	9.3
1-7-19 12:00	-0.08	1577	7.93	0.9	1-7-19 11:45	-0.02	936	7.96	0.0	1-7-19 11:45	-0.01	1560	7.92	16.3	6-7-19 5:30	15.26	1673	8.36	11.0	4-6-19 23:30	5.12	529	8.25	23.3	4-6-19 23:30	0.78	715	7.81	10.1
1-7-19 12:15	-0.08	1543	7.92	1.0	1-7-19 12:00	-0.02	933	7.96	3.5	1-7-19 12:00	-0.01	1581	7.92	17.9	6-7-19 5:45	15.21	1676	8.36	12.6	4-6-19 23:45	5.12	528	8.25	23.1	4-6-19 23:45	0.72	715	7.81	10.0
1-7-19 12:30	-0.08	1542	7.93	0.9	1-7-19 12:15	-0.02	932	7.96	5.1	1-7-19 12:15	-0.02	1581	7.93	17.7	6-7-19 6:00	15.17	1676	8.36	11.3	4-7-19 0:00	5.09	529	8.25	23.8	4-7-19 0:00	0.75	714	7.81	9.6
1-7-19 12:45	-0.07	1542	7.93	1.0	1-7-19 12:30	-0.03	926	7.96	0.2	1-7-19 12:30	-0.02	1581	7.92	17.6	6-7-19 6:15	15.11	1678	8.36	10.0	4-7-19 0:15	5.08	529	8.25	23.2	4-7-19 0:15	0.76	712	7.81	9.6
1-7-19 13:00	-0.08	1542	7.92	0.9	1-7-19 12:45	-0.03	931	7.96	0.0	1-7-19 12:45	-0.02	1581	7.92	18.0	6-7-19 6:30	15.06	1674	8.36	10.0	4-7-19 0:30	5.06	529	8.25	22.5	4-7-19 0:30	0.78	714	7.81	9.6
1-7-19 13:15	-0.08	1557	7.91	1.0	1-7-19 13:00	-0.03	927	7.96	4.5	1-7-19 13:00	-0.02	1560	7.91	16.2	6-7-19 6:45	14.99	1675	8.35	10.1	4-7-19 0:45	4.97	529	8.25	21.8	4-7-19 0:45	0.73	711	7.81	8.9
1-7-19 13:30	-0.07	1558	7.92	0.9	1-7-19 13:15	-0.03	935	7.96	4.8	1-7-19 13:15	-0.02	1561	7.90	17.2	6-7-19 7:00	14.93	1676	8.35	10.6	4-7-19 1:00	4.89	529	8.25	27.1	4-7-19 1:00	0.69	712	7.81	8.5
1-7-19 13:45	-0.08	1558	7.92	0.9	1-7-19 13:30	-0.03	933	7.96	11.1	1-7-19 13:30	-0.03	1560	7.89	17.2	6-7-19 7:15	14.89	1677	8.35	13.7	4-7-19 1:15	4.84	529	8.25	29.3	4-7-19 1:15	0.65	711	7.81	8.5
1-7-19 14:00	-0.08	1558	7.92	0.9	1-7-19 13:45	-0.02	928	7.96	54.4	1-7-19 13:45	-0.03	1560	7.88	17.3	6-7-19 7:30	14.84	1676	8.35	10.2	4-7-19 1:30	4.80	529	8.25	27.0	4-7-19 1:30	0.69	713	7.81	9.1
1-7-19 14:15	-0.08	1544	7.90	0.9	1-7-19 14:00	-0.02	941	7.96	6.0	1-7-19 14:00	-0.03	1582	7.87	18.3	6-7-19 7:45	14.82	1675	8.35	10.6	4-7-19 1:45	4.77	530	8.25	24.7	4-7-19 1:45	0.68	711	7.81	8.6
1-7-19 14:30	-0.07	1544	7.92	0.9	1-7-19 14:15	-0.02	928	7.96	6.6	1-7-19 14:15	-0.03	1581	7.88	18.3	6-7-19 8:00	14.79	1676	8.35	10.5	4-7-19 2:00	4.76	531	8.25	22.9	4-7-19 2:00	0.70	712	7.81	9.0
1-7-19 14:45	-0.07	1544	7.92	0.9	1-7-19 14:30	-0.02	926	7.96	6.1	1-7-19 14:30	-0.03	1582	7.88	18.0	6-7-19 8:15	14.77	1675	8.35	10.7	4-7-19 2:15	4.67	531	8.25	23.4	4-7-19 2:15	0.65	710	7.81	8.0
1-7-19 15:00	-0.08	1544	7.92	0.8	1-7-19 14:45	-0.02	928	7.96	6.3	1-7-19 14:45	-0.03	1581	7.88	17.7	6-7-19 8:30	14.72	1676	8.35	11.4	4-7-19 2:30	4.64	531	8.25	22.4	4-7-19 2:30	0.64	712	7.81	8.4
1-7-19 15:15	-0.08	1555	7.91	1.0	1-7-19 15:00	-0.02	929	7.96	0.0	1-7-19 15:00	-0.03	1562	7.87	17.0	6-7-19 8:45	14.67	1676	8.35	9.7	4-7-19 2:45	4.61	532	8.25	22.9	4-7-19 2:45	0.59	711	7.81	8.3
1-7-19 15:30	-0.08	1555	7.92	0.8	1-7-19 15:15	-0.02	928	7.96	0.4	1-7-19 15:15	-0.03	1562	7.87	16.6	6-7-19 9:00	14.63	1675	8.35	11.3	4-7-19 3:00	4.50	533	8.26	22.0	4-7-19 3:00	0.63	711	7.81	8.2
1-7-19 15:45	-0.07	1555	7.92	0.9	1-7-19 15:30	-0.02	922	7.96	5.3	1-7-19 15:30	-0.03	1562	7.87	16.7	6-7-19 9:15	14.60	1676	8.35	11.0	4-7-19 3:15	4.55	532	8.26	22.6	4-7-19 3:15	0.62	711	7.81	8.3
1-7-19 16:00	-0.07	1555	7.92	0.8	1-7-19 15:45	-0.02	926	7.95	0.3	1-7-19 15:45	-0.03	1563	7.87	16.5	6-7-19 9:30	14.56	1677	8.35	11.0	4-7-19 3:30	4.52	532	8.26	22.6	4-7-19 3:30	0.61	712	7.81	8.2
1-7-19 16:15	-0.08	1546	7.90	0.9	1-7-19 16:00	-0.02	917	7.96	2.0	1-7-19 16:00	-0.03	1583	7.87	17.6	6-7-19 9:45	14.52	1677	8.35	9.8	4-7-19 3:45	4.49	532	8.26	23.3	4-7-19 3:45	0.59	712	7.81	8.0
1-7-19 16:30	-0.07	1547	7.91	1.2	1-7-19 16:15	-0.02	920	7.95	4.6	1-7-19 16:15	-0.03	1582	7.87	17.2	6-7-19 10:00	14.47	1676	8.35	10.0	4-7-19 4:00	4.45	532	8.25	23.3	4-7-19 4:00	0.55	712	7.82	7.6
1-7-19 16:45	-0.07	1546	7.91	0.9	1-7-19 16:30	-0.02	922	7.96	2.6	1-7-19 16:30	-0.03	1584	7.86	16.9	6-7-19 10:15	14.43	1676	8.35	11.1	4-7-19 4:15	4.39	534	8.26	23.2	4-7-19 4:15	0.53	712	7.81	7.6
1-7-19 17:00	-0.07	1546	7.91	1.2	1-7-19 16:45	-0.02	920	7.96	1.7	1-7-19 16:45	-0.03	1585	7.86	16.8	6-7-19 10:30	14.41	1678	8.35	10.3	4-7-19 4:30	4.34	534	8.26	22.1	4-7-19 4:30	0.50	711	7.82	7.1
1-7-19 17:15	-0.08	1563	7.90	1.0	1-7-19 17:00	-0.02	915	7.96	1.8	1-7-19 17:00	-0.03	1563	7.87	16.2	6-7-19 10:45	14.35	1677	8.34	10.6	4-7-19 4:45	4.30	534	8.26	22.8	4-7-19 4:45	0.51	710	7.82	7.4
1-7-19 17:30	-0.08	1563	7.91	0.9	1-7-19 17:15	-0.02	920	7.96	0.7	1-7-19 17:15	-0.03	1563	7.86	16.5	6-7-19 11:00	14.29	1677	8.35	10.6	4-7-19 5:00	4.22	535	8.26	22.5	4-7-19 5:00	0.53	711	7.82	7.2
1-7-19 17:45	-0.08	1563	7.91	0.9	1-7-19 17:30	-0.02	921	7.95	0.9	1-7-19 17:30	-0.03	1564	7.86	16.3	6-7-19 11:15	14.26	1677	8.35	10.4	4-7-19 5:15	4.28	534	8.26	22.2	4-7-19 5:15	0.51	711	7.82	7.3
1-7-19 18:00	-0.08	1563	7.91	0.9	1-7-19 17:45	-0.02	920	7.95	0.3	1-7-19 17:45	-0.03	1563	7.86	16.0	6-7-19 11:30	14.25	1676	8.34	10.5	4-7-19 5:30	4.27	533	8.26	21.4	4-7-19 5:30	0.48	712	7.82	7.3
1-7-19 18:15	-0.08	1552	7.89	0.9	1-7-19 18:00	-0.02	919	7.96	0.1	1-7-19 18:00	-0.03	1582	7.86	17.1	6-7-19 11:45	14.20	1677	8.35	11.4	4-7-19 5:45	4.20	533	8.26	20.9	4-7-19 5:45	0.47	712	7.82	7.3
1-7-19 18:30	-0.08	1552	7.91	0.9	1-7-19 18:15	-0.02	922	7.95	0.1	1-7-19 18:15	-0.03	1584	7.86	16.7	6-7-19 12:00	14.18	1675	8.35	10.4	4-7-19 6:00	4.11	534	8.26	20.7	4-7-19 6:00	0.48	713	7.81	7.0
1-7-19 18:45	-0.08	1553	7.91	0.9	1-7-19 18:30	-0.02	921	7.96	0.1	1-7-19 18:30	-0.03	1582	7.86	16.6	6-7-19 12:15	14.15	1678	8.35	10.3	4-7-19 6:15	4.01	534	8.26	20.1	4-7-19 6:15	0.47	713	7.82	7.0
1-7-19 19:00	-0.08	1553	7.91	0.9	1-7-19 18:45	-0.02	921	7.95	0.0	1-7-19 18:45	-0.03	1584	7.86	16.5	6-7-19 12:30	14.10	1677	8.35	11.5	4-7-19 6:30	3.94	534	8.26	19.7	4-7-19 6:30	0.45	712	7.82	6.9
1-7-19 19:15	-0.08	1565	7.90	0.9	1-7-19 19:00	-0.02	919	7.95	0.0	1-7-19 19:00	-0.03	1562	7.86	15.6	6-7-19 12:45	14.07	1675	8.35	10.3	4-7-19 6:45	3.95	534	8.26	21.1	4-7-19 6:45	0.43	712	7.82	7.1
1-7-19 19:30	-0.08	1565	7.92	0.8	1-7-19 19:15	-0.02	921	7.95	0.1	1-7-19 19:15	-0.02	1563	7.86	16.2	6-7-19 13:00	14.05	1676	8.35	10.8	4-7-19 7:00	3.83	533	8.27	19.6	4-7-19 7:00	0.42	711	7.82	6.8
1-7-19 19:45	-0.08	1565	7.91	0.9	1-7-19 19:30	-0.02	927	7.95	5.6	1-7-19 19:30	-0.03	1563	7.86	15.8	6-7-19 13:15	14.03	1677	8.35	10.2	4-7-19 7:15	3.90	535	8.26	21.1	4-7-19 7:15	0.44	712	7.82	6.9
1-7-19 20:00	-0.08	1565	7.91	0.9	1-7-19 19:45	-0.02	913	7.95	7.1	1-7-19 19:45	-0.03	1562	7.86	16.2	6-7-19 13:30	14.05	1677	8.34	10.4	4-7-19 7:30	3.89	536	8.26	20.1	4-7-19 7:30	0.45	712	7.82	6.9
1-7-19 20:15	-0.08	1555	7.89	0.9	1-7-19 20:00	-0.02	918	7.95	8.9	1-7-19 20:00	-0.03	1582	7.86	17.3	6-7-19 13:45	14.03	1678	8.35	10.4	4-7-19 7:45	3.74	535	8.27	20.2	4-7-19 7:45	0.45	711	7.82	6.8

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-7-19 20:30	-0.08	1555	7.91	0.9	1-7-19 20:15	-0.02	920	7.95	6.4	1-7-19 20:15	-0.03	1583	7.86	17.1	6-7-19 14:00	14.05	1678	8.34	10.4	4-7-19 8:00	3.80	536	8.27	19.6	4-7-19 8:00	0.49	710	7.82	6.5
1-7-19 20:45	-0.08	1555	7.91	0.9	1-7-19 20:30	-0.02	918	7.96	0.9	1-7-19 20:30	-0.03	1583	7.86	17.1	6-7-19 14:15	14.05	1677	8.34	11.3	4-7-19 8:15	3.88	536	8.27	19.9	4-7-19 8:15	0.51	710	7.82	6.5
1-7-19 21:00	-0.08	1556	7.91	0.9	1-7-19 20:45	-0.02	917	7.95	0.9	1-7-19 20:45	-0.03	1582	7.86	16.3	6-7-19 14:30	14.07	1677	8.34	10.3	4-7-19 8:30	4.00	536	8.26	20.1	4-7-19 8:30	0.56	710	7.82	6.3
1-7-19 21:15	-0.08	1584	7.90	1.0	1-7-19 21:00	-0.02	919	7.95	2.6	1-7-19 21:00	-0.03	1565	7.86	15.5	6-7-19 14:45	14.13	1679	8.33	10.7	4-7-19 8:45	4.16	536	8.26	21.3	4-7-19 8:45	0.64	708	7.82	5.9
1-7-19 21:30	-0.08	1584	7.92	0.9	1-7-19 21:15	-0.02	920	7.95	1.5	1-7-19 21:15	-0.03	1563	7.86	16.1	6-7-19 15:00	14.18	1678	8.34	9.9	4-7-19 9:00	4.37	536	8.26	22.2	4-7-19 9:00	0.73	703	7.82	4.1
1-7-19 21:45	-0.08	1583	7.91	0.9	1-7-19 21:30	-0.02	918	7.95	0.3	1-7-19 21:30	-0.03	1563	7.86	16.0	6-7-19 15:15	14.28	1677	8.33	11.0	4-7-19 9:15	4.55	536	8.26	24.7	4-7-19 9:15	0.74	705	7.81	4.5
1-7-19 22:00	-0.08	1583	7.91	0.9	1-7-19 21:45	-0.02	924	7.95	0.0	1-7-19 21:45	-0.03	1565	7.86	15.6	6-7-19 15:30	14.36	1679	8.33	10.4	4-7-19 9:30	4.62	536	8.25	24.0	4-7-19 9:30	0.90	700	7.82	4.2
1-7-19 22:15	-0.08	1559	7.90	0.9	1-7-19 22:00	-0.02	919	7.95	0.2	1-7-19 22:00	-0.03	1583	7.85	16.8	6-7-19 15:45	14.42	1679	8.33	11.5	4-7-19 9:45	4.67	536	8.25	22.3	4-7-19 9:45	0.95	702	7.82	5.5
1-7-19 22:30	-0.08	1559	7.91	0.9	1-7-19 22:15	-0.02	921	7.95	0.0	1-7-19 22:15	-0.03	1585	7.86	16.8	6-7-19 16:00	14.41	1675	8.33	9.9	4-7-19 10:00	4.73	537	8.25	21.9	4-7-19 10:00	1.00	701	7.81	5.3
1-7-19 22:45	-0.08	1558	7.91	0.9	1-7-19 22:30	-0.02	919	7.96	0.0	1-7-19 22:30	-0.03	1585	7.86	16.4	6-7-19 16:15	14.45	1679	8.33	10.3	4-7-19 10:15	4.84	536	8.25	21.7	4-7-19 10:15	1.06	705	7.81	5.7
1-7-19 23:00	-0.08	1559	7.91	0.9	1-7-19 22:45	-0.02	921	7.95	0.4	1-7-19 22:45	-0.03	1585	7.86	16.3	6-7-19 16:30	14.46	1678	8.33	10.0	4-7-19 10:30	4.95	535	8.25	21.0	4-7-19 10:30	1.18	701	7.81	5.4
1-7-19 23:15	-0.08	1581	7.90	0.9	1-7-19 23:00	-0.02	916	7.95	4.4	1-7-19 23:00	-0.03	1566	7.86	15.4	6-7-19 16:45	14.47	1677	8.33	10.9	4-7-19 10:45	5.05	535	8.24	21.6	4-7-19 10:45	1.34	697	7.81	4.8
1-7-19 23:30	-0.08	1581	7.91	0.9	1-7-19 23:15	-0.02	917	7.95	0.7	1-7-19 23:15	-0.03	1565	7.87	16.0	6-7-19 17:00	14.58	1680	8.33	11.6	4-7-19 11:00	4.99	534	8.24	21.5	4-7-19 11:00	1.50	690	7.82	4.0
1-7-19 23:45	-0.08	1582	7.91	0.9	1-7-19 23:30	-0.02	918	7.95	0.0	1-7-19 23:30	-0.03	1566	7.86	15.9	6-7-19 17:15	14.61	1678	8.32	11.7	4-7-19 11:00	4.99	534	8.24	21.5	4-7-19 11:00	1.50	690	7.82	4.0
1-8-19 0:00	-0.08	1581	7.91	28.4	1-7-19 23:45	-0.02	916	7.95	1.3	1-7-19 23:45	-0.03	1566	7.86	15.8	6-7-19 17:30	14.59	1678	8.33	9.8	4-7-19 11:30	5.14	537	8.25	20.5	4-7-19 11:30	1.97	677	7.80	4.1
1-8-19 0:15	-0.08	1560	7.89	0.9	1-8-19 0:00	-0.02	915	7.95	32.2	1-8-19 0:00	-0.03	1585	7.87	16.4	6-7-19 17:45	14.57	1676	8.34	10.0	4-7-19 11:45	5.56	535	8.24	24.6	4-7-19 11:45	1.96	680	7.80	3.3
1-8-19 0:30	-0.08	1560	7.91	0.9	1-8-19 0:15	-0.03	917	7.95	5.5	1-8-19 0:15	-0.03	1585	7.87	16.2	6-7-19 18:00	14.53	1678	8.33	9.8	4-7-19 12:00	5.77	535	8.24	25.4	4-7-19 12:00	2.11	675	7.79	3.4
1-8-19 0:45	-0.08	1560	7.90	0.9	1-8-19 0:30	-0.02	919	7.95	1.0	1-8-19 0:30	-0.03	1586	7.92	15.5	6-7-19 18:15	14.55	1679	8.34	11.1	4-7-19 12:15	6.28	535	8.24	35.6	4-7-19 12:15	2.12	677	7.80	4.0
1-8-19 1:00	-0.08	1560	7.90	0.9	1-8-19 0:45	-0.02	912	7.95	5.5	1-8-19 0:45	-0.03	1586	7.95	14.7	6-7-19 18:30	14.55	1677	8.34	9.7	4-7-19 12:30	6.29	535	8.24	27.0	4-7-19 12:30	2.08	693	7.79	5.5
1-8-19 1:15	-0.08	1589	7.89	1.0	1-8-19 1:00	-0.02	913	7.95	4.0	1-8-19 1:00	-0.03	1566	7.93	14.4	6-7-19 18:45	14.54	1678	8.34	10.6	4-7-19 12:45	6.31	534	8.23	24.9	4-7-19 12:45	2.48	678	7.80	6.3
1-8-19 1:30	-0.08	1590	7.90	0.9	1-8-19 1:15	-0.02	913	7.95	3.1	1-8-19 1:15	-0.03	1566	7.92	14.3	6-7-19 19:00	14.51	1679	8.34	10.8	4-7-19 13:00	6.70	537	8.23	22.9	4-7-19 13:00	2.76	676	7.79	3.8
1-8-19 1:45	-0.08	1591	7.90	0.9	1-8-19 1:30	-0.02	921	7.95	0.0	1-8-19 1:30	-0.03	1567	7.92	14.5	6-7-19 19:15	14.54	1679	8.34	11.0	4-7-19 13:15	6.79	534	8.23	21.7	4-7-19 13:15	3.10	671	7.79	3.3
1-8-19 2:00	-0.08	1591	7.90	0.9	1-8-19 1:45	-0.02	914	7.95	1.0	1-8-19 1:45	-0.03	1567	7.91	13.9	6-7-19 19:30	14.64	1679	8.34	10.0	4-7-19 13:30	6.55	533	8.23	22.0	4-7-19 13:30	2.88	674	7.79	5.9
1-8-19 2:15	-0.08	1562	7.89	0.9	1-8-19 2:00	-0.02	920	7.95	0.1	1-8-19 2:00	-0.03	1586	7.90	15.7	6-7-19 19:45	14.79	1679	8.33	10.8	4-7-19 13:45	6.27	534	8.23	21.1	4-7-19 13:45	3.03	664	7.79	4.0
1-8-19 2:30	-0.08	1563	7.90	0.9	1-8-19 2:15	-0.02	920	7.95	1.5	1-8-19 2:15	-0.03	1588	7.94	15.8	6-7-19 20:00	14.89	1680	8.32	8.9	4-7-19 14:00	5.89	533	8.24	20.9	4-7-19 14:00	3.22	656	7.79	4.3
1-8-19 2:45	-0.07	1562	7.90	0.9	1-8-19 2:30	-0.02	916	7.95	0.4	1-8-19 2:30	-0.02	1586	7.93	15.9	6-7-19 20:15	15.07	1679	8.32	11.0	4-7-19 14:15	5.85	537	8.24	22.7	4-7-19 14:15	3.12	673	7.79	5.1
1-8-19 3:00	-0.08	1562	7.90	0.9	1-8-19 2:45	-0.02	916	7.95	0.2	1-8-19 2:45	-0.02	1586	7.91	15.8	6-7-19 20:30	15.11	1680	8.32	9.9	4-7-19 14:30	6.33	537	8.24	28.7	4-7-19 14:30	2.76	700	7.77	18.9
1-8-19 3:15	-0.08	1591	7.89	1.0	1-8-19 3:00	-0.02	919	7.95	0.2	1-8-19 3:00	-0.02	1566	7.89	14.9	6-7-19 20:45	15.21	1679	8.32	10.5	4-7-19 14:45	6.47	536	8.24	36.3	4-7-19 14:45	2.61	711	7.77	25.3
1-8-19 3:30	-0.08	1593	7.91	0.9	1-8-19 3:15	-0.03	922	7.95	0.6	1-8-19 3:15	-0.02	1567	7.88	15.3	6-7-19 21:00	15.26	1681	8.32	10.2	4-7-19 15:00	6.82	537	8.24	37.8	4-7-19 15:00	2.95	712	7.76	25.9
1-8-19 3:45	-0.08	1593	7.91	0.9	1-8-19 3:30	-0.03	918	7.95	15.1	1-8-19 3:30	-0.02	1566	7.87	15.7	6-7-19 21:15	15.33	1680	8.31	10.2	4-7-19 15:15	7.39	538	8.23	52.4	4-7-19 15:15	2.96	703	7.77	24.4
1-8-19 4:00	-0.08	1593	7.90	0.9	1-8-19 3:45	-0.03	923	7.95	0.3	1-8-19 3:45	-0.02	1566	7.86	15.2	6-7-19 21:30	15.52	1680	8.31	10.6	4-7-19 15:30	6.97	537	8.23	31.3	4-7-19 15:30	3.10	666	7.77	23.1
1-8-19 4:15	-0.08	1567	7.89	0.9	1-8-19 4:00	-0.03	919	7.95	0.0	1-8-19 4:00	-0.02	1584	7.86	16.6	6-7-19 21:45	15.63	1680	8.31	9.9	4-7-19 15:45	6.88	538	8.23	28.5	4-7-19 15:45	3.51	678	7.77	28.3
1-8-19 4:30	-0.08	1567	7.90	0.9	1-8-19 4:15	-0.03	921	7.95	0.4	1-8-19 4:15	-0.02	1583	7.85	16.3	6-7-19 22:00	15.87	1678	8.31	9.5	4-7-19 16:00	6.71	540	8.23	22.2	4-7-19 16:00	3.50	678	7.77	27.6
1-8-19 4:45	-0.08	1566	7.90	0.9	1-8-19 4:30	-0.03	921	7.95	0.0	1-8-19 4:30	-0.02	1583	7.86	16.1	6-7-19 22:15	16.10	1681	8.31	11.3	4-7-19 16:15	6.26	544	8.24	21.3	4-7-19 16:15	3.56	681	7.77	25.2
1-8-19 5:00	-0.08	1566	7.90	0.8	1-8-19 4:45	-0.03	925	7.95	0.0	1-8-19 4:45	-0.03	1583	7.86	15.8	6-7-19 22:30	16.08	1679	8.30	10.7	4-7-19 16:30	6.23	565	8.25	27.6	4-7-19 16:30	3.03	695	7.78	39.0
1-8-19 5:15	-0.09	1589	7.89	1.0	1-8-19 5:00	-0.03	925	7.95	0.0	1-8-19 5:00	-0.03	1567	7.87	15.1	6-7-19 22:45	16.19	1683	8.31	10.1	4-7-19 16:45	6.32	567	8.25	27.1	4-7-19 16:45	2.76	709	7.78	44.9
1-8-19 5:30	-0.08	1591	7.90	0.9	1-8-19 5:15	-0.03	925	7.95	0.4	1-8-19 5:15	-0.03	1567	7.87	15.4	6-7-19 23:00	16.28	1682	8.30	10.9	4-7-19 17:00	6.36	567	8.26	25.1	4-7-19 17:00	2.61	715	7.79	72.5
1-8-19 5:45	-0.09	1591	7.90	0.9	1-8-19 5:30	-0.03	930	7.95	6.1	1-8-19 5:30	-0.03	1567	7.87	15.1	6-7-19 23:15	16.24	1682	8.31	10.1	4-7-19 17:15	6.44	568	8.26	26.5	4-7-19 17:15	2.57	717	7.79	60.4
1-8-19 6:00	-0.08	1591	7.90	0.9	1-8-19 5:45	-0.03	921	7.95	3.5	1-8-19 5:45	-0.03	1567	7.87	14.9	6-7-19 23:30	16.25	1682	8.31	11.1	4-7-19 17:30	6.39	571	8.25	27.5	4-7-19 17:30	2.52	720	7.79	54.5
1-8-19 6:15	-0.09	1569	7.89	0.9	1-8-19 6:00	-0.03	921	7.95	0.1	1-8-19 6:00	-0.03	1585	7.87	15.6	6-7-19 23:45	16.42	1683	8.31	10.6	4-7-19 17:45	6.52	567	8.25	28.5	4-7-19 17:45	2.49	721	7.79	52.2
1-8-19 6:30	-0.08	1569	7.91	0.9	1-8-19 6:15	-0.03	926	7.95	2.2	1-8-19 6:15	-0.03	1586	7.89	15.0	6-8-19 0:00	16.42	1682	8.31	19.9	4-7-19 18:00	6.55	566	8.25	27.5	4-7-19 18:00	2.43	721	7.80	60.3
1-8-19 6:45	-0.08	1569	7.90	0.8	1-8-19 6:30	-0.03	920	7.95	0.4	1-8-19 6:30	-0.03	1585	7.90	14.8	6-8-19 0:15	16.54	1684	8.31	10.3	4-7-19 18:15	6.55	567	8.26	26.3	4-7-19 18:15	2.38	722	7.80	52.3
1-8-19 7:00	-0.08	1569	7.90	0.9	1-8-19 6:45	-0.02	919	7.95	0.0	1-8-19 6:45	-0.03	1585	7.90	15.0	6-8-19 0:30	16.59	1684	8.30	11.3	4-7-19 18:30	6.58	564	8.26	31.1	4-7-19 18:30	2.27	721	7.80	59.0
1-8-19 7:15	-0.09	1584	7.89	1.0	1-8-19 7:00	-0.02	929	7.95	0.0	1-8-19 7:00	-0.03	1569	7.88	14.9	6-8-19 0:45	16.59	1683	8.31	9.9	4-7-19 18:45	6.58	563	8.26	29.0	4-7-19 18:45	2.27	722	7.80	52.0
1-8-19 7:30	-0.08	1585	7.90	0.8	1-8-19 7:15	-0.03	932	7.95	0.2	1-8-19 7:15	-0.03	1569	7.87	14.6	6-8-19 1:00	16.66	1683	8.31	10.2	4-7-19 19:00	6.61	561	8.26	28.3	4-7-19 19:00	1.88	721	7.81	59.6
1-8-19 7:45	-0.08	1585	7.90	0.8	1-8-19 7:30	-0.03	920	7.95	0.0	1-8-19 7:30	-0.03	1568	7.86	15.1	6-8-19 1:15	16.56	1683	8.31	10.3	4-7-19 19:15	6.61	560	8.26	29.4	4-7-19 19:15	2.03	722	7.81	44.9
1-8-19 8:00	-0.08	1585	7.91	0.9	1-8-19 7:45	-0.03	921	7.95	1.8	1-8-19 7:45	-0.03	1570	7.86	15.3	6-8-19 1:30	16.43	1682	8.33	10.7	4-7-19 19:30	6.61	560	8.26	27.0	4-7-19 19:30	1.95	720	7.81	52.5
1-8-19 8:15	-0.09	1574	7.89	0.9	1-8-19 8:00	-0.03	924	7.95	0.0	1-8-19 8:00	-0.03	1586	7.86	15.8	6-8-19 1:45	16.45	1684	8.32	10.4	4-7-19 19:45	6.62	561	8.26	27.0	4-7-19 19:45	1.83	722	7.81	56.4
1-8-19 8:30	-0.08	1574	7.90	0.9	1-8-19 8:15	-0.03	920	7.95	0.5	1-8-19 8:15	-0.03	1586	7.88	15.5	6-8-19 2:00	16.41	1683	8.33	11.0	4-7-19 20:00	6.59	561	8.26	27.9	4-7-19 20:00	1.58	720	7.82	54.7
1-8-19 8:45	-0.08	1574	7.90	0.9	1-8-19 8:30	-0.03	922	7.95	0.3	1-8-19 8:30	-0.03	1588	7.88	15.2	6-8-19 2:15	16.33	1682	8.33	10.6	4-7-19 20:15	6.56	562	8.26	26.1	4-7-19 20:15	1.62	721	7.82	53.7
1-8-19 9:00	-0.08	1574	7.90	0.8	1-8-19 8:45	-0.03	923	7.95	0.1	1-8-19 8:45	-0.03	1587	7.89	15.1	6-8-19 2:30	16.29	1684	8.33	16.4	4-7-19 20:30	6.54	562	8.26	25.9	4-7-19 20:30	1.42	718	7.83	47.8
1-8-19 9:15	-0.08	1594	7.89	1.0	1-8-19 9:00	-0.02	921	7.95	4.7	1-8-19 9:00	-0.04	1570	7.86	15.1	6-8-19 2:45	16.26	1683	8.32	10.6	4-7-19 20:45	6.55	564	8.26	26.6	4-7-19 20:45	1.07	717	7.84	48.5
1-8-19 9:30	-0.08	1595	7.90	0.9	1-8-19 9:15	-0.03	933	7.95	0.0	1-8-19 9:15	-0.03	1570	7.86	15.3	6-8-19 3:00	16.22	1681	8.34	10.1	4-7-19 21:00	6.46	562	8.26	27.4	4-7-19 21:00	1.32	720	7.83	45.4
1-8-19 9:45	-0.08	1595	7.90	0.9	1-8-19 9:30	-0.03	918	7.95	0.0	1-8-19 9:30	-0.03	1569	7.85	15.5	6-8-19 3:15	16.13	1684	8.33	10.0	4-7-19 21:15	6.34	562	8.27	26.5	4-7-19 21:15	1.41	721	7.82	48.0
1-8-19 10:00	-0.08	1148	7.90	0.8	1-8-19 9:45	-0.03	924	7.95	0.0	1-8-19 9:45	-0.03	1570	7.85	15.2	6-8-19 3:30	16.09	1681	8.33	9.7	4-7-19 21:30	6.25	561	8.27	25.6	4-7-19 21:30	1.62	725	7.82	53.4
1-8-19 10:15	-0.08	1576	7.89	0.9	1-8-19 10:00	-0.03	920	7.95	0.0	1-8-19 10:00	-0.03	1587	7.85	15.6	6-8-19 3:45	16.02	1680	8.33	11.1	4-7-19 21:45	6.20	560	8.27	26.4	4-7-19 21:45	1.74	724	7.81	59.7
1-8-19 10:30	-0.07	1576	7.90	0.9	1-8-19 10:15	-0.03	925	7.95	0.0	1-8-19 10:15	-0.03	1587	7.86	15.3	6-8-19 4:00	15.99	1682	8.33	10.6	4-7-19 22:00	6.16	560	8.27	24.8	4-7-19 22:00	1.69	724	7.81	53.6
1-8-19 10:45	-0.07	1576	7.90	0.9	1-8-19 10:30	-0.03	920	7.95	0.0	1-8-19 10:30	-0.03	1587	7.86	15.5	6-8-19 4:15	15.96	1683	8.33	11.4	4-7-19 22:15	6.12	559	8.27	29.8	4-7-19 22:15	1.63	721	7.81	46.7
1-8-19 11:00	-0.07	1576	7.90	0.9	1-8-19 10:45	-0.03	926	7.95	0.0	1-8-19 10:45	-0.03	1588	7.86	15.3	6-8-19 4:30	15.89	1682	8.33	11.2	4-7-19 22:30	6.13	559	8.28	30.6	4-7-19 22:30	1.60	729	7.81	52.6
1-8-19 11:15	-0.08	1588	7.89	1.0	1-8-19 11:00	-0.03	921	7.95	0.0	1-8-19 11:00	-0.03	1570	7.84	15.5	6-8-19 4:45	15.80	1684	8.34	11.1	4-7-19 22:45	6.11	559	8.27	26.7	4-7-19 22:45	1.58	722	7.81	48.5
1-8-19 11:30	-0.07	1588	7.90	0.9	1-8-19 11:15	-0.03	926	7.95	1.0	1-8-19 11:15	-0.03	1570	7.84	15.5	6-8-19 5:00	15.74	1681	8.34	10.8	4-7-19 23:00	6.01	558	8.28	29.6	4-7-19 23:00	1.61	729	7.81	56.4
1-8-19 11:45	-0.07	1588	7.90	0.8	1-8-19 11:30	-0.03	924	7.95	0.0	1-8-19 11:30	-0.03	1570	7.84	15.6	6-8-19 5:15	15.69	1684	8.33	11.7	4-7-19 23:15	5.96	559	8.28	30.9	4-7-19 23:15	1.63	728	7.81	50.7
1-8-19 12:00	-0.07	1589	7.90	0.8	1-8-19 11:45	-0.03	931	7.95	0.0	1-8-19 11:45	-0.03	1570	7.84	14.8	6-8-19 5:30	15.64	1682	8.34	9.9	4-7-19 23:30	5.93	559	8.28	25.8	4-7-19 23:30	1.60	727	7.81	50.9
1-8-19 12:15	-0.07	1581	7.88	0.9	1-8-19 12:00	-0.03	933	7.95	0.0	1-8-19 12:00	-0.01	1588	7.84	15.8	6-8-19 5:45	15.60	1684	8.34	11.0	4-7-19 23:45	5.95	559	8.28	24.4	4-7-19 23:45	1.67	729	7.81	53.8
1-8-19 12:30	-0.07	1581	7.90	0.9	1-8-19 12:15	-0.02	932	7.96	0.5	1-8-19 12:15	-0.02	1589	7.84	15.7	6-8-19 6:00	15.57	1684	8.33	11.4	4-8-19 0:00	6.00	559	8.28	27.8	4-8-19 0:00	1.75	728	7.81	55.6
1-8-19 12:45	-0.07	1581	7.90	0.8	1-8-19 12:30	-0.02	933	7.95	0.1	1-8-19 12:30	-0.02	1590	7.84	15.3	6-8-19 6:15	15.49	1682	8.34	10.0	4-8-19 0:15	5.98	559	8.28	25.5	4-8-19 0:15	1.75	728	7.81	55.2
1-8-19 13:00	-0.07	1581	7.90	0.8	1-8-19 12:45	-0.02	931	7.96	0.0	1-8-19 12:45	-0.03	1591	7.84	15.2	6-8-19 6:30	15.45	1684	8.34	10.7	4-8-19 0:30	5.86	559	8.28	24.5	4-8-19 0:30	1.60	727	7.81	46.0
1-8-19 13:15	-0.08	1591	7.89	0.9	1-8-19 13:00	-0.02	933	7.95	0.0	1-8-19 13:00	-0.03	1573	7.85	15.3	6-8-19 6:45	15.38	1683	8.34	10.4	4-8-19 0:45	5.87	559	8.28	26.1	4-8-19 0:45	1.27	727	7.82	42.8
1-8-19 13:30	-0.07	1592	7.90	0.9	1-8-19 13:15	-0.02	935	7.96	0.0	1-8-19 13:15	-0.03	1572	7.84	15.1	6-8-19 7:00	15.34	1684	8.34	10.5	4-8-19 1:00	5.98	559	8.28	25.4	4-8-19 1:00	1.44	731	7.82	46.7
1-8-19 13:45	-0.07	1592	7.89	0.8	1-8-19 13:30	-0.03	944	7.96	0.0	1-8-19 13:30	-0.03	1571	7.84	14.9	6-8-19 7:15	15.29	1683	8.33	10.2	4-8-19 1:15	5.94	559	8.28	24.2	4-8-19 1:15	0.98	726	7.84	33.4
1-8-19 14:00	-0.07	1592	7.89	0.9	1-8-19 13:45	-0.03	943	7.96	0.0	1-8-19 13:45	-0.03	1571	7.84	15.0	6-8-19 7:30	15.25	1683	8.34	10.5	4-8-19 1:30	5.93	559	8.27	24.3	4-8-19 1:30	1.13	731	7.82	37.5
1-8-19 14:15	-0.07	1585	7.89	0.9	1-8-19 14:00	-0.02	930	7.96	0.1	1-8-19 14:00	-0.02	1589	7.84	15.2	6-8-19 7:45	15.21	1685	8.33	13.4	4-8-19 1:45	5.95	559	8.27	25.0	4-8-19 1:45	1.23	729	7.82	40.2
1-8-19 14:30	-0.06	1585	7.90	0.9	1-8-19 14:15	-0.02	931	7.96	0.0	1-8-19 14:15	-0.02	1587	7.84	15.0	6-8-19 8:00	15.14	1684	8.34	11.2	4-8-19 2:00	5.92	559	8.27	23.3	4-8-19 2:00	1.10	730	7.83	35.9

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-8-19 14:45	-0.06	1584	7.89	0.9	1-8-19 14:30	-0.02	931	7.96	0.0	1-8-19 14:30	-0.02	1588	7.84	15.3	6-8-19 8:15	15.12	1684	8.34	11.0	4-8-19 2:15	5.89	559	8.27	23.2	4-8-19 2:15	1.03	731	7.83	35.8
1-8-19 15:00	-0.06	1584	7.89	0.8	1-8-19 14:45	-0.02	941	7.96	0.0	1-8-19 14:45	-0.02	1587	7.84	14.8	6-8-19 8:30	15.04	1683	8.34	10.0	4-8-19 2:30	5.86	559	8.28	22.6	4-8-19 2:30	0.90	728	7.83	34.5
1-8-19 15:15	-0.06	1613	7.88	0.9	1-8-19 15:00	-0.02	932	7.96	0.0	1-8-19 15:00	-0.02	1571	7.84	14.5	6-8-19 8:45	14.99	1684	8.34	10.6	4-8-19 2:45	5.78	559	8.28	23.4	4-8-19 2:45	0.85	729	7.83	32.3
1-8-19 15:30	-0.06	1615	7.90	0.9	1-8-19 15:15	-0.02	930	7.96	0.0	1-8-19 15:15	-0.02	1570	7.84	14.2	6-8-19 9:00	14.93	1684	8.34	9.9	4-8-19 3:00	5.84	559	8.27	25.4	4-8-19 3:00	0.81	728	7.84	32.6
1-8-19 15:45	-0.06	1615	7.89	0.9	1-8-19 15:30	-0.02	931	7.96	0.0	1-8-19 15:30	-0.02	1570	7.84	14.4	6-8-19 9:15	14.90	1685	8.34	10.7	4-8-19 3:15	5.79	559	8.28	24.6	4-8-19 3:15	0.66	727	7.85	30.1
1-8-19 16:00	-0.05	1615	7.89	0.8	1-8-19 15:45	-0.02	928	7.96	0.0	1-8-19 15:45	-0.02	1570	7.83	14.1	6-8-19 9:30	14.82	1684	8.34	11.2	4-8-19 3:30	5.79	559	8.28	23.6	4-8-19 3:30	0.70	730	7.84	32.3
1-8-19 16:15	-0.06	1587	7.88	0.9	1-8-19 16:00	-0.02	927	7.96	0.1	1-8-19 16:00	-0.01	1589	7.83	15.0	6-8-19 9:45	14.78	1684	8.34	12.4	4-8-19 3:45	5.76	560	8.28	23.8	4-8-19 3:45	0.71	730	7.84	30.2
1-8-19 16:30	-0.05	1587	7.89	0.9	1-8-19 16:15	-0.02	926	7.96	0.0	1-8-19 16:15	-0.01	1589	7.84	14.7	6-8-19 10:00	14.71	1684	8.34	10.6	4-8-19 4:00	5.77	559	8.28	24.2	4-8-19 4:00	0.77	730	7.84	29.8
1-8-19 16:45	-0.05	1587	7.89	0.8	1-8-19 16:30	-0.02	927	7.96	0.1	1-8-19 16:30	-0.01	1586	7.84	14.4	6-8-19 10:15	14.63	1684	8.34	10.5	4-8-19 4:15	5.62	559	8.28	22.6	4-8-19 4:15	0.74	728	7.84	28.6
1-8-19 17:00	-0.05	1587	7.89	0.9	1-8-19 16:45	-0.02	921	7.96	0.1	1-8-19 16:45	-0.01	1587	7.83	15.1	6-8-19 10:30	14.61	1684	8.34	10.5	4-8-19 4:30	5.54	559	8.28	23.5	4-8-19 4:30	0.77	729	7.84	28.8
1-8-19 17:15	-0.06	1609	7.88	1.0	1-8-19 17:00	-0.02	926	7.96	0.2	1-8-19 17:00	-0.02	1569	7.83	14.2	6-8-19 10:45	14.57	1684	8.33	12.0	4-8-19 4:45	5.43	560	8.28	23.1	4-8-19 4:45	0.74	728	7.84	27.9
1-8-19 17:30	-0.05	1612	7.89	0.9	1-8-19 17:15	-0.02	917	7.96	0.3	1-8-19 17:15	-0.02	1570	7.83	14.1	6-8-19 11:00	14.50	1683	8.34	11.3	4-8-19 5:00	5.38	560	8.29	21.9	4-8-19 5:00	0.73	729	7.84	27.3
1-8-19 17:45	-0.05	1612	7.89	0.9	1-8-19 17:30	-0.02	922	7.96	0.0	1-8-19 17:30	-0.01	1569	7.83	14.7	6-8-19 11:15	14.46	1684	8.34	12.4	4-8-19 5:15	5.39	560	8.28	22.4	4-8-19 5:15	0.65	727	7.84	25.1
1-8-19 18:00	-0.05	1612	7.89	0.8	1-8-19 17:45	-0.02	919	7.96	0.2	1-8-19 17:45	-0.01	1569	7.83	13.7	6-8-19 11:30	14.44	1684	8.34	10.9	4-8-19 5:30	5.50	560	8.28	20.7	4-8-19 5:30	0.62	729	7.84	25.8
1-8-19 18:15	-0.06	1591	7.88	1.0	1-8-19 18:00	-0.02	921	7.96	0.1	1-8-19 18:00	-0.01	1591	7.83	14.9	6-8-19 11:45	14.40	1684	8.33	10.1	4-8-19 5:45	5.48	560	8.28	21.7	4-8-19 5:45	0.65	730	7.85	25.9
1-8-19 18:30	-0.06	1591	7.89	0.8	1-8-19 18:15	-0.02	922	7.96	0.0	1-8-19 18:15	-0.01	1593	7.83	14.8	6-8-19 12:00	14.37	1685	8.33	10.4	4-8-19 6:00	5.48	560	8.28	22.0	4-8-19 6:00	0.62	729	7.85	24.7
1-8-19 18:45	-0.06	1591	7.88	0.9	1-8-19 18:30	-0.02	920	7.96	0.1	1-8-19 18:30	-0.01	1592	7.83	14.5	6-8-19 12:15	14.30	1685	8.33	10.7	4-8-19 6:15	5.49	560	8.28	23.0	4-8-19 6:15	0.57	728	7.84	24.3
1-8-19 19:00	-0.06	1591	7.88	0.9	1-8-19 18:45	-0.02	915	7.96	0.0	1-8-19 18:45	-0.01	1589	7.83	14.5	6-8-19 12:30	14.27	1685	8.33	10.0	4-8-19 6:30	5.42	559	8.28	22.5	4-8-19 6:30	0.59	728	7.84	24.5
1-8-19 19:15	-0.07	1603	7.87	1.1	1-8-19 19:00	-0.02	915	7.96	0.1	1-8-19 19:00	-0.01	1572	7.83	14.3	6-8-19 12:45	14.24	1685	8.34	10.7	4-8-19 6:45	5.43	560	8.28	21.2	4-8-19 6:45	0.61	729	7.84	24.6
1-8-19 19:30	-0.06	1603	7.87	0.9	1-8-19 19:15	-0.02	919	7.96	0.0	1-8-19 19:15	-0.01	1571	7.83	14.2	6-8-19 13:00	14.22	1684	8.33	10.2	4-8-19 7:00	5.42	560	8.28	21.2	4-8-19 7:00	0.56	727	7.84	22.9
1-8-19 19:45	-0.06	1602	7.87	0.9	1-8-19 19:30	-0.02	918	7.96	0.5	1-8-19 19:30	-0.01	1570	7.83	14.2	6-8-19 13:15	14.21	1685	8.33	10.0	4-8-19 7:15	5.39	560	8.28	22.4	4-8-19 7:15	0.57	728	7.85	23.7
1-8-19 20:00	-0.06	1603	7.87	0.9	1-8-19 19:45	-0.02	920	7.96	0.0	1-8-19 19:45	-0.01	1570	7.82	13.9	6-8-19 13:30	14.15	1685	8.34	9.9	4-8-19 7:30	5.42	560	8.28	22.8	4-8-19 7:30	0.59	728	7.84	23.6
1-8-19 20:15	-0.07	1590	7.86	1.2	1-8-19 20:00	-0.02	910	7.96	0.0	1-8-19 20:00	-0.01	1588	7.82	14.5	6-8-19 13:45	14.12	1685	8.33	10.3	4-8-19 7:45	5.47	560	8.28	22.5	4-8-19 7:45	0.57	729	7.84	22.1
1-8-19 20:30	-0.06	1589	7.87	1.2	1-8-19 20:15	-0.02	912	7.96	0.0	1-8-19 20:15	-0.01	1588	7.83	14.7	6-8-19 14:00	14.09	1684	8.33	10.1	4-8-19 8:00	5.48	560	8.28	21.5	4-8-19 8:00	0.59	731	7.85	19.4
1-8-19 20:45	-0.06	1589	7.86	1.0	1-8-19 20:30	-0.02	916	7.96	0.1	1-8-19 20:30	-0.01	1589	7.83	14.6	6-8-19 14:15	14.07	1685	8.33	10.2	4-8-19 8:15	5.51	560	8.28	21.6	4-8-19 8:15	0.61	735	7.86	18.5
1-8-19 21:00	-0.06	1588	7.85	1.0	1-8-19 20:45	-0.02	909	7.96	0.0	1-8-19 20:45	-0.01	1587	7.83	14.7	6-8-19 14:30	14.07	1685	8.33	11.0	4-8-19 8:30	5.57	559	8.28	22.2	4-8-19 8:30	0.63	737	7.86	17.1
1-8-19 21:15	-0.07	1619	7.84	1.5	1-8-19 21:00	-0.02	903	7.96	0.2	1-8-19 21:00	-0.01	1570	7.82	14.4	6-8-19 14:45	14.10	1685	8.33	11.2	4-8-19 8:45	5.61	559	8.28	21.1	4-8-19 8:45	0.68	738	7.86	17.1
1-8-19 21:30	-0.06	1620	7.84	1.4	1-8-19 21:15	-0.02	916	7.96	0.2	1-8-19 21:15	-0.01	1571	7.82	14.2	6-8-19 15:00	14.09	1684	8.32	11.3	4-8-19 9:00	5.70	559	8.28	20.9	4-8-19 9:00	0.75	738	7.86	17.1
1-8-19 21:45	-0.06	1620	7.83	1.3	1-8-19 21:30	-0.02	914	7.96	0.0	1-8-19 21:30	-0.01	1571	7.82	14.3	6-8-19 15:15	14.10	1685	8.32	10.5	4-8-19 9:15	5.79	559	8.28	19.4	4-8-19 9:15	0.84	736	7.86	16.2
1-8-19 22:00	-0.06	1620	7.83	1.3	1-8-19 21:45	-0.02	910	7.96	0.0	1-8-19 21:45	-0.01	1573	7.82	14.2	6-8-19 15:30	14.11	1685	8.32	16.4	4-8-19 9:30	5.93	560	8.28	18.0	4-8-19 9:30	0.96	736	7.85	16.3
1-8-19 22:15	-0.07	1590	7.82	1.4	1-8-19 22:00	-0.02	910	7.96	0.0	1-8-19 22:00	-0.01	1589	7.82	14.7	6-8-19 15:45	14.17	1685	8.33	9.6	4-8-19 9:45	6.08	559	8.27	21.4	4-8-19 9:45	1.10	733	7.84	16.6
1-8-19 22:30	-0.07	1589	7.82	1.4	1-8-19 22:15	-0.02	909	7.96	0.0	1-8-19 22:15	-0.01	1587	7.82	14.6	6-8-19 16:00	14.28	1684	8.32	10.7	4-8-19 10:00	6.34	559	8.27	24.4	4-8-19 10:00	1.22	732	7.85	15.9
1-8-19 22:45					1-8-19 22:30	-0.02	890	7.97	0.0	1-8-19 22:30	0.00	1588	7.82	14.2	6-8-19 16:15	14.28	1686	8.32	11.0	4-8-19 10:15	6.64	559	8.27	25.4	4-8-19 10:15	1.39	732	7.84	15.7
1-8-19 23:00	-0.07	1588	7.81	1.3	1-8-19 22:45	-0.02	911	7.96	0.2	1-8-19 22:45	-0.01	1588	7.82	14.5	6-8-19 16:30	14.41	1685	8.31	11.1	4-8-19 10:30	6.35	558	8.26	23.7	4-8-19 10:30	1.48	732	7.83	15.8
1-8-19 23:15	-0.07	1606	7.81	1.6	1-8-19 23:00	-0.02	878	7.96	0.0	1-8-19 23:00	-0.01	1572	7.82	14.0	6-8-19 16:45	14.48	1685	8.31	11.0	4-8-19 10:45	6.65	559	8.27	28.3	4-8-19 10:45	1.68	732	7.83	16.2
1-8-19 23:30	-0.06	1606	7.82	1.4	1-8-19 23:15	-0.02	890	7.97	0.0	1-8-19 23:15	-0.01	1571	7.82	13.5	6-8-19 17:00	14.55	1683	8.31	10.7	4-8-19 11:00	6.90	560	8.27	37.5	4-8-19 11:00	2.03	726	7.82	15.2
1-8-19 23:45	-0.06	1606	7.81	1.3	1-8-19 23:30	-0.02	913	7.97	0.0	1-8-19 23:30	-0.01	1572	7.82	13.9	6-8-19 17:15	14.64	1686	8.31	10.8	4-8-19 11:30	7.18	559	8.27	46.0	4-8-19 11:30	2.22	731	7.80	28.1
1-9-19 0:00	-0.06	1605	7.81	1.3	1-8-19 23:45	-0.02	860	7.97	0.4	1-8-19 23:45	-0.01	1573	7.82	13.7	6-8-19 17:30	14.82	1685	8.31	13.1	4-8-19 11:45	7.56	560	8.26	57.4	4-8-19 11:45	2.32	732	7.80	27.9
1-9-19 0:15	-0.07	1593	7.80	1.4	1-9-19 0:00	-0.01	913	7.96	0.0	1-9-19 0:00	-0.01	1589	7.82	14.4	6-8-19 17:45	14.91	1686	8.31	11.2	4-8-19 12:00	7.81	557	8.26	46.7	4-8-19 12:00	2.59	732	7.79	30.8
1-9-19 0:30	-0.06	1591	7.81	1.4	1-9-19 0:15	-0.02	915	7.97	0.0	1-9-19 0:15	-0.01	1588	7.82	14.2	6-8-19 18:00	15.17	1685	8.31	10.7	4-8-19 12:15	7.66	559	8.26	36.1	4-8-19 12:15	2.76	732	7.79	35.1
1-9-19 0:45	-0.06	1592	7.81	1.4	1-9-19 0:30	-0.02	913	7.97	0.0	1-9-19 0:30	0.00	1589	7.82	14.0	6-8-19 18:15	15.25	1684	8.30	11.7	4-8-19 12:30	8.01	560	8.25	32.1	4-8-19 12:30	2.72	733	7.78	34.5
1-9-19 1:00	-0.06	1591	7.80	1.4	1-9-19 0:45	-0.02	886	7.97	0.0	1-9-19 0:45	0.00	1588	7.82	14.2	6-8-19 18:30	15.36	1687	8.31	10.8	4-8-19 12:45	8.21	560	8.25	31.9	4-8-19 12:45	2.71	731	7.78	35.5
1-9-19 1:15	-0.07	1599	7.80	1.7	1-9-19 1:00	-0.01	916	7.97	0.0	1-9-19 1:00	0.00	1572	7.82	14.4	6-8-19 18:45	15.48	1689	8.30	10.5	4-8-19 13:00	8.31	559	8.25	36.9	4-8-19 13:00	2.79	731	7.78	38.2
1-9-19 1:30	-0.06	1600	7.81	1.4	1-9-19 1:15	-0.01	922	7.97	0.0	1-9-19 1:15	0.00	1571	7.82	13.5	6-8-19 19:00	15.43	1687	8.30	10.3	4-8-19 13:15	7.96	558	8.26	24.9	4-8-19 13:15	3.03	730	7.79	40.0
1-9-19 1:45	-0.06	1600	7.80	1.3	1-9-19 1:30	-0.02	899	7.97	9.9	1-9-19 1:30	0.00	1571	7.82	14.1	6-8-19 19:15	15.63	1684	8.30	10.4	4-8-19 13:30	7.85	560	8.25	21.5	4-8-19 13:30	3.32	728	7.78	40.6
1-9-19 2:00	-0.06	1600	7.80	1.3	1-9-19 1:45	-0.02	906	7.97	0.0	1-9-19 1:45	0.00	1570	7.82	13.4	6-8-19 19:30	15.63	1687	8.31	9.7	4-8-19 13:45	7.85	559	8.25	22.5	4-8-19 13:45	3.06	723	7.79	38.5
1-9-19 2:15	-0.07	1592	7.79	1.5	1-9-19 2:00	-0.02	907	7.97	11.1	1-9-19 2:00	0.01	1590	7.81	14.4	6-8-19 19:45	15.70	1685	8.30	11.1	4-8-19 14:00	8.23	559	8.26	22.8	4-8-19 14:00	3.20	723	7.79	38.7
1-9-19 2:30	-0.06	1591	7.80	1.4	1-9-19 2:15	-0.02	907	7.97	5.0	1-9-19 2:15	0.01	1591	7.81	13.9	6-8-19 20:00	15.69	1684	8.31	10.9	4-8-19 14:15	8.59	560	8.25	22.5	4-8-19 14:15	3.41	721	7.79	37.8
1-9-19 2:45	-0.06	1591	7.80	1.4	1-9-19 2:30	-0.02	898	7.97	0.1	1-9-19 2:30	0.00	1589	7.81	13.9	6-8-19 20:15	15.91	1689	8.31	10.1	4-8-19 14:30	8.70	560	8.26	32.9	4-8-19 14:30	3.49	718	7.78	37.3
1-9-19 3:00	-0.07	1591	7.80	1.4	1-9-19 2:45	-0.02	897	7.97	4.0	1-9-19 2:45	0.00	1591	7.81	14.0	6-8-19 20:30	15.91	1684	8.30	10.9	4-8-19 14:45	8.83	561	8.26	30.0	4-8-19 14:45	3.54	719	7.79	41.9
1-9-19 3:15	-0.07	1603	7.79	1.7	1-9-19 3:00	-0.02	892	7.97	0.1	1-9-19 3:00	0.00	1571	7.81	13.6	6-8-19 20:45	16.06	1686	8.30	9.9	4-8-19 15:00	9.09	561	8.26	31.4	4-8-19 15:00	3.50	722	7.79	43.2
1-9-19 3:30	-0.07	1603	7.80	1.4	1-9-19 3:15	-0.02	885	7.97	6.6	1-9-19 3:15	0.00	1572	7.81	13.6	6-8-19 21:00	16.31	1689	8.29	11.0	4-8-19 15:15	9.12	561	8.26	37.0	4-8-19 15:15	3.58	722	7.79	47.8
1-9-19 3:45	-0.06	1603	7.80	1.4	1-9-19 3:30	-0.02	888	7.97	5.5	1-9-19 3:30	-0.01	1572	7.81	13.5	6-8-19 21:15	16.35	1686	8.30	9.9	4-8-19 15:30	9.16	560	8.26	33.3	4-8-19 15:30	3.19	724	7.79	50.6
1-9-19 4:00	-0.06	1603	7.80	1.4	1-9-19 3:45	-0.02	902	7.97	5.0	1-9-19 3:45	0.00	1570	7.81	13.8	6-8-19 21:30	16.48	1685	8.29	10.7	4-8-19 15:45	9.23	560	8.26	35.0	4-8-19 15:45	3.37	724	7.79	50.0
1-9-19 4:15	-0.07	1593	7.79	1.5	1-9-19 4:00	-0.02	904	7.97	0.0	1-9-19 4:00	0.00	1590	7.81	13.8	6-8-19 21:45	16.74	1690	8.29	10.2	4-8-19 16:00	9.24	560	8.26	27.7	4-8-19 16:00	3.44	725	7.80	51.7
1-9-19 4:30	-0.07	1593	7.80	1.5	1-9-19 4:15	-0.02	863	7.97	2.3	1-9-19 4:15	0.00	1590	7.81	13.7	6-8-19 22:00	16.75	1688	8.28	10.7	4-8-19 16:15	9.13	560	8.26	24.0	4-8-19 16:15	3.57	724	7.79	51.3
1-9-19 4:45	-0.07	1592	7.80	1.4	1-9-19 4:30	-0.02	886	7.97	1.8	1-9-19 4:30	0.00	1590	7.81	13.8	6-8-19 22:15	17.19	1693	8.29	11.1	4-8-19 16:30	9.32	560	8.26	26.5	4-8-19 16:30	3.89	724	7.79	51.1
1-9-19 5:00	-0.07	1592	7.80	1.4	1-9-19 4:45	-0.02	880	7.97	2.6	1-9-19 4:45	0.00	1591	7.81	13.5	6-8-19 22:30	17.28	1689	8.27	11.5	4-8-19 16:45	9.46	561	8.27	23.9	4-8-19 16:45	3.96	725	7.79	54.5
1-9-19 5:15	-0.07	1612	7.79	1.7	1-9-19 5:00	-0.02	887	7.97	1.5	1-9-19 5:00	-0.01	1572	7.81	13.8	6-8-19 22:45	17.51	1690	8.29	12.4	4-8-19 17:00	9.41	560	8.26	22.9	4-8-19 17:00	3.86	722	7.79	53.7
1-9-19 5:30	-0.07	1612	7.80	1.4	1-9-19 5:15	-0.02	884	7.97	4.3	1-9-19 5:15	0.00	1572	7.81	13.6	6-8-19 23:00	17.43	1688	8.27	10.2	4-8-19 17:15	9.40	561	8.27	22.6	4-8-19 17:15	3.71	722	7.80	49.1
1-9-19 5:45	-0.06	1612	7.79	1.4	1-9-19 5:30	-0.02	884	7.97	1.9	1-9-19 5:30	0.00	1572	7.81	14.1	6-8-19 23:15	17.51	1688	8.29	10.9	4-8-19 17:30	8.67	561	8.28	20.7	4-8-19 17:30	3.40	716	7.80	53.6
1-9-19 6:00	-0.07	1612	7.79	1.4	1-9-19 5:45	-0.02	885	7.97	0.9	1-9-19 5:45	0.00	1572	7.81	12.6	6-8-19 23:30	17.75	1691	8.28	10.1	4-8-19 17:45	8.63	561	8.27	20.9	4-8-19 17:45	3.52	718	7.81	43.1
1-9-19 6:15	-0.07	1591	7.79	1.5	1-9-19 6:00	-0.02	872	7.97	8.1	1-9-19 6:00	0.00	1591	7.81	14.0	6-8-19 23:45	17.85	1690	8.28	11.0	4-8-19 18:00	8.33	562	8.28	19.0	4-8-19 18:00	2.95	711	7.82	49.1
1-9-19 6:30	-0.07	1590	7.80	1.5	1-9-19 6:15	-0.02	879	7.97	0.7	1-9-19 6:15	0.00	1589	7.81	13.6	6-9-19 0:00	17.88	1691	8.28	10.6	4-8-19 18:15	8.21	565	8.29	19.5	4-8-19 18:15	3.09	715	7.82	50.4
1-9-19 6:45	-0.07	1590	7.79	1.4	1-9-19 6:30	-0.02	869	7.97	1.0	1-9-19 6:30	0.00	1590	7.81	13.7	6-9-19 0:15	18.08	1692	8.27	10.8	4-8-19 18:30	8.06	562	8.30	20.2	4-8-19 18:30	2.50	701	7.83	44.6
1-9-19 7:00	-0.07	1590	7.79	1.5	1-9-19 6:45	-0.02	874	7.97	1.2	1-9-19 6:45	0.00	1588	7.81	13.6	6-9-19 0:30	18.02	1692	8.28	10.5	4-8-19 18:45	6.85	565	8.29	21.4	4-8-19 18:45	2.53	709	7.83	50.9
1-9-19 7:15	-0.07	1608	7.78	1.8	1-9-19 7:00	-0.02	871	7.97	1.0	1-9-19 7:00	0.00	1570	7.81	13.2	6-9-19 0:45	18.12	1691	8.29	10.1	4-8-19 19:00	6.48	569	8.30	20.4	4-8-19 19:00	2.40	709	7.84	48.0
1-9-19 7:30	-0.07	1609	7.79	1.5	1-9-19 7:15	-0.02	877	7.97	1.4	1-9-19 7:15	0.00	1571	7.81	13.3	6-9-19 1:00	18.12	1692	8.30	11.0	4-8-19 19:15	6.69	568	8.30	19.3	4-8-19 19:15	2.52	714	7.84	52.2
1-9-19 7:45	-0.07	1609	7.79	1.5	1-9-19 7:30	-0.02	871	7.97	1.2	1-9-19 7:30	0.00	1571	7.81	13.4	6-9-19 1:15	18.20	1691	8.28	12.5	4-8-19 19:30	6.71	569	8.30	21.1	4-8-19 19:30	2.19	706	7.85	48.9
1-9-19 8:00	-0.07	1609	7.79	1.5	1-9-19 7:45	-0.02	885	7.97	4.3	1-9-19 7:45	0.00	1571	7.81	13.3	6-9-19 1:30	18.15	1691	8.28	10.2	4-8-19 19:45	6.84	569	8.30	19.9	4-8-19 19:45	2.34	712	7.85	50.1
1-9-19 8:15	-0.07	1591	7.78	1.5	1-9-19 8:00	-0.02	872	7.97	2.1	1-9-19 8:00	0.01	1588	7.81	13.9	6-9-19 1:45	18.21	1693	8.29	11.8	4-8-19 20:00	6.87	568	8.29	20.5	4-8-19 20:00	2.30	711	7.85	50.1
1-9-19 8:30	-0.07	1590	7.79	1.4	1-9-19 8:15	-0.02	857	7.97	0.6	1-9-19 8:15	0.00	1589	7.81	14.0	6-9-19 2:00	18.18	1693	8.28	11.0	4-8-19 20:15	6.88	568	8.29	20.2	4-8-19 20:15	2.09	712	7.85	46.7
1-9-19 8:45	-0.07	1590	7.79	1.5	1-9-19 8:30	-0.02	873	7.97	0.3	1-9-19 8:30	0.00	1588	7.81	13.6	6-9-19 2:15	18.13	1693	8.29	11.2	4-8-19 20:30	7.08	568	8.30	19.0	4-8-19 20:30	2.23	714	7.85	47.2

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-9-19 9:00	-0.07	1590	7.78	1.4	1-9-19 8:45	-0.02	858	7.97	2.9	1-9-19 8:45	0.00	1590	7.81	13.9	6-9-19 2:30	18.01	1692	8.30	11.4	4-8-19 20:45	7.06	567	8.30	18.5	4-8-19 20:45	1.88	711	7.86	34.9
1-9-19 9:15	-0.07	1607	7.79	1.7	1-9-19 9:00	-0.02	860	7.97	2.0	1-9-19 9:00	0.00	1571	7.81	12.9	6-9-19 2:45	17.96	1693	8.29	10.9	4-8-19 21:00	7.15	567	8.30	17.8	4-8-19 21:00	1.88	710	7.86	37.6
1-9-19 9:30	-0.07	1607	7.79	1.4	1-9-19 9:15	-0.02	872	7.97	0.6	1-9-19 9:15	0.00	1571	7.81	12.0	6-9-19 3:00	17.90	1693	8.29	12.3	4-8-19 21:15	7.25	566	8.30	18.3	4-8-19 21:15	1.88	712	7.86	39.1
1-9-19 9:45	-0.07	1607	7.78	1.5	1-9-19 9:30	-0.02	864	7.97	0.5	1-9-19 9:30	0.00	1572	7.82	13.4	6-9-19 3:15	17.84	1692	8.30	10.4	4-8-19 21:30	7.34	566	8.30	17.7	4-8-19 21:30	1.89	716	7.86	38.7
1-9-19 10:00	-0.07	1607	7.78	1.5	1-9-19 9:45	-0.02	879	7.97	1.7	1-9-19 9:45	0.00	1572	7.82	13.0	6-9-19 3:30	17.75	1692	8.31	11.8	4-8-19 21:45	7.40	566	8.30	17.2	4-8-19 21:45	1.89	718	7.86	42.6
1-9-19 10:15	-0.07	1592	7.78	1.5	1-9-19 10:00	-0.02	874	7.97	0.0	1-9-19 10:00	0.00	1591	7.82	13.9	6-9-19 3:45	17.69	1692	8.31	11.1	4-8-19 22:00	7.42	566	8.30	17.8	4-8-19 22:00	1.76	717	7.86	37.9
1-9-19 10:30	-0.06	1591	7.79	1.5	1-9-19 10:15	-0.02	862	7.97	1.2	1-9-19 10:15	0.00	1590	7.82	14.0	6-9-19 4:00	17.62	1692	8.30	11.0	4-8-19 22:15	7.39	565	8.30	17.4	4-8-19 22:15	1.70	718	7.86	36.2
1-9-19 10:45	-0.07	1591	7.79	1.6	1-9-19 10:30	-0.02	904	7.97	1.2	1-9-19 10:30	-0.01	1591	7.82	14.0	6-9-19 4:15	17.56	1692	8.30	10.7	4-8-19 22:30	7.38	565	8.30	22.4	4-8-19 22:30	1.73	718	7.86	36.5
1-9-19 11:00	-0.07	1591	7.78	1.5	1-9-19 10:45	-0.02	866	7.97	6.5	1-9-19 10:45	-0.02	1595	7.83	14.5	6-9-19 4:30	17.47	1692	8.30	10.2	4-8-19 22:45	7.32	565	8.30	19.1	4-8-19 22:45	1.72	719	7.86	36.6
1-9-19 11:15	-0.07	1615	7.78	1.8	1-9-19 11:00	-0.02	872	7.97	5.2	1-9-19 11:00	-0.01	1582	7.86	15.4	6-9-19 4:45	17.42	1692	8.30	11.4	4-8-19 23:00	7.39	566	8.30	17.5	4-8-19 23:00	1.73	721	7.86	35.1
1-9-19 11:30	-0.07	1615	7.79	1.5	1-9-19 11:15	-0.02	865	7.97	5.3	1-9-19 11:15	-0.01	1581	7.86	15.3	6-9-19 5:00	17.33	1692	8.31	10.2	4-8-19 23:15	7.50	565	8.30	17.1	4-8-19 23:15	1.74	722	7.85	34.5
1-9-19 11:45	-0.07	1615	7.78	1.5	1-9-19 11:30	-0.03	864	7.97	4.7	1-9-19 11:30	-0.01	1583	7.86	14.7	6-9-19 5:15	17.24	1691	8.31	11.3	4-8-19 23:30	7.44	565	8.30	16.8	4-8-19 23:30	1.70	722	7.86	34.2
1-9-19 12:00	-0.07	1615	7.78	1.6	1-9-19 11:45	-0.03	906	7.97	3.4	1-9-19 11:45	-0.02	1588	7.88	14.5	6-9-19 5:30	17.17	1692	8.31	10.4	4-8-19 23:45	7.38	565	8.30	17.7	4-8-19 23:45	1.51	720	7.86	32.5
1-9-19 12:30	-0.07	1594	7.79	1.5	1-9-19 12:00	-0.03	903	7.98	13.3	1-9-19 12:00	-0.01	1604	7.87	15.5	6-9-19 5:45	17.10	1691	8.31	9.3	4-9-19 0:00	7.33	565	8.31	16.6	4-9-19 0:00	1.56	722	7.86	33.3
1-9-19 12:45	-0.06	1594	7.78	1.5	1-9-19 12:15	-0.03	904	7.97	6.1	1-9-19 12:15	-0.03	1605	7.87	14.9	6-9-19 6:00	17.04	1691	8.31	10.7	4-9-19 0:15	7.33	565	8.31	17.3	4-9-19 0:15	1.61	723	7.85	32.3
1-9-19 13:00	-0.06	1594	7.78	1.5	1-9-19 12:30	-0.03	909	7.98	3.0	1-9-19 12:30	-0.03	1603	7.85	13.5	6-9-19 6:15	16.97	1692	8.31	11.1	4-9-19 0:30	7.37	565	8.30	17.8	4-9-19 0:30	1.63	723	7.86	30.7
1-9-19 13:15	-0.07	1621	7.78	1.8	1-9-19 12:45	-0.02	905	7.98	3.3	1-9-19 12:45	-0.05	1603	7.84	13.4	6-9-19 6:30	16.94	1691	8.31	11.7	4-9-19 0:45	7.31	565	8.31	16.7	4-9-19 0:45	1.61	723	7.85	29.7
1-9-19 13:30	-0.06	1623	7.79	1.6	1-9-19 13:00	-0.02	903	7.98	3.3	1-9-19 13:00	-0.06	1583	7.83	13.1	6-9-19 6:45	16.83	1691	8.32	10.4	4-9-19 1:00	7.30	565	8.31	16.1	4-9-19 1:00	1.58	723	7.85	28.4
1-9-19 13:45	-0.06	1623	7.78	1.5	1-9-19 13:15	-0.02	902	7.98	9.0	1-9-19 13:15	-0.05	1582	7.83	13.1	6-9-19 7:00	16.77	1692	8.32	11.1	4-9-19 1:15	7.28	565	8.31	16.5	4-9-19 1:15	1.49	723	7.85	28.7
1-9-19 14:00	-0.06	1623	7.78	1.5	1-9-19 13:30	-0.03	909	7.98	0.0	1-9-19 13:30	-0.05	1579	7.83	13.1	6-9-19 7:15	16.67	1692	8.32	10.7	4-9-19 1:30	7.24	565	8.31	16.2	4-9-19 1:30	1.23	702	7.87	24.0
1-9-19 14:15	-0.07	1594	7.77	1.6	1-9-19 13:45	-0.02	907	7.98	7.2	1-9-19 13:45	-0.02	1578	7.83	13.3	6-9-19 7:30	16.59	1691	8.32	10.6	4-9-19 1:45	7.22	565	8.31	15.7	4-9-19 1:45	1.24	706	7.87	25.3
1-9-19 14:30	-0.06	1593	7.79	1.6	1-9-19 14:00	-0.02	906	7.98	0.0	1-9-19 14:00	-0.01	1592	7.82	13.9	6-9-19 7:45	16.49	1691	8.32	10.5	4-9-19 2:00	7.20	565	8.31	16.9	4-9-19 2:00	1.03	714	7.88	24.7
1-9-19 14:45	-0.06	1593	7.78	1.6	1-9-19 14:15	-0.02	900	7.98	6.5	1-9-19 14:15	-0.01	1593	7.82	13.8	6-9-19 8:00	16.42	1693	8.32	10.8	4-9-19 2:15	7.17	565	8.31	16.5	4-9-19 2:15	0.89	709	7.89	25.8
1-9-19 15:00	-0.06	1593	7.78	1.6	1-9-19 14:30	-0.02	900	7.98	7.4	1-9-19 14:30	-0.01	1594	7.82	13.5	6-9-19 8:15	16.37	1688	8.33	10.3	4-9-19 2:30	7.14	565	8.31	16.1	4-9-19 2:30	0.95	707	7.88	21.0
1-9-19 15:15	-0.06	1610	7.77	1.8	1-9-19 14:45	-0.02	901	7.98	5.1	1-9-19 14:45	0.00	1593	7.82	13.4	6-9-19 8:30	16.28	1692	8.33	9.7	4-9-19 2:45	7.11	565	8.31	16.1	4-9-19 2:45	1.05	708	7.87	24.2
1-9-19 15:30	-0.06	1611	7.78	1.5	1-9-19 15:00	-0.02	899	7.97	8.2	1-9-19 15:00	0.00	1576	7.82	13.2	6-9-19 8:45	16.21	1691	8.33	11.0	4-9-19 3:00	7.07	565	8.31	16.8	4-9-19 3:00	0.96	708	7.87	21.3
1-9-19 15:45	-0.06	1611	7.78	1.5	1-9-19 15:15	-0.02	894	7.97	4.4	1-9-19 15:15	0.00	1574	7.82	12.8	6-9-19 9:00	16.16	1692	8.33	10.9	4-9-19 3:15	7.03	565	8.31	16.1	4-9-19 3:15	0.83	709	7.87	19.3
1-9-19 16:00	-0.06	1612	7.78	1.5	1-9-19 15:30	-0.02	896	7.98	6.6	1-9-19 15:30	0.00	1575	7.82	12.8	6-9-19 9:15	16.11	1690	8.33	10.0	4-9-19 3:30	6.97	565	8.31	16.3	4-9-19 3:30	0.78	711	7.87	18.1
1-9-19 16:15	-0.06	1595	7.78	1.6	1-9-19 15:45	-0.02	890	7.98	25.6	1-9-19 15:45	-0.01	1579	7.82	12.9	6-9-19 9:30	16.04	1690	8.33	9.9	4-9-19 3:45	6.94	565	8.31	16.0	4-9-19 3:45	0.80	714	7.87	17.9
1-9-19 16:30	-0.06	1595	7.79	1.5	1-9-19 16:00	-0.02	889	7.97	1.3	1-9-19 16:00	-0.01	1597	7.82	13.4	6-9-19 9:45	15.98	1689	8.32	10.7	4-9-19 4:00	6.97	565	8.31	16.2	4-9-19 4:00	0.94	712	7.87	19.0
1-9-19 16:45	-0.06	1595	7.78	1.4	1-9-19 16:15	-0.02	886	7.98	1.1	1-9-19 16:15	-0.02	1599	7.83	13.3	6-9-19 10:00	15.94	1689	8.32	12.3	4-9-19 4:15	6.94	565	8.31	15.7	4-9-19 4:15	0.86	709	7.87	18.2
1-9-19 17:00	-0.06	1594	7.78	1.5	1-9-19 16:30	-0.02	887	7.98	0.3	1-9-19 16:30	-0.02	1601	7.82	13.4	6-9-19 10:15	15.89	1690	8.32	10.8	4-9-19 4:30	6.94	565	8.31	16.0	4-9-19 4:30	0.79	711	7.87	18.3
1-9-19 17:15	-0.06	1603	7.78	1.8	1-9-19 16:45	-0.02	882	7.98	3.5	1-9-19 16:45	-0.02	1600	7.83	13.5	6-9-19 10:30	15.84	1692	8.32	10.2	4-9-19 4:45	6.90	565	8.31	15.9	4-9-19 4:45	0.61	713	7.88	16.3
1-9-19 17:30	-0.06	1603	7.79	1.5	1-9-19 17:00	-0.02	886	7.98	2.0	1-9-19 17:00	-0.02	1580	7.83	14.0	6-9-19 10:45	15.81	1690	8.32	10.1	4-9-19 5:00	6.85	565	8.31	15.3	4-9-19 5:00	0.68	711	7.88	15.8
1-9-19 17:45	-0.06	1604	7.78	1.5	1-9-19 17:15	-0.02	883	7.98	1.9	1-9-19 17:15	-0.02	1580	7.83	13.5	6-9-19 11:00	15.73	1690	8.32	10.4	4-9-19 5:15	6.80	566	8.31	15.5	4-9-19 5:15	0.69	710	7.88	17.0
1-9-19 18:00	-0.06	1604	7.78	1.5	1-9-19 17:30	-0.02	880	7.98	1.3	1-9-19 17:30	-0.02	1578	7.83	13.5	6-9-19 11:15	15.68	1693	8.32	14.0	4-9-19 5:30	6.76	566	8.31	16.4	4-9-19 5:30	0.66	714	7.88	15.9
1-9-19 18:15	-0.06	1595	7.77	1.6	1-9-19 17:45	-0.02	880	7.98	0.8	1-9-19 17:45	-0.02	1580	7.83	13.1	6-9-19 11:30	15.63	1691	8.32	10.3	4-9-19 5:45	6.75	566	8.31	16.3	4-9-19 5:45	0.63	716	7.88	15.2
1-9-19 18:30	-0.06	1594	7.78	1.6	1-9-19 18:00	-0.02	886	7.98	3.2	1-9-19 18:00	-0.02	1599	7.83	13.5	6-9-19 11:45	15.58	1692	8.33	11.1	4-9-19 6:00	6.71	566	8.31	15.2	4-9-19 6:00	0.61	717	7.88	15.4
1-9-19 18:45	-0.06	1595	7.78	1.6	1-9-19 18:15	-0.02	891	7.98	1.5	1-9-19 18:15	-0.02	1597	7.82	13.5	6-9-19 12:00	15.53	1690	8.32	11.0	4-9-19 6:15	6.66	566	8.31	15.6	4-9-19 6:15	0.74	713	7.87	17.1
1-9-19 19:00	-0.06	1595	7.78	1.5	1-9-19 18:30	-0.02	881	7.98	0.4	1-9-19 18:30	-0.02	1598	7.82	13.2	6-9-19 12:15	15.45	1689	8.33	10.5	4-9-19 6:30	6.65	566	8.31	15.8	4-9-19 6:30	0.70	713	7.87	16.2
1-9-19 19:15	-0.06	1611	7.77	1.7	1-9-19 18:45	-0.02	877	7.98	0.7	1-9-19 18:45	-0.02	1598	7.82	13.4	6-9-19 12:30	15.41	1691	8.33	10.5	4-9-19 6:45	6.62	566	8.31	16.0	4-9-19 6:45	0.58	715	7.88	16.1
1-9-19 19:30	-0.06	1613	7.79	1.5	1-9-19 19:00	-0.02	877	7.98	0.9	1-9-19 19:00	-0.02	1578	7.82	12.7	6-9-19 12:45	15.37	1692	8.33	9.6	4-9-19 7:00	6.57	566	8.31	16.3	4-9-19 7:00	0.59	718	7.88	15.4
1-9-19 19:45	-0.06	1614	7.78	1.5	1-9-19 19:15	-0.02	878	7.98	0.6	1-9-19 19:15	-0.02	1577	7.82	13.3	6-9-19 13:00	15.34	1691	8.33	10.7	4-9-19 7:15	6.55	567	8.30	16.6	4-9-19 7:15	0.56	725	7.88	14.6
1-9-19 20:00	-0.06	1614	7.77	1.5	1-9-19 19:30	-0.02	879	7.98	3.6	1-9-19 19:30	-0.02	1578	7.83	12.8	6-9-19 13:15	15.32	1692	8.33	10.8	4-9-19 7:30	6.49	567	8.30	16.3	4-9-19 7:30	0.51	725	7.88	14.7
1-9-19 20:15	-0.06	1596	7.77	1.5	1-9-19 19:45	-0.02	875	7.98	0.3	1-9-19 19:45	-0.02	1579	7.83	12.7	6-9-19 13:30	15.31	1693	8.33	10.0	4-9-19 7:45	6.37	570	8.30	20.6	4-9-19 7:45	0.45	724	7.88	13.8
1-9-19 20:30	-0.06	1595	7.78	1.5	1-9-19 20:00	-0.02	876	7.98	0.2	1-9-19 20:00	-0.02	1595	7.83	13.2	6-9-19 13:45	15.26	1692	8.32	11.0	4-9-19 8:00	6.35	572	8.29	17.2	4-9-19 8:00	0.52	722	7.88	14.6
1-9-19 20:45	-0.06	1595	7.78	1.3	1-9-19 20:15	-0.02	887	7.98	0.4	1-9-19 20:15	-0.02	1595	7.83	13.2	6-9-19 14:00	15.25	1692	8.33	10.4	4-9-19 8:15	6.35	581	8.27	33.3	4-9-19 8:15	0.54	722	7.88	13.7
1-9-19 21:00	-0.06	1595	7.78	1.5	1-9-19 20:30	-0.02	873	7.98	1.9	1-9-19 20:30	-0.02	1596	7.82	13.5	6-9-19 14:15	15.23	1691	8.32	11.0	4-9-19 8:30	6.44	582	8.27	38.7	4-9-19 8:30	0.56	725	7.87	13.0
1-9-19 21:15	-0.06	1617	7.77	1.8	1-9-19 20:45	-0.02	880	7.98	0.8	1-9-19 20:45	-0.02	1596	7.83	12.9	6-9-19 14:30	15.25	1692	8.31	10.6	4-9-19 8:45	6.55	584	8.28	39.0	4-9-19 8:45	0.62	726	7.87	13.5
1-9-19 21:30	-0.06	1618	7.78	1.5	1-9-19 21:00	-0.02	872	7.98	2.1	1-9-19 21:00	-0.02	1578	7.83	12.7	6-9-19 14:45	15.27	1691	8.31	10.5	4-9-19 9:00	6.55	586	8.28	38.3	4-9-19 9:00	0.68	726	7.87	12.6
1-9-19 21:45	-0.06	1618	7.77	1.4	1-9-19 21:15	-0.02	877	7.98	2.8	1-9-19 21:15	-0.02	1578	7.83	11.1	6-9-19 15:00	15.34	1691	8.31	11.4	4-9-19 9:15	6.57	597	8.29	52.6	4-9-19 9:15	0.77	728	7.87	12.4
1-9-19 22:00	-0.06	1618	7.77	1.5	1-9-19 21:30	-0.02	875	7.98	4.2	1-9-19 21:30	-0.02	1578	7.82	12.2	6-9-19 15:15	15.40	1691	8.31	11.1	4-9-19 9:30	6.65	584	8.28	33.9	4-9-19 9:30	0.88	725	7.88	13.3
1-9-19 22:15	-0.06	1595	7.77	1.5	1-9-19 21:45	-0.02	893	7.98	1.9	1-9-19 21:45	-0.02	1578	7.82	12.5	6-9-19 15:30	15.47	1691	8.31	11.0	4-9-19 9:45	6.72	583	8.28	33.8	4-9-19 9:45	0.90	730	7.89	14.3
1-9-19 22:30	-0.06	1595	7.78	1.5	1-9-19 22:00	-0.02	877	7.98	1.3	1-9-19 22:00	-0.02	1599	7.82	13.1	6-9-19 15:45	15.58	1691	8.30	10.8	4-9-19 10:00	6.77	584	8.29	31.6	4-9-19 10:00	1.10	724	7.88	14.2
1-9-19 22:45	-0.06	1595	7.78	1.5	1-9-19 22:15	-0.02	877	7.98	1.1	1-9-19 22:15	-0.02	1600	7.83	12.9	6-9-19 16:00	15.73	1690	8.30	11.3	4-9-19 10:15	6.80	586	8.29	33.3	4-9-19 10:15	1.31	721	7.86	14.1
1-9-19 23:00	-0.06	1595	7.78	1.4	1-9-19 22:30	-0.02	886	7.98	2.6	1-9-19 22:30	-0.03	1600	7.83	12.9	6-9-19 16:15	15.82	1689	8.30	11.2	4-9-19 10:30	6.83	592	8.29	38.2	4-9-19 10:30	1.58	719	7.85	14.8
1-9-19 23:15	-0.06	1609	7.77	1.8	1-9-19 22:45	-0.02	874	7.98	4.2	1-9-19 22:45	-0.03	1598	7.83	12.6	6-9-19 16:30	15.97	1691	8.30	11.4	4-9-19 10:45	6.82	606	8.31	51.4	4-9-19 10:45	1.82	722	7.85	17.6
1-9-19 23:30	-0.05	1610	7.78	1.5	1-9-19 23:00	-0.02	874	7.98	4.4	1-9-19 23:00	-0.03	1580	7.83	12.8	6-9-19 16:45	16.20	1692	8.29	11.7	4-9-19 11:00	6.92	616	8.32	56.2	4-9-19 11:00	2.00	720	7.84	24.2
1-9-19 23:45	-0.06	1610	7.78	1.5	1-9-19 23:15	-0.02	886	7.98	1.8	1-9-19 23:15	-0.03	1579	7.83	12.9	6-9-19 17:00	16.45	1690	8.28	10.7	4-9-19 11:15	7.07	624	8.33	58.9	4-9-19 11:15	2.16	719	7.84	23.3
1-10-19 0:00	-0.06	1610	7.78	1.4	1-9-19 23:30	-0.02	876	7.98	2.1	1-9-19 23:30	-0.03	1579	7.83	12.5	6-9-19 17:15	16.62	1688	8.28	10.7	4-9-19 11:30	7.26	618	8.32	46.2	4-9-19 11:30	2.28	718	7.83	24.6
1-10-19 0:15	-0.06	1599	7.77	1.5	1-9-19 23:45	-0.02	879	7.98	2.0	1-9-19 23:45	-0.03	1579	7.83	12.2	6-9-19 17:30	16.62	1690	8.28	10.5	4-9-19 11:45	7.44	614	8.31	43.7	4-9-19 11:45	2.36	718	7.83	23.7
1-10-19 0:30	-0.06	1598	7.78	1.6	1-10-19 0:00	-0.02	875	7.98	0.8	1-10-19 0:00	-0.03	1598	7.83	12.9	6-9-19 17:45	16.80	1694	8.29	10.3	4-9-19 12:15	7.17	637	8.35	61.3	4-9-19 12:15	2.54	713	7.84	30.6
1-10-19 0:45	-0.06	1598	7.77	1.4	1-10-19 0:15	-0.02	876	7.98	0.4	1-10-19 0:15	-0.03	1598	7.83	12.8	6-9-19 18:00	17.30	1695	8.27	10.5	4-9-19 12:30	7.69	611	8.32	36.6	4-9-19 12:30	2.65	714	7.83	27.0
1-10-19 1:00	-0.06	1598	7.77	1.4	1-10-19 0:30	-0.02	876	7.98	0.9	1-10-19 0:30	-0.03	1599	7.83	12.7	6-9-19 18:15	17.53	1695	8.26	10.4	4-9-19 12:45	7.87	608	8.31	34.9	4-9-19 12:45	2.77	714	7.83	26.8
1-10-19 1:15	-0.06	1612	7.77	1.8	1-10-19 0:45	-0.02	876	7.98	0.6	1-10-19 0:45	-0.03	1599	7.83	12.8	6-9-19 18:30	17.72	1695	8.28	10.3	4-9-19 13:00	8.00	605	8.31	29.7	4-9-19 13:00	3.04	713	7.82	26.0
1-10-19 1:30	-0.06	1612	7.78	1.5	1-10-19 1:00	-0.02	890	7.98	1.6	1-10-19 1:00	-0.04	1581	7.83	12.5	6-9-19 18:45	17.94	1696	8.26	11.0	4-9-19 13:15	8.14	600	8.31	28.0	4-9-19 13:15	3.50	705	7.82	22.1
1-10-19 1:45	-0.05	1612	7.77	1.4	1-10-19 1:15	-0.02	866	7.98	0.8	1-10-19 1:15	-0.04	1580	7.83	10.8	6-9-19 19:00	17.91	1693	8.27	10.6	4-9-19 13:30	8.08	594	8.31	26.4	4-9-19 13:30	3.73	707	7.82	25.5
1-10-19 2:00	-0.06	1612	7.77	1.4	1-10-19 1:30	-0.02	879	7.98	2.0	1-10-19 1:30	-0.04	1580	7.83	11.0	6-9-19 19:15	18.00	1694	8.26	10.2	4-9-19 13:45	8.64	595	8.31	26.2	4-9-19 13:45	3.98	704	7.82	28.5
1-10-19 2:15	-0.06	1598	7.77	1.5	1-10-19 1:45	-0.02	886	7.98	1.7	1-10-19 1:45	-0.04	1581	7.83	12.0	6-9-19 19:30	18.55	1697	8.26	11.4	4-9-19 14:00	8.99	594	8.30	38.9	4-9-19 14:00	4.26	702	7.82	51.0
1-10-19 2:30	-0.06	1598	7.78	1.5	1-10-19 2:00	-0.02	884	7.98	1.8	1-10-19 2:00	-0.04	1601	7.83	13.0	6-9-19 19:45	18.71	1695	8.25	10.5	4-9-19 14:15	8.71	588	8.30	24.4	4-9-19 14:15	4.65	697	7.82	28.0
1-10-19 2:45	-0.05	1597	7.77	1.5	1-10-19 2:15	-0.02	876	7.97	0.9	1-10-19 2:15	-0.04	1601	7.83	12.8	6-9-19 20:00	18.68	1694	8.25	10.8	4-9-19 14:30	8.76	584	8.30	23.0	4-9-19 14:30	4.69	690	7.82	26.9
1-10-19 3:00	-0.05	1597	7.77	1.5	1-10-19 2:30	-0.02	888	7.98	0.4	1-10-19 2:30	-0.04	1599	7.83	12.5	6-9-19 20:15	18.53	1694	8.26	11.0	4-9-19 14:45	8.60	584	8.31	22.0	4-9-19 14:45	4.59	687	7.82	28.3
1-10-19 3:15					1-10-19 2:45	-0.02	876	7.98	0.2	1-10-19 2:45	-0.04	1599	7.83	12.6	6-9-19 20:30	18.95	1702	8.27	10.4	4-9-19 15:00	8.06	586	8.32	23.5	4-9-19 15:00	4.32	683	7.83	27.2

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-10-19 3:30	-0.06	1610	7.78	1.5	1-10-19 3:00	-0.02	875	7.98	1.7	1-10-19 3:00	-0.04	1580	7.83	12.2	6-9-19 20:45	19.34	1697	8.25	10.4	4-9-19 15:15	8.43	589	8.33	22.1	4-9-19 15:15	4.49	695	7.83	36.7
1-10-19 3:45	-0.06	1610	7.77	1.5	1-10-19 3:15	-0.02	876	7.98	0.8	1-10-19 3:15	-0.04	1578	7.83	12.6	6-9-19 21:00	19.53	1699	8.26	9.3	4-9-19 15:30	8.81	589	8.32	20.5	4-9-19 15:30	4.44	698	7.83	37.8
1-10-19 4:00					1-10-19 3:30	-0.02	877	7.98	0.2	1-10-19 3:30	-0.04	1577	7.83	12.1	6-9-19 21:15	19.74	1700	8.26	9.7	4-9-19 15:45	8.86	588	8.32	20.2	4-9-19 15:45	4.37	699	7.83	35.8
1-10-19 4:15	-0.06	1599	7.76	1.5	1-10-19 3:45	-0.02	878	7.98	0.2	1-10-19 3:45	-0.03	1580	7.83	12.3	6-9-19 21:30	20.01	1699	8.24	10.9	4-9-19 16:00	9.00	587	8.32	19.7	4-9-19 16:00	4.41	700	7.83	38.0
1-10-19 4:30					1-10-19 4:00	-0.02	877	7.98	0.2	1-10-19 4:00	-0.03	1598	7.83	12.9	6-9-19 21:45	19.89	1700	8.25	10.6	4-9-19 16:15	9.21	585	8.31	18.9	4-9-19 16:15	4.49	700	7.83	34.0
1-10-19 4:45	-0.06	1598	7.77	1.5	1-10-19 4:15	-0.02	870	7.98	0.8	1-10-19 4:15	-0.03	1598	7.83	12.6	6-9-19 22:00	19.80	1696	8.25	9.8	4-9-19 16:30	9.30	582	8.31	17.8	4-9-19 16:30	4.39	700	7.83	32.2
1-10-19 5:00	-0.06	1597	7.76	1.4	1-10-19 4:30	-0.02	881	7.97	0.5	1-10-19 4:30	-0.03	1599	7.83	12.7	6-9-19 22:15	19.90	1697	8.27	11.0	4-9-19 16:45	9.34	584	8.32	22.1	4-9-19 16:45	4.35	702	7.83	35.3
1-10-19 5:15	-0.06	1612	7.76	1.7	1-10-19 4:45	-0.02	879	7.98	0.2	1-10-19 4:45	-0.04	1599	7.83	12.7	6-9-19 22:30	20.13	1702	8.26	10.3	4-9-19 17:00	9.43	583	8.32	24.7	4-9-19 17:00	4.29	703	7.83	50.1
1-10-19 5:30	-0.06	1612	7.77	1.5	1-10-19 5:00	-0.02	883	7.97	0.0	1-10-19 5:00	-0.04	1580	7.83	12.4	6-9-19 22:45	19.90	1699	8.26	10.5	4-9-19 17:15	9.58	582	8.32	20.0	4-9-19 17:15	4.22	703	7.83	36.3
1-10-19 5:45	-0.06	1612	7.76	1.4	1-10-19 5:15	-0.02	879	7.98	0.7	1-10-19 5:15	-0.04	1581	7.83	12.3	6-9-19 23:00	19.95	1701	8.27	9.7	4-9-19 17:30	9.56	582	8.32	18.7	4-9-19 17:30	4.28	705	7.84	37.2
1-10-19 6:00	-0.06	1612	7.76	1.4	1-10-19 5:30	-0.02	881	7.98	0.1	1-10-19 5:30	-0.04	1581	7.83	11.9	6-9-19 23:15	19.87	1698	8.28	10.4	4-9-19 17:45	9.41	581	8.32	17.6	4-9-19 17:45	4.19	704	7.84	34.0
1-10-19 6:15	-0.06	1599	7.76	1.4	1-10-19 5:45	-0.02	878	7.98	0.0	1-10-19 5:45	-0.04	1580	7.83	12.0	6-9-19 23:30	19.93	1696	8.27	10.8	4-9-19 18:00	9.34	581	8.32	17.8	4-9-19 18:00	4.03	703	7.84	33.0
1-10-19 6:30	-0.06	1603	7.77	1.4	1-10-19 6:00	-0.02	881	7.98	1.6	1-10-19 6:00	-0.04	1597	7.83	13.1	6-9-19 23:45	19.73	1697	8.27	10.1	4-9-19 18:15	9.27	581	8.32	17.9	4-9-19 18:15	3.91	700	7.85	34.0
1-10-19 6:45	-0.06	1599	7.76	1.4	1-10-19 6:15	-0.02	878	7.98	0.5	1-10-19 6:15	-0.04	1597	7.84	12.9	6-10-19 0:00	19.54	1696	8.27	10.1	4-9-19 18:30	9.16	582	8.33	20.0	4-9-19 18:30	3.66	698	7.86	32.7
1-10-19 7:00	-0.06	1599	7.76	1.3	1-10-19 6:30	-0.02	890	7.97	1.7	1-10-19 6:30	-0.04	1600	7.84	12.8	6-10-19 0:15	19.08	1692	8.26	10.1	4-9-19 18:45	9.09	582	8.33	18.5	4-9-19 18:45	3.77	700	7.86	34.8
1-10-19 7:15	-0.06	1624	7.75	1.7	1-10-19 6:45	-0.02	876	7.98	3.4	1-10-19 6:45	-0.04	1598	7.84	13.0	6-10-19 0:30	18.68	1693	8.28	9.9	4-9-19 19:00	9.05	582	8.34	18.9	4-9-19 19:00	3.73	700	7.87	33.0
1-10-19 7:30	-0.05	1625	7.77	1.4	1-10-19 7:00	-0.02	877	7.98	1.8	1-10-19 7:00	-0.04	1580	7.83	12.9	6-10-19 0:45	18.73	1697	8.28	10.0	4-9-19 19:15	9.05	583	8.34	17.3	4-9-19 19:15	3.75	700	7.87	35.0
1-10-19 7:45	-0.06	1625	7.76	1.4	1-10-19 7:15	-0.02	880	7.98	4.3	1-10-19 7:15	-0.04	1579	7.83	11.4	6-10-19 1:00	18.98	1698	8.27	10.2	4-9-19 19:30	9.00	583	8.34	18.1	4-9-19 19:30	3.77	700	7.86	36.5
1-10-19 8:00					1-10-19 7:30	-0.02	882	7.98	3.3	1-10-19 7:30	-0.04	1580	7.83	11.6	6-10-19 1:15	19.10	1697	8.26	10.6	4-9-19 19:45	8.96	583	8.34	18.5	4-9-19 19:45	3.70	701	7.87	31.6
1-10-19 8:15	-0.06	1598	7.75	1.4	1-10-19 7:45	-0.02	883	7.97	0.3	1-10-19 7:45	-0.04	1578	7.83	11.7	6-10-19 1:30	19.43	1699	8.27	10.1	4-9-19 20:00	8.92	583	8.34	20.3	4-9-19 20:00	3.71	700	7.87	30.5
1-10-19 8:30	-0.06	1598	7.76	1.5	1-10-19 8:00	-0.02	880	7.97	1.8	1-10-19 8:00	-0.04	1598	7.83	13.5	6-10-19 1:45	19.66	1700	8.27	10.2	4-9-19 20:15	8.87	583	8.34	17.3	4-9-19 20:15	3.50	701	7.87	31.8
1-10-19 8:45	-0.06	1598	7.76	1.4	1-10-19 8:15	-0.02	894	7.97	0.0	1-10-19 8:15	-0.04	1598	7.83	12.7	6-10-19 2:00	19.66	1699	8.29	9.8	4-9-19 20:30	8.81	583	8.34	17.4	4-9-19 20:30	3.58	702	7.87	33.7
1-10-19 9:00	-0.06	1598	7.75	1.4	1-10-19 8:30	-0.02	908	7.97	0.3	1-10-19 8:30	-0.04	1596	7.83	12.9	6-10-19 2:15	19.78	1700	8.28	10.7	4-9-19 20:45	8.68	583	8.34	18.1	4-9-19 20:45	3.66	701	7.87	32.5
1-10-19 9:15	-0.06	1615	7.75	1.7	1-10-19 8:45	-0.02	888	7.98	0.0	1-10-19 8:45	-0.04	1597	7.83	12.7	6-10-19 2:30	19.81	1700	8.28	12.4	4-9-19 21:00	8.63	583	8.35	18.1	4-9-19 21:00	3.36	699	7.88	30.0
1-10-19 9:30	-0.06	1615	7.76	1.4	1-10-19 9:00	-0.02	883	7.97	0.0	1-10-19 9:00	-0.04	1578	7.83	12.5	6-10-19 2:45	19.76	1701	8.29	12.5	4-9-19 21:15	8.57	583	8.35	16.5	4-9-19 21:15	3.40	702	7.87	31.6
1-10-19 9:45	-0.06	1615	7.75	1.3	1-10-19 9:15	-0.02	885	7.97	0.0	1-10-19 9:15	-0.04	1578	7.83	12.4	6-10-19 3:00	19.65	1699	8.29	10.6	4-9-19 21:30	8.59	583	8.35	17.6	4-9-19 21:30	3.54	703	7.87	34.6
1-10-19 10:00	-0.06	1616	7.75	1.3	1-10-19 9:30	-0.02	880	7.97	0.5	1-10-19 9:30	-0.04	1577	7.83	12.6	6-10-19 3:15	19.60	1699	8.29	10.4	4-9-19 21:45	8.60	583	8.35	16.8	4-9-19 21:45	3.60	702	7.87	34.3
1-10-19 10:15	-0.06	1600	7.74	1.4	1-10-19 9:45	-0.02	892	7.97	0.2	1-10-19 9:45	-0.04	1578	7.82	12.8	6-10-19 3:30	19.50	1700	8.30	11.5	4-9-19 22:00	8.50	583	8.35	19.4	4-9-19 22:00	3.61	702	7.87	37.1
1-10-19 10:30	-0.06	1600	7.76	1.5	1-10-19 10:00	-0.02	879	7.97	0.5	1-10-19 10:00	-0.04	1596	7.82	13.6	6-10-19 3:45	19.42	1701	8.30	10.5	4-9-19 22:15	8.44	583	8.35	16.5	4-9-19 22:15	3.55	701	7.87	30.3
1-10-19 10:45	-0.06	1600	7.75	1.3	1-10-19 10:15	-0.02	881	7.97	0.5	1-10-19 10:15	-0.04	1597	7.83	13.4	6-10-19 4:00	19.36	1700	8.29	10.9	4-9-19 22:30	8.43	583	8.35	15.7	4-9-19 22:30	3.50	705	7.87	39.8
1-10-19 11:00	-0.06	1600	7.75	1.3	1-10-19 10:30	-0.02	879	7.97	0.0	1-10-19 10:30	-0.04	1597	7.83	13.3	6-10-19 4:15	19.27	1699	8.29	10.8	4-9-19 22:45	8.47	583	8.35	16.2	4-9-19 22:45	3.53	705	7.86	44.7
1-10-19 11:15	-0.06	1620	7.75	1.6	1-10-19 10:45	-0.02	882	7.97	0.7	1-10-19 10:45	0.04	1596	7.82	16.4	6-10-19 4:30	19.21	1701	8.29	10.6	4-9-19 23:00	8.46	583	8.35	14.2	4-9-19 23:00	3.57	705	7.86	42.7
1-10-19 11:30	-0.06	1620	7.76	1.4	1-10-19 11:00	-0.02	885	7.98	1.6	1-10-19 11:00	0.01	1578	7.81	15.6	6-10-19 4:45	19.15	1700	8.29	10.5	4-9-19 23:15	8.43	583	8.35	15.9	4-9-19 23:15	3.58	705	7.86	41.2
1-10-19 11:45	-0.06	1620	7.75	1.4	1-10-19 11:15	-0.02	884	7.97	0.1	1-10-19 11:15	0.01	1578	7.81	14.5	6-10-19 5:00	19.07	1699	8.29	10.9	4-9-19 23:30	8.29	584	8.35	15.7	4-9-19 23:30	3.34	701	7.88	30.5
1-10-19 12:00	-0.06	1619	7.75	1.4	1-10-19 11:30	-0.02	894	7.97	0.0	1-10-19 11:30	-0.02	1579	7.81	15.5	6-10-19 5:15	18.97	1699	8.30	10.3	4-9-19 23:45	8.25	583	8.35	16.7	4-9-19 23:45	3.19	707	7.88	32.0
1-10-19 12:15	-0.06	1603	7.74	1.4	1-10-19 11:45	-0.02	874	7.97	1.1	1-10-19 11:45	-0.01	1578	7.81	15.1	6-10-19 5:30	18.89	1701	8.30	11.7	4-10-19 0:00	8.15	583	8.35	16.1	4-10-19 0:00	3.34	706	7.87	34.7
1-10-19 12:30	-0.06	1602	7.75	1.4	1-10-19 12:00	-0.02	896	7.98	0.0	1-10-19 12:00	0.05	1598	7.81	14.6	6-10-19 5:45	18.79	1699	8.31	10.2	4-10-19 0:15	8.16	584	8.35	16.0	4-10-19 0:15	3.27	706	7.87	33.2
1-10-19 12:45	-0.06	1602	7.75	1.3	1-10-19 12:15	-0.02	898	7.98	0.8	1-10-19 12:15	-0.03	1600	7.81	14.3	6-10-19 6:00	18.73	1701	8.31	10.4	4-10-19 0:30	8.21	584	8.35	17.3	4-10-19 0:30	3.37	706	7.87	34.7
1-10-19 13:00	-0.06	1602	7.74	1.2	1-10-19 12:30	-0.02	902	7.98	1.4	1-10-19 12:30	-0.04	1600	7.82	14.0	6-10-19 6:15	18.64	1700	8.31	11.4	4-10-19 0:45	8.23	584	8.35	14.2	4-10-19 0:45	3.42	706	7.87	35.3
1-10-19 13:15	-0.06	1617	7.74	1.6	1-10-19 12:45	-0.01	892	7.98	0.4	1-10-19 12:45	-0.05	1602	7.82	13.9	6-10-19 6:30	18.52	1699	8.32	10.0	4-10-19 1:00	8.22	584	8.35	15.2	4-10-19 1:00	3.30	707	7.87	32.0
1-10-19 13:30	-0.06	1618	7.75	1.4	1-10-19 13:00	-0.01	889	7.98	0.8	1-10-19 13:00	-0.06	1580	7.82	13.7	6-10-19 6:45	18.43	1701	8.32	11.9	4-10-19 1:15	8.16	584	8.35	15.4	4-10-19 1:15	2.99	705	7.89	25.3
1-10-19 13:45	-0.06	1618	7.74	1.3	1-10-19 13:15	-0.02	905	7.98	2.3	1-10-19 13:15	-0.06	1581	7.82	13.0	6-10-19 7:00	18.35	1701	8.32	10.2	4-10-19 1:30	8.09	584	8.35	16.5	4-10-19 1:30	2.93	706	7.89	28.6
1-10-19 14:00	-0.06	1618	7.74	1.3	1-10-19 13:30	-0.02	890	7.98	0.6	1-10-19 13:30	-0.06	1581	7.82	13.5	6-10-19 7:15	18.28	1700	8.32	9.9	4-10-19 1:45	8.05	584	8.35	15.4	4-10-19 1:45	3.07	707	7.88	30.0
1-10-19 14:15	-0.07	1601	7.73	1.3	1-10-19 13:45	-0.02	898	7.98	0.1	1-10-19 13:45	-0.06	1581	7.82	13.0	6-10-19 7:30	18.16	1700	8.32	10.0	4-10-19 2:00	8.05	584	8.35	15.8	4-10-19 2:00	3.19	707	7.87	31.3
1-10-19 14:30	-0.06	1601	7.75	1.3	1-10-19 14:00	-0.02	898	7.98	2.3	1-10-19 14:00	-0.06	1602	7.82	14.0	6-10-19 7:45	18.07	1701	8.32	9.8	4-10-19 2:15	8.00	584	8.35	15.1	4-10-19 2:15	2.51	700	7.91	14.6
1-10-19 14:45	-0.06	1601	7.74	1.3	1-10-19 14:15	-0.02	892	7.98	0.1	1-10-19 14:15	-0.06	1603	7.82	13.4	6-10-19 8:00	17.96	1701	8.32	10.8	4-10-19 2:30	7.97	584	8.35	15.8	4-10-19 2:30	1.74	707	7.93	16.7
1-10-19 15:00	-0.06	1601	7.74	1.3	1-10-19 14:30	-0.02	901	7.98	1.3	1-10-19 14:30	-0.06	1603	7.82	13.3	6-10-19 8:15	17.89	1701	8.32	10.1	4-10-19 2:45	7.94	584	8.35	15.8	4-10-19 2:45	2.16	708	7.92	20.4
1-10-19 15:15	-0.06	1618	7.73	1.5	1-10-19 14:45	-0.02	891	7.98	0.0	1-10-19 14:45	-0.05	1601	7.82	13.2	6-10-19 8:30	17.82	1700	8.33	10.9	4-10-19 3:00	7.80	584	8.35	13.5	4-10-19 3:00	2.41	708	7.91	21.3
1-10-19 15:30	-0.06	1620	7.75	1.4	1-10-19 15:00	-0.02	892	7.98	0.9	1-10-19 15:00	-0.05	1579	7.82	13.1	6-10-19 8:45	17.70	1700	8.32	10.1	4-10-19 3:15	7.77	584	8.36	13.6	4-10-19 3:15	2.53	708	7.90	22.0
1-10-19 15:45	-0.06	1620	7.74	1.4	1-10-19 15:15	-0.02	890	7.98	0.6	1-10-19 15:15	-0.05	1580	7.82	13.0	6-10-19 9:00	17.64	1700	8.32	10.5	4-10-19 3:30	7.72	584	8.36	14.8	4-10-19 3:30	2.79	706	7.89	24.1
1-10-19 16:00	-0.06	1620	7.73	1.3	1-10-19 15:30	-0.02	894	7.98	0.4	1-10-19 15:30	-0.05	1580	7.82	13.0	6-10-19 9:15	17.54	1700	8.32	11.1	4-10-19 3:45	7.73	584	8.35	15.8	4-10-19 3:45	2.89	706	7.88	23.6
1-10-19 16:15	-0.06	1605	7.73	1.4	1-10-19 15:45	-0.02	896	7.98	0.6	1-10-19 15:45	-0.05	1579	7.82	12.3	6-10-19 9:30	17.47	1701	8.32	10.8	4-10-19 4:00	7.67	583	8.36	14.6	4-10-19 4:00	2.99	706	7.88	24.5
1-10-19 16:30	-0.06	1605	7.74	1.3	1-10-19 16:00	-0.02	891	7.98	1.1	1-10-19 16:00	-0.05	1601	7.81	13.2	6-10-19 9:45	17.42	1701	8.32	10.7	4-10-19 4:15	7.65	584	8.36	14.1	4-10-19 4:15	2.87	707	7.88	23.3
1-10-19 16:45	-0.06	1605	7.73	1.3	1-10-19 16:15	-0.02	894	7.98	0.9	1-10-19 16:15	-0.06	1599	7.82	13.4	6-10-19 10:00	17.33	1701	8.32	10.0	4-10-19 4:30	7.62	584	8.36	14.8	4-10-19 4:30	2.17	707	7.91	17.9
1-10-19 17:00	-0.06	1604	7.73	1.3	1-10-19 16:30	-0.02	896	7.98	0.0	1-10-19 16:30	-0.06	1601	7.82	13.3	6-10-19 10:15	17.26	1700	8.33	10.0	4-10-19 4:45	7.57	584	8.35	13.7	4-10-19 4:45	2.16	709	7.92	19.8
1-10-19 17:15	-0.06	1630	7.73	1.5	1-10-19 16:45	-0.02	907	7.98	0.7	1-10-19 16:45	-0.06	1603	7.82	13.3	6-10-19 10:30	17.19	1701	8.33	10.2	4-10-19 5:00	7.54	584	8.36	14.8	4-10-19 5:00	2.39	709	7.90	21.5
1-10-19 17:30	-0.06	1630	7.74	1.3	1-10-19 17:00	-0.02	909	7.98	1.8	1-10-19 17:00	-0.06	1578	7.82	13.3	6-10-19 10:45	17.13	1701	8.32	9.8	4-10-19 5:15	7.50	584	8.36	14.6	4-10-19 5:15	2.00	711	7.92	20.4
1-10-19 17:45	-0.06	1630	7.73	1.3	1-10-19 17:15	-0.02	885	7.98	0.8	1-10-19 17:15	-0.06	1580	7.81	12.9	6-10-19 11:00	17.09	1700	8.32	10.5	4-10-19 5:30	7.40	584	8.36	14.5	4-10-19 5:30	2.49	709	7.90	21.5
1-10-19 18:00	-0.06	1630	7.73	1.3	1-10-19 17:30	-0.02	898	7.98	1.2	1-10-19 17:30	-0.06	1580	7.81	13.0	6-10-19 11:15	16.99	1700	8.32	11.4	4-10-19 5:45	7.34	585	8.36	15.3	4-10-19 5:45	2.80	709	7.89	24.5
1-10-19 18:15	-0.06	1609	7.72	1.3	1-10-19 17:45	-0.02	894	7.98	87.7	1-10-19 17:45	-0.06	1579	7.81	13.0	6-10-19 11:30	16.95	1700	8.32	10.9	4-10-19 6:00	7.25	585	8.36	14.6	4-10-19 6:00	3.07	708	7.87	24.7
1-10-19 18:30	-0.06	1608	7.73	1.3	1-10-19 18:00	-0.02	892	7.98	0.0	1-10-19 18:00	-0.06	1597	7.81	13.7	6-10-19 11:45	16.87	1701	8.32	11.1	4-10-19 6:15	7.23	585	8.36	15.4	4-10-19 6:15	3.19	706	7.86	25.2
1-10-19 18:45	-0.06	1608	7.73	1.3	1-10-19 18:15	-0.02	899	7.98	0.3	1-10-19 18:15	-0.06	1597	7.82	13.6	6-10-19 12:00	16.80	1702	8.33	10.8	4-10-19 6:30	7.19	585	8.36	14.7	4-10-19 6:30	3.24	706	7.86	24.9
1-10-19 19:00	-0.06	1608	7.73	1.2	1-10-19 18:30	-0.02	900	7.98	2.3	1-10-19 18:30	-0.05	1599	7.81	13.7	6-10-19 12:15	16.75	1702	8.32	10.5	4-10-19 6:45	7.23	586	8.36	14.1	4-10-19 6:45	3.27	706	7.86	25.7
1-10-19 19:15	-0.06	1615	7.72	1.5	1-10-19 18:45	-0.02	892	7.98	8.3	1-10-19 18:45	-0.05	1597	7.81	14.3	6-10-19 12:30	16.68	1700	8.33	9.3	4-10-19 7:00	7.25	586	8.35	14.3	4-10-19 7:00	3.29	706	7.86	26.2
1-10-19 19:30	-0.06	1616	7.73	1.4	1-10-19 19:00	-0.02	892	7.98	0.1	1-10-19 19:00	-0.06	1580	7.81	13.4	6-10-19 12:45	16.63	1701	8.33	10.6	4-10-19 7:15	7.21	586	8.36	15.3	4-10-19 7:15	3.28	706	7.86	26.9
1-10-19 19:45					1-10-19 19:15	-0.02	892	7.97	0.9	1-10-19 19:15	-0.05	1579	7.81	12.9	6-10-19 13:00	16.56	1700	8.33	10.3	4-10-19 7:30	7.18	586	8.35	15.1	4-10-19 7:30	3.18	707	7.86	25.8
1-10-19 20:00	-0.06	1616	7.72	1.3	1-10-19 19:30	-0.02	894	7.98	0.0	1-10-19 19:30	-0.05	1579	7.81	13.0	6-10-19 13:15	16.50	1702	8.33	10.0	4-10-19 7:45	7.15	586	8.36	14.6	4-10-19 7:45	2.77	708	7.89	16.5
1-10-19 20:15	-0.06	1604	7.72	1.3	1-10-19 19:45	-0.02	899	7.97	0.9	1-10-19 19:45	-0.05	1578	7.81	12.7	6-10-19 13:30	16.47	1702	8.33	10.6	4-10-19 8:00	7.16	586	8.36	15.0	4-10-19 8:00	2.41	713	7.90	20.5
1-10-19 20:30	-0.05	1603	7.73	1.3	1-10-19 20:00	-0.02	890	7.98	3.3	1-10-19 20:00	-0.04	1595	7.81	13.6	6-10-19 13:45	16.41	1703	8.34	10.0	4-10-19 8:15	7.20	586	8.36	15.4	4-10-19 8:15	2.28	712	7.91	18.5
1-10-19 20:45	-0.06	1603	7.72	1.3	1-10-19 20:15	-0.02	889	7.98	0.9	1-10-19 20:15	-0.04	1596	7.81	13.3	6-10-19 14:00	16.39	1700	8.33	10.0	4-10-19 8:30	7.26	587	8.35	15.8	4-10-19 8:30	2.63	709	7.89	19.7
1-10-19 21:00	-0.05	1603	7.72	1.3	1-10-19 20:30	-0.02	889	7.98	0.4	1-10-19 20:30	-0.04	1598	7.81	13.0	6-10-19 14:15	16.34	1700	8.33	10.4	4-10-19 8:45	7.33	586	8.36	16.0	4-10-19 8:45	1.93	709	7.93	13.9
1-10-19 21:15	-0.06	1620	7.72	1.5	1-10-19 20:45	-0.02	895	7.97	0.0	1-10-19 20:45	-0.05	1597	7.81	13.0	6-10-19 14:30	16.32	1702	8.34	10.1	4-10-19 9:00	7.44	587	8.35	15.0	4-10-19 9:00	2.11	710	7.92	14.6
1-10-19 21:30	-0.06	1621	7.73	1.3	1-10-19 21:00	-0.02	893	7.98	0.0	1-10-19 21:00	-0.05	1579	7.81	12.7	6-10-19 14:45	16.30	1702	8.33	10.2	4-10-19 9:15	7.54	587	8.35	15.7	4-10-19 9:15	2.11	711	7.94	12.8

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-10-19 21:45	-0.06	1621	7.72	1.3	1-10-19 21:15	-0.02	897	7.97	0.3	1-10-19 21:15	-0.05	1580	7.81	12.5	6-10-19 15:00	16.28	1703	8.33	10.5	4-10-19 9:30	7.66	587	8.35	14.3	4-10-19 9:30	2.21	710	7.94	9.7
1-10-19 22:00	-0.06	1622	7.72	1.3	1-10-19 21:30	-0.02	887	7.98	0.7	1-10-19 21:30	-0.05	1579	7.81	12.1	6-10-19 15:15	16.26	1702	8.33	10.1	4-10-19 9:45	7.81	587	8.34	15.2	4-10-19 9:45	2.36	710	7.94	9.3
1-10-19 22:15	-0.06	1601	7.71	1.2	1-10-19 21:45	-0.02	892	7.98	0.8	1-10-19 21:45	-0.05	1580	7.81	12.1	6-10-19 15:30	16.26	1700	8.33	11.0	4-10-19 10:00	7.93	587	8.34	14.9	4-10-19 10:00	2.62	711	7.93	9.1
1-10-19 22:30	-0.06	1600	7.72	1.3	1-10-19 22:00	-0.02	897	7.97	10.1	1-10-19 22:00	-0.05	1599	7.81	13.1	6-10-19 15:45	16.27	1702	8.33	11.2	4-10-19 10:15	8.01	587	8.34	15.3	4-10-19 10:15	2.58	709	7.91	11.2
1-10-19 22:45	-0.06	1600	7.72	1.3	1-10-19 22:15	-0.02	887	7.98	0.1	1-10-19 22:15	-0.05	1598	7.81	13.0	6-10-19 16:00	16.31	1705	8.33	10.9	4-10-19 10:30	8.02	586	8.34	15.7	4-10-19 10:30	2.88	708	7.91	12.8
1-10-19 23:00	-0.06	1600	7.72	1.3	1-10-19 22:30	-0.02	888	7.97	0.0	1-10-19 22:30	-0.05	1598	7.81	12.9	6-10-19 16:15	16.36	1702	8.33	10.4	4-10-19 10:45	7.81	586	8.35	16.1	4-10-19 10:45	3.01	707	7.90	13.6
1-10-19 23:15	-0.06	1611	7.71	1.5	1-10-19 22:45	-0.02	896	7.97	0.0	1-10-19 22:45	-0.05	1599	7.81	12.8	6-10-19 16:30	16.43	1704	8.32	11.3	4-10-19 11:00	8.07	587	8.35	16.6	4-10-19 11:00	3.36	704	7.89	14.2
1-10-19 23:30	-0.06	1611	7.72	1.2	1-10-19 23:00	-0.02	887	7.98	0.0	1-10-19 23:00	-0.05	1578	7.81	12.7	6-10-19 16:45	16.52	1701	8.32	10.5	4-10-19 11:15	8.14	588	8.35	20.8	4-10-19 11:15	3.69	702	7.88	16.5
1-10-19 23:45	-0.06	1611	7.72	1.3	1-10-19 23:15	-0.02	880	7.98	0.4	1-10-19 23:15	-0.05	1579	7.81	12.7	6-10-19 17:00	16.64	1703	8.32	11.1	4-10-19 11:30	8.26	589	8.35	19.7	4-10-19 11:30	3.81	701	7.87	16.5
1-11-19 0:00	-0.06	1611	7.72	1.2	1-10-19 23:30	-0.02	893	7.97	0.2	1-10-19 23:30	-0.05	1580	7.81	12.8	6-10-19 17:15	16.76	1704	8.32	10.8	4-10-19 11:45	8.49	590	8.35	16.5	4-10-19 11:45	4.23	703	7.87	17.5
1-11-19 0:15	-0.07	1601	7.71	1.3	1-10-19 23:45	-0.02	892	7.97	0.0	1-10-19 23:45	-0.06	1580	7.81	12.5	6-10-19 17:30	16.86	1699	8.31	10.9	4-10-19 12:00	8.60	591	8.35	19.8	4-10-19 12:00	4.40	702	7.86	16.2
1-11-19 0:30	-0.06	1600	7.71	1.3	1-11-19 0:00	-0.02	894	7.97	0.0	1-11-19 0:00	-0.06	1601	7.80	13.1	6-10-19 17:45	17.04	1703	8.32	11.0	4-10-19 12:15	8.68	591	8.35	16.1	4-10-19 12:15	4.55	700	7.86	18.5
1-11-19 0:45	-0.06	1600	7.71	1.3	1-11-19 0:15	-0.02	898	7.97	1.4	1-11-19 0:15	-0.06	1601	7.81	13.3	6-10-19 18:00	17.27	1701	8.30	11.2	4-10-19 12:30	8.91	590	8.34	15.5	4-10-19 12:30	4.35	701	7.86	20.2
1-11-19 1:00	-0.06	1600	7.71	1.2	1-11-19 0:30	-0.02	892	7.97	0.0	1-11-19 0:30	-0.06	1602	7.81	13.2	6-10-19 18:15	17.30	1703	8.31	10.8	4-10-19 12:45	9.08	589	8.34	17.5	4-10-19 12:45	4.33	701	7.86	20.7
1-11-19 1:15	-0.07	1614	7.71	1.5	1-11-19 0:45	-0.02	893	7.97	0.2	1-11-19 0:45	-0.06	1601	7.81	13.3	6-10-19 18:30	17.46	1703	8.30	11.2	4-10-19 13:00	9.13	589	8.34	15.1	4-10-19 13:00	4.42	703	7.86	19.9
1-11-19 1:30	-0.07	1615	7.71	1.3	1-11-19 1:00	-0.02	889	7.98	0.3	1-11-19 1:00	-0.06	1580	7.81	13.4	6-10-19 18:45	17.70	1704	8.29	10.9	4-10-19 13:15	9.16	589	8.34	15.2	4-10-19 13:15	4.72	702	7.86	26.4
1-11-19 1:45	-0.07	1615	7.71	1.3	1-11-19 1:15	-0.02	891	7.98	0.5	1-11-19 1:15	-0.06	1581	7.81	12.8	6-10-19 19:00	17.81	1703	8.29	11.1	4-10-19 13:30	9.28	589	8.34	15.6	4-10-19 13:30	4.62	701	7.86	23.0
1-11-19 2:00	-0.07	1615	7.71	1.3	1-11-19 1:30	-0.02	893	7.97	0.0	1-11-19 1:30	-0.06	1581	7.81	12.5	6-10-19 19:15	18.16	1708	8.29	11.2	4-10-19 13:45	9.39	590	8.34	16.9	4-10-19 13:45	4.93	704	7.87	23.2
1-11-19 2:15	-0.08	1603	7.70	1.3	1-11-19 1:45	-0.02	894	7.97	2.9	1-11-19 1:45	-0.06	1579	7.81	12.5	6-10-19 19:30	18.11	1705	8.30	11.2	4-10-19 14:00	9.31	589	8.35	17.1	4-10-19 14:00	4.96	701	7.86	30.8
1-11-19 2:30	-0.07	1602	7.71	1.2	1-11-19 2:00	-0.02	895	7.97	0.0	1-11-19 2:00	-0.06	1597	7.80	13.5	6-10-19 19:45	18.43	1705	8.29	10.6	4-10-19 14:15	8.94	589	8.35	16.8	4-10-19 14:15	4.80	699	7.87	50.0
1-11-19 2:45	-0.07	1602	7.70	1.5	1-11-19 2:15	-0.02	908	7.97	2.7	1-11-19 2:15	-0.05	1596	7.81	13.5	6-10-19 20:00	18.55	1704	8.28	11.2	4-10-19 14:30	8.54	589	8.36	18.4	4-10-19 14:30	4.79	697	7.88	31.5
1-11-19 3:00	-0.07	1602	7.71	1.3	1-11-19 2:30	-0.02	893	7.97	0.0	1-11-19 2:30	-0.05	1597	7.81	13.0	6-10-19 20:15	18.72	1704	8.29	11.3	4-10-19 14:45	7.80	619	8.37	25.7	4-10-19 14:45	4.73	694	7.88	25.8
1-11-19 3:15	-0.08	1613	7.70	1.5	1-11-19 2:45	-0.02	892	7.97	0.0	1-11-19 2:45	-0.06	1598	7.81	13.0	6-10-19 20:30	18.98	1707	8.29	10.8	4-10-19 15:00	8.32	607	8.37	21.0	4-10-19 15:00	4.74	696	7.88	24.8
1-11-19 3:30	-0.07	1614	7.71	1.4	1-11-19 3:00	-0.02	895	7.97	3.9	1-11-19 3:00	-0.05	1579	7.81	12.9	6-10-19 20:45	18.99	1706	8.30	11.3	4-10-19 15:15	8.32	610	8.37	23.5	4-10-19 15:15	4.83	696	7.88	23.1
1-11-19 3:45	-0.08	1614	7.70	1.3	1-11-19 3:15	-0.02	889	7.97	3.2	1-11-19 3:15	-0.05	1579	7.81	12.6	6-10-19 21:00	19.14	1709	8.28	10.5	4-10-19 15:30	8.38	609	8.37	23.1	4-10-19 15:30	4.84	696	7.88	22.6
1-11-19 4:00	-0.08	1615	7.71	1.5	1-11-19 3:30	-0.02	894	7.97	3.4	1-11-19 3:30	-0.05	1579	7.81	12.2	6-10-19 21:15	19.35	1708	8.29	11.8	4-10-19 15:45	8.21	614	8.37	22.5	4-10-19 15:45	4.77	695	7.88	25.4
1-11-19 4:15	-0.08	1601	7.70	1.3	1-11-19 3:45	-0.02	896	7.97	0.0	1-11-19 3:45	-0.05	1579	7.81	12.5	6-10-19 21:30	19.18	1706	8.29	11.0	4-10-19 16:00	8.53	612	8.37	21.5	4-10-19 16:00	4.79	697	7.88	22.9
1-11-19 4:30	-0.08	1599	7.71	1.4	1-11-19 4:00	-0.02	892	7.97	4.4	1-11-19 4:00	-0.05	1599	7.81	13.1	6-10-19 21:45	19.48	1708	8.29	11.8	4-10-19 16:15	8.71	608	8.37	19.3	4-10-19 16:15	4.89	697	7.88	23.4
1-11-19 4:45	-0.08	1599	7.70	1.4	1-11-19 4:15	-0.02	889	7.97	3.2	1-11-19 4:15	-0.05	1597	7.81	13.2	6-10-19 22:00	19.57	1708	8.28	10.2	4-10-19 16:30	8.88	604	8.37	19.7	4-10-19 16:30	4.87	697	7.87	23.9
1-11-19 5:00	-0.07	1598	7.70	1.4	1-11-19 4:30	-0.02	892	7.97	1.8	1-11-19 4:30	-0.05	1598	7.81	12.8	6-10-19 22:15	19.35	1706	8.29	10.8	4-10-19 16:45	8.92	599	8.37	17.9	4-10-19 16:45	4.87	696	7.88	25.2
1-11-19 5:15	-0.08	1612	7.70	1.7	1-11-19 4:45	-0.02	894	7.98	0.5	1-11-19 4:45	-0.05	1598	7.81	12.7	6-10-19 22:30	19.51	1709	8.30	11.1	4-10-19 17:00	8.91	599	8.38	18.7	4-10-19 17:00	4.87	696	7.88	22.6
1-11-19 5:30	-0.07	1612	7.71	1.4	1-11-19 5:00	-0.02	887	7.97	4.1	1-11-19 5:00	-0.05	1579	7.81	12.5	6-10-19 22:45	19.52	1708	8.30	10.4	4-10-19 17:15	9.03	598	8.38	19.6	4-10-19 17:15	4.88	697	7.88	25.2
1-11-19 5:45	-0.07	1611	7.70	1.5	1-11-19 5:15	-0.02	887	7.97	7.7	1-11-19 5:15	-0.05	1579	7.81	12.4	6-10-19 23:00	19.66	1710	8.30	14.6	4-10-19 17:30	9.08	598	8.38	19.2	4-10-19 17:30	4.93	697	7.88	24.5
1-11-19 6:00	-0.06	1610	7.70	1.7	1-11-19 5:30	-0.02	897	7.97	0.0	1-11-19 5:30	-0.06	1580	7.81	12.4	6-10-19 23:15	19.66	1709	8.31	10.6	4-10-19 17:45	9.08	599	8.38	18.1	4-10-19 17:45	4.92	698	7.89	23.7
1-11-19 6:15	-0.07	1592	7.71	1.6	1-11-19 5:45	-0.02	901	7.97	1.7	1-11-19 5:45	-0.06	1580	7.81	12.8	6-10-19 23:30	19.70	1708	8.30	12.2	4-10-19 18:00	9.09	599	8.38	19.5	4-10-19 18:00	4.95	698	7.89	23.1
1-11-19 6:30	-0.06	1590	7.72	1.6	1-11-19 6:00	-0.02	893	7.97	2.0	1-11-19 6:00	-0.06	1598	7.81	13.8	6-10-19 23:45	19.75	1710	8.29	12.0	4-10-19 18:15	9.06	599	8.38	21.6	4-10-19 18:15	4.93	697	7.89	20.7
1-11-19 6:45	-0.07	1590	7.72	1.5	1-11-19 6:15	-0.02	890	7.97	2.1	1-11-19 6:15	-0.06	1599	7.81	13.8	6-11-19 0:00	19.78	1708	8.29	11.0	4-10-19 18:30	9.02	598	8.38	19.4	4-10-19 18:30	4.89	697	7.89	25.3
1-11-19 7:00	-0.06	1589	7.71	1.7	1-11-19 6:30	-0.02	879	7.97	0.4	1-11-19 6:30	-0.06	1598	7.81	13.6	6-11-19 0:15	19.80	1706	8.29	11.6	4-10-19 18:45	8.88	598	8.40	20.3	4-10-19 18:45	4.75	699	7.90	44.5
1-11-19 7:15	-0.07	1606	7.72	2.1	1-11-19 6:45	-0.02	884	7.97	1.2	1-11-19 6:45	-0.06	1600	7.82	13.9	6-11-19 0:30	19.88	1710	8.30	11.5	4-10-19 19:00	8.61	604	8.39	20.8	4-10-19 19:00	4.69	697	7.90	28.0
1-11-19 7:30	-0.07	1607	7.73	1.7	1-11-19 7:00	-0.02	887	7.97	0.8	1-11-19 7:00	-0.06	1581	7.82	13.4	6-11-19 0:45	19.83	1709	8.30	11.4	4-10-19 19:15	8.49	606	8.39	21.2	4-10-19 19:15	4.65	696	7.90	30.8
1-11-19 7:45	-0.06	1607	7.73	1.7	1-11-19 7:15	-0.02	899	7.97	0.7	1-11-19 7:15	-0.06	1581	7.81	13.5	6-11-19 1:00	19.71	1709	8.30	11.2	4-10-19 19:30	8.52	608	8.39	19.9	4-10-19 19:30	4.63	697	7.90	29.4
1-11-19 8:00	-0.06	1606	7.72	1.7	1-11-19 7:30	-0.02	884	7.97	2.2	1-11-19 7:30	-0.06	1580	7.81	13.3	6-11-19 1:15	19.80	1710	8.31	11.5	4-10-19 19:45	8.50	606	8.39	20.1	4-10-19 19:45	4.60	698	7.90	27.1
1-11-19 8:15	-0.07	1581	7.73	1.7	1-11-19 7:45	-0.02	895	7.97	0.8	1-11-19 7:45	-0.06	1580	7.81	12.9	6-11-19 1:30	19.77	1709	8.30	10.8	4-10-19 20:00	8.53	606	8.39	19.3	4-10-19 20:00	4.59	698	7.90	23.6
1-11-19 8:30	-0.06	1581	7.74	1.7	1-11-19 8:00	-0.02	902	7.97	0.2	1-11-19 8:00	-0.06	1598	7.81	14.1	6-11-19 1:45	19.77	1711	8.32	11.4	4-10-19 20:15	8.50	606	8.39	17.8	4-10-19 20:15	4.52	698	7.90	23.2
1-11-19 8:45	-0.06	1581	7.73	1.7	1-11-19 8:15	-0.02	886	7.97	1.3	1-11-19 8:15	-0.06	1597	7.81	14.0	6-11-19 2:00	19.74	1711	8.31	11.6	4-10-19 20:30	8.46	605	8.39	18.6	4-10-19 20:30	4.42	698	7.90	25.4
1-11-19 9:00	-0.06	1581	7.73	1.7	1-11-19 8:30	-0.02	891	7.97	0.2	1-11-19 8:30	-0.06	1597	7.81	13.8	6-11-19 2:15	19.71	1712	8.31	11.7	4-10-19 20:45	8.44	606	8.39	19.3	4-10-19 20:45	4.35	698	7.91	23.9
1-11-19 9:15	-0.07	1598	7.73	2.2	1-11-19 8:45	-0.02	903	7.97	0.0	1-11-19 8:45	-0.05	1597	7.81	14.1	6-11-19 2:30	19.69	1711	8.30	11.9	4-10-19 21:00	8.41	605	8.39	18.5	4-10-19 21:00	4.33	698	7.91	22.8
1-11-19 9:30	-0.07	1598	7.75	1.7	1-11-19 9:00	-0.02	889	7.97	3.9	1-11-19 9:00	-0.05	1579	7.81	13.4	6-11-19 2:45	19.64	1709	8.30	11.3	4-10-19 21:15	8.39	605	8.39	19.1	4-10-19 21:15	4.29	698	7.91	23.1
1-11-19 9:45	-0.07	1599	7.74	1.8	1-11-19 9:15	-0.02	901	7.97	3.7	1-11-19 9:15	-0.05	1579	7.81	13.6	6-11-19 3:00	19.58	1708	8.30	10.5	4-10-19 21:30	8.24	605	8.40	18.1	4-10-19 21:30	4.27	698	7.91	23.1
1-11-19 10:00	-0.06	1598	7.74	1.7	1-11-19 9:30	-0.02	888	7.97	1.1	1-11-19 9:30	-0.02	1580	7.83	17.4	6-11-19 3:15	19.50	1709	8.30	10.2	4-10-19 21:45	8.19	605	8.40	16.9	4-10-19 21:45	4.22	699	7.91	22.1
1-11-19 10:15	-0.07	1578	7.73	1.9	1-11-19 9:45	-0.02	889	7.97	1.3	1-11-19 9:45	0.03	1580	7.84	21.3	6-11-19 3:30	19.44	1708	8.30	10.4	4-10-19 22:00	8.16	605	8.40	18.8	4-10-19 22:00	4.21	699	7.91	23.5
1-11-19 10:30	-0.06	1578	7.75	1.7	1-11-19 10:00	-0.02	887	7.97	1.6	1-11-19 10:00	0.03	1598	7.84	19.6	6-11-19 3:45	19.38	1711	8.32	11.2	4-10-19 22:15	8.15	606	8.40	16.5	4-10-19 22:15	4.22	699	7.91	22.6
1-11-19 10:45	-0.06	1577	7.75	1.7	1-11-19 10:15	-0.02	892	7.97	0.9	1-11-19 10:15	-0.01	1599	7.84	18.7	6-11-19 4:00	19.20	1709	8.32	10.4	4-10-19 22:30	8.12	606	8.40	17.5	4-10-19 22:30	4.24	699	7.91	24.5
1-11-19 11:00	-0.06	1577	7.75	1.7	1-11-19 10:30	-0.02	904	7.97	1.8	1-11-19 10:30	0.07	1596	7.85	20.6	6-11-19 4:15	19.15	1709	8.33	11.0	4-10-19 22:45	8.13	605	8.40	17.5	4-10-19 22:45	4.26	699	7.91	23.6
1-11-19 11:15	-0.07	1592	7.75	2.2	1-11-19 10:45	-0.02	893	7.97	0.5	1-11-19 10:45	-0.01	1598	7.84	19.1	6-11-19 4:30	19.08	1710	8.33	13.6	4-10-19 23:00	8.14	605	8.40	17.4	4-10-19 23:00	4.26	699	7.91	23.4
1-11-19 11:30	-0.06	1593	7.75	1.7	1-11-19 11:00	-0.02	886	7.97	3.2	1-11-19 11:00	-0.03	1580	7.85	19.1	6-11-19 4:45	19.02	1710	8.32	10.3	4-10-19 23:15	8.11	606	8.40	15.0	4-10-19 23:15	4.27	699	7.91	24.6
1-11-19 11:45	-0.06	1592	7.75	1.9	1-11-19 11:15	-0.02	890	7.97	1.9	1-11-19 11:15	-0.04	1580	7.85	18.3	6-11-19 5:00	18.95	1709	8.32	11.3	4-10-19 23:30	8.01	605	8.40	17.0	4-10-19 23:30	4.15	697	7.91	21.3
1-11-19 12:00	-0.06	1592	7.75	1.9	1-11-19 11:30	-0.02	885	7.97	2.0	1-11-19 11:30	-0.05	1580	7.85	18.8	6-11-19 5:15	18.92	1710	8.32	11.6	4-10-19 23:45	8.01	605	8.40	18.2	4-10-19 23:45	4.10	699	7.91	20.6
1-11-19 12:15	-0.07	1574	7.75	1.8	1-11-19 11:45	-0.02	896	7.97	5.7	1-11-19 11:45	-0.03	1577	7.86	19.5	6-11-19 5:30	18.83	1711	8.33	10.2	4-11-19 0:00	7.96	605	8.40	16.0	4-11-19 0:00	4.03	699	7.92	20.8
1-11-19 12:30	-0.06	1573	7.76	1.8	1-11-19 12:00	-0.02	893	7.97	4.9	1-11-19 12:00	-0.03	1587	7.88	24.1	6-11-19 5:45	18.76	1709	8.33	11.6	4-11-19 0:15	7.96	606	8.40	16.5	4-11-19 0:15	4.04	699	7.92	21.3
1-11-19 12:45	-0.06	1573	7.76	1.8	1-11-19 12:15	-0.02	902	7.97	3.3	1-11-19 12:15	-0.03	1581	7.90	24.6	6-11-19 6:00	18.68	1708	8.33	10.1	4-11-19 0:30	7.96	605	8.40	16.6	4-11-19 0:30	4.02	700	7.92	21.3
1-11-19 13:00	-0.06	1572	7.75	1.8	1-11-19 12:30	-0.04	896	7.98	1.2	1-11-19 12:30	-0.03	1570	7.91	25.9	6-11-19 6:15	18.61	1709	8.33	10.4	4-11-19 0:45	7.92	605	8.40	15.0	4-11-19 0:45	3.99	699	7.92	21.4
1-11-19 13:15	-0.06	1596	7.75	2.2	1-11-19 12:45	-0.03	911	7.98	1.4	1-11-19 12:45	-0.04	1573	7.92	24.7	6-11-19 6:30	18.55	1709	8.33	10.2	4-11-19 1:00	7.89	605	8.40	15.5	4-11-19 1:00	3.81	700	7.92	20.5
1-11-19 13:30	-0.06	1598	7.76	1.8	1-11-19 13:00	-0.02	894	7.98	4.0	1-11-19 13:00	0.02	1563	7.89	20.3	6-11-19 6:45	18.47	1709	8.33	11.1	4-11-19 1:15	7.86	605	8.40	16.1	4-11-19 1:15	3.81	700	7.92	19.0
1-11-19 13:45	-0.06	1598	7.76	1.8	1-11-19 13:15	-0.03	896	7.98	3.5	1-11-19 13:15	-0.01	1558	7.92	23.0	6-11-19 7:00	18.42	1710	8.33	9.7	4-11-19 1:30	7.82	605	8.40	15.7	4-11-19 1:30	3.80	700	7.92	20.9
1-11-19 14:00	-0.06	1597	7.76	1.8	1-11-19 13:30	-0.03	909	7.98	3.6	1-11-19 13:30	0.00	1554	7.93	22.8	6-11-19 7:15	18.34	1708	8.33	10.6	4-11-19 1:45	7.77	605	8.40	15.3	4-11-19 1:45	3.82	700	7.92	19.6
1-11-19 14:15	-0.07	1573	7.75	1.9	1-11-19 13:45	-0.02	891	7.97	2.8	1-11-19 13:45	0.03	1546	7.93	22.7	6-11-19 7:30	18.28	1710	8.33	11.1	4-11-19 2:00	7.75	605	8.40	16.9	4-11-19 2:00	3.76	700	7.92	18.6
1-11-19 14:30	-0.06	1572	7.76	1.7	1-11-19 14:00	-0.02	890	7.97	1.2	1-11-19 14:00	0.04	1557	7.94	24.7	6-11-19 7:45	18.22	1709	8.33	9.9	4-11-19 2:15	7.71	604	8.40	15.1	4-11-19 2:15	3.70	700	7.92	19.3
1-11-19 14:45	-0.06	1572	7.76	1.7	1-11-19 14:15	-0.02	897	7.97	4.5	1-11-19 14:15	0.03	1553	7.94	25.1	6-11-19 8:00	18.14	1709	8.33	10.1	4-11-19 2:30	7.73	604	8.40	15.5	4-11-19 2:30	3.67	701	7.92	19.1
1-11-19 15:00	-0.06	1572	7.76	1.7	1-11-19 14:30	-0.02	896	7.97	5.6	1-11-19 14:30	0.03	1555	7.94	27.9	6-11-19 8:15	18.10	1709	8.33	11.4	4-11-19 2:45	7.69	605	8.40	16.1	4-11-19 2:45	3.70	701	7.92	19.1
1-11-19 15:15	-0.06	1587	7.76	2.2	1-11-19 14:45	-0.02	884	7.97	4.9	1-11-19 14:45	0.03	1552	7.94	27.4	6-11-19 8:30	18.02	1708	8.33	11.4	4-11-19 3:00	7.61	604	8.40	16.2	4-11-19 3:00	3.68	701	7.92	20.6
1-11-19 15:30	-0.06	1588	7.76	1.8	1-11-19 15:00	-0.02	887	7.97	4.3	1-11-19 15:00	0.02	1534	7.94	24.6	6-11-19 8:45	17.96	1708	8.33	11.2	4-11-19 3:15	7.58	605	8.40	15.6	4-11-19 3:15	3.24	702	7.93	16.0
1-11-19 15:45	-0.06	1588	7.76	1.7	1-11-19 15:15	-0.02	885	7.97	1.5	1-11-19 15:15	0.03	1532	7.95	24.1	6-11-19 9:00	17.90	1709	8.33	12.8	4-11-19 3:30	7.56	605	8.40	15.0	4-11-19 3:30	3.05	703	7.94	16.1

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-11-19 16:00	-0.06	1588	7.75	1.7	1-11-19 15:30	-0.02	889	7.97	4.2	1-11-19 15:30	0.03	1534	7.95	25.0	6-11-19 9:15	17.82	1710	8.33	11.0	4-11-19 3:45	7.54	605	8.40	15.3	4-11-19 3:45	3.23	703	7.93	15.2
1-11-19 16:15	-0.07	1568	7.75	1.8	1-11-19 15:45	-0.02	894	7.97	0.7	1-11-19 15:45	0.01	1533	7.95	23.4	6-11-19 9:30	17.74	1710	8.33	11.0	4-11-19 4:00	7.48	605	8.40	15.4	4-11-19 4:00	3.30	703	7.93	19.8
1-11-19 16:30	-0.06	1568	7.76	1.7	1-11-19 16:00	-0.02	888	7.97	3.5	1-11-19 16:00	0.00	1555	7.94	27.5	6-11-19 9:45	17.70	1710	8.33	10.4	4-11-19 4:15	7.47	606	8.40	14.9	4-11-19 4:15	2.83	704	7.93	9.8
1-11-19 16:45	-0.06	1568	7.76	1.7	1-11-19 16:15	-0.02	888	7.97	1.7	1-11-19 16:15	-0.01	1553	7.94	25.2	6-11-19 10:00	17.63	1711	8.33	10.6	4-11-19 4:30	7.47	606	8.40	14.9	4-11-19 4:30	2.93	704	7.93	15.6
1-11-19 17:00	-0.06	1568	7.76	1.7	1-11-19 16:30	-0.01	886	7.97	6.1	1-11-19 16:30	-0.02	1551	7.94	24.5	6-11-19 10:15	17.56	1709	8.33	10.8	4-11-19 4:45	7.43	606	8.40	16.5	4-11-19 4:45	3.04	704	7.93	17.3
1-11-19 17:15	-0.07	1575	7.75	2.1	1-11-19 16:45	-0.01	890	7.97	1.8	1-11-19 16:45	-0.02	1552	7.94	25.1	6-11-19 10:30	17.48	1709	8.33	10.3	4-11-19 5:00	7.35	605	8.40	15.0	4-11-19 5:00	3.00	703	7.93	16.6
1-11-19 17:30	-0.07	1576	7.76	1.7	1-11-19 17:00	-0.01	887	7.97	2.6	1-11-19 17:00	-0.02	1538	7.93	24.0	6-11-19 10:45	17.43	1709	8.33	10.7	4-11-19 5:15	7.25	609	8.39	15.1	4-11-19 5:15	2.98	703	7.93	18.1
1-11-19 17:45	-0.06	1576	7.76	1.6	1-11-19 17:15	-0.01	889	7.97	3.1	1-11-19 17:15	-0.02	1542	7.93	23.9	6-11-19 11:00	17.35	1710	8.34	10.9	4-11-19 5:30	7.24	611	8.40	16.3	4-11-19 5:30	2.92	702	7.94	17.6
1-11-19 18:00	-0.06	1576	7.75	1.6	1-11-19 17:30	-0.01	899	7.97	2.1	1-11-19 17:30	-0.03	1539	7.93	23.2	6-11-19 11:15	17.30	1711	8.33	10.7	4-11-19 5:45	7.14	611	8.40	15.8	4-11-19 5:45	2.99	702	7.93	17.6
1-11-19 18:15	-0.07	1567	7.75	1.8	1-11-19 17:45	-0.01	882	7.97	3.3	1-11-19 17:45	-0.03	1542	7.94	23.4	6-11-19 11:30	17.24	1711	8.34	11.6	4-11-19 6:00	7.16	615	8.40	17.0	4-11-19 6:00	2.98	702	7.94	16.8
1-11-19 18:30	-0.07	1567	7.76	1.6	1-11-19 18:00	-0.01	870	7.97	3.5	1-11-19 18:00	-0.03	1567	7.92	24.6	6-11-19 11:45	17.14	1709	8.34	10.6	4-11-19 6:15	7.18	617	8.39	17.2	4-11-19 6:15	2.83	703	7.94	15.9
1-11-19 18:45	-0.07	1567	7.75	1.6	1-11-19 18:15	-0.01	892	7.97	3.4	1-11-19 18:15	-0.03	1566	7.93	24.6	6-11-19 12:00	17.04	1710	8.34	11.7	4-11-19 6:30	7.12	617	8.39	17.2	4-11-19 6:30	2.76	702	7.94	17.5
1-11-19 19:00	-0.07	1566	7.75	1.6	1-11-19 18:30	-0.01	885	7.97	4.5	1-11-19 18:30	-0.03	1564	7.93	24.7	6-11-19 12:15	17.00	1710	8.34	10.3	4-11-19 6:45	7.08	618	8.39	16.9	4-11-19 6:45	2.86	703	7.94	17.6
1-11-19 19:15	-0.07	1581	7.74	2.1	1-11-19 18:45	-0.01	890	7.97	3.3	1-11-19 18:45	-0.04	1562	7.94	24.6	6-11-19 12:30	16.95	1709	8.34	10.4	4-11-19 7:00	7.22	631	8.37	20.3	4-11-19 7:00	2.80	702	7.94	16.7
1-11-19 19:30	-0.07	1582	7.76	1.6	1-11-19 19:00	-0.01	887	7.97	0.4	1-11-19 19:00	-0.05	1543	7.93	22.6	6-11-19 12:45	16.86	1711	8.34	10.5	4-11-19 7:15	7.19	634	8.37	19.6	4-11-19 7:15	2.91	701	7.94	17.7
1-11-19 19:45	-0.07	1582	7.75	1.6	1-11-19 19:15	-0.01	890	7.97	4.3	1-11-19 19:15	-0.04	1543	7.94	21.2	6-11-19 13:00	16.80	1711	8.34	10.9	4-11-19 7:30	7.30	657	8.34	26.1	4-11-19 7:30	2.91	700	7.93	15.8
1-11-19 20:00	-0.07	1582	7.75	1.6	1-11-19 19:30	-0.01	887	7.97	1.2	1-11-19 19:30	-0.04	1549	7.94	22.2	6-11-19 13:15	16.72	1711	8.34	11.1	4-11-19 7:45	7.35	657	8.34	25.3	4-11-19 7:45	3.06	701	7.93	17.0
1-11-19 20:15	-0.07	1562	7.74	1.7	1-11-19 19:45	-0.01	888	7.97	4.9	1-11-19 19:45	-0.04	1554	7.93	21.9	6-11-19 13:30	16.70	1711	8.35	10.1	4-11-19 8:00	7.29	665	8.34	27.5	4-11-19 8:00	3.08	700	7.93	17.4
1-11-19 20:30	-0.07	1562	7.75	1.6	1-11-19 20:00	0.00	895	7.97	1.4	1-11-19 20:00	-0.04	1581	7.90	21.9	6-11-19 13:45	16.70	1709	8.34	10.4	4-11-19 8:15	7.24	677	8.33	36.3	4-11-19 8:15	3.15	698	7.93	18.4
1-11-19 20:45	-0.07	1561	7.75	1.6	1-11-19 20:15	0.00	902	7.97	1.3	1-11-19 20:15	-0.04	1582	7.91	21.7	6-11-19 14:00	16.69	1711	8.34	10.0	4-11-19 8:30	7.23	683	8.34	34.3	4-11-19 8:30	3.20	700	7.93	17.0
1-11-19 21:00	-0.07	1561	7.74	1.6	1-11-19 20:30	0.00	900	7.97	4.6	1-11-19 20:30	-0.04	1582	7.91	21.9	6-11-19 14:15	16.71	1709	8.34	11.8	4-11-19 8:45	7.06	673	8.33	31.5	4-11-19 8:45	3.26	701	7.93	16.4
1-11-19 21:15	-0.07	1574	7.74	1.9	1-11-19 20:45	0.00	892	7.97	2.2	1-11-19 20:45	-0.04	1581	7.92	21.9	6-11-19 14:30	16.72	1709	8.33	10.8	4-11-19 9:00	7.10	677	8.34	32.3	4-11-19 9:00	3.34	700	7.93	18.5
1-11-19 21:30	-0.07	1575	7.75	1.6	1-11-19 21:00	0.00	902	7.97	4.0	1-11-19 21:00	-0.03	1560	7.90	20.1	6-11-19 14:45	16.76	1712	8.34	11.4	4-11-19 9:15	7.13	685	8.34	33.8	4-11-19 9:15	3.41	698	7.93	17.2
1-11-19 21:45	-0.07	1575	7.75	1.6	1-11-19 21:15	0.00	904	7.97	2.5	1-11-19 21:15	-0.03	1564	7.90	19.0	6-11-19 15:00	16.82	1711	8.34	10.7	4-11-19 9:30	7.09	685	8.34	30.0	4-11-19 9:30	3.52	700	7.92	17.6
1-11-19 22:00	-0.07	1575	7.75	1.6	1-11-19 21:30	0.00	902	7.97	1.3	1-11-19 21:30	-0.03	1563	7.91	19.7	6-11-19 15:15	16.88	1711	8.33	11.3	4-11-19 9:45	7.12	688	8.34	29.7	4-11-19 9:45	3.59	700	7.92	17.2
1-11-19 22:15	-0.07	1563	7.74	1.6	1-11-19 21:45	0.00	890	7.97	3.7	1-11-19 21:45	-0.03	1560	7.91	21.1	6-11-19 15:30	16.96	1712	8.33	10.6	4-11-19 10:00	7.13	692	8.34	30.4	4-11-19 10:00	3.67	700	7.93	21.2
1-11-19 22:30	-0.07	1563	7.75	1.6	1-11-19 22:00	0.00	888	7.97	3.7	1-11-19 22:00	-0.03	1580	7.92	22.3	6-11-19 15:45	17.08	1712	8.33	10.4	4-11-19 10:15	7.16	675	8.35	25.0	4-11-19 10:15	3.71	700	7.93	18.5
1-11-19 22:45	-0.07	1564	7.75	1.6	1-11-19 22:15	0.00	889	7.97	1.5	1-11-19 22:15	-0.04	1581	7.92	21.8	6-11-19 16:00	17.20	1713	8.33	10.0	4-11-19 10:30	7.19	675	8.35	25.4	4-11-19 10:30	3.79	699	7.93	18.4
1-11-19 23:00	-0.07	1563	7.74	1.5	1-11-19 22:30	0.00	889	7.97	0.4	1-11-19 22:30	-0.04	1582	7.92	21.7	6-11-19 16:15	17.31	1713	8.33	11.6	4-11-19 10:45	7.21	688	8.35	28.6	4-11-19 10:45	3.85	699	7.93	18.8
1-11-19 23:15	-0.07	1585	7.74	2.0	1-11-19 22:45	0.00	890	7.97	1.5	1-11-19 22:45	-0.04	1582	7.92	22.0	6-11-19 16:30	17.40	1712	8.33	10.5	4-11-19 11:00	7.28	689	8.35	27.8	4-11-19 11:00	3.93	699	7.92	17.4
1-11-19 23:30	-0.07	1586	7.75	1.6	1-11-19 23:00	0.00	881	7.97	4.1	1-11-19 23:00	-0.04	1565	7.92	21.4	6-11-19 16:45	17.48	1713	8.32	10.7	4-11-19 11:15	7.25	689	8.35	27.4	4-11-19 11:15	4.03	699	7.92	18.0
1-11-19 23:45	-0.07	1586	7.74	1.5	1-11-19 23:15	0.00	892	7.97	4.4	1-11-19 23:15	-0.04	1568	7.91	20.9	6-11-19 17:00	17.53	1712	8.33	11.0	4-11-19 11:30	7.33	695	8.35	30.2	4-11-19 11:30	4.11	699	7.92	17.8
1-12-19 0:00	-0.07	1586	7.74	1.5	1-11-19 23:30	0.00	888	7.97	2.0	1-11-19 23:30	-0.04	1568	7.92	20.4	6-11-19 17:15	17.57	1713	8.32	10.4	4-11-19 11:45	7.37	702	8.35	29.9	4-11-19 11:45	4.19	698	7.92	18.2
1-12-19 0:15	-0.07	1565	7.73	1.6	1-11-19 23:45	0.00	883	7.97	1.7	1-11-19 23:45	-0.05	1567	7.92	20.5	6-11-19 17:30	17.57	1712	8.33	10.6	4-11-19 12:00	7.37	706	8.35	31.7	4-11-19 12:00	4.26	698	7.92	19.6
1-12-19 0:30					1-12-19 0:00	0.00	889	7.97	4.2	1-12-19 0:00	-0.05	1588	7.92	21.5	6-11-19 17:45	17.71	1713	8.32	11.4	4-11-19 12:15	7.41	711	8.35	33.4	4-11-19 12:15	4.30	698	7.92	18.2
1-12-19 0:45	-0.07	1564	7.74	1.5	1-12-19 0:15	0.00	891	7.97	0.6	1-12-19 0:15	-0.05	1587	7.93	20.9	6-11-19 18:00	17.83	1712	8.31	11.3	4-11-19 12:30	7.36	702	8.35	26.9	4-11-19 12:30	4.34	697	7.92	18.9
1-12-19 1:00	-0.07	1564	7.74	1.5	1-12-19 0:30	0.00	885	7.97	0.8	1-12-19 0:30	-0.05	1589	7.94	20.3	6-11-19 18:15	17.93	1714	8.33	11.6	4-11-19 12:45	7.55	671	8.37	22.6	4-11-19 12:45	4.42	696	7.92	16.6
1-12-19 1:15	-0.07	1593	7.73	1.8	1-12-19 0:45	0.00	878	7.97	1.5	1-12-19 0:45	-0.06	1590	7.94	19.8	6-11-19 18:30	18.06	1714	8.31	11.7	4-11-19 13:00	7.68	666	8.37	21.5	4-11-19 13:00	4.55	696	7.92	18.5
1-12-19 1:30	-0.07	1595	7.75	1.4	1-12-19 1:00	0.00	903	7.96	1.1	1-12-19 1:00	-0.06	1571	7.93	19.1	6-11-19 18:45	18.14	1715	8.32	12.5	4-11-19 13:15	7.68	660	8.37	21.4	4-11-19 13:15	4.63	698	7.92	15.5
1-12-19 1:45	-0.07	1595	7.74	1.4	1-12-19 1:15	0.00	884	7.96	0.0	1-12-19 1:15	-0.06	1571	7.92	19.0	6-11-19 19:00	18.18	1714	8.32	11.7	4-11-19 13:30	7.70	652	8.38	20.6	4-11-19 13:30	4.63	697	7.92	16.8
1-12-19 2:00	-0.07	1595	7.74	1.4	1-12-19 1:30	-0.01	880	7.96	0.5	1-12-19 1:30	-0.06	1573	7.92	19.4	6-11-19 19:15	18.20	1713	8.32	11.0	4-11-19 13:45	7.72	646	8.39	19.4	4-11-19 13:45	4.71	698	7.92	16.8
1-12-19 2:15	-0.07	1560	7.73	1.6	1-12-19 1:45	-0.01	889	7.96	1.5	1-12-19 1:45	-0.06	1572	7.92	17.8	6-11-19 19:30	18.20	1713	8.33	11.3	4-11-19 14:00	7.76	642	8.39	17.7	4-11-19 14:00	4.84	697	7.92	17.3
1-12-19 2:30	-0.07	1559	7.74	1.5	1-12-19 2:00	-0.01	857	7.96	0.0	1-12-19 2:00	-0.06	1596	7.92	19.0	6-11-19 19:45	18.30	1713	8.32	10.4	4-11-19 14:15	8.09	641	8.39	15.4	4-11-19 14:15	4.85	697	7.92	17.3
1-12-19 2:45	-0.07	1559	7.74	1.5	1-12-19 2:15	-0.01	888	7.96	0.2	1-12-19 2:15	-0.06	1594	7.92	19.4	6-11-19 20:00	18.43	1715	8.32	11.3	4-11-19 14:30	8.61	638	8.38	13.5	4-11-19 14:30	4.96	696	7.92	16.9
1-12-19 3:00	-0.07	1559	7.74	1.4	1-12-19 2:30	-0.01	885	7.96	1.0	1-12-19 2:30	-0.06	1596	7.92	19.0	6-11-19 20:15	18.74	1716	8.30	11.7	4-11-19 14:45	8.62	635	8.38	15.6	4-11-19 14:45	5.01	693	7.92	17.4
1-12-19 3:15	-0.07	1580	7.73	1.8	1-12-19 2:45	-0.01	892	7.96	0.1	1-12-19 2:45	-0.06	1595	7.92	18.9	6-11-19 20:30	18.87	1715	8.30	12.4	4-11-19 15:00	8.74	636	8.38	14.8	4-11-19 15:00	5.07	695	7.92	17.8
1-12-19 3:30	-0.07	1581	7.74	1.5	1-12-19 3:00	-0.01	891	7.96	5.4	1-12-19 3:00	-0.06	1575	7.91	17.9	6-11-19 20:45	18.89	1715	8.32	11.5	4-11-19 15:15	8.84	636	8.38	15.8	4-11-19 15:15	4.99	695	7.92	17.4
1-12-19 3:45	-0.07	1582	7.74	1.4	1-12-19 3:15	-0.02	898	7.96	1.5	1-12-19 3:15	-0.06	1575	7.90	18.1	6-11-19 21:00	19.15	1716	8.30	12.0	4-11-19 15:30	9.05	634	8.38	15.8	4-11-19 15:30	4.92	695	7.92	17.5
1-12-19 4:00	-0.07	1582	7.74	1.4	1-12-19 3:30	-0.03	884	7.96	1.4	1-12-19 3:30	-0.06	1577	7.90	17.0	6-11-19 21:15	19.28	1716	8.32	11.6	4-11-19 15:45	9.10	634	8.38	19.7	4-11-19 15:45	4.85	697	7.93	18.4
1-12-19 4:15	-0.07	1564	7.73	1.6	1-12-19 3:45	-0.02	894	7.95	0.4	1-12-19 3:45	-0.06	1576	7.89	17.8	6-11-19 21:30	19.39	1716	8.30	11.6	4-11-19 16:00	8.95	632	8.39	18.6	4-11-19 16:00	4.75	697	7.93	18.8
1-12-19 4:30	-0.07	1564	7.74	1.5	1-12-19 4:00	-0.02	892	7.95	3.2	1-12-19 4:00	-0.06	1598	7.88	18.6	6-11-19 21:45	19.39	1715	8.32	13.0	4-11-19 16:15	8.99	627	8.41	17.5	4-11-19 16:15	4.69	697	7.93	18.5
1-12-19 4:45	-0.07	1564	7.74	1.7	1-12-19 4:15	-0.02	890	7.95	0.2	1-12-19 4:15	-0.06	1598	7.89	18.9	6-11-19 22:00	19.51	1717	8.32	11.2	4-11-19 16:30	8.97	630	8.39	20.5	4-11-19 16:30	4.69	693	7.93	18.5
1-12-19 5:00	-0.07	1564	7.74	1.4	1-12-19 4:30	-0.02	894	7.95	3.3	1-12-19 4:30	-0.06	1598	7.89	17.9	6-11-19 22:15	19.57	1718	8.32	12.7	4-11-19 16:45	9.04	631	8.40	22.8	4-11-19 16:45	4.92	694	7.93	17.4
1-12-19 5:15	-0.07	1579	7.73	1.7	1-12-19 4:45	-0.02	890	7.95	4.2	1-12-19 4:45	-0.06	1599	7.89	18.1	6-11-19 22:30	19.58	1718	8.32	12.1	4-11-19 17:00	9.06	631	8.40	22.7	4-11-19 17:00	5.03	697	7.93	15.6
1-12-19 5:30	-0.07	1580	7.74	1.4	1-12-19 5:00	-0.02	884	7.96	0.1	1-12-19 5:00	-0.06	1578	7.88	17.5	6-11-19 22:45	19.62	1719	8.32	12.0	4-11-19 17:15	9.11	631	8.40	17.9	4-11-19 17:15	5.06	697	7.93	17.1
1-12-19 5:45	-0.07	1580	7.74	1.4	1-12-19 5:15	-0.01	884	7.96	1.1	1-12-19 5:15	-0.06	1577	7.88	16.9	6-11-19 23:00	19.72	1717	8.32	11.7	4-11-19 17:30	9.10	630	8.40	17.4	4-11-19 17:30	5.06	697	7.93	16.2
1-12-19 6:00	-0.07	1580	7.74	1.4	1-12-19 5:30	-0.01	880	7.96	4.0	1-12-19 5:30	-0.06	1577	7.88	16.9	6-11-19 23:15	19.75	1717	8.31	13.0	4-11-19 17:45	9.04	629	8.40	17.7	4-11-19 17:45	5.01	695	7.93	17.0
1-12-19 6:15	-0.07	1562	7.73	1.4	1-12-19 5:45	-0.01	881	7.96	5.3	1-12-19 5:45	-0.06	1578	7.88	17.4	6-11-19 23:30	19.77	1718	8.32	13.8	4-11-19 18:00	8.97	629	8.41	16.9	4-11-19 18:00	5.06	696	7.93	18.0
1-12-19 6:30	-0.07	1562	7.74	1.4	1-12-19 6:00	-0.02	886	7.96	2.3	1-12-19 6:00	-0.06	1602	7.87	16.9	6-11-19 23:45	19.78	1721	8.32	13.8	4-11-19 18:15	8.95	629	8.41	18.8	4-11-19 18:15	5.06	694	7.93	16.6
1-12-19 6:45	-0.07	1562	7.74	1.4	1-12-19 6:15	-0.02	885	7.96	6.1	1-12-19 6:15	-0.06	1601	7.88	17.8	6-12-19 0:00	19.79	1718	8.31	15.9	4-11-19 18:30	8.91	629	8.41	17.6	4-11-19 18:30	5.07	696	7.94	17.4
1-12-19 7:00	-0.07	1562	7.73	1.3	1-12-19 6:30	-0.01	880	7.96	3.4	1-12-19 6:30	-0.06	1603	7.88	17.3	6-12-19 0:15	19.80	1719	8.33	13.4	4-11-19 18:45	8.88	629	8.41	16.0	4-11-19 18:45	5.07	697	7.94	15.9
1-12-19 7:15	-0.07	1570	7.73	1.7	1-12-19 6:45	-0.01	889	7.96	2.8	1-12-19 6:45	-0.06	1602	7.88	16.9	6-12-19 0:30	19.74	1719	8.33	13.2	4-11-19 19:00	8.86	628	8.41	16.0	4-11-19 19:00	5.08	696	7.94	16.0
1-12-19 7:30	-0.07	1571	7.74	1.3	1-12-19 7:00	-0.01	892	7.96	0.5	1-12-19 7:00	-0.06	1580	7.87	17.1	6-12-19 0:45	19.72	1718	8.33	15.9	4-11-19 19:15	8.83	629	8.41	15.1	4-11-19 19:15	5.04	698	7.94	14.0
1-12-19 7:45	-0.07	1571	7.73	1.3	1-12-19 7:15	-0.01	884	7.96	0.7	1-12-19 7:15	-0.06	1579	7.87	17.4	6-12-19 1:00	19.74	1719	8.33	13.9	4-11-19 19:30	8.79	629	8.41	16.4	4-11-19 19:30	5.05	692	7.94	17.2
1-12-19 8:00	-0.07	1571	7.73	1.3	1-12-19 7:30	0.00	879	7.96	2.1	1-12-19 7:30	-0.06	1579	7.87	17.4	6-12-19 1:15	19.70	1719	8.34	14.4	4-11-19 19:45	8.70	628	8.41	16.7	4-11-19 19:45	5.05	694	7.94	15.5
1-12-19 8:15	-0.07	1562	7.73	1.4	1-12-19 7:45	0.00	879	7.96	1.7	1-12-19 7:45	-0.06	1580	7.87	17.5	6-12-19 1:30	19.69	1719	8.33	14.7	4-11-19 20:00	8.63	625	8.42	15.0	4-11-19 20:00	5.03	694	7.94	14.0
1-12-19 8:30	-0.07	1562	7.74	1.3	1-12-19 8:00	0.00	881	7.96	1.3	1-12-19 8:00	-0.07	1599	7.86	17.9	6-12-19 1:45	19.69	1718	8.34	16.1	4-11-19 20:15	8.54	627	8.42	18.2	4-11-19 20:15	5.00	697	7.94	15.7
1-12-19 8:45	-0.07	1562	7.73	1.4	1-12-19 8:15	0.00	868	7.97	0.8	1-12-19 8:15	-0.06	1598	7.87	17.4	6-12-19 2:00	19.66	1720	8.34	14.3	4-11-19 20:30	8.48	626	8.42	14.9	4-11-19 20:30	5.02	696	7.94	16.4
1-12-19 9:00	-0.07	1562	7.73	1.3	1-12-19 8:30	0.00	883	7.97	4.4	1-12-19 8:30	-0.06	1598	7.87	17.4	6-12-19 2:15	19.66	1719	8.35	14.5	4-11-19 20:45	8.43	626	8.42	14.7	4-11-19 20:45	4.96	694	7.95	15.9
1-12-19 9:15	-0.07	1571	7.72	1.6	1-12-19 8:45	0.00	887	7.97	0.0	1-12-19 8:45	-0.06	1601	7.87	17.1	6-12-19 2:30	19.62	1720	8.35	14.5	4-11-19 21:00	8.38	626	8.42	16.9	4-11-19 21:00	4.97	691	7.95	14.9
1-12-19 9:30	-0.07	1576	7.73	1.3	1-12-19 9:00	0.00	882	7.97	0.1	1-12-19 9:00	-0.06	1581	7.87	15.9	6-12-19 2:45	19.59	1723	8.34	14.2	4-11-19 21:15	8.38	626	8.42	15.7	4-11-19 21:15	4.96	697	7.95	16.0
1-12-19 9:45	-0.07	1576	7.73	1.3	1-12-19 9:15	0.00	882	7.97	5.4	1-12-19 9:15	-0.07	1581	7.86	17.8	6-12-19 3:00	19.58	1720	8.34	14.8	4-11-19 21:30	8.31	626	8.42	15.9	4-11-19 21:30	4.95	696	7.95	15.8
1-12-19 10:00	-0.07	1576	7.74	1.2	1-12-19 9:30	0.00	883	7.97	3.6	1-12-19 9:30	-0.07	1580	7.86	17.1	6-12-19 3:15	19.57	1721	8.34	15.7	4-11-19 21:45	8.28	626	8.42	13.5	4-11-19 21:45	4.85	693	7.95	15.9

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-12-19 10:15	-0.08	1561	7.73	1.4	1-12-19 9:45	-0.01	879	7.97	4.7	1-12-19 9:45	-0.06	1580	7.86	16.9	6-12-19 3:30	19.55	1718	8.34	14.8	4-11-19 22:00	8.26	626	8.42	14.4	4-11-19 22:00	4.85	697	7.95	17.2
1-12-19 10:30	-0.07	1561	7.73	1.2	1-12-19 10:00	-0.01	880	7.97	4.5	1-12-19 10:00	-0.06	1604	7.86	17.3	6-12-19 3:45	19.53	1722	8.33	16.8	4-11-19 22:15	8.26	627	8.42	14.6	4-11-19 22:15	4.82	696	7.95	15.8
1-12-19 10:45	-0.07	1561	7.73	1.1	1-12-19 10:15	-0.01	882	7.97	3.7	1-12-19 10:15	-0.06	1605	7.87	17.1	6-12-19 4:00	19.48	1720	8.34	13.5	4-11-19 22:30	8.23	627	8.42	13.8	4-11-19 22:30	4.78	697	7.95	15.6
1-12-19 11:00	-0.07	1561	7.73	1.2	1-12-19 10:30	-0.01	882	7.97	0.9	1-12-19 10:30	-0.03	1600	7.84	20.8	6-12-19 4:15	19.44	1721	8.34	13.3	4-11-19 22:45	8.20	628	8.42	13.6	4-11-19 22:45	4.88	697	7.95	17.2
1-12-19 11:15	-0.08	1575	7.72	1.6	1-12-19 10:45	-0.01	897	7.97	0.1	1-12-19 10:45	-0.06	1600	7.85	19.5	6-12-19 4:30	19.42	1719	8.34	13.7	4-11-19 23:00	8.17	627	8.42	13.5	4-11-19 23:00	4.82	697	7.95	14.2
1-12-19 11:30	-0.07	1576	7.74	1.3	1-12-19 11:00	-0.02	882	7.97	1.9	1-12-19 11:00	-0.06	1578	7.85	19.3	6-12-19 4:45	19.39	1720	8.34	14.9	4-11-19 23:15	8.14	627	8.42	13.8	4-11-19 23:15	4.77	695	7.95	15.2
1-12-19 11:45	-0.07	1576	7.73	1.4	1-12-19 11:15	0.01	928	7.96	3.7	1-12-19 11:15	-0.06	1579	7.85	18.9	6-12-19 5:00	19.33	1720	8.34	13.4	4-11-19 23:30	8.10	627	8.43	13.1	4-11-19 23:30	4.73	694	7.95	14.7
1-12-19 12:00	-0.07	1576	7.73	1.3	1-12-19 11:30	0.02	922	7.96	2.3	1-12-19 11:30	-0.06	1579	7.85	18.5	6-12-19 5:15	19.28	1719	8.34	13.5	4-11-19 23:45	8.01	628	8.43	13.3	4-11-19 23:45	4.77	697	7.95	15.9
1-12-19 12:15	-0.07	1559	7.73	1.2	1-12-19 11:45	0.02	916	7.96	2.8	1-12-19 11:45	0.08	1577	7.85	21.4	6-12-19 5:30	19.23	1720	8.34	14.2	4-12-19 0:00	8.00	629	8.43	12.6	4-12-19 0:00	4.75	696	7.95	14.5
1-12-19 12:30	-0.07	1558	7.74	1.3	1-12-19 12:00	0.02	915	7.97	2.2	1-12-19 12:00	0.02	1595	7.84	21.8	6-12-19 5:45	19.19	1720	8.34	13.3	4-12-19 0:15	8.00	629	8.43	15.1	4-12-19 0:15	4.75	697	7.95	15.8
1-12-19 12:45	-0.07	1558	7.73	1.3	1-12-19 12:15	0.02	916	7.97	2.5	1-12-19 12:15	-0.05	1595	7.85	19.7	6-12-19 6:00	19.15	1720	8.34	13.1	4-12-19 0:30	7.95	630	8.42	12.7	4-12-19 0:30	4.78	695	7.95	15.0
1-12-19 13:00	-0.07	1558	7.73	1.3	1-12-19 12:30	0.02	913	7.97	3.2	1-12-19 12:30	-0.05	1595	7.85	19.9	6-12-19 6:15	19.11	1718	8.34	13.4	4-12-19 0:45	7.92	629	8.43	12.8	4-12-19 0:45	4.73	694	7.95	14.4
1-12-19 13:15	-0.07	1585	7.73	1.5	1-12-19 12:45	0.01	914	7.96	3.1	1-12-19 12:45	-0.05	1595	7.85	18.8	6-12-19 6:30	19.04	1721	8.34	13.3	4-12-19 1:00	7.88	629	8.43	13.7	4-12-19 1:00	4.66	696	7.95	14.4
1-12-19 13:30	-0.07	1586	7.73	1.3	1-12-19 13:00	0.01	910	7.96	3.7	1-12-19 13:00	-0.05	1577	7.86	18.5	6-12-19 6:45	19.03	1720	8.33	13.7	4-12-19 1:15	7.87	630	8.43	12.5	4-12-19 1:15	4.67	697	7.95	14.7
1-12-19 13:45	-0.07	1586	7.73	1.3	1-12-19 13:15	0.02	911	7.97	1.6	1-12-19 13:15	-0.05	1581	7.86	18.1	6-12-19 7:00	18.99	1719	8.33	13.0	4-12-19 1:30	7.79	630	8.43	13.0	4-12-19 1:30	4.65	696	7.95	13.9
1-12-19 14:00	-0.07	1586	7.73	1.2	1-12-19 13:30	0.02	924	7.97	1.3	1-12-19 13:30	-0.05	1577	7.85	18.9	6-12-19 7:15	18.95	1720	8.34	12.8	4-12-19 1:45	7.78	631	8.43	13.0	4-12-19 1:45	4.55	697	7.95	13.7
1-12-19 14:15	-0.08	1557	7.72	1.4	1-12-19 13:45	0.02	913	7.96	0.8	1-12-19 13:45	-0.06	1580	7.86	17.9	6-12-19 7:30	18.92	1721	8.34	13.4	4-12-19 2:00	7.77	631	8.42	12.6	4-12-19 2:00	4.47	696	7.96	13.3
1-12-19 14:30	-0.07	1557	7.73	1.2	1-12-19 14:00	0.03	908	7.96	1.1	1-12-19 14:00	-0.07	1600	7.86	17.9	6-12-19 7:45	18.86	1720	8.34	13.4	4-12-19 2:15	7.69	631	8.43	13.1	4-12-19 2:15	4.34	696	7.96	13.4
1-12-19 14:45	-0.07	1557	7.73	1.2	1-12-19 14:15	0.03	904	7.96	4.9	1-12-19 14:15	-0.06	1600	7.88	18.0	6-12-19 8:00	18.84	1719	8.34	13.3	4-12-19 2:30	7.67	632	8.43	13.0	4-12-19 2:30	4.32	694	7.96	13.6
1-12-19 15:00	-0.07	1557	7.73	1.1	1-12-19 14:30	0.03	910	7.96	3.8	1-12-19 14:30	-0.06	1600	7.88	17.0	6-12-19 8:15	18.79	1718	8.33	13.4	4-12-19 2:45	7.63	632	8.42	12.5	4-12-19 2:45	4.23	698	7.95	9.2
1-12-19 15:15	-0.08	1581	7.72	1.6	1-12-19 14:45	0.03	914	7.96	1.9	1-12-19 14:45	-0.06	1600	7.88	17.0	6-12-19 8:30	18.78	1720	8.33	13.5	4-12-19 3:00	7.65	646	8.42	13.0	4-12-19 3:00	4.20	698	7.96	11.9
1-12-19 15:30	-0.07	1581	7.73	1.2	1-12-19 15:00	0.04	915	7.96	2.3	1-12-19 15:00	-0.05	1578	7.88	16.4	6-12-19 8:45	18.72	1720	8.34	13.1	4-12-19 3:15	7.61	636	8.42	12.7	4-12-19 3:15	4.21	698	7.96	13.0
1-12-19 15:45	-0.07	1582	7.73	1.2	1-12-19 15:15	0.01	894	7.96	4.2	1-12-19 15:15	-0.05	1579	7.87	17.3	6-12-19 9:00	18.68	1720	8.33	16.5	4-12-19 3:30	7.70	674	8.40	14.5	4-12-19 3:30	4.20	698	7.96	12.6
1-12-19 16:00	-0.07	1582	7.73	1.2	1-12-19 15:30	0.02	894	7.97	0.1	1-12-19 15:30	-0.05	1578	7.87	17.8	6-12-19 9:15	18.63	1720	8.33	12.7	4-12-19 3:45	7.99	712	8.36	16.6	4-12-19 3:45	4.18	697	7.96	13.9
1-12-19 16:15	-0.08	1556	7.72	1.3	1-12-19 15:45	0.03	885	7.97	1.3	1-12-19 15:45	-0.05	1577	7.86	19.1	6-12-19 9:30	18.59	1720	8.33	14.1	4-12-19 4:00	8.04	728	8.34	17.7	4-12-19 4:00	4.14	697	7.96	12.4
1-12-19 16:30	-0.07	1556	7.73	1.2	1-12-19 16:00	0.04	887	7.97	3.9	1-12-19 16:00	-0.04	1599	7.86	21.2	6-12-19 9:45	18.56	1718	8.33	13.3	4-12-19 4:15	8.06	728	8.32	17.8	4-12-19 4:15	4.19	695	7.96	11.6
1-12-19 16:45	-0.07	1556	7.73	1.2	1-12-19 16:15	0.04	893	7.97	1.2	1-12-19 16:15	-0.06	1598	7.86	20.9	6-12-19 10:00	18.50	1718	8.33	14.3	4-12-19 4:30	7.97	743	8.32	19.6	4-12-19 4:30	4.16	698	7.96	13.0
1-12-19 17:00	-0.07	1556	7.73	1.2	1-12-19 16:30	0.05	885	7.97	0.4	1-12-19 16:30	-0.06	1598	7.86	21.7	6-12-19 10:15	18.48	1719	8.33	12.7	4-12-19 4:45	7.86	748	8.32	19.7	4-12-19 4:45	4.15	695	7.96	13.0
1-12-19 17:15	-0.08	1575	7.72	1.5	1-12-19 16:45	0.06	883	7.97	1.5	1-12-19 16:45	-0.05	1598	7.86	22.0	6-12-19 10:30	18.41	1718	8.33	12.5	4-12-19 5:00	7.97	754	8.31	20.5	4-12-19 5:00	4.11	698	7.96	12.4
1-12-19 17:30	-0.07	1576	7.73	1.3	1-12-19 17:00	0.06	882	7.97	1.6	1-12-19 17:00	-0.05	1578	7.87	20.4	6-12-19 10:45	18.37	1720	8.33	12.2	4-12-19 5:15	7.98	771	8.29	21.4	4-12-19 5:15	4.15	697	7.96	12.1
1-12-19 17:45	-0.07	1576	7.73	1.2	1-12-19 17:15	0.06	889	7.98	6.3	1-12-19 17:15	-0.05	1577	7.87	20.3	6-12-19 11:00	18.31	1719	8.33	12.5	4-12-19 5:30	7.92	773	8.28	24.4	4-12-19 5:30	4.08	691	7.96	10.4
1-12-19 18:00	-0.07	1576	7.73	1.4	1-12-19 17:30	0.06	880	7.97	0.7	1-12-19 17:30	-0.05	1577	7.87	20.2	6-12-19 11:15	18.23	1720	8.34	12.4	4-12-19 5:45	7.78	770	8.28	27.1	4-12-19 5:45	4.14	698	7.95	13.4
1-12-19 18:15	-0.07	1553	7.73	1.3	1-12-19 17:45	0.06	877	7.97	0.7	1-12-19 17:45	-0.05	1578	7.87	20.4	6-12-19 11:30	18.19	1720	8.33	13.4	4-12-19 6:00	7.67	772	8.28	32.8	4-12-19 6:00	4.13	697	7.96	15.0
1-12-19 18:30	-0.07	1554	7.74	1.3	1-12-19 18:00	0.05	879	7.98	0.0	1-12-19 18:00	-0.04	1599	7.86	22.1	6-12-19 11:45	18.16	1720	8.33	12.5	4-12-19 6:15	7.35	827	8.23	55.7	4-12-19 6:15	4.11	696	7.96	13.4
1-12-19 18:45	-0.07	1554	7.73	1.2	1-12-19 18:15	0.05	883	7.98	1.4	1-12-19 18:15	-0.04	1599	7.87	22.1	6-12-19 12:00	18.13	1719	8.33	13.2	4-12-19 6:30	7.23	834	8.23	53.9	4-12-19 6:30	4.11	696	7.96	14.4
1-12-19 19:00	-0.07	1554	7.73	1.2	1-12-19 18:30	0.05	879	7.98	1.4	1-12-19 18:30	-0.06	1599	7.87	21.9	6-12-19 12:15	18.08	1719	8.33	12.8	4-12-19 6:45	7.10	847	8.22	70.6	4-12-19 6:45	4.10	693	7.96	13.5
1-12-19 19:15	-0.07	1569	7.73	1.5	1-12-19 18:45	0.06	883	7.98	0.3	1-12-19 18:45	-0.06	1598	7.87	21.8	6-12-19 12:30	18.05	1719	8.33	13.8	4-12-19 7:00	7.09	844	8.22	72.5	4-12-19 7:00	4.12	696	7.96	13.0
1-12-19 19:30	-0.07	1570	7.74	1.2	1-12-19 19:00	0.06	895	7.98	0.5	1-12-19 19:00	-0.06	1577	7.87	20.5	6-12-19 12:45	18.02	1720	8.33	12.5	4-12-19 7:15	7.06	831	8.23	60.9	4-12-19 7:15	4.14	695	7.96	14.4
1-12-19 19:45	-0.07	1570	7.74	1.1	1-12-19 19:15	0.06	880	7.98	1.8	1-12-19 19:15	-0.06	1579	7.87	20.4	6-12-19 13:00	17.99	1721	8.33	12.0	4-12-19 7:30	7.07	818	8.24	55.1	4-12-19 7:30	4.14	695	7.96	14.5
1-12-19 20:00	-0.08	1571	7.74	1.2	1-12-19 19:30	0.06	882	7.98	0.6	1-12-19 19:30	-0.06	1579	7.87	20.7	6-12-19 13:15	17.93	1720	8.33	12.8	4-12-19 7:45	7.12	807	8.26	46.9	4-12-19 7:45	4.11	695	7.96	13.7
1-12-19 20:15	-0.08	1553	7.73	1.3	1-12-19 19:45	0.06	887	7.98	0.0	1-12-19 19:45	-0.05	1578	7.87	20.8	6-12-19 13:30	17.92	1720	8.33	12.7	4-12-19 8:00	7.10	803	8.26	42.8	4-12-19 8:00	4.08	693	7.96	14.7
1-12-19 20:30	-0.08	1553	7.74	1.2	1-12-19 20:00	0.06	882	7.98	1.2	1-12-19 20:00	-0.05	1598	7.86	22.2	6-12-19 13:45	17.97	1719	8.32	13.2	4-12-19 8:15	7.20	803	8.26	46.3	4-12-19 8:15	4.09	695	7.96	13.3
1-12-19 20:45	-0.08	1553	7.74	1.3	1-12-19 20:15	0.06	883	7.98	0.4	1-12-19 20:15	-0.05	1598	7.87	22.5	6-12-19 14:00	17.96	1719	8.32	12.4	4-12-19 8:30	7.25	783	8.28	39.5	4-12-19 8:30	4.14	695	7.96	14.2
1-12-19 21:00	-0.08	1553	7.74	1.2	1-12-19 20:30	0.07	890	7.98	0.0	1-12-19 20:30	-0.05	1597	7.87	22.3	6-12-19 14:15	17.97	1720	8.33	12.9	4-12-19 8:45	7.26	783	8.28	36.2	4-12-19 8:45	4.21	695	7.96	13.4
1-12-19 21:15	-0.08	1565	7.73	1.5	1-12-19 20:45	0.07	889	7.98	0.0	1-12-19 20:45	-0.05	1599	7.87	22.5	6-12-19 14:30	17.97	1720	8.33	12.6	4-12-19 9:00	7.30	780	8.29	36.9	4-12-19 9:00	4.33	693	7.96	12.5
1-12-19 21:30	-0.07	1565	7.75	1.2	1-12-19 21:00	0.07	891	7.98	1.9	1-12-19 21:00	-0.05	1578	7.87	21.1	6-12-19 14:45	17.98	1721	8.33	11.8	4-12-19 9:15	7.39	776	8.29	35.5	4-12-19 9:15	4.46	695	7.95	13.8
1-12-19 21:45	-0.07	1565	7.74	1.2	1-12-19 21:15	0.07	886	7.98	1.7	1-12-19 21:15	-0.05	1578	7.87	20.9	6-12-19 15:00	18.08	1720	8.33	11.8	4-12-19 9:30	7.51	768	8.30	28.5	4-12-19 9:30	4.57	691	7.95	13.9
1-12-19 22:00	-0.08	1565	7.74	1.2	1-12-19 21:30	0.07	883	7.98	1.4	1-12-19 21:30	-0.05	1578	7.87	20.6	6-12-19 15:15	18.14	1721	8.33	12.8	4-12-19 9:45	7.64	764	8.30	27.2	4-12-19 9:45	4.71	698	7.95	17.3
1-12-19 22:15	-0.08	1551	7.74	1.3	1-12-19 21:45	0.07	887	7.98	1.3	1-12-19 21:45	-0.05	1578	7.87	20.3	6-12-19 15:30	18.27	1720	8.33	11.9	4-12-19 10:00	7.77	752	8.31	25.9	4-12-19 10:00	4.73	696	7.95	17.4
1-12-19 22:30					1-12-19 22:00	0.07	897	7.98	3.2	1-12-19 22:00	-0.06	1599	7.87	21.9	6-12-19 15:45	18.35	1720	8.33	12.0	4-12-19 10:15	8.12	743	8.31	22.5	4-12-19 10:15	4.81	695	7.95	15.5
1-12-19 22:45	-0.08	1551	7.74	1.2	1-12-19 22:15	0.07	881	7.98	7.0	1-12-19 22:15	-0.06	1597	7.87	21.7	6-12-19 16:00	18.45	1720	8.33	11.1	4-12-19 10:30	8.19	717	8.33	21.8	4-12-19 10:30	4.90	695	7.95	15.8
1-12-19 23:00	-0.08	1551	7.74	1.1	1-12-19 22:30	0.07	886	7.98	1.3	1-12-19 22:30	-0.06	1598	7.87	21.5	6-12-19 16:15	18.51	1721	8.34	12.2	4-12-19 10:45	8.38	701	8.34	23.3	4-12-19 10:45	5.08	694	7.95	15.3
1-12-19 23:15	-0.08	1574	7.74	1.5	1-12-19 22:45	0.07	890	7.98	1.9	1-12-19 22:45	-0.06	1598	7.87	21.4	6-12-19 16:30	18.65	1722	8.33	11.9	4-12-19 11:00	8.38	691	8.35	18.8	4-12-19 11:00	5.38	697	7.94	11.9
1-12-19 23:30	-0.08	1574	7.75	1.1	1-12-19 23:00	0.07	889	7.98	2.9	1-12-19 23:00	-0.06	1579	7.87	20.0	6-12-19 16:45	18.69	1722	8.33	11.6	4-12-19 11:15	8.57	673	8.36	15.4	4-12-19 11:15	6.51	694	7.93	9.7
1-12-19 23:45	-0.08	1574	7.74	1.2	1-12-19 23:15	0.06	892	7.98	2.4	1-12-19 23:15	-0.06	1578	7.87	20.2	6-12-19 17:00	18.82	1721	8.33	13.0	4-12-19 11:30	9.16	673	8.35	14.5	4-12-19 11:30	6.64	689	7.93	10.6
1-13-19 0:00	-0.08	1574	7.74	1.2	1-12-19 23:30	0.06	886	7.98	3.1	1-12-19 23:30	-0.06	1579	7.87	19.6	6-12-19 17:15	18.94	1720	8.32	11.6	4-12-19 11:45	8.83	671	8.35	17.4	4-12-19 11:45	7.41	695	7.93	10.0
1-13-19 0:15	-0.08	1551	7.74	1.2	1-12-19 23:45	0.06	886	7.98	4.1	1-12-19 23:45	-0.06	1579	7.87	19.8	6-12-19 17:30	18.98	1722	8.33	11.7	4-12-19 12:00	8.58	683	8.35	18.0	4-12-19 12:00	7.41	696	7.93	10.4
1-13-19 0:30	-0.08	1551	7.75	1.2	1-13-19 0:00	0.06	888	7.98	1.2	1-13-19 0:00	-0.06	1601	7.86	21.5	6-12-19 17:45	19.21	1723	8.33	11.9	4-12-19 12:15	8.32	720	8.33	21.4	4-12-19 12:15	7.63	694	7.93	16.5
1-13-19 0:45	-0.08	1551	7.74	1.2	1-13-19 0:15	0.05	889	7.98	3.4	1-13-19 0:15	-0.07	1601	7.86	21.3	6-12-19 18:00	19.39	1723	8.32	12.4	4-12-19 12:30	8.20	729	8.33	24.6	4-12-19 12:30	7.44	692	7.93	12.7
1-13-19 1:00	-0.08	1551	7.74	1.2	1-13-19 0:30	0.06	886	7.98	3.2	1-13-19 0:30	-0.07	1600	7.86	21.0	6-12-19 18:15	19.52	1723	8.31	13.9	4-12-19 12:45	8.78	736	8.32	24.4	4-12-19 12:45	6.94	690	7.93	14.4
1-13-19 1:15	-0.08	1566	7.74	1.5	1-13-19 0:45	0.05	881	7.98	2.7	1-13-19 0:45	-0.06	1597	7.87	21.1	6-12-19 18:30	19.64	1723	8.33	13.9	4-12-19 13:00	9.01	744	8.31	22.2	4-12-19 13:00	6.65	689	7.94	13.3
1-13-19 1:30	-0.08	1567	7.75	1.2	1-13-19 1:00	0.05	885	7.98	4.0	1-13-19 1:00	-0.07	1579	7.87	20.3	6-12-19 18:45	19.78	1727	8.32	12.1	4-12-19 13:15	9.34	747	8.30	37.2	4-12-19 13:15	6.28	692	7.94	15.2
1-13-19 1:45	-0.08	1567	7.75	1.2	1-13-19 1:15	0.05	890	7.98	3.8	1-13-19 1:15	-0.06	1580	7.87	19.8	6-12-19 19:00	19.90	1725	8.32	12.8	4-12-19 13:30	9.28	746	8.30	22.8	4-12-19 13:30	6.27	692	7.95	15.1
1-13-19 2:00	-0.08	1568	7.75	1.2	1-13-19 1:30	0.05	882	7.98	0.0	1-13-19 1:30	-0.06	1580	7.87	20.1	6-12-19 19:15	20.03	1727	8.32	12.9	4-12-19 13:45	9.48	750	8.30	24.7	4-12-19 13:45	5.94	691	7.95	18.5
1-13-19 2:15	-0.08	1549	7.74	1.3	1-13-19 1:45	0.05	891	7.98	0.0	1-13-19 1:45	-0.06	1579	7.87	19.6	6-12-19 19:30	20.03	1723	8.33	11.8	4-12-19 14:00	9.67	732	8.31	30.7	4-12-19 14:00	5.58	692	7.96	17.9
1-13-19 2:30	-0.08	1548	7.75	1.3	1-13-19 2:00	0.04	888	7.98	1.1	1-13-19 2:00	-0.06	1601	7.87	20.8	6-12-19 19:45	20.37	1728	8.30	11.5	4-12-19 14:15	9.80	731	8.32	20.8	4-12-19 14:15	5.38	692	7.96	18.9
1-13-19 2:45	-0.08	1548	7.75	1.2	1-13-19 2:15	0.04	887	7.98	1.3	1-13-19 2:15	-0.06	1601	7.87	20.8	6-12-19 20:00	20.45	1725	8.31	12.3	4-12-19 14:30	9.97	731	8.32	21.6	4-12-19 14:30	5.48	694	7.96	19.4
1-13-19 3:00	-0.08	1548	7.75	1.3	1-13-19 2:30	0.04	887	7.98	0.6	1-13-19 2:30	-0.05	1599	7.87	20.7	6-12-19 20:15	20.60	1727	8.31	11.8	4-12-19 14:45	9.93	726	8.32	20.5	4-12-19 14:45	5.70	694	7.96	18.9
1-13-19 3:15	-0.08	1561	7.74	1.6	1-13-19 2:45	0.04	898	7.98	1.9	1-13-19 2:45	-0.06	1598	7.87	20.3	6-12-19 20:30	20.78	1728	8.31	14.0	4-12-19 15:00	10.19	727	8.32	21.2	4-12-19 15:00	6.05	694	7.95	19.2
1-13-19 3:30	-0.08	1561	7.76	1.3	1-13-19 3:00	0.04	891	7.98	0.0	1-13-19 3:00	-0.06	1580	7.88	19.4	6-12-19 20:45	20.91	1730	8.32	11.5	4-12-19 15:15	10.41	728	8.32	20.2	4-12-19 15:15	6.31	694	7.95	19.5
1-13-19 3:45	-0.08	1561	7.75	1.3	1-13-19 3:15	0.04	893	7.98	0.6	1-13-19 3:15	-0.06	1579	7.87	19.5	6-12-19 21:00	21.02	1729	8.31	13.1	4-12-19 15:30	10.58	727	8.31	23.5	4-12-19 15:30	6.47	694	7.95	21.4
1-13-19 4:00	-0.08	1561	7.75	1.3	1-13-19 3:30	0.04	896	7.98	0.2	1-13-19 3:30	-0.06	1582	7.87	19.1	6-12-19 21:15	21.29	1731	8.31	11.8	4-12-19 15:45	10.59	726	8.32	23.9	4-12-19 15:45	6.65	694	7.95	26.7
1-13-19 4:15	-0.08	1550	7.75	1.4	1-13-19 3:45	0.03	887	7.98	0.0	1-13-19 3:45	-0.05	1581	7.87	19.4	6-12-19 21:30	21.29	1728	8.31	12.6	4-12-19 16:00	10.66	725	8.32	22.1	4-12-19 16:00	6.70	692	7.95	28.7

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-13-19 4:30	-0.08	1550	7.76	1.3	1-13-19 4:00	0.04	908	7.96	1.2	1-13-19 4:00	-0.06	1597	7.87	20.3	6-12-19 21:45	21.68	1730	8.30	11.8	4-12-19 16:15	10.73	725	8.32	19.6	4-12-19 16:15	6.77	692	7.95	29.6
1-13-19 4:45	-0.08	1550	7.76	1.4	1-13-19 4:15	0.04	900	7.96	0.1	1-13-19 4:15	-0.06	1597	7.87	20.0	6-12-19 22:00	21.65	1730	8.31	11.6	4-12-19 16:30	10.81	725	8.32	20.9	4-12-19 16:30	6.88	693	7.95	33.9
1-13-19 5:00	-0.08	1550	7.75	1.5	1-13-19 4:30	0.04	909	7.96	2.1	1-13-19 4:30	-0.06	1598	7.87	19.9	6-12-19 22:15	21.64	1728	8.31	11.5	4-12-19 16:45	10.75	722	8.32	20.6	4-12-19 16:45	6.88	692	7.96	38.3
1-13-19 5:15	-0.08	1567	7.75	1.8	1-13-19 4:45	0.04	904	7.95	1.5	1-13-19 4:45	-0.04	1598	7.86	20.4	6-12-19 22:30	21.92	1729	8.31	11.6	4-12-19 17:00	10.65	723	8.33	19.6	4-12-19 17:00	7.02	691	7.96	46.4
1-13-19 5:30	-0.08	1567	7.76	1.4	1-13-19 5:00	0.04	904	7.96	0.0	1-13-19 5:00	-0.05	1580	7.87	19.8	6-12-19 22:45	22.00	1732	8.32	12.2	4-12-19 17:15	10.64	722	8.33	18.2	4-12-19 17:15	6.98	693	7.97	81.0
1-13-19 5:45	-0.08	1567	7.76	1.4	1-13-19 5:15	0.03	902	7.96	0.1	1-13-19 5:15	-0.05	1581	7.87	18.3	6-12-19 23:00	21.99	1732	8.31	12.5	4-12-19 17:30	9.74	730	8.35	19.7	4-12-19 17:30	7.13	692	7.97	77.3
1-13-19 6:00	-0.08	1567	7.76	1.4	1-13-19 5:30	0.04	904	7.96	0.0	1-13-19 5:30	-0.06	1581	7.87	19.4	6-12-19 23:15	21.81	1733	8.31	12.4	4-12-19 17:45	9.90	726	8.35	20.7	4-12-19 17:45	7.20	691	7.97	74.7
1-13-19 6:15	-0.08	1547	7.75	1.4	1-13-19 5:45	0.04	903	7.96	0.0	1-13-19 5:45	-0.06	1580	7.87	19.7	6-12-19 23:30	21.78	1733	8.32	17.6	4-12-19 18:00	9.47	760	8.33	21.1	4-12-19 18:00	7.14	691	7.97	82.7
1-13-19 6:30	-0.08	1546	7.76	1.5	1-13-19 6:00	0.04	900	7.96	0.0	1-13-19 6:00	-0.04	1603	7.87	21.0	6-12-19 23:45	21.74	1732	8.33	16.1	4-12-19 18:15	8.44	842	8.30	30.2	4-12-19 18:15	7.14	692	7.98	91.5
1-13-19 6:45	-0.08	1546	7.76	1.4	1-13-19 6:15	0.05	902	7.96	0.1	1-13-19 6:15	-0.02	1601	7.87	20.9	6-13-19 0:00	21.72	1731	8.32	13.9	4-12-19 18:30	7.56	934	8.23	35.6	4-12-19 18:30	7.04	688	7.98	112.3
1-13-19 7:00	-0.08	1546	7.76	1.3	1-13-19 6:30	0.05	900	7.96	0.7	1-13-19 6:30	-0.06	1601	7.87	19.9	6-13-19 0:15	21.67	1732	8.32	12.4	4-12-19 18:45	7.31	1002	8.15	37.8	4-12-19 18:45	6.87	687	7.98	109.6
1-13-19 7:15	-0.08	1560	7.75	1.7	1-13-19 6:45	0.05	898	7.96	0.2	1-13-19 6:45	-0.06	1602	7.87	19.7	6-13-19 0:30	21.70	1731	8.33	13.2	4-12-19 19:00	7.32	1050	8.09	40.3	4-12-19 19:00	6.81	687	7.98	115.3
1-13-19 7:30	-0.08	1560	7.76	1.5	1-13-19 7:00	0.05	903	7.96	0.0	1-13-19 7:00	-0.06	1582	7.87	18.7	6-13-19 0:45	21.70	1731	8.32	12.0	4-12-19 19:15	7.58	1027	8.11	35.2	4-12-19 19:15	6.73	673	7.98	117.6
1-13-19 7:45	-0.08	1560	7.75	1.4	1-13-19 7:15	0.05	904	7.96	0.0	1-13-19 7:15	0.02	1579	7.87	21.5	6-13-19 1:00	21.77	1732	8.32	12.4	4-12-19 19:30	7.34	1031	8.10	36.9	4-12-19 19:30	6.66	674	7.98	128.1
1-13-19 8:00	-0.08	1560	7.75	1.4	1-13-19 7:30	0.05	903	7.96	0.0	1-13-19 7:30	0.02	1577	7.88	21.7	6-13-19 1:15	21.75	1732	8.34	11.6	4-12-19 19:45	7.34	1022	8.11	36.3	4-12-19 19:45	6.61	675	7.98	136.8
1-13-19 8:15	-0.08	1545	7.75	1.5	1-13-19 7:45	0.05	916	7.96	0.4	1-13-19 7:45	-0.04	1580	7.88	19.1	6-13-19 1:30	21.74	1731	8.32	12.2	4-12-19 20:00	7.55	1054	8.08	35.2	4-12-19 20:00	6.57	673	7.99	153.3
1-13-19 8:30	-0.08	1544	7.76	1.4	1-13-19 8:00	0.05	913	7.96	1.3	1-13-19 8:00	-0.05	1600	7.87	20.6	6-13-19 1:45	21.71	1731	8.33	13.6	4-12-19 20:15	7.83	1048	8.08	33.8	4-12-19 20:15	6.50	673	7.99	147.8
1-13-19 8:45	-0.08	1544	7.75	1.3	1-13-19 8:15	0.05	906	7.96	0.1	1-13-19 8:15	-0.07	1603	7.87	19.3	6-13-19 2:00	21.69	1734	8.33	11.7	4-12-19 20:30	7.64	1033	8.10	33.6	4-12-19 20:30	6.47	674	7.99	154.4
1-13-19 9:00	-0.08	1544	7.75	1.4	1-13-19 8:30	0.05	908	7.96	0.0	1-13-19 8:30	-0.05	1604	7.86	21.5	6-13-19 2:15	21.59	1733	8.34	14.2	4-12-19 20:45	7.76	1005	8.13	31.5	4-12-19 20:45	6.42	674	7.99	164.4
1-13-19 9:15	-0.08	1555	7.75	1.8	1-13-19 8:45	0.05	909	7.96	0.0	1-13-19 8:45	-0.02	1602	7.87	21.4	6-13-19 2:30	21.57	1732	8.35	12.8	4-12-19 21:00	8.09	971	8.15	30.9	4-12-19 21:00	6.37	672	7.99	171.4
1-13-19 9:30	-0.08	1556	7.76	1.4	1-13-19 9:00	0.05	909	7.96	1.7	1-13-19 9:00	0.05	1576	7.88	22.7	6-13-19 2:45	21.49	1732	8.34	12.4	4-12-19 21:15	8.18	968	8.15	27.9	4-12-19 21:15	6.38	671	7.99	170.4
1-13-19 9:45	-0.08	1556	7.75	1.4	1-13-19 9:15	0.04	908	7.96	1.8	1-13-19 9:15	0.03	1579	7.88	21.3	6-13-19 3:00	21.40	1732	8.34	11.9	4-12-19 21:30	8.38	941	8.17	25.4	4-12-19 21:30	6.36	671	7.99	173.0
1-13-19 10:00	-0.08	1556	7.75	1.5	1-13-19 9:30	0.04	904	7.96	0.0	1-13-19 9:30	-0.01	1579	7.88	21.7	6-13-19 3:15	21.32	1732	8.35	13.7	4-12-19 21:45	8.45	919	8.19	23.6	4-12-19 21:45	6.33	671	7.99	172.8
1-13-19 10:15	-0.08	1548	7.74	1.5	1-13-19 9:45	0.04	903	7.96	0.3	1-13-19 9:45	0.04	1579	7.89	24.8	6-13-19 3:30	21.24	1732	8.35	12.5	4-12-19 22:00	8.54	897	8.21	21.5	4-12-19 22:00	6.31	681	7.99	177.7
1-13-19 10:30	-0.08	1547	7.75	1.5	1-13-19 10:00	0.04	905	7.97	0.3	1-13-19 10:00	0.02	1595	7.89	23.7	6-13-19 3:45	21.16	1733	8.35	11.9	4-12-19 22:15	8.61	873	8.23	22.4	4-12-19 22:15	6.18	682	7.99	182.7
1-13-19 10:45	-0.08	1547	7.75	1.4	1-13-19 10:15	0.04	906	7.97	0.9	1-13-19 10:15	-0.03	1598	7.89	22.6	6-13-19 4:00	21.12	1733	8.35	12.0	4-12-19 22:30	8.58	859	8.24	21.3	4-12-19 22:30	6.16	684	8.00	183.9
1-13-19 11:00	-0.08	1547	7.74	1.4	1-13-19 10:30	0.04	908	7.97	0.0	1-13-19 10:30	-0.05	1600	7.89	22.4	6-13-19 4:15	21.04	1732	8.35	12.5	4-12-19 22:45	8.58	843	8.25	19.8	4-12-19 22:45	6.09	683	8.00	184.5
1-13-19 11:15	-0.09	1561	7.74	1.8	1-13-19 10:45	0.04	906	7.97	0.0	1-13-19 10:45	-0.04	1599	7.89	22.9	6-13-19 4:30	21.01	1732	8.35	13.1	4-12-19 23:00	8.55	840	8.26	21.9	4-12-19 23:00	6.15	684	8.00	190.9
1-13-19 11:30	-0.08	1560	7.75	1.5	1-13-19 11:00	0.04	907	7.97	0.0	1-13-19 11:00	0.02	1579	7.89	22.5	6-13-19 4:45	20.96	1734	8.35	12.8	4-12-19 23:15	8.54	842	8.26	20.3	4-12-19 23:15	6.17	700	7.99	266.5
1-13-19 11:45	-0.08	1559	7.74	1.4	1-13-19 11:15	0.26	1060	7.87	0.2	1-13-19 11:15	-0.01	1580	7.89	22.0	6-13-19 5:00	20.92	1734	8.35	12.5	4-12-19 23:30	8.55	846	8.25	20.3	4-12-19 23:30	6.17	701	7.99	266.8
1-13-19 12:00	-0.08	1559	7.74	1.5	1-13-19 11:30	0.17	979	7.91	1.4	1-13-19 11:30	0.04	1578	7.89	26.1	6-13-19 5:15	20.85	1730	8.35	12.3	4-12-19 23:45	8.51	849	8.25	19.6	4-12-19 23:45	6.15	700	7.99	242.9
1-13-19 12:15	-0.09	1552	7.73	1.5	1-13-19 11:45	0.15	977	7.92	0.2	1-13-19 11:45	0.27	1570	7.94	30.8	6-13-19 5:30	20.81	1733	8.35	12.6	4-13-19 0:00	8.49	851	8.25	19.7	4-13-19 0:00	6.09	701	7.99	246.3
1-13-19 12:30	-0.08	1548	7.74	1.6	1-13-19 12:00	0.15	982	7.91	0.0	1-13-19 12:00	0.13	1592	7.92	28.1	6-13-19 5:45	20.78	1734	8.34	12.2	4-13-19 0:15	8.43	853	8.25	19.7	4-13-19 0:15	6.05	701	7.99	272.6
1-13-19 12:45	-0.08	1548	7.73	1.6	1-13-19 12:15	0.15	973	7.91	1.4	1-13-19 12:15	0.04	1596	7.92	26.4	6-13-19 6:00	20.71	1732	8.35	12.2	4-13-19 0:30	8.40	854	8.25	19.7	4-13-19 0:30	6.00	670	7.99	261.0
1-13-19 13:00	-0.08	1548	7.73	1.5	1-13-19 12:30	0.15	971	7.92	0.0	1-13-19 12:30	0.01	1596	7.92	26.4	6-13-19 6:15	20.66	1732	8.35	11.7	4-13-19 0:45	8.28	853	8.25	21.9	4-13-19 0:45	5.80	677	8.00	278.0
1-13-19 13:15	-0.09	1549	7.72	1.9	1-13-19 12:45	0.14	959	7.92	0.3	1-13-19 12:45	-0.01	1597	7.92	26.0	6-13-19 6:30	20.62	1732	8.35	11.6	4-13-19 1:00	8.26	852	8.25	18.8	4-13-19 1:00	5.86	677	8.00	266.3
1-13-19 13:30	-0.08	1550	7.72	1.6	1-13-19 13:00	0.13	964	7.92	0.0	1-13-19 13:00	-0.02	1574	7.92	24.3	6-13-19 6:45	20.63	1730	8.34	12.4	4-13-19 1:15	8.20	852	8.26	20.4	4-13-19 1:15	5.90	677	8.00	272.0
1-13-19 13:45	-0.08	1550	7.72	1.6	1-13-19 13:15	0.14	962	7.92	0.0	1-13-19 13:15	-0.03	1575	7.92	22.9	6-13-19 7:00	20.57	1730	8.34	12.2	4-13-19 1:30	8.14	854	8.26	18.7	4-13-19 1:30	5.84	676	8.00	290.4
1-13-19 14:00	-0.08	1549	7.72	1.5	1-13-19 13:30	0.14	960	7.92	0.1	1-13-19 13:30	-0.03	1575	7.92	23.7	6-13-19 7:15	20.47	1733	8.34	13.0	4-13-19 1:45	8.02	854	8.26	18.6	4-13-19 1:45	5.72	677	8.00	293.6
1-13-19 14:15	-0.08	1544	7.70	1.6	1-13-19 13:45	0.15	963	7.92	1.4	1-13-19 13:45	-0.03	1574	7.92	24.4	6-13-19 7:30	20.40	1730	8.34	13.2	4-13-19 2:00	7.99	854	8.26	19.4	4-13-19 2:00	5.73	678	8.00	283.7
1-13-19 14:30	-0.08	1543	7.71	1.5	1-13-19 14:00	0.15	972	7.91	0.7	1-13-19 14:00	-0.03	1596	7.92	26.8	6-13-19 7:45	20.34	1735	8.34	14.6	4-13-19 2:15	7.93	854	8.26	18.2	4-13-19 2:15	5.73	677	8.00	278.9
1-13-19 14:45	-0.08	1543	7.71	1.6	1-13-19 14:15	0.15	958	7.92	1.4	1-13-19 14:15	-0.04	1593	7.92	25.9	6-13-19 8:00	20.29	1733	8.34	11.7	4-13-19 2:30	7.84	854	8.26	18.8	4-13-19 2:30	5.68	678	8.00	293.5
1-13-19 15:00	-0.08	1543	7.71	1.7	1-13-19 14:30	0.14	957	7.92	1.4	1-13-19 14:30	-0.04	1595	7.92	25.4	6-13-19 8:15	20.22	1730	8.34	11.8	4-13-19 2:45	7.71	855	8.26	18.8	4-13-19 2:45	5.62	677	8.00	288.1
1-13-19 15:15	-0.08	1562	7.70	1.9	1-13-19 14:45	0.13	960	7.92	2.0	1-13-19 14:45	-0.04	1596	7.92	25.7	6-13-19 8:30	20.15	1732	8.35	11.7	4-13-19 3:00	8.22	1074	8.03	57.1	4-13-19 3:00	5.57	676	8.00	281.7
1-13-19 15:30	-0.08	1561	7.71	1.6	1-13-19 15:00	0.13	954	7.92	0.3	1-13-19 15:00	-0.04	1574	7.92	23.7	6-13-19 8:45	20.03	1730	8.36	12.4	4-13-19 3:15	8.14	1058	8.05	46.3	4-13-19 3:15	5.70	675	8.00	285.6
1-13-19 15:45	-0.08	1561	7.71	1.5	1-13-19 15:15	0.13	957	7.92	0.1	1-13-19 15:15	-0.04	1572	7.92	22.9	6-13-19 9:00	19.97	1733	8.36	11.1	4-13-19 3:30	6.97	862	8.27	15.6	4-13-19 3:30	5.62	677	8.00	277.5
1-13-19 16:00	-0.08	1561	7.70	1.6	1-13-19 15:30	0.14	960	7.92	2.7	1-13-19 15:30	-0.04	1574	7.92	22.9	6-13-19 9:15	19.89	1729	8.36	12.9	4-13-19 3:45	6.84	866	8.27	14.7	4-13-19 3:45	5.65	677	7.99	298.7
1-13-19 16:15	-0.08	1539	7.70	1.6	1-13-19 15:45	0.14	969	7.92	0.4	1-13-19 15:45	-0.04	1575	7.92	22.9	6-13-19 9:30	19.81	1731	8.35	12.0	4-13-19 4:00	8.01	1050	8.05	63.2	4-13-19 4:00	5.54	677	8.00	304.1
1-13-19 16:30	-0.08	1539	7.71	1.5	1-13-19 16:00	0.19	1005	7.89	0.1	1-13-19 16:00	-0.04	1596	7.91	23.9	6-13-19 9:45	19.75	1731	8.36	12.0	4-13-19 4:15	8.02	1040	8.05	58.5	4-13-19 4:15	5.49	675	8.00	302.0
1-13-19 16:45	-0.08	1539	7.70	1.5	1-13-19 16:15	0.15	975	7.91	0.6	1-13-19 16:15	0.24	1592	7.91	28.6	6-13-19 10:00	19.66	1730	8.36	11.7	4-13-19 4:30	8.06	1041	8.04	59.5	4-13-19 4:30	5.50	677	8.00	308.1
1-13-19 17:00	-0.08	1538	7.71	1.5	1-13-19 16:30	0.22	992	7.90	2.9	1-13-19 16:30	0.18	1596	7.92	29.0	6-13-19 10:15	19.61	1730	8.36	11.6	4-13-19 4:45	8.01	1031	8.05	60.4	4-13-19 4:45	5.28	680	8.00	305.6
1-13-19 17:15	-0.08	1560	7.70	1.9	1-13-19 16:45	0.23	996	7.90	0.0	1-13-19 16:45	0.16	1592	7.89	29.9	6-13-19 10:30	19.55	1731	8.35	11.3	4-13-19 5:00	7.83	1014	8.07	58.3	4-13-19 5:00	5.39	679	8.00	312.3
1-13-19 17:30	-0.08	1562	7.71	1.5	1-13-19 17:00	0.23	1007	7.89	0.0	1-13-19 17:00	0.12	1578	7.92	31.6	6-13-19 10:45	19.45	1731	8.35	12.5	4-13-19 5:15	7.91	1035	8.05	67.2	4-13-19 5:15	5.32	678	8.00	291.3
1-13-19 17:45	-0.08	1562	7.71	1.6	1-13-19 17:15	0.20	988	7.90	0.0	1-13-19 17:15	0.11	1581	7.90	30.9	6-13-19 11:00	19.38	1731	8.36	10.8	4-13-19 5:30	7.98	1041	8.05	60.9	4-13-19 5:30	5.30	680	8.00	301.1
1-13-19 18:00	-0.08	1561	7.71	1.4	1-13-19 17:30	0.16	980	7.91	0.0	1-13-19 17:30	0.19	1580	7.93	35.5	6-13-19 11:15	19.30	1729	8.35	12.1	4-13-19 5:45	7.79	1022	8.06	52.2	4-13-19 5:45	5.21	679	8.00	302.5
1-13-19 18:15	-0.08	1538	7.70	1.6	1-13-19 17:45	0.13	945	7.92	0.0	1-13-19 17:45	0.16	1576	7.95	33.8	6-13-19 11:30	19.20	1730	8.36	12.0	4-13-19 6:00	7.76	1026	8.06	46.4	4-13-19 6:00	5.21	679	8.00	307.5
1-13-19 18:30	-0.08	1538	7.71	1.5	1-13-19 18:00	0.12	950	7.92	0.0	1-13-19 18:00	0.13	1596	7.94	34.1	6-13-19 11:45	19.16	1731	8.36	12.1	4-13-19 6:15	7.66	1031	8.07	47.4	4-13-19 6:15	5.22	678	8.00	301.5
1-13-19 18:45	-0.07	1538	7.71	1.5	1-13-19 18:15	0.13	949	7.92	0.6	1-13-19 18:15	0.35	1592	7.98	47.4	6-13-19 12:00	19.10	1730	8.36	12.0	4-13-19 6:30	7.66	1017	8.07	50.1	4-13-19 6:30	5.07	679	8.00	297.6
1-13-19 19:00	-0.07	1537	7.71	1.4	1-13-19 18:30	0.14	940	7.92	0.0	1-13-19 18:30	0.62	1573	8.11	58.5	6-13-19 12:15	19.03	1731	8.36	11.9	4-13-19 6:45	7.58	1016	8.08	46.8	4-13-19 6:45	5.04	679	8.00	308.6
1-13-19 19:15	-0.07	1555	7.71	1.8	1-13-19 18:45	0.14	953	7.91	0.0	1-13-19 18:45	0.40	1585	8.04	48.5	6-13-19 12:30	18.95	1730	8.36	10.8	4-13-19 7:00	7.52	1012	8.08	47.5	4-13-19 7:00	5.06	678	8.00	317.4
1-13-19 19:30	-0.07	1556	7.72	1.4	1-13-19 19:00	0.20	1067	7.88	0.3	1-13-19 19:00	0.60	1553	8.09	54.7	6-13-19 12:45	18.87	1731	8.37	12.3	4-13-19 7:15					4-13-19 7:15	5.08	679	8.00	312.9
1-13-19 19:45	-0.07	1556	7.72	1.4	1-13-19 19:15	0.23	1074	7.87	0.0	1-13-19 19:15	0.64	1557	8.07	57.3	6-13-19 13:00	18.81	1730	8.36	11.9	4-13-19 7:30	7.55	1029	8.07	43.8	4-13-19 7:30	5.07	680	8.00	326.9
1-13-19 20:00	-0.07	1555	7.72	1.5	1-13-19 19:30	0.20	1011	7.88	0.3	1-13-19 19:30	0.97	1553	8.12	69.1	6-13-19 13:15	18.73	1730	8.37	11.8	4-13-19 7:45	7.65	1033	8.06	43.7	4-13-19 7:45	5.08	679	8.00	334.1
1-13-19 20:15	-0.07	1532	7.72	1.5	1-13-19 19:45	0.25	1112	7.86	0.3	1-13-19 19:45	1.03	1551	8.13	70.8	6-13-19 13:30	18.68	1731	8.36	11.0	4-13-19 8:00	7.94	1065	8.03	37.8	4-13-19 8:00	5.03	680	8.01	330.2
1-13-19 20:30	-0.07	1532	7.73	1.3	1-13-19 20:00	0.28	1134	7.84	0.0	1-13-19 20:00	0.91	1571	8.09	65.7	6-13-19 13:45	18.66	1732	8.37	12.0	4-13-19 8:15	8.04	1075	8.02	39.0	4-13-19 8:15	5.04	680	8.01	333.5
1-13-19 20:45	-0.07	1532	7.73	1.4	1-13-19 20:15	0.27	1086	7.85	1.3	1-13-19 20:15	0.78	1575	8.08	63.8	6-13-19 14:00	18.67	1732	8.37	12.0	4-13-19 8:30	7.96	1072	8.03	35.7	4-13-19 8:30	5.15	680	8.01	335.5
1-13-19 21:00	-0.07	1532	7.73	1.3	1-13-19 20:30	0.23	985	7.89	0.0	1-13-19 20:30	0.66	1570	8.09	62.8	6-13-19 14:15	18.64	1732	8.37	12.4	4-13-19 8:45	8.07	1117	7.99	31.3	4-13-19 8:45	5.25	678	8.01	334.1
1-13-19 21:15	-0.07	1543	7.73	1.7	1-13-19 20:45	0.20	944	7.91	0.0	1-13-19 20:45	0.39	1575	8.10	62.6	6-13-19 14:30	18.63	1731	8.36	11.6	4-13-19 9:00	7.27	1059	8.05	57.0	4-13-19 9:00	5.32	678	8.01	331.7
1-13-19 21:30	-0.06	1542	7.74	1.4	1-13-19 21:00	0.17	926	7.91	4.7	1-13-19 21:00	0.24	1557	8.10	56.3	6-13-19 14:45	18.62	1731	8.36	12.8	4-13-19 9:15	7.08	1055	8.06	49.8	4-13-19 9:15	5.36	680	8.01	333.3
1-13-19 21:45	-0.06	1542	7.73	1.3	1-13-19 21:15	0.16	934	7.90	1.0	1-13-19 21:15	0.22	1558	8.08	55.8	6-13-19 15:00	18.64	1732	8.36	10.8	4-13-19 9:30	7.13	1049	8.06	44.8	4-13-19 9:30	5.42	679	8.01	309.7
1-13-19 22:00	-0.06	1542	7.74	1.4	1-13-19 21:30	0.18	952	7.90	0.8	1-13-19 21:30	0.21	1560	8.08	51.1	6-13-19 15:15	18.62	1732	8.36	11.2	4-13-19 9:45	7.42	1054	8.06	35.3	4-13-19 9:45	5.48	678	8.01	326.3
1-13-19 22:15	-0.07	1529	7.74	1.5	1-13-19 21:45	0.18	940	7.90	0.3	1-13-19 21:45	0.20	1559	8.07	51.6	6-13-19 15:30	18.66	1731	8.36	11.0	4-13-19 10:00	7.55	1049	8.05	36.0	4-13-19 10:00	5.55	678	8.01	336.4
1-13-19 22:30	-0.06	1529	7.74	1.3	1-13-19 22:00	0.17	933	7.90	0.1	1-13-19 22:00	0.15	1567	8.07	54.7	6-13-19 15:45	18.65	1733	8.36	11.8	4-13-19 10:15	7.65	1052	8.05	31.9	4-13-19 10:15	5.65	679	8.01	336.9

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-13-19 22:45	-0.06	1529	7.74	1.4	1-13-19 22:15	0.18	963	7.89	0.0	1-13-19 22:15	0.11	1571	8.08	55.0	6-13-19 16:00	18.69	1734	8.36	11.6	4-13-19 10:30	7.53	1057	8.04	34.5	4-13-19 10:30	5.69	678	8.01	344.6
1-13-19 23:00	-0.06	1528	7.74	1.4	1-13-19 22:30	0.18	968	7.89	0.0	1-13-19 22:30	0.09	1571	8.08	54.3	6-13-19 16:15	18.71	1733	8.36	11.1	4-13-19 10:45	7.08	1042	8.06	43.7	4-13-19 10:45	5.75	677	8.01	328.8
1-13-19 23:15	-0.07	1535	7.74	1.6	1-13-19 22:45	0.18	951	7.90	0.4	1-13-19 22:45	0.07	1574	8.07	53.7	6-13-19 16:30	18.76	1733	8.36	11.0	4-13-19 11:00	7.01	1062	8.06	37.2	4-13-19 11:00	5.83	676	8.01	313.2
1-13-19 23:30	-0.06	1535	7.75	1.3	1-13-19 23:00	0.18	953	7.90	1.6	1-13-19 23:00	0.07	1557	8.07	50.3	6-13-19 16:45	18.81	1732	8.35	11.2	4-13-19 11:15	7.10	1057	8.06	38.6	4-13-19 11:15	5.90	677	8.01	325.2
1-13-19 23:45	-0.06	1534	7.75	1.3	1-13-19 23:15	0.18	997	7.88	0.1	1-13-19 23:15	0.07	1556	8.07	48.7	6-13-19 17:00	18.92	1732	8.35	11.4	4-13-19 11:30	7.15	1063	8.05	34.9	4-13-19 11:30	6.05	675	8.01	284.7
1-14-19 0:00	-0.06	1534	7.75	1.5	1-13-19 23:30	0.18	994	7.88	1.7	1-13-19 23:30	0.06	1553	8.07	50.4	6-13-19 17:15	19.09	1735	8.35	11.5	4-13-19 11:45	7.43	1060	8.05	31.5	4-13-19 11:45	6.16	674	8.00	334.8
1-14-19 0:15	-0.07	1524	7.75	1.6	1-13-19 23:45	0.19	1008	7.88	0.1	1-13-19 23:45	0.05	1553	8.07	48.1	6-13-19 17:30	19.15	1730	8.35	11.5	4-13-19 12:00	8.19	1051	8.04	29.2	4-13-19 12:00	6.52	674	8.00	343.8
1-14-19 0:30	-0.06	1523	7.76	1.3	1-14-19 0:00	0.19	991	7.88	0.1	1-14-19 0:00	0.05	1572	8.07	54.1	6-13-19 17:45	19.25	1731	8.35	11.3	4-13-19 12:15	8.74	1050	8.04	24.5	4-13-19 12:15	7.00	672	8.00	353.9
1-14-19 0:45	-0.06	1523	7.76	1.3	1-14-19 0:15	0.20	1001	7.87	0.2	1-14-19 0:15	0.04	1567	8.07	53.0	6-13-19 18:00	19.42	1733	8.34	11.6	4-13-19 12:30	8.82	1056	8.04	23.1	4-13-19 12:30	6.90	669	8.00	381.2
1-14-19 1:00	-0.06	1522	7.76	1.2	1-14-19 0:30	0.20	985	7.88	2.2	1-14-19 0:30	0.04	1560	8.07	51.8	6-13-19 18:15	19.78	1734	8.35	11.5	4-13-19 12:45	8.71	1050	8.04	23.5	4-13-19 12:45	6.96	670	8.00	373.7
1-14-19 1:15	-0.07	1536	7.76	1.7	1-14-19 0:45	0.19	975	7.89	0.0	1-14-19 0:45	0.03	1567	8.07	52.7	6-13-19 18:30	19.93	1732	8.34	11.4	4-13-19 13:00	8.71	1049	8.04	22.2	4-13-19 13:00	7.11	669	8.00	384.5
1-14-19 1:30	-0.06	1537	7.77	1.4	1-14-19 1:00	0.18	959	7.89	0.6	1-14-19 1:00	0.03	1552	8.08	50.2	6-13-19 18:45	20.00	1736	8.33	11.3	4-13-19 13:15	8.32	1033	8.07	24.7	4-13-19 13:15	7.04	668	8.00	392.1
1-14-19 1:45	-0.06	1537	7.77	1.3	1-14-19 1:15	0.19	989	7.89	0.4	1-14-19 1:15	0.02	1557	8.09	51.6	6-13-19 19:00	20.19	1735	8.33	11.1	4-13-19 13:30	8.44	1040	8.06	23.6	4-13-19 13:30	7.00	669	8.00	414.7
1-14-19 2:00	-0.07	1536	7.76	1.2	1-14-19 1:30	0.19	983	7.89	1.9	1-14-19 1:30	0.02	1550	8.09	48.1	6-13-19 19:15	20.67	1737	8.32	10.8	4-13-19 13:45	8.49	1042	8.06	21.9	4-13-19 13:45	6.93	667	8.01	406.2
1-14-19 2:15	-0.07	1518	7.77	1.3	1-14-19 1:45	0.19	979	7.89	0.4	1-14-19 1:45	0.02	1548	8.09	48.3	6-13-19 19:30	20.44	1721	8.34	14.2	4-13-19 14:00	7.51	1083	8.04	30.9	4-13-19 14:00	6.94	666	8.02	407.3
1-14-19 2:30	-0.07	1517	7.77	1.3	1-14-19 2:00	0.18	951	7.90	0.0	1-14-19 2:00	0.02	1559	8.08	52.5	6-13-19 19:45	20.65	1725	8.34	52.4	4-13-19 14:15	6.94	1096	8.03	30.4	4-13-19 14:15	6.89	664	8.02	460.4
1-14-19 2:45	-0.07	1517	7.77	1.3	1-14-19 2:15	0.19	969	7.89	1.7	1-14-19 2:15	0.03	1563	8.08	51.7	6-13-19 20:00	20.36	1724	8.34	13.4	4-13-19 14:30					4-13-19 14:30	6.96	664	8.02	466.5
1-14-19 3:00	-0.07	1516	7.77	1.3	1-14-19 2:30	0.18	959	7.89	4.6	1-14-19 2:30	0.02	1552	8.08	49.9	6-13-19 20:15	20.23	1723	8.33	11.8	4-13-19 14:45	6.28	1122	8.02	36.5	4-13-19 14:45	6.90	656	8.03	491.8
1-14-19 3:15	-0.07	1536	7.77	1.4	1-14-19 2:45	0.19	989	7.88	1.7	1-14-19 2:45	0.02	1549	8.08	49.2	6-13-19 20:30	20.11	1726	8.34	11.2	4-13-19 15:00	6.12	1155	7.99	42.0	4-13-19 15:00	6.83	655	8.03	521.4
1-14-19 3:30	-0.07	1536	7.78	1.3	1-14-19 3:00	0.17	945	7.91	2.1	1-14-19 3:00	0.01	1527	8.08	48.0	6-13-19 20:45	20.07	1727	8.35	12.0	4-13-19 15:15	6.28	1152	8.00	38.8	4-13-19 15:15	6.71	658	8.03	679.0
1-14-19 3:45	-0.07	1538	7.78	1.2	1-14-19 3:15	0.17	974	7.89	0.0	1-14-19 3:15	0.01	1543	8.08	46.2	6-13-19 21:00	20.58	1729	8.34	12.2	4-13-19 15:30	6.36	1144	8.00	33.9	4-13-19 15:30	6.69	658	8.03	764.9
1-14-19 4:00	-0.06	1534	7.78	1.2	1-14-19 3:30	0.17	950	7.90	0.0	1-14-19 3:30	0.01	1548	8.07	46.3	6-13-19 21:15	20.56	1728	8.34	12.1	4-13-19 15:45	6.63	1137	8.01	33.9	4-13-19 15:45	6.71	656	8.03	748.9
1-14-19 4:15	-0.07	1513	7.78	1.2	1-14-19 3:45	0.17	973	7.89	1.5	1-14-19 3:45	0.01	1546	8.07	45.7	6-13-19 21:30	20.92	1732	8.34	11.9	4-13-19 16:00	6.68	1138	8.00	33.0	4-13-19 16:00	6.78	658	8.03	828.2
1-14-19 4:30	-0.07	1512	7.79	1.2	1-14-19 4:00	0.11	899	7.93	0.4	1-14-19 4:00	-0.03	1536	8.09	44.9	6-13-19 21:45	21.12	1732	8.34	11.4	4-13-19 16:15	6.76	1134	8.00	31.1	4-13-19 16:15	6.83	655	8.03	850.7
1-14-19 4:45	-0.07	1512	7.79	1.2	1-14-19 4:15	0.15	937	7.91	1.9	1-14-19 4:15	-0.01	1547	8.09	45.1	6-13-19 22:00	21.18	1729	8.34	12.6	4-13-19 16:30	6.82	1132	8.01	32.7	4-13-19 16:30	6.85	655	8.04	873.6
1-14-19 5:00	-0.07	1511	7.79	1.2	1-14-19 4:30	0.15	912	7.92	0.5	1-14-19 4:30	0.11	1583	8.07	51.7	6-13-19 22:15	21.19	1730	8.34	11.6	4-13-19 16:45	6.91	1126	8.02	33.4	4-13-19 16:45	6.88	657	8.04	866.6
1-14-19 5:15	-0.07	1525	7.79	1.5	1-14-19 4:45	0.10	910	7.93	0.1	1-14-19 4:45	0.04	1537	8.09	42.4	6-13-19 22:30	21.02	1732	8.36	11.9	4-13-19 17:00	7.14	1117	8.03	27.5	4-13-19 17:00	6.93	656	8.04	882.4
1-14-19 5:30	-0.07	1525	7.80	1.3	1-14-19 5:00	0.10	901	7.94	0.0	1-14-19 5:00	0.00	1495	8.09	39.8	6-13-19 22:45	21.08	1731	8.35	11.9	4-13-19 17:15	7.29	1111	8.03	22.2	4-13-19 17:15	6.92	655	8.04	872.8
1-14-19 5:45	-0.07	1525	7.80	1.1	1-14-19 5:15	0.09	905	7.94	4.5	1-14-19 5:15	-0.01	1497	8.09	36.9	6-13-19 23:00	21.04	1729	8.36	12.1	4-13-19 17:30	7.42	1102	8.04	22.7	4-13-19 17:30	6.91	656	8.04	922.5
1-14-19 6:00	-0.07	1525	7.80	1.2	1-14-19 5:30	0.08	890	7.94	4.5	1-14-19 5:30	0.00	1510	8.09	35.8	6-13-19 23:15	21.07	1731	8.36	12.7	4-13-19 17:45	7.56	1097	8.05	22.2	4-13-19 17:45	6.88	654	8.04	868.8
1-14-19 6:15	-0.07	1510	7.79	1.2	1-14-19 5:45	0.07	901	7.94	0.5	1-14-19 5:45	0.00	1527	8.09	37.9	6-13-19 23:30	21.22	1731	8.35	11.7	4-13-19 18:00	7.65	1094	8.05	21.7	4-13-19 18:00	6.86	652	8.04	944.8
1-14-19 6:30	-0.07	1508	7.80	1.2	1-14-19 6:00	0.07	896	7.94	0.0	1-14-19 6:00	0.00	1555	8.08	45.9	6-13-19 23:45	21.30	1732	8.35	12.1	4-13-19 18:15	7.69	1092	8.05	21.9	4-13-19 18:15	6.78	652	8.05	922.8
1-14-19 6:45	-0.07	1508	7.80	1.2	1-14-19 6:15	0.08	890	7.94	0.4	1-14-19 6:15	-0.01	1535	8.08	41.1	6-14-19 0:00	21.27	1731	8.35	12.9	4-13-19 18:30	7.78	1089	8.05	21.6	4-13-19 18:30	6.71	660	8.05	881.9
1-14-19 7:00	-0.07	1507	7.80	1.1	1-14-19 6:30	0.08	892	7.94	0.0	1-14-19 6:30	0.01	1561	8.07	46.6	6-14-19 0:15	21.19	1730	8.34	12.1	4-13-19 18:45	7.79	1087	8.05	21.4	4-13-19 18:45	6.63	657	8.05	1088.4
1-14-19 7:15	-0.08	1517	7.80	1.4	1-14-19 6:45	0.12	896	7.92	0.0	1-14-19 6:45	0.02	1569	8.07	46.9	6-14-19 0:30	20.90	1730	8.36	12.8	4-13-19 19:00	7.76	1084	8.06	20.7	4-13-19 19:00	6.58	656	8.05	1217.8
1-14-19 7:30	-0.07	1517	7.81	1.2	1-14-19 7:00	0.12	888	7.93	1.7	1-14-19 7:00	0.06	1550	8.06	37.9	6-14-19 0:45	21.64	1733	8.34	12.4	4-13-19 19:15	7.77	1083	8.06	22.0	4-13-19 19:15	6.58	660	8.05	921.8
1-14-19 7:45	-0.07	1517	7.81	1.1	1-14-19 7:15	0.14	882	7.93	1.1	1-14-19 7:15	0.07	1553	8.06	39.1	6-14-19 1:00	21.62	1732	8.34	11.8	4-13-19 19:30	7.80	1080	8.07	22.6	4-13-19 19:30	6.55	661	8.05	966.2
1-14-19 8:00	-0.07	1516	7.81	1.1	1-14-19 7:30	0.20	899	7.92	0.1	1-14-19 7:30	0.09	1554	8.06	39.5	6-14-19 1:15	21.71	1732	8.34	11.8	4-13-19 19:45	7.74	1079	8.07	20.8	4-13-19 19:45	6.44	660	8.05	1047.9
1-14-19 8:15	-0.08	1504	7.80	1.2	1-14-19 7:45	0.20	890	7.93	0.9	1-14-19 7:45	0.07	1545	8.06	39.2	6-14-19 1:30	21.82	1732	8.35	12.7	4-13-19 20:00	7.75	1077	8.07	21.8	4-13-19 20:00	6.38	641	8.05	1537.8
1-14-19 8:30	-0.07	1503	7.82	1.2	1-14-19 8:00	0.15	883	7.94	0.5	1-14-19 8:00	0.08	1560	8.06	43.2	6-14-19 1:45	21.84	1734	8.36	12.0	4-13-19 20:15	7.75	1077	8.07	23.1	4-13-19 20:15	6.29	643	8.05	1316.8
1-14-19 8:45	-0.07	1503	7.81	1.1	1-14-19 8:15	0.24	903	7.91	3.9	1-14-19 8:15	0.07	1545	8.06	39.8	6-14-19 2:00	21.83	1733	8.35	15.5	4-13-19 20:30	7.71	1077	8.07	19.6	4-13-19 20:30	6.22	642	8.05	1589.9
1-14-19 9:00	-0.07	1503	7.81	1.2	1-14-19 8:30	0.32	997	7.88	5.0	1-14-19 8:30	0.06	1518	8.07	35.4	6-14-19 2:15	21.78	1734	8.35	12.1	4-13-19 20:45	7.67	1076	8.08	20.2	4-13-19 20:45	6.28	639	8.05	1251.4
1-14-19 9:15	-0.07	1521	7.81	1.4	1-14-19 8:45	0.27	927	7.91	0.6	1-14-19 8:45	0.47	1586	8.11	62.9	6-14-19 2:30	21.78	1733	8.36	13.4	4-13-19 21:00	7.64	1076	8.08	20.2	4-13-19 21:00	6.22	649	8.05	1142.5
1-14-19 9:30	-0.07	1520	7.82	1.2	1-14-19 9:00	0.29	960	7.90	3.3	1-14-19 9:00	0.84	1555	8.14	64.8	6-14-19 2:45	21.76	1733	8.36	12.7	4-13-19 21:15	7.63	1077	8.07	20.8	4-13-19 21:15	6.13	643	8.06	1138.8
1-14-19 9:45	-0.07	1520	7.82	1.1	1-14-19 9:15	0.28	963	7.90	4.0	1-14-19 9:15	0.41	1555	8.09	51.2	6-14-19 3:00	21.74	1733	8.36	11.6	4-13-19 21:30	7.61	1077	8.07	21.1	4-13-19 21:30	5.99	666	8.06	1053.5
1-14-19 10:00	-0.07	1519	7.82	1.2	1-14-19 9:30	0.26	965	7.90	4.2	1-14-19 9:30	0.31	1560	8.08	49.5	6-14-19 3:15	21.67	1734	8.36	11.5	4-13-19 21:45	7.60	1078	8.08	22.0	4-13-19 21:45	6.05	660	8.06	1118.0
1-14-19 10:15	-0.07	1501	7.81	1.2	1-14-19 9:45	0.23	908	7.92	1.5	1-14-19 9:45	0.26	1563	8.04	40.9	6-14-19 3:30	21.59	1735	8.36	11.6	4-13-19 22:00	7.55	1076	8.08	19.5	4-13-19 22:00	5.99	661	8.06	1137.0
1-14-19 10:30	-0.07	1500	7.82	1.1	1-14-19 10:00	0.21	894	7.93	0.8	1-14-19 10:00	0.47	1586	8.08	55.4	6-14-19 3:45	21.53	1734	8.37	11.2	4-13-19 22:15	7.51	1078	8.08	20.5	4-13-19 22:15	6.00	661	8.06	1126.4
1-14-19 10:45	-0.07	1500	7.82	1.2	1-14-19 10:15	0.21	932	7.91	0.3	1-14-19 10:15	0.57	1580	8.12	61.2	6-14-19 4:00	21.47	1732	8.37	12.4	4-13-19 22:30	7.46	1078	8.08	21.2	4-13-19 22:30	6.10	665	8.06	20.7
1-14-19 11:00	-0.07	1499	7.82	1.2	1-14-19 10:30	0.21	951	7.90	0.3	1-14-19 10:30	0.24	1569	8.08	46.0	6-14-19 4:15	21.43	1732	8.37	12.1	4-13-19 22:45	7.36	1077	8.08	19.1	4-13-19 22:45	6.02	664	8.06	18.3
1-14-19 11:15	-0.07	1515	7.82	1.4	1-14-19 10:45	0.21	962	7.90	3.5	1-14-19 10:45	0.31	1563	8.07	44.5	6-14-19 4:30	21.25	1732	8.38	11.5	4-13-19 23:00	7.31	1077	8.08	19.0	4-13-19 23:00	5.98	677	8.06	18.2
1-14-19 11:30	-0.07	1515	7.83	1.1	1-14-19 11:00	0.20	964	7.90	2.2	1-14-19 11:00	0.52	1555	8.14	57.4	6-14-19 4:45	21.14	1731	8.38	12.0	4-13-19 23:15	7.28	1077	8.09	18.2	4-13-19 23:15	5.94	675	8.06	18.0
1-14-19 11:45	-0.07	1515	7.82	1.1	1-14-19 11:15	0.20	949	7.90	5.4	1-14-19 11:15	0.49	1547	8.12	57.3	6-14-19 5:00	21.05	1733	8.38	11.8	4-13-19 23:30	7.18	1077	8.09	17.9	4-13-19 23:30	5.87	676	8.06	18.9
1-14-19 12:00	-0.07	1515	7.82	1.1	1-14-19 11:30	0.18	1015	7.88	3.3	1-14-19 11:30	0.55	1555	8.13	48.9	6-14-19 5:15	20.96	1734	8.39	12.8	4-13-19 23:45	7.16	1077	8.09	19.5	4-13-19 23:45	5.77	676	8.06	19.5
1-14-19 12:15	-0.06	1492	7.84	1.1	1-14-19 11:45	0.18	996	7.89	3.5	1-14-19 11:45	0.67	1545	8.16	56.7	6-14-19 5:30	20.89	1734	8.39	12.2	4-14-19 0:00	7.13	1077	8.09	18.0	4-14-19 0:00	5.81	676	8.06	21.0
1-14-19 12:30	-0.07	1492	7.84	1.0	1-14-19 12:00	0.19	988	7.88	4.7	1-14-19 12:00	0.24	1547	8.10	43.9	6-14-19 5:45	20.81	1734	8.38	11.7	4-14-19 0:15	7.12	1078	8.09	17.9	4-14-19 0:15	5.81	674	8.06	20.7
1-14-19 12:45	-0.07	1491	7.83	1.1	1-14-19 12:15	0.21	1034	7.87	3.2	1-14-19 12:15	0.61	1549	8.12	55.1	6-14-19 6:00	20.76	1734	8.38	12.1	4-14-19 0:30	7.07	1078	8.09	17.7	4-14-19 0:30	5.72	673	8.06	20.4
1-14-19 13:00	-0.07	1491	7.83	1.0	1-14-19 12:30	0.20	983	7.89	2.8	1-14-19 12:30	0.62	1540	8.12	51.1	6-14-19 6:15	20.64	1732	8.38	11.7	4-14-19 0:45	7.02	1079	8.09	17.6	4-14-19 0:45	5.71	675	8.06	21.3
1-14-19 13:15	-0.07	1506	7.83	1.3	1-14-19 12:45	0.20	975	7.89	4.1	1-14-19 12:45	0.60	1516	8.13	45.7	6-14-19 6:30	20.64	1734	8.38	12.3	4-14-19 1:00	6.97	1078	8.09	17.1	4-14-19 1:00	5.67	673	8.06	20.9
1-14-19 13:30	-0.07	1507	7.84	1.1	1-14-19 13:00	0.20	964	7.90	3.4	1-14-19 13:00	0.88	1539	8.20	57.4	6-14-19 6:45	20.58	1732	8.37	11.0	4-14-19 1:15	6.84	1079	8.10	16.5	4-14-19 1:15	5.70	674	8.06	21.4
1-14-19 13:45	-0.07	1507	7.83	1.1	1-14-19 13:15	0.20	960	7.90	4.2	1-14-19 13:15	0.81	1523	8.19	46.7	6-14-19 7:00	20.47	1733	8.39	11.2	4-14-19 1:30	6.81	1078	8.10	17.4	4-14-19 1:30	5.73	675	8.06	22.2
1-14-19 14:00	-0.07	1506	7.83	1.2	1-14-19 13:30	0.19	947	7.91	3.1	1-14-19 13:30	0.60	1526	8.17	48.5	6-14-19 7:15	20.37	1733	8.39	11.3	4-14-19 1:45	6.78	1079	8.09	17.0	4-14-19 1:45	5.63	675	8.06	22.3
1-14-19 14:15	-0.07	1493	7.83	1.3	1-14-19 13:45	0.19	945	7.90	3.1	1-14-19 13:45	0.77	1522	8.18	49.5	6-14-19 7:30	20.29	1730	8.39	11.4	4-14-19 2:00	6.74	1078	8.10	17.9	4-14-19 2:00	5.60	674	8.06	24.3
1-14-19 14:30	-0.07	1493	7.84	1.2	1-14-19 14:00	0.19	965	7.91	0.0	1-14-19 14:00	0.48	1498	8.15	45.8	6-14-19 7:45	20.24	1734	8.39	10.7	4-14-19 2:15	6.69	1078	8.10	16.0	4-14-19 2:15	5.64	674	8.06	22.9
1-14-19 14:45	-0.07	1493	7.83	1.1	1-14-19 14:15	0.21	970	7.89	3.8	1-14-19 14:15	0.33	1535	8.15	55.1	6-14-19 8:00	20.14	1731	8.39	12.0	4-14-19 2:30	6.64	1078	8.10	14.5	4-14-19 2:30	5.58	674	8.06	21.9
1-14-19 15:00	-0.07	1493	7.83	1.1	1-14-19 14:30	0.22	981	7.88	3.9	1-14-19 14:30	0.34	1556	8.17	63.4	6-14-19 8:15	20.09	1734	8.39	10.5	4-14-19 2:45	6.57	1079	8.10	14.6	4-14-19 2:45	5.53	674	8.06	21.2
1-14-19 15:15	-0.07	1507	7.83	1.3	1-14-19 14:45	0.21	980	7.88	3.7	1-14-19 14:45	0.33	1569	8.18	68.0	6-14-19 8:30	20.01	1734	8.39	11.5	4-14-19 3:00	6.54	1080	8.10	14.4	4-14-19 3:00	5.42	674	8.06	21.6
1-14-19 15:30	-0.07	1508	7.84	1.1	1-14-19 15:00	0.21	967	7.90	2.9	1-14-19 15:00	0.31	1555	8.19	64.7	6-14-19 8:45	19.94	1731	8.39	11.2	4-14-19 3:15	6.55	1079	8.10	14.5	4-14-19 3:15	5.50	675	8.06	22.1
1-14-19 15:45	-0.07	1508	7.85	1.1	1-14-19 15:15	0.20	961	7.90	2.1	1-14-19 15:15	0.24	1550	8.20	55.2	6-14-19 9:00	19.87	1732	8.39	12.9	4-14-19 3:30	6.51	1079	8.10	14.4	4-14-19 3:30	5.39	674	8.06	21.6
1-14-19 16:00	-0.07	1508	7.85	1.1	1-14-19 15:30	0.20	967	7.89	0.0	1-14-19 15:30	0.20	1546	8.19	58.2	6-14-19 9:15	19.81	1734	8.39	11.7	4-14-19 3:45	6.45	1078	8.10	13.3	4-14-19 3:45	5.29	675	8.06	20.8
1-14-19 16:15	-0.07	1489	7.83	1.0	1-14-19 15:45	0.21	990	7.89	0.3	1-14-19 15:45	0.18	1545	8.20	59.5	6-14-19 9:30	19.72	1732	8.39	11.5	4-14-19 4:00	6.38	1079	8.10	13.6	4-14-19 4:00	5.35	675	8.06	21.2
1-14-19 16:30	-0.07	1488	7.85	1.1	1-14-19 16:00	0.35	1107	7.86	0.8	1-14-19 16:00	0.74	1588	8.19	70.1	6-14-19 9:45	19.64	1733	8.39	11.7	4-14-19 4:15	6.18	1078	8.11	11.0	4-14-19 4:15	5.35	675	8.06	21.9
1-14-19 16:45	-0.07	1487	7.85	1.1	1-14-19 16:15	0.58	1158	7.85	0.7	1-14-19 16:15	0.74	1575	8.19	71.5	6-14-19 10:00	19.56	1733	8.39	11.1	4-14-19 4:30	6.11	1081	8.11	11.8	4-14-19 4:30	5.36	674	8.06	21.5

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-14-19 17:00	-0.07	1487	7.85	1.1	1-14-19 16:30	0.67	1153	7.84	0.1	1-14-19 16:30	0.55	1572	8.19	67.3	6-14-19 10:15	19.48	1733	8.39	12.1	4-14-19 4:45	6.94	1197	7.98	33.6	4-14-19 4:45	5.37	673	8.06	21.9
1-14-19 17:15	-0.07	1516	7.84	1.2	1-14-19 16:45	0.59	1137	7.85	0.0	1-14-19 16:45	0.37	1573	8.17	63.1	6-14-19 10:30	19.39	1733	8.39	11.4	4-14-19 5:00	7.03	1188	7.98	38.9	4-14-19 5:00	5.30	675	8.06	20.9
1-14-19 17:30	-0.07	1518	7.84	1.1	1-14-19 17:00	0.72	1175	7.84	0.7	1-14-19 17:00	0.26	1511	8.16	46.3	6-14-19 10:45	19.33	1732	8.39	12.4	4-14-19 5:15	7.04	1190	7.98	42.1	4-14-19 5:15	5.36	675	8.05	21.8
1-14-19 17:45	-0.07	1518	7.84	1.0	1-14-19 17:15	0.78	1196	7.83	0.0	1-14-19 17:15	0.24	1516	8.16	44.0	6-14-19 11:00	19.27	1733	8.39	11.7	4-14-19 5:30	7.02	1191	7.97	38.0	4-14-19 5:30	5.32	674	8.06	21.3
1-14-19 18:00	-0.07	1518	7.84	1.1	1-14-19 17:30	0.78	1223	7.83	0.1	1-14-19 17:30	0.26	1531	8.14	43.2	6-14-19 11:15	19.17	1732	8.39	11.9	4-14-19 5:45	7.04	1192	7.98	41.7	4-14-19 5:45	5.25	675	8.05	21.5
1-14-19 18:15	-0.08	1487	7.83	1.1	1-14-19 17:45	0.76	1209	7.83	1.6	1-14-19 17:45	0.34	1559	8.12	48.8	6-14-19 11:30	19.12	1733	8.39	11.9	4-14-19 6:00	6.99	1192	7.97	45.7	4-14-19 6:00	5.23	675	8.06	20.5
1-14-19 18:30	-0.07	1486	7.85	1.1	1-14-19 18:00	0.73	1210	7.82	0.5	1-14-19 18:00	0.28	1575	8.12	54.0	6-14-19 11:45	19.08	1734	8.39	11.8	4-14-19 6:15	6.93	1212	7.97	47.7	4-14-19 6:15	5.28	676	8.06	20.9
1-14-19 18:45	-0.07	1487	7.85	1.1	1-14-19 18:15	0.80	1233	7.81	0.0	1-14-19 18:15	0.15	1546	8.15	48.3	6-14-19 12:00	19.01	1733	8.39	11.7	4-14-19 6:30	6.26	1173	8.00	66.5	4-14-19 6:30	5.23	675	8.06	19.3
1-14-19 19:00	-0.07	1487	7.85	1.0	1-14-19 18:30	0.80	1229	7.82	1.3	1-14-19 18:30	0.13	1536	8.15	48.3	6-14-19 12:15	18.96	1733	8.39	11.4	4-14-19 6:45	6.13	1174	8.01	62.8	4-14-19 6:45	5.22	676	8.06	18.6
1-14-19 19:15	-0.07	1500	7.84	1.2	1-14-19 18:45	0.76	1205	7.83	0.2	1-14-19 18:45	0.13	1541	8.15	50.7	6-14-19 12:30	18.92	1732	8.39	12.2	4-14-19 7:00	6.43	1192	7.99	57.4	4-14-19 7:00	5.18	676	8.06	20.1
1-14-19 19:30	-0.07	1500	7.85	1.0	1-14-19 19:00	0.68	1195	7.83	3.9	1-14-19 19:00	0.11	1520	8.15	44.0	6-14-19 12:45	18.87	1733	8.39	11.2	4-14-19 7:15	6.86	1213	7.97	37.3	4-14-19 7:15	5.18	675	8.06	18.5
1-14-19 19:45	-0.07	1500	7.85	1.0	1-14-19 19:15	0.67	1163	7.84	0.3	1-14-19 19:15	0.09	1516	8.15	42.3	6-14-19 13:00	18.85	1733	8.38	11.4	4-14-19 7:30	6.76	1208	7.97	40.6	4-14-19 7:30	5.17	675	8.06	18.4
1-14-19 20:00	-0.07	1500	7.85	1.0	1-14-19 19:30	0.77	1158	7.84	0.5	1-14-19 19:30	0.09	1524	8.15	44.9	6-14-19 13:15	18.78	1730	8.39	10.8	4-14-19 7:45	6.44	1184	7.99	44.2	4-14-19 7:45	5.19	675	8.06	18.6
1-14-19 20:15	-0.08	1485	7.84	1.0	1-14-19 19:45	0.85	1239	7.82	1.4	1-14-19 19:45	0.09	1543	8.15	48.8	6-14-19 13:30	18.72	1735	8.39	11.7	4-14-19 8:00	6.45	1190	7.99	41.1	4-14-19 8:00	5.22	676	8.06	18.6
1-14-19 20:30	-0.07	1484	7.85	1.0	1-14-19 20:00	0.49	1144	7.85	0.0	1-14-19 20:00	0.16	1580	8.12	52.2	6-14-19 13:45	18.73	1734	8.39	12.0	4-14-19 8:15	6.54	1192	7.99	42.3	4-14-19 8:15	5.24	676	8.06	20.9
1-14-19 20:45	-0.07	1484	7.85	1.0	1-14-19 20:15	0.61	1121	7.85	0.7	1-14-19 20:15	0.02	1489	8.16	42.7	6-14-19 14:00	18.77	1734	8.39	11.9	4-14-19 8:30	6.49	1185	7.99	35.6	4-14-19 8:30	5.28	676	8.06	16.9
1-14-19 21:00	-0.07	1483	7.85	1.1	1-14-19 20:30	0.62	1120	7.85	0.4	1-14-19 20:30	0.39	1583	8.13	57.9	6-14-19 14:15	18.80	1732	8.38	11.4	4-14-19 8:45	6.44	1179	7.99	38.8	4-14-19 8:45	5.30	675	8.06	17.9
1-14-19 21:15	-0.08	1497	7.84	1.4	1-14-19 20:45	0.66	1157	7.84	1.5	1-14-19 20:45	0.33	1516	8.14	47.1	6-14-19 14:30	18.75	1730	8.39	10.9	4-14-19 9:00	6.47	1187	7.99	37.7	4-14-19 9:00	5.36	675	8.07	17.4
1-14-19 21:30	-0.07	1496	7.85	1.0	1-14-19 21:00	0.56	1170	7.84	3.4	1-14-19 21:00	0.14	1449	8.16	34.6	6-14-19 14:45	18.70	1731	8.39	11.8	4-14-19 9:15	6.54	1188	7.99	37.0	4-14-19 9:15	5.43	676	8.07	18.4
1-14-19 21:45	-0.07	1496	7.85	1.0	1-14-19 21:15	0.53	1157	7.84	4.6	1-14-19 21:15	0.08	1443	8.15	35.5	6-14-19 15:00	18.69	1732	8.39	11.2	4-14-19 9:30	6.56	1184	7.99	34.2	4-14-19 9:30	5.52	676	8.07	17.0
1-14-19 22:00	-0.07	1496	7.85	0.9	1-14-19 21:30	0.51	1153	7.85	4.9	1-14-19 21:30	0.11	1489	8.14	39.9	6-14-19 15:15	18.73	1735	8.38	11.5	4-14-19 9:45	6.63	1182	7.99	38.1	4-14-19 9:45	5.61	677	8.07	17.5
1-14-19 22:15	-0.08	1482	7.84	1.0	1-14-19 21:45	0.50	1148	7.85	0.0	1-14-19 21:45	0.09	1488	8.14	35.3	6-14-19 15:30	18.72	1734	8.38	11.4	4-14-19 10:00	6.73	1178	7.99	33.9	4-14-19 10:00	5.80	677	8.06	16.9
1-14-19 22:30	-0.07	1482	7.86	1.0	1-14-19 22:00	0.44	1122	7.85	1.8	1-14-19 22:00	0.11	1546	8.13	46.5	6-14-19 15:45	18.80	1733	8.38	11.0	4-14-19 10:15	6.59	1175	8.00	33.3	4-14-19 10:15	5.98	675	8.06	17.5
1-14-19 22:45	-0.07	1481	7.85	1.0	1-14-19 22:15	0.38	1109	7.85	2.5	1-14-19 22:15	0.05	1499	8.13	38.2	6-14-19 16:00	18.88	1734	8.38	11.2	4-14-19 10:30	6.66	1174	8.00	31.1	4-14-19 10:30	6.09	677	8.06	17.0
1-14-19 23:00	-0.07	1481	7.85	1.0	1-14-19 22:30	0.34	1120	7.85	1.4	1-14-19 22:30	0.15	1564	8.13	53.9	6-14-19 16:15	18.88	1732	8.38	11.4	4-14-19 10:45	6.57	1171	8.01	33.3	4-14-19 10:45	6.21	676	8.06	18.8
1-14-19 23:15	-0.07	1511	7.84	1.1	1-14-19 22:45	0.32	1118	7.85	1.8	1-14-19 22:45	0.12	1568	8.13	51.1	6-14-19 16:30	18.92	1734	8.39	11.2	4-15-19 11:30	6.91	1135	8.08	19.0	4-15-19 11:30	6.52	670	8.15	249.4
1-14-19 23:30	-0.07	1510	7.85	1.0	1-14-19 23:00	0.31	1127	7.85	1.1	1-14-19 23:00	0.21	1558	8.14	52.4	6-14-19 16:45	18.90	1733	8.38	11.7	4-15-19 11:45	6.99	1136	8.07	17.4	4-15-19 11:45	6.54	670	8.15	252.5
1-14-19 23:45	-0.07	1510	7.85	1.0	1-14-19 23:15	0.29	1129	7.85	4.8	1-14-19 23:15	0.21	1560	8.14	50.4	6-14-19 17:00	18.90	1732	8.38	10.8	4-15-19 12:00	6.98	1135	8.08	15.8	4-15-19 12:00	6.62	669	8.15	253.7
1-15-19 0:00	-0.07	1510	7.85	1.0	1-14-19 23:30	0.28	1107	7.85	0.0	1-14-19 23:30	0.16	1557	8.14	49.8	6-14-19 17:15	18.92	1733	8.38	11.1	4-15-19 12:15	7.04	1138	8.08	16.1	4-15-19 12:15	6.68	669	8.14	255.8
1-15-19 0:15	-0.07	1481	7.84	1.0	1-14-19 23:45	0.27	1099	7.85	3.5	1-14-19 23:45	0.12	1545	8.14	42.1	6-14-19 17:30	19.01	1733	8.39	10.9	4-15-19 12:30	7.09	1135	8.08	15.1	4-15-19 12:30	6.73	669	8.14	258.9
1-15-19 0:30	-0.07	1481	7.85	1.0	1-15-19 0:00	0.27	1090	7.85	3.7	1-15-19 0:00	0.17	1572	8.15	60.3	6-14-19 17:45	19.22	1733	8.38	11.4	4-15-19 12:45	7.14	1134	8.08	15.7	4-15-19 12:45	6.81	668	8.15	272.5
1-15-19 0:45	-0.07	1481	7.85	1.0	1-15-19 0:15	0.26	1090	7.85	2.5	1-15-19 0:15	0.07	1536	8.14	46.6	6-14-19 18:00	19.44	1733	8.38	10.4	4-15-19 13:00	7.26	1134	8.08	13.8	4-15-19 13:00	6.99	667	8.15	274.6
1-15-19 1:00	-0.07	1480	7.85	1.0	1-15-19 0:30	0.26	1098	7.85	3.0	1-15-19 0:30	0.08	1556	8.14	53.3	6-14-19 18:15	19.72	1735	8.36	9.9	4-15-19 13:15	7.64	1135	8.08	15.4	4-15-19 13:15	7.09	667	8.14	278.2
1-15-19 1:15	-0.07	1494	7.84	1.1	1-15-19 0:45	0.22	1084	7.86	5.1	1-15-19 0:45	0.05	1500	8.14	39.9	6-14-19 18:30	19.95	1736	8.37	10.6	4-15-19 13:30	7.75	1135	8.08	15.9	4-15-19 13:30	7.09	667	8.14	283.4
1-15-19 1:30	-0.07	1494	7.85	1.0	1-15-19 1:00	0.40	1102	7.85	3.4	1-15-19 1:00	0.05	1517	8.14	39.9	6-14-19 18:45	20.10	1736	8.37	10.5	4-15-19 13:45	8.01	1138	8.08	16.6	4-15-19 13:45	7.11	666	8.14	288.4
1-15-19 1:45	-0.07	1494	7.85	0.9	1-15-19 1:15	0.47	1151	7.84	3.3	1-15-19 1:15	0.06	1525	8.14	37.1	6-14-19 19:00	20.14	1736	8.37	10.4	4-15-19 14:00	8.10	1131	8.08	13.4	4-15-19 14:00	7.00	665	8.14	288.3
1-15-19 2:00	-0.07	1494	7.85	0.9	1-15-19 1:30	0.51	1156	7.84	5.0	1-15-19 1:30	0.07	1543	8.14	55.0	6-14-19 19:15	20.35	1736	8.37	10.1	4-15-19 14:15	8.23	1131	8.09	12.7	4-15-19 14:15	6.85	665	8.17	291.5
1-15-19 2:15	-0.07	1479	7.84	1.0	1-15-19 1:45	0.49	1193	7.83	0.0	1-15-19 1:45	0.08	1555	8.16	54.1	6-14-19 19:30	20.47	1737	8.36	11.4	4-15-19 14:30	8.32	1130	8.09	22.8	4-15-19 14:30	6.78	665	8.17	297.1
1-15-19 2:30	-0.07	1478	7.86	0.9	1-15-19 2:00	0.47	1195	7.83	2.2	1-15-19 2:00	0.06	1572	8.16	57.4	6-14-19 19:45	20.61	1737	8.36	11.0	4-15-19 14:45	8.26	1134	8.09	18.9	4-15-19 14:45	6.66	665	8.16	297.8
1-15-19 2:45	-0.07	1478	7.86	1.0	1-15-19 2:15	0.46	1203	7.83	5.0	1-15-19 2:15	0.04	1546	8.16	53.0	6-14-19 20:00	20.79	1738	8.36	9.7	4-15-19 15:00	8.16	1124	8.10	15.1	4-15-19 15:00	6.61	665	8.17	302.1
1-15-19 3:00	-0.07	1478	7.86	0.9	1-15-19 2:30	0.44	1223	7.82	4.8	1-15-19 2:30	0.04	1557	8.16	55.8	6-14-19 20:15	20.83	1738	8.37	10.9	4-15-19 15:15	8.14	1108	8.10	14.9	4-15-19 15:15	6.59	664	8.18	305.4
1-15-19 3:15	-0.07	1508	7.85	1.2	1-15-19 2:45	0.38	1238	7.81	6.9	1-15-19 2:45	0.16	1596	8.15	57.0	6-14-19 20:30	20.81	1737	8.38	11.0	4-15-19 15:30	8.17	1134	8.10	13.8	4-15-19 15:30	6.68	664	8.18	362.8
1-15-19 3:30	-0.07	1509	7.86	1.0	1-15-19 3:00	0.34	1248	7.81	3.6	1-15-19 3:00	0.50	1556	8.17	57.8	6-14-19 20:45	21.06	1737	8.37	10.9	4-15-19 15:45	8.23	1135	8.11	19.3	4-15-19 15:45	6.79	664	8.19	363.5
1-15-19 3:45	-0.07	1509	7.86	0.9	1-15-19 3:15	0.32	1261	7.81	1.5	1-15-19 3:15	0.25	1544	8.13	50.0	6-14-19 21:00	21.46	1741	8.37	9.9	4-15-19 16:00	8.14	1135	8.11	15.3	4-15-19 16:00	6.90	664	8.19	361.0
1-15-19 4:00	-0.07	1509	7.86	1.1	1-15-19 3:30	0.29	1271	7.81	3.2	1-15-19 3:30	0.05	1523	8.16	32.2	6-14-19 21:15	21.45	1739	8.36	12.7	4-15-19 16:15	8.08	1133	8.11	15.6	4-15-19 16:15	6.90	663	8.18	446.0
1-15-19 4:15	-0.07	1472	7.85	3.0	1-15-19 3:45	0.26	1272	7.80	4.5	1-15-19 3:45	0.16	1547	8.15	46.8	6-14-19 21:30	21.41	1738	8.38	11.0	4-15-19 16:30	8.09	1137	8.11	16.5	4-15-19 16:30	6.93	663	8.18	457.8
1-15-19 4:30	-0.07	1471	7.86	3.0	1-15-19 4:00	0.28	1260	7.80	3.4	1-15-19 4:00	0.20	1562	8.15	50.7	6-14-19 21:45	21.41	1738	8.38	10.4	4-15-19 16:45	8.13	1132	8.11	15.9	4-15-19 16:45	6.93	655	8.18	85.7
1-15-19 4:45	-0.07	1471	7.86	1.0	1-15-19 4:15	0.34	1246	7.81	4.3	1-15-19 4:15	0.18	1536	8.15	45.1	6-14-19 22:00	21.56	1742	8.38	12.4	4-15-19 17:00	8.12	1132	8.11	16.0	4-15-19 17:00	6.98	661	8.19	57.6
1-15-19 5:00	-0.07	1471	7.86	0.9	1-15-19 4:30	0.34	1240	7.81	3.1	1-15-19 4:30	0.13	1536	8.17	48.0	6-14-19 22:15	21.41	1737	8.38	12.3	4-15-19 17:15	8.13	1134	8.11	15.5	4-15-19 17:15	6.98	661	8.19	95.3
1-15-19 5:15	-0.07	1497	7.85	1.1	1-15-19 4:45	0.24	1260	7.81	3.8	1-15-19 4:45	0.10	1522	8.17	47.5	6-14-19 22:30	21.35	1737	8.38	11.6	4-15-19 17:30	8.15	1132	8.11	16.8	4-15-19 17:30	7.01	660	8.19	100.7
1-15-19 5:30	-0.07	1497	7.86	0.9	1-15-19 5:00	0.39	1305	7.79	6.8	1-15-19 5:00	0.17	1551	8.15	47.1	6-14-19 22:45	21.26	1738	8.39	11.0	4-15-19 17:45	8.23	1139	8.11	14.8	4-15-19 17:45	7.09	660	8.19	145.7
1-15-19 5:45	-0.07	1497	7.86	1.0	1-15-19 5:15	0.61	1331	7.79	3.9	1-15-19 5:15	0.24	1554	8.16	50.1	6-14-19 23:00	21.30	1737	8.38	11.8	4-15-19 18:00	8.27	1133	8.11	15.9	4-15-19 18:00	7.12	714	8.19	85.8
1-15-19 6:00	-0.07	1497	7.86	0.9	1-15-19 5:30	0.63	1315	7.79	3.1	1-15-19 5:30	0.23	1556	8.16	48.9	6-14-19 23:15	21.36	1737	8.38	12.2	4-15-19 18:15	8.28	1133	8.11	14.4	4-15-19 18:15	7.17	659	8.19	86.4
1-15-19 6:15	-0.07	1467	7.86	0.9	1-15-19 5:45	0.53	1316	7.79	3.1	1-15-19 5:45	0.27	1556	8.17	56.3	6-14-19 23:30	21.30	1738	8.37	11.9	4-15-19 18:30	8.18	1134	8.12	15.3	4-15-19 18:30	7.23	661	8.19	87.9
1-15-19 6:30	-0.07	1467	7.87	0.9	1-15-19 6:00	0.32	1297	7.79	3.0	1-15-19 6:00	0.45	1575	8.24	72.9	6-14-19 23:45	21.22	1737	8.37	11.0	4-15-19 18:45	8.12	1136	8.11	12.9	4-15-19 18:45	7.18	659	8.19	95.7
1-15-19 6:45	-0.07	1467	7.86	1.0	1-15-19 6:15	0.36	1308	7.79	3.3	1-15-19 6:15	0.24	1563	8.18	53.9	6-15-19 0:00	21.21	1739	8.37	10.2	4-15-19 19:00	8.02	1133	8.11	12.4	4-15-19 19:00	7.16	660	8.19	97.7
1-15-19 7:00	-0.06	1467	7.86	0.9	1-15-19 6:30	0.51	1328	7.79	3.0	1-15-19 6:30	0.14	1527	8.16	43.7	6-15-19 0:15	21.23	1738	8.37	11.1	4-15-19 19:15	7.95	1129	8.11	12.2	4-15-19 19:15	7.10	659	8.19	99.2
1-15-19 7:15	-0.07	1486	7.86	1.1	1-15-19 6:45	0.53	1318	7.79	4.9	1-15-19 6:45	0.18	1556	8.16	48.9	6-15-19 0:30	21.71	1740	8.37	10.7	4-15-19 19:30	7.92	1133	8.11	15.1	4-15-19 19:30	7.12	659	8.20	88.4
1-15-19 7:30	-0.06	1486	7.87	1.5	1-15-19 7:00	0.37	1300	7.79	3.4	1-15-19 7:00	0.14	1544	8.16	49.3	6-15-19 0:45	21.84	1741	8.37	11.3	4-15-19 19:45	7.87	1131	8.11	14.4	4-15-19 19:45	7.05	663	8.20	102.6
1-15-19 7:45	-0.06	1486	7.87	2.2	1-15-19 7:15	0.38	1302	7.79	3.2	1-15-19 7:15	0.13	1542	8.18	45.4	6-15-19 1:00	21.77	1740	8.38	11.4	4-15-19 20:00	7.81	1132	8.11	14.9	4-15-19 20:00	7.05	661	8.20	116.1
1-15-19 8:00	-0.06	1485	7.87	0.9	1-15-19 7:30	0.41	1321	7.79	3.8	1-15-19 7:30	0.12	1543	8.18	51.1	6-15-19 1:15	21.74	1739	8.38	10.6	4-15-19 20:15	7.73	1134	8.10	14.9	4-15-19 20:15	6.98	663	8.20	119.5
1-15-19 8:15	-0.07	1466	7.86	1.0	1-15-19 7:45	0.39	1316	7.79	0.0	1-15-19 7:45	0.11	1545	8.19	53.5	6-15-19 1:30	21.86	1741	8.39	11.0	4-15-19 20:30	7.68	1135	8.10	17.5	4-15-19 20:30	6.96	663	8.20	112.3
1-15-19 8:30	-0.06	1466	7.87	0.9	1-15-19 8:00	0.39	1332	7.79	3.8	1-15-19 8:00	0.10	1557	8.19	56.5	6-15-19 1:45	21.91	1740	8.39	10.8	4-15-19 20:45	7.60	1134	8.11	17.2	4-15-19 20:45	6.91	662	8.20	121.0
1-15-19 8:45	-0.06	1466	7.87	0.9	1-15-19 8:15	0.36	1310	7.79	2.4	1-15-19 8:15	0.11	1562	8.20	55.0	6-15-19 2:00	21.78	1742	8.40	10.6	4-15-19 21:00	7.56	1132	8.11	13.1	4-15-19 21:00	6.91	664	8.20	117.7
1-15-19 9:00	-0.06	1465	7.87	0.9	1-15-19 8:30	0.45	1300	7.79	3.5	1-15-19 8:30	0.10	1564	8.19	56.9	6-15-19 2:15	21.76	1740	8.40	12.9	4-15-19 21:15	7.54	1136	8.11	14.2	4-15-19 21:15	6.94	663	8.20	123.3
1-15-19 9:15	-0.07	1478	7.86	1.1	1-15-19 8:45	0.43	1314	7.79	5.5	1-15-19 8:45	0.09	1562	8.20	56.5	6-15-19 2:30	21.69	1740	8.40	10.5	4-15-19 21:30	7.46	1132	8.11	11.8	4-15-19 21:30	6.89	662	8.20	129.5
1-15-19 9:30	-0.07	1478	7.87	0.9	1-15-19 9:00	0.48	1324	7.79	3.3	1-15-19 9:00	0.08	1540	8.21	52.5	6-15-19 2:45	21.64	1741	8.40	10.6	4-15-19 21:45	7.45	1132	8.11	15.7	4-15-19 21:45	6.94	661	8.20	129.4
1-15-19 9:45					1-15-19 9:15	0.76	1335	7.78	3.4	1-15-19 9:15	0.07	1544	8.22	53.9	6-15-19 3:00	21.59	1741	8.40	11.1	4-15-19 22:00	7.48	1137	8.11	11.8	4-15-19 22:00	6.91	661	8.20	245.8
1-15-19 10:00	-0.07	1478	7.87	0.9	1-15-19 9:30	0.76	1317	7.78	3.9	1-15-19 9:30	0.07	1545	8.23	53.6	6-15-19 3:15	21.54	1741	8.40	10.7	4-15-19 22:15	7.46	1133	8.12	12.8	4-15-19 22:15	6.83	661	8.20	315.8
1-15-19 10:15					1-15-19 9:45	0.73	1323	7.78	3.3	1-15-19 9:45	0.37	1556	8.28	68.1	6-15-19 3:30	21.49	1740	8.41	11.1	4-15-19 22:30	7.43	1132	8.12	12.2	4-15-19 22:30	6.83	661	8.20	301.8
1-15-19 10:30	-0.07	1462	7.87	0.9	1-15-19 10:00	0.85	1321	7.78	1.0	1-15-19 10:00	0.03	1461	8.19	32.6	6-15-19 3:45	21.43	1741	8.40	11.4	4-15-19 22:45	7.39	1134	8.12	13.0	4-15-19 22:45	6.67	662	8.21	310.4
1-15-19 10:45	-0.07	1462	7.87	0.9	1-15-19 10:15	1.10	1351	7.77	3.4	1-15-19 10:15	0.06	1548	8.22	60.9	6-15-19 4:00	21.37	1739	8.40	10.6	4-15-19 23:00	7.32	1136	8.12	10.8	4-15-19 23:00	6.71	660	8.20	289.8
1-15-19 11:00	-0.06	1462	7.87	0.9	1-15-19 10:30	1.20	1365	7.77	1.7	1-15-19 10:30	0.07	1554	8.24	60.6	6-15-19 4:15	21.33	1739	8.40	11.2	4-15-19 23:15	7.25	1135	8.12	10.5	4-15-19 23:15	6.72	661	8.20	286.2

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-15-19 11:15	-0.07	1474	7.87	1.1	1-15-19 10:45	1.29	1355	7.76	3.3	1-15-19 10:45	0.11	1569	8.25	61.3	6-15-19 4:30	21.25	1740	8.40	10.7	4-15-19 23:30	7.24	1136	8.12	11.1	4-15-19 23:30	6.62	660	8.20	282.4
1-15-19 11:30	-0.06	1473	7.87	0.9	1-15-19 11:00	1.24	1355	7.76	3.6	1-15-19 11:00	0.14	1554	8.20	48.9	6-15-19 4:45	21.19	1740	8.40	10.5	4-15-19 23:45	7.21	1136	8.12	13.0	4-15-19 23:45	6.55	659	8.21	283.4
1-15-19 11:45	-0.06	1473	7.87	1.0	1-15-19 11:15	1.20	1346	7.76	4.6	1-15-19 11:15	0.26	1554	8.21	56.9	6-15-19 5:00	21.08	1739	8.41	12.3	4-16-19 0:00	7.17	1135	8.12	10.9	4-16-19 0:00	6.44	660	8.21	285.9
1-15-19 12:00	-0.07	1473	7.87	0.9	1-15-19 11:30	1.20	1357	7.76	4.7	1-15-19 11:30	0.30	1556	8.19	52.5	6-15-19 5:15	21.00	1738	8.42	10.2	4-16-19 0:15	7.15	1136	8.12	11.9	4-16-19 0:15	6.44	661	8.21	146.5
1-15-19 12:15	-0.07	1460	7.87	0.9	1-15-19 11:45	0.91	1351	7.77	5.0	1-15-19 11:45	0.15	1536	8.20	52.1	6-15-19 5:30	20.94	1739	8.41	10.6	4-16-19 0:30	7.16	1136	8.12	10.2	4-16-19 0:30	6.38	660	8.21	154.4
1-15-19 12:30	-0.07	1460	7.88	0.9	1-15-19 12:00	0.87	1345	7.77	3.6	1-15-19 12:00	0.13	1575	8.20	56.9	6-15-19 5:45	20.84	1739	8.42	10.6	4-16-19 0:45	7.11	1135	8.12	10.5	4-16-19 0:45	6.33	661	8.21	118.0
1-15-19 12:45	-0.08	1454	7.89	1.0	1-15-19 12:15	1.01	1349	7.77	6.4	1-15-19 12:15	0.31	1577	8.19	60.0	6-15-19 6:00	20.78	1738	8.41	10.3	4-16-19 1:00	7.08	1136	8.12	10.5	4-16-19 1:00	6.31	661	8.20	164.4
1-15-19 13:00	-0.07	1454	7.89	0.9	1-15-19 12:30	0.96	1353	7.77	4.6	1-15-19 12:30	0.18	1573	8.21	55.8	6-15-19 6:15	20.69	1739	8.42	10.1	4-16-19 1:15	7.08	1134	8.12	11.2	4-16-19 1:15	6.35	660	8.20	172.7
1-15-19 13:15	-0.08	1470	7.87	1.1	1-15-19 12:45	1.02	1362	7.77	3.5	1-15-19 12:45	0.22	1575	8.19	56.9	6-15-19 6:30	20.62	1740	8.42	10.3	4-16-19 1:30	7.05	1138	8.12	11.3	4-16-19 1:30	6.31	661	8.20	165.8
1-15-19 13:30	-0.07	1471	7.88	1.1	1-15-19 13:00	0.95	1351	7.77	1.2	1-15-19 13:00	0.19	1557	8.20	53.4	6-15-19 6:45	20.52	1739	8.42	10.3	4-16-19 1:45	7.04	1135	8.12	12.1	4-16-19 1:45	6.26	661	8.20	183.8
1-15-19 13:45	-0.07	1470	7.88	1.4	1-15-19 13:15	1.19	1358	7.76	0.8	1-15-19 13:15	0.20	1554	8.22	53.7	6-15-19 7:00	20.44	1739	8.42	10.6	4-16-19 2:00	7.00	1133	8.12	10.0	4-16-19 2:00	6.26	662	8.20	179.3
1-15-19 14:00	-0.07	1470	7.88	1.1	1-15-19 13:30	1.25	1360	7.76	3.8	1-15-19 13:30	0.23	1546	8.21	49.0	6-15-19 7:15	20.34	1740	8.42	10.4	4-16-19 2:15	6.95	1138	8.13	10.0	4-16-19 2:15	6.22	661	8.20	184.3
1-15-19 14:15	-0.07	1457	7.88	1.3	1-15-19 13:45	1.25	1354	7.76	1.9	1-15-19 13:45	0.24	1542	8.21	50.6	6-15-19 7:30	20.25	1738	8.42	10.9	4-16-19 2:30	6.92	1136	8.13	9.1	4-16-19 2:30	6.22	662	8.20	185.4
1-15-19 14:30	-0.07	1456	7.88	1.1	1-15-19 14:00	1.32	1361	7.75	1.5	1-15-19 14:00	0.32	1571	8.25	66.8	6-15-19 7:45	20.15	1739	8.42	10.5	4-16-19 2:45	6.83	1137	8.13	10.9	4-16-19 2:45	6.13	661	8.20	139.6
1-15-19 14:45	-0.07	1456	7.88	1.3	1-15-19 14:15	1.20	1364	7.76	3.5	1-15-19 14:15	0.44	1568	8.26	70.4	6-15-19 8:00	20.08	1738	8.42	10.8	4-16-19 3:00	6.86	1138	8.13	12.1	4-16-19 3:00	6.15	661	8.20	198.2
1-15-19 15:00	-0.07	1456	7.88	1.1	1-15-19 14:30	1.18	1359	7.76	0.4	1-15-19 14:30	0.42	1556	8.26	62.7	6-15-19 8:15	19.99	1738	8.42	10.5	4-16-19 3:15	6.78	1136	8.13	8.8	4-16-19 3:15	6.22	661	8.20	199.4
1-15-19 15:15	-0.08	1470	7.88	1.1	1-15-19 14:45	0.72	1349	7.77	0.3	1-15-19 14:45	0.24	1552	8.25	56.8	6-15-19 8:30	19.93	1738	8.42	11.0	4-16-19 3:30	6.76	1134	8.13	12.2	4-16-19 3:30	6.23	661	8.20	197.8
1-15-19 15:30	-0.08	1471	7.89	1.0	1-15-19 15:00	1.06	1357	7.76	0.2	1-15-19 15:00	0.49	1545	8.28	63.1	6-15-19 8:45	19.86	1737	8.42	11.6	4-16-19 3:45	6.70	1136	8.13	10.4	4-16-19 3:45	6.18	660	8.20	203.3
1-15-19 15:45	-0.08	1470	7.89	1.0	1-15-19 15:15	1.14	1355	7.76	3.3	1-15-19 15:15	0.33	1552	8.28	61.9	6-15-19 9:00	19.77	1738	8.42	10.3	4-16-19 4:00	6.74	1135	8.13	9.3	4-16-19 4:00	6.15	661	8.20	205.8
1-15-19 16:00	-0.07	1470	7.88	0.9	1-15-19 15:30	1.18	1363	7.76	0.0	1-15-19 15:30	0.46	1551	8.30	63.5	6-15-19 9:15	19.68	1739	8.42	10.5	4-16-19 4:15	6.65	1140	8.13	8.3	4-16-19 4:15	6.14	662	8.20	206.6
1-15-19 16:15	-0.07	1456	7.88	1.0	1-15-19 15:45	1.14	1339	7.76	3.2	1-15-19 15:45	0.41	1550	8.30	65.0	6-15-19 9:30	19.62	1739	8.42	10.3	4-16-19 4:30	6.62	1132	8.13	9.5	4-16-19 4:30	6.13	662	8.20	210.6
1-15-19 16:30	-0.07	1455	7.89	1.0	1-15-19 16:00	0.96	1359	7.76	0.3	1-15-19 16:00	0.35	1570	8.25	66.0	6-15-19 9:45	19.55	1739	8.42	10.4	4-16-19 4:45	6.55	1133	8.13	8.5	4-16-19 4:45	6.06	661	8.20	204.5
1-15-19 16:45	-0.07	1455	7.88	1.0	1-15-19 16:15	1.05	1355	7.76	0.9	1-15-19 16:15	0.54	1569	8.31	76.2	6-15-19 10:00	19.50	1739	8.41	10.3	4-16-19 5:00	6.49	1136	8.13	8.7	4-16-19 5:00	6.00	662	8.20	207.7
1-15-19 17:00	-0.07	1455	7.88	1.0	1-15-19 16:30	1.21	1366	7.76	0.7	1-15-19 16:30	0.32	1553	8.32	69.3	6-15-19 10:15	19.42	1738	8.42	11.5	4-16-19 5:15	6.48	1137	8.13	9.0	4-16-19 5:15	6.01	663	8.20	205.4
1-15-19 17:15	-0.07	1468	7.88	1.2	1-15-19 16:45	1.28	1356	7.76	3.9	1-15-19 16:45	0.36	1566	8.28	68.5	6-15-19 10:30	19.33	1740	8.42	11.1	4-16-19 5:30	6.48	1140	8.13	9.1	4-16-19 5:30	6.02	663	8.20	202.2
1-15-19 17:30	-0.07	1468	7.89	1.0	1-15-19 17:00	1.22	1371	7.75	0.8	1-15-19 17:00	0.34	1537	8.30	53.1	6-15-19 10:45	19.24	1738	8.42	10.2	4-16-19 5:45	6.47	1134	8.13	8.6	4-16-19 5:45	6.05	663	8.20	203.1
1-15-19 17:45	-0.08	1468	7.89	0.9	1-15-19 17:15	1.14	1359	7.75	0.3	1-15-19 17:15	0.42	1545	8.33	65.1	6-15-19 11:00	19.15	1739	8.42	10.5	4-16-19 6:00	6.43	1137	8.13	8.7	4-16-19 6:00	6.11	663	8.19	207.2
1-15-19 18:00	-0.08	1468	7.89	0.9	1-15-19 17:30	1.08	1365	7.75	0.7	1-15-19 17:30	0.48	1554	8.35	67.5	6-15-19 11:15	19.10	1739	8.42	10.6	4-16-19 6:15	6.40	1135	8.13	9.8	4-16-19 6:15	6.07	662	8.19	116.8
1-15-19 18:15	-0.08	1453	7.88	1.0	1-15-19 17:45	1.08	1363	7.75	2.1	1-15-19 17:45	0.43	1546	8.35	62.3	6-15-19 11:30	19.04	1740	8.42	10.8	4-16-19 6:30	6.34	1134	8.13	11.2	4-16-19 6:30	6.06	662	8.19	202.0
1-15-19 18:30	-0.07	1452	7.89	1.0	1-15-19 18:00	1.00	1364	7.75	1.3	1-15-19 18:00	0.31	1559	8.33	68.9	6-15-19 11:45	18.90	1735	8.42	10.5	4-16-19 6:45	6.34	1135	8.13	10.0	4-16-19 6:45	6.05	662	8.19	207.3
1-15-19 18:45	-0.07	1452	7.89	0.9	1-15-19 18:15	0.83	1359	7.76	3.8	1-15-19 18:15	0.22	1557	8.34	69.7	6-15-19 12:00	18.87	1739	8.42	9.9	4-16-19 7:00	6.29	1135	8.14	8.5	4-16-19 7:00	6.06	663	8.19	210.4
1-15-19 19:00	-0.06	1452	7.89	0.9	1-15-19 18:30	0.66	1329	7.78	2.4	1-15-19 18:30	0.22	1559	8.35	72.7	6-15-19 12:15	18.76	1740	8.42	10.7	4-16-19 7:15	6.32	1138	8.13	8.5	4-16-19 7:15	6.06	667	8.19	203.7
1-15-19 19:15	-0.06	1468	7.88	1.2	1-15-19 18:45	0.56	1326	7.78	4.2	1-15-19 18:45	0.24	1563	8.35	72.9	6-15-19 12:30	18.70	1739	8.42	11.2	4-16-19 7:30	6.34	1136	8.13	7.7	4-16-19 7:30	6.03	666	8.19	210.0
1-15-19 19:30	-0.06	1469	7.89	0.9	1-15-19 19:00	0.49	1324	7.78	0.5	1-15-19 19:00	0.19	1544	8.35	66.3	6-15-19 12:45	18.63	1737	8.42	10.3	4-16-19 7:45	6.31	1135	8.14	8.7	4-16-19 7:45	6.05	666	8.20	209.4
1-15-19 19:45	-0.06	1468	7.89	1.0	1-15-19 19:15	0.44	1328	7.78	0.4	1-15-19 19:15	0.37	1554	8.34	67.0	6-15-19 13:00	18.56	1737	8.42	10.5	4-16-19 8:00	6.34	1132	8.14	7.9	4-16-19 8:00	6.02	666	8.20	207.2
1-15-19 20:00	-0.06	1468	7.89	0.9	1-15-19 19:30	0.40	1313	7.78	3.3	1-15-19 19:30	0.18	1547	8.35	66.7	6-15-19 13:15	18.47	1737	8.43	10.8	4-16-19 8:15	6.30	1135	8.14	8.6	4-16-19 8:15	6.00	666	8.20	143.8
1-15-19 20:15	-0.07	1449	7.88	1.0	1-15-19 19:45	0.36	1311	7.79	1.3	1-15-19 19:45	0.12	1537	8.34	59.6	6-15-19 13:30	18.43	1738	8.43	11.2	4-16-19 8:30	6.34	1105	8.14	8.9	4-16-19 8:30	5.99	667	8.20	171.5
1-15-19 20:30	-0.07	1448	7.89	1.0	1-15-19 20:00	0.35	1314	7.78	4.6	1-15-19 20:00	0.40	1566	8.33	72.6	6-15-19 13:45	18.44	1736	8.42	11.0	4-16-19 8:45	6.37	1137	8.14	7.7	4-16-19 8:45	5.98	667	8.20	209.0
1-15-19 20:45	-0.07	1448	7.88	0.9	1-15-19 20:15	0.35	1312	7.78	1.9	1-15-19 20:15	0.36	1541	8.34	64.7	6-15-19 14:00	18.45	1739	8.42	9.8	4-16-19 9:00	6.40	1134	8.14	8.7	4-16-19 9:00	5.99	666	8.20	211.2
1-15-19 21:00	-0.06	1448	7.88	1.0	1-15-19 20:30	0.34	1318	7.78	4.7	1-15-19 20:30	0.40	1568	8.34	74.4	6-15-19 14:15	18.47	1738	8.42	10.0	4-16-19 9:15	6.44	1137	8.14	8.2	4-16-19 9:15	5.99	666	8.20	213.3
1-15-19 21:15	-0.07	1464	7.88	1.2	1-15-19 20:45	0.34	1324	7.78	3.2	1-15-19 20:45	0.90	1570	8.36	81.3	6-15-19 14:30	18.42	1736	8.42	10.1	4-16-19 9:30	6.47	1135	8.15	8.5	4-16-19 9:30	6.00	666	8.21	210.3
1-15-19 21:30	-0.06	1465	7.89	1.1	1-15-19 21:00	0.34	1326	7.78	0.1	1-15-19 21:00	0.44	1538	8.33	61.2	6-15-19 14:45	18.46	1737	8.41	11.1	4-16-19 9:45	6.50	1134	8.15	8.3	4-16-19 9:45	6.03	666	8.21	212.2
1-15-19 21:45	-0.06	1465	7.89	1.0	1-15-19 21:15	0.30	1307	7.78	0.9	1-15-19 21:15	0.36	1550	8.34	68.6	6-15-19 15:00	18.50	1739	8.42	10.4	4-16-19 10:00	6.57	1133	8.15	8.8	4-16-19 10:00	6.04	677	8.21	206.7
1-15-19 22:00	-0.06	1464	7.88	1.0	1-15-19 21:30	0.32	1307	7.78	3.2	1-15-19 21:30	0.25	1536	8.30	54.9	6-15-19 15:15	18.58	1737	8.41	11.0	4-16-19 10:15	6.70	1133	8.15	9.1	4-16-19 10:15	6.07	678	8.21	216.3
1-15-19 22:15	-0.07	1447	7.88	1.0	1-15-19 21:45	0.30	1316	7.78	0.5	1-15-19 21:45	0.26	1541	8.29	51.6	6-15-19 15:30	18.63	1738	8.41	10.6	4-16-19 10:30	6.82	1136	8.15	8.0	4-16-19 10:30	6.11	678	8.21	217.2
1-15-19 22:30	-0.06	1446	7.89	1.0	1-15-19 22:00	0.29	1321	7.78	0.0	1-15-19 22:00	0.25	1556	8.26	55.8	6-15-19 15:45	18.71	1739	8.41	9.7	4-16-19 10:45	6.99	1136	8.15	13.8	4-16-19 10:45	6.19	678	8.22	226.6
1-15-19 22:45	-0.06	1446	7.89	1.0	1-15-19 22:15	0.25	1307	7.78	1.9	1-15-19 22:15	0.21	1508	8.25	44.4	6-15-19 16:00	18.83	1741	8.41	10.5	4-16-19 11:00	7.06	1134	8.14	7.9	4-16-19 11:00	6.24	677	8.22	225.1
1-15-19 23:00	-0.06	1446	7.89	1.0	1-15-19 22:30	0.27	1328	7.78	1.4	1-15-19 22:30	0.34	1520	8.28	53.8	6-15-19 16:15	18.97	1740	8.41	10.3	4-16-19 11:15	7.15	1139	8.14	8.5	4-16-19 11:15	6.33	676	8.22	228.0
1-15-19 23:15	-0.06	1455	7.88	1.3	1-15-19 22:45	0.27	1313	7.78	0.0	1-15-19 22:45	0.71	1506	8.33	56.8	6-15-19 16:30	19.08	1740	8.41	10.8	4-16-19 11:30	7.18	1131	8.15	8.2	4-16-19 11:30	6.38	677	8.22	214.2
1-15-19 23:30	-0.06	1455	7.89	1.0	1-15-19 23:00	0.74	1320	7.80	0.8	1-15-19 23:00	1.00	1544	8.37	74.3	6-15-19 16:45	19.23	1738	8.41	10.3	4-16-19 11:45	7.28	1131	8.14	8.6	4-16-19 11:45	6.69	676	8.22	231.6
1-15-19 23:45	-0.06	1455	7.89	1.0	1-15-19 23:15	0.70	1307	7.80	3.7	1-15-19 23:15	1.02	1543	8.37	77.7	6-15-19 17:00	19.30	1735	8.41	9.7	4-16-19 12:00	7.67	1131	8.14	7.4	4-16-19 12:00	6.97	677	8.21	234.0
1-16-19 0:00	-0.06	1455	7.89	1.0	1-15-19 23:30	0.68	1323	7.82	4.6	1-15-19 23:30	0.98	1542	8.37	75.4	6-15-19 17:15	19.44	1739	8.41	11.1	4-16-19 12:15	7.75	1133	8.14	7.6	4-16-19 12:15	7.12	674	8.21	243.8
1-16-19 0:15	-0.06	1443	7.89	1.1	1-15-19 23:45	0.71	1343	7.82	0.0	1-15-19 23:45	1.09	1543	8.37	76.1	6-15-19 17:30	19.59	1738	8.41	10.3	4-16-19 12:30	8.05	1130	8.14	8.5	4-16-19 12:30	6.72	674	8.22	246.8
1-16-19 0:30	-0.06	1443	7.90	1.0	1-16-19 0:00	0.78	1340	7.81	3.3	1-16-19 0:00	1.08	1562	8.37	85.1	6-15-19 17:45	19.76	1738	8.40	10.5	4-16-19 12:45	8.04	1136	8.14	13.9	4-16-19 12:45	6.72	675	8.23	251.1
1-16-19 0:45	-0.06	1443	7.89	1.0	1-16-19 0:15	0.75	1352	7.79	0.2	1-16-19 0:15	0.93	1560	8.37	83.2	6-15-19 18:00	19.91	1737	8.40	10.8	4-16-19 13:00	8.16	1128	8.14	10.9	4-16-19 13:00	6.84	674	8.23	235.9
1-16-19 1:00	-0.06	1443	7.89	1.0	1-16-19 0:30	0.58	1332	7.80	1.2	1-16-19 0:30	0.81	1560	8.36	81.8	6-15-19 18:15	19.73	1737	8.41	12.0	4-16-19 13:15	8.11	1128	8.13	9.7	4-16-19 13:15	7.20	677	8.22	242.2
1-16-19 1:15	-0.06	1453	7.89	1.3	1-16-19 0:45	0.67	1345	7.81	0.2	1-16-19 0:45	0.65	1565	8.37	81.2	6-15-19 18:30	19.62	1737	8.41	12.9	4-16-19 13:30	8.08	1128	8.14	8.2	4-16-19 13:30	7.44	674	8.22	145.5
1-16-19 1:30	-0.06	1453	7.90	1.0	1-16-19 1:00	0.61	1342	7.82	0.2	1-16-19 1:00	0.58	1544	8.37	74.7	6-15-19 18:45	19.55	1739	8.41	13.6	4-16-19 13:45	7.93	1132	8.13	8.0	4-16-19 13:45	7.22	673	8.22	252.1
1-16-19 1:45	-0.06	1453	7.90	1.0	1-16-19 1:15	0.46	1327	7.82	0.5	1-16-19 1:15	0.38	1535	8.38	72.8	6-15-19 19:00	19.50	1739	8.41	11.8	4-16-19 14:00	8.20	1131	8.14	8.0	4-16-19 14:00	7.25	674	8.23	262.5
1-16-19 2:00	-0.06	1453	7.90	1.0	1-16-19 1:30	0.37	1336	7.81	0.2	1-16-19 1:30	0.35	1541	8.37	73.2	6-15-19 19:15	19.56	1737	8.41	11.2	4-16-19 14:15	8.32	1131	8.13	7.8	4-16-19 14:15	7.35	673	8.22	261.2
1-16-19 2:15					1-16-19 1:45	0.33	1314	7.82	0.5	1-16-19 1:45	0.32	1543	8.37	71.5	6-15-19 19:30	19.55	1740	8.41	11.2	4-16-19 14:30	8.55	1131	8.13	9.5	4-16-19 14:30	7.38	672	8.22	272.3
1-16-19 2:30	-0.06	1438	7.90	1.0	1-16-19 2:00	0.33	1324	7.81	0.4	1-16-19 2:00	0.30	1562	8.37	78.8	6-15-19 19:45	19.73	1740	8.41	10.4	4-16-19 14:45	8.76	1129	8.14	7.9	4-16-19 14:45	7.36	659	8.23	278.2
1-16-19 2:45	-0.06	1438	7.90	1.1	1-16-19 2:15	0.35	1329	7.82	0.4	1-16-19 2:15	0.26	1564	8.37	77.8	6-15-19 20:00	20.09	1742	8.40	10.7	4-16-19 15:00	8.69	1133	8.14	8.8	4-16-19 15:00	7.30	673	8.23	289.2
1-16-19 3:00	-0.06	1438	7.90	1.0	1-16-19 2:30	0.36	1328	7.82	4.6	1-16-19 2:30	0.20	1565	8.37	78.0	6-15-19 20:15	20.62	1743	8.39	9.5	4-16-19 15:15	8.65	1130	8.14	8.8	4-16-19 15:15	7.29	674	8.24	296.2
1-16-19 3:15	-0.07	1450	7.89	1.2	1-16-19 2:45	0.33	1322	7.82	1.2	1-16-19 2:45	0.17	1561	8.37	75.3	6-15-19 20:30	20.76	1742	8.40	10.3	4-16-19 15:30	8.67	1131	8.14	9.9	4-16-19 15:30	7.18	674	8.25	310.5
1-16-19 3:30	-0.07	1450	7.90	1.0	1-16-19 3:00	0.31	1325	7.82	4.5	1-16-19 3:00	0.17	1545	8.37	70.7	6-15-19 20:45	20.94	1744	8.39	9.9	4-16-19 15:45	8.69	1133	8.14	9.5	4-16-19 15:45	7.16	674	8.25	302.9
1-16-19 3:45	-0.07	1450	7.90	1.0	1-16-19 3:15	0.30	1349	7.81	1.0	1-16-19 3:15	0.14	1545	8.37	69.4	6-15-19 21:00	21.05	1743	8.39	9.9	4-16-19 16:00	8.68	1122	8.14	7.6	4-16-19 16:00	7.25	670	8.25	79.4
1-16-19 4:00	-0.07	1450	7.90	1.0	1-16-19 3:30	0.28	1323	7.81	2.1	1-16-19 3:30	0.16	1547	8.37	68.3	6-15-19 21:15	21.17	1740	8.40	10.5	4-16-19 16:15	8.82	1130	8.14	9.1	4-16-19 16:15	7.33	672	8.25	27.6
1-16-19 4:15	-0.07	1438	7.90	1.1	1-16-19 3:45	0.27	1322	7.82	2.5	1-16-19 3:45	0.12	1545	8.37	67.2	6-15-19 21:30	21.15	1742	8.40	10.0	4-16-19 16:30	8.88	1128	8.15	10.4	4-16-19 16:30	7.37	673	8.25	9.8
1-16-19 4:30	-0.07	1437	7.91	1.0	1-16-19 4:00	0.25	1334	7.82	4.2	1-16-19 4:00	0.09	1562	8.37	73.8	6-15-19 21:45	21.22	1742	8.40	10.0	4-16-19 16:45	8.92	1127	8.15	9.0	4-16-19 16:45	7.41	672	8.25	9.2
1-16-19 4:45	-0.07	1437	7.91	1.0	1-16-19 4:15	0.23	1334	7.81	2.3	1-16-19 4:15	0.10	1562	8.37	74.9	6-15-19 22:00	21.51	1741	8.39	9.9	4-16-19 17:00	8.91	1126	8.15	8.1	4-16-19 17:00	7.45	672	8.26	11.9
1-16-19 5:00	-0.07	1437	7.91	1.0	1-16-19 4:30	0.22	1341	7.81	0.0	1-16-19 4:30	0.09	1560	8.37	73.0	6-15-19 22:15	21.82	1744	8.39	9.7	4-16-19 17:15	8.87	1132	8.15	8.2	4-16-19 17:15	7.48	671	8.26	15.1
1-16-19 5:15	-0.07	1453	7.90	1.2	1-16-19 4:45	0.19	1344	7.81	3.3	1-16-19 4:45	0.08	1548	8.37	70.8	6-15-19 22:30	22.29	1744	8.38	9.6	4-16-19 17:30	8.87	1125	8.15	7.2	4-16-19 17:30	7.50	670	8.25	18.0

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-16-19 5:30	-0.07	1454	7.91	1.0	1-16-19 5:00	0.17	1333	7.82	2.1	1-16-19 5:00	0.09	1539	8.37	64.4	6-15-19 22:45	22.41	1744	8.38	10.1	4-16-19 17:45	8.85	1125	8.15	7.8	4-16-19 17:45	7.52	669	8.26	20.6
1-16-19 5:45	-0.07	1454	7.91	1.0	1-16-19 5:15	0.17	1343	7.81	2.9	1-16-19 5:15	0.09	1535	8.37	63.4	6-15-19 23:00	22.68	1745	8.38	9.9	4-16-19 18:00	8.86	1128	8.15	7.9	4-16-19 18:00	7.53	669	8.26	26.7
1-16-19 6:00	-0.07	1454	7.91	1.0	1-16-19 5:30	0.18	1324	7.81	0.5	1-16-19 5:30	0.62	1536	8.42	75.6	6-15-19 23:15	22.80	1748	8.38	9.4	4-16-19 18:15	8.83	1127	8.15	6.8	4-16-19 18:15	7.57	675	8.26	28.5
1-16-19 6:15	-0.08	1435	7.90	1.3	1-16-19 5:45	0.18	1320	7.81	0.4	1-16-19 5:45	1.09	1543	8.56	84.1	6-15-19 23:30	23.43	1750	8.37	9.7	4-16-19 18:30	8.82	1126	8.15	8.2	4-16-19 18:30	7.58	674	8.26	35.1
1-16-19 6:30	-0.07	1435	7.91	1.0	1-16-19 6:00	0.17	1328	7.81	0.5	1-16-19 6:00	0.97	1563	8.43	85.9	6-15-19 23:45	23.39	1744	8.37	9.5	4-16-19 18:45	8.79	1128	8.15	8.0	4-16-19 18:45	7.59	674	8.25	40.6
1-16-19 6:45	-0.07	1435	7.91	1.0	1-16-19 6:15	0.16	1319	7.81	0.3	1-16-19 6:15	0.97	1562	8.40	83.0	6-16-19 0:00	22.50	1732	8.40	12.1	4-16-19 19:00	8.75	1129	8.15	6.7	4-16-19 19:00	7.59	672	8.25	48.9
1-16-19 7:00	-0.07	1435	7.91	1.0	1-16-19 6:30	0.15	1320	7.81	0.9	1-16-19 6:30	0.73	1565	8.34	72.6	6-16-19 0:15	22.47	1739	8.42	10.2	4-16-19 19:15	8.75	1128	8.15	6.9	4-16-19 19:15	7.57	672	8.26	57.4
1-16-19 7:15	-0.08	1450	7.91	1.2	1-16-19 6:45	0.15	1315	7.81	0.6	1-16-19 6:45	0.64	1567	8.33	71.4	6-16-19 0:30	22.56	1743	8.40	9.4	4-16-19 19:30	8.74	1130	8.15	7.8	4-16-19 19:30	7.57	674	8.26	69.4
1-16-19 7:30	-0.07	1450	7.92	1.1	1-16-19 7:00	0.14	1326	7.81	0.6	1-16-19 7:00	1.03	1542	8.42	81.5	6-16-19 0:45	23.11	1746	8.39	9.6	4-16-19 19:45	8.74	1133	8.15	7.8	4-16-19 19:45	7.53	672	8.26	80.1
1-16-19 7:45	-0.07	1450	7.91	1.0	1-16-19 7:15	0.15	1314	7.81	1.6	1-16-19 7:15	1.08	1541	8.42	77.7	6-16-19 1:00	22.95	1743	8.39	9.0	4-16-19 20:00	8.74	1136	8.15	8.0	4-16-19 20:00	7.48	674	8.26	88.8
1-16-19 8:00	-0.07	1450	7.91	1.0	1-16-19 7:30	0.15	1320	7.81	0.4	1-16-19 7:30	0.92	1542	8.41	78.2	6-16-19 1:15	22.95	1744	8.40	10.3	4-16-19 20:15	8.71	1125	8.15	8.3	4-16-19 20:15	7.39	673	8.27	93.9
1-16-19 8:15	-0.08	1436	7.91	1.0	1-16-19 7:45	0.14	1329	7.80	1.3	1-16-19 7:45	0.58	1545	8.37	72.8	6-16-19 1:30	23.14	1745	8.39	8.9	4-16-19 20:30	8.71	1127	8.15	7.5	4-16-19 20:30	7.37	673	8.26	101.0
1-16-19 8:30	-0.07	1435	7.92	1.0	1-16-19 8:00	0.14	1328	7.80	2.1	1-16-19 8:00	0.55	1567	8.33	69.4	6-16-19 1:45	23.23	1743	8.39	9.1	4-16-19 20:45	8.65	1128	8.15	8.2	4-16-19 20:45	7.29	673	8.26	81.6
1-16-19 8:45	-0.07	1435	7.92	1.0	1-16-19 8:15	0.14	1326	7.80	3.6	1-16-19 8:15	0.66	1566	8.36	73.7	6-16-19 2:00	23.11	1742	8.40	9.5	4-16-19 21:00	8.62	1128	8.15	7.8	4-16-19 21:00	7.29	673	8.27	16.3
1-16-19 9:00	-0.07	1435	7.92	1.0	1-16-19 8:30	0.13	1314	7.80	1.9	1-16-19 8:30	0.69	1564	8.40	77.9	6-16-19 2:15	23.06	1743	8.40	8.2	4-16-19 21:15	8.60	1120	8.15	8.0	4-16-19 21:15	7.28	672	8.26	12.7
1-16-19 9:15	-0.07	1447	7.91	1.2	1-16-19 8:45	0.12	1319	7.81	1.1	1-16-19 8:45	0.94	1570	8.46	89.1	6-16-19 2:30	22.88	1737	8.41	9.4	4-16-19 21:30	8.50	1124	8.15	8.9	4-16-19 21:30	7.21	670	8.27	14.4
1-16-19 9:30	-0.07	1448	7.92	1.0	1-16-19 9:00	0.14	1318	7.81	0.6	1-16-19 9:00	0.99	1549	8.48	87.6	6-16-19 2:45	22.54	1740	8.42	9.4	4-16-19 21:45	8.48	1127	8.16	8.1	4-16-19 21:45	7.22	670	8.26	14.1
1-16-19 9:45	-0.07	1448	7.92	1.0	1-16-19 9:15	0.14	1311	7.81	0.8	1-16-19 9:15	0.86	1532	8.45	77.1	6-16-19 3:00	22.51	1742	8.43	9.9	4-16-19 22:00	8.44	1126	8.16	7.4	4-16-19 22:00	7.25	670	8.26	15.3
1-16-19 10:00	-0.07	1448	7.92	1.0	1-16-19 9:30	0.14	1319	7.81	2.2	1-16-19 9:30	1.02	1542	8.46	83.1	6-16-19 3:15	22.51	1742	8.42	9.1	4-16-19 22:15	8.43	1126	8.16	8.5	4-16-19 22:15	7.22	670	8.27	16.9
1-16-19 10:15	-0.08	1428	7.91	1.1	1-16-19 9:45	0.15	1314	7.80	0.2	1-16-19 9:45	0.98	1539	8.47	84.2	6-16-19 3:30	22.61	1744	8.42	9.1	4-16-19 22:30	8.42	1139	8.16	8.2	4-16-19 22:30	7.18	670	8.26	15.5
1-16-19 10:30	-0.07	1427	7.92	1.0	1-16-19 10:00	0.15	1325	7.80	0.0	1-16-19 10:00	1.10	1564	8.51	95.8	6-16-19 3:45	22.78	1746	8.41	8.6	4-16-19 22:45	8.37	1132	8.16	6.2	4-16-19 22:45	7.12	669	8.27	16.4
1-16-19 10:45	-0.07	1427	7.92	1.0	1-16-19 10:15	0.15	1311	7.80	0.7	1-16-19 10:15	1.11	1556	8.50	91.1	6-16-19 4:00	22.86	1745	8.42	9.1	4-16-19 23:00	8.33	1129	8.16	7.1	4-16-19 23:00	7.09	670	8.27	17.6
1-16-19 11:00	-0.07	1427	7.92	1.0	1-16-19 10:30	0.15	1307	7.80	0.8	1-16-19 10:30	1.14	1558	8.49	91.6	6-16-19 4:15	22.77	1743	8.42	9.3	4-16-19 23:15	8.27	1130	8.16	6.2	4-16-19 23:15	7.05	668	8.27	17.9
1-16-19 11:15	-0.07	1443	7.92	1.2	1-16-19 10:45	0.14	1314	7.80	0.3	1-16-19 10:45	1.13	1559	8.51	94.7	6-16-19 4:30	22.69	1745	8.42	8.8	4-16-19 23:30	8.23	1113	8.16	6.8	4-16-19 23:30	7.05	669	8.27	19.1
1-16-19 11:30	-0.07	1443	7.93	1.0	1-16-19 11:00	0.14	1318	7.80	0.0	1-16-19 11:00	1.13	1534	8.50	85.5	6-16-19 4:45	22.59	1747	8.42	9.0	4-16-19 23:45	8.23	1127	8.16	7.6	4-16-19 23:45	7.05	668	8.27	9.5
1-16-19 11:45	-0.07	1443	7.92	1.0	1-16-19 11:15	0.14	1318	7.80	3.4	1-16-19 11:15	1.07	1539	8.50	85.9	6-16-19 5:00	22.54	1747	8.43	9.0	4-17-19 0:00	8.22	1130	8.16	7.0	4-17-19 0:00	7.05	668	8.27	12.7
1-16-19 12:00	-0.07	1443	7.93	1.0	1-16-19 11:30	0.14	1309	7.80	3.5	1-16-19 11:30	1.08	1538	8.51	80.1	6-16-19 5:15	22.47	1747	8.43	8.3	4-17-19 0:15	8.16	1131	8.16	8.1	4-17-19 0:15	6.97	667	8.27	12.6
1-16-19 12:15	-0.08	1431	7.92	1.1	1-16-19 11:45	0.19	1324	7.79	0.0	1-16-19 11:45	1.17	1538	8.51	88.5	6-16-19 5:30	22.42	1748	8.43	8.6	4-17-19 0:30	8.15	1133	8.16	7.0	4-17-19 0:30	6.91	667	8.27	13.3
1-16-19 12:30	-0.07	1431	7.93	1.0	1-16-19 12:00	0.16	1320	7.79	4.0	1-16-19 12:00	1.12	1558	8.51	89.8	6-16-19 5:45	22.34	1747	8.43	8.6	4-17-19 0:45	8.13	1128	8.16	7.3	4-17-19 0:45	6.92	667	8.27	13.8
1-16-19 12:45	-0.07	1431	7.93	1.0	1-16-19 12:15	0.14	1318	7.80	3.7	1-16-19 12:15	1.08	1556	8.50	87.9	6-16-19 6:00	22.27	1746	8.43	11.7	4-17-19 1:00	8.05	1129	8.17	8.3	4-17-19 1:00	6.83	667	8.27	14.6
1-16-19 13:00	-0.07	1431	7.93	1.1	1-16-19 12:30	0.17	1183	7.84	27.5	1-16-19 12:30	1.10	1558	8.51	90.6	6-16-19 6:15	22.23	1747	8.44	8.6	4-17-19 1:15	7.97	1130	8.17	7.1	4-17-19 1:15	6.86	667	8.27	15.0
1-16-19 13:15	-0.07	1446	7.92	1.3	1-16-19 12:45	0.36	1270	7.82	48.6	1-16-19 12:45	0.98	1561	8.50	86.7	6-16-19 6:30	22.15	1745	8.43	8.4	4-17-19 1:30	7.97	1132	8.17	8.5	4-17-19 1:30	6.78	658	8.27	16.6
1-16-19 13:30	-0.07	1446	7.94	1.0	1-16-19 13:00	0.29	1229	7.82	28.0	1-16-19 13:00	1.06	1537	8.51	84.7	6-16-19 6:45	22.10	1745	8.43	8.5	4-17-19 1:45	7.94	1131	8.17	7.2	4-17-19 1:45	6.81	668	8.27	17.5
1-16-19 13:45	-0.07	1446	7.93	1.0	1-16-19 13:15	0.24	1281	7.81	12.3	1-16-19 13:15	1.05	1539	8.51	81.4	6-16-19 7:00	22.02	1746	8.43	9.1	4-17-19 2:00	7.91	1132	8.17	7.5	4-17-19 2:00	6.78	668	8.27	18.6
1-16-19 14:00	-0.07	1446	7.93	1.0	1-16-19 13:30	0.22	1245	7.81	22.3	1-16-19 13:30	1.12	1541	8.50	84.7	6-16-19 7:15	21.91	1746	8.43	8.7	4-17-19 2:15	7.87	1134	8.17	6.6	4-17-19 2:15	6.76	668	8.27	21.7
1-16-19 14:15	-0.07	1430	7.92	1.0	1-16-19 13:45	0.22	1319	7.80	4.4	1-16-19 13:45	1.13	1538	8.51	87.2	6-16-19 7:30	21.87	1747	8.43	8.6	4-17-19 2:30	7.78	1132	8.17	5.0	4-17-19 2:30	6.74	667	8.27	27.8
1-16-19 14:30	-0.07	1430	7.93	1.1	1-16-19 14:00	0.18	1331	7.80	4.4	1-16-19 14:00	0.99	1559	8.50	88.3	6-16-19 7:45	21.80	1747	8.43	8.1	4-17-19 2:45	7.70	1128	8.17	7.5	4-17-19 2:45	6.64	667	8.27	26.7
1-16-19 14:45	-0.07	1430	7.93	1.0	1-16-19 14:15	0.19	1322	7.80	3.3	1-16-19 14:15	1.02	1556	8.50	88.1	6-16-19 8:00	21.75	1746	8.43	8.8	4-17-19 3:00	7.66	1133	8.17	7.0	4-17-19 3:00	6.62	667	8.27	27.7
1-16-19 15:00	-0.07	1430	7.93	1.0	1-16-19 14:30	0.20	1320	7.80	3.4	1-16-19 14:30	1.03	1558	8.50	88.0	6-16-19 8:15	21.69	1747	8.43	8.1	4-17-19 3:15	7.69	1131	8.17	6.6	4-17-19 3:15	6.65	668	8.27	28.8
1-16-19 15:15	-0.08	1450	7.92	1.1	1-16-19 14:45	0.21	1316	7.80	4.2	1-16-19 14:45	0.77	1551	8.50	85.3	6-16-19 8:30	21.63	1747	8.43	8.4	4-17-19 3:30	7.65	1135	8.17	8.8	4-17-19 3:30	6.62	667	8.27	30.9
1-16-19 15:30	-0.07	1452	7.94	1.0	1-16-19 15:00	0.20	1299	7.80	19.7	1-16-19 15:00	0.69	1535	8.50	74.8	6-16-19 8:45	21.52	1747	8.43	8.4	4-17-19 3:45	7.53	1137	8.17	6.8	4-17-19 3:45	6.53	667	8.27	32.1
1-16-19 15:45	-0.07	1452	7.93	1.0	1-16-19 15:15	0.21	1304	7.79	4.5	1-16-19 15:15	0.60	1534	8.50	73.9	6-16-19 9:00	21.45	1745	8.43	8.0	4-17-19 4:00	7.50	1136	8.17	7.6	4-17-19 4:00	6.56	667	8.27	33.7
1-16-19 16:00	-0.07	1452	7.93	1.0	1-16-19 15:30	0.19	1321	7.79	1.8	1-16-19 15:30	0.35	1510	8.50	67.6	6-16-19 9:15	21.41	1745	8.43	8.3	4-17-19 4:15	7.45	1134	8.17	6.6	4-17-19 4:15	6.58	666	8.26	35.3
1-16-19 16:15	-0.08	1425	7.92	1.1	1-16-19 15:45	0.18	1322	7.79	1.0	1-16-19 15:45	0.30	1516	8.49	65.0	6-16-19 9:30	21.33	1746	8.43	7.8	4-17-19 4:30	7.44	1132	8.17	5.2	4-17-19 4:30	6.59	667	8.26	37.8
1-16-19 16:30	-0.07	1425	7.94	1.1	1-16-19 16:00	0.19	1333	7.79	2.6	1-16-19 16:00	0.19	1494	8.45	57.7	6-16-19 9:45	21.26	1745	8.43	8.2	4-17-19 4:45	7.41	1132	8.17	5.2	4-17-19 4:45	6.53	666	8.26	39.3
1-16-19 16:45	-0.07	1424	7.93	0.9	1-16-19 16:15	0.19	1327	7.79	0.8	1-16-19 16:15	0.20	1496	8.45	61.1	6-16-19 10:00	21.23	1747	8.43	8.0	4-17-19 5:00	7.39	1132	8.17	5.8	4-17-19 5:00	6.51	667	8.26	40.6
1-16-19 17:00	-0.07	1424	7.93	1.0	1-16-19 16:30	0.20	1321	7.79	1.6	1-16-19 16:30	0.21	1499	8.43	56.4	6-16-19 10:15	21.15	1746	8.43	7.9	4-17-19 5:15	7.37	1134	8.17	6.7	4-17-19 5:15	6.52	666	8.26	42.0
1-16-19 17:15	-0.07	1453	7.93	1.2	1-16-19 16:45	0.19	1321	7.79	2.2	1-16-19 16:45	0.22	1502	8.42	57.1	6-16-19 10:30	21.09	1747	8.43	8.1	4-17-19 5:30	7.34	1132	8.17	6.1	4-17-19 5:30	6.52	666	8.26	43.8
1-16-19 17:30	-0.07	1453	7.94	1.0	1-16-19 17:00	0.19	1320	7.79	2.0	1-16-19 17:00	0.32	1517	8.44	58.9	6-16-19 10:45	21.01	1747	8.43	7.6	4-17-19 5:45	7.29	1134	8.17	7.3	4-17-19 5:45	6.54	667	8.27	44.3
1-16-19 17:45	-0.07	1452	7.93	1.0	1-16-19 17:15	0.18	1322	7.79	2.3	1-16-19 17:15	0.35	1533	8.44	63.3	6-16-19 11:00	20.94	1744	8.43	8.4	4-17-19 6:00	7.25	1132	8.17	7.0	4-17-19 6:00	6.44	666	8.26	45.4
1-16-19 18:00	-0.07	1452	7.93	1.1	1-16-19 17:30	0.18	1316	7.79	2.4	1-16-19 17:30	0.23	1492	8.47	54.1	6-16-19 11:15	20.89	1746	8.43	8.0	4-17-19 6:15	7.23	1135	8.17	6.2	4-17-19 6:15	6.40	667	8.26	46.6
1-16-19 18:15	-0.08	1426	7.92	1.0	1-16-19 17:45	0.18	1319	7.79	3.2	1-16-19 17:45	0.16	1452	8.46	50.5	6-16-19 11:30	20.83	1746	8.43	7.7	4-17-19 6:30	7.18	1133	8.17	6.6	4-17-19 6:30	6.29	668	8.26	46.9
1-16-19 18:30	-0.07	1425	7.94	1.0	1-16-19 18:00	0.17	1320	7.79	3.0	1-16-19 18:00	0.14	1459	8.44	52.5	6-16-19 11:45	20.77	1746	8.43	7.8	4-17-19 6:45	7.17	1133	8.17	5.2	4-17-19 6:45	6.28	667	8.27	47.5
1-16-19 18:45	-0.08	1425	7.94	1.0	1-16-19 18:15	0.16	1317	7.79	2.6	1-16-19 18:15	0.13	1466	8.43	53.3	6-16-19 12:00	20.73	1745	8.43	7.7	4-17-19 7:00	7.19	1133	8.17	5.9	4-17-19 7:00	6.20	666	8.26	49.8
1-16-19 19:00	-0.08	1425	7.93	1.0	1-16-19 18:30	0.15	1335	7.79	3.7	1-16-19 18:30	0.10	1448	8.47	54.1	6-16-19 12:15	20.65	1746	8.43	7.6	4-17-19 7:15	7.18	1131	8.17	5.1	4-17-19 7:15	6.31	667	8.27	47.9
1-16-19 19:15	-0.08	1444	7.92	1.2	1-16-19 18:45	0.16	1323	7.79	4.1	1-16-19 18:45	0.15	1508	8.45	60.6	6-16-19 12:30	20.60	1745	8.43	7.5	4-17-19 7:30	7.16	1134	8.17	6.1	4-17-19 7:30	6.42	666	8.27	48.7
1-16-19 19:30	-0.07	1444	7.94	1.0	1-16-19 19:00	0.16	1322	7.79	3.3	1-16-19 19:00	0.14	1494	8.45	56.2	6-16-19 12:45	20.51	1744	8.43	8.0	4-17-19 7:45	7.17	1133	8.17	6.3	4-17-19 7:45	6.38	666	8.27	49.8
1-16-19 19:45	-0.07	1444	7.94	1.0	1-16-19 19:15	0.16	1320	7.79	2.5	1-16-19 19:15	0.15	1534	8.45	61.5	6-16-19 13:00	20.52	1748	8.43	11.2	4-17-19 8:00	7.18	1134	8.18	6.2	4-17-19 8:00	6.45	666	8.27	51.5
1-16-19 20:00	-0.07	1444	7.94	1.0	1-16-19 19:30	0.16	1318	7.79	1.1	1-16-19 19:30	0.22	1541	8.47	68.1	6-16-19 13:15	20.46	1747	8.43	7.4	4-17-19 8:15	7.16	1134	8.18	4.7	4-17-19 8:15	6.38	666	8.27	52.5
1-16-19 20:15	-0.07	1423	7.93	1.0	1-16-19 19:45	0.15	1318	7.79	2.4	1-16-19 19:45	0.21	1539	8.46	63.4	6-16-19 13:30	20.46	1746	8.43	7.3	4-17-19 8:30	7.11	1132	8.17	5.3	4-17-19 8:30	6.38	668	8.27	80.4
1-16-19 20:30	-0.06	1422	7.94	1.0	1-16-19 20:00	0.15	1319	7.79	2.8	1-16-19 20:00	0.22	1546	8.46	68.7	6-16-19 13:45	20.48	1744	8.42	7.7	4-17-19 8:45	6.71	1143	8.09	18.5	4-17-19 8:45	6.43	666	8.27	76.8
1-16-19 20:45	-0.06	1422	7.94	1.0	1-16-19 20:15	0.15	1314	7.79	3.6	1-16-19 20:15	0.14	1445	8.42	45.9	6-16-19 14:00	20.51	1744	8.42	8.3	4-17-19 9:00	6.50	1136	8.11	13.5	4-17-19 9:00	6.50	664	8.27	65.6
1-16-19 21:00	-0.07	1422	7.93	1.4	1-16-19 20:30	0.14	1316	7.79	4.1	1-16-19 20:30	0.23	1554	8.47	80.9	6-16-19 14:15	20.56	1744	8.42	7.7	4-17-19 9:15	6.59	1137	8.11	10.9	4-17-19 9:15	6.53	665	8.27	70.1
1-16-19 21:15	-0.07	1446	7.93	1.3	1-16-19 20:45	0.14	1314	7.79	3.5	1-16-19 20:45	0.12	1444	8.43	45.3	6-16-19 14:30	20.55	1745	8.42	7.2	4-17-19 9:30	6.62	1134	8.12	11.4	4-17-19 9:30	6.56	665	8.27	70.0
1-16-19 21:30	-0.07	1446	7.94	1.1	1-16-19 21:00	0.13	1317	7.79	2.7	1-16-19 21:00	0.10	1450	8.45	39.5	6-16-19 14:45	20.56	1744	8.43	7.9	4-17-19 9:45	6.66	1134	8.12	10.1	4-17-19 9:45	6.60	666	8.27	39.1
1-16-19 21:45	-0.07	1447	7.93	1.1	1-16-19 21:15	0.13	1310	7.79	2.4	1-16-19 21:15	0.13	1518	8.46	57.1	6-16-19 15:00	20.61	1744	8.43	7.4	4-17-19 10:00	6.65	1137	8.11	11.5	4-17-19 10:00	6.61	665	8.27	38.2
1-16-19 22:00	-0.07	1447	7.93	1.1	1-16-19 21:30	0.13	1309	7.79	2.0	1-16-19 21:30	0.87	1535	8.48	82.9	6-16-19 15:15	20.64	1744	8.43	7.4	4-17-19 10:15	6.62	1149	8.11	12.5	4-17-19 10:15	6.64	667	8.27	38.0
1-16-19 22:15	-0.07	1422	7.92	1.1	1-16-19 21:45	0.13	1314	7.79	2.0	1-16-19 21:45	0.71	1540	8.48	77.3	6-16-19 15:30	20.66	1744	8.42	7.7	4-17-19 10:30	6.65	1133	8.12	14.8	4-17-19 10:30	6.77	666	8.27	69.1
1-16-19 22:30	-0.07	1421	7.93	1.0	1-16-19 22:00	0.11	1296	7.79	3.0	1-16-19 22:00	0.42	1566	8.43	75.6	6-16-19 15:45	20.73	1744	8.42	7.2	4-17-19 10:45	6.78	1130	8.12	13.5	4-17-19 10:45	6.94	665	8.27	58.0
1-16-19 22:45	-0.07	1421	7.93	1.0	1-16-19 22:15	0.13	1317	7.79	0.8	1-16-19 22:15	0.48	1567	8.43	75.6	6-16-19 16:00	20.78	1743	8.42	7.2	4-17-19 11:00	6.97	1141	8.13	11.2	4-17-19 11:00	7.17	665	8.27	69.6
1-16-19 23:00	-0.07	1421	7.93	1.0	1-16-19 22:30	0.30	1231	7.80	1.6	1-16-19 22:30	0.45	1568	8.44	78.7	6-16-19 16:15	20.84	1746	8.42	7.3	4-17-19 11:15	7.10	1128	8.13	14.9	4-17-19 11:15	7.25	665	8.27	82.6
1-16-19 23:15					1-16-19 22:45	0.60	1350	7.77	0.9	1-16-19 22:45	0.55	1568	8.46	80.6	6-16-19 16:30	20.95	1746	8.41	7.8	4-17-19 11:30	7.01	1134	8.14	11.6	4-17-19 11:30	7.27	666	8.27	51.5
1-16-19 23:30	-0.07	1442	7.94	1.1	1-16-19 23:00	0.92	1354	7.76	1.5	1-16-19 23:00	0.42	1545	8.44	69.9	6-16-19 16:45	21.08	1747	8.42	7.6	4-17-19 11:45	7.21	1138	8.14	12.6	4-17-19 11:45	7.40	666	8.26	41.1

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-16-19 23:45	-0.07	1442	7.94	1.0	1-16-19 23:15	0.95	1354	7.76	2.2	1-16-19 23:15	0.36	1541	8.44	68.0	6-16-19 17:00	21.23	1745	8.42	9.5	4-17-19 12:00	7.24	1138	8.15	12.2	4-17-19 12:00	7.48	665	8.26	37.1
1-17-19 0:00	-0.07	1442	7.94	1.0	1-16-19 23:30	0.94	1324	7.77	3.6	1-16-19 23:30	0.26	1538	8.44	60.7	6-16-19 17:15	21.28	1743	8.41	8.4	4-17-19 12:15	7.31	1136	8.15	12.4	4-17-19 12:15	7.47	663	8.26	38.8
1-17-19 0:15	-0.08	1421	7.93	1.0	1-16-19 23:45	0.54	1284	7.79	1.0	1-16-19 23:45	0.32	1533	8.44	59.4	6-16-19 17:30	21.38	1744	8.41	7.8	4-17-19 12:30	7.37	1136	8.15	11.9	4-17-19 12:30	7.53	663	8.26	38.1
1-17-19 0:30	-0.07	1420	7.94	1.0	1-17-19 0:00	0.55	1285	7.78	1.4	1-17-19 0:00	0.33	1546	8.44	67.2	6-16-19 17:45	21.46	1742	8.41	8.2	4-17-19 12:45	7.46	1134	8.16	14.4	4-17-19 12:45	7.66	663	8.26	44.1
1-17-19 0:45					1-17-19 0:15	0.53	1289	7.78	2.5	1-17-19 0:15	0.24	1557	8.43	70.0	6-16-19 18:00	21.52	1742	8.41	9.0	4-17-19 13:00	7.66	1130	8.16	12.5	4-17-19 13:00	7.87	661	8.26	47.3
1-17-19 1:00	-0.07	1421	7.94	1.1	1-17-19 0:30	0.44	1310	7.78	1.1	1-17-19 0:30	0.24	1566	8.45	76.6	6-16-19 18:15	21.57	1744	8.41	9.3	4-17-19 13:15	7.68	1137	8.16	13.2	4-17-19 13:15	7.99	660	8.26	39.0
1-17-19 1:15	-0.07	1438	7.93	1.2	1-17-19 0:45	0.38	1303	7.78	2.4	1-17-19 0:45	0.15	1563	8.45	74.6	6-16-19 18:30	21.63	1745	8.41	7.6	4-17-19 13:30	7.69	1133	8.16	14.5	4-17-19 13:30	8.17	660	8.26	43.6
1-17-19 1:30	-0.07	1439	7.94	1.1	1-17-19 1:00	0.33	1323	7.79	1.3	1-17-19 1:00	0.13	1542	8.45	60.8	6-16-19 18:45	21.65	1745	8.42	7.3	4-17-19 13:45	7.81	1137	8.16	13.8	4-17-19 13:45	8.30	658	8.26	44.8
1-17-19 1:45	-0.07	1438	7.94	1.0	1-17-19 1:15	0.30	1338	7.79	1.1	1-17-19 1:15	0.07	1524	8.44	56.4	6-16-19 19:00	21.73	1745	8.42	8.0	4-17-19 14:00	7.92	1138	8.16	13.9	4-17-19 14:00	8.39	659	8.26	61.6
1-17-19 2:00	-0.07	1438	7.94	1.0	1-17-19 1:30	0.27	1327	7.78	1.6	1-17-19 1:30	0.12	1526	8.44	56.3	6-16-19 19:15	21.79	1744	8.42	8.1	4-17-19 14:15	7.86	1134	8.17	15.6	4-17-19 14:15	8.37	663	8.26	34.0
1-17-19 2:15	-0.07	1420	7.92	1.1	1-17-19 1:45	0.26	1328	7.78	1.3	1-17-19 1:45	0.17	1542	8.44	61.6	6-16-19 19:30	21.89	1749	8.43	7.7	4-17-19 14:30	7.93	1129	8.17	15.0	4-17-19 14:30	8.21	663	8.26	33.3
1-17-19 2:30	-0.07	1420	7.94	1.0	1-17-19 2:00	0.24	1327	7.78	1.2	1-17-19 2:00	0.15	1560	8.44	69.1	6-16-19 19:45	22.03	1747	8.42	7.8	4-17-19 14:45	8.08	1134	8.17	14.7	4-17-19 14:45	8.34	661	8.26	33.5
1-17-19 2:45	-0.07	1420	7.93	1.0	1-17-19 2:15	0.23	1330	7.79	0.9	1-17-19 2:15	0.12	1554	8.43	65.8	6-16-19 20:00	22.25	1749	8.42	8.4	4-17-19 15:00	8.43	1134	8.17	14.3	4-17-19 15:00	8.67	662	8.26	31.8
1-17-19 3:00	-0.07	1420	7.93	1.0	1-17-19 2:30	0.23	1322	7.79	1.1	1-17-19 2:30	0.11	1551	8.43	64.0	6-16-19 20:15	22.83	1753	8.41	8.2	4-17-19 15:15	8.61	1132	8.17	16.9	4-17-19 15:15	8.82	657	8.25	38.0
1-17-19 3:15	-0.07	1435	7.93	1.2	1-17-19 2:45	0.23	1317	7.79	0.7	1-17-19 2:45	0.11	1550	8.43	63.6	6-16-19 20:30	23.56	1755	8.39	7.4	4-17-19 15:30	8.54	1131	8.17	14.6	4-17-19 15:30	8.91	661	8.26	40.9
1-17-19 3:30	-0.07	1435	7.94	1.1	1-17-19 3:00	0.25	1320	7.79	2.1	1-17-19 3:00	0.10	1527	8.44	56.7	6-16-19 20:45	23.70	1753	8.40	7.9	4-17-19 15:45	8.63	1130	8.17	14.6	4-17-19 15:45	9.13	658	8.25	36.9
1-17-19 3:45	-0.07	1436	7.94	1.1	1-17-19 3:15	0.25	1311	7.79	2.8	1-17-19 3:15	0.11	1530	8.44	55.0	6-16-19 21:00	23.99	1756	8.40	7.9	4-17-19 16:00	8.53	1135	8.17	14.3	4-17-19 16:00	9.19	648	8.26	45.5
1-17-19 4:00	-0.07	1436	7.94	1.0	1-17-19 3:30	0.22	1316	7.79	0.9	1-17-19 3:30	0.12	1533	8.44	56.0	6-16-19 21:15	24.09	1754	8.40	7.6	4-17-19 16:15	8.42	1129	8.17	18.5	4-17-19 16:15	9.17	651	8.26	44.1
1-17-19 4:15	-0.07	1421	7.93	1.1	1-17-19 3:45	0.19	1314	7.79	2.6	1-17-19 3:45	0.10	1532	8.44	56.6	6-16-19 21:30	24.06	1759	8.40	7.5	4-17-19 16:30	8.66	1131	8.17	15.8	4-17-19 16:30	9.18	650	8.26	81.2
1-17-19 4:30	-0.07	1421	7.94	1.0	1-17-19 4:00	0.15	1298	7.79	5.6	1-17-19 4:00	0.10	1548	8.44	64.7	6-16-19 21:45	24.06	1757	8.41	7.5	4-17-19 16:45	8.71	1135	8.17	16.7	4-17-19 16:45	9.21	656	8.26	92.8
1-17-19 4:45	-0.07	1421	7.94	1.0	1-17-19 4:15	0.54	1357	7.77	3.6	1-17-19 4:15	0.09	1544	8.44	64.2	6-16-19 22:00	24.14	1755	8.41	7.8	4-17-19 17:00	8.69	1135	8.18	17.0	4-17-19 17:00	9.25	654	8.26	77.8
1-17-19 5:00	-0.07	1421	7.94	1.0	1-17-19 4:30	1.00	1356	7.76	4.2	1-17-19 4:30	0.08	1545	8.44	64.9	6-16-19 22:15	24.12	1754	8.41	7.6	4-17-19 17:15	8.80	1136	8.18	17.2	4-17-19 17:15	9.23	653	8.26	65.6
1-17-19 5:15					1-17-19 4:45	0.82	1309	7.78	3.8	1-17-19 4:45	0.08	1546	8.44	64.7	6-16-19 22:30	24.21	1754	8.41	7.5	4-17-19 17:30	8.84	1137	8.18	17.1	4-17-19 17:30	9.14	649	8.27	74.9
1-17-19 5:30	-0.07	1445	7.94	1.0	1-17-19 5:00	0.70	1313	7.78	3.2	1-17-19 5:00	0.08	1526	8.45	57.2	6-16-19 22:45	24.34	1757	8.42	8.3	4-17-19 17:45	8.63	1133	8.18	19.5	4-17-19 17:45	9.06	646	8.27	90.5
1-17-19 5:45	-0.07	1445	7.94	1.0	1-17-19 5:15	0.72	1335	7.78	2.7	1-17-19 5:15	0.07	1539	8.45	58.0	6-16-19 23:00	24.34	1758	8.41	7.8	4-17-19 18:00	8.54	1134	8.18	23.8	4-17-19 18:00	8.95	653	8.27	142.2
1-17-19 6:00	-0.07	1445	7.94	1.0	1-17-19 5:30	0.69	1324	7.78	2.7	1-17-19 5:30	0.06	1542	8.46	58.3	6-16-19 23:15	24.36	1758	8.42	8.0	4-17-19 18:15	8.50	1133	8.18	18.1	4-17-19 18:15	8.91	644	8.27	95.8
1-17-19 6:15	-0.07	1420	7.93	1.1	1-17-19 5:45	0.71	1350	7.78	3.2	1-17-19 5:45	0.06	1538	8.46	57.2	6-16-19 23:30	24.39	1757	8.42	7.4	4-17-19 18:30	8.55	1134	8.18	17.4	4-17-19 18:30	8.85	665	8.27	54.5
1-17-19 6:30	-0.07	1420	7.95	1.0	1-17-19 6:00	0.74	1326	7.77	3.8	1-17-19 6:00	0.05	1539	8.45	61.4	6-16-19 23:45	24.40	1760	8.43	8.1	4-17-19 18:45	8.54	1131	8.18	16.5	4-17-19 18:45	8.84	673	8.27	66.6
1-17-19 6:45	-0.07	1420	7.94	1.0	1-17-19 6:15	1.11	1348	7.77	3.0	1-17-19 6:15	0.06	1552	8.44	63.9	6-17-19 0:00	24.48	1758	8.43	7.5	4-17-19 19:00	8.51	1134	8.19	15.6	4-17-19 19:00	8.84	672	8.27	44.8
1-17-19 7:00	-0.07	1420	7.94	1.0	1-17-19 6:30	1.25	1362	7.76	3.0	1-17-19 6:30	0.06	1549	8.44	60.5	6-17-19 0:15	24.49	1760	8.42	7.8	4-17-19 19:15	8.50	1130	8.19	15.9	4-17-19 19:15	8.84	672	8.27	57.0
1-17-19 7:15	-0.07	1433	7.94	1.2	1-17-19 6:45	1.28	1358	7.76	4.5	1-17-19 6:45	0.06	1548	8.44	62.2	6-17-19 0:30	24.55	1757	8.43	8.5	4-17-19 19:30	8.53	1134	8.19	16.0	4-17-19 19:30	8.86	671	8.28	49.3
1-17-19 7:30	-0.07	1434	7.95	1.1	1-17-19 7:00	1.25	1373	7.75	2.9	1-17-19 7:00	0.05	1521	8.45	53.3	6-17-19 0:45	24.49	1755	8.44	7.7	4-17-19 19:45	8.51	1134	8.20	14.5	4-17-19 19:45	8.79	669	8.28	49.5
1-17-19 7:45	-0.07	1434	7.95	1.1	1-17-19 7:15	1.15	1357	7.76	2.9	1-17-19 7:15	0.06	1525	8.45	55.6	6-17-19 1:00	24.58	1760	8.43	8.0	4-17-19 20:00	8.50	1134	8.20	15.3	4-17-19 20:00	8.68	671	8.28	43.5
1-17-19 8:00	-0.07	1434	7.94	1.1	1-17-19 7:30	1.04	1347	7.76	3.4	1-17-19 7:30	0.06	1531	8.45	53.6	6-17-19 1:15	24.53	1755	8.43	7.1	4-17-19 20:15	8.47	1133	8.20	15.2	4-17-19 20:15	8.58	671	8.28	57.1
1-17-19 8:15	-0.07	1420	7.94	1.0	1-17-19 7:45	1.12	1371	7.76	0.5	1-17-19 7:45	0.06	1537	8.46	55.3	6-17-19 1:30	24.61	1759	8.43	7.6	4-17-19 20:30	8.47	1133	8.20	13.5	4-17-19 20:30	8.43	671	8.29	64.9
1-17-19 8:30	-0.07	1420	7.95	1.0	1-17-19 8:00	1.18	1371	7.76	3.9	1-17-19 8:00	0.06	1555	8.46	65.2	6-17-19 1:45	24.66	1757	8.44	8.1	4-17-19 20:45	8.46	1133	8.20	14.8	4-17-19 20:45	8.41	672	8.29	71.5
1-17-19 8:45	-0.07	1420	7.95	0.9	1-17-19 8:15	1.03	1351	7.76	4.6	1-17-19 8:15	0.05	1550	8.45	64.1	6-17-19 2:00	24.62	1758	8.44	8.3	4-17-19 21:00	8.41	1133	8.20	13.0	4-17-19 21:00	8.40	670	8.29	70.4
1-17-19 9:00	-0.07	1420	7.95	1.0	1-17-19 8:30	1.00	1359	7.76	0.0	1-17-19 8:30	0.05	1548	8.44	63.4	6-17-19 2:15	24.62	1759	8.44	7.7	4-17-19 21:15	8.43	1131	8.20	14.5	4-17-19 21:15	8.37	703	8.29	90.9
1-17-19 9:15	-0.07	1428	7.94	1.1	1-17-19 8:45	1.06	1357	7.76	0.0	1-17-19 8:45	0.04	1544	8.44	62.8	6-17-19 2:30	24.61	1757	8.44	8.0	4-17-19 21:30	8.39	1134	8.20	12.9	4-17-19 21:30	8.38	678	8.29	124.4
1-17-19 9:30	-0.07	1429	7.95	1.0	1-17-19 9:00	1.06	1357	7.76	3.3	1-17-19 9:00	0.05	1524	8.45	56.1	6-17-19 2:45	24.58	1762	8.44	7.7	4-17-19 21:45	8.38	1131	8.20	13.7	4-17-19 21:45	8.34	678	8.29	142.0
1-17-19 9:45	-0.07	1429	7.95	1.0	1-17-19 9:15	0.99	1351	7.77	2.4	1-17-19 9:15	0.05	1528	8.45	53.9	6-17-19 3:00	24.52	1761	8.44	7.9	4-17-19 22:00	8.39	1135	8.20	14.1	4-17-19 22:00	8.35	678	8.29	119.3
1-17-19 10:00	-0.07	1429	7.95	1.0	1-17-19 9:30	1.02	1353	7.76	1.6	1-17-19 9:30	0.05	1539	8.45	55.4	6-17-19 3:15	24.16	1753	8.44	7.5	4-17-19 22:15	8.39	1134	8.20	13.3	4-17-19 22:15	8.29	679	8.29	144.4
1-17-19 10:15	-0.07	1418	7.94	1.1	1-17-19 9:45	1.03	1371	7.76	3.1	1-17-19 9:45	0.04	1543	8.46	58.6	6-17-19 3:30	23.83	1752	8.44	7.6	4-17-19 22:30	8.35	1130	8.20	15.9	4-17-19 22:30	8.26	678	8.29	119.5
1-17-19 10:30	-0.07	1418	7.95	1.0	1-17-19 10:00	1.10	1366	7.76	3.9	1-17-19 10:00	0.04	1560	8.46	63.5	6-17-19 3:45	23.76	1751	8.45	7.6	4-17-19 22:45	8.31	1138	8.20	11.9	4-17-19 22:45	8.26	678	8.29	112.8
1-17-19 10:45	-0.07	1417	7.95	1.0	1-17-19 10:15	1.07	1363	7.76	1.7	1-17-19 10:15	0.03	1559	8.45	62.8	6-17-19 4:00	23.89	1754	8.45	7.9	4-17-19 23:00	8.58	1143	8.22	16.3	4-17-19 23:00	8.19	678	8.29	116.7
1-17-19 11:00	-0.07	1417	7.95	1.0	1-17-19 10:30	1.11	1377	7.76	5.1	1-17-19 10:30	0.03	1559	8.45	63.1	6-17-19 4:15	24.01	1757	8.45	7.6	4-17-19 23:15	8.72	1140	8.21	16.0	4-17-19 23:15	8.15	678	8.29	138.5
1-17-19 11:15	-0.07	1435	7.95	1.1	1-17-19 10:45	1.06	1358	7.76	1.3	1-17-19 10:45	0.03	1562	8.45	62.0	6-17-19 4:30	23.98	1758	8.45	7.7	4-17-19 23:30	8.70	1138	8.21	16.1	4-17-19 23:30	8.16	678	8.29	138.4
1-17-19 11:30	-0.07	1436	7.96	1.0	1-17-19 11:00	1.04	1370	7.76	2.1	1-17-19 11:00	0.03	1545	8.45	52.3	6-17-19 4:45	23.93	1756	8.46	7.3	4-17-19 23:45	8.67	1140	8.21	14.7	4-17-19 23:45	8.08	678	8.29	140.9
1-17-19 11:45	-0.07	1436	7.95	1.0	1-17-19 11:15	0.95	1346	7.76	1.9	1-17-19 11:15	0.03	1549	8.46	50.9	6-17-19 5:00	23.79	1757	8.46	7.1	4-18-19 0:00	8.62	1136	8.21	14.3	4-18-19 0:00	8.09	678	8.29	136.0
1-17-19 12:00	-0.07	1436	7.95	0.9	1-17-19 11:30	0.87	1355	7.76	0.0	1-17-19 11:30	0.02	1549	8.46	52.8	6-17-19 5:15	23.74	1758	8.46	7.5	4-18-19 0:15	8.57	1138	8.21	14.8	4-18-19 0:15	8.04	678	8.29	150.9
1-17-19 12:15	-0.07	1417	7.94	1.0	1-17-19 11:45	0.71	1353	7.77	0.5	1-17-19 11:45	0.11	1531	8.46	61.8	6-17-19 5:30	23.64	1756	8.46	8.0	4-18-19 0:30	8.56	1140	8.21	16.2	4-18-19 0:30	8.00	678	8.29	151.9
1-17-19 12:30	-0.07	1417	7.96	1.0	1-17-19 12:00	0.71	1366	7.76	3.8	1-17-19 12:00	0.06	1556	8.45	63.6	6-17-19 5:45	23.58	1758	8.46	7.5	4-18-19 0:45	8.49	1139	8.22	13.3	4-18-19 0:45	7.95	678	8.29	157.3
1-17-19 12:45	-0.07	1417	7.95	1.0	1-17-19 12:15	0.62	1344	7.77	0.1	1-17-19 12:15	0.05	1554	8.45	62.4	6-17-19 6:00	23.49	1757	8.46	7.4	4-18-19 1:00	8.46	1138	8.22	15.0	4-18-19 1:00	7.94	679	8.29	164.3
1-17-19 13:00	-0.07	1417	7.95	0.9	1-17-19 12:30	0.45	1350	7.77	3.3	1-17-19 12:30	0.04	1554	8.45	62.8	6-17-19 6:15	23.38	1757	8.45	7.5	4-18-19 1:15	8.47	1140	8.22	14.8	4-18-19 1:15	7.95	680	8.29	158.3
1-17-19 13:15	-0.07	1436	7.95	1.1	1-17-19 12:45	0.73	1353	7.76	0.2	1-17-19 12:45	0.04	1557	8.45	62.4	6-17-19 6:30	23.30	1757	8.45	7.3	4-18-19 1:30	8.43	1141	8.22	14.9	4-18-19 1:30	7.97	679	8.28	161.4
1-17-19 13:30	-0.07	1438	7.96	1.0	1-17-19 13:00	1.05	1364	7.76	0.2	1-17-19 13:00	0.04	1536	8.46	52.8	6-17-19 6:45	23.21	1756	8.45	7.1	4-18-19 1:45	8.39	1138	8.22	14.5	4-18-19 1:45	8.01	680	8.28	162.1
1-17-19 13:45	-0.07	1438	7.95	1.0	1-17-19 13:15	1.09	1363	7.76	0.2	1-17-19 13:15	0.05	1543	8.46	53.2	6-17-19 7:00	23.12	1757	8.46	6.9	4-18-19 2:00	8.36	1136	8.22	13.5	4-18-19 2:00	8.04	679	8.28	163.7
1-17-19 14:00	-0.07	1438	7.95	1.0	1-17-19 13:30	1.05	1362	7.75	0.8	1-17-19 13:30	0.04	1548	8.46	53.0	6-17-19 7:15	23.05	1759	8.46	7.0	4-18-19 2:15	8.37	1136	8.21	12.6	4-18-19 2:15	8.02	679	8.28	174.8
1-17-19 14:15	-0.07	1414	7.94	1.0	1-17-19 13:45	1.00	1366	7.75	0.6	1-17-19 13:45	0.03	1548	8.46	52.6	6-17-19 7:30	22.96	1756	8.46	7.2	4-18-19 2:30	8.35	1135	8.21	13.3	4-18-19 2:30	7.93	679	8.28	181.0
1-17-19 14:30	-0.07	1414	7.96	0.9	1-17-19 14:00	1.07	1363	7.75	0.2	1-17-19 14:00	0.03	1566	8.45	60.8	6-17-19 7:45	22.88	1756	8.46	6.8	4-18-19 2:45	8.33	1137	8.21	12.5	4-18-19 2:45	7.88	676	8.28	174.0
1-17-19 14:45	-0.07	1414	7.95	1.0	1-17-19 14:15	1.06	1368	7.75	0.7	1-17-19 14:15	0.02	1564	8.45	59.4	6-17-19 8:00	22.81	1753	8.46	7.0	4-18-19 3:00	8.31	1137	8.21	14.8	4-18-19 3:00	7.82	683	8.28	91.0
1-17-19 15:00	-0.07	1414	7.95	0.9	1-17-19 14:30	0.76	1369	7.75	0.1	1-17-19 14:30	0.02	1564	8.45	58.4	6-17-19 8:15	22.77	1752	8.46	6.6	4-18-19 3:15	8.27	1136	8.21	12.9	4-18-19 3:15	7.76	682	8.28	90.0
1-17-19 15:15	-0.07	1433	7.95	1.2	1-17-19 14:45	0.90	1365	7.76	0.0	1-17-19 14:45	0.02	1566	8.45	58.0	6-17-19 8:30	22.65	1753	8.47	6.7	4-18-19 3:30	8.22	1140	8.22	11.7	4-18-19 3:30	7.79	684	8.28	88.6
1-17-19 15:30	-0.07	1434	7.96	1.0	1-17-19 15:00	0.99	1366	7.75	0.8	1-17-19 15:00	0.02	1545	8.46	50.8	6-17-19 8:45	22.53	1752	8.47	7.1	4-18-19 3:45	8.24	1138	8.22	13.7	4-18-19 3:45	7.75	684	8.28	95.6
1-17-19 15:45	-0.07	1434	7.96	1.0	1-17-19 15:15	0.81	1371	7.75	0.1	1-17-19 15:15	0.02	1549	8.46	49.2	6-17-19 9:00	22.50	1754	8.46	6.4	4-18-19 4:00	8.17	1138	8.22	11.7	4-18-19 4:00	7.77	675	8.28	88.1
1-17-19 16:00	-0.07	1434	7.95	1.0	1-17-19 15:30	0.57	1358	7.76	0.4	1-17-19 15:30	0.02	1550	8.45	49.2	6-17-19 9:15	22.42	1755	8.46	7.0	4-18-19 4:15	8.17	1141	8.22	14.0	4-18-19 4:15	7.73	675	8.28	93.8
1-17-19 16:15	-0.07	1416	7.94	1.0	1-17-19 15:45	0.57	1367	7.76	0.1	1-17-19 15:45	0.02	1549	8.46	48.1	6-17-19 9:30	22.33	1754	8.46	6.8	4-18-19 4:30	8.15	1137	8.22	12.0	4-18-19 4:30	7.72	676	8.28	91.5
1-17-19 16:30	-0.07	1416	7.96	0.9	1-17-19 16:00	0.86	1372	7.75	0.4	1-17-19 16:00	0.02	1571	8.45	55.3	6-17-19 9:45	22.27	1755	8.46	7.0	4-18-19 4:45	8.11	1137	8.22	10.1	4-18-19 4:45	7.72	675	8.28	72.5
1-17-19 16:45	-0.07	1416	7.95	1.0	1-17-19 16:15	0.92	1364	7.75	0.4	1-17-19 16:15	0.02	1571	8.45	54.8	6-17-19 10:00	22.24	1754	8.46	6.9	4-18-19 5:00	8.09	1141	8.22	10.3	4-18-19 5:00	7.79	675	8.28	78.5
1-17-19 17:00	-0.07	1416	7.95	0.9	1-17-19 16:30	0.74	1367	7.75	0.1	1-17-19 16:30	0.02	1570	8.44	55.4	6-17-19 10:15	22.21	1754	8.46	8.1	4-18-19 5:15	8.11	1141	8.22	11.2	4-18-19 5:15	7.70	676	8.28	80.9
1-17-19 17:15	-0.08	1444	7.95	1.2	1-17-19 16:45	0.79	1380	7.75	1.2	1-17-19 16:45	0.02	1570	8.45	56.3	6-17-19 10:30	22.13	1754	8.46	6.5	4-18-19 5:30	8.14	1141	8.22	12.2	4-18-19 5:30	7.70	677	8.28	80.8
1-17-19 17:30	-0.07	1446	7.96	0.9	1-17-19 17:00	0.74	1373	7.75	0.6	1-17-19 17:00	0.01	1549	8.45	48.5	6-17-19 10:45	22.06	1753	8.45	6.5	4-18-19 5:45	8.14	1136	8.22	10.7	4-18-19 5:45	7.68	678	8.28	82.0
1-17-19 17:45	-0.07	1447	7.95	1.0	1-17-19 17:15	0.57	1368	7.76	0.4	1-17-19 17:15	0.02	1552	8.45	48.4	6-17-19 11:00	21.98	1754	8.45	7.0	4-18-19 6:00	8.13	1140	8.22	10.6	4-18-19 6:00	7.62	677	8.28	83.4

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-17-19 18:00	-0.07	1447	7.95	0.9	1-17-19 17:30	0.53	1388	7.75	5.0	1-17-19 17:30	0.02	1553	8.45	47.1	6-17-19 11:15	21.94	1753	8.45	7.3	4-18-19 6:15	8.09	1140	8.22	11.4	4-18-19 6:15	7.64	677	8.28	85.4
1-17-19 18:15	-0.07	1413	7.94	1.1	1-17-19 17:45	0.46	1355	7.76	1.5	1-17-19 17:45	0.01	1551	8.45	44.3	6-17-19 11:30	21.89	1755	8.45	6.7	4-18-19 6:30	8.10	1139	8.22	12.1	4-18-19 6:30	7.66	677	8.28	86.7
1-17-19 18:30	-0.07	1414	7.96	1.0	1-17-19 18:00	0.40	1350	7.76	4.0	1-17-19 18:00	0.01	1571	8.45	56.0	6-17-19 11:45	21.80	1753	8.45	7.0	4-18-19 6:45	8.10	1137	8.22	10.8	4-18-19 6:45	7.63	677	8.28	87.7
1-17-19 18:45	-0.07	1414	7.95	1.0	1-17-19 18:15	0.43	1357	7.76	4.6	1-17-19 18:15	0.01	1568	8.44	54.0	6-17-19 12:00	21.74	1753	8.45	6.7	4-18-19 7:00	8.09	1140	8.22	10.4	4-18-19 7:00	7.61	676	8.28	89.0
1-17-19 19:00	-0.07	1414	7.95	0.9	1-17-19 18:30	0.40	1359	7.76	3.3	1-17-19 18:30	0.01	1568	8.45	55.9	6-17-19 12:15	21.64	1752	8.45	7.2	4-18-19 7:15	8.09	1135	8.22	12.3	4-18-19 7:15	7.61	676	8.28	90.7
1-17-19 19:15	-0.07	1423	7.95	1.1	1-17-19 18:45	0.37	1354	7.76	4.9	1-17-19 18:45	0.01	1569	8.45	58.2	6-17-19 12:30	21.57	1752	8.45	7.3	4-18-19 7:30	8.06	1139	8.22	10.3	4-18-19 7:30	7.61	677	8.28	90.6
1-17-19 19:30	-0.07	1424	7.95	1.0	1-17-19 19:00	0.35	1365	7.76	3.8	1-17-19 19:00	0.01	1550	8.45	48.8	6-17-19 12:45	21.53	1753	8.45	6.5	4-18-19 7:45	8.07	1139	8.22	13.1	4-18-19 7:45	7.61	674	8.28	90.5
1-17-19 19:45	-0.07	1424	7.95	1.1	1-17-19 19:15	0.32	1352	7.76	4.3	1-17-19 19:15	0.01	1551	8.46	48.4	6-17-19 13:00	21.46	1753	8.45	6.7	4-18-19 8:00	8.11	1137	8.22	11.0	4-18-19 8:00	7.69	675	8.28	92.6
1-17-19 20:00	-0.06	1424	7.95	1.0	1-17-19 19:30	0.29	1357	7.76	3.4	1-17-19 19:30	0.01	1551	8.46	48.0	6-17-19 13:15	21.40	1754	8.45	6.6	4-18-19 8:15	8.12	1137	8.22	10.9	4-18-19 8:15	7.70	673	8.28	93.4
1-17-19 20:15	-0.07	1414	7.94	1.1	1-17-19 19:45	0.27	1366	7.76	0.0	1-17-19 19:45	0.01	1550	8.46	47.7	6-17-19 13:30	21.40	1753	8.45	6.5	4-18-19 8:30	8.16	1143	8.22	9.8	4-18-19 8:30	7.75	673	8.28	119.1
1-17-19 20:30	-0.07	1414	7.95	1.0	1-17-19 20:00	0.25	1353	7.76	6.1	1-17-19 20:00	0.01	1570	8.45	58.2	6-17-19 13:45	21.39	1753	8.45	6.8	4-18-19 8:45	8.22	1136	8.22	9.8	4-18-19 8:45	7.83	674	8.28	117.2
1-17-19 20:45	-0.07	1414	7.95	1.0	1-17-19 20:15	0.21	1360	7.76	1.0	1-17-19 20:15	0.01	1567	8.45	58.2	6-17-19 14:00	21.29	1752	8.45	6.6	4-18-19 9:00	8.26	1136	8.22	10.6	4-18-19 9:00	7.86	674	8.29	114.1
1-17-19 21:00	-0.07	1414	7.95	1.0	1-17-19 20:30	0.20	1356	7.76	1.1	1-17-19 20:30	0.01	1569	8.45	58.6	6-17-19 14:15	21.35	1753	8.45	6.4	4-18-19 9:15	8.33	1135	8.22	10.4	4-18-19 9:15	7.98	674	8.29	129.9
1-17-19 21:15	-0.07	1433	7.94	1.2	1-17-19 20:45	0.17	1356	7.76	4.5	1-17-19 20:45	0.01	1567	8.45	57.8	6-17-19 14:30	21.39	1753	8.45	6.7	4-18-19 9:30	8.43	1135	8.22	10.9	4-18-19 9:30	8.14	673	8.28	117.3
1-17-19 21:30	-0.07	1434	7.95	1.0	1-17-19 21:00	0.18	1361	7.76	1.1	1-17-19 21:00	0.01	1550	8.46	47.5	6-17-19 14:45	21.45	1754	8.45	7.4	4-18-19 9:45	8.47	1134	8.22	10.8	4-18-19 9:45	8.31	672	8.28	122.4
1-17-19 21:45	-0.07	1434	7.95	1.0	1-17-19 21:15	0.18	1361	7.76	1.4	1-17-19 21:15	0.01	1549	8.46	46.7	6-17-19 15:00	21.51	1751	8.45	6.7	4-18-19 10:00	8.41	1135	8.21	11.6	4-18-19 10:00	8.52	671	8.28	130.5
1-17-19 22:00	-0.07	1434	7.95	1.0	1-17-19 21:30	0.17	1363	7.76	0.7	1-17-19 21:30	0.01	1553	8.46	48.0	6-17-19 15:15	21.58	1751	8.45	6.5	4-18-19 10:15	8.29	1129	8.20	11.5	4-18-19 10:15	8.40	671	8.28	132.7
1-17-19 22:15	-0.07	1413	7.94	1.1	1-17-19 21:45	0.17	1362	7.76	1.1	1-17-19 21:45	0.01	1551	8.46	48.2	6-17-19 15:30	21.62	1751	8.44	6.8	4-18-19 10:30	8.43	1131	8.20	12.0	4-18-19 10:30	8.45	670	8.28	161.1
1-17-19 22:30	-0.07	1413	7.95	0.9	1-17-19 22:00	0.16	1358	7.76	1.4	1-17-19 22:00	0.01	1568	8.45	57.6	6-17-19 15:45	21.65	1754	8.45	8.2	4-18-19 10:45	8.40	1134	8.19	10.4	4-18-19 10:45	8.40	666	8.28	176.3
1-17-19 22:45	-0.07	1412	7.94	1.0	1-17-19 22:15	0.16	1361	7.76	0.2	1-17-19 22:15	0.01	1564	8.45	55.2	6-17-19 16:00	21.70	1753	8.44	7.7	4-18-19 11:00	8.56	1136	8.20	10.2	4-18-19 11:00	8.47	664	8.28	63.4
1-17-19 23:00					1-17-19 22:30	0.14	1363	7.76	4.4	1-17-19 22:30	0.01	1565	8.45	54.4	6-17-19 16:15	21.73	1752	8.44	7.8	4-18-19 11:15	8.55	1137	8.20	10.6	4-18-19 11:15	8.60	666	8.28	61.7
1-17-19 23:15	-0.07	1431	7.93	1.2	1-17-19 22:45	0.13	1369	7.76	1.6	1-17-19 22:45	0.01	1566	8.45	56.6	6-17-19 16:30	21.78	1752	8.44	7.6	4-18-19 11:30	8.89	1132	8.20	10.7	4-18-19 11:30	9.04	662	8.28	47.1
1-17-19 23:30	-0.07	1430	7.94	1.0	1-17-19 23:00	0.13	1373	7.76	0.4	1-17-19 23:00	0.01	1547	8.46	46.8	6-17-19 16:45	21.82	1753	8.44	7.2	4-18-19 11:45	8.89	1141	8.20	17.3	4-18-19 11:45	8.97	664	8.28	45.4
1-17-19 23:45	-0.07	1431	7.94	1.0	1-17-19 23:15	0.12	1363	7.76	0.3	1-17-19 23:15	0.01	1550	8.46	46.6	6-17-19 17:00	21.98	1752	8.43	7.8	4-18-19 12:00	9.01	1132	8.21	18.2	4-18-19 12:00	9.02	664	8.27	60.8
1-18-19 0:00	-0.07	1431	7.94	1.0	1-17-19 23:30	0.12	1361	7.76	0.5	1-17-19 23:30	0.01	1550	8.46	46.5	6-17-19 17:15	21.99	1754	8.44	8.3	4-18-19 12:15	9.00	1140	8.20	12.3	4-18-19 12:15	9.05	663	8.28	36.5
1-18-19 0:15	-0.07	1414	7.93	1.1	1-17-19 23:45	0.12	1365	7.76	0.9	1-17-19 23:45	0.00	1550	8.46	48.0	6-17-19 17:30	22.21	1757	8.45	7.4	4-18-19 12:30	9.05	1139	8.21	11.1	4-18-19 12:30	9.14	664	8.28	47.1
1-18-19 0:30	-0.07	1413	7.94	1.0	1-18-19 0:00	0.12	1361	7.76	0.6	1-18-19 0:00	-0.03	1576	8.46	62.8	6-17-19 17:45	22.33	1756	8.44	7.2	4-18-19 12:45	9.13	1134	8.21	11.3	4-18-19 12:45	9.26	666	8.28	46.8
1-18-19 0:45	-0.07	1413	7.94	1.0	1-18-19 0:15	0.11	1362	7.76	3.9	1-18-19 0:15	-0.01	1578	8.46	67.4	6-17-19 18:00	22.43	1756	8.44	7.1	4-18-19 13:00	9.22	1138	8.21	11.9	4-18-19 13:00	9.30	666	8.28	45.2
1-18-19 1:00	-0.07	1413	7.94	1.0	1-18-19 0:30	0.11	1366	7.76	0.0	1-18-19 0:30	-0.03	1573	8.46	61.7	6-17-19 18:15	22.56	1756	8.44	7.2	4-18-19 13:15	8.92	1135	8.20	12.0	4-18-19 13:15	9.32	675	8.28	60.8
1-18-19 1:15	-0.07	1425	7.93	1.2	1-18-19 0:45	0.11	1376	7.76	0.6	1-18-19 0:45	0.00	1578	8.46	68.2	6-17-19 18:30	22.67	1758	8.43	6.8	4-18-19 13:30	9.06	1136	8.21	11.2	4-18-19 13:30	9.21	675	8.29	61.7
1-18-19 1:30	-0.07	1425	7.94	1.1	1-18-19 1:00	0.10	1361	7.76	0.4	1-18-19 1:00	-0.02	1550	8.46	43.7	6-17-19 18:45	22.79	1758	8.43	7.0	4-18-19 13:45	9.17	1136	8.21	9.9	4-18-19 13:45	9.27	677	8.29	79.3
1-18-19 1:45	-0.07	1425	7.94	1.0	1-18-19 1:15	0.10	1362	7.76	1.0	1-18-19 1:15	-0.01	1555	8.46	45.3	6-17-19 19:00	22.86	1759	8.44	6.7	4-18-19 14:00	9.31	1135	8.21	9.4	4-18-19 14:00	9.41	676	8.29	94.2
1-18-19 2:00	-0.07	1425	7.94	1.0	1-18-19 1:30	0.10	1359	7.76	0.1	1-18-19 1:30	-0.02	1550	8.45	37.3	6-17-19 19:15	22.95	1760	8.44	6.9	4-18-19 14:15	9.36	1135	8.20	11.6	4-18-19 14:15	9.63	675	8.29	91.3
1-18-19 2:15	-0.07	1413	7.93	1.1	1-18-19 1:45	0.10	1367	7.76	0.8	1-18-19 1:45	-0.02	1556	8.45	40.9	6-17-19 19:30	22.96	1756	8.44	6.6	4-18-19 14:30	9.57	1133	8.20	9.9	4-18-19 14:30	9.78	691	8.28	96.6
1-18-19 2:30	-0.07	1413	7.94	1.1	1-18-19 2:00	0.10	1367	7.76	0.6	1-18-19 2:00	-0.01	1573	8.45	55.0	6-17-19 19:45	22.97	1758	8.44	6.9	4-18-19 14:45	9.57	1134	8.20	9.3	4-18-19 14:45	9.84	674	8.28	120.0
1-18-19 2:45	-0.07	1413	7.93	1.0	1-18-19 2:15	0.10	1366	7.76	0.1	1-18-19 2:15	-0.01	1571	8.45	55.2	6-17-19 20:00	22.94	1757	8.45	7.0	4-18-19 15:00	9.14	1133	8.20	11.0	4-18-19 15:00	9.67	673	8.28	143.4
1-18-19 3:00	-0.07	1413	7.93	1.0	1-18-19 2:30	0.10	1362	7.76	0.1	1-18-19 2:30	0.00	1572	8.44	53.5	6-17-19 20:15	23.00	1758	8.45	6.7	4-18-19 15:15	9.12	1136	8.20	10.8	4-18-19 15:15	9.56	671	8.29	186.2
1-18-19 3:15	-0.07	1439	7.93	1.2	1-18-19 2:45	0.10	1365	7.76	0.7	1-18-19 2:45	0.00	1571	8.44	51.2	6-17-19 20:30	23.01	1756	8.45	6.8	4-18-19 15:30	9.19	1134	8.20	10.7	4-18-19 15:30	9.59	672	8.29	128.9
1-18-19 3:30	-0.07	1440	7.94	1.1	1-18-19 3:00	0.11	1372	7.76	0.9	1-18-19 3:00	0.00	1554	8.45	42.3	6-17-19 20:45	22.94	1760	8.44	6.2	4-18-19 15:45	9.30	1133	8.20	10.3	4-18-19 15:45	9.61	668	8.29	103.3
1-18-19 3:45	-0.07	1440	7.93	1.0	1-18-19 3:15	0.11	1366	7.76	0.0	1-18-19 3:15	0.00	1553	8.45	46.4	6-17-19 21:00	22.91	1756	8.44	6.2	4-18-19 16:00	9.37	1138	8.21	9.4	4-18-19 16:00	9.62	663	8.29	92.4
1-18-19 4:00	-0.07	1440	7.93	1.0	1-18-19 3:30	0.11	1358	7.76	0.3	1-18-19 3:30	0.00	1556	8.45	39.8	6-17-19 21:15	22.90	1757	8.45	6.4	4-18-19 16:15	9.45	1139	8.21	10.2	4-18-19 16:15	9.63	680	8.29	124.0
1-18-19 4:15	-0.07	1414	7.92	1.1	1-18-19 3:45	0.11	1355	7.76	1.0	1-18-19 3:45	0.00	1554	8.45	46.2	6-17-19 21:30	23.00	1758	8.45	6.3	4-18-19 16:30	9.43	1105	8.21	13.0	4-18-19 16:30	9.58	684	8.29	87.2
1-18-19 4:30	-0.07	1414	7.94	1.0	1-18-19 4:00	0.11	1357	7.76	0.4	1-18-19 4:00	0.00	1572	8.45	55.7	6-17-19 21:45	23.14	1758	8.44	6.1	4-18-19 16:45	9.40	1136	8.21	10.2	4-18-19 16:45	9.51	677	8.30	91.9
1-18-19 4:45	-0.07	1414	7.93	1.0	1-18-19 4:15	0.11	1350	7.76	0.2	1-18-19 4:15	0.00	1572	8.45	57.6	6-17-19 22:00	23.27	1759	8.46	6.5	4-18-19 17:00	9.42	1137	8.21	9.6	4-18-19 17:00	9.46	676	8.30	109.5
1-18-19 5:00	-0.07	1414	7.93	1.0	1-18-19 4:30	0.10	1367	7.76	1.4	1-18-19 4:30	-0.01	1573	8.45	57.9	6-17-19 22:15	23.31	1761	8.45	7.1	4-18-19 17:15	9.46	1135	8.22	9.5	4-18-19 17:15	9.44	678	8.30	158.1
1-18-19 5:15	-0.07	1444	7.93	1.2	1-18-19 4:45	0.10	1363	7.76	1.1	1-18-19 4:45	-0.01	1572	8.45	59.1	6-17-19 22:30	23.32	1762	8.47	9.5	4-18-19 17:30	9.49	1139	8.22	11.8	4-18-19 17:30	9.44	678	8.30	191.7
1-18-19 5:30	-0.07	1443	7.94	1.0	1-18-19 5:00	0.10	1364	7.76	0.0	1-18-19 5:00	-0.01	1557	8.46	51.9	6-17-19 22:45	23.38	1761	8.47	7.7	4-18-19 17:45	9.51	1139	8.22	9.0	4-18-19 17:45	9.43	681	8.30	75.4
1-18-19 5:45	-0.07	1443	7.93	1.1	1-18-19 5:15	0.10	1351	7.77	1.6	1-18-19 5:15	-0.01	1557	8.46	44.2	6-17-19 23:00	23.45	1760	8.46	8.1	4-18-19 18:00	9.56	1137	8.22	9.9	4-18-19 18:00	9.42	693	8.30	76.4
1-18-19 6:00	-0.07	1443	7.93	1.1	1-18-19 5:30	0.10	1364	7.77	5.7	1-18-19 5:30	-0.01	1557	8.46	54.2	6-17-19 23:15	23.43	1763	8.47	8.4	4-18-19 18:15	9.57	1134	8.22	9.8	4-18-19 18:15	9.40	669	8.31	78.7
1-18-19 6:15	-0.07	1411	7.93	1.1	1-18-19 5:45	0.10	1354	7.77	1.6	1-18-19 5:45	-0.02	1560	8.46	46.1	6-17-19 23:30	23.44	1761	8.47	7.7	4-18-19 18:30	9.55	1139	8.22	9.7	4-18-19 18:30	9.34	667	8.31	126.2
1-18-19 6:30	-0.07	1411	7.94	1.1	1-18-19 6:00	0.10	1355	7.77	0.0	1-18-19 6:00	-0.02	1578	8.46	64.0	6-17-19 23:45	23.46	1761	8.47	7.6	4-18-19 18:45	9.52	1138	8.22	8.6	4-18-19 18:45	9.29	668	8.31	109.5
1-18-19 6:45	-0.07	1411	7.93	1.1	1-18-19 6:15	0.10	1351	7.77	2.0	1-18-19 6:15	-0.02	1579	8.45	61.1	6-18-19 0:00	23.47	1761	8.46	8.5	4-18-19 19:00	9.49	1137	8.22	9.7	4-18-19 19:00	9.25	668	8.31	122.9
1-18-19 7:00	-0.07	1411	7.93	1.1	1-18-19 6:30	0.10	1360	7.77	0.0	1-18-19 6:30	-0.02	1577	8.45	54.6	6-18-19 0:15	23.38	1761	8.48	7.4	4-18-19 19:15	9.48	1140	8.23	9.0	4-18-19 19:15	9.21	670	8.31	123.2
1-18-19 7:15	-0.08	1437	7.93	1.2	1-18-19 6:45	0.10	1355	7.77	0.8	1-18-19 6:45	-0.02	1579	8.46	58.4	6-18-19 0:30	23.24	1761	8.48	8.0	4-18-19 19:30	9.49	1137	8.23	9.4	4-18-19 19:30	9.18	715	8.31	137.7
1-18-19 7:30	-0.07	1438	7.94	1.1	1-18-19 7:00	0.10	1354	7.77	0.0	1-18-19 7:00	-0.03	1558	8.46	42.9	6-18-19 0:45	23.23	1760	8.48	7.3	4-18-19 19:45	9.48	1145	8.23	8.6	4-18-19 19:45	9.12	667	8.31	102.6
1-18-19 7:45	-0.07	1439	7.93	1.2	1-18-19 7:15	0.09	1352	7.77	0.0	1-18-19 7:15	-0.03	1556	8.45	38.7	6-18-19 1:00	23.20	1762	8.48	7.5	4-18-19 20:00	9.47	1119	8.23	9.6	4-18-19 20:00	9.10	667	8.31	158.0
1-18-19 8:00	-0.07	1439	7.93	1.1	1-18-19 7:30	0.09	1352	7.77	1.0	1-18-19 7:30	-0.03	1557	8.45	39.3	6-18-19 1:15	23.16	1761	8.48	7.6	4-18-19 20:15	9.47	1108	8.24	11.5	4-18-19 20:15	9.05	729	8.31	218.0
1-18-19 8:15	-0.07	1410	7.93	1.0	1-18-19 7:45	0.09	1352	7.77	0.2	1-18-19 7:45	-0.02	1559	8.45	39.0	6-18-19 1:30	23.17	1761	8.48	7.4	4-18-19 20:30	9.47	1137	8.24	8.1	4-18-19 20:30	9.04	668	8.31	174.1
1-18-19 8:30	-0.07	1410	7.94	1.0	1-18-19 8:00	0.09	1354	7.77	0.0	1-18-19 8:00	-0.02	1581	8.45	55.0	6-18-19 1:45	23.14	1763	8.48	7.5	4-18-19 20:45	9.46	1139	8.24	8.6	4-18-19 20:45	9.00	670	8.31	206.2
1-18-19 8:45	-0.07	1410	7.93	1.0	1-18-19 8:15	0.09	1362	7.77	0.0	1-18-19 8:15	-0.02	1580	8.45	53.7	6-18-19 2:00	23.13	1761	8.48	7.9	4-18-19 21:00	9.44	1138	8.24	8.3	4-18-19 21:00	8.95	673	8.31	205.5
1-18-19 9:00	-0.07	1410	7.93	1.1	1-18-19 8:30	0.09	1359	7.77	0.0	1-18-19 8:30	-0.01	1578	8.45	52.6	6-18-19 2:15	23.12	1763	8.48	7.6	4-18-19 21:15	9.44	1137	8.24	9.7	4-18-19 21:15	8.92	672	8.31	110.6
1-18-19 9:15	-0.07	1415	7.93	1.2	1-18-19 8:45	0.09	1354	7.77	0.0	1-18-19 8:45	-0.01	1578	8.45	51.7	6-18-19 2:30	23.07	1762	8.48	7.1	4-18-19 21:30	9.41	1140	8.24	8.1	4-18-19 21:30	8.86	675	8.31	31.4
1-18-19 9:30	-0.07	1416	7.94	1.0	1-18-19 9:00	0.09	1348	7.77	0.0	1-18-19 9:00	-0.01	1557	8.46	45.6	6-18-19 2:45	23.11	1761	8.49	7.5	4-18-19 21:45	9.38	1137	8.24	8.0	4-18-19 21:45	8.86	675	8.31	30.6
1-18-19 9:45	-0.07	1416	7.94	1.0	1-18-19 9:15	0.09	1350	7.77	0.0	1-18-19 9:15	-0.01	1556	8.46	45.5	6-18-19 3:00	23.14	1763	8.49	7.6	4-18-19 22:00	9.31	1133	8.24	8.0	4-18-19 22:00	8.83	672	8.31	26.3
1-18-19 10:00	-0.07	1416	7.94	1.0	1-18-19 9:30	0.08	1351	7.77	0.0	1-18-19 9:30	-0.01	1558	8.46	41.8	6-18-19 3:15	23.14	1762	8.49	7.4	4-18-19 22:15	9.31	1138	8.25	9.0	4-18-19 22:15	8.77	672	8.31	25.4
1-18-19 10:15	-0.07	1413	7.93	1.1	1-18-19 9:45	0.08	1351	7.77	0.0	1-18-19 9:45	-0.01	1558	8.46	43.2	6-18-19 3:30	23.12	1760	8.49	6.9	4-18-19 22:30	9.28	1135	8.25	8.9	4-18-19 22:30	8.74	671	8.31	25.3
1-18-19 10:30	-0.07	1412	7.95	1.0	1-18-19 10:00	0.08	1353	7.77	0.1	1-18-19 10:00	-0.01	1579	8.46	53.8	6-18-19 3:45	23.05	1761	8.49	6.9	4-18-19 22:45	9.27	1138	8.25	8.8	4-18-19 22:45	8.73	672	8.31	39.8
1-18-19 10:45	-0.07	1412	7.94	1.1	1-18-19 10:15	0.08	1354	7.77	0.0	1-18-19 10:15	-0.01	1579	8.45	52.8	6-18-19 4:00	22.97	1761	8.49	6.8	4-18-19 23:00	9.26	1139	8.25	7.2	4-18-19 23:00	8.68	672	8.31	31.7
1-18-19 11:00	-0.07	1412	7.94	1.0	1-18-19 10:30	0.13	1357	7.76	0.0	1-18-19 10:30	-0.01	1578	8.45	53.7	6-18-19 4:15	22.97	1761	8.49	6.6	4-18-19 23:15	9.21	1139	8.25	8.6	4-18-19 23:15	8.65	671	8.31	32.3
1-18-19 11:15	-0.07	1421	7.94	1.2	1-18-19 10:45	0.07	1359	7.77	0.3	1-18-19 10:45	0.02	1569	8.46	57.4	6-18-19 4:30	22.94	1762	8.49	6.7	4-18-19 23:30	9.20	1140	8.25	7.4	4-18-19 23:30	8.57	671	8.31	32.4
1-18-19 11:30	-0.07	1421	7.95	1.1	1-18-19 11:00	0.06	1357	7.77	0.4	1-18-19 11:00	-0.02	1548	8.46	46.7	6-18-19 4:45	22.88	1762	8.49	7.1	4-18-19 23:45	9.19	1139	8.25	6.9	4-18-19 23:45	8.50	670	8.31	31.4
1-18-19 11:45	-0.07	1421	7.95	1.0	1-18-19 11:15	0.07	1360	7.77	0.2	1-18-19 11:15	-0.02	1549	8.46	45.8	6-18-19 5:00	22.82	1761	8.49	6.8	4-19-19 0:00	9.15	1136	8.25	9.0	4-19-19 0:00	8.56	673	8.32	33.5
1-18-19 12:00	-0.07	1421	7.95	1.0	1-18-19 11:30	0.07	1347	7.77	0.0	1-18-19 11:30	-0.02	1548	8.45	45.5	6-18-19 5:15	22.79	1762	8.49	9.6	4-19-19 0:15	9.10	1138	8.25	7.1	4-19-19 0:15	8.46	672	8.31	32.9

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-18-19 12:15	-0.07	1411	7.94	1.1	1-18-19 11:45	0.07	1344	7.77	0.1	1-18-19 11:45	-0.02	1547	8.45	44.9	6-18-19 5:30	22.70	1762	8.50	7.0	4-19-19 0:30	9.08	1136	8.25	7.6	4-19-19 0:30	8.49	673	8.31	34.7
1-18-19 12:30	-0.07	1410	7.95	1.0	1-18-19 12:00	0.08	1347	7.77	0.0	1-18-19 12:00	-0.01	1566	8.45	51.3	6-18-19 5:45	22.58	1762	8.50	7.0	4-19-19 0:45	9.05	1138	8.25	9.2	4-19-19 0:45	8.47	673	8.31	68.5
1-18-19 12:45	-0.07	1410	7.95	1.1	1-18-19 12:15	0.08	1353	7.77	0.2	1-18-19 12:15	-0.01	1564	8.45	49.9	6-18-19 6:00	22.51	1762	8.50	6.5	4-19-19 1:00	9.04	1139	8.25	8.3	4-19-19 1:00	8.43	674	8.31	66.1
1-18-19 13:00	-0.07	1410	7.95	1.0	1-18-19 12:30	0.08	1344	7.77	0.1	1-18-19 12:30	-0.01	1567	8.45	49.9	6-18-19 6:15	22.38	1761	8.50	6.5	4-19-19 1:15	9.01	1138	8.25	9.8	4-19-19 1:15	8.33	674	8.31	63.8
1-18-19 13:15	-0.07	1421	7.95	1.2	1-18-19 12:45	0.08	1338	7.77	0.6	1-18-19 12:45	-0.01	1566	8.45	50.1	6-18-19 6:30	22.35	1763	8.49	6.7	4-19-19 1:30	8.98	1138	8.25	7.8	4-19-19 1:30	8.34	674	8.32	72.3
1-18-19 13:30	-0.07	1422	7.96	1.0	1-18-19 13:00	0.08	1350	7.77	0.9	1-18-19 13:00	-0.01	1547	8.45	44.8	6-18-19 6:45	22.27	1761	8.50	8.1	4-19-19 1:45	8.94	1137	8.26	7.1	4-19-19 1:45	8.33	674	8.32	64.5
1-18-19 13:45	-0.07	1422	7.95	1.0	1-18-19 13:15	0.08	1351	7.77	0.7	1-18-19 13:15	-0.01	1548	8.45	44.5	6-18-19 7:00	22.15	1762	8.50	6.9	4-19-19 2:00	8.93	1136	8.26	7.4	4-19-19 2:00	8.36	673	8.31	69.9
1-18-19 14:00	-0.07	1422	7.95	1.1	1-18-19 13:30	0.08	1344	7.77	1.4	1-18-19 13:30	-0.01	1548	8.45	43.8	6-18-19 7:15	22.05	1761	8.50	6.6	4-19-19 2:15	8.90	1139	8.26	7.6	4-19-19 2:15	8.31	674	8.31	72.1
1-18-19 14:15	-0.07	1411	7.95	1.0	1-18-19 13:45	0.07	1342	7.77	0.8	1-18-19 13:45	-0.01	1548	8.45	43.3	6-18-19 7:30	21.93	1761	8.50	6.5	4-19-19 2:30	8.86	1136	8.26	6.8	4-19-19 2:30	8.33	674	8.31	75.4
1-18-19 14:30	-0.07	1411	7.96	1.0	1-18-19 14:00	0.07	1343	7.77	2.1	1-18-19 14:00	-0.01	1567	8.45	50.8	6-18-19 7:45	21.81	1762	8.50	6.6	4-19-19 2:45	8.82	1138	8.26	12.7	4-19-19 2:45	8.30	675	8.31	74.3
1-18-19 14:45	-0.07	1411	7.96	1.0	1-18-19 14:15	0.07	1351	7.77	0.1	1-18-19 14:15	-0.02	1565	8.45	49.1	6-18-19 8:00	21.73	1762	8.50	6.6	4-19-19 3:00	8.80	1136	8.26	6.9	4-19-19 3:00	8.29	675	8.31	74.8
1-18-19 15:00	-0.07	1411	7.96	1.0	1-18-19 14:30	0.07	1345	7.77	0.2	1-18-19 14:30	-0.02	1567	8.44	49.0	6-18-19 8:15	21.62	1760	8.50	6.8	4-19-19 3:15	8.76	1135	8.26	5.6	4-19-19 3:15	8.27	674	8.31	88.8
1-18-19 15:15	-0.07	1427	7.95	1.1	1-18-19 14:45	0.07	1349	7.77	4.3	1-18-19 14:45	-0.02	1568	8.44	47.9	6-18-19 8:30	21.55	1761	8.50	6.5	4-19-19 3:30	8.67	1141	8.26	6.6	4-19-19 3:30	8.23	675	8.31	91.7
1-18-19 15:30	-0.07	1427	7.96	1.0	1-18-19 15:00	0.07	1340	7.77	0.1	1-18-19 15:00	-0.02	1551	8.45	42.3	6-18-19 8:45	21.42	1761	8.50	6.5	4-19-19 3:45	8.68	1134	8.26	8.4	4-19-19 3:45	8.16	674	8.31	101.4
1-18-19 15:45	-0.07	1427	7.96	1.1	1-18-19 15:15	0.07	1351	7.77	1.5	1-18-19 15:15	-0.02	1552	8.45	42.0	6-18-19 9:00	21.32	1761	8.50	6.7	4-19-19 4:00	8.64	1140	8.26	6.3	4-19-19 4:00	8.17	674	8.31	101.8
1-18-19 16:00	-0.07	1427	7.96	1.0	1-18-19 15:30	0.07	1338	7.77	1.7	1-18-19 15:30	-0.02	1554	8.45	41.5	6-18-19 9:15	21.29	1763	8.50	9.5	4-19-19 4:15	8.56	1140	8.26	5.6	4-19-19 4:15	8.02	673	8.31	111.5
1-18-19 16:15	-0.07	1406	7.95	1.1	1-18-19 15:45	0.07	1338	7.77	0.7	1-18-19 15:45	-0.02	1554	8.45	41.6	6-18-19 9:30	21.21	1762	8.50	6.4	4-19-19 4:30	8.48	1136	8.27	5.2	4-19-19 4:30	7.98	675	8.31	146.8
1-18-19 16:30	-0.07	1406	7.97	1.0	1-18-19 16:00	0.06	1340	7.77	0.5	1-18-19 16:00	-0.02	1572	8.45	48.0	6-18-19 9:45	21.09	1762	8.50	6.5	4-19-19 4:45	8.44	1133	8.27	6.3	4-19-19 4:45	7.93	675	8.31	96.9
1-18-19 16:45	-0.07	1406	7.96	1.0	1-18-19 16:15	0.06	1343	7.77	0.2	1-18-19 16:15	-0.02	1571	8.44	45.7	6-18-19 10:00	20.99	1760	8.50	6.8	4-19-19 5:00	8.41	1137	8.27	6.1	4-19-19 5:00	7.86	674	8.31	96.7
1-18-19 17:00	-0.07	1406	7.96	1.0	1-18-19 16:30	0.06	1343	7.77	1.9	1-18-19 16:30	-0.02	1570	8.44	45.4	6-18-19 10:15	20.91	1759	8.50	6.8	4-19-19 5:15	8.35	1137	8.27	6.3	4-19-19 5:15	7.87	675	8.31	98.4
1-18-19 17:15	-0.08	1424	7.96	1.2	1-18-19 16:45	0.06	1341	7.77	0.1	1-18-19 16:45	-0.03	1571	8.44	45.0	6-18-19 10:30	20.84	1763	8.50	7.9	4-19-19 5:30	8.31	1136	8.27	5.7	4-19-19 5:30	7.88	674	8.31	97.5
1-18-19 17:30	-0.07	1425	7.97	1.0	1-18-19 17:00	0.06	1343	7.77	1.9	1-18-19 17:00	-0.03	1554	8.45	39.4	6-18-19 10:45	20.71	1763	8.50	6.5	4-19-19 5:45	8.30	1137	8.27	5.6	4-19-19 5:45	7.75	676	8.31	94.5
1-18-19 17:45	-0.07	1425	7.96	1.1	1-18-19 17:15	0.06	1341	7.77	1.0	1-18-19 17:15	-0.03	1556	8.45	39.6	6-18-19 11:00	20.67	1761	8.50	6.6	4-19-19 6:00	8.26	1130	8.27	5.6	4-19-19 6:00	7.79	675	8.31	97.6
1-18-19 18:00	-0.07	1425	7.96	1.0	1-18-19 17:30	0.06	1338	7.77	1.0	1-18-19 17:30	-0.03	1557	8.45	39.3	6-18-19 11:15	20.63	1760	8.50	7.4	4-19-19 6:15	8.22	1136	8.27	5.9	4-19-19 6:15	7.70	678	8.31	99.5
1-18-19 18:15	-0.08	1408	7.95	1.0	1-18-19 17:45	0.06	1338	7.77	1.0	1-18-19 17:45	-0.03	1556	8.45	39.6	6-18-19 11:30	20.46	1762	8.50	6.6	4-19-19 6:30	8.24	1137	8.27	5.8	4-19-19 6:30	7.75	678	8.31	95.7
1-18-19 18:30	-0.07	1407	7.97	1.0	1-18-19 18:00	0.06	1337	7.78	2.1	1-18-19 18:00	-0.03	1576	8.45	49.1	6-18-19 11:45	20.45	1762	8.50	6.9	4-19-19 6:45	8.21	1136	8.27	5.7	4-19-19 6:45	7.70	679	8.31	105.5
1-18-19 18:45	-0.07	1408	7.96	1.0	1-18-19 18:15	0.06	1338	7.77	2.3	1-18-19 18:15	-0.04	1578	8.44	49.5	6-18-19 12:00	20.34	1762	8.50	6.7	4-19-19 7:00	8.18	1137	8.27	5.8	4-19-19 7:00	7.64	676	8.32	115.3
1-18-19 19:00	-0.07	1407	7.96	1.0	1-18-19 18:30	0.06	1340	7.77	0.7	1-18-19 18:30	-0.04	1579	8.44	47.9	6-18-19 12:15	20.26	1761	8.50	7.0	4-19-19 7:15	8.20	1136	8.27	5.0	4-19-19 7:15	7.55	679	8.31	130.0
1-18-19 19:15	-0.08	1418	7.96	1.2	1-18-19 18:45	0.05	1352	7.78	0.1	1-18-19 18:45	-0.04	1579	8.45	48.7	6-18-19 12:30	20.17	1761	8.50	6.5	4-19-19 7:30	8.14	1135	8.27	5.9	4-19-19 7:30	7.65	677	8.32	124.6
1-18-19 19:30	-0.07	1418	7.97	1.0	1-18-19 19:00	0.05	1339	7.78	0.1	1-18-19 19:00	-0.03	1561	8.45	44.2	6-18-19 12:45	20.11	1761	8.50	6.8	4-19-19 7:45	8.17	1135	8.27	5.4	4-19-19 7:45	7.52	679	8.31	127.3
1-18-19 19:45	-0.07	1418	7.97	1.0	1-18-19 19:15	0.05	1340	7.78	0.9	1-18-19 19:15	-0.04	1561	8.46	42.2	6-18-19 13:00	20.05	1762	8.50	6.3	4-19-19 8:00	8.17	1136	8.28	5.4	4-19-19 8:00	7.59	679	8.31	126.9
1-18-19 20:00	-0.07	1418	7.96	1.1	1-18-19 19:30	0.05	1337	7.78	0.2	1-18-19 19:30	-0.05	1561	8.45	36.4	6-18-19 13:15	19.96	1762	8.50	6.6	4-19-19 8:15	8.21	1134	8.28	4.8	4-19-19 8:15	7.73	679	8.31	120.7
1-18-19 20:15	-0.08	1408	7.96	1.1	1-18-19 19:45	0.05	1348	7.78	0.4	1-18-19 19:45	-0.05	1563	8.45	36.9	6-18-19 13:30	19.95	1762	8.50	6.7	4-19-19 8:30	8.27	1135	8.27	4.9	4-19-19 8:30	7.87	679	8.31	113.8
1-18-19 20:30	-0.07	1407	7.97	1.0	1-18-19 20:00	0.05	1346	7.78	0.1	1-18-19 20:00	-0.04	1581	8.45	46.3	6-18-19 13:45	19.87	1763	8.50	7.9	4-19-19 8:45	8.30	1132	8.27	5.8	4-19-19 8:45	8.00	678	8.31	112.9
1-18-19 20:45	-0.07	1407	7.97	1.0	1-18-19 20:15	0.05	1340	7.78	0.4	1-18-19 20:15	-0.04	1581	8.44	47.3	6-18-19 14:00	19.88	1761	8.50	6.7	4-19-19 9:00	8.32	1134	8.27	5.9	4-19-19 9:00	8.11	673	8.31	153.4
1-18-19 21:00	-0.07	1407	7.97	1.0	1-18-19 20:30	0.05	1343	7.78	0.3	1-18-19 20:30	-0.04	1582	8.44	46.9	6-18-19 14:15	19.88	1764	8.50	6.3	4-19-19 9:15	8.32	1135	8.27	6.4	4-19-19 9:15	8.22	678	8.31	114.1
1-18-19 21:15	-0.08	1434	7.96	1.2	1-18-19 20:45	0.05	1352	7.78	6.0	1-18-19 20:45	-0.04	1581	8.44	46.1	6-18-19 14:30	19.86	1763	8.51	6.8	4-19-19 9:30	8.35	1138	8.27	5.5	4-19-19 9:30	8.34	676	8.31	81.3
1-18-19 21:30	-0.07	1433	7.97	1.1	1-18-19 21:00	0.05	1345	7.77	4.8	1-18-19 21:00	-0.04	1559	8.45	39.1	6-18-19 14:45	19.88	1762	8.51	6.4	4-19-19 9:45	8.30	1136	8.26	6.9	4-19-19 9:45	8.47	678	8.31	31.4
1-18-19 21:45	-0.07	1433	7.97	1.0	1-18-19 21:15	0.05	1339	7.78	3.6	1-18-19 21:15	-0.03	1562	8.45	41.7	6-18-19 15:00	19.86	1762	8.51	7.2	4-19-19 10:00	8.35	1140	8.25	8.7	4-19-19 10:00	8.57	677	8.31	33.3
1-18-19 22:00	-0.07	1433	7.96	1.0	1-18-19 21:30	0.05	1338	7.78	0.7	1-18-19 21:30	-0.03	1562	8.45	38.4	6-18-19 15:15	19.88	1763	8.50	7.4	4-19-19 10:15	8.58	1143	8.25	7.9	4-19-19 10:15	8.64	676	8.31	32.2
1-18-19 22:15	-0.08	1406	7.95	1.1	1-18-19 21:45	0.05	1342	7.78	0.0	1-18-19 21:45	-0.03	1561	8.45	38.2	6-18-19 15:30	19.91	1765	8.50	7.3	4-19-19 10:30	8.46	1145	8.24	9.1	4-19-19 10:30	8.71	676	8.31	30.2
1-18-19 22:30	-0.07	1405	7.96	1.0	1-18-19 22:00	0.05	1340	7.78	4.7	1-18-19 22:00	-0.03	1578	8.45	46.0	6-18-19 15:45	19.99	1763	8.51	6.9	4-19-19 10:45	8.66	1144	8.24	8.6	4-19-19 10:45	8.83	674	8.30	31.8
1-18-19 22:45	-0.07	1405	7.96	1.0	1-18-19 22:15	0.05	1338	7.78	3.3	1-18-19 22:15	-0.03	1577	8.44	45.0	6-18-19 16:00	20.04	1765	8.51	7.4	4-19-19 11:00	8.66	1141	8.24	9.0	4-19-19 11:00	8.99	674	8.30	36.1
1-18-19 23:00	-0.07	1405	7.96	1.0	1-18-19 22:30	0.05	1340	7.78	4.9	1-18-19 22:30	-0.03	1578	8.45	45.5	6-18-19 16:15	20.09	1765	8.50	7.6	4-19-19 11:15	8.76	1142	8.24	9.4	4-19-19 11:15	9.23	673	8.30	37.9
1-18-19 23:15	-0.08	1416	7.96	1.2	1-18-19 22:45	0.05	1338	7.78	3.8	1-18-19 22:45	-0.03	1579	8.45	45.5	6-18-19 16:30	20.23	1765	8.51	9.0	4-19-19 11:30	8.86	1143	8.24	9.4	4-19-19 11:30	9.23	673	8.30	39.1
1-18-19 23:30	-0.07	1417	7.97	1.0	1-18-19 23:00	0.05	1341	7.78	3.1	1-18-19 23:00	-0.04	1563	8.45	39.7	6-18-19 16:45	20.21	1766	8.50	8.2	4-19-19 11:45	9.24	1140	8.24	8.2	4-19-19 11:45	9.25	672	8.30	57.6
1-18-19 23:45	-0.07	1417	7.96	1.0	1-18-19 23:15	0.05	1341	7.78	0.8	1-18-19 23:15	-0.04	1563	8.45	40.0	6-18-19 17:00	20.31	1766	8.49	10.8	4-19-19 12:00	9.17	1142	8.24	8.9	4-19-19 12:00	9.40	671	8.30	66.2
1-19-19 0:00	-0.07	1417	7.96	1.1	1-18-19 23:30	0.05	1340	7.78	4.4	1-18-19 23:30	-0.04	1563	8.45	39.0	6-18-19 17:15	20.46	1767	8.49	10.5	4-19-19 12:15	9.24	1139	8.25	7.8	4-19-19 12:15	9.69	669	8.30	64.1
1-19-19 0:15	-0.07	1402	7.95	1.1	1-18-19 23:45	0.05	1340	7.78	1.0	1-18-19 23:45	-0.03	1564	8.45	38.7	6-18-19 17:30	20.55	1766	8.50	10.5	4-19-19 12:30	9.28	1139	8.25	7.8	4-19-19 12:30	9.75	670	8.29	86.5
1-19-19 0:30	-0.07	1402	7.96	1.0	1-19-19 0:00	0.05	1345	7.78	1.2	1-19-19 0:00	-0.03	1580	8.45	46.5	6-18-19 17:45	20.70	1768	8.50	10.1	4-19-19 12:45	8.96	1140	8.24	10.3	4-19-19 12:45	9.96	670	8.29	81.7
1-19-19 0:45	-0.07	1402	7.96	1.0	1-19-19 0:15	0.05	1341	7.78	0.8	1-19-19 0:15	-0.03	1579	8.45	45.5	6-18-19 18:00	20.79	1767	8.49	9.1	4-19-19 13:00	9.24	1137	8.24	7.0	4-19-19 13:00	10.14	670	8.29	33.7
1-19-19 1:00	-0.07	1402	7.96	1.0	1-19-19 0:30	0.05	1341	7.78	2.8	1-19-19 0:30	-0.03	1582	8.45	44.1	6-18-19 18:15	20.68	1766	8.49	11.1	4-19-19 13:15	9.17	1135	8.24	7.9	4-19-19 13:15	10.36	671	8.29	62.2
1-19-19 1:15	-0.08	1420	7.96	1.2	1-19-19 0:45	0.05	1345	7.78	5.1	1-19-19 0:45	-0.03	1581	8.45	44.7	6-18-19 18:30	20.78	1768	8.49	12.2	4-19-19 13:30	9.03	1138	8.24	11.0	4-19-19 13:30	10.50	678	8.29	68.0
1-19-19 1:30	-0.07	1421	7.96	1.0	1-19-19 1:00	0.05	1346	7.78	0.0	1-19-19 1:00	-0.03	1563	8.45	39.6	6-18-19 18:45	20.82	1767	8.50	12.5	4-19-19 13:45	9.36	1145	8.24	10.7	4-19-19 13:45	10.37	683	8.29	72.8
1-19-19 1:45	-0.07	1421	7.96	1.1	1-19-19 1:15	0.05	1340	7.78	4.3	1-19-19 1:15	-0.04	1564	8.45	40.3	6-18-19 19:00	20.87	1767	8.50	12.1	4-19-19 14:00	9.57	1143	8.24	10.3	4-19-19 14:00	10.33	679	8.30	116.0
1-19-19 2:00	-0.07	1421	7.96	1.0	1-19-19 1:30	0.05	1340	7.78	4.3	1-19-19 1:30	-0.04	1566	8.46	41.8	6-18-19 19:15	20.99	1769	8.50	10.6	4-19-19 14:15	9.77	1140	8.24	8.6	4-19-19 14:15	10.37	679	8.30	47.0
1-19-19 2:15	-0.08	1403	7.95	1.0	1-19-19 1:45	0.05	1341	7.78	0.7	1-19-19 1:45	-0.04	1568	8.45	35.9	6-18-19 19:30	21.07	1769	8.50	13.3	4-19-19 14:30	10.01	1140	8.25	9.0	4-19-19 14:30	10.47	679	8.30	56.4
1-19-19 2:30	-0.07	1403	7.97	1.0	1-19-19 2:00	0.05	1339	7.78	3.6	1-19-19 2:00	-0.04	1586	8.45	45.1	6-18-19 19:45	21.19	1770	8.49	12.2	4-19-19 14:45	10.06	1143	8.24	8.7	4-19-19 14:45	10.92	707	8.29	80.8
1-19-19 2:45	-0.07	1403	7.96	1.0	1-19-19 2:15	0.05	1339	7.78	5.1	1-19-19 2:15	-0.04	1586	8.44	45.2	6-18-19 20:00	21.18	1769	8.50	17.7	4-19-19 15:00	9.91	1128	8.24	9.3	4-19-19 15:00	11.09	717	8.29	54.4
1-19-19 3:00	-0.07	1403	7.96	1.0	1-19-19 2:30	0.05	1342	7.78	3.9	1-19-19 2:30	-0.05	1586	8.44	42.1	6-18-19 20:15	21.19	1771	8.50	11.6	4-19-19 15:15	9.76	1137	8.24	7.0	4-19-19 15:15	10.94	672	8.30	30.3
1-19-19 3:15	-0.08	1420	7.95	1.2	1-19-19 2:45	0.05	1339	7.78	3.5	1-19-19 2:45	-0.06	1586	8.44	38.3	6-18-19 20:30	21.29	1772	8.49	11.1	4-19-19 15:30	9.52	1134	8.25	7.9	4-19-19 15:30	10.71	681	8.30	30.7
1-19-19 3:30	-0.07	1421	7.96	1.0	1-19-19 3:00	0.05	1337	7.78	5.6	1-19-19 3:00	-0.06	1569	8.45	36.1	6-18-19 20:45	21.46	1772	8.50	9.9	4-19-19 15:45	9.44	1140	8.25	7.7	4-19-19 15:45	10.47	681	8.31	45.1
1-19-19 3:45	-0.07	1420	7.96	1.1	1-19-19 3:15	0.05	1337	7.78	5.9	1-19-19 3:15	-0.05	1569	8.45	37.2	6-18-19 21:00	21.58	1774	8.51	14.1	4-19-19 16:00	9.56	1142	8.25	7.7	4-19-19 16:00	10.44	684	8.31	60.8
1-19-19 4:00	-0.07	1420	7.96	1.1	1-19-19 3:30	0.05	1345	7.78	0.1	1-19-19 3:30	-0.05	1568	8.45	37.7	6-18-19 21:15	21.71	1773	8.51	11.9	4-19-19 16:15	9.76	1132	8.25	8.4	4-19-19 16:15	10.52	681	8.31	98.2
1-19-19 4:15	-0.07	1401	7.95	1.0	1-19-19 3:45	0.05	1355	7.78	6.6	1-19-19 3:45	-0.05	1569	8.45	36.7	6-18-19 21:30	21.79	1774	8.49	11.6	4-19-19 16:30	9.88	1139	8.25	8.0	4-19-19 16:30	10.66	685	8.31	60.0
1-19-19 4:30	-0.07	1400	7.96	1.0	1-19-19 4:00	0.05	1352	7.78	5.4	1-19-19 4:00	-0.05	1586	8.45	43.3	6-18-19 21:45	21.85	1773	8.50	11.6	4-19-19 16:45	9.84	1134	8.25	7.5	4-19-19 16:45	10.47	695	8.31	73.1
1-19-19 4:45	-0.07	1400	7.96	1.0	1-19-19 4:15	0.05	1341	7.78	3.5	1-19-19 4:15	-0.05	1588	8.44	41.2	6-18-19 22:00	21.77	1773	8.50	11.3	4-19-19 17:00	9.80	1140	8.25	7.5	4-19-19 17:00	10.39	694	8.31	59.2
1-19-19 5:00	-0.07	1400	7.96	1.0	1-19-19 4:30	0.05	1338	7.78	1.1	1-19-19 4:30	-0.05	1586	8.44	40.6	6-18-19 22:15	21.87	1775	8.50	12.2	4-19-19 17:15	9.90	1143	8.26	6.7	4-19-19 17:15	10.49	693	8.31	70.4
1-19-19 5:15	-0.07	1416	7.95	1.2	1-19-19 4:45	0.05	1339	7.78	2.0	1-19-19 4:45	-0.05	1589	8.44	40.6	6-18-19 22:30	21.90	1774	8.50	10.0	4-19-19 17:30	9.95	1138	8.26	7.9	4-19-19 17:30	10.52	693	8.31	76.7
1-19-19 5:30	-0.07	1417	7.96	1.0	1-19-19 5:00	0.05	1347	7.78	3.7	1-19-19 5:00	-0.05	1571	8.45	38.5	6-18-19 22:45	21.77	1774	8.51	10.4	4-19-19 17:45	9.99	1136	8.27	6.0	4-19-19 17:45	10.44	685	8.32	83.7
1-19-19 5:45	-0.07	1417	7.96	1.0	1-19-19 5:15	0.05	1339	7.78	3.1	1-19-19 5:15	-0.05	1569	8.45	38.3	6-18-19 23:00	21.74	1775	8.50	10.8	4-19-19 18:00	9.98	1137	8.27	6.7	4-19-19 18:00	10.38	685	8.32	77.0
1-19-19 6:00	-0.07	1417	7.96	1.1	1-19-19 5:30	0.05	1342	7.78	0.8	1-19-19 5:30	-0.05	1569	8.45	37.4	6-18-19 23:15	21.68	1774	8.51	12.5	4-19-19 18:15	10.04	1140	8.27	6.8	4-19-19 18:15	10.32	684	8.32	90.5
1-19-19 6:15	-0.07	1397	7.95	1.0	1-19-19 5:45	0.05	1341	7.78	1.3	1-19-19 5:45	-0.05	1569	8.45	36.8	6-18-19 23:30	21.67	1773	8.52	10.4	4-19-19 18:30	10.06	1138	8.27	8.4	4-19-19 18:30	10.14	680	8.33	115.7

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-19-19 6:30	-0.07	1396	7.96	1.0	1-19-19 6:00	0.05	1343	7.78	0.5	1-19-19 6:00	-0.05	1589	8.45	42.3	6-18-19 23:45	21.69	1775	8.52	10.6	4-19-19 18:45	10.06	1138	8.27	7.2	4-19-19 18:45	10.06	683	8.33	74.9
1-19-19 6:45	-0.07	1396	7.96	1.0	1-19-19 6:15	0.05	1340	7.78	1.1	1-19-19 6:15	-0.05	1591	8.44	41.5	6-19-19 0:00	21.70	1774	8.51	10.4	4-19-19 19:00	10.04	1141	8.27	7.2	4-19-19 19:00	9.96	684	8.33	83.2
1-19-19 7:00	-0.07	1396	7.96	1.0	1-19-19 6:30	0.05	1337	7.78	4.7	1-19-19 6:30	-0.05	1591	8.44	39.4	6-19-19 0:15	21.63	1778	8.52	10.3	4-19-19 19:15	9.98	1141	8.27	7.4	4-19-19 19:15	9.85	686	8.33	103.5
1-19-19 7:15	-0.07	1408	7.95	1.1	1-19-19 6:45	0.05	1343	7.78	5.2	1-19-19 6:45	-0.05	1590	8.44	39.6	6-19-19 0:30	21.54	1775	8.52	10.1	4-19-19 19:30	9.94	1139	8.27	6.3	4-19-19 19:30	9.81	680	8.33	108.9
1-19-19 7:30	-0.07	1409	7.96	1.0	1-19-19 7:00	0.05	1339	7.78	0.3	1-19-19 7:00	-0.05	1571	8.45	37.3	6-19-19 0:45	21.48	1776	8.53	10.7	4-19-19 19:45	9.91	1141	8.27	6.3	4-19-19 19:45	9.93	668	8.33	121.2
1-19-19 7:45	-0.07	1409	7.95	1.1	1-19-19 7:15	0.05	1340	7.78	2.0	1-19-19 7:15	-0.05	1570	8.45	36.4	6-19-19 1:00	21.40	1776	8.53	10.5	4-19-19 20:00					4-19-19 20:00	9.92	667	8.33	111.1
1-19-19 8:00	-0.07	1408	7.95	1.0	1-19-19 7:30	0.05	1338	7.78	0.6	1-19-19 7:30	-0.05	1571	8.45	36.0	6-19-19 1:15	21.35	1775	8.54	10.9	4-19-19 20:15	9.86	1139	8.28	10.3	4-19-19 20:15	9.91	666	8.33	120.4
1-19-19 8:15	-0.07	1395	7.95	1.1	1-19-19 7:45	0.05	1339	7.78	2.0	1-19-19 7:45	-0.04	1571	8.45	35.7	6-19-19 1:30	21.28	1773	8.54	9.7	4-19-19 20:30	9.83	1139	8.28	6.5	4-19-19 20:30	9.86	665	8.33	122.4
1-19-19 8:30	-0.07	1394	7.96	1.0	1-19-19 8:00	0.05	1339	7.78	1.0	1-19-19 8:00	-0.05	1591	8.45	41.4	6-19-19 1:45	21.19	1776	8.54	9.7	4-19-19 20:45	9.81	1140	8.28	6.5	4-19-19 20:45	9.85	667	8.33	129.3
1-19-19 8:45	-0.07	1394	7.96	1.0	1-19-19 8:15	0.05	1344	7.78	0.5	1-19-19 8:15	-0.04	1590	8.44	40.7	6-19-19 2:00	21.16	1776	8.54	10.1	4-19-19 21:00	9.79	1141	8.28	8.7	4-19-19 21:00	9.79	667	8.33	83.3
1-19-19 9:00	-0.07	1394	7.95	1.0	1-19-19 8:30	0.05	1340	7.78	1.9	1-19-19 8:30	-0.05	1589	8.44	40.7	6-19-19 2:15	21.08	1775	8.54	10.4	4-19-19 21:15	9.76	1140	8.28	6.2	4-19-19 21:15	9.58	668	8.34	71.1
1-19-19 9:15	-0.07	1400	7.95	1.2	1-19-19 8:45	0.05	1337	7.78	1.0	1-19-19 8:45	-0.05	1590	8.44	42.6	6-19-19 2:30	21.00	1776	8.54	9.6	4-19-19 21:30	9.75	1144	8.28	6.2	4-19-19 21:30	9.54	669	8.33	98.0
1-19-19 9:30	-0.07	1401	7.96	1.0	1-19-19 9:00	0.05	1337	7.78	0.4	1-19-19 9:00	-0.05	1573	8.45	37.0	6-19-19 2:45	20.92	1777	8.55	9.6	4-19-19 21:45	9.72	1140	8.28	6.6	4-19-19 21:45	9.54	668	8.34	79.6
1-19-19 9:45	-0.07	1401	7.95	1.0	1-19-19 9:15	0.05	1339	7.78	5.2	1-19-19 9:15	-0.05	1573	8.45	36.8	6-19-19 3:00	20.85	1777	8.55	10.1	4-19-19 22:00	9.71	1138	8.28	5.8	4-19-19 22:00	9.34	670	8.33	78.5
1-19-19 10:00					1-19-19 9:30	0.05	1337	7.78	0.5	1-19-19 9:30	-0.05	1574	8.45	34.8	6-19-19 3:15	20.76	1777	8.55	9.6	4-19-19 22:15	9.67	1139	8.28	9.8	4-19-19 22:15	9.27	671	8.34	80.1
1-19-19 10:15	-0.07	1393	7.95	1.1	1-19-19 9:45	0.05	1336	7.78	1.8	1-19-19 9:45	-0.06	1573	8.45	35.6	6-19-19 3:30	20.64	1777	8.55	9.5	4-19-19 22:30	9.62	1138	8.28	16.4	4-19-19 22:30	9.27	669	8.34	82.9
1-19-19 10:30	-0.07	1393	7.97	1.0	1-19-19 10:00	0.05	1342	7.78	0.2	1-19-19 10:00	-0.06	1590	8.45	43.8	6-19-19 3:45	20.54	1776	8.55	8.9	4-19-19 22:45	9.58	1141	8.29	6.4	4-19-19 22:45	9.14	670	8.34	92.3
1-19-19 10:45	-0.07	1393	7.97	1.0	1-19-19 10:15	0.05	1337	7.78	0.8	1-19-19 10:15	-0.06	1591	8.45	44.4	6-19-19 4:00	20.45	1777	8.55	10.0	4-19-19 23:00	9.55	1136	8.29	6.7	4-19-19 23:00	9.13	667	8.34	102.9
1-19-19 11:00	-0.07	1393	7.97	1.0	1-19-19 10:30	0.05	1353	7.78	1.5	1-19-19 10:30	-0.06	1590	8.45	39.7	6-19-19 4:15	20.38	1778	8.55	9.2	4-19-19 23:15	9.53	1140	8.29	6.5	4-19-19 23:15	9.07	666	8.34	51.8
1-19-19 11:15	-0.08	1405	7.95	1.1	1-19-19 10:45	0.05	1335	7.78	2.0	1-19-19 10:45	-0.07	1588	8.44	40.2	6-19-19 4:30	20.31	1775	8.55	8.7	4-19-19 23:30	9.49	1139	8.29	6.5	4-19-19 23:30	9.00	667	8.33	49.9
1-19-19 11:30	-0.07	1406	7.96	1.0	1-19-19 11:00	0.05	1341	7.78	0.4	1-19-19 11:00	-0.03	1565	8.46	41.3	6-19-19 4:45	20.23	1776	8.55	9.0	4-19-19 23:45	9.47	1139	8.29	5.4	4-19-19 23:45	8.96	667	8.33	65.3
1-19-19 11:45	-0.07	1406	7.96	1.0	1-19-19 11:15	0.05	1338	7.78	0.8	1-19-19 11:15	0.03	1533	8.47	48.7	6-19-19 5:00	20.10	1776	8.55	8.8	4-20-19 0:00	9.45	1140	8.29	6.6	4-20-19 0:00	8.94	668	8.33	49.7
1-19-19 12:00	-0.07	1407	7.95	1.0	1-19-19 11:30	0.05	1338	7.78	1.8	1-19-19 11:30	0.06	1507	8.47	52.7	6-19-19 5:15	20.03	1776	8.55	8.4	4-20-19 0:15	9.41	1142	8.29	4.8	4-20-19 0:15	8.96	666	8.33	53.8
1-19-19 12:15	-0.07	1394	7.95	1.1	1-19-19 11:45	0.05	1338	7.78	0.4	1-19-19 11:45	0.06	1500	8.47	52.3	6-19-19 5:30	19.93	1776	8.55	9.0	4-20-19 0:30	9.39	1142	8.30	6.0	4-20-19 0:30	8.88	667	8.33	46.7
1-19-19 12:30	-0.07	1393	7.97	1.0	1-19-19 12:00	0.05	1351	7.78	1.6	1-19-19 12:00	0.05	1513	8.47	55.3	6-19-19 5:45	19.84	1776	8.55	8.3	4-20-19 0:45	9.37	1139	8.30	5.9	4-20-19 0:45	8.82	669	8.33	41.7
1-19-19 12:45	-0.07	1394	7.96	1.1	1-19-19 12:15	0.05	1344	7.78	1.5	1-19-19 12:15	0.03	1535	8.46	58.7	6-19-19 6:00	19.80	1776	8.55	7.8	4-20-19 1:00	9.34	1141	8.30	5.7	4-20-19 1:00	8.83	670	8.33	39.2
1-19-19 13:00	-0.07	1393	7.96	1.1	1-19-19 12:30	0.07	1332	7.77	1.9	1-19-19 12:30	-0.02	1535	8.47	55.7	6-19-19 6:15	19.70	1776	8.55	9.1	4-20-19 1:15	9.31	1141	8.30	8.3	4-20-19 1:15	8.81	669	8.33	59.3
1-19-19 13:15	-0.07	1404	7.95	1.2	1-19-19 12:45	0.05	1332	7.78	0.6	1-19-19 12:45	-0.03	1534	8.47	55.2	6-19-19 6:30	19.53	1775	8.55	10.1	4-20-19 1:30	9.30	1144	8.30	5.1	4-20-19 1:30	8.79	669	8.33	76.3
1-19-19 13:30	-0.07	1406	7.96	1.0	1-19-19 13:00	0.05	1335	7.78	0.7	1-19-19 13:00	-0.03	1514	8.47	52.7	6-19-19 6:45	19.47	1777	8.55	8.5	4-20-19 1:45	9.26	1142	8.30	6.1	4-20-19 1:45	8.75	672	8.33	71.6
1-19-19 13:45	-0.07	1414	7.97	1.6	1-19-19 13:15	0.05	1337	7.78	1.5	1-19-19 13:15	-0.03	1509	8.47	51.4	6-19-19 7:00	19.35	1775	8.55	9.2	4-20-19 2:00	9.26	1139	8.30	5.7	4-20-19 2:00	8.71	672	8.33	61.0
1-19-19 14:00	-0.05	1414	7.98	1.1	1-19-19 13:30	0.06	1347	7.77	5.1	1-19-19 13:30	-0.03	1509	8.47	51.7	6-19-19 7:15	19.24	1776	8.55	8.0	4-20-19 2:15	9.22	1138	8.30	7.2	4-20-19 2:15	8.68	670	8.33	124.1
1-19-19 14:15	-0.06	1389	7.97	1.1	1-19-19 13:45	0.06	1342	7.78	4.4	1-19-19 13:45	-0.03	1509	8.47	50.4	6-19-19 7:30	19.14	1777	8.55	8.4	4-20-19 2:30	9.17	1141	8.30	5.7	4-20-19 2:30	8.67	669	8.33	50.0
1-19-19 14:30	-0.07	1389	7.98	1.1	1-19-19 14:00	0.06	1339	7.78	3.1	1-19-19 14:00	-0.03	1528	8.47	55.5	6-19-19 7:45	19.02	1776	8.55	8.6	4-20-19 2:45	9.10	1141	8.30	4.6	4-20-19 2:45	8.65	667	8.33	30.0
1-19-19 14:45	-0.07	1389	7.98	1.1	1-19-19 14:15	0.06	1339	7.78	1.9	1-19-19 14:15	-0.03	1529	8.47	54.9	6-19-19 8:00	18.97	1777	8.56	8.1	4-20-19 3:00	9.06	1139	8.30	5.5	4-20-19 3:00	8.69	671	8.33	23.6
1-19-19 15:00	-0.07	1389	7.97	1.0	1-19-19 14:30	0.06	1335	7.77	2.8	1-19-19 14:30	-0.04	1526	8.47	54.6	6-19-19 8:15	18.81	1777	8.56	8.3	4-20-19 3:15	9.02	1141	8.30	4.4	4-20-19 3:15	8.67	672	8.33	32.2
1-19-19 15:15	-0.07	1406	7.97	1.2	1-19-19 14:45	0.06	1333	7.77	0.9	1-19-19 14:45	-0.04	1527	8.47	54.5	6-19-19 8:30	18.71	1776	8.56	8.1	4-20-19 3:30	9.00	1139	8.31	5.5	4-20-19 3:30	8.65	673	8.32	29.1
1-19-19 15:30	-0.07	1407	7.97	1.0	1-19-19 15:00	0.07	1334	7.77	1.0	1-19-19 15:00	-0.04	1508	8.47	52.7	6-19-19 8:45	18.64	1777	8.55	9.3	4-20-19 3:45	8.95	1143	8.31	5.2	4-20-19 3:45	8.62	674	8.33	27.4
1-19-19 15:45	-0.07	1407	7.97	1.1	1-19-19 15:15	0.07	1333	7.77	1.3	1-19-19 15:15	-0.04	1512	8.47	50.9	6-19-19 9:00	18.53	1776	8.56	8.5	4-20-19 4:00	8.94	1143	8.31	6.0	4-20-19 4:00	8.50	675	8.33	18.0
1-19-19 16:00	-0.07	1407	7.96	1.1	1-19-19 15:30	0.07	1339	7.77	0.6	1-19-19 15:30	-0.04	1520	8.47	53.4	6-19-19 9:15	18.42	1777	8.56	8.6	4-20-19 4:15	8.93	1142	8.31	4.4	4-20-19 4:15	8.46	673	8.33	17.9
1-19-19 16:15	-0.07	1391	7.96	1.1	1-19-19 15:45	0.07	1338	7.77	0.1	1-19-19 15:45	-0.04	1513	8.47	52.3	6-19-19 9:30	18.34	1777	8.56	8.4	4-20-19 4:30	8.90	1144	8.31	5.6	4-20-19 4:30	8.42	675	8.33	17.2
1-19-19 16:30	-0.07	1390	7.98	1.0	1-19-19 16:00	0.07	1348	7.77	0.9	1-19-19 16:00	-0.04	1528	8.47	54.6	6-19-19 9:45	18.24	1777	8.56	8.1	4-20-19 4:45	8.88	1141	8.31	5.4	4-20-19 4:45	8.49	675	8.33	16.3
1-19-19 16:45	-0.07	1390	7.98	1.0	1-19-19 16:15	0.06	1334	7.77	1.1	1-19-19 16:15	-0.04	1532	8.47	54.3	6-19-19 10:00	18.20	1777	8.56	8.5	4-20-19 5:00	8.86	1141	8.31	7.2	4-20-19 5:00	8.51	674	8.32	17.9
1-19-19 17:00	-0.07	1390	7.97	1.1	1-19-19 16:30	0.06	1338	7.77	2.1	1-19-19 16:30	-0.04	1529	8.47	54.3	6-19-19 10:15	18.09	1775	8.56	8.4	4-20-19 5:15	8.83	1141	8.31	8.6	4-20-19 5:15	8.36	675	8.33	16.9
1-19-19 17:15	-0.07	1397	7.96	1.2	1-19-19 16:45	0.06	1338	7.77	2.4	1-19-19 16:45	-0.04	1528	8.47	54.6	6-19-19 10:30	17.98	1777	8.56	9.4	4-20-19 5:30	8.83	1141	8.31	4.0	4-20-19 5:30	8.31	675	8.33	16.6
1-19-19 17:30	-0.07	1397	7.97	1.1	1-19-19 17:00	0.06	1334	7.77	3.6	1-19-19 17:00	-0.04	1512	8.47	51.8	6-19-19 10:45	17.89	1776	8.56	8.3	4-20-19 5:45	8.80	1141	8.32	4.4	4-20-19 5:45	8.27	675	8.33	18.2
1-19-19 17:45	-0.07	1397	7.97	1.0	1-19-19 17:15	0.06	1333	7.77	1.3	1-19-19 17:15	-0.04	1515	8.47	50.8	6-19-19 11:00	17.83	1778	8.56	8.1	4-20-19 6:00	8.77	1142	8.32	4.7	4-20-19 6:00	8.41	676	8.33	16.7
1-19-19 18:00	-0.07	1397	7.97	1.0	1-19-19 17:30	0.06	1342	7.77	0.0	1-19-19 17:30	-0.04	1516	8.47	50.3	6-19-19 11:15	17.77	1778	8.56	7.7	4-20-19 6:15	8.73	1143	8.32	4.2	4-20-19 6:15	8.42	676	8.33	15.4
1-19-19 18:15	-0.07	1390	7.97	1.1	1-19-19 17:45	0.06	1335	7.77	3.4	1-19-19 17:45	-0.03	1517	8.47	51.0	6-19-19 11:30	17.68	1776	8.56	7.5	4-20-19 6:30	8.71	1142	8.32	4.1	4-20-19 6:30	8.38	675	8.32	15.6
1-19-19 18:30	-0.07	1390	7.98	1.1	1-19-19 18:00	0.06	1348	7.77	1.9	1-19-19 18:00	-0.03	1531	8.47	53.1	6-19-19 11:45	17.60	1777	8.56	8.0	4-20-19 6:45	8.68	1143	8.32	4.2	4-20-19 6:45	8.28	675	8.33	15.2
1-19-19 18:45	-0.07	1390	7.98	1.1	1-19-19 18:15	0.06	1345	7.77	1.8	1-19-19 18:15	-0.03	1528	8.47	53.0	6-19-19 12:00	17.53	1778	8.56	7.8	4-20-19 7:00	8.65	1142	8.32	4.0	4-20-19 7:00	8.24	677	8.33	15.6
1-19-19 19:00	-0.07	1390	7.98	1.0	1-19-19 18:30	0.05	1335	7.77	1.9	1-19-19 18:30	-0.03	1531	8.47	52.7	6-19-19 12:15	17.51	1777	8.56	7.9	4-20-19 7:15	8.65	1141	8.32	4.9	4-20-19 7:15	8.26	676	8.33	15.2
1-19-19 19:15	-0.08	1412	7.97	1.3	1-19-19 18:45	0.05	1346	7.77	0.0	1-19-19 18:45	-0.03	1528	8.47	53.0	6-19-19 12:30	17.44	1775	8.55	8.1	4-20-19 7:30	8.61	1141	8.32	4.5	4-20-19 7:30	8.27	675	8.33	15.0
1-19-19 19:30	-0.07	1413	7.98	1.0	1-19-19 19:00	0.05	1341	7.77	1.8	1-19-19 19:00	-0.03	1513	8.47	50.5	6-19-19 12:45	17.37	1778	8.55	7.4	4-20-19 7:45	8.60	1141	8.32	5.4	4-20-19 7:45	8.21	676	8.33	14.8
1-19-19 19:45	-0.07	1413	7.98	1.1	1-19-19 19:15	0.05	1353	7.77	0.6	1-19-19 19:15	-0.03	1516	8.47	48.9	6-19-19 13:00	17.33	1779	8.56	7.9	4-20-19 8:00	8.61	1141	8.32	4.0	4-20-19 8:00	8.25	676	8.33	16.2
1-19-19 20:00	-0.07	1413	7.98	1.0	1-19-19 19:30	0.05	1349	7.77	1.2	1-19-19 19:30	-0.03	1518	8.47	51.0	6-19-19 13:15	17.31	1777	8.56	8.2	4-20-19 8:15	8.65	1141	8.32	3.7	4-20-19 8:15	8.24	675	8.33	16.9
1-19-19 20:15	-0.07	1390	7.97	1.1	1-19-19 19:45	0.05	1339	7.77	1.2	1-19-19 19:45	-0.03	1519	8.47	50.7	6-19-19 13:30	17.25	1778	8.56	7.9	4-20-19 8:30	8.68	1141	8.32	4.3	4-20-19 8:30	8.21	677	8.33	27.0
1-19-19 20:30	-0.07	1390	7.98	1.0	1-19-19 20:00	0.05	1343	7.77	1.2	1-19-19 20:00	-0.03	1534	8.47	52.3	6-19-19 13:45	17.20	1775	8.56	8.0	4-20-19 8:45	8.72	1140	8.32	5.6	4-20-19 8:45	8.34	677	8.33	86.5
1-19-19 20:45	-0.07	1389	7.98	1.1	1-19-19 20:15	0.05	1348	7.77	1.5	1-19-19 20:15	-0.04	1536	8.47	52.2	6-19-19 14:00	17.21	1779	8.55	7.9	4-20-19 9:00	8.76	1142	8.32	4.5	4-20-19 9:00	8.42	678	8.33	52.1
1-19-19 21:00	-0.07	1389	7.98	1.0	1-19-19 20:30	0.05	1338	7.77	1.3	1-19-19 20:30	-0.04	1535	8.47	52.4	6-19-19 14:15	17.19	1777	8.56	7.8	4-20-19 9:15	8.82	1140	8.32	5.6	4-20-19 9:15	8.72	677	8.33	17.2
1-19-19 21:15	-0.07	1396	7.97	1.2	1-19-19 20:45	0.05	1338	7.77	0.6	1-19-19 20:45	-0.03	1534	8.47	52.5	6-19-19 14:30	17.27	1777	8.55	7.5	4-20-19 9:30	8.84	1141	8.32	5.4	4-20-19 9:30	8.72	677	8.33	18.2
1-19-19 21:30	-0.07	1396	7.99	1.0	1-19-19 21:00	0.05	1337	7.78	0.7	1-19-19 21:00	-0.04	1520	8.47	51.0	6-19-19 14:45	17.34	1775	8.55	7.9	4-20-19 9:45	8.87	1140	8.32	5.9	4-20-19 9:45	8.93	677	8.33	27.5
1-19-19 21:45	-0.07	1396	7.98	1.0	1-19-19 21:15	0.05	1337	7.78	2.1	1-19-19 21:15	-0.05	1519	8.47	49.7	6-19-19 15:00	17.31	1779	8.55	7.9	4-20-19 10:00	8.85	1142	8.32	7.5	4-20-19 10:00	9.11	687	8.33	10.6
1-19-19 22:00	-0.07	1396	7.98	1.1	1-19-19 21:30	0.05	1336	7.78	4.8	1-19-19 21:30	-0.05	1525	8.47	48.7	6-19-19 15:15	17.30	1777	8.55	8.5	4-20-19 10:15	8.93	1142	8.32	4.6	4-20-19 10:15	9.16	688	8.33	18.1
1-19-19 22:15	-0.08	1387	7.97	1.1	1-19-19 21:45	0.05	1350	7.78	0.0	1-19-19 21:45	-0.05	1527	8.47	48.8	6-19-19 15:30	17.28	1780	8.56	7.4	4-20-19 10:30	9.05	1139	8.32	4.9	4-20-19 10:30	9.24	685	8.33	11.9
1-19-19 22:30	-0.07	1386	7.99	1.0	1-19-19 22:00	0.04	1341	7.78	4.2	1-19-19 22:00	-0.04	1546	8.47	50.3	6-19-19 15:45	17.24	1781	8.56	7.9	4-20-19 10:45	9.06	1140	8.32	5.3	4-20-19 10:45	9.47	684	8.32	9.4
1-19-19 22:45	-0.07	1386	7.98	1.1	1-19-19 22:15	0.05	1337	7.78	6.3	1-19-19 22:15	-0.05	1543	8.47	51.2	6-19-19 16:00	17.28	1781	8.56	7.6	4-20-19 11:00	8.93	1142	8.32	4.3	4-20-19 11:00	9.48	684	8.33	10.7
1-19-19 23:00	-0.07	1386	7.98	1.0	1-19-19 22:30	0.03	1346	7.78	5.9	1-19-19 22:30	-0.05	1542	8.47	51.5	6-19-19 16:15	17.35	1778	8.56	8.1	4-20-19 11:15	9.04	1147	8.30	5.8	4-20-19 11:15	9.45	684	8.33	9.4
1-19-19 23:15	-0.08	1398	7.98	1.2	1-19-19 22:45	0.09	1324	7.78	4.3	1-19-19 22:45	-0.05	1539	8.47	51.5	6-19-19 16:30	17.34	1777	8.55	7.8	4-20-19 11:30	9.11	1144	8.31	5.2	4-20-19 11:30	9.47	684	8.33	7.8
1-19-19 23:30	-0.07	1398	7.99	1.1	1-19-19 23:00	0.04	1358	7.76	3.9	1-19-19 23:00	-0.05	1521	8.47	49.9	6-19-19 16:45	17.40	1777	8.55	8.0	4-20-19 11:45	9.16	1144	8.31	5.3	4-20-19 11:45	9.65	685	8.32	8.9
1-19-19 23:45	-0.07	1399	7.98	1.1	1-19-19 23:15	0.19	1362	7.75	6.0	1-19-19 23:15	-0.04	1527	8.47	46.6	6-19-19 17:00	17.43	1778	8.56	8.0	4-20-19 12:00	9.25	1144	8.31	5.3	4-20-19 12:00	9.78	684	8.32	7.3
1-20-19 0:00	-0.07	1399	7.98	1.0	1-19-19 23:30	0.11	1370	7.75	5.2	1-19-19 23:30	-0.04	1527	8.47	48.2	6-19-19 17:15	17.46	1778	8.56	7.8	4-20-19 12:15	9.24	1144	8.31	5.7	4-20-19 12:15	9.80	684	8.32	7.5
1-20-19 0:15	-0.08	1388	7.97	1.1	1-19-19 23:45	0.09	1376	7.75	2.1	1-19-19 23:45	-0.04	1528	8.47	49.3	6-19-19 17:30	17.47	1779	8.56	7.2	4-20-19 12:30	9.40	1142	8.31	6.4	4-20-19 12:30	9.92	684	8.32	9.7
1-20-19 0:30	-0.07	1387	7.99	1.1	1-20-19 0:00	0.53	1346	7.75	3.8	1-20-19 0:00	-0.03	1544	8.47	51.4	6-19-19 17:45	17.51	1780	8.56	7.2	4-20-19 12:45	9.46	1141	8.30	6.7	4-20-19 12:45	10.09	683	8.32	10.3

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-20-19 0:45	-0.07	1387	7.98	1.1	1-20-19 0:15	0.54	1356	7.75	4.7	1-20-19 0:15	-0.03	1542	8.47	50.9	6-19-19 18:00	17.49	1779	8.56	7.8	4-20-19 13:00	9.53	1142	8.30	5.8	4-20-19 13:00	10.35	684	8.31	9.7
1-20-19 1:00	-0.07	1387	7.98	1.1	1-20-19 0:30	0.44	1361	7.75	4.4	1-20-19 0:30	-0.03	1544	8.47	50.0	6-19-19 18:15	17.50	1778	8.56	7.3	4-20-19 13:15	9.48	1143	8.30	6.7	4-20-19 13:15	10.34	683	8.31	10.3
1-20-19 1:15	-0.08	1404	7.98	1.2	1-20-19 0:45	0.20	1373	7.75	3.8	1-20-19 0:45	-0.03	1544	8.47	50.1	6-19-19 18:30	17.50	1780	8.57	7.1	4-20-19 13:30	9.51	1145	8.31	6.3	4-20-19 13:30	10.16	682	8.32	8.9
1-20-19 1:30	-0.07	1404	7.99	1.1	1-20-19 1:00	0.13	1381	7.75	5.8	1-20-19 1:00	-0.03	1527	8.47	45.9	6-19-19 18:45	17.51	1779	8.57	7.5	4-20-19 13:45	9.60	1144	8.31	6.3	4-20-19 13:45	10.15	682	8.32	9.1
1-20-19 1:45	-0.07	1404	7.99	1.1	1-20-19 1:15	0.12	1375	7.75	3.2	1-20-19 1:15	-0.03	1531	8.47	48.0	6-19-19 19:00	17.56	1781	8.57	7.2	4-20-19 14:00	9.63	1143	8.31	6.6	4-20-19 14:00	10.14	683	8.32	12.9
1-20-19 2:00	-0.07	1404	7.98	1.0	1-20-19 1:30	0.13	1379	7.75	5.0	1-20-19 1:30	-0.03	1528	8.47	47.4	6-19-19 19:15	17.58	1779	8.57	6.8	4-20-19 14:15	9.75	1148	8.30	6.2	4-20-19 14:15	10.22	683	8.32	11.1
1-20-19 2:15	-0.07	1387	7.98	1.1	1-20-19 1:45	0.17	1372	7.75	2.9	1-20-19 1:45	-0.03	1527	8.47	46.9	6-19-19 19:30	17.74	1782	8.57	7.3	4-20-19 14:30	9.77	1146	8.30	7.6	4-20-19 14:30	10.25	683	8.32	11.3
1-20-19 2:30	-0.07	1386	7.99	1.1	1-20-19 2:00	0.18	1370	7.75	7.2	1-20-19 2:00	-0.03	1544	8.47	50.5	6-19-19 19:45	17.86	1782	8.56	6.8	4-20-19 14:45	9.85	1144	8.30	6.1	4-20-19 14:45	10.35	682	8.32	12.3
1-20-19 2:45	-0.07	1386	7.99	1.1	1-20-19 2:15	0.36	1363	7.75	7.5	1-20-19 2:15	-0.02	1543	8.47	50.5	6-19-19 20:00	17.93	1781	8.56	7.0	4-20-19 15:00	9.82	1146	8.31	7.5	4-20-19 15:00	10.19	682	8.32	12.0
1-20-19 3:00	-0.07	1386	7.98	1.1	1-20-19 2:30	0.74	1388	7.74	5.2	1-20-19 2:30	-0.02	1542	8.47	50.0	6-19-19 20:15	17.94	1781	8.56	6.9	4-20-19 15:15	9.88	1144	8.31	5.9	4-20-19 15:15	10.18	678	8.33	17.9
1-20-19 3:15	-0.08	1401	7.97	1.3	1-20-19 2:45	1.03	1369	7.74	5.9	1-20-19 2:45	-0.02	1543	8.47	49.8	6-19-19 20:30	17.95	1780	8.57	7.6	4-20-19 15:30	9.95	1144	8.31	7.3	4-20-19 15:30	10.29	677	8.33	53.0
1-20-19 3:30	-0.07	1401	7.98	1.1	1-20-19 3:00	0.68	1359	7.74	4.2	1-20-19 3:00	-0.02	1526	8.47	46.7	6-19-19 20:45	18.09	1782	8.56	8.3	4-20-19 15:45	10.12	1146	8.31	6.5	4-20-19 15:45	10.37	677	8.33	18.9
1-20-19 3:45	-0.07	1401	7.98	1.0	1-20-19 3:15	0.54	1370	7.75	4.9	1-20-19 3:15	-0.02	1530	8.47	44.4	6-19-19 21:00	18.22	1782	8.56	7.7	4-20-19 16:00	10.06	1146	8.31	6.1	4-20-19 16:00	10.40	679	8.33	22.1
1-20-19 4:00	-0.07	1401	7.98	1.0	1-20-19 3:30	0.55	1364	7.75	4.0	1-20-19 3:30	-0.02	1529	8.47	46.2	6-19-19 21:15	18.36	1780	8.56	7.2	4-20-19 16:15	10.11	1145	8.31	6.5	4-20-19 16:15	10.48	684	8.33	19.8
1-20-19 4:15	-0.08	1386	7.97	1.1	1-20-19 3:45	0.60	1369	7.75	3.9	1-20-19 3:45	-0.02	1529	8.47	46.7	6-19-19 21:30	18.39	1782	8.56	7.0	4-20-19 16:30	10.15	1139	8.31	6.3	4-20-19 16:30	10.46	682	8.33	22.0
1-20-19 4:30	-0.07	1385	7.98	1.1	1-20-19 4:00	0.54	1366	7.74	4.9	1-20-19 4:00	-0.02	1548	8.47	49.8	6-19-19 21:45	18.62	1783	8.56	7.3	4-20-19 16:45	10.16	1146	8.31	6.3	4-20-19 16:45	10.45	678	8.33	21.4
1-20-19 4:45	-0.07	1385	7.98	1.1	1-20-19 4:15	0.54	1369	7.75	3.2	1-20-19 4:15	-0.02	1548	8.47	49.6	6-19-19 22:00	18.74	1784	8.56	7.3	4-20-19 17:00	10.20	1151	8.31	6.1	4-20-19 17:00	10.40	678	8.33	20.5
1-20-19 5:00	-0.07	1385	7.98	1.1	1-20-19 4:30	0.80	1375	7.75	0.0	1-20-19 4:30	-0.02	1549	8.47	49.7	6-19-19 22:15	18.95	1784	8.55	7.3	4-20-19 17:15	10.22	1144	8.31	6.8	4-20-19 17:15	10.39	677	8.33	23.4
1-20-19 5:15	-0.08	1403	7.97	1.3	1-20-19 4:45	0.91	1366	7.75	3.7	1-20-19 4:45	-0.02	1548	8.47	49.3	6-19-19 22:30	19.01	1780	8.55	8.1	4-20-19 17:30	10.27	1142	8.31	8.0	4-20-19 17:30	10.35	679	8.33	25.0
1-20-19 5:30	-0.07	1403	7.98	1.1	1-20-19 5:00	0.91	1362	7.75	3.7	1-20-19 5:00	-0.02	1528	8.47	46.2	6-19-19 22:45	19.00	1785	8.56	7.7	4-20-19 17:45	10.30	1145	8.31	6.0	4-20-19 17:45	10.36	678	8.33	26.9
1-20-19 5:45	-0.07	1404	7.98	1.2	1-20-19 5:15	0.89	1363	7.75	4.7	1-20-19 5:15	-0.02	1532	8.47	46.0	6-19-19 23:00	18.85	1783	8.57	6.6	4-20-19 18:00	10.31	1144	8.31	6.3	4-20-19 18:00	10.30	679	8.33	28.3
1-20-19 6:00	-0.07	1404	7.97	1.2	1-20-19 5:30	0.63	1363	7.75	3.4	1-20-19 5:30	-0.02	1532	8.47	45.7	6-19-19 23:15	18.79	1783	8.57	7.9	4-20-19 18:15	10.30	1147	8.32	5.9	4-20-19 18:15	10.22	678	8.34	29.9
1-20-19 6:15	-0.08	1386	7.96	1.2	1-20-19 5:45	0.60	1379	7.75	1.9	1-20-19 5:45	-0.02	1532	8.47	45.8	6-19-19 23:30	18.73	1783	8.57	8.7	4-20-19 18:30	10.23	1146	8.32	6.0	4-20-19 18:30	10.17	678	8.34	32.4
1-20-19 6:30	-0.08	1385	7.97	1.2	1-20-19 6:00	0.58	1366	7.75	3.9	1-20-19 6:00	-0.02	1552	8.47	48.8	6-19-19 23:45	18.69	1784	8.57	8.1	4-20-19 18:45	10.19	1148	8.32	5.4	4-20-19 18:45	10.12	676	8.34	32.6
1-20-19 6:45	-0.07	1385	7.97	1.1	1-20-19 6:15	0.65	1367	7.75	5.2	1-20-19 6:15	-0.02	1550	8.47	48.4	6-20-19 0:00	18.71	1783	8.57	8.3	4-20-19 19:00	10.20	1146	8.32	5.6	4-20-19 19:00	10.16	671	8.34	33.8
1-20-19 7:00	-0.07	1385	7.97	1.1	1-20-19 6:30	0.85	1366	7.75	5.2	1-20-19 6:30	-0.02	1550	8.47	47.8	6-20-19 0:15	18.76	1784	8.56	7.6	4-20-19 19:15	10.18	1146	8.32	6.2	4-20-19 19:15	10.15	672	8.34	34.6
1-20-19 7:15	-0.08	1399	7.96	1.3	1-20-19 6:45	0.86	1371	7.75	0.0	1-20-19 6:45	-0.02	1551	8.47	47.9	6-20-19 0:30	18.68	1784	8.57	7.2	4-20-19 19:30	10.14	1145	8.33	6.1	4-20-19 19:30	10.03	674	8.35	35.2
1-20-19 7:30	-0.07	1399	7.97	1.1	1-20-19 7:00	0.94	1371	7.75	5.0	1-20-19 7:00	-0.03	1532	8.47	45.7	6-20-19 0:45	18.66	1783	8.57	8.3	4-20-19 19:45	10.14	1145	8.33	6.4	4-20-19 19:45	9.96	670	8.35	37.2
1-20-19 7:45	-0.07	1399	7.96	1.1	1-20-19 7:15	1.01	1376	7.74	0.0	1-20-19 7:15	-0.03	1537	8.47	45.4	6-20-19 1:00	18.61	1782	8.58	7.9	4-20-19 20:00	10.10	1143	8.33	5.9	4-20-19 20:00	9.97	674	8.35	39.5
1-20-19 8:00	-0.07	1399	7.96	1.1	1-20-19 7:30	0.97	1369	7.75	1.4	1-20-19 7:30	-0.03	1537	8.47	45.1	6-20-19 1:15	18.56	1783	8.57	8.4	4-20-19 20:15	10.09	1145	8.33	6.0	4-20-19 20:15	9.95	674	8.35	45.2
1-20-19 8:15	-0.08	1386	7.95	1.1	1-20-19 7:45	0.98	1365	7.75	0.9	1-20-19 7:45	-0.03	1540	8.47	45.8	6-20-19 1:30	18.51	1784	8.58	7.8	4-20-19 20:30	10.05	1145	8.33	5.9	4-20-19 20:30	10.00	675	8.35	46.4
1-20-19 8:30	-0.07	1386	7.96	1.2	1-20-19 8:00	0.93	1365	7.75	3.8	1-20-19 8:00	-0.03	1557	8.47	48.6	6-20-19 1:45	18.48	1782	8.58	7.9	4-20-19 20:45	10.04	1143	8.33	6.1	4-20-19 20:45	9.93	673	8.35	47.9
1-20-19 8:45					1-20-19 8:15	0.90	1372	7.75	0.6	1-20-19 8:15	-0.03	1556	8.47	48.4	6-20-19 2:00	18.44	1783	8.58	7.2	4-20-19 21:00	10.00	1147	8.34	6.2	4-20-19 21:00	9.89	674	8.35	49.5
1-20-19 9:00	-0.07	1386	7.95	1.2	1-20-19 8:30	0.85	1365	7.75	4.2	1-20-19 8:30	-0.03	1558	8.47	48.1	6-20-19 2:15	18.40	1783	8.58	7.5	4-20-19 21:15	9.89	1142	8.34	6.6	4-20-19 21:15	9.83	672	8.35	53.3
1-20-19 9:15	-0.08	1390	7.95	1.3	1-20-19 8:45	0.75	1369	7.75	2.3	1-20-19 8:45	-0.03	1557	8.47	48.0	6-20-19 2:30	18.37	1781	8.57	7.7	4-20-19 21:30	9.88	1147	8.34	6.6	4-20-19 21:30	9.82	672	8.36	60.1
1-20-19 9:30	-0.08	1392	7.95	1.1	1-20-19 9:00	0.75	1365	7.75	0.8	1-20-19 9:00	-0.03	1536	8.47	45.1	6-20-19 2:45	18.34	1783	8.57	7.7	4-20-19 21:45	9.84	1145	8.34	5.4	4-20-19 21:45	9.79	676	8.36	61.0
1-20-19 9:45	-0.07	1392	7.95	1.2	1-20-19 9:15	0.73	1364	7.75	2.2	1-20-19 9:15	-0.04	1539	8.47	45.3	6-20-19 3:00	18.34	1783	8.57	7.2	4-20-19 22:00	9.78	1146	8.34	5.5	4-20-19 22:00	9.76	693	8.36	63.7
1-20-19 10:00	-0.07	1392	7.95	1.2	1-20-19 9:30	0.73	1366	7.75	1.7	1-20-19 9:30	-0.03	1542	8.47	45.3	6-20-19 3:15	18.29	1782	8.57	7.4	4-20-19 22:15	9.74	1147	8.34	5.2	4-20-19 22:15	9.65	671	8.36	29.8
1-20-19 10:15	-0.08	1387	7.94	1.2	1-20-19 9:45	0.78	1369	7.75	2.9	1-20-19 9:45	-0.04	1545	8.47	45.2	6-20-19 3:30	18.30	1784	8.58	7.2	4-20-19 22:30	9.73	1147	8.34	6.1	4-20-19 22:30	9.68	670	8.35	29.1
1-20-19 10:30	-0.07	1386	7.95	1.2	1-20-19 10:00	0.91	1363	7.75	1.9	1-20-19 10:00	-0.04	1561	8.47	48.2	6-20-19 3:45	18.27	1783	8.57	17.4	4-20-19 22:45	9.64	1147	8.34	4.6	4-20-19 22:45	9.46	671	8.35	30.0
1-20-19 10:45	-0.07	1386	7.95	1.2	1-20-19 10:15	0.88	1367	7.75	1.3	1-20-19 10:15	-0.04	1559	8.47	47.8	6-20-19 4:00	18.27	1782	8.57	8.1	4-20-19 23:00	9.61	1148	8.34	5.5	4-20-19 23:00	9.41	670	8.35	29.8
1-20-19 11:00	-0.07	1386	7.95	1.2	1-20-19 10:30	0.92	1367	7.75	1.8	1-20-19 10:30	-0.04	1559	8.47	48.0	6-20-19 4:15	18.23	1782	8.57	8.4	4-20-19 23:15	9.53	1149	8.35	5.6	4-20-19 23:15	9.42	670	8.36	29.7
1-20-19 11:15	-0.08	1400	7.94	1.3	1-20-19 10:45	0.95	1368	7.74	0.6	1-20-19 10:45	-0.04	1557	8.47	49.2	6-20-19 4:30	18.18	1781	8.57	8.6	4-20-19 23:30	9.50	1151	8.35	5.9	4-20-19 23:30	9.33	667	8.36	29.3
1-20-19 11:30	-0.08	1400	7.95	1.2	1-20-19 11:00	0.97	1373	7.74	0.0	1-20-19 11:00	-0.03	1543	8.47	45.5	6-20-19 4:45	18.08	1782	8.58	7.5	4-20-19 23:45	9.50	1146	8.35	5.1	4-20-19 23:45	9.36	668	8.35	29.8
1-20-19 11:45	-0.08	1400	7.94	1.1	1-20-19 11:15	1.01	1379	7.74	4.1	1-20-19 11:15	-0.03	1545	8.47	43.1	6-20-19 5:00	18.03	1783	8.58	7.3	4-21-19 0:00	9.48	1151	8.35	5.6	4-21-19 0:00	9.25	666	8.36	25.3
1-20-19 12:00	-0.08	1400	7.94	1.2	1-20-19 11:30	1.03	1367	7.74	1.1	1-20-19 11:30	-0.03	1546	8.47	45.3	6-20-19 5:15	17.95	1782	8.58	6.9	4-21-19 0:15	9.40	1152	8.35	6.4	4-21-19 0:15	9.21	674	8.36	42.5
1-20-19 12:15	-0.08	1387	7.93	1.2	1-20-19 11:45	1.02	1370	7.74	1.8	1-20-19 11:45	-0.02	1547	8.47	45.0	6-20-19 5:30	17.85	1783	8.58	7.6	4-21-19 0:30	9.34	1149	8.35	5.1	4-21-19 0:30	9.24	681	8.35	32.0
1-20-19 12:30	-0.08	1387	7.94	1.2	1-20-19 12:00	1.04	1373	7.74	0.7	1-20-19 12:00	0.01	1566	8.47	50.2	6-20-19 5:45	17.80	1782	8.58	7.3	4-21-19 0:45	9.30	1149	8.35	5.9	4-21-19 0:45	9.24	680	8.35	27.2
1-20-19 12:45	-0.08	1387	7.94	1.2	1-20-19 12:15	1.03	1369	7.74	0.1	1-20-19 12:15	0.00	1569	8.47	49.1	6-20-19 6:00	17.72	1782	8.58	7.9	4-21-19 1:00	9.23	1148	8.35	5.6	4-21-19 1:00	9.18	678	8.35	39.7
1-20-19 13:00	-0.08	1387	7.94	1.2	1-20-19 12:30	1.00	1363	7.75	1.6	1-20-19 12:30	0.00	1567	8.47	49.0	6-20-19 6:15	17.64	1780	8.58	7.1	4-21-19 1:15	9.20	1148	8.35	5.9	4-21-19 1:15	9.07	679	8.35	33.8
1-20-19 13:15	-0.08	1401	7.93	1.4	1-20-19 12:45	1.04	1370	7.74	1.0	1-20-19 12:45	-0.01	1565	8.47	48.1	6-20-19 6:30	17.57	1780	8.58	6.9	4-21-19 1:30	9.14	1149	8.35	5.4	4-21-19 1:30	9.00	680	8.35	20.5
1-20-19 13:30	-0.08	1403	7.94	1.2	1-20-19 13:00	1.01	1381	7.74	0.2	1-20-19 13:00	-0.01	1548	8.47	46.8	6-20-19 6:45	17.52	1779	8.58	6.6	4-21-19 1:45	9.10	1149	8.35	3.7	4-21-19 1:45	8.93	680	8.35	12.8
1-20-19 13:45	-0.09	1403	7.94	1.2	1-20-19 13:15	1.07	1367	7.74	1.1	1-20-19 13:15	-0.01	1548	8.47	45.5	6-20-19 7:00	17.45	1783	8.58	6.6	4-21-19 2:00	9.05	1149	8.35	4.0	4-21-19 2:00	8.96	680	8.35	21.3
1-20-19 14:00	-0.08	1403	7.94	1.2	1-20-19 13:30	1.01	1373	7.74	3.1	1-20-19 13:30	-0.02	1549	8.47	46.0	6-20-19 7:15	17.36	1783	8.58	6.8	4-21-19 2:15	9.02	1150	8.35	4.9	4-21-19 2:15	8.90	681	8.35	21.3
1-20-19 14:15	-0.08	1386	7.93	1.2	1-20-19 13:45	0.93	1368	7.74	0.5	1-20-19 13:45	-0.01	1554	8.47	45.5	6-20-19 7:30	17.26	1782	8.58	6.4	4-21-19 2:30	8.98	1149	8.36	3.8	4-21-19 2:30	8.98	679	8.35	21.2
1-20-19 14:30	-0.07	1386	7.94	1.2	1-20-19 14:00	0.94	1366	7.75	1.0	1-20-19 14:00	-0.02	1570	8.47	48.5	6-20-19 7:45	17.21	1781	8.58	6.7	4-21-19 2:45	8.94	1148	8.36	3.9	4-21-19 2:45	8.93	682	8.35	21.1
1-20-19 14:45	-0.07	1386	7.93	1.2	1-20-19 14:15	1.00	1369	7.75	0.3	1-20-19 14:15	-0.02	1570	8.47	48.2	6-20-19 8:00	17.15	1781	8.58	7.0	4-21-19 3:00	8.86	1149	8.36	4.6	4-21-19 3:00	8.84	681	8.35	21.6
1-20-19 15:00	-0.07	1386	7.93	1.2	1-20-19 14:30	0.90	1370	7.74	3.7	1-20-19 14:30	-0.03	1574	8.47	47.9	6-20-19 8:15	17.09	1781	8.58	7.0	4-21-19 3:15	8.83	1151	8.36	4.2	4-21-19 3:15	8.86	680	8.35	20.6
1-20-19 15:15	-0.08	1402	7.93	1.4	1-20-19 14:45	0.97	1369	7.74	0.4	1-20-19 14:45	-0.03	1574	8.47	47.3	6-20-19 8:30	17.04	1783	8.58	6.8	4-21-19 3:30	8.82	1148	8.36	3.8	4-21-19 3:30	8.79	681	8.35	21.2
1-20-19 15:30	-0.07	1402	7.94	1.1	1-20-19 15:00	1.05	1364	7.74	1.9	1-20-19 15:00	-0.03	1555	8.47	43.5	6-20-19 8:45	16.98	1781	8.58	6.8	4-21-19 3:45	8.72	1148	8.36	4.7	4-21-19 3:45	8.75	682	8.35	20.4
1-20-19 15:45	-0.07	1403	7.93	1.1	1-20-19 15:15	1.08	1367	7.74	1.8	1-20-19 15:15	-0.03	1554	8.48	41.4	6-20-19 9:00	16.87	1783	8.58	7.3	4-21-19 4:00	8.64	1149	8.36	3.5	4-21-19 4:00	8.78	681	8.35	19.9
1-20-19 16:00	-0.07	1403	7.93	1.1	1-20-19 15:30	1.09	1368	7.74	0.1	1-20-19 15:30	-0.03	1553	8.47	42.2	6-20-19 9:15	16.80	1782	8.59	6.6	4-21-19 4:15	8.64	1149	8.36	4.3	4-21-19 4:15	8.62	682	8.35	19.7
1-20-19 16:15	-0.08	1388	7.92	1.2	1-20-19 15:45	1.08	1373	7.74	0.0	1-20-19 15:45	-0.03	1557	8.47	44.0	6-20-19 9:30	16.73	1782	8.59	6.8	4-21-19 4:30	8.56	1149	8.36	3.3	4-21-19 4:30	8.55	680	8.35	19.4
1-20-19 16:30	-0.07	1387	7.94	1.4	1-20-19 16:00	1.05	1378	7.75	1.0	1-20-19 16:00	-0.04	1576	8.47	46.0	6-20-19 9:45	16.66	1781	8.58	7.4	4-21-19 4:45	8.54	1149	8.36	3.3	4-21-19 4:45	8.52	681	8.35	19.4
1-20-19 16:45	-0.07	1387	7.93	1.1	1-20-19 16:15	1.06	1370	7.74	2.1	1-20-19 16:15	-0.04	1573	8.47	45.5	6-20-19 10:00	16.57	1784	8.58	7.3	4-21-19 5:00	8.53	1149	8.36	3.9	4-21-19 5:00	8.59	681	8.35	18.4
1-20-19 17:00	-0.07	1387	7.93	1.1	1-20-19 16:30	1.10	1374	7.74	1.1	1-20-19 16:30	-0.04	1573	8.47	45.5	6-20-19 10:15	16.48	1783	8.58	6.7	4-21-19 5:15	8.47	1148	8.36	3.5	4-21-19 5:15	8.49	682	8.35	18.1
1-20-19 17:15	-0.08	1409	7.92	1.4	1-20-19 16:45	1.10	1372	7.74	1.2	1-20-19 16:45	-0.04	1575	8.47	45.8	6-20-19 10:30	16.41	1782	8.58	6.8	4-21-19 5:30	8.46	1149	8.36	3.7	4-21-19 5:30	8.42	681	8.35	17.1
1-20-19 17:30	-0.07	1410	7.94	1.1	1-20-19 17:00	1.09	1365	7.74	1.9	1-20-19 17:00	-0.04	1555	8.47	43.3	6-20-19 10:45	16.34	1783	8.58	7.3	4-21-19 5:45	8.46	1149	8.36	3.9	4-21-19 5:45	8.37	681	8.35	16.2
1-20-19 17:45	-0.08	1411	7.93	1.2	1-20-19 17:15	1.06	1367	7.74	4.9	1-20-19 17:15	-0.04	1557	8.47	42.1	6-20-19 11:00	16.31	1783	8.58	6.6	4-21-19 6:00	8.41	1149	8.36	3.7	4-21-19 6:00	8.50	680	8.34	15.9
1-20-19 18:00	-0.08	1411	7.94	1.1	1-20-19 17:30	0.96	1364	7.74	3.9	1-20-19 17:30	-0.04	1556	8.47	41.1	6-20-19 11:15	16.22	1783	8.59	6.8	4-21-19 6:15	8.35	1151	8.36	3.6	4-21-19 6:15	8.49	681	8.34	15.7
1-20-19 18:15	-0.08	1388	7.93	1.2	1-20-19 17:45	0.96	1377	7.74	4.4	1-20-19 17:45	-0.04	1554	8.47	40.7	6-20-19 11:30	16.15	1783	8.58	7.3	4-21-19 6:30	8.30	1148	8.36	3.5	4-21-19 6:30	8.46	681	8.35	13.9
1-20-19 18:30	-0.07	1388	7.94	1.1	1-20-19 18:00	1.05	1372	7.74	0.0	1-20-19 18:00	-0.04	1575	8.47	44.5	6-20-19 11:45	16.09	1783	8.58	7.0	4-21-19 6:45	8.25	1149	8.36	3.9	4-21-19 6:45	8.46	681	8.34	13.0
1-20-19 18:45	-0.07	1388	7.94	1.1	1-20-19 18:15	1.04	1362	7.74	3.9	1-20-19 18:15	-0.04	1576	8.47	44.3	6-20-19 12:00	16.02	1783	8.58	7.0	4-21-19 7:00	8.23	1150	8.37	3.5	4-21-19 7:00	8.51	681	8.35	12.9

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-20-19 19:00	-0.07	1388	7.94	1.1	1-20-19 18:30	1.03	1363	7.74	2.5	1-20-19 18:30	-0.05	1576	8.47	42.7	6-20-19 12:15	15.95	1783	8.58	7.0	4-21-19 7:15	8.17	1150	8.37	3.7	4-21-19 7:15	8.49	682	8.35	12.6
1-20-19 19:15	-0.08	1408	7.93	1.4	1-20-19 18:45	1.05	1365	7.74	7.0	1-20-19 18:45	-0.05	1576	8.47	42.7	6-20-19 12:30	15.86	1782	8.58	6.7	4-21-19 7:30	8.13	1150	8.37	3.1	4-21-19 7:30	8.52	681	8.35	12.1
1-20-19 19:30	-0.07	1409	7.95	1.2	1-20-19 19:00	1.04	1365	7.74	3.9	1-20-19 19:00	-0.05	1557	8.47	39.9	6-20-19 12:45	15.81	1783	8.58	6.8	4-21-19 7:45	8.14	1150	8.37	3.3	4-21-19 7:45	8.50	681	8.35	12.4
1-20-19 19:45	-0.07	1409	7.95	1.1	1-20-19 19:15	1.05	1368	7.74	4.3	1-20-19 19:15	-0.05	1559	8.47	40.0	6-20-19 13:00	15.77	1782	8.59	6.8	4-21-19 8:00	8.21	1151	8.37	3.2	4-21-19 8:00	8.54	682	8.35	12.0
1-20-19 20:00	-0.07	1410	7.95	1.1	1-20-19 19:30	1.07	1366	7.74	5.6	1-20-19 19:30	-0.05	1559	8.47	40.1	6-20-19 13:15	15.72	1782	8.58	6.7	4-21-19 8:15	8.27	1150	8.37	3.2	4-21-19 8:15	8.61	682	8.35	11.8
1-20-19 20:15	-0.08	1387	7.93	1.1	1-20-19 19:45	1.05	1365	7.74	1.0	1-20-19 19:45	-0.05	1561	8.47	39.9	6-20-19 13:30	15.66	1783	8.58	6.2	4-21-19 8:30	8.30	1150	8.37	4.2	4-21-19 8:30	8.66	681	8.35	12.0
1-20-19 20:30	-0.07	1387	7.95	1.1	1-20-19 20:00	1.06	1391	7.74	3.7	1-20-19 20:00	-0.05	1581	8.47	44.1	6-20-19 13:45	15.61	1784	8.58	6.1	4-21-19 8:45	8.31	1150	8.37	3.3	4-21-19 8:45	8.70	681	8.35	11.8
1-20-19 20:45	-0.08	1386	7.95	1.1	1-20-19 20:15	0.97	1384	7.74	4.6	1-20-19 20:15	-0.05	1580	8.47	42.7	6-20-19 14:00	15.57	1785	8.58	6.5	4-21-19 9:00	8.32	1150	8.37	4.5	4-21-19 9:00	8.69	682	8.35	11.7
1-20-19 21:00	-0.08	1387	7.94	1.2	1-20-19 20:30	0.92	1368	7.74	4.6	1-20-19 20:30	-0.05	1578	8.47	42.1	6-20-19 14:15	15.52	1784	8.58	6.8	4-21-19 9:15	8.28	1148	8.38	4.7	4-21-19 9:15	8.66	682	8.35	11.8
1-20-19 21:15	-0.08	1400	7.93	1.4	1-20-19 20:45	0.87	1365	7.74	5.5	1-20-19 20:45	-0.05	1578	8.47	42.3	6-20-19 14:30	15.49	1784	8.59	6.0	4-21-19 9:30	8.34	1150	8.38	4.1	4-21-19 9:30	8.65	682	8.34	11.2
1-20-19 21:30	-0.07	1401	7.94	1.1	1-20-19 21:00	0.82	1371	7.74	4.9	1-20-19 21:00	-0.04	1560	8.47	39.7	6-20-19 14:45	15.44	1784	8.59	5.6	4-21-19 9:45	8.48	1150	8.38	5.4	4-21-19 9:45	8.66	681	8.35	12.6
1-20-19 21:45	-0.07	1401	7.94	1.2	1-20-19 21:15	0.80	1377	7.74	6.4	1-20-19 21:15	-0.04	1561	8.47	39.7	6-20-19 15:00	15.38	1785	8.59	5.4	4-21-19 10:00	8.58	1149	8.38	5.0	4-21-19 10:00	8.65	681	8.36	14.6
1-20-19 22:00	-0.07	1401	7.94	1.1	1-20-19 21:30	0.80	1372	7.74	3.9	1-20-19 21:30	-0.04	1560	8.47	39.6	6-20-19 15:15	15.36	1784	8.58	5.4	4-21-19 10:15	8.64	1148	8.38	5.3	4-21-19 10:15	8.63	682	8.36	11.9
1-20-19 22:15	-0.08	1386	7.93	1.2	1-20-19 21:45	0.85	1371	7.74	4.7	1-20-19 21:45	-0.04	1560	8.47	39.5	6-20-19 15:30	15.33	1783	8.59	6.1	4-21-19 10:30	8.65	1148	8.38	4.8	4-21-19 10:30	8.63	682	8.36	17.7
1-20-19 22:30	-0.07	1386	7.94	1.1	1-20-19 22:00	0.58	1372	7.74	6.8	1-20-19 22:00	-0.04	1578	8.47	41.8	6-20-19 15:45	15.27	1784	8.59	6.4	4-21-19 10:45	8.67	1149	8.38	5.6	4-21-19 10:45	8.67	699	8.36	13.6
1-20-19 22:45	-0.07	1386	7.94	1.1	1-20-19 22:15	0.46	1386	7.74	2.7	1-20-19 22:15	-0.05	1578	8.47	42.4	6-20-19 16:00	15.23	1784	8.59	6.0	4-21-19 11:00	8.68	1149	8.38	4.2	4-21-19 11:00	8.72	686	8.36	10.3
1-20-19 23:00	-0.07	1386	7.94	1.1	1-20-19 22:30	0.51	1364	7.74	3.5	1-20-19 22:30	-0.05	1579	8.47	41.4	6-20-19 16:15	15.16	1784	8.59	6.0	4-21-19 11:15	8.63	1148	8.37	3.5	4-21-19 11:15	8.78	684	8.37	9.1
1-20-19 23:15	-0.08	1404	7.93	1.6	1-20-19 22:45	0.48	1368	7.74	7.5	1-20-19 22:45	-0.04	1580	8.47	41.4	6-20-19 16:30	15.15	1785	8.59	5.6	4-21-19 11:30	8.67	1149	8.37	3.3	4-21-19 11:30	8.83	684	8.37	7.8
1-20-19 23:30	-0.07	1404	7.94	1.2	1-20-19 23:00	0.44	1371	7.74	4.7	1-20-19 23:00	-0.04	1560	8.47	39.0	6-20-19 16:45	15.11	1786	8.59	5.6	4-21-19 11:45	8.69	1148	8.37	4.3	4-21-19 11:45	8.85	684	8.36	7.6
1-20-19 23:45	-0.07	1404	7.94	1.1	1-20-19 23:15	0.37	1379	7.74	4.7	1-20-19 23:15	-0.04	1561	8.47	37.7	6-20-19 17:00	15.06	1785	8.59	6.0	4-21-19 12:00	8.79	1148	8.38	3.3	4-21-19 12:00	8.91	683	8.37	7.3
1-21-19 0:00	-0.07	1404	7.94	1.1	1-20-19 23:30	0.32	1387	7.75	5.5	1-20-19 23:30	-0.04	1562	8.47	38.8	6-20-19 17:15	15.01	1785	8.59	5.9	4-21-19 12:15	8.90	1150	8.37	3.1	4-21-19 12:15	8.97	684	8.36	7.8
1-21-19 0:15	-0.08	1389	7.93	1.1	1-20-19 23:45	0.30	1370	7.75	6.6	1-20-19 23:45	-0.04	1563	8.47	39.1	6-20-19 17:30	14.99	1784	8.59	6.1	4-21-19 12:30	9.41	1153	8.37	20.3	4-21-19 12:30	9.10	684	8.37	6.0
1-21-19 0:30	-0.08	1389	7.94	1.1	1-21-19 0:00	0.29	1367	7.75	7.5	1-21-19 0:00	-0.04	1583	8.47	41.3	6-20-19 17:45	15.01	1785	8.58	6.3	4-21-19 12:45	9.48	1147	8.37	47.9	4-21-19 12:45	9.06	683	8.37	6.2
1-21-19 0:45	-0.08	1389	7.94	1.1	1-21-19 0:15	0.27	1370	7.75	5.3	1-21-19 0:15	-0.04	1584	8.47	40.6	6-20-19 18:00	14.99	1783	8.59	6.3	4-21-19 13:00	9.60	1149	8.37	15.7	4-21-19 13:00	9.18	682	8.36	5.1
1-21-19 1:00	-0.07	1389	7.94	1.2	1-21-19 0:30	0.27	1377	7.75	2.9	1-21-19 0:30	-0.05	1583	8.47	41.0	6-20-19 18:15	14.95	1785	8.58	6.5	4-21-19 13:15	9.69	1147	8.37	12.2	4-21-19 13:15	9.00	681	8.37	5.9
1-21-19 1:15	-0.08	1408	7.93	1.3	1-21-19 0:45	0.26	1371	7.75	5.9	1-21-19 0:45	-0.05	1583	8.47	41.2	6-20-19 18:30	14.90	1784	8.59	6.4	4-21-19 13:30	9.86	1148	8.36	9.4	4-21-19 13:30	9.09	682	8.37	5.1
1-21-19 1:30	-0.07	1407	7.94	1.2	1-21-19 1:00	0.24	1381	7.74	6.6	1-21-19 1:00	-0.05	1565	8.47	39.2	6-20-19 18:45	14.87	1784	8.59	6.4	4-21-19 13:45	10.14	1145	8.36	7.9	4-21-19 13:45	9.18	681	8.37	30.0
1-21-19 1:45	-0.07	1408	7.94	1.1	1-21-19 1:15	0.23	1370	7.74	4.2	1-21-19 1:15	-0.05	1564	8.47	38.1	6-20-19 19:00	14.86	1785	8.59	6.6	4-21-19 14:00	9.99	1144	8.36	7.9	4-21-19 14:00	9.27	682	8.36	6.6
1-21-19 2:00	-0.07	1408	7.93	1.1	1-21-19 1:30	0.21	1376	7.74	0.0	1-21-19 1:30	-0.05	1566	8.47	38.1	6-20-19 19:15	14.79	1784	8.59	6.7	4-21-19 14:15	10.14	1145	8.36	10.8	4-21-19 14:15	9.57	683	8.36	7.3
1-21-19 2:15	-0.08	1391	7.92	1.1	1-21-19 1:45	0.21	1375	7.75	5.9	1-21-19 1:45	-0.05	1565	8.47	38.2	6-20-19 19:30	14.78	1784	8.59	6.4	4-21-19 14:30	10.02	1148	8.36	8.1	4-21-19 14:30	9.75	680	8.35	8.4
1-21-19 2:30	-0.07	1391	7.94	1.1	1-21-19 2:00	0.19	1368	7.75	5.9	1-21-19 2:00	-0.05	1586	8.47	39.9	6-20-19 19:45	14.81	1784	8.59	6.3	4-21-19 14:45	10.36	1148	8.36	7.8	4-21-19 14:45	9.76	681	8.36	7.6
1-21-19 2:45	-0.07	1391	7.94	1.1	1-21-19 2:15	0.18	1376	7.75	0.0	1-21-19 2:15	-0.05	1587	8.47	39.8	6-20-19 20:00	14.79	1784	8.59	6.1	4-21-19 15:00	10.30	1144	8.36	8.1	4-21-19 15:00	10.01	688	8.36	10.8
1-21-19 3:00	-0.07	1391	7.94	1.3	1-21-19 2:30	0.18	1372	7.75	7.0	1-21-19 2:30	-0.04	1585	8.47	39.6	6-20-19 20:15	14.77	1784	8.60	6.5	4-21-19 15:15	10.20	1141	8.36	8.1	4-21-19 15:15	10.40	685	8.35	12.3
1-21-19 3:15	-0.08	1413	7.93	1.3	1-21-19 2:45	0.17	1371	7.75	5.1	1-21-19 2:45	-0.04	1586	8.47	39.8	6-20-19 20:30	14.77	1785	8.59	6.6	4-21-19 15:30	9.88	1147	8.36	12.0	4-21-19 15:30	10.42	684	8.35	11.1
1-21-19 3:30	-0.07	1414	7.94	1.1	1-21-19 3:00	0.17	1376	7.74	0.0	1-21-19 3:00	-0.04	1566	8.47	38.5	6-20-19 20:45	14.80	1784	8.60	6.1	4-21-19 15:45	10.09	1148	8.36	8.2	4-21-19 15:45	10.47	681	8.35	12.6
1-21-19 3:45	-0.07	1415	7.93	1.1	1-21-19 3:15	0.16	1374	7.75	5.1	1-21-19 3:15	-0.04	1565	8.47	38.4	6-20-19 21:00	14.81	1785	8.60	6.6	4-21-19 16:00	10.12	1149	8.36	6.1	4-21-19 16:00	10.55	680	8.35	14.8
1-21-19 4:00	-0.07	1415	7.93	1.2	1-21-19 3:30	0.15	1364	7.75	3.2	1-21-19 3:30	-0.04	1564	8.47	38.3	6-20-19 21:15	14.88	1785	8.60	6.4	4-21-19 16:15	10.09	1150	8.36	5.8	4-21-19 16:15	10.57	681	8.35	14.1
1-21-19 4:15	-0.08	1393	7.93	1.2	1-21-19 3:45	0.15	1365	7.75	5.3	1-21-19 3:45	-0.04	1564	8.47	38.6	6-20-19 21:30	14.92	1785	8.59	6.5	4-21-19 16:30	10.14	1149	8.36	5.4	4-21-19 16:30	10.63	679	8.35	17.5
1-21-19 4:30	-0.07	1393	7.94	1.2	1-21-19 4:00	0.14	1369	7.75	4.8	1-21-19 4:00	-0.04	1581	8.47	41.0	6-20-19 21:45	14.93	1786	8.59	7.0	4-21-19 16:45	10.14	1147	8.36	6.6	4-21-19 16:45	10.53	679	8.35	22.2
1-21-19 4:45	-0.07	1393	7.94	1.2	1-21-19 4:15	0.14	1372	7.74	1.3	1-21-19 4:15	-0.04	1581	8.47	40.7	6-20-19 22:00	14.94	1784	8.59	6.4	4-21-19 17:00	10.07	1150	8.34	5.2	4-21-19 17:00	10.39	683	8.35	24.7
1-21-19 5:00	-0.07	1393	7.93	1.1	1-21-19 4:30	0.13	1369	7.75	4.2	1-21-19 4:30	-0.04	1582	8.47	40.2	6-20-19 22:15	14.98	1785	8.60	6.6	4-21-19 17:15	10.08	1156	8.34	6.9	4-21-19 17:15	10.29	678	8.35	32.4
1-21-19 5:15	-0.08	1400	7.93	1.3	1-21-19 4:45	0.13	1366	7.74	3.9	1-21-19 4:45	-0.04	1581	8.47	40.3	6-20-19 22:30	14.98	1786	8.60	6.4	4-21-19 17:30	10.18	1155	8.34	4.6	4-21-19 17:30	10.24	677	8.36	24.0
1-21-19 5:30	-0.07	1402	7.93	1.1	1-21-19 5:00	0.12	1364	7.74	4.0	1-21-19 5:00	-0.04	1563	8.47	38.5	6-20-19 22:45	14.97	1785	8.60	6.1	4-21-19 17:45	10.22	1152	8.34	4.6	4-21-19 17:45	10.28	676	8.36	8.5
1-21-19 5:45	-0.08	1400	7.93	1.2	1-21-19 5:15	0.12	1375	7.74	0.0	1-21-19 5:15	-0.04	1564	8.47	37.6	6-20-19 23:00	14.92	1786	8.60	8.5	4-21-19 18:00	10.22	1154	8.34	5.0	4-21-19 18:00	10.27	676	8.36	10.2
1-21-19 6:00	-0.07	1401	7.93	1.1	1-21-19 5:30	0.12	1370	7.74	3.6	1-21-19 5:30	-0.04	1567	8.48	38.6	6-20-19 23:15	14.93	1784	8.60	6.3	4-21-19 18:15	10.21	1151	8.35	5.8	4-21-19 18:15	10.22	676	8.36	9.8
1-21-19 6:15	-0.08	1393	7.92	1.1	1-21-19 5:45	0.12	1371	7.74	4.7	1-21-19 5:45	-0.05	1565	8.47	38.1	6-20-19 23:30	14.98	1787	8.60	6.2	4-21-19 18:30	10.17	1155	8.35	3.8	4-21-19 18:30	10.18	674	8.37	8.9
1-21-19 6:30	-0.07	1393	7.93	1.1	1-21-19 6:00	0.11	1382	7.74	4.7	1-21-19 6:00	-0.05	1587	8.47	40.8	6-20-19 23:45	15.01	1786	8.60	7.3	4-21-19 18:45	10.16	1154	8.35	5.4	4-21-19 18:45	10.17	675	8.37	8.3
1-21-19 6:45	-0.07	1393	7.92	1.1	1-21-19 6:15	0.11	1366	7.74	3.4	1-21-19 6:15	-0.06	1588	8.48	39.6	6-21-19 0:00	15.05	1787	8.60	6.7	4-21-19 19:00	10.15	1150	8.36	5.1	4-21-19 19:00	10.17	673	8.37	8.8
1-21-19 7:00	-0.07	1393	7.92	1.1	1-21-19 6:30	0.11	1363	7.74	2.9	1-21-19 6:30	-0.06	1588	8.47	39.7	6-21-19 0:15	15.03	1787	8.61	6.7	4-21-19 19:15	10.16	1152	8.36	4.0	4-21-19 19:15	10.16	668	8.37	9.3
1-21-19 7:15	-0.07	1410	7.92	1.3	1-21-19 6:45	0.10	1367	7.74	5.2	1-21-19 6:45	-0.07	1589	8.47	40.2	6-21-19 0:30	15.06	1785	8.60	6.4	4-21-19 19:30	10.18	1152	8.35	3.8	4-21-19 19:30	10.16	667	8.37	9.4
1-21-19 7:30	-0.07	1408	7.93	1.3	1-21-19 7:00	0.10	1370	7.74	4.3	1-21-19 7:00	-0.08	1569	8.48	39.4	6-21-19 0:45	15.08	1786	8.60	6.6	4-21-19 19:45	10.16	1152	8.36	4.6	4-21-19 19:45	10.09	668	8.37	10.5
1-21-19 7:45	-0.07	1408	7.93	1.1	1-21-19 7:15	0.10	1376	7.74	3.7	1-21-19 7:15	-0.08	1569	8.48	40.9	6-21-19 1:00	15.06	1786	8.61	6.4	4-21-19 20:00	10.14	1150	8.36	5.7	4-21-19 20:00	10.08	684	8.37	10.4
1-21-19 8:00	-0.07	1408	7.93	1.2	1-21-19 7:30	0.10	1372	7.74	3.3	1-21-19 7:30	-0.08	1570	8.48	42.8	6-21-19 1:15	15.03	1786	8.61	6.6	4-21-19 20:15	10.11	1152	8.36	3.6	4-21-19 20:15	10.03	671	8.37	9.7
1-21-19 8:15	-0.07	1392	7.92	1.2	1-21-19 7:45	0.09	1371	7.74	2.9	1-21-19 7:45	-0.08	1571	8.48	42.5	6-21-19 1:30	15.02	1787	8.61	6.0	4-21-19 20:30	10.08	1151	8.36	6.3	4-21-19 20:30	9.99	670	8.37	10.4
1-21-19 8:30	-0.07	1391	7.93	1.1	1-21-19 8:00	0.09	1372	7.74	3.3	1-21-19 8:00	-0.09	1590	8.48	44.1	6-21-19 1:45	15.01	1785	8.61	6.5	4-21-19 20:45	10.08	1151	8.36	8.1	4-21-19 20:45	9.99	670	8.38	10.2
1-21-19 8:45	-0.07	1391	7.93	1.2	1-21-19 8:15	0.09	1370	7.74	2.0	1-21-19 8:15	-0.09	1589	8.48	45.4	6-21-19 2:00	14.99	1787	8.61	6.3	4-21-19 21:00	10.04	1152	8.36	5.3	4-21-19 21:00	9.92	670	8.37	10.8
1-21-19 9:00	-0.07	1391	7.93	1.1	1-21-19 8:30	0.09	1368	7.74	5.1	1-21-19 8:30	-0.08	1590	8.48	45.1	6-21-19 2:15	14.98	1787	8.61	6.5	4-21-19 21:15	10.05	1152	8.36	6.3	4-21-19 21:15	9.96	667	8.38	11.5
1-21-19 9:15	-0.07	1399	7.92	1.3	1-21-19 8:45	0.09	1376	7.74	0.0	1-21-19 8:45	-0.08	1588	8.48	45.4	6-21-19 2:30	14.95	1787	8.61	6.2	4-21-19 21:30	10.04	1151	8.36	6.4	4-21-19 21:30	9.91	669	8.37	12.5
1-21-19 9:30	-0.07	1398	7.93	1.2	1-21-19 9:00	0.09	1369	7.74	4.3	1-21-19 9:00	-0.07	1569	8.49	44.4	6-21-19 2:45	14.92	1787	8.61	6.8	4-21-19 21:45	10.02	1153	8.36	4.1	4-21-19 21:45	9.89	670	8.37	13.1
1-21-19 9:45	-0.07	1398	7.93	1.1	1-21-19 9:15	0.08	1370	7.74	3.4	1-21-19 9:15	-0.07	1570	8.49	43.8	6-21-19 3:00	14.91	1787	8.61	7.2	4-21-19 22:00	10.01	1152	8.36	4.4	4-21-19 22:00	9.86	669	8.37	20.4
1-21-19 10:00	-0.07	1399	7.93	1.1	1-21-19 9:30	0.08	1369	7.74	4.8	1-21-19 9:30	-0.08	1569	8.49	43.6	6-21-19 3:15	14.88	1785	8.61	6.9	4-21-19 22:15	9.99	1152	8.36	6.6	4-21-19 22:15	9.82	675	8.37	16.3
1-21-19 10:15	-0.07	1390	7.92	1.1	1-21-19 9:45	0.08	1370	7.74	2.0	1-21-19 9:45	-0.07	1569	8.49	44.0	6-21-19 3:30	14.84	1786	8.61	7.0	4-21-19 22:30	9.95	1154	8.36	5.0	4-21-19 22:30	9.82	672	8.37	12.5
1-21-19 10:30	-0.07	1389	7.93	1.0	1-21-19 10:00	0.08	1378	7.74	1.9	1-21-19 10:00	-0.07	1587	8.48	45.5	6-21-19 3:45	14.83	1788	8.61	7.2	4-21-19 22:45	9.93	1150	8.36	3.3	4-21-19 22:45	9.79	672	8.37	12.9
1-21-19 10:45	-0.07	1389	7.93	1.1	1-21-19 10:15	0.08	1376	7.74	1.1	1-21-19 10:15	-0.07	1587	8.48	45.2	6-21-19 4:00	14.78	1788	8.61	7.0	4-21-19 23:00	9.91	1151	8.36	4.0	4-21-19 23:00	9.75	671	8.38	14.4
1-21-19 11:00	-0.07	1389	7.93	1.1	1-21-19 10:30	0.08	1379	7.74	4.9	1-21-19 10:30	-0.06	1586	8.48	44.9	6-21-19 4:15	14.74	1788	8.61	7.5	4-21-19 23:15	9.90	1151	8.36	4.5	4-21-19 23:15	9.77	670	8.37	13.5
1-21-19 11:15	-0.08	1411	7.92	1.3	1-21-19 10:45	0.08	1375	7.74	2.1	1-21-19 10:45	-0.07	1588	8.48	45.0	6-21-19 4:30	14.72	1787	8.61	7.0	4-21-19 23:30	9.86	1151	8.36	5.3	4-21-19 23:30	9.75	672	8.38	14.1
1-21-19 11:30	-0.07	1411	7.93	1.1	1-21-19 11:00	0.07	1369	7.74	2.2	1-21-19 11:00	-0.07	1568	8.49	42.6	6-21-19 4:45	14.69	1788	8.61	7.1	4-21-19 23:45	9.82	1148	8.36	5.7	4-21-19 23:45	9.75	670	8.37	15.0
1-21-19 11:45	-0.07	1412	7.93	1.1	1-21-19 11:15	0.07	1366	7.74	4.7	1-21-19 11:15	-0.07	1569	8.49	43.3	6-21-19 5:00	14.68	1786	8.61	7.4	4-22-19 0:00	9.80	1149	8.36	3.5	4-22-19 0:00	9.71	670	8.38	16.0
1-21-19 12:00	-0.07	1411	7.93	1.1	1-21-19 11:30	0.07	1373	7.74	3.1	1-21-19 11:30	-0.07	1569	8.49	43.3	6-21-19 5:15	14.66	1787	8.61	7.0	4-22-19 0:15	9.78	1149	8.37	3.0	4-22-19 0:15	9.72	671	8.38	18.4
1-21-19 12:15	-0.07	1392	7.92	1.1	1-21-19 11:45	0.07	1374	7.74	3.8	1-21-19 11:45	-0.07	1570	8.49	42.9	6-21-19 5:30	14.62	1788	8.61	6.9	4-22-19 0:30	9.74	1149	8.37	4.4	4-22-19 0:30	9.69	670	8.37	11.9
1-21-19 12:30	-0.07	1392	7.93	1.1	1-21-19 12:00	0.07	1369	7.74	4.2	1-21-19 12:00	-0.07	1587	8.49	44.8	6-21-19 5:45	14.62	1787	8.61	6.8	4-22-19 0:45	9.73	1151	8.37	3.7	4-22-19 0:45	9.61	678	8.37	9.7
1-21-19 12:45	-0.07	1392	7.93	1.1	1-21-19 12:15	0.07	1375	7.74	5.2	1-21-19 12:15	-0.07	1587	8.49	44.8	6-21-19 6:00	14.60	1787	8.60	6.7	4-22-19 1:00	9.73	1151	8.36	6.2	4-22-19 1:00	9.58	675	8.37	11.2
1-21-19 13:00	-0.07	1392	7.93	1.1	1-21-19 12:30	0.07	1375	7.74	0.3	1-21-19 12:30	-0.07	1587	8.49	44.6	6-21-19 6:15	14.56	1787	8.61	6.6	4-22-19 1:15	9.73	1150	8.36	4.4	4-22-19 1:15	9.63	673	8.37	7.9

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-21-19 13:15	-0.08	1406	7.92	1.3	1-21-19 12:45	0.07	1377	7.74	0.9	1-21-19 12:45	0.05	1585	8.49	46.7	6-21-19 6:30	14.52	1787	8.60	8.6	4-22-19 1:30	9.71	1149	8.36	4.6	4-22-19 1:30	9.61	680	8.37	9.4
1-21-19 13:30	-0.07	1406	7.93	1.2	1-21-19 13:00	0.07	1379	7.74	5.8	1-21-19 13:00	0.03	1568	8.49	43.5	6-21-19 6:45	14.47	1787	8.61	6.7	4-22-19 1:45	9.66	1152	8.37	5.7	4-22-19 1:45	9.54	673	8.37	9.6
1-21-19 13:45	-0.07	1406	7.93	1.1	1-21-19 13:15	0.07	1370	7.74	1.2	1-21-19 13:15	0.00	1568	8.49	41.5	6-21-19 7:00	14.49	1786	8.61	6.3	4-22-19 2:00	9.65	1155	8.36	4.9	4-22-19 2:00	9.54	672	8.37	9.2
1-21-19 14:00	-0.07	1406	7.93	1.1	1-21-19 13:30	0.09	1368	7.74	4.6	1-21-19 13:30	0.10	1566	8.49	44.7	6-21-19 7:15	14.46	1787	8.61	6.5	4-22-19 2:15	9.60	1153	8.37	3.2	4-22-19 2:15	9.54	674	8.37	9.6
1-21-19 14:15	-0.08	1390	7.94	1.3	1-21-19 13:45	0.08	1364	7.74	4.2	1-21-19 13:45	0.02	1568	8.49	43.1	6-21-19 7:30	14.42	1787	8.61	6.3	4-22-19 2:30	9.58	1151	8.37	4.1	4-22-19 2:30	9.51	673	8.37	10.2
1-21-19 14:30	-0.07	1389	7.94	1.2	1-21-19 14:00	0.07	1375	7.74	0.0	1-21-19 14:00	0.01	1588	8.48	44.3	6-21-19 7:45	14.37	1789	8.60	6.9	4-22-19 2:45	9.55	1153	8.37	4.2	4-22-19 2:45	9.47	675	8.37	9.9
1-21-19 14:45	-0.07	1390	7.94	1.1	1-21-19 14:15	0.07	1370	7.74	1.6	1-21-19 14:15	-0.02	1590	8.49	43.4	6-21-19 8:00	14.30	1788	8.61	6.2	4-22-19 3:00	9.51	1152	8.37	4.1	4-22-19 3:00	9.37	677	8.37	11.6
1-21-19 15:00	-0.06	1390	7.94	1.1	1-21-19 14:30	0.07	1373	7.74	5.1	1-21-19 14:30	-0.04	1592	8.49	43.7	6-21-19 8:15	14.26	1788	8.61	6.6	4-22-19 3:15	9.48	1153	8.37	5.0	4-22-19 3:15	9.37	673	8.37	12.8
1-21-19 15:15	-0.07	1405	7.93	1.3	1-21-19 14:45	0.07	1374	7.74	3.7	1-21-19 14:45	0.09	1585	8.49	46.0	6-21-19 8:30	14.26	1788	8.60	6.4	4-22-19 3:30	9.50	1153	8.37	5.0	4-22-19 3:30	9.39	677	8.37	16.3
1-21-19 15:30	-0.06	1405	7.94	1.1	1-21-19 15:00	0.07	1366	7.74	2.4	1-21-19 15:00	0.09	1566	8.49	44.2	6-21-19 8:45	14.23	1787	8.61	6.2	4-22-19 3:45	9.47	1152	8.37	5.0	4-22-19 3:45	9.43	673	8.37	17.4
1-21-19 15:45	-0.07	1405	7.93	1.1	1-21-19 15:15	0.07	1370	7.74	2.6	1-21-19 15:15	0.02	1565	8.49	43.4	6-21-19 9:00	14.19	1788	8.61	6.4	4-22-19 4:00	9.47	1153	8.37	7.1	4-22-19 4:00	9.41	682	8.36	16.9
1-21-19 16:00	-0.06	1405	7.93	1.1	1-21-19 15:30	0.07	1371	7.74	0.8	1-21-19 15:30	-0.02	1569	8.49	42.5	6-21-19 9:15	14.13	1788	8.60	7.1	4-22-19 4:15	9.46	1154	8.36	7.7	4-22-19 4:15	9.47	676	8.37	17.4
1-21-19 16:15	-0.07	1393	7.93	1.1	1-21-19 15:45	0.07	1369	7.74	0.4	1-21-19 15:45	-0.04	1570	8.49	41.7	6-21-19 9:30	14.07	1788	8.60	6.6	4-22-19 4:30	9.41	1152	8.36	8.0	4-22-19 4:30	9.44	676	8.37	13.2
1-21-19 16:30	-0.07	1393	7.94	1.1	1-21-19 16:00	0.07	1371	7.74	1.4	1-21-19 16:00	-0.05	1589	8.49	43.6	6-21-19 9:45	14.02	1787	8.60	6.1	4-22-19 4:45	9.35	1154	8.37	4.2	4-22-19 4:45	9.40	676	8.36	13.1
1-21-19 16:45	-0.07	1393	7.94	1.1	1-21-19 16:15	0.07	1369	7.74	3.0	1-21-19 16:15	-0.06	1588	8.49	43.3	6-21-19 10:00	13.97	1789	8.60	6.2	4-22-19 5:00	9.30	1154	8.37	4.1	4-22-19 5:00	9.38	677	8.37	13.7
1-21-19 17:00	-0.07	1393	7.93	1.1	1-21-19 16:30	0.06	1372	7.74	1.8	1-21-19 16:30	-0.06	1590	8.49	43.3	6-21-19 10:15	13.94	1787	8.60	6.0	4-22-19 5:15	9.27	1153	8.37	2.7	4-22-19 5:15	9.36	677	8.37	14.1
1-21-19 17:15	-0.07	1407	7.93	1.3	1-21-19 16:45	0.06	1371	7.74	2.9	1-21-19 16:45	-0.07	1589	8.49	42.6	6-21-19 10:30	13.89	1788	8.60	6.1	4-22-19 5:30	9.25	1152	8.37	3.4	4-22-19 5:30	9.27	677	8.36	13.7
1-21-19 17:30	-0.07	1407	7.94	1.1	1-21-19 17:00	0.06	1372	7.74	0.4	1-21-19 17:00	-0.07	1571	8.49	41.0	6-21-19 10:45	13.85	1789	8.60	5.9	4-22-19 5:45	9.26	1153	8.37	3.1	4-22-19 5:45	9.29	678	8.36	12.9
1-21-19 17:45	-0.07	1408	7.93	1.1	1-21-19 17:15	0.07	1372	7.74	0.0	1-21-19 17:15	-0.07	1571	8.49	40.4	6-21-19 11:00	13.81	1788	8.60	6.1	4-22-19 6:00	9.27	1152	8.37	2.7	4-22-19 6:00	9.29	679	8.36	13.8
1-21-19 18:00	-0.07	1408	7.93	1.1	1-21-19 17:30	0.06	1384	7.74	4.5	1-21-19 17:30	-0.07	1571	8.49	40.2	6-21-19 11:15	13.78	1789	8.60	5.7	4-22-19 6:15	9.26	1154	8.37	2.9	4-22-19 6:15	9.28	676	8.36	13.3
1-21-19 18:15	-0.08	1393	7.92	1.1	1-21-19 17:45	0.06	1367	7.74	3.3	1-21-19 17:45	-0.07	1570	8.49	40.7	6-21-19 11:30	13.75	1789	8.60	5.8	4-22-19 6:30	9.27	1154	8.37	2.8	4-22-19 6:30	9.25	676	8.36	13.3
1-21-19 18:30	-0.07	1393	7.93	1.1	1-21-19 18:00	0.06	1371	7.74	1.1	1-21-19 18:00	-0.07	1587	8.49	42.6	6-21-19 11:45	13.75	1788	8.59	6.2	4-22-19 6:45	9.23	1153	8.36	3.9	4-22-19 6:45	9.16	676	8.36	14.6
1-21-19 18:45	-0.07	1394	7.93	1.1	1-21-19 18:15	0.06	1368	7.74	3.5	1-21-19 18:15	-0.07	1589	8.49	42.3	6-21-19 12:00	13.67	1788	8.59	5.8	4-22-19 7:00	9.18	1154	8.37	5.1	4-22-19 7:00	9.19	674	8.36	14.2
1-21-19 19:00	-0.07	1393	7.93	1.1	1-21-19 18:30	0.06	1371	7.74	3.8	1-21-19 18:30	-0.07	1589	8.49	42.1	6-21-19 12:15	13.64	1786	8.60	5.5	4-22-19 7:15	9.15	1154	8.37	8.1	4-22-19 7:15	9.18	677	8.36	13.7
1-21-19 19:15	-0.07	1418	7.93	1.2	1-21-19 18:45	0.06	1373	7.74	4.3	1-21-19 18:45	-0.07	1590	8.49	42.1	6-21-19 12:30	13.62	1785	8.59	5.6	4-22-19 7:30	9.17	1155	8.37	4.0	4-22-19 7:30	9.18	676	8.36	14.4
1-21-19 19:30	-0.07	1420	7.94	1.1	1-21-19 19:00	0.06	1380	7.74	0.0	1-21-19 19:00	-0.08	1571	8.49	40.7	6-21-19 12:45	13.60	1788	8.59	6.8	4-22-19 7:45	9.16	1157	8.37	4.1	4-22-19 7:45	9.21	676	8.36	14.9
1-21-19 19:45	-0.07	1420	7.93	1.1	1-21-19 19:15	0.06	1374	7.74	4.3	1-21-19 19:15	-0.08	1570	8.49	40.5	6-21-19 13:00	13.58	1787	8.59	5.9	4-22-19 8:00	9.17	1155	8.37	11.5	4-22-19 8:00	9.22	677	8.36	15.8
1-21-19 20:00	-0.07	1420	7.93	1.1	1-21-19 19:30	0.06	1379	7.74	0.0	1-21-19 19:30	-0.08	1571	8.49	40.4	6-21-19 13:15	13.56	1788	8.59	6.1	4-22-19 8:15	9.18	1156	8.37	12.4	4-22-19 8:15	9.21	676	8.36	16.2
1-21-19 20:15	-0.07	1394	7.93	1.1	1-21-19 19:45	0.05	1376	7.74	2.6	1-21-19 19:45	-0.08	1571	8.49	40.7	6-21-19 13:30	13.50	1790	8.59	5.9	4-22-19 8:30	9.17	1156	8.37	8.5	4-22-19 8:30	9.20	677	8.36	17.8
1-21-19 20:30					1-21-19 20:00	0.05	1370	7.74	0.6	1-21-19 20:00	-0.08	1591	8.49	42.2	6-21-19 13:45	13.54	1788	8.59	5.6	4-22-19 8:45	9.15	1155	8.37	13.2	4-22-19 8:45	9.18	674	8.36	18.0
1-21-19 20:45	-0.07	1395	7.93	1.1	1-21-19 20:15	0.05	1385	7.74	0.5	1-21-19 20:15	-0.08	1592	8.49	41.8	6-21-19 14:00	13.55	1787	8.59	5.6	4-22-19 9:00	9.14	1154	8.37	23.2	4-22-19 9:00	9.17	677	8.37	18.3
1-21-19 21:00	-0.07	1395	7.93	1.1	1-21-19 20:30	0.05	1378	7.74	4.3	1-21-19 20:30	-0.08	1592	8.49	42.1	6-21-19 14:15	13.59	1790	8.59	5.9	4-22-19 9:15	9.11	1153	8.37	5.1	4-22-19 9:15	9.16	677	8.36	28.8
1-21-19 21:15	-0.07	1406	7.93	1.3	1-21-19 20:45	0.05	1374	7.74	0.5	1-21-19 20:45	-0.08	1593	8.49	41.7	6-21-19 14:30	13.59	1788	8.59	5.8	4-22-19 9:30	9.13	1156	8.37	3.7	4-22-19 9:30	9.12	673	8.36	20.7
1-21-19 21:30	-0.07	1407	7.93	1.1	1-21-19 21:00	0.05	1376	7.74	0.9	1-21-19 21:00	-0.08	1571	8.49	40.5	6-21-19 14:45	13.74	1789	8.59	5.2	4-22-19 9:45	9.15	1154	8.37	4.0	4-22-19 9:45	9.12	686	8.36	22.0
1-21-19 21:45	-0.07	1407	7.93	1.0	1-21-19 21:15	0.05	1375	7.74	0.3	1-21-19 21:15	-0.08	1569	8.49	39.9	6-21-19 15:00	13.78	1788	8.59	5.7	4-22-19 10:00	9.14	1158	8.37	3.9	4-22-19 10:00	9.17	673	8.37	22.8
1-21-19 22:00	-0.07	1407	7.93	1.1	1-21-19 21:30	0.05	1371	7.74	0.9	1-21-19 21:30	-0.08	1572	8.49	40.9	6-21-19 15:15	13.78	1785	8.59	6.0	4-22-19 10:15	9.13	1156	8.37	5.5	4-22-19 10:15	9.16	671	8.37	23.3
1-21-19 22:15	-0.07	1396	7.92	1.1	1-21-19 21:45	0.04	1373	7.74	0.9	1-21-19 21:45	-0.08	1569	8.49	40.4	6-21-19 15:30	13.99	1788	8.58	6.1	4-22-19 10:30	9.12	1153	8.38	3.8	4-22-19 10:30	9.16	667	8.37	23.3
1-21-19 22:30	-0.07	1395	7.93	1.1	1-21-19 22:00	0.04	1373	7.74	0.0	1-21-19 22:00	-0.08	1589	8.49	42.7	6-21-19 15:45	13.98	1786	8.58	6.0	4-22-19 10:45	9.13	1153	8.38	4.5	4-22-19 10:45	9.20	678	8.37	11.8
1-21-19 22:45	-0.07	1395	7.93	1.1	1-21-19 22:15	0.04	1373	7.74	0.1	1-21-19 22:15	-0.08	1587	8.49	42.3	6-21-19 16:00	14.12	1788	8.58	5.9	4-22-19 11:00	9.14	1155	8.38	4.3	4-22-19 11:00	9.22	677	8.37	12.7
1-21-19 23:00	-0.07	1395	7.93	1.1	1-21-19 22:30	0.04	1370	7.74	0.7	1-21-19 22:30	-0.08	1586	8.49	42.3	6-21-19 16:15	14.20	1789	8.58	5.8	4-22-19 11:15	9.16	1153	8.38	4.2	4-22-19 11:15	9.22	677	8.37	12.9
1-21-19 23:15	-0.07	1426	7.93	1.3	1-21-19 22:45	0.04	1374	7.74	1.6	1-21-19 22:45	-0.08	1587	8.49	42.1	6-21-19 16:30	14.35	1788	8.58	5.9	4-22-19 11:30	9.19	1152	8.38	4.2	4-22-19 11:30	9.18	676	8.37	14.1
1-21-19 23:30	-0.07	1427	7.93	1.0	1-21-19 23:00	0.04	1384	7.74	2.1	1-21-19 23:00	-0.08	1568	8.49	38.8	6-21-19 16:45	14.51	1787	8.57	5.5	4-22-19 11:45	9.19	1151	8.38	4.6	4-22-19 11:45	9.17	675	8.37	16.3
1-21-19 23:45	-0.07	1428	7.93	1.1	1-21-19 23:15	0.04	1385	7.74	0.8	1-21-19 23:15	-0.08	1569	8.49	41.3	6-21-19 17:00	14.62	1788	8.57	5.6	4-22-19 12:00	9.21	1150	8.38	5.6	4-22-19 12:00	9.16	676	8.37	18.1
1-22-19 0:00	-0.07	1428	7.93	1.1	1-21-19 23:30	0.04	1375	7.74	0.9	1-21-19 23:30	-0.08	1569	8.49	41.1	6-21-19 17:15	15.09	1791	8.56	5.4	4-22-19 12:15	9.27	1152	8.38	4.8	4-22-19 12:15	9.21	676	8.38	20.8
1-22-19 0:15	-0.07	1393	7.92	1.1	1-21-19 23:45	0.04	1372	7.74	1.0	1-21-19 23:45	-0.08	1568	8.49	40.9	6-21-19 17:30	15.10	1788	8.56	5.4	4-22-19 12:30	9.36	1147	8.38	6.6	4-22-19 12:30	9.35	676	8.38	20.7
1-22-19 0:30	-0.07	1393	7.94	1.1	1-22-19 0:00	0.04	1376	7.74	0.0	1-22-19 0:00	-0.08	1589	8.49	42.9	6-21-19 17:45	15.28	1788	8.56	5.4	4-22-19 12:45	9.66	1153	8.37	3.1	4-22-19 12:45	9.79	676	8.37	23.2
1-22-19 0:45	-0.07	1393	7.93	1.0	1-22-19 0:15	0.04	1372	7.74	1.4	1-22-19 0:15	-0.08	1588	8.49	42.6	6-21-19 18:00	15.50	1789	8.56	5.0	4-22-19 13:00	9.94	1151	8.37	4.3	4-22-19 13:00	9.72	672	8.37	15.7
1-22-19 1:00	-0.07	1393	7.93	1.1	1-22-19 0:30	0.04	1375	7.74	0.3	1-22-19 0:30	-0.07	1590	8.49	43.3	6-21-19 18:15	15.69	1789	8.55	5.5	4-22-19 13:15	10.15	1151	8.37	5.0	4-22-19 13:15	9.62	672	8.38	16.1
1-22-19 1:15	-0.08	1408	7.92	1.2	1-22-19 0:45	0.04	1376	7.74	1.9	1-22-19 0:45	-0.08	1589	8.49	42.8	6-21-19 18:30	15.77	1788	8.56	5.3	4-22-19 13:30	10.13	1154	8.37	4.5	4-22-19 13:30	9.54	673	8.39	19.7
1-22-19 1:30	-0.07	1408	7.93	1.1	1-22-19 1:00	0.03	1377	7.74	0.0	1-22-19 1:00	-0.08	1567	8.49	41.4	6-21-19 18:45	15.87	1790	8.56	5.5	4-22-19 13:45	10.21	1149	8.37	3.8	4-22-19 13:45	9.71	669	8.39	20.8
1-22-19 1:45	-0.07	1408	7.93	1.0	1-22-19 1:15	0.03	1371	7.74	1.9	1-22-19 1:15	-0.08	1568	8.49	41.2	6-21-19 19:00	16.24	1791	8.56	5.6	4-22-19 14:00	10.24	1151	8.37	3.6	4-22-19 14:00	9.77	671	8.39	6.9
1-22-19 2:00	-0.07	1408	7.93	1.0	1-22-19 1:30	0.03	1373	7.74	0.4	1-22-19 1:30	-0.08	1567	8.49	40.9	6-21-19 19:15	16.25	1789	8.55	5.4	4-22-19 14:15	10.37	1143	8.37	4.9	4-22-19 14:15	9.98	679	8.39	12.8
1-22-19 2:15	-0.07	1395	7.92	1.0	1-22-19 1:45	0.03	1374	7.74	2.5	1-22-19 1:45	-0.07	1568	8.49	40.4	6-21-19 19:30	16.31	1790	8.55	5.4	4-22-19 14:30	10.50	1150	8.37	4.6	4-22-19 14:30	10.02	679	8.39	15.3
1-22-19 2:30	-0.07	1394	7.93	1.0	1-22-19 2:00	0.03	1371	7.74	2.0	1-22-19 2:00	-0.07	1585	8.49	42.3	6-21-19 19:45	16.43	1788	8.55	5.6	4-22-19 14:45	10.73	1147	8.37	5.3	4-22-19 14:45	10.03	681	8.39	19.6
1-22-19 2:45					1-22-19 2:15	0.03	1372	7.74	2.0	1-22-19 2:15	-0.07	1587	8.49	41.2	6-21-19 20:00	16.75	1789	8.55	5.5	4-22-19 15:00	10.84	1147	8.37	5.8	4-22-19 15:00	10.09	680	8.39	10.7
1-22-19 3:00	-0.07	1394	7.93	1.1	1-22-19 2:30	0.03	1372	7.74	2.6	1-22-19 2:30	-0.07	1587	8.49	41.3	6-21-19 20:15	16.71	1793	8.55	5.7	4-22-19 15:15	10.90	1150	8.37	8.5	4-22-19 15:15	10.07	678	8.39	12.3
1-22-19 3:15	-0.07	1410	7.92	1.2	1-22-19 2:45	0.03	1375	7.74	4.4	1-22-19 2:45	-0.07	1588	8.49	40.9	6-21-19 20:30	16.85	1788	8.55	5.5	4-22-19 15:30	10.92	1151	8.37	6.7	4-22-19 15:30	10.17	678	8.39	11.5
1-22-19 3:30	-0.07	1410	7.94	1.0	1-22-19 3:00	0.03	1382	7.74	0.3	1-22-19 3:00	-0.07	1570	8.49	40.3	6-21-19 20:45	16.75	1787	8.55	5.3	4-22-19 15:45	10.98	1149	8.37	5.1	4-22-19 15:45	10.24	676	8.39	17.5
1-22-19 3:45	-0.07	1410	7.93	1.1	1-22-19 3:15	0.03	1375	7.74	0.7	1-22-19 3:15	-0.07	1570	8.49	39.7	6-21-19 21:00	16.79	1788	8.55	5.2	4-22-19 16:00	11.02	1149	8.38	8.1	4-22-19 16:00	10.23	672	8.39	21.5
1-22-19 4:00	-0.07	1410	7.93	1.1	1-22-19 3:30	0.03	1375	7.74	0.9	1-22-19 3:30	-0.07	1569	8.49	39.5	6-21-19 21:15	17.00	1792	8.55	5.4	4-22-19 16:15	11.09	1149	8.37	4.7	4-22-19 16:15	10.29	673	8.39	9.1
1-22-19 4:15	-0.07	1398	7.92	1.1	1-22-19 3:45	0.03	1371	7.74	1.0	1-22-19 3:45	-0.07	1571	8.49	39.7	6-21-19 21:30	17.04	1789	8.55	8.7	4-22-19 16:30	11.09	1150	8.37	5.2	4-22-19 16:30	10.27	674	8.40	19.9
1-22-19 4:30	-0.07	1398	7.93	1.1	1-22-19 4:00	0.03	1372	7.74	2.2	1-22-19 4:00	-0.07	1588	8.49	41.5	6-21-19 21:45	17.09	1787	8.55	5.5	4-22-19 16:45	11.05	1150	8.38	3.9	4-22-19 16:45	10.29	671	8.40	14.3
1-22-19 4:45	-0.07	1398	7.93	1.1	1-22-19 4:15	0.03	1374	7.74	0.4	1-22-19 4:15	-0.07	1589	8.49	41.3	6-21-19 22:00	17.05	1789	8.56	5.5	4-22-19 17:00	11.04	1150	8.38	3.8	4-22-19 17:00	10.32	673	8.40	13.3
1-22-19 5:00	-0.07	1397	7.93	1.0	1-22-19 4:30	0.03	1387	7.74	0.5	1-22-19 4:30	-0.07	1588	8.49	41.4	6-21-19 22:15	17.04	1787	8.56	5.9	4-22-19 17:15	11.05	1152	8.38	4.0	4-22-19 17:15	10.38	676	8.39	21.8
1-22-19 5:15	-0.07	1410	7.92	1.2	1-22-19 4:45	0.03	1374	7.74	2.1	1-22-19 4:45	-0.07	1589	8.49	41.2	6-21-19 22:30	17.22	1789	8.56	5.6	4-22-19 17:30	11.01	1150	8.37	5.5	4-22-19 17:30	10.42	719	8.39	34.7
1-22-19 5:30	-0.07	1411	7.93	1.0	1-22-19 5:00	0.03	1373	7.74	0.2	1-22-19 5:00	-0.07	1570	8.49	40.0	6-21-19 22:45	17.36	1788	8.56	5.4	4-22-19 17:45	11.08	1151	8.38	3.5	4-22-19 17:45	10.46	710	8.39	18.3
1-22-19 5:45	-0.07	1410	7.93	1.1	1-22-19 5:15	0.03	1383	7.74	0.4	1-22-19 5:15	-0.07	1569	8.50	39.5	6-21-19 23:00	17.65	1790	8.55	5.5	4-22-19 18:00	11.02	1153	8.38	5.2	4-22-19 18:00	10.47	676	8.39	14.0
1-22-19 6:00	-0.07	1410	7.93	1.1	1-22-19 5:30	0.03	1375	7.74	1.5	1-22-19 5:30	-0.07	1571	8.49	39.8	6-21-19 23:15	17.74	1790	8.56	5.4	4-22-19 18:15	11.03	1154	8.38	4.8	4-22-19 18:15	10.44	681	8.40	11.9
1-22-19 6:15	-0.08	1398	7.92	1.1	1-22-19 5:45	0.03	1379	7.74	0.0	1-22-19 5:45	-0.07	1571	8.50	39.5	6-21-19 23:30	17.82	1786	8.55	5.8	4-22-19 18:30	11.00	1150	8.39	4.5	4-22-19 18:30	10.41	678	8.40	9.8
1-22-19 6:30	-0.07	1397	7.93	1.1	1-22-19 6:00	0.03	1371	7.74	3.9	1-22-19 6:00	-0.08	1589	8.49	41.1	6-21-19 23:45	17.70	1788	8.57	5.3	4-22-19 18:45	10.94	1157	8.39	3.5	4-22-19 18:45	10.38	680	8.40	11.6
1-22-19 6:45	-0.07	1397	7.93	1.1	1-22-19 6:15	0.03	1370	7.74	0.5	1-22-19 6:15	-0.08	1590	8.49	41.0	6-22-19 0:00	17.71	1790	8.56	5.6	4-22-19 19:00	10.89	1149	8.39	3.4	4-22-19 19:00	10.36	684	8.40	10.8
1-22-19 7:00	-0.07	1397	7.93	1.1	1-22-19 6:30	0.03	1368	7.74	0.0	1-22-19 6:30	-0.08	1591	8.49	41.0	6-22-19 0:15	17.62	1788	8.57	6.9	4-22-19 19:15	10.84	1154	8.39	3.3	4-22-19 19:15	10.26	689	8.40	7.8
1-22-19 7:15	-0.08	1406	7.92	1.2	1-22-19 6:45	0.03	1379	7.74	1.2	1-22-19 6:45	-0.08	1589	8.49	40.9	6-22-19 0:30	17.56	1787	8.57	7.4	4-22-19 19:30	10.84	1153	8.38	4.1	4-22-19 19:30	10.17	650	8.40	10.3

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-22-19 7:30	-0.07	1407	7.93	1.1	1-22-19 7:00	0.03	1383	7.74	0.0	1-22-19 7:00	-0.08	1572	8.50	39.8	6-22-19 0:45	17.58	1789	8.57	6.7	4-22-19 19:45	10.85	1152	8.39	4.2	4-22-19 19:45	10.12	683	8.41	8.9
1-22-19 7:45	-0.07	1407	7.93	1.1	1-22-19 7:15	0.03	1373	7.74	0.4	1-22-19 7:15	-0.08	1573	8.50	39.4	6-22-19 1:00	17.53	1786	8.56	9.1	4-22-19 20:00	10.85	1150	8.38	3.9	4-22-19 20:00	10.09	682	8.41	8.1
1-22-19 8:00	-0.07	1407	7.93	1.0	1-22-19 7:30	0.03	1373	7.74	2.3	1-22-19 7:30	-0.08	1571	8.50	39.1	6-22-19 1:15	17.45	1788	8.56	10.9	4-22-19 20:15	10.82	1152	8.39	3.7	4-22-19 20:15	10.06	671	8.41	8.0
1-22-19 8:15	-0.08	1394	7.92	1.1	1-22-19 7:45	0.03	1389	7.74	0.8	1-22-19 7:45	-0.08	1571	8.50	39.0	6-22-19 1:30	17.54	1788	8.56	9.3	4-22-19 20:30	10.78	1151	8.39	3.0	4-22-19 20:30	10.09	672	8.41	8.9
1-22-19 8:30	-0.07	1394	7.93	1.1	1-22-19 8:00	0.03	1376	7.74	2.1	1-22-19 8:00	-0.08	1591	8.49	41.3	6-22-19 1:45	17.66	1791	8.56	7.5	4-22-19 20:45	10.75	1155	8.39	2.7	4-22-19 20:45	9.99	669	8.40	9.3
1-22-19 8:45	-0.07	1394	7.93	1.1	1-22-19 8:15	0.03	1372	7.74	0.0	1-22-19 8:15	-0.08	1591	8.49	40.9	6-22-19 2:00	18.12	1793	8.55	8.4	4-22-19 21:00	10.71	1152	8.39	3.0	4-22-19 21:00	9.93	665	8.41	10.4
1-22-19 9:00	-0.07	1394	7.92	1.0	1-22-19 8:30	0.03	1385	7.74	1.0	1-22-19 8:30	-0.08	1590	8.49	40.6	6-22-19 2:15	18.34	1792	8.55	5.7	4-22-19 21:15	10.66	1152	8.39	4.2	4-22-19 21:15	9.95	667	8.41	8.7
1-22-19 9:15	-0.07	1408	7.92	1.3	1-22-19 8:45	0.03	1376	7.74	0.0	1-22-19 8:45	-0.08	1591	8.49	40.5	6-22-19 2:30	18.31	1791	8.55	6.6	4-22-19 21:30	10.62	1155	8.38	4.7	4-22-19 21:30	9.93	667	8.40	8.7
1-22-19 9:30	-0.07	1408	7.93	1.1	1-22-19 9:00	0.03	1386	7.74	0.3	1-22-19 9:00	-0.08	1571	8.50	39.1	6-22-19 2:45	18.34	1794	8.55	6.1	4-22-19 21:45	10.57	1155	8.39	2.7	4-22-19 21:45	9.93	667	8.40	11.0
1-22-19 9:45	-0.07	1408	7.93	1.1	1-22-19 9:15	0.03	1369	7.74	1.1	1-22-19 9:15	-0.08	1572	8.50	38.7	6-22-19 3:00	18.35	1794	8.55	5.8	4-22-19 22:00	10.53	1151	8.38	3.7	4-22-19 22:00	9.95	672	8.40	16.8
1-22-19 10:00	-0.07	1408	7.93	1.1	1-22-19 9:30	0.03	1373	7.74	0.0	1-22-19 9:30	-0.08	1572	8.50	39.8	6-22-19 3:15	18.25	1792	8.56	6.4	4-22-19 22:15	10.50	1153	8.38	2.9	4-22-19 22:15	9.91	673	8.40	11.6
1-22-19 10:15	-0.08	1395	7.92	1.2	1-22-19 9:45	0.03	1381	7.74	2.0	1-22-19 9:45	-0.08	1572	8.50	39.3	6-22-19 3:30	18.26	1789	8.56	15.1	4-22-19 22:30	10.44	1158	8.37	3.5	4-22-19 22:30	9.87	672	8.40	11.2
1-22-19 10:30	-0.07	1395	7.93	1.1	1-22-19 10:00	0.03	1379	7.74	0.5	1-22-19 10:00	-0.08	1592	8.49	40.6	6-22-19 3:45	18.19	1790	8.56	5.9	4-22-19 22:45	10.40	1156	8.38	2.9	4-22-19 22:45	9.85	674	8.40	12.0
1-22-19 10:45	-0.07	1395	7.92	1.1	1-22-19 10:15	0.03	1385	7.74	0.0	1-22-19 10:15	-0.08	1590	8.49	40.7	6-22-19 4:00	18.15	1795	8.56	5.5	4-22-19 23:00	10.36	1161	8.36	4.0	4-22-19 23:00	9.78	674	8.40	16.9
1-22-19 11:00	-0.07	1395	7.92	1.1	1-22-19 10:30	0.03	1371	7.74	0.1	1-22-19 10:30	-0.08	1591	8.49	40.5	6-22-19 4:15	18.07	1792	8.56	5.5	4-22-19 23:15	10.32	1156	8.36	3.6	4-22-19 23:15	9.73	673	8.40	14.3
1-22-19 11:15	-0.08	1420	7.92	1.2	1-22-19 10:45	0.03	1390	7.74	0.0	1-22-19 10:45	-0.08	1591	8.49	40.7	6-22-19 4:30	17.99	1794	8.56	5.6	4-22-19 23:30	10.24	1160	8.35	4.0	4-22-19 23:30	9.68	674	8.40	13.4
1-22-19 11:30	-0.07	1420	7.92	1.1	1-22-19 11:00	0.04	1374	7.74	0.0	1-22-19 11:00	-0.08	1573	8.50	39.0	6-22-19 4:45	17.87	1794	8.55	5.7	4-22-19 23:45	10.17	1165	8.34	3.1	4-22-19 23:45	9.69	680	8.40	12.3
1-22-19 11:45	-0.07	1420	7.92	1.1	1-22-19 11:15	0.04	1380	7.74	2.0	1-22-19 11:15	-0.08	1573	8.50	39.1	6-22-19 5:00	17.55	1786	8.57	7.9	4-23-19 0:00	10.10	1164	8.34	4.0	4-23-19 0:00	9.67	675	8.40	12.8
1-22-19 12:00	-0.07	1420	7.91	1.1	1-22-19 11:30	0.04	1377	7.74	0.1	1-22-19 11:30	-0.08	1571	8.50	38.9	6-22-19 5:15	17.30	1787	8.57	8.7	4-23-19 0:15	10.05	1162	8.35	3.9	4-23-19 0:15	9.61	668	8.39	13.6
1-22-19 12:15	-0.08	1394	7.91	1.2	1-22-19 11:45	0.04	1373	7.74	0.0	1-22-19 11:45	-0.08	1571	8.50	39.0	6-22-19 5:30	17.17	1785	8.56	7.6	4-23-19 0:30					4-23-19 0:30	9.57	673	8.39	14.7
1-22-19 12:30	-0.07	1393	7.93	1.2	1-22-19 12:00	0.04	1371	7.74	0.3	1-22-19 12:00	-0.08	1591	8.49	40.3	6-22-19 5:45	17.11	1790	8.56	6.1	4-23-19 0:45	9.92	1167	8.32	5.3	4-23-19 0:45	9.59	672	8.39	13.5
1-22-19 12:45	-0.07	1393	7.92	1.5	1-22-19 12:15	0.04	1394	7.74	0.2	1-22-19 12:15	-0.08	1590	8.49	40.3	6-22-19 6:00	17.14	1789	8.56	5.9	4-23-19 1:00	9.90	1165	8.35	4.6	4-23-19 1:00	9.53	665	8.39	14.7
1-22-19 13:00	-0.08	1393	7.92	1.3	1-22-19 12:30	0.04	1381	7.74	0.1	1-22-19 12:30	-0.08	1592	8.49	40.3	6-22-19 6:15	17.16	1788	8.57	6.3	4-23-19 1:15	9.91	1164	8.35	4.9	4-23-19 1:15	9.42	688	8.39	14.0
1-22-19 13:15	-0.08	1407	7.91	1.5	1-22-19 12:45	0.04	1381	7.74	0.0	1-22-19 12:45	-0.04	1594	8.50	41.7	6-22-19 6:30	17.09	1790	8.57	5.7	4-23-19 1:30	9.87	1177	8.32	4.0	4-23-19 1:30	9.38	674	8.39	15.0
1-22-19 13:30	-0.08	1408	7.93	2.8	1-22-19 13:00	0.04	1379	7.74	0.0	1-22-19 13:00	-0.06	1574	8.50	39.4	6-22-19 6:45	17.01	1790	8.56	5.0	4-23-19 1:45	9.83	1176	8.31	4.5	4-23-19 1:45	9.37	673	8.39	15.3
1-22-19 13:45	-0.08	1409	7.94	1.6	1-22-19 13:15	0.04	1381	7.74	1.1	1-22-19 13:15	-0.06	1574	8.50	38.9	6-22-19 7:00	16.94	1790	8.56	5.4	4-23-19 2:00	9.74	1167	8.33	3.7	4-23-19 2:00	9.33	674	8.39	14.2
1-22-19 14:00	-0.08	1409	7.94	1.5	1-22-19 13:30	0.05	1383	7.74	1.0	1-22-19 13:30	-0.07	1573	8.50	38.6	6-22-19 7:15	16.90	1790	8.56	5.2	4-23-19 2:15	9.66	1164	8.35	4.0	4-23-19 2:15	9.29	674	8.39	14.4
1-22-19 14:15	-0.08	1396	7.93	1.4	1-22-19 13:45	0.05	1369	7.74	0.4	1-22-19 13:45	-0.07	1573	8.50	38.4	6-22-19 7:30	16.87	1791	8.57	5.2	4-23-19 2:30	9.63	1165	8.35	4.4	4-23-19 2:30	9.24	677	8.39	18.5
1-22-19 14:30	-0.08	1396	7.94	1.4	1-22-19 14:00	0.05	1385	7.74	0.0	1-22-19 14:00	-0.07	1591	8.50	41.0	6-22-19 7:45	16.83	1791	8.57	5.2	4-23-19 2:45	9.62	1163	8.35	3.0	4-23-19 2:45	9.15	674	8.39	26.5
1-22-19 14:45	-0.08	1396	7.93	1.4	1-22-19 14:15	0.05	1370	7.74	0.1	1-22-19 14:15	-0.07	1591	8.50	40.7	6-22-19 8:00	16.81	1791	8.57	5.0	4-23-19 3:00	9.59	1165	8.35	3.4	4-23-19 3:00	9.07	674	8.39	21.7
1-22-19 15:00	-0.08	1396	7.94	1.5	1-22-19 14:30	0.05	1377	7.74	0.0	1-22-19 14:30	-0.06	1591	8.50	40.3	6-22-19 8:15	16.77	1791	8.57	5.0	4-23-19 3:15	9.57	1167	8.34	3.8	4-23-19 3:15	9.07	678	8.39	18.8
1-22-19 15:15	-0.08	1422	7.92	1.7	1-22-19 14:45	0.06	1382	7.74	0.0	1-22-19 14:45	-0.06	1590	8.50	40.4	6-22-19 8:30	16.73	1789	8.56	4.9	4-23-19 3:30	9.55	1174	8.34	3.5	4-23-19 3:30	9.00	677	8.39	17.7
1-22-19 15:30	-0.08	1423	7.94	1.4	1-22-19 15:00	0.06	1389	7.74	0.3	1-22-19 15:00	-0.07	1573	8.50	38.0	6-22-19 8:45	16.69	1790	8.56	5.1	4-23-19 3:45	9.51	1168	8.34	7.8	4-23-19 3:45	8.98	678	8.39	18.7
1-22-19 15:45					1-22-19 15:15	0.06	1380	7.74	0.0	1-22-19 15:15	-0.07	1573	8.50	37.7	6-22-19 9:00	16.65	1790	8.56	4.7	4-23-19 4:00	9.49	1169	8.33	4.2	4-23-19 4:00	8.98	677	8.39	17.5
1-22-19 16:00	-0.08	1423	7.94	1.5	1-22-19 15:30	0.06	1374	7.74	0.0	1-22-19 15:30	-0.07	1572	8.50	37.6	6-22-19 9:15	16.60	1791	8.56	4.8	4-23-19 4:15	9.47	1172	8.33	4.4	4-23-19 4:15	8.92	677	8.39	17.1
1-22-19 16:15	-0.08	1397	7.93	1.7	1-22-19 15:45	0.06	1381	7.74	4.3	1-22-19 15:45	-0.07	1574	8.50	37.3	6-22-19 9:30	16.57	1790	8.56	5.1	4-23-19 4:30	9.46	1173	8.32	4.2	4-23-19 4:30	8.84	677	8.39	17.5
1-22-19 16:30	-0.08	1397	7.94	1.6	1-22-19 16:00	0.06	1371	7.74	1.4	1-22-19 16:00	-0.07	1594	8.50	39.2	6-22-19 9:45	16.50	1791	8.56	4.6	4-23-19 4:45	9.42	1174	8.32	3.7	4-23-19 4:45	8.86	677	8.39	15.6
1-22-19 16:45	-0.07	1397	7.94	1.7	1-22-19 16:15	0.06	1374	7.74	0.1	1-22-19 16:15	-0.07	1594	8.50	39.4	6-22-19 10:00	16.41	1789	8.56	10.0	4-23-19 5:00	9.39	1176	8.31	4.9	4-23-19 5:00	8.83	675	8.38	15.2
1-22-19 17:00	-0.07	1397	7.94	1.8	1-22-19 16:30	0.06	1374	7.74	0.2	1-22-19 16:30	-0.08	1594	8.50	39.7	6-22-19 10:15	16.32	1789	8.56	6.1	4-23-19 5:15	9.33	1177	8.32	3.8	4-23-19 5:15	8.82	675	8.38	13.8
1-22-19 17:15	-0.08	1412	7.94	2.1	1-22-19 16:45	0.06	1367	7.74	1.7	1-22-19 16:45	-0.08	1594	8.50	39.4	6-22-19 10:30	16.28	1791	8.56	4.5	4-23-19 5:30	9.29	1173	8.32	3.6	4-23-19 5:30	8.69	675	8.38	14.3
1-22-19 17:30	-0.07	1413	7.95	2.0	1-22-19 17:00	0.06	1374	7.74	4.0	1-22-19 17:00	-0.07	1574	8.51	37.4	6-22-19 10:45	16.28	1791	8.56	4.8	4-23-19 5:45	9.25	1177	8.32	4.2	4-23-19 5:45	8.63	676	8.38	13.9
1-22-19 17:45	-0.07	1413	7.95	1.9	1-22-19 17:15	0.06	1371	7.74	5.7	1-22-19 17:15	-0.07	1572	8.51	37.4	6-22-19 11:00	16.28	1790	8.56	4.5	4-23-19 6:00	9.21	1176	8.32	3.7	4-23-19 6:00	8.68	676	8.38	13.4
1-22-19 18:00	-0.07	1413	7.94	1.9	1-22-19 17:30	0.06	1378	7.74	0.0	1-22-19 17:30	-0.06	1572	8.51	38.1	6-22-19 11:15	16.20	1791	8.56	5.2	4-23-19 6:15	9.16	1174	8.33	4.0	4-23-19 6:15	8.60	676	8.38	14.4
1-22-19 18:15	-0.07	1397	7.94	2.0	1-22-19 17:45	0.06	1369	7.74	0.9	1-22-19 17:45	-0.06	1571	8.51	37.4	6-22-19 11:30	16.17	1789	8.56	5.2	4-23-19 6:30	9.17	1178	8.33	6.0	4-23-19 6:30	8.54	676	8.38	15.4
1-22-19 18:30	-0.06	1397	7.95	1.9	1-22-19 18:00	0.06	1367	7.74	6.7	1-22-19 18:00	-0.06	1591	8.51	38.9	6-22-19 11:45	16.16	1791	8.56	5.3	4-23-19 6:45	9.13	1174	8.33	3.8	4-23-19 6:45	8.52	676	8.38	12.0
1-22-19 18:45					1-22-19 18:15	0.06	1378	7.74	2.1	1-22-19 18:15	-0.06	1591	8.51	38.7	6-22-19 12:00	16.10	1791	8.55	4.6	4-23-19 7:00	9.11	1175	8.33	5.2	4-23-19 7:00	8.48	675	8.39	11.7
1-22-19 19:00	-0.06	1396	7.94	2.1	1-22-19 18:30	0.06	1378	7.74	2.1	1-22-19 18:30	-0.07	1592	8.51	38.7	6-22-19 12:15	16.04	1789	8.55	5.1	4-23-19 7:15	9.09	1177	8.33	4.0	4-23-19 7:15	8.49	676	8.39	10.1
1-22-19 19:15	-0.07	1405	7.94	2.3	1-22-19 18:45	0.06	1370	7.74	3.6	1-22-19 18:45	-0.07	1592	8.51	38.4	6-22-19 12:30	15.98	1790	8.56	7.2	4-23-19 7:30	9.10	1174	8.33	4.8	4-23-19 7:30	8.45	677	8.39	9.5
1-22-19 19:30	-0.06	1406	7.95	1.9	1-22-19 19:00	0.06	1372	7.74	1.0	1-22-19 19:00	-0.07	1573	8.51	36.9	6-22-19 12:45	15.94	1792	8.56	4.6	4-23-19 7:45	9.12	1172	8.33	4.1	4-23-19 7:45	8.49	678	8.39	10.4
1-22-19 19:45	-0.07	1407	7.95	2.0	1-22-19 19:15	0.06	1380	7.74	5.7	1-22-19 19:15	-0.08	1574	8.51	36.5	6-22-19 13:00	15.90	1789	8.56	5.3	4-23-19 8:00	9.15	1171	8.33	3.1	4-23-19 8:00	8.53	678	8.39	9.7
1-22-19 20:00	-0.06	1407	7.95	2.0	1-22-19 19:30	0.06	1377	7.75	0.0	1-22-19 19:30	-0.08	1573	8.51	36.2	6-22-19 13:15	15.91	1792	8.56	4.8	4-23-19 8:15	9.15	1177	8.32	3.5	4-23-19 8:15	8.66	678	8.39	10.0
1-22-19 20:15	-0.07	1393	7.94	2.1	1-22-19 19:45	0.06	1378	7.75	3.5	1-22-19 19:45	-0.08	1574	8.51	37.3	6-22-19 13:30	15.89	1789	8.56	4.7	4-23-19 8:30	9.15	1176	8.33	5.3	4-23-19 8:30	8.76	677	8.39	11.6
1-22-19 20:30	-0.06	1392	7.96	2.0	1-22-19 20:00	0.06	1378	7.74	0.0	1-22-19 20:00	-0.08	1592	8.51	38.7	6-22-19 13:45	15.93	1789	8.56	6.2	4-23-19 8:45	9.12	1169	8.34	3.3	4-23-19 8:45	8.88	676	8.39	22.6
1-22-19 20:45	-0.07	1392	7.96	2.0	1-22-19 20:15	0.06	1369	7.75	5.2	1-22-19 20:15	-0.09	1591	8.51	38.9	6-22-19 14:00	15.97	1790	8.55	4.8	4-23-19 9:00	9.11	1169	8.34	3.7	4-23-19 9:00	8.95	658	8.39	18.2
1-22-19 21:00	-0.07	1392	7.96	2.0	1-22-19 20:30	0.06	1388	7.75	4.1	1-22-19 20:30	-0.08	1591	8.51	38.5	6-22-19 14:15	16.04	1790	8.55	5.0	4-23-19 9:15	9.14	1167	8.35	3.6	4-23-19 9:15	9.05	675	8.38	24.9
1-22-19 21:15	-0.07	1406	7.94	2.3	1-22-19 20:45	0.06	1367	7.75	3.5	1-22-19 20:45	-0.08	1592	8.51	38.7	6-22-19 14:30	16.05	1790	8.55	5.0	4-23-19 9:30	9.18	1166	8.35	3.6	4-23-19 9:30	9.11	674	8.38	24.4
1-22-19 21:30	-0.07	1409	7.96	2.0	1-22-19 21:00	0.06	1367	7.75	3.9	1-22-19 21:00	-0.08	1574	8.51	37.3	6-22-19 14:45	16.04	1788	8.55	4.6	4-23-19 9:45	9.22	1164	8.36	3.2	4-23-19 9:45	9.19	674	8.38	22.9
1-22-19 21:45	-0.07	1409	7.96	2.0	1-22-19 21:15	0.06	1374	7.75	0.0	1-22-19 21:15	-0.08	1575	8.51	36.8	6-22-19 15:00	16.08	1788	8.55	4.9	4-23-19 10:00	9.24	1153	8.37	3.2	4-23-19 10:00	9.31	675	8.38	20.7
1-22-19 22:00	-0.07	1409	7.96	2.0	1-22-19 21:30	0.06	1383	7.74	0.8	1-22-19 21:30	-0.08	1575	8.51	37.2	6-22-19 15:15	16.13	1790	8.55	5.0	4-23-19 10:15	9.31	1166	8.37	3.2	4-23-19 10:15	9.36	675	8.38	21.0
1-22-19 22:15	-0.07	1391	7.95	2.1	1-22-19 21:45	0.06	1376	7.75	0.8	1-22-19 21:45	-0.08	1575	8.51	36.7	6-22-19 15:30	16.18	1787	8.55	5.0	4-23-19 10:30	9.43	1165	8.37	3.5	4-23-19 10:30	9.53	682	8.38	28.0
1-22-19 22:30	-0.07	1391	7.96	2.0	1-22-19 22:00	0.06	1375	7.74	0.0	1-22-19 22:00	-0.08	1595	8.51	39.3	6-22-19 15:45	16.25	1789	8.55	5.3	4-23-19 10:45	9.44	1168	8.37	3.4	4-23-19 10:45	9.52	681	8.38	25.9
1-22-19 22:45	-0.07	1391	7.95	2.1	1-22-19 22:15	0.06	1373	7.75	0.0	1-22-19 22:15	-0.08	1594	8.51	39.1	6-22-19 16:00	16.33	1788	8.55	5.5	4-23-19 11:00	9.51	1165	8.37	2.5	4-23-19 11:00	9.68	682	8.38	17.9
1-22-19 23:00	-0.07	1390	7.95	2.0	1-22-19 22:30	0.06	1375	7.75	0.3	1-22-19 22:30	-0.08	1594	8.51	39.4	6-22-19 16:15	16.38	1787	8.55	5.6	4-23-19 11:15	9.68	1165	8.37	4.1	4-23-19 11:15	9.90	683	8.37	14.7
1-22-19 23:15	-0.07	1399	7.95	2.4	1-22-19 22:45	0.06	1375	7.74	1.9	1-22-19 22:45	-0.08	1593	8.51	39.3	6-22-19 16:30	16.44	1790	8.55	5.0	4-23-19 11:30	9.55	1162	8.37	4.5	4-23-19 11:30	10.10	682	8.38	12.4
1-22-19 23:30	-0.07	1399	7.96	2.1	1-22-19 23:00	0.06	1378	7.74	4.8	1-22-19 23:00	-0.08	1573	8.51	37.8	6-22-19 16:45	16.53	1788	8.55	5.4	4-23-19 11:45	9.54	1166	8.37	4.8	4-23-19 11:45	10.32	681	8.37	13.5
1-22-19 23:45	-0.07	1399	7.95	2.2	1-22-19 23:15	0.06	1379	7.74	0.0	1-22-19 23:15	-0.08	1572	8.52	37.8	6-22-19 17:00	16.62	1789	8.55	6.1	4-23-19 12:00	9.87	1165	8.37	4.2	4-23-19 12:00	10.43	681	8.37	24.3
1-23-19 0:00	-0.06	1399	7.95	2.1	1-22-19 23:30	0.06	1375	7.74	0.2	1-22-19 23:30	-0.08	1573	8.52	37.3	6-22-19 17:15	16.68	1788	8.54	5.4	4-23-19 12:15	9.83	1162	8.37	3.0	4-23-19 12:15	10.55	682	8.37	13.0
1-23-19 0:15	-0.07	1390	7.94	2.1	1-22-19 23:45	0.06	1371	7.74	1.7	1-22-19 23:45	-0.08	1572	8.52	36.9	6-22-19 17:30	16.76	1787	8.55	5.9	4-23-19 12:30	9.83	1161	8.37	5.6	4-23-19 12:30	10.59	681	8.37	15.1
1-23-19 0:30	-0.06	1389	7.96	2.1	1-23-19 0:00	0.06	1379	7.74	0.0	1-23-19 0:00	-0.08	1592	8.52	40.3	6-22-19 17:45	16.85	1786	8.54	6.1	4-23-19 12:45	9.87	1163	8.37	3.7	4-23-19 12:45	10.58	680	8.37	22.1
1-23-19 0:45	-0.06	1389	7.96	2.1	1-23-19 0:15	0.06	1371	7.74	0.0	1-23-19 0:15	-0.08	1594	8.51	40.0	6-22-19 18:00	17.00	1788	8.54	8.6	4-23-19 13:00	9.93	1165	8.37	2.8	4-23-19 13:00	10.63	682	8.37	23.3
1-23-19 1:00	-0.06	1389	7.96	2.1	1-23-19 0:30	0.06	1374	7.74	0.0	1-23-19 0:30	-0.08	1592	8.51	39.9	6-22-19 18:15	17.02	1788	8.54	6.3	4-23-19 13:15	9.99	1167	8.37	3.0	4-23-19 13:15	10.66	681	8.37	18.1
1-23-19 1:15	-0.07	1399	7.95	2.4	1-23-19 0:45	0.06	1389	7.74	0.9	1-23-19 0:45	-0.08	1592	8.51	39.2	6-22-19 18:30	17.06	1790	8.54	6.3	4-23-19 13:30	10.09	1163	8.37	3.0	4-23-19 13:30	10.64	681	8.37	21.1
1-23-19 1:30	-0.07	1399	7.96	2.1	1-23-19 1:00	0.05	1367	7.74	0.3	1-23-19 1:00	-0.08	1574	8.52	36.5	6-22-19 18:45	17.12	1791	8.54	5.9	4-23-19 13:45	10.13	1165	8.37	3.7	4-23-19 13:45	10.61	681	8.37	40.1

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-23-19 1:45	-0.07	1399	7.95	2.1	1-23-19 1:15	0.05	1373	7.74	0.6	1-23-19 1:15	-0.08	1573	8.52	37.0	6-22-19 19:00	17.31	1795	8.54	8.0	4-23-19 14:00	10.19	1163	8.37	4.0	4-23-19 14:00	10.54	682	8.38	37.4
1-23-19 2:00	-0.07	1399	7.96	2.1	1-23-19 1:30	0.05	1371	7.74	0.5	1-23-19 1:30	-0.08	1575	8.52	36.2	6-22-19 19:15	17.38	1793	8.54	5.5	4-23-19 14:15	10.29	1165	8.38	3.1	4-23-19 14:15	10.60	682	8.37	25.6
1-23-19 2:15	-0.07	1383	7.95	2.1	1-23-19 1:45	0.05	1373	7.74	0.7	1-23-19 1:45	-0.08	1575	8.52	36.4	6-22-19 19:30	17.48	1796	8.54	5.5	4-23-19 14:30	10.31	1166	8.37	4.9	4-23-19 14:30	10.60	680	8.38	33.1
1-23-19 2:30	-0.06	1382	7.96	2.2	1-23-19 2:00	0.05	1370	7.74	0.1	1-23-19 2:00	-0.08	1593	8.52	38.9	6-22-19 19:45	17.66	1794	8.54	5.3	4-23-19 14:45	10.32	1164	8.38	4.0	4-23-19 14:45	10.63	680	8.38	31.6
1-23-19 2:45	-0.06	1382	7.96	2.1	1-23-19 2:15	0.05	1379	7.74	0.0	1-23-19 2:15	-0.08	1594	8.52	38.7	6-22-19 20:00	18.00	1798	8.53	5.5	4-23-19 15:00	10.41	1165	8.37	4.4	4-23-19 15:00	10.67	682	8.38	26.8
1-23-19 3:00	-0.07	1382	7.96	2.1	1-23-19 2:30	0.04	1375	7.74	0.0	1-23-19 2:30	-0.08	1594	8.52	38.8	6-22-19 20:15	18.41	1797	8.52	4.8	4-23-19 15:15	10.51	1166	8.37	4.9	4-23-19 15:15	10.69	680	8.38	19.5
1-23-19 3:15	-0.07	1403	7.95	2.5	1-23-19 2:45	0.04	1376	7.74	1.8	1-23-19 2:45	-0.08	1596	8.52	38.2	6-22-19 20:30	18.25	1793	8.53	5.1	4-23-19 15:30	10.54	1167	8.38	3.8	4-23-19 15:30	10.76	678	8.38	24.2
1-23-19 3:30	-0.06	1403	7.96	2.2	1-23-19 3:00	0.04	1387	7.74	0.4	1-23-19 3:00	-0.08	1574	8.52	37.9	6-22-19 20:45	18.40	1793	8.53	5.0	4-23-19 15:45	10.61	1167	8.38	4.3	4-23-19 15:45	10.76	678	8.38	17.3
1-23-19 3:45	-0.06	1403	7.96	2.2	1-23-19 3:15	0.04	1389	7.74	0.6	1-23-19 3:15	-0.08	1576	8.52	36.8	6-22-19 21:00	18.78	1792	8.53	5.5	4-23-19 16:00	10.64	1165	8.38	4.8	4-23-19 16:00	10.78	678	8.38	16.8
1-23-19 4:00	-0.07	1403	7.96	2.1	1-23-19 3:30	0.04	1376	7.74	1.5	1-23-19 3:30	-0.08	1574	8.52	37.0	6-22-19 21:15	18.86	1795	8.53	4.9	4-23-19 16:15	10.70	1165	8.38	8.8	4-23-19 16:15	10.82	678	8.38	16.4
1-23-19 4:15	-0.07	1383	7.95	2.2	1-23-19 3:45	0.04	1379	7.74	0.0	1-23-19 3:45	-0.08	1574	8.52	36.3	6-22-19 21:30	18.90	1795	8.52	4.7	4-23-19 16:30	10.74	1167	8.38	6.2	4-23-19 16:30	10.88	676	8.38	15.5
1-23-19 4:30	-0.07	1382	7.96	2.2	1-23-19 4:00	0.04	1371	7.74	1.3	1-23-19 4:00	-0.09	1592	8.52	38.4	6-22-19 21:45	19.01	1796	8.53	5.2	4-23-19 16:45	10.75	1167	8.38	5.7	4-23-19 16:45	10.86	679	8.39	25.9
1-23-19 4:45	-0.07	1382	7.96	2.2	1-23-19 4:15	0.03	1382	7.74	0.2	1-23-19 4:15	-0.08	1593	8.52	38.5	6-22-19 22:00	19.02	1792	8.53	6.2	4-23-19 17:00	10.79	1168	8.38	4.6	4-23-19 17:00	10.83	678	8.39	14.9
1-23-19 5:00	-0.07	1381	7.96	2.2	1-23-19 4:30	0.03	1375	7.74	5.1	1-23-19 4:30	-0.08	1593	8.52	38.5	6-22-19 22:15	19.19	1796	8.54	5.1	4-23-19 17:15	10.78	1165	8.38	4.4	4-23-19 17:15	10.69	680	8.39	22.9
1-23-19 5:15	-0.07	1389	7.95	2.6	1-23-19 4:45	0.03	1375	7.74	0.3	1-23-19 4:45	-0.08	1591	8.52	38.5	6-22-19 22:30	19.25	1795	8.53	6.4	4-23-19 17:30	10.79	1168	8.38	4.5	4-23-19 17:30	10.66	680	8.39	21.8
1-23-19 5:30	-0.07	1393	7.96	2.2	1-23-19 5:00	0.03	1377	7.74	0.5	1-23-19 5:00	-0.08	1573	8.52	36.9	6-22-19 22:45	19.27	1794	8.53	5.5	4-23-19 17:45	10.81	1165	8.38	6.1	4-23-19 17:45	10.63	679	8.40	17.9
1-23-19 5:45	-0.07	1393	7.96	2.1	1-23-19 5:15	0.03	1373	7.74	1.9	1-23-19 5:15	-0.08	1573	8.52	35.1	6-22-19 23:00	19.49	1793	8.53	8.1	4-23-19 18:00	10.80	1166	8.39	5.8	4-23-19 18:00	10.58	681	8.40	15.7
1-23-19 6:00	-0.07	1393	7.96	2.2	1-23-19 5:30	0.02	1374	7.75	4.3	1-23-19 5:30	-0.08	1572	8.52	36.4	6-22-19 23:15	20.04	1799	8.52	5.1	4-23-19 18:15	10.80	1177	8.39	5.3	4-23-19 18:15	10.52	681	8.40	21.9
1-23-19 6:15	-0.07	1381	7.95	2.3	1-23-19 5:45	0.02	1391	7.75	1.4	1-23-19 5:45	-0.08	1572	8.52	35.8	6-22-19 23:30	20.23	1801	8.52	5.8	4-23-19 18:30	10.78	1165	8.39	5.2	4-23-19 18:30	10.44	680	8.40	19.6
1-23-19 6:30	-0.07	1381	7.96	2.2	1-23-19 6:00	0.02	1379	7.75	4.1	1-23-19 6:00	-0.08	1591	8.52	38.5	6-22-19 23:45	20.69	1803	8.51	5.0	4-23-19 18:45	10.75	1167	8.40	6.4	4-23-19 18:45	10.41	680	8.41	15.3
1-23-19 6:45	-0.07	1381	7.96	2.2	1-23-19 6:15	0.02	1386	7.75	3.9	1-23-19 6:15	-0.08	1590	8.52	38.0	6-23-19 0:00	20.85	1803	8.50	4.9	4-23-19 19:00	10.76	1167	8.39	7.5	4-23-19 19:00	10.30	679	8.41	13.3
1-23-19 7:00	-0.07	1381	7.96	2.2	1-23-19 6:30	0.01	1378	7.75	2.8	1-23-19 6:30	-0.08	1591	8.52	38.0	6-23-19 0:15	20.97	1802	8.51	4.5	4-23-19 19:15	10.73	1167	8.40	10.0	4-23-19 19:15	10.25	680	8.41	13.6
1-23-19 7:15	-0.07	1398	7.95	2.6	1-23-19 6:45	0.01	1372	7.75	4.1	1-23-19 6:45	-0.08	1590	8.52	38.3	6-23-19 0:30	21.01	1802	8.51	4.7	4-23-19 19:30	10.71	1168	8.40	6.6	4-23-19 19:30	10.24	680	8.41	13.7
1-23-19 7:30	-0.06	1399	7.96	2.2	1-23-19 7:00	0.01	1392	7.75	3.9	1-23-19 7:00	-0.08	1573	8.52	36.5	6-23-19 0:45	20.99	1802	8.51	4.8	4-23-19 19:45	10.69	1166	8.40	5.8	4-23-19 19:45	10.14	679	8.41	13.0
1-23-19 7:45	-0.06	1399	7.96	2.2	1-23-19 7:15	0.01	1370	7.75	0.0	1-23-19 7:15	-0.08	1573	8.53	35.6	6-23-19 1:00	21.05	1802	8.51	4.9	4-23-19 20:00	10.64	1165	8.40	8.5	4-23-19 20:00	10.07	679	8.41	15.4
1-23-19 8:00	-0.06	1398	7.96	2.2	1-23-19 7:30	0.02	1371	7.75	4.2	1-23-19 7:30	-0.08	1573	8.52	35.3	6-23-19 1:15	20.99	1801	8.52	5.0	4-23-19 20:15	10.61	1167	8.40	5.5	4-23-19 20:15	10.08	679	8.41	14.3
1-23-19 8:15	-0.07	1374	7.95	2.2	1-23-19 7:45	0.01	1379	7.75	3.4	1-23-19 7:45	-0.08	1572	8.53	35.9	6-23-19 1:30	20.80	1804	8.52	6.1	4-23-19 20:30	10.54	1164	8.41	5.8	4-23-19 20:30	10.06	680	8.41	11.2
1-23-19 8:30	-0.07	1374	7.96	2.2	1-23-19 8:00	0.01	1379	7.75	0.0	1-23-19 8:00	-0.08	1591	8.52	38.5	6-23-19 1:45	21.10	1805	8.52	7.1	4-23-19 20:45	10.52	1166	8.41	6.0	4-23-19 20:45	10.00	677	8.41	13.6
1-23-19 8:45	-0.06	1374	7.96	2.2	1-23-19 8:15	0.01	1377	7.75	0.0	1-23-19 8:15	-0.08	1589	8.52	37.9	6-23-19 2:00	21.07	1804	8.52	4.9	4-23-19 21:00	10.49	1166	8.41	5.7	4-23-19 21:00	9.90	680	8.41	10.6
1-23-19 9:00	-0.06	1373	7.95	2.2	1-23-19 8:30	0.01	1387	7.75	5.1	1-23-19 8:30	-0.08	1591	8.52	38.1	6-23-19 2:15	20.98	1803	8.53	5.6	4-23-19 21:15	10.45	1166	8.41	7.2	4-23-19 21:15	9.89	679	8.41	10.5
1-23-19 9:15	-0.07	1388	7.95	2.6	1-23-19 8:45	0.01	1393	7.75	4.3	1-23-19 8:45	-0.08	1591	8.52	37.8	6-23-19 2:30	20.97	1805	8.53	5.7	4-23-19 21:30	10.41	1168	8.41	7.2	4-23-19 21:30	9.83	678	8.41	11.8
1-23-19 9:30	-0.07	1387	7.96	2.2	1-23-19 9:00	0.01	1375	7.75	5.2	1-23-19 9:00	-0.08	1572	8.53	36.4	6-23-19 2:45	20.88	1803	8.53	5.2	4-23-19 21:45	10.35	1166	8.41	5.8	4-23-19 21:45	9.80	679	8.41	10.4
1-23-19 9:45	-0.07	1387	7.96	2.3	1-23-19 9:15	0.01	1373	7.75	4.5	1-23-19 9:15	-0.08	1573	8.53	35.6	6-23-19 3:00	20.83	1805	8.53	5.6	4-23-19 22:00	10.29	1169	8.41	5.2	4-23-19 22:00	9.74	680	8.41	10.6
1-23-19 10:00	-0.07	1387	7.96	2.3	1-23-19 9:30	0.01	1376	7.75	6.9	1-23-19 9:30	-0.08	1572	8.53	35.7	6-23-19 3:15	20.82	1805	8.53	4.9	4-23-19 22:15	10.26	1169	8.41	5.5	4-23-19 22:15	9.66	679	8.41	9.4
1-23-19 10:15	-0.07	1372	7.94	2.4	1-23-19 9:45	0.01	1377	7.75	3.6	1-23-19 9:45	-0.08	1572	8.53	35.5	6-23-19 3:30	20.79	1802	8.53	5.1	4-23-19 22:30	10.23	1167	8.41	5.4	4-23-19 22:30	9.61	679	8.41	10.1
1-23-19 10:30	-0.07	1372	7.96	2.3	1-23-19 10:00	0.01	1379	7.75	3.8	1-23-19 10:00	-0.08	1591	8.53	37.8	6-23-19 3:45	20.59	1803	8.53	5.4	4-23-19 22:45	10.19	1168	8.42	5.2	4-23-19 22:45	9.57	679	8.41	9.7
1-23-19 10:45	-0.07	1372	7.95	2.2	1-23-19 10:15	0.01	1390	7.75	3.5	1-23-19 10:15	-0.08	1590	8.53	37.8	6-23-19 4:00	20.58	1804	8.54	5.1	4-23-19 23:00	10.15	1167	8.41	6.7	4-23-19 23:00	9.48	679	8.41	10.1
1-23-19 11:00	-0.07	1372	7.95	2.3	1-23-19 10:30	0.00	1377	7.75	2.1	1-23-19 10:30	-0.08	1588	8.52	37.6	6-23-19 4:15	20.39	1804	8.55	4.9	4-23-19 23:15	10.11	1169	8.41	5.2	4-23-19 23:15	9.59	680	8.41	10.0
1-23-19 11:15	-0.07	1390	7.95	2.6	1-23-19 10:45	0.01	1377	7.75	2.4	1-23-19 10:45	-0.08	1589	8.52	37.7	6-23-19 4:30	20.28	1804	8.55	4.6	4-23-19 23:30	10.10	1170	8.41	5.1	4-23-19 23:30	9.55	679	8.41	10.6
1-23-19 11:30	-0.07	1390	7.95	2.3	1-23-19 11:00	0.01	1386	7.75	0.0	1-23-19 11:00	-0.08	1570	8.53	35.6	6-23-19 4:45	20.15	1802	8.55	5.2	4-23-19 23:45	10.06	1168	8.41	5.4	4-23-19 23:45	9.42	679	8.41	10.3
1-23-19 11:45	-0.07	1391	7.95	2.3	1-23-19 11:15	0.01	1380	7.75	0.4	1-23-19 11:15	-0.08	1572	8.53	36.1	6-23-19 5:00	20.12	1804	8.54	4.7	4-24-19 0:00	10.01	1167	8.42	5.2	4-24-19 0:00	9.42	680	8.41	10.6
1-23-19 12:00	-0.07	1391	7.95	2.3	1-23-19 11:30	0.01	1379	7.75	0.2	1-23-19 11:30	-0.08	1571	8.53	35.9	6-23-19 5:15	20.03	1802	8.54	5.0	4-24-19 0:15	9.97	1167	8.42	5.3	4-24-19 0:15	9.45	680	8.41	9.6
1-23-19 12:15	-0.07	1372	7.95	2.4	1-23-19 11:45	0.01	1377	7.75	0.1	1-23-19 11:45	-0.08	1572	8.53	35.4	6-23-19 5:30	19.89	1794	8.55	5.2	4-24-19 0:30	9.91	1168	8.42	5.0	4-24-19 0:30	9.44	679	8.41	9.5
1-23-19 12:30	-0.07	1372	7.96	2.3	1-23-19 12:00	0.01	1376	7.75	0.0	1-23-19 12:00	-0.08	1590	8.53	37.8	6-23-19 5:45	19.89	1801	8.55	5.3	4-24-19 0:45	9.87	1167	8.42	5.1	4-24-19 0:45	9.33	678	8.41	12.7
1-23-19 12:45	-0.07	1372	7.95	2.2	1-23-19 12:15	0.01	1375	7.75	0.0	1-23-19 12:15	-0.08	1590	8.53	37.5	6-23-19 6:00	19.82	1802	8.54	4.7	4-24-19 1:00	9.82	1167	8.42	6.3	4-24-19 1:00	9.29	679	8.41	9.9
1-23-19 13:00	-0.07	1372	7.95	2.3	1-23-19 12:30	0.04	1389	7.75	0.5	1-23-19 12:30	-0.08	1589	8.53	37.3	6-23-19 6:15	19.77	1800	8.55	4.9	4-24-19 1:15	9.80	1168	8.42	5.4	4-24-19 1:15	9.26	680	8.41	9.2
1-23-19 13:15	-0.08	1402	7.95	2.6	1-23-19 12:45	0.00	1371	7.74	1.1	1-23-19 12:45	-0.07	1589	8.53	38.9	6-23-19 6:30	19.68	1801	8.55	6.5	4-24-19 1:30	9.73	1168	8.42	5.1	4-24-19 1:30	9.26	680	8.41	8.8
1-23-19 13:30	-0.08	1402	7.96	2.3	1-23-19 13:00	0.00	1380	7.74	0.0	1-23-19 13:00	-0.08	1571	8.54	36.9	6-23-19 6:45	19.62	1801	8.55	4.9	4-24-19 1:45	9.70	1167	8.42	5.6	4-24-19 1:45	9.25	679	8.41	12.7
1-23-19 13:45	-0.08	1402	7.96	2.2	1-23-19 13:30	-0.03	1375	7.68	0.0	1-23-19 13:30	-0.03	1569	6.02	37.7	6-23-19 7:00	19.56	1799	8.55	5.1	4-24-19 2:00	9.66	1168	8.42	5.6	4-24-19 2:00	9.16	680	8.41	10.8
1-23-19 14:00	-0.08	1402	7.96	2.2	1-23-19 13:45	0.00	1372	7.74	0.0	1-23-19 13:45	-0.04	1571	8.45	36.8	6-23-19 7:15	19.51	1800	8.55	4.9	4-24-19 2:15	9.64	1168	8.42	6.3	4-24-19 2:15	9.07	679	8.41	10.1
1-23-19 14:15	-0.08	1371	7.94	2.3	1-23-19 14:00	0.00	1377	7.74	1.5	1-23-19 14:00	-0.04	1587	8.50	38.9	6-23-19 7:30	19.47	1801	8.54	5.0	4-24-19 2:30	9.54	1168	8.42	5.0	4-24-19 2:30	9.01	679	8.41	10.0
1-23-19 14:30	-0.07	1371	7.96	2.3	1-23-19 14:15	0.01	1371	7.75	0.0	1-23-19 14:15	-0.05	1588	8.52	38.2	6-23-19 7:45	19.38	1800	8.55	5.1	4-24-19 2:45	9.54	1169	8.42	5.9	4-24-19 2:45	9.06	679	8.41	9.4
1-23-19 14:45	-0.07	1371	7.95	2.3	1-23-19 14:30	0.01	1373	7.74	0.5	1-23-19 14:30	-0.05	1588	8.52	37.4	6-23-19 8:00	19.29	1801	8.55	5.1	4-24-19 3:00	9.50	1168	8.42	5.4	4-24-19 3:00	9.03	679	8.40	9.8
1-23-19 15:00	-0.07	1371	7.95	2.2	1-23-19 14:45	0.01	1373	7.74	0.4	1-23-19 14:45	-0.05	1587	8.53	37.2	6-23-19 8:15	19.25	1800	8.55	5.2	4-24-19 3:15	9.47	1169	8.42	5.3	4-24-19 3:15	8.97	679	8.41	9.5
1-23-19 15:15	-0.08	1379	7.95	2.6	1-23-19 15:00	0.01	1374	7.75	0.0	1-23-19 15:00	-0.05	1569	8.53	36.7	6-23-19 8:30	19.20	1799	8.55	5.1	4-24-19 3:30	9.43	1169	8.42	5.2	4-24-19 3:30	8.95	679	8.40	10.0
1-23-19 15:30	-0.08	1379	7.95	2.3	1-23-19 15:15	0.01	1375	7.74	0.1	1-23-19 15:15	-0.05	1570	8.54	35.4	6-23-19 8:45	19.16	1800	8.54	5.4	4-24-19 3:45	9.35	1168	8.42	5.2	4-24-19 3:45	8.82	680	8.40	10.2
1-23-19 15:45	-0.07	1379	7.95	2.2	1-23-19 15:30	0.01	1366	7.75	0.0	1-23-19 15:30	-0.05	1570	8.54	35.4	6-23-19 9:00	19.13	1799	8.54	6.1	4-24-19 4:00	9.35	1169	8.42	4.5	4-24-19 4:00	8.73	680	8.41	9.3
1-23-19 16:00	-0.08	1379	7.95	2.3	1-23-19 15:45	0.01	1370	7.75	0.0	1-23-19 15:45	-0.05	1570	8.54	35.6	6-23-19 9:15	19.09	1800	8.54	4.8	4-24-19 4:15	9.31	1169	8.42	4.9	4-24-19 4:15	8.77	680	8.41	9.3
1-23-19 16:15	-0.08	1368	7.95	2.2	1-23-19 16:00	0.00	1373	7.75	0.0	1-23-19 16:00	-0.05	1592	8.53	37.5	6-23-19 9:30	19.03	1801	8.54	5.2	4-24-19 4:30	9.28	1169	8.42	5.0	4-24-19 4:30	8.65	681	8.40	9.0
1-23-19 16:30	-0.08	1368	7.96	2.3	1-23-19 16:15	0.00	1370	7.74	0.0	1-23-19 16:15	-0.05	1591	8.54	36.9	6-23-19 9:45	18.95	1800	8.54	4.9	4-24-19 4:45	9.24	1169	8.42	5.0	4-24-19 4:45	8.67	681	8.40	10.1
1-23-19 16:45	-0.08	1368	7.96	2.2	1-23-19 16:30	0.00	1368	7.74	0.0	1-23-19 16:30	-0.05	1592	8.54	37.0	6-23-19 10:00	18.94	1799	8.54	5.1	4-24-19 5:00	9.19	1169	8.42	6.5	4-24-19 5:00	8.62	680	8.40	8.6
1-23-19 17:00	-0.08	1368	7.95	2.3	1-23-19 16:45	-0.01	1371	7.75	0.0	1-23-19 16:45	-0.05	1590	8.54	37.6	6-23-19 10:15	18.85	1800	8.54	5.0	4-24-19 5:15	9.18	1169	8.42	5.4	4-24-19 5:15	8.66	681	8.40	8.5
1-23-19 17:15	-0.08	1385	7.95	2.7	1-23-19 17:00	-0.01	1382	7.75	1.3	1-23-19 17:00	-0.05	1572	8.54	34.3	6-23-19 10:30	18.78	1799	8.54	5.0	4-24-19 5:30	9.16	1170	8.42	4.2	4-24-19 5:30	8.66	680	8.40	8.7
1-23-19 17:30	-0.08	1385	7.96	2.3	1-23-19 17:15	-0.01	1378	7.75	2.6	1-23-19 17:15	-0.05	1571	8.54	34.6	6-23-19 10:45	18.73	1800	8.54	4.7	4-24-19 5:45	9.12	1170	8.42	5.0	4-24-19 5:45	8.54	679	8.40	8.6
1-23-19 17:45	-0.08	1385	7.95	2.2	1-23-19 17:30	-0.01	1378	7.75	0.0	1-23-19 17:30	-0.05	1573	8.54	35.0	6-23-19 11:00	18.68	1799	8.54	4.7	4-24-19 6:00	9.10	1170	8.42	4.3	4-24-19 6:00	8.48	681	8.40	9.5
1-23-19 18:00					1-23-19 17:45	-0.01	1376	7.74	0.1	1-23-19 17:45	-0.05	1572	8.54	34.7	6-23-19 11:15	18.63	1800	8.54	4.5	4-24-19 6:15	9.08	1170	8.42	4.3	4-24-19 6:15	8.41	681	8.40	8.5
1-23-19 18:15	-0.08	1364	7.95	2.3	1-23-19 18:00	-0.01	1375	7.74	0.1	1-23-19 18:00	-0.06	1591	8.54	36.7	6-23-19 11:30	18.53	1798	8.54	5.0	4-24-19 6:30	9.06	1170	8.42	4.5	4-24-19 6:30	8.42	681	8.40	8.3
1-23-19 18:30	-0.08	1364	7.96	2.3	1-23-19 18:15	-0.01	1375	7.74	0.2	1-23-19 18:15	-0.06	1592	8.54	36.0	6-23-19 11:45	18.48	1800	8.54	4.9	4-24-19 6:45	9.03	1169	8.42	3.6	4-24-19 6:45	8.41	681	8.40	8.4
1-23-19 18:45	-0.07	1364	7.96	2.3	1-23-19 18:30	0.00	1374	7.74	0.0	1-23-19 18:30	-0.06	1593	8.54	36.4	6-23-19 12:00	18.42	1801	8.54	4.7	4-24-19 7:00	8.99	1169	8.42	4.1	4-24-19 7:00	8.42	682	8.40	8.6
1-23-19 19:00	-0.07	1364	7.96	2.3	1-23-19 18:45	0.00	1383	7.74	6.0	1-23-19 18:45	-0.06	1592	8.55	35.8	6-23-19 12:15	18.35	1801	8.54	4.5	4-24-19 7:15	8.89	1170	8.43	4.1	4-24-19 7:15	8.32	681	8.40	8.9
1-23-19 19:15	-0.08	1388	7.95	2.7	1-23-19 19:00	0.00	1378	7.74	1.1	1-23-19 19:00	-0.07	1574	8.54	34.7	6-23-19 12:30	18.27	1798	8.54	4.6	4-24-19 7:30	8.96	1170	8.42	4.1	4-24-19 7:30	8.27	682	8.40	9.8
1-23-19 19:30	-0.08	1389	7.96	2.3	1-23-19 19:15	0.00	1375	7.74	0.0	1-23-19 19:15	-0.06	1573	8.54	34.7	6-23-19 12:45	18.23	1797	8.54	4.7	4-24-19 7:45	8.93	1170	8.42	3.6	4-24-19 7:45	8.39	682	8.40	9.4
1-23-19 19:45	-0.08	1389	7.96	2.3	1-23-19 19:30	0.00	1381	7.74	0.2	1-23-19 19:30	-0.06	1573	8.54	34.4	6-23-19 13:00	18.18	1800	8.54	4.5	4-24-19 8:00	8.88	1178	8.40	4.9	4-24-19 8:00	8.49	681	8.40	10.1

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-23-19 20:00	-0.08	1388	7.96	2.3	1-23-19 19:45	0.00	1379	7.74	0.7	1-23-19 19:45	-0.06	1572	8.55	34.4	6-23-19 13:15	18.12	1799	8.54	4.6	4-24-19 8:15	8.82	1178	8.40	4.4	4-24-19 8:15	8.46	682	8.40	10.3
1-23-19 20:15	-0.08	1369	7.95	2.3	1-23-19 20:00	0.00	1376	7.74	1.1	1-23-19 20:00	-0.06	1595	8.54	36.1	6-23-19 13:30	18.16	1799	8.54	4.7	4-24-19 8:30	8.78	1179	8.40	5.7	4-24-19 8:30	8.48	682	8.41	8.9
1-23-19 20:30	-0.08	1369	7.96	2.2	1-23-19 20:15	0.00	1372	7.74	0.0	1-23-19 20:15	-0.06	1594	8.54	35.6	6-23-19 13:45	18.24	1799	8.53	4.7	4-24-19 8:45	8.82	1180	8.40	4.8	4-24-19 8:45	8.57	681	8.40	10.3
1-23-19 20:45	-0.08	1369	7.96	2.3	1-23-19 20:30	0.00	1377	7.74	0.2	1-23-19 20:30	-0.06	1592	8.54	35.8	6-23-19 14:00	18.30	1800	8.53	4.6	4-24-19 9:00	8.83	1178	8.40	4.4	4-24-19 9:00	8.69	681	8.41	9.5
1-23-19 21:00	-0.08	1369	7.96	2.2	1-23-19 20:45	0.00	1371	7.74	0.0	1-23-19 20:45	-0.06	1594	8.54	36.1	6-23-19 14:15	18.26	1800	8.53	4.5	4-24-19 9:15	8.88	1177	8.40	4.5	4-24-19 9:15	8.79	681	8.40	11.4
1-23-19 21:15	-0.08	1381	7.95	2.6	1-23-19 21:00	0.00	1379	7.74	0.1	1-23-19 21:00	-0.06	1573	8.55	35.1	6-23-19 14:30	18.22	1800	8.54	4.4	4-24-19 9:30	8.89	1177	8.41	4.0	4-24-19 9:30	8.89	681	8.40	13.1
1-23-19 21:30	-0.07	1381	7.96	2.3	1-23-19 21:15	0.00	1379	7.74	0.8	1-23-19 21:15	-0.06	1574	8.55	34.4	6-23-19 14:45	18.19	1799	8.54	4.2	4-24-19 9:45	8.90	1175	8.41	4.6	4-24-19 9:45	8.94	681	8.40	10.4
1-23-19 21:45	-0.07	1381	7.96	2.2	1-23-19 21:30	0.00	1369	7.74	0.0	1-23-19 21:30	-0.06	1573	8.55	34.5	6-23-19 15:00	18.18	1798	8.53	4.4	4-24-19 10:00	8.87	1176	8.41	4.2	4-24-19 10:00	9.06	682	8.40	16.0
1-23-19 22:00	-0.07	1382	7.96	2.2	1-23-19 21:45	0.00	1377	7.74	0.0	1-23-19 21:45	-0.07	1572	8.55	34.5	6-23-19 15:15	18.15	1801	8.54	5.2	4-24-19 10:15	8.87	1176	8.42	3.7	4-24-19 10:15	9.11	682	8.40	24.1
1-23-19 22:15	-0.08	1365	7.95	2.3	1-23-19 22:00	0.00	1377	7.74	0.9	1-23-19 22:00	-0.07	1592	8.55	36.6	6-23-19 15:30	18.14	1801	8.54	4.3	4-24-19 10:30	8.87	1176	8.42	5.0	4-24-19 10:30	9.08	682	8.40	16.7
1-23-19 22:30	-0.07	1365	7.96	2.3	1-23-19 22:15	0.00	1378	7.74	0.2	1-23-19 22:15	-0.07	1593	8.55	36.1	6-23-19 15:45	18.13	1802	8.54	4.5	4-24-19 10:45	8.84	1177	8.42	4.8	4-24-19 10:45	8.95	681	8.39	17.4
1-23-19 22:45	-0.07	1365	7.96	2.3	1-23-19 22:30	0.00	1373	7.74	0.0	1-23-19 22:30	-0.07	1595	8.55	35.8	6-23-19 16:00	18.15	1801	8.54	4.6	4-24-19 11:00	8.99	1176	8.42	4.5	4-24-19 11:00	9.12	683	8.40	20.9
1-23-19 23:00	-0.07	1364	7.96	2.1	1-23-19 22:45	0.00	1374	7.74	0.0	1-23-19 22:45	-0.07	1594	8.55	35.9	6-23-19 16:15	18.28	1800	8.53	4.7	4-24-19 11:15	9.05	1177	8.42	5.4	4-24-19 11:15	9.29	682	8.39	16.3
1-23-19 23:15	-0.08	1380	7.96	2.6	1-23-19 23:00	0.00	1375	7.74	0.0	1-23-19 23:00	-0.07	1575	8.55	35.0	6-23-19 16:30	18.29	1802	8.53	4.7	4-24-19 11:30	8.99	1177	8.42	4.1	4-24-19 11:30	9.18	681	8.39	17.7
1-23-19 23:30	-0.08	1381	7.96	2.2	1-23-19 23:15	0.00	1381	7.74	0.2	1-23-19 23:15	-0.07	1575	8.55	34.2	6-23-19 16:45	18.35	1802	8.54	4.9	4-24-19 11:45	9.17	1177	8.42	4.5	4-24-19 11:45	9.39	681	8.39	15.1
1-23-19 23:45	-0.08	1381	7.96	2.3	1-23-19 23:30	0.00	1378	7.74	0.2	1-23-19 23:30	-0.07	1575	8.55	34.6	6-23-19 17:00	18.52	1801	8.53	4.8	4-24-19 12:00	9.07	1176	8.42	5.8	4-24-19 12:00	9.35	682	8.39	17.8
1-24-19 0:00	-0.08	1381	7.96	2.2	1-23-19 23:45	0.00	1377	7.74	0.0	1-23-19 23:45	-0.07	1575	8.55	34.1	6-23-19 17:15	18.52	1801	8.53	4.8	4-24-19 12:15	9.17	1176	8.42	4.2	4-24-19 12:15	9.33	681	8.39	13.6
1-24-19 0:15					1-24-19 0:00	0.00	1372	7.74	0.0	1-24-19 0:00	-0.07	1591	8.55	36.0	6-23-19 17:30	18.59	1803	8.53	4.6	4-24-19 12:30	9.10	1177	8.43	4.2	4-24-19 12:30	9.21	681	8.40	18.0
1-24-19 0:30	-0.07	1365	7.97	2.2	1-24-19 0:15	0.00	1378	7.74	0.2	1-24-19 0:15	-0.07	1593	8.55	35.8	6-23-19 17:45	18.73	1800	8.53	4.7	4-24-19 12:45	9.16	1177	8.43	4.6	4-24-19 12:45	9.17	682	8.40	13.0
1-24-19 0:45	-0.07	1365	7.96	2.2	1-24-19 0:30	0.00	1378	7.74	0.0	1-24-19 0:30	-0.07	1593	8.55	35.8	6-23-19 18:00	18.78	1801	8.53	4.4	4-24-19 13:00	9.29	1176	8.42	4.5	4-24-19 13:00	9.48	682	8.40	15.7
1-24-19 1:00	-0.07	1365	7.96	2.3	1-24-19 0:45	0.00	1377	7.74	0.0	1-24-19 0:45	-0.07	1593	8.55	35.7	6-23-19 18:15	18.91	1801	8.53	6.2	4-24-19 13:15	9.43	1176	8.43	4.5	4-24-19 13:15	9.72	682	8.39	14.8
1-24-19 1:15	-0.08	1387	7.95	2.6	1-24-19 1:00	0.00	1379	7.74	1.9	1-24-19 1:00	-0.07	1575	8.55	34.1	6-23-19 18:30	18.92	1802	8.52	4.7	4-24-19 13:30	9.37	1176	8.42	4.8	4-24-19 13:30	9.87	684	8.39	74.2
1-24-19 1:30	-0.07	1388	7.96	2.2	1-24-19 1:15	0.00	1375	7.74	0.0	1-24-19 1:15	-0.07	1574	8.55	34.7	6-23-19 18:45	19.05	1804	8.53	5.1	4-24-19 13:45	9.35	1177	8.43	5.0	4-24-19 13:45	9.61	681	8.39	15.6
1-24-19 1:45	-0.07	1388	7.96	2.2	1-24-19 1:30	0.00	1374	7.74	0.0	1-24-19 1:30	-0.07	1574	8.55	34.5	6-23-19 19:00	19.13	1798	8.53	4.6	4-24-19 14:00	9.44	1177	8.43	5.1	4-24-19 14:00	9.70	680	8.39	12.0
1-24-19 2:00	-0.07	1388	7.96	2.2	1-24-19 1:45	0.00	1375	7.74	0.7	1-24-19 1:45	-0.07	1573	8.55	34.3	6-23-19 19:15	19.04	1797	8.53	4.7	4-24-19 14:15	9.44	1177	8.43	4.6	4-24-19 14:15	9.65	681	8.39	15.1
1-24-19 2:15	-0.08	1367	7.95	2.3	1-24-19 2:00	0.00	1378	7.74	0.0	1-24-19 2:00	-0.06	1590	8.55	37.2	6-23-19 19:30	19.17	1794	8.53	5.8	4-24-19 14:30	9.53	1177	8.43	4.3	4-24-19 14:30	9.79	682	8.39	16.9
1-24-19 2:30	-0.07	1367	7.97	2.2	1-24-19 2:15	0.00	1378	7.74	4.5	1-24-19 2:15	-0.06	1590	8.56	35.6	6-23-19 19:45	19.08	1797	8.52	4.9	4-24-19 14:45	9.46	1177	8.43	4.5	4-24-19 14:45	9.66	682	8.39	22.0
1-24-19 2:45	-0.07	1367	7.96	2.3	1-24-19 2:30	0.00	1373	7.74	0.4	1-24-19 2:30	-0.06	1591	8.56	35.7	6-23-19 20:00	19.11	1797	8.52	5.0	4-24-19 15:00	9.48	1177	8.43	5.3	4-24-19 15:00	9.48	681	8.40	17.1
1-24-19 3:00	-0.07	1367	7.96	2.2	1-24-19 2:45	0.00	1377	7.74	0.0	1-24-19 2:45	-0.06	1591	8.56	35.7	6-23-19 20:15	19.03	1795	8.53	5.0	4-24-19 15:15	9.45	1178	8.43	4.7	4-24-19 15:15	9.37	680	8.40	18.6
1-24-19 3:15	-0.08	1389	7.95	3.5	1-24-19 3:00	0.00	1375	7.74	2.1	1-24-19 3:00	-0.06	1571	8.56	34.4	6-23-19 20:30	18.89	1782	8.53	7.3	4-24-19 15:30	9.47	1179	8.43	5.5	4-24-19 15:30	9.41	680	8.41	19.1
1-24-19 3:30	-0.07	1391	7.96	2.2	1-24-19 3:15	0.00	1381	7.74	6.2	1-24-19 3:15	-0.06	1574	8.56	33.4	6-23-19 20:45	18.82	1781	8.53	6.3	4-24-19 15:45	9.55	1177	8.43	5.5	4-24-19 15:45	9.65	681	8.40	17.3
1-24-19 3:45	-0.07	1391	7.96	2.3	1-24-19 3:30	0.00	1378	7.74	4.7	1-24-19 3:30	-0.06	1573	8.56	33.2	6-23-19 21:00	18.74	1783	8.54	6.0	4-24-19 16:00	9.50	1178	8.44	5.2	4-24-19 16:00	9.58	681	8.40	14.8
1-24-19 4:00	-0.07	1391	7.96	2.2	1-24-19 3:45	0.00	1372	7.74	0.5	1-24-19 3:45	-0.06	1574	8.56	33.6	6-23-19 21:15	18.76	1784	8.54	5.8	4-24-19 16:15	9.49	1178	8.44	5.7	4-24-19 16:15	9.49	681	8.41	15.4
1-24-19 4:15	-0.08	1365	7.95	2.4	1-24-19 4:00	0.00	1373	7.74	0.1	1-24-19 4:00	-0.06	1592	8.55	36.0	6-23-19 21:30	18.78	1785	8.54	5.7	4-24-19 16:30	9.50	1178	8.44	6.1	4-24-19 16:30	9.48	681	8.41	12.9
1-24-19 4:30	-0.08	1365	7.96	2.3	1-24-19 4:15	0.00	1373	7.74	0.0	1-24-19 4:15	-0.06	1594	8.56	35.6	6-23-19 21:45	18.95	1783	8.53	6.5	4-24-19 16:45	9.50	1179	8.44	6.4	4-24-19 16:45	9.43	681	8.41	15.5
1-24-19 4:45	-0.07	1365	7.96	2.3	1-24-19 4:30	0.00	1374	7.74	0.0	1-24-19 4:30	-0.06	1593	8.56	35.6	6-23-19 22:00	19.12	1784	8.52	6.0	4-24-19 17:00	9.46	1179	8.44	5.5	4-24-19 17:00	9.33	680	8.42	11.3
1-24-19 5:00	-0.07	1365	7.96	2.2	1-24-19 4:45	0.00	1374	7.74	0.2	1-24-19 4:45	-0.06	1594	8.56	35.4	6-23-19 22:15	19.24	1785	8.52	5.9	4-24-19 17:15	9.46	1178	8.44	6.5	4-24-19 17:15	9.33	681	8.42	10.8
1-24-19 5:15	-0.08	1381	7.96	2.6	1-24-19 5:00	0.00	1377	7.74	0.7	1-24-19 5:00	-0.06	1572	8.56	34.2	6-23-19 22:30	19.31	1786	8.52	6.1	4-24-19 17:30	9.42	1179	8.45	6.1	4-24-19 17:30	9.29	680	8.42	13.3
1-24-19 5:30	-0.07	1382	7.96	2.3	1-24-19 5:15	0.00	1379	7.74	0.1	1-24-19 5:15	-0.06	1572	8.56	34.3	6-23-19 22:45	19.38	1785	8.52	6.1	4-24-19 17:45	9.43	1179	8.45	13.5	4-24-19 17:45	9.21	682	8.42	19.4
1-24-19 5:45	-0.07	1383	7.96	2.4	1-24-19 5:30	0.00	1374	7.74	0.0	1-24-19 5:30	-0.07	1573	8.56	33.6	6-23-19 23:00	19.55	1785	8.52	6.1	4-24-19 18:00	9.44	1179	8.45	6.1	4-24-19 18:00	9.32	680	8.42	13.4
1-24-19 6:00	-0.07	1383	7.96	2.2	1-24-19 5:45	0.00	1376	7.74	0.0	1-24-19 5:45	-0.06	1573	8.56	34.0	6-23-19 23:15	19.70	1787	8.53	6.4	4-24-19 18:15	9.43	1179	8.45	6.2	4-24-19 18:15	9.29	681	8.42	13.3
1-24-19 6:15	-0.08	1365	7.95	2.3	1-24-19 6:00	0.00	1378	7.74	0.4	1-24-19 6:00	-0.06	1592	8.56	35.4	6-23-19 23:30	19.63	1786	8.52	5.8	4-24-19 18:30	9.41	1180	8.45	6.0	4-24-19 18:30	9.25	680	8.42	10.0
1-24-19 6:30	-0.07	1364	7.96	2.3	1-24-19 6:15	0.00	1376	7.74	0.4	1-24-19 6:15	-0.07	1594	8.56	35.3	6-23-19 23:45	19.62	1785	8.53	6.5	4-24-19 18:45	9.40	1179	8.45	5.4	4-24-19 18:45	9.18	681	8.43	10.3
1-24-19 6:45	-0.07	1365	7.96	2.3	1-24-19 6:30	0.00	1384	7.74	2.2	1-24-19 6:30	-0.07	1594	8.56	34.9	6-24-19 0:00	19.69	1786	8.53	6.2	4-24-19 19:00	9.36	1179	8.45	6.0	4-24-19 19:00	9.11	680	8.43	11.6
1-24-19 7:00	-0.08	1365	7.96	2.3	1-24-19 6:45	0.00	1375	7.74	0.2	1-24-19 6:45	-0.07	1595	8.56	34.9	6-24-19 0:15	19.70	1785	8.53	6.1	4-24-19 19:15	9.36	1180	8.45	6.1	4-24-19 19:15	9.03	681	8.43	10.0
1-24-19 7:15	-0.08	1389	7.96	2.6	1-24-19 7:00	0.00	1374	7.74	0.0	1-24-19 7:00	-0.07	1574	8.56	33.6	6-24-19 0:30	19.68	1785	8.53	6.5	4-24-19 19:30	9.32	1181	8.45	5.7	4-24-19 19:30	8.98	680	8.43	9.7
1-24-19 7:30	-0.08	1390	7.97	2.3	1-24-19 7:15	0.00	1381	7.74	2.6	1-24-19 7:15	-0.07	1574	8.56	34.1	6-24-19 0:45	19.87	1789	8.53	6.6	4-24-19 19:45	9.32	1181	8.45	7.0	4-24-19 19:45	8.87	680	8.43	11.4
1-24-19 7:45	-0.08	1390	7.96	2.3	1-24-19 7:30	0.00	1379	7.74	1.7	1-24-19 7:30	-0.07	1575	8.56	33.8	6-24-19 1:00	19.82	1787	8.53	8.3	4-24-19 20:00	9.28	1181	8.46	6.9	4-24-19 20:00	8.83	681	8.43	10.0
1-24-19 8:00	-0.08	1390	7.96	2.3	1-24-19 7:45	0.00	1381	7.74	0.8	1-24-19 7:45	-0.07	1576	8.56	33.9	6-24-19 1:15	19.84	1786	8.53	6.1	4-24-19 20:15	9.24	1181	8.46	7.8	4-24-19 20:15	8.78	682	8.43	11.7
1-24-19 8:15	-0.08	1367	7.95	2.3	1-24-19 8:00	0.00	1380	7.74	0.8	1-24-19 8:00	-0.07	1593	8.56	35.7	6-24-19 1:30	19.89	1787	8.53	5.7	4-24-19 20:30	9.19	1180	8.46	6.7	4-24-19 20:30	8.78	681	8.43	12.0
1-24-19 8:30	-0.08	1367	7.96	2.2	1-24-19 8:15	0.00	1379	7.74	0.4	1-24-19 8:15	-0.07	1591	8.56	35.3	6-24-19 1:45	19.84	1789	8.53	6.2	4-24-19 20:45	9.16	1182	8.46	7.4	4-24-19 20:45	8.73	680	8.43	9.4
1-24-19 8:45	-0.08	1367	7.96	2.3	1-24-19 8:30	0.00	1380	7.74	0.7	1-24-19 8:30	-0.07	1593	8.56	35.3	6-24-19 2:00	19.83	1786	8.53	7.0	4-24-19 21:00	9.12	1181	8.46	6.9	4-24-19 21:00	8.65	680	8.43	9.8
1-24-19 9:00	-0.07	1367	7.96	2.3	1-24-19 8:45	0.00	1376	7.74	0.3	1-24-19 8:45	-0.07	1594	8.56	35.1	6-24-19 2:15	19.83	1785	8.53	6.1	4-24-19 21:15	9.07	1183	8.46	6.3	4-24-19 21:15	8.58	681	8.43	9.7
1-24-19 9:15	-0.08	1383	7.96	2.6	1-24-19 9:00	0.00	1382	7.74	3.2	1-24-19 9:00	-0.07	1577	8.57	33.1	6-24-19 2:30	19.79	1787	8.53	5.9	4-24-19 21:30	9.04	1181	8.46	7.1	4-24-19 21:30	8.60	681	8.43	9.5
1-24-19 9:30	-0.08	1383	7.96	2.2	1-24-19 9:15	0.00	1385	7.74	2.9	1-24-19 9:15	-0.07	1576	8.57	33.6	6-24-19 2:45	19.74	1787	8.53	5.7	4-24-19 21:45	8.97	1182	8.46	7.7	4-24-19 21:45	8.52	680	8.43	9.3
1-24-19 9:45	-0.08	1384	7.96	2.2	1-24-19 9:30	0.00	1384	7.74	5.0	1-24-19 9:30	-0.07	1576	8.57	33.4	6-24-19 3:00	19.72	1787	8.53	5.9	4-24-19 22:00	8.92	1183	8.46	6.5	4-24-19 22:00	8.41	681	8.43	9.7
1-24-19 10:00	-0.08	1384	7.96	2.2	1-24-19 9:45	0.00	1378	7.74	3.1	1-24-19 9:45	-0.07	1576	8.57	33.3	6-24-19 3:15	19.66	1788	8.54	5.6	4-24-19 22:15	8.91	1183	8.46	7.6	4-24-19 22:15	8.35	681	8.43	8.8
1-24-19 10:15	-0.08	1375	7.95	2.4	1-24-19 10:00	0.00	1384	7.74	3.6	1-24-19 10:00	-0.07	1594	8.56	35.2	6-24-19 3:30	19.62	1787	8.54	5.7	4-24-19 22:30	8.87	1183	8.46	6.5	4-24-19 22:30	8.27	681	8.43	9.2
1-24-19 10:30	-0.08	1375	7.96	2.3	1-24-19 10:15	0.00	1376	7.74	0.0	1-24-19 10:15	-0.07	1594	8.57	35.3	6-24-19 3:45	19.61	1788	8.54	5.8	4-24-19 22:45	8.85	1182	8.46	5.6	4-24-19 22:45	8.22	681	8.43	9.3
1-24-19 10:45	-0.08	1374	7.96	249.0	1-24-19 10:30	0.00	1376	7.74	2.1	1-24-19 10:30	-0.07	1593	8.57	35.2	6-24-19 4:00	19.57	1788	8.53	6.4	4-24-19 23:00	8.82	1183	8.46	8.2	4-24-19 23:00	8.20	681	8.43	8.5
1-24-19 11:00	-0.08	1374	7.96	121.1	1-24-19 10:45	0.00	1375	7.74	0.2	1-24-19 10:45	-0.07	1595	8.57	35.1	6-24-19 4:15	19.53	1788	8.53	5.4	4-24-19 23:15	8.78	1182	8.46	6.7	4-24-19 23:15	8.14	682	8.43	9.5
1-24-19 11:15	-0.09	1389	7.95	2.8	1-24-19 11:00	0.00	1381	7.74	0.5	1-24-19 11:00	-0.07	1576	8.57	34.2	6-24-19 4:30	19.49	1788	8.53	5.8	4-24-19 23:30	8.74	1183	8.46	6.5	4-24-19 23:30	8.09	681	8.43	8.9
1-24-19 11:30	-0.08	1397	7.96	2.2	1-24-19 11:15	0.00	1376	7.74	0.6	1-24-19 11:15	-0.07	1575	8.57	33.5	6-24-19 4:45	19.43	1788	8.54	5.7	4-24-19 23:45	8.72	1182	8.46	7.0	4-24-19 23:45	8.01	681	8.43	9.0
1-24-19 11:45	-0.08	1395	7.97	2.2	1-24-19 11:30	0.00	1383	7.74	0.7	1-24-19 11:30	-0.07	1575	8.57	33.2	6-24-19 5:00	19.40	1788	8.54	6.6	4-25-19 0:00	8.65	1183	8.46	6.3	4-25-19 0:00	7.90	681	8.43	9.6
1-24-19 12:00	-0.08	1395	7.97	2.1	1-24-19 11:45	0.00	1374	7.74	0.8	1-24-19 11:45	-0.07	1577	8.57	33.5	6-24-19 5:15	19.38	1789	8.53	5.4	4-25-19 0:15	8.61	1183	8.46	6.5	4-25-19 0:15	7.99	681	8.43	8.6
1-24-19 12:15	-0.08	1368	7.95	2.4	1-24-19 12:00	0.00	1382	7.74	1.8	1-24-19 12:00	-0.07	1595	8.57	35.8	6-24-19 5:30	19.33	1787	8.53	5.6	4-25-19 0:30	8.55	1183	8.46	5.7	4-25-19 0:30	7.96	681	8.43	9.0
1-24-19 12:30	-0.08	1369	7.96	2.3	1-24-19 12:15	0.00	1379	7.74	2.2	1-24-19 12:15	-0.07	1596	8.58	35.2	6-24-19 5:45	19.25	1786	8.54	5.3	4-25-19 0:45	8.57	1183	8.46	6.4	4-25-19 0:45	7.85	681	8.42	8.8
1-24-19 12:45	-0.08	1369	7.96	2.2	1-24-19 12:30	0.00	1378	7.74	0.4	1-24-19 12:30	-0.07	1594	8.58	35.3	6-24-19 6:00	19.21	1789	8.53	5.1	4-25-19 1:00	8.51	1183	8.46	5.7	4-25-19 1:00	7.89	682	8.43	8.9
1-24-19 13:00	-0.08	1369	7.96	2.2	1-24-19 12:45	0.00	1377	7.74	2.6	1-24-19 12:45	-0.06	1593	8.58	35.3	6-24-19 6:15	19.18	1788	8.53	5.6	4-25-19 1:15	8.45	1183	8.46	5.6	4-25-19 1:15	7.96	681	8.42	8.6
1-24-19 13:15	-0.09	1396	7.95	2.7	1-24-19 13:00	0.00	1390	7.74	3.5	1-24-19 13:00	-0.06	1576	8.58	33.5	6-24-19 6:30	19.13	1788	8.53	5.3	4-25-19 1:30	8.43	1183	8.46	6.3	4-25-19 1:30	7.84	681	8.42	8.7
1-24-19 13:30	-0.08	1395	7.96	2.3	1-24-19 13:15	0.00	1377	7.74	6.0	1-24-19 13:15	-0.06	1575	8.58	33.2	6-24-19 6:45	19.07	1786	8.53	5.9	4-25-19 1:45	8.39	1183	8.46	5.0	4-25-19 1:45	7.79	682	8.43	8.5
1-24-19 13:45	-0.08	1395	7.96	2.2	1-24-19 13:30	0.00	1377	7.74	4.1	1-24-19 13:30	0.10	1573	8.59	36.1	6-24-19 7:00	19.02	1789	8.53	5.2	4-25-19 2:00	8.35	1183	8.46	5.9	4-25-19 2:00	7.75	681	8.42	9.0
1-24-19 14:00	-0.08	1395	7.96	2.2	1-24-19 13:45	0.15	1372	7.74	0.8	1-24-19 13:45	0.01	1575	8.59	35.4	6-24-19 7:15	18.99	1788	8.53	5.1	4-25-19 2:15	8.33	1184	8.46	6.7	4-25-19 2:15	7.83	682	8.42	8.7

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-24-19 14:15	-0.08	1368	7.95	2.4	1-24-19 14:00	0.06	1373	7.74	1.1	1-24-19 14:00	-0.03	1594	8.58	36.8	6-24-19 7:30	18.94	1785	8.53	5.5	4-25-19 2:30	8.31	1183	8.46	7.3	4-25-19 2:30	7.67	682	8.42	8.9
1-24-19 14:30	-0.08	1368	7.96	2.3	1-24-19 14:15	0.08	1368	7.75	0.6	1-24-19 14:15	-0.04	1595	8.58	36.3	6-24-19 7:45	18.82	1770	8.53	6.9	4-25-19 2:45	8.27	1184	8.46	5.2	4-25-19 2:45	7.69	682	8.42	9.2
1-24-19 14:45	-0.08	1368	7.96	2.3	1-24-19 14:30	0.10	1368	7.75	0.9	1-24-19 14:30	-0.04	1597	8.58	35.9	6-24-19 8:00	18.72	1765	8.53	12.9	4-25-19 3:00	8.21	1184	8.46	5.8	4-25-19 3:00	7.64	683	8.42	8.5
1-24-19 15:00	-0.08	1368	7.96	2.3	1-24-19 14:45	0.10	1367	7.75	3.2	1-24-19 14:45	-0.05	1595	8.58	35.4	6-24-19 8:15	18.72	1775	8.53	8.3	4-25-19 3:15	8.17	1184	8.46	5.8	4-25-19 3:15	7.60	682	8.42	9.2
1-24-19 15:15	-0.08	1388	7.95	2.5	1-24-19 15:00	0.13	1359	7.76	1.2	1-24-19 15:00	-0.05	1574	8.58	34.1	6-24-19 8:30	18.69	1773	8.53	7.6	4-25-19 3:30	8.15	1184	8.46	5.4	4-25-19 3:30	7.53	682	8.42	8.9
1-24-19 15:30	-0.07	1389	7.96	2.2	1-24-19 15:15	0.19	1362	7.76	2.2	1-24-19 15:15	-0.05	1576	8.58	34.0	6-24-19 8:45	18.65	1771	8.53	7.4	4-25-19 3:45	8.08	1184	8.46	5.3	4-25-19 3:45	7.43	682	8.42	10.2
1-24-19 15:45	-0.08	1390	7.95	2.3	1-24-19 15:30	0.32	1352	7.76	2.1	1-24-19 15:30	-0.05	1574	8.58	33.6	6-24-19 9:00	18.59	1772	8.53	7.2	4-25-19 4:00	8.07	1184	8.46	5.0	4-25-19 4:00	7.39	682	8.42	8.5
1-24-19 16:00	-0.08	1389	7.95	2.2	1-24-19 15:45	0.42	1343	7.77	5.5	1-24-19 15:45	-0.06	1575	8.59	32.6	6-24-19 9:15	18.56	1770	8.53	7.4	4-25-19 4:15	8.06	1183	8.46	6.0	4-25-19 4:15	7.37	682	8.42	12.3
1-24-19 16:15	-0.08	1367	7.94	2.3	1-24-19 16:00	0.50	1339	7.77	1.9	1-24-19 16:00	-0.06	1593	8.58	35.1	6-24-19 9:30	18.50	1769	8.53	7.6	4-25-19 4:30	7.98	1183	8.46	5.3	4-25-19 4:30	7.34	682	8.42	8.2
1-24-19 16:30	-0.08	1364	7.96	2.2	1-24-19 16:15	0.50	1340	7.77	1.4	1-24-19 16:15	-0.06	1596	8.59	34.7	6-24-19 9:45	18.47	1770	8.53	8.1	4-25-19 4:45	7.96	1184	8.46	5.4	4-25-19 4:45	7.39	683	8.42	8.6
1-24-19 16:45	-0.07	1366	7.96	2.3	1-24-19 16:30	0.53	1345	7.77	4.5	1-24-19 16:30	-0.06	1595	8.58	34.6	6-24-19 10:00	18.44	1771	8.53	7.4	4-25-19 5:00	7.92	1184	8.46	5.3	4-25-19 5:00	7.35	682	8.42	8.7
1-24-19 17:00	-0.08	1366	7.95	2.2	1-24-19 16:45	0.59	1333	7.77	3.4	1-24-19 16:45	-0.06	1594	8.59	34.4	6-24-19 10:15	18.38	1771	8.53	6.9	4-25-19 5:15	7.89	1185	8.46	4.9	4-25-19 5:15	7.21	682	8.42	9.3
1-24-19 17:15	-0.08	1379	7.95	2.6	1-24-19 17:00	0.61	1337	7.77	5.2	1-24-19 17:00	-0.06	1577	8.59	33.6	6-24-19 10:30	18.33	1771	8.53	7.4	4-25-19 5:30	7.84	1184	8.46	5.7	4-25-19 5:30	7.23	682	8.42	8.7
1-24-19 17:30	-0.08	1381	7.96	2.2	1-24-19 17:15	0.55	1339	7.76	2.8	1-24-19 17:15	-0.07	1576	8.59	33.1	6-24-19 10:45	18.30	1773	8.53	8.2	4-25-19 5:45	7.83	1184	8.46	5.5	4-25-19 5:45	7.15	683	8.42	7.6
1-24-19 17:45	-0.08	1381	7.95	2.3	1-24-19 17:30	0.52	1340	7.77	4.8	1-24-19 17:30	-0.07	1576	8.59	33.5	6-24-19 11:00	18.25	1770	8.53	8.2	4-25-19 6:00	7.75	1184	8.46	5.8	4-25-19 6:00	7.23	682	8.42	8.4
1-24-19 18:00	-0.08	1381	7.95	2.2	1-24-19 17:45	0.54	1349	7.77	3.6	1-24-19 17:45	-0.07	1576	8.59	33.6	6-24-19 11:15	18.20	1771	8.53	7.4	4-25-19 6:15	7.69	1184	8.46	5.2	4-25-19 6:15	7.24	682	8.42	8.7
1-24-19 18:15	-0.08	1370	7.94	2.3	1-24-19 18:00	0.57	1346	7.77	4.4	1-24-19 18:00	-0.06	1597	8.58	35.3	6-24-19 11:30	18.19	1770	8.53	7.6	4-25-19 6:30	7.70	1185	8.46	5.2	4-25-19 6:30	7.17	682	8.42	8.2
1-24-19 18:30	-0.08	1370	7.96	2.3	1-24-19 18:15	0.51	1346	7.76	1.1	1-24-19 18:15	-0.07	1598	8.59	35.0	6-24-19 11:45	18.13	1770	8.52	7.1	4-25-19 6:45	7.71	1184	8.46	5.2	4-25-19 6:45	7.02	682	8.42	8.1
1-24-19 18:45	-0.08	1370	7.96	2.2	1-24-19 18:30	0.49	1361	7.76	3.3	1-24-19 18:30	-0.07	1597	8.59	35.0	6-24-19 12:00	18.08	1769	8.53	7.4	4-25-19 7:00	7.64	1185	8.46	5.3	4-25-19 7:00	6.98	682	8.42	7.1
1-24-19 19:00	-0.08	1370	7.95	2.1	1-24-19 18:45	0.50	1349	7.75	0.9	1-24-19 18:45	-0.06	1598	8.59	35.2	6-24-19 12:15	18.07	1770	8.52	7.5	4-25-19 7:15	7.61	1184	8.46	5.1	4-25-19 7:15	6.94	682	8.42	7.7
1-24-19 19:15	-0.08	1381	7.94	2.6	1-24-19 19:00	0.48	1362	7.75	2.5	1-24-19 19:00	-0.06	1577	8.59	34.6	6-24-19 12:30	18.01	1769	8.52	6.9	4-25-19 7:30	7.64	1184	8.46	4.9	4-25-19 7:30	6.98	683	8.43	8.5
1-24-19 19:30	-0.08	1381	7.96	2.2	1-24-19 19:15	0.44	1366	7.75	0.2	1-24-19 19:15	-0.06	1577	8.59	33.5	6-24-19 12:45	17.98	1767	8.52	7.6	4-25-19 7:45	7.63	1184	8.46	6.2	4-25-19 7:45	7.05	682	8.42	7.1
1-24-19 19:45	-0.08	1381	7.95	2.2	1-24-19 19:30	0.46	1370	7.75	2.2	1-24-19 19:30	-0.06	1576	8.59	34.5	6-24-19 13:00	17.95	1769	8.52	6.9	4-25-19 8:00	7.66	1184	8.46	6.9	4-25-19 8:00	7.04	682	8.42	7.5
1-24-19 20:00	-0.08	1381	7.95	2.3	1-24-19 19:45	0.48	1366	7.75	4.2	1-24-19 19:45	-0.06	1576	8.60	33.6	6-24-19 13:15	17.93	1767	8.52	6.4	4-25-19 8:15	7.67	1183	8.46	4.9	4-25-19 8:15	7.24	683	8.42	8.1
1-24-19 20:15	-0.08	1371	7.94	2.3	1-24-19 20:00	0.46	1371	7.75	5.3	1-24-19 20:00	-0.05	1591	8.59	35.8	6-24-19 13:30	17.88	1767	8.52	6.5	4-25-19 8:30	7.69	1183	8.46	6.6	4-25-19 8:30	7.38	682	8.42	7.8
1-24-19 20:30	-0.08	1371	7.95	2.2	1-24-19 20:15	0.44	1358	7.75	4.6	1-24-19 20:15	-0.06	1594	8.59	35.4	6-24-19 13:45	17.85	1766	8.52	6.6	4-25-19 8:45	7.73	1183	8.46	4.3	4-25-19 8:45	7.53	682	8.42	7.3
1-24-19 20:45	-0.08	1370	7.95	2.2	1-24-19 20:30	0.46	1376	7.75	7.3	1-24-19 20:30	-0.06	1594	8.59	35.3	6-24-19 14:00	17.82	1765	8.52	6.7	4-25-19 9:00	7.73	1185	8.46	5.7	4-25-19 9:00	7.63	682	8.42	6.7
1-24-19 21:00	-0.08	1370	7.95	2.2	1-24-19 20:45	0.46	1365	7.75	3.6	1-24-19 20:45	-0.05	1592	8.59	35.8	6-24-19 14:15	17.80	1766	8.52	7.0	4-25-19 9:15	7.70	1186	8.46	10.7	4-25-19 9:15	7.83	682	8.41	10.2
1-24-19 21:15	-0.08	1381	7.94	2.6	1-24-19 21:00	0.47	1361	7.75	4.4	1-24-19 21:00	-0.05	1576	8.60	34.6	6-24-19 14:30	17.79	1764	8.52	6.5	4-25-19 9:30	7.68	1187	8.45	4.9	4-25-19 9:30	7.91	682	8.41	9.9
1-24-19 21:30	-0.07	1380	7.96	2.2	1-24-19 21:15	0.47	1358	7.75	4.4	1-24-19 21:15	-0.06	1577	8.60	33.2	6-24-19 14:45	17.74	1765	8.52	7.2	4-25-19 9:45	7.61	1189	8.45	6.2	4-25-19 9:45	8.00	682	8.41	9.6
1-24-19 21:45	-0.07	1381	7.95	2.1	1-24-19 21:30	0.37	1365	7.75	3.1	1-24-19 21:30	-0.05	1575	8.60	33.5	6-24-19 15:00	17.71	1765	8.52	6.8	4-25-19 10:00	7.73	1193	8.44	5.2	4-25-19 10:00	8.09	682	8.42	9.7
1-24-19 22:00	-0.08	1381	7.95	2.2	1-24-19 21:45	0.47	1350	7.75	4.3	1-24-19 21:45	-0.06	1578	8.60	33.5	6-24-19 15:15	17.68	1764	8.52	6.8	4-25-19 10:15	7.75	1198	8.42	5.8	4-25-19 10:15	8.29	681	8.42	10.3
1-24-19 22:15	-0.08	1371	7.94	2.2	1-24-19 22:00	0.39	1365	7.75	4.8	1-24-19 22:00	-0.06	1597	8.59	35.7	6-24-19 15:30	17.65	1767	8.52	6.6	4-25-19 10:30	7.90	1195	8.42	6.4	4-25-19 10:30	8.50	683	8.41	8.9
1-24-19 22:30	-0.08	1370	7.95	2.1	1-24-19 22:15	0.34	1367	7.75	4.8	1-24-19 22:15	-0.06	1598	8.59	35.5	6-24-19 15:45	17.63	1764	8.52	6.8	4-25-19 10:45	7.94	1187	8.44	6.9	4-25-19 10:45	8.59	680	8.41	9.7
1-24-19 22:45	-0.08	1370	7.94	2.1	1-24-19 22:30	0.29	1361	7.75	2.2	1-24-19 22:30	-0.06	1597	8.60	35.0	6-24-19 16:00	17.59	1762	8.52	7.0	4-25-19 11:00	7.92	1191	8.44	5.9	4-25-19 11:00	8.80	681	8.41	8.6
1-24-19 23:00	-0.08	1370	7.94	2.0	1-24-19 22:45	0.26	1368	7.75	1.4	1-24-19 22:45	-0.06	1598	8.60	35.3	6-24-19 16:15	17.57	1760	8.52	6.3	4-25-19 11:15	8.02	1195	8.43	6.1	4-25-19 11:15	8.65	679	8.41	7.3
1-24-19 23:15	-0.08	1385	7.93	2.5	1-24-19 23:00	0.21	1367	7.75	0.8	1-24-19 23:00	-0.06	1578	8.60	34.5	6-24-19 16:30	17.54	1764	8.52	6.6	4-25-19 11:30	8.12	1193	8.44	5.6	4-25-19 11:30	8.81	680	8.41	13.1
1-24-19 23:30	-0.08	1386	7.95	2.2	1-24-19 23:15	0.15	1373	7.75	0.8	1-24-19 23:15	-0.06	1578	8.60	33.5	6-24-19 16:45	17.53	1764	8.52	6.2	4-25-19 11:45	8.06	1190	8.44	5.2	4-25-19 11:45	9.14	680	8.40	9.5
1-24-19 23:45	-0.08	1386	7.94	2.2	1-24-19 23:30	0.24	1370	7.74	1.0	1-24-19 23:30	-0.06	1577	8.60	33.9	6-24-19 17:00	17.49	1763	8.52	6.5	4-25-19 12:00	7.92	1194	8.44	5.3	4-25-19 12:00	9.35	681	8.40	10.2
1-25-19 0:00	-0.08	1386	7.94	2.3	1-24-19 23:45	0.48	1358	7.74	1.8	1-24-19 23:45	-0.06	1578	8.60	33.5	6-24-19 17:15	17.45	1745	8.51	8.9	4-25-19 12:15	8.08	1194	8.43	6.0	4-25-19 12:15	9.38	681	8.40	10.0
1-25-19 0:15	-0.08	1372	7.94	2.2	1-25-19 0:00	0.54	1351	7.74	2.0	1-25-19 0:00	-0.06	1597	8.60	35.8	6-24-19 17:30	17.46	1743	8.51	9.3	4-25-19 12:30	8.11	1196	8.43	5.8	4-25-19 12:30	9.62	681	8.41	9.0
1-25-19 0:30	-0.08	1372	7.95	2.2	1-25-19 0:15	0.59	1349	7.74	1.5	1-25-19 0:15	-0.06	1598	8.60	35.6	6-24-19 17:45	17.42	1746	8.50	8.4	4-25-19 12:45	8.28	1194	8.43	6.0	4-25-19 12:45	9.72	680	8.40	8.7
1-25-19 0:45	-0.08	1371	7.94	2.2	1-25-19 0:30	0.59	1351	7.74	1.0	1-25-19 0:30	-0.05	1600	8.60	35.6	6-24-19 18:00	17.42	1749	8.52	6.9	4-25-19 13:00	8.33	1196	8.43	6.2	4-25-19 13:00	9.82	681	8.41	9.0
1-25-19 1:00	-0.08	1371	7.94	2.2	1-25-19 0:45	0.59	1358	7.75	6.1	1-25-19 0:45	-0.05	1599	8.60	35.6	6-24-19 18:15	17.42	1747	8.52	6.4	4-25-19 13:15	8.36	1194	8.43	5.6	4-25-19 13:15	9.98	681	8.40	12.1
1-25-19 1:15	-0.08	1379	7.94	2.5	1-25-19 1:00	0.57	1361	7.75	1.8	1-25-19 1:00	-0.06	1579	8.60	34.4	6-24-19 18:30	17.46	1748	8.51	6.3	4-25-19 13:30	8.45	1200	8.42	8.0	4-25-19 13:30	9.66	679	8.40	10.3
1-25-19 1:30	-0.08	1380	7.95	2.1	1-25-19 1:15	0.57	1366	7.75	4.6	1-25-19 1:15	-0.05	1578	8.60	34.3	6-24-19 18:45	17.46	1746	8.49	7.0	4-25-19 13:45	8.57	1193	8.42	6.0	4-25-19 13:45	9.94	680	8.40	9.8
1-25-19 1:45	-0.07	1380	7.95	2.2	1-25-19 1:30	0.62	1348	7.75	1.4	1-25-19 1:30	-0.05	1578	8.61	33.7	6-24-19 19:00	17.45	1747	8.49	7.8	4-25-19 14:00	8.60	1195	8.42	5.7	4-25-19 14:00	10.04	680	8.40	11.6
1-25-19 2:00	-0.08	1380	7.95	2.2	1-25-19 1:45	0.54	1369	7.75	6.3	1-25-19 1:45	-0.05	1579	8.61	33.9	6-24-19 19:15	17.46	1747	8.49	7.5	4-25-19 14:15	8.64	1194	8.43	6.1	4-25-19 14:15	10.10	679	8.40	11.9
1-25-19 2:15	-0.08	1373	7.94	2.2	1-25-19 2:00	0.52	1378	7.75	5.3	1-25-19 2:00	-0.06	1599	8.60	35.7	6-24-19 19:30	17.46	1745	8.48	6.7	4-25-19 14:30	8.67	1192	8.43	6.5	4-25-19 14:30	10.08	678	8.40	11.0
1-25-19 2:30	-0.07	1373	7.95	2.2	1-25-19 2:15	0.58	1371	7.75	5.0	1-25-19 2:15	-0.06	1599	8.61	35.2	6-24-19 19:45	17.50	1745	8.48	6.9	4-25-19 14:45	8.74	1192	8.43	8.8	4-25-19 14:45	10.22	680	8.40	12.2
1-25-19 2:45	-0.07	1373	7.95	2.2	1-25-19 2:30	0.58	1360	7.75	3.1	1-25-19 2:30	-0.06	1600	8.61	35.0	6-24-19 20:00	17.54	1756	8.48	7.3	4-25-19 15:00	8.89	1192	8.43	7.8	4-25-19 15:00	10.17	679	8.41	11.4
1-25-19 3:00	-0.07	1373	7.95	2.2	1-25-19 2:45	0.57	1358	7.75	0.8	1-25-19 2:45	-0.06	1599	8.61	35.1	6-24-19 20:15	17.57	1753	8.48	7.0	4-25-19 15:15	8.98	1192	8.43	7.5	4-25-19 15:15	10.36	681	8.40	13.4
1-25-19 3:15	-0.07	1382	7.94	2.5	1-25-19 3:00	0.52	1358	7.75	0.7	1-25-19 3:00	-0.06	1577	8.61	34.1	6-24-19 20:30	17.61	1751	8.49	7.0	4-25-19 15:30	9.07	1190	8.43	8.4	4-25-19 15:30	10.31	679	8.40	13.6
1-25-19 3:30	-0.07	1383	7.95	2.1	1-25-19 3:15	0.52	1362	7.75	3.7	1-25-19 3:15	-0.06	1579	8.61	33.7	6-24-19 20:45	17.64	1752	8.50	7.7	4-25-19 15:45	9.11	1191	8.43	9.9	4-25-19 15:45	10.38	678	8.40	14.8
1-25-19 3:45	-0.07	1383	7.95	2.1	1-25-19 3:30	0.57	1372	7.75	2.0	1-25-19 3:30	-0.06	1579	8.61	33.4	6-24-19 21:00	17.66	1750	8.49	7.9	4-25-19 16:00	9.18	1190	8.44	8.5	4-25-19 16:00	10.41	680	8.41	12.4
1-25-19 4:00	-0.07	1384	7.94	2.1	1-25-19 3:45	0.53	1364	7.75	1.8	1-25-19 3:45	-0.06	1580	8.61	34.2	6-24-19 21:15	17.63	1745	8.50	9.2	4-25-19 16:15	9.24	1188	8.44	6.7	4-25-19 16:15	10.57	679	8.40	21.3
1-25-19 4:15	-0.08	1372	7.94	2.2	1-25-19 4:00	0.52	1367	7.75	3.5	1-25-19 4:00	-0.06	1600	8.61	35.9	6-24-19 21:30	17.54	1742	8.50	9.4	4-25-19 16:30	9.22	1190	8.44	8.4	4-25-19 16:30	10.54	677	8.41	18.0
1-25-19 4:30	-0.07	1372	7.95	2.2	1-25-19 4:15	0.48	1366	7.75	1.4	1-25-19 4:15	-0.06	1600	8.61	35.4	6-24-19 21:45	17.58	1743	8.50	11.8	4-25-19 16:45	9.16	1189	8.44	14.3	4-25-19 16:45	10.36	677	8.41	20.8
1-25-19 4:45	-0.07	1372	7.95	2.1	1-25-19 4:30	0.43	1364	7.75	2.6	1-25-19 4:30	-0.06	1599	8.61	35.6	6-24-19 22:00	17.62	1742	8.49	12.1	4-25-19 17:00	9.20	1192	8.44	4.7	4-25-19 17:00	10.35	676	8.41	20.8
1-25-19 5:00	-0.07	1372	7.95	2.0	1-25-19 4:45	0.42	1366	7.75	2.1	1-25-19 4:45	-0.06	1599	8.61	35.2	6-24-19 22:15	17.64	1739	8.49	15.5	4-25-19 17:15	9.29	1190	8.44	4.8	4-25-19 17:15	10.32	674	8.41	22.4
1-25-19 5:15	-0.08	1391	7.93	2.4	1-25-19 5:00	0.43	1367	7.75	1.2	1-25-19 5:00	-0.06	1579	8.61	34.7	6-24-19 22:30	17.65	1734	8.47	11.9	4-25-19 17:30	9.37	1190	8.44	4.6	4-25-19 17:30	10.20	673	8.42	20.8
1-25-19 5:30	-0.07	1392	7.95	2.2	1-25-19 5:15	0.43	1369	7.75	2.3	1-25-19 5:15	-0.06	1579	8.61	34.3	6-24-19 22:45	17.63	1738	8.47	10.8	4-25-19 17:45	9.40	1188	8.44	5.2	4-25-19 17:45	10.15	671	8.41	20.8
1-25-19 5:45					1-25-19 5:30	0.43	1373	7.75	0.5	1-25-19 5:30	-0.06	1579	8.61	34.3	6-24-19 23:00	17.67	1742	8.48	11.3	4-25-19 18:00	9.42	1188	8.44	4.7	4-25-19 18:00	10.14	672	8.41	23.8
1-25-19 6:00	-0.07	1393	7.94	2.0	1-25-19 5:45	0.40	1363	7.75	1.2	1-25-19 5:45	-0.06	1579	8.61	34.7	6-24-19 23:15	17.70	1742	8.48	10.5	4-25-19 18:15	9.40	1190	8.44	5.4	4-25-19 18:15	10.05	672	8.42	26.2
1-25-19 6:15	-0.08	1368	7.93	2.2	1-25-19 6:00	0.38	1377	7.75	5.1	1-25-19 6:00	-0.06	1596	8.61	35.5	6-24-19 23:30	17.76	1743	8.48	11.1	4-25-19 18:30	9.39	1189	8.44	5.3	4-25-19 18:30	10.00	674	8.42	28.4
1-25-19 6:30	-0.07	1368	7.95	2.1	1-25-19 6:15	0.39	1367	7.75	1.3	1-25-19 6:15	-0.06	1597	8.61	35.3	6-24-19 23:45	17.85	1743	8.48	12.8	4-25-19 18:45	9.35	1188	8.44	6.0	4-25-19 18:45	9.92	687	8.43	29.7
1-25-19 6:45	-0.07	1368	7.94	2.1	1-25-19 6:30	0.39	1371	7.75	1.2	1-25-19 6:30	-0.06	1597	8.61	35.2	6-25-19 0:00	17.91	1746	8.48	12.5	4-25-19 19:00	9.28	1188	8.45	5.5	4-25-19 19:00	9.89	687	8.43	27.3
1-25-19 7:00	-0.07	1368	7.93	1.9	1-25-19 6:45	0.41	1382	7.74	1.3	1-25-19 6:45	-0.06	1596	8.61	35.4	6-25-19 0:15	17.99	1742	8.48	13.6	4-25-19 19:15	9.24	1188	8.45	5.7	4-25-19 19:15	9.85	689	8.43	22.1
1-25-19 7:15	-0.08	1400	7.93	2.5	1-25-19 7:00	0.39	1370	7.75	1.2	1-25-19 7:00	-0.06	1579	8.61	34.4	6-25-19 0:30	18.02	1742	8.48	12.6	4-25-19 19:30	9.21	1189	8.45	8.9	4-25-19 19:30	9.79	690	8.43	21.4
1-25-19 7:30	-0.07	1399	7.95	2.1	1-25-19 7:15	0.32	1368	7.75	0.1	1-25-19 7:15	-0.06	1580	8.62	34.7	6-25-19 0:45	18.08	1742	8.48	13.9	4-25-19 19:45	9.19	1189	8.45	5.3	4-25-19 19:45	9.74	690	8.43	23.4
1-25-19 7:45	-0.08	1399	7.94	2.1	1-25-19 7:30	0.28	1367	7.75	0.1	1-25-19 7:30	-0.06	1579	8.62	34.1	6-25-19 1:00	18.10	1745	8.48	13.9	4-25-19 20:00	9.15	1189	8.45	6.0	4-25-19 20:00	9.66	686	8.44	23.3
1-25-19 8:00	-0.08	1400	7.94	1.9	1-25-19 7:45	0.25	1369	7.75	0.4	1-25-19 7:45	-0.06	1580	8.62	34.2	6-25-19 1:15	18.12	1741	8.48	14.6	4-25-19 20:15	9.16	1189	8.45	9.0	4-25-19 20:15	9.64	685	8.44	23.4
1-25-19 8:15	-0.08	1373	7.93	2.2	1-25-19 8:00	0.22	1364	7.75	0.3	1-25-19 8:00	-0.06	1596	8.61	35.6	6-25-19 1:30	18.10	1741	8.48	15.9	4-25-19 20:30	9.12	1190	8.46	6.3	4-25-19 20:30	9.60	680	8.44	23.4

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (℃)	Specific Conductivity (μS/cm)	pH (pH)	Turbidity (NTU)
1-25-19 8:30				
1-25-19 8:45	-0.07	1373	7.94	2.0
1-25-19 9:00	-0.07	1373	7.94	2.1
1-25-19 9:15	-0.08	1400	7.93	2.4
1-25-19 9:30	-0.08	1403	7.95	2.1
1-25-19 9:45	-0.08	1403	7.94	2.2
1-25-19 10:00	-0.07	1403	7.94	2.0
1-25-19 10:15	-0.08	1374	7.93	2.1
1-25-19 10:30	-0.07	1374	7.94	2.3
1-25-19 10:45				
1-25-19 11:00	-0.07	1374	7.93	2.1
1-25-19 11:15	-0.08	1394	7.93	2.4
1-25-19 11:30	-0.08	1395	7.94	2.1
1-25-19 11:45	-0.08	1395	7.94	2.1
1-25-19 12:00	-0.08	1395	7.93	1.9
1-25-19 12:15	-0.08	1378	7.92	2.2
1-25-19 12:30	-0.08	1378	7.94	2.1
1-25-19 12:45	-0.07	1378	7.94	2.0
1-25-19 13:00	-0.08	1378	7.93	2.3
1-25-19 13:15	-0.08	1408	7.93	2.3
1-25-19 13:30	-0.08	1410	7.94	2.1
1-25-19 13:45	-0.08	1410	7.94	2.0
1-25-19 14:00	-0.08	1410	7.94	2.0
1-25-19 14:15	-0.08	1379	7.93	2.1
1-25-19 14:30	-0.08	1373	7.94	2.0
1-25-19 14:45	-0.08	1373	7.93	2.0
1-25-19 15:00	-0.08	1373	7.93	2.0
1-25-19 15:15	-0.08	1402	7.92	2.4
1-25-19 15:30	-0.08	1403	7.93	2.1
1-25-19 15:45	-0.08	1403	7.93	2.1
1-25-19 16:00	-0.08	1403	7.94	2.0
1-25-19 16:15	-0.08	1380	7.93	2.1
1-25-19 16:30	-0.08	1380	7.94	2.0
1-25-19 16:45	-0.07	1380	7.94	1.9
1-25-19 17:00	-0.07	1380	7.93	2.0
1-25-19 17:15	-0.08	1395	7.92	2.3
1-25-19 17:30	-0.07	1396	7.93	2.0
1-25-19 17:45	-0.07	1396	7.93	2.0
1-25-19 18:00	-0.07	1396	7.93	1.9
1-25-19 18:15	-0.08	1383	7.92	2.1
1-25-19 18:30	-0.08	1383	7.93	2.0
1-25-19 18:45	-0.08	1383	7.93	1.9
1-25-19 19:00	-0.08	1383	7.93	1.9
1-25-19 19:15	-0.08	1391	7.92	2.2
1-25-19 19:30	-0.08	1392	7.92	1.9
1-25-19 19:45	-0.08	1391	7.92	1.9
1-25-19 20:00	-0.08	1391	7.92	1.9
1-25-19 20:15	-0.08	1383	7.91	1.9
1-25-19 20:30	-0.08	1383	7.92	2.0
1-25-19 20:45	-0.08	1383	7.92	1.9
1-25-19 21:00	-0.08	1383	7.92	1.8
1-25-19 21:15	-0.08	1396	7.91	2.2
1-25-19 21:30	-0.07	1397	7.93	1.9
1-25-19 21:45	-0.07	1398	7.93	1.9
1-25-19 22:00	-0.07	1398	7.92	2.0
1-25-19 22:15	-0.08	1382	7.91	1.9
1-25-19 22:30	-0.07	1382	7.92	2.0
1-25-19 22:45	-0.07	1382	7.92	1.9
1-25-19 23:00	-0.07	1382	7.92	2.0
1-25-19 23:15	-0.08	1402	7.91	2.2
1-25-19 23:30	-0.07	1402	7.92	1.9
1-25-19 23:45	-0.07	1402	7.92	1.8
1-26-19 0:00	-0.07	1402	7.92	1.8
1-26-19 0:15	-0.07	1384	7.91	1.8
1-26-19 0:30	-0.07	1383	7.92	1.9
1-26-19 0:45	-0.07	1384	7.91	1.9
1-26-19 1:00	-0.07	1383	7.91	1.9
1-26-19 1:15	-0.07	1399	7.90	2.1
1-26-19 1:30	-0.07	1399	7.92	1.8
1-26-19 1:45	-0.07	1399	7.92	1.8
1-26-19 2:00	-0.07	1399	7.92	1.9
1-26-19 2:15	-0.07	1388	7.90	1.8
1-26-19 2:30	-0.07	1388	7.92	1.9

RSEM-R6E				
Date and Time	Temperature (℃)	Specific Conductivity (μS/cm)	pH (pH)	Turbidity (NTU)
1-25-19 8:15	0.19	1370	7.75	0.4
1-25-19 8:30	0.14	1371	7.75	0.1
1-25-19 8:45	0.15	1369	7.75	0.2
1-25-19 9:00	0.28	1369	7.74	0.7
1-25-19 9:15	0.33	1372	7.74	1.3
1-25-19 9:30	0.33	1370	7.74	0.7
1-25-19 9:45	0.34	1363	7.74	0.2
1-25-19 10:00	0.35	1369	7.74	0.0
1-25-19 10:15	0.32	1373	7.74	1.0
1-25-19 10:30	0.34	1371	7.74	0.3
1-25-19 10:45	0.34	1374	7.74	2.0
1-25-19 11:00	0.36	1366	7.74	0.6
1-25-19 11:15	0.25	1371	7.74	0.6
1-25-19 11:30	0.24	1371	7.74	0.9
1-25-19 11:45	0.32	1351	7.75	0.3
1-25-19 12:00	0.30	1365	7.74	0.3
1-25-19 12:15	0.31	1363	7.74	0.4
1-25-19 12:30	0.27	1377	7.74	3.5
1-25-19 12:45	0.23	1378	7.74	1.0
1-25-19 13:00	0.21	1372	7.74	0.4
1-25-19 13:15	0.21	1374	7.74	0.0
1-25-19 13:30	0.22	1374	7.74	0.1
1-25-19 13:45	0.23	1373	7.74	5.4
1-25-19 14:00	0.23	1374	7.74	0.4
1-25-19 14:15	0.23	1374	7.74	0.3
1-25-19 14:30	0.23	1373	7.74	2.7
1-25-19 14:45	0.23	1373	7.74	0.0
1-25-19 15:00	0.23	1374	7.74	0.3
1-25-19 15:15	0.23	1378	7.74	0.6
1-25-19 15:30	0.23	1374	7.74	0.4
1-25-19 15:45	0.23	1372	7.74	0.2
1-25-19 16:00	0.25	1371	7.74	0.4
1-25-19 16:15	0.26	1369	7.74	0.4
1-25-19 16:30	0.28	1366	7.74	0.0
1-25-19 16:45	0.27	1376	7.74	0.7
1-25-19 17:00	0.30	1370	7.74	1.3
1-25-19 17:15	0.30	1371	7.74	2.8
1-25-19 17:30	0.28	1367	7.74	0.5
1-25-19 17:45	0.27	1371	7.74	0.5
1-25-19 18:00	0.29	1357	7.74	0.7
1-25-19 18:15	0.27	1367	7.74	0.4
1-25-19 18:30	0.26	1375	7.74	2.8
1-25-19 18:45	0.27	1378	7.74	1.9
1-25-19 19:00	0.27	1372	7.74	1.7
1-25-19 19:15	0.29	1374	7.74	4.7
1-25-19 19:30	0.26	1380	7.74	4.2
1-25-19 19:45	0.26	1378	7.74	3.9
1-25-19 20:00	0.28	1373	7.74	3.6
1-25-19 20:15	0.25	1370	7.74	1.3
1-25-19 20:30	0.25	1375	7.74	5.0
1-25-19 20:45	0.28	1371	7.74	0.7
1-25-19 21:00	0.27	1369	7.74	1.7
1-25-19 21:15	0.28	1368	7.74	0.9
1-25-19 21:30	0.28	1372	7.74	0.3
1-25-19 21:45	0.28	1368	7.74	1.8
1-25-19 22:00	0.29	1376	7.74	2.9
1-25-19 22:15	0.30	1383	7.74	5.2
1-25-19 22:30	0.30	1375	7.74	4.5
1-25-19 22:45	0.30	1372	7.74	5.4
1-25-19 23:00	0.29	1372	7.74	8.0
1-25-19 23:15	0.29	1379	7.74	7.5
1-25-19 23:30	0.29	1419	7.74	3.3
1-25-19 23:45	0.31	1411	7.74	0.1
1-26-19 0:00	0.30	1366	7.74	5.1
1-26-19 0:15	0.29	1379	7.74	3.5
1-26-19 0:30	0.28	1373	7.74	2.3
1-26-19 0:45	0.28	1385	7.74	4.9
1-26-19 1:00	0.27	1375	7.74	4.3
1-26-19 1:15	0.27	1375	7.74	4.1
1-26-19 1:30	0.28	1376	7.74	3.5
1-26-19 1:45	0.28	1376	7.74	4.4
1-26-19 2:00	0.30	1378	7.73	3.2
1-26-19 2:15	0.30	1382	7.73	5.9

RSEM-R6W				
Date and Time	Temperature (℃)	Specific Conductivity (μS/cm)	pH (pH)	Turbidity (NTU)
1-25-19 8:15	-0.06	1597	8.62	35.8
1-25-19 8:30	-0.06	1596	8.62	35.1
1-25-19 8:45	-0.06	1598	8.61	35.3
1-25-19 9:00	-0.06	1579	8.62	34.4
1-25-19 9:15	-0.06	1577	8.62	34.5
1-25-19 9:30	-0.05	1578	8.62	34.6
1-25-19 9:45	-0.05	1577	8.62	34.2
1-25-19 10:00	-0.06	1599	8.61	35.7
1-25-19 10:15	-0.06	1600	8.62	35.5
1-25-19 10:30	-0.06	1599	8.62	35.6
1-25-19 10:45	-0.05	1597	8.61	35.8
1-25-19 11:00	-0.05	1578	8.62	35.0
1-25-19 11:15	-0.05	1578	8.62	34.5
1-25-19 11:30	0.09	1577	8.63	35.3
1-25-19 11:45	-0.01	1577	8.63	35.5
1-25-19 12:00	-0.03	1600	8.62	36.0
1-25-19 12:15	-0.05	1600	8.62	35.4
1-25-19 12:30	-0.05	1601	8.62	35.6
1-25-19 12:45	-0.06	1601	8.62	35.1
1-25-19 13:00	-0.06	1580	8.63	32.3
1-25-19 13:15	-0.06	1579	8.63	34.2
1-25-19 13:30	-0.06	1578	8.63	34.3
1-25-19 13:45	-0.05	1578	8.63	33.8
1-25-19 14:00	-0.06	1596	8.63	35.2
1-25-19 14:15	-0.06	1597	8.63	35.0
1-25-19 14:30	-0.06	1598	8.63	35.2
1-25-19 14:45	-0.06	1597	8.63	35.0
1-25-19 15:00	-0.06	1578	8.63	33.3
1-25-19 15:15	-0.05	1579	8.63	33.4
1-25-19 15:30	-0.05	1578	8.63	33.5
1-25-19 15:45	-0.05	1578	8.63	33.4
1-25-19 16:00	-0.04	1596	8.63	34.7
1-25-19 16:15	-0.04	1596	8.63	34.6
1-25-19 16:30	-0.05	1597	8.63	34.3
1-25-19 16:45	-0.06	1596	8.63	34.5
1-25-19 17:00	-0.06	1580	8.63	32.7
1-25-19 17:15	-0.06	1580	8.63	32.3
1-25-19 17:30	-0.06	1580	8.63	32.6
1-25-19 17:45	-0.06	1579	8.63	32.5
1-25-19 18:00	-0.06	1596	8.63	34.1
1-25-19 18:15	-0.06	1597	8.63	33.9
1-25-19 18:30	-0.06	1597	8.63	33.7
1-25-19 18:45	-0.07	1598	8.63	33.8
1-25-19 19:00	-0.06	1579	8.63	33.1
1-25-19 19:15	-0.06	1580	8.63	32.7
1-25-19 19:30	-0.06	1580	8.63	33.0
1-25-19 19:45	-0.06	1579	8.63	33.2
1-25-19 20:00	-0.06	1599	8.62	33.8
1-25-19 20:15	-0.06	1601	8.63	33.1
1-25-19 20:30	-0.06	1603	8.63	33.1
1-25-19 20:45	-0.07	1605	8.62	32.5
1-25-19 21:00	-0.07	1581	8.63	32.5
1-25-19 21:15	-0.07	1582	8.63	32.6
1-25-19 21:30	-0.07	1582	8.63	32.0
1-25-19 21:45	-0.06	1581	8.63	32.1
1-25-19 22:00	-0.06	1599	8.62	33.4
1-25-19 22:15	-0.06	1600	8.62	33.0
1-25-19 22:30	-0.06	1600	8.62	32.8
1-25-19 22:45	-0.06	1597	8.62	32.9
1-25-19 23:00	-0.06	1580	8.63	32.3
1-25-19 23:15	-0.06	1579	8.63	32.3
1-25-19 23:30	-0.06	1578	8.63	30.5
1-25-19 23:45	-0.06	1580	8.62	31.6
1-26-19 0:00	-0.06	1601	8.62	32.6
1-26-19 0:15	-0.06	1600	8.63	32.5
1-26-19 0:30	-0.06	1601	8.63	32.4
1-26-19 0:45	-0.07	1601	8.63	32.2
1-26-19 1:00	-0.07	1579	8.63	32.0
1-26-19 1:15	-0.07	1580	8.63	31.7
1-26-19 1:30	-0.07	1579	8.63	31.7
1-26-19 1:45	-0.07	1580	8.63	31.5
1-26-19 2:00	-0.07	1602	8.63	33.1
1-26-19 2:15	-0.07	1600	8.63	33.4

RSEM-L6				
Date and Time	Temperature (℃)	Specific Conductivity (μS/cm)	pH (pH)	Turbidity (NTU)
6-25-19 1:45	18.04	1743	8.48	14.7
6-25-19 2:00	18.00	1742	8.48	14.6
6-25-19 2:15	17.99	1739	8.49	14.6
6-25-19 2:30	18.01	1739	8.49	13.4
6-25-19 2:45	18.02	1743	8.49	13.2
6-25-19 3:00	17.99	1740	8.49	12.4
6-25-19 3:15	17.98	1742	8.49	12.2
6-25-19 3:30	17.94	1743	8.49	12.8
6-25-19 3:45	17.93	1740	8.49	11.1
6-25-19 4:00	17.89	1743	8.49	12.0
6-25-19 4:15	17.86	1740	8.49	13.5
6-25-19 4:30	17.84	1743	8.48	12.1
6-25-19 4:45	17.80	1743	8.48	11.3
6-25-19 5:00	17.77	1741	8.48	11.3
6-25-19 5:15	17.76	1743	8.48	11.8
6-25-19 5:30	17.72	1743	8.48	11.0
6-25-19 5:45	17.70	1740	8.48	11.4
6-25-19 6:00	17.67	1742	8.48	10.3
6-25-19 6:15	17.64	1742	8.48	10.6
6-25-19 6:30	17.61	1741	8.48	10.0
6-25-19 6:45	17.61	1743	8.48	11.3
6-25-19 7:00	17.58	1740	8.48	9.5
6-25-19 7:15	17.55	1743	8.48	10.1
6-25-19 7:30	17.53	1741	8.48	8.6
6-25-19 7:45	17.48	1739	8.48	9.1
6-25-19 8:00	17.45	1739	8.48	9.2
6-25-19 8:15	17.42	1737	8.48	9.6
6-25-19 8:30	17.40	1737	8.48	11.1
6-25-19 8:45	17.36	1735	8.48	8.8
6-25-19 9:00	17.32	1734	8.48	8.1
6-25-19 9:15	17.27	1732	8.48	8.2
6-25-19 9:30	17.26	1737	8.48	8.2
6-25-19 9:45	17.23	1737	8.48	8.3
6-25-19 10:00	17.18	1734	8.48	8.0
6-25-19 10:15	17.16	1737	8.48	8.1
6-25-19 10:30	17.14	1735	8.47	7.9
6-25-19 10:45	17.11	1736	8.47	8.6
6-25-19 11:00	17.07	1735	8.47	7.9
6-25-19 11:15	17.04	1736	8.47	8.3
6-25-19 11:30	17.02	1736	8.47	7.5
6-25-19 11:45	17.00	1737	8.47	8.3
6-25-19 12:00	16.98	1739	8.47	9.0
6-25-19 12:15	16.94	1736	8.47	10.2
6-25-19 12:30	16.92	1736	8.47	7.9
6-25-19 12:45	16.90	1738	8.47	8.0
6-25-19 13:00	16.88	1736	8.47	7.6
6-25-19 13:15	16.86	1737	8.47	8.3
6-25-19 13:30	16.85	1737	8.47	8.1
6-25-19 13:45	16.83	1736	8.47	7.5
6-25-19 14:00	16.83	1736	8.47	9.0
6-25-19 14:15	16.81	1736	8.47	7.6
6-25-19 14:30	16.81	1735	8.46	7.4
6-25-19 14:45	16.80	1737	8.47	7.9
6-25-19 15:00	16.82	1736	8.47	7.4
6-25-19 15:15	16.82	1738	8.46	7.4
6-25-19 15:30	16.83	1737	8.47	7.7
6-25-19 15:45	16.85	1737	8.46	8.1
6-25-19 16:00	16.88	1735	8.46	7.2
6-25-19 16:15	16.90	1735	8.47	7.9
6-25-19 16:30	16.94	1736	8.47	7.7
6-25-19 16:45	17.02	1736	8.46	7.9
6-25-19 17:00	17.14	1737	8.46	7.6
6-25-19 17:15	17.31	1737	8.46	7.5
6-25-19 17:30	17.50	1738	8.45	7.8
6-25-19 17:45	17.65	1738	8.45	7.8
6-25-19 18:00	17.80	1737	8.45	8.2
6-25-19 18:15	18.02	1737	8.44	8.6
6-25-19 18:30	18.06	1736	8.45	8.3
6-25-19 18:45	18.22	1736	8.44	8.6
6-25-19 19:00	18.39	1738	8.44	8.6
6-25-19 19:15	18.49	1736	8.44	8.6
6-25-19 19:30	18.56	1737	8.44	7.9
6-25-19 19:45	18.82	1738	8.44	8.0

RSEM-L5E				
Date and Time	Temperature (℃)	Specific Conductivity (μS/cm)	pH (pH)	Turbidity (NTU)
4-25-19 20:45	9.12	1188	8.45	4.4
4-25-19 21:00	9.10	1188	8.45	4.3
4-25-19 21:15	9.07	1189	8.45	4.7
4-25-19 21:30	9.02	1191	8.45	5.2
4-25-19 21:45	8.98	1189	8.46	5.5
4-25-19 22:00	8.92	1189	8.46	4.7
4-25-19 22:15	8.88	1190	8.46	5.0
4-25-19 22:30	8.84	1190	8.46	4.7
4-25-19 22:45	8.79	1191	8.46	4.9
4-25-19 23:00	8.71	1189	8.46	4.8
4-25-19 23:15	8.74	1188	8.46	5.1
4-25-19 23:30	8.69	1189	8.46	6.8
4-25-19 23:45	8.70	1187	8.46	5.5
4-26-19 0:00	8.64	1190	8.46	6.0
4-26-19 0:15	8.60	1189	8.46	5.5
4-26-19 0:30	8.55	1188	8.46	6.6
4-26-19 0:45	8.55	1187	8.46	7.0
4-26-19 1:00	8.48	1190	8.46	4.6
4-26-19 1:15	8.42	1191	8.46	4.2
4-26-19 1:30	8.42	1192	8.46	4.3
4-26-19 1:45	8.38	1193	8.46	4.6
4-26-19 2:00	8.26	1188	8.46	4.5
4-26-19 2:15	8.22	1190	8.46	4.5
4-26-19 2:30	8.19	1191	8.46	4.6
4-26-19 2:45	8.18	1190	8.46	4.3
4-26-19 3:00	8.16	1191	8.46	3.8
4-26-19 3:15	8.05	1192	8.46	4.2
4-26-19 3:30	8.01	1192	8.46	3.6
4-26-19 3:45	8.00	1191	8.46	3.9
4-26-19 4:00	7.98	1190	8.46	3.7
4-26-19 4:15	7.92	1190	8.46	4.0
4-26-19 4:30	7.86	1191	8.46	4.1
4-26-19 4:45	7.78	1191	8.46	4.8
4-26-19 5:00	7.75	1191	8.46	3.7
4-26-19 5:15	7.75	1191	8.46	4.1
4-26-19 5:30	7.66	1191	8.46	3.6
4-26-19 5:45	7.55	1192	8.46	3.9
4-26-19 6:00	7.55	1192	8.46	4.0
4-26-19 6:15	7.57	1192	8.46	4.3
4-26-19 6:30	7.57	1192	8.46	5.0
4-26-19 6:45	7.54	1191	8.46	2.8
4-26-19 7:00	7.49	1191	8.46	3.6
4-26-19 7:15	7.47	1192	8.46	3.5
4-26-19 7:30	7.45	1192	8.46	3.9
4-26-19 7:45	7.49	1192	8.46	4.1
4-26-19 8:00	7.50	1191	8.46	3.5
4-26-19 8:15	7.52	1191	8.47	3.9
4-26-19 8:30	7.58	1191	8.47	4.0
4-26-19 8:45	7.63	1191	8.46	3.8
4-26-19 9:00	7.64	1192	8.46	3.6
4-26-19 9:15	7.76	1191	8.46	3.7
4-26-19 9:30	8.01	1192	8.46	3.6
4-26-19 9:45	8.02	1190	8.46	6.4
4-26-19 10:00	8.13	1189	8.46	4.1
4-26-19 10:15	8.31	1191	8.46	5.0
4-26-19 10:30	8.45	1188	8.46	6.7
4-26-19 10:45	8.68	1191	8.45	10.2
4-26-19 11:00	8.77	1188	8.45	8.9
4-26-19 11:15	8.91	1188	8.45	10.3
4-26-19 11:30	8.95	1188	8.46	16.8
4-26-19 11:45	8.96	1189	8.45	7.8
4-26-19 12:00	9.03	1187	8.46	5.9
4-26-19 12:15	9.09	1188	8.45	8.1
4-26-19 12:30	9.10	1189	8.46	6.1
4-26-19 13:00	9.22	1188	8.45	5.9
4-26-19 13:15	9.20	1187	8.45	4.7
4-26-19 13:30	9.40	1188	8.45	6.5
4-26-19 13:45	9.48	1188	8.45	7.8
4-26-19 14:00	9.54	1186	8.45	7.2
4-26-19 14:15	9.53	1188	8.45	9.3
4-26-19 14:30	9.57	1187	8.45	8.8
4-26-19 14:45	9.59	1186	8.45	7.0
4-26-19 15:00	9.71	1192	8.45	5.8

RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (μS/cm)	pH (pH)	Turbidity (NTU)
4-25-19 20:45	9.53	682	8.44	24.0
4-25-19 21:00	9.43	686	8.44	24.4
4-25-19 21:15	9.42	684	8.44	26.1
4-25-19 21:30	9.40	669	8.44	24.6
4-25-19 21:45	9.36	689	8.44	23.3
4-25-19 22:00	9.25	683	8.45	24.5
4-25-19 22:15	9.28	680	8.43	25.2
4-25-19 22:30	9.16	692	8.44	18.1
4-25-19 22:45	9.07	684	8.44	20.6
4-25-19 23:00	9.00	681	8.45	18.7
4-25-19 23:15	9.01	681	8.44	19.8
4-25-19 23:30	9.00	680	8.45	19.6
4-25-19 23:45	8.98	688	8.45	20.8
4-26-19 0:00	8.95	709	8.45	27.4
4-26-19 0:15	8.98	684	8.45	37.1
4-26-19 0:30	8.85	682	8.45	59.5
4-26-19 0:45	8.79	690	8.45	20.9
4-26-19 1:00	8.74	684	8.45	21.0
4-26-19 1:15	8.73	677	8.44	20.1
4-26-19 1:30	8.64	674	8.45	19.2
4-26-19 1:45	8.65	685	8.45	19.0
4-26-19 2:00	8.65	698	8.45	16.0
4-26-19 2:15	8.56	679	8.44	15.6
4-26-19 2:30	8.45	674	8.45	14.8
4-26-19 2:45	8.47	675	8.44	16.0
4-26-19 3:00	8.43	676	8.45	13.9
4-26-19 3:15	8.35	673	8.44	15.8
4-26-19 3:30	8.28	684	8.44	15.7
4-26-19 3:45	8.22	682	8.44	15.8
4-26-19 4:00	8.21	682	8.44	14.2
4-26-19 4:15	8.20	686	8.44	13.2
4-26-19 4:30	8.18	678	8.44	14.0
4-26-19 4:45	8.07	679	8.44	13.5
4-26-19 5:00	8.04	685	8.44	14.9
4-26-19 5:15	7.98	682	8.44	15.3
4-26-19 5:30	7.91	680	8.44	13.6
4-26-19 5:45	7.87	681	8.44	13.8
4-26-19 6:00	7.91	682	8.44	12.1
4-26-19 6:15	7.79	680	8.44	11.3
4-26-19 6:30	7.68	681	8.44	10.7
4-26-19 6:45	7.72	685	8.44	10.7
4-26-19 7:00	7.82	685	8.44	10.4
4-26-19 7:15	7.81	683	8.44	14.5
4-26-19 7:30	7.81	676	8.44	9.5
4-26-19 7:45	7.82	678	8.44	9.2
4-26-19 8:00	7.90	678	8.44	9.1
4-26-19 8:15	7.96	678	8.45	9.1
4-26-19 8:30	8.00	678	8.45	9.6
4-26-19 8:45	8.19	677	8.46	9.7
4-26-19 9:00	8.25	677	8.46	9.8
4-26-19 9:15	8.40	677	8.45	9.9
4-26-19 9:30	8.45	676	8.45	9.6
4-26-19 9:45	8.48	676	8.45	9.7
4-26-19 10:00	8.52	676	8.45	9.6
4-26-19 10:15	8.55	676	8.45	10.0
4-26-19 10:30	8.58	676	8.44	10.5
4-26-19 10:45	8.59	676	8.44	10.1
4-26-19 11:00	8.58	676	8.44	10.7
4-26-19 11:15	8.65	676	8.45	12.3
4-26-19 11:30	8.70	675	8.46	10.2
4-26-19 11:45	8.74	676	8.46	10.4
4-26-19 12:00	8.80	675	8.46	10.8
4-26-19 12:15	8.81	675	8.46	10.7
4-26-19 12:30	8.89	675	8.46	16.1
4-26-19 13:00	8.95	680	8.46	12.6
4-26-19 13:15	9.06	680	8.45	10.7
4-26-19 13:30	9.13	680	8.46	11.0
4-26-19 13:45	9.11	678	8.46	11.5
4-26-19 14:00	9.16	679	8.47	11.8
4-26-19 14:15	9.16	680	8.46	12.0
4-26-19 14:30	9.17	679	8.46	13.0
4-26-19 14:45	9.34	682	8.46	17.4
4-26-19 15:00	9.42	680	8.47	18.0

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-26-19 2:45	-0.07	1388	7.92	1.7	1-26-19 2:30	0.31	1374	7.73	0.8	1-26-19 2:30	-0.07	1601	8.63	33.4	6-25-19 20:00	18.90	1734	8.44	7.9	4-26-19 15:15	9.78	1188	8.45	6.9	4-26-19 15:15	9.39	676	8.47	20.9
1-26-19 3:00	-0.07	1388	7.91	1.5	1-26-19 2:45	0.31	1374	7.73	0.7	1-26-19 2:45	-0.06	1601	8.63	33.6	6-25-19 20:15	19.26	1734	8.44	7.9	4-26-19 15:30	9.84	1188	8.44	6.3	4-26-19 15:30	9.52	679	8.45	20.5
1-26-19 3:15	-0.07	1410	7.90	2.1	1-26-19 3:00	0.32	1378	7.73	0.9	1-26-19 3:00	-0.07	1581	8.63	33.2	6-25-19 20:30	19.82	1737	8.43	8.2	4-26-19 15:45	9.96	1188	8.45	13.2	4-26-19 15:45	9.52	679	8.47	11.6
1-26-19 3:30	-0.07	1410	7.91	1.8	1-26-19 3:15	0.32	1373	7.73	1.3	1-26-19 3:15	-0.06	1581	8.63	33.2	6-25-19 20:45	20.19	1738	8.42	7.5	4-26-19 16:00	9.91	1191	8.45	7.5	4-26-19 16:00	9.57	680	8.46	11.8
1-26-19 3:45	-0.07	1410	7.91	1.8	1-26-19 3:30	0.32	1372	7.73	1.2	1-26-19 3:30	-0.07	1581	8.63	32.9	6-25-19 21:00	20.72	1741	8.42	8.1	4-26-19 16:15	9.88	1191	8.45	9.2	4-26-19 16:15	9.58	681	8.47	13.3
1-26-19 4:00	-0.07	1410	7.91	1.6	1-26-19 3:45	0.32	1374	7.73	2.1	1-26-19 3:45	-0.07	1582	8.63	30.8	6-25-19 21:15	20.52	1739	8.43	7.9	4-26-19 16:30	9.86	1196	8.45	9.6	4-26-19 16:30	9.60	691	8.46	10.5
1-26-19 4:15	-0.07	1386	7.90	1.7	1-26-19 4:00	0.32	1375	7.73	1.1	1-26-19 4:00	-0.06	1598	8.62	33.6	6-25-19 21:30	20.55	1739	8.42	7.9	4-26-19 16:45	9.82	1192	8.46	7.7	4-26-19 16:45	9.60	678	8.46	8.9
1-26-19 4:30	-0.07	1386	7.91	1.8	1-26-19 4:15	0.32	1375	7.73	3.8	1-26-19 4:15	-0.06	1598	8.63	33.6	6-25-19 21:45	20.70	1740	8.42	7.2	4-26-19 17:00	9.84	1186	8.45	7.0	4-26-19 17:00	9.52	678	8.46	7.3
1-26-19 4:45	-0.07	1386	7.91	1.8	1-26-19 4:30	0.32	1370	7.73	1.1	1-26-19 4:30	-0.06	1597	8.63	33.7	6-25-19 22:00	21.36	1744	8.41	7.8	4-26-19 17:15	9.75	1189	8.45	8.0	4-26-19 17:15	9.41	681	8.46	13.9
1-26-19 5:00	-0.07	1386	7.90	1.6	1-26-19 4:45	0.32	1374	7.73	2.6	1-26-19 4:45	-0.06	1599	8.63	33.7	6-25-19 22:15	21.23	1740	8.41	7.5	4-26-19 17:30	9.72	1189	8.46	6.8	4-26-19 17:30	9.44	680	8.46	6.4
1-26-19 5:15	-0.07	1400	7.89	2.0	1-26-19 5:00	0.33	1380	7.73	6.2	1-26-19 5:00	-0.06	1578	8.63	32.6	6-25-19 22:30	21.25	1740	8.42	7.1	4-26-19 17:45	9.72	1189	8.46	14.3	4-26-19 17:45	9.49	678	8.46	6.3
1-26-19 5:30	-0.07	1402	7.91	1.7	1-26-19 5:15	0.33	1374	7.73	5.9	1-26-19 5:15	-0.06	1578	8.63	31.9	6-25-19 22:45	21.20	1741	8.43	8.0	4-26-19 18:00	9.69	1191	8.45	8.3	4-26-19 18:00	9.46	675	8.46	8.6
1-26-19 5:45	-0.07	1402	7.90	1.7	1-26-19 5:30	0.33	1376	7.73	3.4	1-26-19 5:30	-0.06	1578	8.63	32.1	6-25-19 23:00	21.63	1745	8.42	7.5	4-26-19 18:15	9.66	1190	8.46	5.4	4-26-19 18:15	9.37	678	8.46	6.8
1-26-19 6:00	-0.07	1402	7.90	1.6	1-26-19 5:45	0.33	1377	7.73	0.6	1-26-19 5:45	-0.07	1579	8.63	31.8	6-25-19 23:15	21.63	1745	8.42	9.1	4-26-19 18:30	9.62	1189	8.46	7.8	4-26-19 18:30	9.40	677	8.46	7.2
1-26-19 6:15					1-26-19 6:00	0.33	1370	7.73	0.5	1-26-19 6:00	-0.07	1597	8.63	33.8	6-25-19 23:30	21.70	1743	8.44	8.9	4-26-19 18:45	9.56	1192	8.46	6.5	4-26-19 18:45	9.43	678	8.47	7.6
1-26-19 6:30	-0.07	1387	7.91	1.8	1-26-19 6:15	0.33	1373	7.73	4.5	1-26-19 6:15	-0.07	1597	8.63	33.5	6-25-19 23:45	21.53	1742	8.43	10.4	4-26-19 19:00	9.54	1190	8.46	6.2	4-26-19 19:00	9.40	679	8.47	7.5
1-26-19 6:45	-0.07	1387	7.91	1.8	1-26-19 6:30	0.33	1373	7.73	1.1	1-26-19 6:30	-0.07	1599	8.63	33.4	6-26-19 0:00	21.27	1744	8.43	7.4	4-26-19 19:15	9.51	1195	8.46	9.6	4-26-19 19:15	9.39	679	8.47	9.2
1-26-19 7:00	-0.07	1387	7.90	1.8	1-26-19 6:45	0.33	1377	7.73	4.0	1-26-19 6:45	-0.07	1597	8.63	33.8	6-26-19 0:15	21.07	1741	8.43	8.1	4-26-19 19:30	9.45	1190	8.46	8.3	4-26-19 19:30	9.39	678	8.47	6.7
1-26-19 7:15	-0.08	1399	7.89	1.9	1-26-19 7:00	0.33	1377	7.73	0.5	1-26-19 7:00	-0.07	1580	8.64	32.6	6-26-19 0:30	20.31	1741	8.43	9.2	4-26-19 19:45	9.43	1194	8.46	13.8	4-26-19 19:45	9.28	677	8.48	6.5
1-26-19 7:30	-0.08	1399	7.91	1.8	1-26-19 7:15	0.33	1375	7.73	0.8	1-26-19 7:15	-0.07	1579	8.64	32.4	6-26-19 0:45	19.66	1742	8.42	11.4	4-26-19 20:00	9.41	1193	8.46	9.2	4-26-19 20:00	9.21	680	8.48	6.0
1-26-19 7:45	-0.07	1400	7.90	1.7	1-26-19 7:30	0.33	1375	7.73	2.3	1-26-19 7:30	-0.07	1581	8.64	32.3	6-26-19 1:00	19.55	1745	8.43	11.8	4-26-19 20:15	9.41	1192	8.46	10.8	4-26-19 20:15	9.19	684	8.48	5.7
1-26-19 8:00	-0.07	1400	7.90	1.8	1-26-19 7:45	0.33	1369	7.73	0.6	1-26-19 7:45	-0.07	1581	8.63	32.7	6-26-19 1:15	19.55	1745	8.43	12.0	4-26-19 20:30	9.38	1190	8.46	7.6	4-26-19 20:30	9.13	694	8.48	5.9
1-26-19 8:15	-0.08	1388	7.89	1.8	1-26-19 8:00	0.33	1370	7.73	1.1	1-26-19 8:00	-0.07	1597	8.63	33.8	6-26-19 1:30	19.69	1743	8.43	8.9	4-26-19 20:45	9.34	1193	8.46	5.3	4-26-19 20:45	9.07	676	8.48	7.3
1-26-19 8:30	-0.07	1387	7.91	1.8	1-26-19 8:15	0.33	1374	7.73	5.4	1-26-19 8:15	-0.07	1597	8.63	33.5	6-26-19 1:45	19.73	1741	8.43	8.5	4-26-19 21:00	9.30	1193	8.46	7.5	4-26-19 21:00	9.10	673	8.48	6.8
1-26-19 8:45	-0.07	1387	7.90	1.8	1-26-19 8:30	0.33	1373	7.73	1.1	1-26-19 8:30	-0.07	1600	8.63	33.6	6-26-19 2:00	19.96	1745	8.44	7.0	4-26-19 21:15	9.24	1192	8.46	6.9	4-26-19 21:15	9.01	675	8.48	6.7
1-26-19 9:00	-0.07	1387	7.90	1.8	1-26-19 8:45	0.33	1373	7.73	1.4	1-26-19 8:45	-0.07	1599	8.63	33.4	6-26-19 2:15	20.05	1745	8.44	7.0	4-26-19 21:30	9.29	1193	8.46	8.2	4-26-19 21:30	9.03	674	8.49	6.0
1-26-19 9:15	-0.08	1402	7.89	2.1	1-26-19 9:00	0.33	1375	7.73	0.8	1-26-19 9:00	-0.07	1580	8.63	32.9	6-26-19 2:30	19.99	1744	8.44	7.6	4-26-19 21:45	9.29	1192	8.46	11.7	4-26-19 21:45	9.00	674	8.49	6.0
1-26-19 9:30	-0.07	1402	7.90	1.8	1-26-19 9:15	0.33	1374	7.73	0.5	1-26-19 9:15	-0.07	1579	8.63	32.8	6-26-19 2:45	20.01	1743	8.44	7.2	4-26-19 22:00	9.22	1192	8.46	6.3	4-26-19 22:00	9.03	675	8.48	6.1
1-26-19 9:45	-0.07	1402	7.90	1.8	1-26-19 9:30	0.33	1379	7.73	3.3	1-26-19 9:30	-0.07	1578	8.63	33.0	6-26-19 3:00	20.13	1744	8.44	6.6	4-26-19 22:15	9.16	1192	8.47	5.7	4-26-19 22:15	8.96	672	8.48	5.7
1-26-19 10:00	-0.08	1402	7.90	1.7	1-26-19 9:45	0.33	1379	7.73	1.7	1-26-19 9:45	-0.07	1579	8.63	32.9	6-26-19 3:15	20.11	1744	8.44	6.7	4-26-19 22:30	9.17	1191	8.46	5.5	4-26-19 22:30	8.91	674	8.48	6.1
1-26-19 10:15	-0.08	1390	7.89	1.8	1-26-19 10:00	0.33	1376	7.73	1.4	1-26-19 10:00	-0.07	1596	8.63	34.3	6-26-19 3:30	20.16	1743	8.44	6.6	4-26-19 22:45	9.10	1190	8.47	5.4	4-26-19 22:45	8.87	673	8.48	5.7
1-26-19 10:30	-0.08	1390	7.90	1.9	1-26-19 10:15	0.33	1375	7.73	0.9	1-26-19 10:15	-0.06	1595	8.63	34.0	6-26-19 3:45	20.19	1744	8.44	6.3	4-26-19 23:00	9.00	1190	8.47	4.9	4-26-19 23:00	8.89	674	8.48	6.5
1-26-19 10:45	-0.08	1390	7.90	1.8	1-26-19 10:30	0.33	1375	7.74	0.7	1-26-19 10:30	-0.06	1596	8.63	34.2	6-26-19 4:00	20.15	1742	8.44	8.2	4-26-19 23:15	8.95	1191	8.47	6.1	4-26-19 23:15	8.79	673	8.48	5.7
1-26-19 11:00	-0.08	1390	7.90	1.8	1-26-19 10:45	0.33	1375	7.74	0.7	1-26-19 10:45	-0.07	1597	8.63	33.8	6-26-19 4:15	20.10	1743	8.44	6.3	4-26-19 23:30	8.97	1193	8.47	6.4	4-26-19 23:30	8.78	676	8.48	6.0
1-26-19 11:15	-0.08	1402	7.89	1.9	1-26-19 11:00	0.33	1377	7.74	1.0	1-26-19 11:00	-0.07	1579	8.63	33.2	6-26-19 4:30	20.01	1743	8.44	6.0	4-26-19 23:45	8.96	1189	8.47	8.0	4-26-19 23:45	8.73	675	8.48	6.2
1-26-19 11:30	-0.07	1403	7.90	1.7	1-26-19 11:15	0.33	1374	7.74	1.0	1-26-19 11:15	-0.07	1580	8.63	33.1	6-26-19 4:45	19.93	1742	8.43	7.0	4-27-19 0:00	8.92	1195	8.46	9.9	4-27-19 0:00	8.69	678	8.48	6.8
1-26-19 11:45	-0.08	1403	7.90	1.7	1-26-19 11:30	0.33	1374	7.74	5.2	1-26-19 11:30	-0.07	1578	8.63	32.8	6-26-19 5:00	19.91	1744	8.44	5.6	4-27-19 0:15	8.93	1192	8.46	10.6	4-27-19 0:15	8.78	677	8.48	5.4
1-26-19 12:00	-0.08	1403	7.90	1.7	1-26-19 11:45	0.33	1383	7.74	4.1	1-26-19 11:45	-0.07	1580	8.63	32.9	6-26-19 5:15	19.86	1744	8.44	7.5	4-27-19 0:30	8.88	1192	8.46	6.7	4-27-19 0:30	8.77	677	8.48	5.7
1-26-19 12:15	-0.08	1391	7.88	1.8	1-26-19 12:00	0.33	1384	7.74	4.6	1-26-19 12:00	-0.06	1597	8.63	34.4	6-26-19 5:30	19.79	1743	8.43	7.0	4-27-19 0:45	8.80	1192	8.46	7.1	4-27-19 0:45	8.73	678	8.48	5.2
1-26-19 12:30	-0.08	1390	7.90	1.8	1-26-19 12:15	0.33	1375	7.74	2.1	1-26-19 12:15	-0.06	1597	8.63	34.1	6-26-19 5:45	19.74	1743	8.45	6.1	4-27-19 1:00	8.79	1192	8.46	10.9	4-27-19 1:00	8.69	675	8.48	5.5
1-26-19 12:45	-0.08	1390	7.90	1.9	1-26-19 12:30	0.33	1378	7.74	1.4	1-26-19 12:30	-0.07	1597	8.62	33.9	6-26-19 6:00	19.70	1744	8.44	5.9	4-27-19 1:15	8.79	1192	8.46	8.3	4-27-19 1:15	8.68	676	8.48	5.6
1-26-19 13:00	-0.08	1391	7.89	1.9	1-26-19 12:45	0.33	1375	7.74	1.9	1-26-19 12:45	-0.06	1599	8.62	33.8	6-26-19 6:15	19.63	1739	9.13	5.4	4-27-19 1:30	8.76	1192	8.46	6.3	4-27-19 1:30	8.59	676	8.48	5.5
1-26-19 13:15	-0.08	1413	7.89	1.9	1-26-19 13:00	0.33	1375	7.74	1.5	1-26-19 13:00	-0.06	1580	8.63	33.3	6-26-19 6:30	19.55	1738	8.45	5.9	4-27-19 1:45	8.70	1191	8.46	5.5	4-27-19 1:45	8.56	676	8.47	5.0
1-26-19 13:30	-0.08	1412	7.90	1.7	1-26-19 13:15	0.33	1376	7.74	0.7	1-26-19 13:15	-0.06	1579	8.63	32.6	6-26-19 6:45	19.48	1737	8.45	5.9	4-27-19 2:00	8.62	1193	8.46	5.3	4-27-19 2:00	8.44	677	8.48	5.3
1-26-19 13:45	-0.08	1412	7.89	1.8	1-26-19 13:30	0.33	1375	7.74	0.1	1-26-19 13:30	-0.06	1580	8.63	32.6	6-26-19 7:00	19.45	1738	8.45	6.0	4-27-19 2:15	8.53	1193	8.47	6.7	4-27-19 2:15	8.40	678	8.48	6.0
1-26-19 14:00	-0.08	1412	7.90	1.8	1-26-19 13:45	0.33	1373	7.74	0.1	1-26-19 13:45	-0.06	1579	8.63	32.6	6-26-19 7:15	19.40	1738	8.45	6.2	4-27-19 2:30	8.51	1192	8.47	6.0	4-27-19 2:30	8.36	679	8.48	5.1
1-26-19 14:15	-0.08	1393	7.88	1.8	1-26-19 14:00	0.33	1378	7.74	2.3	1-26-19 14:00	-0.06	1596	8.62	34.0	6-26-19 7:30	19.31	1740	8.45	7.1	4-27-19 2:45	8.52	1193	8.47	6.6	4-27-19 2:45	8.43	677	8.48	5.5
1-26-19 14:30	-0.08	1392	7.89	1.8	1-26-19 14:15	0.33	1373	7.74	0.1	1-26-19 14:15	-0.06	1596	8.62	33.8	6-26-19 7:45	19.25	1738	8.45	5.5	4-27-19 3:00	8.54	1193	8.46	5.8	4-27-19 3:00	8.46	677	8.48	4.8
1-26-19 14:45	-0.08	1391	7.89	1.8	1-26-19 14:30	0.33	1378	7.74	0.6	1-26-19 14:30	-0.06	1600	8.62	33.6	6-26-19 8:00	19.20	1739	8.44	5.5	4-27-19 3:15	8.47	1192	8.46	6.5	4-27-19 3:15	8.46	676	8.48	5.5
1-26-19 15:00	-0.08	1393	7.89	1.8	1-26-19 14:45	0.33	1380	7.74	0.7	1-26-19 14:45	-0.07	1598	8.62	33.7	6-26-19 8:15	19.14	1738	8.45	5.7	4-27-19 3:30	8.45	1193	8.47	6.2	4-27-19 3:30	8.45	676	8.48	5.2
1-26-19 15:15	-0.08	1408	7.88	1.9	1-26-19 15:00	0.33	1379	7.74	0.6	1-26-19 15:00	-0.07	1581	8.63	32.4	6-26-19 8:30	19.11	1737	8.45	5.2	4-27-19 3:45	8.41	1192	8.46	4.7	4-27-19 3:45	8.36	676	8.48	5.0
1-26-19 15:30	-0.08	1410	7.89	1.6	1-26-19 15:15	0.33	1387	7.74	1.2	1-26-19 15:15	-0.07	1579	8.63	32.5	6-26-19 8:45	19.06	1738	8.45	5.5	4-27-19 4:00	8.40	1192	8.46	5.6	4-27-19 4:00	8.30	678	8.47	5.4
1-26-19 15:45	-0.08	1410	7.89	1.8	1-26-19 15:30	0.33	1375	7.74	0.5	1-26-19 15:30	-0.06	1581	8.63	32.2	6-26-19 9:00	19.00	1739	8.44	8.1	4-27-19 4:15	8.39	1192	8.46	5.0	4-27-19 4:15	8.20	677	8.48	5.3
1-26-19 16:00	-0.08	1411	7.89	1.7	1-26-19 15:45	0.34	1379	7.73	4.7	1-26-19 15:45	-0.07	1578	8.63	33.3	6-26-19 9:15	18.90	1738	8.45	5.4	4-27-19 4:30	8.36	1192	8.46	5.4	4-27-19 4:30	8.12	677	8.48	5.4
1-26-19 16:15	-0.09	1393	7.87	1.7	1-26-19 16:00	0.32	1382	7.74	4.9	1-26-19 16:00	-0.01	1596	8.61	32.7	6-26-19 9:30	18.83	1739	8.45	5.9	4-27-19 4:45	8.30	1192	8.47	5.1	4-27-19 4:45	8.20	677	8.48	5.5
1-26-19 16:30	-0.08	1393	7.89	1.6	1-26-19 16:15	0.31	1378	7.74	0.9	1-26-19 16:15	-0.02	1596	8.61	32.6	6-26-19 9:45	18.79	1738	8.45	4.7	4-27-19 5:00	8.31	1192	8.47	4.6	4-27-19 5:00	8.17	677	8.47	5.4
1-26-19 16:45	-0.08	1393	7.88	1.7	1-26-19 16:45	0.30	1380	7.60	3.9	1-26-19 16:45	-0.05	1599	5.88	32.6	6-26-19 10:00	18.77	1734	8.44	5.1	4-27-19 5:15	8.24	1193	8.46	5.2	4-27-19 5:15	8.11	678	8.47	6.6
1-26-19 17:00	-0.08	1393	7.88	1.4	1-26-19 17:00	0.32	1392	7.73	4.2	1-26-19 17:00	-0.03	1575	8.52	31.7	6-26-19 10:15	18.68	1739	8.45	6.2	4-27-19 5:30	8.28	1195	8.46	5.4	4-27-19 5:30	7.91	678	8.47	6.6
1-26-19 17:15	-0.08	1406	7.87	1.8	1-26-19 17:15	0.33	1381	7.73	3.4	1-26-19 17:15	-0.03	1576	8.57	31.3	6-26-19 10:30	18.60	1737	8.45	4.9	4-27-19 5:45	8.23	1194	8.46	5.8	4-27-19 5:45	7.74	679	8.47	7.8
1-26-19 17:30	-0.08	1407	7.89	1.7	1-26-19 17:30	0.34	1370	7.73	4.4	1-26-19 17:30	-0.03	1576	8.59	31.2	6-26-19 10:45	18.55	1740	8.45	5.5	4-27-19 6:00	8.22	1193	8.46	5.5	4-27-19 6:00	7.84	679	8.47	5.9
1-26-19 17:45	-0.08	1406	7.89	1.8	1-26-19 17:45	0.34	1375	7.73	4.1	1-26-19 17:45	-0.03	1576	8.59	31.5	6-26-19 11:00	18.51	1739	8.45	5.4	4-27-19 6:15	8.22	1193	8.46	5.0	4-27-19 6:15	7.88	679	8.47	5.5
1-26-19 18:00	-0.08	1406	7.88	1.8	1-26-19 18:00	0.35	1380	7.73	4.0	1-26-19 18:00	-0.03	1596	8.60	32.5	6-26-19 11:15	18.45	1738	8.44	5.1	4-27-19 6:30	8.15	1193	8.46	5.9	4-27-19 6:30	7.88	677	8.47	5.1
1-26-19 18:15	-0.08	1394	7.87	1.8	1-26-19 18:15	0.35	1383	7.73	3.8	1-26-19 18:15	-0.03	1596	8.60	32.7	6-26-19 11:30	18.42	1739	8.44	5.0	4-27-19 6:45	8.12	1193	8.46	5.4	4-27-19 6:45	7.80	678	8.47	6.8
1-26-19 18:30	-0.08	1394	7.88	1.7	1-26-19 18:30	0.35	1379	7.73	3.9	1-26-19 18:30	-0.03	1596	8.60	32.5	6-26-19 11:45	18.38	1740	8.44	5.4	4-27-19 7:00	8.11	1195	8.46	5.8	4-27-19 7:00	7.71	679	8.47	5.0
1-26-19 18:45	-0.08	1394	7.87	1.7	1-26-19 18:45	0.36	1377	7.74	3.9	1-26-19 18:45	-0.03	1598	8.60	32.5	6-26-19 12:00	18.33	1737	8.44	5.0	4-27-19 7:15	8.07	1194	8.46	4.7	4-27-19 7:15	7.70	678	8.47	5.0
1-26-19 19:00	-0.08	1388	7.88	1.6	1-26-19 19:00	0.36	1386	7.73	0.0	1-26-19 19:00	-0.03	1576	8.61	31.7	6-26-19 12:15	18.30	1738	8.44	4.6	4-27-19 7:30	8.09	1196	8.45	4.3	4-27-19 7:30	7.80	678	8.47	5.2
1-26-19 19:15	-0.08	1407	7.87	1.8	1-26-19 19:15	0.36	1382	7.73	3.4	1-26-19 19:15	-0.03	1577	8.61	31.1	6-26-19 12:30	18.27	1738	8.44	4.8	4-27-19 7:45	8.12	1196	8.45	4.7	4-27-19 7:45	7.85	678	8.48	5.1
1-26-19 19:30	-0.07	1407	7.88	1.7	1-26-19 19:30	0.36	1380	7.74	3.3	1-26-19 19:30	-0.04	1579	8.61	31.2	6-26-19 12:45	18.25	1736	8.44	4.8	4-27-19 8:00	8.13	1196	8.45	5.0	4-27-19 8:00	7.77	678	8.47	5.0
1-26-19 19:45	-0.07	1407	7.88	1.7	1-26-19 19:45	0.35	1387	7.74	5.2	1-26-19 19:45	-0.04	1578	8.61	30.8	6-26-19 13:00	18.23	1736	8.44	5.2	4-27-19 8:15	8.15	1196	8.45	4.5	4-27-19 8:15	7.91	679	8.48	5.1
1-26-19 20:00	-0.07	1407	7.88	1.6	1-26-19 20:00	0.35	1376	7.74	3.1	1-26-19 20:00	-0.04	1595	8.60	32.5	6-26-19 13:15	18.19	1739	8.44	5.4	4-27-19 8:30	8.21	1197	8.45	5.0	4-27-19 8:30	8.02	678	8.47	5.1
1-26-19 20:15	-0.08	1390	7.87	1.8	1-26-19 20:15	0.34	1383	7.74	3.3	1-26-19 20:15	-0.05	1596	8.60	31.9	6-26-19 13:30	18.17	1739	8.44	4.9	4-27-19 8:45	8.23	1197	8.44	5.8	4-27-19 8:45	8.11	678	8.47	5.1
1-26-19 20:30	-0.08	1390	7.88	1.6	1-26-19 20:30	0.34	1381	7.74	2.6	1-26-19 20:30	-0.05	1596	8.60	31.7	6-26-19 13:45	18.14	1738	8.44	4.6	4-27-19 9:00	8.25	1196	8.45	6.5	4-27-19 9:00	8.31	678	8.47	5.5
1-26-19 20:45	-0.07	1390	7.88	1.6	1-26-19 20:45	0.34	1390	7.74	3.8	1-26-19 20:45	-0.05	1598	8.60	31.1	6-26-19 14:00	18.14	1737	8.44	4.8	4-27-19 9:15	8.26	1196	8.45	5.7	4-27-19 9:15	8.48	678	8.47	5.2

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-26-19 21:00	-0.07	1330	7.89	6.1	1-26-19 21:00	0.34	1375	7.74	5.0	1-26-19 21:00	-0.05	1582	8.60	30.7	6-26-19 14:15	18.20	1738	8.44	5.0	4-27-19 9:30	8.31	1199	8.44	5.4	4-27-19 9:30	8.56	677	8.47	4.9
1-26-19 21:15	-0.08	1410	7.87	1.9	1-26-19 21:15	0.34	1380	7.74	3.2	1-26-19 21:15	-0.05	1581	8.61	30.7	6-26-19 14:30	18.21	1736	8.44	5.3	4-27-19 9:45	8.48	1201	8.44	5.7	4-27-19 9:45	8.65	676	8.47	5.2
1-26-19 21:30	-0.07	1412	7.89	1.7	1-26-19 21:30	0.34	1388	7.74	5.0	1-26-19 21:30	-0.05	1580	8.61	30.8	6-26-19 14:45	18.16	1738	8.45	5.4	4-27-19 10:00	8.37	1198	8.44	5.9	4-27-19 10:00	8.77	677	8.46	5.1
1-26-19 21:45	-0.07	1411	7.89	1.8	1-26-19 21:45	0.34	1395	7.74	5.1	1-26-19 21:45	-0.05	1579	8.61	30.7	6-26-19 15:00	18.20	1739	8.44	4.8	4-27-19 10:15	8.50	1201	8.44	5.9	4-27-19 10:15	8.95	678	8.46	5.5
1-26-19 22:00	-0.07	1411	7.89	1.7	1-26-19 22:00	0.34	1397	7.74	0.0	1-26-19 22:00	-0.05	1596	8.60	31.3	6-26-19 15:15	18.23	1739	8.44	4.7	4-27-19 10:30	8.57	1202	8.42	5.7	4-27-19 10:30	9.04	677	8.46	5.1
1-26-19 22:15	-0.08	1392	7.87	1.7	1-26-19 22:15	0.30	1386	7.74	4.2	1-26-19 22:15	-0.05	1594	8.60	31.2	6-26-19 15:30	18.33	1738	8.44	4.8	4-27-19 10:45	8.58	1203	8.42	6.2	4-27-19 10:45	9.15	677	8.46	5.0
1-26-19 22:30	-0.08	1392	7.89	1.7	1-26-19 22:30	0.29	1382	7.74	3.2	1-26-19 22:30	-0.06	1597	8.60	31.0	6-26-19 15:45	18.44	1741	8.44	4.9	4-27-19 11:00	8.55	1202	8.43	8.2	4-27-19 11:00	9.40	678	8.45	5.8
1-26-19 22:45	-0.07	1392	7.88	1.7	1-26-19 22:45	0.27	1394	7.74	3.7	1-26-19 22:45	-0.06	1598	8.60	31.1	6-26-19 16:00	18.53	1740	8.44	4.7	4-27-19 11:15	8.61	1205	8.43	7.7	4-27-19 11:15	9.41	677	8.45	6.5
1-26-19 23:00	-0.07	1391	7.88	1.7	1-26-19 23:00	0.25	1378	7.74	3.0	1-26-19 23:00	-0.07	1579	8.60	29.4	6-26-19 16:15	18.53	1740	8.44	4.6	4-27-19 11:30	9.02	1205	8.43	8.3	4-27-19 11:30	9.47	676	8.45	6.0
1-26-19 23:15	-0.08	1405	7.87	1.8	1-26-19 23:15	0.25	1392	7.74	5.2	1-26-19 23:15	-0.07	1581	8.60	30.1	6-26-19 16:30	18.73	1742	8.44	4.6	4-27-19 11:45	9.56	1206	8.42	7.4	4-27-19 11:45	9.59	677	8.45	5.8
1-26-19 23:30	-0.07	1405	7.88	1.6	1-26-19 23:30	0.24	1391	7.74	0.0	1-26-19 23:30	-0.07	1579	8.60	29.8	6-26-19 16:45	18.75	1741	8.43	5.0	4-27-19 12:00	9.60	1203	8.41	6.4	4-27-19 12:00	9.55	676	8.46	5.3
1-26-19 23:45	-0.07	1405	7.88	1.6	1-26-19 23:45	0.21	1382	7.74	4.1	1-26-19 23:45	-0.07	1579	8.60	28.9	6-26-19 17:00	19.01	1741	8.44	5.1	4-27-19 12:15	9.62	1201	8.41	5.0	4-27-19 12:15	9.53	673	8.46	5.6
1-27-19 0:00	-0.07	1405	7.88	1.7	1-27-19 0:00	0.18	1385	7.74	4.3	1-27-19 0:00	-0.07	1597	8.59	30.4	6-26-19 17:15	19.05	1741	8.44	4.9	4-27-19 12:30	9.62	1197	8.42	5.5	4-27-19 12:30	9.88	676	8.45	5.5
1-27-19 0:15	-0.08	1393	7.86	1.8	1-27-19 0:15	0.15	1379	7.74	3.9	1-27-19 0:15	-0.07	1598	8.60	30.4	6-26-19 17:30	19.07	1741	8.43	5.0	4-27-19 12:45	9.59	1202	8.42	6.7	4-27-19 12:45	10.09	676	8.45	5.3
1-27-19 0:30	-0.07	1393	7.87	1.7	1-27-19 0:30	0.14	1378	7.74	4.8	1-27-19 0:30	-0.07	1596	8.60	30.1	6-26-19 17:45	19.22	1739	8.43	5.2	4-27-19 13:00	9.61	1197	8.42	7.0	4-27-19 13:00	10.06	674	8.46	5.2
1-27-19 0:45	-0.07	1393	7.87	1.7	1-27-19 0:45	0.16	1378	7.74	3.8	1-27-19 0:45	-0.07	1597	8.60	30.3	6-26-19 18:00	19.37	1742	8.43	5.0	4-27-19 13:15	9.55	1199	8.42	5.4	4-27-19 13:15	10.23	674	8.45	5.5
1-27-19 1:00	-0.07	1393	7.87	1.6	1-27-19 1:00	0.25	1387	7.73	5.5	1-27-19 1:00	-0.07	1579	8.59	28.8	6-26-19 18:15	19.51	1742	8.43	11.8	4-27-19 13:30	9.71	1209	8.41	13.2	4-27-19 13:30	10.24	677	8.45	5.1
1-27-19 1:15	-0.08	1414	7.86	1.9	1-27-19 1:15	0.15	1043	7.87	5.4	1-27-19 1:15	-0.07	1579	8.59	29.0	6-26-19 18:30	19.67	1741	8.43	4.9	4-27-19 13:45	9.69	1205	8.41	11.6	4-27-19 13:45	10.12	676	8.45	5.4
1-27-19 1:30	-0.07	1414	7.88	1.6	1-27-19 1:30	0.10	516	8.22	11.4	1-27-19 1:30	-0.08	1575	8.59	30.5	6-26-19 18:45	19.88	1744	8.43	5.7	4-27-19 14:00	9.60	1206	8.42	13.4	4-27-19 14:00	9.89	677	8.47	5.0
1-27-19 1:45	-0.07	1414	7.87	1.6	1-27-19 1:45	0.14	488	8.19	13.7	1-27-19 1:45	-0.08	1571	8.59	29.2	6-26-19 19:00	20.06	1744	8.42	5.3	4-27-19 14:15	9.70	1208	8.41	15.6	4-27-19 14:15	9.30	674	8.51	5.8
1-27-19 2:00	-0.07	1414	7.87	1.6	1-27-19 2:00	0.07	365	8.54	22.3	1-27-19 2:00	-0.08	1583	8.57	28.6	6-26-19 19:15	20.24	1744	8.42	5.2	4-27-19 14:30	9.95	1203	8.41	15.2	4-27-19 14:30	9.31	681	8.51	5.1
1-27-19 2:15	-0.08	1394	7.86	1.7	1-27-19 2:15	0.12	443	8.44	11.8	1-27-19 2:15	-0.07	1548	8.57	27.3	6-26-19 19:30	20.39	1744	8.41	5.2	4-27-19 14:45	10.24	1211	8.41	23.7	4-27-19 14:45	9.54	693	8.49	4.7
1-27-19 2:30	-0.07	1395	7.87	1.7	1-27-19 2:30	0.12	379	8.47	15.6	1-27-19 2:30	-0.06	1435	8.61	28.0	6-26-19 19:45	20.51	1742	8.41	5.4	4-27-19 15:00	10.15	1205	8.41	17.9	4-27-19 15:00	9.76	677	8.48	15.6
1-27-19 2:45	-0.07	1394	7.87	1.7	1-27-19 2:45	0.14	433	8.44	13.7	1-27-19 2:45	-0.06	1152	8.69	28.8	6-26-19 20:00	20.38	1741	8.42	5.7	4-27-19 15:15	9.75	1209	8.41	25.3	4-27-19 15:15	9.74	677	8.48	14.8
1-27-19 3:00	-0.07	1394	7.87	1.6	1-27-19 3:00	0.17	403	8.44	45.7	1-27-19 3:00	-0.03	1135	8.69	29.4	6-26-19 20:15	20.26	1741	8.42	6.7	4-27-19 15:30	9.67	1206	8.42	11.3	4-27-19 15:30	9.73	672	8.48	24.5
1-27-19 3:15	-0.07	1404	7.86	1.7	1-27-19 3:15	0.12	410	8.45	12.2	1-27-19 3:15	-0.02	1179	8.72	33.7	6-26-19 20:30	20.05	1742	8.43	6.3	4-27-19 15:45	9.65	1206	8.42	13.6	4-27-19 15:45	9.76	676	8.48	7.9
1-27-19 3:30	-0.07	1405	7.87	1.5	1-27-19 3:30	0.13	389	8.49	15.9	1-27-19 3:30	-0.02	1174	8.73	32.2	6-26-19 20:45	19.97	1742	8.42	6.1	4-27-19 16:00	9.69	1204	8.42	13.6	4-27-19 16:00	9.86	677	8.48	8.1
1-27-19 3:45	-0.07	1405	7.87	1.5	1-27-19 3:45	0.07	367	8.49	8.8	1-27-19 3:45	-0.01	1176	8.72	35.3	6-26-19 21:00	19.93	1743	8.42	7.7	4-27-19 16:15	9.78	1203	8.42	11.2	4-27-19 16:15	9.97	676	8.48	7.2
1-27-19 4:00	-0.07	1405	7.87	1.5	1-27-19 4:00	0.04	343	8.53	20.2	1-27-19 4:00	0.00	1202	8.70	39.6	6-26-19 21:15	19.87	1744	8.42	8.7	4-27-19 16:30	9.86	1206	8.42	10.1	4-27-19 16:30	9.97	677	8.48	8.2
1-27-19 4:15	-0.07	1395	7.86	1.6	1-27-19 4:15	0.05	435	8.38	22.2	1-27-19 4:15	-0.01	1188	8.71	39.4	6-26-19 21:30	19.90	1744	8.42	6.6	4-27-19 16:45	9.91	1206	8.42	9.1	4-27-19 16:45	9.93	676	8.49	7.2
1-27-19 4:30	-0.07	1394	7.88	1.7	1-27-19 4:30	0.06	357	8.53	11.0	1-27-19 4:30	-0.01	1182	8.71	38.9	6-26-19 21:45	19.94	1745	8.42	6.8	4-27-19 17:00	9.98	1206	8.42	9.1	4-27-19 17:00	9.93	677	8.49	6.6
1-27-19 4:45	-0.07	1394	7.88	1.6	1-27-19 4:45	0.02	359	8.59	12.8	1-27-19 4:45	0.00	1190	8.69	39.5	6-26-19 22:00	20.07	1744	8.42	6.2	4-27-19 17:15	10.00	1205	8.42	8.1	4-27-19 17:15	9.95	677	8.49	7.3
1-27-19 5:00	-0.07	1394	7.88	1.6	1-27-19 5:00	0.01	394	8.54	44.3	1-27-19 5:00	0.01	1192	8.66	38.1	6-26-19 22:15	20.25	1746	8.42	6.4	4-27-19 17:30	9.99	1207	8.42	9.6	4-27-19 17:30	9.93	677	8.50	8.4
1-27-19 5:15	-0.07	1402	7.87	1.7	1-27-19 5:15	0.00	355	8.59	11.0	1-27-19 5:15	0.02	1200	8.64	37.6	6-26-19 22:30	20.44	1745	8.42	6.4	4-27-19 17:45	9.94	1204	8.42	7.1	4-27-19 17:45	9.86	677	8.49	6.3
1-27-19 5:30	-0.07	1402	7.88	1.6	1-27-19 5:30	-0.01	358	8.58	20.4	1-27-19 5:30	0.02	1215	8.64	37.5	6-26-19 22:45	20.73	1747	8.42	6.1	4-27-19 18:00	9.86	1206	8.42	11.1	4-27-19 18:00	9.81	679	8.49	70.5
1-27-19 5:45	-0.07	1402	7.88	1.6	1-27-19 5:45	0.01	352	8.59	12.0	1-27-19 5:45	0.02	1206	8.64	36.2	6-26-19 23:00	21.08	1745	8.41	5.7	4-27-19 18:15	9.76	1205	8.43	7.7	4-27-19 18:15	9.79	678	8.49	20.2
1-27-19 6:00	-0.07	1402	7.88	1.6	1-27-19 6:00	0.00	365	8.62	52.4	1-27-19 6:00	0.02	1242	8.62	41.0	6-26-19 23:15	21.35	1746	8.41	6.6	4-27-19 18:30	9.73	1204	8.43	10.0	4-27-19 18:30	9.67	678	8.49	11.8
1-27-19 6:15	-0.07	1394	7.87	1.7	1-27-19 6:15	0.01	372	8.58	13.2	1-27-19 6:15	0.01	1245	8.63	41.5	6-26-19 23:30	21.48	1744	8.41	5.5	4-27-19 18:45	9.72	1208	8.43	7.4	4-27-19 18:45	9.56	677	8.50	10.0
1-27-19 6:30	-0.06	1394	7.88	1.7	1-27-19 6:30	-0.03	354	8.69	16.4	1-27-19 6:30	-0.01	1244	8.63	40.6	6-26-19 23:45	21.57	1743	8.41	5.6	4-27-19 19:00	9.71	1220	8.43	8.1	4-27-19 19:00	9.52	678	8.50	9.3
1-27-19 6:45	-0.06	1394	7.88	1.7	1-27-19 6:45	-0.03	372	8.67	15.0	1-27-19 6:45	-0.01	1270	8.61	42.3	6-27-19 0:00	21.63	1744	8.41	5.8	4-27-19 19:15	9.65	1205	8.43	8.8	4-27-19 19:15	9.53	678	8.50	8.1
1-27-19 7:00	-0.06	1394	7.88	1.6	1-27-19 7:00	-0.05	350	8.70	12.8	1-27-19 7:00	-0.01	1245	8.57	39.7	6-27-19 0:15	21.61	1743	8.41	6.0	4-27-19 19:30	9.64	1208	8.43	9.7	4-27-19 19:30	9.49	678	8.50	7.8
1-27-19 7:15	-0.07	1411	7.86	1.7	1-27-19 7:15	-0.05	368	8.65	16.6	1-27-19 7:15	-0.01	1257	8.58	38.8	6-27-19 0:30	21.29	1742	8.42	5.4	4-27-19 19:45	9.62	1210	8.43	8.4	4-27-19 19:45	9.47	678	8.50	8.0
1-27-19 7:30	-0.06	1411	7.88	1.5	1-27-19 7:30	-0.06	367	8.64	19.3	1-27-19 7:30	-0.01	1259	8.58	38.7	6-27-19 0:45	21.07	1742	8.42	6.0	4-27-19 20:00	9.61	1209	8.43	9.6	4-27-19 20:00	9.40	678	8.50	8.7
1-27-19 7:45	-0.06	1411	7.88	1.6	1-27-19 7:45	-0.05	409	8.60	16.7	1-27-19 7:45	-0.01	1269	8.57	40.9	6-27-19 1:00	21.01	1743	8.42	8.0	4-27-19 20:15	9.60	1209	8.43	6.2	4-27-19 20:15	9.39	678	8.50	8.9
1-27-19 8:00	-0.06	1411	7.88	1.6	1-27-19 8:00	-0.09	367	8.62	70.8	1-27-19 8:00	-0.01	1292	8.55	42.8	6-27-19 1:15	20.96	1744	8.42	6.1	4-27-19 20:30	9.57	1208	8.43	7.4	4-27-19 20:30	9.35	678	8.50	10.3
1-27-19 8:15	-0.06	1394	7.87	1.6	1-27-19 8:15	-0.10	360	8.63	15.0	1-27-19 8:15	0.00	1291	8.58	42.9	6-27-19 1:30	21.18	1745	8.42	5.4	4-27-19 20:45	9.55	1211	8.43	9.0	4-27-19 20:45	9.33	678	8.50	9.3
1-27-19 8:30	-0.06	1393	7.88	1.6	1-27-19 8:30	-0.08	343	8.64	17.0	1-27-19 8:30	-0.01	1269	8.61	41.9	6-27-19 1:45	21.27	1745	8.42	6.1	4-27-19 21:00	9.45	1209	8.43	7.7	4-27-19 21:00	9.25	675	8.50	11.3
1-27-19 8:45	-0.06	1393	7.88	1.7	1-27-19 8:45	-0.07	341	8.61	18.2	1-27-19 8:45	-0.01	1296	8.58	42.6	6-27-19 2:00	21.28	1744	8.42	5.6	4-27-19 21:15	9.44	1212	8.43	10.2	4-27-19 21:15	9.19	676	8.50	8.6
1-27-19 9:00	-0.06	1393	7.88	1.6	1-27-19 9:00	-0.06	338	8.62	65.0	1-27-19 9:00	-0.03	1245	8.58	37.2	6-27-19 2:15	20.91	1742	8.42	6.2	4-27-19 21:30	9.41	1206	8.43	6.0	4-27-19 21:30	9.20	676	8.50	8.6
1-27-19 9:15	-0.07	1413	7.87	1.7	1-27-19 9:15	-0.06	322	8.65	13.7	1-27-19 9:15	-0.02	1247	8.61	36.9	6-27-19 2:30	20.81	1742	8.42	6.4	4-27-19 21:45	9.38	1212	8.43	7.8	4-27-19 21:45	9.13	676	8.50	9.1
1-27-19 9:30	-0.06	1414	7.89	1.5	1-27-19 9:30	-0.06	349	8.68	17.6	1-27-19 9:30	-0.01	1266	8.57	38.9	6-27-19 2:45	20.79	1747	8.43	6.1	4-27-19 22:00	9.37	1209	8.43	7.0	4-27-19 22:00	9.08	676	8.50	8.9
1-27-19 9:45	-0.06	1414	7.88	1.5	1-27-19 9:45	-0.05	349	8.69	11.3	1-27-19 9:45	-0.01	1259	8.57	39.3	6-27-19 3:00	20.75	1747	8.43	5.2	4-27-19 22:15	9.33	1209	8.43	7.5	4-27-19 22:15	9.10	676	8.50	8.6
1-27-19 10:00	-0.06	1414	7.88	1.6	1-27-19 10:00	-0.05	348	8.67	13.8	1-27-19 10:00	-0.01	1272	8.57	41.5	6-27-19 3:15	20.79	1747	8.43	5.8	4-27-19 22:30	9.31	1210	8.43	8.2	4-27-19 22:30	9.03	674	8.49	7.7
1-27-19 10:15	-0.07	1395	7.87	1.6	1-27-19 10:15	-0.05	355	8.69	10.0	1-27-19 10:15	-0.01	1281	8.60	41.6	6-27-19 3:30	20.85	1746	8.43	4.7	4-27-19 22:45	9.29	1212	8.43	8.3	4-27-19 22:45	9.01	674	8.50	9.2
1-27-19 10:30	-0.06	1394	7.88	1.6	1-27-19 10:30	-0.04	352	8.69	13.3	1-27-19 10:30	-0.01	1269	8.61	40.7	6-27-19 3:45	20.85	1745	8.43	5.8	4-27-19 23:00	9.27	1213	8.43	9.4	4-27-19 23:00	8.96	675	8.50	7.8
1-27-19 10:45	-0.06	1394	7.88	1.6	1-27-19 10:45	-0.03	359	8.70	14.6	1-27-19 10:45	-0.02	1252	8.65	39.9	6-27-19 4:00	20.90	1744	8.43	9.4	4-27-19 23:15	9.23	1210	8.43	9.2	4-27-19 23:15	8.93	676	8.50	7.9
1-27-19 11:00	-0.06	1394	7.88	1.6	1-27-19 11:00	0.00	358	8.69	13.3	1-27-19 11:00	-0.01	1240	8.59	37.0	6-27-19 4:15	21.35	1748	8.44	6.1	4-27-19 23:30	9.17	1209	8.43	7.3	4-27-19 23:30	8.93	679	8.50	8.0
1-27-19 11:15	-0.06	1416	7.87	1.6	1-27-19 11:15	0.07	369	8.68	12.4	1-27-19 11:15	-0.01	1255	8.60	36.8	6-27-19 4:30	21.36	1749	8.44	5.2	4-27-19 23:45	9.17	1209	8.43	7.0	4-27-19 23:45	8.91	683	8.50	7.9
1-27-19 11:30	-0.06	1416	7.88	1.5	1-27-19 11:30	0.10	373	8.68	14.6	1-27-19 11:30	0.00	1262	8.60	37.0	6-27-19 4:45	21.28	1748	8.44	5.2	4-28-19 0:00	9.13	1209	8.43	8.3	4-28-19 0:00	8.91	674	8.50	7.8
1-27-19 11:45	-0.06	1416	7.88	1.5	1-27-19 11:45	0.11	434	8.56	14.2	1-27-19 11:45	0.00	1264	8.60	36.4	6-27-19 5:00	21.23	1747	8.44	5.0	4-28-19 0:15	9.11	1210	8.43	8.4	4-28-19 0:15	8.92	675	8.50	7.8
1-27-19 12:00	-0.06	1416	7.87	1.4	1-27-19 12:00	0.11	364	8.69	14.5	1-27-19 12:00	0.00	1276	8.60	39.5	6-27-19 5:15	21.17	1746	8.44	6.4	4-28-19 0:30	9.07	1207	8.43	7.1	4-28-19 0:30	8.86	675	8.49	7.5
1-27-19 12:15	-0.07	1397	7.86	1.6	1-27-19 12:15	0.13	363	8.70	14.4	1-27-19 12:15	0.00	1275	8.63	39.1	6-27-19 5:30	21.13	1748	8.44	4.7	4-28-19 0:45	9.02	1207	8.43	7.7	4-28-19 0:45	8.71	674	8.50	7.8
1-27-19 12:30	-0.06	1396	7.88	1.6	1-27-19 12:30	0.15	373	8.68	11.5	1-27-19 12:30	0.01	1284	8.62	39.0	6-27-19 5:45	21.08	1748	8.45	5.2	4-28-19 1:00	9.00	1209	8.43	6.2	4-28-19 1:00	8.73	675	8.50	7.8
1-27-19 12:45	-0.06	1396	7.88	1.6	1-27-19 12:45	0.19	366	8.71	13.7	1-27-19 12:45	0.01	1284	8.62	39.2	6-27-19 6:00	20.97	1748	8.45	4.8	4-28-19 1:15	9.00	1211	8.43	8.8	4-28-19 1:15	8.64	674	8.50	7.9
1-27-19 13:00	-0.06	1396	7.87	1.5	1-27-19 13:00	0.23	355	8.72	11.6	1-27-19 13:00	0.01	1251	8.60	36.5	6-27-19 6:15	20.88	1747	8.45	4.8	4-28-19 1:30	8.99	1209	8.43	7.0	4-28-19 1:30	8.63	676	8.50	7.6
1-27-19 13:15	-0.07	1420	7.86	1.7	1-27-19 13:15	0.24	368	8.71	38.6	1-27-19 13:15	0.00	1264	8.61	36.4	6-27-19 6:30	20.82	1746	8.45	4.6	4-28-19 1:45	8.96	1213	8.43	7.6	4-28-19 1:45	8.57	675	8.50	7.9
1-27-19 13:30	-0.07	1422	7.88	1.5	1-27-19 13:30	0.25	362	8.72	10.8	1-27-19 13:30	0.01	1267	8.61	35.9	6-27-19 6:45	20.76	1747	8.45	4.6	4-28-19 2:00	8.93	1210	8.43	7.9	4-28-19 2:00	8.43	676	8.50	8.1
1-27-19 13:45	-0.07	1422	7.87	1.4	1-27-19 13:45	0.25	359	8.73	12.3	1-27-19 13:45	0.02	1271	8.62	36.2	6-27-19 7:00	20.71	1747	8.44	6.6	4-28-19 2:15	8.88	1213	8.43	7.4	4-28-19 2:15	8.43	676	8.49	7.8
1-27-19 14:00	-0.07	1422	7.87	1.5	1-27-19 14:00	0.26	358	8.73	10.4	1-27-19 14:00	0.02	1291	8.61	38.1	6-27-19 7:15	20.62	1746	8.45	5.2	4-28-19 2:30	8.84	1209	8.43	7.9	4-28-19 2:30	8.42	677	8.49	7.5
1-27-19 14:30	-0.07	1397	7.88	1.6	1-27-19 14:15	0.26	352	8.73	10.4	1-27-19 14:15	0.03	1289	8.63	38.7	6-27-19 7:30	20.58	1747	8.45	4.5	4-28-19 2:45	8.81	1210	8.43	8.6	4-28-19 2:45	8.39	676	8.49	7.3
1-27-19 14:45	-0.06	1397	7.88	1.6	1-27-19 14:30	0.25	356	8.72	9.0	1-27-19 14:30	0.02	1268	8.64	37.8	6-27-19 7:45	20.53	1747	8.45	4.3	4-28-19 3:00	8.77	1210	8.43	9.6	4-28-19 3:00	8.51	676	8.49	7.3
1-27-19 15:00	-0.07	1397	7.87	1.6	1-27-19 14:45	0.25	357	8.73	9.0	1-27-19 14:45	0.02	1284	8.64	37.6	6-27-19 8:00	20.47	1747	8.44	4.4	4-28-19 3:15	8.72	1209	8.43	8.2	4-28-19 3:15	8.33	676	8.49	7.2
1-27-19 15:15	-0.07	1397	7.87	1.6	1-27-19 15:00	0.24	355	8.72	9.5	1-27-19 15:00	0.02	1256	8.63	35.1	6-27-19 8:15	20.41	1746	8.44	4.5	4-28-19 3:30	8.70	1209	8.43	7.7	4-28-19 3:30	8.41	676	8.49	7.3

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-27-19 15:30	-0.07	1422	7.86	1.4	1-27-19 15:15	0.23	356	8.71	9.8	1-27-19 15:15	0.03	1274	8.63	35.3	6-27-19 8:30	20.35	1748	8.44	4.1	4-28-19 3:45	8.66	1208	8.43	6.1	4-28-19 3:45	8.31	677	8.49	7.3
1-27-19 15:45	-0.07	1422	7.86	1.5	1-27-19 15:30	0.22	353	8.71	10.3	1-27-19 15:30	0.03	1274	8.63	34.5	6-27-19 8:45	20.30	1746	8.44	4.5	4-28-19 4:00	8.62	1211	8.43	7.1	4-28-19 4:00	8.23	676	8.49	7.0
1-27-19 16:00	-0.07	1421	7.86	1.6	1-27-19 15:45	0.19	355	8.70	9.1	1-27-19 15:45	0.04	1280	8.63	34.6	6-27-19 9:00	20.26	1746	8.44	4.0	4-28-19 4:15	8.61	1211	8.43	6.6	4-28-19 4:15	8.11	676	8.49	7.0
1-27-19 16:15	-0.07	1421	7.85	1.5	1-27-19 16:00	0.15	361	8.70	8.7	1-27-19 16:00	0.04	1304	8.62	37.0	6-27-19 9:15	20.22	1746	8.44	3.9	4-28-19 4:30	8.58	1210	8.43	8.1	4-28-19 4:30	8.16	678	8.49	7.1
1-27-19 16:30	-0.07	1400	7.88	1.6	1-27-19 16:15	0.12	357	8.70	9.8	1-27-19 16:15	0.04	1279	8.65	37.1	6-27-19 9:30	20.18	1747	8.44	5.2	4-28-19 4:45	8.57	1210	8.43	7.9	4-28-19 4:45	8.10	677	8.49	6.8
1-27-19 16:45	-0.06	1400	7.88	1.5	1-27-19 16:30	0.09	356	8.70	9.0	1-27-19 16:30	0.04	1281	8.64	37.4	6-27-19 9:45	20.12	1747	8.44	4.3	4-28-19 5:00	8.53	1209	8.43	9.1	4-28-19 5:00	7.99	678	8.49	6.5
1-27-19 17:00	-0.06	1400	7.88	1.5	1-27-19 16:45	0.05	363	8.70	8.6	1-27-19 16:45	0.04	1289	8.63	37.1	6-27-19 10:00	20.08	1746	8.44	4.2	4-28-19 5:15	8.46	1210	8.43	8.9	4-28-19 5:15	8.07	678	8.49	7.0
1-27-19 17:15	-0.06	1400	7.87	1.5	1-27-19 17:00	0.02	359	8.70	7.9	1-27-19 17:00	0.04	1270	8.62	35.0	6-27-19 10:15	20.03	1746	8.44	3.7	4-28-19 5:30	8.41	1210	8.43	8.2	4-28-19 5:30	7.98	678	8.49	6.7
1-27-19 17:30	-0.06	1410	7.88	1.5	1-27-19 17:15	0.00	359	8.69	8.9	1-27-19 17:15	0.05	1274	8.63	35.5	6-27-19 10:30	20.03	1747	8.44	4.6	4-28-19 5:45	8.41	1213	8.43	9.3	4-28-19 5:45	7.99	678	8.49	6.5
1-27-19 17:45	-0.06	1410	7.87	1.5	1-27-19 17:30	-0.01	365	8.69	7.5	1-27-19 17:30	0.05	1273	8.63	34.1	6-27-19 10:45	20.02	1747	8.44	3.5	4-28-19 6:00	8.38	1211	8.43	10.0	4-28-19 6:00	7.97	677	8.48	6.9
1-27-19 18:00	-0.06	1410	7.87	1.6	1-27-19 17:45	-0.02	367	8.69	8.7	1-27-19 17:45	0.05	1281	8.63	34.5	6-27-19 11:00	20.00	1746	8.43	4.2	4-28-19 6:15	8.35	1212	8.43	6.8	4-28-19 6:15	7.88	676	8.49	6.4
1-27-19 18:15	-0.06	1410	7.87	1.6	1-27-19 18:00	-0.03	376	8.69	8.7	1-27-19 18:00	0.06	1303	8.62	36.6	6-27-19 11:15	19.97	1746	8.43	4.1	4-28-19 6:30	8.31	1211	8.43	8.1	4-28-19 6:30	7.85	678	8.49	6.6
1-27-19 18:30	-0.06	1399	7.88	1.6	1-27-19 18:15	-0.03	370	8.69	8.5	1-27-19 18:15	0.06	1296	8.64	37.0	6-27-19 11:30	19.92	1746	8.43	5.6	4-28-19 6:45	8.27	1211	8.43	7.9	4-28-19 6:45	7.79	677	8.49	6.9
1-27-19 18:45	-0.06	1399	7.88	1.6	1-27-19 18:30	-0.04	376	8.69	8.8	1-27-19 18:30	0.06	1293	8.64	36.2	6-27-19 11:45	19.88	1748	8.44	3.9	4-28-19 7:00	8.28	1211	8.43	7.5	4-28-19 7:00	7.77	677	8.49	6.3
1-27-19 19:00	-0.06	1399	7.88	1.6	1-27-19 18:45	-0.04	373	8.69	8.5	1-27-19 18:45	0.06	1291	8.65	36.7	6-27-19 12:00	19.83	1746	8.43	3.8	4-28-19 7:15	8.21	1213	8.43	8.0	4-28-19 7:15	7.83	678	8.49	6.7
1-27-19 19:15	-0.06	1399	7.88	1.4	1-27-19 19:00	-0.04	374	8.69	8.4	1-27-19 19:00	0.07	1269	8.63	34.9	6-27-19 12:15	19.80	1745	8.43	3.8	4-28-19 7:30	8.24	1211	8.43	6.8	4-28-19 7:30	7.68	678	8.49	6.2
1-27-19 19:30	-0.06	1408	7.88	1.4	1-27-19 19:15	-0.04	374	8.68	8.8	1-27-19 19:15	0.07	1278	8.63	34.4	6-27-19 12:30	19.79	1747	8.43	3.8	4-28-19 7:45	8.26	1212	8.43	9.7	4-28-19 7:45	7.75	678	8.49	6.3
1-27-19 19:45	-0.06	1408	7.88	1.4	1-27-19 19:30	-0.04	373	8.68	7.7	1-27-19 19:30	0.07	1277	8.63	34.0	6-27-19 12:45	19.76	1747	8.43	4.0	4-28-19 8:00	8.29	1210	8.43	8.5	4-28-19 8:00	7.92	679	8.49	6.8
1-27-19 20:00	-0.06	1408	7.88	1.4	1-27-19 19:45	-0.04	377	8.68	8.9	1-27-19 19:45	0.07	1278	8.63	34.4	6-27-19 13:00	19.71	1748	8.43	3.4	4-28-19 8:15	8.30	1210	8.43	7.9	4-28-19 8:15	8.05	678	8.49	6.7
1-27-19 20:15	-0.06	1409	7.88	1.3	1-27-19 20:00	-0.04	380	8.68	8.4	1-27-19 20:00	0.07	1297	8.63	35.2	6-27-19 13:15	19.67	1745	8.43	4.2	4-28-19 8:30	8.31	1211	8.43	8.3	4-28-19 8:30	8.17	678	8.48	6.8
1-27-19 20:30	-0.06	1403	7.88	1.7	1-27-19 20:15	-0.04	379	8.68	7.8	1-27-19 20:15	0.07	1295	8.64	35.4	6-27-19 13:30	19.63	1747	8.43	3.8	4-28-19 8:45	8.32	1211	8.43	9.9	4-28-19 8:45	8.32	678	8.48	6.4
1-27-19 20:45	-0.06	1402	7.88	1.6	1-27-19 20:30	-0.04	386	8.64	6.7	1-27-19 20:30	0.07	1295	8.64	35.2	6-27-19 13:45	19.62	1746	8.43	4.2	4-28-19 9:00	8.37	1210	8.43	8.7	4-28-19 9:00	8.47	678	8.48	6.2
1-27-19 21:00	-0.06	1402	7.88	1.6	1-27-19 20:45	-0.03	388	8.66	7.4	1-27-19 20:45	0.07	1298	8.64	35.6	6-27-19 14:00	19.60	1747	8.43	4.2	4-28-19 9:15	8.33	1211	8.43	7.8	4-28-19 9:15	8.60	677	8.48	6.2
1-27-19 21:15	-0.06	1402	7.87	1.6	1-27-19 21:00	-0.03	398	8.53	7.7	1-27-19 21:00	0.07	1269	8.63	34.6	6-27-19 14:15	19.55	1747	8.44	4.0	4-28-19 9:30	8.36	1211	8.43	8.8	4-28-19 9:30	8.70	676	8.48	6.4
1-27-19 21:30	-0.06	1408	7.88	1.4	1-27-19 21:15	-0.03	385	8.67	7.5	1-27-19 21:15	0.07	1285	8.63	33.7	6-27-19 14:30	19.52	1748	8.44	4.0	4-28-19 9:45	8.58	1213	8.43	8.5	4-28-19 9:45	8.69	675	8.48	6.5
1-27-19 21:45					1-27-19 21:30	-0.03	395	8.65	7.8	1-27-19 21:30	0.07	1264	8.64	34.2	6-27-19 14:45	19.50	1748	8.43	4.0	4-28-19 10:00	8.80	1212	8.43	7.9	4-28-19 10:00	8.93	679	8.47	12.3
1-27-19 22:00	-0.06	1409	7.88	1.6	1-27-19 21:45	-0.02	395	8.54	9.0	1-27-19 21:45	0.07	1283	8.64	34.1	6-27-19 15:00	19.47	1747	8.44	4.3	4-28-19 10:15	8.97	1212	8.42	8.4	4-28-19 10:15	8.84	677	8.47	9.5
1-27-19 22:15	-0.05	1409	7.88	1.6	1-27-19 22:00	-0.04	393	8.63	7.8	1-27-19 22:00	0.07	1297	8.63	35.0	6-27-19 15:15	19.45	1748	8.44	4.2	4-28-19 10:30	9.48	1211	8.42	11.5	4-28-19 10:30	9.00	675	8.47	7.6
1-27-19 22:30	-0.06	1398	7.88	1.6	1-27-19 22:15	-0.04	397	8.63	5.9	1-27-19 22:15	0.07	1291	8.64	35.8	6-27-19 15:30	19.45	1748	8.44	4.0	4-28-19 10:45	9.63	1208	8.41	11.2	4-28-19 10:45	9.01	674	8.48	6.7
1-27-19 22:45	-0.05	1398	7.88	1.6	1-27-19 22:30	-0.04	410	8.55	7.5	1-27-19 22:30	0.07	1293	8.64	35.8	6-27-19 15:45	19.48	1747	8.44	4.3	4-28-19 11:00	9.62	1207	8.41	9.2	4-28-19 11:00	9.03	675	8.48	6.1
1-27-19 23:00	-0.05	1398	7.88	1.5	1-27-19 22:45	-0.03	410	8.53	5.8	1-27-19 22:45	0.07	1294	8.64	35.9	6-27-19 16:00	19.52	1747	8.44	4.8	4-28-19 11:15	9.55	1210	8.41	13.7	4-28-19 11:15	8.99	675	8.48	6.0
1-27-19 23:15	-0.05	1398	7.88	1.5	1-27-19 23:00	-0.03	409	8.56	7.1	1-27-19 23:00	0.07	1266	8.63	34.3	6-27-19 16:15	19.51	1749	8.44	4.0	4-28-19 11:30	9.76	1204	8.41	15.7	4-28-19 11:30	8.99	675	8.48	6.0
1-27-19 23:30	-0.06	1414	7.88	1.5	1-27-19 23:15	-0.04	405	8.60	6.0	1-27-19 23:15	0.07	1299	8.62	34.3	6-27-19 16:30	19.50	1747	8.44	4.2	4-28-19 11:45	10.04	1210	8.41	15.7	4-28-19 11:45	9.00	675	8.48	5.9
1-27-19 23:45	-0.05	1414	7.88	1.4	1-27-19 23:30	-0.03	433	8.58	9.7	1-27-19 23:30	0.06	1291	8.63	34.6	6-27-19 16:45	19.48	1747	8.44	4.1	4-28-19 12:00	9.96	1209	8.41	13.7	4-28-19 12:00	9.18	677	8.48	5.7
1-28-19 0:00	-0.05	1414	7.88	1.4	1-27-19 23:45	-0.04	419	8.49	7.2	1-27-19 23:45	0.04	1258	8.64	34.0	6-27-19 17:00	19.45	1748	8.44	4.0	4-28-19 12:15	9.63	1210	8.41	16.7	4-28-19 12:15	9.81	677	8.47	6.2
1-28-19 0:15	-0.05	1414	7.88	1.3	1-28-19 0:00	-0.04	420	8.57	6.3	1-28-19 0:00	0.04	1313	8.62	36.0	6-27-19 17:15	19.46	1749	8.44	4.3	4-28-19 12:30	9.73	1212	8.41	14.1	4-28-19 12:30	9.96	677	8.46	6.5
1-28-19 0:30	-0.05	1398	7.88	1.5	1-28-19 0:15	-0.04	434	8.50	9.7	1-28-19 0:15	0.03	1421	8.57	30.6	6-27-19 17:30	19.50	1748	8.44	4.3	4-28-19 12:45	9.57	1212	8.41	7.8	4-28-19 12:45	10.03	676	8.47	7.2
1-28-19 0:45	-0.05	1398	7.88	1.5	1-28-19 0:30	-0.03	426	8.54	7.2	1-28-19 0:30	-0.02	1271	8.64	32.5	6-27-19 17:45	19.56	1749	8.44	4.5	4-28-19 13:00	9.59	1213	8.41	11.9	4-28-19 13:00	10.46	677	8.46	7.2
1-28-19 1:00	-0.05	1398	7.88	1.4	1-28-19 0:45	-0.01	436	8.54	12.0	1-28-19 0:45	0.00	1304	8.62	34.5	6-27-19 18:00	19.72	1749	8.44	4.4	4-28-19 13:15	9.49	1211	8.41	12.1	4-28-19 13:15	10.27	673	8.46	6.5
1-28-19 1:15	-0.05	1398	7.88	1.4	1-28-19 1:00	-0.03	458	8.47	7.4	1-28-19 1:00	0.01	1280	8.61	32.7	6-27-19 18:15	19.92	1750	8.44	5.0	4-28-19 13:30	9.46	1208	8.41	9.9	4-28-19 13:30	10.41	675	8.46	7.7
1-28-19 1:30	-0.05	1413	7.88	1.4	1-28-19 1:15	-0.03	422	8.57	8.3	1-28-19 1:15	0.01	1285	8.63	33.0	6-27-19 18:30	20.10	1750	8.44	4.3	4-28-19 13:45	9.27	1213	8.42	12.0	4-28-19 13:45	10.41	676	8.46	7.8
1-28-19 1:45	-0.05	1413	7.88	1.3	1-28-19 1:30	-0.04	427	8.51	7.0	1-28-19 1:30	0.02	1291	8.63	33.2	6-27-19 18:45	20.23	1749	8.44	4.6	4-28-19 14:00	8.81	1226	8.41	12.1	4-28-19 14:00	10.38	676	8.46	81.6
1-28-19 2:00	-0.05	1413	7.87	1.3	1-28-19 1:45	-0.04	429	8.42	8.5	1-28-19 1:45	0.02	1296	8.63	33.3	6-27-19 19:00	20.23	1752	8.44	4.9	4-28-19 14:15	8.85	1220	8.40	14.3	4-28-19 14:15	10.47	676	8.46	7.3
1-28-19 2:15	-0.05	1413	7.87	1.3	1-28-19 2:00	-0.04	423	8.59	10.1	1-28-19 2:00	0.02	1296	8.63	33.4	6-27-19 19:15	20.28	1750	8.45	5.0	4-28-19 14:30	9.01	1223	8.40	17.0	4-28-19 14:30	10.64	673	8.47	7.3
1-28-19 2:30	-0.05	1400	7.88	1.6	1-28-19 2:15	-0.03	438	8.48	8.7	1-28-19 2:15	0.02	1287	8.66	31.8	6-27-19 19:30	20.31	1750	8.44	5.5	4-28-19 14:45	9.14	1219	8.40	10.6	4-28-19 14:45	10.68	672	8.47	6.9
1-28-19 2:45	-0.05	1400	7.88	1.6	1-28-19 2:30	-0.04	426	8.62	10.3	1-28-19 2:30	0.02	1305	8.65	31.4	6-27-19 19:45	20.40	1751	8.44	5.3	4-28-19 15:00	9.28	1222	8.39	12.9	4-28-19 15:00	10.99	672	8.47	7.1
1-28-19 3:00	-0.05	1400	7.88	1.4	1-28-19 2:45	-0.04	422	8.59	8.8	1-28-19 2:45	0.03	1308	8.65	31.5	6-27-19 20:00	20.41	1750	8.44	5.6	4-28-19 15:15	9.41	1222	8.39	13.5	4-28-19 15:15	11.00	670	8.46	6.9
1-28-19 3:15	-0.05	1400	7.88	1.4	1-28-19 3:00	-0.04	436	8.61	9.4	1-28-19 3:00	0.03	1291	8.62	30.8	6-27-19 20:15	20.42	1750	8.44	5.8	4-28-19 15:30	9.41	1220	8.40	14.3	4-28-19 15:30	11.07	671	8.47	7.0
1-28-19 3:30	-0.05	1413	7.88	1.5	1-28-19 3:15	-0.04	437	8.58	10.1	1-28-19 3:15	0.03	1296	8.62	30.5	6-27-19 20:30	20.40	1750	8.45	5.3	4-28-19 15:45	9.30	1218	8.40	14.8	4-28-19 15:45	10.84	673	8.47	31.6
1-28-19 3:45	-0.05	1413	7.88	1.4	1-28-19 3:30	-0.04	441	8.49	8.1	1-28-19 3:30	0.04	1303	8.62	31.0	6-27-19 20:45	20.56	1751	8.45	5.4	4-28-19 16:00	8.97	1232	8.39	18.7	4-28-19 16:00	10.57	674	8.48	14.3
1-28-19 4:00	-0.05	1413	7.88	1.4	1-28-19 3:45	-0.04	461	8.47	8.7	1-28-19 3:45	0.03	1295	8.62	30.5	6-27-19 21:00	20.73	1753	8.45	5.3	4-28-19 16:15	8.97	1233	8.39	21.2	4-28-19 16:15	10.29	671	8.48	9.9
1-28-19 4:15	-0.05	1413	7.87	1.4	1-28-19 4:00	-0.04	462	8.44	7.5	1-28-19 4:00	0.01	1334	8.61	32.4	6-27-19 21:15	20.75	1752	8.45	5.6	4-28-19 16:30	9.12	1222	8.39	19.8	4-28-19 16:30	10.24	671	8.49	10.3
1-28-19 4:30	-0.05	1400	7.88	1.6	1-28-19 4:15	-0.04	458	8.58	10.6	1-28-19 4:15	0.00	1304	8.64	34.1	6-27-19 21:30	20.67	1750	8.46	5.5	4-28-19 16:45	9.18	1225	8.39	14.4	4-28-19 16:45	10.28	670	8.49	8.4
1-28-19 4:45	-0.05	1400	7.88	1.5	1-28-19 4:30	-0.04	445	8.58	7.3	1-28-19 4:30	0.00	1299	8.64	33.2	6-27-19 21:45	20.56	1752	8.46	5.7	4-28-19 17:00	9.18	1229	8.40	15.3	4-28-19 17:00	10.24	669	8.49	8.5
1-28-19 5:00	-0.05	1400	7.88	1.6	1-28-19 4:45	-0.02	473	8.45	6.9	1-28-19 4:45	0.01	1312	8.64	32.7	6-27-19 22:00	20.52	1752	8.46	5.1	4-28-19 17:15	9.19	1223	8.40	13.9	4-28-19 17:15	10.25	670	8.49	7.4
1-28-19 5:15	-0.05	1400	7.88	1.5	1-28-19 5:00	-0.05	452	8.54	6.9	1-28-19 5:00	0.01	1317	8.60	31.1	6-27-19 22:15	20.54	1752	8.45	5.3	4-28-19 17:30	9.19	1229	8.40	15.8	4-28-19 17:30	10.21	671	8.49	9.1
1-28-19 5:30	-0.05	1419	7.88	1.4	1-28-19 5:15	-0.04	454	8.58	8.1	1-28-19 5:15	0.01	1326	8.61	30.6	6-27-19 22:30	20.50	1750	8.46	5.0	4-28-19 17:45	9.27	1230	8.39	14.5	4-28-19 17:45	10.23	670	8.49	8.4
1-28-19 5:45	-0.05	1419	7.88	1.5	1-28-19 5:30	-0.04	445	8.60	8.9	1-28-19 5:30	0.01	1332	8.60	30.6	6-27-19 22:45	20.49	1750	8.46	5.0	4-28-19 18:00	9.31	1229	8.39	12.0	4-28-19 18:00	10.20	669	8.49	9.6
1-28-19 6:00	-0.05	1418	7.88	1.5	1-28-19 5:45	-0.05	438	8.59	11.6	1-28-19 5:45	0.01	1328	8.60	31.2	6-27-19 23:00	20.48	1751	8.46	5.8	4-28-19 18:15	9.27	1229	8.40	13.6	4-28-19 18:15	10.14	667	8.49	9.1
1-28-19 6:15	-0.05	1418	7.88	1.5	1-28-19 6:00	-0.04	458	8.58	8.3	1-28-19 6:00	0.01	1344	8.60	32.4	6-27-19 23:15	20.50	1750	8.46	5.2	4-28-19 18:30	9.28	1227	8.40	17.0	4-28-19 18:30	10.07	669	8.50	11.1
1-28-19 6:30	-0.05	1398	7.88	1.5	1-28-19 6:15	-0.04	474	8.55	7.7	1-28-19 6:15	0.02	1342	8.62	32.9	6-27-19 23:30	20.57	1751	8.46	5.3	4-28-19 18:45	9.28	1227	8.40	18.1	4-28-19 18:45	10.04	669	8.50	10.3
1-28-19 6:45	-0.05	1398	7.88	1.5	1-28-19 6:30	-0.04	459	8.61	6.9	1-28-19 6:30	0.02	1349	8.61	33.2	6-27-19 23:45	20.58	1751	8.45	5.6	4-28-19 19:00	9.27	1227	8.40	10.6	4-28-19 19:00	10.10	667	8.50	10.4
1-28-19 7:00	-0.05	1398	7.88	1.5	1-28-19 6:45	-0.04	461	8.60	11.1	1-28-19 6:45	0.03	1349	8.61	34.2	6-28-19 0:00	20.67	1752	8.46	5.6	4-28-19 19:15	9.25	1229	8.40	11.5	4-28-19 19:15	10.09	671	8.50	10.7
1-28-19 7:15	-0.05	1398	7.88	1.5	1-28-19 7:00	-0.04	467	8.49	8.7	1-28-19 7:00	0.04	1321	8.59	32.5	6-28-19 0:15	20.64	1752	8.46	6.0	4-28-19 19:30	9.24	1225	8.40	11.6	4-28-19 19:30	10.00	669	8.49	7.7
1-28-19 7:30	-0.05	1430	7.88	1.5	1-28-19 7:15	-0.04	469	8.60	10.4	1-28-19 7:15	0.04	1323	8.60	31.0	6-28-19 0:30	20.54	1752	8.46	5.2	4-28-19 19:45	9.23	1230	8.40	12.7	4-28-19 19:45	9.96	671	8.50	7.8
1-28-19 7:45	-0.05	1430	7.88	1.5	1-28-19 7:30	-0.03	472	8.54	8.3	1-28-19 7:30	0.04	1320	8.61	30.3	6-28-19 0:45	20.51	1751	8.46	5.3	4-28-19 20:00	9.22	1227	8.40	18.0	4-28-19 20:00	9.90	667	8.50	6.7
1-28-19 8:00	-0.05	1430	7.88	1.5	1-28-19 7:45	-0.05	471	8.59	7.6	1-28-19 7:45	0.05	1319	8.61	30.3	6-28-19 1:00	20.50	1750	8.46	5.4	4-28-19 20:15	9.21	1231	8.40	12.2	4-28-19 20:15	9.87	667	8.51	7.1
1-28-19 8:15	-0.05	1430	7.88	1.5	1-28-19 8:00	-0.05	478	8.59	8.5	1-28-19 8:00	0.05	1342	8.60	31.9	6-28-19 1:15	20.51	1751	8.46	5.0	4-28-19 20:30	9.17	1228	8.40	11.8	4-28-19 20:30	9.86	670	8.51	10.9
1-28-19 8:30	-0.05	1400	7.88	1.5	1-28-19 8:15	-0.04	491	8.60	10.5	1-28-19 8:15	0.05	1340	8.62	31.8	6-28-19 1:30	20.52	1752	8.46	4.8	4-28-19 20:45	9.18	1226	8.40	10.9	4-28-19 20:45	9.89	671	8.51	8.3
1-28-19 8:45	-0.05	1400	7.88	1.5	1-28-19 8:30	-0.03	556	8.34	6.6	1-28-19 8:30	0.06	1347	8.62	32.6	6-28-19 1:45	20.46	1750	8.46	5.6	4-28-19 21:00	9.16	1227	8.40	11.8	4-28-19 21:00	9.77	668	8.51	11.1
1-28-19 9:00	-0.05	1400	7.88	1.6	1-28-19 8:45	-0.02	484	8.54	12.0	1-28-19 8:45	0.06	1349	8.61	33.0	6-28-19 2:00	20.43	1750	8.46	5.1	4-28-19 21:15	9.12	1225	8.41	15.1	4-28-19 21:15	9.80	667	8.51	9.2
1-28-19 9:15	-0.05	1400	7.88	1.5	1-28-19 9:00	-0.05	489	8.58	9.3	1-28-19 9:00	0.06	1333	8.59	31.7	6-28-19 2:15	20.39	1753	8.46	4.9	4-28-19 21:30	9.06	1227	8.41	13.3	4-28-19 21:30	9.69	666	8.51	8.8
1-28-19 9:30	-0.05	1417	7.88	1.5	1-28-19 9:15	-0.05	486	8.57	6.2	1-28-19 9:15	0.05	1309	8.61	29.7	6-28-19 2:30	20.36	1750	8.46	5.0	4-28-19 21:45	9.03	1223	8.41	11.0	4-28-19 21:45	9.71	667	8.51	10.0

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-28-19 9:45	-0.05	1416	7.87	1.5	1-28-19 9:30	-0.04	489	8.56	7.2	1-28-19 9:30	0.06	1340	8.60	31.6	6-28-19 2:45	20.35	1749	8.46	5.1	4-28-19 22:00	9.00	1224	8.42	18.7	4-28-19 22:00	9.70	661	8.51	11.2
1-28-19 10:00	-0.05	1416	7.87	1.5	1-28-19 9:45	-0.04	490	8.56	6.3	1-28-19 9:45	0.06	1331	8.59	31.6	6-28-19 3:00	20.25	1748	8.47	5.2	4-28-19 22:15	8.97	1222	8.41	13.4	4-28-19 22:15	9.65	664	8.51	29.9
1-28-19 10:15	-0.05	1416	7.87	1.5	1-28-19 10:00	-0.03	491	8.56	9.0	1-28-19 10:00	0.06	1363	8.58	32.9	6-28-19 3:15	20.20	1748	8.47	4.9	4-28-19 22:30	8.95	1224	8.42	14.4	4-28-19 22:30	9.58	663	8.50	10.6
1-28-19 10:30	-0.05	1401	7.87	1.5	1-28-19 10:15	-0.02	496	8.57	5.4	1-28-19 10:15	0.06	1329	8.62	32.1	6-28-19 3:30	20.17	1747	8.46	5.2	4-28-19 22:45	8.90	1224	8.41	16.6	4-28-19 22:45	9.55	671	8.51	11.9
1-28-19 10:45	-0.05	1401	7.88	1.5	1-28-19 10:30	0.00	494	8.52	6.8	1-28-19 10:30	0.06	1360	8.61	33.5	6-28-19 3:45	20.14	1746	8.46	5.7	4-28-19 23:00	8.84	1223	8.42	12.4	4-28-19 23:00	9.49	671	8.51	12.9
1-28-19 11:00	-0.05	1401	7.88	1.5	1-28-19 10:45	0.02	505	8.52	79.8	1-28-19 10:45	0.06	1345	8.61	32.7	6-28-19 4:00	20.10	1746	8.46	5.5	4-28-19 23:15	8.82	1224	8.42	13.1	4-28-19 23:15	9.46	676	8.51	15.7
1-28-19 11:15	-0.05	1401	7.88	1.5	1-28-19 11:00	0.12	280	8.34	387.2	1-28-19 11:00	0.06	1322	8.59	31.6	6-28-19 4:15	20.06	1747	8.46	5.1	4-28-19 23:30	8.82	1223	8.42	13.3	4-28-19 23:30	9.42	676	8.51	11.5
1-28-19 11:30	-0.05	1418	7.88	1.5	1-28-19 11:15	0.05	292	8.41	233.4	1-28-19 11:15	0.06	1331	8.60	30.3	6-28-19 4:30	20.03	1746	8.46	5.4	4-28-19 23:45	8.79	1224	8.42	13.7	4-28-19 23:45	9.47	672	8.51	15.3
1-28-19 11:45	-0.05	1418	7.88	1.5	1-28-19 11:30	0.07	310	8.44	175.1	1-28-19 11:30	0.06	1335	8.59	30.9	6-28-19 4:45	20.01	1745	8.46	4.7	4-29-19 0:00	8.77	1225	8.42	13.9	4-29-19 0:00	9.35	667	8.51	6.5
1-28-19 12:00	-0.05	1418	7.88	1.5	1-28-19 11:45	0.07	318	8.44	157.7	1-28-19 11:45	0.05	1323	8.59	31.7	6-28-19 5:00	19.97	1746	8.46	5.1	4-29-19 0:15	8.77	1221	8.42	13.0	4-29-19 0:15	9.32	671	8.51	6.6
1-28-19 12:15	-0.05	1418	7.88	1.6	1-28-19 12:00	0.11	318	8.40	157.3	1-28-19 12:00	0.05	1350	8.59	32.7	6-28-19 5:15	19.93	1746	8.46	9.5	4-29-19 0:30	8.75	1223	8.42	16.2	4-29-19 0:30	9.27	668	8.51	8.1
1-28-19 12:30	-0.05	1400	7.87	1.5	1-28-19 12:15	0.13	289	8.40	115.3	1-28-19 12:15	0.04	1362	8.59	33.3	6-28-19 5:30	19.89	1745	8.46	5.6	4-29-19 0:45	8.72	1223	8.42	14.6	4-29-19 0:45	9.16	673	8.51	6.5
1-28-19 12:45	-0.05	1401	7.88	1.5	1-28-19 12:30	0.13	312	8.40	76.0	1-28-19 12:30	0.04	1358	8.60	33.2	6-28-19 5:45	19.88	1747	8.46	4.8	4-29-19 1:00	8.70	1222	8.42	15.1	4-29-19 1:00	9.12	667	8.51	7.0
1-28-19 13:00	-0.05	1401	7.88	1.5	1-28-19 12:45	0.16	309	8.42	111.2	1-28-19 12:45	0.03	1338	8.61	32.6	6-28-19 6:00	19.78	1747	8.47	4.9	4-29-19 1:15	8.66	1223	8.42	15.6	4-29-19 1:15	9.13	667	8.51	7.2
1-28-19 13:15	-0.05	1401	7.87	1.5	1-28-19 13:00	0.18	364	8.46	78.1	1-28-19 13:00	0.02	1314	8.59	31.2	6-28-19 6:15	19.76	1747	8.46	5.1	4-29-19 1:30	8.60	1225	8.42	16.0	4-29-19 1:30	9.10	666	8.51	7.3
1-28-19 13:30	-0.05	1414	7.88	1.4	1-28-19 13:15	0.17	397	8.51	54.2	1-28-19 13:15	0.02	1321	8.60	31.5	6-28-19 6:30	19.71	1745	8.46	5.2	4-29-19 1:45	8.57	1216	8.42	13.5	4-29-19 1:45	9.03	667	8.51	7.4
1-28-19 13:45	-0.05	1414	7.88	1.4	1-28-19 13:30	0.19	408	8.50	48.5	1-28-19 13:30	0.02	1346	8.59	32.0	6-28-19 6:45	19.68	1746	8.46	4.8	4-29-19 2:00	8.49	1223	8.42	15.8	4-29-19 2:00	8.99	665	8.51	7.6
1-28-19 14:00	-0.05	1414	7.88	1.5	1-28-19 13:45	0.18	432	8.51	34.5	1-28-19 13:45	0.01	1329	8.59	31.4	6-28-19 7:00	19.64	1747	8.46	4.6	4-29-19 2:15	8.48	1224	8.42	18.0	4-29-19 2:15	8.91	665	8.51	7.7
1-28-19 14:15	-0.05	1414	7.87	1.5	1-28-19 14:00	0.16	447	8.51	29.0	1-28-19 14:00	0.01	1366	8.58	32.7	6-28-19 7:15	19.61	1745	8.46	13.5	4-29-19 2:30	8.41	1224	8.42	19.9	4-29-19 2:30	8.87	666	8.51	8.2
1-28-19 14:30	-0.05	1401	7.87	1.5	1-28-19 14:15	0.16	445	8.49	25.3	1-28-19 14:15	0.02	1354	8.60	32.8	6-28-19 7:30	19.57	1746	8.46	4.4	4-29-19 2:45	8.40	1225	8.42	18.1	4-29-19 2:45	8.98	665	8.51	7.3
1-28-19 14:45	-0.05	1401	7.88	1.6	1-28-19 14:30	0.15	460	8.50	30.7	1-28-19 14:30	0.02	1358	8.60	32.7	6-28-19 7:45	19.55	1746	8.45	4.8	4-29-19 3:00	8.38	1224	8.42	15.5	4-29-19 3:00	8.92	664	8.51	8.9
1-28-19 15:00	-0.05	1401	7.88	1.5	1-28-19 14:45	0.10	463	8.50	25.2	1-28-19 14:45	0.01	1370	8.60	32.5	6-28-19 8:00	19.51	1745	8.46	4.3	4-29-19 3:15	8.39	1223	8.42	16.3	4-29-19 3:15	8.83	665	8.51	7.5
1-28-19 15:15	-0.05	1401	7.88	1.4	1-28-19 15:00	0.14	461	8.48	17.8	1-28-19 15:00	0.01	1338	8.58	32.1	6-28-19 8:15	19.47	1744	8.46	4.3	4-29-19 3:30	8.37	1223	8.42	15.5	4-29-19 3:30	8.74	665	8.51	6.6
1-28-19 15:30	-0.05	1426	7.88	1.4	1-28-19 15:15	0.11	469	8.47	27.6	1-28-19 15:15	0.02	1362	8.57	30.6	6-28-19 8:30	19.44	1745	8.46	4.4	4-29-19 3:45	8.30	1223	8.42	18.5	4-29-19 3:45	8.67	665	8.51	6.4
1-28-19 15:45	-0.05	1426	7.87	1.4	1-28-19 15:30	0.09	487	8.47	14.6	1-28-19 15:30	0.01	1350	8.58	30.1	6-28-19 8:45	19.41	1746	8.45	4.6	4-29-19 4:00	8.26	1223	8.42	11.0	4-29-19 4:00	8.73	668	8.50	6.1
1-28-19 16:00	-0.05	1426	7.87	1.3	1-28-19 15:45	0.07	482	8.53	14.8	1-28-19 15:45	0.00	1341	8.58	30.3	6-28-19 9:00	19.37	1744	8.45	4.2	4-29-19 4:15	8.23	1224	8.42	13.9	4-29-19 4:15	8.73	666	8.51	6.2
1-28-19 16:15	-0.05	1426	7.87	1.2	1-28-19 16:00	0.06	480	8.51	43.5	1-28-19 16:00	0.00	1397	8.54	30.6	6-28-19 9:15	19.33	1744	8.45	4.6	4-29-19 4:30	8.11	1223	8.42	15.7	4-29-19 4:30	8.65	670	8.50	6.9
1-28-19 16:30	-0.05	1399	7.87	1.5	1-28-19 16:15	0.05	487	8.43	12.6	1-28-19 16:15	0.01	1429	8.54	28.6	6-28-19 9:30	19.30	1744	8.45	4.5	4-29-19 4:45	8.05	1224	8.42	16.4	4-29-19 4:45	8.62	664	8.50	14.1
1-28-19 16:45	-0.05	1399	7.87	1.5	1-28-19 16:30	0.04	490	8.49	13.0	1-28-19 16:30	0.01	1415	8.56	29.2	6-28-19 9:45	19.27	1743	8.45	4.6	4-29-19 5:00	8.09	1226	8.42	15.0	4-29-19 5:00	8.52	671	8.51	5.5
1-28-19 17:00	-0.05	1399	7.87	1.5	1-28-19 16:45	0.04	486	8.46	13.6	1-28-19 16:45	0.01	1419	8.55	28.2	6-28-19 10:00	19.24	1744	8.45	4.5	4-29-19 5:15	8.08	1225	8.42	17.2	4-29-19 5:15	8.46	667	8.51	6.0
1-28-19 17:15	-0.05	1399	7.87	1.4	1-28-19 17:00	0.02	486	8.51	14.8	1-28-19 17:00	0.02	1409	8.48	29.0	6-28-19 10:15	19.22	1744	8.45	4.1	4-29-19 5:30	8.08	1224	8.42	16.6	4-29-19 5:30	8.41	667	8.50	5.9
1-28-19 17:30	-0.05	1414	7.87	1.4	1-28-19 17:15	0.01	498	8.51	25.3	1-28-19 17:15	0.02	1419	8.49	28.8	6-28-19 10:30	19.19	1746	8.45	4.1	4-29-19 5:45	8.07	1223	8.42	11.6	4-29-19 5:45	8.51	665	8.50	6.2
1-28-19 17:45	-0.05	1414	7.87	1.4	1-28-19 17:30	-0.01	497	8.47	11.3	1-28-19 17:30	0.02	1418	8.49	28.8	6-28-19 10:45	19.17	1745	8.45	4.0	4-29-19 6:00	8.03	1223	8.42	14.9	4-29-19 6:00	8.49	667	8.50	5.5
1-28-19 18:00	-0.05	1414	7.87	1.3	1-28-19 17:45	-0.02	505	8.46	12.7	1-28-19 17:45	0.02	1427	8.48	27.5	6-28-19 11:00	19.13	1745	8.45	4.5	4-29-19 6:15	7.98	1221	8.42	15.9	4-29-19 6:15	8.53	670	8.50	5.7
1-28-19 18:15	-0.05	1414	7.87	1.3	1-28-19 18:00	-0.02	500	8.36	11.2	1-28-19 18:00	0.03	1454	8.45	27.3	6-28-19 11:15	19.11	1746	8.44	4.2	4-29-19 6:30	7.96	1225	8.42	15.6	4-29-19 6:30	8.58	671	8.50	5.5
1-28-19 18:30	-0.05	1402	7.87	1.6	1-28-19 18:15	-0.03	507	8.50	9.3	1-28-19 18:15	0.03	1453	8.49	26.6	6-28-19 11:30	19.05	1745	8.45	4.1	4-29-19 6:45	7.93	1224	8.42	12.7	4-29-19 6:45	8.45	670	8.50	5.3
1-28-19 18:45	-0.05	1402	7.87	1.5	1-28-19 18:30	-0.02	506	8.52	7.4	1-28-19 18:30	0.03	1463	8.47	25.6	6-28-19 11:45	19.02	1745	8.45	3.9	4-29-19 7:00	7.94	1225	8.42	14.2	4-29-19 7:00	8.37	669	8.50	5.9
1-28-19 19:00	-0.05	1402	7.87	1.5	1-28-19 18:45	-0.03	517	8.52	10.3	1-28-19 18:45	0.03	1472	8.45	25.1	6-28-19 12:00	19.01	1744	8.45	4.3	4-29-19 7:15	7.96	1224	8.42	13.9	4-29-19 7:15	8.37	671	8.50	5.4
1-28-19 19:15	-0.05	1402	7.87	1.5	1-28-19 19:00	-0.03	511	8.50	10.9	1-28-19 19:00	0.04	1455	8.41	24.8	6-28-19 12:15	18.99	1745	8.45	3.9	4-29-19 7:30	7.96	1224	8.42	13.8	4-29-19 7:30	8.38	668	8.50	5.5
1-28-19 19:30	-0.05	1415	7.88	1.4	1-28-19 19:15	-0.04	524	8.52	18.5	1-28-19 19:15	0.04	1466	8.41	24.5	6-28-19 12:30	18.96	1745	8.44	4.3	4-29-19 7:45	7.97	1223	8.42	15.0	4-29-19 7:45	8.39	670	8.51	5.3
1-28-19 19:45	-0.05	1415	7.88	1.4	1-28-19 19:30	-0.03	516	8.53	8.9	1-28-19 19:30	0.05	1472	8.40	23.7	6-28-19 12:45	18.93	1746	8.44	4.7	4-29-19 8:00	8.02	1224	8.42	18.8	4-29-19 8:00	8.45	671	8.51	5.4
1-28-19 20:00	-0.05	1415	7.87	1.5	1-28-19 19:45	-0.03	522	8.52	8.1	1-28-19 19:45	0.05	1479	8.39	23.2	6-28-19 13:00	18.90	1745	8.44	4.0	4-29-19 8:15	8.01	1220	8.42	14.8	4-29-19 8:15	8.54	669	8.51	5.4
1-28-19 20:15	-0.05	1416	7.87	1.5	1-28-19 20:00	-0.04	523	8.51	8.6	1-28-19 20:00	0.06	1504	8.39	25.0	6-28-19 13:15	18.85	1742	8.45	4.0	4-29-19 8:30	8.00	1223	8.42	18.5	4-29-19 8:30	8.55	673	8.50	5.2
1-28-19 20:30	-0.05	1402	7.87	1.5	1-28-19 20:15	-0.03	515	8.52	9.0	1-28-19 20:15	0.06	1506	8.39	24.6	6-28-19 13:30	18.84	1742	8.45	4.4	4-29-19 8:45	7.99	1223	8.42	21.0	4-29-19 8:45	8.49	673	8.51	6.0
1-28-19 20:45	-0.05	1401	7.88	1.5	1-28-19 20:30	-0.03	529	8.51	8.4	1-28-19 20:30	0.07	1508	8.38	24.5	6-28-19 13:45	18.82	1743	8.44	4.6	4-29-19 9:00	8.03	1222	8.42	20.1	4-29-19 9:00	8.54	673	8.51	6.7
1-28-19 21:00	-0.05	1401	7.88	1.5	1-28-19 20:45	-0.03	529	8.52	6.5	1-28-19 20:45	0.07	1502	8.39	24.6	6-28-19 14:00	18.81	1744	8.44	4.0	4-29-19 9:15	8.06	1223	8.42	13.9	4-29-19 9:15	8.57	670	8.51	5.9
1-28-19 21:15	-0.05	1401	7.88	1.5	1-28-19 21:00	-0.03	523	8.49	7.5	1-28-19 21:00	0.07	1471	8.37	25.0	6-28-19 14:15	18.80	1743	8.44	4.4	4-29-19 9:30	8.04	1223	8.42	20.7	4-29-19 9:30	8.46	669	8.51	7.5
1-28-19 21:30	-0.06	1425	7.88	1.5	1-28-19 21:15	-0.03	535	8.46	9.0	1-28-19 21:15	0.08	1472	8.38	26.0	6-28-19 14:30	18.77	1742	8.44	4.2	4-29-19 9:45	8.02	1226	8.42	18.7	4-29-19 9:45	8.40	667	8.51	7.3
1-28-19 21:45					1-28-19 21:30	-0.03	554	8.52	7.4	1-28-19 21:30	0.08	1471	8.38	25.3	6-28-19 14:45	18.75	1745	8.44	4.2	4-29-19 10:00	7.99	1224	8.42	14.3	4-29-19 10:00	8.38	667	8.51	6.9
1-28-19 22:00	-0.06	1425	7.88	1.5	1-28-19 21:45	-0.03	538	8.53	8.8	1-28-19 21:45	0.09	1483	8.36	24.3	6-28-19 15:00	18.78	1743	8.44	4.1	4-29-19 10:15	8.00	1223	8.42	18.4	4-29-19 10:15	8.36	666	8.51	6.8
1-28-19 22:15	-0.06	1425	7.88	2.3	1-28-19 22:00	-0.03	553	8.52	8.1	1-28-19 22:00	0.08	1490	8.31	25.3	6-28-19 15:15	18.79	1743	8.44	4.2	4-29-19 10:30	8.10	1225	8.41	13.4	4-29-19 10:30	8.43	669	8.51	9.8
1-28-19 22:30	-0.06	1401	7.87	1.6	1-28-19 22:15	-0.03	551	8.53	7.9	1-28-19 22:15	0.09	1504	8.33	26.1	6-28-19 15:30	18.79	1744	8.44	4.5	4-29-19 10:45	8.12	1229	8.41	13.6	4-29-19 10:45	8.55	669	8.51	7.1
1-28-19 22:45	-0.06	1401	7.87	1.5	1-28-19 22:30	-0.03	545	8.53	8.6	1-28-19 22:30	0.09	1507	8.15	30.1	6-28-19 15:45	18.78	1742	8.44	4.1	4-29-19 11:00	8.19	1227	8.40	19.1	4-29-19 11:00	8.66	668	8.51	6.6
1-28-19 23:00	-0.06	1401	7.87	1.5	1-28-19 22:45	-0.03	542	8.54	9.9	1-28-19 22:45	0.10	1508	8.05	30.1	6-28-19 16:00	18.79	1743	8.45	4.1	4-29-19 11:15	8.23	1228	8.40	23.6	4-29-19 11:15	8.80	669	8.51	6.1
1-28-19 23:15	-0.06	1401	7.87	1.4	1-28-19 23:00	-0.03	545	8.54	8.9	1-28-19 23:00	0.10	1486	7.85	31.2	6-28-19 16:15	18.88	1743	8.45	4.2	4-29-19 11:30	8.31	1226	8.40	22.5	4-29-19 11:30	8.90	668	8.51	6.4
1-28-19 23:30	-0.06	1410	7.87	1.4	1-28-19 23:15	-0.03	536	8.54	5.9	1-28-19 23:15	0.13	1481	7.76	31.4	6-28-19 16:30	18.92	1745	8.45	4.1	4-29-19 11:45	8.32	1226	8.40	19.8	4-29-19 11:45	8.96	669	8.50	6.2
1-28-19 23:45	-0.06	1411	7.87	1.4	1-28-19 23:30	-0.03	541	8.54	8.7	1-28-19 23:30	0.12	1476	7.75	30.2	6-28-19 16:45	19.04	1744	8.45	6.3	4-29-19 12:00	8.38	1228	8.40	25.2	4-29-19 12:00	9.13	669	8.50	5.9
1-29-19 0:00	-0.06	1411	7.87	1.3	1-28-19 23:45	-0.03	553	8.51	14.9	1-28-19 23:45	0.14	1475	7.72	30.8	6-28-19 17:00	19.06	1744	8.44	4.5	4-29-19 12:15	8.41	1225	8.40	21.6	4-29-19 12:15	9.33	672	8.49	6.4
1-29-19 0:15	-0.06	1411	7.87	1.2	1-29-19 0:00	-0.03	541	8.54	6.2	1-29-19 0:00	0.17	1493	7.68	29.8	6-28-19 17:15	19.17	1744	8.45	4.6	4-29-19 12:30	8.48	1226	8.40	18.6	4-29-19 12:30	9.33	672	8.49	12.3
1-29-19 0:30	-0.06	1404	7.87	1.5	1-29-19 0:15	-0.03	533	8.54	13.7	1-29-19 0:15	0.15	1493	7.71	29.3	6-28-19 17:30	19.25	1745	8.45	4.8	4-29-19 12:45	8.67	1228	8.40	18.7	4-29-19 12:45	9.55	670	8.49	6.8
1-29-19 0:45	-0.06	1404	7.87	1.4	1-29-19 0:30	-0.03	539	8.54	6.0	1-29-19 0:30	0.19	1490	7.67	29.7	6-28-19 17:45	19.40	1746	8.45	4.9	4-29-19 13:00	8.67	1224	8.40	20.0	4-29-19 13:00	9.43	673	8.50	7.1
1-29-19 1:00	-0.06	1403	7.87	1.4	1-29-19 0:45	-0.03	544	8.53	7.6	1-29-19 0:45	0.23	1490	7.66	29.1	6-28-19 18:00	19.52	1746	8.44	5.1	4-29-19 13:15	8.57	1221	8.40	21.9	4-29-19 13:15	9.48	675	8.50	12.9
1-29-19 1:15	-0.06	1403	7.87	1.4	1-29-19 1:00	-0.02	545	8.53	7.2	1-29-19 1:00	0.25	1469	7.63	30.0	6-28-19 18:15	19.52	1745	8.44	4.7	4-29-19 13:30	8.52	1231	8.40	19.5	4-29-19 13:30	9.22	673	8.51	9.9
1-29-19 1:30	-0.06	1416	7.87	1.4	1-29-19 1:15	-0.03	534	8.51	6.4	1-29-19 1:15	0.27	1469	7.61	30.8	6-28-19 18:30	19.58	1745	8.44	4.7	4-29-19 13:45	8.64	1227	8.40	23.8	4-29-19 13:45	9.32	673	8.52	10.9
1-29-19 1:45	-0.06	1416	7.87	1.4	1-29-19 1:30	-0.02	547	8.51	6.2	1-29-19 1:30	0.23	1466	7.61	28.7	6-28-19 18:45	19.67	1746	8.44	4.6	4-29-19 14:00	8.83	1225	8.40	22.6	4-29-19 14:00	9.41	673	8.52	9.0
1-29-19 2:00	-0.06	1417	7.87	1.4	1-29-19 1:45	-0.02	547	8.49	7.9	1-29-19 1:45	0.23	1468	7.60	28.7	6-28-19 19:00	19.65	1745	8.44	4.7	4-29-19 14:15	8.82	1225	8.40	23.6	4-29-19 14:15	9.44	672	8.52	8.2
1-29-19 2:15	-0.06	1417	7.87	1.4	1-29-19 2:00	-0.02	531	8.53	6.3	1-29-19 2:00	0.31	1488	7.59	28.8	6-28-19 19:15	19.65	1745	8.44	4.5	4-29-19 14:30	8.93	1223	8.40	30.2	4-29-19 14:30	9.66	670	8.52	9.7
1-29-19 2:30	-0.06	1404	7.87	1.4	1-29-19 2:15	-0.02	552	8.48	12.8	1-29-19 2:15	0.29	1489	7.59	28.6	6-28-19 19:30	19.71	1745	8.44	4.8	4-29-19 14:45	9.00	1225	8.40	23.1	4-29-19 14:45	9.83	671	8.51	8.0
1-29-19 2:45	-0.06	1404	7.87	1.4	1-29-19 2:30	-0.01	548	8.49	7.7	1-29-19 2:30	0.32	1490	7.58	28.2	6-28-19 19:45	19.80	1744	8.44	5.2	4-29-19 15:00	9.05	1223	8.40	24.6	4-29-19 15:00	9.84	671	8.51	7.2
1-29-19 3:00	-0.06	1404	7.87	1.5	1-29-19 2:45	-0.02	557	8.45	11.3	1-29-19 2:45	0.31	1488	7.57	28.2	6-28-19 20:00	19.86	1745	8.44	5.7	4-29-19 15:15	9.12	1223	8.40	23.2	4-29-19 15:15	10.10	669	8.50	7.0
1-29-19 3:15	-0.06	1404	7.87	1.4	1-29-19 3:00	-0.02	546	8.50	8.2	1-29-19 3:00	0.29	1471	7.57	27.5	6-28-19 20:15	19.94	1745	8.44	6.5	4-29-19 15:30	8.95	1222	8.40	18.9	4-29-19 15:30	10.15	670	8.50	6.3
1-29-19 3:30	-0.06	1419	7.87	1.3	1-29-19 3:15	-0.02	547	8.51	11.9	1-29-19 3:15	0.31	1472	7.57	27.5	6-28-19 20:30	20.13	1744	8.44	5.9	4-29-19 15:45	8.98	1225	8.40	23.0	4-29-19 15:45	10.16	671	8.51	6.2
1-29-19 3:45	-0.06	1419	7.87	1.3	1-29-19 3:30	-0.02	544	8.52	6.8	1-29-19 3:30	0.32	1471	7.56	27.1	6-28-19 20:45	20.01	1744	8.45	5.9	4-29-19 16:00	8.95	1219	8.40	19.4	4-29-19 16:00	10.21	671	8.50	6.8

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-29-19 4:00	-0.06	1419	7.87	1.2	1-29-19 3:45	-0.02	562	8.47	6.5	1-29-19 3:45	0.33	1469	7.54	28.4	6-28-19 21:00	20.25	1745	8.44	5.5	4-29-19 16:15	9.06	1224	8.40	23.8	4-29-19 16:15	10.19	672	8.50	6.8
1-29-19 4:15	-0.06	1419	7.87	1.2	1-29-19 4:00	-0.01	556	8.42	7.8	1-29-19 4:00	0.40	1485	7.49	27.5	6-28-19 21:15	20.74	1742	8.44	5.2	4-29-19 16:30	9.06	1223	8.40	28.4	4-29-19 16:30	10.19	673	8.51	6.8
1-29-19 4:30	-0.06	1406	7.87	1.5	1-29-19 4:15	-0.01	548	8.43	6.2	1-29-19 4:15	0.91	1502	7.50	29.7	6-28-19 21:30	20.77	1743	8.44	5.3	4-29-19 16:45	9.06	1223	8.40	24.1	4-29-19 16:45	10.19	667	8.51	7.0
1-29-19 4:45	-0.06	1406	7.87	1.4	1-29-19 4:30	-0.02	560	8.44	6.7	1-29-19 4:30	0.44	1491	7.52	27.7	6-28-19 21:45	20.83	1742	8.44	5.0	4-29-19 17:00	9.11	1223	8.40	19.6	4-29-19 17:00	10.26	661	8.51	7.6
1-29-19 5:00	-0.06	1406	7.87	1.4	1-29-19 4:45	-0.01	558	8.43	8.1	1-29-19 4:45	0.49	1497	7.54	27.9	6-28-19 22:00	21.12	1744	8.44	5.3	4-29-19 17:15	9.10	1222	8.40	21.5	4-29-19 17:15	10.22	657	8.51	7.4
1-29-19 5:15	-0.06	1406	7.87	1.4	1-29-19 5:00	-0.01	556	8.44	7.7	1-29-19 5:00	0.42	1479	7.55	27.7	6-28-19 22:15	21.17	1742	8.44	5.1	4-29-19 17:30	9.10	1223	8.40	21.8	4-29-19 17:30	10.18	662	8.52	8.8
1-29-19 5:30	-0.06	1425	7.88	1.4	1-29-19 5:15	-0.02	579	8.50	6.5	1-29-19 5:15	0.38	1478	7.56	26.4	6-28-19 22:30	21.38	1743	8.44	5.2	4-29-19 17:45	9.13	1224	8.40	23.2	4-29-19 17:45	10.19	668	8.52	7.6
1-29-19 5:45	-0.06	1425	7.88	1.3	1-29-19 5:30	-0.01	550	8.52	6.0	1-29-19 5:30	0.43	1477	7.55	27.7	6-28-19 22:45	21.48	1743	8.44	5.0	4-29-19 18:00	9.14	1224	8.40	17.2	4-29-19 18:00	10.15	666	8.52	7.3
1-29-19 6:00	-0.06	1425	7.87	1.3	1-29-19 5:45	-0.01	568	8.41	12.9	1-29-19 5:45	0.50	1476	7.53	27.7	6-28-19 23:00	21.75	1746	8.45	5.9	4-29-19 18:15	9.17	1224	8.40	22.8	4-29-19 18:15	10.12	677	8.52	13.2
1-29-19 6:15	-0.06	1425	7.87	1.4	1-29-19 6:00	0.00	581	8.46	6.3	1-29-19 6:00	0.52	1493	7.50	27.1	6-28-19 23:15	21.79	1745	8.44	5.7	4-29-19 18:30	9.18	1223	8.40	24.9	4-29-19 18:30	10.09	661	8.52	9.6
1-29-19 6:30	-0.06	1411	7.87	1.3	1-29-19 6:15	0.00	581	8.40	8.2	1-29-19 6:15	0.51	1493	7.51	26.9	6-28-19 23:30	21.66	1746	8.45	5.4	4-29-19 18:45	9.13	1224	8.40	25.1	4-29-19 18:45	10.04	666	8.52	10.0
1-29-19 6:45	-0.06	1411	7.87	1.4	1-29-19 6:30	0.00	587	8.38	10.7	1-29-19 6:30	0.52	1491	7.51	26.7	6-28-19 23:45	21.84	1747	8.45	6.1	4-29-19 19:00	9.11	1223	8.40	24.0	4-29-19 19:00	9.92	661	8.52	19.5
1-29-19 7:00	-0.06	1410	7.87	1.4	1-29-19 6:45	-0.01	579	8.40	8.4	1-29-19 6:45	0.54	1493	7.50	26.9	6-29-19 0:00	22.01	1748	8.45	5.8	4-29-19 19:15	9.06	1226	8.40	28.0	4-29-19 19:15	9.74	659	8.53	15.5
1-29-19 7:15	-0.06	1410	7.87	1.4	1-29-19 7:00	-0.01	556	8.41	7.2	1-29-19 7:00	0.55	1472	7.48	28.9	6-29-19 0:15	22.10	1748	8.44	5.1	4-29-19 19:30	8.99	1223	8.41	20.7	4-29-19 19:30	9.62	661	8.53	7.0
1-29-19 7:30	-0.06	1425	7.88	1.5	1-29-19 7:15	-0.01	572	8.41	9.5	1-29-19 7:15	0.55	1470	7.48	27.4	6-29-19 0:30	21.96	1748	8.44	5.7	4-29-19 19:45	8.94	1222	8.41	30.0	4-29-19 19:45	9.53	670	8.53	7.5
1-29-19 7:45	-0.06	1425	7.88	1.6	1-29-19 7:30	-0.01	593	8.36	7.4	1-29-19 7:30	0.52	1471	7.48	26.8	6-29-19 0:45	22.19	1749	8.44	6.1	4-29-19 20:00	8.95	1223	8.41	26.5	4-29-19 20:00	9.47	678	8.53	7.9
1-29-19 8:00	-0.06	1426	7.87	1.4	1-29-19 7:45	-0.02	565	8.44	10.1	1-29-19 7:45	0.50	1472	7.49	26.6	6-29-19 1:00	22.10	1748	8.45	5.9	4-29-19 20:15	8.94	1223	8.41	29.9	4-29-19 20:15	9.40	682	8.54	5.6
1-29-19 8:15	-0.06	1427	7.87	1.4	1-29-19 8:00	-0.01	565	8.46	7.4	1-29-19 8:00	0.52	1491	7.48	26.1	6-29-19 1:15	21.86	1746	8.46	5.5	4-29-19 20:30	8.93	1223	8.41	31.0	4-29-19 20:30	9.37	665	8.54	5.8
1-29-19 8:30					1-29-19 8:15	0.00	597	8.40	8.3	1-29-19 8:15	0.52	1491	7.48	25.5	6-29-19 1:30	21.95	1748	8.46	5.9	4-29-19 20:45	8.94	1222	8.41	23.0	4-29-19 20:45	9.33	672	8.53	5.9
1-29-19 8:45	-0.06	1410	7.88	1.4	1-29-19 8:30	0.00	602	8.40	7.7	1-29-19 8:30	0.56	1490	7.45	26.0	6-29-19 1:45	21.89	1746	8.45	6.2	4-29-19 21:00	8.85	1224	8.41	14.0	4-29-19 21:00	9.25	668	8.54	5.1
1-29-19 9:00	-0.06	1410	7.88	1.4	1-29-19 8:45	0.01	604	8.44	6.4	1-29-19 8:45	0.43	1489	7.46	24.6	6-29-19 2:00	21.80	1747	8.46	5.6	4-29-19 21:15	8.82	1223	8.41	30.3	4-29-19 21:15	9.19	667	8.54	7.3
1-29-19 9:15	-0.06	1410	7.88	1.4	1-29-19 9:00	0.01	605	8.32	7.7	1-29-19 9:00	0.45	1471	7.46	25.9	6-29-19 2:15	21.75	1746	8.46	5.7	4-29-19 21:30	8.83	1223	8.41	23.5	4-29-19 21:30	9.19	669	8.54	4.9
1-29-19 9:30	-0.06	1429	7.88	1.4	1-29-19 9:15	0.01	601	8.38	6.1	1-29-19 9:15	0.48	1472	7.46	26.3	6-29-19 2:30	21.74	1749	8.45	5.6	4-29-19 21:45	8.85	1224	8.41	22.9	4-29-19 21:45	9.08	664	8.54	5.1
1-29-19 9:45					1-29-19 9:30	0.00	608	8.38	6.8	1-29-19 9:30	0.55	1472	7.46	26.7	6-29-19 2:45	21.70	1748	8.46	5.9	4-29-19 22:00	8.87	1223	8.41	27.2	4-29-19 22:00	9.09	666	8.54	5.1
1-29-19 10:00	-0.06	1430	7.88	1.4	1-29-19 9:45	0.01	615	8.34	6.9	1-29-19 9:45	0.63	1473	7.45	27.4	6-29-19 3:00	21.56	1747	8.45	6.8	4-29-19 22:15	8.84	1221	8.41	25.7	4-29-19 22:15	9.12	666	8.54	5.0
1-29-19 10:15	-0.06	1430	7.88	1.4	1-29-19 10:00	0.01	609	8.33	6.1	1-29-19 10:00	0.60	1490	7.45	25.9	6-29-19 3:15	21.50	1747	8.46	5.0	4-29-19 22:30	8.83	1223	8.41	26.1	4-29-19 22:30	9.08	667	8.53	5.9
1-29-19 10:30	-0.06	1410	7.87	2.3	1-29-19 10:15	0.01	612	8.34	7.4	1-29-19 10:15	0.56	1491	7.45	26.1	6-29-19 3:30	21.44	1746	8.46	4.9	4-29-19 22:45	8.83	1224	8.41	26.1	4-29-19 22:45	9.05	665	8.53	5.1
1-29-19 10:45	-0.06	1410	7.87	1.9	1-29-19 10:30	0.01	616	8.33	10.2	1-29-19 10:30	0.63	1490	7.45	25.8	6-29-19 3:45	21.38	1746	8.46	5.3	4-29-19 23:00	8.82	1224	8.41	26.0	4-29-19 23:00	9.01	678	8.53	4.8
1-29-19 11:00	-0.06	1410	7.87	1.8	1-29-19 10:45	0.01	601	8.38	7.1	1-29-19 10:45	0.65	1492	7.45	25.8	6-29-19 4:00	21.32	1748	8.46	5.1	4-29-19 23:15	8.80	1224	8.41	25.7	4-29-19 23:15	8.97	662	8.54	5.9
1-29-19 11:15	-0.06	1410	7.87	1.9	1-29-19 11:00	0.02	606	8.39	7.9	1-29-19 11:00	0.61	1468	7.45	26.4	6-29-19 4:15	21.27	1746	8.46	5.5	4-29-19 23:30	8.74	1225	8.41	24.5	4-29-19 23:30	8.91	659	8.53	4.5
1-29-19 11:30	-0.06	1434	7.87	1.6	1-29-19 11:15	0.03	600	8.45	8.3	1-29-19 11:15	0.59	1470	7.45	25.9	6-29-19 4:30	21.20	1747	8.46	5.3	4-29-19 23:45	8.73	1226	8.41	29.5	4-29-19 23:45	8.82	668	8.53	4.6
1-29-19 11:45	-0.06	1434	7.87	1.6	1-29-19 11:30	0.02	608	8.37	7.6	1-29-19 11:30	0.67	1472	7.45	26.1	6-29-19 4:45	21.15	1747	8.46	5.1	4-30-19 0:00	8.72	1223	8.41	25.7	4-30-19 0:00	8.86	679	8.53	4.7
1-29-19 12:00	-0.06	1434	7.87	1.6	1-29-19 11:45	0.04	621	8.36	8.4	1-29-19 11:45	0.68	1470	7.44	25.9	6-29-19 5:00	21.10	1747	8.46	5.0	4-30-19 0:15	8.72	1222	8.41	24.9	4-30-19 0:15	8.83	669	8.53	4.7
1-29-19 12:15	-0.06	1434	7.87	1.5	1-29-19 12:00	0.04	608	8.40	9.7	1-29-19 12:00	0.76	1487	7.44	26.3	6-29-19 5:15	21.06	1747	8.46	5.1	4-30-19 0:30	8.70	1230	8.41	24.7	4-30-19 0:30	8.74	669	8.53	4.9
1-29-19 12:30	-0.06	1414	7.87	1.4	1-29-19 12:15	0.04	628	8.34	6.9	1-29-19 12:15	0.69	1486	7.45	27.0	6-29-19 5:30	21.01	1749	8.46	4.9	4-30-19 0:45	8.70	1228	8.41	28.9	4-30-19 0:45	8.71	666	8.53	4.4
1-29-19 12:45	-0.06	1414	7.87	1.4	1-29-19 12:30	0.04	630	8.34	8.1	1-29-19 12:30	0.74	1490	7.47	27.0	6-29-19 5:45	20.99	1746	8.46	5.2	4-30-19 1:00	8.67	1224	8.41	26.9	4-30-19 1:00	8.77	678	8.53	5.3
1-29-19 13:00					1-29-19 12:45	0.05	619	8.35	8.7	1-29-19 12:45	0.82	1489	7.47	28.1	6-29-19 6:00	20.93	1747	8.46	5.1	4-30-19 1:15	8.63	1225	8.41	19.3	4-30-19 1:15	8.71	668	8.53	7.3
1-29-19 13:15	-0.06	1414	7.87	1.3	1-29-19 13:00	0.06	633	8.34	8.0	1-29-19 13:00	0.75	1471	7.47	28.7	6-29-19 6:15	20.89	1744	8.46	5.4	4-30-19 1:30	8.62	1226	8.41	19.2	4-30-19 1:30	8.69	665	8.53	4.6
1-29-19 13:30	-0.06	1427	7.87	1.6	1-29-19 13:15	0.07	626	8.39	10.0	1-29-19 13:15	0.78	1472	7.46	27.8	6-29-19 6:30	20.81	1744	8.46	5.5	4-30-19 1:45	8.59	1223	8.41	31.2	4-30-19 1:45	8.62	665	8.53	5.1
1-29-19 13:45	-0.06	1427	7.87	1.5	1-29-19 13:30	0.07	627	8.34	7.5	1-29-19 13:30	0.76	1473	7.46	30.4	6-29-19 6:45	20.78	1746	8.46	6.0	4-30-19 2:00	8.60	1225	8.41	32.7	4-30-19 2:00	8.65	672	8.53	5.1
1-29-19 14:00	-0.06	1428	7.87	1.3	1-29-19 13:45	0.07	633	8.34	6.8	1-29-19 13:45	0.72	1476	7.48	27.8	6-29-19 7:00	20.72	1744	8.46	5.2	4-30-19 2:15	8.56	1226	8.41	33.8	4-30-19 2:15	8.62	671	8.53	4.7
1-29-19 14:15	-0.06	1428	7.87	1.2	1-29-19 14:00	0.08	639	8.35	11.2	1-29-19 14:00	0.72	1496	7.49	27.5	6-29-19 7:15	20.66	1745	8.46	4.9	4-30-19 2:30	8.53	1227	8.41	29.8	4-30-19 2:30	8.57	670	8.53	4.9
1-29-19 14:30	-0.06	1417	7.87	1.3	1-29-19 14:15	0.08	644	8.29	9.2	1-29-19 14:15	0.72	1499	7.51	29.1	6-29-19 7:30	20.58	1745	8.46	7.0	4-30-19 2:45	8.48	1224	8.41	27.4	4-30-19 2:45	8.55	671	8.53	4.9
1-29-19 14:45	-0.06	1417	7.87	1.2	1-29-19 14:30	0.09	645	8.32	9.0	1-29-19 14:30	0.67	1506	7.63	34.6	6-29-19 7:45	20.52	1745	8.46	4.6	4-30-19 3:00	8.47	1226	8.41	29.7	4-30-19 3:00	8.49	670	8.53	6.0
1-29-19 15:00	-0.06	1417	7.87	1.3	1-29-19 14:45	0.09	649	8.25	6.2	1-29-19 14:45	0.63	1508	7.73	36.2	6-29-19 8:00	20.45	1746	8.46	4.9	4-30-19 3:15	8.44	1226	8.41	28.7	4-30-19 3:15	8.42	671	8.53	4.5
1-29-19 15:15	-0.06	1417	7.87	1.2	1-29-19 15:00	0.09	659	8.24	8.6	1-29-19 15:00	0.59	1490	7.75	35.4	6-29-19 8:15	20.39	1745	8.45	4.7	4-30-19 3:30	8.42	1224	8.41	24.4	4-30-19 3:30	8.39	671	8.53	4.5
1-29-19 15:30	-0.06	1429	7.87	1.4	1-29-19 15:15	0.09	672	8.30	9.9	1-29-19 15:15	0.62	1493	7.76	35.7	6-29-19 8:30	20.36	1745	8.45	7.4	4-30-19 3:45	8.38	1228	8.41	25.8	4-30-19 3:45	8.50	671	8.52	4.5
1-29-19 15:45	-0.06	1429	7.87	1.4	1-29-19 15:30	0.10	681	8.27	7.5	1-29-19 15:30	0.61	1492	7.77	35.9	6-29-19 8:45	20.29	1747	8.45	5.0	4-30-19 4:00	8.33	1226	8.41	24.0	4-30-19 4:00	8.39	671	8.52	4.1
1-29-19 16:00	-0.06	1429	7.86	1.2	1-29-19 15:45	0.10	687	8.30	9.5	1-29-19 15:45	0.61	1490	7.78	36.1	6-29-19 9:00	20.23	1747	8.45	4.8	4-30-19 4:15	8.32	1226	8.41	27.5	4-30-19 4:15	8.32	679	8.52	4.1
1-29-19 16:15	-0.06	1429	7.86	1.8	1-29-19 16:00	0.09	688	8.28	7.4	1-29-19 16:00	0.65	1508	7.78	36.2	6-29-19 9:15	20.17	1746	8.45	4.9	4-30-19 4:30	8.32	1225	8.41	28.7	4-30-19 4:30	8.30	681	8.52	4.3
1-29-19 16:30	-0.07	1417	7.87	1.2	1-29-19 16:15	0.10	688	8.32	9.9	1-29-19 16:15	0.69	1510	7.76	35.8	6-29-19 9:30	20.11	1746	8.45	5.4	4-30-19 4:45	8.28	1224	8.41	26.8	4-30-19 4:45	8.26	675	8.52	4.0
1-29-19 16:45	-0.07	1417	7.87	1.2	1-29-19 16:30	0.09	695	8.25	7.0	1-29-19 16:30	0.66	1511	7.76	35.6	6-29-19 9:45	20.05	1747	8.45	4.3	4-30-19 5:00	8.28	1226	8.41	31.8	4-30-19 5:00	8.29	675	8.52	4.3
1-29-19 17:00	-0.07	1417	7.87	1.2	1-29-19 16:45	0.09	697	8.21	5.5	1-29-19 16:45	0.64	1511	7.76	35.2	6-29-19 10:00	19.99	1747	8.45	5.1	4-30-19 5:15	8.25	1226	8.41	30.3	4-30-19 5:15	8.27	675	8.52	4.2
1-29-19 17:15	-0.07	1417	7.87	1.2	1-29-19 17:00	0.09	691	8.22	6.8	1-29-19 17:00	0.64	1496	7.79	35.4	6-29-19 10:15	19.95	1746	8.45	4.6	4-30-19 5:30	8.22	1225	8.41	31.0	4-30-19 5:30	8.19	673	8.52	4.3
1-29-19 17:30	-0.07	1442	7.87	1.3	1-29-19 17:15	0.08	695	8.25	8.1	1-29-19 17:15	0.62	1496	7.80	35.8	6-29-19 10:30	19.92	1745	8.45	4.6	4-30-19 5:45	8.23	1226	8.41	30.5	4-30-19 5:45	8.21	675	8.52	4.3
1-29-19 17:45	-0.07	1442	7.87	1.2	1-29-19 17:30	0.07	697	8.20	7.3	1-29-19 17:30	0.55	1495	7.79	35.7	6-29-19 10:45	19.87	1745	8.45	5.2	4-30-19 6:00	8.22	1226	8.41	29.9	4-30-19 6:00	8.13	672	8.52	4.3
1-29-19 18:00	-0.07	1443	7.86	1.1	1-29-19 17:45	0.06	699	8.24	7.3	1-29-19 17:45	0.52	1494	7.75	32.6	6-29-19 11:00	19.82	1745	8.45	5.1	4-30-19 6:15	8.21	1226	8.41	29.3	4-30-19 6:15	8.11	675	8.52	4.3
1-29-19 18:15	-0.07	1443	7.86	1.0	1-29-19 18:00	0.05	694	8.26	7.4	1-29-19 18:00	0.53	1509	7.65	30.3	6-29-19 11:15	19.77	1746	8.45	4.1	4-30-19 6:30	8.20	1226	8.41	33.2	4-30-19 6:30	8.04	676	8.52	4.3
1-29-19 18:30	-0.07	1422	7.87	1.1	1-29-19 18:15	0.05	708	8.25	6.8	1-29-19 18:15	0.53	1508	7.64	29.8	6-29-19 11:30	19.75	1746	8.45	5.2	4-30-19 6:45	8.20	1226	8.41	33.8	4-30-19 6:45	8.10	676	8.52	5.2
1-29-19 18:45	-0.07	1422	7.87	1.2	1-29-19 18:30	0.04	711	8.28	5.3	1-29-19 18:30	0.55	1508	7.63	29.5	6-29-19 11:45	19.69	1746	8.45	4.8	4-30-19 7:00	8.18	1227	8.41	36.7	4-30-19 7:00	8.12	672	8.52	4.6
1-29-19 19:00	-0.07	1422	7.87	1.1	1-29-19 18:45	0.05	701	8.24	6.2	1-29-19 18:45	0.58	1509	7.62	29.9	6-29-19 12:00	19.64	1746	8.45	4.5	4-30-19 7:15	8.16	1227	8.41	33.4	4-30-19 7:15	8.13	672	8.52	4.6
1-29-19 19:15	-0.06	1422	7.87	1.1	1-29-19 19:00	0.05	701	8.24	6.5	1-29-19 19:00	0.61	1492	7.62	31.6	6-29-19 12:15	19.59	1745	8.45	4.3	4-30-19 7:30	8.14	1230	8.41	35.6	4-30-19 7:30	8.11	672	8.52	4.1
1-29-19 19:30	-0.07	1437	7.87	1.2	1-29-19 19:15	0.05	694	8.22	7.5	1-29-19 19:15	0.63	1496	7.63	32.3	6-29-19 12:30	19.54	1746	8.45	4.3	4-30-19 7:45	8.14	1242	8.41	29.3	4-30-19 7:45	8.06	674	8.52	5.0
1-29-19 19:45	-0.07	1438	7.87	1.2	1-29-19 19:30	0.04	707	8.23	7.5	1-29-19 19:30	0.61	1499	7.72	34.1	6-29-19 12:45	19.50	1746	8.45	4.6	4-30-19 8:00	8.12	1241	8.41	35.4	4-30-19 8:00	8.11	674	8.52	4.9
1-29-19 20:00	-0.06	1438	7.86	1.1	1-29-19 19:45	0.04	696	8.23	8.6	1-29-19 19:45	0.59	1500	7.77	34.6	6-29-19 13:00	19.45	1746	8.45	5.7	4-30-19 8:15	8.13	1244	8.41	33.9	4-30-19 8:15	8.12	673	8.52	4.2
1-29-19 20:15	-0.06	1438	7.86	1.1	1-29-19 20:00	0.03	694	8.26	7.5	1-29-19 20:00	0.61	1515	7.78	34.6	6-29-19 13:15	19.42	1747	8.45	4.4	4-30-19 8:30	8.15	1245	8.41	33.9	4-30-19 8:30	8.14	672	8.52	4.2
1-29-19 20:30	-0.06	1424	7.87	1.3	1-29-19 20:15	0.03	713	8.25	5.1	1-29-19 20:15	0.59	1518	7.79	34.2	6-29-19 13:30	19.40	1745	8.45	4.3	4-30-19 8:45	8.15	1246	8.41	32.6	4-30-19 8:45	8.13	672	8.53	4.5
1-29-19 20:45	-0.06	1424	7.87	1.2	1-29-19 20:30	0.03	711	8.24	5.5	1-29-19 20:30	0.61	1515	7.79	33.6	6-29-19 13:45	19.35	1747	8.45	5.4	4-30-19 9:00	8.14	1242	8.41	27.9	4-30-19 9:00	8.14	672	8.53	4.0
1-29-19 21:00	-0.06	1424	7.87	1.2	1-29-19 20:45	0.02	711	8.28	7.6	1-29-19 20:45	0.45	1517	7.78	33.3	6-29-19 14:00	19.32	1746	8.45	6.9	4-30-19 9:15	8.16	1242	8.41	36.9	4-30-19 9:15	8.24	672	8.53	4.1
1-29-19 21:15	-0.06	1424	7.87	1.2	1-29-19 21:00	0.01	706	8.32	7.0	1-29-19 21:00	0.62	1496	7.69	34.6	6-29-19 14:15	19.31	1747	8.45	4.7	4-30-19 9:30	8.20	1244	8.41	32.5	4-30-19 9:30	8.27	670	8.53	4.2
1-29-19 21:30	-0.06	1445	7.87	1.1	1-29-19 21:15	0.02	711	8.31	6.5	1-29-19 21:15	0.62	1496	7.69	33.4	6-29-19 14:30	19.28	1745	8.45	7.1	4-30-19 9:45	8.24	1244	8.41	34.4	4-30-19 9:45	8.31	672	8.53	4.0
1-29-19 21:45	-0.06	1445	7.87	1.1	1-29-19 21:30	0.01	719	8.31	7.3	1-29-19 21:30	0.61	1494	7.66	31.4	6-29-19 14:45	19.24	1745	8.45	5.1	4-30-19 10:00	8.33	1242	8.41	28.5	4-30-19 10:00	8.43	672	8.53	4.5
1-29-19 22:00	-0.06	1445	7.87	1.1	1-29-19 21:45	0.01	723	8.29	6.5	1-29-19 21:45	0.59	1492	7.60	31.7	6-29-19 15:00	19.23	1746	8.45	5.3	4-30-19 10:15	8.30	1242	8.41	33.8	4-30-19 10:15	8.47	672	8.53	4.4

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-29-19 22:15	-0.06	1445	7.87	1.0	1-29-19 22:00	0.01	722	8.32	5.6	1-29-19 22:00	0.51	1508	7.64	29.9	6-29-19 15:15	19.21	1745	8.46	4.2	4-30-19 10:30	8.20	1241	8.41	32.6	4-30-19 10:30	8.40	673	8.52	4.8
1-29-19 22:30	-0.07	1426	7.87	1.2	1-29-19 22:15	0.01	722	8.31	8.8	1-29-19 22:15	0.64	1507	7.58	28.9	6-29-19 15:30	19.18	1746	8.45	4.2	4-30-19 10:45	8.24	1239	8.41	31.5	4-30-19 10:45	8.50	673	8.53	4.3
1-29-19 22:45	-0.07	1425	7.87	1.2	1-29-19 22:30	0.02	723	8.27	11.6	1-29-19 22:30	0.64	1508	7.56	29.5	6-29-19 15:45	19.14	1747	8.46	4.2	4-30-19 11:00	8.25	1241	8.41	34.6	4-30-19 11:00	8.64	672	8.53	5.2
1-29-19 23:00	-0.06	1426	7.87	1.1	1-29-19 22:45	0.02	727	8.28	7.2	1-29-19 22:45	0.62	1511	7.63	30.2	6-29-19 16:00	19.12	1747	8.46	4.3	4-30-19 11:15	8.30	1242	8.41	32.2	4-30-19 11:15	8.82	672	8.52	5.8
1-29-19 23:15	-0.06	1426	7.87	1.0	1-29-19 23:00	0.02	713	8.29	9.3	1-29-19 23:00	0.61	1495	7.62	31.4	6-29-19 16:15	19.10	1747	8.45	4.7	4-30-19 11:30	8.34	1246	8.41	39.3	4-30-19 11:30	8.92	671	8.53	11.3
1-29-19 23:30	-0.07	1438	7.87	1.2	1-29-19 23:15	0.01	723	8.31	6.8	1-29-19 23:15	0.60	1494	7.62	31.6	6-29-19 16:30	19.09	1746	8.45	4.6	4-30-19 11:45	8.44	1260	8.40	40.7	4-30-19 11:45	9.05	670	8.52	5.7
1-29-19 23:45	-0.06	1438	7.87	1.1	1-29-19 23:30	0.01	728	8.31	7.0	1-29-19 23:30	0.60	1494	7.63	32.0	6-29-19 16:45	19.09	1747	8.45	4.6	4-30-19 12:00	8.46	1257	8.40	34.0	4-30-19 12:00	9.24	669	8.52	5.4
1-30-19 0:00	-0.06	1439	7.87	1.0	1-29-19 23:45	0.02	728	8.30	6.0	1-29-19 23:45	0.59	1494	7.63	31.6	6-29-19 17:00	19.09	1746	8.46	5.2	4-30-19 12:15	8.50	1253	8.40	33.8	4-30-19 12:15	9.33	670	8.52	5.2
1-30-19 0:15	-0.06	1438	7.87	0.9	1-30-19 0:00	0.01	737	8.30	5.6	1-30-19 0:00	0.54	1512	7.64	31.4	6-29-19 17:15	19.10	1746	8.46	4.4	4-30-19 12:30	8.63	1255	8.40	42.5	4-30-19 12:30	9.56	670	8.52	5.6
1-30-19 0:30	-0.07	1428	7.86	1.2	1-30-19 0:15	0.02	728	8.33	6.6	1-30-19 0:15	0.57	1512	7.69	31.1	6-29-19 17:30	19.16	1747	8.46	4.7	4-30-19 12:45	8.67	1258	8.40	35.4	4-30-19 12:45	9.72	672	8.51	5.4
1-30-19 0:45	-0.07	1428	7.86	1.2	1-30-19 0:30	0.02	736	8.31	8.5	1-30-19 0:30	0.60	1514	7.69	31.1	6-29-19 17:45	19.21	1746	8.45	4.4	4-30-19 13:00	8.66	1258	8.40	36.9	4-30-19 13:00	9.68	667	8.52	5.1
1-30-19 1:00	-0.07	1428	7.86	1.1	1-30-19 0:45	0.02	726	8.29	5.5	1-30-19 0:45	0.58	1514	7.70	30.8	6-29-19 18:00	19.34	1746	8.45	4.8	4-30-19 13:15	8.65	1258	8.40	40.8	4-30-19 13:15	9.57	668	8.52	5.4
1-30-19 1:15	-0.07	1428	7.86	0.9	1-30-19 1:00	0.02	729	8.28	33.4	1-30-19 1:00	0.50	1495	7.66	31.4	6-29-19 18:15	19.49	1747	8.46	4.4	4-30-19 13:30	8.67	1260	8.40	39.0	4-30-19 13:30	9.45	665	8.52	5.2
1-30-19 1:30	-0.07	1444	7.87	1.2	1-30-19 1:15	0.02	729	8.35	8.6	1-30-19 1:15	0.48	1493	7.64	30.7	6-29-19 18:30	19.57	1746	8.45	4.5	4-30-19 13:45	8.84	1262	8.40	45.3	4-30-19 13:45	9.59	668	8.52	5.9
1-30-19 1:45	-0.07	1444	7.87	1.1	1-30-19 1:30	0.01	730	8.33	6.6	1-30-19 1:30	0.62	1493	7.58	31.3	6-29-19 18:45	19.64	1747	8.45	4.7	4-30-19 14:00	8.78	1257	8.40	37.8	4-30-19 14:00	9.58	681	8.53	4.5
1-30-19 2:00	-0.06	1444	7.86	1.1	1-30-19 1:45	0.01	727	8.33	6.2	1-30-19 1:45	0.62	1492	7.56	31.6	6-29-19 19:00	19.70	1748	8.46	4.9	4-30-19 14:15	8.79	1255	8.40	33.6	4-30-19 14:15	9.52	668	8.53	4.4
1-30-19 2:15	-0.07	1444	7.86	1.0	1-30-19 2:00	0.01	732	8.31	6.0	1-30-19 2:00	0.63	1511	7.55	30.2	6-29-19 19:15	19.81	1748	8.46	4.8	4-30-19 14:30	8.85	1254	8.40	46.8	4-30-19 14:30	9.34	667	8.54	4.8
1-30-19 2:30	-0.07	1435	7.87	1.1	1-30-19 2:15	0.02	729	8.28	7.3	1-30-19 2:15	0.60	1512	7.57	29.8	6-29-19 19:30	19.75	1748	8.45	5.0	4-30-19 14:45	8.89	1255	8.40	43.7	4-30-19 14:45	9.35	667	8.53	4.6
1-30-19 2:45	-0.07	1435	7.86	1.1	1-30-19 2:30	0.01	738	8.33	7.5	1-30-19 2:30	0.55	1509	7.58	28.8	6-29-19 19:45	19.72	1746	8.47	5.2	4-30-19 15:00	8.92	1253	8.40	42.2	4-30-19 15:00	9.26	665	8.54	4.7
1-30-19 3:00	-0.07	1435	7.87	1.1	1-30-19 2:45	0.01	735	8.36	8.2	1-30-19 2:45	0.51	1511	7.55	29.3	6-29-19 20:00	19.71	1748	8.46	5.3	4-30-19 15:15	8.89	1252	8.40	39.2	4-30-19 15:15	9.24	668	8.54	4.8
1-30-19 3:15	-0.07	1435	7.87	1.0	1-30-19 3:00	0.01	737	8.32	8.7	1-30-19 3:00	0.63	1491	7.54	31.6	6-29-19 20:15	19.90	1747	8.45	5.1	4-30-19 15:30	8.90	1251	8.40	37.3	4-30-19 15:30	9.25	667	8.54	4.7
1-30-19 3:30	-0.07	1454	7.87	1.2	1-30-19 3:15	0.01	740	8.31	6.5	1-30-19 3:15	0.66	1489	7.54	29.6	6-29-19 20:30	19.97	1748	8.45	5.4	4-30-19 15:45	8.98	1252	8.40	38.3	4-30-19 15:45	9.24	670	8.55	4.6
1-30-19 3:45	-0.07	1454	7.87	1.0	1-30-19 3:30	0.01	738	8.32	5.4	1-30-19 3:30	0.61	1488	7.54	30.2	6-29-19 20:45	19.96	1746	8.45	5.5	4-30-19 16:00	9.02	1254	8.40	38.1	4-30-19 16:00	9.27	669	8.55	4.5
1-30-19 4:00	-0.07	1454	7.87	1.1	1-30-19 3:45	0.01	740	8.32	9.2	1-30-19 3:45	0.60	1489	7.55	28.8	6-29-19 21:00	19.92	1748	8.45	8.1	4-30-19 16:15	9.05	1252	8.40	40.0	4-30-19 16:15	9.36	668	8.55	4.9
1-30-19 4:15	-0.06	1454	7.87	1.0	1-30-19 4:00	0.01	740	8.34	8.7	1-30-19 4:00	0.67	1507	7.55	31.6	6-29-19 21:15	19.74	1703	8.47	15.4	4-30-19 16:30	9.10	1250	8.40	26.7	4-30-19 16:30	9.40	667	8.55	4.4
1-30-19 4:30	-0.07	1435	7.87	1.3	1-30-19 4:15	0.01	740	8.36	7.9	1-30-19 4:15	0.69	1504	7.55	31.7	6-29-19 21:30	19.80	1701	8.46	23.7	4-30-19 16:45	9.14	1254	8.40	41.4	4-30-19 16:45	9.51	670	8.55	4.5
1-30-19 4:45	-0.06	1435	7.87	1.2	1-30-19 4:30	0.01	746	8.32	6.9	1-30-19 4:30	0.70	1507	7.56	31.7	6-29-19 21:45	19.84	1704	8.46	22.8	4-30-19 17:00	9.11	1251	8.40	37.3	4-30-19 17:00	9.46	666	8.54	4.4
1-30-19 5:00	-0.06	1436	7.87	1.1	1-30-19 4:45	0.02	740	8.31	8.2	1-30-19 4:45	0.67	1506	7.57	31.2	6-29-19 22:00	19.82	1668	8.45	126.9	4-30-19 17:15	9.11	1251	8.40	32.8	4-30-19 17:15	9.47	668	8.54	4.5
1-30-19 5:15	-0.06	1436	7.87	1.0	1-30-19 5:00	0.02	738	8.30	3.9	1-30-19 5:00	0.63	1487	7.57	31.9	6-29-19 22:15	19.89	1663	8.45	142.7	4-30-19 17:30	9.09	1251	8.40	32.6	4-30-19 17:30	9.43	669	8.55	4.9
1-30-19 5:30	-0.07	1450	7.87	1.2	1-30-19 5:15	0.02	746	8.29	9.6	1-30-19 5:15	0.64	1488	7.57	32.4	6-29-19 22:30	19.94	1658	8.44	110.6	4-30-19 17:45	9.07	1251	8.40	29.1	4-30-19 17:45	9.41	669	8.55	4.6
1-30-19 5:45	-0.07	1450	7.87	1.1	1-30-19 5:30	0.03	741	8.33	7.3	1-30-19 5:30	0.65	1488	7.57	32.8	6-29-19 22:45	20.13	1665	8.44	87.3	4-30-19 18:00	9.03	1250	8.41	36.5	4-30-19 18:00	9.40	667	8.56	5.5
1-30-19 6:00	-0.06	1450	7.87	1.1	1-30-19 5:45	0.03	737	8.29	6.3	1-30-19 5:45	0.67	1489	7.56	33.1	6-29-19 23:00	20.44	1682	8.44	63.4	4-30-19 18:15	8.98	1251	8.41	36.9	4-30-19 18:15	9.39	667	8.56	4.9
1-30-19 6:15	-0.06	1450	7.87	1.0	1-30-19 6:00	0.03	739	8.26	8.1	1-30-19 6:00	0.68	1504	7.56	32.0	6-29-19 23:15	21.39	1710	8.42	34.0	4-30-19 18:30	8.95	1251	8.40	36.7	4-30-19 18:30	9.38	667	8.56	4.5
1-30-19 6:30	-0.07	1437	7.87	1.3	1-30-19 6:15	0.03	730	8.24	9.0	1-30-19 6:15	0.64	1506	7.57	31.4	6-29-19 23:30	21.67	1713	8.41	34.7	4-30-19 18:45	8.90	1251	8.41	31.3	4-30-19 18:45	9.34	667	8.56	4.5
1-30-19 6:45	-0.06	1437	7.87	1.2	1-30-19 6:30	0.04	731	8.22	7.4	1-30-19 6:30	0.63	1505	7.57	31.3	6-29-19 23:45	21.96	1705	8.41	28.5	4-30-19 19:00	8.92	1251	8.41	37.7	4-30-19 19:00	9.19	667	8.56	5.2
1-30-19 7:00	-0.06	1437	7.87	1.1	1-30-19 6:45	0.04	733	8.19	5.8	1-30-19 6:45	0.64	1506	7.56	30.8	6-30-19 0:00	22.06	1704	8.40	28.9	4-30-19 19:15	8.91	1251	8.40	30.9	4-30-19 19:15	9.11	666	8.56	4.7
1-30-19 7:15	-0.06	1437	7.87	0.9	1-30-19 7:00	0.04	731	8.16	8.2	1-30-19 7:00	0.63	1488	7.55	32.5	6-30-19 0:15	21.96	1712	8.41	26.1	4-30-19 19:30	8.90	1254	8.40	34.8	4-30-19 19:30	9.04	667	8.56	4.2
1-30-19 7:30	-0.06	1451	7.87	1.2	1-30-19 7:15	0.05	730	8.12	4.4	1-30-19 7:15	0.64	1489	7.56	32.7	6-30-19 0:30	22.00	1711	8.41	22.2	4-30-19 19:45	8.88	1254	8.41	36.6	4-30-19 19:45	8.97	671	8.56	4.3
1-30-19 7:45	-0.06	1451	7.87	1.1	1-30-19 7:30	0.05	732	8.11	6.4	1-30-19 7:30	0.63	1488	7.56	32.7	6-30-19 0:45	22.08	1709	8.41	18.6	4-30-19 20:00	8.85	1253	8.41	24.6	4-30-19 20:00	8.91	669	8.56	4.2
1-30-19 8:00	-0.06	1451	7.86	1.1	1-30-19 7:45	0.05	722	8.09	5.9	1-30-19 7:45	0.62	1489	7.56	35.7	6-30-19 1:00	22.12	1710	8.41	23.4	4-30-19 20:15	8.84	1252	8.41	32.7	4-30-19 20:15	8.88	670	8.56	3.9
1-30-19 8:15	-0.06	1451	7.86	1.0	1-30-19 8:00	0.05	720	8.04	7.6	1-30-19 8:00	0.64	1507	7.54	31.1	6-30-19 1:15	22.57	1704	8.41	30.9	4-30-19 20:30	8.83	1258	8.41	38.0	4-30-19 20:30	8.84	676	8.56	4.2
1-30-19 8:30	-0.06	1438	7.86	1.2	1-30-19 8:15	0.06	722	8.05	9.2	1-30-19 8:15	0.63	1505	7.53	30.0	6-30-19 1:30	22.57	1701	8.40	21.0	4-30-19 20:45	8.80	1256	8.41	34.2	4-30-19 20:45	8.85	673	8.56	4.2
1-30-19 8:45	-0.06	1438	7.87	1.2	1-30-19 8:30	0.06	725	8.02	7.6	1-30-19 8:30	0.65	1507	7.51	29.7	6-30-19 1:45	22.59	1705	8.41	21.3	4-30-19 21:00	8.72	1254	8.41	35.5	4-30-19 21:00	8.76	674	8.56	4.2
1-30-19 9:00	-0.06	1438	7.87	1.1	1-30-19 8:45	0.06	727	7.98	6.8	1-30-19 8:45	0.69	1509	7.51	29.6	6-30-19 2:00	22.78	1705	8.41	20.3	4-30-19 21:15	8.69	1253	8.41	41.0	4-30-19 21:15	8.70	673	8.56	4.6
1-30-19 9:15	-0.06	1438	7.87	1.0	1-30-19 9:00	0.06	727	7.90	7.8	1-30-19 9:00	0.66	1489	7.51	30.3	6-30-19 2:15	22.77	1706	8.41	20.5	4-30-19 21:30	8.69	1254	8.41	36.6	4-30-19 21:30	8.65	671	8.56	4.3
1-30-19 9:30	-0.06	1468	7.87	1.2	1-30-19 9:15	0.06	724	8.01	6.3	1-30-19 9:15	0.64	1490	7.52	31.4	6-30-19 2:30	22.48	1706	8.43	20.5	4-30-19 21:45	8.67	1257	8.41	39.4	4-30-19 21:45	8.59	672	8.56	4.4
1-30-19 9:45	-0.06	1468	7.87	1.2	1-30-19 9:30	0.06	733	7.97	5.8	1-30-19 9:30	0.63	1489	7.54	32.2	6-30-19 2:45	22.53	1703	8.42	22.4	4-30-19 22:00	8.65	1255	8.41	40.3	4-30-19 22:00	8.53	671	8.56	3.7
1-30-19 10:00	-0.06	1468	7.86	1.1	1-30-19 9:45	0.06	728	7.93	6.2	1-30-19 9:45	0.65	1490	7.56	34.2	6-30-19 3:00	22.15	1692	8.43	19.2	4-30-19 22:15	8.63	1255	8.41	40.8	4-30-19 22:15	8.59	672	8.56	3.6
1-30-19 10:15	-0.06	1468	7.86	1.0	1-30-19 10:00	0.06	731	7.92	5.3	1-30-19 10:00	0.70	1508	7.58	33.1	6-30-19 3:15	20.58	1670	8.46	44.0	4-30-19 22:30	8.60	1256	8.41	34.4	4-30-19 22:30	8.61	671	8.56	3.9
1-30-19 10:30	-0.06	1442	7.86	1.2	1-30-19 10:15	0.06	726	7.92	7.3	1-30-19 10:15	0.66	1506	7.65	33.0	6-30-19 3:30	20.35	1701	8.47	31.5	4-30-19 22:45	8.56	1255	8.41	38.2	4-30-19 22:45	8.53	673	8.55	3.7
1-30-19 10:45	-0.06	1442	7.86	1.2	1-30-19 10:30	0.06	726	7.95	5.7	1-30-19 10:30	0.71	1507	7.60	31.6	6-30-19 3:45	20.27	1695	8.46	36.0	4-30-19 23:00	8.48	1255	8.41	35.9	4-30-19 23:00	8.50	673	8.56	3.7
1-30-19 11:00	-0.06	1442	7.87	1.1	1-30-19 10:45	0.06	727	7.99	6.2	1-30-19 10:45	0.70	1508	7.58	30.5	6-30-19 4:00	20.45	1689	8.45	32.3	4-30-19 23:15	8.46	1257	8.41	34.4	4-30-19 23:15	8.46	675	8.55	3.8
1-30-19 11:15	-0.06	1442	7.87	1.0	1-30-19 11:00	0.06	730	8.00	5.7	1-30-19 11:00	0.69	1490	7.54	32.7	6-30-19 4:15	20.64	1700	8.45	21.8	4-30-19 23:30	8.46	1256	8.41	37.1	4-30-19 23:30	8.42	671	8.55	4.1
1-30-19 11:30	-0.06	1460	7.87	1.2	1-30-19 11:15	0.06	727	8.01	7.5	1-30-19 11:15	0.72	1490	7.53	31.4	6-30-19 4:30	20.82	1699	8.44	20.2	4-30-19 23:45	8.45	1265	8.41	35.9	4-30-19 23:45	8.47	673	8.55	3.7
1-30-19 11:45	-0.06	1460	7.87	1.1	1-30-19 11:30	0.06	724	7.97	6.5	1-30-19 11:30	0.77	1491	7.53	30.7	6-30-19 4:45	20.77	1697	8.44	21.8	5-1-19 0:00	8.46	1257	8.41	35.3	5-1-19 0:00	8.36	678	8.55	3.8
1-30-19 12:00	-0.06	1461	7.87	1.0	1-30-19 11:45	0.07	725	7.95	6.0	1-30-19 11:45	0.75	1490	7.52	30.9	6-30-19 5:00	20.73	1700	8.44	22.2	5-1-19 0:15	8.42	1257	8.41	36.1	5-1-19 0:15	8.43	671	8.55	3.8
1-30-19 12:15	-0.06	1461	7.86	1.0	1-30-19 12:00	0.07	723	7.94	7.2	1-30-19 12:00	0.76	1508	7.53	30.0	6-30-19 5:15	20.69	1699	8.44	20.6	5-1-19 0:30	8.41	1257	8.41	35.1	5-1-19 0:30	8.48	672	8.55	3.8
1-30-19 12:30	-0.06	1442	7.86	1.3	1-30-19 12:15	0.07	721	7.94	7.1	1-30-19 12:15	0.64	1507	7.54	28.6	6-30-19 5:30	20.64	1699	8.44	22.5	5-1-19 0:45	8.37	1256	8.41	39.0	5-1-19 0:45	8.44	671	8.55	4.0
1-30-19 12:45	-0.06	1441	7.86	1.3	1-30-19 12:30	0.07	731	7.92	4.8	1-30-19 12:30	0.67	1505	7.53	29.3	6-30-19 5:45	20.58	1699	8.44	20.9	5-1-19 1:00	8.31	1257	8.41	40.8	5-1-19 1:00	8.42	671	8.55	3.5
1-30-19 13:00	-0.06	1442	7.87	1.1	1-30-19 12:45	0.07	734	7.95	3.5	1-30-19 12:45	0.75	1511	7.53	32.6	6-30-19 6:00	20.52	1697	8.44	18.0	5-1-19 1:15	8.26	1257	8.42	39.2	5-1-19 1:15	8.35	671	8.55	3.6
1-30-19 13:15	-0.06	1442	7.87	1.0	1-30-19 13:00	0.07	728	7.95	5.3	1-30-19 13:00	0.73	1493	7.61	32.7	6-30-19 6:15	20.48	1697	8.44	16.7	5-1-19 1:30	8.21	1256	8.42	35.2	5-1-19 1:30	8.31	671	8.55	3.6
1-30-19 13:30	-0.06	1466	7.87	1.2	1-30-19 13:15	0.07	725	7.91	3.8	1-30-19 13:15	1.25	1473	7.72	32.3	6-30-19 6:30	20.45	1700	8.44	15.7	5-1-19 1:45	8.24	1256	8.41	33.8	5-1-19 1:45	8.38	671	8.55	3.8
1-30-19 13:45	-0.06	1466	7.87	1.1	1-30-19 13:30	0.08	725	7.88	3.3	1-30-19 13:30	0.91	1474	7.65	28.5	6-30-19 6:45	20.39	1699	8.44	17.4	5-1-19 2:00	8.26	1257	8.41	38.2	5-1-19 2:00	8.25	671	8.55	3.9
1-30-19 14:15	-0.05	1466	7.87	1.0	1-30-19 13:45	0.11	730	7.87	5.3	1-30-19 13:45	0.83	1477	7.63	25.8	6-30-19 7:00	20.30	1698	8.44	16.5	5-1-19 2:15	8.25	1256	8.41	34.6	5-1-19 2:15	8.26	670	8.55	4.4
1-30-19 14:30	-0.06	1442	7.86	1.3	1-30-19 14:00	0.12	724	7.88	4.6	1-30-19 14:00	0.77	1501	7.58	25.5	6-30-19 7:15	20.25	1699	8.44	14.7	5-1-19 2:30	8.23	1256	8.41	40.6	5-1-19 2:30	8.31	671	8.55	3.5
1-30-19 14:45	-0.06	1442	7.87	1.2	1-30-19 14:15	0.13	722	7.87	7.3	1-30-19 14:15	0.70	1504	7.55	24.8	6-30-19 7:30	20.17	1697	8.44	17.1	5-1-19 2:45	8.20	1255	8.41	37.1	5-1-19 2:45	8.25	670	8.55	3.5
1-30-19 15:00	-0.05	1442	7.87	1.1	1-30-19 14:30	0.14	725	7.87	7.9	1-30-19 14:30	0.66	1503	7.55	24.0	6-30-19 7:45	20.13	1699	8.44	13.9	5-1-19 3:00	8.16	1256	8.41	38.4	5-1-19 3:00	8.19	671	8.55	3.6
1-30-19 15:15	-0.05	1442	7.87	1.0	1-30-19 14:45	0.15	728	7.86	8.8	1-30-19 14:45	0.65	1504	7.55	23.3	6-30-19 8:00	20.09	1698	8.44	13.5	5-1-19 3:15	8.15	1256	8.41	40.0	5-1-19 3:15	8.14	670	8.55	3.5
1-30-19 15:30	-0.05	1471	7.87	1.2	1-30-19 15:00	0.15	730	7.87	8.6	1-30-19 15:00	0.63	1487	7.56	25.0	6-30-19 8:15	20.06	1698	8.44	14.0	5-1-19 3:30	8.16	1255	8.41	35.4	5-1-19 3:30	8.10	671	8.55	3.6
1-30-19 15:45	-0.05	1471	7.86	1.1	1-30-19 15:15	0.15	730	7.87	5.6	1-30-19 15:15	0.63	1491	7.61	26.9	6-30-19 8:30	20.00	1697	8.44	12.9	5-1-19 3:45	8.13	1256	8.41	41.7	5-1-19 3:45	8.14	672	8.55	3.4
1-30-19 16:00	-0.05	1471	7.86	1.3	1-30-19 15:30	0.16	734	7.87	8.2	1-30-19 15:30	0.61	1493	7.70	30.0	6-30-19 8:45	19.94	1698	8.44	16.5	5-1-19 4:00	8.11	1256	8.41	42.4	5-1-19 4:00	8.09	673	8.54	3.8
1-30-19 16:15	-0.05	1471	7.86	1.4	1-30-19 15:45	0.15	731	7.87	5.7	1-30-19 15:45	0.60	1495	7.78	30.7	6-30-19 9:00	19.90	1698	8.44	13.0	5-1-19 4:15	8.09	1256	8.41	35.4	5-1-19 4:15	8.13	673	8.54	3.6
1-30-19 16:30	-0.05	1443	7.86	1.2	1-30-19 16:00	0.16	729	7.87	4.3	1-30-19 16:00	0.60	1513	7.76	29.8	6-30-19 9:15	19.85	1699	8.44	12.5	5-1-19 4:30	8.06	1255	8.41	31.5	5-1-19 4:30	8.04	672	8.54	3.7

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-30-19 16:45	-0.05	1443	7.86	1.2	1-30-19 16:15	0.16	732	7.87	6.7	1-30-19 16:15	0.58	1513	7.72	29.4	6-30-19 9:30	19.77	1698	8.44	12.5	5-1-19 4:45	8.05	1257	8.41	37.2	5-1-19 4:45	8.06	671	8.54	3.7
1-30-19 17:00					1-30-19 16:30	0.17	732	7.85	7.7	1-30-19 16:30	0.59	1511	7.68	27.8	6-30-19 9:45	19.73	1698	8.44	12.1	5-1-19 5:00	8.04	1256	8.41	30.9	5-1-19 5:00	8.00	672	8.54	3.8
1-30-19 17:15	-0.05	1443	7.86	1.0	1-30-19 16:45	0.16	734	7.85	5.2	1-30-19 16:45	0.59	1511	7.67	27.6	6-30-19 10:00	19.68	1699	8.44	11.1	5-1-19 5:15	8.04	1257	8.41	29.7	5-1-19 5:15	7.98	671	8.54	3.6
1-30-19 17:30	-0.05	1467	7.86	1.1	1-30-19 17:00	0.16	736	7.85	6.3	1-30-19 17:00	0.57	1492	7.68	26.8	6-30-19 10:15	19.61	1697	8.44	13.1	5-1-19 5:30	8.02	1258	8.41	37.5	5-1-19 5:30	7.94	671	8.54	3.6
1-30-19 17:45	-0.05	1467	7.86	1.0	1-30-19 17:15	0.16	744	7.84	6.2	1-30-19 17:15	0.57	1492	7.68	27.0	6-30-19 10:30	19.55	1698	8.44	11.8	5-1-19 5:45	7.99	1257	8.41	35.1	5-1-19 5:45	7.92	672	8.54	3.6
1-30-19 18:00	-0.05	1467	7.86	1.0	1-30-19 17:30	0.16	741	7.84	7.7	1-30-19 17:30	0.56	1494	7.68	26.5	6-30-19 10:45	19.49	1697	8.44	14.5	5-1-19 6:00	8.00	1257	8.41	36.0	5-1-19 6:00	7.86	670	8.54	3.6
1-30-19 18:15	-0.05	1467	7.86	0.9	1-30-19 17:45	0.15	741	7.84	6.6	1-30-19 17:45	0.56	1495	7.69	26.9	6-30-19 11:00	19.42	1697	8.44	11.0	5-1-19 6:15	7.99	1257	8.41	36.4	5-1-19 6:15	7.88	673	8.54	3.8
1-30-19 18:30	-0.05	1447	7.86	1.2	1-30-19 18:00	0.16	740	7.84	7.3	1-30-19 18:00	0.57	1512	7.72	29.1	6-30-19 11:15	19.36	1697	8.44	10.9	5-1-19 6:30	7.96	1257	8.41	41.4	5-1-19 6:30	7.92	673	8.54	3.8
1-30-19 18:45	-0.05	1447	7.86	1.2	1-30-19 18:15	0.15	747	7.84	4.8	1-30-19 18:15	0.55	1512	7.68	29.6	6-30-19 11:30	19.31	1697	8.44	10.9	5-1-19 6:45	7.94	1257	8.41	39.2	5-1-19 6:45	7.92	673	8.54	3.6
1-30-19 19:00	-0.05	1447	7.86	1.2	1-30-19 18:30	0.15	745	7.84	4.7	1-30-19 18:30	0.54	1513	7.69	30.1	6-30-19 11:45	19.25	1698	8.44	10.8	5-1-19 7:00	7.94	1257	8.41	41.6	5-1-19 7:00	7.91	673	8.54	3.7
1-30-19 19:15	-0.05	1447	7.86	1.1	1-30-19 18:45	0.15	739	7.83	3.7	1-30-19 18:45	0.53	1512	7.72	31.2	6-30-19 12:00	19.19	1698	8.44	12.5	5-1-19 7:15	7.95	1259	8.41	39.9	5-1-19 7:15	7.93	670	8.54	3.8
1-30-19 19:30	-0.05	1454	7.86	1.1	1-30-19 19:00	0.14	741	7.83	8.3	1-30-19 19:00	0.51	1496	7.77	29.6	6-30-19 12:15	19.14	1698	8.44	11.3	5-1-19 7:30	7.94	1259	8.41	43.7	5-1-19 7:30	7.91	670	8.54	3.4
1-30-19 19:45	-0.05	1454	7.86	1.1	1-30-19 19:15	0.14	747	7.83	7.1	1-30-19 19:15	0.52	1497	7.79	29.3	6-30-19 12:30	19.08	1697	8.44	10.6	5-1-19 7:45	7.96	1260	8.41	38.2	5-1-19 7:45	7.93	672	8.54	3.7
1-30-19 20:00	-0.05	1454	7.86	1.1	1-30-19 19:30	0.14	748	7.83	8.6	1-30-19 19:30	0.52	1497	7.79	31.6	6-30-19 12:45	19.04	1697	8.44	10.8	5-1-19 8:00	7.96	1261	8.41	38.1	5-1-19 8:00	7.94	672	8.54	3.6
1-30-19 20:15	-0.05	1455	7.86	1.1	1-30-19 19:45	0.15	749	7.83	8.2	1-30-19 19:45	0.51	1497	7.79	29.8	6-30-19 13:00	18.98	1697	8.43	10.1	5-1-19 8:15	7.94	1259	8.41	36.0	5-1-19 8:15	7.93	673	8.54	3.5
1-30-19 20:30	-0.05	1450	7.86	1.2	1-30-19 20:00	0.14	743	7.83	6.5	1-30-19 20:00	0.53	1514	7.79	30.4	6-30-19 13:15	18.94	1697	8.44	11.7	5-1-19 8:30	7.94	1260	8.41	35.6	5-1-19 8:30	7.95	673	8.54	3.7
1-30-19 20:45	-0.05	1450	7.86	1.2	1-30-19 20:15	0.14	749	7.83	7.4	1-30-19 20:15	0.51	1512	7.79	30.7	6-30-19 13:30	18.88	1697	8.44	10.3	5-1-19 8:45	7.97	1261	8.41	43.1	5-1-19 8:45	7.95	674	8.54	3.6
1-30-19 21:00	-0.05	1450	7.86	1.2	1-30-19 20:30	0.14	747	7.83	3.9	1-30-19 20:30	0.52	1513	7.79	30.4	6-30-19 13:45	18.86	1697	8.44	10.2	5-1-19 9:00	7.99	1261	8.41	38.8	5-1-19 9:00	8.01	672	8.54	3.7
1-30-19 21:15	-0.05	1450	7.86	1.2	1-30-19 20:45	0.14	748	7.83	8.4	1-30-19 20:45	0.48	1511	7.79	30.3	6-30-19 14:00	18.82	1696	8.43	11.2	5-1-19 9:15	8.02	1263	8.41	39.9	5-1-19 9:15	8.04	670	8.54	3.7
1-30-19 21:30	-0.05	1460	7.86	1.1	1-30-19 21:00	0.14	749	7.83	4.4	1-30-19 21:00	0.48	1498	7.79	30.8	6-30-19 14:15	18.81	1697	8.43	10.6	5-1-19 9:30	8.04	1262	8.41	35.4	5-1-19 9:30	8.12	670	8.54	3.5
1-30-19 21:45	-0.05	1460	7.86	1.0	1-30-19 21:15	0.14	749	7.83	6.2	1-30-19 21:15	0.52	1500	7.78	30.0	6-30-19 14:30	18.81	1697	8.43	10.1	5-1-19 9:45	8.04	1261	8.41	42.4	5-1-19 9:45	8.16	670	8.54	3.6
1-30-19 22:00	-0.05	1460	7.86	1.0	1-30-19 21:30	0.14	757	7.83	7.2	1-30-19 21:30	0.53	1498	7.76	29.4	6-30-19 14:45	18.80	1697	8.44	11.0	5-1-19 10:00	8.04	1261	8.41	38.8	5-1-19 10:00	8.23	672	8.54	3.5
1-30-19 22:15	-0.05	1461	7.86	1.0	1-30-19 21:45	0.14	752	7.83	6.5	1-30-19 21:45	0.51	1496	7.76	32.4	6-30-19 15:00	18.81	1697	8.44	10.1	5-1-19 10:15	8.06	1261	8.41	38.5	5-1-19 10:15	8.27	672	8.54	3.4
1-30-19 22:30	-0.05	1447	7.86	1.2	1-30-19 22:00	0.13	751	7.83	5.3	1-30-19 22:00	0.56	1511	7.73	28.9	6-30-19 15:15	18.87	1697	8.43	12.6	5-1-19 10:30	8.06	1261	8.41	39.2	5-1-19 10:30	8.30	673	8.55	3.4
1-30-19 22:45	-0.05	1447	7.86	1.2	1-30-19 22:15	0.13	750	7.83	6.5	1-30-19 22:15	0.56	1511	7.73	28.1	6-30-19 15:30	18.90	1696	8.44	10.0	5-1-19 10:45	8.10	1259	8.41	34.7	5-1-19 10:45	8.32	671	8.55	3.4
1-30-19 23:00	-0.05	1447	7.86	1.2	1-30-19 22:30	0.13	748	7.83	5.3	1-30-19 22:30	0.58	1509	7.72	28.6	6-30-19 15:45	19.01	1696	8.43	11.5	5-1-19 11:00	8.07	1258	8.41	37.0	5-1-19 11:00	8.33	672	8.54	3.4
1-30-19 23:15	-0.05	1447	7.86	1.1	1-30-19 22:45	0.13	746	7.83	4.8	1-30-19 22:45	0.54	1510	7.73	27.4	6-30-19 16:00	19.06	1697	8.43	10.5	5-1-19 11:15	8.10	1259	8.41	37.6	5-1-19 11:15	8.36	675	8.55	3.5
1-30-19 23:30	-0.05	1459	7.86	1.1	1-30-19 23:00	0.13	748	7.83	5.5	1-30-19 23:00	0.53	1493	7.70	27.4	6-30-19 16:15	19.06	1697	8.43	10.9	5-1-19 11:30	8.10	1257	8.41	37.7					
1-30-19 23:45	-0.05	1459	7.86	1.1	1-30-19 23:15	0.13	765	7.83	7.8	1-30-19 23:15	0.56	1493	7.69	27.2	6-30-19 16:30	19.07	1696	8.43	11.6	5-1-19 11:45	8.14	1256	8.41	36.2					
1-31-19 0:00	-0.04	1459	7.86	1.2	1-30-19 23:30	0.13	750	7.83	5.9	1-30-19 23:30	0.56	1493	7.68	26.9	6-30-19 16:45	19.13	1697	8.44	11.2	5-1-19 12:00	8.21	1258	8.41	38.5					
1-31-19 0:15	-0.04	1459	7.86	1.2	1-30-19 23:45	0.13	752	7.83	7.7	1-30-19 23:45	0.54	1492	7.68	26.5	6-30-19 17:00	19.22	1693	8.43	12.6	5-1-19 12:15	8.28	1257	8.41	39.6					
1-31-19 0:30	-0.05	1453	7.86	1.2	1-31-19 0:00	0.13	750	7.83	5.9	1-31-19 0:00	0.55	1509	7.65	26.4	6-30-19 17:15	19.29	1696	8.43	11.0	5-1-19 12:30	8.27	1259	8.41	50.8					
1-31-19 0:45	-0.04	1453	7.86	1.1	1-31-19 0:15	0.13	748	7.83	5.6	1-31-19 0:15	0.53	1510	7.66	26.1	6-30-19 17:30	19.32	1694	8.43	11.7	5-1-19 12:45	8.36	1257	8.40	40.7					
1-31-19 1:00	-0.04	1453	7.86	1.2	1-31-19 0:30	0.13	752	7.83	5.2	1-31-19 0:30	0.53	1510	7.65	25.6	6-30-19 17:45	19.38	1697	8.43	11.0	5-1-19 13:00	8.37	1258	8.40	40.1					
1-31-19 1:15	-0.04	1453	7.86	1.1	1-31-19 0:45	0.13	762	7.83	7.2	1-31-19 0:45	0.54	1509	7.64	24.6	6-30-19 18:00	19.38	1694	8.43	11.0	5-1-19 13:15	8.34	1256	8.40	39.1					
1-31-19 1:30	-0.04	1473	7.86	1.1	1-31-19 1:00	0.13	758	7.83	6.7	1-31-19 1:00	0.52	1491	7.62	25.6	6-30-19 18:15	19.43	1696	8.43	10.6	5-1-19 13:30	8.38	1256	8.40	38.6					
1-31-19 1:45	-0.04	1472	7.86	1.2	1-31-19 1:15	0.13	757	7.83	9.6	1-31-19 1:15	0.52	1491	7.62	25.0	6-30-19 18:30	19.48	1696	8.43	10.5	5-1-19 13:45	8.48	1255	8.40	38.5					
1-31-19 2:00	-0.04	1473	7.86	1.2	1-31-19 1:30	0.13	760	7.83	8.7	1-31-19 1:30	0.52	1492	7.62	24.7	6-30-19 18:45	19.57	1695	8.43	10.6	5-1-19 14:00	8.45	1255	8.40	36.7					
1-31-19 2:15	-0.04	1473	7.86	1.2	1-31-19 1:45	0.13	761	7.83	6.2	1-31-19 1:45	0.52	1492	7.61	25.0	6-30-19 19:00	19.70	1697	8.43	11.1	5-1-19 14:15	8.40	1256	8.40	38.7					
1-31-19 2:30	-0.04	1453	7.86	1.2	1-31-19 2:00	0.13	760	7.83	4.8	1-31-19 2:00	0.53	1508	7.60	25.2	6-30-19 19:15	19.78	1695	8.42	11.0	5-1-19 14:30	8.37	1256	8.40	36.9					
1-31-19 2:45	-0.04	1453	7.86	1.2	1-31-19 2:15	0.13	761	7.82	4.1	1-31-19 2:15	0.54	1508	7.60	25.9	6-30-19 19:30	19.92	1695	8.42	11.7	5-1-19 14:45	8.38	1254	8.40	37.3					
1-31-19 3:00	-0.04	1453	7.86	1.2	1-31-19 2:30	0.13	757	7.83	5.6	1-31-19 2:30	0.54	1507	7.60	24.4	6-30-19 19:45	19.99	1692	8.42	11.2	5-1-19 15:00	8.40	1255	8.40	38.3					
1-31-19 3:15	-0.04	1453	7.86	1.2	1-31-19 2:45	0.13	762	7.82	3.9	1-31-19 2:45	0.52	1509	7.58	23.6	6-30-19 20:00	20.14	1695	8.42	11.9	5-1-19 15:15	8.48	1251	8.39	38.6					
1-31-19 3:30	-0.04	1467	7.86	1.1	1-31-19 3:00	0.13	767	7.83	5.7	1-31-19 3:00	0.49	1491	7.57	23.7	6-30-19 20:15	20.27	1696	8.43	11.1	5-1-19 15:30	8.60	1254	8.39	41.9					
1-31-19 3:45	-0.04	1467	7.86	1.4	1-31-19 3:15	0.13	758	7.83	5.8	1-31-19 3:15	0.50	1493	7.56	24.0	6-30-19 20:30	20.44	1695	8.42	12.0	5-1-19 15:45	8.70	1254	8.39	40.1					
1-31-19 4:00	-0.04	1468	7.86	1.2	1-31-19 3:30	0.13	761	7.83	8.8	1-31-19 3:30	0.51	1493	7.56	23.9	6-30-19 20:45	20.73	1695	8.42	11.4	5-1-19 16:00	8.79	1253	8.39	40.6					
1-31-19 4:15	-0.04	1468	7.85	1.2	1-31-19 3:45	0.12	761	7.83	7.4	1-31-19 3:45	0.50	1491	7.56	23.5	6-30-19 21:00	20.97	1697	8.42	11.3	5-1-19 16:15	8.86	1250	8.39	49.9					
1-31-19 4:30	-0.05	1455	7.85	1.1	1-31-19 4:00	0.12	761	7.83	6.4	1-31-19 4:00	0.51	1508	7.56	24.2	6-30-19 21:15	21.08	1697	8.42	11.0	5-1-19 16:30	8.93	1251	8.40	32.7					
1-31-19 4:45	-0.05	1455	7.85	1.2	1-31-19 4:15	0.13	756	7.83	5.1	1-31-19 4:15	0.49	1508	7.56	23.9	6-30-19 21:30	21.25	1696	8.42	10.0	5-1-19 16:45	8.93	1252	8.40	40.4					
1-31-19 5:00	-0.05	1455	7.85	1.1	1-31-19 4:30	0.13	762	7.82	5.5	1-31-19 4:30	0.49	1507	7.56	23.6	6-30-19 21:45	21.37	1697	8.42	8.5	5-1-19 17:00	8.99	1255	8.40	34.2					
1-31-19 5:15	-0.05	1456	7.85	1.1	1-31-19 4:45	0.12	763	7.82	5.9	1-31-19 4:45	0.49	1510	7.56	22.4	6-30-19 22:00	21.59	1698	8.41	10.0	5-1-19 17:15	9.05	1256	8.40	49.6					
1-31-19 5:30	-0.05	1482	7.85	1.0	1-31-19 5:00	0.12	756	7.83	3.3	1-31-19 5:00	0.47	1494	7.55	22.8	6-30-19 22:15	22.99	1703	8.41	10.3	5-1-19 17:30	9.00	1254	8.40	51.3					
1-31-19 5:45	-0.05	1483	7.85	1.0	1-31-19 5:15	0.12	759	7.84	9.1	1-31-19 5:15	0.47	1495	7.55	22.4	6-30-19 22:30	23.62	1704	8.41	10.6	5-1-19 17:45	9.09	1255	8.40	45.5					
1-31-19 6:00	-0.05	1483	7.85	1.0	1-31-19 5:30	0.12	756	7.84	6.6	1-31-19 5:30	0.46	1495	7.55	22.0	6-30-19 22:45	23.61	1703	8.41	9.6	5-1-19 18:00	9.09	1254	8.40	36.9					
1-31-19 6:15	-0.05	1484	7.85	0.9	1-31-19 5:45	0.12	765	7.87	4.3	1-31-19 5:45	0.46	1496	7.55	22.2	6-30-19 23:00	23.70	1700	8.41	10.7	5-1-19 18:15	9.11	1252	8.40	39.4					
1-31-19 6:30	-0.05	1463	7.85	1.1	1-31-19 6:00	0.11	762	7.86	6.4	1-31-19 6:00	0.47	1513	7.56	23.9	6-30-19 23:15	23.65	1700	8.41	8.5	5-1-19 18:30	9.13	1254	8.40	36.3					
1-31-19 6:45	-0.05	1463	7.85	1.2	1-31-19 6:15	0.11	769	7.85	6.8	1-31-19 6:15	0.44	1512	7.57	22.9	6-30-19 23:30	23.99	1705	8.41	7.5	5-1-19 18:45	9.11	1251	8.40	40.2					
1-31-19 7:00	-0.05	1464	7.85	1.0	1-31-19 6:30	0.12	767	7.86	4.2	1-31-19 6:30	0.43	1514	7.57	23.5	6-30-19 23:45	23.99	1703	8.42	9.8	5-1-19 19:00	9.07	1252	8.40	38.4					
1-31-19 7:15	-0.06	1465	7.85	1.0	1-31-19 6:45	0.12	763	7.85	7.1	1-31-19 6:45	0.42	1515	7.58	23.3	7-1-19 0:00	24.11	1704	9.51	8.4	5-1-19 19:15	9.05	1255	8.40	37.6					
1-31-19 7:30	-0.06	1473	7.85	1.0	1-31-19 7:00	0.12	763	7.84	3.8	1-31-19 7:00	0.41	1497	7.58	22.6	7-1-19 0:15	24.31	1705	8.65	8.4	5-1-19 19:30	9.02	1250	8.40	39.7					
1-31-19 7:45	-0.06	1475	7.85	1.0	1-31-19 7:15	0.12	759	7.84	8.8	1-31-19 7:15	0.42	1498	7.59	22.9	7-1-19 0:30	24.31	1707	8.43	8.4	5-1-19 19:45	8.94	1256	8.40	30.9					
1-31-19 8:00	-0.06	1476	7.85	1.0	1-31-19 7:30	0.13	766	7.83	2.9	1-31-19 7:30	0.41	1497	7.59	22.2	7-1-19 0:45	24.22	1704	8.08	8.4	5-1-19 20:00	8.90	1251	8.41	34.4					
1-31-19 8:15	-0.06	1477	7.85	0.8	1-31-19 7:45	0.13	760	7.84	5.3	1-31-19 7:45	0.41	1498	7.59	22.4	7-1-19 1:00	24.23	1704	7.98	8.4	5-1-19 20:15	8.91	1251	8.40	54.3					
1-31-19 8:30	-0.06	1472	7.85	1.1	1-31-19 8:00	0.13	766	7.83	3.6	1-31-19 8:00	0.42	1511	7.58	23.5	7-1-19 1:15	24.02	1702	11.61	8.4	5-1-19 20:30	8.89	1253	8.41	43.9					
1-31-19 8:45	-0.06	1471	7.86	1.1	1-31-19 8:15	0.13	763	7.84	5.2	1-31-19 8:15	0.40	1513	7.58	23.1	7-1-19 1:30	23.83	1699	8.93	8.4	5-1-19 20:45	8.87	1250	8.41	51.8					
1-31-19 9:00	-0.06	1472	7.86	1.1	1-31-19 8:30	0.13	764	7.84	6.9	1-31-19 8:30	0.40	1513	7.58	23.0	7-1-19 1:45	23.73	1702	8.38	8.4	5-1-19 21:00	8.91	1251	8.40	53.2					
1-31-19 9:15	-0.06	1472	7.86	1.0	1-31-19 8:45	0.13	765	7.84	4.6	1-31-19 8:45	0.40	1514	7.57	21.9	7-1-19 2:00	23.99	1705	6.76	8.4	5-1-19 21:15	8.88	1250	8.40	54.4					
1-31-19 9:30	-0.06	1484	7.85	1.0	1-31-19 9:00	0.13	769	7.84	5.2	1-31-19 9:00	0.40	1495	7.57	22.6	7-1-19 2:15	23.93	1705	6.73	8.5	5-1-19 21:30	8.84	1250	8.40	38.6					
1-31-19 9:45	-0.06	1485	7.85	1.0	1-31-19 9:15	0.13	772	7.84	8.3	1-31-19 9:15	0.43	1497	7.56	23.1	7-1-19 2:30	23.78	1708	7.06	8.5	5-1-19 21:45	8.80	1251	8.40	41.7					
1-31-19 10:00	-0.06	1486	7.85	0.9	1-31-19 9:30	0.12	763	7.84	3.7	1-31-19 9:30	0.42	1496	7.55	21.8	7-1-19 2:45	23.58	1703	7.19	8.5	5-1-19 22:00	8.70	1249	8.41	36.9					
1-31-19 10:15	-0.06	1486	7.85	0.8	1-31-19 9:45	0.12	762	7.84	6.7	1-31-19 9:45	0.41	1496	7.56	21.2	7-1-19 3:00	23.48	1701	8.22	8.5	5-1-19 22:15	8.66	1251	8.41	39.2					
1-31-19 10:30	-0.06	1477	7.85	1.1	1-31-19 10:00	0.11	769	7.84	3.5	1-31-19 10:00	0.43	1510	7.55	23.0	7-1-19 3:15	23.15	1686	10.28	8.5	5-1-19 22:30	8.62	1249	8.41	44.5					
1-31-19 10:45	-0.06	1477	7.85	1.1	1-31-19 10:15	0.11	760	7.84	6.6	1-31-19 10:15	0.43	1512	7.56	21.4	7-1-19 3:30	23.18	1690	10.32	8.3	5-1-19 22:45	8.55	1252	8.41	37.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
1-31-19 11:00	-0.06	1478	7.86	1.0	1-31-19 10:30	0.10	771	7.90	3.1	1-31-19 10:30	0.45	1514	7.57	22.8	7-1-19 3:45	22.99	1684	14.59	8.5	5-1-19 23:00	8.55	1252	8.41	34.0					
1-31-19 11:15	-0.06	1478	7.86	1.0	1-31-19 10:45	0.09	768	7.89	4.7	1-31-19 10:45	0.44	1512	7.58	22.7	7-1-19 4:00	21.81	1680	13.64	8.5	5-1-19 23:15	8.51	1252	8.41	43.3					
1-31-19 11:30	-0.06	1491	7.85	1.0	1-31-19 11:00	0.09	767	7.87	7.4	1-31-19 11:00	0.43	1496	7.57	21.9	7-1-19 4:15	20.96	1689	16.66	8.5	5-1-19 23:30	8.51	1254	8.41	41.7					
1-31-19 11:45	-0.06	1492	7.85	1.0	1-31-19 11:15	0.09	771	7.93	7.7	1-31-19 11:15	0.44	1498	7.57	21.7	7-1-19 4:30	21.04	1688	13.85	8.5	5-1-19 23:45	8.55	1252	8.41	39.8					
1-31-19 12:00	-0.06	1492	7.86	0.9	1-31-19 11:30	0.09	779	7.94	5.3	1-31-19 11:30	0.44	1496	7.58	21.5	7-1-19 4:45	21.25	1687	11.93	8.4	5-2-19 0:00	8.48	1253	8.41	44.6					
1-31-19 12:15	-0.06	1493	7.86	0.8	1-31-19 11:45	0.09	776	7.97	5.3	1-31-19 11:45	0.43	1498	7.58	21.3	7-1-19 5:00	21.70	1688	12.28	8.5	5-2-19 0:15	8.39	1254	8.41	40.1					
1-31-19 12:30	-0.06	1480	7.85	1.1	1-31-19 12:00	0.09	768	7.98	6.1	1-31-19 12:00	0.46	1514	7.58	22.0	7-1-19 5:15	21.82	1687	12.80	8.5	5-2-19 0:30	8.37	1251	8.41	47.5					
1-31-19 12:45	-0.06	1480	7.85	1.1	1-31-19 12:15	0.09	767	8.00	4.3	1-31-19 12:15	0.43	1515	7.59	22.4	7-1-19 5:30	21.94	1689	9.91	8.5	5-2-19 0:45	8.26	1254	8.41	43.6					
1-31-19 13:00	-0.06	1480	7.85	0.9	1-31-19 12:30	0.09	771	8.02	5.4	1-31-19 12:30	0.43	1515	7.58	22.3	7-1-19 5:45	21.99	1686	9.73	8.5	5-2-19 1:00	8.20	1254	8.41	49.2					
1-31-19 13:15	-0.06	1480	7.85	0.9	1-31-19 12:45	0.09	771	7.96	9.0	1-31-19 12:45	0.45	1512	7.58	22.0	7-1-19 6:00	21.95	1685	9.57	8.4	5-2-19 1:15	8.21	1252	8.41	38.0					
1-31-19 13:30	-0.06	1502	7.85	1.1	1-31-19 13:00	0.09	772	7.93	4.7	1-31-19 13:00	0.45	1497	7.57	21.4	7-1-19 6:15	21.87	1687	9.58	8.5	5-2-19 1:30	8.16	1252	8.41	38.9					
1-31-19 13:45	-0.06	1502	7.85	1.0	1-31-19 13:15	0.09	770	7.92	6.1	1-31-19 13:15	0.48	1495	7.57	21.5	7-1-19 6:30	21.85	1687	9.20	8.4	5-2-19 1:45	8.19	1251	8.41	39.5					
1-31-19 14:00	-0.06	1502	7.85	1.0	1-31-19 13:30	0.10	773	7.96	6.2	1-31-19 13:30	0.48	1494	7.57	25.8	7-1-19 6:45	21.76	1685	9.09	8.5	5-2-19 2:00	8.20	1251	8.41	41.4					
1-31-19 14:15	-0.06	1503	7.85	0.8	1-31-19 13:45	0.11	772	7.94	5.2	1-31-19 13:45	0.48	1495	7.57	20.6	7-1-19 7:00	21.74	1686	9.07	8.5	5-2-19 2:15	8.14	1250	8.41	34.0					
1-31-19 14:30	-0.06	1485	7.85	1.1	1-31-19 14:00	0.11	773	7.91	3.9	1-31-19 14:00	0.49	1512	7.57	20.6	7-1-19 7:15	21.65	1683	10.87	8.4	5-2-19 2:30	8.09	1252	8.41	37.7					
1-31-19 14:45	-0.06	1485	7.85	1.1	1-31-19 14:15	0.11	782	7.90	5.4	1-31-19 14:15	0.47	1512	7.58	20.4	7-1-19 7:30	21.57	1685	10.60	8.5	5-2-19 2:45	8.08	1253	8.41	37.2					
1-31-19 15:00	-0.05	1485	7.85	1.1	1-31-19 14:30	0.11	770	7.90	5.5	1-31-19 14:30	0.47	1512	7.58	20.6	7-1-19 7:45	21.52	1685	11.01	8.5	5-2-19 3:00	7.97	1255	8.41	40.9					
1-31-19 15:15	-0.05	1485	7.85	1.0	1-31-19 14:45	0.10	774	7.90	5.1	1-31-19 14:45	0.48	1513	7.58	20.6	7-1-19 8:00	21.42	1685	9.53	8.5	5-2-19 3:15	7.92	1251	8.41	42.4					
1-31-19 15:30	-0.06	1503	7.85	1.1	1-31-19 15:00	0.10	770	7.91	5.9	1-31-19 15:00	0.41	1496	7.57	20.1	7-1-19 8:15	21.35	1683	9.05	8.5	5-2-19 3:30	7.86	1253	8.41	38.2					
1-31-19 15:45	-0.05	1503	7.85	1.0	1-31-19 15:15	0.10	778	7.93	4.9	1-31-19 15:15	0.43	1496	7.56	20.0	7-1-19 8:30	21.33	1682	8.71	8.4	5-2-19 3:45	7.86	1253	8.41	42.9					
1-31-19 16:00	-0.05	1503	7.85	1.0	1-31-19 15:30	0.10	775	7.92	4.9	1-31-19 15:30	0.46	1497	7.56	26.1	7-1-19 8:45	21.28	1683	11.46	8.4	5-2-19 4:00	7.76	1252	8.41	38.9					
1-31-19 16:15	-0.05	1503	7.86	0.8	1-31-19 15:45	0.10	782	7.93	7.0	1-31-19 15:45	0.47	1497	7.57	20.5	7-1-19 9:00	21.19	1685	9.01	8.5	5-2-19 4:15	7.80	1252	8.41	44.6					
1-31-19 16:30	-0.05	1489	7.85	1.1	1-31-19 16:00	0.10	777	7.94	7.2	1-31-19 16:00	0.46	1515	7.57	20.4	7-1-19 9:15	21.11	1683	8.92	8.4	5-2-19 4:30	7.80	1254	8.41	44.8					
1-31-19 16:45	-0.05	1489	7.85	1.1	1-31-19 16:15	0.10	779	7.95	6.7	1-31-19 16:15	0.46	1515	7.57	20.3	7-1-19 9:30	21.06	1682	9.53	8.4	5-2-19 4:45	7.76	1253	8.41	42.5					
1-31-19 17:00	-0.05	1489	7.85	1.1	1-31-19 16:30	0.10	777	7.95	4.5	1-31-19 16:30	0.46	1516	7.57	20.2	7-1-19 9:45	21.01	1680	10.94	8.4	5-2-19 5:00	7.65	1255	8.41	40.4					
1-31-19 17:15	-0.05	1489	7.85	1.1	1-31-19 16:45	0.09	774	7.95	6.5	1-31-19 16:45	0.46	1517	7.58	20.5	7-1-19 10:00	20.95	1680	8.30	8.4	5-2-19 5:15	7.60	1253	8.41	41.2					
1-31-19 17:30	-0.05	1497	7.85	1.1	1-31-19 17:00	0.09	777	7.95	5.9	1-31-19 17:00	0.45	1498	7.58	20.9	7-1-19 10:15	20.88	1678	8.87	8.4	5-2-19 5:30	7.56	1255	8.41	46.3					
1-31-19 17:45	-0.05	1497	7.85	1.1	1-31-19 17:15	0.09	779	7.96	6.1	1-31-19 17:15	0.46	1499	7.57	20.5	7-1-19 10:30	20.79	1674	9.05	8.4	5-2-19 5:45	7.57	1254	8.41	46.6					
1-31-19 18:00	-0.05	1497	7.85	1.1	1-31-19 17:30	0.09	772	7.95	8.5	1-31-19 17:30	0.46	1498	7.57	20.6	7-1-19 10:45	20.69	1673	8.48	8.4	5-2-19 6:00	7.57	1253	8.41	46.7					
1-31-19 18:15	-0.05	1497	7.85	0.9	1-31-19 17:45	0.09	775	7.96	6.7	1-31-19 17:45	0.46	1498	7.57	25.9	7-1-19 11:00	20.65	1671	8.52	8.4	5-2-19 6:15	7.58	1254	8.41	39.7					
1-31-19 18:30	-0.06	1493	7.85	1.1	1-31-19 18:00	0.09	778	7.94	2.4	1-31-19 18:00	0.48	1516	7.56	20.2	7-1-19 11:15	20.56	1670	8.82	8.4	5-2-19 6:30	7.56	1259	8.41	39.3					
1-31-19 18:45	-0.05	1493	7.85	1.1	1-31-19 18:15	0.09	775	7.95	7.3	1-31-19 18:15	0.46	1515	7.57	19.9	7-1-19 11:30	20.46	1667	9.16	8.4	5-2-19 6:45	7.55	1254	8.41	40.9					
1-31-19 19:00	-0.06	1493	7.85	1.1	1-31-19 18:30	0.09	782	7.95	4.4	1-31-19 18:30	0.46	1517	7.57	20.0	7-1-19 11:45	20.35	1664	9.65	8.4	5-2-19 7:00	7.57	1255	8.41	42.3					
1-31-19 19:15	-0.06	1494	7.85	1.0	1-31-19 18:45	0.09	778	7.92	2.2	1-31-19 18:45	0.46	1516	7.57	19.8	7-1-19 12:00	20.25	1661	10.59	8.4	5-2-19 7:15	7.57	1255	8.41	38.9					
1-31-19 19:30	-0.06	1508	7.86	1.0	1-31-19 19:00	0.09	786	7.93	4.1	1-31-19 19:00	0.46	1499	7.57	24.5	7-1-19 12:15	20.19	1658	12.15	8.4	5-2-19 7:30	7.55	1254	8.41	42.3					
1-31-19 19:45	-0.06	1509	7.85	1.1	1-31-19 19:15	0.10	782	7.92	5.0	1-31-19 19:15	0.47	1500	7.57	20.8	7-1-19 12:30	20.11	1656	12.57	8.4	5-2-19 7:45	7.53	1255	8.41	43.5					
1-31-19 20:00	-0.06	1510	7.85	1.0	1-31-19 19:30	0.10	781	7.92	4.4	1-31-19 19:30	0.47	1501	7.58	20.5	7-1-19 12:45	20.03	1652	12.89	8.4	5-2-19 8:00	7.53	1255	8.41	43.1					
1-31-19 20:15	-0.07	1510	7.85	1.0	1-31-19 19:45	0.10	783	7.92	3.0	1-31-19 19:45	0.47	1501	7.59	25.8	7-1-19 13:00	19.95	1645	14.75	8.4	5-2-19 8:15	7.54	1254	8.41	41.7					
1-31-19 20:30	-0.07	1498	7.86	1.1	1-31-19 20:00	0.11	784	7.91	3.9	1-31-19 20:00	0.49	1518	7.59	20.7	7-1-19 13:15	19.88	1651	13.09	8.4	5-2-19 8:30	7.58	1253	8.41	38.6					
1-31-19 20:45	-0.06	1499	7.86	1.0	1-31-19 20:15	0.10	774	7.91	6.0	1-31-19 20:15	0.47	1518	7.60	20.5	7-1-19 13:30	19.84	1649	13.64	8.4	5-2-19 8:45	7.67	1253	8.41	33.6					
1-31-19 21:00	-0.07	1499	7.85	1.1	1-31-19 20:30	0.10	775	7.90	6.5	1-31-19 20:30	0.46	1519	7.60	20.5	7-1-19 13:45	19.77	1649	13.56	8.4	5-2-19 9:00	7.77	1254	8.41	38.6					
1-31-19 21:15	-0.07	1499	7.85	1.1	1-31-19 20:45	0.10	776	7.89	3.9	1-31-19 20:45	0.40	1522	7.59	19.8	7-1-19 14:00	19.73	1647	14.61	8.4	5-2-19 9:15	7.99	1253	8.41	46.4					
1-31-19 21:30	-0.07	1524	7.86	1.1	1-31-19 21:00	0.11	782	7.88	4.5	1-31-19 21:00	0.43	1500	7.59	21.4	7-1-19 14:15	19.67	1648	15.08	8.4	5-2-19 9:30	8.04	1252	8.41	39.5					
1-31-19 21:45	-0.07	1524	7.85	1.0	1-31-19 21:15	0.10	779	7.87	2.3	1-31-19 21:15	0.45	1502	7.60	21.2	7-1-19 14:30	19.62	1647	15.30	8.4	5-2-19 9:45	8.17	1251	8.41	38.6					
1-31-19 22:00	-0.07	1524	7.85	1.0	1-31-19 21:30	0.11	783	7.87	5.8	1-31-19 21:30	0.47	1503	7.60	21.7	7-1-19 14:45	19.57	1646	18.57	8.4	5-2-19 10:00	8.23	1254	8.40	43.9					
1-31-19 22:15	-0.07	1524	7.85	1.0	1-31-19 21:45	0.11	772	7.87	4.3	1-31-19 21:45	0.47	1504	7.60	24.3	7-1-19 15:00	19.53	1644	17.97	8.4	5-2-19 10:15	8.27	1246	8.40	39.5					
1-31-19 22:30	-0.07	1498	7.86	1.1	1-31-19 22:00	0.11	770	7.86	6.1	1-31-19 22:00	0.47	1519	7.59	21.0	7-1-19 15:15	19.44	1642	19.67	8.4	5-2-19 10:30	8.34	1253	8.40	37.2					
1-31-19 22:45	-0.06	1498	7.85	1.1	1-31-19 22:15	0.11	777	7.87	2.3	1-31-19 22:15	0.46	1521	7.60	20.4	7-1-19 15:30	19.37	1641	18.39	8.4	5-2-19 10:45	8.49	1249	8.40	34.8					
1-31-19 23:00	-0.06	1498	7.85	1.1	1-31-19 22:30	0.11	775	7.87	4.5	1-31-19 22:30	0.47	1523	7.60	20.5	7-1-19 15:45	19.31	1642	19.38	8.4	5-2-19 11:00	8.51	1250	8.40	35.6					
1-31-19 23:15	-0.06	1498	7.85	1.1	1-31-19 22:45	0.12	771	7.87	4.7	1-31-19 22:45	0.47	1523	7.60	20.6	7-1-19 16:00	19.30	1641	20.35	8.4	5-2-19 11:15	8.53	1252	8.39	40.4					
1-31-19 23:30	-0.07	1514	7.86	1.1	1-31-19 23:00	0.12	768	7.86	4.8	1-31-19 23:00	0.46	1506	7.60	21.1	7-1-19 16:15	19.30	1638	20.70	8.4	5-2-19 11:30	8.61	1252	8.39	44.0					
1-31-19 23:45	-0.07	1514	7.85	1.0	1-31-19 23:15	0.12	768	7.86	4.6	1-31-19 23:15	0.47	1507	7.60	21.9	7-1-19 16:30	19.35	1637	21.35	8.4	5-2-19 11:45	8.64	1251	8.39	45.1					
2-1-19 0:00	-0.07	1514	7.85	1.0	1-31-19 23:30	0.12	771	7.86	4.2	1-31-19 23:30	0.46	1507	7.60	24.8	7-1-19 16:45	19.31	1636	21.75	8.4	5-2-19 12:00	8.81	1245	8.40	41.9					
2-1-19 0:15	-0.07	1514	7.85	1.0	1-31-19 23:45	0.12	769	7.87	4.5	1-31-19 23:45	0.46	1507	7.60	24.4	7-1-19 17:00	19.33	1637	21.46	8.4	5-2-19 12:15	8.98	1245	8.40	44.6					
2-1-19 0:30	-0.07	1501	7.85	1.1	2-1-19 0:00	0.12	769	7.86	6.4	2-1-19 0:00	0.47	1524	7.60	21.1	7-1-19 17:15	19.37	1632	23.39	8.4	5-2-19 12:30	9.07	1236	8.40	31.9					
2-1-19 0:45	-0.07	1500	7.85	1.1	2-1-19 0:15	0.12	772	7.86	5.2	2-1-19 0:15	0.45	1524	7.60	20.9	7-1-19 17:30	19.47	1633	21.26	8.4	5-2-19 12:45	9.10	1240	8.39	48.6					
2-1-19 1:00	-0.07	1501	7.85	1.1	2-1-19 0:30	0.12	774	7.87	3.9	2-1-19 0:30	0.44	1524	7.60	20.5	7-1-19 17:45	19.59	1637	22.89	8.4	5-2-19 13:00	9.11	1242	8.39	41.1					
2-1-19 1:15	-0.07	1501	7.85	1.1	2-1-19 0:45	0.12	780	7.87	5.0	2-1-19 0:45	0.44	1526	7.60	20.7	7-1-19 18:00	19.70	1635	22.48	8.4	5-2-19 13:15	9.18	1239	8.39	44.5					
2-1-19 1:30	-0.07	1523	7.86	1.1	2-1-19 1:00	0.12	769	7.87	6.7	2-1-19 1:00	0.42	1511	7.60	21.1	7-1-19 18:15	19.79	1628	24.11	8.4	5-2-19 13:30	9.00	1246	8.39	33.3					
2-1-19 1:45	-0.07	1523	7.86	1.1	2-1-19 1:15	0.12	768	7.87	6.3	2-1-19 1:15	0.43	1512	7.61	27.8	7-1-19 18:30	19.87	1625	23.83	8.4	5-2-19 13:45	9.02	1250	8.39	66.4					
2-1-19 2:00	-0.07	1523	7.85	1.0	2-1-19 1:30	0.12	768	7.87	5.7	2-1-19 1:30	0.42	1513	7.61	24.4	7-1-19 18:45	19.98	1626	32.25	8.4	5-2-19 14:00	8.71	1250	8.40	67.7					
2-1-19 2:15	-0.07	1524	7.85	1.0	2-1-19 1:45	0.12	772	7.86	9.2	2-1-19 1:45	0.41	1513	7.62	24.1	7-1-19 19:00	20.12	1630	22.81	8.4	5-2-19 14:15	8.61	1256	8.40	53.8					
2-1-19 2:30	-0.07	1517	7.85	1.1	2-1-19 2:00	0.12	770	7.86	6.6	2-1-19 2:00	0.43	1532	7.61	20.4	7-1-19 19:15	20.27	1625	22.49	8.4	5-2-19 14:30	8.49	1256	8.40	39.7					
2-1-19 2:45	-0.07	1521	7.85	1.6	2-1-19 2:15	0.12	765	7.86	5.0	2-1-19 2:15	0.42	1531	7.61	20.8	7-1-19 19:30	20.37	1626	24.79	8.4	5-2-19 14:45	8.38	1267	8.40	45.8					
2-1-19 3:00	-0.07	1525	7.85	2.5	2-1-19 2:30	0.12	770	7.86	7.7	2-1-19 2:30	0.42	1534	7.62	20.7	7-1-19 19:45	20.36	1621	25.48	8.4	5-2-19 15:00	8.41	1271	8.40	56.4					
2-1-19 3:15	-0.07	1530	7.85	2.6	2-1-19 2:45	0.12	771	7.86	7.5	2-1-19 2:45	0.42	1534	7.62	20.5	7-1-19 20:00	20.42	1622	27.81	8.4	5-2-19 15:15	8.48	1271	8.40	47.8					
2-1-19 3:30	-0.07	1593	7.87	2.6	2-1-19 3:00	0.12	772	7.87	3.3	2-1-19 3:00	0.40	1514	7.62	22.4	7-1-19 20:15	20.53	1625	22.43	8.4	5-2-19 15:30	8.52	1260	8.40	46.4					
2-1-19 3:45	-0.07	1598	7.87	2.6	2-1-19 3:15	0.12	768	7.87	6.4	2-1-19 3:15	0.41	1514	7.62	22.1	7-1-19 20:30	20.60	1623	22.59	8.4	5-2-19 15:45									
2-1-19 4:00	-0.07	1604	7.88	2.6	2-1-19 3:30	0.12	767	7.87	4.9	2-1-19 3:30	0.41	1515	7.63	21.5	7-1-19 20:45	20.63	1622	17.67	8.4	5-2-19 16:00	8.56	1257	8.40	52.1					
2-1-19 4:15					2-1-19 3:45	0.12	770	7.87	4.7	2-1-19 3:45	0.41	1514	7.63	21.7	7-1-19 21:00	20.75	1624	20.74	8.4	5-2-19 16:15	8.60	1256	8.40	53.3					
2-1-19 4:30	-0.07	1585	7.91	2.6	2-1-19 4:00	0.12	785	7.87	3.5	2-1-19 4:00	0.43	1531	7.62	21.3	7-1-19 21:15	20.67	1623	22.57	8.4	5-2-19 16:30	8.62	1255	8.40	65.8					
2-1-19 4:45	-0.07	1588	7.90	2.6	2-1-19 4:15	0.12	771	7.87	3.4	2-1-19 4:15	0.42	1531	7.63	21.0	7-1-19 21:30	20.86	1624	18.76	8.4	5-2-19 16:45	8.65	1254	8.40	44.0					
2-1-19 5:00	-0.07	1589	7.91	2.6	2-1-19 4:30	0.12	769	7.87	4.5	2-1-19 4:30	0.42	1532	7.63	20.8	7-1-19 21:45	20.89	1623	20.72	8.4	5-2-19 17:00	8.72	1258	8.40	40.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-1-19 5:15	-0.07	1591	7.91	2.7	2-1-19 4:45	0.12	764	7.87	6.7	2-1-19 4:45	0.42	1532	7.63	20.8	7-1-19 22:00	20.96	1622	17.32	8.4	5-2-19 17:15	8.72	1257	8.40	54.8					
2-1-19 5:30	-0.07	1618	7.91	2.7	2-1-19 5:00	0.13	763	7.87	4.3	2-1-19 5:00	0.41	1514	7.63	23.2	7-1-19 22:15	21.02	1624	18.65	8.4	5-2-19 17:30	8.71	1255	8.40	50.1					
2-1-19 5:45	-0.07	1619	7.91	2.7	2-1-19 5:15	0.13	770	7.87	6.2	2-1-19 5:15	0.41	1516	7.63	22.3	7-1-19 22:30	20.95	1623	18.91	8.4	5-2-19 17:45	8.73	1254	8.40	51.5					
2-1-19 6:00	-0.07	1619	7.91	2.7	2-1-19 5:30	0.13	767	7.87	3.9	2-1-19 5:30	0.41	1514	7.63	22.9	7-1-19 22:45	21.03	1621	18.93	8.4	5-2-19 18:00	8.73	1255	8.40	58.1					
2-1-19 6:15	-0.07	1619	7.91	2.7	2-1-19 5:45	0.13	762	7.87	4.9	2-1-19 5:45	0.41	1516	7.63	23.4	7-1-19 23:00	21.05	1622	15.65	8.4	5-2-19 18:15	8.78	1252	8.40	47.4					
2-1-19 6:30	-0.07	1590	7.92	2.7	2-1-19 6:00	0.13	765	7.87	4.2	2-1-19 6:00	0.43	1533	7.63	21.1	7-1-19 23:15	21.12	1624	16.29	8.4	5-2-19 18:30	8.80	1255	8.40	56.6					
2-1-19 6:45	-0.07	1589	7.92	2.7	2-1-19 6:15	0.13	763	7.87	3.8	2-1-19 6:15	0.41	1534	7.63	20.8	7-1-19 23:30	21.16	1623	13.06	8.4	5-2-19 18:45	8.81	1252	8.40	63.9					
2-1-19 7:00	-0.07	1589	7.92	2.7	2-1-19 6:30	0.13	779	7.87	4.2	2-1-19 6:30	0.41	1533	7.64	20.9	7-1-19 23:45	21.23	1624	13.86	8.4	5-2-19 19:00	8.79	1256	8.40	50.0					
2-1-19 7:15	-0.07	1588	7.92	2.7	2-1-19 6:45	0.14	768	7.87	5.9	2-1-19 6:45	0.41	1534	7.64	21.3	7-2-19 0:00	21.30	1623	14.26	8.4	5-2-19 19:15	8.79	1251	8.40	63.7					
2-1-19 7:30	-0.06	1609	7.92	2.6	2-1-19 7:00	0.14	765	7.87	4.7	2-1-19 7:00	0.40	1517	7.65	23.6	7-2-19 0:15	21.36	1624	14.44	8.4	5-2-19 19:30	8.79	1251	8.40	62.1					
2-1-19 7:45	-0.06	1609	7.92	2.6	2-1-19 7:15	0.14	769	7.87	6.2	2-1-19 7:15	0.41	1516	7.65	23.9	7-2-19 0:30	21.43	1623	15.40	8.4	5-2-19 19:45	8.77	1263	8.40	47.6					
2-1-19 8:00	-0.06	1608	7.92	2.6	2-1-19 7:30	0.14	767	7.87	3.5	2-1-19 7:30	0.40	1517	7.66	27.8	7-2-19 0:45	21.44	1624	12.13	8.4	5-2-19 20:00	8.77	1248	8.40	55.2					
2-1-19 8:15	-0.06	1608	7.93	2.6	2-1-19 7:45	0.14	763	7.87	5.8	2-1-19 7:45	0.40	1516	7.66	25.7	7-2-19 1:00	21.49	1624	11.52	8.4	5-2-19 20:15	8.76	1252	8.40	56.2					
2-1-19 8:30	-0.06	1587	7.93	2.6	2-1-19 8:00	0.14	773	7.87	5.6	2-1-19 8:00	0.42	1534	7.67	22.4	7-2-19 1:15	21.48	1622	11.41	8.4	5-2-19 20:30	8.75	1248	8.40	56.0					
2-1-19 8:45	-0.06	1586	7.93	2.6	2-1-19 8:15	0.14	770	7.87	5.4	2-1-19 8:15	0.41	1536	7.67	22.1	7-2-19 1:30	21.49	1624	10.79	8.4	5-2-19 20:45	8.74	1252	8.40	60.6					
2-1-19 9:00	-0.06	1586	7.93	2.6	2-1-19 8:30	0.14	770	7.87	3.9	2-1-19 8:30	0.40	1534	7.68	22.4	7-2-19 1:45	21.49	1624	10.65	8.4	5-2-19 21:00	8.74	1251	8.40	62.0					
2-1-19 9:15	-0.06	1585	7.93	2.6	2-1-19 8:45	0.14	766	7.87	6.3	2-1-19 8:45	0.40	1534	7.68	22.3	7-2-19 2:00	21.48	1623	11.05	8.4	5-2-19 21:15	8.72	1248	8.41	67.3					
2-1-19 9:30	-0.06	1611	7.93	2.7	2-1-19 9:00	0.14	763	7.87	3.1	2-1-19 9:00	0.38	1519	7.69	24.7	7-2-19 2:15	21.47	1624	21.00	8.4	5-2-19 21:30	8.70	1246	8.41	59.0					
2-1-19 9:45	-0.06	1611	7.93	2.6	2-1-19 9:15	0.15	771	7.87	5.1	2-1-19 9:15	0.39	1521	7.70	24.6	7-2-19 2:30	21.45	1624	11.35	8.4	5-2-19 21:45	8.67	1247	8.41	41.9					
2-1-19 10:00	-0.06	1611	7.93	2.5	2-1-19 9:30	0.15	762	7.87	6.3	2-1-19 9:30	0.39	1519	7.70	24.4	7-2-19 2:45	21.41	1623	10.11	8.4	5-2-19 22:00	8.65	1245	8.41	70.5					
2-1-19 10:15	-0.06	1610	7.93	2.6	2-1-19 9:45	0.15	755	7.87	4.1	2-1-19 9:45	0.38	1519	7.71	24.3	7-2-19 3:00	21.38	1624	10.84	8.5	5-2-19 22:15	8.63	1243	8.41	73.4					
2-1-19 10:30	-0.06	1581	7.93	2.6	2-1-19 10:00	0.15	763	7.87	5.9	2-1-19 10:00	0.40	1537	7.72	23.5	7-2-19 3:15	21.34	1624	10.57	8.5	5-2-19 22:30	8.62	1243	8.41	55.3					
2-1-19 10:45	-0.06	1581	7.93	2.5	2-1-19 10:15	0.15	771	7.87	3.6	2-1-19 10:15	0.39	1537	7.72	24.3	7-2-19 3:30	21.27	1625	10.74	8.5	5-2-19 22:45	8.60	1243	8.41	59.3					
2-1-19 11:00	-0.06	1580	7.93	2.7	2-1-19 10:30	0.15	775	7.87	5.4	2-1-19 10:30	0.38	1538	7.73	23.7	7-2-19 3:45	21.23	1625	8.86	8.5	5-2-19 23:00	8.58	1243	8.41	52.3					
2-1-19 11:15	-0.06	1580	7.94	2.8	2-1-19 10:45	0.15	760	7.87	7.1	2-1-19 10:45	0.38	1537	7.74	23.8	7-2-19 4:00	21.15	1624	9.42	8.5	5-2-19 23:15	8.56	1242	8.41	61.2					
2-1-19 11:30	-0.06	1613	7.94	2.6	2-1-19 11:00	0.15	757	7.87	7.3	2-1-19 11:00	0.36	1521	7.75	25.5	7-2-19 4:15	21.04	1623	9.31	8.5	5-2-19 23:30	8.53	1241	8.41	62.5					
2-1-19 11:45	-0.06	1613	7.94	2.5	2-1-19 11:15	0.15	761	7.87	7.2	2-1-19 11:15	0.37	1522	7.77	25.7	7-2-19 4:30	20.98	1624	10.28	8.5	5-2-19 23:45	8.52	1240	8.41	52.3					
2-1-19 12:00	-0.06	1613	7.94	2.6	2-1-19 11:30	0.13	763	7.88	8.3	2-1-19 11:30	0.37	1522	7.78	26.3	7-2-19 4:45	20.93	1621	10.66	8.5	5-3-19 0:00	8.52	1240	8.41	57.4					
2-1-19 12:15	-0.06	1612	7.94	2.5	2-1-19 11:45	0.13	764	7.88	7.2	2-1-19 11:45	0.45	1523	7.79	23.6	7-2-19 5:00	20.81	1620	11.38	8.5	5-3-19 0:15	8.49	1240	8.41	56.2					
2-1-19 12:30	-0.06	1575	7.94	2.6	2-1-19 12:00	0.13	761	7.88	4.9	2-1-19 12:00	0.44	1540	7.81	23.4	7-2-19 5:15	20.75	1621	11.43	8.5	5-3-19 0:30	8.49	1239	8.41	58.9					
2-1-19 12:45	-0.06	1574	7.95	2.7	2-1-19 12:15	0.14	762	7.88	2.4	2-1-19 12:15	0.43	1539	7.83	23.6	7-2-19 5:30	20.67	1620	13.07	8.5	5-3-19 0:45	8.48	1238	8.41	70.2					
2-1-19 13:00	-0.06	1574	7.95	2.6	2-1-19 12:30	0.14	758	7.88	7.2	2-1-19 12:30	0.42	1540	7.84	23.3	7-2-19 5:45	20.60	1620	10.20	8.5	5-3-19 1:00	8.46	1238	8.41	67.8					
2-1-19 13:15	-0.06	1573	7.95	2.7	2-1-19 12:45	0.15	765	7.88	2.7	2-1-19 12:45	0.42	1539	7.83	22.4	7-2-19 6:00	20.51	1620	10.42	8.5	5-3-19 1:15	8.44	1237	8.41	59.7					
2-1-19 13:30	-0.06	1600	7.95	2.7	2-1-19 13:00	0.14	759	7.88	7.2	2-1-19 13:00	0.41	1525	7.81	24.2	7-2-19 6:15	20.43	1620	10.87	8.5	5-3-19 1:30	8.41	1238	8.41	59.4					
2-1-19 13:45	-0.06	1599	7.96	2.7	2-1-19 13:15	0.15	763	7.88	3.5	2-1-19 13:15	0.41	1525	7.83	25.0	7-2-19 6:30	20.33	1620	10.07	8.5	5-3-19 1:45	8.37	1231	8.41	88.8					
2-1-19 14:00	-0.06	1598	7.96	3.0	2-1-19 13:30	0.15	755	7.87	5.1	2-1-19 13:30	0.41	1525	7.84	24.6	7-2-19 6:45	20.24	1621	9.85	8.5	5-3-19 2:00	8.34	1232	8.41	86.3					
2-1-19 14:15	-0.06	1597	7.96	2.6	2-1-19 13:45	0.15	765	7.88	7.1	2-1-19 13:45	0.41	1527	7.85	24.4	7-2-19 7:00	20.18	1619	10.96	8.5	5-3-19 2:15	8.32	1231	8.40	98.7					
2-1-19 14:30	-0.06	1573	7.97	2.9	2-1-19 14:00	0.15	769	7.88	6.2	2-1-19 14:00	0.42	1545	7.85	24.3	7-2-19 7:15	20.10	1621	10.87	8.5	5-3-19 2:30	8.29	1230	8.40	95.5					
2-1-19 14:45	-0.06	1572	7.97	2.7	2-1-19 14:15	0.15	760	7.88	5.7	2-1-19 14:15	0.41	1544	7.87	23.7	7-2-19 7:30	20.02	1619	10.39	8.5	5-3-19 2:45	8.26	1230	8.40	85.0					
2-1-19 15:00	-0.06	1571	7.97	2.7	2-1-19 14:30	0.15	760	7.88	6.9	2-1-19 14:30	0.41	1545	7.88	24.1	7-2-19 7:45	19.94	1620	9.84	8.5	5-3-19 3:00	8.25	1230	8.40	86.3					
2-1-19 15:15	-0.06	1570	7.97	2.9	2-1-19 14:45	0.15	754	7.88	8.2	2-1-19 14:45	0.41	1545	7.88	24.5	7-2-19 8:00	19.85	1620	10.61	8.5	5-3-19 3:15	8.23	1230	8.40	74.1					
2-1-19 15:30	-0.07	1583	7.97	2.9	2-1-19 15:00	0.16	760	7.88	3.5	2-1-19 15:00	0.39	1526	7.87	25.4	7-2-19 8:15	19.77	1620	11.82	8.5	5-3-19 3:30	8.21	1231	8.41	75.0					
2-1-19 15:45	-0.07	1583	7.98	3.1	2-1-19 15:15	0.16	759	7.88	8.2	2-1-19 15:15	0.40	1527	7.89	25.7	7-2-19 8:30	19.69	1619	9.68	8.5	5-3-19 3:45	8.18	1231	8.41	80.5					
2-1-19 16:00	-0.07	1582	7.98	2.9	2-1-19 15:30	0.16	768	7.87	3.5	2-1-19 15:30	0.40	1527	7.90	26.0	7-2-19 8:45	19.61	1619	10.14	8.5	5-3-19 4:00	8.13	1232	8.41	76.4					
2-1-19 16:15	-0.07	1581	7.98	2.8	2-1-19 15:45	0.16	760	7.87	5.5	2-1-19 15:45	0.40	1527	7.90	26.3	7-2-19 9:00	19.51	1621	9.35	8.5	5-3-19 4:15	8.11	1230	8.41	72.2					
2-1-19 16:30	-0.07	1562	7.98	2.8	2-1-19 16:00	0.16	756	7.87	6.3	2-1-19 16:00	0.42	1546	7.91	24.7	7-2-19 9:15	19.42	1619	9.95	8.5	5-3-19 4:30	8.07	1231	8.41	74.3					
2-1-19 16:45	-0.07	1562	7.98	2.9	2-1-19 16:15	0.16	762	7.87	6.1	2-1-19 16:15	0.40	1544	7.92	24.8	7-2-19 9:30	19.37	1620	9.20	8.5	5-3-19 4:45	8.02	1229	8.41	66.3					
2-1-19 17:00	-0.07	1561	7.98	2.7	2-1-19 16:30	0.16	760	7.87	6.8	2-1-19 16:30	0.40	1546	7.92	24.8	7-2-19 9:45	19.27	1619	9.46	8.5	5-3-19 5:00	8.02	1230	8.41	73.1					
2-1-19 17:15	-0.07	1560	7.99	2.6	2-1-19 16:45	0.16	764	7.87	2.0	2-1-19 16:45	0.40	1546	7.93	25.0	7-2-19 10:00	19.19	1620	8.65	8.5	5-3-19 5:15	7.99	1231	8.41	75.6					
2-1-19 17:30	-0.07	1590	7.98	2.7	2-1-19 17:00	0.16	758	7.87	6.4	2-1-19 17:00	0.39	1527	7.92	26.2	7-2-19 10:15	19.11	1619	8.99	8.5	5-3-19 5:30	7.97	1230	8.41	74.5					
2-1-19 17:45	-0.07	1590	7.99	2.8	2-1-19 17:15	0.16	758	7.87	8.3	2-1-19 17:15	0.39	1528	7.93	26.4	7-2-19 10:30	19.03	1618	9.03	8.5	5-3-19 5:45	7.92	1230	8.41	69.2					
2-1-19 18:00	-0.07	1589	7.99	2.7	2-1-19 17:30	0.16	759	7.88	6.1	2-1-19 17:30	0.39	1529	7.94	25.9	7-2-19 10:45	18.96	1621	9.50	8.5	5-3-19 6:00	7.89	1230	8.41	70.7					
2-1-19 18:15	-0.07	1588	8.00	3.4	2-1-19 17:45	0.16	762	7.87	5.1	2-1-19 17:45	0.39	1528	7.95	25.8	7-2-19 11:00	18.91	1620	8.62	8.5	5-3-19 6:15	7.88	1230	8.41	67.5					
2-1-19 18:30	-0.08	1556	8.00	2.8	2-1-19 18:00	0.16	763	7.87	2.7	2-1-19 18:00	0.41	1547	7.95	25.3	7-2-19 11:15	18.82	1620	8.85	8.5	5-3-19 6:30	7.86	1230	8.41	67.7					
2-1-19 18:45	-0.07	1555	8.00	2.7	2-1-19 18:15	0.16	767	7.88	7.5	2-1-19 18:15	0.39	1546	7.96	25.3	7-2-19 11:30	18.72	1620	8.62	8.5	5-3-19 6:45	7.82	1231	8.41	73.3					
2-1-19 19:00	-0.07	1554	8.01	2.8	2-1-19 18:30	0.16	760	7.87	4.7	2-1-19 18:30	0.39	1548	7.96	25.5	7-2-19 11:45	18.69	1618	9.47	8.5	5-3-19 7:00	7.76	1230	8.41	64.6					
2-1-19 19:15	-0.07	1553	8.01	2.7	2-1-19 18:45	0.16	756	7.87	5.2	2-1-19 18:45	0.39	1548	7.96	25.1	7-2-19 12:00	18.60	1620	9.02	8.5	5-3-19 7:15	7.71	1230	8.41	62.9					
2-1-19 19:30	-0.07	1568	8.01	2.7	2-1-19 19:00	0.16	763	7.88	6.8	2-1-19 19:00	0.38	1528	7.96	26.2	7-2-19 12:15	18.54	1620	8.80	8.5	5-3-19 7:30	7.69	1230	8.41	63.8					
2-1-19 19:45	-0.07	1567	8.02	3.4	2-1-19 19:15	0.16	759	7.88	5.5	2-1-19 19:15	0.39	1529	7.97	26.8	7-2-19 12:30	18.44	1619	10.79	8.5	5-3-19 7:45	7.65	1230	8.41	63.5					
2-1-19 20:00	-0.08	1567	8.02	2.7	2-1-19 19:30	0.16	757	7.88	6.7	2-1-19 19:30	0.38	1528	7.98	26.5	7-2-19 12:45	18.41	1619	11.26	8.5	5-3-19 8:00	7.60	1229	8.41	73.5					
2-1-19 20:15	-0.07	1566	8.03	2.7	2-1-19 19:45	0.16	760	7.87	6.7	2-1-19 19:45	0.38	1529	7.98	27.1	7-2-19 13:00	18.36	1619	9.12	8.5	5-3-19 8:15	7.57	1230	8.41	65.5					
2-1-19 20:30	-0.07	1549	8.04	2.6	2-1-19 20:00	0.16	758	7.87	5.6	2-1-19 20:00	0.40	1548	7.98	25.7	7-2-19 13:15	18.25	1618	9.10	8.5	5-3-19 8:30	7.53	1230	8.41	69.3					
2-1-19 20:45	-0.07	1548	8.04	2.6	2-1-19 20:15	0.16	755	7.88	5.1	2-1-19 20:15	0.39	1548	7.99	25.5	7-2-19 13:30	18.20	1620	9.43	8.5	5-3-19 8:45	7.53	1230	8.41	69.6					
2-1-19 21:00	-0.07	1547	8.05	2.6	2-1-19 20:30	0.16	754	7.87	4.5	2-1-19 20:30	0.39	1547	7.99	25.5	7-2-19 13:45	18.14	1619	8.99	8.5	5-3-19 9:00	7.51	1230	8.41	70.0					
2-1-19 21:15	-0.07	1546	8.06	2.6	2-1-19 20:45	0.17	756	7.88	4.0	2-1-19 20:45	0.39	1548	8.00	25.3	7-2-19 14:00	18.14	1619	8.74	8.5	5-3-19 9:15	7.49	1229	8.41	76.5					
2-1-19 21:30	-0.07	1568	8.06	2.5	2-1-19 21:00	0.16	767	7.88	2.8	2-1-19 21:00	0.38	1529	8.00	26.9	7-2-19 14:15	18.13	1619	8.71	8.5	5-3-19 9:30	7.48	1229	8.41	63.4					
2-1-19 21:45	-0.07	1568	8.08	4.6	2-1-19 21:15	0.17	758	7.88	4.6	2-1-19 21:15	0.39	1529	8.00	26.7	7-2-19 14:30	18.09	1619	9.62	8.5	5-3-19 9:45	7.50	1229	8.41	68.9					
2-1-19 22:00	-0.07	1566	8.09	2.7	2-1-19 21:30	0.17	768	7.88	8.7	2-1-19 21:30	0.39	1528	8.01	26.7	7-2-19 14:45	18.07	1620	9.46	8.5	5-3-19 10:00	7.50	1229	8.41	78.2					
2-1-19 22:15	-0.07	1565	8.10	2.7	2-1-19 21:45	0.17	760	7.88	3.8	2-1-19 21:45	0.38	1529	8.01	26.6	7-2-19 15:00	18.10	1619	9.23	8.5	5-3-19 10:15	7.48	1229	8.41	68.7					
2-1-19 22:30					2-1-19 22:00	0.17	757	7.88	4.7	2-1-19 22:00	0.40	1549	8.01	25.6	7-2-19 15:15	18.12	1618	9.62	8.5	5-3-19 10:30	7.44	1228	8.42	73.7					
2-1-19 22:45	-0.07	1539	8.12	2.5	2-1-19 22:15	0.17	766	7.88	2.4	2-1-19 22:15	0.39	1548	8.02	25.8	7-2-19 15:30	18.14	1618	11.11	8.5	5-3-19 10:45	7.42	1228	8.42	68.0					
2-1-19 23:00	-0.07	1538	8.13	2.6	2-1-19 22:30	0.16	768	7.88	2.3	2-1-19 22:30	0.39	1548	8.02	25.6	7-2-19 15:45	18.19	1618	9.51	8.5	5-3-19 11:00	7.43	1228	8.42	59.5					
2-1-19 23:15	-0.07	1537	8.14	2.4	2-1-19 22:45	0.17	757	7.88	5.8	2-1-19 22:45	0.39	1548	8.03	25.6	7-2-19 16:00	18.25	1617	10.02	8.5	5-3-19 11:15	7.39	1229	8.42	63.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-1-19 23:30	-0.07	1550	8.14	2.4	2-1-19 23:00	0.17	757	7.88	5.9	2-1-19 23:00	0.37	1530	8.03	26.9	7-2-19 16:15	18.32	1618	8.90	8.5	5-3-19 11:30	7.41	1229	8.42	60.4					
2-1-19 23:45	-0.07	1549	8.16	2.4	2-1-19 23:15	0.17	753	7.88	5.8	2-1-19 23:15	0.38	1529	8.04	26.5	7-2-19 16:30	18.47	1617	9.86	8.5	5-3-19 11:45	7.38	1220	8.42	53.0					
2-2-19 0:00	-0.07	1549	8.16	2.8	2-1-19 23:30	0.17	753	7.88	4.2	2-1-19 23:30	0.38	1530	8.04	26.5	7-2-19 16:45	18.47	1618	10.54	8.5	5-3-19 12:00	7.22	1122	8.45	62.9					
2-2-19 0:15	-0.07	1548	8.16	2.3	2-1-19 23:45	0.17	764	7.88	3.9	2-1-19 23:45	0.38	1531	8.05	26.7	7-2-19 17:00	18.56	1618	10.49	8.5	5-3-19 12:15	7.43	1129	8.44	60.0					
2-2-19 0:30	-0.07	1532	8.16	2.4	2-2-19 0:00	0.17	753	7.88	4.7	2-2-19 0:00	0.40	1545	8.05	26.0	7-2-19 17:15	18.72	1621	9.41	8.5	5-3-19 12:30	7.44	1128	8.44	61.7					
2-2-19 0:45	-0.07	1531	8.16	2.5	2-2-19 0:15	0.17	762	7.88	4.3	2-2-19 0:15	0.38	1547	8.06	25.9	7-2-19 17:30	18.92	1620	8.88	8.4	5-3-19 12:45	7.36	1102	8.45	65.6					
2-2-19 1:00	-0.07	1530	8.16	2.3	2-2-19 0:30	0.17	758	7.88	6.2	2-2-19 0:30	0.38	1547	8.06	25.8	7-2-19 17:45	18.98	1619	9.98	8.4	5-3-19 13:00	7.40	1106	8.45	66.7					
2-2-19 1:15	-0.07	1529	8.15	2.2	2-2-19 0:45	0.17	756	7.88	4.8	2-2-19 0:45	0.38	1548	8.07	25.7	7-2-19 18:00	19.23	1619	9.35	8.5	5-3-19 13:15	7.49	1104	8.45	59.6					
2-2-19 1:30	-0.07	1541	8.14	2.2	2-2-19 1:00	0.17	764	7.88	4.8	2-2-19 1:00	0.37	1532	8.06	26.9	7-2-19 18:15	19.42	1620	9.65	8.4	5-3-19 13:30	7.46	1096	8.45	57.5					
2-2-19 1:45	-0.07	1540	8.13	2.3	2-2-19 1:15	0.17	765	7.88	2.5	2-2-19 1:15	0.37	1531	8.08	27.3	7-2-19 18:30	19.40	1619	9.64	8.4	5-3-19 13:45	7.41	1096	8.46	69.0					
2-2-19 2:00	-0.07	1540	8.13	2.3	2-2-19 1:30	0.17	754	7.88	5.0	2-2-19 1:30	0.38	1531	8.08	26.9	7-2-19 18:45	19.54	1621	9.83	8.4	5-3-19 14:00	7.40	1094	8.46	67.2					
2-2-19 2:15	-0.07	1539	8.12	2.2	2-2-19 1:45	0.17	748	7.88	4.9	2-2-19 1:45	0.38	1531	8.08	27.1	7-2-19 19:00	19.67	1618	9.78	8.4	5-3-19 14:15	7.34	1091	8.46	59.8					
2-2-19 2:30	-0.07	1526	8.12	2.2	2-2-19 2:00	0.18	764	7.88	4.8	2-2-19 2:00	0.39	1548	8.08	26.1	7-2-19 19:15	19.86	1620	9.30	8.4	5-3-19 14:30	7.38	1089	8.46	55.1					
2-2-19 2:45	-0.07	1526	8.12	2.3	2-2-19 2:15	0.17	757	7.88	6.1	2-2-19 2:15	0.38	1550	8.09	26.2	7-2-19 19:30	20.05	1620	10.20	8.4	5-3-19 14:45	7.46	1086	8.46	56.0					
2-2-19 3:00	-0.07	1525	8.12	2.2	2-2-19 2:30	0.17	760	7.88	5.1	2-2-19 2:30	0.38	1550	8.09	26.1	7-2-19 19:45	20.00	1618	9.54	8.4	5-3-19 15:00	7.52	1079	8.46	62.5					
2-2-19 3:15	-0.07	1525	8.11	2.2	2-2-19 2:45	0.18	755	7.88	4.9	2-2-19 2:45	0.38	1549	8.10	26.0	7-2-19 20:00	20.15	1621	9.83	8.4	5-3-19 15:15	7.55	1068	8.46	57.9					
2-2-19 3:30	-0.07	1542	8.10	2.2	2-2-19 3:00	0.18	759	7.87	5.8	2-2-19 3:00	0.36	1531	8.09	26.6	7-2-19 20:15	20.37	1621	10.04	8.4	5-3-19 15:30	7.51	1063	8.47	55.4					
2-2-19 3:45	-0.07	1541	8.10	2.6	2-2-19 3:15	0.18	754	7.88	5.9	2-2-19 3:15	0.37	1531	8.10	27.4	7-2-19 20:30	20.63	1620	9.41	8.4	5-3-19 15:45	7.45	1056	8.47	64.7					
2-2-19 4:00	-0.08	1541	8.10	2.8	2-2-19 3:30	0.17	765	7.88	2.3	2-2-19 3:30	0.37	1531	8.10	27.2	7-2-19 20:45	20.82	1622	9.65	8.4	5-3-19 16:00	7.59	1055	8.47	72.1					
2-2-19 4:15	-0.08	1541	8.09	2.1	2-2-19 3:45	0.18	766	7.88	4.3	2-2-19 3:45	0.37	1532	8.11	26.9	7-2-19 21:00	20.93	1623	9.43	8.4	5-3-19 16:15	7.53	1048	8.47	68.9					
2-2-19 4:30	-0.08	1522	8.09	2.2	2-2-19 4:00	0.18	756	7.88	4.5	2-2-19 4:00	0.39	1547	8.10	26.1	7-2-19 21:15	21.15	1623	9.84	8.4	5-3-19 16:30	7.53	1034	8.47	64.5					
2-2-19 4:45	-0.08	1522	8.08	2.1	2-2-19 4:15	0.18	763	7.88	6.3	2-2-19 4:15	0.37	1547	8.11	26.0	7-2-19 21:30	20.99	1620	8.82	8.4	5-3-19 16:45	7.38	1022	8.48	63.9					
2-2-19 5:00	-0.08	1521	8.07	2.2	2-2-19 4:30	0.18	759	7.88	5.9	2-2-19 4:30	0.37	1549	8.10	25.8	7-2-19 21:45	20.98	1620	8.73	8.4	5-3-19 17:00	7.38	1021	8.48	59.7					
2-2-19 5:15	-0.07	1521	8.07	2.1	2-2-19 4:45	0.18	755	7.88	5.3	2-2-19 4:45	0.37	1547	8.11	25.7	7-2-19 22:00	20.82	1619	9.37	8.4	5-3-19 17:15	7.37	1025	8.48	64.6					
2-2-19 5:30	-0.07	1527	8.05	2.4	2-2-19 5:00	0.18	760	7.88	6.6	2-2-19 5:00	0.36	1532	8.10	24.9	7-2-19 22:15	20.88	1619	9.74	8.4	5-3-19 17:30	7.38	1026	8.48	46.2					
2-2-19 5:45	-0.07	1527	8.05	2.2	2-2-19 5:15	0.18	760	7.88	6.5	2-2-19 5:15	0.37	1532	8.11	27.1	7-2-19 22:30	20.67	1618	11.21	8.4	5-3-19 17:45	7.45	1029	8.48	55.3					
2-2-19 6:00	-0.07	1526	8.05	2.1	2-2-19 5:30	0.18	757	7.88	4.8	2-2-19 5:30	0.37	1532	8.10	24.7	7-2-19 22:45	20.57	1616	11.20	8.4	5-3-19 18:00	7.44	1030	8.48	58.5					
2-2-19 6:15	-0.08	1526	8.05	2.3	2-2-19 5:45	0.18	757	7.88	4.1	2-2-19 5:45	0.37	1530	8.10	27.1	7-2-19 23:00	20.60	1618	9.87	8.4	5-3-19 18:15	7.37	1030	8.48	63.7					
2-2-19 6:30	-0.07	1515	8.04	2.2	2-2-19 6:00	0.18	751	7.88	5.0	2-2-19 6:00	0.38	1551	8.10	25.3	7-2-19 23:15	20.59	1618	10.17	8.4	5-3-19 18:30	7.33	1030	8.48	62.1					
2-2-19 6:45	-0.07	1515	8.04	2.1	2-2-19 6:15	0.18	760	7.88	6.0	2-2-19 6:15	0.37	1549	8.10	25.5	7-2-19 23:30	20.79	1620	14.72	8.4	5-3-19 18:45	7.34	1031	8.48	46.7					
2-2-19 7:00	-0.07	1514	8.03	2.2	2-2-19 6:30	0.18	757	7.88	4.4	2-2-19 6:30	0.37	1551	8.10	25.4	7-2-19 23:45	21.09	1625	9.65	8.4	5-3-19 19:00	7.33	1035	8.48	60.5					
2-2-19 7:15	-0.07	1514	8.03	2.1	2-2-19 6:45	0.18	765	7.88	2.0	2-2-19 6:45	0.37	1550	8.10	25.5	7-3-19 0:00	21.44	1622	9.99	8.4	5-3-19 19:15	7.29	1035	8.48	57.8					
2-2-19 7:30	-0.07	1527	8.02	2.2	2-2-19 7:00	0.18	766	7.88	6.7	2-2-19 7:00	0.38	1532	8.10	26.7	7-3-19 0:15	21.68	1623	9.39	8.4	5-3-19 19:30	7.30	1036	8.48	63.0					
2-2-19 7:45	-0.07	1526	8.02	2.1	2-2-19 7:15	0.18	760	7.88	4.9	2-2-19 7:15	0.40	1532	8.10	26.6	7-3-19 0:30	21.86	1621	9.16	8.4	5-3-19 19:45	7.17	1033	8.48	65.3					
2-2-19 8:00	-0.07	1526	8.02	2.1	2-2-19 7:30	0.19	767	7.88	4.3	2-2-19 7:30	0.41	1533	8.12	26.2	7-3-19 0:45	21.91	1621	9.48	8.4	5-3-19 20:00	7.03	1032	8.48	67.8					
2-2-19 8:15	-0.07	1526	8.01	2.1	2-2-19 7:45	0.19	757	7.88	4.7	2-2-19 7:45	0.42	1532	8.11	26.4	7-3-19 1:00	21.94	1621	9.04	8.4	5-3-19 20:15	6.96	1035	8.49	59.7					
2-2-19 8:30	-0.07	1509	8.01	2.1	2-2-19 8:00	0.19	759	7.88	4.8	2-2-19 8:00	0.44	1547	8.10	25.9	7-3-19 1:15	21.83	1620	8.72	8.4	5-3-19 20:30	6.93	1035	8.49	63.4					
2-2-19 8:45	-0.08	1509	8.01	2.2	2-2-19 8:15	0.19	755	7.88	4.4	2-2-19 8:15	0.43	1548	8.14	25.6	7-3-19 1:30	21.45	1616	10.69	8.4	5-3-19 20:45	6.89	1035	8.49	61.5					
2-2-19 9:00	-0.08	1509	8.01	2.1	2-2-19 8:30	0.19	756	7.88	3.8	2-2-19 8:30	0.44	1549	8.17	25.9	7-3-19 1:45	21.39	1618	11.92	8.4	5-3-19 21:00	6.85	1036	8.49	62.6					
2-2-19 9:15	-0.08	1509	8.00	2.2	2-2-19 8:45	0.18	762	7.88	5.0	2-2-19 8:45	0.44	1550	8.18	25.8	7-3-19 2:00	21.38	1619	9.69	8.4	5-3-19 21:15	6.83	1037	8.49	63.1					
2-2-19 9:30	-0.08	1526	7.99	2.1	2-2-19 9:00	0.19	761	7.88	5.0	2-2-19 9:00	0.43	1532	8.16	27.4	7-3-19 2:15	21.32	1619	9.11	8.4	5-3-19 21:30	6.80	1037	8.49	67.3					
2-2-19 9:45	-0.08	1526	8.00	2.1	2-2-19 9:15	0.19	766	7.88	5.9	2-2-19 9:15	0.44	1531	8.17	27.5	7-3-19 2:30	21.35	1620	7.90	8.4	5-3-19 21:45	6.76	1038	8.48	55.8					
2-2-19 10:00	-0.08	1526	8.00	2.1	2-2-19 9:30	0.19	761	7.88	3.8	2-2-19 9:30	0.45	1531	8.18	27.3	7-3-19 2:45	21.45	1623	7.98	8.5	5-3-19 22:00	6.75	1041	8.48	67.0					
2-2-19 10:15	-0.08	1526	8.00	2.1	2-2-19 9:45	0.19	765	7.88	4.3	2-2-19 9:45	0.44	1531	8.18	26.8	7-3-19 3:00	21.51	1623	8.48	8.5	5-3-19 22:15	6.71	1041	8.48	63.6					
2-2-19 10:30	-0.08	1510	8.00	3.0	2-2-19 10:00	0.19	758	7.88	5.1	2-2-19 10:00	0.45	1546	8.15	25.9	7-3-19 3:15	21.52	1622	7.64	8.5	5-3-19 22:30	6.71	1046	8.48	61.5					
2-2-19 10:45	-0.08	1510	8.00	2.4	2-2-19 10:15	0.19	765	7.88	5.6	2-2-19 10:15	0.43	1546	8.20	25.9	7-3-19 3:30	21.48	1622	8.20	8.5	5-3-19 22:45	6.71	1047	8.48	67.0					
2-2-19 11:00	-0.08	1510	7.99	2.1	2-2-19 10:30	0.19	762	7.88	4.6	2-2-19 10:30	0.43	1546	8.17	25.8	7-3-19 3:45	21.43	1621	8.41	8.5	5-3-19 23:00	6.64	1046	8.48	60.0					
2-2-19 11:15	-0.08	1510	7.99	2.1	2-2-19 10:45	0.19	768	7.88	2.4	2-2-19 10:45	0.43	1546	8.15	25.1	7-3-19 4:00	21.40	1621	8.23	8.4	5-3-19 23:15	6.59	1046	8.48	58.0					
2-2-19 11:30	-0.08	1524	7.98	2.2	2-2-19 11:00	0.19	766	7.87	2.4	2-2-19 11:00	0.42	1530	8.12	27.0	7-3-19 4:15	21.36	1623	8.12	8.5	5-3-19 23:30	6.57	1049	8.48	58.6					
2-2-19 11:45	-0.09	1524	7.98	2.1	2-2-19 11:15	0.19	760	7.88	6.4	2-2-19 11:15	0.42	1529	8.11	26.5	7-3-19 4:30	21.30	1622	7.75	8.5	5-3-19 23:45	6.54	1048	8.48	61.5					
2-2-19 12:00	-0.08	1524	7.99	2.1	2-2-19 11:30	0.19	760	7.88	4.5	2-2-19 11:30	0.42	1530	8.09	25.9	7-3-19 4:45	21.26	1622	7.36	8.5	5-4-19 0:00	6.59	1049	8.48	64.6					
2-2-19 12:15	-0.08	1524	7.99	2.2	2-2-19 11:45	0.19	764	7.88	4.7	2-2-19 11:45	0.42	1530	8.09	25.8	7-3-19 5:00	21.20	1621	8.55	8.5	5-4-19 0:15	6.55	1051	8.48	55.7					
2-2-19 12:30	-0.08	1506	7.98	2.3	2-2-19 12:00	0.19	769	7.88	5.3	2-2-19 12:00	0.44	1548	8.08	24.6	7-3-19 5:15	21.17	1622	7.31	8.5	5-4-19 0:30	6.54	1051	8.48	75.3					
2-2-19 12:45	-0.08	1505	7.98	2.3	2-2-19 12:15	0.19	770	7.89	4.2	2-2-19 12:15	0.42	1549	8.10	24.6	7-3-19 5:30	21.14	1622	7.52	8.5	5-4-19 0:45	6.54	1051	8.48	64.0					
2-2-19 13:00	-0.08	1505	7.98	2.2	2-2-19 12:30	0.15	744	7.93	6.3	2-2-19 12:30	0.45	1550	8.09	24.2	7-3-19 5:45	21.05	1622	7.08	8.5	5-4-19 1:00	6.53	1053	8.48	69.2					
2-2-19 13:15	-0.08	1504	7.98	2.1	2-2-19 12:45	0.14	739	7.91	2.8	2-2-19 12:45	0.45	1549	8.08	23.5	7-3-19 6:00	20.99	1622	6.67	8.5	5-4-19 1:15	6.49	1054	8.48	64.9					
2-2-19 13:30	-0.08	1531	7.97	2.1	2-2-19 13:00	0.13	737	7.91	4.4	2-2-19 13:00	0.42	1528	8.07	24.6	7-3-19 6:15	20.92	1621	6.98	8.5	5-4-19 1:30	6.48	1054	8.48	58.3					
2-2-19 13:45	-0.08	1531	7.97	2.1	2-2-19 13:15	0.13	730	7.91	4.6	2-2-19 13:15	0.43	1529	8.07	33.6	7-3-19 6:30	20.90	1624	6.86	8.5	5-4-19 1:45	6.47	1056	8.48	53.6					
2-2-19 14:00	-0.08	1531	7.97	2.1	2-2-19 13:30	0.13	736	7.91	5.6	2-2-19 13:30	0.44	1529	8.07	24.3	7-3-19 6:45	20.84	1622	6.58	8.5	5-4-19 2:00	6.45	1056	8.48	60.1					
2-2-19 14:15	-0.08	1530	7.97	2.2	2-2-19 13:45	0.13	733	7.91	6.6	2-2-19 13:45	0.44	1529	8.07	24.6	7-3-19 7:00	20.80	1622	8.77	8.5	5-4-19 2:15	6.43	1056	8.48	61.0					
2-2-19 14:30	-0.08	1502	7.96	2.1	2-2-19 14:00	0.14	739	7.91	5.0	2-2-19 14:00	0.46	1549	8.07	23.6	7-3-19 7:15	20.74	1623	6.70	8.5	5-4-19 2:30	6.45	1059	8.48	59.5					
2-2-19 14:45	-0.08	1502	7.96	2.2	2-2-19 14:15	0.14	739	7.91	4.5	2-2-19 14:15	0.45	1548	8.07	23.5	7-3-19 7:30	20.72	1623	7.01	8.4	5-4-19 2:45	6.40	1059	8.48	69.9					
2-2-19 15:00	-0.08	1502	7.96	2.1	2-2-19 14:30	0.15	741	7.90	3.1	2-2-19 14:30	0.45	1547	8.07	23.6	7-3-19 7:45	20.69	1622	7.11	8.5	5-4-19 3:00	6.42	1058	8.48	61.8					
2-2-19 15:15	-0.08	1502	7.95	2.0	2-2-19 14:45	0.15	730	7.91	4.1	2-2-19 14:45	0.45	1547	8.07	23.9	7-3-19 8:00	20.66	1622	6.51	8.4	5-4-19 3:15	6.36	1058	8.48	67.3					
2-2-19 15:30	-0.08	1518	7.94	2.1	2-2-19 15:00	0.15	733	7.91	5.3	2-2-19 15:00	0.44	1528	8.07	24.7	7-3-19 8:15	20.61	1622	6.62	8.4	5-4-19 3:30	6.32	1059	8.48	69.4					
2-2-19 15:45	-0.07	1518	7.95	2.1	2-2-19 15:15	0.15	734	7.91	6.2	2-2-19 15:15	0.44	1528	8.07	24.8	7-3-19 8:30	20.54	1622	6.35	8.5	5-4-19 3:45	6.30	1060	8.48	61.9					
2-2-19 16:00	-0.07	1518	7.95	2.2	2-2-19 15:30	0.15	733	7.91	5.2	2-2-19 15:30	0.44	1527	8.07	25.0	7-3-19 8:45	20.50	1623	6.28	8.4	5-4-19 4:00	6.29	1059	8.48	57.8					
2-2-19 16:15	-0.08	1518	7.95	2.1	2-2-19 15:45	0.16	742	7.90	2.5	2-2-19 15:45	0.44	1529	8.07	24.4	7-3-19 9:00	20.45	1622	6.34	8.4	5-4-19 4:15	6.22	1061	8.48	60.4					
2-2-19 16:30	-0.07	1498	7.95	2.0	2-2-19 16:00	0.16	735	7.91	6.2	2-2-19 16:00	0.46	1545	8.07	23.8	7-3-19 9:15	20.42	1621	6.73	8.4	5-4-19 4:30	6.19	1060	8.48	64.3					
2-2-19 16:45	-0.07	1498	7.94	2.0	2-2-19 16:15	0.16	734	7.91	7.4	2-2-19 16:15	0.45	1545	8.07	23.6	7-3-19 9:30	20.39	1622	6.75	8.4	5-4-19 4:45	6.12	1060	8.48	53.2					
2-2-19 17:00	-0.08	1498	7.94	2.0	2-2-19 16:30	0.16	733	7.91	3.6	2-2-19 16:30	0.45	1544	8.07	23.4	7-3-19 9:45	20.35	1622	6.95	8.4	5-4-19 5:00	6.05	1060	8.48	61.6					
2-2-19 17:15	-0.08	1498	7.94	2.1	2-2-19 16:45	0.16	739	7.91	4.8	2-2-19 16:45	0.45	1544	8.07	23.3	7-3-19 10:00	20.31	1620	7.20	8.4	5-4-19 5:15	6.07	1061	8.48	69.2					
2-2-19 17:30	-0.08	1514	7.93	2.0	2-2-19 17:00	0.16	736	7.91	4.8	2-2-19 17:00	0.44	1528	8.07	23.6	7-3-19 10:15	20.27	1622	7.55	8.4	5-4-19 5:30	6.01	1060	8.48	58.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-2-19 17:45	-0.08	1514	7.94	2.0	2-2-19 17:15	0.16	748	7.91	5.9	2-2-19 17:15	0.44	1527	8.07	25.0	7-3-19 10:30	20.25	1621	7.44	8.4	5-4-19 5:45	5.96	1059	8.48	64.8					
2-2-19 18:00	-0.08	1514	7.93	2.2	2-2-19 17:30	0.16	737	7.91	6.0	2-2-19 17:30	0.44	1528	8.07	24.6	7-3-19 10:45	20.22	1621	6.84	8.4	5-4-19 6:00	5.73	1043	8.49	64.9					
2-2-19 18:15	-0.08	1514	7.94	2.4	2-2-19 17:45	0.16	737	7.91	4.5	2-2-19 17:45	0.44	1527	8.07	24.2	7-3-19 11:00	20.18	1622	6.89	8.4	5-4-19 6:15	5.63	1035	8.49	47.7					
2-2-19 18:30	-0.08	1499	7.94	2.0	2-2-19 18:00	0.16	740	7.90	2.1	2-2-19 18:00	0.45	1547	8.06	23.4	7-3-19 11:15	20.14	1622	6.95	8.4	5-4-19 6:30	5.68	1040	8.49	65.3					
2-2-19 18:45	-0.08	1499	7.93	2.0	2-2-19 18:15	0.16	742	7.91	5.6	2-2-19 18:15	0.44	1547	8.06	23.2	7-3-19 11:30	20.11	1621	11.52	8.4	5-4-19 6:45	5.79	1043	8.49	52.3					
2-2-19 19:00	-0.08	1499	7.93	1.9	2-2-19 18:30	0.16	742	7.90	2.8	2-2-19 18:30	0.44	1547	8.06	22.9	7-3-19 11:45	20.07	1622	6.69	8.4	5-4-19 7:00	5.84	1046	8.48	66.8					
2-2-19 19:15	-0.08	1498	7.93	2.1	2-2-19 18:45	0.16	740	7.91	7.2	2-2-19 18:45	0.44	1548	8.06	23.0	7-3-19 12:00	20.05	1621	6.96	8.4	5-4-19 7:15	5.77	1047	8.49	63.3					
2-2-19 19:30	-0.08	1509	7.92	2.1	2-2-19 19:00	0.16	735	7.91	6.5	2-2-19 19:00	0.43	1527	8.06	24.3	7-3-19 12:15	20.02	1621	6.46	8.4	5-4-19 7:30	5.78	1048	8.49	63.3					
2-2-19 19:45	-0.08	1509	7.92	1.9	2-2-19 19:15	0.16	743	7.91	6.6	2-2-19 19:15	0.44	1527	8.06	24.1	7-3-19 12:30	19.99	1622	7.09	8.4	5-4-19 7:45	5.84	1047	8.49	64.9					
2-2-19 20:00	-0.08	1509	7.92	2.0	2-2-19 19:30	0.17	738	7.91	6.3	2-2-19 19:30	0.44	1527	8.06	25.9	7-3-19 12:45	19.94	1621	7.07	8.4	5-4-19 8:00	5.92	1041	8.49	62.9					
2-2-19 20:15	-0.08	1509	7.92	2.0	2-2-19 19:45	0.17	734	7.91	4.5	2-2-19 19:45	0.44	1527	8.06	28.5	7-3-19 13:00	19.88	1621	6.50	8.4	5-4-19 8:15	5.97	1043	8.49	63.8					
2-2-19 20:30	-0.08	1496	7.92	2.0	2-2-19 20:00	0.17	737	7.91	6.0	2-2-19 20:00	0.45	1544	8.06	22.7	7-3-19 13:15	19.87	1621	6.64	8.4	5-4-19 8:30	5.99	1043	8.49	63.2					
2-2-19 20:45	-0.08	1496	7.92	2.0	2-2-19 20:15	0.17	737	7.92	6.3	2-2-19 20:15	0.44	1546	8.05	23.1	7-3-19 13:30	19.83	1620	6.74	8.4	5-4-19 8:45	6.10	1042	8.49	52.4					
2-2-19 21:00	-0.08	1496	7.92	2.0	2-2-19 20:30	0.17	736	7.92	6.2	2-2-19 20:30	0.44	1545	8.05	22.7	7-3-19 13:45	19.80	1620	6.70	8.4	5-4-19 9:00	6.13	1043	8.49	57.1					
2-2-19 21:15	-0.08	1496	7.92	1.9	2-2-19 20:45	0.17	736	7.92	6.4	2-2-19 20:45	0.44	1546	8.05	22.5	7-3-19 14:00	19.77	1621	6.49	8.4	5-4-19 9:15	6.14	1043	8.49	71.7					
2-2-19 21:30					2-2-19 21:00	0.17	741	7.92	4.3	2-2-19 21:00	0.43	1529	8.06	24.8	7-3-19 14:15	19.73	1621	7.25	8.4	5-4-19 9:30	6.21	1042	8.49	67.0					
2-2-19 21:45	-0.08	1512	7.91	2.0	2-2-19 21:15	0.17	735	7.92	6.0	2-2-19 21:15	0.43	1527	8.06	23.5	7-3-19 14:30	19.70	1619	7.04	8.4	5-4-19 9:45	6.30	1042	8.49	64.3					
2-2-19 22:00	-0.08	1512	7.91	1.9	2-2-19 21:30	0.17	738	7.92	6.7	2-2-19 21:30	0.43	1527	8.06	23.0	7-3-19 14:45	19.67	1620	6.60	8.4	5-4-19 10:00	6.45	1043	8.49	70.3					
2-2-19 22:15	-0.08	1512	7.91	2.0	2-2-19 21:45	0.17	744	7.92	4.6	2-2-19 21:45	0.43	1528	8.06	26.3	7-3-19 15:00	19.66	1622	6.96	8.4	5-4-19 10:15	6.48	1043	8.48	72.3					
2-2-19 22:30	-0.08	1495	7.91	2.1	2-2-19 22:00	0.17	740	7.93	6.7	2-2-19 22:00	0.45	1544	8.06	22.8	7-3-19 15:15	19.64	1620	6.71	8.4	5-4-19 10:30	6.57	1043	8.48	65.6					
2-2-19 22:45	-0.09	1495	7.91	1.9	2-2-19 22:15	0.17	737	7.93	4.1	2-2-19 22:15	0.43	1544	8.06	22.6	7-3-19 15:30	19.69	1620	6.70	8.4	5-4-19 10:45	6.68	1043	8.48	71.7					
2-2-19 23:00	-0.09	1495	7.91	1.9	2-2-19 22:30	0.17	739	7.92	3.7	2-2-19 22:30	0.43	1546	8.07	22.3	7-3-19 15:45	19.81	1620	7.40	8.4	5-4-19 11:00	6.88	1043	8.48	65.6					
2-2-19 23:15	-0.09	1495	7.90	1.9	2-2-19 22:45	0.17	751	7.93	4.6	2-2-19 22:45	0.44	1546	8.07	22.5	7-3-19 16:00	19.81	1620	6.97	8.4	5-4-19 11:15	6.97	1043	8.48	64.2					
2-2-19 23:30	-0.09	1505	7.89	1.9	2-2-19 23:00	0.17	738	7.93	4.4	2-2-19 23:00	0.42	1529	8.08	26.4	7-3-19 16:15	19.84	1621	6.97	8.4	5-4-19 11:30	7.01	1043	8.48	69.7					
2-2-19 23:45	-0.09	1505	7.89	2.0	2-2-19 23:15	0.18	735	7.92	5.3	2-2-19 23:15	0.43	1528	8.07	25.0	7-3-19 16:30	19.86	1620	6.80	8.4	5-4-19 11:45	7.07	1044	8.48	59.9					
2-3-19 0:00	-0.09	1505	7.89	2.0	2-2-19 23:30	0.18	748	7.93	3.5	2-2-19 23:30	0.43	1529	8.07	29.2	7-3-19 16:45	19.95	1621	6.64	8.4	5-4-19 12:00	7.23	1044	8.48	59.7					
2-3-19 0:15	-0.09	1504	7.89	1.9	2-2-19 23:45	0.17	756	7.93	5.1	2-2-19 23:45	0.43	1529	8.08	24.5	7-3-19 17:00	20.00	1621	6.96	8.4	5-4-19 12:15	7.40	1047	8.47	62.0					
2-3-19 0:30	-0.09	1496	7.89	1.9	2-3-19 0:00	0.17	738	7.93	4.4	2-3-19 0:00	0.45	1549	8.08	22.6	7-3-19 17:15	20.10	1620	7.50	8.4	5-4-19 12:30	7.62	1046	8.47	74.0					
2-3-19 0:45	-0.09	1495	7.89	1.9	2-3-19 0:15	0.17	744	7.93	4.4	2-3-19 0:15	0.43	1547	8.08	22.1	7-3-19 17:30	20.16	1623	7.12	8.4	5-4-19 12:45	7.71	1048	8.47	68.4					
2-3-19 1:00	-0.09	1495	7.89	2.0	2-3-19 0:30	0.18	739	7.93	4.5	2-3-19 0:30	0.43	1547	8.08	22.3	7-3-19 17:45	20.25	1621	7.55	8.4	5-4-19 13:00	7.75	1047	8.47	91.9					
2-3-19 1:15	-0.09	1495	7.89	2.0	2-3-19 0:45	0.18	751	7.93	5.3	2-3-19 0:45	0.43	1549	8.08	22.0	7-3-19 18:00	20.40	1621	6.98	8.4	5-4-19 13:15	7.68	1045	8.47	71.6					
2-3-19 1:30	-0.09	1524	7.88	1.9	2-3-19 1:00	0.18	746	7.93	3.8	2-3-19 1:00	0.42	1528	8.09	24.2	7-3-19 18:15	20.46	1621	7.32	8.4	5-4-19 13:30	7.79	1044	8.47	71.1					
2-3-19 1:45	-0.09	1524	7.88	1.9	2-3-19 1:15	0.18	747	7.93	6.3	2-3-19 1:15	0.43	1529	8.08	24.4	7-3-19 18:30	20.63	1620	7.16	8.4	5-4-19 13:45	7.79	1045	8.47	58.0					
2-3-19 2:00	-0.09	1524	7.88	1.9	2-3-19 1:30	0.18	749	7.94	4.4	2-3-19 1:30	0.43	1529	8.08	23.5	7-3-19 18:45	20.65	1622	6.90	8.4	5-4-19 14:00	7.73	1043	8.47	63.7					
2-3-19 2:15	-0.09	1524	7.88	1.9	2-3-19 1:45	0.18	746	7.94	4.4	2-3-19 1:45	0.43	1530	8.08	22.9	7-3-19 19:00	20.79	1622	6.96	8.4	5-4-19 14:15	7.67	1043	8.47	73.8					
2-3-19 2:30	-0.09	1495	7.88	1.9	2-3-19 2:00	0.18	742	7.94	6.0	2-3-19 2:00	0.44	1549	8.08	21.7	7-3-19 19:15	20.92	1622	6.74	8.4	5-4-19 14:30	7.66	1043	8.48	61.1					
2-3-19 2:45	-0.09	1495	7.88	1.8	2-3-19 2:15	0.18	744	7.94	6.5	2-3-19 2:15	0.43	1548	8.08	21.6	7-3-19 19:30	21.19	1624	7.33	8.4	5-4-19 14:45	7.70	1045	8.48	52.4					
2-3-19 3:00	-0.09	1495	7.88	1.9	2-3-19 2:30	0.18	740	7.94	8.0	2-3-19 2:30	0.43	1550	8.08	21.7	7-3-19 19:45	21.34	1624	7.09	8.4	5-4-19 15:00	7.75	1042	8.48	73.5					
2-3-19 3:15	-0.09	1495	7.88	1.9	2-3-19 2:45	0.18	749	7.94	7.0	2-3-19 2:45	0.43	1550	8.08	21.6	7-3-19 20:00	21.52	1623	10.69	8.4	5-4-19 15:15	7.77	1044	8.48	54.1					
2-3-19 3:30	-0.09	1528	7.88	2.0	2-3-19 3:00	0.18	751	7.97	3.0	2-3-19 3:00	0.41	1530	8.09	23.6	7-3-19 20:15	21.62	1625	7.50	8.4	5-4-19 15:30	7.82	1043	8.48	67.8					
2-3-19 3:45	-0.10	1528	7.88	1.8	2-3-19 3:15	0.18	751	7.96	4.9	2-3-19 3:15	0.42	1530	8.09	32.6	7-3-19 20:30	21.71	1626	7.49	8.4	5-4-19 15:45	7.81	1043	8.48	67.1					
2-3-19 4:00	-0.10	1528	7.88	1.9	2-3-19 3:30	0.18	743	7.95	4.3	2-3-19 3:30	0.42	1530	8.09	21.2	7-3-19 20:45	21.77	1625	8.30	8.4	5-4-19 16:00	7.83	1046	8.48	50.1					
2-3-19 4:15	-0.10	1528	7.88	1.9	2-3-19 3:45	0.18	753	7.95	5.4	2-3-19 3:45	0.42	1531	8.09	23.9	7-3-19 21:00	21.81	1626	7.02	8.4	5-4-19 16:15	7.91	1045	8.48	76.4					
2-3-19 4:30	-0.10	1497	7.88	1.9	2-3-19 4:00	0.18	759	7.97	2.3	2-3-19 4:00	0.44	1548	8.08	21.7	7-3-19 21:15	21.83	1626	6.99	8.4	5-4-19 16:30	7.94	1047	8.48	70.2					
2-3-19 4:45	-0.10	1497	7.88	1.9	2-3-19 4:15	0.18	748	7.97	4.5	2-3-19 4:15	0.42	1549	8.09	21.6	7-3-19 21:30	21.78	1626	8.34	8.4	5-4-19 16:45	7.97	1044	8.48	61.2					
2-3-19 5:00	-0.09	1497	7.88	1.9	2-3-19 4:30	0.18	740	7.96	5.0	2-3-19 4:30	0.42	1549	8.08	21.2	7-3-19 21:45	21.91	1626	7.32	8.4	5-4-19 17:00	7.95	1044	8.48	63.2					
2-3-19 5:15	-0.10	1497	7.88	1.9	2-3-19 4:45	0.18	745	7.95	4.1	2-3-19 4:45	0.42	1548	8.08	21.5	7-3-19 22:00	22.03	1627	7.54	8.4	5-4-19 17:15	7.97	1045	8.48	65.4					
2-3-19 5:30	-0.10	1514	7.88	1.9	2-3-19 5:00	0.18	753	7.95	5.3	2-3-19 5:00	0.41	1531	8.08	23.7	7-3-19 22:15	22.09	1624	7.30	8.4	5-4-19 17:30	7.96	1048	8.48	72.3					
2-3-19 5:45	-0.10	1514	7.88	1.9	2-3-19 5:15	0.18	749	7.96	3.9	2-3-19 5:15	0.42	1531	8.08	24.0	7-3-19 22:30	22.30	1629	7.72	8.4	5-4-19 17:45	7.95	1049	8.48	67.9					
2-3-19 6:00	-0.10	1514	7.88	1.8	2-3-19 5:30	0.19	750	7.95	4.5	2-3-19 5:30	0.42	1530	8.08	24.3	7-3-19 22:45	22.36	1626	7.26	8.4	5-4-19 18:00	7.96	1047	8.48	60.6					
2-3-19 6:15	-0.10	1514	7.88	1.9	2-3-19 5:45	0.19	746	7.94	4.4	2-3-19 5:45	0.42	1532	8.07	24.1	7-3-19 23:00	22.41	1627	8.19	8.4	5-4-19 18:15	7.95	1047	8.48	61.6					
2-3-19 6:30	-0.10	1495	7.88	1.9	2-3-19 6:00	0.19	742	7.95	4.9	2-3-19 6:00	0.43	1550	8.07	20.8	7-3-19 23:15	22.54	1629	11.66	8.4	5-4-19 18:30	7.95	1047	8.48	57.8					
2-3-19 6:45	-0.10	1495	7.87	1.8	2-3-19 6:15	0.19	745	7.95	5.7	2-3-19 6:15	0.42	1550	8.07	20.4	7-3-19 23:30	22.56	1629	8.69	8.4	5-4-19 18:45	7.94	1048	8.48	58.2					
2-3-19 7:00	-0.10	1495	7.87	1.8	2-3-19 6:30	0.19	743	7.96	4.9	2-3-19 6:30	0.42	1553	8.06	20.5	7-3-19 23:45	22.54	1628	7.76	8.4	5-4-19 19:00	7.87	1050	8.49	54.6					
2-3-19 7:15	-0.10	1495	7.88	1.8	2-3-19 6:45	0.19	745	7.96	7.5	2-3-19 6:45	0.42	1551	8.06	20.5	7-4-19 0:00	22.53	1627	7.83	8.4	5-4-19 19:15	7.82	1048	8.49	53.2					
2-3-19 7:30	-0.10	1510	7.87	1.8	2-3-19 7:00	0.19	743	7.96	6.9	2-3-19 7:00	0.40	1531	8.07	23.7	7-4-19 0:15	22.50	1627	9.45	8.5	5-4-19 19:30	7.73	1046	8.49	55.2					
2-3-19 7:45	-0.10	1510	7.87	1.8	2-3-19 7:15	0.19	744	7.97	6.7	2-3-19 7:15	0.41	1531	8.06	32.8	7-4-19 0:30	22.49	1628	7.51	8.4	5-4-19 19:45	7.70	1047	8.49	59.1					
2-3-19 8:00	-0.10	1510	7.87	1.8	2-3-19 7:30	0.19	746	7.97	5.9	2-3-19 7:30	0.41	1531	8.06	24.1	7-4-19 0:45	22.49	1629	7.21	8.4	5-4-19 20:00	7.62	1045	8.49	65.9					
2-3-19 8:15	-0.09	1510	7.87	1.8	2-3-19 7:45	0.19	743	7.96	4.4	2-3-19 7:45	0.41	1532	8.06	23.8	7-4-19 1:00	22.48	1629	7.27	8.5	5-4-19 20:15	7.58	1046	8.49	66.9					
2-3-19 8:30	-0.10	1494	7.87	1.9	2-3-19 8:00	0.19	752	7.97	5.7	2-3-19 8:00	0.43	1549	8.06	20.7	7-4-19 1:15	22.49	1628	8.64	8.4	5-4-19 20:30	7.52	1045	8.49	64.9					
2-3-19 8:45	-0.09	1494	7.87	1.9	2-3-19 8:15	0.19	759	7.97	5.5	2-3-19 8:15	0.41	1549	8.06	20.7	7-4-19 1:30	22.47	1627	7.13	8.4	5-4-19 20:45	7.53	1050	8.49	67.5					
2-3-19 9:00	-0.09	1494	7.86	2.0	2-3-19 8:30	0.19	748	7.96	6.3	2-3-19 8:30	0.41	1550	8.06	20.5	7-4-19 1:45	22.44	1628	6.97	8.5	5-4-19 21:00	7.47	1047	8.49	51.2					
2-3-19 9:15	-0.09	1493	7.86	1.8	2-3-19 8:45	0.19	747	7.96	6.2	2-3-19 8:45	0.41	1549	8.06	20.6	7-4-19 2:00	22.32	1630	7.65	8.5	5-4-19 21:15	7.51	1048	8.49	68.8					
2-3-19 9:30	-0.09	1507	7.85	1.9	2-3-19 9:00	0.19	754	7.97	2.9	2-3-19 9:00	0.40	1532	8.07	23.8	7-4-19 2:15	22.23	1629	8.41	8.5	5-4-19 21:30	7.48	1049	8.49	65.1					
2-3-19 9:45	-0.09	1506	7.86	1.8	2-3-19 9:15	0.19	755	7.97	5.5	2-3-19 9:15	0.40	1533	8.07	29.0	7-4-19 2:30	22.14	1628	7.45	8.5	5-4-19 21:45	7.49	1047	8.49	49.5					
2-3-19 10:00	-0.09	1506	7.86	1.9	2-3-19 9:30	0.19	749	7.96	4.3	2-3-19 9:30	0.40	1533	8.07	24.2	7-4-19 2:45	22.10	1627	8.29	8.5	5-4-19 22:00	7.51	1052	8.49	48.9					
2-3-19 10:15	-0.09	1506	7.86	1.8	2-3-19 9:45	0.19	745	7.96	5.2	2-3-19 9:45	0.40	1533	8.07	24.1	7-4-19 3:00	22.10	1627	7.75	8.5	5-4-19 22:15	7.48	1047	8.49	57.3					
2-3-19 10:30	-0.09	1489	7.86	2.0	2-3-19 10:00	0.19	749	7.96	5.8	2-3-19 10:00	0.42	1548	8.07	21.4	7-4-19 3:15	22.02	1627	8.93	8.5	5-4-19 22:30	7.42	1060	8.49	60.9					
2-3-19 10:45	-0.09	1488	7.86	1.9	2-3-19 10:15	0.19	746	7.97	7.0	2-3-19 10:15	0.40	1549	8.07	20.2	7-4-19 3:30	21.94	1626	7.96	8.5	5-4-19 22:45	7.37	1049	8.49	56.5					
2-3-19 11:00	-0.09	1488	7.86	1.9	2-3-19 10:30	0.19	749	7.98	6.5	2-3-19 10:30	0.40	1550	8.06	19.9	7-4-19 3:45	21.87	1626	7.15	8.5	5-4-19 23:00	7.34	1049	8.49	56.1					
2-3-19 11:15	-0.09	1488	7.85	1.8	2-3-19 10:45	0.19	747	7.98	7.2	2-3-19 10:45	0.40	1550	8.06	20.2	7-4-19 4:00	21.79	1628	7.36	8.5	5-4-19 23:15	7.33	1048	8.49	60.4					
2-3-19 11:30	-0.09	1515	7.85	1.8	2-3-19 11:00	0.19	756	7.99	2.5	2-3-19 11:00	0.39	1533	8.07	23.7	7-4-19 4:15	21.70	1627	7.19	8.5	5-4-19 23:30	7.33	1048	8.49	50.5					
2-3-19 11:45	-0.09	1515	7.85	1.8	2-3-19 11:15	0.19	750	7.99	5.5	2-3-19 11:15	0.40	1534	8.07	23.3	7-4-19 4:30	21.64	1627	7.35	8.5	5-4-19 23:45	7.32	1049	8.49	45.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-3-19 12:00	-0.09	1515	7.85	1.9	2-3-19 11:30	0.19	749	7.99	6.4	2-3-19 11:30	0.40	1535	8.07	28.6	7-4-19 4:45	21.62	1626	7.60	8.5	5-5-19 0:00	7.28	1048	8.49	55.0					
2-3-19 12:15	-0.09	1514	7.85	1.8	2-3-19 11:45	0.16	792	7.93	3.0	2-3-19 11:45	0.41	1534	8.07	24.8	7-4-19 5:00	21.57	1626	8.53	8.5	5-5-19 0:15	7.24	1047	8.49	59.2					
2-3-19 12:30	-0.09	1484	7.85	1.8	2-3-19 12:00	0.08	776	7.95	5.2	2-3-19 12:00	0.41	1554	8.06	20.0	7-4-19 5:15	21.52	1626	7.35	8.5	5-5-19 0:30	7.24	1047	8.49	62.7					
2-3-19 12:45	-0.09	1484	7.85	1.9	2-3-19 12:15	0.10	734	7.96	8.5	2-3-19 12:15	0.39	1555	8.06	22.8	7-4-19 5:30	21.45	1626	6.98	8.5	5-5-19 0:45	7.21	1048	8.49	59.9					
2-3-19 13:00	-0.09	1484	7.85	1.9	2-3-19 12:30	0.10	739	7.99	6.2	2-3-19 12:30	0.47	1553	8.06	20.5	7-4-19 5:45	21.42	1627	7.18	8.5	5-5-19 1:00	7.21	1048	8.49	61.1					
2-3-19 13:15	-0.09	1484	7.85	1.9	2-3-19 12:45	0.09	748	8.02	5.2	2-3-19 12:45	0.46	1552	8.05	20.9	7-4-19 6:00	21.35	1627	7.57	8.5	5-5-19 1:15	7.15	1047	8.49	56.5					
2-3-19 13:30	-0.09	1494	7.84	1.9	2-3-19 13:00	0.09	754	8.03	7.0	2-3-19 13:00	0.37	1536	8.06	24.1	7-4-19 6:15	21.29	1626	9.43	8.5	5-5-19 1:30	7.14	1050	8.49	53.5					
2-3-19 13:45	-0.09	1494	7.84	1.8	2-3-19 13:15	0.09	752	8.05	2.8	2-3-19 13:15	0.34	1538	8.07	23.6	7-4-19 6:30	21.22	1628	6.51	8.5	5-5-19 1:45	7.10	1049	8.49	60.4					
2-3-19 14:00	-0.09	1494	7.84	2.0	2-3-19 13:30	0.09	753	8.05	6.3	2-3-19 13:30	0.33	1538	8.07	22.6	7-4-19 6:45	21.17	1626	7.58	8.5	5-5-19 2:00	7.10	1048	8.49	57.0					
2-3-19 14:15	-0.08	1493	7.84	1.8	2-3-19 13:45	0.09	752	8.04	5.3	2-3-19 13:45	0.32	1538	8.06	23.1	7-4-19 7:00	21.09	1627	6.89	8.5	5-5-19 2:15	7.07	1049	8.49	53.9					
2-3-19 14:30	-0.08	1479	7.84	1.8	2-3-19 14:00	0.10	742	8.04	5.9	2-3-19 14:00	0.34	1555	8.06	19.7	7-4-19 7:15	21.01	1627	6.49	8.5	5-5-19 2:30	7.04	1050	8.49	55.4					
2-3-19 14:45	-0.08	1478	7.84	1.8	2-3-19 14:15	0.10	751	8.04	6.4	2-3-19 14:15	0.32	1556	8.06	19.2	7-4-19 7:30	20.98	1626	7.01	8.5	5-5-19 2:45	7.02	1049	8.49	50.9					
2-3-19 15:00	-0.09	1478	7.84	1.8	2-3-19 14:30	0.10	747	8.05	5.6	2-3-19 14:30	0.32	1555	8.06	19.2	7-4-19 7:45	20.91	1627	6.82	8.5	5-5-19 3:00	6.93	1050	8.49	48.4					
2-3-19 15:15	-0.08	1478	7.83	1.9	2-3-19 14:45	0.10	751	8.05	6.9	2-3-19 14:45	0.33	1555	8.06	19.1	7-4-19 8:00	20.83	1626	6.54	8.5	5-5-19 3:15	6.97	1048	8.49	58.0					
2-3-19 15:30	-0.08	1489	7.83	1.8	2-3-19 15:00	0.10	751	8.05	5.3	2-3-19 15:00	0.32	1537	8.07	21.6	7-4-19 8:15	20.77	1626	6.60	8.5	5-5-19 3:30	6.93	1048	8.49	53.8					
2-3-19 15:45	-0.08	1489	7.83	1.9	2-3-19 15:15	0.10	749	8.06	7.0	2-3-19 15:15	0.33	1536	8.06	20.1	7-4-19 8:30	20.70	1627	9.30	8.5	5-5-19 3:45	6.91	1049	8.49	48.8					
2-3-19 16:00	-0.08	1489	7.83	1.8	2-3-19 15:30	0.10	752	8.05	5.6	2-3-19 15:30	0.33	1536	8.07	20.9	7-4-19 8:45	20.62	1627	6.46	8.5	5-5-19 4:00	6.85	1048	8.49	46.9					
2-3-19 16:15	-0.08	1489	7.83	1.9	2-3-19 15:45	0.11	750	8.05	6.1	2-3-19 15:45	0.33	1537	8.07	21.4	7-4-19 9:00	20.54	1627	6.64	8.5	5-5-19 4:15	6.80	1048	8.49	55.8					
2-3-19 16:30	-0.09	1474	7.83	1.8	2-3-19 16:00	0.11	754	8.05	4.9	2-3-19 16:00	0.35	1556	8.06	18.8	7-4-19 9:15	20.47	1627	7.68	8.5	5-5-19 4:30	6.78	1048	8.49	59.2					
2-3-19 16:45	-0.09	1474	7.83	1.9	2-3-19 16:15	0.11	749	8.05	5.7	2-3-19 16:15	0.34	1556	8.07	18.6	7-4-19 9:30	20.41	1625	6.80	8.5	5-5-19 4:45	6.76	1045	8.49	65.9					
2-3-19 17:00	-0.09	1474	7.82	1.8	2-3-19 16:30	0.11	748	8.04	10.3	2-3-19 16:30	0.33	1554	8.07	18.7	7-4-19 9:45	20.34	1626	6.59	8.5	5-5-19 5:00	6.76	1045	8.49	54.7					
2-3-19 17:15	-0.09	1473	7.82	1.9	2-3-19 16:45	0.11	754	8.05	5.5	2-3-19 16:45	0.33	1556	8.07	18.5	7-4-19 10:00	20.27	1625	8.03	8.5	5-5-19 5:15	6.76	1045	8.49	60.5					
2-3-19 17:30	-0.09	1504	7.81	1.9	2-3-19 17:00	0.11	745	8.04	6.7	2-3-19 17:00	0.32	1537	8.06	21.2	7-4-19 10:15	20.18	1627	6.19	8.5	5-5-19 5:30	6.73	1045	8.49	53.9					
2-3-19 17:45	-0.09	1504	7.82	1.8	2-3-19 17:15	0.11	741	8.03	8.2	2-3-19 17:15	0.33	1538	8.06	20.6	7-4-19 10:30	20.12	1627	6.50	8.5	5-5-19 5:45	6.65	1044	8.49	63.5					
2-3-19 18:00	-0.10	1504	7.82	1.8	2-3-19 17:30	0.11	750	8.02	5.7	2-3-19 17:30	0.33	1538	8.06	20.7	7-4-19 10:45	20.09	1627	6.17	8.5	5-5-19 6:00	6.59	1045	8.49	57.7					
2-3-19 18:15	-0.10	1504	7.81	1.8	2-3-19 17:45	0.11	747	8.01	7.1	2-3-19 17:45	0.33	1538	8.07	19.8	7-4-19 11:00	20.00	1625	7.44	8.5	5-5-19 6:15	6.59	1045	8.49	62.7					
2-3-19 18:30	-0.10	1472	7.80	1.8	2-3-19 18:00	0.11	747	8.01	6.9	2-3-19 18:00	0.35	1555	8.06	18.8	7-4-19 11:15	19.91	1626	6.64	8.5	5-5-19 6:30	6.61	1045	8.49	58.2					
2-3-19 18:45	-0.09	1471	7.80	1.9	2-3-19 18:15	0.12	747	7.99	9.3	2-3-19 18:15	0.34	1557	8.07	18.6	7-4-19 11:30	19.84	1627	7.86	8.5	5-5-19 6:45	6.61	1046	8.49	49.6					
2-3-19 19:00	-0.09	1470	7.79	1.9	2-3-19 18:30	0.12	746	8.00	10.1	2-3-19 18:30	0.34	1557	8.08	18.8	7-4-19 11:45	19.79	1625	7.02	8.5	5-5-19 7:00	6.64	1047	8.49	55.3					
2-3-19 19:15	-0.09	1469	7.78	1.8	2-3-19 18:45	0.12	750	8.01	4.9	2-3-19 18:45	0.34	1557	8.08	18.7	7-4-19 12:00	19.74	1626	6.50	8.5	5-5-19 7:15	6.64	1046	8.49	54.9					
2-3-19 19:30	-0.09	1502	7.78	1.8	2-3-19 19:00	0.12	743	8.01	6.7	2-3-19 19:00	0.33	1538	8.07	22.4	7-4-19 12:15	19.68	1627	6.82	8.4	5-5-19 7:30	6.59	1046	8.49	59.5					
2-3-19 19:45	-0.09	1501	7.77	1.8	2-3-19 19:15	0.12	747	8.01	5.3	2-3-19 19:15	0.33	1538	8.07	19.9	7-4-19 12:30	19.63	1626	7.46	8.5	5-5-19 7:45	6.56	1044	8.49	69.3					
2-3-19 20:00	-0.09	1501	7.77	1.9	2-3-19 19:30	0.13	752	8.01	6.0	2-3-19 19:30	0.33	1537	8.07	20.0	7-4-19 12:45	19.56	1627	7.10	8.4	5-5-19 8:00	6.59	1043	8.49	51.0					
2-3-19 20:15	-0.09	1500	7.77	1.9	2-3-19 19:45	0.13	757	8.02	5.8	2-3-19 19:45	0.33	1537	8.07	25.9	7-4-19 13:00	19.51	1627	7.45	8.4	5-5-19 8:15	6.59	1044	8.49	60.9					
2-3-19 20:30	-0.09	1466	7.77	2.0	2-3-19 20:00	0.13	751	8.02	5.8	2-3-19 20:00	0.34	1557	8.07	18.3	7-4-19 13:15	19.48	1626	8.20	8.5	5-5-19 8:30	6.53	1043	8.50	60.5					
2-3-19 20:45	-0.08	1465	7.76	1.9	2-3-19 20:15	0.13	752	8.02	6.4	2-3-19 20:15	0.33	1556	8.08	18.4	7-4-19 13:30	19.44	1627	7.23	8.4	5-5-19 8:45	6.50	1042	8.50	61.0					
2-3-19 21:00	-0.09	1465	7.76	1.9	2-3-19 20:30	0.13	753	8.03	6.3	2-3-19 20:30	0.33	1559	8.08	18.4	7-4-19 13:45	19.40	1627	7.25	8.5	5-5-19 9:00	6.52	1043	8.50	58.2					
2-3-19 21:15	-0.09	1465	7.76	2.0	2-3-19 20:45	0.13	752	8.03	2.6	2-3-19 20:45	0.33	1557	8.08	18.6	7-4-19 14:00	19.37	1626	7.83	8.4	5-5-19 9:15	6.50	1041	8.50	65.6					
2-3-19 21:30	-0.09	1474	7.75	1.9	2-3-19 21:00	0.13	753	8.03	5.7	2-3-19 21:00	0.32	1540	8.08	20.1	7-4-19 14:15	19.32	1626	7.06	8.5	5-5-19 9:30	6.60	1040	8.50	64.5					
2-3-19 21:45	-0.09	1474	7.75	2.0	2-3-19 21:15	0.13	753	8.03	2.4	2-3-19 21:15	0.32	1539	8.08	20.4	7-4-19 14:30	19.29	1628	7.18	8.5	5-5-19 9:45	6.66	1042	8.50	67.3					
2-3-19 22:00	-0.09	1473	7.75	2.0	2-3-19 21:30	0.13	748	8.03	7.1	2-3-19 21:30	0.32	1539	8.08	19.7	7-4-19 14:45	19.24	1627	7.29	8.4	5-5-19 10:00	6.73	1039	8.50	69.7					
2-3-19 22:15	-0.09	1473	7.75	2.1	2-3-19 21:45	0.13	755	8.02	5.6	2-3-19 21:45	0.32	1539	8.08	19.7	7-4-19 15:00	19.24	1626	7.92	8.4	5-5-19 10:15	6.80	1042	8.50	72.9					
2-3-19 22:30	-0.09	1463	7.75	2.1	2-3-19 22:00	0.13	760	8.02	7.2	2-3-19 22:00	0.34	1557	8.08	18.1	7-4-19 15:15	19.21	1628	9.94	8.4	5-5-19 10:30	6.88	1042	8.50	64.4					
2-3-19 22:45	-0.09	1463	7.74	2.0	2-3-19 22:15	0.13	751	8.02	5.7	2-3-19 22:15	0.33	1558	8.09	18.0	7-4-19 15:30	19.18	1628	8.19	8.5	5-5-19 10:45	6.94	1040	8.50	71.6					
2-3-19 23:00	-0.09	1462	7.74	2.0	2-3-19 22:30	0.14	750	8.02	11.7	2-3-19 22:30	0.32	1559	8.10	17.8	7-4-19 15:45	19.17	1627	8.35	8.5	5-5-19 11:00	6.98	1040	8.50	72.9					
2-3-19 23:15	-0.08	1462	7.74	2.1	2-3-19 22:45	0.14	746	8.02	6.8	2-3-19 22:45	0.32	1560	8.10	17.8	7-4-19 16:00	19.25	1627	8.41	8.5	5-5-19 11:15	7.02	1041	8.49	63.0					
2-3-19 23:30	-0.09	1477	7.73	2.1	2-3-19 23:00	0.14	751	8.01	6.1	2-3-19 23:00	0.31	1539	8.10	20.3	7-4-19 16:15	19.31	1626	8.15	8.4	5-5-19 11:30	7.09	1042	8.50	59.6					
2-3-19 23:45	-0.09	1476	7.74	2.2	2-3-19 23:15	0.14	751	8.02	6.6	2-3-19 23:15	0.32	1540	8.10	20.1	7-4-19 16:30	19.38	1627	8.12	8.4	5-5-19 11:45	7.11	1041	8.49	51.9					
2-4-19 0:00	-0.08	1476	7.73	2.1	2-3-19 23:30	0.14	753	8.02	6.1	2-3-19 23:30	0.32	1540	8.09	19.5	7-4-19 16:45	19.50	1627	7.59	8.5	5-5-19 12:00	7.10	1043	8.49	75.5					
2-4-19 0:15	-0.09	1476	7.73	2.1	2-3-19 23:45	0.14	763	8.02	28.9	2-3-19 23:45	0.32	1540	8.10	19.1	7-4-19 17:00	19.62	1627	8.17	8.4	5-5-19 12:15	7.16	1040	8.49	69.3					
2-4-19 0:30	-0.09	1459	7.73	2.2	2-4-19 0:00	0.14	749	8.02	5.3	2-4-19 0:00	0.33	1560	8.09	18.2	7-4-19 17:15	19.76	1627	7.99	8.4	5-5-19 12:30	7.22	1042	8.49	66.0					
2-4-19 0:45	-0.09	1459	7.73	2.1	2-4-19 0:15	0.14	758	8.02	6.7	2-4-19 0:15	0.32	1560	8.10	18.0	7-4-19 17:30	19.78	1627	8.23	8.4	5-5-19 12:45	7.39	1040	8.49	67.6					
2-4-19 1:00	-0.09	1459	7.73	2.1	2-4-19 0:30	0.14	755	8.02	8.1	2-4-19 0:30	0.32	1560	8.10	18.0	7-4-19 17:45	19.86	1627	8.27	8.4	5-5-19 13:00	7.40	1040	8.49	64.0					
2-4-19 1:15	-0.09	1459	7.73	2.2	2-4-19 0:45	0.14	745	8.02	6.5	2-4-19 0:45	0.32	1561	8.10	17.9	7-4-19 18:00	20.10	1626	8.38	8.4	5-5-19 13:15	7.35	1042	8.49	69.9					
2-4-19 1:30	-0.09	1491	7.73	2.2	2-4-19 1:00	0.14	763	8.02	6.7	2-4-19 1:00	0.30	1542	8.11	19.5	7-4-19 18:15	20.25	1626	8.39	8.4	5-5-19 13:30	7.40	1039	8.49	62.8					
2-4-19 1:45	-0.09	1491	7.73	2.1	2-4-19 1:15	0.14	759	8.02	7.1	2-4-19 1:15	0.31	1542	8.11	20.0	7-4-19 18:30	20.38	1626	8.33	8.4	5-5-19 13:45	7.52	1048	8.49	44.5					
2-4-19 2:00	-0.09	1490	7.73	2.2	2-4-19 1:30	0.14	757	8.02	9.3	2-4-19 1:30	0.30	1544	8.11	19.7	7-4-19 18:45	20.49	1628	7.84	8.4	5-5-19 14:00	7.58	1039	8.49	72.9					
2-4-19 2:15	-0.09	1490	7.73	2.1	2-4-19 1:45	0.14	766	8.02	4.9	2-4-19 1:45	0.30	1543	8.11	20.1	7-4-19 19:00	20.70	1626	8.32	8.4	5-5-19 14:15	7.63	1039	8.49	64.1					
2-4-19 2:30	-0.09	1453	7.73	2.2	2-4-19 2:00	0.14	753	8.02	9.6	2-4-19 2:00	0.32	1560	8.11	17.8	7-4-19 19:15	20.96	1631	8.30	8.4	5-5-19 14:30	7.82	1038	8.48	66.9					
2-4-19 2:45	-0.09	1453	7.73	2.2	2-4-19 2:15	0.14	762	8.02	2.5	2-4-19 2:15	0.30	1560	8.11	17.8	7-4-19 19:30	21.26	1628	7.94	8.4	5-5-19 14:45	7.99	1038	8.48	56.9					
2-4-19 3:00	-0.09	1453	7.73	2.2	2-4-19 2:30	0.14	763	8.02	6.4	2-4-19 2:30	0.30	1562	8.12	17.6	7-4-19 19:45	21.33	1628	8.31	8.4	5-5-19 15:00	8.00	1035	8.48	66.3					
2-4-19 3:15	-0.09	1453	7.72	2.2	2-4-19 2:45	0.14	758	8.02	7.6	2-4-19 2:45	0.30	1563	8.11	17.9	7-4-19 20:00	21.13	1630	8.67	8.4	5-5-19 15:15	8.35	1036	8.48	68.8					
2-4-19 3:30	-0.09	1473	7.72	2.3	2-4-19 3:00	0.14	766	8.02	9.2	2-4-19 3:00	0.29	1542	8.12	20.8	7-4-19 20:15	21.18	1629	8.79	8.4	5-5-19 15:30	8.52	1039	8.47	67.9					
2-4-19 3:45	-0.09	1473	7.72	2.2	2-4-19 3:15	0.14	760	8.02	6.9	2-4-19 3:15	0.29	1544	8.12	19.6	7-4-19 20:30	21.06	1627	9.02	8.4	5-5-19 15:45	8.41	1037	8.47	68.2					
2-4-19 4:00	-0.09	1473	7.72	2.2	2-4-19 3:30	0.14	756	8.02	8.2	2-4-19 3:30	0.29	1544	8.12	19.7	7-4-19 20:45	20.91	1629	8.81	8.4	5-5-19 16:00	8.46	1036	8.47	64.3					
2-4-19 4:15	-0.09	1473	7.72	2.2	2-4-19 3:45	0.14	759	8.01	6.9	2-4-19 3:45	0.29	1543	8.12	30.5	7-4-19 21:00	21.08	1627	8.52	8.4	5-5-19 16:15	8.55	1037	8.47	91.3					
2-4-19 4:30	-0.09	1456	7.72	2.2	2-4-19 4:00	0.14	759	8.01	6.3	2-4-19 4:00	0.30	1561	8.12	17.6	7-4-19 21:15	21.62	1636	8.96	8.4	5-5-19 16:30	8.55	1033	8.47	63.8					
2-4-19 4:45	-0.09	1456	7.72	2.3	2-4-19 4:15	0.14	757	8.01	7.2	2-4-19 4:15	0.29	1561	8.12	17.4	7-4-19 21:30	21.59	1629	8.36	8.4	5-5-19 16:45	8.39	1033	8.47	69.3					
2-4-19 5:00	-0.09	1456	7.72	2.3	2-4-19 4:30	0.14	768	8.01	5.3	2-4-19 4:30	0.29	1561	8.12	17.0	7-4-19 21:45	21.69	1632	8.10	8.4	5-5-19 17:00	8.21	1033	8.48	30.4					
2-4-19 5:15					2-4-19 4:45	0.14	763	8.01	6.8	2-4-19 4:45	0.29	1561	8.12	17.3	7-4-19 22:00	21.68	1631	8.15	8.4	5-5-19 17:15	8.23	1035	8.48	55.7					
2-4-19 5:30					2-4-19 5:00	0.14	755	8.01	5.6	2-4-19 5:00	0.27	1543	8.13	19.7	7-4-19 22:15	21.89	1631	8.36	8.4	5-5-19 17:30	8.12	1034	8.49	35.4					
2-4-19 5:45	-0.09	1468	7.72	2.2	2-4-19 5:15	0.14	760	8.01	6.6	2-4-19 5:15	0.28	1545	8.13	33.8	7-4-19 22:30	21.86	1631	10.21	8.4	5-5-19 17:45	8.14	1035	8.49	75.2					
2-4-19 6:00	-0.09	1468	7.72	2.2	2-4-19 5:30	0.14	758	8.01	6.7	2-4-19 5:30	0.27	1546	8.13	27.6	7-4-19 22:45	21.90	1632	8.58	8.4	5-5-19 18:00	7.96	1032	8.50	69.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-4-19 6:15	-0.09	1468	7.72	2.3	2-4-19 5:45	0.14	762	8.01	6.2	2-4-19 5:45	0.27	1546	8.13	21.6	7-4-19 23:00	21.92	1631	7.85	8.4	5-5-19 18:15	7.90	1037	8.50	40.2					
2-4-19 6:30	-0.09	1455	7.72	2.3	2-4-19 6:00	0.14	763	8.01	5.9	2-4-19 6:00	0.29	1559	8.13	17.4	7-4-19 23:15	21.85	1630	7.83	8.4	5-5-19 18:30	7.90	1034	8.49	45.8					
2-4-19 6:45	-0.09	1454	7.72	2.3	2-4-19 6:15	0.14	755	8.01	6.7	2-4-19 6:15	0.27	1563	8.12	16.7	7-4-19 23:30	21.95	1631	8.22	8.5	5-5-19 18:45	7.79	1034	8.52	49.4					
2-4-19 7:00	-0.09	1454	7.71	2.3	2-4-19 6:30	0.15	765	8.01	7.9	2-4-19 6:30	0.27	1563	8.12	17.0	7-4-19 23:45	21.96	1631	9.10	8.4	5-5-19 19:00	7.60	1040	8.51	66.7					
2-4-19 7:15	-0.08	1454	7.72	2.3	2-4-19 6:45	0.15	757	8.01	12.9	2-4-19 6:45	0.26	1563	8.12	16.5	7-5-19 0:00	21.93	1630	9.03	8.4	5-5-19 19:15	7.58	1037	8.50	57.7					
2-4-19 7:30	-0.08	1468	7.71	2.4	2-4-19 7:00	0.15	760	8.01	6.5	2-4-19 7:00	0.25	1546	8.13	22.0	7-5-19 0:15	21.65	1627	9.82	8.4	5-5-19 19:30	7.58	1039	8.50	82.7					
2-4-19 7:45	-0.08	1468	7.71	2.4	2-4-19 7:15	0.15	765	8.01	6.3	2-4-19 7:15	0.25	1548	8.13	26.9	7-5-19 0:30	21.51	1629	9.61	8.5	5-5-19 19:45	7.57	1037	8.50	53.5					
2-4-19 8:00	-0.08	1468	7.71	2.3	2-4-19 7:30	0.15	761	8.01	6.4	2-4-19 7:30	0.25	1548	8.13	19.8	7-5-19 0:45	21.47	1628	10.86	8.4	5-5-19 20:00	7.57	1039	8.50	46.8					
2-4-19 8:15	-0.08	1468	7.71	2.4	2-4-19 7:45	0.15	755	8.01	7.2	2-4-19 7:45	0.25	1547	8.13	26.1	7-5-19 1:00	21.35	1627	10.87	8.4	5-5-19 20:15	7.58	1038	8.50	39.5					
2-4-19 8:30	-0.08	1450	7.71	2.4	2-4-19 8:00	0.15	762	8.01	5.6	2-4-19 8:00	0.27	1565	8.13	17.0	7-5-19 1:15	21.88	1631	8.08	8.4	5-5-19 20:30	7.59	1038	8.50	66.4					
2-4-19 8:45	-0.08	1450	7.71	2.4	2-4-19 8:15	0.15	766	8.01	3.3	2-4-19 8:15	0.25	1566	8.12	17.0	7-5-19 1:30	21.92	1630	8.26	8.4	5-5-19 20:45	7.58	1039	8.51	52.2					
2-4-19 9:00	-0.08	1449	7.71	2.4	2-4-19 8:30	0.15	759	8.01	7.5	2-4-19 8:30	0.25	1567	8.12	16.7	7-5-19 1:45	21.88	1630	8.14	8.5	5-5-19 21:00	7.58	1041	8.50	55.3					
2-4-19 9:15	-0.08	1449	7.71	2.4	2-4-19 8:45	0.15	762	8.01	4.6	2-4-19 8:45	0.25	1565	8.12	16.8	7-5-19 2:00	21.85	1632	7.90	8.5	5-5-19 21:15	7.56	1038	8.50	47.7					
2-4-19 9:30	-0.08	1479	7.70	2.4	2-4-19 9:00	0.15	760	8.00	8.0	2-4-19 9:00	0.25	1548	8.13	23.2	7-5-19 2:15	21.83	1631	8.39	8.5	5-5-19 21:30	7.56	1035	8.50	67.2					
2-4-19 9:45	-0.08	1479	7.71	2.5	2-4-19 9:15	0.15	766	8.01	6.3	2-4-19 9:15	0.25	1548	8.13	28.7	7-5-19 2:30	21.77	1632	9.23	8.5	5-5-19 21:45	7.54	1034	8.50	64.0					
2-4-19 10:00	-0.08	1478	7.71	2.5	2-4-19 9:30	0.15	766	8.00	4.1	2-4-19 9:30	0.25	1547	8.13	31.9	7-5-19 2:45	21.51	1630	11.36	8.4	5-5-19 22:00	7.54	1042	8.50	72.2					
2-4-19 10:15	-0.08	1479	7.71	2.4	2-4-19 9:45	0.15	759	8.00	9.1	2-4-19 9:45	0.25	1547	8.13	28.7	7-5-19 3:00	21.42	1631	10.61	8.5	5-5-19 22:15	7.53	1039	8.50	60.8					
2-4-19 10:30	-0.07	1447	7.71	2.5	2-4-19 10:00	0.15	761	8.00	5.6	2-4-19 10:00	0.27	1567	8.13	16.9	7-5-19 3:15	21.40	1632	10.38	8.5	5-5-19 22:30	7.52	1045	8.50	71.4					
2-4-19 10:45	-0.07	1447	7.71	2.6	2-4-19 10:15	0.15	765	8.00	5.0	2-4-19 10:15	0.25	1568	8.12	16.7	7-5-19 3:30	21.33	1630	9.27	8.5	5-5-19 22:45	7.51	1047	8.50	57.1					
2-4-19 11:00	-0.08	1447	7.71	2.6	2-4-19 10:30	0.15	757	8.00	4.6	2-4-19 10:30	0.25	1568	8.12	16.6	7-5-19 3:45	21.26	1631	9.28	8.5	5-5-19 23:00	7.46	1047	8.50	64.2					
2-4-19 11:15	-0.07	1446	7.71	2.6	2-4-19 10:45	0.15	763	8.00	6.6	2-4-19 10:45	0.25	1568	8.13	16.4	7-5-19 4:00	21.22	1631	9.09	8.5	5-5-19 23:15	7.44	1049	8.50	61.7					
2-4-19 11:30	-0.07	1462	7.71	2.5	2-4-19 11:00	0.15	774	8.00	3.2	2-4-19 11:00	0.24	1550	8.13	21.0	7-5-19 4:15	21.20	1631	9.37	8.5	5-5-19 23:30	7.40	1045	8.50	43.2					
2-4-19 11:45	-0.07	1462	7.71	2.6	2-4-19 11:15	0.15	767	8.00	4.4	2-4-19 11:15	0.25	1550	8.13	21.2	7-5-19 4:30	21.17	1631	9.17	8.5	5-5-19 23:45	7.31	1045	8.51	71.4					
2-4-19 12:00	-0.07	1462	7.71	2.7	2-4-19 11:30	0.15	767	8.00	5.0	2-4-19 11:30	0.25	1550	8.12	21.1	7-5-19 4:45	21.13	1632	9.19	8.4	5-6-19 0:00	7.27	1039	8.51	74.8					
2-4-19 12:15	-0.07	1462	7.71	2.6	2-4-19 11:45	0.15	767	8.00	5.0	2-4-19 11:45	0.24	1550	8.13	27.0	7-5-19 5:00	21.10	1632	9.26	8.4	5-6-19 0:15	7.27	1041	8.51	65.9					
2-4-19 12:30	-0.08	1444	7.71	2.6	2-4-19 12:00	0.15	764	8.00	6.2	2-4-19 12:00	0.26	1569	8.12	16.5	7-5-19 5:15	21.06	1630	9.21	8.4	5-6-19 0:30	7.25	1041	8.50	53.5					
2-4-19 12:45	-0.07	1444	7.71	2.6	2-4-19 12:15	0.15	768	8.00	3.6	2-4-19 12:15	0.24	1571	8.12	16.3	7-5-19 5:30	21.03	1632	10.86	8.5	5-6-19 0:45	7.23	1041	8.50	63.3					
2-4-19 13:00	-0.07	1443	7.71	2.6	2-4-19 12:30	0.15	767	8.00	7.3	2-4-19 12:30	0.24	1572	8.12	16.1	7-5-19 5:45	21.01	1631	8.86	8.4	5-6-19 1:00	7.27	1039	8.50	57.1					
2-4-19 13:15	-0.08	1443	7.71	2.6	2-4-19 12:45	0.15	769	8.00	6.3	2-4-19 12:45	0.24	1572	8.13	15.9	7-5-19 6:00	20.96	1631	8.46	8.5	5-6-19 1:15	7.23	1040	8.50	68.6					
2-4-19 13:30	-0.07	1461	7.71	2.6	2-4-19 13:00	0.10	815	7.96	7.8	2-4-19 13:00	0.26	1550	8.13	27.6	7-5-19 6:15	20.90	1632	8.34	8.5	5-6-19 1:30	7.23	1039	8.50	67.0					
2-4-19 13:45	-0.07	1461	7.71	2.6	2-4-19 13:15	0.10	761	8.00	7.6	2-4-19 13:15	0.25	1551	8.12	23.9	7-5-19 6:30	20.84	1632	8.74	8.5	5-6-19 1:45	7.19	1040	8.50	49.3					
2-4-19 14:00	-0.07	1461	7.71	2.6	2-4-19 13:30	0.09	762	7.99	5.4	2-4-19 13:30	0.22	1554	8.12	25.8	7-5-19 6:45	20.77	1631	8.98	8.5	5-6-19 2:00	7.16	1039	8.50	66.7					
2-4-19 14:15	-0.08	1460	7.71	2.7	2-4-19 13:45	0.09	768	7.99	4.4	2-4-19 13:45	0.22	1553	8.12	30.2	7-5-19 7:00	20.72	1631	10.23	8.5	5-6-19 2:15	7.18	1040	8.50	57.7					
2-4-19 14:30	-0.07	1444	7.71	2.6	2-4-19 14:00	0.08	763	7.98	4.7	2-4-19 14:00	0.23	1572	8.12	16.1	7-5-19 7:15	20.67	1631	8.42	8.5	5-6-19 2:30	7.22	1040	8.50	61.2					
2-4-19 14:45	-0.07	1443	7.70	2.7	2-4-19 14:15	0.08	758	7.98	3.5	2-4-19 14:15	0.22	1571	8.12	16.2	7-5-19 7:30	20.61	1630	8.06	8.5	5-6-19 2:45	7.25	1039	8.50	63.2					
2-4-19 15:00	-0.08	1443	7.70	2.6	2-4-19 14:30	0.08	767	7.98	4.6	2-4-19 14:30	0.22	1572	8.12	16.1	7-5-19 7:45	20.56	1630	11.17	8.4	5-6-19 3:00	7.29	1039	8.49	76.0					
2-4-19 15:15	-0.08	1443	7.70	2.7	2-4-19 14:45	0.08	772	7.98	10.7	2-4-19 14:45	0.22	1572	8.12	15.7	7-5-19 8:00	20.54	1632	10.06	8.4	5-6-19 3:15	7.27	1040	8.49	69.5					
2-4-19 15:30	-0.07	1467	7.70	2.6	2-4-19 15:00	0.08	773	7.98	4.9	2-4-19 15:00	0.21	1553	8.12	32.0	7-5-19 8:15	20.50	1630	7.91	8.4	5-6-19 3:30	7.25	1038	8.49	66.1					
2-4-19 15:45	-0.08	1467	7.70	2.7	2-4-19 15:15	0.08	769	7.98	4.5	2-4-19 15:15	0.23	1552	8.12	22.7	7-5-19 8:30	20.45	1630	7.51	8.4	5-6-19 3:45	7.29	1037	8.49	52.2					
2-4-19 16:00	-0.08	1467	7.70	2.6	2-4-19 15:30	0.08	765	7.98	5.2	2-4-19 15:30	0.23	1553	8.12	28.8	7-5-19 8:45	20.40	1630	8.41	8.4	5-6-19 4:00	7.30	1043	8.49	53.1					
2-4-19 16:15	-0.08	1467	7.70	2.7	2-4-19 15:45	0.08	770	7.98	3.6	2-4-19 15:45	0.23	1553	8.11	26.1	7-5-19 9:00	20.38	1630	7.40	8.4	5-6-19 4:15	7.29	1037	8.49	65.6					
2-4-19 16:30	-0.09	1442	7.70	2.6	2-4-19 16:00	0.08	771	7.97	3.7	2-4-19 16:00	0.24	1573	8.11	15.8	7-5-19 9:15	20.35	1631	7.64	8.4	5-6-19 4:30	7.30	1036	8.49	68.1					
2-4-19 16:45	-0.08	1442	7.70	2.7	2-4-19 16:15	0.09	770	7.97	4.7	2-4-19 16:15	0.23	1573	8.11	15.5	7-5-19 9:30	20.29	1630	7.45	8.4	5-6-19 4:45	7.30	1037	8.49	55.1					
2-4-19 17:00	-0.08	1442	7.70	2.6	2-4-19 16:30	0.09	772	7.97	4.9	2-4-19 16:30	0.23	1572	8.11	15.5	7-5-19 9:45	20.26	1631	7.71	8.4	5-6-19 5:00	7.31	1035	8.49	59.5					
2-4-19 17:15	-0.08	1442	7.70	2.7	2-4-19 16:45	0.09	773	7.97	4.7	2-4-19 16:45	0.23	1574	8.11	15.3	7-5-19 10:00	20.21	1630	7.15	8.4	5-6-19 5:15	7.29	1037	8.49	62.7					
2-4-19 17:30	-0.08	1456	7.70	2.6	2-4-19 17:00	0.09	773	7.97	4.6	2-4-19 17:00	0.22	1553	8.11	18.6	7-5-19 10:15	20.17	1631	9.45	8.4	5-6-19 5:30	7.28	1038	8.49	54.7					
2-4-19 17:45	-0.09	1456	7.70	2.7	2-4-19 17:15	0.09	776	7.97	5.9	2-4-19 17:15	0.22	1555	8.11	26.2	7-5-19 10:30	20.12	1630	7.60	8.4	5-6-19 5:45	7.24	1037	8.49	60.2					
2-4-19 18:00	-0.08	1456	7.70	2.6	2-4-19 17:30	0.09	767	7.97	5.4	2-4-19 17:30	0.22	1553	8.11	21.2	7-5-19 10:45	20.07	1630	7.13	8.4	5-6-19 6:00	7.22	1039	8.49	46.3					
2-4-19 18:15	-0.09	1457	7.70	2.7	2-4-19 17:45	0.10	779	7.97	8.0	2-4-19 17:45	0.22	1554	8.11	21.7	7-5-19 11:00	20.03	1630	7.08	8.4	5-6-19 6:15	7.20	1039	8.49	56.4					
2-4-19 18:30	-0.09	1443	7.70	2.7	2-4-19 18:00	0.10	767	7.97	4.1	2-4-19 18:00	0.23	1572	8.10	15.1	7-5-19 11:15	19.96	1630	7.37	8.4	5-6-19 6:30	7.19	1038	8.50	59.2					
2-4-19 18:45	-0.09	1443	7.70	2.7	2-4-19 18:15	0.10	770	7.97	5.0	2-4-19 18:15	0.21	1574	8.11	14.8	7-5-19 11:30	19.91	1631	9.69	8.4	5-6-19 6:45	7.18	1039	8.50	60.7					
2-4-19 19:00	-0.09	1443	7.70	2.6	2-4-19 18:30	0.10	771	7.97	4.6	2-4-19 18:30	0.21	1575	8.11	14.8	7-5-19 11:45	19.88	1631	8.58	8.4	5-6-19 7:00	7.17	1039	8.50	55.1					
2-4-19 19:15	-0.09	1443	7.70	2.6	2-4-19 18:45	0.10	769	7.97	7.2	2-4-19 18:45	0.21	1577	8.11	14.9	7-5-19 12:00	19.83	1630	8.67	8.4	5-6-19 7:15	7.16	1038	8.50	58.5					
2-4-19 19:30	-0.08	1456	7.70	2.7	2-4-19 19:00	0.10	780	7.98	5.1	2-4-19 19:00	0.20	1558	8.11	18.4	7-5-19 12:15	19.79	1629	7.20	8.4	5-6-19 7:30	7.16	1040	8.50	64.7					
2-4-19 19:45	-0.09	1456	7.70	2.7	2-4-19 19:15	0.10	777	7.98	8.8	2-4-19 19:15	0.20	1557	8.10	18.1	7-5-19 12:30	19.73	1630	7.29	8.4	5-6-19 7:45	7.17	1039	8.50	57.0					
2-4-19 20:00	-0.09	1456	7.70	2.7	2-4-19 19:30	0.11	772	7.98	4.9	2-4-19 19:30	0.20	1556	8.10	20.2	7-5-19 12:45	19.72	1631	7.89	8.4	5-6-19 8:00	7.20	1040	8.50	63.1					
2-4-19 20:15	-0.09	1456	7.70	2.7	2-4-19 19:45	0.11	774	7.98	4.6	2-4-19 19:45	0.19	1557	8.10	18.0	7-5-19 13:00	19.69	1632	7.16	8.4	5-6-19 8:15	7.21	1038	8.50	57.7					
2-4-19 20:30	-0.09	1443	7.70	2.7	2-4-19 20:00	0.11	771	7.98	4.2	2-4-19 20:00	0.21	1573	8.10	15.3	7-5-19 13:15	19.65	1630	28.21	8.4	5-6-19 8:30	7.22	1038	8.50	57.3					
2-4-19 20:45	-0.09	1443	7.70	2.7	2-4-19 20:15	0.11	773	7.97	4.9	2-4-19 20:15	0.19	1573	8.11	15.1	7-5-19 13:30	19.60	1631	7.95	8.4	5-6-19 8:45	7.25	1040	8.50	60.4					
2-4-19 21:00	-0.09	1442	7.70	2.7	2-4-19 20:30	0.11	787	7.97	8.4	2-4-19 20:30	0.19	1576	8.11	15.0	7-5-19 13:45	19.59	1631	7.80	8.4	5-6-19 9:00	7.30	1039	8.50	68.0					
2-4-19 21:15	-0.08	1442	7.70	2.7	2-4-19 20:45	0.11	779	7.98	6.5	2-4-19 20:45	0.19	1575	8.11	15.0	7-5-19 14:00	19.57	1630	8.00	8.4	5-6-19 9:15	7.42	1039	8.50	70.5					
2-4-19 21:30	-0.09	1456	7.70	2.7	2-4-19 21:00	0.11	778	7.97	6.6	2-4-19 21:00	0.18	1557	8.11	18.6	7-5-19 14:15	19.56	1631	7.65	8.4	5-6-19 9:30	7.49	1039	8.49	62.4					
2-4-19 21:45	-0.08	1456	7.70	2.7	2-4-19 21:15	0.11	778	7.97	6.4	2-4-19 21:15	0.18	1558	8.10	21.0	7-5-19 14:30	19.56	1631	8.20	8.4	5-6-19 9:45	7.58	1040	8.49	72.1					
2-4-19 22:00	-0.08	1456	7.70	2.7	2-4-19 21:30	0.11	785	7.97	4.9	2-4-19 21:30	0.18	1558	8.10	18.2	7-5-19 14:45	19.59	1631	8.55	8.4	5-6-19 10:00	7.77	1042	8.49	70.8					
2-4-19 22:15	-0.08	1455	7.70	2.7	2-4-19 21:45	0.11	778	7.97	6.7	2-4-19 21:45	0.18	1561	8.11	24.6	7-5-19 15:00	19.63	1627	8.18	8.4	5-6-19 10:15	7.87	1040	8.49	65.1					
2-4-19 22:30	-0.08	1438	7.70	2.8	2-4-19 22:00	0.11	777	7.97	5.9	2-4-19 22:00	0.20	1579	8.10	14.9	7-5-19 15:15	19.70	1629	7.76	8.4	5-6-19 10:30	8.01	1041	8.48	67.3					
2-4-19 22:45	-0.08	1438	7.70	2.7	2-4-19 22:15	0.11	778	7.97	8.8	2-4-19 22:15	0.18	1578	8.11	14.9	7-5-19 15:30	19.75	1628	7.99	8.4	5-6-19 10:45	8.26	1043	8.48	63.8					
2-4-19 23:00	-0.09	1438	7.70	2.7	2-4-19 22:30	0.11	784	7.97	5.6	2-4-19 22:30	0.18	1578	8.11	14.8	7-5-19 15:45	19.75	1628	7.74	8.4	5-6-19 11:00	8.23	1041	8.47	64.5					
2-4-19 23:15	-0.08	1438	7.70	2.7	2-4-19 22:45	0.11	778	7.97	6.5	2-4-19 22:45	0.17	1580	8.11	14.6	7-5-19 16:00	19.83	1629	8.49	8.4	5-6-19 11:15	8.73	1039	8.47	59.7					
2-4-19 23:30	-0.08	1455	7.70	2.8	2-4-19 23:00	0.11	775	7.97	5.7	2-4-19 23:00	0.16	1560	8.11	18.3	7-5-19 16:15	19.89	1627	7.95	8.4	5-6-19 11:30	8.66	1035	8.47	63.9					
2-4-19 23:45	-0.09	1454	7.70	2.6	2-4-19 23:15	0.12	781	7.97	7.0	2-4-19 23:15	0.17	1561	8.10	25.8	7-5-19 16:30	19.97	1627	8.16	8.4	5-6-19 11:45	8.92	1041	8.48	57.2					
2-5-19 0:00	-0.08	1455	7.69	2.8	2-4-19 23:30	0.12	779	7.97	6.3	2-4-19 23:30	0.17	1560	8.11	22.3	7-5-19 16:45	20.06	1628	8.01	8.4	5-6-19 12:00	8.77	1042	8.48	75.6					
2-5-19 0:15	-0.08	1454	7.70	2.8	2-4-19 23:45	0.12	776	7.97	7.9	2-4-19 23:45	0.16	1561	8.11	18.0	7-5-19 17:00	20.16	1626	8.00	8.4	5-6-19 12:15	8.75	1038	8.48	67.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-5-19 0:30	-0.08	1438	7.69	2.8	2-5-19 0:00	0.12	776	7.97	7.1	2-5-19 0:00	0.18	1579	8.10	14.8	7-5-19 17:15	20.16	1626	9.25	8.4	5-6-19 12:30	9.00	1037	8.48	79.6					
2-5-19 0:45	-0.09	1438	7.69	2.7	2-5-19 0:15	0.12	788	7.97	3.7	2-5-19 0:15	0.17	1581	8.11	14.4	7-5-19 17:30	20.15	1629	9.02	8.4	5-6-19 12:45	8.96	1033	8.48	73.5					
2-5-19 1:00	-0.09	1438	7.69	2.8	2-5-19 0:30	0.12	776	7.97	7.9	2-5-19 0:30	0.16	1582	8.11	14.7	7-5-19 17:45	20.27	1626	9.44	8.4	5-6-19 13:00	9.13	1040	8.48	81.5					
2-5-19 1:15	-0.09	1438	7.69	2.8	2-5-19 0:45	0.12	789	7.96	8.2	2-5-19 0:45	0.16	1580	8.11	14.3	7-5-19 18:00	20.20	1629	9.45	8.4	5-6-19 13:15	9.31	1034	8.47	62.9					
2-5-19 1:30	-0.08	1451	7.69	2.8	2-5-19 1:00	0.12	787	7.97	9.0	2-5-19 1:00	0.15	1563	8.11	26.2	7-5-19 18:15	20.19	1629	11.21	8.4	5-6-19 13:30	9.32	1032	8.47	51.5					
2-5-19 1:45	-0.08	1451	7.69	2.7	2-5-19 1:15	0.12	782	7.97	8.1	2-5-19 1:15	0.15	1561	8.11	28.6	7-5-19 18:30	20.21	1630	12.55	8.4	5-6-19 13:45	9.55	1038	8.47	74.9					
2-5-19 2:00	-0.08	1451	7.69	2.8	2-5-19 1:30	0.12	786	7.97	6.9	2-5-19 1:30	0.15	1563	8.11	20.0	7-5-19 18:45	20.38	1630	11.44	8.4	5-6-19 14:00	9.43	1034	8.47	56.7					
2-5-19 2:15	-0.08	1451	7.69	2.8	2-5-19 1:45	0.12	789	7.97	4.7	2-5-19 1:45	0.15	1563	8.10	18.3	7-5-19 19:00	20.49	1629	10.67	8.4	5-6-19 14:15	9.70	1036	8.47	61.2					
2-5-19 2:30	-0.08	1436	7.69	2.8	2-5-19 2:00	0.12	785	7.97	7.6	2-5-19 2:00	0.17	1580	8.10	15.0	7-5-19 19:15	20.61	1631	9.99	8.4	5-6-19 14:30	9.85	1034	8.47	61.7					
2-5-19 2:45	-0.08	1435	7.69	2.8	2-5-19 2:15	0.12	787	7.96	8.1	2-5-19 2:15	0.15	1578	8.10	14.6	7-5-19 19:30	20.65	1631	11.07	8.4	5-6-19 14:45	9.71	1028	8.46	64.7					
2-5-19 3:00	-0.09	1435	7.69	2.7	2-5-19 2:30	0.12	781	7.96	5.5	2-5-19 2:30	0.15	1581	8.10	14.5	7-5-19 19:45	20.76	1632	11.61	8.4	5-6-19 15:00	9.76	1036	8.47	60.2					
2-5-19 3:15	-0.08	1435	7.69	2.7	2-5-19 2:45	0.12	785	7.96	5.9	2-5-19 2:45	0.15	1580	8.10	14.1	7-5-19 20:00	20.87	1632	9.07	8.4	5-6-19 15:15	9.88	1037	8.47	76.9					
2-5-19 3:30	-0.08	1449	7.69	2.8	2-5-19 3:00	0.12	782	7.96	6.0	2-5-19 3:00	0.14	1562	8.11	18.0	7-5-19 20:15	20.92	1632	10.90	8.4	5-6-19 15:30	10.00	1039	8.47	82.9					
2-5-19 3:45	-0.08	1449	7.69	2.9	2-5-19 3:15	0.12	789	7.96	14.7	2-5-19 3:15	0.15	1564	8.11	30.1	7-5-19 20:30	21.11	1634	10.30	8.4	5-6-19 15:45	10.20	1034	8.47	58.0					
2-5-19 4:00	-0.08	1449	7.69	2.9	2-5-19 3:30	0.12	791	7.96	5.3	2-5-19 3:30	0.15	1565	8.10	30.9	7-5-19 20:45	21.16	1632	11.20	8.4	5-6-19 16:00	10.09	1033	8.47	77.4					
2-5-19 4:15	-0.08	1449	7.69	2.9	2-5-19 3:45	0.12	788	7.96	8.1	2-5-19 3:45	0.15	1565	8.11	24.1	7-5-19 21:00	21.23	1632	13.67	8.4	5-6-19 16:15	10.14	1037	8.47	118.7					
2-5-19 4:30	-0.08	1434	7.69	2.9	2-5-19 4:00	0.12	789	7.96	6.3	2-5-19 4:00	0.16	1584	8.10	14.4	7-5-19 21:15	21.41	1634	9.81	8.4	5-6-19 16:30	9.93	1033	8.47	73.3					
2-5-19 4:45	-0.08	1433	7.69	2.8	2-5-19 4:15	0.12	787	7.96	8.3	2-5-19 4:15	0.15	1583	8.10	15.6	7-5-19 21:30	21.54	1632	9.55	8.4	5-6-19 16:45	9.84	1034	8.48	79.6					
2-5-19 5:00	-0.08	1433	7.69	2.8	2-5-19 4:30	0.12	792	7.96	6.5	2-5-19 4:30	0.14	1584	8.10	14.1	7-5-19 21:45	21.66	1635	9.69	8.4	5-6-19 17:00	9.88	1038	8.48	68.5					
2-5-19 5:15	-0.09	1433	7.69	2.9	2-5-19 4:45	0.13	796	7.96	2.1	2-5-19 4:45	0.14	1585	8.10	14.0	7-5-19 22:00	21.78	1634	9.75	8.4	5-6-19 17:15	9.84	1031	8.48	66.4					
2-5-19 5:30	-0.09	1445	7.69	2.8	2-5-19 5:00	0.13	791	7.96	4.2	2-5-19 5:00	0.13	1564	8.11	24.2	7-5-19 22:15	21.76	1634	10.53	8.4	5-6-19 17:30	9.82	1036	8.48	79.1					
2-5-19 5:45	-0.09	1445	7.69	2.8	2-5-19 5:15	0.13	791	7.96	2.8	2-5-19 5:15	0.13	1564	8.10	27.7	7-5-19 22:30	21.88	1634	9.25	8.4	5-6-19 17:45	9.82	1039	8.48	74.6					
2-5-19 6:00	-0.09	1446	7.69	2.9	2-5-19 5:30	0.13	782	7.96	11.8	2-5-19 5:30	0.14	1566	8.10	23.7	7-5-19 22:45	21.74	1632	11.22	8.4	5-6-19 18:00	9.76	1042	8.48	58.5					
2-5-19 6:15	-0.08	1446	7.69	2.9	2-5-19 5:45	0.13	786	7.96	5.6	2-5-19 5:45	0.13	1566	8.10	25.7	7-5-19 23:00	21.89	1637	9.44	8.4	5-6-19 18:15	9.52	1035	8.48	118.2					
2-5-19 6:30	-0.08	1434	7.69	2.8	2-5-19 6:00	0.13	786	7.95	4.2	2-5-19 6:00	0.15	1585	8.10	14.4	7-5-19 23:15	21.99	1634	11.59	8.4	5-6-19 18:30	9.73	1038	8.48	67.5					
2-5-19 6:45	-0.08	1434	7.69	2.9	2-5-19 6:15	0.13	793	7.95	9.0	2-5-19 6:15	0.13	1587	8.11	13.6	7-5-19 23:30	21.96	1634	13.34	8.4	5-6-19 18:45	9.69	1037	8.48	73.1					
2-5-19 7:00	-0.08	1434	7.68	2.9	2-5-19 6:30	0.13	786	7.96	6.6	2-5-19 6:30	0.13	1586	8.11	15.0	7-5-19 23:45	22.02	1635	12.52	8.4	5-6-19 19:00	9.62	1038	8.48	64.3					
2-5-19 7:15	-0.08	1433	7.68	2.9	2-5-19 6:45	0.13	789	7.95	8.5	2-5-19 6:45	0.13	1586	8.11	13.6	7-6-19 0:00	22.07	1636	10.54	8.4	5-6-19 19:15	9.52	1036	8.48	80.8					
2-5-19 7:30	-0.08	1462	7.69	2.9	2-5-19 7:00	0.13	801	7.95	4.3	2-5-19 7:00	0.12	1568	8.11	18.9	7-6-19 0:15	22.11	1636	10.54	8.4	5-6-19 19:30	9.51	1039	8.49	85.1					
2-5-19 7:45	-0.08	1462	7.68	2.8	2-5-19 7:15	0.13	794	7.95	6.4	2-5-19 7:15	0.13	1570	8.11	26.4	7-6-19 0:30	22.16	1635	9.27	8.4	5-6-19 19:45	9.50	1040	8.48	61.8					
2-5-19 8:00	-0.08	1463	7.69	2.8	2-5-19 7:30	0.13	794	7.95	6.4	2-5-19 7:30	0.13	1568	8.11	27.4	7-6-19 0:45	22.17	1635	11.13	8.4	5-6-19 20:00	9.50	1038	8.48	71.0					
2-5-19 8:15	-0.08	1463	7.68	2.9	2-5-19 7:45	0.13	793	7.95	5.1	2-5-19 7:45	0.13	1568	8.11	26.5	7-6-19 1:00	22.16	1636	9.38	8.4	5-6-19 20:15	9.49	1038	8.48	64.1					
2-5-19 8:30	-0.09	1433	7.68	2.8	2-5-19 8:00	0.13	789	7.95	4.5	2-5-19 8:00	0.14	1582	8.11	14.3	7-6-19 1:15	22.18	1635	9.23	8.4	5-6-19 20:30	9.48	1041	8.49	70.7					
2-5-19 8:45	-0.09	1433	7.69	2.8	2-5-19 8:15	0.13	793	7.95	7.4	2-5-19 8:15	0.13	1583	8.11	14.1	7-6-19 1:30	22.18	1636	10.72	8.4	5-6-19 20:45	9.44	1037	8.49	66.0					
2-5-19 9:00	-0.09	1433	7.68	2.9	2-5-19 8:30	0.13	788	7.95	7.7	2-5-19 8:30	0.12	1585	8.11	13.9	7-6-19 1:45	22.15	1636	9.32	8.4	5-6-19 21:00	9.43	1038	8.49	52.9					
2-5-19 9:15	-0.09	1433	7.68	2.9	2-5-19 8:45	0.13	799	7.95	7.2	2-5-19 8:45	0.12	1584	8.11	13.9	7-6-19 2:00	22.14	1635	9.80	8.4	5-6-19 21:15	9.40	1038	8.49	77.2					
2-5-19 9:30	-0.09	1448	7.68	2.9	2-5-19 9:00	0.13	800	7.95	6.2	2-5-19 9:00	0.11	1568	8.11	30.2	7-6-19 2:15	22.10	1635	10.02	8.4	5-6-19 21:30	9.33	1037	8.49	55.2					
2-5-19 9:45	-0.09	1449	7.68	2.9	2-5-19 9:15	0.13	797	7.95	10.6	2-5-19 9:15	0.12	1569	8.11	21.7	7-6-19 2:30	22.05	1635	10.22	8.4	5-6-19 21:45	9.31	1039	8.49	75.5					
2-5-19 10:00	-0.08	1448	7.68	2.8	2-5-19 9:30	0.13	792	7.95	7.0	2-5-19 9:30	0.12	1569	8.11	26.1	7-6-19 2:45	22.06	1635	9.28	8.4	5-6-19 22:00	9.28	1040	8.49	72.9					
2-5-19 10:15	-0.09	1448	7.68	2.9	2-5-19 9:45	0.13	801	7.95	9.8	2-5-19 9:45	0.12	1567	8.12	30.3	7-6-19 3:00	22.02	1636	10.35	8.4	5-6-19 22:15	9.24	1038	8.49	50.8					
2-5-19 10:30	-0.09	1432	7.68	2.8	2-5-19 10:00	0.13	797	7.95	10.8	2-5-19 10:00	0.13	1587	8.11	13.7	7-6-19 3:15	21.93	1636	9.32	8.4	5-6-19 22:30	9.22	1040	8.49	58.8					
2-5-19 10:45	-0.09	1432	7.68	2.9	2-5-19 10:15	0.13	799	7.95	5.8	2-5-19 10:15	0.12	1587	8.12	13.4	7-6-19 3:30	21.88	1635	9.09	8.5	5-6-19 22:45	9.21	1038	8.49	63.5					
2-5-19 11:00	-0.08	1432	7.68	3.0	2-5-19 10:30	0.13	798	7.95	14.5	2-5-19 10:30	0.12	1588	8.11	13.6	7-6-19 3:45	21.88	1637	9.07	8.4	5-6-19 23:00	9.16	1037	8.49	78.3					
2-5-19 11:15	-0.08	1433	7.68	3.0	2-5-19 10:45	0.14	816	7.94	7.1	2-5-19 10:45	0.12	1590	8.12	13.6	7-6-19 4:00	21.83	1636	8.94	8.4	5-6-19 23:15	9.13	1037	8.49	66.6					
2-5-19 11:30	-0.09	1451	7.68	3.0	2-5-19 11:00	0.12	816	7.93	6.4	2-5-19 11:00	0.15	1566	8.12	23.2	7-6-19 4:15	21.79	1635	9.17	8.4	5-6-19 23:30	9.03	1038	8.49	59.9					
2-5-19 11:45	-0.09	1451	7.68	3.0	2-5-19 11:15	0.09	822	7.94	4.8	2-5-19 11:15	0.14	1566	8.12	30.1	7-6-19 4:30	21.74	1635	9.74	8.4	5-6-19 23:45	9.06	1036	8.49	62.0					
2-5-19 12:00	-0.09	1451	7.68	3.0	2-5-19 11:30	0.07	826	7.94	7.1	2-5-19 11:30	0.12	1569	8.13	25.6	7-6-19 4:45	21.70	1635	8.75	8.4	5-7-19 0:00	9.09	1035	8.49	63.9					
2-5-19 12:15	-0.08	1452	7.68	2.9	2-5-19 11:45	0.07	828	7.95	4.5	2-5-19 11:45	0.11	1570	8.12	20.0	7-6-19 5:00	21.66	1637	12.65	8.4	5-7-19 0:15	9.06	1038	8.49	67.7					
2-5-19 12:30	-0.09	1438	7.68	3.1	2-5-19 12:00	0.09	824	7.95	6.1	2-5-19 12:00	0.12	1586	8.12	14.1	7-6-19 5:15	21.62	1636	8.63	8.4	5-7-19 0:30	8.98	1040	8.49	68.1					
2-5-19 12:45	-0.08	1439	7.68	3.1	2-5-19 12:15	0.10	819	7.95	5.1	2-5-19 12:15	0.11	1587	8.13	13.7	7-6-19 5:30	21.56	1636	8.52	8.4	5-7-19 0:45	9.01	1041	8.49	70.8					
2-5-19 13:00	-0.08	1439	7.68	3.1	2-5-19 12:30	0.10	819	7.95	7.2	2-5-19 12:30	0.11	1588	8.12	13.6	7-6-19 5:45	21.53	1635	9.09	8.4	5-7-19 1:00	8.97	1039	8.49	60.1					
2-5-19 13:15	-0.08	1439	7.68	3.2	2-5-19 12:45	0.11	830	7.95	4.5	2-5-19 12:45	0.11	1588	8.12	13.7	7-6-19 6:00	21.48	1637	8.34	8.4	5-7-19 1:15	8.95	1037	8.49	77.1					
2-5-19 13:30	-0.08	1453	7.68	3.2	2-5-19 13:00	0.11	820	7.95	9.8	2-5-19 13:00	0.10	1569	8.13	26.3	7-6-19 6:15	21.44	1638	7.99	8.4	5-7-19 1:30	8.90	1036	8.49	64.6					
2-5-19 13:45	-0.08	1453	7.68	3.4	2-5-19 13:15	0.11	838	7.95	3.7	2-5-19 13:15	0.11	1571	8.13	21.7	7-6-19 6:30	21.45	1638	7.28	8.5	5-7-19 1:45	8.85	1035	8.49	65.1					
2-5-19 14:00	-0.08	1452	7.68	3.3	2-5-19 13:30	0.11	823	7.95	3.5	2-5-19 13:30	0.11	1570	8.13	23.1	7-6-19 6:45	21.49	1637	7.27	8.4	5-7-19 2:00	8.79	1037	8.49	64.5					
2-5-19 14:15	-0.08	1452	7.68	3.1	2-5-19 13:45	0.12	822	7.95	5.9	2-5-19 13:45	0.11	1570	8.13	24.6	7-6-19 7:00	21.40	1638	8.44	8.4	5-7-19 2:15	8.75	1040	8.49	77.7					
2-5-19 14:30					2-5-19 14:00	0.12	824	7.95	4.2	2-5-19 14:00	0.13	1590	8.13	13.6	7-6-19 7:15	21.35	1638	7.40	8.5	5-7-19 2:30	8.68	1039	8.50	65.3					
2-5-19 14:45	-0.08	1436	7.68	3.2	2-5-19 14:15	0.12	825	7.95	5.9	2-5-19 14:15	0.12	1589	8.13	13.4	7-6-19 7:30	21.35	1638	6.96	8.4	5-7-19 2:45	8.67	1040	8.49	64.9					
2-5-19 15:00	-0.08	1435	7.68	3.3	2-5-19 14:30	0.12	827	7.94	4.7	2-5-19 14:30	0.12	1589	8.13	13.4	7-6-19 7:45	21.29	1637	7.63	8.4	5-7-19 3:00	8.66	1040	8.49	67.9					
2-5-19 15:15	-0.08	1434	7.68	3.2	2-5-19 14:45	0.12	836	7.95	2.1	2-5-19 14:45	0.12	1588	8.14	13.4	7-6-19 8:00	21.23	1638	6.89	8.4	5-7-19 3:15	8.67	1040	8.49	61.3					
2-5-19 15:30	-0.08	1462	7.68	3.3	2-5-19 15:00	0.12	823	7.95	4.8	2-5-19 15:00	0.11	1570	8.13	27.9	7-6-19 8:15	21.13	1638	7.35	8.5	5-7-19 3:30	8.62	1038	8.49	62.6					
2-5-19 15:45	-0.08	1462	7.68	3.1	2-5-19 15:15	0.11	825	7.94	6.7	2-5-19 15:15	0.12	1571	8.14	25.1	7-6-19 8:30	21.07	1638	7.14	8.4	5-7-19 3:45	8.61	1038	8.49	54.9					
2-5-19 16:00	-0.08	1462	7.68	3.2	2-5-19 15:30	0.12	822	7.94	4.1	2-5-19 15:30	0.12	1570	8.13	24.4	7-6-19 8:45	21.02	1637	6.33	8.4	5-7-19 4:00	8.54	1037	8.49	59.5					
2-5-19 16:15	-0.08	1462	7.68	3.3	2-5-19 15:45	0.12	806	7.94	6.6	2-5-19 15:45	0.12	1570	8.14	18.0	7-6-19 9:00	20.97	1637	6.43	8.5	5-7-19 4:15	8.53	1037	8.49	71.2					
2-5-19 16:30	-0.09	1432	7.68	3.2	2-5-19 16:00	0.12	841	7.94	5.5	2-5-19 16:00	0.13	1587	8.13	13.7	7-6-19 9:15	20.91	1637	6.61	8.4	5-7-19 4:30	8.50	1038	8.49	71.1					
2-5-19 16:45	-0.08	1431	7.68	3.2	2-5-19 16:15	0.12	829	7.93	1.9	2-5-19 16:15	0.12	1589	8.14	13.4	7-6-19 9:30	20.80	1637	6.68	8.4	5-7-19 4:45	8.49	1038	8.49	67.6					
2-5-19 17:00	-0.08	1431	7.68	3.3	2-5-19 16:30	0.12	843	7.93	5.3	2-5-19 16:30	0.12	1589	8.14	13.3	7-6-19 9:45	20.70	1636	6.51	8.5	5-7-19 5:00	8.47	1037	8.49	65.7					
2-5-19 17:15	-0.08	1430	7.68	3.2	2-5-19 16:45	0.12	833	7.93	4.6	2-5-19 16:45	0.12	1589	8.14	13.2	7-6-19 10:00	20.64	1638	6.41	8.4	5-7-19 5:15	8.44	1039	8.49	59.0					
2-5-19 17:30	-0.08	1459	7.68	3.4	2-5-19 17:00	0.12	832	7.93	5.4	2-5-19 17:00	0.10	1570	8.14	16.9	7-6-19 10:15	20.62	1638	7.22	8.4	5-7-19 5:30	8.45	1037	8.49	61.9					
2-5-19 17:45	-0.08	1458	7.68	3.3	2-5-19 17:15	0.12	831	7.93	5.7	2-5-19 17:15	0.11	1572	8.14	26.4	7-6-19 10:30	20.53	1637	6.15	8.4	5-7-19 5:45	8.43	1036	8.49	61.5					
2-5-19 18:00	-0.08	1458	7.68	3.4	2-5-19 17:30	0.12	842	7.93	4.7	2-5-19 17:30	0.11	1571	8.14	24.2	7-6-19 10:45	20.46	1637	7.20	8.4	5-7-19 6:00	8.42	1037	8.49	65.4					
2-5-19 18:15	-0.08	1457	7.68	3.4	2-5-19 17:45	0.12	831	7.93	5.9	2-5-19 17:45	0.11	1573	8.14	20.3	7-6-19 11:00	20.38	1637	6.40	8.4	5-7-19 6:15	8.38	1037	8.49	65.7					
2-5-19 18:30	-0.08	1427	7.68	3.5	2-5-19 18:00	0.12	826	7.94	5.5	2-5-19 18:00	0.13	1588	8.13	13.4	7-6-19 11:15	20.25	1639	7.72	8.4	5-7-19 6:30	8.36	1036	8.49	67.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-5-19 18:45	-0.08	1427	7.68	3.5	2-5-19 18:15	0.12	825	7.93	4.1	2-5-19 18:15	0.11	1587	8.14	13.3	7-6-19 11:30	20.25	1638	6.52	8.5	5-7-19 6:45	8.35	1038	8.49	67.8					
2-5-19 19:00	-0.08	1427	7.68	3.5	2-5-19 18:30	0.12	830	7.93	5.4	2-5-19 18:30	0.11	1588	8.14	13.1	7-6-19 11:45	20.22	1638	7.16	8.4	5-7-19 7:00	8.36	1038	8.49	66.0					
2-5-19 19:15	-0.08	1426	7.68	3.6	2-5-19 18:45	0.13	823	7.93	3.9	2-5-19 18:45	0.11	1586	8.14	13.2	7-6-19 12:00	20.09	1638	7.10	8.4	5-7-19 7:15	8.36	1035	8.49	70.3					
2-5-19 19:30	-0.08	1437	7.68	3.6	2-5-19 19:00	0.13	823	7.93	6.3	2-5-19 19:00	0.10	1571	8.14	18.3	7-6-19 12:15	20.02	1638	6.99	8.4	5-7-19 7:30	8.38	1037	8.49	63.0					
2-5-19 19:45	-0.08	1437	7.68	3.4	2-5-19 19:15	0.13	832	7.93	4.7	2-5-19 19:15	0.10	1572	8.14	20.3	7-6-19 12:30	19.95	1638	8.42	8.4	5-7-19 7:45	8.39	1040	8.49	61.7					
2-5-19 20:00					2-5-19 19:30	0.13	845	7.93	5.7	2-5-19 19:30	0.10	1572	8.14	15.7	7-6-19 12:45	19.94	1638	9.26	8.4	5-7-19 8:00	8.41	1040	8.50	67.5					
2-5-19 20:15	-0.08	1434	7.68	3.5	2-5-19 19:45	0.12	835	7.93	2.4	2-5-19 19:45	0.10	1571	8.14	27.6	7-6-19 13:00	19.86	1638	7.06	8.4	5-7-19 8:15	8.43	1040	8.50	63.9					
2-5-19 20:30	-0.08	1417	7.68	3.5	2-5-19 20:00	0.13	836	7.92	4.9	2-5-19 20:00	0.12	1589	8.13	13.2	7-6-19 13:15	19.78	1638	7.69	8.4	5-7-19 8:30	8.44	1039	8.50	72.5					
2-5-19 20:45	-0.08	1416	7.68	3.4	2-5-19 20:15	0.13	826	7.92	6.3	2-5-19 20:15	0.10	1592	8.14	13.0	7-6-19 13:30	19.71	1639	7.12	8.5	5-7-19 8:45	8.46	1041	8.50	66.1					
2-5-19 21:00	-0.08	1416	7.68	3.4	2-5-19 20:30	0.13	827	7.92	4.2	2-5-19 20:30	0.10	1591	8.14	12.8	7-6-19 13:45	19.74	1637	7.15	8.4	5-7-19 9:00	8.54	1038	8.50	63.7					
2-5-19 21:15	-0.09	1416	7.68	3.5	2-5-19 20:45	0.13	842	7.92	5.0	2-5-19 20:45	0.10	1591	8.14	13.0	7-6-19 14:00	19.73	1637	7.64	8.4	5-7-19 9:15	8.60	1040	8.50	66.2					
2-5-19 21:30	-0.10	1429	7.67	3.4	2-5-19 21:00	0.13	838	7.92	4.5	2-5-19 21:00	0.09	1572	8.14	26.6	7-6-19 14:15	19.69	1637	8.33	8.4	5-7-19 9:30	8.63	1039	8.50	62.7					
2-5-19 21:45	-0.09	1429	7.67	3.5	2-5-19 21:15	0.13	824	7.92	4.0	2-5-19 21:15	0.09	1569	8.14	25.0	7-6-19 14:30	19.72	1638	9.29	8.4	5-7-19 9:45	8.73	1040	8.49	68.3					
2-5-19 22:00	-0.10	1428	7.67	3.5	2-5-19 21:30	0.13	831	7.92	7.9	2-5-19 21:30	0.09	1572	8.14	18.0	7-6-19 14:45	19.73	1637	7.55	8.4	5-7-19 10:00	8.97	1041	8.49	75.1					
2-5-19 22:15	-0.10	1428	7.67	3.5	2-5-19 21:45	0.13	858	7.92	4.2	2-5-19 21:45	0.09	1573	8.14	27.3	7-6-19 15:00	19.76	1637	7.18	8.4	5-7-19 10:15	9.55	1040	8.48	67.9					
2-5-19 22:30	-0.10	1417	7.67	3.4	2-5-19 22:00	0.13	838	7.92	3.0	2-5-19 22:00	0.11	1590	8.13	13.0	7-6-19 15:15	19.76	1637	7.22	8.4	5-7-19 10:30	9.61	1039	8.48	78.1					
2-5-19 22:45	-0.10	1416	7.67	3.4	2-5-19 22:15	0.13	840	7.92	4.1	2-5-19 22:15	0.09	1591	8.14	12.7	7-6-19 15:30	19.82	1637	7.91	8.4	5-7-19 10:45	9.47	1033	8.48	63.6					
2-5-19 23:00	-0.10	1416	7.67	3.5	2-5-19 22:30	0.13	838	7.92	4.5	2-5-19 22:30	0.09	1592	8.14	12.7	7-6-19 15:45	19.86	1638	7.35	8.4	5-7-19 11:00	10.00	1040	8.48	98.3					
2-5-19 23:15	-0.10	1416	7.67	3.5	2-5-19 22:45	0.13	836	7.92	5.1	2-5-19 22:45	0.09	1592	8.14	12.6	7-6-19 16:00	19.92	1638	7.23	8.4	5-7-19 11:15	10.03	1040	8.47	130.8					
2-5-19 23:30	-0.09	1433	7.67	3.4	2-5-19 23:00	0.13	838	7.92	4.9	2-5-19 23:00	0.08	1573	8.14	17.4	7-6-19 16:15	20.03	1636	7.36	8.4	5-7-19 11:45	10.51	1038	8.46	149.8					
2-5-19 23:45	-0.10	1432	7.66	3.4	2-5-19 23:15	0.13	833	7.92	5.2	2-5-19 23:15	0.08	1573	8.13	21.6	7-6-19 16:30	20.13	1638	7.35	8.4	5-7-19 12:00	10.82	1039	8.46	156.1					
2-6-19 0:00	-0.09	1432	7.66	3.4	2-5-19 23:30	0.13	834	7.92	5.5	2-5-19 23:30	0.09	1573	8.13	25.1	7-6-19 16:45	20.25	1636	8.04	8.4	5-7-19 12:15	10.78	1034	8.46	153.5					
2-6-19 0:15	-0.09	1432	7.66	3.4	2-5-19 23:45	0.13	838	7.92	10.0	2-5-19 23:45	0.08	1573	8.13	22.9	7-6-19 17:00	20.41	1636	7.51	8.4	5-7-19 12:30	10.61	1037	8.46	76.1					
2-6-19 0:30	-0.09	1414	7.66	3.4	2-6-19 0:00	0.13	841	7.92	3.6	2-6-19 0:00	0.10	1593	8.13	12.6	7-6-19 17:15	20.55	1637	7.31	8.4	5-7-19 12:45	10.41	1040	8.46	83.1					
2-6-19 0:45	-0.10	1413	7.66	3.3	2-6-19 0:15	0.14	835	7.92	10.3	2-6-19 0:15	0.09	1592	8.14	13.5	7-6-19 17:30	20.71	1636	7.48	8.4	5-7-19 13:00	10.20	1041	8.46	77.2					
2-6-19 1:00	-0.10	1413	7.66	3.3	2-6-19 0:30	0.13	842	7.92	3.8	2-6-19 0:30	0.08	1593	8.14	12.4	7-6-19 17:45	20.74	1636	7.81	8.4	5-7-19 13:15	10.14	1042	8.47	81.7					
2-6-19 1:15	-0.10	1413	7.65	3.3	2-6-19 0:45	0.13	839	7.92	7.8	2-6-19 0:45	0.08	1594	8.13	13.5	7-6-19 18:00	20.85	1638	8.43	8.4	5-7-19 13:30	10.08	1038	8.47	68.1					
2-6-19 1:30	-0.10	1426	7.66	3.3	2-6-19 1:00	0.13	854	7.92	7.7	2-6-19 1:00	0.07	1574	8.13	17.9	7-6-19 18:15	20.92	1637	8.35	8.4	5-7-19 13:45	10.09	1040	8.48	76.0					
2-6-19 1:45	-0.10	1425	7.65	3.3	2-6-19 1:15	0.13	838	7.92	4.3	2-6-19 1:15	0.07	1577	8.13	21.2	7-6-19 18:30	20.83	1637	10.44	8.4	5-7-19 14:00	10.35	1049	8.48	64.8					
2-6-19 2:00	-0.10	1425	7.65	3.4	2-6-19 1:30	0.13	836	7.92	3.8	2-6-19 1:30	0.08	1573	8.13	23.3	7-6-19 18:45	20.84	1638	8.88	8.4	5-7-19 14:15	11.28	1044	8.45	74.3					
2-6-19 2:15	-0.10	1424	7.65	3.4	2-6-19 1:45	0.14	830	7.92	6.3	2-6-19 1:45	0.07	1574	8.13	28.5	7-6-19 19:00	20.78	1637	10.06	8.5	5-7-19 14:30	11.70	1042	8.45	75.7					
2-6-19 2:30	-0.10	1412	7.65	3.4	2-6-19 2:00	0.14	844	7.92	11.2	2-6-19 2:00	0.09	1589	8.12	13.0	7-6-19 19:15	20.74	1637	13.51	8.4	5-7-19 14:45	12.03	1037	8.44	68.5					
2-6-19 2:45	-0.10	1412	7.65	3.4	2-6-19 2:15	0.13	840	7.92	5.3	2-6-19 2:15	0.08	1590	8.13	12.6	7-6-19 19:30	20.74	1637	12.06	8.4	5-7-19 15:00	12.06	1041	8.44	80.8					
2-6-19 3:00	-0.10	1412	7.65	3.4	2-6-19 2:30	0.14	862	7.92	5.2	2-6-19 2:30	0.08	1591	8.13	12.6	7-6-19 19:45	20.81	1637	9.89	8.4	5-7-19 15:15	12.02	1040	8.44	75.1					
2-6-19 3:15	-0.10	1412	7.65	3.3	2-6-19 2:45	0.13	840	7.92	4.4	2-6-19 2:45	0.08	1591	8.13	12.5	7-6-19 20:00	20.86	1638	9.09	8.4	5-7-19 15:30	12.74	1048	8.44	82.8					
2-6-19 3:30	-0.10	1440	7.65	3.3	2-6-19 3:00	0.13	846	7.92	2.0	2-6-19 3:00	0.07	1577	8.12	24.8	7-6-19 20:15	21.11	1640	8.40	8.4	5-7-19 15:45	12.48	1040	8.44	81.5					
2-6-19 3:45	-0.10	1441	7.65	3.4	2-6-19 3:15	0.14	849	7.92	2.8	2-6-19 3:15	0.07	1575	8.12	21.4	7-6-19 20:30	21.26	1641	8.19	8.4	5-7-19 16:00	12.73	1043	8.44	64.5					
2-6-19 4:00	-0.10	1441	7.65	3.3	2-6-19 3:30	0.14	846	7.92	5.8	2-6-19 3:30	0.07	1576	8.12	23.2	7-6-19 20:45	21.48	1641	9.27	8.4	5-7-19 16:15	12.93	1043	8.44	68.8					
2-6-19 4:15	-0.10	1441	7.65	3.4	2-6-19 3:45	0.13	846	7.92	5.3	2-6-19 3:45	0.06	1577	8.12	20.0	7-6-19 21:00	21.70	1641	8.82	8.4	5-7-19 16:30	12.83	1048	8.44	64.6					
2-6-19 4:30	-0.10	1414	7.64	3.3	2-6-19 4:00	0.13	851	7.92	3.7	2-6-19 4:00	0.08	1592	8.11	12.6	7-6-19 21:15	21.85	1642	8.88	8.4	5-7-19 16:45	12.67	1040	8.44	57.5					
2-6-19 4:45	-0.10	1414	7.64	3.3	2-6-19 4:15	0.13	839	7.92	3.6	2-6-19 4:15	0.07	1591	8.12	12.4	7-6-19 21:30	21.98	1642	9.18	8.4	5-7-19 17:00	12.87	1042	8.45	60.0					
2-6-19 5:00	-0.10	1413	7.64	3.3	2-6-19 4:30	0.14	846	7.92	4.4	2-6-19 4:30	0.07	1592	8.12	12.4	7-6-19 21:45	22.17	1642	8.51	8.4	5-7-19 17:15	12.94	1041	8.45	52.6					
2-6-19 5:15	-0.10	1413	7.64	3.3	2-6-19 4:45	0.14	844	7.92	4.9	2-6-19 4:45	0.07	1593	8.12	12.1	7-6-19 22:00	22.37	1641	8.56	8.4	5-7-19 17:30	12.77	1033	8.45	52.1					
2-6-19 5:30	-0.10	1427	7.64	3.3	2-6-19 5:00	0.14	847	7.92	9.5	2-6-19 5:00	0.06	1577	8.12	23.6	7-6-19 22:15	22.26	1641	8.40	8.4	5-7-19 17:45	12.70	1043	8.45	62.2					
2-6-19 5:45	-0.10	1427	7.64	3.3	2-6-19 5:15	0.13	848	7.91	6.8	2-6-19 5:15	0.06	1576	8.12	19.6	7-6-19 22:30	22.35	1640	10.86	8.4	5-7-19 18:00	12.81	1040	8.45	55.4					
2-6-19 6:00	-0.10	1427	7.64	3.4	2-6-19 5:30	0.14	850	7.91	2.7	2-6-19 5:30	0.06	1577	8.11	21.3	7-6-19 22:45	22.38	1642	9.04	8.4	5-7-19 18:15	12.78	1038	8.45	66.1					
2-6-19 6:15	-0.10	1427	7.64	3.3	2-6-19 5:45	0.13	849	7.91	4.4	2-6-19 5:45	0.06	1577	8.12	19.7	7-6-19 23:00	22.59	1642	8.38	8.4	5-7-19 18:30	12.77	1042	8.45	62.5					
2-6-19 6:30	-0.10	1409	7.64	3.3	2-6-19 6:00	0.13	840	7.91	5.7	2-6-19 6:00	0.08	1594	8.11	12.6	7-6-19 23:15	22.86	1644	8.75	8.4	5-7-19 18:45	12.80	1040	8.45	48.0					
2-6-19 6:45	-0.10	1408	7.65	3.3	2-6-19 6:15	0.13	840	7.91	7.1	2-6-19 6:15	0.07	1596	8.12	12.4	7-6-19 23:30	23.13	1644	8.59	8.4	5-7-19 19:00	12.77	1041	8.45	58.3					
2-6-19 7:00	-0.10	1408	7.64	3.3	2-6-19 6:30	0.13	848	7.91	2.7	2-6-19 6:30	0.08	1597	8.11	12.1	7-6-19 23:45	23.16	1639	8.30	8.4	5-7-19 19:15	12.74	1043	8.45	67.2					
2-6-19 7:15	-0.10	1407	7.65	3.3	2-6-19 6:45	0.13	848	7.91	6.6	2-6-19 6:45	0.09	1597	8.12	12.1	7-7-19 0:00	22.82	1641	7.92	8.4	5-7-19 19:30	12.68	1043	8.46	64.2					
2-6-19 7:30	-0.10	1438	7.64	3.3	2-6-19 7:00	0.13	844	7.91	5.6	2-6-19 7:00	0.09	1576	8.11	24.4	7-7-19 0:15	22.31	1638	8.18	8.4	5-7-19 19:45	12.57	1043	8.46	61.9					
2-6-19 7:45	-0.10	1438	7.64	3.2	2-6-19 7:15	0.13	849	7.91	5.5	2-6-19 7:15	0.10	1574	8.11	17.9	7-7-19 0:30	22.37	1643	7.65	8.4	5-7-19 20:00	12.51	1049	8.46	54.7					
2-6-19 8:00	-0.10	1438	7.64	3.3	2-6-19 7:30	0.13	859	7.91	4.3	2-6-19 7:30	0.09	1576	8.11	18.9	7-7-19 0:45	22.78	1641	9.26	8.4	5-7-19 20:15	12.44	1043	8.46	75.4					
2-6-19 8:15	-0.10	1438	7.64	3.3	2-6-19 7:45	0.14	849	7.91	6.5	2-6-19 7:45	0.10	1576	8.11	18.1	7-7-19 1:00	22.99	1643	8.03	8.4	5-7-19 20:30	12.37	1046	8.46	56.2					
2-6-19 8:30	-0.10	1408	7.64	3.3	2-6-19 8:00	0.13	852	7.91	5.9	2-6-19 8:00	0.12	1596	8.10	14.1	7-7-19 1:15	23.45	1646	8.41	8.4	5-7-19 20:45	12.32	1044	8.46	58.2					
2-6-19 8:45	-0.10	1408	7.64	3.6	2-6-19 8:15	0.13	854	7.91	5.6	2-6-19 8:15	0.11	1595	8.11	12.1	7-7-19 1:30	23.60	1645	8.59	8.4	5-7-19 21:00	12.27	1044	8.46	71.8					
2-6-19 9:00	-0.10	1407	7.64	3.3	2-6-19 8:30	0.13	856	7.91	4.8	2-6-19 8:30	0.11	1597	8.11	11.9	7-7-19 1:45	23.66	1644	7.96	8.4	5-7-19 21:15	12.21	1044	8.47	62.1					
2-6-19 9:15	-0.10	1407	7.64	3.2	2-6-19 8:45	0.13	854	7.91	1.9	2-6-19 8:45	0.11	1597	8.10	12.0	7-7-19 2:00	23.59	1645	8.44	8.4	5-7-19 21:30	12.18	1044	8.47	64.5					
2-6-19 9:30	-0.10	1417	7.64	3.4	2-6-19 9:00	0.13	861	7.91	5.8	2-6-19 9:00	0.10	1578	8.11	17.3	7-7-19 2:15	23.40	1636	9.06	8.4	5-7-19 21:45	12.14	1045	8.47	56.6					
2-6-19 9:45	-0.10	1416	7.64	3.3	2-6-19 9:15	0.14	858	7.91	4.5	2-6-19 9:15	0.11	1579	8.10	19.9	7-7-19 2:30	23.06	1638	9.05	8.4	5-7-19 22:00	12.09	1045	8.47	69.2					
2-6-19 10:00	-0.10	1416	7.64	3.2	2-6-19 9:30	0.14	848	7.91	6.9	2-6-19 9:30	0.10	1579	8.11	19.7	7-7-19 2:45	22.91	1641	9.90	8.4	5-7-19 22:15	12.04	1045	8.47	64.4					
2-6-19 10:15	-0.10	1416	7.64	3.3	2-6-19 9:45	0.14	863	7.91	2.1	2-6-19 9:45	0.11	1577	8.11	17.8	7-7-19 3:00	23.05	1641	8.31	8.4	5-7-19 22:30	11.97	1044	8.47	73.5					
2-6-19 10:30	-0.10	1401	7.64	3.2	2-6-19 10:00	0.14	851	7.91	3.6	2-6-19 10:00	0.13	1594	8.10	12.3	7-7-19 3:15	23.21	1643	6.97	8.4	5-7-19 22:45	11.92	1045	8.47	69.8					
2-6-19 10:45	-0.10	1400	7.64	3.2	2-6-19 10:15	0.14	860	7.90	10.3	2-6-19 10:15	0.11	1595	8.11	12.1	7-7-19 3:30	23.29	1645	7.13	8.4	5-7-19 23:00	11.88	1043	8.47	64.8					
2-6-19 11:00	-0.10	1400	7.64	3.2	2-6-19 10:30	0.14	853	7.90	3.4	2-6-19 10:30	0.12	1596	8.11	11.7	7-7-19 3:45	23.27	1644	7.02	8.4	5-7-19 23:15	11.84	1043	8.47	69.2					
2-6-19 11:15	-0.10	1399	7.64	3.3	2-6-19 10:45	0.14	849	7.90	4.3	2-6-19 10:45	0.12	1593	8.11	11.8	7-7-19 4:00	23.21	1645	7.28	8.4	5-7-19 23:30	11.81	1043	8.47	62.1					
2-6-19 11:30	-0.10	1419	7.63	3.3	2-6-19 11:00	0.14	849	7.90	4.1	2-6-19 11:00	0.12	1578	8.11	24.4	7-7-19 4:15	23.15	1644	7.36	8.4	5-7-19 23:45	11.76	1042	8.47	67.1					
2-6-19 11:45	-0.10	1419	7.63	3.2	2-6-19 11:15	0.14	854	7.90	4.8	2-6-19 11:15	0.13	1577	8.11	20.8	7-7-19 4:30	23.07	1642	7.32	8.4	5-8-19 0:00	11.70	1038	8.47	47.6					
2-6-19 12:00	-0.10	1419	7.63	3.3	2-6-19 11:30	0.14	858	7.90	2.3	2-6-19 11:30	0.13	1575	8.11	17.8	7-7-19 4:45	23.00	1646	6.76	8.4	5-8-19 0:15	11.63	1043	8.47	72.8					
2-6-19 12:15	-0.10	1419	7.63	3.3	2-6-19 11:45	0.14	852	7.90	6.4	2-6-19 11:45	0.13	1575	8.11	23.9	7-7-19 5:00	22.95	1644	6.66	8.4	5-8-19 0:30	11.54	1043	8.47	69.8					
2-6-19 12:30	-0.10	1405	7.63	3.3	2-6-19 12:00	0.14	852	7.90	3.5	2-6-19 12:00	0.15	1592	8.11	12.4	7-7-19 5:15	22.89	1645	6.74	8.4	5-8-19 0:45	11.45	1043	8.47	69.8					
2-6-19 12:45	-0.10	1405	7.63	3.2	2-6-19 12:15	0.14	857	7.90	8.9	2-6-19 12:15	0.14	1593	8.11	11.9	7-7-19 5:30	22.82	1643	7.10	8.4	5-8-19 1:00	11.44	1043	8.47	62.8					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-6-19 13:00	-0.10	1405	7.63	3.3	2-6-19 12:30	0.14	855	7.90	14.0	2-6-19 12:30	0.14	1593	8.11	11.3	7-7-19 5:45	22.75	1644	6.45	8.4	5-8-19 1:15	11.44	1045	8.47	77.3					
2-6-19 13:15	-0.10	1405	7.63	3.3	2-6-19 12:45	0.14	863	7.90	3.4	2-6-19 12:45	0.14	1591	8.11	11.5	7-7-19 6:00	22.66	1645	7.26	8.4	5-8-19 1:30	11.40	1043	8.47	78.9					
2-6-19 13:30	-0.10	1418	7.63	3.5	2-6-19 13:00	0.14	852	7.90	5.1	2-6-19 13:00	0.14	1576	8.11	19.5	7-7-19 6:15	22.58	1644	6.13	8.5	5-8-19 1:45	11.35	1043	8.47	74.3					
2-6-19 13:45	-0.10	1418	7.63	3.2	2-6-19 13:15	0.14	861	7.90	7.0	2-6-19 13:15	0.15	1576	8.10	25.7	7-7-19 6:30	22.47	1645	6.46	8.5	5-8-19 2:00	11.30	1043	8.47	72.1					
2-6-19 14:00	-0.10	1418	7.63	3.3	2-6-19 13:30	0.14	876	7.87	6.3	2-6-19 13:30	0.22	1574	8.10	20.4	7-7-19 6:45	22.47	1645	6.58	8.5	5-8-19 2:15	11.25	1046	8.47	65.4					
2-6-19 14:15	-0.10	1418	7.63	3.2	2-6-19 13:45	0.01	790	7.93	5.3	2-6-19 13:45	0.22	1572	8.10	19.1	7-7-19 7:00	22.38	1643	6.71	8.5	5-8-19 2:30	11.21	1045	8.47	70.9					
2-6-19 14:30	-0.10	1406	7.63	3.3	2-6-19 14:00	-0.01	784	7.94	6.2	2-6-19 14:00	0.04	1597	8.12	9.3	7-7-19 7:15	22.30	1646	13.31	8.5	5-8-19 2:45	11.11	1041	8.47	78.0					
2-6-19 14:45	-0.11	1396	7.63	3.4	2-6-19 14:15	-0.01	766	7.94	4.6	2-6-19 14:15	0.00	1602	8.12	9.5	7-7-19 7:30	22.24	1644	6.63	8.5	5-8-19 3:00	11.02	1045	8.47	62.3					
2-6-19 15:00					2-6-19 14:30	0.00	779	7.94	4.7	2-6-19 14:30	-0.04	1598	8.11	9.2	7-7-19 7:45	22.13	1645	6.46	8.5	5-8-19 3:15	10.90	1047	8.47	71.2					
2-6-19 15:15	-0.09	1395	7.62	3.3	2-6-19 14:45	0.00	776	7.94	3.2	2-6-19 14:45	-0.06	1596	8.11	9.5	7-7-19 8:00	22.10	1648	5.96	8.5	5-8-19 3:30	10.84	1051	8.47	79.1					
2-6-19 15:30	-0.09	1426	7.62	3.3	2-6-19 15:00	0.00	768	7.94	4.9	2-6-19 15:00	-0.07	1577	8.11	13.4	7-7-19 8:15	22.02	1644	6.27	8.5	5-8-19 3:45	10.74	1052	8.48	72.1					
2-6-19 15:45	-0.09	1426	7.62	3.2	2-6-19 15:15	0.01	771	7.94	3.6	2-6-19 15:15	-0.07	1575	8.11	17.4	7-7-19 8:30	21.96	1644	6.05	8.5	5-8-19 4:00	10.60	1045	8.48	73.7					
2-6-19 16:00	-0.09	1425	7.62	3.2	2-6-19 15:30	0.01	775	7.94	6.5	2-6-19 15:30	-0.06	1572	8.11	15.3	7-7-19 8:45	21.91	1644	6.15	8.5	5-8-19 4:15	10.45	1048	8.50	64.8					
2-6-19 16:15	-0.09	1425	7.62	3.1	2-6-19 15:45	0.01	775	7.94	2.6	2-6-19 15:45	-0.06	1570	8.10	20.4	7-7-19 9:00	21.82	1646	6.04	8.5	5-8-19 4:30	10.34	1047	8.48	81.5					
2-6-19 16:30	-0.09	1398	7.62	3.3	2-6-19 16:00	0.01	770	7.94	4.5	2-6-19 16:00	-0.06	1588	8.10	8.3	7-7-19 9:15	21.73	1645	6.36	8.5	5-8-19 4:45	10.29	1051	8.48	59.9					
2-6-19 16:45	-0.09	1398	7.62	3.1	2-6-19 16:15	0.01	771	7.94	4.5	2-6-19 16:15	-0.07	1588	8.10	8.8	7-7-19 9:30	21.64	1644	6.06	8.5	5-8-19 5:00	10.30	1051	8.48	70.9					
2-6-19 17:00	-0.09	1398	7.61	3.1	2-6-19 16:30	0.01	775	7.94	8.3	2-6-19 16:30	-0.07	1587	8.09	8.3	7-7-19 9:45	21.60	1644	6.20	8.5	5-8-19 5:15	10.26	1049	8.48	66.4					
2-6-19 17:15	-0.09	1398	7.61	3.1	2-6-19 16:45	0.01	768	7.94	5.8	2-6-19 16:45	-0.07	1587	8.09	8.0	7-7-19 10:00	21.51	1646	6.07	8.5	5-8-19 5:30	10.23	1049	8.47	68.2					
2-6-19 17:30	-0.09	1416	7.61	3.2	2-6-19 17:00	0.01	773	7.94	6.8	2-6-19 17:00	-0.08	1568	8.09	13.2	7-7-19 10:15	21.45	1644	6.20	8.5	5-8-19 5:45	10.22	1049	8.48	67.8					
2-6-19 17:45	-0.09	1416	7.61	3.2	2-6-19 17:15	0.01	778	7.93	4.6	2-6-19 17:15	-0.08	1566	8.09	14.2	7-7-19 10:30	21.35	1644	6.44	8.4	5-8-19 6:00	10.17	1048	8.48	83.0					
2-6-19 18:00	-0.09	1416	7.61	3.3	2-6-19 17:30	0.01	775	7.94	6.3	2-6-19 17:30	-0.08	1565	8.10	13.7	7-7-19 10:45	21.30	1643	6.11	8.5	5-8-19 6:15	10.13	1051	8.48	69.4					
2-6-19 18:15	-0.10	1415	7.61	3.3	2-6-19 17:45	0.01	776	7.94	5.7	2-6-19 17:45	-0.08	1565	8.10	20.9	7-7-19 11:00	21.24	1646	6.86	8.4	5-8-19 6:30	10.17	1047	8.49	135.2					
2-6-19 18:30	-0.09	1396	7.61	3.4	2-6-19 18:00	0.00	789	7.93	4.8	2-6-19 18:00	-0.08	1580	8.09	7.9	7-7-19 11:15	21.17	1645	6.37	8.4	5-8-19 6:45	10.18	1045	8.48	87.1					
2-6-19 18:45	-0.09	1396	7.61	3.2	2-6-19 18:15	0.00	780	7.93	3.7	2-6-19 18:15	-0.08	1582	8.09	7.7	7-7-19 11:30	21.11	1645	6.38	8.4	5-8-19 7:00	10.16	1044	8.48	60.8					
2-6-19 19:00	-0.09	1395	7.61	3.1	2-6-19 18:30	0.00	771	7.93	4.5	2-6-19 18:30	-0.08	1581	8.09	7.9	7-7-19 11:45	21.03	1645	6.86	8.4	5-8-19 7:15	10.18	1046	8.48	67.2					
2-6-19 19:15	-0.09	1395	7.61	3.2	2-6-19 18:45	0.00	777	7.93	25.7	2-6-19 18:45	-0.08	1581	8.09	7.8	7-7-19 12:00	21.00	1645	8.55	8.4	5-8-19 7:30	10.16	1047	8.49	72.9					
2-6-19 19:30	-0.09	1430	7.61	3.4	2-6-19 19:00	0.00	789	7.93	6.3	2-6-19 19:00	-0.08	1560	8.09	12.1	7-7-19 12:15	20.89	1645	6.86	8.4	5-8-19 7:45	10.14	1046	8.50	59.2					
2-6-19 19:45	-0.09	1431	7.61	3.2	2-6-19 19:15	0.00	780	7.93	4.4	2-6-19 19:15	-0.08	1559	8.09	14.1	7-7-19 12:30	20.85	1645	7.00	8.4	5-8-19 8:00	10.02	1048	8.51	64.6					
2-6-19 20:00	-0.09	1431	7.61	3.2	2-6-19 19:30	0.00	782	7.93	3.2	2-6-19 19:30	-0.08	1557	8.09	13.5	7-7-19 12:45	20.79	1645	6.67	8.5	5-8-19 8:15	9.89	1047	8.51	68.5					
2-6-19 20:15	-0.09	1431	7.61	3.3	2-6-19 19:45	0.00	773	7.93	5.0	2-6-19 19:45	-0.08	1557	8.09	16.0	7-7-19 13:00	20.74	1645	6.91	8.4	5-8-19 8:30	9.90	1051	8.50	150.1					
2-6-19 20:30	-0.09	1395	7.61	3.4	2-6-19 20:00	0.00	785	7.93	6.2	2-6-19 20:00	-0.09	1572	8.09	8.0	7-7-19 13:15	20.67	1645	6.66	8.4	5-8-19 8:45	9.86	1052	8.50	81.7					
2-6-19 20:45	-0.09	1395	7.60	3.4	2-6-19 20:15	0.00	786	7.93	3.6	2-6-19 20:15	-0.09	1571	8.09	8.0	7-7-19 13:30	20.65	1645	7.07	8.4	5-8-19 9:00	10.04	1049	8.49	78.9					
2-6-19 21:00	-0.09	1394	7.60	3.2	2-6-19 20:30	0.00	778	7.93	6.3	2-6-19 20:30	-0.09	1569	8.09	7.7	7-7-19 13:45	20.64	1644	7.06	8.4	5-8-19 9:15	10.15	1048	8.48	70.9					
2-6-19 21:15	-0.09	1394	7.60	3.2	2-6-19 20:45	0.00	782	7.93	4.4	2-6-19 20:45	-0.09	1569	8.09	7.7	7-7-19 14:00	20.63	1644	7.32	8.4	5-8-19 9:30	10.16	1051	8.49	77.6					
2-6-19 21:30	-0.09	1411	7.60	3.3	2-6-19 21:00	0.00	790	7.93	6.5	2-6-19 21:00	-0.09	1551	8.09	12.9	7-7-19 14:15	20.58	1644	9.26	8.4	5-8-19 9:45	10.18	1055	8.50	64.9					
2-6-19 21:45	-0.09	1411	7.60	3.3	2-6-19 21:15	0.00	789	7.93	6.2	2-6-19 21:15	-0.09	1550	8.09	13.6	7-7-19 14:30	20.53	1645	7.37	8.4	5-8-19 10:00	10.24	1053	8.49	63.9					
2-6-19 22:00	-0.09	1411	7.60	3.2	2-6-19 21:30	0.00	793	7.93	7.2	2-6-19 21:30	-0.09	1550	8.09	12.7	7-7-19 14:45	20.57	1645	7.08	8.5	5-8-19 10:15	10.29	1058	8.49	78.2					
2-6-19 22:15	-0.09	1411	7.60	3.3	2-6-19 21:45	0.00	785	7.93	8.7	2-6-19 21:45	-0.09	1549	8.09	13.5	7-7-19 15:00	20.56	1645	7.93	8.4	5-8-19 10:30	10.37	1052	8.48	76.7					
2-6-19 22:30	-0.09	1396	7.60	3.3	2-6-19 22:00	0.00	784	7.93	6.8	2-6-19 22:00	-0.09	1562	8.09	7.9	7-7-19 15:15	20.55	1645	8.07	8.4	5-8-19 10:45	10.49	1053	8.48	64.3					
2-6-19 22:45	-0.09	1396	7.60	3.3	2-6-19 22:15	0.00	789	7.93	4.3	2-6-19 22:15	-0.09	1563	8.08	7.9	7-7-19 15:30	20.56	1646	7.40	8.4	5-8-19 11:00	10.56	1052	8.47	69.6					
2-6-19 23:00	-0.09	1396	7.60	3.5	2-6-19 22:30	0.00	780	7.92	6.1	2-6-19 22:30	-0.09	1561	8.08	7.7	7-7-19 15:45	20.63	1644	8.20	8.4	5-8-19 11:15	10.63	1051	8.48	74.2					
2-6-19 23:15	-0.09	1396	7.60	3.5	2-6-19 22:45	0.00	795	7.92	7.8	2-6-19 22:45	-0.09	1559	8.09	7.5	7-7-19 16:00	20.63	1647	7.56	8.4	5-8-19 11:30	10.78	1056	8.47	63.1					
2-6-19 23:30	-0.09	1409	7.60	3.4	2-6-19 23:00	0.00	786	7.92	6.2	2-6-19 23:00	-0.09	1539	8.09	12.6	7-7-19 16:15	20.65	1646	7.73	8.4	5-8-19 11:45	10.92	1054	8.47	74.6					
2-6-19 23:45	-0.09	1409	7.60	3.4	2-6-19 23:15	0.00	782	7.92	5.5	2-6-19 23:15	-0.09	1538	8.09	13.6	7-7-19 16:30	20.65	1647	7.77	8.5	5-8-19 12:00	11.10	1053	8.47	72.8					
2-7-19 0:00	-0.09	1409	7.60	3.4	2-6-19 23:30	0.00	786	7.92	5.7	2-6-19 23:30	-0.09	1538	8.09	16.5	7-7-19 16:45	20.66	1647	8.10	8.4	5-8-19 12:15	11.03	1053	8.47	69.4					
2-7-19 0:15	-0.09	1409	7.60	3.5	2-6-19 23:45	0.00	780	7.92	6.2	2-6-19 23:45	-0.09	1537	8.09	13.2	7-7-19 17:00	20.72	1646	8.63	8.5	5-8-19 12:30	11.03	1052	8.47	80.9					
2-7-19 0:30	-0.10	1391	7.60	3.5	2-7-19 0:00	0.00	795	7.92	7.3	2-7-19 0:00	-0.09	1553	8.09	8.4	7-7-19 17:15	20.78	1646	8.25	8.5	5-8-19 12:45	11.08	1055	8.46	73.5					
2-7-19 0:45	-0.10	1391	7.59	3.6	2-7-19 0:15	0.00	793	7.92	6.6	2-7-19 0:15	-0.09	1552	8.08	8.0	7-7-19 17:30	20.83	1646	8.04	8.4	5-8-19 13:00	11.18	1054	8.47	84.2					
2-7-19 1:00	-0.09	1391	7.59	3.5	2-7-19 0:30	0.00	796	7.92	7.7	2-7-19 0:30	-0.09	1549	8.08	8.0	7-7-19 17:45	21.00	1649	8.85	8.5	5-8-19 13:15	11.41	1055	8.46	77.7					
2-7-19 1:15	-0.09	1391	7.59	3.5	2-7-19 0:45	0.00	796	7.92	5.5	2-7-19 0:45	-0.09	1548	8.08	8.0	7-7-19 18:00	21.06	1647	8.45	8.5	5-8-19 13:30	11.45	1055	8.46	71.1					
2-7-19 1:30	-0.09	1407	7.60	3.5	2-7-19 1:00	0.00	790	7.92	9.1	2-7-19 1:00	-0.09	1529	8.09	14.3	7-7-19 18:15	21.15	1647	8.69	8.4	5-8-19 13:45	11.36	1055	8.46	63.0					
2-7-19 1:45	-0.09	1407	7.59	3.4	2-7-19 1:15	0.00	795	7.92	5.3	2-7-19 1:15	-0.09	1528	8.09	16.8	7-7-19 18:30	21.26	1646	8.42	8.4	5-8-19 14:00	11.42	1057	8.46	80.9					
2-7-19 2:00	-0.09	1407	7.59	3.5	2-7-19 1:30	0.00	800	7.92	7.5	2-7-19 1:30	-0.09	1527	8.09	14.1	7-7-19 18:45	21.50	1647	8.83	8.4	5-8-19 14:15	11.55	1057	8.46	74.9					
2-7-19 2:15	-0.09	1406	7.59	3.5	2-7-19 1:45	0.00	786	7.92	5.3	2-7-19 1:45	-0.09	1526	8.09	14.8	7-7-19 19:00	21.55	1649	8.80	8.4	5-8-19 14:30	11.53	1052	8.46	80.6					
2-7-19 2:30	-0.10	1391	7.60	3.5	2-7-19 2:00	0.00	805	7.92	7.1	2-7-19 2:00	-0.09	1542	8.08	7.8	7-7-19 19:15	21.57	1649	8.78	8.4	5-8-19 14:45	11.67	1056	8.46	85.3					
2-7-19 2:45	-0.09	1391	7.60	3.5	2-7-19 2:15	0.00	785	7.92	7.6	2-7-19 2:15	-0.09	1541	8.08	7.9	7-7-19 19:30	21.57	1645	8.73	8.4	5-8-19 15:00	11.75	1054	8.46	69.9					
2-7-19 3:00	-0.09	1391	7.59	3.4	2-7-19 2:30	0.00	807	7.92	4.5	2-7-19 2:30	-0.09	1538	8.08	7.7	7-7-19 19:45	21.70	1648	8.79	8.4	5-8-19 15:15	11.85	1055	8.46	62.8					
2-7-19 3:15	-0.09	1390	7.59	3.4	2-7-19 2:45	0.00	791	7.92	5.5	2-7-19 2:45	-0.09	1536	8.08	7.9	7-7-19 20:00	21.75	1647	9.16	8.4	5-8-19 15:30	11.81	1057	8.46	69.4					
2-7-19 3:30	-0.10	1402	7.60	3.5	2-7-19 3:00	0.00	783	7.92	7.1	2-7-19 3:00	-0.09	1519	8.08	12.1	7-7-19 20:15	21.80	1648	8.90	8.4	5-8-19 15:45	11.94	1055	8.46	78.1					
2-7-19 3:45	-0.09	1402	7.59	3.4	2-7-19 3:15	0.00	804	7.92	5.5	2-7-19 3:15	-0.09	1517	8.08	13.2	7-7-19 20:30	21.86	1647	9.39	8.5	5-8-19 16:00	12.00	1056	8.46	67.2					
2-7-19 4:00	-0.10	1402	7.60	3.4	2-7-19 3:30	0.00	802	7.91	3.2	2-7-19 3:30	-0.09	1518	8.08	12.7	7-7-19 20:45	21.81	1648	9.56	8.4	5-8-19 16:15	11.88	1053	8.46	73.2					
2-7-19 4:15	-0.09	1401	7.60	3.5	2-7-19 3:45	0.00	792	7.91	6.5	2-7-19 3:45	-0.09	1517	8.08	13.4	7-7-19 21:00	21.79	1649	9.11	8.5	5-8-19 16:30	11.87	1056	8.47	75.9					
2-7-19 4:30	-0.10	1390	7.60	3.4	2-7-19 4:00	0.00	801	7.91	5.1	2-7-19 4:00	-0.09	1532	8.08	7.6	7-7-19 21:15	21.78	1649	9.72	8.5	5-8-19 16:45	11.88	1057	8.47	61.4					
2-7-19 4:45					2-7-19 4:15	0.00	801	7.91	6.2	2-7-19 4:15	-0.09	1531	8.08	7.4	7-7-19 21:30	21.80	1649	8.86	8.5	5-8-19 17:00	12.06	1060	8.47	79.2					
2-7-19 5:00	-0.09	1389	7.60	3.4	2-7-19 4:30	0.00	809	7.91	6.9	2-7-19 4:30	-0.09	1530	8.08	7.6	7-7-19 21:45	21.81	1649	9.69	8.5	5-8-19 17:15	12.27	1059	8.46	72.4					
2-7-19 5:15	-0.09	1389	7.60	3.4	2-7-19 4:45	0.01	800	7.91	4.2	2-7-19 4:45	-0.09	1527	8.08	7.7	7-7-19 22:00	21.84	1649	10.80	8.5	5-8-19 17:30	12.32	1060	8.46	77.4					
2-7-19 5:30	-0.09	1402	7.60	3.4	2-7-19 5:00	0.01	810	7.91	11.7	2-7-19 5:00	-0.09	1511	8.08	12.8	7-7-19 22:15	21.83	1648	9.30	8.5	5-8-19 17:45	12.32	1055	8.46	82.5					
2-7-19 5:45	-0.10	1402	7.60	3.4	2-7-19 5:15	0.01	806	7.91	8.4	2-7-19 5:15	-0.09	1508	8.08	12.9	7-7-19 22:30	21.83	1648	9.52	8.5	5-8-19 18:00	12.46	1063	8.46	72.3					
2-7-19 6:00	-0.10	1402	7.60	3.4	2-7-19 5:30	0.01	796	7.91	6.0	2-7-19 5:30	-0.09	1509	8.08	12.7	7-7-19 22:45	21.76	1647	9.86	8.5	5-8-19 18:15	12.47	1057	8.46	80.0					
2-7-19 6:15	-0.10	1402	7.60	3.4	2-7-19 5:45	0.01	811	7.91	8.1	2-7-19 5:45	-0.09	1507	8.08	12.5	7-7-19 23:00	21.73	1649	9.39	8.5	5-8-19 18:30	12.50	1059	8.46	80.2					
2-7-19 6:30	-0.10	1388	7.61	3.3	2-7-19 6:00	0.01	795	7.91	6.2	2-7-19 6:00	-0.09	1523	8.07	7.3	7-7-19 23:15	21.72	1649	9.43	8.5	5-8-19 18:45	12.55	1056	8.46	85.7					
2-7-19 6:45	-0.09	1388	7.61	3.4	2-7-19 6:15	0.01	809	7.91	6.2	2-7-19 6:15	-0.09	1521	8.07	7.6	7-7-19 23:30	21.73	1648	10.42	8.5	5-8-19 19:00	12.60	1056	8.46	79.4					
2-7-19 7:00	-0.10	1388	7.61	3.3	2-7-19 6:30	0.00	815	7.91	4.9	2-7-19 6:30	-0.09	1521	8.08	7.4	7-7-19 23:45	21.74	1649	11.56	8.5	5-8-19 19:15	12.61	1052	8.46	84.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-7-19 7:15	-0.10	1387	7.60	3.3	2-7-19 6:45	0.01	808	7.91	2.4	2-7-19 6:45	-0.09	1523	8.07	7.5	7-8-19 0:00	21.76	1649	10.07	8.5	5-8-19 19:30	12.61	1060	8.46	68.7					
2-7-19 7:30	-0.10	1392	7.61	3.4	2-7-19 7:00	0.01	809	7.91	4.8	2-7-19 7:00	-0.09	1503	8.08	12.7	7-8-19 0:15	21.77	1649	10.31	8.5	5-8-19 19:45	12.63	1059	8.46	82.5					
2-7-19 7:45	-0.09	1392	7.61	3.3	2-7-19 7:15	0.00	819	7.91	9.6	2-7-19 7:15	-0.09	1502	8.08	13.0	7-8-19 0:30	21.78	1649	10.28	8.5	5-8-19 20:00	12.66	1055	8.46	68.1					
2-7-19 8:00	-0.09	1390	7.61	3.3	2-7-19 7:30	0.00	804	7.90	6.1	2-7-19 7:30	-0.09	1503	8.08	13.6	7-8-19 0:45	21.80	1648	9.21	8.5	5-8-19 20:15	12.75	1062	8.46	90.4					
2-7-19 8:15	-0.09	1392	7.61	3.3	2-7-19 7:45	0.00	809	7.90	4.4	2-7-19 7:45	-0.09	1501	8.08	13.5	7-8-19 1:00	21.79	1649	9.25	8.5	5-8-19 20:30	12.86	1061	8.46	84.3					
2-7-19 8:30	-0.09	1383	7.61	3.4	2-7-19 8:00	0.00	814	7.91	4.6	2-7-19 8:00	-0.09	1516	8.07	7.7	7-8-19 1:15	21.77	1650	10.08	8.5	5-8-19 20:45	12.86	1053	8.46	77.2					
2-7-19 8:45	-0.09	1383	7.61	3.2	2-7-19 8:15	0.00	804	7.91	4.4	2-7-19 8:15	-0.09	1517	8.07	7.2	7-8-19 1:30	21.73	1648	9.89	8.5	5-8-19 21:00	12.86	1055	8.46	69.3					
2-7-19 9:00	-0.09	1383	7.61	3.2	2-7-19 8:30	0.00	821	7.90	4.6	2-7-19 8:30	-0.09	1514	8.07	7.3	7-8-19 1:45	21.73	1649	10.05	8.5	5-8-19 21:15	12.84	1059	8.46	80.8					
2-7-19 9:15	-0.09	1383	7.61	3.3	2-7-19 8:45	0.00	815	7.90	5.8	2-7-19 8:45	-0.09	1516	8.07	7.4	7-8-19 2:00	21.74	1649	9.54	8.5	5-8-19 21:30	12.83	1054	8.46	80.8					
2-7-19 9:30	-0.09	1397	7.61	3.3	2-7-19 9:00	0.00	810	7.90	4.5	2-7-19 9:00	-0.09	1496	8.07	12.2	7-8-19 2:15	21.77	1650	9.20	8.5	5-8-19 21:45	12.80	1055	8.46	80.7					
2-7-19 9:45	-0.09	1397	7.61	3.2	2-7-19 9:15	0.00	803	7.90	6.0	2-7-19 9:15	-0.09	1496	8.07	12.3	7-8-19 2:30	21.80	1650	9.36	8.5	5-8-19 22:00	12.77	1055	8.46	78.7					
2-7-19 10:00	-0.09	1397	7.62	3.3	2-7-19 9:30	0.00	815	7.90	4.5	2-7-19 9:30	-0.09	1497	8.07	13.4	7-8-19 2:45	21.79	1650	10.78	8.5	5-8-19 22:15	12.70	1055	8.46	84.7					
2-7-19 10:15	-0.10	1397	7.62	3.3	2-7-19 9:45	0.00	813	7.90	2.5	2-7-19 9:45	-0.09	1497	8.07	12.1	7-8-19 3:00	21.78	1650	9.86	8.5	5-8-19 22:30									
2-7-19 10:30	-0.10	1380	7.62	3.3	2-7-19 10:00	0.00	815	7.90	7.6	2-7-19 10:00	-0.09	1513	8.07	7.3	7-8-19 3:15	21.74	1649	9.70	8.5	5-8-19 22:45	12.61	1060	8.46	90.1					
2-7-19 10:45	-0.09	1380	7.62	3.3	2-7-19 10:15	0.01	813	7.90	7.3	2-7-19 10:15	-0.09	1512	8.07	7.3	7-8-19 3:30	21.72	1650	9.00	8.5	5-8-19 23:00	12.57	1058	8.46	89.5					
2-7-19 11:00	-0.09	1379	7.62	3.2	2-7-19 10:30	0.01	819	7.90	5.8	2-7-19 10:30	-0.09	1513	8.07	7.5	7-8-19 3:45	21.68	1649	8.80	8.5	5-8-19 23:15	12.54	1055	8.47	96.6					
2-7-19 11:15	-0.09	1379	7.61	3.2	2-7-19 10:45	0.01	822	7.90	4.6	2-7-19 10:45	-0.09	1510	8.07	7.0	7-8-19 4:00	21.62	1650	10.19	8.5	5-8-19 23:30	12.49	1054	8.47	90.7					
2-7-19 11:30	-0.09	1393	7.62	3.1	2-7-19 11:00	0.00	807	7.90	9.7	2-7-19 11:00	-0.09	1494	8.07	12.2	7-8-19 4:15	21.58	1648	9.51	8.5	5-8-19 23:45	12.44	1054	8.47	91.7					
2-7-19 11:45	-0.09	1393	7.62	3.2	2-7-19 11:15	-0.02	841	7.90	4.8	2-7-19 11:15	-0.09	1493	8.07	12.5	7-8-19 4:30	21.55	1650	9.38	8.5	5-9-19 0:00	12.45	1056	8.46	90.4					
2-7-19 12:15	-0.09	1393	7.61	3.3	2-7-19 11:30	-0.03	814	7.90	4.7	2-7-19 11:30	-0.11	1504	8.08	11.6	7-8-19 4:45	21.51	1649	8.86	8.5	5-9-19 0:15	12.41	1056	8.46	94.5					
2-7-19 12:30	-0.09	1380	7.61	3.2	2-7-19 11:45	-0.03	816	7.90	4.6	2-7-19 11:45	-0.10	1504	8.08	13.0	7-8-19 5:00	21.47	1648	9.87	8.5	5-9-19 0:30	12.34	1054	8.47	93.4					
2-7-19 12:45	-0.09	1380	7.61	3.3	2-7-19 12:00	-0.02	810	7.90	4.1	2-7-19 12:00	-0.10	1521	8.07	8.1	7-8-19 5:15	21.43	1648	9.59	8.5	5-9-19 0:45	12.36	1054	8.47	104.2					
2-7-19 13:00	-0.09	1379	7.62	3.3	2-7-19 12:15	-0.02	822	7.90	4.4	2-7-19 12:15	-0.10	1521	8.07	8.0	7-8-19 5:30	21.39	1649	9.45	8.5	5-9-19 1:00	12.28	1054	8.47	90.2					
2-7-19 13:15	-0.09	1379	7.61	3.2	2-7-19 12:30	-0.02	813	7.90	4.1	2-7-19 12:30	-0.10	1522	8.07	8.3	7-8-19 5:45	21.36	1650	8.97	8.5	5-9-19 1:15	12.25	1055	8.46	95.6					
2-7-19 13:30	-0.09	1397	7.61	3.3	2-7-19 12:45	-0.02	826	7.90	3.2	2-7-19 12:45	-0.10	1522	8.07	8.7	7-8-19 6:00	21.31	1649	9.12	8.5	5-9-19 1:30	12.18	1053	8.47	88.6					
2-7-19 13:45	-0.09	1397	7.61	3.3	2-7-19 13:00	-0.02	828	7.90	4.3	2-7-19 13:00	-0.10	1505	8.08	13.3	7-8-19 6:15	21.22	1649	9.49	8.5	5-9-19 1:45	12.22	1053	8.47	99.4					
2-7-19 14:00	-0.09	1397	7.61	3.3	2-7-19 13:15	-0.01	830	7.90	4.3	2-7-19 13:15	-0.10	1504	8.08	13.5	7-8-19 6:30	21.18	1648	8.85	8.5	5-9-19 2:00	12.18	1055	8.47	95.9					
2-7-19 14:15	-0.09	1397	7.61	3.3	2-7-19 13:30	-0.01	818	7.90	6.0	2-7-19 13:30	-0.09	1505	8.08	25.7	7-8-19 6:45	21.16	1649	8.53	8.5	5-9-19 2:15	12.13	1055	8.47	86.9					
2-7-19 14:30	-0.10	1381	7.61	3.3	2-7-19 13:45	-0.01	822	7.90	3.7	2-7-19 13:45	-0.09	1505	8.08	13.5	7-8-19 7:00	21.11	1649	9.08	8.5	5-9-19 2:30	12.08	1055	8.47	95.7					
2-7-19 14:45	-0.09	1381	7.61	3.4	2-7-19 14:00	0.00	822	7.89	4.7	2-7-19 14:00	-0.09	1524	8.07	7.6	7-8-19 7:15	21.08	1649	8.67	8.5	5-9-19 2:45	12.04	1052	8.47	91.6					
2-7-19 15:00	-0.09	1381	7.61	3.3	2-7-19 14:15	-0.01	838	7.89	4.1	2-7-19 14:15	-0.09	1524	8.07	7.5	7-8-19 7:30	21.05	1650	9.25	8.5	5-9-19 3:00	12.02	1054	8.47	93.6					
2-7-19 15:15	-0.09	1380	7.61	3.5	2-7-19 14:30	0.00	840	7.89	4.2	2-7-19 14:30	-0.09	1524	8.08	7.3	7-8-19 7:45	21.00	1649	8.68	8.5	5-9-19 3:15	11.98	1055	8.47	84.8					
2-7-19 15:30					2-7-19 14:45	0.34	1207	7.77	5.2	2-7-19 14:45	-0.09	1523	8.07	7.4	7-8-19 8:00	20.94	1651	8.85	8.5	5-9-19 3:30	11.98	1058	8.47	90.4					
2-7-19 15:45					2-7-19 15:00	0.38	1226	7.76	0.6	2-7-19 15:00	-0.09	1505	8.08	10.7	7-8-19 8:15	20.91	1649	8.63	8.4	5-9-19 3:45	11.96	1056	8.47	98.5					
2-7-19 16:00					2-7-19 15:15					2-7-19 15:15	-0.11	1500	8.07	10.4	7-8-19 8:30	20.88	1649	9.59	8.5	5-9-19 4:00	11.92	1059	8.47	82.9					
2-7-19 16:15					2-7-19 15:30					2-7-19 15:30					7-8-19 8:45	20.86	1648	8.70	8.4	5-9-19 4:15	11.89	1059	8.47	94.1					
2-7-19 16:30					2-7-19 15:45					2-7-19 15:45					7-8-19 9:00	20.83	1648	9.76	8.4	5-9-19 4:30	11.84	1060	8.46	105.1					
2-7-19 16:45					2-7-19 16:00					2-7-19 16:00					7-8-19 9:15	20.78	1649	8.05	8.4	5-9-19 4:45	11.81	1059	8.47	98.8					
2-7-19 17:00					2-7-19 16:15					2-7-19 16:15					7-8-19 9:30	20.74	1649	8.32	8.5	5-9-19 5:00	11.76	1057	8.47	89.4					
2-7-19 17:15					2-7-19 16:30					2-7-19 16:30					7-8-19 9:45	20.68	1649	7.94	8.5	5-9-19 5:15	11.71	1057	8.46	89.8					
2-7-19 17:30					2-7-19 16:45					2-7-19 16:45					7-8-19 10:00	20.64	1648	7.90	8.4	5-9-19 5:30	11.67	1058	8.46	97.8					
2-7-19 17:45					2-7-19 17:00					2-7-19 17:00					7-8-19 10:15	20.60	1649	8.01	8.4	5-9-19 5:45	11.65	1057	8.47	101.0					
2-7-19 18:00					2-7-19 17:15					2-7-19 17:15					7-8-19 10:30	20.54	1651	7.81	8.4	5-9-19 6:00	11.61	1058	8.47	84.8					
2-7-19 18:15					2-7-19 17:30					2-7-19 17:30					7-8-19 10:45	20.50	1651	7.89	8.4	5-9-19 6:15	11.56	1057	8.47	106.3					
2-7-19 18:30					2-7-19 17:45					2-7-19 17:45					7-8-19 11:00	20.48	1650	8.00	8.4	5-9-19 6:30	11.51	1057	8.48	86.4					
2-7-19 18:45					2-7-19 18:00					2-7-19 18:00					7-8-19 11:15	20.46	1649	7.90	8.4	5-9-19 6:45	11.48	1057	8.48	84.9					
2-7-19 19:00					2-7-19 18:15					2-7-19 18:15					7-8-19 11:30	20.42	1649	7.51	8.4	5-9-19 7:00	11.46	1059	8.48	82.3					
2-7-19 19:15					2-7-19 18:30					2-7-19 18:30					7-8-19 11:45	20.38	1650	8.54	8.4	5-9-19 7:15	11.47	1062	8.49	86.3					
2-7-19 19:30					2-7-19 18:45					2-7-19 18:45					7-8-19 12:00	20.32	1649	7.95	8.4	5-9-19 7:30	11.50	1058	8.49	81.6					
2-7-19 19:45					2-7-19 19:00					2-7-19 19:00					7-8-19 12:15	20.28	1650	8.22	8.4	5-9-19 7:45	11.52	1055	8.49	89.1					
2-7-19 20:00					2-7-19 19:15					2-7-19 19:15					7-8-19 12:30	20.25	1650	8.29	8.4	5-9-19 8:00	11.55	1057	8.50	82.0					
2-7-19 20:15					2-7-19 19:30					2-7-19 19:30					7-8-19 12:45	20.21	1649	8.25	8.4	5-9-19 8:15	11.53	1058	8.49	91.8					
2-7-19 20:30					2-7-19 19:45					2-7-19 19:45					7-8-19 13:00	20.17	1649	8.08	8.4	5-9-19 8:30	11.50	1058	8.49	90.2					
2-7-19 20:45					2-7-19 20:00					2-7-19 20:00					7-8-19 13:15	20.11	1649	9.82	8.4	5-9-19 8:45	11.56	1059	8.50	96.5					
2-7-19 21:00					2-7-19 20:15					2-7-19 20:15					7-8-19 13:30	20.08	1649	11.10	8.4	5-9-19 9:00	11.59	1058	8.50	85.1					
2-7-19 21:15					2-7-19 20:30					2-7-19 20:30					7-8-19 13:45	20.05	1650	8.08	8.4	5-9-19 9:15	11.70	1060	8.50	93.2					
2-7-19 21:30					2-7-19 20:45					2-7-19 20:45					7-8-19 14:00	20.00	1649	8.09	8.4	5-9-19 9:30	11.73	1055	8.50	88.8					
2-7-19 21:45					2-7-19 21:00					2-7-19 21:00					7-8-19 14:15	20.00	1650	8.27	8.4	5-9-19 9:45	11.74	1055	8.49	93.8					
2-7-19 22:00					2-7-19 21:15					2-7-19 21:15					7-8-19 14:30	19.98	1650	8.54	8.4	5-9-19 10:00	11.69	1053	8.50	97.2					
2-7-19 22:15					2-7-19 21:30					2-7-19 21:30					7-8-19 14:45	19.94	1649	8.77	8.4	5-9-19 10:15	11.76	1055	8.48	87.0					
2-7-19 22:30					2-7-19 21:45					2-7-19 21:45					7-8-19 15:00	19.90	1650	9.12	8.4	5-9-19 10:30	11.87	1055	8.47	94.5					
2-7-19 22:45					2-7-19 22:00					2-7-19 22:00					7-8-19 15:15	19.85	1650	8.74	8.4	5-9-19 10:45	11.90	1058	8.47	85.3					
2-7-19 23:00					2-7-19 22:15					2-7-19 22:15					7-8-19 15:30	19.83	1649	9.15	8.4	5-9-19 11:00	11.97	1052	8.47	89.0					
2-7-19 23:15					2-7-19 22:30					2-7-19 22:30					7-8-19 15:45	19.83	1650	8.59	8.4	5-9-19 11:15	12.09	1056	8.47	99.0					
2-7-19 23:30					2-7-19 22:45					2-7-19 22:45					7-8-19 16:00	19.83	1648	9.58	8.4	5-9-19 11:30	12.15	1059	8.47	96.2					
2-7-19 23:45					2-7-19 23:00					2-7-19 23:00					7-8-19 16:15	19.79	1648	9.34	8.4	5-9-19 11:45	12.28	1058	8.47	92.0					
2-8-19 0:00					2-7-19 23:15					2-7-19 23:15					7-8-19 16:30	19.72	1647	9.29	8.4	5-9-19 12:00	12.31	1054	8.47	98.9					
2-8-19 0:15					2-7-19 23:30					2-7-19 23:30					7-8-19 16:45	19.70	1648	8.92	8.4	5-9-19 12:15	12.42	1058	8.47	97.4					
2-8-19 0:30					2-7-19 23:45					2-7-19 23:45					7-8-19 17:00	19.69	1646	8.75	8.4	5-9-19 12:30	12.51	1059	8.47	108.3					
2-8-19 0:45					2-8-19 0:00					2-8-19 0:00					7-8-19 17:15	19.63	1646	9.03	8.4	5-9-19 12:45	12.48	1058	8.47	97.7					
2-8-19 1:00					2-8-19 0:15					2-8-19 0:15					7-8-19 17:30	19.57	1647	8.85	8.4	5-9-19 13:00	12.52	1053	8.47	92.8					
2-8-19 1:15					2-8-19 0:30					2-8-19 0:30					7-8-19 17:45	19.52	1648	10.31	8.4	5-9-19 13:15	12.54	1056	8.47	109.4					
2-8-19 1:30					2-8-19 0:45					2-8-19 0:45					7-8-19 18:00	19.48	1647	8.83	8.4	5-9-19 13:30	12.61	1059	8.47	108.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-8-19 1:45					2-8-19 1:00					2-8-19 1:00					7-8-19 18:15	19.44	1648	9.53	8.4	5-9-19 13:45	12.70	1058	8.46	92.7					
2-8-19 2:00					2-8-19 1:15					2-8-19 1:15					7-8-19 18:30	19.38	1646	9.06	8.5	5-9-19 14:00	12.71	1056	8.47	116.3					
2-8-19 2:15					2-8-19 1:30					2-8-19 1:30					7-8-19 18:45	19.33	1644	8.98	8.5	5-9-19 14:15	12.83	1056	8.47	81.7					
2-8-19 2:30					2-8-19 1:45					2-8-19 1:45					7-8-19 19:00	19.28	1643	9.25	8.5	5-9-19 14:30	13.10	1057	8.46	98.3					
2-8-19 2:45					2-8-19 2:00					2-8-19 2:00					7-8-19 19:15	19.26	1644	9.99	8.5	5-9-19 14:45	13.34	1056	8.46	93.3					
2-8-19 3:00					2-8-19 2:15					2-8-19 2:15					7-8-19 19:30	19.22	1644	9.69	8.5	5-9-19 15:00	13.60	1057	8.46	101.0					
2-8-19 3:15					2-8-19 2:30					2-8-19 2:30					7-8-19 19:45	19.18	1644	9.80	8.5	5-9-19 15:15	13.77	1053	8.45	104.2					
2-8-19 3:30					2-8-19 2:45					2-8-19 2:45					7-8-19 20:00	19.16	1645	11.06	8.5	5-9-19 15:30	13.68	1054	8.46	111.5					
2-8-19 3:45					2-8-19 3:00					2-8-19 3:00					7-8-19 20:15	19.11	1645	10.05	8.5	5-9-19 15:45	13.62	1063	8.45	116.1					
2-8-19 4:00					2-8-19 3:15					2-8-19 3:15					7-8-19 20:30	19.08	1645	10.08	8.5	5-9-19 16:00	13.75	1060	8.46	112.7					
2-8-19 4:15					2-8-19 3:30					2-8-19 3:30					7-8-19 20:45	19.09	1646	10.98	8.5	5-9-19 16:15	14.04	1060	8.45	113.0					
2-8-19 4:30					2-8-19 3:45					2-8-19 3:45					7-8-19 21:00	19.07	1644	10.37	8.5	5-9-19 16:30	14.66	1062	8.44	128.7					
2-8-19 4:45					2-8-19 4:00					2-8-19 4:00					7-8-19 21:15	19.03	1645	10.04	8.5	5-9-19 16:45	14.91	1066	8.44	117.1					
2-8-19 5:00					2-8-19 4:15					2-8-19 4:15					7-8-19 21:30	19.01	1646	9.96	8.5	5-9-19 17:00	15.17	1064	8.44	111.8					
2-8-19 5:15					2-8-19 4:30					2-8-19 4:30					7-8-19 21:45	18.97	1646	11.16	8.5	5-9-19 17:15	15.32	1061	8.43	120.0					
2-8-19 5:30					2-8-19 4:45					2-8-19 4:45					7-8-19 22:00	18.96	1645	10.25	8.5	5-9-19 17:30	15.26	1061	8.43	113.5					
2-8-19 5:45					2-8-19 5:00					2-8-19 5:00					7-8-19 22:15	18.96	1646	10.25	8.5	5-9-19 17:45	15.25	1061	8.44	113.7					
2-8-19 6:00					2-8-19 5:15					2-8-19 5:15					7-8-19 22:30	18.95	1646	10.47	8.5	5-9-19 18:00	15.12	1061	8.44	115.7					
2-8-19 6:15					2-8-19 5:30					2-8-19 5:30					7-8-19 22:45	18.96	1646	11.01	8.5	5-9-19 18:15	15.11	1059	8.44	122.8					
2-8-19 6:30					2-8-19 5:45					2-8-19 5:45					7-8-19 23:00	18.98	1644	12.17	8.5	5-9-19 18:30	15.13	1061	8.44	116.3					
2-8-19 6:45					2-8-19 6:00					2-8-19 6:00					7-8-19 23:15	18.93	1645	10.87	8.5	5-9-19 18:45	15.09	1068	8.44	118.4					
2-8-19 7:00					2-8-19 6:15					2-8-19 6:15					7-8-19 23:30	18.92	1645	11.03	8.5	5-9-19 19:00	15.08	1062	8.45	101.4					
2-8-19 7:15					2-8-19 6:30					2-8-19 6:30					7-8-19 23:45	18.92	1645	10.99	8.5	5-9-19 19:15	14.51	1058	8.46	101.4					
2-8-19 7:30					2-8-19 6:45					2-8-19 6:45					7-9-19 0:00	18.96	1645	10.21	8.5	5-9-19 19:30	14.08	1059	8.47	107.8					
2-8-19 7:45					2-8-19 7:00					2-8-19 7:00					7-9-19 0:15	18.94	1646	11.24	8.5	5-9-19 19:45	13.53	1057	8.48	130.2					
2-8-19 8:00					2-8-19 7:15					2-8-19 7:15					7-9-19 0:30	18.97	1646	10.48	8.5	5-9-19 20:00	12.89	1055	8.52	112.6					
2-8-19 8:15					2-8-19 7:30					2-8-19 7:30					7-9-19 0:45	19.05	1646	11.90	8.5	5-9-19 20:15	13.13	1055	8.51	126.7					
2-8-19 8:30					2-8-19 7:45					2-8-19 7:45					7-9-19 1:00	19.05	1645	11.80	8.5	5-9-19 20:30	13.17	1060	8.51	103.2					
2-8-19 8:45					2-8-19 8:00					2-8-19 8:00					7-9-19 1:15	19.05	1646	11.66	8.5	5-9-19 20:45	13.21	1059	8.50	111.5					
2-8-19 9:00					2-8-19 8:15					2-8-19 8:15					7-9-19 1:30	19.07	1646	11.56	8.5	5-9-19 21:00	13.22	1062	8.50	117.2					
2-8-19 9:15					2-8-19 8:30					2-8-19 8:30					7-9-19 1:45	19.05	1647	10.66	8.5	5-9-19 21:15	13.42	1065	8.49	106.9					
2-8-19 9:30					2-8-19 8:45					2-8-19 8:45					7-9-19 2:00	18.98	1646	21.17	8.5	5-9-19 21:30	13.50	1060	8.48	119.5					
2-8-19 9:45					2-8-19 9:00					2-8-19 9:00					7-9-19 2:15	18.97	1647	10.53	8.5	5-9-19 21:45	13.64	1062	8.48	107.4					
2-8-19 10:00					2-8-19 9:15					2-8-19 9:15					7-9-19 2:30	18.92	1646	11.40	8.5	5-9-19 22:00	13.85	1062	8.47	115.4					
2-8-19 10:15					2-8-19 9:30					2-8-19 9:30					7-9-19 2:45	18.91	1646	11.69	8.5	5-9-19 22:15	14.08	1064	8.47	111.4					
2-8-19 10:30					2-8-19 9:45					2-8-19 9:45					7-9-19 3:00	18.88	1645	10.78	8.5	5-9-19 22:30	14.20	1069	8.46	112.2					
2-8-19 10:45					2-8-19 10:00					2-8-19 10:00					7-9-19 3:15	18.84	1646	10.45	8.5	5-9-19 22:45	14.46	1071	8.45	121.8					
2-8-19 11:00					2-8-19 10:15					2-8-19 10:15					7-9-19 3:30	18.80	1645	10.94	8.5	5-9-19 23:00	14.56	1070	8.45	127.7					
2-8-19 11:15					2-8-19 10:30					2-8-19 10:30					7-9-19 3:45	18.77	1646	11.26	8.5	5-9-19 23:15	14.58	1075	8.44	120.5					
2-8-19 11:30					2-8-19 10:45					2-8-19 10:45					7-9-19 4:00	18.74	1646	10.47	8.5	5-9-19 23:30	14.61	1071	8.44	129.5					
2-8-19 11:45					2-8-19 11:00					2-8-19 11:00					7-9-19 4:15	18.68	1647	10.26	8.5	5-9-19 23:45	14.60	1072	8.44	125.2					
2-8-19 12:00					2-8-19 11:15					2-8-19 11:15					7-9-19 4:30	18.63	1645	10.97	8.5	5-10-19 0:00	14.58	1073	8.44	104.6					
2-8-19 12:15					2-8-19 11:30					2-8-19 11:30					7-9-19 4:45	18.56	1647	9.91	8.5	5-10-19 0:15	14.55	1075	8.44	119.4					
2-8-19 12:30					2-8-19 11:45					2-8-19 11:45					7-9-19 5:00	18.51	1648	10.74	8.5	5-10-19 0:30	14.52	1074	8.45	112.4					
2-8-19 12:45					2-8-19 12:00					2-8-19 12:00					7-9-19 5:15	18.50	1646	10.72	8.5	5-10-19 0:45	14.47	1076	8.45	111.8					
2-8-19 13:00					2-8-19 12:15					2-8-19 12:15					7-9-19 5:30	18.47	1647	10.27	8.5	5-10-19 1:00	14.42	1076	8.45	112.6					
2-8-19 13:15					2-8-19 12:30					2-8-19 12:30					7-9-19 5:45	18.40	1647	9.77	8.5	5-10-19 1:15	14.36	1073	8.45	118.6					
2-8-19 13:30					2-8-19 12:45					2-8-19 12:45					7-9-19 6:00	18.33	1647	9.21	8.5	5-10-19 1:30	14.30	1072	8.45	109.0					
2-8-19 13:45					2-8-19 13:00					2-8-19 13:00					7-9-19 6:15	18.32	1647	9.01	8.5	5-10-19 1:45	14.22	1072	8.45	121.6					
2-8-19 14:00					2-8-19 13:15					2-8-19 13:15					7-9-19 6:30	18.30	1647	11.45	8.5	5-10-19 2:00	14.16	1087	8.46	115.1					
2-8-19 14:15					2-8-19 13:30					2-8-19 13:30					7-9-19 6:45	18.29	1648	9.38	8.5	5-10-19 2:15	14.07	1089	8.46	118.8					
2-8-19 14:30					2-8-19 13:45					2-8-19 13:45					7-9-19 7:00	18.27	1645	9.15	8.5	5-10-19 2:30	13.97	1066	8.46	98.4					
2-8-19 14:45					2-8-19 14:00					2-8-19 14:00					7-9-19 7:15	18.22	1647	10.14	8.5	5-10-19 2:45	13.92	1067	8.46	116.7					
2-8-19 15:00	1.26	0	11.70	14.4	2-8-19 14:15					2-8-19 14:15					7-9-19 7:30	18.19	1646	9.55	8.5	5-10-19 3:00	13.88	1068	8.46	118.0					
2-8-19 15:15	0.28	1004	7.60	3.0	2-8-19 14:30					2-8-19 14:30					7-9-19 7:45	18.12	1647	8.75	8.5	5-10-19 3:15	13.84	1064	8.46	117.7					
2-8-19 15:30	0.07	1018	8.30	2.6	2-8-19 14:45	2.10	899	7.80	10.6	2-8-19 14:45					7-9-19 8:00	18.15	1648	11.34	8.5	5-10-19 3:30	13.82	1066	8.46	115.7					
2-8-19 15:45	-0.04	1023	8.30	2.6	2-8-19 15:00	0.85	922	7.69	8.5	2-8-19 15:00	1.07	1453	6.14	3.0	7-9-19 8:15	18.10	1647	8.78	8.5	5-10-19 3:45	13.80	1065	8.46	117.8					
2-8-19 16:00	-0.07	1025	8.28	2.6	2-8-19 15:15	0.33	924	7.61	8.8	2-8-19 15:15	0.36	1499	7.86	3.2	7-9-19 8:30	18.05	1647	8.55	8.5	5-10-19 4:00	13.78	1064	8.46	110.0					
2-8-19 16:15	-0.09	1065	8.27	4.0	2-8-19 15:30	0.17	925	7.58	9.7	2-8-19 15:30	0.10	1499	7.87	2.7	7-9-19 8:45	18.01	1646	9.00	8.5	5-10-19 4:15	13.75	1063	8.46	116.5					
2-8-19 16:30	-0.09	1065	8.26	3.3	2-8-19 15:45	0.10	923	7.57	11.5	2-8-19 15:45	0.01	1504	7.88	2.8	7-9-19 9:00	17.99	1647	8.85	8.5	5-10-19 4:30	13.72	1064	8.46	117.5					
2-8-19 16:45	-0.10	1066	8.25	3.3	2-8-19 16:00	0.07	921	7.61	14.7	2-8-19 16:00	-0.03	1505	7.87	2.5	7-9-19 9:15	17.91	1648	8.91	8.5	5-10-19 4:45	13.68	1064	8.47	108.0					
2-8-19 17:00	-0.09	1066	8.24	3.2	2-8-19 16:15	0.05	921	7.65	17.5	2-8-19 16:15	-0.04	1506	7.86	2.0	7-9-19 9:30	17.90	1648	8.69	8.5	5-10-19 5:00	13.67	1064	8.46	116.4					
2-8-19 17:15	-0.09	1066	8.23	3.2	2-8-19 16:30	0.05	917	7.70	22.5	2-8-19 16:30	-0.04	1507	7.86	1.5	7-9-19 9:45	17.87	1647	8.40	8.5	5-10-19 5:15	13.64	1064	8.47	115.2					
2-8-19 17:30	-0.09	1067	8.21	3.3	2-8-19 16:45	0.04	918	7.74	32.1	2-8-19 16:45	-0.04	1507	7.86	1.4	7-9-19 10:00	17.85	1647	8.54	8.5	5-10-19 5:30	13.63	1064	8.47	111.7					
2-8-19 17:45	-0.09	1066	8.20	3.3	2-8-19 17:00	0.04	914	7.78	38.0	2-8-19 17:00	-0.04	1507	7.87	1.4	7-9-19 10:15	17.80	1647	8.31	8.5	5-10-19 5:45	13.60	1063	8.47	117.3					
2-8-19 18:00	-0.10	1066	8.19	3.2	2-8-19 17:15	0.04	913	7.82	43.0	2-8-19 17:15	-0.05	1505	7.86	2.5	7-9-19 10:30	17.78	1648	8.61	8.5	5-10-19 6:00	13.57	1063	8.46	110.5					
2-8-19 18:15	-0.09	1071	8.19	3.2	2-8-19 17:30	0.03	922	7.85	48.6	2-8-19 17:30	-0.06	1505	7.85	2.5	7-9-19 10:45	17.76	1648	8.56	8.5	5-10-19 6:15	13.53	1065	8.47	113.9					
2-8-19 18:30	-0.09	1071	8.18	3.1	2-8-19 17:45	0.03	914	7.87	57.5	2-8-19 17:45	-0.06	1505	7.85	2.5	7-9-19 11:00	17.74	1647	9.57	8.5	5-10-19 6:30	13.50	1062	8.47	108.6					
2-8-19 18:45	-0.09	1072	8.17	3.2	2-8-19 18:00	0.03	917	7.90	65.2	2-8-19 18:00	-0.06	1505	7.85	2.4	7-9-19 11:15	17.69	1647	8.64	8.5	5-10-19 6:45	13.48	1063	8.47	111.8					
2-8-19 19:00	-0.09	1072	8.16	3.1	2-8-19 18:15	0.03	913	7.91	81.8	2-8-19 18:15	-0.06	1499	7.85	2.4	7-9-19 11:30	17.67	1645	9.20	8.5	5-10-19 7:00	13.47	1061	8.47	107.4					
2-8-19 19:15	-0.09	1061	8.14	3.3	2-8-19 18:30	0.03	910	7.93	90.2	2-8-19 18:30	-0.06	1505	7.85	2.7	7-9-19 11:45	17.66	1645	10.81	8.5	5-10-19 7:15	13.46	1062	8.47	105.1					
2-8-19 19:30	-0.09	1051	8.15	3.1	2-8-19 18:45	0.03	909	7.94	100.8	2-8-19 18:45	-0.06	1505	7.85	2.3	7-9-19 12:00	17.63	1648	9.40	8.5	5-10-19 7:30	13.46	1059	8.47	107.0					
2-8-19 19:45	-0.09	1051	8.14	3.0	2-8-19 19:00	0.02	899	7.95	91.9	2-8-19 19:00	-0.06	1504	7.85	2.3	7-9-19 12:15	17.61	1647	8.65	8.5	5-10-19 7:45	13.47	1059	8.47	105.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-8-19 20:00	-0.09	1050	8.14	3.1	2-8-19 19:15	0.02	910	7.96	99.4	2-8-19 19:15	-0.06	1505	7.85	2.5	7-9-19 12:30	17.59	1644	9.35	8.4	5-10-19 8:00	13.49	1059	8.48	100.8					
2-8-19 20:15	-0.10	975	8.11	3.6	2-8-19 19:30	0.03	913	7.96	115.3	2-8-19 19:30	-0.06	1505	7.85	2.3	7-9-19 12:45	17.56	1645	8.54	8.5	5-10-19 8:15	13.53	1061	8.48	110.6					
2-8-19 20:30	-0.09	973	8.13	3.1	2-8-19 19:45	0.03	909	7.97	122.6	2-8-19 19:45	-0.06	1504	7.86	2.3	7-9-19 13:00	17.56	1648	8.66	8.5	5-10-19 8:30	13.62	1060	8.47	116.0					
2-8-19 20:45	-0.09	973	8.13	3.1	2-8-19 20:00	0.03	910	7.98	155.6	2-8-19 20:00	-0.06	1504	7.86	2.3	7-9-19 13:15	17.55	1648	8.54	8.5	5-10-19 8:45	13.67	1061	8.47	111.7					
2-8-19 21:00	-0.09	973	8.12	3.1	2-8-19 20:15	0.03	912	7.98	161.6	2-8-19 20:15	-0.06	1504	7.86	2.7	7-9-19 13:30	17.52	1646	9.68	8.5	5-10-19 9:00	13.75	1061	8.47	109.7					
2-8-19 21:15	-0.10	1105	8.09	2.4	2-8-19 20:30	0.03	907	7.98	167.1	2-8-19 20:30	-0.06	1504	7.87	2.3	7-9-19 13:45	17.51	1648	9.30	8.4	5-10-19 9:15	13.85	1063	8.47	105.2					
2-8-19 21:30	-0.09	1106	8.11	2.1	2-8-19 20:45	0.02	913	7.98	180.5	2-8-19 20:45	-0.06	1504	7.87	2.2	7-9-19 14:00	17.49	1644	9.23	8.4	5-10-19 9:30	14.15	1064	8.47	110.1					
2-8-19 21:45	-0.09	1106	8.10	2.0	2-8-19 21:00	0.02	914	7.98	183.6	2-8-19 21:00	-0.06	1504	7.88	2.3	7-9-19 14:15	17.49	1646	9.21	8.4	5-10-19 9:45	14.32	1064	8.46	100.3					
2-8-19 22:00	-0.10	1106	8.10	2.0	2-8-19 21:15	0.02	914	7.98	193.5	2-8-19 21:15	-0.06	1504	7.88	2.2	7-9-19 14:30	17.48	1646	10.56	8.4	5-10-19 10:00	14.47	1065	8.46	111.0					
2-8-19 22:15	-0.10	1118	8.08	3.1	2-8-19 21:30	0.02	911	7.98	321.4	2-8-19 21:30	-0.06	1504	7.89	2.3	7-9-19 14:45	17.49	1648	9.54	8.4	5-10-19 10:15	14.58	1067	8.46	104.7					
2-8-19 22:30	-0.09	1118	8.09	2.9	2-8-19 21:45	0.02	915	7.97	296.0	2-8-19 21:45	-0.06	1504	7.90	2.1	7-9-19 15:00	17.48	1645	9.18	8.5	5-10-19 10:30	14.71	1064	8.45	107.1					
2-8-19 22:45	-0.09	1118	8.08	2.8	2-8-19 22:00	0.02	921	7.97	308.3	2-8-19 22:00	-0.06	1504	7.90	2.2	7-9-19 15:15	17.48	1647	9.22	8.5	5-10-19 10:45	14.86	1067	8.45	123.0					
2-8-19 23:00	-0.09	1119	8.08	2.7	2-8-19 22:15	0.02	913	7.96	347.5	2-8-19 22:15	-0.06	1504	7.91	2.4	7-9-19 15:30	17.52	1645	10.02	8.5	5-10-19 11:00	15.32	1072	8.45	107.8					
2-8-19 23:15	-0.10	1039	8.06	3.0	2-8-19 22:30	0.02	922	7.95	413.7	2-8-19 22:30	-0.06	1504	7.92	2.4	7-9-19 15:45	17.57	1645	9.10	8.5	5-10-19 11:15	15.38	1073	8.45	117.0					
2-8-19 23:30	-0.09	1039	8.07	2.8	2-8-19 22:45	0.02	920	7.94	491.6	2-8-19 22:45					7-9-19 16:00	17.59	1648	9.85	8.5	5-10-19 11:30	15.49	1078	8.44	116.9					
2-8-19 23:45	-0.09	1040	8.07	2.8	2-8-19 23:00	0.02	921	7.93	236.9	2-8-19 23:00	-0.06	1505	7.94	2.6	7-9-19 16:15	17.60	1644	9.82	8.5	5-10-19 11:45	15.96	1071	8.44	118.4					
2-9-19 0:00	-0.10	1040	8.07	2.7	2-8-19 23:15	0.02	940	7.92	257.1	2-8-19 23:15	-0.06	1505	7.95	2.2	7-9-19 16:30	17.65	1648	9.07	8.5	5-10-19 12:00	15.81	1082	8.43	119.2					
2-9-19 0:15	-0.10	1146	8.05	3.1	2-8-19 23:30	0.02	918	7.91	277.5	2-8-19 23:30	-0.06	1505	7.96	2.4	7-9-19 16:45	17.67	1647	11.14	8.5	5-10-19 12:15	15.85	1079	8.42	115.4					
2-9-19 0:30	-0.09	1145	8.06	2.7	2-8-19 23:45	0.02	932	7.90	301.1	2-8-19 23:45	-0.06	1506	7.96	2.5	7-9-19 17:00	17.72	1647	10.41	8.5	5-10-19 12:30	15.90	1083	8.42	121.3					
2-9-19 0:45	-0.09	1145	8.06	2.7	2-9-19 0:00	0.02	929	7.88	320.2	2-9-19 0:00	-0.06	1506	7.97	2.3	7-9-19 17:15	17.78	1647	12.54	8.5	5-10-19 12:45	16.58	1082	8.42	129.2					
2-9-19 1:00	-0.09	1144	8.06	2.7	2-9-19 0:15	0.02	947	7.87	348.4	2-9-19 0:15	-0.05	1507	7.98	1.5	7-9-19 17:30	17.84	1645	10.26	8.5	5-10-19 13:00	16.68	1079	8.42	119.6					
2-9-19 1:15	-0.10	1056	8.04	2.9	2-9-19 0:30	0.01	933	7.86	293.7	2-9-19 0:30	-0.04	1506	7.99	1.3	7-9-19 17:45	17.87	1647	11.34	8.4	5-10-19 13:15	17.22	1080	8.42	119.1					
2-9-19 1:30	-0.09	1057	8.05	2.7	2-9-19 0:45	0.01	930	7.85	287.4	2-9-19 0:45	-0.03	1506	7.99	1.5	7-9-19 18:00	17.91	1645	10.96	8.4	5-10-19 13:30	17.22	1078	8.42	120.3					
2-9-19 1:45	-0.09	1057	8.04	2.7	2-9-19 1:00	0.01	931	7.84	354.0	2-9-19 1:00	-0.03	1506	8.00	1.2	7-9-19 18:15	17.96	1648	10.18	8.4	5-10-19 13:45	17.67	1097	8.41	129.3					
2-9-19 2:00	-0.09	1056	8.04	2.7	2-9-19 1:15	0.01	930	7.83	362.0	2-9-19 1:15	-0.03	1508	8.00	2.4	7-9-19 18:30	18.01	1647	11.09	8.4	5-10-19 14:00	17.87	1090	8.40	132.1					
2-9-19 2:15	-0.10	1116	8.03	3.1	2-9-19 1:30	0.01	953	7.82	340.2	2-9-19 1:30	-0.04	1509	8.01	2.3	7-9-19 18:45	18.06	1648	11.48	8.4	5-10-19 14:15	17.88	1106	8.40	126.4					
2-9-19 2:30	-0.10	1118	8.04	2.8	2-9-19 1:45	0.01	931	7.82	318.9	2-9-19 1:45	-0.04	1510	8.01	2.3	7-9-19 19:00	18.14	1648	10.60	8.5	5-10-19 14:30	18.01	1100	8.39	129.3					
2-9-19 2:45	-0.10	1118	8.04	2.7	2-9-19 2:00	0.01	940	7.81	285.8	2-9-19 2:00	-0.04	1511	8.02	2.2	7-9-19 19:15	18.21	1649	12.27	8.5	5-10-19 14:45	17.97	1102	8.39	125.2					
2-9-19 3:00	-0.10	1118	8.04	2.7	2-9-19 2:15	0.01	886	7.81	264.1	2-9-19 2:15	-0.04	1511	8.02	2.3	7-9-19 19:30	18.21	1648	11.00	8.5	5-10-19 15:00	18.69	1124	8.38	132.6					
2-9-19 3:15	-0.10	1058	8.02	2.9	2-9-19 2:30	0.01	936	7.80	343.5	2-9-19 2:30	-0.04	1511	8.03	2.2	7-9-19 19:45	18.24	1648	10.28	8.4	5-10-19 15:15	18.59	1099	8.38	151.5					
2-9-19 3:30	-0.10	1058	8.04	2.8	2-9-19 2:45	0.01	946	7.80	387.5	2-9-19 2:45	-0.04	1511	8.03	2.2	7-9-19 20:00	18.25	1647	10.13	8.5	5-10-19 15:30	19.18	1134	8.39	119.2					
2-9-19 3:45	-0.10	1058	8.04	2.7	2-9-19 3:00	0.01	950	7.80	393.4	2-9-19 3:00	-0.04	1511	8.03	2.3	7-9-19 20:15	18.30	1649	12.05	8.5	5-10-19 15:45	19.19	1100	8.39	121.6					
2-9-19 4:00	-0.10	1058	8.04	2.7	2-9-19 3:15	0.01	943	7.80	327.8	2-9-19 3:15	-0.05	1512	8.03	2.2	7-9-19 20:30	18.33	1649	11.68	8.5	5-10-19 16:00	19.03	1094	8.38	114.2					
2-9-19 4:15	-0.10	1128	8.02	3.4	2-9-19 3:30	0.01	966	7.79	14.6	2-9-19 3:30	-0.05	1513	8.04	2.2	7-9-19 20:45	18.37	1649	11.18	8.5	5-10-19 16:15	19.26	1097	8.39	122.9					
2-9-19 4:30	-0.10	1128	8.02	2.9	2-9-19 3:45	0.01	945	7.79	11.2	2-9-19 3:45	-0.05	1513	8.04	2.2	7-9-19 21:00	18.39	1649	11.67	8.5	5-10-19 16:30	19.08	1093	8.39	137.0					
2-9-19 4:45	-0.10	1128	8.03	2.8	2-9-19 4:00					2-9-19 4:00	-0.05	1514	8.04	2.1	7-9-19 21:30	18.42	1649	12.74	8.5	5-10-19 16:45	19.25	1093	8.39	113.3					
2-9-19 5:00	-0.10	1128	8.02	2.8	2-9-19 4:15	0.01	948	7.79	17.8	2-9-19 4:15	-0.05	1515	8.03	2.2	7-9-19 21:45	18.46	1649	10.94	8.5	5-10-19 17:00	19.24	1091	8.39	109.7					
2-9-19 5:15	-0.11	1062	8.00	3.0	2-9-19 4:30	0.01	943	7.79	24.2	2-9-19 4:30	-0.04	1515	8.04	2.3	7-9-19 22:00	18.48	1649	12.18	8.5	5-10-19 17:15	19.30	1088	8.39	115.6					
2-9-19 5:30	-0.10	1061	8.02	2.8	2-9-19 4:45	0.01	959	7.79	29.5	2-9-19 4:45	-0.05	1515	8.04	2.2	7-9-19 22:15	18.51	1649	11.34	8.5	5-10-19 17:30	19.39	1093	8.39	116.6					
2-9-19 5:45	-0.10	1063	8.02	2.7	2-9-19 5:00	0.01	940	7.79	36.3	2-9-19 5:00	-0.05	1516	8.04	2.2	7-9-19 22:30	18.53	1648	11.88	8.5	5-10-19 17:45	19.40	1094	8.39	114.9					
2-9-19 6:00	-0.10	1064	8.02	2.7	2-9-19 5:15	0.00	939	7.78	22.2	2-9-19 5:15	-0.05	1516	8.04	2.1	7-9-19 22:45	18.54	1649	12.01	8.5	5-10-19 18:00	19.27	1087	8.39	98.7					
2-9-19 6:15	-0.11	1176	8.00	3.0	2-9-19 5:30	0.00	928	7.78	27.1	2-9-19 5:30	-0.05	1517	8.04	2.2	7-9-19 23:00	18.56	1649	11.70	8.5	5-10-19 18:15	19.27	1091	8.40	115.3					
2-9-19 6:30	-0.10	1176	8.02	2.8	2-9-19 5:45	0.01	941	7.78	34.1	2-9-19 5:45	-0.05	1517	8.04	2.3	7-9-19 23:15	18.55	1648	11.24	8.5	5-10-19 18:30	19.21	1089	8.40	112.9					
2-9-19 6:45	-0.10	1176	8.02	2.8	2-9-19 6:00	0.01	949	7.78	63.0	2-9-19 6:00	-0.05	1518	8.04	2.2	7-9-19 23:30	18.54	1648	12.41	8.5	5-10-19 18:45	19.13	1073	8.40	113.3					
2-9-19 7:00	-0.10	1176	8.02	2.7	2-9-19 6:15	0.01	963	7.78	42.0	2-9-19 6:15	-0.05	1519	8.03	2.4	7-9-19 23:45	18.53	1648	11.10	8.5	5-10-19 19:00	19.05	1070	8.40	117.8					
2-9-19 7:15	-0.11	1076	8.00	3.0	2-9-19 6:30	0.01	955	7.78	42.4	2-9-19 6:30	-0.05	1519	8.04	2.3	7-10-19 0:00	18.51	1648	11.07	8.5	5-10-19 19:15	18.94	1055	8.41	121.1					
2-9-19 7:30	-0.10	1076	8.07	2.7	2-9-19 6:45	0.01	954	7.78	49.7	2-9-19 6:45	-0.05	1520	8.04	2.4	7-10-19 0:15	18.50	1648	11.27	8.5	5-10-19 19:30	18.84	1052	8.41	108.9					
2-9-19 7:45	-0.09	1076	8.15	2.7	2-9-19 7:00	0.01	963	7.78	55.0	2-9-19 7:00	-0.05	1521	8.04	2.1	7-10-19 0:30	18.48	1648	11.02	8.5	5-10-19 19:45	18.81	1062	8.41	116.5					
2-9-19 8:00	-0.08	1077	8.23	2.7	2-9-19 7:15	0.01	977	7.78	59.0	2-9-19 7:15	-0.05	1521	8.04	2.2	7-10-19 0:45	18.47	1647	12.76	8.5	5-10-19 20:00	18.71	1049	8.41	97.5					
2-9-19 8:15	-0.08	1168	8.17	3.4	2-9-19 7:30	0.01	977	7.77	71.6	2-9-19 7:30	-0.05	1522	8.04	2.1	7-10-19 1:00	18.43	1650	10.09	8.5	5-10-19 20:15	18.62	1046	8.42	118.1					
2-9-19 8:30	-0.07	1169	8.26	3.4	2-9-19 7:45	0.00	953	7.77	77.0	2-9-19 7:45	-0.05	1523	8.04	2.1	7-10-19 1:15	18.44	1649	9.86	8.5	5-10-19 20:30	18.57	1042	8.42	94.9					
2-9-19 8:45	-0.07	1168	8.27	3.3	2-9-19 8:00	0.00	971	7.77	96.5	2-9-19 8:00	-0.05	1524	8.04	2.1	7-10-19 1:30	18.44	1647	9.61	8.5	5-10-19 20:45	18.51	1048	8.42	102.7					
2-9-19 9:00	-0.06	1167	8.29	3.3	2-9-19 8:15	0.00	969	7.77	106.5	2-9-19 8:15	-0.05	1525	8.04	2.3	7-10-19 1:45	18.41	1649	10.04	8.5	5-10-19 21:00	18.43	1042	8.42	114.2					
2-9-19 9:15	-0.07	1065	8.28	3.5	2-9-19 8:30	0.00	953	7.77	87.7	2-9-19 8:30	-0.05	1525	8.04	2.3	7-10-19 2:00	18.39	1648	11.13	8.5	5-10-19 21:15	18.35	1041	8.42	119.2					
2-9-19 9:30	-0.07	1065	8.33	3.3	2-9-19 8:45	0.01	958	7.77	135.3	2-9-19 8:45	-0.06	1526	8.03	2.2	7-10-19 2:15	18.38	1648	9.90	8.5	5-10-19 21:30	18.26	1043	8.42	110.5					
2-9-19 9:45	-0.07	1065	8.34	3.5	2-9-19 9:00	0.01	958	7.77	120.1	2-9-19 9:00	-0.06	1527	8.03	2.2	7-10-19 2:30	18.38	1645	10.00	8.5	5-10-19 21:45	18.18	1038	8.42	126.6					
2-9-19 10:00	-0.06	1064	8.35	3.4	2-9-19 9:15	0.00	956	7.77	138.5	2-9-19 9:15	-0.06	1527	8.04	2.1	7-10-19 2:45	18.36	1648	10.24	8.5	5-10-19 22:00	18.11	1037	8.42	103.5					
2-9-19 10:15	-0.07	1157	8.34	3.7	2-9-19 9:30	0.01	944	7.77	147.5	2-9-19 9:30	-0.06	1528	8.04	2.1	7-10-19 3:00	18.35	1649	11.67	8.5	5-10-19 22:15	18.03	1040	8.43	101.0					
2-9-19 10:30	-0.07	1157	8.39	3.4	2-9-19 9:45	0.01	949	7.77	83.1	2-9-19 9:45	-0.06	1529	8.04	2.3	7-10-19 3:15	18.32	1645	9.67	8.5	5-10-19 22:30	17.94	1039	8.43	95.9					
2-9-19 10:45	-0.07	1156	8.39	3.4	2-9-19 10:00	0.00	940	7.77	93.1	2-9-19 10:00	-0.06	1529	8.03	2.2	7-10-19 3:30	18.32	1647	9.38	8.5	5-10-19 22:45	17.89	1041	8.43	100.1					
2-9-19 11:00	-0.08	1151	8.41	3.9	2-9-19 10:15	0.00	946	7.77	103.2	2-9-19 10:15	-0.06	1530	8.03	2.1	7-10-19 3:45	18.29	1647	10.11	8.5	5-10-19 23:00	17.83	1046	8.43	95.3					
2-9-19 11:15	-0.06	1058	8.41	3.5	2-9-19 10:30	0.00	949	7.77	103.8	2-9-19 10:30	-0.06	1531	8.04	2.2	7-10-19 4:00	18.28	1649	9.69	8.4	5-10-19 23:15	17.75	1043	8.43	98.9					
2-9-19 11:30	-0.05	1058	8.45	3.4	2-9-19 10:45	0.01	956	7.77	118.7	2-9-19 10:45	-0.06	1532	8.04	2.1	7-10-19 4:15	18.25	1647	9.35	8.5	5-10-19 23:30	17.66	1042	8.43	101.9					
2-9-19 11:45	-0.05	1057	8.46	3.4	2-9-19 11:00	0.01	966	7.77	93.6	2-9-19 11:00	-0.06	1532	8.03	2.2	7-10-19 4:30	18.23	1648	8.96	8.5	5-10-19 23:45	17.55	1042	8.43	95.9					
2-9-19 12:00	-0.05	1057	8.49	3.3	2-9-19 11:15	0.01	962	7.77	109.9	2-9-19 11:15	-0.06	1533	8.03	2.2	7-10-19 4:45	18.21	1646	9.21	8.5	5-11-19 0:00	17.47	1041	8.43	107.3					
2-9-19 12:15	-0.06	1139	8.47	5.7	2-9-19 11:30	0.01	962	7.77	83.8	2-9-19 11:30	-0.06	1534	8.03	2.1	7-10-19 5:00	18.18	1649	9.27	8.4	5-11-19 0:15	17.42	1038	8.43	102.5					
2-9-19 12:30	-0.05	1138	8.53	3.5	2-9-19 11:45	0.01	961	7.76	94.6	2-9-19 11:45	-0.06	1535	8.03	2.0	7-10-19 5:15	18.18	1649	8.65	8.4	5-11-19 0:30	17.33	1043	8.43	110.1					
2-9-19 12:45	-0.05	1138	8.55	3.3	2-9-19 12:00	0.01	963	7.76	69.3	2-9-19 12:00	-0.06	1535	8.03	2.0	7-10-19 5:30	18.15	1647	9.95	8.5	5-11-19 0:45	17.25	1040	8.43	122.6					
2-9-19 13:00	-0.06	1059	8.54	3.6	2-9-19 12:15	0.01	971	7.76	85.0	2-9-19 12:15	-0.06	1536	8.02	2.1	7-10-19 5:45	18.11	1648	11.80	8.5	5-11-19 1:00	17.19	1040	8.43	99.4					
2-9-19 13:15	-0.06	1059	8.58	3.5	2-9-19 12:30	0.01	970	7.77	95.4	2-9-19 12:30	-0.06	1537	8.03	2.1	7-10-19 6:00	18.10	1649	8.35	8.5	5-11-19 1:15	17.11	1039	8.43	99.3					
2-9-19 13:30	-0.05	1059	8.59	3.3	2-9-19 12:45	0.01	965	7.76	103.5	2-9-19 12:45	-0.06	1537	8.03	2.2	7-10-19 6:15	18.06	1649	10.73	8.4	5-11-19 1:30	17.03	1040	8.43	90.3					
2-9-19 13:45	-0.05	1058	8.61	3.3	2-9-19 13:00	0.01	979	7.76	110.0	2-9-19 13:00	-0.06	1538	8.03	2.1	7-10-19 6:30	18.04	1646	8.25	8.5	5-11-19 1:45	16.96	1041	8.43	108.9					
2-9-19 14:00	-0.06	1168	8.59	3.8	2-9-19 13:15	-0.02	981	7.76	7.8	2-9-19 13:15	0.00	1562	8.00	2.3	7-10-19 6:45	18.00	1649	10.03	8.5	5-11-19 2:00	16.89	1039	8.44	110.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-9-19 14:15	-0.07	1061	8.65	3.5	2-9-19 13:30	-0.02	980	7.76	10.0	2-9-19 13:30	0.08	1573	7.99	2.5	7-10-19 7:00	17.96	1649	9.53	8.5	5-11-19 2:15	16.81	1039	8.44	97.7					
2-9-19 14:30	-0.06	1060	8.67	3.5	2-9-19 13:45	-0.01	979	7.76	13.1	2-9-19 13:45	0.05	1571	8.00	2.4	7-10-19 7:15	17.92	1647	8.41	8.5	5-11-19 2:30	16.72	1040	8.44	99.4					
2-9-19 14:45	-0.05	1058	8.67	3.9	2-9-19 14:00	0.00	976	7.76	16.5	2-9-19 14:00	0.04	1571	8.00	2.4	7-10-19 7:30	17.89	1648	8.69	8.5	5-11-19 2:45	16.65	1038	8.44	106.4					
2-9-19 15:00	-0.05	1065	8.70	3.8	2-9-19 14:15	-0.01	975	7.76	21.0	2-9-19 14:15	0.03	1571	8.00	2.5	7-10-19 7:45	17.86	1649	8.55	8.5	5-11-19 3:00	16.57	1040	8.44	92.3					
2-9-19 15:15	-0.05	1064	8.74	3.6	2-9-19 14:30	-0.01	971	7.77	23.6	2-9-19 14:30	0.02	1571	8.00	2.5	7-10-19 8:00	17.82	1648	9.14	8.5	5-11-19 3:15	16.52	1037	8.44	95.8					
2-9-19 15:30	-0.06	1064	8.76	3.5	2-9-19 14:45	0.00	971	7.76	29.3	2-9-19 14:45	0.00	1572	8.01	2.3	7-10-19 8:15	17.79	1648	7.79	8.4	5-11-19 3:30	16.45	1042	8.44	106.3					
2-9-19 15:45	-0.06	1063	8.78	3.4	2-9-19 15:00	-0.01	967	7.76	35.1	2-9-19 15:00	0.00	1572	8.00	2.2	7-10-19 8:30	17.75	1649	7.90	8.4	5-11-19 3:45	16.39	1040	8.44	106.9					
2-9-19 16:00	-0.06	1140	8.75	3.8	2-9-19 15:15	0.00	967	7.76	41.6	2-9-19 15:15	-0.02	1572	8.00	2.2	7-10-19 8:45	17.72	1648	8.58	8.4	5-11-19 4:00	16.28	1039	8.44	104.2					
2-9-19 16:15	-0.06	1139	8.81	3.5	2-9-19 15:30	0.00	962	7.76	49.1	2-9-19 15:30	-0.02	1573	8.01	2.3	7-10-19 9:00	17.69	1647	7.64	8.4	5-11-19 4:15	16.24	1041	8.44	97.1					
2-9-19 16:30	-0.06	1138	8.81	3.5	2-9-19 15:45	0.00	968	7.76	57.7	2-9-19 15:45	-0.03	1573	8.00	2.3	7-10-19 9:15	17.67	1648	8.12	8.4	5-11-19 4:30	16.13	1038	8.44	100.0					
2-9-19 16:45	-0.05	1137	8.83	3.5	2-9-19 16:00	0.00	963	7.76	60.6	2-9-19 16:00	-0.03	1574	8.00	2.2	7-10-19 9:30	17.65	1647	7.63	8.4	5-11-19 4:45	16.05	1034	8.44	101.4					
2-9-19 17:00	-0.06	1050	8.82	3.7	2-9-19 16:15	0.01	966	7.76	68.0	2-9-19 16:15	-0.03	1575	8.00	2.4	7-10-19 9:45	17.64	1648	7.93	8.4	5-11-19 5:00	15.98	1031	8.44	99.9					
2-9-19 17:15	-0.06	1056	8.83	3.8	2-9-19 16:30	0.00	967	7.76	83.5	2-9-19 16:30	-0.03	1575	8.00	2.4	7-10-19 10:00	17.59	1648	7.83	8.4	5-11-19 5:15	15.91	1033	8.45	106.2					
2-9-19 17:30	-0.06	1051	8.85	3.9	2-9-19 16:45	0.00	974	7.76	108.9	2-9-19 16:45	-0.03	1576	8.00	2.2	7-10-19 10:15	17.56	1648	7.41	8.4	5-11-19 5:30	15.87	1031	8.45	101.2					
2-9-19 17:45	-0.06	1042	8.85	3.8	2-9-19 17:00	0.00	972	7.76	120.9	2-9-19 17:00	-0.03	1576	8.00	2.5	7-10-19 10:30	17.53	1648	7.66	8.4	5-11-19 5:45	15.77	1029	8.45	105.4					
2-9-19 18:00	-0.06	1041	8.89	3.6	2-9-19 17:15	0.00	971	7.76	164.4	2-9-19 17:15	-0.04	1576	8.00	2.3	7-10-19 10:45	17.50	1648	7.66	8.4	5-11-19 6:00	15.65	1014	8.45	118.5					
2-9-19 18:15	-0.06	1053	8.87	3.7	2-9-19 17:30					2-9-19 17:30	-0.04	1577	8.00	2.2	7-10-19 11:00	17.46	1647	7.72	8.4	5-11-19 6:15	15.57	1007	8.45	110.6					
2-9-19 18:30	-0.05	1052	8.92	3.6	2-9-19 17:45	0.00	980	7.76	186.5	2-9-19 17:45	-0.04	1578	8.00	2.2	7-10-19 11:15	17.41	1648	7.29	8.4	5-11-19 6:30	15.54	1004	8.45	102.0					
2-9-19 18:45	-0.05	1052	8.92	3.7	2-9-19 18:00	0.00	980	7.76	205.6	2-9-19 18:00	-0.04	1579	8.00	2.3	7-10-19 11:30	17.37	1648	8.10	8.4	5-11-19 6:45	15.49	993	8.45	101.5					
2-9-19 19:00	-0.05	1052	8.93	3.6	2-9-19 18:15	0.00	975	7.76	195.8	2-9-19 18:15	-0.04	1580	8.00	2.4	7-10-19 11:45	17.34	1646	7.48	8.4	5-11-19 7:00	15.46	990	8.45	105.6					
2-9-19 19:15	-0.05	1050	8.92	3.7	2-9-19 18:30	0.00	990	7.76	199.5	2-9-19 18:30	-0.04	1581	8.01	2.2	7-10-19 12:00	17.34	1649	17.61	8.4	5-11-19 7:15	15.46	986	8.45	104.8					
2-9-19 19:30	-0.05	1049	8.95	3.6	2-9-19 18:45	0.00	973	7.76	196.3	2-9-19 18:45	-0.04	1582	8.00	2.2	7-10-19 12:15	17.32	1648	9.81	8.4	5-11-19 7:30	15.47	987	8.45	98.6					
2-9-19 19:45	-0.06	1049	8.95	3.5	2-9-19 19:00	0.00	971	7.76	165.2	2-9-19 19:00	-0.04	1583	8.01	2.2	7-10-19 12:30	17.29	1646	7.95	8.4	5-11-19 7:45	15.46	989	8.45	103.3					
2-9-19 20:00	-0.05	1049	8.96	3.3	2-9-19 19:15	0.00	977	7.76	178.6	2-9-19 19:15	-0.04	1583	8.01	2.2	7-10-19 12:45	17.27	1648	9.13	8.4	5-11-19 8:00	15.49	992	8.45	97.7					
2-9-19 20:15	-0.05	1120	8.93	3.7	2-9-19 19:30	0.00	967	7.75	185.0	2-9-19 19:30	-0.04	1584	8.01	2.1	7-10-19 13:00	17.24	1648	8.03	8.4	5-11-19 8:15	15.46	990	8.46	89.1					
2-9-19 20:30	-0.05	1119	8.95	3.5	2-9-19 19:45	0.00	972	7.76	192.4	2-9-19 19:45	-0.05	1586	8.01	2.2	7-10-19 13:15	17.23	1648	8.73	8.4	5-11-19 8:30	15.47	991	8.46	102.8					
2-9-19 20:45	-0.05	1118	8.97	3.4	2-9-19 20:00	0.00	987	7.75	216.2	2-9-19 20:00	-0.05	1587	8.01	2.2	7-10-19 13:30	17.23	1646	8.81	8.4	5-11-19 8:45	15.48	994	8.46	103.8					
2-9-19 21:00	-0.05	1117	8.98	3.5	2-9-19 20:15	0.00	989	7.75	230.9	2-9-19 20:15	-0.05	1588	8.01	2.1	7-10-19 13:45	17.21	1647	8.60	8.4	5-11-19 9:00	15.49	996	8.46	96.8					
2-9-19 21:15	-0.06	1018	8.96	3.6	2-9-19 20:30	0.00	996	7.75	419.1	2-9-19 20:30	-0.05	1589	8.01	2.5	7-10-19 14:00	17.21	1647	8.53	8.4	5-11-19 9:15	15.52	995	8.46	98.3					
2-9-19 21:30	-0.06	1037	8.96	3.6	2-9-19 20:45	0.00	981	7.75	450.4	2-9-19 20:45	-0.05	1590	8.01	2.3	7-10-19 14:15	17.21	1647	9.10	8.4	5-11-19 9:30	15.55	996	8.46	97.1					
2-9-19 21:45	-0.06	1026	8.97	3.5	2-9-19 21:00	0.00	988	7.75	460.0	2-9-19 21:00	-0.05	1591	8.00	2.1	7-10-19 14:30	17.21	1647	8.75	8.4	5-11-19 9:45	15.67	999	8.46	105.3					
2-9-19 22:00	-0.06	1032	8.98	3.7	2-9-19 21:15	0.00	993	7.75	478.6	2-9-19 21:15	-0.05	1591	8.00	2.1	7-10-19 14:45	17.21	1648	9.23	8.4	5-11-19 10:00	15.67	997	8.46	110.3					
2-9-19 22:15	-0.06	1033	8.99	3.6	2-9-19 21:30	0.00	994	7.75	474.8	2-9-19 21:30	-0.05	1592	8.00	2.1	7-10-19 15:00	17.24	1648	9.10	8.4	5-11-19 10:15	15.69	990	8.46	97.8					
2-9-19 22:30	-0.06	1041	8.98	3.6	2-9-19 21:45	0.00	986	7.75	512.7	2-9-19 21:45	-0.05	1593	8.00	2.1	7-10-19 15:15	17.23	1648	8.43	8.4	5-11-19 10:30	15.75	981	8.46	105.6					
2-9-19 22:45	-0.06	1044	8.99	3.6	2-9-19 22:00	0.00	990	7.75	563.0	2-9-19 22:00					7-10-19 15:30	17.27	1647	8.83	8.5	5-11-19 10:45	15.91	976	8.45	100.3					
2-9-19 23:00	-0.06	1029	8.99	3.5	2-9-19 22:15	0.00	984	7.75	225.5	2-9-19 22:15	-0.05	1593	7.99	2.2	7-10-19 15:45	17.29	1649	8.89	8.5	5-11-19 11:00	16.04	965	8.45	98.0					
2-9-19 23:15	-0.06	1025	8.99	3.6	2-9-19 22:30	0.00	1025	7.75	239.1	2-9-19 22:30	-0.05	1594	7.99	2.1	7-10-19 16:00	17.32	1648	9.94	8.5	5-11-19 11:15	16.17	966	8.45	87.7					
2-9-19 23:30	-0.06	1025	9.01	3.4	2-9-19 22:45	0.00	997	7.75	257.0	2-9-19 22:45	-0.05	1594	7.99	2.2	7-10-19 16:15	17.35	1647	8.90	8.5	5-11-19 11:30	16.37	973	8.44	95.8					
2-9-19 23:45	-0.06	1028	9.00	3.5	2-9-19 23:00	0.00	1011	7.75	282.1	2-9-19 23:00	-0.05	1594	7.99	2.1	7-10-19 16:30	17.40	1648	9.97	8.5	5-11-19 11:45	16.46	980	8.44	99.2					
2-10-19 0:00	-0.06	1027	9.01	3.4	2-9-19 23:15	0.00	1010	7.75	294.4	2-9-19 23:15	-0.05	1594	7.99	2.2	7-10-19 16:45	17.59	1646	8.77	8.4	5-11-19 12:00	16.62	975	8.44	94.9					
2-10-19 0:15	-0.05	1027	9.01	3.2	2-9-19 23:30	0.00	993	7.75	257.4	2-9-19 23:30	-0.06	1595	7.99	2.1	7-10-19 17:00	17.65	1648	11.52	8.4	5-11-19 12:15	16.83	967	8.44	98.1					
2-10-19 0:30					2-9-19 23:45	0.00	1002	7.75	227.9	2-9-19 23:45	-0.06	1595	7.99	2.1	7-10-19 17:15	17.81	1649	8.28	8.4	5-11-19 12:30									
2-10-19 0:45	-0.06	1097	8.98	3.4	2-10-19 0:00	0.01	993	7.75	173.3	2-10-19 0:00	-0.06	1595	7.98	2.1	7-10-19 17:30	17.99	1648	8.47	8.4	5-11-19 12:45									
2-10-19 1:00	-0.06	1095	9.01	3.2	2-10-19 0:15	0.00	986	7.75	222.7	2-10-19 0:15	-0.06	1595	7.98	2.2	7-10-19 17:45	18.14	1650	9.05	8.4	5-11-19 13:00									
2-10-19 1:15	-0.06	1095	9.00	3.1	2-10-19 0:30	0.01	996	7.75	266.1	2-10-19 0:30	-0.05	1595	7.98	2.2	7-10-19 18:00	18.26	1650	8.62	8.4	5-11-19 13:15									
2-10-19 1:30	-0.06	1009	8.97	3.4	2-10-19 0:45	0.00	994	7.75	286.1	2-10-19 0:45	-0.05	1596	7.98	2.1	7-10-19 18:15	18.50	1649	9.17	8.4	5-11-19 13:30									
2-10-19 1:45	-0.06	1008	8.99	3.2	2-10-19 1:00	0.00	999	7.75	135.8	2-10-19 1:00	-0.06	1596	7.99	2.3	7-10-19 18:30	18.58	1651	8.78	8.4	5-11-19 13:45									
2-10-19 2:00	-0.06	1008	8.98	3.1	2-10-19 1:15	0.01	989	7.75	191.1	2-10-19 1:15	-0.06	1596	7.98	2.1	7-10-19 18:45	18.61	1649	9.82	8.4	5-11-19 14:00									
2-10-19 2:15	-0.07	1022	8.95	3.2	2-10-19 1:30	0.01	1005	7.75	32.8	2-10-19 1:30	-0.06	1596	7.98	2.2	7-10-19 19:00	18.68	1648	8.41	8.4	5-11-19 14:15									
2-10-19 2:30	-0.07	1021	8.94	3.3	2-10-19 1:45	0.00	1003	7.74	12.9	2-10-19 1:45	-0.06	1596	7.98	2.2	7-10-19 19:30	18.77	1650	8.79	8.4	5-11-19 14:30									
2-10-19 2:45	-0.07	1021	8.95	3.2	2-10-19 2:00	0.01	993	7.74	14.8	2-10-19 2:00	-0.06	1596	7.98	2.2	7-10-19 19:45	18.91	1651	8.55	8.4	5-11-19 14:45									
2-10-19 3:00	-0.07	1021	8.94	3.0	2-10-19 2:15	0.01	1002	7.75	18.3	2-10-19 2:15	-0.05	1597	7.97	2.2	7-10-19 20:00	19.14	1653	9.13	8.4	5-11-19 15:00									
2-10-19 3:15	-0.07	1021	8.93	3.1	2-10-19 2:30	0.01	1003	7.75	23.5	2-10-19 2:30	-0.05	1596	7.98	2.1	7-10-19 20:15	19.24	1652	8.19	8.4	5-11-19 15:15									
2-10-19 3:30	-0.08	1086	8.91	3.1	2-10-19 2:45	0.01	1004	7.75	31.5	2-10-19 2:45	-0.05	1597	7.98	2.2	7-10-19 20:30	19.25	1651	8.34	8.4	5-11-19 15:30									
2-10-19 3:45	-0.07	1085	8.90	3.4	2-10-19 3:00	0.01	995	7.75	13.6	2-10-19 3:00	-0.05	1596	7.98	2.3	7-10-19 20:45	19.30	1652	8.14	8.4	5-11-19 15:45									
2-10-19 4:00	-0.08	1026	8.88	3.1	2-10-19 3:15	0.01	1008	7.74	16.9	2-10-19 3:15	-0.05	1597	7.98	2.1	7-10-19 21:00	19.30	1653	7.96	8.4	5-11-19 16:00	17.41	980	8.41	13.7					
2-10-19 4:15	-0.08	1026	8.90	3.0	2-10-19 3:30	0.01	1006	7.74	23.5	2-10-19 3:30	-0.05	1597	7.98	2.2	7-10-19 21:15	19.38	1651	8.06	8.4	5-11-19 16:15	16.55	982	8.43	21.7					
2-10-19 4:30	-0.08	1033	8.87	3.1	2-10-19 3:45	0.01	999	7.74	21.7	2-10-19 3:45	-0.05	1597	7.98	2.2	7-10-19 21:30	19.43	1650	8.94	8.4	5-11-19 16:30	16.08	1009	8.36	25.5					
2-10-19 4:45	-0.08	1033	8.87	2.9	2-10-19 4:00	0.01	1008	7.74	27.7	2-10-19 4:00	-0.05	1597	7.98	2.1	7-10-19 21:45	19.33	1649	8.54	8.5	5-11-19 16:45	15.71	1061	8.30	18.1					
2-10-19 5:00	-0.08	1033	8.86	3.0	2-10-19 4:15	0.01	1008	7.74	41.3	2-10-19 4:15	-0.05	1597	7.97	2.2	7-10-19 22:00	19.34	1650	8.95	8.5	5-11-19 17:00	15.95	1047	8.26	12.2					
2-10-19 5:15	-0.08	1033	8.84	2.9	2-10-19 4:30	0.01	1008	7.74	57.6	2-10-19 4:30	-0.05	1597	7.98	2.1	7-10-19 22:15	19.33	1649	8.62	8.5	5-11-19 17:15	16.27	1006	8.25	13.9					
2-10-19 5:30	-0.08	1074	8.80	3.2	2-10-19 4:45	0.01	1029	7.74	50.0	2-10-19 4:45	-0.05	1597	7.97	2.3	7-10-19 22:30	19.21	1650	9.04	8.5	5-11-19 17:30	17.18	990	8.28	13.0					
2-10-19 5:45	-0.08	1074	8.79	2.9	2-10-19 5:00	0.01	1014	7.74	62.5	2-10-19 5:00	-0.05	1598	7.97	2.2	7-10-19 22:45	19.18	1650	8.23	8.5	5-11-19 17:45	17.67	987	8.35	14.3					
2-10-19 6:00	-0.08	1074	8.78	2.8	2-10-19 5:15	0.01	1008	7.74	75.8	2-10-19 5:15	-0.05	1598	7.98	1.9	7-10-19 23:00	19.15	1646	7.84	8.5	5-11-19 18:00	17.99	959	8.38	14.0					
2-10-19 6:15	-0.08	1074	8.75	3.0	2-10-19 5:30	0.01	1013	7.74	102.8	2-10-19 5:30	-0.05	1598	7.98	2.0	7-10-19 23:15	19.17	1648	7.71	8.5	5-11-19 18:15	18.03	982	8.40	13.4					
2-10-19 6:30	-0.08	1009	8.74	3.0	2-10-19 5:45	0.01	1035	7.74	46.1	2-10-19 5:45	-0.05	1598	7.98	2.1	7-10-19 23:30	19.27	1651	8.67	8.5	5-11-19 18:30	17.97	971	8.41	13.3					
2-10-19 6:45	-0.08	1008	8.73	2.9	2-10-19 6:00	0.01	1021	7.74	53.2	2-10-19 6:00	-0.04	1598	7.98	2.2	7-10-19 23:45	19.88	1653	8.69	8.5	5-11-19 18:45	17.84	981	8.41	12.7					
2-10-19 7:00	-0.08	1008	8.72	2.9	2-10-19 6:15	0.01	1020	7.74	57.9	2-10-19 6:15	-0.04	1598	7.97	2.2	7-11-19 0:00	20.21	1655	8.35	8.5	5-11-19 19:00	16.10	1029	8.46	9.3					
2-10-19 7:15	-0.08	1008	8.69	2.8	2-10-19 6:30	0.01	1016	7.73	85.7	2-10-19 6:30	-0.04	1598	7.98	2.1	7-11-19 0:15	20.32	1654	8.94	8.5	5-11-19 19:15	15.39	1071	8.47	9.8					
2-10-19 7:30	-0.08	1085	8.67	3.0	2-10-19 6:45	0.01	1017	7.73	29.2	2-10-19 6:45	-0.04	1598	7.97	2.3	7-11-19 0:30	20.37	1655	8.28	8.5	5-11-19 19:30	15.28	1041	8.47	8.4					
2-10-19 7:45	-0.09	1000	8.66	3.1	2-10-19 7:00	0.01	1010	7.74	33.9	2-10-19 7:00	-0.04	1598	7.97	2.2	7-11-19 0:45	20.46	1654	8.67	8.5	5-11-19 19:45	15.18	1058	8.47	9.0					
2-10-19 8:00	-0.08	1000	8.66	2.9	2-10-19 7:15	0.01	1008	7.74	35.1	2-10-19 7:15	-0.04	1598	7.98	2.1	7-11-19 1:00	20.51	1653	8.58	8.5	5-11-19 20:00	15.37	1018	8.46	8.2					
2-10-19 8:15	-0.08	1000	8.65	2.9	2-10-19 7:30	0.01	1010	7.74	49.9	2-10-19 7:30	-0.04	1599	7.98	2.2	7-11-19 1:15	20.46	1651	8.13	8.5	5-11-19 20:15	15.50	1047	8.45	9.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-10-19 8:30	-0.08	1000	8.65	2.9	2-10-19 7:45	0.01	1009	7.74	60.9	2-10-19 7:45	-0.04	1599	7.98	2.2	7-11-19 1:30	20.50	1654	8.18	8.5	5-11-19 20:30	15.41	1047	8.46	9.0					
2-10-19 8:45	-0.08	1016	8.62	3.0	2-10-19 8:00	0.01	1007	7.73	84.9	2-10-19 8:00	-0.04	1599	7.98	2.1	7-11-19 1:45	20.56	1655	8.53	8.5	5-11-19 20:45	15.46	1044	8.45	9.0					
2-10-19 9:00	-0.08	1016	8.63	3.0	2-10-19 8:15	0.01	1006	7.73	45.6	2-10-19 8:15	-0.04	1599	7.98	2.2	7-11-19 2:00	20.52	1653	12.15	8.5	5-11-19 21:00	15.49	1033	8.45	9.1					
2-10-19 9:15	-0.08	1021	8.63	2.9	2-10-19 8:30	0.01	1009	7.73	46.0	2-10-19 8:30	-0.04	1600	7.97	2.2	7-11-19 2:15	20.46	1653	8.78	8.5	5-11-19 21:15	15.45	1043	8.45	8.5					
2-10-19 9:30	-0.08	1021	8.62	2.9	2-10-19 8:45	0.01	1011	7.73	50.0	2-10-19 8:45	-0.04	1599	7.97	2.3	7-11-19 2:30	20.48	1654	8.51	8.5	5-11-19 21:30	15.41	1035	8.45	8.6					
2-10-19 9:45	-0.09	1026	8.60	3.2	2-10-19 9:00	0.01	1011	7.73	60.6	2-10-19 9:00	-0.04	1600	7.97	2.2	7-11-19 2:45	20.47	1654	8.48	8.5	5-11-19 21:45	15.39	1044	8.45	8.8					
2-10-19 10:00	-0.08	1025	8.61	3.1	2-10-19 9:15	0.01	1066	7.74	65.9	2-10-19 9:15	-0.04	1600	7.97	2.1	7-11-19 3:00	20.44	1655	8.35	8.5	5-11-19 22:00	15.48	1028	8.44	9.8					
2-10-19 10:15	-0.09	1025	8.60	2.9	2-10-19 9:30	0.01	1022	7.73	78.3	2-10-19 9:30	-0.05	1600	7.97	2.2	7-11-19 3:15	20.41	1655	8.28	8.5	5-11-19 22:15	15.51	1026	8.44	9.6					
2-10-19 10:30	-0.09	1025	8.60	2.9	2-10-19 9:45	0.01	1021	7.73	88.9	2-10-19 9:45	-0.05	1600	7.97	2.1	7-11-19 3:30	20.35	1654	9.00	8.5	5-11-19 22:30	15.69	1014	8.44	10.2					
2-10-19 10:45	-0.09	1096	8.58	3.0	2-10-19 10:00	0.01	1034	7.73	46.2	2-10-19 10:00	-0.05	1600	7.97	2.1	7-11-19 3:45	20.30	1654	8.19	8.5	5-11-19 22:45	15.77	1008	8.43	11.0					
2-10-19 11:00	-0.09	1095	8.58	2.9	2-10-19 10:15	0.01	1039	7.73	48.2	2-10-19 10:15	-0.05	1600	7.97	2.3	7-11-19 4:00	20.23	1654	8.01	8.5	5-11-19 23:00	15.77	997	8.43	10.1					
2-10-19 11:15	-0.08	1094	8.55	3.1	2-10-19 10:30	0.01	1032	7.73	60.3	2-10-19 10:30	-0.04	1600	7.97	2.2	7-11-19 4:15	20.18	1654	8.41	8.5	5-11-19 23:15	15.76	1002	8.42	11.4					
2-10-19 11:30	-0.09	1094	8.55	3.1	2-10-19 10:45	0.01	1022	7.73	22.0	2-10-19 10:45	-0.05	1600	7.98	2.1	7-11-19 4:30	20.10	1655	8.23	8.5	5-11-19 23:30	15.77	1002	8.43	10.8					
2-10-19 11:45	-0.09	1002	8.53	3.1	2-10-19 11:00	0.01	1020	7.73	27.1	2-10-19 11:00	-0.05	1600	7.97	2.3	7-11-19 4:45	20.04	1656	13.17	8.5	5-11-19 23:45	15.74	1005	8.43	12.1					
2-10-19 12:00	-0.09	1003	8.54	3.1	2-10-19 11:15	0.01	1033	7.73	12.5	2-10-19 11:15	-0.05	1601	7.97	2.1	7-11-19 5:00	19.96	1654	7.51	8.5	5-12-19 0:00	15.69	995	8.43	11.0					
2-10-19 12:15	-0.09	1002	8.51	3.0	2-10-19 11:30	0.01	1028	7.73	16.0	2-10-19 11:30	-0.05	1601	7.97	1.9	7-11-19 5:15	19.87	1654	7.86	8.5	5-12-19 0:15	15.63	1004	8.43	11.0					
2-10-19 12:30	-0.09	1002	8.50	3.0	2-10-19 11:45	0.01	1023	7.73	13.8	2-10-19 11:45	-0.05	1602	7.97	1.9	7-11-19 5:30	19.78	1655	7.82	8.5	5-12-19 0:30	15.55	1002	8.43	11.6					
2-10-19 12:45	-0.09	1088	8.47	3.2	2-10-19 12:00	0.01	1058	7.73	20.0	2-10-19 12:00	-0.05	1602	7.97	2.0	7-11-19 5:45	19.73	1656	7.23	8.5	5-12-19 0:45	15.44	1003	8.43	13.6					
2-10-19 13:00	-0.09	1087	8.45	3.0	2-10-19 12:15	0.01	1040	7.73	27.2	2-10-19 12:15	-0.05	1602	7.97	2.2	7-11-19 6:00	19.67	1654	11.02	8.5	5-12-19 1:00	15.38	1016	8.44	9.8					
2-10-19 13:15	-0.08	1086	8.43	3.1	2-10-19 12:30	0.01	1042	7.73	39.6	2-10-19 12:30	-0.05	1602	7.96	2.2	7-11-19 6:15	19.62	1656	8.88	8.5	5-12-19 1:15	15.29	1025	8.43	9.1					
2-10-19 13:30	-0.08	1085	8.47	2.9	2-10-19 12:45	0.01	1060	7.73	35.6	2-10-19 12:45	-0.05	1602	7.97	2.3	7-11-19 6:30	19.59	1656	7.17	8.5	5-12-19 1:30	15.22	1017	8.44	8.9					
2-10-19 13:45	-0.09	998	8.42	3.3	2-10-19 13:00	0.01	1032	7.73	53.8	2-10-19 13:00	-0.05	1601	7.97	2.2	7-11-19 6:45	19.52	1654	6.95	8.5	5-12-19 1:45	15.17	1022	8.44	9.7					
2-10-19 14:00	-0.08	997	8.38	3.1	2-10-19 13:15	0.01	1025	7.73	65.9	2-10-19 13:15	-0.05	1602	7.97	2.0	7-11-19 7:00	19.46	1655	7.44	8.5	5-12-19 2:00	15.12	1025	8.44	9.3					
2-10-19 14:15	-0.07	1008	8.37	4.8	2-10-19 13:30	0.01	1023	7.72	56.7	2-10-19 13:30	-0.05	1603	7.97	1.9	7-11-19 7:15	19.37	1655	7.67	8.5	5-12-19 2:15	15.05	1022	8.44	8.7					
2-10-19 14:30	-0.07	1009	8.37	3.0	2-10-19 13:45	-0.03	1056	7.73	12.1	2-10-19 13:45	0.08	1603	7.96	2.3	7-11-19 7:30	19.28	1653	7.76	8.5	5-12-19 2:30	14.99	1012	8.44	23.7					
2-10-19 14:45	-0.08	1008	8.33	3.0	2-10-19 14:00	-0.03	1055	7.73	15.3	2-10-19 14:00	0.01	1607	7.97	2.2	7-11-19 7:45	19.20	1654	7.97	8.5	5-12-19 2:45	14.93	1018	8.44	10.7					
2-10-19 15:00	-0.09	1008	8.33	3.1	2-10-19 14:15	-0.02	1048	7.73	22.7	2-10-19 14:15	0.01	1607	7.97	2.4	7-11-19 8:00	19.15	1654	7.36	8.5	5-12-19 3:00	14.93	1021	8.44	9.2					
2-10-19 15:15	-0.09	1081	8.31	3.3	2-10-19 14:30	-0.01	1047	7.73	31.9	2-10-19 14:30	0.00	1605	7.97	2.2	7-11-19 8:15	19.08	1654	7.32	8.5	5-12-19 3:15	14.81	1019	8.43	10.0					
2-10-19 15:30	-0.08	1075	8.29	3.1	2-10-19 14:45	0.00	1053	7.73	39.3	2-10-19 14:45	-0.02	1605	7.97	2.2	7-11-19 8:30	19.01	1654	7.34	8.5	5-12-19 3:30	14.88	1019	8.44	52.5					
2-10-19 15:45	0.55	574	8.36	2.0	2-10-19 15:00	0.00	1052	7.73	48.4	2-10-19 15:00	-0.03	1605	7.97	2.2	7-11-19 8:45	18.94	1651	7.63	8.5	5-12-19 3:45	14.72	1028	8.44	8.5					
2-10-19 16:00	0.71	455	8.41	1.6	2-10-19 15:15	0.00	1040	7.73	54.4	2-10-19 15:15	-0.04	1605	7.97	2.1	7-11-19 9:00	18.86	1651	8.86	8.5	5-12-19 4:00	14.64	1034	8.44	8.6					
2-10-19 16:15	0.54	495	8.37	1.5	2-10-19 15:30	0.00	1045	7.73	82.7	2-10-19 15:30	-0.05	1605	7.97	2.1	7-11-19 9:15	18.81	1650	8.09	8.5	5-12-19 4:15	14.58	1035	8.44	9.0					
2-10-19 16:30	0.14	851	8.26	3.1	2-10-19 15:45	0.00	1043	7.74	97.8	2-10-19 15:45	-0.05	1605	7.97	2.0	7-11-19 9:30	18.75	1652	7.86	8.5	5-12-19 4:30	14.57	1032	8.44	8.9					
2-10-19 16:45	0.11	924	8.21	3.1	2-10-19 16:00	0.00	1036	7.73	78.1	2-10-19 16:00	-0.05	1605	7.97	2.1	7-11-19 9:45	18.68	1651	8.04	8.5	5-12-19 4:45	14.53	1032	8.44	8.2					
2-10-19 17:00	0.04	977	8.18	3.3	2-10-19 16:15	0.00	1039	7.73	74.7	2-10-19 16:15	-0.05	1604	7.97	2.1	7-11-19 10:00	18.63	1651	9.48	8.5	5-12-19 5:00	14.50	1031	8.44	9.1					
2-10-19 17:15	0.04	978	8.20	3.1	2-10-19 16:30	-0.01	1046	7.73	95.9	2-10-19 16:30	-0.05	1604	7.96	2.1	7-11-19 10:15	18.58	1648	8.33	8.5	5-12-19 5:15	14.44	1033	8.42	8.8					
2-10-19 17:30	0.03	980	8.20	3.1	2-10-19 16:45	0.00	1040	7.73	108.1	2-10-19 16:45	-0.06	1604	7.96	2.2	7-11-19 10:30	18.54	1648	12.36	8.4	5-12-19 5:30	14.41	1030	8.44	9.0					
2-10-19 17:45	0.02	982	8.19	3.0	2-10-19 17:00	0.00	1041	7.73	95.0	2-10-19 17:00	-0.06	1604	7.97	2.1	7-11-19 10:45	18.48	1650	9.72	8.4	5-12-19 5:45	14.38	1033	8.43	8.6					
2-10-19 18:00	0.02	1076	8.17	3.3	2-10-19 17:15	0.00	1041	7.73	116.7	2-10-19 17:15	-0.06	1604	7.97	2.0	7-11-19 11:00	18.41	1649	11.18	8.4	5-12-19 6:00	14.34	1023	8.43	9.4					
2-10-19 18:15	0.08	1075	8.18	3.1	2-10-19 17:30	0.00	1035	7.73	127.6	2-10-19 17:30	-0.06	1605	7.97	2.1	7-11-19 11:15	18.39	1650	10.88	8.4	5-12-19 6:15	14.37	1021	8.43	9.8					
2-10-19 18:30	0.00	1084	8.14	3.3	2-10-19 17:45	0.00	1037	7.73	117.0	2-10-19 17:45	-0.06	1605	7.97	2.1	7-11-19 11:30	18.35	1649	13.84	8.4	5-12-19 6:30	14.32	1020	8.43	8.3					
2-10-19 18:45	0.03	983	8.14	3.3	2-10-19 18:00	0.00	1049	7.73	76.0	2-10-19 18:00	-0.06	1604	7.97	2.1	7-11-19 11:45	18.31	1652	10.61	8.4	5-12-19 6:45	14.29	1018	8.43	9.3					
2-10-19 19:00	-0.02	983	8.14	3.4	2-10-19 18:15	0.00	1049	7.73	90.4	2-10-19 18:15	-0.06	1604	7.96	2.4	7-11-19 12:00	18.30	1651	10.19	8.4	5-12-19 7:00	14.33	1012	8.43	10.3					
2-10-19 19:15	-0.05	984	8.13	3.3	2-10-19 18:30	0.00	1047	7.73	36.7	2-10-19 18:30	-0.06	1604	7.96	2.0	7-11-19 12:15	18.28	1650	9.81	8.4	5-12-19 7:15	14.35	1010	8.42	9.1					
2-10-19 19:30	-0.06	985	8.13	3.3	2-10-19 18:45	0.00	1044	7.72	33.3	2-10-19 18:45	-0.06	1605	7.96	2.2	7-11-19 12:30	18.24	1650	10.00	8.4	5-12-19 7:30	14.35	1012	8.43	9.0					
2-10-19 19:45	-0.05	1066	8.12	3.3	2-10-19 19:00	0.00	1049	7.73	34.6	2-10-19 19:00	-0.06	1605	7.96	2.1	7-11-19 12:45	18.23	1652	8.98	8.4	5-12-19 7:45	14.33	1013	8.43	10.4					
2-10-19 20:00					2-10-19 19:15	0.00	1048	7.72	34.5	2-10-19 19:15	-0.06	1605	7.96	2.0	7-11-19 13:00	18.20	1651	8.82	8.4	5-12-19 8:00	14.38	1013	8.43	9.2					
2-10-19 20:15	-0.05	1064	8.11	3.3	2-10-19 19:30	0.00	1049	7.72	33.5	2-10-19 19:30	-0.07	1605	7.97	2.1	7-11-19 13:15	18.15	1654	8.59	8.4	5-12-19 8:15	14.45	1017	8.43	8.9					
2-10-19 20:30	-0.06	1064	8.10	3.4	2-10-19 19:45	0.00	1058	7.72	32.3	2-10-19 19:45	-0.07	1605	7.96	2.0	7-11-19 13:30	18.15	1653	10.47	8.4	5-12-19 8:30	14.47	1014	8.43	9.4					
2-10-19 20:45	-0.06	981	8.09	3.4	2-10-19 20:00	0.00	1062	7.72	18.8	2-10-19 20:00	-0.07	1605	7.96	2.0	7-11-19 13:45	18.13	1650	9.57	8.4	5-12-19 8:45	14.48	1016	8.43	9.7					
2-10-19 21:00	-0.02	980	8.09	3.3	2-10-19 20:15	0.00	1055	7.72	15.9	2-10-19 20:15	-0.07	1605	7.96	2.0	7-11-19 14:00	18.11	1650	9.82	8.4	5-12-19 9:00	14.48	1018	8.43	10.6					
2-10-19 21:15	0.01	978	8.08	3.3	2-10-19 20:30	0.00	1062	7.72	15.7	2-10-19 20:30	-0.07	1605	7.96	2.0	7-11-19 14:15	18.10	1653	9.25	8.4	5-12-19 9:15	14.55	1023	8.42	9.4					
2-10-19 21:30	0.00	978	8.08	3.3	2-10-19 20:45	0.00	1058	7.72	13.6	2-10-19 20:45	-0.07	1605	7.96	1.9	7-11-19 14:30	18.10	1651	10.65	8.4	5-12-19 9:30	14.62	1025	8.43	10.0					
2-10-19 21:45	-0.01	1079	8.07	3.4	2-10-19 21:00	0.00	1071	7.72	6.5	2-10-19 21:00	-0.07	1605	7.96	2.1	7-11-19 14:45	18.11	1649	13.39	8.4	5-12-19 9:45	14.74	1022	8.42	9.2					
2-10-19 22:00	0.01	1079	8.07	3.3	2-10-19 21:15	0.00	1060	7.72	7.5	2-10-19 21:15	-0.07	1605	7.96	2.1	7-11-19 15:00	18.10	1649	9.39	8.4	5-12-19 10:00	14.71	1020	8.42	9.9					
2-10-19 22:15	0.01	1077	8.06	3.4	2-10-19 21:30	0.00	1057	7.72	5.4	2-10-19 21:30	-0.07	1605	7.96	1.9	7-11-19 15:15	18.11	1650	19.61	8.4	5-12-19 10:15	14.68	1026	8.42	10.3					
2-10-19 22:30	-0.01	1078	8.06	3.3	2-10-19 21:45	0.00	1056	7.72	5.8	2-10-19 21:45	-0.07	1605	7.96	1.9	7-11-19 15:30	18.14	1650	9.79	8.4	5-12-19 10:30	14.71	1023	8.42	9.8					
2-10-19 22:45	-0.04	976	8.06	3.3	2-10-19 22:00	0.00	1058	7.72	6.4	2-10-19 22:00	-0.07	1605	7.96	1.8	7-11-19 15:45	18.18	1650	9.18	8.4	5-12-19 10:45	14.93	1034	8.42	10.8					
2-10-19 23:00	-0.05	976	8.04	3.4	2-10-19 22:15	0.00	1047	7.72	6.2	2-10-19 22:15	-0.07	1605	7.96	2.0	7-11-19 16:00	18.21	1649	9.66	8.4	5-12-19 11:00	14.79	1023	8.42	9.0					
2-10-19 23:15	-0.03	975	8.04	3.4	2-10-19 22:30	0.00	1050	7.72	8.3	2-10-19 22:30	-0.07	1605	7.96	2.0	7-11-19 16:15	18.31	1647	9.49	8.4	5-12-19 11:15	14.94	1033	8.41	10.7					
2-10-19 23:30	0.00	972	8.03	3.5	2-10-19 22:45	0.00	1054	7.72	12.5	2-10-19 22:45	-0.08	1606	7.96	2.0	7-11-19 16:30	18.39	1647	10.41	8.4	5-12-19 11:30	15.08	1028	8.42	9.0					
2-10-19 23:45	0.01	1062	8.04	3.4	2-10-19 23:00	0.00	1058	7.72	22.7	2-10-19 23:00	-0.07	1605	7.96	1.9	7-11-19 16:45	18.46	1646	10.80	8.4	5-12-19 11:45	14.98	1026	8.41	12.3					
2-11-19 0:00	-0.01	1061	8.04	3.4	2-10-19 23:15	0.00	1037	7.72	33.4	2-10-19 23:15	-0.07	1606	7.96	1.8	7-11-19 17:00	18.47	1648	9.43	8.4	5-12-19 12:00	14.93	1025	8.41	12.3					
2-11-19 0:15	0.04	1059	8.04	3.5	2-10-19 23:30	0.00	1051	7.72	37.6	2-10-19 23:30	-0.07	1606	7.96	1.9	7-11-19 17:15	18.53	1647	11.17	8.4	5-12-19 12:15	15.22	1033	8.41	11.1					
2-11-19 0:30					2-10-19 23:45	0.00	1052	7.72	39.7	2-10-19 23:45	-0.07	1606	7.96	1.9	7-11-19 17:30	18.53	1646	8.86	8.4	5-12-19 12:30	15.28	1023	8.41	11.2					
2-11-19 0:45	0.06	973	8.03	3.7	2-11-19 0:00	0.01	1053	7.72	35.2	2-11-19 0:00	-0.07	1606	7.96	2.0	7-11-19 17:45	18.56	1649	11.59	8.4	5-12-19 12:45	15.35	1039	8.41	12.3					
2-11-19 1:00	0.06	971	8.04	3.4	2-11-19 0:15	0.01	1057	7.72	16.6	2-11-19 0:15	-0.07	1606	7.95	1.9	7-11-19 18:00	18.57	1648	10.44	8.4	5-12-19 13:00	15.51	1026	8.41	11.7					
2-11-19 1:15	0.05	968	8.04	3.2	2-11-19 0:30	0.01	1041	7.72	5.6	2-11-19 0:30	-0.07	1605	7.96	2.0	7-11-19 18:15	18.56	1651	11.46	8.4	5-12-19 13:15	15.68	1024	8.40	14.1					
2-11-19 1:30	0.08	1070	8.02	3.4	2-11-19 0:45	0.01	1063	7.72	4.7	2-11-19 0:45	-0.07	1605	7.96	2.0	7-11-19 18:30	18.58	1652	8.68	8.4	5-12-19 13:30	15.68	1032	8.41	13.4					
2-11-19 1:45	0.15	1067	8.03	3.3	2-11-19 1:00	0.00	1061	7.72	6.0	2-11-19 1:00	-0.07	1605	7.96	1.8	7-11-19 18:45	18.67	1652	9.85	8.5	5-12-19 13:45	15.75	1020	8.41	13.8					
2-11-19 2:00	0.15	1066	8.03	3.3	2-11-19 1:15	0.01	1053	7.72	12.4	2-11-19 1:15	-0.07	1605	7.96	1.9	7-11-19 19:00	18.81	1652	9.70	8.4	5-12-19 14:00	15.79	1019	8.41	11.9					
2-11-19 2:15	0.12	1069	8.03	3.4	2-11-19 1:30	0.01	1060	7.72	18.6	2-11-19 1:30	-0.07	1605	7.96	1.9	7-11-19 19:15	18.92	1653	11.59	8.4	5-12-19 14:15	15.87	1017	8.41	13.1					
2-11-19 2:30	0.05	969	8.01	3.5	2-11-19 1:45					2-11-19 1:45	-0.07	1605	7.96	1.9	7-11-19 19:30	18.98	1653	10.30	8.4	5-12-19 14:30	16.11	1023	8.41	12.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-11-19 2:45	-0.02	971	8.02	3.3	2-11-19 2:00	0.00	1047	7.72	6.4	2-11-19 2:00	-0.07	1605	7.96	1.9	7-11-19 19:45	19.07	1655	10.98	8.4	5-12-19 14:45	16.04	1014	8.41	12.7					
2-11-19 3:00	-0.01	970	8.03	3.3	2-11-19 2:15	0.00	1068	7.72	5.9	2-11-19 2:15	-0.07	1605	7.96	1.9	7-11-19 20:00	19.22	1651	10.50	8.4	5-12-19 15:00	16.09	1018	8.41	12.4					
2-11-19 3:15	-0.01	961	8.04	3.3	2-11-19 2:30	0.00	1070	7.72	9.2	2-11-19 2:30	-0.07	1605	7.96	2.0	7-11-19 20:15	19.43	1656	10.76	8.4	5-12-19 15:15	16.03	1020	8.40	12.7					
2-11-19 3:30	-0.01	1081	8.01	3.6	2-11-19 2:45	0.00	1070	7.72	17.1	2-11-19 2:45	-0.07	1605	7.95	2.0	7-11-19 20:30	19.71	1656	9.77	8.4	5-12-19 15:30	16.05	1019	8.41	13.2					
2-11-19 3:45					2-11-19 3:00	0.01	1067	7.72	20.1	2-11-19 3:00	-0.07	1605	7.95	1.9	7-11-19 20:45	20.19	1657	10.05	8.4	5-12-19 15:45	15.98	1020	8.41	12.8					
2-11-19 4:00	0.03	1079	8.02	3.3	2-11-19 3:15	0.01	1063	7.71	13.0	2-11-19 3:15	-0.07	1605	7.96	2.0	7-11-19 21:00	20.37	1657	9.13	8.4	5-12-19 16:00	15.97	1024	8.42	11.6					
2-11-19 4:15	-0.03	1081	8.02	3.3	2-11-19 3:30	0.01	1059	7.72	13.1	2-11-19 3:30	-0.07	1605	7.96	1.9	7-11-19 21:15	20.84	1659	13.12	8.4	5-12-19 16:15	16.02	1021	8.42	12.6					
2-11-19 4:30	0.01	963	8.00	3.4	2-11-19 3:45	0.01	1064	7.72	12.7	2-11-19 3:45	-0.07	1605	7.96	1.9	7-11-19 21:30	20.82	1657	11.46	8.4	5-12-19 16:30	16.13	1022	8.42	12.6					
2-11-19 4:45	0.07	960	8.00	3.4	2-11-19 4:00	0.01	1065	7.71	19.9	2-11-19 4:00	-0.07	1605	7.96	2.0	7-11-19 21:45	20.86	1658	15.05	8.4	5-12-19 16:45	16.22	1018	8.42	11.9					
2-11-19 5:00	0.06	969	7.99	3.5	2-11-19 4:15	0.01	1065	7.71	22.3	2-11-19 4:15	-0.07	1605	7.95	1.9	7-11-19 22:00	20.97	1656	12.29	8.4	5-12-19 17:00	16.21	1014	8.42	11.4					
2-11-19 5:15	-0.01	969	8.00	3.4	2-11-19 4:30	0.01	1071	7.71	31.5	2-11-19 4:30	-0.07	1605	7.95	2.0	7-11-19 22:15	21.10	1658	13.08	8.4	5-12-19 17:15	16.16	1023	8.42	12.3					
2-11-19 5:30	0.02	968	8.00	3.4	2-11-19 4:45	0.01	1066	7.71	44.9	2-11-19 4:45	-0.07	1605	7.96	1.9	7-11-19 22:30	21.34	1657	13.12	8.4	5-12-19 17:30	16.19	1022	8.43	11.0					
2-11-19 5:45	0.06	967	8.00	3.4	2-11-19 5:00	0.01	1065	7.71	51.7	2-11-19 5:00	-0.07	1605	7.96	2.0	7-11-19 22:45	21.46	1657	11.96	8.4	5-12-19 17:45	16.18	1023	8.43	11.3					
2-11-19 6:00	0.06	1062	7.98	3.5	2-11-19 5:15	0.01	1068	7.71	20.7	2-11-19 5:15	-0.07	1605	7.96	1.8	7-11-19 23:00	21.49	1658	12.51	8.4	5-12-19 18:00	16.20	1023	8.43	31.6					
2-11-19 6:15	0.10	1059	7.99	3.4	2-11-19 5:30	0.01	1164	7.72	6.0	2-11-19 5:30	-0.07	1605	7.96	1.9	7-11-19 23:15	21.65	1658	13.34	8.4	5-12-19 18:15	16.18	1021	8.43	11.4					
2-11-19 6:30	0.12	1057	7.98	3.4	2-11-19 5:45	0.01	1085	7.72	4.2	2-11-19 5:45	-0.07	1605	7.96	1.9	7-11-19 23:30	21.49	1658	11.09	8.4	5-12-19 18:30	16.14	1021	8.43	11.3					
2-11-19 6:45	0.11	1058	7.99	3.3	2-11-19 6:00	0.01	1076	7.72	5.5	2-11-19 6:00	-0.07	1605	7.96	1.9	7-11-19 23:45	21.74	1660	11.56	8.4	5-12-19 18:45	16.14	1020	8.43	11.6					
2-11-19 7:00	0.04	973	7.97	3.4	2-11-19 6:15	0.01	1079	7.72	8.0	2-11-19 6:15	-0.07	1605	7.95	1.8	7-12-19 0:00	21.72	1660	12.18	8.4	5-12-19 19:00	16.07	1023	8.44	10.0					
2-11-19 7:15	-0.02	973	7.99	3.3	2-11-19 6:30	0.01	1080	7.71	5.9	2-11-19 6:30	-0.07	1605	7.96	1.8	7-12-19 0:15	21.75	1661	12.09	8.5	5-12-19 19:15	16.03	1021	8.43	12.3					
2-11-19 7:30	0.06	962	8.00	3.4	2-11-19 6:45	0.01	1090	7.71	5.6	2-11-19 6:45	-0.07	1605	7.96	1.9	7-12-19 0:30	21.80	1661	11.91	8.5	5-12-19 19:30	16.03	1021	8.44	9.8					
2-11-19 7:45	-0.01	964	7.99	3.3	2-11-19 7:00	0.00	1092	7.71	7.1	2-11-19 7:00	-0.07	1606	7.95	1.8	7-12-19 0:45	21.72	1660	10.67	8.5	5-12-19 19:45	15.99	1020	8.44	9.7					
2-11-19 8:00	-0.03	1092	7.97	3.5	2-11-19 7:15	0.01	1083	7.71	7.9	2-11-19 7:15	-0.07	1606	7.96	1.9	7-12-19 1:00	21.77	1660	12.12	8.5	5-12-19 20:00	15.97	1020	8.44	12.6					
2-11-19 8:15	-0.01	1090	7.98	3.4	2-11-19 7:30	0.01	1071	7.71	9.5	2-11-19 7:30	-0.07	1606	7.96	1.8	7-12-19 1:15	21.79	1661	10.75	8.5	5-12-19 20:15	15.94	1020	8.44	9.8					
2-11-19 8:30	0.01	1088	7.99	3.3	2-11-19 7:45	0.00	1084	7.71	14.1	2-11-19 7:45	-0.07	1606	7.96	1.9	7-12-19 1:30	21.68	1661	12.63	8.5	5-12-19 20:30	15.92	1021	8.45	9.5					
2-11-19 8:45	0.05	1084	7.99	3.3	2-11-19 8:00	0.01	1069	7.71	19.1	2-11-19 8:00	-0.07	1606	7.96	1.9	7-12-19 1:45	21.67	1661	10.83	8.5	5-12-19 20:45	15.86	1020	8.45	11.2					
2-11-19 9:00	0.16	940	7.96	3.4	2-11-19 8:15	0.01	1083	7.71	23.9	2-11-19 8:15	-0.07	1605	7.95	1.9	7-12-19 2:00	21.57	1660	10.93	8.5	5-12-19 21:00	15.81	1027	8.45	11.5					
2-11-19 9:15	0.14	941	7.97	3.2	2-11-19 8:30	0.00	1082	7.71	35.8	2-11-19 8:30	-0.07	1605	7.96	1.8	7-12-19 2:15	21.57	1662	12.47	8.5	5-12-19 21:15	15.73	1023	8.44	9.5					
2-11-19 9:30	0.04	943	7.98	3.2	2-11-19 8:45	0.00	1081	7.71	18.4	2-11-19 8:45	-0.07	1606	7.96	1.9	7-12-19 2:30	21.58	1660	10.61	8.5	5-12-19 21:30	15.68	1040	8.45	8.9					
2-11-19 9:45	0.03	944	7.97	3.2	2-11-19 9:00	0.00	1075	7.71	22.6	2-11-19 9:00	-0.07	1606	7.96	2.0	7-12-19 2:45	21.48	1659	11.44	8.5	5-12-19 21:45	15.60	1019	8.45	9.5					
2-11-19 10:00	0.02	1068	7.95	3.3	2-11-19 9:15	0.00	1083	7.70	27.5	2-11-19 9:15	-0.07	1606	7.95	1.8	7-12-19 3:00	21.36	1659	9.61	8.5	5-12-19 22:00	15.57	1020	8.45	10.3					
2-11-19 10:15	-0.04	1070	7.96	3.3	2-11-19 9:30	0.01	1091	7.70	5.1	2-11-19 9:30	-0.07	1606	7.96	1.9	7-12-19 3:15	21.25	1660	8.85	8.5	5-12-19 22:15	15.52	1019	8.45	9.1					
2-11-19 10:30	0.01	1067	7.96	3.2	2-11-19 9:45	0.01	1080	7.71	6.5	2-11-19 9:45	-0.07	1606	7.96	1.8	7-12-19 3:30	21.25	1660	9.11	8.5	5-12-19 22:30	15.50	1020	8.45	9.4					
2-11-19 10:45	0.01	1066	7.96	3.3	2-11-19 10:00	0.01	1080	7.71	6.3	2-11-19 10:00	-0.07	1606	7.96	1.8	7-12-19 3:45	21.17	1660	8.70	8.5	5-12-19 22:45	15.43	1023	8.45	8.6					
2-11-19 11:00	-0.01	956	7.93	3.5	2-11-19 10:15	0.01	1085	7.71	8.9	2-11-19 10:15	-0.07	1606	7.95	1.9	7-12-19 4:00	21.10	1660	8.06	8.5	5-12-19 23:00	15.37	1023	8.45	11.9					
2-11-19 11:15	-0.02	958	7.95	3.3	2-11-19 10:30	0.01	1080	7.71	8.7	2-11-19 10:30	-0.07	1606	7.95	1.9	7-12-19 4:15	21.06	1659	8.42	8.5	5-12-19 23:15	15.26	1020	8.44	8.4					
2-11-19 11:30	-0.01	959	7.94	3.1	2-11-19 10:45	0.00	1084	7.71	13.5	2-11-19 10:45	-0.07	1606	7.95	1.8	7-12-19 4:30	20.97	1659	8.31	8.5	5-12-19 23:30	15.23	1020	8.45	8.3					
2-11-19 11:45	-0.01	958	7.94	3.2	2-11-19 11:00	0.00	1087	7.71	20.9	2-11-19 11:00	-0.07	1606	7.95	1.9	7-12-19 4:45	20.93	1660	8.86	8.5	5-12-19 23:45	15.15	1020	8.45	8.4					
2-11-19 12:00	-0.01	1090	7.92	3.5	2-11-19 11:15	0.00	1089	7.71	44.8	2-11-19 11:15	-0.07	1606	7.96	1.8	7-12-19 5:00	20.86	1661	7.79	8.5	5-13-19 0:00	15.11	1016	8.45	9.8					
2-11-19 12:15	0.00	1089	7.93	3.2	2-11-19 11:30	0.00	1089	7.71	18.8	2-11-19 11:30	-0.07	1606	7.96	1.8	7-12-19 5:15	20.81	1660	7.99	8.5	5-13-19 0:15	15.07	1018	8.45	8.3					
2-11-19 12:30	-0.01	1088	7.93	3.3	2-11-19 11:45	0.00	1087	7.71	3.7	2-11-19 11:45	-0.07	1606	7.96	1.8	7-12-19 5:30	20.74	1660	8.19	8.5	5-13-19 0:30	15.05	1019	8.45	8.5					
2-11-19 12:45	-0.01	1088	7.92	3.4	2-11-19 12:00	0.00	1086	7.71	4.1	2-11-19 12:00	-0.07	1606	7.96	1.8	7-12-19 5:45	20.68	1660	8.21	8.5	5-13-19 0:45	15.02	1020	8.45	8.4					
2-11-19 13:00	-0.01	956	7.90	3.4	2-11-19 12:15	0.00	1099	7.71	4.8	2-11-19 12:15	-0.07	1606	7.95	1.8	7-12-19 6:00	20.63	1660	7.63	8.5	5-13-19 1:00	14.96	1019	8.45	8.1					
2-11-19 13:15	-0.01	955	7.90	3.3	2-11-19 12:30	0.00	1084	7.71	5.2	2-11-19 12:30	-0.06	1606	7.95	1.8	7-12-19 6:15	20.57	1661	8.53	8.5	5-13-19 1:15	14.87	1017	8.44	8.5					
2-11-19 13:30	0.00	953	7.91	3.2	2-11-19 12:45	0.00	1092	7.71	4.8	2-11-19 12:45	-0.07	1606	7.95	1.9	7-12-19 6:30	20.50	1660	8.04	8.5	5-13-19 1:30	14.85	1016	8.45	8.5					
2-11-19 13:45	0.00	953	7.90	3.4	2-11-19 13:00	0.00	1092	7.71	6.3	2-11-19 13:00	-0.06	1606	7.96	1.8	7-12-19 6:45	20.45	1660	8.51	8.5	5-13-19 1:45	14.86	1017	8.45	9.0					
2-11-19 14:00	-0.02	1074	7.88	4.5	2-11-19 13:15	0.00	1101	7.71	7.1	2-11-19 13:15	-0.07	1607	7.95	1.8	7-12-19 7:00	20.37	1659	9.76	8.5	5-13-19 2:00	14.86	1017	8.45	8.8					
2-11-19 14:15	0.02	1073	7.90	3.3	2-11-19 13:30	0.00	1085	7.71	11.4	2-11-19 13:30	-0.06	1607	7.96	1.8	7-12-19 7:15	20.31	1660	6.95	8.5	5-13-19 2:15	14.80	1015	8.45	8.9					
2-11-19 14:30	0.04	1072	7.90	3.3	2-11-19 13:45	0.00	1086	7.71	10.8	2-11-19 13:45	-0.06	1607	7.96	1.7	7-12-19 7:30	20.26	1660	7.42	8.5	5-13-19 2:30	14.73	1017	8.45	10.6					
2-11-19 14:45	0.04	1058	7.88	3.4	2-11-19 14:00	-0.02	1108	7.70	3.4	2-11-19 14:00	-0.06	1607	7.95	1.8	7-12-19 7:45	20.23	1658	8.02	8.5	5-13-19 2:45	14.68	1018	8.45	8.8					
2-11-19 15:00	0.06	925	7.88	3.4	2-11-19 14:15	-0.02	1100	7.71	3.6	2-11-19 14:15	-0.09	1610	7.95	1.9	7-12-19 8:00	20.16	1659	7.20	8.5	5-13-19 3:00	14.61	1018	8.45	8.5					
2-11-19 15:15	0.06	926	7.89	3.2	2-11-19 14:30	-0.02	1100	7.70	4.1	2-11-19 14:30	-0.08	1611	7.96	2.0	7-12-19 8:15	20.09	1660	7.40	8.5	5-13-19 3:15	14.49	1017	8.44	7.9					
2-11-19 15:30	0.10	925	7.89	3.2	2-11-19 14:45	-0.01	1100	7.71	5.5	2-11-19 14:45	-0.06	1611	7.95	2.0	7-12-19 8:30	20.02	1659	7.67	8.5	5-13-19 3:30	14.53	1018	8.45	7.8					
2-11-19 15:45	0.14	923	7.89	3.2	2-11-19 15:00	-0.01	1103	7.71	6.4	2-11-19 15:00	-0.06	1610	7.95	2.0	7-12-19 8:45	19.95	1661	7.97	8.5	5-13-19 3:45	14.50	1019	8.45	8.3					
2-11-19 16:00	0.13	1037	7.88	3.5	2-11-19 15:15	0.00	1103	7.71	10.7	2-11-19 15:15	-0.07	1610	7.95	1.7	7-12-19 9:00	19.87	1660	7.54	8.5	5-13-19 4:00	14.47	1019	8.45	7.4					
2-11-19 16:15	0.14	1032	7.91	3.2	2-11-19 15:30	-0.01	1102	7.71	13.6	2-11-19 15:30	-0.07	1609	7.95	1.7	7-12-19 9:15	19.82	1659	7.25	8.5	5-13-19 4:15	14.40	1019	8.45	8.5					
2-11-19 16:30	0.15	1033	7.90	3.2	2-11-19 15:45	-0.01	1101	7.71	15.5	2-11-19 15:45	-0.06	1608	7.95	1.8	7-12-19 9:30	19.76	1660	6.53	8.5	5-13-19 4:30	14.40	1018	8.45	8.0					
2-11-19 16:45	0.17	1034	7.90	3.3	2-11-19 16:00	0.00	1101	7.71	8.8	2-11-19 16:00	-0.07	1608	7.95	1.8	7-12-19 9:45	19.67	1660	7.03	8.5	5-13-19 4:45	14.40	1018	8.44	8.3					
2-11-19 17:00	0.19	934	7.88	3.4	2-11-19 16:15	0.00	1107	7.71	10.8	2-11-19 16:15	-0.07	1608	7.95	1.7	7-12-19 10:00	19.58	1661	6.62	8.5	5-13-19 5:00	14.28	1017	8.45	7.9					
2-11-19 17:15	0.27	927	7.92	3.2	2-11-19 16:30	0.00	1101	7.70	12.0	2-11-19 16:30	-0.07	1608	7.95	1.8	7-12-19 10:15	19.52	1660	7.60	8.5	5-13-19 5:15	14.19	1019	8.44	8.5					
2-11-19 17:30	0.20	928	7.92	3.2	2-11-19 16:45	0.00	1107	7.70	17.8	2-11-19 16:45	-0.07	1608	7.95	2.0	7-12-19 10:30	19.45	1659	6.86	8.5	5-13-19 5:30	14.21	1019	8.45	8.2					
2-11-19 17:45	0.19	929	7.91	3.2	2-11-19 17:00	0.00	1098	7.70	3.9	2-11-19 17:00	-0.07	1608	7.95	2.1	7-12-19 10:45	19.36	1659	6.72	8.5	5-13-19 5:45	14.12	1019	8.44	7.4					
2-11-19 18:00	0.17	1064	7.89	3.5	2-11-19 17:15	0.00	1102	7.70	4.8	2-11-19 17:15	-0.07	1608	7.95	1.8	7-12-19 11:00	19.30	1657	6.83	8.5	5-13-19 6:00	14.12	1019	8.45	7.7					
2-11-19 18:15	0.17	1061	7.90	3.2	2-11-19 17:30	0.00	1101	7.70	5.1	2-11-19 17:30	-0.07	1608	7.95	1.7	7-12-19 11:15	19.21	1661	9.47	8.5	5-13-19 6:15	14.08	1020	8.45	7.7					
2-11-19 18:30	0.17	1062	7.90	3.3	2-11-19 17:45	0.00	1102	7.70	10.6	2-11-19 17:45	-0.07	1608	7.95	1.7	7-12-19 11:30	19.14	1659	7.05	8.5	5-13-19 6:30	14.11	1019	8.45	8.1					
2-11-19 18:45	0.17	1062	7.90	3.3	2-11-19 18:00	0.00	1108	7.70	12.0	2-11-19 18:00	-0.07	1608	7.95	1.8	7-12-19 11:45	19.08	1658	8.05	8.5	5-13-19 6:45	14.05	1019	8.45	7.8					
2-11-19 19:00	0.16	919	7.88	3.3	2-11-19 18:15	0.00	1104	7.69	20.2	2-11-19 18:15	-0.07	1608	7.95	1.8	7-12-19 12:00	19.03	1658	7.06	8.5	5-13-19 7:00	14.03	1019	8.45	7.6					
2-11-19 19:15	0.16	919	7.90	3.3	2-11-19 18:30	0.00	1101	7.69	21.4	2-11-19 18:30	-0.07	1608	7.95	1.7	7-12-19 12:15	18.95	1659	7.75	8.5	5-13-19 7:15	14.02	1019	8.44	7.4					
2-11-19 19:30	0.15	918	7.90	3.4	2-11-19 18:45	0.00	1104	7.69	17.2	2-11-19 18:45	-0.07	1608	7.95	1.8	7-12-19 12:30	18.87	1660	7.88	8.5	5-13-19 7:30	14.06	1019	8.45	7.7					
2-11-19 19:45	0.15	918	7.90	3.2	2-11-19 19:00	0.00	1103	7.69	6.0	2-11-19 19:00	-0.07	1608	7.95	1.7	7-12-19 12:45	18.81	1660	7.66	8.5	5-13-19 7:45	14.06	1019	8.45	7.2					
2-11-19 20:00	0.46	947	8.00	3.2	2-11-19 19:15	0.00	1120	7.70	5.3	2-11-19 19:15	-0.07	1608	7.95	1.8	7-12-19 13:00	18.76	1661	7.72	8.5	5-13-19 8:00	14.07	1019	8.45	6.7					
2-11-19 20:15	0.45	952	8.03	3.0	2-11-19 19:30	0.00	1100	7.70	7.9	2-11-19 19:30					7-12-19 13:15	18.70	1659	8.24	8.5	5-13-19 8:15	14.07	1019	8.45	6.9					
2-11-19 20:30	0.50	951	8.02	3.0	2-11-19 19:45	0.00	1105	7.70	11.5	2-11-19 19:45	-0.07	1608	7.95	1.8	7-12-19 13:30	18.64	1660	8.06	8.5	5-13-19 8:30	14.13	1019	8.45	7.0					
2-11-19 20:45	0.47	958	8.02	3.0	2-11-19 20:00	0.00	1111	7.70	4.2	2-11-19 20:00	-0.07	1608	7.95	1.8	7-12-19 13:45	18.64	1659	7.68	8.5	5-13-19 8:45	14.24	1018	8.45	9.2					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-11-19 21:00	0.47	837	7.98	2.9	2-11-19 20:15	0.00	1107	7.70	4.6	2-11-19 20:15	-0.07	1608	7.95	1.8	7-12-19 14:00	18.63	1658	8.40	8.5	5-13-19 9:00	14.26	1019	8.45	7.1					
2-11-19 21:15	0.56	833	8.00	3.1	2-11-19 20:30	0.00	1102	7.70	7.1	2-11-19 20:30	-0.07	1608	7.94	2.0	7-12-19 14:15	18.68	1661	7.52	8.5	5-13-19 9:15	14.27	1019	8.44	7.4					
2-11-19 21:30	0.88	768	8.17	2.7	2-11-19 20:45	0.00	1110	7.69	3.5	2-11-19 20:45	-0.07	1608	7.94	1.7	7-12-19 14:30	18.69	1659	7.95	8.5	5-13-19 9:30	14.31	1019	8.45	7.1					
2-11-19 21:45	1.10	725	8.28	2.6	2-11-19 21:00	0.00	1106	7.69	3.6	2-11-19 21:00	-0.07	1608	7.94	1.9	7-12-19 14:45	18.71	1656	8.31	8.5	5-13-19 9:45	14.34	1018	8.45	7.0					
2-11-19 22:00	1.13	789	8.25	2.6	2-11-19 21:15	0.00	1110	7.69	4.7	2-11-19 21:15	-0.07	1608	7.95	1.8	7-12-19 15:00	18.76	1658	8.75	8.5	5-13-19 10:00	14.50	1022	8.44	7.4					
2-11-19 22:15					2-11-19 21:30	0.00	1112	7.69	9.2	2-11-19 21:30					7-12-19 15:15	18.80	1659	9.09	8.5	5-13-19 10:15	14.47	1022	8.44	8.0					
2-11-19 22:30	1.17	778	8.32	2.5	2-11-19 21:45	0.00	1113	7.69	12.5	2-11-19 21:45	-0.07	1607	7.95	1.8	7-12-19 15:30	18.84	1660	8.54	8.5	5-13-19 10:30	14.43	1025	8.44	7.4					
2-11-19 22:45	1.19	774	8.33	2.5	2-11-19 22:00	0.00	1114	7.69	4.5	2-11-19 22:00	-0.07	1608	7.95	1.7	7-12-19 15:45	18.92	1660	8.31	8.5	5-13-19 10:45	14.55	1026	8.44	7.1					
2-11-19 23:00	1.17	694	8.31	2.7	2-11-19 22:15	0.00	1108	7.70	3.4	2-11-19 22:15	-0.07	1608	7.95	1.7	7-12-19 16:00	18.98	1659	10.06	8.5	5-13-19 11:00	14.57	1028	8.44	8.1					
2-11-19 23:15	1.16	692	8.34	2.5	2-11-19 22:30	0.00	1107	7.69	3.4	2-11-19 22:30	-0.07	1608	7.94	1.6	7-12-19 16:15	19.06	1662	9.99	8.5	5-13-19 11:15	14.68	1030	8.43	8.5					
2-11-19 23:30	1.16	684	8.33	2.4	2-11-19 22:45	0.00	1113	7.69	3.4	2-11-19 22:45	-0.07	1608	7.94	1.8	7-12-19 16:30	19.27	1659	8.97	8.5	5-13-19 11:30	14.73	1026	8.44	8.1					
2-11-19 23:45	1.13	681	8.36	2.4	2-11-19 23:00	0.00	1112	7.69	4.9	2-11-19 23:00	-0.07	1608	7.94	1.8	7-12-19 16:45	19.28	1660	8.39	8.5	5-13-19 11:45	14.68	1026	8.44	7.6					
2-12-19 0:00	1.10	680	8.36	2.3	2-11-19 23:15	0.00	1115	7.70	4.6	2-11-19 23:15	-0.07	1608	7.95	1.7	7-12-19 17:00	19.48	1659	8.52	8.4	5-13-19 12:00	14.71	1025	8.44	7.8					
2-12-19 0:15	1.07	677	8.37	2.4	2-11-19 23:30	0.01	1112	7.70	8.0	2-11-19 23:30	-0.07	1608	7.95	1.7	7-12-19 17:15	19.52	1662	9.35	8.4	5-13-19 12:15	14.89	1025	8.44	7.4					
2-12-19 0:30	1.06	750	8.35	2.5	2-11-19 23:45	0.00	1115	7.70	8.7	2-11-19 23:45	-0.07	1608	7.95	1.7	7-12-19 17:30	19.67	1663	9.10	8.5	5-13-19 12:30	14.96	1027	8.44	8.2					
2-12-19 0:45	1.03	753	8.38	2.3	2-12-19 0:00	0.00	1110	7.70	3.5	2-12-19 0:00	-0.07	1608	7.95	1.7	7-12-19 17:45	19.77	1664	9.08	8.5	5-13-19 12:45	14.90	1026	8.44	8.5					
2-12-19 1:00	1.02	750	8.39	2.2	2-12-19 0:15	0.00	1115	7.70	3.6	2-12-19 0:15	-0.07	1608	7.94	1.7	7-12-19 18:00	19.93	1665	11.00	8.5	5-13-19 13:00	14.97	1029	8.44	7.8					
2-12-19 1:15	1.02	746	8.39	2.3	2-12-19 0:30	0.00	1113	7.69	3.7	2-12-19 0:30	-0.07	1607	7.95	1.7	7-12-19 18:15	20.02	1663	9.74	8.5	5-13-19 13:15	14.94	1031	8.43	7.9					
2-12-19 1:30	1.04	660	8.37	2.1	2-12-19 0:45	0.00	1113	7.69	3.8	2-12-19 0:45	-0.07	1608	7.95	1.7	7-12-19 18:30	20.17	1663	11.47	8.5	5-13-19 13:30	15.02	1030	8.44	7.6					
2-12-19 1:45	1.01	657	8.40	2.2	2-12-19 1:00	0.00	1115	7.69	3.4	2-12-19 1:00	-0.07	1608	7.95	1.7	7-12-19 18:45	20.23	1662	9.75	8.5	5-13-19 13:45	14.86	1031	8.44	7.7					
2-12-19 2:00	0.99	656	8.41	2.4	2-12-19 1:15	0.01	1112	7.69	3.3	2-12-19 1:15	-0.07	1608	7.95	1.6	7-12-19 19:00	20.44	1666	10.70	8.4	5-13-19 14:00	14.83	1042	8.44	8.2					
2-12-19 2:15	0.97	654	8.41	2.2	2-12-19 1:30	0.01	1114	7.69	3.7	2-12-19 1:30	-0.07	1608	7.95	1.6	7-12-19 19:15	20.48	1666	10.25	8.5	5-13-19 14:15	14.85	1042	8.44	9.2					
2-12-19 2:30	0.96	731	8.39	2.4	2-12-19 1:45	0.01	1114	7.69	4.5	2-12-19 1:45	-0.07	1608	7.95	1.7	7-12-19 19:30	20.66	1666	9.71	8.5	5-13-19 14:30	14.99	1042	8.44	7.8					
2-12-19 2:45	0.98	730	8.42	2.1	2-12-19 2:00	0.01	1117	7.69	5.1	2-12-19 2:00	-0.07	1608	7.95	1.6	7-12-19 19:45	20.86	1664	11.28	8.4	5-13-19 14:45	15.08	1042	8.44	8.4					
2-12-19 3:00	0.96	728	8.43	2.1	2-12-19 2:15	0.01	1112	7.69	6.4	2-12-19 2:15	-0.07	1607	7.94	1.8	7-12-19 20:00	20.89	1665	10.10	8.4	5-13-19 15:00	15.12	1044	8.44	8.8					
2-12-19 3:15	0.96	726	8.43	2.4	2-12-19 2:30	0.01	1117	7.69	3.8	2-12-19 2:30	-0.07	1607	7.94	1.7	7-12-19 20:15	21.29	1667	9.83	8.4	5-13-19 15:15	15.10	1047	8.43	9.2					
2-12-19 3:30	0.97	636	8.40	2.1	2-12-19 2:45	0.00	1115	7.69	6.3	2-12-19 2:45	-0.07	1607	7.94	1.7	7-12-19 20:30	21.26	1664	9.59	8.4	5-13-19 15:30	15.23	1050	8.44	8.5					
2-12-19 3:45	0.93	636	8.43	2.3	2-12-19 3:00	0.01	1115	7.69	3.4	2-12-19 3:00	-0.07	1607	7.94	1.7	7-12-19 20:45	21.47	1666	8.74	8.4	5-13-19 15:45	15.30	1043	8.44	9.2					
2-12-19 4:00	0.95	634	8.43	2.1	2-12-19 3:15	0.01	1115	7.69	4.2	2-12-19 3:15	-0.07	1608	7.95	1.8	7-12-19 21:00	21.69	1665	9.40	8.4	5-13-19 16:00	15.31	1046	8.44	8.2					
2-12-19 4:15	0.93	633	8.44	2.0	2-12-19 3:30	0.01	1118	7.69	4.7	2-12-19 3:30	-0.07	1607	7.95	1.6	7-12-19 21:15	21.75	1666	8.85	8.4	5-13-19 16:15	15.40	1047	8.44	7.9					
2-12-19 4:30	0.91	708	8.41	2.2	2-12-19 3:45	0.01	1118	7.69	6.1	2-12-19 3:45	-0.07	1607	7.95	1.6	7-12-19 21:30	22.01	1667	9.08	8.4	5-13-19 16:30	15.41	1046	8.44	8.5					
2-12-19 4:45	0.94	705	8.45	2.1	2-12-19 4:00	0.01	1115	7.69	7.7	2-12-19 4:00	-0.07	1607	7.95	1.6	7-12-19 21:45	22.12	1667	8.79	8.4	5-13-19 16:45	15.42	1046	8.44	9.0					
2-12-19 5:00	0.94	701	8.45	2.2	2-12-19 4:15	0.01	1121	7.69	3.7	2-12-19 4:15	-0.07	1607	7.94	1.6	7-12-19 22:00	22.04	1665	9.26	8.4	5-13-19 17:00	15.47	1046	8.44	8.4					
2-12-19 5:15	0.97	698	8.45	2.1	2-12-19 4:30	0.01	1116	7.69	4.2	2-12-19 4:30	-0.06	1607	7.94	1.8	7-12-19 22:15	22.23	1668	9.43	8.4	5-13-19 17:15	15.45	1046	8.44	8.9					
2-12-19 5:30	0.92	605	8.42	2.1	2-12-19 4:45	0.01	1122	7.69	5.3	2-12-19 4:45	-0.07	1607	7.94	1.7	7-12-19 22:30	22.33	1666	9.11	8.4	5-13-19 17:30	15.47	1048	8.45	8.3					
2-12-19 5:45	0.96	604	8.46	2.0	2-12-19 5:00	0.01	1125	7.69	3.3	2-12-19 5:00	-0.07	1607	7.94	1.6	7-12-19 22:45	22.27	1666	8.81	8.5	5-13-19 17:45	15.45	1045	8.45	8.2					
2-12-19 6:00	0.96	601	8.47	2.0	2-12-19 5:15	0.01	1122	7.69	2.8	2-12-19 5:15	-0.07	1608	7.95	1.7	7-12-19 23:00	22.42	1667	9.06	8.5	5-13-19 18:00	15.52	1043	8.45	8.3					
2-12-19 6:15	0.94	599	8.47	2.0	2-12-19 5:30	0.01	1138	7.69	3.4	2-12-19 5:30					7-12-19 23:15	22.42	1668	8.71	8.5	5-13-19 18:15	15.52	1047	8.45	8.2					
2-12-19 6:30	0.92	699	8.43	2.0	2-12-19 5:45					2-12-19 5:45	-0.07	1608	7.95	1.6	7-12-19 23:30	22.41	1669	9.20	8.5	5-13-19 18:30	15.51	1044	8.45	10.3					
2-12-19 6:45	0.94	699	8.47	1.9	2-12-19 6:00	0.01	1124	7.69	3.7	2-12-19 6:00	-0.07	1608	7.95	1.6	7-12-19 23:45	22.51	1671	8.86	8.5	5-13-19 18:45	15.49	1042	8.45	9.0					
2-12-19 7:00	0.96	696	8.47	4.5	2-12-19 6:15	0.01	1120	7.69	4.0	2-12-19 6:15	-0.07	1607	7.94	1.6	7-13-19 0:00	22.30	1667	8.71	8.5	5-13-19 19:00	15.44	1041	8.45	7.8					
2-12-19 7:15	0.99	696	8.47	1.9	2-12-19 6:30	0.00	1128	7.69	4.8	2-12-19 6:30	-0.07	1607	7.94	1.7	7-13-19 0:15	22.28	1670	8.43	8.5	5-13-19 19:15	15.36	1043	8.45	8.5					
2-12-19 7:30	1.03	596	8.44	1.9	2-12-19 6:45	0.00	1128	7.69	5.9	2-12-19 6:45	-0.07	1607	7.94	1.7	7-13-19 0:30	22.28	1670	8.27	8.5	5-13-19 19:30	15.40	1044	8.46	8.2					
2-12-19 7:45	1.02	594	8.46	1.9	2-12-19 7:00	0.00	1126	7.69	6.3	2-12-19 7:00	-0.07	1607	7.94	1.6	7-13-19 0:45	22.26	1668	8.48	8.5	5-13-19 19:45	15.41	1044	8.46	7.7					
2-12-19 8:00	1.09	594	8.47	1.9	2-12-19 7:15	0.01	1127	7.69	6.9	2-12-19 7:15	-0.07	1608	7.95	1.6	7-13-19 1:00	22.07	1663	9.88	8.5	5-13-19 20:00	15.39	1044	8.46	8.3					
2-12-19 8:15	1.11	593	8.47	2.0	2-12-19 7:30	0.01	1126	7.69	7.9	2-12-19 7:30	-0.07	1607	7.95	1.6	7-13-19 1:15	21.87	1664	9.76	8.5	5-13-19 20:15	15.36	1044	8.46	6.8					
2-12-19 8:30	1.11	672	8.43	2.0	2-12-19 7:45	0.01	1130	7.69	10.6	2-12-19 7:45	-0.07	1608	7.95	1.7	7-13-19 1:30	21.79	1664	9.78	8.5	5-13-19 20:30	15.34	1044	8.46	7.5					
2-12-19 8:45	1.09	672	8.46	1.9	2-12-19 8:00	0.01	1131	7.69	12.2	2-12-19 8:00	-0.07	1607	7.95	1.6	7-13-19 1:45	21.73	1665	9.39	8.5	5-13-19 20:45	15.28	1044	8.46	7.3					
2-12-19 9:00	1.13	669	8.47	1.8	2-12-19 8:15	0.01	1127	7.69	15.2	2-12-19 8:15	-0.07	1607	7.94	1.6	7-13-19 2:00	21.67	1666	10.17	8.5	5-13-19 21:00	15.23	1044	8.46	7.7					
2-12-19 9:15	1.00	669	8.46	1.8	2-12-19 8:30	0.01	1128	7.69	19.8	2-12-19 8:30	-0.07	1608	7.95	1.6	7-13-19 2:15	21.61	1665	10.20	8.5	5-13-19 21:15	15.11	1045	8.46	7.6					
2-12-19 9:30	0.86	591	8.44	1.9	2-12-19 8:45	0.01	1129	7.69	16.4	2-12-19 8:45	-0.07	1607	7.95	1.8	7-13-19 2:30	21.59	1666	8.61	8.5	5-13-19 21:30	15.12	1045	8.46	7.7					
2-12-19 9:45	0.72	590	8.48	1.8	2-12-19 9:00	0.00	1126	7.69	5.6	2-12-19 9:00	-0.07	1608	7.94	1.7	7-13-19 2:45	21.58	1665	8.63	8.5	5-13-19 21:45	15.08	1045	8.46	7.2					
2-12-19 10:00	0.59	590	8.48	1.8	2-12-19 9:15	0.00	1131	7.69	3.2	2-12-19 9:15	-0.07	1608	7.95	1.6	7-13-19 3:00	21.56	1665	8.70	8.5	5-13-19 22:00	15.04	1046	8.46	7.6					
2-12-19 10:15	0.50	589	8.47	1.7	2-12-19 9:30	0.01	1129	7.69	3.6	2-12-19 9:30	-0.07	1608	7.95	1.5	7-13-19 3:15	21.53	1666	8.72	8.5	5-13-19 22:15	15.01	1046	8.46	8.7					
2-12-19 10:30	0.41	652	8.44	1.9	2-12-19 9:45	0.01	1133	7.69	4.2	2-12-19 9:45	-0.07	1608	7.95	1.6	7-13-19 3:30	21.49	1666	9.09	8.5	5-13-19 22:30	14.96	1045	8.46	7.4					
2-12-19 10:45	0.34	650	8.47	1.8	2-12-19 10:00	0.01	1133	7.69	4.3	2-12-19 10:00	-0.07	1608	7.95	1.7	7-13-19 3:45	21.49	1665	8.45	8.5	5-13-19 22:45	14.91	1045	8.46	6.9					
2-12-19 11:00	0.08	772	8.16	2.7	2-12-19 10:15	0.01	1133	7.69	4.3	2-12-19 10:15	-0.06	1608	7.95	1.7	7-13-19 4:00	21.47	1665	8.81	8.5	5-13-19 23:00	14.90	1045	8.46	8.9					
2-12-19 11:15	0.02	778	8.21	2.3	2-12-19 10:30	0.01	1129	7.69	3.8	2-12-19 10:30	-0.06	1608	7.94	1.6	7-13-19 4:15	21.48	1665	8.46	8.5	5-13-19 23:15	14.82	1044	8.46	6.8					
2-12-19 11:30	0.00	724	8.18	2.4	2-12-19 10:45	0.01	1133	7.69	3.7	2-12-19 10:45	-0.07	1608	7.94	1.6	7-13-19 4:30	21.40	1666	8.10	8.5	5-13-19 23:30	14.81	1045	8.46	7.0					
2-12-19 11:45	-0.01	723	8.20	2.2	2-12-19 11:00	0.01	1137	7.69	3.9	2-12-19 11:00	-0.06	1608	7.94	1.6	7-13-19 4:45	21.39	1665	7.67	8.5	5-13-19 23:45	14.74	1044	8.46	7.5					
2-12-19 12:00	-0.01	723	8.20	2.2	2-12-19 11:15	0.01	1137	7.69	3.5	2-12-19 11:15					7-13-19 5:00	21.34	1667	7.86	8.5	5-14-19 0:00	14.69	1044	8.46	7.1					
2-12-19 12:15	-0.02	722	8.20	2.2	2-12-19 11:30	0.00	1135	7.69	3.6	2-12-19 11:30	-0.07	1608	7.95	1.6	7-13-19 5:15	21.30	1667	7.52	8.5	5-14-19 0:15	14.67	1044	8.46	6.9					
2-12-19 12:30	-0.02	829	8.17	2.4	2-12-19 11:45	0.00	1132	7.69	4.3	2-12-19 11:45	-0.07	1608	7.95	1.6	7-13-19 5:30	21.29	1666	7.53	8.5	5-14-19 0:30	14.67	1045	8.46	6.7					
2-12-19 12:45	-0.02	824	8.20	2.2	2-12-19 12:00	0.01	1134	7.69	5.9	2-12-19 12:00	-0.07	1608	7.95	1.6	7-13-19 5:45	21.27	1666	7.54	8.5	5-14-19 0:45	14.60	1043	8.46	6.5					
2-12-19 13:00	-0.02	823	8.20	2.1	2-12-19 12:15	0.01	1133	7.69	6.7	2-12-19 12:15	-0.06	1608	7.94	1.7	7-13-19 6:00	21.25	1668	7.41	8.5	5-14-19 1:00	14.51	1044	8.46	6.8					
2-12-19 13:15	-0.02	822	8.20	2.1	2-12-19 12:30	0.01	1129	7.69	8.2	2-12-19 12:30	-0.06	1608	7.94	1.6	7-13-19 6:15	21.22	1665	6.98	8.5	5-14-19 1:15	14.45	1045	8.46	6.8					
2-12-19 13:30	-0.03	718	8.16	2.5	2-12-19 12:45	0.01	1138	7.69	9.9	2-12-19 12:45	-0.07	1608	7.94	1.6	7-13-19 6:30	21.19	1667	7.65	8.5	5-14-19 1:30	14.42	1045	8.46	6.8					
2-12-19 13:45	-0.03	719	8.19	2.2	2-12-19 13:00	0.01	1135	7.69	11.8	2-12-19 13:00	-0.07	1608	7.94	1.7	7-13-19 6:45	21.17	1667	7.37	8.5	5-14-19 1:45	14.38	1044	8.46	6.7					
2-12-19 14:00	-0.03	719	8.19	2.2	2-12-19 13:15	0.01	1140	7.69	13.1	2-12-19 13:15	-0.08	1615	7.95	1.9	7-13-19 7:00	21.12	1666	7.48	8.5	5-14-19 2:00	14.34	1045	8.46	6.7					
2-12-19 14:15	-0.03	720	8.19	2.1	2-12-19 13:30	-0.03	1149	7.69	7.2	2-12-19 13:30	-0.08	1615	7.95	1.8	7-13-19 7:15	21.06	1666	6.90	8.5	5-14-19 2:15	14.25	1044	8.46	6.5					
2-12-19 14:30	-0.04	811	8.16	2.3	2-12-19 13:45	-0.03	1148	7.69	11.3	2-12-19 13:45	-0.08	1614	7.95	1.6	7-13-19 7:30	21.00	1668	7.77	8.5	5-14-19 2:30	14.22	1044	8.46	6.8					
2-12-19 14:45	-0.04	808	8.19	2.1	2-12-19 14:00	-0.02	1142	7.69	15.2	2-12-19 14:00	-0.06	1612	7.95	1.6	7-13-19 7:45	20.96	1667	6.83	8.5	5-14-19 2:45	14.18	1044	8.46	6.0					
2-12-19 15:00	-0.03	808	8.19	2.1	2-12-19 14:15	-0.01	1144	7.69	9.0	2-12-19 14:15	-0.07	1611	7.94	1.6	7-13-19 8:00	20.91	1666	6.93	8.5	5-14-19 3:00	14.10	1044	8.46	6.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-12-19 15:15	-0.04	808	8.19	2.1	2-12-19 14:30	-0.01	1144	7.69	4.2	2-12-19 14:30	-0.06	1610	7.94	1.7	7-13-19 8:15	20.86	1668	6.95	8.5	5-14-19 3:15	14.00	1045	8.45	6.0					
2-12-19 15:30	-0.04	710	8.16	2.4	2-12-19 14:45	-0.01	1143	7.69	3.9	2-12-19 14:45	-0.06	1610	7.94	1.7	7-13-19 8:30	20.82	1668	6.66	8.5	5-14-19 3:30	14.03	1045	8.46	6.6					
2-12-19 15:45	-0.04	720	8.16	2.4	2-12-19 15:00	-0.01	1144	7.69	4.1	2-12-19 15:00	-0.06	1609	7.94	1.6	7-13-19 8:45	20.78	1667	6.68	8.5	5-14-19 3:45	13.99	1044	8.46	6.0					
2-12-19 16:00	-0.04	719	8.21	2.2	2-12-19 15:15	-0.01	1143	7.69	3.9	2-12-19 15:15	-0.06	1609	7.95	1.5	7-13-19 9:00	20.70	1668	6.67	8.5	5-14-19 4:00	13.96	1045	8.46	5.9					
2-12-19 16:15	-0.04	719	8.21	2.2	2-12-19 15:30	-0.01	1145	7.69	3.9	2-12-19 15:30	-0.06	1609	7.95	1.5	7-13-19 9:15	20.65	1668	6.63	8.5	5-14-19 4:15	13.87	1044	8.46	5.7					
2-12-19 16:30	-0.04	719	8.21	2.1	2-12-19 15:45	-0.01	1146	7.69	3.7	2-12-19 15:45	-0.06	1609	7.95	1.5	7-13-19 9:30	20.62	1668	8.75	8.5	5-14-19 4:30	13.83	1044	8.46	6.1					
2-12-19 16:45	-0.04	719	8.21	2.1	2-12-19 16:00	-0.01	1146	7.69	3.6	2-12-19 16:00	-0.06	1609	7.95	1.6	7-13-19 9:45	20.60	1666	7.18	8.5	5-14-19 4:45	13.77	1045	8.46	6.1					
2-12-19 17:00	-0.08	727	6.92	2.2	2-12-19 16:15	0.00	1150	7.69	4.7	2-12-19 16:15	-0.07	1609	7.94	1.6	7-13-19 10:00	20.58	1667	6.67	8.5	5-14-19 5:00	13.70	1045	8.46	5.9					
2-12-19 17:15	-0.05	726	8.16	2.1	2-12-19 16:30	0.00	1144	7.69	5.9	2-12-19 16:30	-0.06	1609	7.94	1.7	7-13-19 10:15	20.51	1667	6.70	8.5	5-14-19 5:15	13.62	1045	8.45	5.8					
2-12-19 17:30	-0.05	726	8.19	2.1	2-12-19 16:45	0.00	1139	7.69	3.3	2-12-19 16:45	-0.06	1609	7.94	1.6	7-13-19 10:30	20.48	1667	6.64	8.5	5-14-19 5:30	13.59	1045	8.46	6.1					
2-12-19 17:45	-0.05	726	8.20	2.1	2-12-19 17:00	0.00	1139	7.69	3.0	2-12-19 17:00	-0.06	1609	7.94	1.6	7-13-19 10:45	20.44	1667	7.52	8.5	5-14-19 5:45	13.57	1044	8.46	6.1					
2-12-19 18:00	-0.05	781	8.21	2.1	2-12-19 17:15	0.00	1169	7.69	3.1	2-12-19 17:15	-0.06	1609	7.95	1.5	7-13-19 11:00	20.38	1668	6.47	8.5	5-14-19 6:00	13.56	1045	8.46	5.7					
2-12-19 18:15	-0.05	781	8.21	2.1	2-12-19 17:30	0.00	1144	7.69	2.8	2-12-19 17:30	-0.06	1609	7.95	1.6	7-13-19 11:15	20.38	1667	9.20	8.5	5-14-19 6:15	13.53	1044	8.46	5.7					
2-12-19 18:30	-0.05	781	8.21	2.0	2-12-19 17:45	0.00	1143	7.69	2.9	2-12-19 17:45	-0.06	1609	7.95	1.5	7-13-19 11:30	20.35	1667	6.73	8.5	5-14-19 6:30	13.48	1045	8.46	6.3					
2-12-19 18:45	-0.05	782	8.21	2.0	2-12-19 18:00	0.00	1147	7.69	2.9	2-12-19 18:00	-0.06	1610	7.95	1.5	7-13-19 11:45	20.32	1667	6.69	8.5	5-14-19 6:45	13.42	1044	8.46	6.0					
2-12-19 19:00	-0.05	720	8.21	2.0	2-12-19 18:15	0.00	1149	7.69	3.0	2-12-19 18:15	-0.06	1610	7.95	1.6	7-13-19 12:00	20.26	1667	6.99	8.5	5-14-19 7:00	13.41	1045	8.46	7.0					
2-12-19 19:15	-0.06	721	8.21	2.0	2-12-19 18:30	0.00	1148	7.69	3.0	2-12-19 18:30	-0.05	1611	7.94	1.6	7-13-19 12:15	20.23	1666	6.87	8.5	5-14-19 7:15	13.39	1045	8.45	5.5					
2-12-19 19:30	-0.05	721	8.20	2.0	2-12-19 18:45	0.00	1150	7.69	3.1	2-12-19 18:45	-0.05	1611	7.94	1.6	7-13-19 12:30	20.17	1666	7.15	8.5	5-14-19 7:30	13.42	1045	8.46	6.2					
2-12-19 19:45	-0.06	721	8.20	2.0	2-12-19 19:00	0.00	1148	7.69	3.2	2-12-19 19:00	-0.06	1612	7.94	1.6	7-13-19 12:45	20.13	1668	7.01	8.5	5-14-19 7:45	13.48	1044	8.46	5.4					
2-12-19 20:00	-0.06	804	8.21	2.1	2-12-19 19:15	0.00	1147	7.69	3.7	2-12-19 19:15	-0.06	1613	7.95	1.6	7-13-19 13:00	20.11	1668	6.35	8.5	5-14-19 8:00	13.53	1044	8.46	6.0					
2-12-19 20:15	-0.06	805	8.21	2.1	2-12-19 19:30	0.00	1149	7.69	3.8	2-12-19 19:30	-0.06	1614	7.95	1.5	7-13-19 13:15	20.05	1668	7.38	8.5	5-14-19 8:15	13.56	1044	8.46	6.1					
2-12-19 20:30	-0.06	806	8.20	2.0	2-12-19 19:45	0.00	1152	7.69	3.2	2-12-19 19:45	-0.06	1615	7.95	1.6	7-13-19 13:30	20.03	1666	8.39	8.5	5-14-19 8:30	13.62	1044	8.46	5.6					
2-12-19 20:45	-0.06	806	8.20	2.0	2-12-19 20:00	0.00	1148	7.68	3.2	2-12-19 20:00	-0.06	1616	7.95	1.6	7-13-19 13:45	20.00	1668	7.09	8.5	5-14-19 8:45	13.66	1043	8.46	5.7					
2-12-19 21:00	-0.06	722	8.21	2.1	2-12-19 20:15	0.00	1150	7.68	3.6	2-12-19 20:15	-0.07	1617	7.95	1.6	7-13-19 14:00	20.00	1667	7.87	8.5	5-14-19 9:00	13.72	1044	8.46	5.8					
2-12-19 21:15	-0.06	722	8.20	2.0	2-12-19 20:30	0.00	1151	7.68	3.3	2-12-19 20:30	-0.07	1618	7.95	1.6	7-13-19 14:15	20.00	1667	7.23	8.5	5-14-19 9:15	13.78	1044	8.45	6.1					
2-12-19 21:30	-0.06	722	8.20	2.0	2-12-19 20:45	0.00	1154	7.68	2.6	2-12-19 20:45	-0.07	1619	7.95	1.6	7-13-19 14:30	20.00	1664	7.41	8.5	5-14-19 9:30	13.99	1045	8.46	5.5					
2-12-19 21:45	-0.06	722	8.20	2.0	2-12-19 21:00	0.00	1153	7.68	3.0	2-12-19 21:00	-0.07	1620	7.95	1.6	7-13-19 14:45	20.05	1667	8.01	8.5	5-14-19 9:45	14.11	1044	8.46	9.9					
2-12-19 22:00	-0.06	817	8.21	2.0	2-12-19 21:15	0.01	1153	7.68	3.8	2-12-19 21:15	-0.07	1621	7.95	1.6	7-13-19 15:00	20.09	1665	7.33	8.5	5-14-19 10:00	14.25	1044	8.45	9.2					
2-12-19 22:15	-0.06	818	8.21	2.0	2-12-19 21:30	0.01	1149	7.68	4.3	2-12-19 21:30	-0.07	1622	7.95	1.5	7-13-19 15:15	20.13	1666	8.92	8.5	5-14-19 10:15	14.50	1044	8.45	12.2					
2-12-19 22:30	-0.06	818	8.20	2.0	2-12-19 21:45	0.01	1150	7.68	5.1	2-12-19 21:45	-0.07	1623	7.95	1.5	7-13-19 15:30	20.20	1667	7.31	8.5	5-14-19 10:30	14.51	1042	8.45	8.4					
2-12-19 22:45	-0.06	819	8.20	2.0	2-12-19 22:00	0.00	1150	7.68	5.6	2-12-19 22:00	-0.07	1623	7.95	1.6	7-13-19 15:45	20.31	1666	7.67	8.5	5-14-19 10:45	14.77	1044	8.44	12.3					
2-12-19 23:00					2-12-19 22:15	0.00	1151	7.68	6.9	2-12-19 22:15	-0.07	1624	7.93	1.6	7-13-19 16:00	20.34	1667	7.38	8.5	5-14-19 11:00	14.89	1043	8.44	16.1					
2-12-19 23:15	-0.06	718	8.20	2.1	2-12-19 22:30	0.01	1150	7.68	7.6	2-12-19 22:30	-0.07	1624	7.93	1.6	7-13-19 16:15	20.43	1667	6.66	8.4	5-14-19 11:15	14.82	1044	8.44	7.9					
2-12-19 23:30	-0.06	719	8.20	2.1	2-12-19 22:45	0.01	1165	7.68	9.2	2-12-19 22:45	-0.07	1625	7.93	1.6	7-13-19 16:30	20.52	1667	7.02	8.5	5-14-19 11:30	15.15	1044	8.44	26.8					
2-12-19 23:45	-0.06	719	8.20	2.0	2-12-19 23:00	0.01	1149	7.68	5.0	2-12-19 23:00	-0.07	1626	7.92	1.5	7-13-19 16:45	20.62	1666	7.10	8.5	5-14-19 12:30	15.56	1046	8.43	14.9					
2-13-19 0:00	-0.07	797	8.20	2.0	2-12-19 23:15	0.01	1154	7.68	12.1	2-12-19 23:15	-0.07	1625	7.92	1.6	7-13-19 17:00	20.68	1665	6.90	8.4	5-14-19 12:45	15.55	1045	8.44	14.8					
2-13-19 0:15	-0.07	797	8.20	2.0	2-12-19 23:30	0.01	1149	7.68	2.9	2-12-19 23:30	-0.06	1624	7.93	1.6	7-13-19 17:15	20.78	1667	7.19	8.5	5-14-19 13:00	15.57	1046	8.44	17.8					
2-13-19 0:30	-0.07	718	8.17	2.3	2-12-19 23:45	0.01	1154	7.68	3.1	2-12-19 23:45	-0.05	1622	7.91	2.0	7-13-19 17:30	20.80	1664	7.23	8.5	5-14-19 13:15	15.70	1044	8.43	14.2					
2-13-19 0:45	-0.07	717	8.20	2.0	2-13-19 0:00	0.00	1153	7.68	3.3	2-13-19 0:00	-0.05	1622	7.90	1.9	7-13-19 17:45	20.86	1667	7.60	8.5	5-14-19 13:30	15.62	1045	8.44	10.5					
2-13-19 1:00	-0.07	718	8.19	2.0	2-13-19 0:15	0.00	1151	7.68	3.7	2-13-19 0:15	-0.05	1622	7.89	1.8	7-13-19 18:00	20.95	1665	7.92	8.5	5-14-19 13:45	15.63	1043	8.44	11.7					
2-13-19 1:15	-0.07	718	8.19	2.0	2-13-19 0:30	0.00	1155	7.68	3.2	2-13-19 0:30	-0.05	1622	7.88	1.7	7-13-19 18:15	20.92	1666	7.14	8.5	5-14-19 14:00	15.63	1046	8.44	12.2					
2-13-19 1:30	-0.07	831	8.16	2.2	2-13-19 0:45	0.00	1156	7.68	3.4	2-13-19 0:45	-0.05	1622	7.88	1.7	7-13-19 18:30	20.96	1667	8.27	8.5	5-14-19 14:15	15.62	1045	8.45	11.8					
2-13-19 1:45					2-13-19 1:00	0.00	1155	7.68	3.0	2-13-19 1:00	-0.06	1623	7.88	1.7	7-13-19 18:45	20.98	1666	7.85	8.5	5-14-19 14:30	15.55	1044	8.45	10.7					
2-13-19 2:00	-0.07	829	8.19	2.0	2-13-19 1:15	0.00	1156	7.68	2.9	2-13-19 1:15	-0.05	1623	7.87	1.6	7-13-19 19:00	21.12	1667	8.42	8.5	5-14-19 14:45	15.45	1048	8.45	13.2					
2-13-19 2:15	-0.07	830	8.19	2.0	2-13-19 1:30	0.00	1157	7.68	3.0	2-13-19 1:30	-0.06	1623	7.86	1.7	7-13-19 19:15	21.75	1671	7.06	8.4	5-14-19 15:00	15.35	1049	8.46	15.0					
2-13-19 2:30	-0.07	721	8.16	2.2	2-13-19 1:45	0.00	1156	7.68	3.1	2-13-19 1:45	-0.05	1623	7.86	1.5	7-13-19 19:30	22.00	1671	7.68	8.4	5-14-19 15:15	15.36	1047	8.45	9.1					
2-13-19 2:45	-0.07	720	8.20	2.1	2-13-19 2:00	0.00	1156	7.68	2.7	2-13-19 2:00	-0.05	1623	7.86	1.6	7-13-19 19:45	22.36	1673	7.09	8.4	5-14-19 15:30	15.36	1047	8.46	9.6					
2-13-19 3:00	-0.07	720	8.19	2.1	2-13-19 2:15	0.00	1157	7.68	2.9	2-13-19 2:15	-0.04	1623	7.88	1.7	7-13-19 20:00	22.49	1669	7.15	8.4	5-14-19 15:45	15.40	1045	8.46	11.1					
2-13-19 3:15	-0.07	720	8.19	2.1	2-13-19 2:30	0.00	1158	7.68	2.2	2-13-19 2:30	-0.05	1623	7.87	1.6	7-13-19 20:15	22.26	1667	6.52	8.4	5-14-19 16:00	15.37	1045	8.46	8.6					
2-13-19 3:30	-0.07	813	8.16	2.2	2-13-19 2:45	0.01	1158	7.68	3.1	2-13-19 2:45	-0.05	1624	7.87	1.7	7-13-19 20:30	21.47	1663	10.33	8.5	5-14-19 16:15	15.36	1046	8.46	9.0					
2-13-19 3:45	-0.07	812	8.20	2.0	2-13-19 3:00	0.00	1162	7.68	3.1	2-13-19 3:00	-0.05	1624	7.87	1.7	7-13-19 20:45	21.51	1667	13.41	8.5	5-14-19 16:30	15.31	1045	8.46	7.6					
2-13-19 4:00	-0.07	813	8.19	2.0	2-13-19 3:15	0.01	1157	7.68	3.2	2-13-19 3:15	-0.05	1624	7.85	1.5	7-13-19 21:00	21.55	1667	11.54	8.5	5-14-19 16:45	15.29	1047	8.46	7.8					
2-13-19 4:15	-0.07	813	8.19	2.0	2-13-19 3:30	0.01	1160	7.68	3.4	2-13-19 3:30	-0.05	1624	7.86	1.5	7-13-19 21:15	21.56	1667	9.33	8.5	5-14-19 17:00	15.30	1048	8.46	8.2					
2-13-19 4:30	-0.07	717	8.15	2.2	2-13-19 3:45	0.01	1159	7.68	4.6	2-13-19 3:45	-0.05	1625	7.86	1.6	7-13-19 21:30	21.62	1668	8.95	8.5	5-14-19 17:15	15.21	1045	8.46	10.1					
2-13-19 4:45	-0.07	715	8.19	2.0	2-13-19 4:00	0.01	1159	7.68	6.7	2-13-19 4:00	-0.05	1624	7.86	1.5	7-13-19 21:45	21.84	1670	8.64	8.5	5-14-19 17:30	15.22	1046	8.47	6.6					
2-13-19 5:00	-0.07	716	8.19	2.1	2-13-19 4:15	0.01	1160	7.68	7.1	2-13-19 4:15	-0.05	1624	7.87	1.6	7-13-19 22:00	22.42	1670	9.73	8.4	5-14-19 17:45	15.16	1045	8.47	7.5					
2-13-19 5:15	-0.07	716	8.18	2.0	2-13-19 4:30	0.01	1160	7.68	8.6	2-13-19 4:30	-0.06	1624	7.86	1.6	7-13-19 22:15	22.50	1667	9.98	8.5	5-14-19 18:00	15.18	1046	8.47	7.1					
2-13-19 5:30	-0.07	821	8.15	2.1	2-13-19 4:45	0.01	1159	7.68	12.1	2-13-19 4:45	-0.06	1625	7.85	1.6	7-13-19 22:30	22.42	1669	7.51	8.5	5-14-19 18:15	15.16	1045	8.47	7.1					
2-13-19 5:45	-0.07	819	8.19	2.1	2-13-19 5:00	0.00	1160	7.68	13.7	2-13-19 5:00	-0.06	1625	7.84	1.5	7-13-19 22:45	22.31	1668	7.01	8.5	5-14-19 18:30	15.15	1045	8.47	9.3					
2-13-19 6:00	-0.07	819	8.18	2.0	2-13-19 5:15	0.00	1161	7.68	5.3	2-13-19 5:15	-0.06	1624	7.85	1.6	7-13-19 23:00	22.54	1672	8.31	8.5	5-14-19 18:45	15.12	1045	8.47	7.8					
2-13-19 6:15	-0.07	723	8.15	2.1	2-13-19 5:30	0.00	1163	7.68	5.6	2-13-19 5:30	-0.06	1624	7.85	1.5	7-13-19 23:15	22.88	1671	8.51	8.4	5-14-19 19:00	15.09	1046	8.47	7.0					
2-13-19 6:30	-0.07	722	8.19	2.0	2-13-19 5:45	0.00	1163	7.68	3.8	2-13-19 5:45	-0.06	1625	7.85	1.6	7-13-19 23:30	23.59	1673	7.69	8.5	5-14-19 19:15	15.04	1047	8.47	7.6					
2-13-19 6:45	-0.07	722	8.18	2.0	2-13-19 6:00	0.00	1166	7.68	3.2	2-13-19 6:00	-0.06	1625	7.84	1.6	7-13-19 23:45	23.60	1674	9.45	8.5	5-14-19 19:30	14.97	1045	8.48	7.8					
2-13-19 7:00	-0.07	722	8.18	2.0	2-13-19 6:15	0.00	1160	7.68	4.1	2-13-19 6:15	-0.06	1625	7.84	1.7	7-14-19 0:00	23.58	1673	9.30	8.5	5-14-19 19:45	14.93	1045	8.48	9.7					
2-13-19 7:15	-0.07	815	8.15	2.6	2-13-19 6:30	0.00	1164	7.68	6.3	2-13-19 6:30	-0.06	1625	7.84	1.8	7-14-19 0:15	23.52	1674	9.58	8.5	5-14-19 20:00	14.89	1047	8.48	7.2					
2-13-19 7:30	-0.07	812	8.19	2.0	2-13-19 6:45	0.00	1168	7.68	11.8	2-13-19 6:45	-0.06	1624	7.85	1.7	7-14-19 0:30	23.50	1674	8.68	8.5	5-14-19 20:15	14.90	1047	8.48	7.3					
2-13-19 7:45	-0.07	812	8.19	2.0	2-13-19 7:00	0.00	1164	7.68	12.7	2-13-19 7:00	-0.06	1624	7.85	1.8	7-14-19 0:45	23.53	1674	8.57	8.5	5-14-19 20:30	14.88	1047	8.48	6.3					
2-13-19 8:00	-0.07	813	8.19	2.0	2-13-19 7:15	0.00	1169	7.68	3.2	2-13-19 7:15	-0.07	1624	7.85	1.7	7-14-19 1:00	23.57	1674	8.58	8.5	5-14-19 20:45	14.87	1047	8.48	6.8					
2-13-19 8:15	-0.07	721	8.16	2.1	2-13-19 7:30	0.00	1166	7.68	2.9	2-13-19 7:30	-0.06	1624	7.85	1.6	7-14-19 1:15	23.61	1674	8.23	8.5	5-14-19 21:00	14.84	1048	8.48	5.9					
2-13-19 8:30	-0.07	719	8.19	2.0	2-13-19 7:45	0.00	1172	7.68	3.4	2-13-19 7:45	-0.06	1624	7.85	1.7	7-14-19 1:30	23.34	1669	8.81	8.5	5-14-19 21:15	14.78	1047	8.47	6.4					
2-13-19 8:45	-0.07	720	8.18	2.0	2-13-19 8:00	0.00	1172	7.68	4.1	2-13-19 8:00	-0.06	1624	7.85	1.7	7-14-19 1:45	22.55	1661	8.17	8.5	5-14-19 21:30	14.81	1044	8.48	6.1					
2-13-19 9:00	-0.07	720	8.18	1.9	2-13-19 8:15	0.00	1170	7.68	4.1	2-13-19 8:15	-0.06	1624	7.85	1.9	7-14-19 2:00	22.26	1666	9.91	8.5	5-14-19 21:45	14.78	1050	8.47	5.7					
2-13-19 9:15	-0.07	833	8.15	2.2	2-13-19 8:30	0.00	1168	7.68	5.0	2-13-19 8:30	-0.06	1624	7.85	1.9	7-14-19 2:15	23.30	1678	7.91	8.5	5-14-19 22:00	14.76	1047	8.48	7.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-13-19 9:30	-0.07	831	8.18	2.1	2-13-19 8:45	0.00	1170	7.68	5.5	2-13-19 8:45	-0.06	1624	7.85	1.9	7-14-19 2:30	23.40	1675	7.38	8.5	5-14-19 22:15	14.72	1047	8.48	5.9					
2-13-19 9:45	-0.07	831	8.18	2.0	2-13-19 9:00	0.00	1173	7.68	11.0	2-13-19 9:00	-0.06	1623	7.85	1.9	7-14-19 2:45	23.41	1674	7.11	8.5	5-14-19 22:30	14.66	1046	8.48	6.3					
2-13-19 10:00	-0.07	831	8.18	2.0	2-13-19 9:15	-0.01	1171	7.68	2.6	2-13-19 9:15	-0.06	1622	7.86	2.0	7-14-19 3:00	23.35	1676	6.33	8.5	5-14-19 22:45	14.65	1047	8.48	5.7					
2-13-19 10:15	-0.07	726	8.15	2.2	2-13-19 9:30	0.00	1176	7.68	2.7	2-13-19 9:30	-0.06	1623	7.86	1.9	7-14-19 3:15	23.28	1674	8.74	8.5	5-14-19 23:00	14.66	1047	8.48	6.7					
2-13-19 10:30	-0.07	724	8.19	2.0	2-13-19 9:45	0.00	1174	7.68	2.8	2-13-19 9:45	-0.06	1622	7.86	1.9	7-14-19 3:30	23.23	1674	6.66	8.5	5-14-19 23:15	14.64	1046	8.47	5.8					
2-13-19 10:45	-0.07	725	8.18	1.9	2-13-19 10:00	0.00	1176	7.68	3.3	2-13-19 10:00	-0.05	1621	7.86	2.0	7-14-19 3:45	23.18	1676	7.00	8.5	5-14-19 23:30	14.64	1046	8.47	6.3					
2-13-19 11:00	-0.07	725	8.18	1.9	2-13-19 10:15	-0.01	1176	7.68	4.0	2-13-19 10:15	-0.06	1621	7.86	2.0	7-14-19 4:00	23.12	1676	6.16	8.5	5-14-19 23:45	14.61	1046	8.48	8.1					
2-13-19 11:15	-0.07	824	8.15	2.2	2-13-19 10:30	0.00	1176	7.68	5.5	2-13-19 10:30	-0.06	1620	7.85	2.0	7-14-19 4:15	23.02	1675	6.25	8.5	5-15-19 0:00	14.58	1047	8.48	5.7					
2-13-19 11:30	-0.07	822	8.18	2.1	2-13-19 10:45	-0.01	1178	7.68	7.1	2-13-19 10:45	-0.05	1620	7.85	2.1	7-14-19 4:30	22.95	1676	6.31	8.5	5-15-19 0:15	14.56	1046	8.47	5.7					
2-13-19 11:45					2-13-19 11:00	-0.01	1177	7.68	8.8	2-13-19 11:00	-0.05	1620	7.85	2.0	7-14-19 4:45	22.84	1674	5.89	8.5	5-15-19 0:30	14.53	1047	8.47	6.0					
2-13-19 12:00	-0.07	823	8.18	2.1	2-13-19 11:15	-0.01	1178	7.67	3.5	2-13-19 11:15	-0.05	1620	7.86	2.0	7-14-19 5:00	22.76	1675	5.60	8.5	5-15-19 0:45	14.50	1046	8.47	5.7					
2-13-19 12:15	-0.07	720	8.15	2.1	2-13-19 11:30	-0.01	1177	7.67	4.1	2-13-19 11:30	-0.06	1620	7.86	1.8	7-14-19 5:15	22.69	1675	5.93	8.5	5-15-19 1:00	14.47	1046	8.47	6.0					
2-13-19 12:30	-0.07	719	8.19	2.0	2-13-19 11:45	-0.04	1186	7.67	3.4	2-13-19 11:45	-0.06	1620	7.86	1.9	7-14-19 5:30	22.60	1676	5.88	8.5	5-15-19 1:15	14.46	1046	8.47	5.6					
2-13-19 12:45	-0.07	720	8.18	2.0	2-13-19 12:00	-0.03	1183	7.68	4.5	2-13-19 12:00	-0.06	1621	7.86	2.2	7-14-19 5:45	22.54	1675	5.84	8.5	5-15-19 1:30	14.45	1046	8.47	6.2					
2-13-19 13:00	-0.07	720	8.18	2.1	2-13-19 12:15	-0.03	1181	7.68	4.9	2-13-19 12:15	-0.07	1626	7.86	2.6	7-14-19 6:00	22.47	1674	5.43	8.5	5-15-19 1:45	14.44	1046	8.47	5.6					
2-13-19 13:15	-0.09	829	8.15	2.3	2-13-19 13:15	-0.03	1185	7.67	4.8	2-13-19 13:15	-0.06	1623	7.87	2.4	7-14-19 6:15	22.40	1674	5.40	8.5	5-15-19 2:00	14.41	1046	8.47	6.1					
2-13-19 13:30	-0.08	827	8.17	2.1	2-13-19 13:30	-0.03	1186	7.67	14.7	2-13-19 13:30	-0.06	1621	7.87	2.4	7-14-19 6:30	22.32	1674	5.83	8.5	5-15-19 2:15	14.39	1046	8.47	5.8					
2-13-19 13:45	-0.07	827	8.17	2.2	2-13-19 13:45	-0.02	1187	7.68	2.9	2-13-19 13:45	-0.07	1621	7.87	2.2	7-14-19 6:45	22.22	1673	5.61	8.5	5-15-19 2:30	14.36	1046	8.47	7.2					
2-13-19 14:00	-0.06	826	8.17	2.2	2-13-19 14:00	-0.02	1184	7.67	2.7	2-13-19 14:00	-0.07	1621	7.87	2.4	7-14-19 7:00	22.14	1674	5.66	8.5	5-15-19 2:45	14.33	1046	8.47	5.8					
2-13-19 14:15	-0.06	748	8.14	2.2	2-13-19 14:15	-0.02	1184	7.68	2.9	2-13-19 14:15	-0.07	1621	7.86	2.5	7-14-19 7:15	22.05	1674	5.72	8.5	5-15-19 3:00	14.32	1046	8.47	5.3					
2-13-19 14:30	-0.05	746	8.17	2.1	2-13-19 14:30	-0.02	1183	7.67	3.0	2-13-19 14:30	-0.07	1621	7.87	2.4	7-14-19 7:30	21.96	1674	6.11	8.5	5-15-19 3:15	14.27	1047	8.46	5.6					
2-13-19 14:45	-0.05	746	8.17	2.1	2-13-19 14:45	-0.02	1186	7.67	2.9	2-13-19 14:45	-0.07	1621	7.87	2.6	7-14-19 7:45	21.89	1674	6.74	8.5	5-15-19 3:30	14.27	1048	8.47	5.6					
2-13-19 15:00	-0.04	745	8.16	2.1	2-13-19 15:00	-0.02	1189	7.67	2.7	2-13-19 15:00	-0.07	1621	7.87	2.5	7-14-19 8:00	21.78	1673	5.75	8.5	5-15-19 3:45	14.23	1048	8.46	5.7					
2-13-19 15:15	-0.05	817	8.14	2.2	2-13-19 15:15	-0.02	1187	7.67	2.8	2-13-19 15:15	-0.07	1621	7.87	2.2	7-14-19 8:15	21.70	1676	5.61	8.5	5-15-19 4:00	14.21	1048	8.46	5.8					
2-13-19 15:30	-0.04	815	8.17	2.1	2-13-19 15:30	-0.02	1188	7.67	2.8	2-13-19 15:30	-0.07	1621	7.88	2.4	7-14-19 8:30	21.60	1675	5.79	8.5	5-15-19 4:15	14.19	1047	8.46	5.4					
2-13-19 15:45	-0.04	815	8.16	2.2	2-13-19 15:45	-0.02	1189	7.67	2.8	2-13-19 15:45	-0.08	1621	7.88	2.5	7-14-19 8:45	21.51	1673	5.69	8.5	5-15-19 4:30	14.16	1048	8.46	5.5					
2-13-19 16:00	-0.04	815	8.16	2.2	2-13-19 16:00	-0.01	1187	7.67	2.7	2-13-19 16:00	-0.08	1621	7.88	2.4	7-14-19 9:00	21.43	1673	5.57	8.5	5-15-19 4:45	14.12	1048	8.46	5.5					
2-13-19 16:15	-0.04	746	8.13	2.2	2-13-19 16:15	-0.01	1187	7.67	2.9	2-13-19 16:15	-0.08	1621	7.87	2.5	7-14-19 9:15	21.34	1675	5.75	8.5	5-15-19 5:00	14.12	1048	8.46	5.8					
2-13-19 16:30	-0.03	744	8.16	2.2	2-13-19 16:30	-0.01	1190	7.67	3.3	2-13-19 16:30	-0.08	1621	7.87	2.5	7-14-19 9:30	21.26	1675	5.54	8.5	5-15-19 5:15	14.07	1048	8.45	5.6					
2-13-19 16:45	-0.04	744	8.16	2.2	2-13-19 16:45	-0.01	1188	7.67	3.9	2-13-19 16:45	-0.08	1621	7.87	2.6	7-14-19 9:45	21.18	1673	9.07	8.5	5-15-19 5:30	14.06	1048	8.46	5.5					
2-13-19 17:00	-0.03	744	8.16	2.2	2-13-19 17:00	-0.01	1191	7.67	4.4	2-13-19 17:00	-0.08	1621	7.87	2.6	7-14-19 10:00	21.11	1675	6.18	8.5	5-15-19 5:45	14.06	1048	8.46	5.2					
2-13-19 17:15	-0.04	836	8.13	2.4	2-13-19 17:15	-0.01	1188	7.67	5.4	2-13-19 17:15	-0.08	1621	7.88	2.4	7-14-19 10:15	21.01	1674	5.50	8.5	5-15-19 6:00	14.04	1048	8.46	5.6					
2-13-19 17:30	-0.03	829	8.16	2.2	2-13-19 17:30	-0.01	1189	7.67	7.1	2-13-19 17:30	-0.08	1621	7.88	2.2	7-14-19 10:30	20.94	1674	5.68	8.5	5-15-19 6:15	14.03	1048	8.46	5.3					
2-13-19 17:45	-0.03	828	8.15	2.2	2-13-19 17:45	-0.01	1194	7.67	2.7	2-13-19 17:45	-0.08	1621	7.87	2.5	7-14-19 10:45	20.88	1674	5.65	8.5	5-15-19 6:30	14.01	1048	8.46	5.1					
2-13-19 18:00	-0.03	828	8.15	2.1	2-13-19 18:00	-0.01	1188	7.67	2.7	2-13-19 18:00	-0.07	1621	7.88	2.3	7-14-19 11:00	20.80	1675	5.59	8.5	5-15-19 6:45	13.97	1048	8.46	5.2					
2-13-19 18:15	-0.04	741	8.12	2.2	2-13-19 18:15	-0.01	1189	7.67	2.8	2-13-19 18:15	-0.08	1621	7.86	2.6	7-14-19 11:15	20.71	1674	5.96	8.5	5-15-19 7:00	13.99	1049	8.46	6.1					
2-13-19 18:30	-0.03	739	8.16	2.1	2-13-19 18:30	-0.01	1189	7.67	2.7	2-13-19 18:30	-0.08	1621	7.86	2.6	7-14-19 11:30	20.67	1674	5.63	8.5	5-15-19 7:15	13.96	1049	8.45	5.0					
2-13-19 18:45	-0.03	739	8.15	2.1	2-13-19 18:45	-0.01	1189	7.67	2.6	2-13-19 18:45	-0.08	1619	7.87	2.8	7-14-19 11:45	20.59	1674	6.35	8.5	5-15-19 7:30	13.98	1049	8.46	5.2					
2-13-19 19:00	-0.03	738	8.15	2.1	2-13-19 19:00	-0.01	1189	7.67	2.2	2-13-19 19:00	-0.07	1619	7.87	2.7	7-14-19 12:00	20.50	1674	6.64	8.5	5-15-19 7:45	14.00	1049	8.46	5.5					
2-13-19 19:15	-0.04	830	8.12	2.2	2-13-19 19:15	-0.01	1188	7.67	2.6	2-13-19 19:15	-0.07	1618	7.87	2.5	7-14-19 12:15	20.44	1673	5.97	8.5	5-15-19 8:00	14.02	1049	8.46	5.2					
2-13-19 19:30	-0.03	827	8.15	2.1	2-13-19 19:30	-0.01	1194	7.67	2.7	2-13-19 19:30	-0.07	1617	7.87	2.7	7-14-19 12:30	20.40	1674	6.41	8.5	5-15-19 8:15	14.06	1048	8.46	4.9					
2-13-19 19:45	-0.03	826	8.15	2.2	2-13-19 19:45	-0.01	1191	7.67	2.9	2-13-19 19:45	-0.07	1617	7.87	2.7	7-14-19 12:45	20.32	1673	6.39	8.5	5-15-19 8:30	14.09	1049	8.46	5.8					
2-13-19 20:00	-0.03	826	8.15	2.2	2-13-19 20:00	-0.01	1192	7.67	3.2	2-13-19 20:00	-0.05	1612	7.87	2.7	7-14-19 13:00	20.27	1675	6.74	8.5	5-15-19 8:45	14.10	1049	8.46	6.3					
2-13-19 20:15	-0.04	748	8.12	2.2	2-13-19 20:15	-0.01	1191	7.67	3.4	2-13-19 20:15	-0.05	1612	7.86	2.9	7-14-19 13:15	20.18	1674	6.62	8.5	5-15-19 9:00	14.10	1050	8.46	5.4					
2-13-19 20:30	-0.03	746	8.15	2.2	2-13-19 20:30	-0.01	1189	7.67	5.3	2-13-19 20:30	-0.04	1612	7.86	2.9	7-14-19 13:30	20.14	1675	6.46	8.5	5-15-19 9:15	14.09	1051	8.46	5.8					
2-13-19 20:45	-0.03	745	8.15	2.1	2-13-19 20:45	-0.01	1190	7.67	3.6	2-13-19 20:45	0.02	1610	7.85	3.4	7-14-19 13:45	20.11	1672	6.57	8.5	5-15-19 9:30	14.10	1051	8.47	5.6					
2-13-19 21:00	-0.03	745	8.15	2.1	2-13-19 21:00	-0.01	1193	7.67	3.1	2-13-19 21:00	0.00	1606	7.84	3.1	7-14-19 14:00	20.10	1675	7.27	8.5	5-15-19 9:45	14.20	1052	8.47	9.1					
2-13-19 21:15	-0.03	853	8.12	2.2	2-13-19 21:15	-0.01	1192	7.67	3.0	2-13-19 21:15	-0.04	1608	7.86	2.9	7-14-19 14:15	20.07	1675	7.31	8.5	5-15-19 10:00	14.29	1053	8.47	5.5					
2-13-19 21:30	-0.03	849	8.15	2.1	2-13-19 21:30	-0.01	1192	7.66	2.5	2-13-19 21:30	-0.05	1608	7.86	2.8	7-14-19 14:30	20.06	1674	7.01	8.5	5-15-19 10:15	14.50	1052	8.47	6.0					
2-13-19 21:45	-0.03	849	8.15	2.1	2-13-19 21:45	-0.01	1194	7.67	2.5	2-13-19 21:45	-0.06	1608	7.86	3.0	7-14-19 14:45	20.04	1673	7.57	8.5	5-15-19 10:30	14.53	1052	8.47	7.1					
2-13-19 22:00	-0.03	748	8.13	2.3	2-13-19 22:00	-0.01	1192	7.66	2.5	2-13-19 22:00	-0.06	1607	7.86	2.8	7-14-19 15:00	20.03	1675	7.81	8.5	5-15-19 10:45	14.47	1051	8.47	7.1					
2-13-19 22:15	-0.02	745	8.15	2.2	2-13-19 22:15	-0.01	1193	7.66	2.4	2-13-19 22:15	-0.05	1607	7.86	2.9	7-14-19 15:15	20.04	1673	7.93	8.5	5-15-19 11:00	14.50	1053	8.47	7.5					
2-13-19 22:30	-0.02	745	8.15	2.2	2-13-19 22:30	-0.01	1195	7.66	2.5	2-13-19 22:30	-0.07	1607	7.85	3.0	7-14-19 15:30	20.09	1674	7.59	8.5	5-15-19 11:15	14.35	1053	8.47	30.5					
2-13-19 22:45	-0.02	745	8.15	2.1	2-13-19 22:45	-0.01	1192	7.66	2.4	2-13-19 22:45	-0.07	1607	7.85	2.9	7-14-19 15:45	20.14	1674	7.09	8.5	5-15-19 11:30	14.32	1055	8.48	18.0					
2-13-19 23:00	-0.02	845	8.12	2.4	2-13-19 23:00	-0.01	1195	7.66	2.6	2-13-19 23:00	-0.08	1608	7.85	3.0	7-14-19 16:00	20.20	1672	7.48	8.5	5-15-19 11:45	14.39	1056	8.48	14.4					
2-13-19 23:15	-0.02	842	8.15	2.1	2-13-19 23:15	-0.01	1195	7.66	2.0	2-13-19 23:15	-0.08	1608	7.86	2.8	7-14-19 16:15	20.27	1674	6.99	8.5	5-15-19 12:00	14.35	1058	8.48	13.0					
2-13-19 23:30	-0.02	843	8.15	2.0	2-13-19 23:30	-0.01	1196	7.66	2.6	2-13-19 23:30	-0.07	1607	7.86	2.6	7-14-19 16:30	20.40	1674	7.49	8.5	5-15-19 12:15	14.24	1058	8.48	14.9					
2-13-19 23:45	-0.01	844	8.15	2.0	2-13-19 23:45	-0.01	1199	7.66	2.5	2-13-19 23:45	0.09	1604	7.85	2.9	7-14-19 16:45	20.40	1674	7.68	8.5	5-15-19 12:30	14.27	1058	8.48	10.1					
2-14-19 0:00	-0.02	751	8.12	2.2	2-14-19 0:00	-0.01	1197	7.66	2.6	2-14-19 0:00	-0.02	1608	7.86	2.8	7-14-19 17:00	20.47	1675	7.31	8.5	5-15-19 12:45	14.26	1058	8.48	13.5					
2-14-19 0:15	-0.02	750	8.16	2.1	2-14-19 0:15	-0.02	1196	7.66	2.1	2-14-19 0:15	0.11	1608	7.85	3.8	7-14-19 17:15	20.54	1673	7.78	8.5	5-15-19 13:00	14.36	1059	8.48	16.2					
2-14-19 0:30	-0.01	750	8.15	2.1	2-14-19 0:30	-0.02	1199	7.66	2.4	2-14-19 0:30	0.15	1605	7.85	3.6	7-14-19 17:30	20.67	1675	7.35	8.5	5-15-19 13:15	14.41	1060	8.47	12.5					
2-14-19 0:45	-0.01	750	8.15	2.1	2-14-19 0:45	-0.02	1197	7.66	2.6	2-14-19 0:45	-0.01	1603	7.84	3.1	7-14-19 17:45	20.83	1676	6.97	8.5	5-15-19 13:30	14.40	1062	8.48	9.8					
2-14-19 1:00	-0.02	845	8.12	2.2	2-14-19 1:00	-0.02	1198	7.66	2.8	2-14-19 1:00	-0.03	1604	7.84	3.0	7-14-19 18:00	20.89	1676	7.73	8.5	5-15-19 13:45	14.35	1061	8.49	9.6					
2-14-19 1:15	-0.01	843	8.15	2.1	2-14-19 1:15	-0.02	1202	7.66	2.7	2-14-19 1:15	0.16	1606	7.85	3.7	7-14-19 18:15	20.93	1677	7.46	8.5	5-15-19 14:00	14.29	1061	8.49	8.5					
2-14-19 1:30	-0.01	843	8.15	1.9	2-14-19 1:30	-0.02	1198	7.65	3.1	2-14-19 1:30	0.07	1603	7.85	2.8	7-14-19 18:30	21.00	1676	7.70	8.5	5-15-19 14:15	14.25	1060	8.49	9.1					
2-14-19 1:45	-0.01	846	8.14	2.2	2-14-19 1:45	-0.02	1199	7.65	2.7	2-14-19 1:45	0.00	1603	7.85	2.7	7-14-19 18:45	21.06	1677	7.80	8.5	5-15-19 14:30	14.18	1059	8.49	9.1					
2-14-19 2:00	-0.02	765	8.12	2.1	2-14-19 2:00	-0.02	1202	7.66	3.0	2-14-19 2:00	-0.02	1603	7.85	2.6	7-14-19 19:00	21.10	1676	8.07	8.5	5-15-19 14:45	14.15	1059	8.49	8.7					
2-14-19 2:15	-0.02	763	8.19	2.0	2-14-19 2:15	-0.02	1202	7.65	2.4	2-14-19 2:15	0.04	1607	7.86	3.9	7-14-19 19:15	21.14	1675	8.01	8.5	5-15-19 15:00	14.20	1059	8.49	7.1					
2-14-19 2:30	-0.01	763	8.18	2.0	2-14-19 2:30	-0.02	1203	7.65	2.3	2-14-19 2:30	0.12	1603	7.85	3.9	7-14-19 19:30	21.22	1674	8.11	8.5	5-15-19 15:15	14.25	1058	8.48	8.9					
2-14-19 2:45	-0.01	763	8.17	1.9	2-14-19 2:45	-0.02	1203	7.65	2.4	2-14-19 2:45	-0.01	1603	7.85	3.1	7-14-19 19:45	21.33	1676	9.67	8.5	5-15-19 15:30	14.33	1059	8.49	8.6					
2-14-19 3:00	-0.02	858	8.14	2.1	2-14-19 3:00	-0.02	1204	7.65	1.9	2-14-19 3:00	-0.05	1603	7.85	2.9	7-14-19 20:00	21.33	1676	8.47	8.5	5-15-19 15:45	14.23	1058	8.50	13.1					
2-14-19 3:15	-0.02	858	8.21	2.0	2-14-19 3:15	-0.02	1204	7.65	2.4	2-14-19 3:15	-0.06	1601	7.86	2.7	7-14-19 20:15	21.45	1677	8.02	8.5	5-15-19 16:00	14.16	1058	8.50	8.2					
2-14-19 3:30	-0.01	857	8.20	2.0	2-14-19 3:30	-0.02	1204	7.65	1.9	2-14-19 3:30	-0.07	1600	7.86	2.9	7-14-19 20:30	21.52	1677	8.23	8.5	5-15-19 16:15	14.10	1060	8.50	8.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-14-19 3:45	-0.01	858	8.19	1.9	2-14-19 3:45	-0.02	1202	7.65	2.3	2-14-19 3:45	-0.06	1600	7.86	2.6	7-14-19 20:45	21.64	1676	8.40	8.5	5-15-19 16:30	14.11	1060	8.50	7.3					
2-14-19 4:00	-0.02	765	8.15	2.0	2-14-19 4:00	-0.02	1204	7.65	2.5	2-14-19 4:00	-0.07	1599	7.86	2.6	7-14-19 21:00	21.72	1677	7.71	8.5	5-15-19 16:45	14.08	1059	8.50	8.0					
2-14-19 4:15	-0.02	764	8.19	2.0	2-14-19 4:15	-0.01	1204	7.65	2.9	2-14-19 4:15	-0.03	1600	7.86	3.1	7-14-19 21:30	22.11	1687	8.18	8.5	5-15-19 17:00	14.07	1059	8.50	7.6					
2-14-19 4:30	-0.02	764	8.18	1.9	2-14-19 4:30	-0.01	1204	7.65	3.7	2-14-19 4:30	-0.06	1599	7.85	2.7	7-14-19 21:45	22.22	1687	8.11	8.5	5-15-19 17:15	14.09	1059	8.50	7.3					
2-14-19 4:45	-0.01	764	8.18	1.9	2-14-19 4:45	-0.02	1206	7.65	2.6	2-14-19 4:45	-0.06	1602	7.85	2.9	7-14-19 22:00	22.46	1688	8.38	8.5	5-15-19 17:30	14.14	1059	8.50	7.3					
2-14-19 5:00	-0.02	857	8.15	2.1	2-14-19 5:00	-0.02	1206	7.65	3.3	2-14-19 5:00	0.12	1603	7.84	3.7	7-14-19 22:15	22.60	1688	8.33	8.5	5-15-19 17:45	14.14	1059	8.50	7.1					
2-14-19 5:15	-0.02	856	8.20	2.0	2-14-19 5:15	-0.02	1207	7.65	2.3	2-14-19 5:15	0.08	1604	7.85	3.9	7-14-19 22:30	22.70	1688	8.20	8.5	5-15-19 18:00	14.10	1059	8.51	7.5					
2-14-19 5:30	-0.01	858	8.20	2.0	2-14-19 5:30	-0.02	1206	7.65	2.3	2-14-19 5:30	0.08	1605	7.85	3.6	7-14-19 22:45	22.87	1689	8.34	8.5	5-15-19 18:15	14.04	1058	8.51	7.5					
2-14-19 5:45	-0.01	858	8.19	1.9	2-14-19 5:45	-0.01	1204	7.65	2.4	2-14-19 5:45	0.05	1605	7.85	3.3	7-14-19 23:00	22.84	1688	8.55	8.5	5-15-19 18:30	14.01	1060	8.51	6.9					
2-14-19 6:00	-0.02	767	8.17	2.1	2-14-19 6:00	-0.02	1207	7.65	2.5	2-14-19 6:00	0.12	1603	7.85	3.8	7-14-19 23:15	23.01	1689	7.93	8.5	5-15-19 18:45	14.00	1059	8.51	7.3					
2-14-19 6:15	-0.01	766	8.20	2.1	2-14-19 6:15	-0.01	1208	7.65	2.6	2-14-19 6:15	0.15	1604	7.84	4.4	7-14-19 23:30	23.00	1689	8.53	8.5	5-15-19 19:00	14.01	1059	8.51	6.5					
2-14-19 6:30	-0.01	766	8.20	2.0	2-14-19 6:30	-0.02	1207	7.65	2.9	2-14-19 6:30	0.12	1602	7.85	3.8	7-14-19 23:45	22.88	1690	7.94	8.5	5-15-19 19:15	13.91	1059	8.50	7.8					
2-14-19 6:45	-0.01	778	8.20	1.9	2-14-19 6:45	-0.01	1207	7.65	2.5	2-14-19 6:45	0.12	1603	7.85	3.7	7-15-19 0:00	22.92	1689	8.14	8.5	5-15-19 19:30	13.91	1059	8.51	6.6					
2-14-19 7:00	-0.01	778	8.20	1.9	2-14-19 7:00	-0.01	1207	7.65	3.3	2-14-19 7:00	0.12	1602	7.85	3.6	7-15-19 0:15	22.89	1690	7.53	8.5	5-15-19 19:45	13.84	1058	8.51	6.9					
2-14-19 7:15	-0.01	778	8.19	1.9	2-14-19 7:15	-0.01	1211	7.65	2.9	2-14-19 7:15	0.12	1603	7.84	3.8	7-15-19 0:30	22.83	1690	7.12	8.5	5-15-19 20:00	13.83	1059	8.52	6.8					
2-14-19 7:30	-0.02	778	8.19	2.0	2-14-19 7:30	-0.01	1209	7.65	2.4	2-14-19 7:30	0.03	1604	7.85	3.4	7-15-19 0:45	22.77	1689	7.86	8.5	5-15-19 20:15	13.83	1059	8.51	7.1					
2-14-19 7:45	-0.02	862	8.20	1.9	2-14-19 7:45	-0.01	1209	7.65	2.5	2-14-19 7:45	0.10	1604	7.85	3.7	7-15-19 1:00	22.67	1690	8.03	8.5	5-15-19 20:30	13.81	1059	8.51	6.7					
2-14-19 8:00	-0.02	862	8.20	1.9	2-14-19 8:00	-0.01	1213	7.65	2.9	2-14-19 8:00	0.12	1604	7.85	3.7	7-15-19 1:15	22.62	1690	7.58	8.5	5-15-19 20:45	13.77	1059	8.51	6.9					
2-14-19 8:15	-0.02	863	8.20	1.8	2-14-19 8:15	-0.01	1212	7.65	4.6	2-14-19 8:15	0.10	1602	7.85	3.7	7-15-19 1:30	22.55	1689	6.87	8.5	5-15-19 21:00	13.75	1059	8.51	7.2					
2-14-19 8:30	-0.02	863	8.20	1.8	2-14-19 8:30	-0.02	1210	7.65	6.3	2-14-19 8:30	0.03	1601	7.84	3.2	7-15-19 1:45	22.54	1690	7.80	8.5	5-15-19 21:15	13.71	1059	8.50	6.4					
2-14-19 8:45					2-14-19 8:45	-0.01	1212	7.65	7.8	2-14-19 8:45	-0.01	1600	7.84	3.3	7-15-19 2:00	22.49	1688	7.41	8.5	5-15-19 21:30	13.72	1059	8.51	6.7					
2-14-19 9:00	-0.02	751	8.20	2.0	2-14-19 9:00	-0.01	1212	7.65	2.3	2-14-19 9:00	0.02	1600	7.85	3.6	7-15-19 2:15	22.45	1690	7.33	8.5	5-15-19 21:45	13.72	1059	8.51	6.5					
2-14-19 9:15	-0.02	752	8.20	1.9	2-14-19 9:15	-0.01	1216	7.65	2.3	2-14-19 9:15	0.03	1604	7.85	3.4	7-15-19 2:30	22.39	1690	7.00	8.5	5-15-19 22:00	13.69	1059	8.51	6.8					
2-14-19 9:30	-0.03	752	8.19	1.9	2-14-19 9:30	-0.01	1214	7.65	2.2	2-14-19 9:30	-0.01	1596	7.86	3.1	7-15-19 2:45	22.36	1689	7.22	8.5	5-15-19 22:15	13.68	1059	8.51	6.1					
2-14-19 9:45	-0.02	865	8.21	1.9	2-14-19 9:45	-0.01	1208	7.65	2.5	2-14-19 9:45	-0.02	1594	7.86	2.9	7-15-19 3:00	22.34	1689	7.16	8.5	5-15-19 22:30	13.62	1059	8.51	7.0					
2-14-19 10:00	-0.02	864	8.21	1.9	2-14-19 10:00	-0.01	1215	7.65	2.6	2-14-19 10:00	-0.03	1592	7.86	3.1	7-15-19 3:15	22.28	1689	7.41	8.5	5-15-19 22:45	13.58	1058	8.51	6.3					
2-14-19 10:15	-0.02	864	8.21	1.9	2-14-19 10:15	-0.01	1216	7.65	2.2	2-14-19 10:15	-0.03	1591	7.85	3.1	7-15-19 3:30	22.23	1689	7.42	8.5	5-15-19 23:00	13.52	1059	8.51	6.4					
2-14-19 10:30	-0.02	864	8.21	1.8	2-14-19 10:30	-0.01	1213	7.65	2.4	2-14-19 10:30	-0.03	1588	7.86	3.0	7-15-19 3:45	22.19	1688	7.54	8.5	5-15-19 23:15	13.48	1060	8.50	6.2					
2-14-19 10:45	-0.04	758	8.21	1.9	2-14-19 10:45	-0.01	1211	7.65	2.3	2-14-19 10:45	-0.04	1586	7.86	2.8	7-15-19 4:00	22.13	1689	7.06	8.5	5-15-19 23:30	13.53	1060	8.51	6.6					
2-14-19 11:00	-0.03	757	8.22	1.9	2-14-19 11:00	-0.01	1213	7.65	2.8	2-14-19 11:00	-0.05	1586	7.85	2.8	7-15-19 4:15	22.07	1688	7.43	8.5	5-15-19 23:45	13.49	1059	8.50	6.1					
2-14-19 11:15	-0.03	757	8.21	1.8	2-14-19 11:15	-0.01	1215	7.65	2.4	2-14-19 11:15	-0.06	1585	7.86	2.6	7-15-19 4:30	22.00	1688	7.58	8.5	5-16-19 0:00	13.47	1059	8.50	6.3					
2-14-19 11:30	-0.03	757	8.21	1.7	2-14-19 11:30	-0.01	1215	7.65	3.0	2-14-19 11:30	-0.06	1584	7.86	2.7	7-15-19 4:45	21.92	1689	7.49	8.5	5-16-19 0:15	13.42	1058	8.50	6.3					
2-14-19 11:45	-0.03	874	8.22	2.0	2-14-19 11:45	-0.04	1226	7.66	2.8	2-14-19 11:45	-0.06	1582	7.86	2.5	7-15-19 5:00	21.85	1688	8.07	8.5	5-16-19 0:30	13.40	1059	8.50	5.8					
2-14-19 12:00	-0.03	874	8.22	1.9	2-14-19 12:00	-0.04	1223	7.66	2.9	2-14-19 12:00	-0.07	1582	7.86	2.4	7-15-19 5:15	21.78	1687	8.68	8.5	5-16-19 0:45	13.40	1059	8.50	7.1					
2-14-19 12:15					2-14-19 12:15	-0.04	1224	7.66	3.7	2-14-19 12:15	-0.08	1587	7.86	3.0	7-15-19 5:30	21.70	1688	8.78	8.5	5-16-19 1:00	13.40	1060	8.50	6.5					
2-14-19 12:30	-0.03	874	8.23	1.9	2-14-19 12:30	-0.03	1222	7.66	5.7	2-14-19 12:30	-0.09	1587	7.85	2.7	7-15-19 5:45	21.64	1687	9.07	8.5	5-16-19 1:15	13.34	1059	8.49	5.8					
2-14-19 12:45	-0.03	773	8.22	1.9	2-14-19 12:45	-0.02	1220	7.66	8.5	2-14-19 12:45	-0.10	1587	7.85	2.6	7-15-19 6:00	21.59	1686	7.83	8.5	5-16-19 1:30	13.31	1060	8.50	6.4					
2-14-19 13:00	-0.02	774	8.22	1.9	2-14-19 13:00	-0.02	1222	7.66	8.8	2-14-19 13:00	-0.10	1587	7.85	2.5	7-15-19 6:15	21.55	1687	7.90	8.5	5-16-19 1:45	13.26	1059	8.50	5.7					
2-14-19 13:15	-0.07	956	8.05	2.9	2-14-19 13:15	-0.02	1220	7.66	2.4	2-14-19 13:15	-0.10	1584	7.86	2.5	7-15-19 6:30	21.50	1686	7.99	8.5	5-16-19 2:00	13.21	1059	8.50	6.1					
2-14-19 13:30	-0.05	946	8.06	2.7	2-14-19 13:30	-0.02	1221	7.65	2.5	2-14-19 13:30	-0.10	1588	7.87	2.6	7-15-19 6:45	21.46	1687	7.65	8.5	5-16-19 2:15	13.18	1059	8.50	6.3					
2-14-19 13:45	-0.05	944	8.06	2.6	2-14-19 13:45	-0.02	1220	7.65	2.7	2-14-19 13:45	-0.10	1592	7.87	2.5	7-15-19 7:00	21.41	1687	7.39	8.5	5-16-19 2:30	13.18	1059	8.50	6.9					
2-14-19 14:00	-0.04	943	8.06	2.6	2-14-19 14:00	-0.02	1222	7.65	3.8	2-14-19 14:00	-0.11	1591	7.87	2.6	7-15-19 7:15	21.37	1686	7.82	8.5	5-16-19 2:45	13.20	1059	8.50	6.3					
2-14-19 14:15	-0.04	1094	8.04	2.7	2-14-19 14:15	-0.02	1223	7.65	2.8	2-14-19 14:15	-0.07	1598	7.86	2.7	7-15-19 7:30	21.32	1686	7.67	8.5	5-16-19 3:00	13.19	1060	8.50	6.0					
2-14-19 14:30	-0.04	934	8.03	2.8	2-14-19 14:30	-0.02	1222	7.65	2.0	2-14-19 14:30	-0.06	1601	7.85	3.3	7-15-19 7:45	21.27	1687	8.36	8.5	5-16-19 3:15	13.14	1060	8.49	6.2					
2-14-19 14:45	-0.03	933	8.06	2.7	2-14-19 14:45	-0.02	1220	7.65	1.6	2-14-19 14:45	-0.08	1604	7.85	2.7	7-15-19 8:00	21.23	1685	8.31	8.5	5-16-19 3:30	13.10	1059	8.49	5.6					
2-14-19 15:00	-0.02	933	8.05	2.7	2-14-19 15:00	-0.01	1221	7.65	2.2	2-14-19 15:00	-0.09	1606	7.85	2.6	7-15-19 8:15	21.18	1686	7.87	8.5	5-16-19 3:45	13.03	1059	8.49	5.6					
2-14-19 15:15					2-14-19 15:15	-0.01	1222	7.65	2.3	2-14-19 15:15	-0.10	1604	7.86	2.2	7-15-19 8:30	21.14	1687	8.07	8.5	5-16-19 4:00	13.05	1060	8.50	6.0					
2-14-19 15:30	-0.02	1038	8.03	2.7	2-14-19 15:30	-0.01	1222	7.65	2.8	2-14-19 15:30	-0.10	1610	7.87	2.6	7-15-19 8:45	21.09	1688	7.63	8.5	5-16-19 4:15	13.04	1060	8.50	6.4					
2-14-19 15:45	-0.02	1036	8.05	2.6	2-14-19 15:45	-0.02	1223	7.65	3.1	2-14-19 15:45	-0.10	1608	7.87	2.7	7-15-19 9:00	21.05	1686	8.82	8.5	5-16-19 4:30	13.03	1060	8.49	6.7					
2-14-19 16:00	-0.01	1036	8.05	2.5	2-14-19 16:00	-0.02	1221	7.65	3.4	2-14-19 16:00	-0.10	1608	7.87	3.0	7-15-19 9:15	21.02	1688	10.05	8.5	5-16-19 4:45	12.98	1059	8.49	5.9					
2-14-19 16:15	-0.01	1035	8.05	2.6	2-14-19 16:15	-0.02	1219	7.65	5.8	2-14-19 16:15	-0.10	1607	7.87	2.4	7-15-19 9:30	20.99	1687	7.65	8.5	5-16-19 5:00	12.96	1060	8.48	6.2					
2-14-19 16:30	-0.02	941	8.03	2.8	2-14-19 16:30	-0.02	1222	7.65	4.5	2-14-19 16:30	-0.10	1608	7.86	2.5	7-15-19 9:45	20.94	1687	7.31	8.5	5-16-19 5:15	12.84	1060	8.48	5.8					
2-14-19 16:45	-0.01	940	8.05	2.7	2-14-19 16:45	-0.02	1225	7.65	9.3	2-14-19 16:45	-0.10	1608	7.86	2.6	7-15-19 10:00	20.88	1686	7.59	8.5	5-16-19 5:30	12.83	1060	8.49	6.4					
2-14-19 17:00	-0.01	941	8.05	2.6	2-14-19 17:00	-0.02	1222	7.65	5.7	2-14-19 17:00	-0.10	1609	7.86	2.8	7-15-19 10:15	20.83	1687	7.66	8.5	5-16-19 5:45	12.82	1059	8.49	6.2					
2-14-19 17:15	-0.01	941	8.05	2.8	2-14-19 17:15	-0.02	1226	7.65	2.3	2-14-19 17:15	-0.11	1610	7.87	2.6	7-15-19 10:30	20.76	1686	9.53	8.5	5-16-19 6:00	12.84	1060	8.49	6.2					
2-14-19 17:30	-0.01	1051	8.03	2.6	2-14-19 17:30	-0.01	1227	7.65	2.7	2-14-19 17:30	-0.09	1612	7.87	3.4	7-15-19 10:45	20.73	1687	7.63	8.5	5-16-19 6:15	12.80	1059	8.49	6.6					
2-14-19 17:45	-0.01	1049	8.05	2.6	2-14-19 17:45	-0.02	1221	7.65	2.4	2-14-19 17:45	-0.04	1606	7.86	3.1	7-15-19 11:00	20.70	1687	7.60	8.5	5-16-19 6:30	12.79	1060	8.49	6.3					
2-14-19 18:00	-0.01	1048	8.05	2.5	2-14-19 18:00	-0.01	1224	7.65	2.5	2-14-19 18:00	-0.06	1609	7.86	3.5	7-15-19 11:15	20.65	1687	8.01	8.5	5-16-19 6:45	12.77	1060	8.49	6.1					
2-14-19 18:15	-0.01	1048	8.05	2.5	2-14-19 18:15	-0.01	1224	7.65	2.3	2-14-19 18:15	-0.07	1610	7.86	3.0	7-15-19 11:30	20.59	1687	7.53	8.5	5-16-19 7:00	12.74	1060	8.49	6.2					
2-14-19 18:30	-0.02	927	8.03	2.8	2-14-19 18:30	-0.01	1226	7.65	3.9	2-14-19 18:30	-0.08	1610	7.87	3.0	7-15-19 11:45	20.51	1685	7.82	8.5	5-16-19 7:15	12.73	1060	8.48	5.4					
2-14-19 18:45	-0.01	927	8.05	2.7	2-14-19 18:45	-0.01	1227	7.65	3.6	2-14-19 18:45	-0.09	1609	7.86	2.9	7-15-19 12:00	20.44	1685	7.83	8.5	5-16-19 7:30	12.72	1060	8.49	5.7					
2-14-19 19:00	-0.02	927	8.04	2.6	2-14-19 19:00	-0.01	1223	7.65	2.5	2-14-19 19:00	-0.10	1610	7.87	2.7	7-15-19 12:15	20.42	1687	8.60	8.5	5-16-19 7:45	12.71	1059	8.50	6.0					
2-14-19 19:15	-0.02	928	8.04	2.7	2-14-19 19:15	-0.01	1224	7.65	2.1	2-14-19 19:15	-0.10	1611	7.87	3.1	7-15-19 12:30	20.36	1687	7.66	8.5	5-16-19 8:00	12.74	1060	8.50	6.4					
2-14-19 19:30	-0.04	1059	8.02	2.7	2-14-19 19:30	-0.01	1227	7.65	2.3	2-14-19 19:30	-0.10	1615	7.87	3.0	7-15-19 12:45	20.31	1688	7.86	8.5	5-16-19 8:15	12.71	1060	8.50	6.3					
2-14-19 19:45	-0.04	1058	8.04	2.6	2-14-19 19:45	-0.01	1228	7.65	2.1	2-14-19 19:45	-0.10	1615	7.87	3.1	7-15-19 13:00	20.25	1687	7.63	8.5	5-16-19 8:30	12.65	1062	8.50	6.4					
2-14-19 20:00	-0.03	1058	8.04	2.5	2-14-19 20:00	0.00	1227	7.65	2.2	2-14-19 20:00	-0.10	1615	7.87	2.9	7-15-19 13:15	20.20	1687	9.15	8.5	5-16-19 8:45	12.62	1062	8.50	6.8					
2-14-19 20:15	-0.03	1058	8.04	2.5	2-14-19 20:15	-0.01	1226	7.65	2.5	2-14-19 20:15	-0.10	1610	7.87	2.7	7-15-19 13:30	20.17	1688	8.80	8.5	5-16-19 9:00	12.60	1064	8.50	6.8					
2-14-19 20:30	-0.03	935	8.02	2.7	2-14-19 20:30	-0.01	1227	7.65	2.6	2-14-19 20:30	-0.10	1610	7.87	2.8	7-15-19 13:45	20.13	1687	7.96	8.5	5-16-19 9:15	12.59	1063	8.50	7.8					
2-14-19 20:45	-0.03	933	8.04	2.6	2-14-19 20:45	-0.01	1227	7.65	3.2	2-14-19 20:45	-0.10	1610	7.86	2.9	7-15-19 14:00	20.10	1687	8.06	8.5	5-16-19 9:30	12.69	1065	8.50	6.8					
2-14-19 21:00	-0.03	934	8.04	2.6	2-14-19 21:00	-0.01	1228	7.65	2.9	2-14-19 21:00	-0.10	1609	7.86	2.9	7-15-19 14:15	20.10	1688	7.69	8.5	5-16-19 9:45	12.71	1065	8.50	6.9					
2-14-19 21:15	-0.03	934	8.04	2.6	2-14-19 21:15	-0.01	1226	7.65	2.2	2-14-19 21:15	-0.10	1613	7.87	2.7	7-15-19 14:30	20.08	1687	7.50	8.5	5-16-19 10:00	12.72	1065	8.50	6.2					
2-14-19 21:30	-0.03	1052	8.02	2.7	2-14-19 21:30	-0.01	1239	7.65	2.5	2-14-19 21:30	-0.10	1614	7.87	2.8	7-15-19 14:45	20.09	1687	8.17	8.5	5-16-19 10:15	12.68	1066	8.50	6.9					
2-14-19 21:45	-0.03	1049	8.04	2.5	2-14-19 21:45	-0.01	1226	7.65	2.3	2-14-19 21:45	-0.10	1615	7.87	2.9	7-15-19 15:00	20.10	1686	8.51	8.5	5-16-19 10:30	12.68	1068	8.51	14.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-14-19 22:00	-0.03	1049	8.04	2.5	2-14-19 22:00	-0.01	1228	7.65	3.7	2-14-19 22:00	-0.10	1613	7.87	2.7	7-15-19 15:15	20.11	1687	7.72	8.5	5-16-19 10:45	12.64	1067	8.51	17.8					
2-14-19 22:15	-0.03	1048	8.04	2.6	2-14-19 22:15	-0.01	1234	7.65	5.2	2-14-19 22:15	-0.10	1610	7.86	2.8	7-15-19 15:30	20.14	1686	8.26	8.5	5-16-19 11:00	12.64	1068	8.51	13.2					
2-14-19 22:30	-0.03	934	8.02	2.8	2-14-19 22:30	-0.01	1229	7.65	3.7	2-14-19 22:30	-0.10	1610	7.86	3.0	7-15-19 15:45	20.26	1685	7.68	8.5	5-16-19 11:15	12.69	1068	8.50	9.7					
2-14-19 22:45	-0.03	931	8.04	2.6	2-14-19 22:45	-0.01	1222	7.65	2.2	2-14-19 22:45	-0.10	1609	7.86	2.9	7-15-19 16:00	20.36	1686	7.91	8.5	5-16-19 11:30	12.79	1070	8.51	8.8					
2-14-19 23:00	-0.03	931	8.03	2.6	2-14-19 23:00	-0.01	1230	7.65	2.1	2-14-19 23:00	-0.10	1609	7.86	3.0	7-15-19 16:15	20.43	1685	7.96	8.5	5-16-19 11:45	12.83	1069	8.51	20.2					
2-14-19 23:15	-0.03	931	8.03	2.5	2-14-19 23:15	-0.01	1226	7.65	2.2	2-14-19 23:15	-0.09	1611	7.87	2.7	7-15-19 16:30	20.51	1685	7.68	8.5	5-16-19 12:00	12.83	1070	8.51	16.4					
2-14-19 23:30	-0.03	1052	8.01	2.7	2-14-19 23:30	-0.01	1230	7.65	2.2	2-14-19 23:30	-0.10	1610	7.87	2.8	7-15-19 16:45	20.56	1685	7.22	8.5	5-16-19 12:15	12.94	1068	8.51	22.3					
2-14-19 23:45	-0.03	1049	8.03	2.5	2-14-19 23:45	-0.01	1236	7.65	2.1	2-14-19 23:45	-0.11	1612	7.88	2.7	7-15-19 17:00	20.64	1685	7.58	8.5	5-16-19 12:30	12.96	1069	8.51	29.4					
2-15-19 0:00	-0.03	1048	8.03	2.5	2-15-19 0:00	-0.01	1231	7.65	2.4	2-15-19 0:00	-0.11	1612	7.87	2.6	7-15-19 17:15	20.77	1686	7.36	8.5	5-16-19 12:45	13.17	1070	8.50	22.2					
2-15-19 0:15	-0.03	1048	8.03	2.6	2-15-19 0:15	-0.01	1232	7.65	3.1	2-15-19 0:15	-0.10	1607	7.87	2.6	7-15-19 17:30	20.85	1685	7.57	8.5	5-16-19 13:00	13.20	1069	8.50	15.3					
2-15-19 0:30	-0.03	935	8.01	2.8	2-15-19 0:30	-0.01	1230	7.65	4.3	2-15-19 0:30	-0.10	1606	7.87	2.6	7-15-19 17:45	20.88	1686	7.64	8.5	5-16-19 13:15	13.28	1070	8.49	18.2					
2-15-19 0:45	-0.02	934	8.04	2.7	2-15-19 0:45	-0.01	1232	7.65	1.9	2-15-19 0:45	-0.10	1606	7.86	2.6	7-15-19 18:00	20.88	1687	7.64	8.5	5-16-19 13:30	13.25	1069	8.50	11.4					
2-15-19 1:00	-0.02	934	8.04	2.6	2-15-19 1:00	-0.01	1230	7.65	2.0	2-15-19 1:00	-0.10	1607	7.87	2.6	7-15-19 18:15	20.95	1687	8.09	8.5	5-16-19 13:45	13.15	1069	8.51	15.1					
2-15-19 1:15	-0.02	934	8.03	2.6	2-15-19 1:15	-0.01	1232	7.65	2.1	2-15-19 1:15	-0.11	1612	7.88	2.6	7-15-19 18:30	21.03	1688	8.26	8.5	5-16-19 14:00	13.05	1069	8.51	10.2					
2-15-19 1:30	-0.03	1044	8.01	2.7	2-15-19 1:30	-0.01	1232	7.65	2.1	2-15-19 1:30	-0.10	1613	7.87	2.5	7-15-19 18:45	21.22	1689	8.01	8.5	5-16-19 14:15	12.98	1068	8.51	10.7					
2-15-19 1:45	-0.02	1041	8.03	2.5	2-15-19 1:45	-0.01	1234	7.65	2.1	2-15-19 1:45	-0.11	1612	7.87	2.6	7-15-19 19:00	21.99	1694	9.11	8.4	5-16-19 14:30	12.94	1069	8.52	13.0					
2-15-19 2:00	-0.02	1041	8.03	2.5	2-15-19 2:00	-0.01	1229	7.65	2.6	2-15-19 2:00	-0.11	1612	7.87	2.7	7-15-19 19:15	22.37	1693	7.69	8.4	5-16-19 14:45	12.93	1068	8.52	11.3					
2-15-19 2:15	-0.03	1041	8.03	2.5	2-15-19 2:15	-0.01	1231	7.65	2.0	2-15-19 2:15	-0.10	1609	7.87	2.5	7-15-19 19:30	22.55	1692	7.74	8.4	5-16-19 15:00	12.87	1068	8.52	15.6					
2-15-19 2:30	-0.03	928	8.01	2.7	2-15-19 2:30	-0.01	1231	7.65	2.1	2-15-19 2:30	-0.10	1610	7.88	2.5	7-15-19 19:45	22.70	1694	7.55	8.4	5-16-19 15:15	12.82	1068	8.51	12.4					
2-15-19 2:45	-0.03	921	8.03	2.6	2-15-19 2:45	-0.01	1233	7.65	1.9	2-15-19 2:45	-0.10	1611	7.87	2.7	7-15-19 20:00	22.87	1694	8.11	8.4	5-16-19 15:30	12.84	1068	8.52	10.6					
2-15-19 3:00	-0.03	921	8.03	2.6	2-15-19 3:00	-0.01	1235	7.65	2.3	2-15-19 3:00	-0.09	1611	7.87	2.8	7-15-19 20:15	23.13	1697	7.77	8.4	5-16-19 15:45	12.83	1067	8.52	13.4					
2-15-19 3:15	-0.03	921	8.03	2.6	2-15-19 3:15	-0.01	1237	7.65	2.9	2-15-19 3:15	-0.10	1615	7.88	3.3	7-15-19 20:30	23.36	1693	8.36	8.4	5-16-19 16:00	12.79	1068	8.52	10.8					
2-15-19 3:30	-0.03	1069	8.01	2.6	2-15-19 3:30	-0.01	1235	7.64	2.4	2-15-19 3:30	-0.10	1612	7.88	3.5	7-15-19 20:45	23.40	1695	8.11	8.5	5-16-19 16:15	12.77	1068	8.52	10.3					
2-15-19 3:45	-0.03	1066	8.03	2.4	2-15-19 3:45	-0.01	1241	7.65	2.9	2-15-19 3:45	-0.10	1608	7.88	3.8	7-15-19 21:00	23.74	1697	8.39	8.5	5-16-19 16:30	12.74	1069	8.53	9.5					
2-15-19 4:00	-0.03	1066	8.03	2.5	2-15-19 4:00	-0.01	1236	7.65	5.7	2-15-19 4:00	-0.10	1611	7.89	3.5	7-15-19 21:15	23.59	1695	8.00	8.5	5-16-19 16:45	12.73	1069	8.52	10.1					
2-15-19 4:15	-0.02	1066	8.03	2.6	2-15-19 4:15	-0.01	1233	7.65	6.0	2-15-19 4:15	-0.10	1612	7.89	2.9	7-15-19 21:30	23.76	1694	8.22	8.5	5-16-19 17:00	12.73	1069	8.52	9.4					
2-15-19 4:30	-0.03	932	8.01	2.8	2-15-19 4:30	-0.01	1236	7.65	3.3	2-15-19 4:30	-0.10	1614	7.89	2.7	7-15-19 21:45	23.81	1695	7.98	8.5	5-16-19 17:15	12.71	1069	8.52	9.6					
2-15-19 4:45					2-15-19 4:45	-0.01	1235	7.65	11.7	2-15-19 4:45	-0.04	1610	7.89	4.2	7-15-19 22:00	24.06	1698	8.40	8.5	5-16-19 17:30	12.71	1069	8.52	8.9					
2-15-19 5:00					2-15-19 5:00	-0.01	1236	7.65	2.3	2-15-19 5:00	-0.05	1609	7.88	3.5	7-15-19 22:15	24.15	1698	8.14	8.5	5-16-19 17:45	12.69	1068	8.52	8.2					
2-15-19 5:15	-0.02	932	8.03	2.6	2-15-19 5:15	-0.01	1238	7.64	2.1	2-15-19 5:15	-0.08	1612	7.89	3.6	7-15-19 22:30	24.15	1697	8.03	8.5	5-16-19 18:00	12.70	1069	8.52	8.9					
2-15-19 5:30	-0.03	1032	8.01	2.6	2-15-19 5:30	-0.01	1238	7.64	2.1	2-15-19 5:30	-0.06	1607	7.89	4.1	7-15-19 22:45	24.38	1699	8.71	8.5	5-16-19 18:15	12.69	1068	8.52	8.6					
2-15-19 5:45	-0.02	1029	8.03	2.5	2-15-19 5:45	-0.02	1240	7.64	2.1	2-15-19 5:45	-0.03	1606	7.89	4.7	7-15-19 23:00	24.32	1696	8.24	8.5	5-16-19 18:30	12.66	1069	8.53	10.5					
2-15-19 6:00	-0.02	1029	8.03	2.6	2-15-19 6:00	-0.01	1238	7.64	2.4	2-15-19 6:00	-0.07	1606	7.89	3.8	7-15-19 23:15	24.39	1699	8.47	8.5	5-16-19 18:45	12.65	1069	8.53	9.2					
2-15-19 6:15	-0.02	1029	8.03	2.5	2-15-19 6:15	-0.01	1237	7.64	3.2	2-15-19 6:15	-0.08	1611	7.89	3.7	7-15-19 23:30	24.44	1699	8.38	8.5	5-16-19 19:00	12.64	1069	8.53	8.7					
2-15-19 6:30	-0.03	932	8.01	2.6	2-15-19 6:30	-0.01	1239	7.64	4.0	2-15-19 6:30	-0.06	1611	7.88	4.1	7-15-19 23:45	24.41	1695	8.59	8.5	5-16-19 19:15	12.62	1069	8.52	7.6					
2-15-19 6:45	-0.02	931	8.03	2.6	2-15-19 6:45	-0.01	1242	7.64	2.5	2-15-19 6:45	-0.05	1610	7.89	3.6	7-16-19 0:00	24.11	1693	8.42	8.5	5-16-19 19:30	12.61	1069	8.53	8.0					
2-15-19 7:00	-0.02	931	8.03	2.5	2-15-19 7:00	-0.01	1243	7.65	2.0	2-15-19 7:00	-0.07	1608	7.89	3.3	7-16-19 0:15	24.08	1695	7.51	8.5	5-16-19 19:45	12.61	1069	8.52	7.8					
2-15-19 7:15					2-15-19 7:15	-0.02	1243	7.64	1.9	2-15-19 7:15	-0.07	1617	7.90	3.7	7-16-19 0:30	24.54	1697	8.02	8.5	5-16-19 20:00	12.59	1069	8.52	8.9					
2-15-19 7:30					2-15-19 7:30	-0.01	1243	7.64	2.2	2-15-19 7:30	-0.07	1607	7.90	4.4	7-16-19 0:45	24.58	1699	7.85	8.5	5-16-19 20:15	12.59	1069	8.52	8.0					
2-15-19 7:45					2-15-19 7:45	-0.01	1241	7.64	2.1	2-15-19 7:45	-0.07	1611	7.91	4.0	7-16-19 1:00	24.58	1697	7.90	8.5	5-16-19 20:30	12.59	1069	8.52	9.3					
2-15-19 8:00					2-15-19 8:00	-0.01	1241	7.64	2.6	2-15-19 8:00	-0.07	1612	7.90	3.9	7-16-19 1:15	24.57	1700	8.07	8.5	5-16-19 20:45	12.57	1068	8.53	8.4					
2-15-19 8:15					2-15-19 8:15	-0.02	1242	7.64	4.1	2-15-19 8:15	-0.08	1611	7.90	3.7	7-16-19 1:30	24.55	1698	7.52	8.5	5-16-19 21:00	12.53	1069	8.52	9.0					
2-15-19 8:30					2-15-19 8:30	-0.02	1244	7.64	2.0	2-15-19 8:30	-0.06	1609	7.90	4.3	7-16-19 1:45	24.22	1698	23.20	8.5	5-16-19 21:15	12.49	1069	8.52	8.6					
2-15-19 8:45	-0.09	936	6.27	2.4	2-15-19 8:45	-0.02	1242	7.64	2.0	2-15-19 8:45	-0.07	1611	7.90	3.7	7-16-19 2:00	24.00	1695	32.31	8.5	5-16-19 21:30	12.50	1070	8.52	8.3					
2-15-19 9:00	-0.06	936	7.92	2.3	2-15-19 9:00	-0.01	1242	7.64	2.1	2-15-19 9:00	-0.08	1612	7.89	3.7	7-16-19 2:15	23.81	1693	16.52	8.5	5-16-19 21:45	12.47	1069	8.52	7.9					
2-15-19 9:15	-0.05	936	7.98	2.2	2-15-19 9:15	-0.01	1241	7.64	2.2	2-15-19 9:15	-0.08	1626	7.91	4.5	7-16-19 2:30	23.57	1695	24.99	8.5	5-16-19 22:00	12.46	1069	8.52	8.8					
2-15-19 9:30	-0.04	936	8.00	2.2	2-15-19 9:30	-0.01	1244	7.64	2.0	2-15-19 9:30	-0.09	1623	7.91	3.7	7-16-19 2:45	23.37	1690	14.37	8.5	5-16-19 22:15	12.47	1069	8.52	8.4					
2-15-19 9:45	-0.04	1065	8.01	2.4	2-15-19 9:45	-0.01	1243	7.64	2.2	2-15-19 9:45	-0.09	1612	7.91	4.1	7-16-19 3:00	22.99	1689	10.07	8.5	5-16-19 22:30	12.48	1069	8.52	8.0					
2-15-19 10:00	-0.04	1064	8.02	2.4	2-15-19 10:00	-0.02	1244	7.64	2.0	2-15-19 10:00	-0.08	1621	7.91	4.0	7-16-19 3:15	22.86	1689	10.37	8.5	5-16-19 22:45	12.47	1069	8.52	8.5					
2-15-19 10:15	-0.04	1064	8.03	2.3	2-15-19 10:15	-0.01	1244	7.64	1.9	2-15-19 10:15	-0.06	1611	7.91	4.1	7-16-19 3:30	22.76	1689	9.27	8.5	5-16-19 23:00	12.46	1069	8.52	8.4					
2-15-19 10:30	-0.06	931	6.97	2.3	2-15-19 10:30	-0.01	1243	7.64	2.9	2-15-19 10:30	-0.09	1613	7.91	3.9	7-16-19 3:45	22.76	1690	8.80	8.5	5-16-19 23:15	12.41	1069	8.51	8.4					
2-15-19 10:45	-0.05	930	8.03	2.3	2-15-19 10:45	-0.01	1242	7.64	3.3	2-15-19 10:45	-0.09	1612	7.91	3.6	7-16-19 4:00	22.58	1689	10.69	8.5	5-16-19 23:30	12.39	1069	8.52	8.3					
2-15-19 11:00	-0.07	934	6.61	2.3	2-15-19 11:00	-0.02	1245	7.64	1.9	2-15-19 11:00	-0.09	1612	7.91	4.5	7-16-19 4:15	22.53	1690	8.98	8.5	5-16-19 23:45	12.39	1069	8.52	8.4					
2-15-19 11:15	-0.07	930	6.93	2.2	2-15-19 11:15	-0.01	1244	7.64	2.1	2-15-19 11:15	-0.10	1620	7.91	3.8	7-16-19 4:30	22.49	1692	9.99	8.5	5-17-19 0:00	12.38	1069	8.52	8.3					
2-15-19 11:30	-0.08	931	6.83	2.1	2-15-19 11:30	-0.05	1257	7.65	2.6	2-15-19 11:30	-0.10	1620	7.92	3.5	7-16-19 4:45	22.42	1691	10.14	8.5	5-17-19 0:15	12.36	1069	8.52	8.5					
2-15-19 11:45	-0.08	926	6.77	2.2	2-15-19 11:45	-0.04	1255	7.65	2.9	2-15-19 11:45	-0.10	1619	7.92	4.0	7-16-19 5:00	22.39	1692	9.18	8.5	5-17-19 0:30	12.34	1070	8.51	8.7					
2-15-19 12:00	-0.09	938	6.54	2.3	2-15-19 12:00	-0.03	1254	7.65	4.4	2-15-19 12:00	-0.11	1613	7.91	5.0	7-16-19 5:15	22.33	1691	9.50	8.5	5-17-19 0:45	12.32	1069	8.51	8.4					
2-15-19 12:15	-0.09	933	6.59	2.3	2-15-19 12:15	-0.03	1252	7.65	7.1	2-15-19 12:15	-0.10	1615	7.92	4.0	7-16-19 5:30	22.27	1690	9.09	8.5	5-17-19 1:00	12.31	1070	8.51	7.7					
2-15-19 12:30	-0.07	938	6.80	2.3	2-15-19 12:30	-0.02	1251	7.65	9.2	2-15-19 12:30	-0.11	1614	7.91	4.0	7-16-19 5:45	22.22	1690	8.72	8.5	5-17-19 1:15	12.28	1070	8.51	7.9					
2-15-19 12:45	-0.05	937	8.04	2.2	2-15-19 12:45	-0.02	1251	7.65	4.7	2-15-19 12:45	-0.10	1616	7.91	3.8	7-16-19 6:00	22.19	1691	9.15	8.5	5-17-19 1:30	12.26	1069	8.51	8.1					
2-15-19 13:00	-0.05	936	8.06	2.2	2-15-19 13:00	-0.02	1249	7.65	7.8	2-15-19 13:00	-0.10	1616	7.91	3.9	7-16-19 6:15	22.14	1692	8.98	8.5	5-17-19 1:45	12.24	1069	8.51	7.9					
2-15-19 13:15	-0.08	941	8.01	2.6	2-15-19 13:15	-0.02	1253	7.65	1.8	2-15-19 13:15	-0.10	1625	7.92	3.8	7-16-19 6:30	22.09	1692	8.55	8.5	5-17-19 2:00	12.23	1070	8.51	8.0					
2-15-19 13:30	-0.07	1087	8.01	2.6	2-15-19 13:30	-0.01	1252	7.65	2.7	2-15-19 13:30	-0.10	1626	7.92	4.0	7-16-19 6:45	22.02	1691	7.97	8.5	5-17-19 2:15	12.22	1069	8.51	7.7					
2-15-19 13:45	-0.05	1086	8.02	2.6	2-15-19 13:45	-0.02	1260	7.65	2.2	2-15-19 13:45	-0.10	1624	7.92	3.9	7-16-19 7:00	21.99	1691	8.26	8.5	5-17-19 2:30	12.20	1070	8.51	8.6					
2-15-19 14:00	-0.04	1086	8.02	2.5	2-15-19 14:00	-0.01	1253	7.65	2.2	2-15-19 14:00	-0.10	1625	7.92	3.9	7-16-19 7:15	21.94	1691	7.73	8.5	5-17-19 2:45	12.18	1069	8.51	7.9					
2-15-19 14:15	-0.05	954	6.55	2.6	2-15-19 14:15	-0.01	1253	7.65	2.1	2-15-19 14:15	-0.10	1615	7.92	3.8	7-16-19 7:30	21.87	1691	7.77	8.5	5-17-19 3:00	12.17	1070	8.51	7.6					
2-15-19 14:30	-0.06	955	6.46	2.6	2-15-19 14:30	-0.01	1250	7.65	2.6	2-15-19 14:30	-0.10	1616	7.92	3.8	7-16-19 7:45	21.80	1690	7.81	8.5	5-17-19 3:15	12.13	1070	8.50	7.4					
2-15-19 14:45	-0.04	954	7.97	2.5	2-15-19 14:45	-0.01	1254	7.64	2.6	2-15-19 14:45	-0.10	1616	7.92	4.0	7-16-19 8:00	21.76	1692	8.03	8.5	5-17-19 3:30	12.15	1070	8.51	8.3					
2-15-19 15:00	-0.07	955	7.27	2.5	2-15-19 15:00	-0.01	1253	7.65	3.0	2-15-19 15:00	-0.10	1616	7.91	3.8	7-16-19 8:15	21.70	1691	8.84	8.5	5-17-19 3:45	12.15	1070	8.50	7.7					
2-15-19 15:15	-0.08	956	7.26	2.5	2-15-19 15:15	-0.02	1251	7.65	2.3	2-15-19 15:15	-0.10	1625	7.92	3.8	7-16-19 8:30	21.65	1690	8.26	8.5	5-17-19 4:00	12.16	1070	8.50	8.5					
2-15-19 15:30	-0.06	1097	7.94	2.6	2-15-19 15:30	-0.02	1256	7.64	2.2	2-15-19 15:30	-0.10	1624	7.92	3.8	7-16-19 8:45	21.60	1691	7.19	8.5	5-17-19 4:15	12.15	1070	8.50	7.5					
2-15-19 15:45	-0.04	1093	7.99	2.5	2-15-19 15:45	-0.02	1256	7.64	2.2	2-15-19 15:45	-0.10	1620	7.92	3.7	7-16-19 9:00	21.55	1689	7.36	8.5	5-17-19 4:30	12.13	1070	8.50	7.8					
2-15-19 16:00	-0.04	1093	8.00	2.5	2-15-19 16:00	-0.02	1257	7.64	2.2	2-15-19 16:00	-0.10	1625	7.92	3.7	7-16-19 9:15	21.51	1690	7.53	8.5	5-17-19 4:45	12.11	1070	8.50	8.8					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-15-19 16:15	-0.04	1093	8.00	2.5	2-15-19 16:15	-0.02	1254	7.64	2.4	2-15-19 16:15	-0.10	1616	7.91	3.8	7-16-19 9:30	21.47	1690	7.65	8.5	5-17-19 5:00	12.10	1072	8.50	8.2					
2-15-19 16:30	-0.04	963	7.99	2.8	2-15-19 16:30	-0.02	1255	7.64	2.6	2-15-19 16:30	-0.10	1616	7.91	3.8	7-16-19 9:45	21.40	1690	7.59	8.5	5-17-19 5:15	12.07	1070	8.49	7.2					
2-15-19 16:45	-0.03	962	8.01	2.5	2-15-19 16:45	-0.02	1256	7.65	2.8	2-15-19 16:45	-0.10	1616	7.91	3.8	7-16-19 10:00	21.35	1691	7.04	8.5	5-17-19 5:30	12.08	1070	8.50	7.6					
2-15-19 17:00	-0.03	963	8.01	2.5	2-15-19 17:00	-0.02	1257	7.65	3.6	2-15-19 17:00	-0.10	1617	7.91	3.8	7-16-19 10:15	21.29	1692	7.49	8.5	5-17-19 5:45	12.08	1070	8.50	7.3					
2-15-19 17:15	-0.03	963	8.01	2.5	2-15-19 17:15	-0.02	1258	7.65	4.1	2-15-19 17:15	-0.10	1627	7.92	3.8	7-16-19 10:30	21.27	1692	6.88	8.5	5-17-19 6:00	12.07	1070	8.50	8.1					
2-15-19 17:30	-0.04	1108	7.99	2.6	2-15-19 17:30	-0.03	1256	7.65	4.6	2-15-19 17:30	-0.11	1625	7.92	3.7	7-16-19 10:45	21.23	1690	7.45	8.5	5-17-19 6:15	12.06	1070	8.50	7.3					
2-15-19 17:45	-0.03	1106	8.01	2.4	2-15-19 17:45	-0.03	1256	7.65	7.0	2-15-19 17:45	-0.10	1626	7.92	3.7	7-16-19 11:00	21.17	1692	6.75	8.5	5-17-19 6:30	12.06	1071	8.50	8.0					
2-15-19 18:00	-0.03	1106	8.01	2.5	2-15-19 18:00	-0.03	1255	7.65	9.5	2-15-19 18:00	-0.10	1626	7.92	3.7	7-16-19 11:15	21.08	1690	8.26	8.5	5-17-19 6:45	12.03	1070	8.50	7.2					
2-15-19 18:15	-0.03	1106	8.01	2.4	2-15-19 18:15	-0.03	1256	7.65	12.0	2-15-19 18:15	-0.10	1616	7.91	3.7	7-16-19 11:30	21.01	1691	8.15	8.5	5-17-19 7:00	12.02	1070	8.50	8.2					
2-15-19 18:30	-0.03	963	7.99	10.5	2-15-19 18:30	-0.03	1254	7.64	2.8	2-15-19 18:30	-0.10	1617	7.91	3.7	7-16-19 11:45	21.00	1691	8.29	8.5	5-17-19 7:15	11.99	1070	8.49	8.6					
2-15-19 18:45	-0.03	963	8.02	2.5	2-15-19 18:45	-0.02	1257	7.65	2.3	2-15-19 18:45	-0.10	1617	7.91	3.8	7-16-19 12:00	20.99	1691	7.15	8.5	5-17-19 7:30	12.02	1071	8.50	7.5					
2-15-19 19:00	-0.07	965	7.18	2.4	2-15-19 19:00	-0.02	1260	7.64	2.3	2-15-19 19:00	-0.10	1617	7.91	3.8	7-16-19 12:15	20.95	1691	7.29	8.5	5-17-19 7:45	12.02	1070	8.50	9.0					
2-15-19 19:15	-0.08	965	7.06	2.5	2-15-19 19:15	-0.02	1256	7.65	2.3	2-15-19 19:15	-0.10	1627	7.92	3.6	7-16-19 12:30	20.90	1691	7.80	8.5	5-17-19 8:00	12.19	1072	8.50	7.7					
2-15-19 19:30	-0.09	1088	7.12	2.6	2-15-19 19:30	-0.02	1260	7.64	2.4	2-15-19 19:30	-0.10	1628	7.92	3.5	7-16-19 12:45	20.82	1691	8.07	8.5	5-17-19 8:15	12.30	1072	8.50	9.5					
2-15-19 19:45	-0.06	1086	7.94	2.4	2-15-19 19:45	-0.02	1259	7.65	2.6	2-15-19 19:45					7-16-19 13:00	20.76	1690	7.54	8.5	5-17-19 8:30	12.37	1074	8.50	10.5					
2-15-19 20:00	-0.05	1087	7.97	2.5	2-15-19 20:00	-0.02	1258	7.64	2.6	2-15-19 20:00	-0.10	1628	7.92	3.5	7-16-19 13:15	20.76	1692	7.14	8.5	5-17-19 8:45	12.49	1076	8.50	9.6					
2-15-19 20:15	-0.08	1088	7.19	2.5	2-15-19 20:15	-0.02	1259	7.64	2.6	2-15-19 20:15	-0.10	1616	7.91	3.7	7-16-19 13:30	20.77	1692	7.34	8.5	5-17-19 9:00	12.68	1077	8.50	8.8					
2-15-19 20:30	-0.07	961	6.57	2.7	2-15-19 20:30	-0.02	1260	7.64	2.8	2-15-19 20:30	-0.10	1617	7.91	3.6	7-16-19 13:45	20.76	1692	8.08	8.5	5-17-19 9:15	12.85	1078	8.48	10.5					
2-15-19 20:45	-0.05	959	7.96	2.6	2-15-19 20:45	-0.02	1260	7.64	2.6	2-15-19 20:45	-0.10	1618	7.91	3.9	7-16-19 14:00	20.72	1692	7.33	8.5	5-17-19 9:30	13.04	1078	8.49	10.0					
2-15-19 21:00	-0.08	960	7.18	2.6	2-15-19 21:00	-0.02	1259	7.65	2.5	2-15-19 21:00	-0.10	1618	7.91	3.7	7-16-19 14:15	20.68	1690	7.85	8.5	5-17-19 9:45	12.97	1078	8.49	10.0					
2-15-19 21:15	-0.05	959	7.95	2.5	2-15-19 21:15	-0.02	1260	7.64	2.2	2-15-19 21:15	-0.10	1627	7.92	3.6	7-16-19 14:30	20.65	1692	7.67	8.5	5-17-19 10:00	12.85	1079	8.49	9.7					
2-15-19 21:30	-0.05	1112	7.96	2.6	2-15-19 21:30	-0.02	1261	7.64	2.3	2-15-19 21:30	-0.10	1625	7.92	3.6	7-16-19 14:45	20.65	1692	7.63	8.5	5-17-19 10:15	12.85	1078	8.50	9.2					
2-15-19 21:45	-0.04	1111	7.99	2.5	2-15-19 21:45	-0.02	1261	7.64	2.3	2-15-19 21:45	-0.10	1626	7.92	3.7	7-16-19 15:00	20.69	1692	8.21	8.5	5-17-19 10:30	12.84	1079	8.50	9.8					
2-15-19 22:00	-0.04	1111	7.99	2.5	2-15-19 22:00	-0.03	1261	7.64	2.4	2-15-19 22:00	-0.10	1627	7.92	3.5	7-16-19 15:15	20.71	1690	8.12	8.5	5-17-19 10:45	12.79	1079	8.50	9.8					
2-15-19 22:15	-0.04	1110	8.00	2.5	2-15-19 22:15	-0.03	1263	7.64	1.6	2-15-19 22:15	-0.10	1617	7.91	3.8	7-16-19 15:30	20.78	1689	8.19	8.5	5-17-19 11:00	12.82	1080	8.50	8.8					
2-15-19 22:30	-0.07	959	7.18	2.9	2-15-19 22:30	-0.03	1263	7.64	2.1	2-15-19 22:30	-0.10	1618	7.91	3.7	7-16-19 15:45	20.86	1689	7.41	8.5	5-17-19 11:15	12.79	1081	8.49	8.5					
2-15-19 22:45	-0.05	959	7.96	2.6	2-15-19 22:45	-0.03	1263	7.64	2.2	2-15-19 22:45	-0.10	1618	7.91	3.7	7-16-19 16:00	20.85	1689	8.12	8.5	5-17-19 11:30	12.78	1082	8.50	8.3					
2-15-19 23:00	-0.04	959	7.99	2.5	2-15-19 23:00					2-15-19 23:00	-0.10	1618	7.91	3.6	7-16-19 16:15	20.95	1690	7.75	8.5	5-17-19 11:45	12.78	1080	8.51	8.6					
2-15-19 23:15	-0.04	959	8.00	2.4	2-15-19 23:15	-0.03	1264	7.64	2.1	2-15-19 23:15	-0.10	1628	7.92	3.7	7-16-19 16:30	21.08	1689	7.62	8.5	5-17-19 12:00	12.74	1080	8.51	9.4					
2-15-19 23:30	-0.04	1067	7.99	2.5	2-15-19 23:30	-0.03	1264	7.64	2.6	2-15-19 23:30	-0.10	1628	7.92	3.5	7-16-19 16:45	21.11	1690	8.55	8.5	5-17-19 12:15	12.71	1078	8.51	10.1					
2-15-19 23:45	-0.04	1065	8.01	2.5	2-15-19 23:45	-0.03	1262	7.64	2.5	2-15-19 23:45	-0.10	1628	7.92	3.6	7-16-19 17:00	21.21	1691	8.00	8.5	5-17-19 12:30	12.74	1079	8.51	10.2					
2-16-19 0:00	-0.04	1065	8.01	2.4	2-16-19 0:00	-0.03	1264	7.64	2.8	2-16-19 0:00	-0.10	1628	7.92	3.6	7-16-19 17:15	21.36	1691	8.25	8.5	5-17-19 12:45	12.74	1078	8.51	9.7					
2-16-19 0:15	-0.04	1066	8.01	2.3	2-16-19 0:15	-0.03	1266	7.64	2.3	2-16-19 0:15	-0.10	1618	7.91	3.7	7-16-19 17:30	21.51	1691	7.67	8.5	5-17-19 13:00	12.73	1080	8.52	10.4					
2-16-19 0:30	-0.05	946	8.00	2.6	2-16-19 0:30	-0.04	1267	7.65	2.1	2-16-19 0:30	-0.10	1618	7.92	3.7	7-16-19 17:45	21.72	1692	7.85	8.5	5-17-19 13:15	12.72	1080	8.51	9.8					
2-16-19 0:45	-0.04	946	8.02	2.4	2-16-19 0:45	-0.03	1265	7.64	2.3	2-16-19 0:45	-0.10	1618	7.92	3.7	7-16-19 18:00	21.89	1692	7.85	8.5	5-17-19 13:30	12.77	1080	8.52	10.4					
2-16-19 1:00	-0.04	946	8.01	2.4	2-16-19 1:00	-0.03	1278	7.64	2.9	2-16-19 1:00	-0.10	1618	7.92	3.7	7-16-19 18:15	22.02	1693	7.79	8.4	5-17-19 13:45	12.81	1079	8.52	9.7					
2-16-19 1:15	-0.04	947	8.01	2.4	2-16-19 1:15	-0.02	1268	7.64	2.3	2-16-19 1:15	-0.10	1628	7.92	3.4	7-16-19 18:30	22.14	1693	8.03	8.4	5-17-19 14:00	12.86	1080	8.51	9.0					
2-16-19 1:30	-0.04	1031	8.00	2.5	2-16-19 1:30	-0.02	1265	7.64	2.1	2-16-19 1:30	-0.10	1626	7.92	3.5	7-16-19 18:45	22.35	1696	8.23	8.4	5-17-19 14:15	12.86	1080	8.52	11.6					
2-16-19 1:45	-0.04	1029	8.02	2.4	2-16-19 1:45	-0.02	1267	7.64	2.1	2-16-19 1:45	-0.10	1628	7.92	3.5	7-16-19 19:00	22.54	1696	8.19	8.4	5-17-19 14:30	12.75	1081	8.52	16.8					
2-16-19 2:00					2-16-19 2:00	-0.02	1264	7.64	1.9	2-16-19 2:00	-0.10	1628	7.92	3.5	7-16-19 19:15	22.87	1697	7.89	8.4	5-17-19 14:45	12.75	1081	8.53	14.7					
2-16-19 2:15					2-16-19 2:15	-0.01	1267	7.64	2.2	2-16-19 2:15	-0.10	1619	7.92	3.7	7-16-19 19:30	23.11	1696	8.33	8.4	5-17-19 15:00	12.77	1082	8.53	13.2					
2-16-19 2:30					2-16-19 2:30	-0.01	1267	7.64	2.0	2-16-19 2:30	-0.10	1620	7.92	3.6	7-16-19 19:45	23.26	1697	8.17	8.4	5-17-19 15:15	12.69	1082	8.52	71.8					
2-16-19 2:45					2-16-19 2:45	0.00	1267	7.64	2.4	2-16-19 2:45	-0.10	1620	7.92	3.7	7-16-19 20:00	23.56	1699	7.98	8.4	5-17-19 15:30	12.66	1082	8.53	37.4					
2-16-19 3:00					2-16-19 3:00	-0.01	1268	7.64	2.1	2-16-19 3:00	-0.10	1619	7.92	3.6	7-16-19 20:15	23.78	1700	8.11	8.4	5-17-19 15:45	12.65	1082	8.53	20.1					
2-16-19 3:15					2-16-19 3:15	-0.01	1269	7.64	2.3	2-16-19 3:15	-0.10	1631	7.92	3.5	7-16-19 20:30	23.95	1698	8.61	8.4	5-17-19 16:00	12.57	1083	8.53	45.2					
2-16-19 3:30					2-16-19 3:30	-0.01	1271	7.64	2.0	2-16-19 3:30	-0.10	1630	7.92	3.5	7-16-19 20:45	24.00	1700	8.52	8.5	5-17-19 16:15	12.54	1082	8.53	34.0					
2-16-19 3:45					2-16-19 3:45	0.00	1269	7.64	1.5	2-16-19 3:45	-0.10	1629	7.92	3.4	7-16-19 21:00	24.07	1700	8.10	8.4	5-17-19 16:30	12.51	1083	8.53	19.7					
2-16-19 4:00					2-16-19 4:00	0.00	1267	7.64	2.2	2-16-19 4:00	-0.10	1631	7.92	3.3	7-16-19 21:15	23.75	1698	10.57	8.5	5-17-19 16:45	12.49	1081	8.53	22.4					
2-16-19 4:15					2-16-19 4:15	-0.01	1269	7.64	2.4	2-16-19 4:15	-0.10	1619	7.92	3.5	7-16-19 21:30	23.78	1700	12.63	8.5	5-17-19 17:00	12.46	1081	8.53	16.8					
2-16-19 4:30					2-16-19 4:30	-0.02	1271	7.64	2.0	2-16-19 4:30	-0.10	1620	7.92	3.6	7-16-19 21:45	23.78	1700	10.72	8.5	5-17-19 17:15	12.45	1081	8.52	14.7					
2-16-19 4:45					2-16-19 4:45	-0.02	1271	7.64	2.1	2-16-19 4:45	-0.10	1620	7.91	3.6	7-16-19 22:00	23.62	1700	10.21	8.5	5-17-19 17:30	12.48	1082	8.53	16.8					
2-16-19 5:00					2-16-19 5:00	-0.02	1272	7.64	2.1	2-16-19 5:00	-0.10	1620	7.92	3.6	7-16-19 22:15	23.60	1700	9.40	8.5	5-17-19 17:45	12.53	1082	8.53	15.9					
2-16-19 5:15					2-16-19 5:15	-0.02	1274	7.64	2.0	2-16-19 5:15	-0.10	1631	7.92	3.5	7-16-19 22:30	23.45	1699	10.52	8.5	5-17-19 18:00	12.56	1082	8.53	14.5					
2-16-19 5:30					2-16-19 5:30	-0.02	1275	7.64	2.0	2-16-19 5:30	-0.10	1628	7.92	3.5	7-16-19 22:45	23.45	1699	9.44	8.5	5-17-19 18:15	12.57	1081	8.53	18.6					
2-16-19 5:45					2-16-19 5:45	-0.02	1274	7.64	2.0	2-16-19 5:45	-0.10	1629	7.92	3.5	7-16-19 23:00	23.41	1700	10.21	8.5	5-17-19 18:30	12.59	1081	8.53	14.8					
2-16-19 6:00					2-16-19 6:00	-0.02	1275	7.64	2.1	2-16-19 6:00	-0.10	1631	7.92	3.4	7-16-19 23:15	23.47	1700	9.57	8.5	5-17-19 18:45	12.58	1081	8.53	17.6					
2-16-19 6:15					2-16-19 6:15	-0.03	1274	7.64	1.6	2-16-19 6:15	-0.10	1619	7.92	3.5	7-16-19 23:30	23.09	1695	10.82	8.5	5-17-19 19:00	12.59	1081	8.53	15.8					
2-16-19 6:30					2-16-19 6:30	-0.02	1275	7.64	2.2	2-16-19 6:30	-0.10	1620	7.91	3.6	7-16-19 23:45	22.74	1693	10.16	8.5	5-17-19 19:15	12.56	1081	8.52	17.0					
2-16-19 6:45					2-16-19 6:45	-0.03	1277	7.64	2.3	2-16-19 6:45	-0.10	1620	7.91	3.6	7-17-19 0:00	22.73	1694	10.66	8.5	5-17-19 19:30	12.56	1081	8.53	19.1					
2-16-19 7:00					2-16-19 7:00	-0.02	1277	7.64	1.7	2-16-19 7:00	-0.10	1620	7.91	3.8	7-17-19 0:15	23.15	1694	11.52	8.5	5-17-19 19:45	12.57	1080	8.53	17.0					
2-16-19 7:15					2-16-19 7:15	-0.02	1273	7.64	1.5	2-16-19 7:15	-0.10	1632	7.92	3.5	7-17-19 0:30	23.71	1700	9.08	8.5	5-17-19 20:00	12.55	1081	8.53	16.9					
2-16-19 7:30					2-16-19 7:30	-0.02	1275	7.64	2.0	2-16-19 7:30	-0.10	1630	7.92	3.4	7-17-19 0:45	23.78	1700	9.06	8.5	5-17-19 20:15	12.52	1081	8.53	16.3					
2-16-19 7:45					2-16-19 7:45	-0.02	1275	7.64	2.1	2-16-19 7:45	-0.10	1630	7.92	3.5	7-17-19 1:00	23.80	1697	9.36	8.5	5-17-19 20:30	12.50	1081	8.53	17.8					
2-16-19 8:00					2-16-19 8:00	-0.03	1276	7.64	1.5	2-16-19 8:00	-0.10	1631	7.92	3.6	7-17-19 1:15	23.73	1700	9.49	8.5	5-17-19 20:45	12.52	1081	8.53	15.2					
2-16-19 8:15					2-16-19 8:15	-0.02	1276	7.64	2.2	2-16-19 8:15	-0.10	1620	7.92	3.6	7-17-19 1:30	23.75	1700	9.21	8.5	5-17-19 21:00	12.51	1081	8.53	15.3					
2-16-19 8:30					2-16-19 8:30	-0.03	1278	7.64	1.8	2-16-19 8:30	-0.10	1620	7.91	3.7	7-17-19 1:45	23.78	1699	8.31	8.5	5-17-19 21:15	12.46	1082	8.52	15.3					
2-16-19 8:45					2-16-19 8:45	-0.02	1279	7.64	2.2	2-16-19 8:45	-0.10	1620	7.91	3.6	7-17-19 2:00	23.75	1701	9.36	8.5	5-17-19 21:30	12.48	1081	8.53	16.6					
2-16-19 9:00					2-16-19 9:00	-0.03	1283	7.64	2.2	2-16-19 9:00	-0.10	1620	7.91	3.6	7-17-19 2:15	23.73	1700	7.55	8.5	5-17-19 21:45	12.48	1081	8.53	14.8					
2-16-19 9:15					2-16-19 9:15	-0.03	1282	7.64	2.3	2-16-19 9:15	-0.10	1633	7.92	3.5	7-17-19 2:30	23.65	1699	7.85	8.5	5-17-19 22:00	12.47	1081	8.53	15.8					
2-16-19 9:30					2-16-19 9:30	-0.03	1278	7.64	2.3	2-16-19 9:30	-0.10	1632	7.92	3.4	7-17-19 2:45	23.53	1695	8.04	8.5	5-17-19 22:15	12.45	1081	8.53	15.2					
2-16-19 9:45					2-16-19 9:45	-0.03	1281	7.64	1.8	2-16-19 9:45	-0.10	1631	7.92	3.4	7-17-19 3:00	23.40	1699	7.67	8.5	5-17-19 22:30	12.43	1081	8.53	14.6					
2-16-19 10:00					2-16-19 10:00	-0.03	1283	7.64	2.5	2-16-19 10:00	-0.10	1632	7.92	3.2	7-17-19 3:15	23.37	1698	7.56	8.5	5-17-19 22:45	12.42	1081	8.53	14.4					
2-16-19 10:15					2-16-19 10:15	-0.03	1284	7.64	2.1	2-16-19 10:15	-0.10	1622	7.92	3.5	7-17-19 3:30	23.31	1698	7.75	8.5	5-17-19 23:00	12.41	1082	8.53	15.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-16-19 10:30				
2-16-19 10:45				
2-16-19 11:00				
2-16-19 11:15				
2-16-19 11:30				
2-16-19 11:45				
2-16-19 12:00				
2-16-19 12:15				
2-16-19 12:30				
2-16-19 12:45				
2-16-19 13:00				
2-16-19 13:15				
2-16-19 13:30				
2-16-19 13:45				
2-16-19 14:00				
2-16-19 14:15				
2-16-19 14:30				
2-16-19 14:45				
2-16-19 15:00				
2-16-19 15:15				
2-16-19 15:30				
2-16-19 15:45				
2-16-19 16:00				
2-16-19 16:15				
2-16-19 16:30				
2-16-19 16:45				
2-16-19 17:00				
2-16-19 17:15				
2-16-19 17:30				
2-16-19 17:45				
2-16-19 18:00				
2-16-19 18:15				
2-16-19 18:30				
2-16-19 18:45				
2-16-19 19:00				
2-16-19 19:15				
2-16-19 19:30				
2-16-19 19:45				
2-16-19 20:00				
2-16-19 20:15				
2-16-19 20:30				
2-16-19 20:45				
2-16-19 21:00				
2-16-19 21:15				
2-16-19 21:30				
2-16-19 21:45				
2-16-19 22:00				
2-16-19 22:15				
2-16-19 22:30				
2-16-19 22:45				
2-16-19 23:00				
2-16-19 23:15				
2-16-19 23:30				
2-16-19 23:45				
2-17-19 0:00				
2-17-19 0:15				
2-17-19 0:30				
2-17-19 0:45				
2-17-19 1:00				
2-17-19 1:15				
2-17-19 1:30				
2-17-19 1:45				
2-17-19 2:00				
2-17-19 2:15				
2-17-19 2:30				
2-17-19 2:45				
2-17-19 3:00				
2-17-19 3:15				
2-17-19 3:30				
2-17-19 3:45				
2-17-19 4:00				
2-17-19 4:15				
2-17-19 4:30				

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-16-19 10:30	-0.03	1283	7.64	1.7
2-16-19 10:45	-0.03	1282	7.64	2.1
2-16-19 11:00	-0.03	1284	7.64	1.6
2-16-19 11:15	-0.03	1282	7.64	2.0
2-16-19 11:30	-0.03	1284	7.64	1.6
2-16-19 11:45	-0.03	1287	7.64	2.3
2-16-19 12:00	-0.03	1288	7.64	2.6
2-16-19 12:15	-0.03	1287	7.64	2.0
2-16-19 12:30	-0.03	1287	7.64	1.8
2-16-19 12:45	-0.03	1294	7.65	2.1
2-16-19 13:00	-0.03	1294	7.65	2.0
2-16-19 13:15	-0.02	1293	7.65	2.0
2-16-19 13:30	-0.03	1294	7.65	1.6
2-16-19 13:45	-0.02	1293	7.65	2.0
2-16-19 14:00	-0.02	1294	7.65	1.4
2-16-19 14:15	-0.02	1292	7.65	2.1
2-16-19 14:30	-0.02	1292	7.65	1.4
2-16-19 14:45	-0.02	1293	7.65	1.9
2-16-19 15:00	-0.02	1291	7.65	1.4
2-16-19 15:15	-0.01	1292	7.65	1.9
2-16-19 15:30	-0.01	1289	7.65	1.4
2-16-19 15:45	-0.01	1289	7.65	1.8
2-16-19 16:00	-0.02	1289	7.65	1.8
2-16-19 16:15	-0.02	1288	7.65	1.7
2-16-19 16:30	-0.02	1289	7.65	1.3
2-16-19 16:45	-0.01	1289	7.65	1.9
2-16-19 17:00	-0.01	1291	7.65	1.8
2-16-19 17:15	-0.02	1292	7.65	1.4
2-16-19 17:30	-0.02	1291	7.65	1.9
2-16-19 17:45				
2-16-19 18:00	-0.02	1292	7.66	2.0
2-16-19 18:15	-0.02	1293	7.66	1.3
2-16-19 18:30	-0.02	1293	7.65	1.7
2-16-19 18:45	-0.02	1292	7.65	1.7
2-16-19 19:00	-0.02	1294	7.65	1.6
2-16-19 19:15	-0.02	1293	7.65	1.7
2-16-19 19:30	-0.03	1293	7.65	1.3
2-16-19 19:45	-0.02	1294	7.65	1.8
2-16-19 20:00	-0.02	1294	7.66	1.4
2-16-19 20:15	-0.02	1296	7.66	1.7
2-16-19 20:30	-0.02	1296	7.65	1.8
2-16-19 20:45	-0.02	1297	7.65	1.5
2-16-19 21:00	-0.02	1296	7.65	1.7
2-16-19 21:15				
2-16-19 21:30	-0.02	1298	7.65	1.7
2-16-19 21:45	-0.02	1298	7.66	1.4
2-16-19 22:00	-0.02	1298	7.66	1.9
2-16-19 22:15	-0.02	1299	7.66	1.5
2-16-19 22:30	-0.03	1299	7.66	2.0
2-16-19 22:45	-0.03	1301	7.66	1.4
2-16-19 23:00	-0.03	1301	7.66	1.9
2-16-19 23:15	-0.03	1300	7.66	1.7
2-16-19 23:30	-0.03	1301	7.66	1.7
2-16-19 23:45	-0.03	1302	7.66	1.8
2-17-19 0:00	-0.03	1302	7.66	1.3
2-17-19 0:15	-0.03	1302	7.66	1.7
2-17-19 0:30	-0.03	1302	7.66	1.7
2-17-19 0:45	-0.03	1302	7.66	1.7
2-17-19 1:00	-0.02	1306	7.66	1.3
2-17-19 1:15	-0.02	1306	7.66	1.7
2-17-19 1:30	-0.02	1307	7.66	1.7
2-17-19 1:45	-0.02	1307	7.66	1.3
2-17-19 2:00	-0.02	1307	7.66	1.6
2-17-19 2:15	-0.03	1310	7.66	1.6
2-17-19 2:30	-0.03	1309	7.66	1.9
2-17-19 2:45	-0.03	1311	7.66	1.9
2-17-19 3:00	-0.03	1311	7.67	1.8
2-17-19 3:15	-0.03	1310	7.67	2.0
2-17-19 3:30	-0.02	1305	7.67	1.5
2-17-19 3:45	-0.01	1304	7.66	1.9
2-17-19 4:00	-0.01	1303	7.66	1.9
2-17-19 4:15	-0.01	1304	7.66	1.9
2-17-19 4:30	-0.02	1306	7.67	2.1

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-16-19 10:30	-0.10	1622	7.92	3.5
2-16-19 10:45	-0.10	1622	7.91	3.5
2-16-19 11:00	-0.10	1622	7.91	3.5
2-16-19 11:15	-0.10	1633	7.92	3.3
2-16-19 11:30	-0.10	1634	7.92	3.4
2-16-19 11:45	-0.11	1632	7.92	3.3
2-16-19 12:00	-0.11	1633	7.92	3.3
2-16-19 12:15	-0.10	1622	7.92	3.5
2-16-19 12:30	-0.10	1621	7.91	3.5
2-16-19 12:45	-0.10	1622	7.91	3.5
2-16-19 13:00	-0.10	1622	7.91	3.8
2-16-19 13:15	-0.11	1623	7.92	3.4
2-16-19 13:30	-0.11	1634	7.92	3.5
2-16-19 13:45	-0.10	1632	7.92	3.4
2-16-19 14:00	-0.10	1633	7.92	3.4
2-16-19 14:15	-0.10	1625	7.92	3.5
2-16-19 14:30	-0.11	1625	7.91	3.6
2-16-19 14:45	-0.10	1625	7.91	3.5
2-16-19 15:00	-0.10	1625	7.91	3.5
2-16-19 15:15	-0.10	1630	7.92	3.5
2-16-19 15:30	-0.11	1630	7.92	3.5
2-16-19 15:45	-0.11	1630	7.92	3.5
2-16-19 16:00	-0.11	1631	7.92	3.4
2-16-19 16:15	-0.10	1624	7.91	3.5
2-16-19 16:30	-0.10	1624	7.91	3.5
2-16-19 16:45	-0.10	1624	7.91	3.5
2-16-19 17:00	-0.10	1624	7.91	3.5
2-16-19 17:15	-0.10	1630	7.92	3.5
2-16-19 17:30	-0.10	1630	7.92	3.2
2-16-19 17:45	-0.10	1630	7.92	3.6
2-16-19 18:00	-0.10	1629	7.92	3.4
2-16-19 18:15	-0.10	1623	7.92	3.6
2-16-19 18:30	-0.10	1623	7.91	3.6
2-16-19 18:45	-0.10	1623	7.91	3.5
2-16-19 19:00	-0.10	1623	7.91	3.5
2-16-19 19:15				
2-16-19 19:30	-0.10	1630	7.92	3.4
2-16-19 19:45	-0.10	1629	7.92	3.3
2-16-19 20:00	-0.10	1630	7.92	3.4
2-16-19 20:15	-0.10	1623	7.92	3.4
2-16-19 20:30	-0.10	1623	7.91	3.5
2-16-19 20:45	-0.10	1623	7.91	3.5
2-16-19 21:00	-0.10	1624	7.91	3.5
2-16-19 21:15	-0.10	1630	7.92	3.4
2-16-19 21:30	-0.10	1630	7.92	3.3
2-16-19 21:45	-0.10	1631	7.92	3.4
2-16-19 22:00	-0.10	1631	7.92	3.4
2-16-19 22:15	-0.10	1623	7.92	3.5
2-16-19 22:30	-0.09	1624	7.92	3.5
2-16-19 22:45	-0.10	1624	7.92	3.4
2-16-19 23:00	-0.09	1624	7.92	3.5
2-16-19 23:15	-0.10	1632	7.92	3.4
2-16-19 23:30	-0.10	1632	7.92	3.3
2-16-19 23:45	-0.10	1632	7.92	3.3
2-17-19 0:00	-0.10	1632	7.92	3.1
2-17-19 0:15	-0.10	1625	7.92	3.3
2-17-19 0:30	-0.10	1625	7.92	3.4
2-17-19 0:45	-0.10	1625	7.92	3.3
2-17-19 1:00	-0.10	1625	7.91	3.5
2-17-19 1:15	-0.10	1633	7.92	3.4
2-17-19 1:30	-0.10	1634	7.92	3.3
2-17-19 1:45	-0.10	1633	7.92	3.3
2-17-19 2:00	-0.10	1632	7.92	3.2
2-17-19 2:15	-0.10	1626	7.92	3.3
2-17-19 2:30	-0.10	1626	7.92	3.4
2-17-19 2:45	-0.10	1626	7.92	3.4
2-17-19 3:00	-0.10	1626	7.92	3.4
2-17-19 3:15	-0.10	1635	7.92	3.3
2-17-19 3:30	-0.10	1634	7.92	3.3
2-17-19 3:45	-0.10	1634	7.92	3.2
2-17-19 4:00	-0.10	1635	7.92	3.3
2-17-19 4:15	-0.10	1626	7.92	3.3
2-17-19 4:30	-0.10	1627	7.91	3.3

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-17-19 3:45	23.18	1695	9.14	8.5
7-17-19 4:00	22.95	1694	10.66	8.5
7-17-19 4:15	23.05	1700	7.67	8.5
7-17-19 4:30	22.97	1699	7.45	8.5
7-17-19 4:45	22.92	1700	7.20	8.5
7-17-19 5:00	22.85	1699	7.21	8.5
7-17-19 5:15	22.77	1700	9.02	8.5
7-17-19 5:30	22.70	1700	6.99	8.5
7-17-19 5:45	22.63	1698	7.16	8.5
7-17-19 6:00	22.57	1698	6.68	8.5
7-17-19 6:15	22.49	1699	6.96	8.5
7-17-19 6:30	22.43	1699	7.80	8.5
7-17-19 6:45	22.35	1699	6.73	8.5
7-17-19 7:00	22.27	1697	6.86	8.5
7-17-19 7:15	22.22	1696	7.22	8.5
7-17-19 7:30	22.14	1697	7.18	8.5
7-17-19 7:45	22.09	1696	7.75	8.5
7-17-19 8:00	22.02	1696	8.43	8.5
7-17-19 8:15	21.99	1696	7.86	8.5
7-17-19 8:30	21.93	1696	8.23	8.5
7-17-19 8:45	21.87	1696	7.94	8.5
7-17-19 9:00	21.82	1695	11.10	8.5
7-17-19 9:15	21.79	1696	8.28	8.5
7-17-19 9:30	21.74	1697	8.61	8.5
7-17-19 9:45	21.68	1695	7.61	8.5
7-17-19 10:00	21.61	1694	7.97	8.5
7-17-19 10:15	21.56	1696	7.90	8.5
7-17-19 10:30	21.54	1696	8.20	8.5
7-17-19 10:45	21.49	1695	8.00	8.5
7-17-19 11:00	21.41	1695	8.03	8.5
7-17-19 11:15	21.40	1696	7.88	8.5
7-17-19 11:30	21.34	1696	7.73	8.5
7-17-19 11:45	21.28	1695	8.16	8.5
7-17-19 12:00	21.22	1695	7.87	8.5
7-17-19 12:15	21.20	1697	8.26	8.5
7-17-19 12:30	21.17	1695	8.22	8.5
7-17-19 12:45	21.10	1696	8.83	8.5
7-17-19 13:00	21.05	1695	7.67	8.5
7-17-19 13:15	21.00	1696	8.16	8.5
7-17-19 13:30	20.96	1696	8.28	8.5
7-17-19 13:45	21.01	1696	8.58	8.5
7-17-19 14:00	20.98	1695	8.07	8.5
7-17-19 14:15	20.96	1695	8.07	8.5
7-17-19 14:30	20.94	1696	8.44	8.5
7-17-19 14:45	20.93	1696	8.59	8.5
7-17-19 15:00	20.95	1696	8.52	8.5
7-17-19 15:15	20.93	1696	7.67	8.5
7-17-19 15:30	20.91	1696	7.38	8.5
7-17-19 15:45	20.92	1696	8.50	8.5
7-17-19 16:00	20.95	1696	10.21	8.5
7-17-19 16:15	20.98	1695	8.49	8.5
7-17-19 16:30	21.02	1695	8.31	8.5
7-17-19 16:45	21.00	1696	9.33	8.5
7-17-19 17:00	21.00	1697	8.41	8.5
7-17-19 17:15	21.01	1696	9.25	8.5
7-17-19 17:30	21.03	1697	9.90	8.5
7-17-19 17:45	21.05	1697	9.43	8.5
7-17-19 18:00	21.07	1695	9.66	8.5
7-17-19 18:15	21.13	1696	9.90	8.5
7-17-19 18:30	21.12	1696	9.90	8.5
7-17-19 18:45	21.10	1696	11.44	8.5
7-17-19 19:00	21.19	1697	10.10	8.5
7-17-19 19:15	21.22	1696	9.87	8.5
7-17-19 19:30	21.20	1696	11.09	8.5
7-17-19 19:45	21.15	1696	10.14	8.5
7-17-19 20:00	21.16	1697	11.45	8.5
7-17-19 20:15	21.41	1697	9.98	8.5
7-17-19 20:30	21.41	1697	9.17	8.5
7-17-19 20:45	21.46	1697	10.03	8.5
7-17-19 21:00	21.48	1698	9.46	8.5
7-17-19 21:15	21.53	1697	9.33	8.5
7-17-19 21:30	21.56	1696	9.82	8.5
7-17-19 21:45	21.62	1698	9.34	8.5

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-17-19 23:15	12.37	1081	8.52	14.2
5-17-19 23:30	12.37	1082	8.53	14.6
5-17-19 23:45	12.36	1081	8.52	13.8
5-18-19 0:00	12.37	1082	8.52	14.9
5-18-19 0:15	12.35	1081	8.52	14.9
5-18-19 0:30	12.34	1082	8.52	15.7
5-18-19 0:45	12.34	1080	8.52	13.7
5-18-19 1:00	12.31	1082	8.52	14.4
5-18-19 1:15	12.29	1082	8.51	13.7
5-18-19 1:30	12.28	1082	8.52	13.5
5-18-19 1:45	12.30	1081	8.52	14.0
5-18-19 2:00	12.28	1081	8.52	15.4
5-18-19 2:15	12.27	1081	8.52	14.6
5-18-19 2:30	12.26	1082	8.52	14.0
5-18-19 2:45	12.25	1081	8.51	13.3
5-18-19 3:00	12.24	1082	8.51	13.9
5-18-19 3:15	12.20	1082	8.50	13.9
5-18-19 3:30	12.20	1082	8.51	13.2
5-18-19 3:45	12.19	1081	8.51	13.2
5-18-19 4:00	12.17	1082	8.51	13.3
5-18-19 4:15	12.16	1081	8.51	13.5
5-18-19 4:30	12.14	1082	8.51	13.0
5-18-19 4:45	12.14	1082	8.51	12.4
5-18-19 5:00	12.12	1082	8.51	13.2
5-18-19 5:15	12.08	1082	8.50	12.4
5-18-19 5:30	12.10	1082	8.51	13.1
5-18-19 5:45	12.08	1082	8.51	12.3
5-18-19 6:00	12.06	1082	8.51	13.0
5-18-19 6:15	12.07	1082	8.51	12.3
5-18-19 6:30	12.06	1082	8.51	12.1
5-18-19 6:45	12.06	1082	8.51	12.6
5-18-19 7:00	12.06	1082	8.51	12.5
5-18-19 7:15	12.04	1082	8.50	11.4
5-18-19 7:30	12.07	1082	8.51	12.0
5-18-19 7:45	12.07	1082	8.51	11.4
5-18-19 8:00	12.08	1082	8.51	12.2
5-18-19 8:15	12.09	1081	8.51	11.6
5-18-19 8:30	12.11	1081	8.51	11.8
5-18-19 8:45	12.14	1081	8.51	11.1
5-18-19 9:00	12.17	1081	8.51	11.7
5-18-19 9:15	12.19	1081	8.50	11.2
5-18-19 9:30	12.24	1082	8.51	12.8
5-18-19 9:45	12.27	1081	8.52	13.2
5-18-19 10:00	12.34	1081	8.52	12.6
5-18-19 10:15	12.38	1081	8.52	11.5
5-18-19 10:30	12.41	1081	8.52	11.6
5-18-19 10:45	12.44	1079	8.52	11.1
5-18-19 11:00	12.47	1078	8.52	10.8
5-18-19 11:15	12.51	1079	8.51	10.9
5-18-19 11:30	12.53	1080	8.52	11.3
5-18-19 11:45	12.52	1078	8.52	10.9
5-18-19 12:00	12.51	1078	8.52	10.5
5-18-19 12:15	12.55	1078	8.52	10.8
5-18-19 12:30	12.60	1079	8.52	10.2
5-18-19 12:45	12.65	1078	8.52	10.7
5-18-19 13:00	12.72	1074	8.52	10.8
5-18-19 13:15	12.72	1075	8.51	9.7
5-18-19 13:30	12.71	1077	8.52	10.5
5-18-19 13:45	12.70	1077	8.53	10.2
5-18-19 14:00	12.71	1079	8.53	10.1
5-18-19 14:15	12.74	1078	8.53	11.1
5-18-19 14:30	12.80	1079	8.53	10.7
5-18-19 14:45	12.86	1078	8.53	9.8
5-18-19 15:00	12.91	1077	8.53	10.1
5-18-19 15:15	12.89	1078	8.53	9.8
5-18-19 15:30	12.83	1080	8.54	9.4
5-18-19 15:45	12.77	1079	8.54	10.0
5-18-19 16:00	12.72	1081	8.54	9.8
5-18-19 16:15	12.69	1082	8.55	9.4
5-18-19 16:30	12.70	1083	8.55	10.3
5-18-19 16:45	12.70	1083	8.55	9.9
5-18-19 17:00	12.64	1085	8.55	10.2
5-18-19 17:15	12.55	1086	8.54	10.2

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-17-19 4:45				
2-17-19 5:00				
2-17-19 5:15				
2-17-19 5:30				
2-17-19 5:45				
2-17-19 6:00				
2-17-19 6:15				
2-17-19 6:30				
2-17-19 6:45				
2-17-19 7:00				
2-17-19 7:15				
2-17-19 7:30				
2-17-19 7:45				
2-17-19 8:00				
2-17-19 8:15				
2-17-19 8:30				
2-17-19 8:45				
2-17-19 9:00				
2-17-19 9:15				
2-17-19 9:30				
2-17-19 9:45				
2-17-19 10:00				
2-17-19 10:15				
2-17-19 10:30				
2-17-19 10:45				
2-17-19 11:00				
2-17-19 11:15				
2-17-19 11:30				
2-17-19 11:45				
2-17-19 12:00				
2-17-19 12:15				
2-17-19 12:30				
2-17-19 12:45				
2-17-19 13:00				
2-17-19 13:15				
2-17-19 13:30				
2-17-19 13:45				
2-17-19 14:00				
2-17-19 14:15				
2-17-19 14:30				
2-17-19 14:45				
2-17-19 15:00				
2-17-19 15:15				
2-17-19 15:30				
2-17-19 15:45				
2-17-19 16:00				
2-17-19 16:15				
2-17-19 16:30				
2-17-19 16:45				
2-17-19 17:00				
2-17-19 17:15				
2-17-19 17:30				
2-17-19 17:45				
2-17-19 18:00				
2-17-19 18:15				
2-17-19 18:30				
2-17-19 18:45				
2-17-19 19:00				
2-17-19 19:15	1.11	883	7.99	1.5
2-17-19 19:30	0.73	870	8.14	2.5
2-17-19 19:45	-0.04	935	8.16	1.4
2-17-19 20:00	-0.05	887	8.35	1.7
2-17-19 20:15	-0.05	918	8.34	7.4
2-17-19 20:30	-0.06	905	8.30	29.4
2-17-19 20:45	-0.06	889	8.30	35.1
2-17-19 21:00	-0.06	877	8.29	31.2
2-17-19 21:15	-0.06	878	8.29	32.0
2-17-19 21:30	-0.06	864	8.30	33.2
2-17-19 21:45	-0.06	868	8.30	35.3
2-17-19 22:00	-0.06	863	8.32	39.0
2-17-19 22:15	-0.06	854	8.31	49.4
2-17-19 22:30	-0.06	851	8.31	53.3
2-17-19 22:45	-0.06	847	8.31	62.4

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-17-19 4:45	-0.02	1307	7.67	1.8
2-17-19 5:00	-0.02	1306	7.67	1.3
2-17-19 5:15	-0.03	1307	7.67	1.8
2-17-19 5:30	-0.03	1310	7.67	1.4
2-17-19 5:45	-0.03	1310	7.67	1.8
2-17-19 6:00	-0.03	1310	7.67	1.8
2-17-19 6:15	-0.03	1311	7.67	1.4
2-17-19 6:30	-0.03	1309	7.68	1.9
2-17-19 6:45	-0.03	1311	7.68	1.9
2-17-19 7:00	-0.03	1311	7.68	1.9
2-17-19 7:15	-0.03	1311	7.68	1.8
2-17-19 7:30	-0.03	1313	7.69	1.9
2-17-19 7:45	-0.04	1315	7.69	2.0
2-17-19 8:00	-0.04	1314	7.69	1.9
2-17-19 8:15	-0.04	1315	7.69	1.9
2-17-19 8:30	-0.04	1315	7.69	2.0
2-17-19 8:45	-0.04	1317	7.69	2.0
2-17-19 9:00	-0.04	1318	7.69	2.0
2-17-19 9:15	-0.04	1317	7.69	2.0
2-17-19 9:30	-0.04	1318	7.70	2.0
2-17-19 9:45	-0.04	1318	7.70	2.0
2-17-19 10:00	-0.04	1318	7.70	2.1
2-17-19 10:15	-0.05	1318	7.71	2.1
2-17-19 10:30	-0.05	1320	7.71	2.1
2-17-19 10:45	-0.05	1319	7.71	2.2
2-17-19 11:00	-0.05	1320	7.71	2.1
2-17-19 11:15	-0.04	1319	7.71	2.3
2-17-19 11:30	-0.04	1319	7.71	2.2
2-17-19 11:45	-0.04	1321	7.70	2.4
2-17-19 12:00	-0.03	1321	7.70	2.5
2-17-19 12:15	-0.03	1321	7.70	2.6
2-17-19 12:30	0.06	1372	7.67	9.4
2-17-19 12:45	0.04	1367	7.68	8.1
2-17-19 13:00	0.03	1365	7.68	7.9
2-17-19 13:15	0.03	1366	7.68	7.9
2-17-19 13:30	0.03	1365	7.68	6.1
2-17-19 13:45	0.04	1365	7.68	7.6
2-17-19 14:00	0.04	1365	7.68	7.7
2-17-19 14:15	0.04	1365	7.68	6.2
2-17-19 14:30	0.21	1444	7.64	17.6
2-17-19 14:45	0.45	1460	7.64	87.9
2-17-19 15:00	0.53	1438	7.64	20.6
2-17-19 15:15	0.49	1436	7.64	39.1
2-17-19 15:30	0.69	1444	7.63	60.7
2-17-19 15:45	0.83	1450	7.63	76.0
2-17-19 16:00	0.77	1449	7.63	61.4
2-17-19 16:15	0.78	1449	7.63	108.2
2-17-19 16:30	0.78	1448	7.63	113.7
2-17-19 16:45	0.78	1452	7.63	91.9
2-17-19 17:00	0.71	1447	7.63	92.4
2-17-19 17:15				
2-17-19 17:30	0.66	1448	7.63	123.4
2-17-19 17:45	0.66	1447	7.63	107.4
2-17-19 18:00	0.63	1448	7.63	131.3
2-17-19 18:15	0.60	1446	7.63	133.3
2-17-19 18:30	0.57	1446	7.63	99.1
2-17-19 18:45	0.54	1445	7.63	120.9
2-17-19 19:00	0.51	1445	7.63	118.7
2-17-19 19:15	0.50	1445	7.63	112.3
2-17-19 19:30	0.48	1445	7.63	114.8
2-17-19 19:45	0.47	1444	7.63	106.5
2-17-19 20:00	0.44	1444	7.63	114.5
2-17-19 20:15	0.44	1444	7.63	103.5
2-17-19 20:30	0.42	1446	7.63	103.3
2-17-19 20:45	0.42	1446	7.63	107.8
2-17-19 21:00	0.45	1444	7.63	110.0
2-17-19 21:15	0.44	1444	7.63	118.2
2-17-19 21:30	0.44	1445	7.63	102.8
2-17-19 21:45	0.41	1443	7.63	125.4
2-17-19 22:00	0.40	1444	7.63	129.9
2-17-19 22:15	0.30	1444	7.63	104.1
2-17-19 22:30	0.20	1443	7.63	110.7
2-17-19 22:45	0.13	1444	7.63	103.2

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-17-19 4:45	-0.10	1627	7.91	3.4
2-17-19 5:00	-0.10	1627	7.91	3.4
2-17-19 5:15	-0.10	1634	7.92	3.2
2-17-19 5:30	-0.10	1635	7.92	3.2
2-17-19 5:45	-0.10	1635	7.92	3.2
2-17-19 6:00	-0.10	1636	7.92	3.3
2-17-19 6:15	-0.09	1627	7.91	3.3
2-17-19 6:30	-0.10	1628	7.91	3.3
2-17-19 6:45	-0.10	1628	7.92	3.3
2-17-19 7:00	-0.10	1628	7.91	3.3
2-17-19 7:15	-0.10	1637	7.92	3.2
2-17-19 7:30	-0.10	1637	7.92	3.2
2-17-19 7:45	-0.10	1637	7.92	3.2
2-17-19 8:00	-0.10	1636	7.92	3.2
2-17-19 8:15	-0.10	1629	7.91	3.3
2-17-19 8:30	-0.10	1629	7.91	3.3
2-17-19 8:45	-0.10	1629	7.91	3.3
2-17-19 9:00	-0.09	1629	7.91	3.3
2-17-19 9:15	-0.10	1636	7.92	3.3
2-17-19 9:30	-0.10	1637	7.92	3.2
2-17-19 9:45	-0.10	1636	7.92	3.1
2-17-19 10:00	-0.10	1636	7.92	3.3
2-17-19 10:15	-0.10	1629	7.92	3.3
2-17-19 10:30	-0.10	1629	7.91	3.3
2-17-19 10:45	-0.10	1629	7.92	3.2
2-17-19 11:00	-0.10	1629	7.92	3.4
2-17-19 11:15	-0.10	1638	7.92	3.1
2-17-19 11:30	-0.10	1637	7.92	3.2
2-17-19 11:45	-0.10	1637	7.92	3.4
2-17-19 12:00	-0.10	1630	7.92	3.3
2-17-19 12:15	-0.08	1629	7.92	3.5
2-17-19 12:30	-0.08	1631	7.92	3.6
2-17-19 12:45	-0.08	1629	7.92	3.4
2-17-19 13:00	-0.08	1629	7.91	3.4
2-17-19 13:15				
2-17-19 13:30	-0.08	1629	7.92	3.0
2-17-19 13:45	-0.08	1629	7.92	3.0
2-17-19 14:00	-0.08	1628	7.92	3.0
2-17-19 14:15	-0.08	1628	7.92	3.2
2-17-19 14:30	-0.07	1628	7.91	3.2
2-17-19 14:45	-0.07	1628	7.91	3.2
2-17-19 15:00	-0.07	1628	7.91	3.3
2-17-19 15:15	-0.07	1628	7.92	3.0
2-17-19 15:30	-0.07	1628	7.92	3.2
2-17-19 15:45	-0.07	1629	7.92	2.9
2-17-19 16:00				
2-17-19 16:15	-0.07	1629	7.92	3.2
2-17-19 16:30	-0.07	1629	7.91	3.2
2-17-19 16:45	-0.07	1629	7.91	3.2
2-17-19 17:00	-0.07	1629	7.92	3.2
2-17-19 17:15	-0.07	1630	7.92	2.9
2-17-19 17:30	-0.07	1630	7.92	2.9
2-17-19 17:45	-0.07	1630	7.92	2.9
2-17-19 18:00	-0.07	1630	7.92	2.9
2-17-19 18:15	-0.07	1630	7.91	3.1
2-17-19 18:30	-0.07	1631	7.91	3.2
2-17-19 18:45	-0.07	1631	7.91	3.1
2-17-19 19:00	-0.07	1631	7.91	3.1
2-17-19 19:15	-0.07	1632	7.92	2.8
2-17-19 19:30	-0.07	1632	7.92	2.9
2-17-19 19:45	-0.07	1632	7.92	2.8
2-17-19 20:00	-0.07	1632	7.92	2.9
2-17-19 20:15	-0.07	1632	7.91	3.1
2-17-19 20:30	-0.07	1633	7.91	3.0
2-17-19 20:45	-0.07	1633	7.91	3.0
2-17-19 21:00	-0.07	1633	7.91	3.0
2-17-19 21:15	-0.07	1634	7.92	2.9
2-17-19 21:30	-0.07	1634	7.91	2.7
2-17-19 21:45	-0.07	1634	7.91	2.8
2-17-19 22:00	-0.07	1634	7.91	2.8
2-17-19 22:15	-0.07	1634	7.91	3.0
2-17-19 22:30	-0.07	1635	7.91	3.0
2-17-19 22:45	-0.07	1635	7.91	3.0

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-17-19 22:00	21.65	1698	9.16	8.5
7-17-19 22:15	21.69	1697	9.05	8.5
7-17-19 22:30	21.69	1697	9.83	8.5
7-17-19 22:45	21.66	1692	8.97	8.5
7-17-19 23:00	21.70	1694	9.27	8.5
7-17-19 23:15	21.71	1695	9.03	8.5
7-17-19 23:30	21.75	1696	8.65	8.5
7-17-19 23:45	21.74	1695	9.91	8.5
7-18-19 0:00	21.79	1696	9.87	8.5
7-18-19 0:15	21.74	1696	11.61	8.5
7-18-19 0:30	21.70	1697	11.76	8.5
7-18-19 0:45	21.68	1697	10.21	8.5
7-18-19 1:00	21.64	1697	10.22	8.5
7-18-19 1:15	21.71	1696	9.65	8.5
7-18-19 1:30	21.69	1695	11.60	8.5
7-18-19 1:45	21.72	1698	10.30	8.5
7-18-19 2:00	21.70	1697	10.17	8.5
7-18-19 2:15	21.64	1697	9.20	8.5
7-18-19 2:30	21.63	1697	9.47	8.5
7-18-19 2:45	21.58	1697	9.26	8.5
7-18-19 3:00	21.56	1696	10.32	8.5
7-18-19 3:15	21.53	1697	9.89	8.5
7-18-19 3:30	21.49	1696	9.80	8.5
7-18-19 3:45	21.45	1696	10.01	8.5
7-18-19 4:00	21.41	1697	9.22	8.5
7-18-19 4:15	21.38	1696	9.27	8.5
7-18-19 4:30	21.35	1697	9.23	8.5
7-18-19 4:45	21.31	1696	8.85	8.5
7-18-19 5:00	21.27	1696	9.97	8.5
7-18-19 5:15	21.21	1697	10.75	8.5
7-18-19 5:30	21.17	1696	9.60	8.5
7-18-19 5:45	21.11	1696	8.97	8.5
7-18-19 6:00	21.06	1696	9.50	8.5
7-18-19 6:15	21.04	1696	9.45	8.5
7-18-19 6:30	21.01	1695	8.95	8.5
7-18-19 6:45	20.96	1696	9.37	8.5
7-18-19 7:00	20.91	1697	9.19	8.5
7-18-19 7:15	20.86	1696	8.28	8.5
7-18-19 7:30	20.79	1697	9.06	8.5
7-18-19 7:45	20.80	1696	8.59	8.5
7-18-19 8:00	20.74	1697	8.96	8.5
7-18-19 8:15	20.70	1696	8.85	8.5
7-18-19 8:30	20.63	1696	9.54	8.5
7-18-19 8:45	20.57	1697	10.22	8.5
7-18-19 9:00	20.51	1696	8.40	8.5
7-18-19 9:15	20.50	1696	8.46	8.5
7-18-19 9:30	20.38	1695	8.30	8.5
7-18-19 9:45	20.30	1696	9.19	8.5
7-18-19 10:00	20.26	1695	8.57	8.5
7-18-19 10:15	20.27	1695	18.75	8.5
7-18-19 10:30	20.19	1696	7.89	8.5
7-18-19 10:45	20.08	1696	8.52	8.5
7-18-19 11:00	19.96	1696	8.26	8.5
7-18-19 11:15	19.92	1697	8.88	8.5
7-18-19 11:30	19.92	1696	8.16	8.5
7-18-19 11:45	19.87	1696	8.72	8.5
7-18-19 12:00	19.74	1695	8.72	8.5
7-18-19 12:15	19.69	1696	8.54	8.5
7-18-19 12:30	19.64	1695	8.30	8.5
7-18-19 12:45	19.57	1696	8.73	8.5
7-18-19 13:00	19.50	1696	8.86	8.5
7-18-19 13:15	19.45	1695	8.37	8.5
7-18-19 13:30	19.38	1696	8.53	8.5
7-18-19 13:45	19.38	1696	8.60	8.5
7-18-19 14:00	19.40	1695	8.38	8.5
7-18-19 14:15	19.40	1694	8.61	8.5
7-18-19 14:30	19.33	1694	8.72	8.5
7-18-19 14:45	19.34	1695	8.84	8.5
7-18-19 15:00	19.35	1696	8.99	8.5
7-18-19 15:15	19.33	1696	9.79	8.5
7-18-19 15:30	19.35	1695	9.56	8.5
7-18-19 15:45	19.36	1696	8.88	8.5
7-18-19 16:00	19.37	1696	8.74	8.5

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-18-19 17:30	12.53	1087	8.55	10.1
5-18-19 17:45	12.52	1085	8.55	9.8
5-18-19 18:00	12.52	1089	8.57	10.9
5-18-19 18:15	12.52	1088	8.57	10.5
5-18-19 18:30	12.55	1088	8.57	10.3
5-18-19 18:45	12.57	1087	8.57	10.0
5-18-19 19:00	12.57	1088	8.58	10.1
5-18-19 19:15	12.54	1088	8.57	9.8
5-18-19 19:30	12.56	1088	8.57	9.7
5-18-19 19:45	12.58	1086	8.57	9.2
5-18-19 20:00	12.59	1087	8.58	10.7
5-18-19 20:15	12.62	1086	8.58	10.0
5-18-19 20:30	12.61	1087	8.58	9.3
5-18-19 20:45	12.60	1086	8.58	9.8
5-18-19 21:00	12.61	1086	8.57	9.4
5-18-19 21:15	12.59	1086	8.57	9.5
5-18-19 21:30	12.59	1086	8.57	9.4
5-18-19 21:45	12.58	1085	8.57	9.1
5-18-19 22:00	12.58	1085	8.57	9.4
5-18-19 22:15	12.56	1085	8.57	9.2
5-18-19 22:30	12.52	1085	8.57	9.1
5-18-19 22:45	12.57	1084	8.57	9.0
5-18-19 23:00	12.58	1084	8.57	9.2
5-18-19 23:15	12.55	1084	8.56	9.1
5-18-19 23:30	12.56	1083	8.56	9.8
5-18-19 23:45	12.55	1083	8.56	8.7
5-19-19 0:00	12.53	1084	8.56	8.7
5-19-19 0:15	12.52	1083	8.56	8.7
5-19-19 0:30	12.50	1084	8.56	9.1
5-19-19 0:45	12.51	1083	8.56	9.1
5-19-19 1:00	12.50	1083	8.56	9.2
5-19-19 1:15	12.48	1083	8.55	8.6
5-19-19 1:30	12.49	1083	8.56	9.3
5-19-19 1:45	12.48	1082	8.56	8.8
5-19-19 2:00	12.47	1083	8.55	8.6
5-19-19 2:15	12.46	1083	8.55	8.7
5-19-19 2:30	12.42	1083	8.55	9.1
5-19-19 2:45	12.39	1082	8.55	8.2
5-19-19 3:00	12.34	1083	8.55	9.0
5-19-19 3:15	12.30	1083	8.54	8.2
5-19-19 3:30	12.29	1083	8.55	9.0
5-19-19 3:45	12.26	1083	8.55	8.4
5-19-19 4:00	12.26	1084	8.55	9.1
5-19-19 4:15	12.25	1083	8.55	8.6
5-19-19 4:30	12.24	1083	8.55	9.0
5-19-19 4:45	12.20	1083	8.55	8.5
5-19-19 5:00	12.14	1083	8.55	8.9
5-19-19 5:15	12.08	1084	8.54	8.0
5-19-19 5:30	12.08	1083	8.55	8.2
5-19-19 5:45	12.04	1082	8.55	8.4
5-19-19 6:00	12.00	1083	8.55	8.1
5-19-19 6:15	11.98	1083	8.55	8.0
5-19-19 6:30	11.95	1084	8.55	8.7
5-19-19 6:45	11.95	1083	8.56	8.0
5-19-19 7:00	11.96	1084	8.55	8.1
5-19-19 7:15	11.96	1083	8.55	8.5
5-19-19 7:30	12.03	1083	8.55	8.8
5-19-19 7:45	12.10	1083	8.55	8.1
5-19-19 8:00	12.14	1083	8.55	8.6
5-19-19 8:15	12.28	1083	8.55	7.6
5-19-19 8:30	12.35	1083	8.55	8.5
5-19-19 8:45				
5-19-19 9:00				
5-19-19 9:15	12.81	1083	8.54	8.7
5-19-19 9:30	12.75	1082	8.54	11.6
5-19-19 9:45	12.83	1084	8.54	8.2
5-19-19 10:00	12.95	1084	8.54	8.1
5-19-19 10:15	13.25	1085	8.53	8.8
5-19-19 10:30	13.41	1083	8.53	8.1
5-19-19 10:45	13.69	1084	8.53	8.0
5-19-19 11:00	13.76	1082	8.52	8.2
5-19-19 11:15	14.18	1087	8.51	11.2
5-19-19 11:30	14.42	1084	8.51	9.3

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-17-19 23:00	-0.06	851	8.30	65.7	2-17-19 23:00	0.09	1443	7.63	98.5	2-17-19 23:00	-0.08	1635	7.91	3.0	7-18-19 16:15	19.38	1696	9.74	8.5	5-19-19 11:45	14.60	1085	8.51	9.1					
2-17-19 23:15	-0.06	855	8.30	66.6	2-17-19 23:15	0.08	1443	7.63	96.4	2-17-19 23:15	-0.08	1636	7.91	2.8	7-18-19 16:30	19.41	1696	9.00	8.5	5-19-19 12:00	14.82	1086	8.50	9.0					
2-17-19 23:30	-0.06	923	8.31	1.9	2-17-19 23:30	0.06	1443	7.63	90.4	2-17-19 23:30	-0.08	1636	7.92	2.8	7-18-19 16:45	19.42	1695	9.19	8.5	5-19-19 12:15	15.12	1091	8.50	11.7					
2-17-19 23:45	-0.06	834	8.29	2.6	2-17-19 23:45	0.05	1442	7.63	84.9	2-17-19 23:45	-0.08	1636	7.91	2.8	7-18-19 17:00	19.42	1697	9.41	8.5	5-19-19 12:30	15.29	1086	8.50	10.0					
2-18-19 0:00	-0.06	831	8.28	2.0	2-18-19 0:00					2-18-19 0:00	-0.08	1636	7.91	2.9	7-18-19 17:15	19.44	1697	9.95	8.5	5-19-19 12:45	15.28	1087	8.50	9.6					
2-18-19 0:15	-0.06	839	8.28	3.1	2-18-19 0:15	0.02	1442	7.63	66.7	2-18-19 0:15	-0.08	1637	7.91	3.1	7-18-19 17:30	19.44	1696	9.36	8.5	5-19-19 13:00	15.49	1093	8.50	9.5					
2-18-19 0:30	-0.06	837	8.27	2.4	2-18-19 0:30	0.01	1442	7.63	73.1	2-18-19 0:30	-0.08	1637	7.90	3.2	7-18-19 17:45	19.44	1696	9.54	8.5	5-19-19 13:15	15.55	1085	8.49	8.8					
2-18-19 0:45	-0.06	850	8.28	2.8	2-18-19 0:45	0.01	1440	7.64	73.1	2-18-19 0:45	-0.08	1637	7.91	3.2	7-18-19 18:00	19.44	1697	9.59	8.5	5-19-19 13:30	15.91	1087	8.49	8.9					
2-18-19 1:00	-0.06	854	8.27	3.2	2-18-19 1:00	0.00	1441	7.63	68.1	2-18-19 1:00	-0.08	1637	7.91	3.1	7-18-19 18:15	19.45	1696	9.86	8.5	5-19-19 13:45	16.24	1090	8.48	9.1					
2-18-19 1:15	-0.06	851	8.27	3.4	2-18-19 1:15	-0.01	1443	7.63	57.3	2-18-19 1:15	-0.08	1638	7.91	2.7	7-18-19 18:30	19.46	1697	10.14	8.5	5-19-19 14:00	15.66	1084	8.50	8.7					
2-18-19 1:30	-0.06	918	8.29	2.9	2-18-19 1:30	-0.02	1443	7.64	62.2	2-18-19 1:30	-0.08	1638	7.91	2.9	7-18-19 18:45	19.49	1696	9.93	8.5	5-19-19 14:15	16.18	1092	8.49	9.0					
2-18-19 1:45	-0.06	858	8.27	3.2	2-18-19 1:45	0.12	1447	7.62	75.9	2-18-19 1:45	-0.08	1638	7.91	2.8	7-18-19 19:00	19.51	1696	10.46	8.5	5-19-19 14:30	16.73	1088	8.48	9.6					
2-18-19 2:00	-0.06	923	8.28	3.3	2-18-19 2:00	0.11	1446	7.63	65.9	2-18-19 2:00	-0.08	1638	7.91	2.9	7-18-19 19:15	19.52	1696	9.44	8.5	5-19-19 14:45	16.52	1090	8.48	8.5					
2-18-19 2:15	-0.06	855	8.26	3.3	2-18-19 2:15	0.08	1447	7.63	57.2	2-18-19 2:15	-0.07	1639	7.91	3.1	7-18-19 19:30	19.58	1698	9.49	8.5	5-19-19 15:00	16.79	1087	8.48	8.2					
2-18-19 2:30	-0.06	927	8.27	3.0	2-18-19 2:30	0.07	1448	7.63	57.0	2-18-19 2:30	-0.07	1639	7.91	3.0	7-18-19 19:45	19.55	1696	10.68	8.5	5-19-19 15:15	16.62	1090	8.47	9.1					
2-18-19 2:45	-0.06	856	8.25	4.0	2-18-19 2:45	0.05	1448	7.63	49.4	2-18-19 2:45	-0.07	1639	7.91	3.0	7-18-19 20:00	19.51	1698	10.08	8.5	5-19-19 15:30	16.73	1089	8.48	8.5					
2-18-19 3:00	-0.06	930	8.27	3.7	2-18-19 3:00	0.08	1448	7.63	60.4	2-18-19 3:00	-0.07	1639	7.91	2.9	7-18-19 20:15	19.49	1698	10.06	8.5	5-19-19 15:45	16.77	1089	8.48	8.7					
2-18-19 3:15	-0.06	857	8.25	4.2	2-18-19 3:15	0.16	1448	7.63	61.0	2-18-19 3:15	-0.07	1640	7.91	2.8	7-18-19 20:30	19.52	1697	9.91	8.5	5-19-19 16:00	17.05	1090	8.48	9.1					
2-18-19 3:30	-0.06	931	8.26	4.9	2-18-19 3:30	0.06	1448	7.63	48.4	2-18-19 3:30	-0.07	1640	7.91	2.8	7-18-19 20:45	19.57	1696	10.67	8.5	5-19-19 16:15	17.45	1090	8.47	9.9					
2-18-19 3:45	-0.06	861	8.24	5.4	2-18-19 3:45	0.02	1450	7.63	32.5	2-18-19 3:45	-0.07	1640	7.91	2.7	7-18-19 21:00	19.61	1697	10.14	8.5	5-19-19 16:30	17.65	1090	8.47	11.5					
2-18-19 4:00	-0.06	932	8.26	7.5	2-18-19 4:00	0.09	1449	7.63	51.3	2-18-19 4:00	-0.07	1641	7.91	2.6	7-18-19 21:15	19.65	1698	11.19	8.5	5-19-19 16:45	17.16	1089	8.48	8.4					
2-18-19 4:15	-0.06	860	8.25	7.7	2-18-19 4:15	0.03	1450	7.63	39.1	2-18-19 4:15	-0.07	1641	7.91	3.0	7-18-19 21:30	19.73	1697	10.60	8.5	5-19-19 17:00	17.09	1089	8.48	9.0					
2-18-19 4:30	-0.06	933	8.26	11.9	2-18-19 4:30	0.11	1448	7.63	51.6	2-18-19 4:30	-0.08	1641	7.91	2.9	7-18-19 21:45	19.76	1698	10.34	8.5	5-19-19 17:15	17.12	1091	8.47	8.1					
2-18-19 4:45	-0.06	862	8.24	7.5	2-18-19 4:45	0.05	1450	7.63	49.4	2-18-19 4:45	-0.08	1642	7.91	2.8	7-18-19 22:00	19.83	1698	10.03	8.5	5-19-19 17:30	17.08	1092	8.48	8.5					
2-18-19 5:00	-0.06	936	8.25	8.0	2-18-19 5:00	0.04	1450	7.63	42.3	2-18-19 5:00	-0.08	1643	7.91	2.9	7-18-19 22:15	19.89	1697	10.34	8.5	5-19-19 17:45	17.04	1090	8.48	8.7					
2-18-19 5:15	-0.06	864	8.24	9.4	2-18-19 5:15	0.03	1450	7.63	46.5	2-18-19 5:15	-0.08	1643	7.91	2.7	7-18-19 22:30	19.85	1696	10.38	8.5	5-19-19 18:00	16.81	1086	8.49	8.9					
2-18-19 5:30	-0.06	937	8.25	9.9	2-18-19 5:30	0.12	1447	7.63	44.3	2-18-19 5:30	-0.08	1643	7.91	2.8	7-18-19 22:45	19.79	1696	10.81	8.5	5-19-19 18:15	16.67	1087	8.50	8.5					
2-18-19 5:45	-0.06	866	8.24	10.0	2-18-19 5:45	0.08	1450	7.63	45.2	2-18-19 5:45	-0.08	1644	7.91	2.8	7-18-19 23:00	19.80	1696	11.21	8.5	5-19-19 18:30	16.73	1089	8.50	9.3					
2-18-19 6:00	-0.06	940	8.25	11.7	2-18-19 6:00	0.08	1450	7.63	47.4	2-18-19 6:00	-0.08	1645	7.91	2.8	7-18-19 23:15	19.80	1697	10.94	8.5	5-19-19 18:45	16.54	1090	8.50	8.5					
2-18-19 6:15	-0.06	867	8.24	16.1	2-18-19 6:15	0.17	1449	7.63	62.2	2-18-19 6:15	-0.09	1645	7.91	2.9	7-18-19 23:30	19.83	1698	11.02	8.5	5-19-19 19:00	16.17	1087	8.51	14.9					
2-18-19 6:30	-0.06	936	8.25	16.8	2-18-19 6:30	0.17	1448	7.63	62.3	2-18-19 6:30	-0.09	1646	7.90	2.9	7-18-19 23:45	19.86	1696	11.66	8.5	5-19-19 19:15	15.77	1085	8.52	8.1					
2-18-19 6:45	-0.06	869	8.24	17.3	2-18-19 6:45	0.14	1449	7.63	50.2	2-18-19 6:45	-0.09	1646	7.90	3.0	7-19-19 0:00	19.90	1697	10.57	8.5	5-19-19 19:30	15.25	1083	8.55	8.9					
2-18-19 7:00	-0.06	942	8.25	18.2	2-18-19 7:00	0.19	1449	7.63	64.8	2-18-19 7:00	-0.09	1647	7.90	2.9	7-19-19 0:15	19.87	1697	10.45	8.5	5-19-19 19:45	14.80	1089	8.57	9.8					
2-18-19 7:15	-0.06	867	8.24	21.7	2-18-19 7:15	0.18	1449	7.63	63.4	2-18-19 7:15	-0.09	1647	7.91	2.8	7-19-19 0:30	19.84	1697	12.34	8.5	5-19-19 20:00	14.68	1088	8.58	10.9					
2-18-19 7:30	-0.06	942	8.25	17.1	2-18-19 7:30	0.24	1448	7.63	69.6	2-18-19 7:30	-0.09	1647	7.91	2.7	7-19-19 0:45	19.82	1699	11.83	8.5	5-19-19 20:15	14.70	1092	8.58	10.2					
2-18-19 7:45	-0.06	863	8.24	7.9	2-18-19 7:45	0.23	1450	7.63	89.0	2-18-19 7:45	-0.09	1647	7.91	2.8	7-19-19 1:00	19.86	1698	11.96	8.5	5-19-19 20:30	14.89	1090	8.57	9.9					
2-18-19 8:00	-0.06	940	8.25	9.3	2-18-19 8:00	0.24	1448	7.63	62.3	2-18-19 8:00	-0.09	1647	7.91	2.7	7-19-19 1:15	19.86	1698	11.71	8.5	5-19-19 20:45	15.06	1101	8.55	7.6					
2-18-19 8:15	-0.06	867	8.24	11.3	2-18-19 8:15	0.22	1447	7.63	66.0	2-18-19 8:15	-0.09	1647	7.91	2.8	7-19-19 1:30	19.87	1698	11.06	8.5	5-19-19 21:00	15.09	1091	8.55	7.8					
2-18-19 8:30	-0.06	944	8.25	12.5	2-18-19 8:30	0.19	1448	7.63	47.0	2-18-19 8:30	-0.09	1647	7.91	2.9	7-19-19 1:45	19.85	1698	10.80	8.5	5-19-19 21:15	15.12	1090	8.54	7.7					
2-18-19 8:45	-0.06	864	8.24	17.0	2-18-19 8:45	0.10	1449	7.63	32.1	2-18-19 8:45	-0.09	1648	7.91	2.9	7-19-19 2:00	19.82	1698	11.21	8.5	5-19-19 21:30	15.16	1090	8.55	7.5					
2-18-19 9:00	-0.06	940	8.25	13.2	2-18-19 9:00	0.07	1452	7.63	42.1	2-18-19 9:00	-0.09	1648	7.91	2.8	7-19-19 2:15	19.80	1697	11.43	8.5	5-19-19 21:45	15.18	1096	8.54	7.8					
2-18-19 9:15	-0.06	866	8.24	11.8	2-18-19 9:15	0.08	1451	7.63	44.0	2-18-19 9:15	-0.09	1648	7.91	2.7	7-19-19 2:30	19.78	1698	10.81	8.5	5-19-19 22:00	15.25	1090	8.54	7.2					
2-18-19 9:30	-0.06	941	8.24	13.2	2-18-19 9:30	0.05	1451	7.63	34.1	2-18-19 9:30	-0.09	1648	7.91	2.7	7-19-19 2:45	19.79	1697	10.88	8.5	5-19-19 22:15	15.26	1093	8.54	8.6					
2-18-19 9:45	-0.06	865	8.24	16.1	2-18-19 9:45	0.09	1451	7.63	43.1	2-18-19 9:45	-0.09	1649	7.91	2.6	7-19-19 3:00	19.76	1698	11.98	8.5	5-19-19 22:30	15.25	1089	8.54	8.1					
2-18-19 10:00	-0.06	943	8.25	22.2	2-18-19 10:00	0.18	1451	7.63	48.0	2-18-19 10:00	-0.09	1649	7.91	2.7	7-19-19 3:15	19.73	1699	10.89	8.5	5-19-19 22:45	15.25	1093	8.53	8.4					
2-18-19 10:15	-0.06	871	8.24	2.9	2-18-19 10:15	0.15	1450	7.63	47.4	2-18-19 10:15	-0.09	1649	7.91	2.9	7-19-19 3:30	19.70	1698	11.47	8.5	5-19-19 23:00	15.21	1088	8.53	8.0					
2-18-19 10:30	-0.06	946	8.25	2.6	2-18-19 10:30	0.09	1452	7.63	38.6	2-18-19 10:30	-0.09	1649	7.91	2.8	7-19-19 3:45	19.66	1699	12.30	8.5	5-19-19 23:15	15.18	1091	8.53	7.8					
2-18-19 10:45	-0.06	872	8.24	2.1	2-18-19 10:45	0.13	1450	7.63	40.3	2-18-19 10:45	-0.09	1649	7.91	3.0	7-19-19 4:00	19.63	1697	10.04	8.5	5-19-19 23:30	15.11	1090	8.53	8.0					
2-18-19 11:00	-0.06	1024	8.27	3.5	2-18-19 11:00	0.19	1449	7.63	42.4	2-18-19 11:00	-0.09	1650	7.91	2.9	7-19-19 4:15	19.60	1698	10.15	8.5	5-19-19 23:45	15.10	1090	8.53	8.1					
2-18-19 11:15	-0.05	1012	8.27	2.8	2-18-19 11:15	0.25	1451	7.63	60.4	2-18-19 11:15	-0.09	1650	7.91	2.8	7-19-19 4:30	19.56	1697	11.51	8.5	5-20-19 0:00	15.05	1089	8.53	8.5					
2-18-19 11:30	-0.06	905	8.28	2.2	2-18-19 11:30	0.24	1449	7.63	56.1	2-18-19 11:30	-0.09	1650	7.91	2.7	7-19-19 4:45	19.54	1698	10.68	8.5	5-20-19 0:15	14.94	1091	8.53	8.1					
2-18-19 11:45	-0.06	1120	8.28	1.7	2-18-19 11:45	0.19	1452	7.63	54.9	2-18-19 11:45	-0.09	1650	7.91	2.6	7-19-19 5:00	19.52	1698	9.98	8.5	5-20-19 0:30	14.88	1086	8.54	7.5					
2-18-19 12:00	-0.06	1075	8.28	1.4	2-18-19 12:00	0.16	1450	7.63	44.9	2-18-19 12:00	-0.09	1650	7.91	2.7	7-19-19 5:15	19.48	1697	10.27	8.5	5-20-19 0:45	14.86	1090	8.54	7.9					
2-18-19 12:15	-0.06	1053	8.28	1.5	2-18-19 12:15	0.15	1452	7.63	55.5	2-18-19 12:15	-0.09	1650	7.91	3.2	7-19-19 5:30	19.43	1695	12.36	8.5	5-20-19 1:00	14.86	1089	8.54	7.8					
2-18-19 12:30	-0.06	1066	8.28	1.8	2-18-19 12:30	0.18	1450	7.63	50.7	2-18-19 12:30	-0.09	1651	7.91	2.9	7-19-19 5:45	19.40	1695	9.98	8.5	5-20-19 1:15	14.81	1090	8.53	8.0					
2-18-19 12:45	-0.06	1079	8.28	1.5	2-18-19 12:45	0.22	1451	7.63	58.4	2-18-19 12:45	-0.09	1651	7.90	2.8	7-19-19 6:00	19.36	1694	9.94	8.5	5-20-19 1:30	14.80	1089	8.53	7.7					
2-18-19 13:00	-0.06	1082	8.28	1.6	2-18-19 13:00	0.25	1450	7.63	51.0	2-18-19 13:00	-0.09	1651	7.90	2.8	7-19-19 6:15	19.33	1695	11.13	8.5	5-20-19 1:45	14.70	1090	8.53	8.6					
2-18-19 13:15	-0.06	1078	8.28	1.9	2-18-19 13:15	0.27	1450	7.63	56.3	2-18-19 13:15	-0.09	1652	7.91	2.8	7-19-19 6:30	19.29	1695	11.01	8.5	5-20-19 2:00	14.62	1095	8.53	8.1					
2-18-19 13:30	-0.06	1053	8.28	2.4	2-18-19 13:30	0.19	1454	7.63	52.7	2-18-19 13:30	-0.09	1652	7.91	2.8	7-19-19 6:45	19.26	1694	10.35	8.5	5-20-19 2:15	14.54	1091	8.53	8.7					
2-18-19 13:45	-0.06	1066	8.27	2.5	2-18-19 13:45	0.26	1453	7.64	73.0	2-18-19 13:45	-0.09	1652	7.91	2.7	7-19-19 7:00	19.22	1693	9.26	8.5	5-20-19 2:30	14.42	1089	8.53	10.3					
2-18-19 14:00	-0.06	1083	8.28	1.9	2-18-19 14:00	0.32	1451	7.63	61.0	2-18-19 14:00	-0.09	1652	7.91	2.7	7-19-19 7:15	19.19	1694	9.50	8.5	5-20-19 2:45	14.52	1091	8.53	9.0					
2-18-19 14:15	-0.06	1077	8.28	2.2	2-18-19 14:15	0.27	1453	7.63	55.6	2-18-19 14:15	-0.09	1653	7.90	2.8	7-19-19 7:30	19.17	1695	9.52	8.5	5-20-19 3:00	14.43	1089	8.53	9.9					
2-18-19 14:30	-0.06	1082	8.28	1.9	2-18-19 14:30	0.29	1452	7.63	54.4	2-18-19 14:30	-0.12	1659	7.92	3.2	7-19-19 7:45	19.14	1692	9.07	8.5	5-20-19 3:15	14.40	1092	8.52	7.6					
2-18-19 14:45	-0.06	1081	8.28	1.9	2-18-19 14:45	0.30	1452	7.63	51.4	2-18-19 14:45	-0.11	1656	7.91	2.9	7-19-19 8:00	19.10	1693	9.32	8.5	5-20-19 3:30	14.33	1091	8.53	8.4					
2-18-19 15:00	-0.06	1080	8.28	2.0	2-18-19 15:00	0.25	1452	7.63	59.3	2-18-19 15:00	-0.10	1655	7.91	3.0	7-19-19 8:15	19.08	1692	9.24	8.5	5-20-19 3:45	14.27	1091	8.53	8.4					
2-18-19 15:15	-0.06	1078	8.27	1.7	2-18-19 15:15	0.32	1453	7.63	60.9	2-18-19 15:15	-0.10	1655	7.91	2.7	7-19-19 8:30	19.05	1693	11.79	8.5	5-20-19 4:00	14.18	1090	8.53	8.3					
2-18-19 15:30	-0.06	1079	8.27	1.6	2-18-19 15:30	0.19	1451	7.63	52.4	2-18-19 15:30	-0.10	1654	7.91	2.8	7-19-19 8:45	19.03	1694	8.78	8.5	5-20-19 4:15	14.19	1091	8.53	7.5					
2-18-19 15:45	-0.06	1077	8.27	1.5	2-18-19 15:45	0.26	1453	7.63	50.0	2-18-19 15:45	-0.09	1654	7.91	2.7	7-19-19 9:00	19.00	1693	8.64	8.5	5-20-19 4:30	14.15	1091	8.53	6.9					
2-18-19 16:00	-0.06	1081	8.28	1.5	2-18-19 16:00	0.34	1452	7.63	57.9	2-18-19 16:00	-0.09	1654	7.91	2.8	7-19-19 9:15	18.98	1694	8.73	8.5	5-20-19 4:45	14.08	1091	8.53	7.6					
2-18-19 16:15	-0.06	1082	8.28	1.8	2-18-19 16:15	0.32	1453	7.63	54.6	2-18-19 16:15	-0.09	1654	7.90	2.8	7-19-19 9:30	18.96	1694	9.19	8.5	5-20-19 5:00	14.08	1091	8.53	6.9					
2-18-19 16:30	-0.06	1076	8.27	1.8	2-18-19 16:30	0.32	1453	7.63	52.4	2-18-19 16:30	-0.09	1654	7.90	2.8	7-19-19 9:45	18.93	1692	8.89	8.5	5-20-19 5:15	14.02	1091	8.52	7.5					
2-18-19 16:45	-0.06	1084	8.28	1.5	2-18-19 16:45	0.32	1453	7.63	55.3	2-18-19 16:45	-0.09	1654	7.91	2.7	7-19-19 10:00	18.91	1693	8.60	8.5	5-20-19 5:30	13.95	1090	8.53	7.4					
2-18-19 17:00	-0.06	1084	8.27	1.3	2-18-19 17:00	0.29	1453	7.63	52.1	2-18-19 17:00	-0.09	1654	7.91	2.8	7-19-19 10:15	18.88	1693	7.86	8.5	5-20-19 5:45	13.92	1091	8.53	8.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-18-19 17:15	-0.06	1088	8.27	1.6	2-18-19 17:15	0.27	1452	7.63	56.4	2-18-19 17:15	-0.09	1654	7.91	2.7	7-19-19 10:30	18.86	1692	8.21	8.5	5-20-19 6:00	13.84	1090	8.53	7.1					
2-18-19 17:30	-0.06	1090	8.28	1.7	2-18-19 17:30	0.27	1455	7.63	51.0	2-18-19 17:30	-0.09	1655	7.91	2.8	7-19-19 10:45	18.85	1695	8.64	8.5	5-20-19 6:15	13.85	1091	8.53	7.8					
2-18-19 17:45	-0.06	1091	8.28	1.5	2-18-19 17:45	0.29	1455	7.63	49.1	2-18-19 17:45	-0.10	1655	7.91	2.7	7-19-19 11:00	18.83	1694	8.11	8.5	5-20-19 6:30	13.81	1091	8.53	7.9					
2-18-19 18:00	-0.06	1092	8.27	1.4	2-18-19 18:00	0.30	1454	7.63	52.8	2-18-19 18:00	-0.10	1655	7.91	2.8	7-19-19 11:15	18.84	1694	8.10	8.5	5-20-19 6:45	13.79	1091	8.53	8.5					
2-18-19 18:15	-0.06	1091	8.27	1.5	2-18-19 18:15	0.21	1458	7.63	46.6	2-18-19 18:15	-0.09	1655	7.91	2.8	7-19-19 11:30	18.79	1692	8.31	8.5	5-20-19 7:00	13.78	1090	8.53	8.3					
2-18-19 18:30	-0.06	1091	8.27	1.8	2-18-19 18:30	0.39	1453	7.63	62.9	2-18-19 18:30	-0.09	1655	7.91	2.9	7-19-19 11:45	18.78	1694	8.54	8.5	5-20-19 7:15	13.81	1091	8.52	8.2					
2-18-19 18:45	-0.06	1091	8.27	1.4	2-18-19 18:45	0.37	1454	7.63	55.6	2-18-19 18:45	-0.09	1655	7.91	2.8	7-19-19 12:00	18.76	1693	8.37	8.5	5-20-19 7:30	13.87	1090	8.53	7.4					
2-18-19 19:00	-0.06	1095	8.27	1.3	2-18-19 19:00	0.34	1453	7.63	55.6	2-18-19 19:00	-0.09	1655	7.91	2.7	7-19-19 12:15	18.74	1694	11.00	8.5	5-20-19 7:45	13.92	1090	8.53	7.2					
2-18-19 19:15	-0.06	1094	8.27	1.6	2-18-19 19:15	0.47	1452	7.63	65.7	2-18-19 19:15	-0.09	1656	7.91	2.7	7-19-19 12:30	18.72	1693	8.86	8.5	5-20-19 8:00	13.99	1090	8.53	7.2					
2-18-19 19:30	-0.06	1097	8.27	1.8	2-18-19 19:30	0.48	1452	7.63	64.9	2-18-19 19:30	-0.09	1655	7.91	2.7	7-19-19 12:45	18.70	1693	8.78	8.5	5-20-19 8:15	14.06	1090	8.53	7.0					
2-18-19 19:45	-0.06	1099	8.28	1.6	2-18-19 19:45	0.37	1456	7.63	57.9	2-18-19 19:45	-0.09	1655	7.91	2.7	7-19-19 13:00	18.67	1694	9.30	8.5	5-20-19 8:30	14.16	1089	8.53	7.6					
2-18-19 20:00	-0.06	1102	8.28	1.5	2-18-19 20:00	0.40	1455	7.63	57.2	2-18-19 20:00	-0.09	1655	7.91	2.7	7-19-19 13:15	18.65	1691	8.65	8.5	5-20-19 8:45	14.31	1091	8.53	7.5					
2-18-19 20:15	-0.06	1103	8.28	1.4	2-18-19 20:15	0.39	1451	7.63	51.7	2-18-19 20:15	-0.09	1655	7.91	2.8	7-19-19 13:30	18.64	1691	9.75	8.5	5-20-19 9:00	14.34	1089	8.53	7.6					
2-18-19 20:30	-0.06	1103	8.28	1.4	2-18-19 20:30	0.36	1454	7.63	53.6	2-18-19 20:30	-0.09	1655	7.90	2.7	7-19-19 13:45	18.62	1688	9.03	8.5	5-20-19 9:15	14.50	1091	8.52	7.8					
2-18-19 20:45	-0.06	1103	8.28	1.3	2-18-19 20:45	0.36	1455	7.63	56.4	2-18-19 20:45	-0.09	1655	7.90	2.8	7-19-19 14:00	18.61	1690	9.10	8.5	5-20-19 9:30	14.78	1090	8.52	13.0					
2-18-19 21:00	-0.06	1102	8.28	1.6	2-18-19 21:00	0.23	1453	7.63	50.0	2-18-19 21:00	-0.09	1655	7.90	2.7	7-19-19 14:15	18.60	1689	8.75	8.5	5-20-19 9:45	14.85	1090	8.52	9.2					
2-18-19 21:15	-0.06	1102	8.28	1.6	2-18-19 21:15	0.20	1457	7.63	45.9	2-18-19 21:15	-0.09	1656	7.91	2.8	7-19-19 14:30	18.58	1688	8.63	8.5	5-20-19 10:00	15.03	1089	8.52	10.5					
2-18-19 21:30	-0.06	1104	8.28	1.5	2-18-19 21:30	0.29	1453	7.63	48.6	2-18-19 21:30	-0.09	1655	7.91	2.7	7-19-19 14:45	18.58	1687	8.56	8.5	5-20-19 10:15	15.07	1090	8.52	10.7					
2-18-19 21:45	-0.06	1105	8.28	1.7	2-18-19 21:45	0.33	1456	7.63	47.1	2-18-19 21:45	-0.09	1655	7.91	2.7	7-19-19 15:00	18.56	1689	8.53	8.5	5-20-19 10:30	15.08	1091	8.52	9.0					
2-18-19 22:00	-0.06	1103	8.28	1.5	2-18-19 22:00	0.31	1458	7.63	48.5	2-18-19 22:00	-0.09	1655	7.91	2.6	7-19-19 15:15	18.55	1688	8.92	8.5	5-20-19 10:45	15.28	1091	8.52	9.8					
2-18-19 22:15	-0.06	1111	8.28	3.4	2-18-19 22:15	0.22	1455	7.63	42.8	2-18-19 22:15	-0.08	1655	7.90	2.8	7-19-19 15:30	18.58	1690	8.63	8.5	5-20-19 11:00	15.42	1090	8.51	9.6					
2-18-19 22:30	-0.06	1108	8.28	1.4	2-18-19 22:30	0.12	1455	7.63	41.8	2-18-19 22:30	-0.08	1655	7.91	2.7	7-19-19 15:45	18.60	1689	8.48	8.5	5-20-19 11:15	15.58	1093	8.51	11.2					
2-18-19 22:45	-0.06	1112	8.28	1.4	2-18-19 22:45	0.10	1458	7.63	40.5	2-18-19 22:45	-0.08	1655	7.91	2.7	7-19-19 16:00	18.62	1690	8.69	8.5	5-20-19 11:30	15.61	1091	8.51	10.3					
2-18-19 23:00	-0.06	1112	8.28	1.2	2-18-19 23:00	0.19	1457	7.63	44.9	2-18-19 23:00	-0.08	1656	7.91	2.7	7-19-19 16:15	18.63	1691	8.47	8.5	5-20-19 11:45	15.64	1094	8.51	14.4					
2-18-19 23:15	-0.06	1114	8.28	1.4	2-18-19 23:15	0.28	1456	7.63	42.0	2-18-19 23:15	-0.08	1655	7.91	2.6	7-19-19 16:30	18.64	1687	8.92	8.5	5-20-19 12:00	15.80	1092	8.51	10.6					
2-18-19 23:30	-0.06	1114	8.28	1.9	2-18-19 23:30	0.12	1460	7.63	38.8	2-18-19 23:30	-0.08	1655	7.91	2.8	7-19-19 16:45	18.65	1688	9.51	8.5	5-20-19 12:15	15.91	1094	8.51	11.7					
2-18-19 23:45	-0.06	1116	8.27	2.5	2-18-19 23:45	0.17	1458	7.63	41.8	2-18-19 23:45	-0.08	1656	7.91	2.6	7-19-19 17:00	18.68	1691	8.67	8.5	5-20-19 12:30	16.17	1095	8.51	12.5					
2-19-19 0:00	-0.06	1116	8.27	1.5	2-19-19 0:00	0.18	1456	7.63	42.0	2-19-19 0:00	-0.08	1655	7.91	2.7	7-19-19 17:15	18.69	1691	10.26	8.5	5-20-19 12:45	16.28	1092	8.50	10.0					
2-19-19 0:15	-0.06	1112	8.27	1.5	2-19-19 0:15	0.17	1458	7.63	45.3	2-19-19 0:15	-0.08	1655	7.91	2.7	7-19-19 17:30	18.79	1690	9.26	8.5	5-20-19 13:00	16.27	1089	8.51	12.0					
2-19-19 0:30	-0.06	1119	8.28	2.3	2-19-19 0:30	0.19	1456	7.63	45.7	2-19-19 0:30	-0.08	1656	7.91	2.7	7-19-19 17:45	18.85	1690	8.98	8.5	5-20-19 13:15	16.57	1097	8.49	12.2					
2-19-19 0:45	-0.06	1117	8.27	1.3	2-19-19 0:45	0.15	1456	7.63	42.9	2-19-19 0:45	-0.08	1656	7.91	2.8	7-19-19 18:00	18.83	1690	10.11	8.5	5-20-19 13:30	16.81	1093	8.50	11.1					
2-19-19 1:00	-0.06	1115	8.27	1.3	2-19-19 1:00	0.13	1457	7.63	43.1	2-19-19 1:00	-0.08	1656	7.91	2.8	7-19-19 18:15	18.95	1692	9.34	8.5	5-20-19 13:45	16.82	1094	8.50	10.9					
2-19-19 1:15	-0.06	1115	8.27	1.4	2-19-19 1:15	0.19	1459	7.63	40.4	2-19-19 1:15	-0.08	1656	7.91	2.7	7-19-19 18:30	18.94	1690	9.39	8.5	5-20-19 14:00	16.95	1090	8.50	10.1					
2-19-19 1:30	-0.06	1119	8.27	1.6	2-19-19 1:30	0.24	1456	7.63	40.7	2-19-19 1:30	-0.08	1656	7.91	2.6	7-19-19 18:45	19.20	1691	9.37	8.5	5-20-19 14:15	16.93	1100	8.50	13.9					
2-19-19 1:45	-0.06	1120	8.27	1.6	2-19-19 1:45	0.26	1459	7.63	37.8	2-19-19 1:45	-0.08	1656	7.91	2.7	7-19-19 19:00	19.20	1691	9.96	8.5	5-20-19 14:30	16.91	1093	8.50	10.0					
2-19-19 2:00	-0.06	1119	8.27	1.5	2-19-19 2:00	0.21	1459	7.63	36.9	2-19-19 2:00	-0.08	1657	7.91	2.7	7-19-19 19:15	19.24	1691	10.05	8.5	5-20-19 14:45	16.93	1096	8.50	11.6					
2-19-19 2:15	-0.06	1121	8.27	1.6	2-19-19 2:15	0.34	1455	7.63	47.8	2-19-19 2:15	-0.08	1656	7.90	2.8	7-19-19 19:30	19.46	1692	9.04	8.5	5-20-19 15:00	16.90	1094	8.51	17.1					
2-19-19 2:30	-0.06	1123	8.27	1.5	2-19-19 2:30	0.39	1455	7.63	54.2	2-19-19 2:30	-0.08	1657	7.90	2.7	7-19-19 19:45	19.46	1691	10.36	8.5	5-20-19 15:15	16.81	1101	8.50	19.7					
2-19-19 2:45	-0.06	1124	8.27	1.3	2-19-19 2:45	0.38	1455	7.63	50.3	2-19-19 2:45	-0.08	1657	7.90	2.8	7-19-19 20:00	19.55	1691	9.47	8.5	5-20-19 15:30	16.86	1095	8.51	26.4					
2-19-19 3:00	-0.06	1126	8.27	1.4	2-19-19 3:00	0.25	1454	7.63	41.3	2-19-19 3:00	-0.08	1657	7.90	2.8	7-19-19 20:15	19.62	1690	11.25	8.5	5-20-19 15:45	16.90	1097	8.51	18.4					
2-19-19 3:15	-0.06	1123	8.27	1.8	2-19-19 3:15	0.27	1457	7.63	46.4	2-19-19 3:15	-0.08	1657	7.91	2.7	7-19-19 20:30	19.65	1692	9.29	8.5	5-20-19 16:00	16.92	1093	8.51	14.1					
2-19-19 3:30	-0.06	1125	8.27	1.4	2-19-19 3:30	0.28	1455	7.63	46.0	2-19-19 3:30	-0.08	1657	7.91	2.7	7-19-19 20:45	19.75	1692	9.37	8.5	5-20-19 16:15	16.95	1095	8.51	19.9					
2-19-19 3:45	-0.06	1124	8.27	1.5	2-19-19 3:45	0.15	1454	7.63	38.6	2-19-19 3:45	-0.08	1657	7.91	2.7	7-19-19 21:00	19.80	1691	9.57	8.5	5-20-19 16:30	16.98	1092	8.51	13.0					
2-19-19 4:00	-0.06	1126	8.27	1.4	2-19-19 4:00	0.06	1458	7.63	37.2	2-19-19 4:00	-0.08	1658	7.91	2.6	7-19-19 21:15	19.77	1692	9.94	8.5	5-20-19 16:45	16.91	1100	8.51	23.9					
2-19-19 4:15	-0.06	1129	8.27	2.0	2-19-19 4:15	0.08	1460	7.63	40.6	2-19-19 4:15	-0.08	1657	7.91	2.9	7-19-19 21:30	19.88	1691	9.84	8.5	5-20-19 17:00	16.94	1094	8.51	15.5					
2-19-19 4:30	-0.06	1131	8.27	1.3	2-19-19 4:30	0.27	1458	7.63	44.0	2-19-19 4:30	-0.08	1658	7.90	2.7	7-19-19 21:45	19.89	1690	9.41	8.5	5-20-19 17:15	16.86	1103	8.51	13.6					
2-19-19 4:45	-0.06	1132	8.27	1.4	2-19-19 4:45	0.12	1455	7.63	35.5	2-19-19 4:45	-0.08	1658	7.90	2.8	7-19-19 22:00	20.00	1692	9.59	8.5	5-20-19 17:30	16.83	1092	8.52	14.0					
2-19-19 5:00	-0.06	1126	8.27	1.4	2-19-19 5:00	0.05	1458	7.63	35.5	2-19-19 5:00	-0.08	1658	7.90	2.7	7-19-19 22:15	20.18	1693	9.30	8.5	5-20-19 17:45	16.75	1096	8.52	15.9					
2-19-19 5:15	-0.06	1134	8.27	1.6	2-19-19 5:15	0.06	1461	7.63	36.7	2-19-19 5:15	-0.08	1658	7.91	2.6	7-19-19 22:30	20.20	1692	9.96	8.5	5-20-19 18:00	16.74	1096	8.52	14.2					
2-19-19 5:30	-0.06	1132	8.27	1.5	2-19-19 5:30	0.20	1456	7.63	41.1	2-19-19 5:30	-0.08	1658	7.91	2.6	7-19-19 22:45	20.39	1694	9.56	8.5	5-20-19 18:15	16.72	1096	8.52	13.1					
2-19-19 5:45	-0.06	1132	8.27	1.6	2-19-19 5:45	0.18	1460	7.63	41.6	2-19-19 5:45	-0.08	1658	7.91	2.7	7-19-19 23:00	20.46	1694	9.74	8.5	5-20-19 18:30	16.63	1095	8.53	14.0					
2-19-19 6:00	-0.06	1129	8.27	1.5	2-19-19 6:00	0.11	1455	7.63	42.5	2-19-19 6:00	-0.08	1658	7.91	2.7	7-19-19 23:15	20.44	1693	9.62	8.5	5-20-19 18:45	16.59	1094	8.53	12.9					
2-19-19 6:15	-0.06	1134	8.27	1.4	2-19-19 6:15	0.36	1457	7.63	61.1	2-19-19 6:15	-0.08	1658	7.91	2.8	7-19-19 23:30	20.56	1693	9.30	8.5	5-20-19 19:00	16.52	1095	8.53	12.8					
2-19-19 6:30	-0.06	1133	8.27	1.6	2-19-19 6:30	0.21	1457	7.63	38.4	2-19-19 6:30	-0.08	1658	7.91	2.7	7-19-19 23:45	20.55	1694	9.64	8.5	5-20-19 19:15	16.45	1098	8.53	12.2					
2-19-19 6:45	-0.06	1137	8.27	1.3	2-19-19 6:45	0.18	1458	7.63	37.0	2-19-19 6:45	-0.08	1659	7.91	2.8	7-20-19 0:00	20.58	1694	9.59	8.5	5-20-19 19:30	16.41	1096	8.54	11.4					
2-19-19 7:00	-0.06	1133	8.27	1.4	2-19-19 7:00	0.37	1453	7.63	41.0	2-19-19 7:00	-0.08	1658	7.90	2.7	7-20-19 0:15	20.61	1694	10.68	8.5	5-20-19 19:45	16.34	1097	8.54	12.3					
2-19-19 7:15	-0.06	1134	8.27	1.5	2-19-19 7:15	0.37	1456	7.63	45.3	2-19-19 7:15	-0.08	1659	7.91	2.6	7-20-19 0:30	20.73	1695	9.93	8.5	5-20-19 20:00	16.28	1105	8.54	13.1					
2-19-19 7:30	-0.06	1137	8.27	1.6	2-19-19 7:30	0.29	1457	7.63	37.1	2-19-19 7:30	-0.08	1659	7.91	2.6	7-20-19 0:45	20.77	1694	12.05	8.5	5-20-19 20:15	16.23	1099	8.54	11.6					
2-19-19 7:45	-0.06	1135	8.28	2.0	2-19-19 7:45	0.26	1459	7.63	34.6	2-19-19 7:45	-0.08	1659	7.91	2.6	7-20-19 1:00	20.78	1694	9.58	8.5	5-20-19 20:30	16.18	1098	8.54	11.4					
2-19-19 8:00	-0.06	1139	8.28	1.4	2-19-19 8:00	0.53	1455	7.63	52.8	2-19-19 8:00	-0.08	1659	7.91	2.6	7-20-19 1:15	20.96	1695	9.24	8.5	5-20-19 20:45	16.16	1100	8.54	12.1					
2-19-19 8:15	-0.06	1139	8.28	1.4	2-19-19 8:15	0.40	1451	7.63	42.4	2-19-19 8:15	-0.08	1659	7.91	2.8	7-20-19 1:30	20.97	1694	10.18	8.5	5-20-19 21:00	16.15	1093	8.54	12.8					
2-19-19 8:30	-0.06	1137	8.28	2.1	2-19-19 8:30	0.51	1450	7.63	57.4	2-19-19 8:30	-0.08	1659	7.91	2.8	7-20-19 1:45	20.92	1693	10.81	8.5	5-20-19 21:15	16.07	1096	8.53	11.3					
2-19-19 8:45	-0.06	1137	8.28	1.4	2-19-19 8:45	0.29	1459	7.63	38.8	2-19-19 8:45	-0.08	1659	7.90	2.7	7-20-19 2:00	20.97	1695	9.22	8.5	5-20-19 21:30	16.04	1095	8.54	11.6					
2-19-19 9:00	-0.06	1138	8.29	3.6	2-19-19 9:00	0.25	1459	7.63	34.7	2-19-19 9:00	-0.08	1659	7.91	2.6	7-20-19 2:15	20.93	1695	8.78	8.5	5-20-19 21:45	15.97	1096	8.54	11.2					
2-19-19 9:15	-0.06	1140	8.29	1.2	2-19-19 9:15	0.28	1459	7.63	42.5	2-19-19 9:15	-0.08	1659	7.91	2.6	7-20-19 2:30	20.90	1695	9.01	8.5	5-20-19 22:00	15.96	1094	8.54	11.3					
2-19-19 9:30	-0.06	1145	8.29	1.6	2-19-19 9:30	0.11	1458	7.63	38.8	2-19-19 9:30	-0.08	1660	7.91	2.6	7-20-19 2:45	20.88	1695	8.25	8.5	5-20-19 22:15	15.89	1094	8.54	11.2					
2-19-19 9:45	-0.06	1148	8.29	1.3	2-19-19 9:45	0.09	1458	7.63	37.3	2-19-19 9:45	-0.08	1660	7.91	2.6	7-20-19 3:00	20.84	1695	7.79	8.5	5-20-19 22:30	15.90	1093	8.54	10.9					
2-19-19 10:00	-0.06	1148	8.29	1.5	2-19-19 10:00	0.07	1459	7.63	36.1	2-19-19 10:00	-0.08	1660	7.91	2.5	7-20-19 3:15	20.72	1693	7.88	8.5	5-20-19 22:45	15.85	1095	8.54	10.8					
2-19-19 10:15	-0.06	1152	8.30	1.2	2-19-19 10:15	0.03	1461	7.63	32.5	2-19-19 10:15	-0.08	1660	7.90	2.7	7-20-19 3:30	20.65	1692	8.61	8.5	5-20-19 23:00	15.81	1093	8.54	11.3					
2-19-19 10:30	-0.06	1157	8.30	1.5	2-19-19 10:30	0.02	1462	7.63	31.7	2-19-19 10:30	-0.08	1660	7.91	2.7	7-20-19 3:45	20.64	1693	8.04	8.5	5-20-19 23:15	15.71	1095	8.53	11.5					
2-19-19 10:45	-0.06	1158	8.30	1.1	2-19-19 10:45	0.05	1458	7.63	35.4	2-19-19 10:45	-0.08	1660	7.90	2.6	7-20-19 4:00	20.63	1694	7.91	8.5	5-20-19 23:30	15.71	1096	8.54	11.8					
2-19-19 11:00	-0.06	1160	8.30	1.1	2-19-19 11:00	0.05	1459	7.63	30.5	2-19-19 11:00	-0.08	1660	7.90	2.7	7-20-19 4:15	20.59	1695	7.93	8.5	5-20-19 23:45	15.71	1092	8.53	11.6					
2-19-19 11:15	-0.06	1168	8.29	1.2	2-19-19 11:15	0.04	1464	7.63	33.5	2-19-19 11:15	-0.08	1660	7.91	2.6	7-20-19 4:30	20.54	1693	7.85	8.5	5-21-19 0:00	15.69	1093	8.53	10.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-19-19 11:30	-0.06	1166	8.29	1.1	2-19-19 11:30	0.03	1461	7.63	32.9	2-19-19 11:30	-0.08	1660	7.91	2.5	7-20-19 4:45	20.47	1694	7.65	8.5	5-21-19 0:15	15.67	1093	8.53	11.2					
2-19-19 11:45	-0.06	1161	8.30	1.1	2-19-19 11:45	0.34	1458	7.63	37.6	2-19-19 11:45	-0.08	1661	7.91	2.6	7-20-19 5:00	20.42	1694	8.01	8.5	5-21-19 0:30	15.62	1093	8.53	11.3					
2-19-19 12:00	-0.06	1168	8.29	1.2	2-19-19 12:00	0.15	1459	7.63	37.8	2-19-19 12:00	-0.08	1662	7.91	2.6	7-20-19 5:15	20.39	1693	7.95	8.5	5-21-19 0:45	15.61	1093	8.53	11.2					
2-19-19 12:15	-0.06	1168	8.30	1.1	2-19-19 12:15	0.11	1467	7.63	21.8	2-19-19 12:15	-0.09	1662	7.91	2.8	7-20-19 5:30	20.35	1694	7.72	8.5	5-21-19 1:00	15.58	1093	8.53	10.9					
2-19-19 12:30	-0.06	1171	8.30	1.1	2-19-19 12:30	0.07	1467	7.63	24.7	2-19-19 12:30	-0.08	1663	7.91	2.8	7-20-19 5:45	20.29	1694	7.87	8.5	5-21-19 1:15	15.54	1096	8.53	12.8					
2-19-19 12:45	-0.06	1170	8.30	1.1	2-19-19 12:45	0.11	1466	7.63	26.9	2-19-19 12:45	-0.07	1663	7.90	2.8	7-20-19 6:00	20.26	1694	8.29	8.5	5-21-19 1:30	15.45	1094	8.53	12.2					
2-19-19 13:00	-0.06	1119	8.26	1.3	2-19-19 13:00	0.21	1467	7.63	22.9	2-19-19 13:00	-0.08	1662	7.90	2.8	7-20-19 6:15	20.21	1693	8.49	8.5	5-21-19 1:45	15.39	1095	8.53	11.9					
2-19-19 13:15	-0.06	1110	8.26	1.4	2-19-19 13:15	0.12	1468	7.63	23.8	2-19-19 13:15	-0.08	1663	7.91	2.6	7-20-19 6:30	20.18	1694	7.85	8.5	5-21-19 2:00	15.24	1093	8.53	11.9					
2-19-19 13:30	-0.06	1108	8.26	1.4	2-19-19 13:30	0.10	1468	7.63	24.8	2-19-19 13:30	-0.08	1663	7.91	2.6	7-20-19 6:45	20.13	1694	8.47	8.5	5-21-19 2:15	15.18	1093	8.53	10.8					
2-19-19 13:45	-0.06	1104	8.26	1.9	2-19-19 13:45	0.12	1468	7.63	22.6	2-19-19 13:45	-0.08	1663	7.91	2.6	7-20-19 7:00	20.08	1694	8.36	8.5	5-21-19 2:30	15.17	1093	8.53	13.1					
2-19-19 14:00	-0.06	1107	8.26	1.3	2-19-19 14:00	0.09	1468	7.63	24.3	2-19-19 14:00	-0.08	1662	7.91	2.6	7-20-19 7:15	20.03	1694	9.04	8.5	5-21-19 2:45	15.05	1094	8.53	11.9					
2-19-19 14:15	-0.06	1106	8.26	1.4	2-19-19 14:15	0.10	1468	7.63	25.2	2-19-19 14:15	-0.08	1662	7.91	2.7	7-20-19 7:30	20.02	1694	7.98	8.5	5-21-19 3:00	14.99	1094	8.53	10.6					
2-19-19 14:30	-0.06	1105	8.26	1.5	2-19-19 14:30	0.08	1468	7.63	25.4	2-19-19 14:30	-0.08	1662	7.90	2.6	7-20-19 7:45	19.98	1694	8.65	8.5	5-21-19 3:15	14.93	1095	8.52	9.5					
2-19-19 14:45	-0.06	1105	8.26	1.3	2-19-19 14:45	0.17	1467	7.63	25.9	2-19-19 14:45	-0.07	1662	7.90	2.8	7-20-19 8:00	19.94	1693	8.57	8.5	5-21-19 3:30	14.83	1094	8.53	10.1					
2-19-19 15:00	-0.06	1102	8.26	1.3	2-19-19 15:00	0.08	1467	7.63	26.0	2-19-19 15:00	-0.08	1662	7.90	2.7	7-20-19 8:15	19.89	1694	8.31	8.5	5-21-19 3:45	14.78	1095	8.53	11.0					
2-19-19 15:15	-0.06	1106	8.26	1.3	2-19-19 15:15	0.15	1465	7.63	26.9	2-19-19 15:15	-0.08	1663	7.91	2.6	7-20-19 8:30	19.86	1693	7.93	8.5	5-21-19 4:00	14.74	1094	8.53	10.7					
2-19-19 15:30	-0.06	1106	8.26	1.3	2-19-19 15:30	0.22	1464	7.63	40.6	2-19-19 15:30	-0.08	1663	7.91	2.6	7-20-19 8:45	19.83	1694	7.62	8.5	5-21-19 4:15	14.70	1095	8.52	9.7					
2-19-19 15:45	-0.06	1107	8.26	1.4	2-19-19 15:45					2-19-19 15:45	-0.08	1663	7.91	2.6	7-20-19 9:00	19.78	1694	7.97	8.5	5-21-19 4:30	14.62	1094	8.52	10.4					
2-19-19 16:00	-0.06	1107	8.26	1.5	2-19-19 16:00	0.55	1458	7.63	96.7	2-19-19 16:00	-0.08	1663	7.91	2.5	7-20-19 9:15	19.73	1694	7.74	8.5	5-21-19 4:45	14.60	1095	8.52	10.1					
2-19-19 16:15	-0.06	1109	8.26	1.7	2-19-19 16:15	0.55	1459	7.64	73.5	2-19-19 16:15	-0.08	1662	7.91	2.7	7-20-19 9:30	19.67	1694	9.73	8.5	5-21-19 5:00	14.62	1095	8.52	9.4					
2-19-19 16:30	-0.06	1111	8.26	1.9	2-19-19 16:30	0.40	1455	7.63	47.6	2-19-19 16:30	-0.08	1663	7.91	2.7	7-20-19 9:45	19.64	1694	8.37	8.5	5-21-19 5:15	14.45	1096	8.51	9.6					
2-19-19 16:45	-0.06	1106	8.26	2.3	2-19-19 16:45	0.48	1459	7.63	83.5	2-19-19 16:45	-0.08	1663	7.91	2.6	7-20-19 10:00	19.62	1695	7.89	8.5	5-21-19 5:30	14.46	1094	8.52	9.5					
2-19-19 17:00	-0.06	1107	8.26	1.3	2-19-19 17:00	0.56	1455	7.63	91.2	2-19-19 17:00	-0.08	1663	7.90	2.6	7-20-19 10:15	19.56	1694	9.20	8.5	5-21-19 5:45	14.43	1096	8.52	10.7					
2-19-19 17:15	-0.06	1109	8.26	1.3	2-19-19 17:15	0.50	1455	7.64	88.5	2-19-19 17:15	-0.08	1663	7.91	2.6	7-20-19 10:30	19.53	1694	7.86	8.5	5-21-19 6:00	14.44	1095	8.52	9.9					
2-19-19 17:30	-0.06	1111	8.26	1.3	2-19-19 17:30	0.42	1455	7.64	88.1	2-19-19 17:30	-0.08	1663	7.91	2.5	7-20-19 10:45	19.46	1693	8.12	8.5	5-21-19 6:15	14.35	1096	8.52	9.4					
2-19-19 17:45	-0.06	1112	8.26	1.3	2-19-19 17:45	0.53	1453	7.64	104.7	2-19-19 17:45	-0.08	1663	7.91	2.5	7-20-19 11:00	19.43	1694	7.67	8.5	5-21-19 6:30	14.35	1095	8.52	9.5					
2-19-19 18:00	-0.06	1112	8.26	1.3	2-19-19 18:00	0.43	1451	7.64	172.8	2-19-19 18:00	-0.08	1663	7.91	2.5	7-20-19 11:15	19.40	1693	7.94	8.5	5-21-19 6:45	14.37	1096	8.52	10.6					
2-19-19 18:15	-0.06	1113	8.26	1.3	2-19-19 18:15	0.31	1453	7.64	70.1	2-19-19 18:15	-0.08	1663	7.90	2.8	7-20-19 11:30	19.38	1694	7.99	8.5	5-21-19 7:00	14.37	1095	8.52	8.9					
2-19-19 18:30	-0.06	1114	8.26	1.4	2-19-19 18:30	0.31	1458	7.64	63.1	2-19-19 18:30	-0.07	1663	7.90	2.7	7-20-19 11:45	19.35	1694	11.64	8.5	5-21-19 7:15	14.40	1096	8.51	9.6					
2-19-19 18:45	-0.06	1116	8.26	1.2	2-19-19 18:45	0.45	1457	7.64	87.2	2-19-19 18:45	-0.07	1663	7.90	2.7	7-20-19 12:00	19.33	1694	8.09	8.5	5-21-19 7:30	14.46	1095	8.51	8.8					
2-19-19 19:00	-0.06	1116	8.26	1.3	2-19-19 19:00	0.30	1458	7.64	81.7	2-19-19 19:00	-0.07	1663	7.90	2.7	7-20-19 12:15	19.30	1694	8.38	8.5	5-21-19 7:45	14.56	1096	8.51	9.7					
2-19-19 19:15	-0.06	1114	8.26	1.3	2-19-19 19:15	0.50	1457	7.64	104.4	2-19-19 19:15	-0.08	1664	7.91	2.6	7-20-19 12:30	19.28	1693	8.57	8.5	5-21-19 8:00	14.64	1095	8.51	8.8					
2-19-19 19:30	-0.06	1118	8.26	1.4	2-19-19 19:30	0.34	1455	7.63	44.7	2-19-19 19:30	-0.08	1664	7.91	2.6	7-20-19 12:45	19.24	1693	8.15	8.5	5-21-19 8:15	14.70	1095	8.51	8.8					
2-19-19 19:45	-0.06	1116	8.26	1.2	2-19-19 19:45	0.24	1458	7.63	46.0	2-19-19 19:45	-0.08	1664	7.91	2.5	7-20-19 13:00	19.21	1693	9.19	8.5	5-21-19 8:30	14.76	1095	8.51	13.4					
2-19-19 20:00	-0.06	1114	8.26	1.3	2-19-19 20:00	0.37	1456	7.64	73.6	2-19-19 20:00	-0.08	1664	7.91	2.6	7-20-19 13:15	19.20	1693	7.81	8.5	5-21-19 8:45	14.84	1095	8.51	10.6					
2-19-19 20:15	-0.06	1118	8.26	1.2	2-19-19 20:15	0.46	1455	7.64	80.6	2-19-19 20:15	-0.08	1664	7.90	2.7	7-20-19 13:30	19.18	1694	8.47	8.5	5-21-19 9:00	15.05	1096	8.51	14.1					
2-19-19 20:30	-0.06	1116	8.26	1.2	2-19-19 20:30					2-19-19 20:30	-0.08	1664	7.90	2.7	7-20-19 13:45	19.17	1693	8.27	8.5	5-21-19 9:15	15.20	1096	8.50	16.5					
2-19-19 20:45	-0.06	1119	8.26	1.3	2-19-19 20:45	0.48	1457	7.64	102.1	2-19-19 20:45	-0.08	1665	7.90	2.6	7-20-19 14:00	19.18	1694	8.85	8.5	5-21-19 9:30	15.46	1097	8.50	19.3					
2-19-19 21:00	-0.06	1118	8.26	1.2	2-19-19 21:00	0.33	1459	7.64	76.7	2-19-19 21:00	-0.08	1665	7.90	2.7	7-20-19 14:15	19.16	1694	8.70	8.5	5-21-19 9:45	15.56	1097	8.51	12.8					
2-19-19 21:15	-0.06	1118	8.26	1.3	2-19-19 21:15	0.42	1455	7.64	82.7	2-19-19 21:15	-0.08	1665	7.91	2.5	7-20-19 14:30	19.16	1693	8.35	8.5	5-21-19 10:00	15.67	1097	8.50	12.2					
2-19-19 21:30	-0.06	1119	8.26	1.7	2-19-19 21:30	0.45	1458	7.64	97.7	2-19-19 21:30	-0.08	1665	7.91	2.6	7-20-19 14:45	19.14	1694	8.86	8.5	5-21-19 10:15	15.79	1098	8.50	13.4					
2-19-19 21:45	-0.06	1123	8.26	1.3	2-19-19 21:45	0.43	1458	7.64	96.0	2-19-19 21:45	-0.08	1665	7.91	2.6	7-20-19 15:00	19.12	1693	8.29	8.5	5-21-19 10:30	15.84	1097	8.50	15.7					
2-19-19 22:00	-0.06	1114	8.26	1.4	2-19-19 22:00	0.48	1456	7.64	74.4	2-19-19 22:00	-0.08	1665	7.91	2.5	7-20-19 15:15	19.16	1695	10.19	8.5	5-21-19 10:45	15.88	1097	8.50	20.9					
2-19-19 22:15	-0.06	1124	8.26	1.3	2-19-19 22:15					2-19-19 22:15	-0.08	1666	7.90	2.6	7-20-19 15:30	19.21	1693	7.99	8.5	5-21-19 11:00	15.94	1097	8.50	22.0					
2-19-19 22:30	-0.06	1125	8.26	1.6	2-19-19 22:30	0.31	1460	7.63	55.0	2-19-19 22:30	-0.08	1666	7.90	2.7	7-20-19 15:45	19.28	1693	8.22	8.5	5-21-19 11:15	15.98	1098	8.49	26.9					
2-19-19 22:45	-0.06	1125	8.26	1.3	2-19-19 22:45	0.44	1459	7.63	71.9	2-19-19 22:45	-0.08	1666	7.90	2.7	7-20-19 16:00	19.39	1692	8.82	8.5	5-21-19 11:30	16.10	1097	8.50	17.5					
2-19-19 23:00	-0.06	1125	8.26	1.3	2-19-19 23:00	0.41	1457	7.64	68.3	2-19-19 23:00	-0.08	1666	7.90	2.7	7-20-19 16:15	19.39	1691	8.55	8.5	5-21-19 11:45	16.22	1098	8.50	15.9					
2-19-19 23:15	-0.06	1129	8.26	1.2	2-19-19 23:15	0.32	1463	7.64	74.6	2-19-19 23:15	-0.08	1666	7.91	2.5	7-20-19 16:30	19.46	1692	8.86	8.5	5-21-19 12:00	16.39	1100	8.49	22.7					
2-19-19 23:30	-0.06	1127	8.26	1.2	2-19-19 23:30	0.52	1457	7.64	83.2	2-19-19 23:30	-0.08	1666	7.90	2.5	7-20-19 16:45	19.48	1691	8.21	8.5	5-21-19 12:15	16.42	1098	8.49	16.0					
2-19-19 23:45	-0.06	1126	8.26	1.4	2-19-19 23:45	0.43	1457	7.64	66.0	2-19-19 23:45	-0.08	1666	7.91	2.6	7-20-19 17:00	19.39	1693	8.33	8.5	5-21-19 12:30	16.56	1099	8.49	14.2					
2-20-19 0:00	-0.06	1126	8.26	1.3	2-20-19 0:00	0.41	1455	7.64	55.9	2-20-19 0:00	-0.08	1667	7.90	2.6	7-20-19 17:15	19.40	1693	10.13	8.5	5-21-19 12:45	16.71	1099	8.49	22.2					
2-20-19 0:15	-0.06	1120	8.26	1.4	2-20-19 0:15	0.24	1458	7.63	43.0	2-20-19 0:15	-0.08	1667	7.91	2.6	7-20-19 17:30	19.43	1691	10.93	8.5	5-21-19 13:00	16.74	1098	8.49	18.7					
2-20-19 0:30	-0.06	1113	8.26	1.2	2-20-19 0:30	0.41	1457	7.64	56.8	2-20-19 0:30	-0.08	1667	7.90	2.6	7-20-19 17:45	19.50	1693	10.52	8.5	5-21-19 13:15	16.83	1099	8.48	15.3					
2-20-19 0:45	-0.06	1130	8.26	1.2	2-20-19 0:45	0.41	1457	7.64	49.2	2-20-19 0:45	-0.08	1667	7.90	2.6	7-20-19 18:00	19.61	1693	10.46	8.5	5-21-19 13:30	17.02	1098	8.49	13.7					
2-20-19 1:00	-0.06	1128	8.26	1.3	2-20-19 1:00	0.55	1453	7.64	67.7	2-20-19 1:00	-0.08	1667	7.90	2.6	7-20-19 18:15	19.70	1693	9.61	8.5	5-21-19 13:45	17.14	1098	8.49	14.6					
2-20-19 1:15	-0.06	1130	8.26	1.3	2-20-19 1:15	0.51	1457	7.64	77.0	2-20-19 1:15	-0.08	1668	7.91	2.5	7-20-19 18:30	19.82	1694	8.92	8.5	5-21-19 14:00	17.20	1099	8.48	17.5					
2-20-19 1:30	-0.06	1131	8.26	1.2	2-20-19 1:30	0.44	1452	7.64	62.7	2-20-19 1:30	-0.08	1668	7.91	2.4	7-20-19 18:45	19.98	1695	9.07	8.5	5-21-19 14:15	17.23	1099	8.49	12.7					
2-20-19 1:45	-0.06	1129	8.26	1.3	2-20-19 1:45	0.57	1453	7.64	66.2	2-20-19 1:45	-0.08	1668	7.91	2.5	7-20-19 19:00	20.60	1698	8.66	8.5	5-21-19 14:30	17.31	1098	8.48	13.4					
2-20-19 2:00	-0.06	1130	8.26	1.2	2-20-19 2:00	0.58	1453	7.64	68.1	2-20-19 2:00	-0.08	1668	7.91	2.5	7-20-19 19:15	20.91	1699	8.64	8.5	5-21-19 14:45	17.33	1100	8.49	15.6					
2-20-19 2:15	-0.06	1132	8.26	1.2	2-20-19 2:15	0.49	1454	7.64	63.8	2-20-19 2:15	-0.09	1668	7.90	2.6	7-20-19 19:30	21.24	1698	8.72	8.5	5-21-19 15:00	17.43	1100	8.48	18.3					
2-20-19 2:30	-0.06	1133	8.26	1.2	2-20-19 2:30	0.53	1452	7.64	64.1	2-20-19 2:30	-0.08	1668	7.91	2.6	7-20-19 19:45	21.46	1695	8.40	8.5	5-21-19 15:15	17.50	1100	8.48	13.8					
2-20-19 2:45	-0.06	1130	8.26	1.2	2-20-19 2:45	0.45	1458	7.64	64.7	2-20-19 2:45	-0.08	1668	7.90	2.6	7-20-19 20:00	21.39	1696	8.62	8.5	5-21-19 15:30	17.57	1099	8.48	13.4					
2-20-19 3:00	-0.06	1133	8.26	1.2	2-20-19 3:00	0.28	1460	7.63	47.0	2-20-19 3:00	-0.08	1668	7.90	2.6	7-20-19 20:15	21.21	1694	9.34	8.5	5-21-19 15:45	17.67	1099	8.48	13.9					
2-20-19 3:15	-0.06	1135	8.26	1.2	2-20-19 3:15	0.44	1463	7.64	62.5	2-20-19 3:15	-0.09	1669	7.90	2.4	7-20-19 20:30	21.16	1697	8.45	8.5	5-21-19 16:00	17.67	1099	8.49	15.9					
2-20-19 3:30	-0.06	1133	8.26	1.2	2-20-19 3:30	0.60	1458	7.64	65.5	2-20-19 3:30	-0.09	1669	7.91	2.5	7-20-19 20:45	21.23	1692	9.13	8.5	5-21-19 16:15	17.74	1101	8.48	16.0					
2-20-19 3:45	-0.06	1134	8.26	1.3	2-20-19 3:45					2-20-19 3:45	-0.09	1669	7.90	2.5	7-20-19 21:00	21.38	1699	8.83	8.5	5-21-19 16:30	17.79	1100	8.48	15.4					
2-20-19 4:00	-0.06	1140	8.26	1.2	2-20-19 4:00	0.55	1454	7.64	58.7	2-20-19 4:00	-0.09	1669	7.91	2.5	7-20-19 21:15	22.53	1702	8.18	8.5	5-21-19 16:45	17.77	1100	8.48	14.3					
2-20-19 4:15	-0.06	1139	8.26	1.1	2-20-19 4:15	0.54	1454	7.64	56.1	2-20-19 4:15	-0.09	1669	7.91	2.5	7-20-19 21:30	22.66	1700	7.66	8.5	5-21-19 17:00	17.69	1108	8.49	12.6					
2-20-19 4:30	-0.06	1140	8.26	1.2	2-20-19 4:30	0.65	1458	7.64	66.3	2-20-19 4:30	-0.09	1669	7.90	2.5	7-20-19 22:00	22.97	1689	8.22	8.5	5-21-19 17:15	17.73	1102	8.48	15.2					
2-20-19 4:45	-0.06	1138	8.27	1.2	2-20-19 4:45	0.67	1456	7.64	52.6	2-20-19 4:45	-0.09	1669	7.90	2.6	7-20-19 22:15	22.27	1673	9.08	8.5	5-21-19 17:30	17.66	1099	8.49	14.4					
2-20-19 5:00	-0.06	1133	8.26	1.3	2-20-19 5:00	0.68	1454	7.64	65.2	2-20-19 5:00	-0.09	1669	7.90	2.6	7-20-19 22:30	22.58	1685	7.99	8.5	5-21-19 17:45	17.66	1101	8.49	12.4					
2-20-19 5:15	-0.06	1138	8.26	1.2	2-20-19 5:15	0.62	1455	7.64	61.8	2-20-19 5:15	-0.09	1669	7.91	2.4	7-20-19 22:45	23.54	1694	8.32	8.5	5-21-19 18:00	17.69	1100	8.50	12.0					
2-20-19 5:30	-0.06	1140	8.26	1.1	2-20-19 5:30	0.68	1451	7.64	55.5	2-20-19 5:30	-0.09	1669	7.90	2.5	7-20-19 23:00	23.64	1688	8.37	8.5	5-21-19 18:15	17.68	1102	8.50	12.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-20-19 5:45	-0.06	1141	8.26	1.1	2-20-19 5:45	0.67	1452	7.64	52.2	2-20-19 5:45	-0.09	1669	7.90	2.5	7-20-19 23:15	23.66	1690	8.34	8.5	5-21-19 18:30	17.69	1100	8.50	11.9					
2-20-19 6:00	-0.06	1142	8.26	1.0	2-20-19 6:00	0.54	1457	7.64	48.2	2-20-19 6:00	-0.09	1669	7.90	2.4	7-20-19 23:30	23.50	1690	7.66	8.5	5-21-19 18:45	17.63	1102	8.50	11.5					
2-20-19 6:15	-0.06	1142	8.26	1.0	2-20-19 6:15	0.54	1455	7.64	51.9	2-20-19 6:15	-0.09	1669	7.90	2.5	7-20-19 23:45	23.88	1693	7.79	8.5	5-21-19 19:00	17.66	1100	8.50	11.9					
2-20-19 6:30	-0.06	1138	8.26	1.0	2-20-19 6:30	0.57	1454	7.64	63.0	2-20-19 6:30	-0.09	1669	7.90	2.6	7-21-19 0:00	24.12	1693	7.86	8.5	5-21-19 19:15	17.61	1100	8.50	10.3					
2-20-19 6:45	-0.06	1139	8.25	0.9	2-20-19 6:45	0.63	1455	7.64	57.6	2-20-19 6:45	-0.09	1669	7.90	2.5	7-21-19 0:15	24.18	1694	7.66	8.5	5-21-19 19:30	17.63	1104	8.50	12.5					
2-20-19 7:00	-0.06	1135	8.25	0.8	2-20-19 7:00	0.65	1454	7.64	54.1	2-20-19 7:00	-0.09	1669	7.90	2.6	7-21-19 0:30	24.17	1692	8.28	8.5	5-21-19 19:45	17.66	1098	8.49	11.3					
2-20-19 7:15	-0.05	1139	8.24	0.7	2-20-19 7:15	0.65	1455	7.64	51.2	2-20-19 7:15	-0.09	1670	7.90	2.5	7-21-19 0:45	24.18	1695	7.56	8.5	5-21-19 20:00	17.63	1101	8.50	12.1					
2-20-19 7:30	-0.05	1135	8.23	0.6	2-20-19 7:30	0.58	1453	7.64	49.9	2-20-19 7:30	-0.09	1670	7.90	2.5	7-21-19 1:00	24.22	1693	9.44	8.5	5-21-19 20:15	17.59	1106	8.50	12.7					
2-20-19 7:45	-0.05	1133	8.23	0.6	2-20-19 7:45	0.54	1462	7.64	50.8	2-20-19 7:45	-0.09	1670	7.90	2.4	7-21-19 1:15	24.19	1696	7.90	8.5	5-21-19 20:30	17.55	1098	8.50	11.7					
2-20-19 8:00	-0.05	1132	8.22	0.5	2-20-19 8:00	0.61	1456	7.63	48.5	2-20-19 8:00	-0.09	1670	7.90	2.4	7-21-19 1:30	24.08	1693	8.33	8.5	5-21-19 20:45	17.43	1100	8.49	12.0					
2-20-19 8:15	-0.05	1129	8.22	0.5	2-20-19 8:15	0.53	1454	7.64	44.6	2-20-19 8:15	-0.09	1670	7.90	2.6	7-21-19 1:45	24.11	1694	7.26	8.5	5-21-19 21:00	17.33	1098	8.50	10.7					
2-20-19 8:30	-0.05	1128	8.21	0.5	2-20-19 8:30	0.53	1458	7.63	48.0	2-20-19 8:30	-0.09	1670	7.90	2.5	7-21-19 2:00	24.04	1694	7.89	8.5	5-21-19 21:15	17.22	1103	8.49	10.4					
2-20-19 8:45	-0.05	1129	8.21	0.4	2-20-19 8:45	0.47	1457	7.63	42.1	2-20-19 8:45	-0.09	1670	7.90	2.6	7-21-19 2:15	23.97	1697	7.39	8.5	5-21-19 21:30	17.17	1100	8.50	13.1					
2-20-19 9:00	-0.05	1122	8.21	0.5	2-20-19 9:00	0.36	1460	7.63	39.5	2-20-19 9:00	-0.09	1670	7.90	2.5	7-21-19 2:30	23.87	1693	7.36	8.5	5-21-19 21:45	17.14	1101	8.51	11.2					
2-20-19 9:15	-0.05	1126	8.20	0.5	2-20-19 9:15	0.26	1460	7.64	43.2	2-20-19 9:15	-0.09	1670	7.90	2.5	7-21-19 2:45	23.80	1694	7.65	8.5	5-21-19 22:00	17.12	1099	8.51	11.3					
2-20-19 9:30	-0.05	1126	8.20	0.4	2-20-19 9:30	0.34	1463	7.64	82.0	2-20-19 9:30	-0.09	1670	7.90	2.5	7-21-19 3:00	23.71	1696	7.82	8.5	5-21-19 22:15	17.10	1100	8.51	11.8					
2-20-19 9:45	-0.05	1125	8.20	0.4	2-20-19 9:45	0.61	1459	7.63	57.5	2-20-19 9:45	-0.09	1670	7.90	2.5	7-21-19 3:15	23.61	1695	7.13	8.5	5-21-19 22:30	17.06	1099	8.51	11.0					
2-20-19 10:00	-0.05	1125	8.20	0.4	2-20-19 10:00	0.38	1461	7.63	38.2	2-20-19 10:00	-0.09	1670	7.90	2.4	7-21-19 3:30	23.50	1694	6.61	8.5	5-21-19 22:45	17.02	1098	8.51	10.8					
2-20-19 10:15	-0.05	1125	8.19	0.4	2-20-19 10:15	0.28	1465	7.64	57.5	2-20-19 10:15	-0.09	1670	7.90	2.6	7-21-19 3:45	23.43	1696	6.98	8.5	5-21-19 23:00	16.98	1098	8.51	11.2					
2-20-19 10:30	-0.05	1123	8.19	0.4	2-20-19 10:30	0.58	1460	7.64	65.7	2-20-19 10:30	-0.09	1670	7.90	2.5	7-21-19 4:00	23.32	1693	6.55	8.5	5-21-19 23:15	16.93	1101	8.50	12.0					
2-20-19 10:45	-0.05	1122	8.18	0.3	2-20-19 10:45	0.69	1457	7.63	60.3	2-20-19 10:45	-0.09	1670	7.89	2.5	7-21-19 4:15	22.86	1682	9.89	8.5	5-21-19 23:30	16.95	1099	8.51	12.3					
2-20-19 11:00	-0.05	1120	8.18	0.3	2-20-19 11:00	0.41	1459	7.64	44.1	2-20-19 11:00	-0.09	1670	7.90	2.5	7-21-19 4:30	22.21	1676	11.82	8.5	5-21-19 23:45	16.93	1099	8.50	11.3					
2-20-19 11:15	-0.05	1119	8.17	0.3	2-20-19 11:15	0.38	1466	7.64	123.5	2-20-19 11:15	-0.09	1671	7.90	2.5	7-21-19 4:45	21.80	1682	8.90	8.5	5-22-19 0:00	16.88	1099	8.51	13.0					
2-20-19 11:30	-0.05	1119	8.16	0.3	2-20-19 11:30	0.52	1462	7.64	57.0	2-20-19 11:30	-0.09	1671	7.90	2.4	7-21-19 5:00	21.68	1685	8.81	8.5	5-22-19 0:15	16.82	1099	8.51	11.3					
2-20-19 11:45	-0.05	1118	8.16	0.3	2-20-19 11:45	0.43	1462	7.63	57.0	2-20-19 11:45	-0.11	1672	7.91	2.6	7-21-19 5:15	21.60	1686	9.32	8.5	5-22-19 0:30	16.81	1098	8.51	11.4					
2-20-19 12:00	-0.05	1115	8.21	0.9	2-20-19 12:00	0.20	1467	7.63	31.4	2-20-19 12:00	-0.09	1673	7.90	2.5	7-21-19 5:30	21.61	1687	8.93	8.5	5-22-19 0:45	16.78	1100	8.50	11.7					
2-20-19 12:15	-0.06	1118	8.21	1.1	2-20-19 12:15	0.21	1465	7.63	33.1	2-20-19 12:15	-0.09	1671	7.90	2.6	7-21-19 5:45	21.65	1688	8.53	8.5	5-22-19 1:00	16.77	1097	8.50	10.9					
2-20-19 12:30	-0.06	1117	8.21	0.9	2-20-19 12:30	0.17	1465	7.63	31.7	2-20-19 12:30	-0.09	1671	7.90	2.6	7-21-19 6:00	21.58	1686	8.48	8.5	5-22-19 1:15	16.72	1098	8.49	11.4					
2-20-19 12:45	-0.06	1119	8.21	1.0	2-20-19 12:45	0.22	1466	7.63	40.2	2-20-19 12:45	-0.09	1671	7.90	2.5	7-21-19 6:15	21.56	1689	8.65	8.5	5-22-19 1:30	16.69	1097	8.50	10.5					
2-20-19 13:00	-0.06	1116	8.21	0.9	2-20-19 13:00	0.12	1470	7.63	25.7	2-20-19 13:00	-0.08	1671	7.90	2.5	7-21-19 6:30	21.55	1689	7.89	8.5	5-22-19 1:45	16.60	1097	8.50	11.3					
2-20-19 13:15	-0.06	1118	8.22	0.9	2-20-19 13:15	0.32	1469	7.63	61.8	2-20-19 13:15	-0.09	1671	7.90	2.4	7-21-19 6:45	21.50	1689	7.82	8.5	5-22-19 2:00	16.61	1098	8.50	11.2					
2-20-19 13:30	-0.06	1119	8.21	0.9	2-20-19 13:30	0.44	1463	7.63	73.8	2-20-19 13:30	-0.09	1671	7.90	2.5	7-21-19 7:00	21.42	1688	7.97	8.5	5-22-19 2:15	16.61	1098	8.50	10.2					
2-20-19 13:45	-0.05	1116	8.18	0.6	2-20-19 13:45	0.59	1462	7.63	82.6	2-20-19 13:45	-0.09	1672	7.91	2.4	7-21-19 7:15	21.35	1688	7.53	8.5	5-22-19 2:30	16.58	1098	8.50	12.1					
2-20-19 14:00	-0.05	1114	8.17	0.7	2-20-19 14:00	0.24	1465	7.63	30.8	2-20-19 14:00	-0.09	1672	7.91	2.4	7-21-19 7:30	21.27	1687	7.98	8.5	5-22-19 2:45	16.53	1099	8.49	11.4					
2-20-19 14:15	-0.05	1116	8.17	0.5	2-20-19 14:15	0.27	1463	7.63	31.6	2-20-19 14:15	-0.09	1671	7.90	2.5	7-21-19 7:45	21.21	1687	8.01	8.5	5-22-19 3:00	16.51	1099	8.50	12.8					
2-20-19 14:30	-0.05	1116	8.18	0.6	2-20-19 14:30	0.19	1465	7.63	31.0	2-20-19 14:30	-0.08	1671	7.90	2.6	7-21-19 8:00	21.15	1688	11.13	8.5	5-22-19 3:15	16.44	1099	8.49	12.2					
2-20-19 14:45	-0.05	1116	8.18	0.6	2-20-19 14:45	0.23	1465	7.63	33.7	2-20-19 14:45	-0.08	1671	7.90	2.6	7-21-19 8:15	21.08	1686	7.54	8.5	5-22-19 3:30	16.43	1099	8.50	12.0					
2-20-19 15:00	-0.05	1113	8.16	0.6	2-20-19 15:00	0.16	1464	7.63	32.4	2-20-19 15:00	-0.08	1671	7.90	2.5	7-21-19 8:30	21.03	1686	8.42	8.5	5-22-19 3:45	16.36	1099	8.49	12.5					
2-20-19 15:15	-0.04	1113	8.15	0.4	2-20-19 15:15	0.12	1470	7.63	31.3	2-20-19 15:15	-0.08	1671	7.90	2.4	7-21-19 8:45	20.98	1687	7.89	8.5	5-22-19 4:00	16.32	1100	8.50	11.6					
2-20-19 15:30	-0.04	1109	8.12	0.3	2-20-19 15:30	0.16	1471	7.63	58.7	2-20-19 15:30	-0.08	1671	7.90	2.4	7-21-19 9:00	20.91	1688	9.42	8.5	5-22-19 4:15	16.34	1100	8.50	9.9					
2-20-19 15:45	-0.04	1109	8.12	0.3	2-20-19 15:45	0.34	1463	7.63	61.9	2-20-19 15:45	-0.08	1671	7.90	2.4	7-21-19 9:15	20.86	1687	7.72	8.5	5-22-19 4:30	16.28	1099	8.50	12.0					
2-20-19 16:00	-0.04	1108	8.11	0.2	2-20-19 16:00	0.16	1467	7.63	52.7	2-20-19 16:00	-0.08	1671	7.90	2.4	7-21-19 9:30	20.80	1688	7.17	8.5	5-22-19 4:45	16.20	1100	8.50	10.9					
2-20-19 16:15	-0.04	1106	8.10	0.2	2-20-19 16:15	0.49	1462	7.63	85.2	2-20-19 16:15	-0.08	1671	7.90	2.6	7-21-19 9:45	20.76	1687	7.24	8.5	5-22-19 5:00	16.15	1099	8.50	11.6					
2-20-19 16:30	-0.04	1104	8.09	0.2	2-20-19 16:30	0.54	1464	7.63	76.2	2-20-19 16:30	-0.08	1671	7.90	2.5	7-21-19 10:00	20.70	1687	7.20	8.5	5-22-19 5:15	16.11	1101	8.49	10.8					
2-20-19 16:45	-0.04	1102	8.09	0.2	2-20-19 16:45	0.45	1462	7.63	46.9	2-20-19 16:45	-0.08	1671	7.90	2.5	7-21-19 10:15	20.65	1685	7.13	8.5	5-22-19 5:30	16.10	1100	8.49	15.1					
2-20-19 17:00	-0.04	1103	8.09	0.2	2-20-19 17:00	0.12	1465	7.63	28.3	2-20-19 17:00					7-21-19 10:30	20.61	1688	6.95	8.5	5-22-19 5:45	16.14	1100	8.49	10.4					
2-20-19 17:15	-0.04	1101	8.09	0.2	2-20-19 17:15	0.15	1468	7.63	26.3	2-20-19 17:15	-0.08	1672	7.90	2.4	7-21-19 10:45	20.55	1687	8.15	8.5	5-22-19 6:00	16.06	1100	8.49	9.9					
2-20-19 17:30	-0.04	1100	8.09	0.2	2-20-19 17:30	0.45	1462	7.63	66.4	2-20-19 17:30	-0.08	1672	7.90	2.4	7-21-19 11:00	20.52	1688	7.34	8.5	5-22-19 6:15	16.04	1100	8.49	10.6					
2-20-19 17:45	-0.04	1102	8.09	0.2	2-20-19 17:45	0.46	1461	7.64	109.4	2-20-19 17:45	-0.08	1672	7.90	2.4	7-21-19 11:15	20.49	1688	7.08	8.5	5-22-19 6:30	16.06	1100	8.49	8.9					
2-20-19 18:00	-0.04	1099	8.09	0.2	2-20-19 18:00	0.34	1458	7.63	54.4	2-20-19 18:00	-0.08	1672	7.90	2.4	7-21-19 11:30	20.43	1688	7.48	8.5	5-22-19 6:45	15.99	1100	8.49	10.1					
2-20-19 18:15	-0.04	1102	8.09	0.2	2-20-19 18:15	0.51	1458	7.63	97.1	2-20-19 18:15	-0.08	1671	7.90	2.5	7-21-19 11:45	20.38	1686	6.97	8.5	5-22-19 7:00	16.03	1100	8.49	8.6					
2-20-19 18:30	-0.04	1100	8.09	0.2	2-20-19 18:30	0.31	1463	7.63	65.1	2-20-19 18:30	-0.08	1672	7.89	2.6	7-21-19 12:00	20.31	1686	7.78	8.5	5-22-19 7:15	15.95	1100	8.49	10.1					
2-20-19 18:45	-0.04	1098	8.09	0.2	2-20-19 18:45	0.37	1465	7.64	66.6	2-20-19 18:45	-0.08	1672	7.89	2.5	7-21-19 12:15	20.26	1686	7.07	8.5	5-22-19 7:30	15.98	1100	8.49	10.6					
2-20-19 19:00	-0.04	1098	8.10	0.2	2-20-19 19:00	0.35	1463	7.64	64.1	2-20-19 19:00	-0.08	1672	7.90	2.5	7-21-19 12:30	20.24	1688	7.11	8.5	5-22-19 7:45	15.98	1101	8.50	10.7					
2-20-19 19:15	-0.04	1100	8.10	0.2	2-20-19 19:15	0.28	1464	7.63	35.2	2-20-19 19:15	-0.08	1672	7.90	2.4	7-21-19 12:45	20.20	1688	7.75	8.5	5-22-19 8:00	16.05	1100	8.49	10.1					
2-20-19 19:30	-0.04	1100	8.11	0.2	2-20-19 19:30	0.46	1464	7.63	51.4	2-20-19 19:30	-0.08	1672	7.90	2.4	7-21-19 13:00	20.20	1689	7.12	8.5	5-22-19 8:15	16.07	1101	8.50	10.1					
2-20-19 19:45	-0.04	1099	8.11	0.2	2-20-19 19:45	0.28	1467	7.63	49.4	2-20-19 19:45	-0.08	1672	7.90	2.4	7-21-19 13:15	20.15	1687	7.93	8.5	5-22-19 8:30	16.10	1100	8.49	10.0					
2-20-19 20:00	-0.04	1096	8.11	0.2	2-20-19 20:00	0.52	1462	7.63	51.3	2-20-19 20:00	-0.08	1673	7.90	2.5	7-21-19 13:30	20.09	1687	7.24	8.5	5-22-19 8:45	16.30	1102	8.49	10.3					
2-20-19 20:15	-0.04	1094	8.12	0.2	2-20-19 20:15	0.43	1461	7.63	52.7	2-20-19 20:15	-0.08	1673	7.89	2.5	7-21-19 13:45	20.07	1686	7.16	8.5	5-22-19 9:00	16.40	1101	8.49	8.7					
2-20-19 20:30	-0.04	1097	8.13	0.2	2-20-19 20:30	0.23	1461	7.63	38.6	2-20-19 20:30	-0.08	1673	7.89	2.5	7-21-19 14:00	20.11	1687	7.69	8.5	5-22-19 9:15	16.44	1101	8.48	9.6					
2-20-19 20:45	-0.03	1097	8.13	0.2	2-20-19 20:45	0.39	1460	7.63	33.9	2-20-19 20:45	-0.08	1673	7.89	2.4	7-21-19 14:15	20.08	1687	7.27	8.5	5-22-19 9:30	16.46	1100	8.48	8.9					
2-20-19 21:00	-0.03	1095	8.14	0.2	2-20-19 21:00	0.35	1461	7.63	38.6	2-20-19 21:00	-0.08	1673	7.89	2.5	7-21-19 14:30	20.10	1686	7.41	8.5	5-22-19 9:45	16.52	1100	8.48	9.8					
2-20-19 21:15	-0.04	1095	8.14	0.2	2-20-19 21:15	0.42	1462	7.63	46.4	2-20-19 21:15	-0.09	1674	7.90	2.4	7-21-19 14:45	20.13	1686	7.32	8.5	5-22-19 10:00	16.60	1101	8.48	8.7					
2-20-19 21:30	-0.03	1095	8.15	0.3	2-20-19 21:30	0.30	1463	7.63	37.4	2-20-19 21:30	-0.09	1674	7.90	2.4	7-21-19 15:00	20.16	1684	7.17	8.5	5-22-19 10:15	16.77	1102	8.48	9.7					
2-20-19 21:45	-0.03	1096	8.15	0.2	2-20-19 21:45	0.28	1465	7.63	30.5	2-20-19 21:45	-0.09	1674	7.90	2.3	7-21-19 15:15	20.18	1686	8.02	8.5	5-22-19 10:30	16.85	1100	8.48	8.9					
2-20-19 22:00	-0.04	1102	8.15	0.2	2-20-19 22:00	0.30	1462	7.63	38.2	2-20-19 22:00	-0.09	1674	7.90	2.4	7-21-19 15:30	20.23	1687	7.74	8.5	5-22-19 10:45	16.96	1101	8.48	9.8					
2-20-19 22:15	-0.04	1101	8.16	0.2	2-20-19 22:15	0.24	1464	7.63	31.9	2-20-19 22:15	-0.09	1674	7.90	2.5	7-21-19 15:45	20.22	1687	7.67	8.5	5-22-19 11:00	17.06	1102	8.48	9.3					
2-20-19 22:30	-0.04	1100	8.16	0.3	2-20-19 22:30	0.31	1464	7.63	31.7	2-20-19 22:30	-0.09	1674	7.90	2.4	7-21-19 16:00	20.36	1684	7.71	8.5	5-22-19 11:15	17.05	1101	8.47	9.8					
2-20-19 22:45	-0.04	1098	8.16	0.3	2-20-19 22:45	0.36	1461	7.63	43.9	2-20-19 22:45	-0.09	1674	7.89	2.5	7-21-19 16:15	20.34	1684	7.96	8.5	5-22-19 11:30	17.19	1102	8.48	9.5					
2-20-19 23:00	-0.04	1103	8.16	0.3	2-20-19 23:00	0.24	1463	7.63	28.2	2-20-19 23:00	-0.09	1674	7.90	2.6	7-21-19 16:30	20.32	1688	8.23	8.5	5-22-19 11:45	17.35	1103	8.47	13.4					
2-20-19 23:15	-0.04	1098	8.16	0.4	2-20-19 23:15	0.36	1461	7.63	42.2	2-20-19 23:15	-0.09	1675	7.90	2.4	7-21-19 16:45	20.43	1686	9.56	8.5	5-22-19 12:00	17.42	1104	8.47	14.1					
2-20-19 23:30	-0.04	1100	8.16	0.3	2-20-19 23:30	0.31	1461	7.63	48.0	2-20-19 23:30	-0.09	1675	7.90	2.4	7-21-19 17:00	20.40	1686	13.18	8.5	5-22-19 12:15	17.48	1104	8.47	12.3					
2-20-19 23:45	-0.04	1098	8.16	0.3	2-20-19 23:45	0.31	1465	7.64	47.3	2-20-19 23:45	-0.09	1675	7.90	2.3	7-21-19 17:15	20.43	1687	9.69	8.5	5-22-19 12:30	17.54	1104	8.47	10.8					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-21-19 0:00	-0.04	1100	8.16	0.2	2-21-19 0:00	0.26	1466	7.63	28.2	2-21-19 0:00	-0.09	1675	7.90	2.4	7-21-19 17:30	20.57	1686	9.40	8.5	5-22-19 12:45	17.58	1103	8.47	11.6					
2-21-19 0:15	-0.04	1099	8.16	0.3	2-21-19 0:15	0.30	1465	7.63	31.6	2-21-19 0:15	-0.08	1675	7.89	2.4	7-21-19 17:45	20.62	1688	9.84	8.5	5-22-19 13:00	17.67	1103	8.47	10.3					
2-21-19 0:30	-0.04	1098	8.16	0.4	2-21-19 0:30	0.17	1467	7.63	26.6	2-21-19 0:30	-0.08	1675	7.89	2.4	7-21-19 18:00	20.73	1687	11.14	8.5	5-22-19 13:15	17.68	1103	8.46	11.3					
2-21-19 0:45	-0.04	1093	8.16	0.3	2-21-19 0:45	0.25	1469	7.63	32.6	2-21-19 0:45	-0.08	1675	7.89	2.5	7-21-19 18:15	20.80	1688	10.54	8.5	5-22-19 13:30	17.65	1102	8.47	10.5					
2-21-19 1:00	-0.04	1093	8.16	0.2	2-21-19 1:00	0.23	1466	7.63	24.6	2-21-19 1:00	-0.08	1675	7.89	2.5	7-21-19 18:30	20.92	1688	9.08	8.5	5-22-19 13:45	17.51	1103	8.47	10.5					
2-21-19 1:15	-0.04	1097	8.16	0.3	2-21-19 1:15	0.38	1462	7.63	37.9	2-21-19 1:15	-0.08	1675	7.90	2.4	7-21-19 18:45	21.25	1691	10.36	8.5	5-22-19 14:00	17.43	1103	8.48	9.6					
2-21-19 1:30	-0.05	1096	8.15	0.3	2-21-19 1:30					2-21-19 1:30	-0.08	1675	7.90	2.3	7-21-19 19:00	21.39	1691	9.32	8.5	5-22-19 14:15	17.34	1104	8.49	11.1					
2-21-19 1:45	-0.04	1096	8.16	0.3	2-21-19 1:45	0.33	1460	7.63	39.2	2-21-19 1:45	-0.09	1676	7.90	2.4	7-21-19 19:15	21.48	1691	9.27	8.5	5-22-19 14:30	17.33	1105	8.48	11.4					
2-21-19 2:00	-0.04	1095	8.16	0.4	2-21-19 2:00	0.39	1463	7.64	45.0	2-21-19 2:00	-0.09	1675	7.90	2.4	7-21-19 19:30	21.66	1693	8.83	8.5	5-22-19 14:45	17.32	1105	8.49	11.2					
2-21-19 2:15	-0.04	1091	8.15	0.4	2-21-19 2:15	0.25	1465	7.63	31.2	2-21-19 2:15	-0.08	1675	7.90	2.4	7-21-19 19:45	21.89	1692	8.90	8.5	5-22-19 15:00	17.32	1106	8.49	12.2					
2-21-19 2:30	-0.03	1094	8.16	0.3	2-21-19 2:30	0.22	1465	7.63	31.9	2-21-19 2:30	-0.08	1675	7.90	2.4	7-21-19 20:00	22.04	1694	9.37	8.5	5-22-19 15:15	17.29	1107	8.48	11.8					
2-21-19 2:45	-0.04	1078	8.19	0.4	2-21-19 2:45	0.18	1464	7.63	30.2	2-21-19 2:45	-0.08	1675	7.90	2.5	7-21-19 20:15	22.12	1694	8.77	8.5	5-22-19 15:30	17.28	1108	8.49	11.2					
2-21-19 3:00	-0.04	1080	8.17	0.4	2-21-19 3:00	0.25	1464	7.63	26.3	2-21-19 3:00	-0.08	1675	7.89	2.5	7-21-19 20:30	22.21	1694	8.83	8.5	5-22-19 15:45	17.26	1106	8.50	12.2					
2-21-19 3:15	-0.03	1069	8.16	0.3	2-21-19 3:15	0.30	1467	7.63	31.1	2-21-19 3:15	-0.08	1674	7.90	2.4	7-21-19 20:45	22.14	1694	9.24	8.5	5-22-19 16:00	17.18	1105	8.49	12.4					
2-21-19 3:30	-0.04	1040	8.16	0.4	2-21-19 3:30	0.36	1464	7.62	29.6	2-21-19 3:30	-0.08	1675	7.90	2.3	7-21-19 21:00	22.07	1692	9.44	8.5	5-22-19 16:15	17.10	1106	8.49	15.1					
2-21-19 3:45	-0.04	1075	8.17	0.3	2-21-19 3:45	0.53	1464	7.62	40.9	2-21-19 3:45	-0.08	1675	7.90	2.3	7-21-19 21:15	22.10	1691	9.98	8.5	5-22-19 16:30	17.06	1120	8.50	34.8					
2-21-19 4:00	-0.04	1092	8.16	0.4	2-21-19 4:00	0.48	1462	7.63	38.5	2-21-19 4:00	-0.08	1674	7.90	2.3	7-21-19 21:30	22.08	1690	9.85	8.5	5-22-19 16:45	17.02	1125	8.49	47.9					
2-21-19 4:15	-0.04	1041	8.17	0.4	2-21-19 4:15	0.44	1464	7.63	31.4	2-21-19 4:15	-0.08	1675	7.89	2.5	7-21-19 22:00	21.90	1701	9.36	8.5	5-22-19 17:00	16.84	1117	8.49	49.9					
2-21-19 4:30	-0.04	1092	8.17	0.4	2-21-19 4:30	0.50	1463	7.63	43.6	2-21-19 4:30	-0.08	1675	7.89	2.5	7-21-19 22:15	21.96	1700	10.00	8.5	5-22-19 17:15	16.76	1114	8.49	37.2					
2-21-19 4:45	-0.04	1092	8.17	0.4	2-21-19 4:45	0.41	1463	7.63	39.0	2-21-19 4:45	-0.08	1675	7.89	2.6	7-21-19 22:30	22.04	1701	9.86	8.5	5-22-19 17:30	16.77	1115	8.50	37.8					
2-21-19 5:00	-0.04	1090	8.17	0.4	2-21-19 5:00	0.43	1462	7.63	39.6	2-21-19 5:00	-0.08	1675	7.89	2.6	7-21-19 22:45	22.09	1703	8.77	8.5	5-22-19 17:45	16.79	1115	8.50	38.1					
2-21-19 5:15	-0.04	1091	8.17	0.4	2-21-19 5:15	0.48	1462	7.64	36.4	2-21-19 5:15	-0.08	1675	7.90	2.4	7-21-19 23:00	22.10	1703	9.33	8.5	5-22-19 18:00	16.84	1115	8.50	39.1					
2-21-19 5:30	-0.03	1090	8.17	0.4	2-21-19 5:30	0.44	1461	7.64	37.0	2-21-19 5:30	-0.08	1675	7.90	2.4	7-21-19 23:15	22.17	1703	10.25	8.5	5-22-19 18:15	16.88	1117	8.49	43.2					
2-21-19 5:45	-0.03	1089	8.18	0.4	2-21-19 5:45	0.38	1461	7.63	33.4	2-21-19 5:45	-0.08	1675	7.90	2.5	7-21-19 23:30	22.20	1703	10.36	8.5	5-22-19 18:30	16.91	1116	8.49	36.8					
2-21-19 6:00	-0.03	1089	8.18	0.4	2-21-19 6:00	0.26	1462	7.63	33.9	2-21-19 6:00	-0.08	1676	7.90	2.3	7-21-19 23:45	22.19	1701	11.46	8.5	5-22-19 18:45	16.93	1117	8.48	38.7					
2-21-19 6:15	-0.03	1089	8.18	0.4	2-21-19 6:15	0.39	1461	7.64	37.8	2-21-19 6:15	-0.08	1676	7.90	2.4	7-22-19 0:00	22.10	1702	10.93	8.5	5-22-19 19:00	16.95	1115	8.49	41.1					
2-21-19 6:30	-0.03	1087	8.19	0.4	2-21-19 6:30	0.32	1460	7.64	34.8	2-21-19 6:30	-0.08	1676	7.90	2.4	7-22-19 0:15	22.04	1702	13.37	8.5	5-22-19 19:15	16.94	1118	8.48	39.6					
2-21-19 6:45	-0.03	1088	8.19	0.5	2-21-19 6:45	0.24	1462	7.64	30.5	2-21-19 6:45	-0.08	1676	7.89	2.5	7-22-19 0:30	22.24	1704	11.70	8.5	5-22-19 19:30	17.01	1118	8.49	39.8					
2-21-19 7:00	-0.03	1087	8.19	0.5	2-21-19 7:00	0.25	1463	7.63	28.1	2-21-19 7:00	-0.08	1676	7.89	2.4	7-22-19 0:45	22.22	1703	11.52	8.5	5-22-19 19:45	17.01	1119	8.49	41.4					
2-21-19 7:15	-0.03	1087	8.19	0.5	2-21-19 7:15	0.30	1464	7.63	26.1	2-21-19 7:15	-0.08	1676	7.90	2.3	7-22-19 1:00	22.28	1703	10.71	8.5	5-22-19 20:00	17.00	1118	8.50	36.6					
2-21-19 7:30	-0.03	1086	8.19	0.4	2-21-19 7:30	0.36	1462	7.63	35.7	2-21-19 7:30	-0.08	1677	7.90	2.4	7-22-19 1:15	22.34	1705	9.71	8.5	5-22-19 20:15	16.96	1119	8.50	38.4					
2-21-19 7:45	-0.03	1087	8.20	0.5	2-21-19 7:45	0.20	1465	7.63	33.8	2-21-19 7:45	-0.08	1677	7.90	2.3	7-22-19 1:30	22.37	1706	9.22	8.5	5-22-19 20:30	16.97	1121	8.50	38.4					
2-21-19 8:00	-0.03	1086	8.20	0.4	2-21-19 8:00	0.23	1464	7.63	32.4	2-21-19 8:00	-0.08	1677	7.90	2.4	7-22-19 1:45	22.37	1704	9.15	8.5	5-22-19 20:45	16.96	1121	8.50	41.3					
2-21-19 8:15	-0.03	1085	8.20	0.5	2-21-19 8:15	0.29	1462	7.64	33.8	2-21-19 8:15	-0.08	1677	7.89	2.4	7-22-19 2:00	22.38	1705	9.86	8.5	5-22-19 21:00	16.94	1119	8.49	35.5					
2-21-19 8:30	-0.04	1085	8.20	0.5	2-21-19 8:30	0.36	1461	7.64	35.3	2-21-19 8:30	-0.08	1678	7.89	2.8	7-22-19 2:15	22.39	1705	9.51	8.5	5-22-19 21:15	16.90	1120	8.48	37.8					
2-21-19 8:45	-0.04	1084	8.20	0.5	2-21-19 8:45	0.32	1462	7.64	30.6	2-21-19 8:45	-0.08	1678	7.89	2.4	7-22-19 2:30	22.37	1705	8.96	8.5	5-22-19 21:30	16.89	1119	8.50	34.9					
2-21-19 9:00	-0.03	1084	8.20	0.5	2-21-19 9:00	0.23	1464	7.63	27.2	2-21-19 9:00	-0.08	1678	7.89	2.4	7-22-19 2:45	22.34	1705	8.72	8.5	5-22-19 21:45	16.88	1119	8.49	40.4					
2-21-19 9:15	-0.04	1084	8.20	0.5	2-21-19 9:15	0.32	1464	7.63	28.8	2-21-19 9:15	-0.08	1679	7.90	2.3	7-22-19 3:00	22.32	1703	8.91	8.5	5-22-19 22:00	16.86	1118	8.50	35.8					
2-21-19 9:30	-0.04	1086	8.20	0.5	2-21-19 9:30	0.25	1469	7.62	30.5	2-21-19 9:30	-0.08	1679	7.90	2.3	7-22-19 3:15	22.30	1705	8.88	8.5	5-22-19 22:15	16.81	1119	8.49	35.2					
2-21-19 9:45	-0.04	1083	8.20	0.5	2-21-19 9:45	0.42	1464	7.62	29.7	2-21-19 9:45	-0.08	1679	7.90	2.3	7-22-19 3:30	22.29	1705	8.75	8.5	5-22-19 22:30	16.81	1118	8.49	32.7					
2-21-19 10:00	-0.04	1083	8.20	0.5	2-21-19 10:00	0.23	1460	7.62	27.7	2-21-19 10:00	-0.08	1679	7.90	2.3	7-22-19 3:45	22.27	1705	8.62	8.5	5-22-19 22:45	16.78	1119	8.49	34.5					
2-21-19 10:15	-0.03	1083	8.20	0.5	2-21-19 10:15	0.36	1462	7.63	29.6	2-21-19 10:15	-0.08	1679	7.89	2.4	7-22-19 4:00	22.24	1706	8.51	8.5	5-22-19 23:00	16.75	1117	8.49	34.2					
2-21-19 10:30	-0.03	1081	8.20	0.5	2-21-19 10:30	0.39	1463	7.62	29.8	2-21-19 10:30	-0.08	1680	7.90	2.4	7-22-19 4:15	22.21	1705	8.17	8.5	5-22-19 23:15	16.69	1119	8.48	34.8					
2-21-19 10:45	-0.03	1082	8.21	0.5	2-21-19 10:45	0.39	1465	7.63	29.0	2-21-19 10:45	-0.08	1680	7.89	2.4	7-22-19 4:30	22.15	1705	8.64	8.5	5-22-19 23:30	16.69	1118	8.49	33.3					
2-21-19 11:00	-0.04	1082	8.21	0.5	2-21-19 11:00	0.44	1465	7.63	29.9	2-21-19 11:00	-0.08	1680	7.89	2.4	7-22-19 4:45	22.12	1706	8.41	8.5	5-22-19 23:45	16.67	1119	8.49	34.0					
2-21-19 11:15	-0.03	1080	8.21	0.5	2-21-19 11:15	0.47	1467	7.63	36.1	2-21-19 11:15	-0.11	1682	7.89	2.3	7-22-19 5:00	22.12	1707	7.75	8.5	5-23-19 0:00	16.64	1117	8.49	33.0					
2-21-19 11:30	-0.03	1081	8.21	0.5	2-21-19 11:30	0.38	1463	7.63	32.4	2-21-19 11:30	-0.10	1686	7.90	2.4	7-22-19 5:15	22.13	1705	8.13	8.5	5-23-19 0:15	16.61	1118	8.49	31.2					
2-21-19 11:45	-0.03	1079	8.21	0.5	2-21-19 11:45	0.26	1465	7.63	27.2	2-21-19 11:45	-0.10	1684	7.90	2.3	7-22-19 5:30	22.07	1705	7.86	8.5	5-23-19 0:30	16.58	1118	8.49	30.4					
2-21-19 12:00	-0.03	1079	8.21	0.5	2-21-19 12:00	0.38	1466	7.63	36.4	2-21-19 12:00	-0.09	1683	7.90	2.3	7-22-19 5:45	22.02	1706	7.24	8.5	5-23-19 0:45	16.54	1118	8.49	33.2					
2-21-19 12:15	-0.03	1078	8.21	0.6	2-21-19 12:15	0.39	1464	7.63	44.5	2-21-19 12:15	-0.09	1683	7.89	2.4	7-22-19 6:00	21.97	1705	7.15	8.5	5-23-19 1:00	16.53	1118	8.48	31.7					
2-21-19 12:30	-0.04	1078	8.21	0.7	2-21-19 12:30	0.36	1463	7.64	34.4	2-21-19 12:30	-0.08	1683	7.89	2.4	7-22-19 6:15	21.92	1706	7.22	8.5	5-23-19 1:15	16.49	1118	8.48	30.9					
2-21-19 12:45	-0.05	1080	8.21	0.7	2-21-19 12:45	0.44	1462	7.64	43.2	2-21-19 12:45	-0.08	1683	7.89	2.4	7-22-19 6:30	21.90	1706	7.16	8.5	5-23-19 1:30	16.47	1118	8.48	30.5					
2-21-19 13:00	-0.04	1078	8.21	0.6	2-21-19 13:00	0.40	1462	7.64	50.3	2-21-19 13:00	-0.09	1683	7.89	2.3	7-22-19 6:45	21.86	1706	7.53	8.5	5-23-19 1:45	16.44	1119	8.48	32.0					
2-21-19 13:15	-0.04	1079	8.21	0.8	2-21-19 13:15	0.32	1461	7.63	35.6	2-21-19 13:15	-0.09	1684	7.89	2.3	7-22-19 7:00	21.82	1706	6.77	8.5	5-23-19 2:00	16.41	1118	8.48	28.4					
2-21-19 13:30	-0.03	1079	8.22	0.6	2-21-19 13:30	0.45	1463	7.64	40.0	2-21-19 13:30	-0.08	1684	7.89	2.3	7-22-19 7:15	21.79	1705	7.07	8.5	5-23-19 2:15	16.38	1118	8.48	30.0					
2-21-19 13:45	-0.03	1078	8.22	0.8	2-21-19 13:45	0.49	1461	7.64	45.4	2-21-19 13:45	-0.09	1684	7.89	2.2	7-22-19 7:30	21.74	1705	7.58	8.5	5-23-19 2:30	16.37	1118	8.48	27.3					
2-21-19 14:00	-0.04	1077	8.22	0.5	2-21-19 14:00	0.42	1460	7.64	41.1	2-21-19 14:00	-0.09	1684	7.89	2.3	7-22-19 7:45	21.68	1707	7.14	8.5	5-23-19 2:45	16.34	1119	8.48	31.0					
2-21-19 14:15	-0.04	1077	8.22	0.5	2-21-19 14:15	0.50	1460	7.64	42.9	2-21-19 14:15	-0.09	1684	7.89	2.4	7-22-19 8:00	21.64	1705	6.91	8.5	5-23-19 3:00	16.31	1118	8.48	28.7					
2-21-19 14:30	-0.04	1074	8.22	0.5	2-21-19 14:30	0.34	1461	7.63	33.8	2-21-19 14:30	-0.09	1684	7.89	2.4	7-22-19 8:15	21.60	1705	7.55	8.5	5-23-19 3:15	16.28	1119	8.47	29.4					
2-21-19 14:45	-0.04	1075	8.22	0.4	2-21-19 14:45	0.47	1461	7.64	40.9	2-21-19 14:45	-0.09	1684	7.89	2.3	7-22-19 8:30	21.56	1706	7.56	8.5	5-23-19 3:30	16.26	1118	8.47	28.2					
2-21-19 15:00	-0.04	1076	8.22	0.5	2-21-19 15:00	0.34	1463	7.64	35.8	2-21-19 15:00	-0.08	1684	7.89	2.3	7-22-19 8:45	21.48	1706	7.10	8.5	5-23-19 3:45	16.25	1119	8.47	30.4					
2-21-19 15:15	-0.04	1077	8.22	0.4	2-21-19 15:15	0.37	1460	7.64	36.0	2-21-19 15:15	-0.09	1684	7.89	2.3	7-22-19 9:00	21.46	1705	7.54	8.5	5-23-19 4:00	16.21	1117	8.47	33.5					
2-21-19 15:30	-0.04	1075	8.22	0.5	2-21-19 15:30	0.44	1460	7.64	39.5	2-21-19 15:30	-0.09	1684	7.89	2.2	7-22-19 9:15	21.40	1706	7.70	8.5	5-23-19 4:15	16.18	1118	8.47	27.0					
2-21-19 15:45	-0.04	1076	8.22	0.5	2-21-19 15:45	0.37	1461	7.63	36.2	2-21-19 15:45	-0.09	1684	7.89	2.2	7-22-19 9:30	21.37	1705	7.55	8.5	5-23-19 4:30	16.15	1118	8.47	27.1					
2-21-19 16:00	-0.04	1075	8.22	0.5	2-21-19 16:00	0.32	1463	7.63	30.8	2-21-19 16:00	-0.08	1684	7.89	2.2	7-22-19 9:45	21.32	1706	7.90	8.5	5-23-19 4:45	16.12	1119	8.47	30.4					
2-21-19 16:15	-0.04	1074	8.22	0.5	2-21-19 16:15	0.34	1466	7.62	29.6	2-21-19 16:15	-0.08	1684	7.89	2.4	7-22-19 10:00	21.27	1705	7.01	8.5	5-23-19 5:00	16.10	1119	8.47	28.4					
2-21-19 16:30	-0.04	1076	8.22	0.5	2-21-19 16:30	0.41	1464	7.62	31.7	2-21-19 16:30	-0.08	1684	7.89	2.4	7-22-19 10:15	21.22	1706	6.83	8.5	5-23-19 5:15	16.05	1120	8.46	27.5					
2-21-19 16:45	-0.04	1073	8.22	0.5	2-21-19 16:45	0.35	1463	7.62	29.1	2-21-19 16:45	-0.08	1684	7.89	2.3	7-22-19 10:30	21.14	1705	7.55	8.5	5-23-19 5:30	16.04	1118	8.47	26.6					
2-21-19 17:00	-0.04	1074	8.22	0.5	2-21-19 17:00	0.26	1465	7.62	25.6	2-21-19 17:00	-0.08	1684	7.89	2.4	7-22-19 10:45	21.10	1705	7.87	8.5	5-23-19 5:45	16.03	1119	8.47	30.4					
2-21-19 17:15	-0.04	1075	8.22	0.5	2-21-19 17:15	0.35	1471	7.63	34.3	2-21-19 17:15	-0.08	1684	7.89	2.3	7-22-19 11:00	21.07	1705	7.55	8.5	5-23-19 6:00	16.01	1118	8.47	28.5					
2-21-19 17:30	-0.04	1074	8.22	0.5	2-21-19 17:30	0.42	1468	7.63	25.8	2-21-19 17:30	-0.08	1684	7.89	2.3	7-22-19 11:15	21.00	1705	6.99	8.5	5-23-19 6:15	15.98	1118	8.47	29.9					
2-21-19 17:45	-0.04	1073	8.22	0.4	2-21-19 17:45	0.31	1460	7.63	26.6	2-21-19 17:45	-0.08	1684	7.89	2.3	7-22-19 11:30	20.94	1704	7.34	8.5	5-23-19 6:30	15.96	1118	8.47	26.5					
2-21-19 18:00	-0.04	1073	8.22	0.5	2-21-19 18:00	0.26	1467	7.63	28.3	2-21-19 18:00	-0.08	1685	7.89	2.4	7-22-19 11:45	20.87	1706	7.58	8.5	5-23-19 6:45	15.96	1119	8.47	28.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-21-19 18:15	-0.04	1073	8.22	0.5	2-21-19 18:15	0.32	1463	7.62	28.7	2-21-19 18:15	-0.08	1685	7.89	2.3	7-22-19 12:00	20.79	1706	7.45	8.5	5-23-19 7:00	15.90	1118	8.47	27.0					
2-21-19 18:30	-0.04	1073	8.22	0.4	2-21-19 18:30	0.43	1464	7.62	29.9	2-21-19 18:30	-0.08	1685	7.88	2.4	7-22-19 12:15	20.73	1706	7.55	8.5	5-23-19 7:15	15.90	1120	8.46	28.1					
2-21-19 18:45	-0.04	1072	8.23	0.5	2-21-19 18:45	0.29	1470	7.63	31.8	2-21-19 18:45	-0.08	1685	7.88	2.3	7-22-19 12:30	20.69	1705	7.15	8.5	5-23-19 7:30	15.90	1118	8.47	25.9					
2-21-19 19:00	-0.04	1073	8.23	0.5	2-21-19 19:00	0.33	1478	7.63	34.5	2-21-19 19:00	-0.08	1685	7.89	2.5	7-22-19 12:45	20.65	1706	7.11	8.5	5-23-19 7:45	15.89	1119	8.47	28.0					
2-21-19 19:15	-0.04	1073	8.23	0.5	2-21-19 19:15	0.22	1465	7.63	26.6	2-21-19 19:15	-0.09	1686	7.89	2.2	7-22-19 13:00	20.60	1705	8.10	8.5	5-23-19 8:00	15.85	1119	8.47	25.2					
2-21-19 19:30	-0.04	1072	8.23	0.5	2-21-19 19:30	0.26	1466	7.63	29.6	2-21-19 19:30	-0.09	1686	7.89	2.3	7-22-19 13:15	20.52	1704	7.68	8.5	5-23-19 8:15	15.88	1119	8.47	27.3					
2-21-19 19:45	-0.04	1073	8.23	0.5	2-21-19 19:45	0.30	1466	7.63	30.2	2-21-19 19:45	-0.09	1686	7.89	2.2	7-22-19 13:30	20.48	1705	7.54	8.5	5-23-19 8:30	15.91	1119	8.46	27.2					
2-21-19 20:00	-0.04	1072	8.23	0.4	2-21-19 20:00	0.39	1465	7.63	30.3	2-21-19 20:00	-0.09	1687	7.89	2.2	7-22-19 13:45	20.46	1704	7.64	8.5	5-23-19 8:45	15.94	1120	8.46	27.0					
2-21-19 20:15	-0.04	1073	8.23	0.4	2-21-19 20:15	0.30	1468	7.64	26.9	2-21-19 20:15	-0.09	1687	7.89	2.4	7-22-19 14:00	20.47	1705	7.32	8.5	5-23-19 9:00	15.97	1120	8.47	25.8					
2-21-19 20:30	-0.04	1071	8.23	0.4	2-21-19 20:30	0.23	1465	7.63	27.9	2-21-19 20:30	-0.09	1687	7.89	2.3	7-22-19 14:15	20.44	1704	8.06	8.5	5-23-19 9:15	15.99	1121	8.45	27.9					
2-21-19 20:45	-0.04	1072	8.23	0.4	2-21-19 20:45	0.25	1470	7.63	32.0	2-21-19 20:45	-0.09	1687	7.89	2.2	7-22-19 14:30	20.48	1703	7.30	8.5	5-23-19 9:30	16.15	1121	8.46	26.8					
2-21-19 21:00	-0.04	1071	8.23	0.4	2-21-19 21:00	0.24	1470	7.63	30.8	2-21-19 21:00	-0.09	1687	7.89	2.3	7-22-19 14:45	20.45	1705	7.98	8.5	5-23-19 9:45	16.18	1123	8.46	27.9					
2-21-19 21:15	-0.05	1071	8.23	0.4	2-21-19 21:15	0.33	1468	7.64	31.1	2-21-19 21:15	-0.09	1687	7.89	2.3	7-22-19 15:00	20.48	1704	7.58	8.5	5-23-19 10:00	16.22	1123	8.46	31.0					
2-21-19 21:30	-0.04	1072	8.23	0.4	2-21-19 21:30	0.17	1465	7.63	26.3	2-21-19 21:30	-0.09	1687	7.89	2.2	7-22-19 15:15	20.59	1702	7.12	8.5	5-23-19 10:15	16.28	1124	8.46	25.6					
2-21-19 21:45	-0.04	1071	8.23	0.4	2-21-19 21:45	0.25	1465	7.63	25.2	2-21-19 21:45	-0.09	1687	7.89	2.2	7-22-19 15:30	20.53	1704	7.77	8.5	5-23-19 10:30	16.29	1123	8.46	24.0					
2-21-19 22:00	-0.04	1071	8.23	0.4	2-21-19 22:00	0.26	1471	7.63	29.0	2-21-19 22:00	-0.09	1687	7.89	2.2	7-22-19 15:45	20.58	1704	7.94	8.5	5-23-19 10:45	16.34	1123	8.47	24.5					
2-21-19 22:15	-0.04	1070	8.23	0.4	2-21-19 22:15	0.36	1468	7.63	28.4	2-21-19 22:15	-0.09	1687	7.89	2.3	7-22-19 16:00	20.67	1705	7.06	8.5	5-23-19 11:00	16.45	1123	8.47	23.6					
2-21-19 22:30	-0.04	1069	8.24	0.5	2-21-19 22:30	0.32	1472	7.62	28.9	2-21-19 22:30	-0.09	1687	7.89	2.3	7-22-19 16:15	20.78	1706	7.15	8.5	5-23-19 11:15	16.53	1125	8.46	26.0					
2-21-19 22:45	-0.04	1070	8.24	0.4	2-21-19 22:45	0.42	1478	7.63	28.0	2-21-19 22:45	-0.09	1687	7.89	2.3	7-22-19 16:30	20.91	1705	7.78	8.5	5-23-19 11:30	17.05	1126	8.45	22.7					
2-21-19 23:00	-0.04	1070	8.24	0.4	2-21-19 23:00	0.31	1472	7.63	27.2	2-21-19 23:00	-0.09	1687	7.88	2.2	7-22-19 16:45	21.11	1706	7.64	8.5	5-23-19 11:45	17.85	1133	8.44	23.2					
2-21-19 23:15	-0.04	1070	8.24	0.4	2-21-19 23:15	0.26	1467	7.63	24.9	2-21-19 23:15	-0.09	1688	7.89	2.2	7-22-19 17:00	21.24	1707	7.74	8.5	5-23-19 12:00	18.73	1133	8.43	23.8					
2-21-19 23:30	-0.04	1070	8.24	0.4	2-21-19 23:30	0.25	1471	7.63	25.9	2-21-19 23:30	-0.09	1688	7.89	2.2	7-22-19 17:15	21.34	1707	7.64	8.5	5-23-19 12:15	18.64	1127	8.42	22.1					
2-21-19 23:45	-0.04	1070	8.24	0.4	2-21-19 23:45	0.32	1473	7.63	27.3	2-21-19 23:45	-0.09	1688	7.89	2.2	7-22-19 17:30	21.48	1707	8.23	8.5	5-23-19 12:30	18.44	1125	8.43	21.7					
2-22-19 0:00	-0.04	1069	8.24	0.4	2-22-19 0:00	0.38	1479	7.63	27.1	2-22-19 0:00	-0.09	1688	7.89	2.1	7-22-19 17:45	21.76	1709	8.30	8.5	5-23-19 12:45	18.63	1130	8.43	21.1					
2-22-19 0:15	-0.04	1069	8.24	0.4	2-22-19 0:15	0.41	1475	7.63	28.0	2-22-19 0:15	-0.09	1688	7.89	2.3	7-22-19 18:00	21.81	1708	8.37	8.5	5-23-19 13:00	19.16	1130	8.42	21.6					
2-22-19 0:30	-0.04	1069	8.24	0.4	2-22-19 0:30	0.37	1480	7.63	25.5	2-22-19 0:30	-0.09	1688	7.89	2.3	7-22-19 18:15	21.88	1708	8.26	8.5	5-23-19 13:15	19.37	1129	8.41	22.1					
2-22-19 0:45	-0.04	1068	8.25	0.4	2-22-19 0:45	0.41	1481	7.63	26.4	2-22-19 0:45	-0.09	1688	7.89	2.3	7-22-19 18:30	22.19	1709	7.86	8.5	5-23-19 13:30	19.77	1130	8.41	16.8					
2-22-19 1:00	-0.04	1068	8.25	0.4	2-22-19 1:00	0.40	1481	7.63	27.5	2-22-19 1:00	-0.09	1688	7.88	2.3	7-22-19 18:45	22.25	1708	8.06	8.5	5-23-19 13:45	20.33	1120	8.40	20.7					
2-22-19 1:15	-0.04	1068	8.25	0.7	2-22-19 1:15	0.23	1470	7.63	23.1	2-22-19 1:15	-0.09	1688	7.89	2.3	7-22-19 19:00	22.44	1710	8.45	8.5	5-23-19 14:00	20.19	1126	8.41	17.6					
2-22-19 1:30	-0.04	1067	8.25	0.5	2-22-19 1:30	0.21	1479	7.63	28.3	2-22-19 1:30	-0.09	1689	7.89	2.2	7-22-19 19:15	22.48	1709	8.42	8.5	5-23-19 14:15	19.99	1124	8.41	21.4					
2-22-19 1:45	-0.04	1067	8.25	0.4	2-22-19 1:45	0.34	1487	7.64	26.2	2-22-19 1:45	-0.09	1689	7.89	2.2	7-22-19 19:30	22.52	1709	7.96	8.5	5-23-19 14:30	20.45	1131	8.41	19.6					
2-22-19 2:00	-0.04	1067	8.25	0.4	2-22-19 2:00	0.31	1477	7.63	26.1	2-22-19 2:00	-0.09	1689	7.89	2.2	7-22-19 19:45	22.52	1708	8.73	8.5	5-23-19 14:45	20.79	1134	8.40	21.0					
2-22-19 2:15	-0.04	1067	8.25	0.4	2-22-19 2:15	0.16	1473	7.63	23.5	2-22-19 2:15	-0.09	1689	7.89	2.3	7-22-19 20:00	22.46	1707	8.35	8.5	5-23-19 15:00	21.19	1132	8.41	17.9					
2-22-19 2:30	-0.05	1068	8.25	0.4	2-22-19 2:30	0.24	1480	7.63	26.3	2-22-19 2:30	-0.09	1689	7.88	2.3	7-22-19 20:15	22.42	1705	8.97	8.5	5-23-19 15:15	21.01	1133	8.40	22.4					
2-22-19 2:45	-0.05	1068	8.25	0.4	2-22-19 2:45	0.34	1482	7.63	27.5	2-22-19 2:45	-0.09	1689	7.88	2.4	7-22-19 20:30	22.38	1705	9.03	8.5	5-23-19 15:30	21.01	1126	8.41	17.0					
2-22-19 3:00	-0.05	1068	8.25	0.4	2-22-19 3:00	0.35	1475	7.64	26.8	2-22-19 3:00	-0.09	1689	7.88	2.3	7-22-19 20:45	22.24	1704	11.95	8.5	5-23-19 15:45	21.52	1132	8.40	21.1					
2-22-19 3:15	-0.05	1067	8.25	0.5	2-22-19 3:15	0.26	1477	7.64	25.8	2-22-19 3:15	-0.09	1689	7.89	2.2	7-22-19 21:00	22.31	1706	8.93	8.5	5-23-19 16:00	21.81	1134	8.40	18.2					
2-22-19 3:30	-0.05	1067	8.25	0.7	2-22-19 3:30	0.28	1482	7.63	26.8	2-22-19 3:30	-0.09	1689	7.89	2.2	7-22-19 21:15	22.35	1707	9.89	8.5	5-23-19 16:15	21.83	1126	8.40	21.1					
2-22-19 3:45	-0.05	1068	8.25	0.4	2-22-19 3:45	0.36	1481	7.64	25.8	2-22-19 3:45	-0.09	1689	7.89	2.3	7-22-19 21:30	22.72	1712	13.07	8.5	5-23-19 16:30	21.25	1131	8.42	18.5					
2-22-19 4:00	-0.05	1067	8.25	0.5	2-22-19 4:00	0.22	1475	7.64	25.8	2-22-19 4:00	-0.09	1689	7.89	2.2	7-22-19 21:45	22.58	1705	12.32	8.5	5-23-19 16:45	20.89	1143	8.43	20.9					
2-22-19 4:15	-0.05	1068	8.25	0.4	2-22-19 4:15	0.35	1481	7.64	27.1	2-22-19 4:15	-0.09	1690	7.89	2.3	7-22-19 22:00	22.51	1704	10.92	8.5	5-23-19 17:00	18.80	1120	8.47	19.7					
2-22-19 4:30	-0.05	1067	8.25	0.5	2-22-19 4:30	0.19	1476	7.64	24.0	2-22-19 4:30	-0.09	1690	7.89	2.3	7-22-19 22:15	22.46	1706	12.60	8.5	5-23-19 17:15	19.46	1125	8.46	26.0					
2-22-19 4:45	-0.05	1067	8.25	0.4	2-22-19 4:45	0.23	1478	7.64	25.1	2-22-19 4:45	-0.09	1690	7.89	2.2	7-22-19 22:30	22.54	1706	11.66	8.5	5-23-19 17:30	19.42	1115	8.46	28.1					
2-22-19 5:00	-0.05	1068	8.25	0.5	2-22-19 5:00	0.36	1483	7.64	26.9	2-22-19 5:00	-0.09	1690	7.89	2.3	7-22-19 22:45	22.57	1708	12.53	8.5	5-23-19 17:45	19.30	1113	8.46	31.9					
2-22-19 5:15	-0.05	1068	8.26	0.5	2-22-19 5:15	0.25	1477	7.64	25.9	2-22-19 5:15	-0.09	1690	7.89	2.2	7-22-19 23:00	22.88	1710	10.66	8.5	5-23-19 18:00	19.16	1112	8.47	23.6					
2-22-19 5:30	-0.05	1069	8.26	0.4	2-22-19 5:30	0.21	1482	7.64	25.7	2-22-19 5:30	-0.09	1690	7.89	2.2	7-22-19 23:15	23.17	1710	11.45	8.5	5-23-19 18:15	19.23	1114	8.47	28.5					
2-22-19 5:45	-0.05	1069	8.26	0.4	2-22-19 5:45	0.24	1480	7.64	26.4	2-22-19 5:45	-0.09	1690	7.89	2.2	7-22-19 23:30	23.30	1711	9.90	8.5	5-23-19 18:30	19.30	1113	8.47	26.0					
2-22-19 6:00	-0.05	1067	8.26	0.4	2-22-19 6:00	0.18	1479	7.63	25.7	2-22-19 6:00	-0.09	1690	7.89	2.2	7-22-19 23:45	23.41	1711	10.46	8.5	5-23-19 18:45	19.29	1116	8.47	28.6					
2-22-19 6:15	-0.05	1067	8.26	0.4	2-22-19 6:15	0.14	1482	7.64	24.3	2-22-19 6:15	-0.09	1690	7.89	2.3	7-23-19 0:00	23.47	1710	9.62	8.5	5-23-19 19:00	19.29	1116	8.46	23.9					
2-22-19 6:30	-0.05	1067	8.26	0.4	2-22-19 6:30	0.19	1479	7.64	24.7	2-22-19 6:30	-0.09	1690	7.88	2.3	7-23-19 0:15	23.30	1706	10.82	8.5	5-23-19 19:15	19.25	1122	8.45	24.7					
2-22-19 6:45	-0.05	1067	8.26	0.4	2-22-19 6:45	0.24	1479	7.64	25.9	2-22-19 6:45	-0.08	1690	7.88	2.3	7-23-19 0:30	23.28	1707	10.82	8.5	5-23-19 19:30	19.19	1113	8.46	25.8					
2-22-19 7:00	-0.05	1067	8.26	0.4	2-22-19 7:00	0.26	1479	7.63	24.1	2-22-19 7:00	-0.08	1690	7.88	2.3	7-23-19 0:45	23.42	1708	11.50	8.5	5-23-19 19:45	19.14	1116	8.46	28.9					
2-22-19 7:15	-0.05	1066	8.26	0.4	2-22-19 7:15	0.27	1484	7.64	26.4	2-22-19 7:15	-0.09	1690	7.89	2.2	7-23-19 1:00	23.55	1710	9.95	8.5	5-23-19 20:00	19.13	1117	8.47	20.9					
2-22-19 7:30	-0.05	1066	8.26	0.4	2-22-19 7:30	0.31	1488	7.64	32.3	2-22-19 7:30	-0.09	1690	7.89	2.2	7-23-19 1:15	23.68	1710	9.52	8.5	5-23-19 20:15	19.12	1118	8.46	21.1					
2-22-19 7:45	-0.05	1067	8.27	0.4	2-22-19 7:45	0.30	1484	7.63	25.0	2-22-19 7:45	-0.08	1690	7.89	2.2	7-23-19 1:30	23.74	1712	9.79	8.5	5-23-19 20:30	19.06	1118	8.46	24.2					
2-22-19 8:00	-0.05	1066	8.27	0.4	2-22-19 8:00	0.19	1477	7.63	22.9	2-22-19 8:00	-0.09	1691	7.89	2.2	7-23-19 1:45	23.76	1711	9.62	8.5	5-23-19 20:45	19.01	1114	8.47	23.7					
2-22-19 8:15	-0.05	1065	8.27	0.4	2-22-19 8:15	0.19	1488	7.64	25.4	2-22-19 8:15	-0.09	1691	7.88	2.3	7-23-19 2:00	23.73	1711	8.94	8.5	5-23-19 21:00	18.96	1117	8.46	20.7					
2-22-19 8:30	-0.05	1065	8.28	0.4	2-22-19 8:30	0.32	1486	7.63	24.0	2-22-19 8:30	-0.09	1691	7.88	2.2	7-23-19 2:15	23.69	1712	9.26	8.5	5-23-19 21:15	18.90	1115	8.45	24.3					
2-22-19 8:45	-0.05	1066	8.28	0.4	2-22-19 8:45	0.28	1488	7.63	23.2	2-22-19 8:45	-0.09	1691	7.88	2.2	7-23-19 2:30	23.65	1713	8.85	8.5	5-23-19 21:30	18.85	1121	8.46	19.8					
2-22-19 9:00	-0.05	1065	8.28	0.4	2-22-19 9:00	0.38	1491	7.63	25.0	2-22-19 9:00	-0.09	1691	7.88	2.3	7-23-19 2:45	23.62	1712	8.95	8.5	5-23-19 21:45	18.81	1120	8.47	26.0					
2-22-19 9:15	-0.05	1065	8.28	0.4	2-22-19 9:15	0.38	1491	7.63	26.1	2-22-19 9:15	-0.09	1691	7.89	2.2	7-23-19 3:00	23.59	1711	8.67	8.5	5-23-19 22:00	18.76	1121	8.46	22.3					
2-22-19 9:30	-0.05	1065	8.28	0.4	2-22-19 9:30	0.35	1486	7.63	26.3	2-22-19 9:30	-0.09	1692	7.89	2.2	7-23-19 3:15	23.77	1713	8.39	8.5	5-23-19 22:15	18.70	1118	8.46	26.8					
2-22-19 9:45	-0.05	1065	8.28	0.4	2-22-19 9:45	0.33	1488	7.63	24.4	2-22-19 9:45	-0.09	1692	7.89	2.1	7-23-19 3:30	23.83	1714	7.98	8.5	5-23-19 22:30	18.64	1115	8.47	20.6					
2-22-19 10:00	-0.05	1065	8.29	0.4	2-22-19 10:00	0.29	1486	7.63	23.8	2-22-19 10:00	-0.09	1692	7.89	2.2	7-23-19 3:45	23.79	1716	9.14	8.5	5-23-19 22:45	18.58	1119	8.46	22.5					
2-22-19 10:15	-0.05	1067	8.29	0.4	2-22-19 10:15	0.23	1486	7.63	24.3	2-22-19 10:15	-0.09	1692	7.88	2.2	7-23-19 4:00	23.73	1716	7.85	8.5	5-23-19 23:00	18.51	1115	8.46	23.3					
2-22-19 10:30	-0.05	1066	8.29	0.4	2-22-19 10:30					2-22-19 10:30	-0.09	1692	7.88	2.2	7-23-19 4:15	23.72	1715	7.29	8.5	5-23-19 23:15	18.42	1119	8.45	23.4					
2-22-19 10:45	-0.05	1066	8.29	0.4	2-22-19 10:45	0.37	1489	7.64	24.4	2-22-19 10:45	-0.09	1692	7.88	2.3	7-23-19 4:30	23.60	1716	8.98	8.5	5-23-19 23:30	18.38	1115	8.46	22.3					
2-22-19 11:00	-0.05	1066	8.29	0.4	2-22-19 11:00	0.36	1487	7.64	24.2	2-22-19 11:00	-0.09	1692	7.88	2.2	7-23-19 4:45	23.56	1714	7.43	8.5	5-23-19 23:45	18.32	1120	8.46	24.9					
2-22-19 11:15	-0.05	1065	8.29	0.4	2-22-19 11:15	0.34	1489	7.64	22.0	2-22-19 11:15	-0.09	1693	7.89	2.2	7-23-19 5:00	23.49	1713	7.25	8.5	5-24-19 0:00	18.25	1117	8.47	21.7					
2-22-19 11:30	-0.05	1064	8.29	0.4	2-22-19 11:30	0.27	1489	7.64	22.8	2-22-19 11:30	-0.11	1695	7.89	2.4	7-23-19 5:15	23.45	1716	6.78	8.5	5-24-19 0:15	18.19	1119	8.46	27.9					
2-22-19 11:45	-0.05	1066	8.30	0.4	2-22-19 11:45	0.30	1487	7.64	22.9	2-22-19 11:45	-0.10	1698	7.89	2.2	7-23-19 5:30	23.39	1716	7.11	8.5	5-24-19 0:30	18.16	1118	8.46	23.9					
2-22-19 12:00	-0.05	1063	8.30	0.5	2-22-19 12:00	0.23	1482	7.64	21.4	2-22-19 12:00	-0.10	1696	7.89	2.2	7-23-19 5:45	23.34	1716	6.65	8.5	5-24-19 0:45	18.10	1119	8.46	28.3					
2-22-19 12:15	-0.05	1065	8.30	0.5	2-22-19 12:15	0.23	1488	7.63	22.0	2-22-19 12:15	-0.10	1695	7.89	2.4	7-23-19 6:00	23.19	1715	8.20	8.5	5-24-19 1:00	18.03	1119	8.46	23.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-22-19 12:30	-0.06	1065	8.30	0.5	2-22-19 12:30	0.29	1488	7.63	22.6	2-22-19 12:30	-0.10	1694	7.89	2.3	7-23-19 6:15	23.15	1716	6.80	8.5	5-24-19 1:15	17.92	1122	8.46	28.3					
2-22-19 12:45	-0.05	1067	8.30	0.4	2-22-19 12:45	0.19	1480	7.64	20.2	2-22-19 12:45	-0.09	1694	7.89	2.2	7-23-19 6:30	23.07	1715	6.43	8.5	5-24-19 1:30	17.90	1119	8.47	21.8					
2-22-19 13:00	-0.05	1067	8.30	0.4	2-22-19 13:00	0.21	1486	7.64	22.1	2-22-19 13:00	-0.09	1694	7.89	2.3	7-23-19 6:45	23.00	1713	7.36	8.5	5-24-19 1:45	17.89	1120	8.46	27.2					
2-22-19 13:15	-0.05	1066	8.30	0.5	2-22-19 13:15	0.24	1489	7.64	24.0	2-22-19 13:15	-0.09	1694	7.89	2.1	7-23-19 7:00	22.99	1712	6.39	8.5	5-24-19 2:00	17.80	1123	8.46	19.4					
2-22-19 13:30	-0.05	1066	8.30	0.4	2-22-19 13:30	0.24	1487	7.65	24.0	2-22-19 13:30	-0.09	1694	7.89	2.1	7-23-19 7:15	22.94	1713	6.25	8.5	5-24-19 2:15	17.76	1120	8.46	24.2					
2-22-19 13:45	-0.04	1066	8.30	0.5	2-22-19 13:45	0.24	1480	7.64	20.9	2-22-19 13:45	-0.09	1693	7.89	2.2	7-23-19 7:30	22.89	1715	6.63	8.5	5-24-19 2:30	17.71	1119	8.46	20.7					
2-22-19 14:00	-0.04	1064	8.30	0.5	2-22-19 14:00	0.31	1485	7.65	23.5	2-22-19 14:00	-0.09	1693	7.89	2.1	7-23-19 7:45	22.82	1711	6.08	8.5	5-24-19 2:45	17.65	1119	8.46	29.0					
2-22-19 14:15	-0.04	1062	8.29	0.5	2-22-19 14:15	0.16	1490	7.64	21.8	2-22-19 14:15	-0.09	1693	7.89	2.3	7-23-19 8:00	22.78	1711	6.28	8.5	5-24-19 3:00	17.60	1119	8.46	22.5					
2-22-19 14:30	-0.04	1063	8.29	0.4	2-22-19 14:30	0.19	1500	7.64	22.0	2-22-19 14:30	-0.09	1693	7.89	2.2	7-23-19 8:15	22.73	1714	6.22	8.5	5-24-19 3:15	17.52	1121	8.45	28.0					
2-22-19 14:45	-0.04	1064	8.29	0.4	2-22-19 14:45	0.37	1496	7.65	25.2	2-22-19 14:45	-0.09	1693	7.88	2.2	7-23-19 8:30	22.67	1714	5.70	8.5	5-24-19 3:30	17.47	1120	8.46	23.6					
2-22-19 15:00	-0.04	1063	8.29	0.4	2-22-19 15:00	0.25	1490	7.64	24.3	2-22-19 15:00	-0.09	1693	7.88	2.2	7-23-19 8:45	22.62	1713	6.05	8.5	5-24-19 3:45	17.45	1121	8.46	28.2					
2-22-19 15:15	-0.05	1064	8.29	0.5	2-22-19 15:15	0.23	1486	7.64	21.1	2-22-19 15:15	-0.09	1694	7.89	2.1	7-23-19 9:00	22.58	1712	6.13	8.5	5-24-19 4:00	17.38	1121	8.45	23.4					
2-22-19 15:30	-0.05	1062	8.29	0.4	2-22-19 15:30	0.21	1489	7.64	20.5	2-22-19 15:30	-0.09	1694	7.89	2.2	7-23-19 9:15	22.55	1713	6.33	8.5	5-24-19 4:15	17.31	1123	8.45	26.3					
2-22-19 15:45	-0.04	1064	8.29	0.4	2-22-19 15:45	0.41	1492	7.65	26.6	2-22-19 15:45	-0.09	1694	7.89	2.1	7-23-19 9:30	22.51	1712	6.60	8.5	5-24-19 4:30	17.29	1121	8.45	21.4					
2-22-19 16:00	-0.04	1064	8.29	0.5	2-22-19 16:00	0.19	1490	7.64	21.2	2-22-19 16:00	-0.09	1694	7.89	2.2	7-23-19 9:45	22.46	1712	7.01	8.5	5-24-19 4:45	17.22	1122	8.44	26.5					
2-22-19 16:15	-0.04	1062	8.28	0.4	2-22-19 16:15	0.19	1490	7.64	21.3	2-22-19 16:15	-0.09	1694	7.89	2.3	7-23-19 10:00	22.40	1712	6.65	8.5	5-24-19 5:00	17.15	1121	8.45	20.6					
2-22-19 16:30	-0.04	1062	8.28	0.5	2-22-19 16:30	0.25	1489	7.64	22.1	2-22-19 16:30	-0.09	1694	7.88	2.2	7-23-19 10:15	22.33	1711	7.94	8.5	5-24-19 5:15	17.05	1123	8.44	25.8					
2-22-19 16:45	-0.05	1061	8.28	0.4	2-22-19 16:45	0.10	1490	7.64	21.2	2-22-19 16:45	-0.09	1694	7.88	2.1	7-23-19 10:30	22.25	1712	7.02	8.5	5-24-19 5:30	17.02	1122	8.45	19.7					
2-22-19 17:00	-0.05	1061	8.28	0.4	2-22-19 17:00	0.18	1490	7.64	21.2	2-22-19 17:00	-0.09	1694	7.88	2.2	7-23-19 10:45	22.20	1711	7.22	8.5	5-24-19 5:45	17.01	1125	8.45	25.3					
2-22-19 17:15	-0.04	1063	8.28	0.5	2-22-19 17:15	0.25	1492	7.64	21.8	2-22-19 17:15	-0.09	1695	7.89	2.2	7-23-19 11:00	22.13	1713	7.02	8.5	5-24-19 6:00	16.96	1122	8.45	20.4					
2-22-19 17:30	-0.04	1061	8.28	0.4	2-22-19 17:30	0.25	1494	7.64	22.1	2-22-19 17:30	-0.09	1695	7.89	2.1	7-23-19 11:15	22.05	1712	6.97	8.5	5-24-19 6:15	16.92	1123	8.45	26.0					
2-22-19 17:45	-0.04	1060	8.28	0.5	2-22-19 17:45	0.21	1489	7.64	22.4	2-22-19 17:45	-0.09	1695	7.89	2.1	7-23-19 11:30	22.00	1711	6.88	8.5	5-24-19 6:30	16.91	1122	8.46	19.8					
2-22-19 18:00	-0.04	1061	8.29	0.4	2-22-19 18:00	0.37	1487	7.64	22.0	2-22-19 18:00	-0.09	1695	7.89	2.1	7-23-19 11:45	21.93	1712	7.93	8.5	5-24-19 6:45	16.89	1123	8.45	25.0					
2-22-19 18:15	-0.04	1061	8.29	0.4	2-22-19 18:15	0.25	1490	7.64	20.9	2-22-19 18:15	-0.09	1695	7.89	2.2	7-23-19 12:00	21.84	1710	8.60	8.5	5-24-19 7:00	16.85	1122	8.45	19.6					
2-22-19 18:30	-0.04	1061	8.29	0.5	2-22-19 18:30	0.25	1484	7.64	22.8	2-22-19 18:30	-0.09	1695	7.88	2.3	7-23-19 12:15	21.78	1713	8.08	8.5	5-24-19 7:15	16.80	1124	8.44	25.2					
2-22-19 18:45	-0.05	1061	8.29	0.5	2-22-19 18:45	0.31	1487	7.64	24.6	2-22-19 18:45	-0.09	1695	7.88	2.2	7-23-19 12:30	21.68	1711	7.46	8.5	5-24-19 7:30	16.77	1124	8.46	21.2					
2-22-19 19:00	-0.04	1059	8.30	0.5	2-22-19 19:00	0.27	1486	7.64	22.7	2-22-19 19:00	-0.09	1695	7.88	2.3	7-23-19 12:45	21.63	1711	7.35	8.5	5-24-19 7:45	16.82	1122	8.45	22.5					
2-22-19 19:15	-0.05	1060	8.30	0.5	2-22-19 19:15	0.23	1484	7.64	22.8	2-22-19 19:15	-0.09	1695	7.89	2.2	7-23-19 13:00	21.61	1712	7.77	8.5	5-24-19 8:00	16.81	1122	8.46	21.7					
2-22-19 19:30	-0.04	1059	8.31	0.5	2-22-19 19:30	0.38	1487	7.65	24.7	2-22-19 19:30	-0.09	1695	7.89	2.0	7-23-19 13:15	21.55	1711	8.06	8.5	5-24-19 8:15	16.81	1122	8.46	21.6					
2-22-19 19:45	-0.05	1059	8.31	0.5	2-22-19 19:45	0.24	1486	7.64	21.2	2-22-19 19:45	-0.09	1696	7.89	2.2	7-23-19 13:30	21.48	1711	7.73	8.5	5-24-19 8:30	16.83	1124	8.46	20.0					
2-22-19 20:00	-0.05	1061	8.32	0.5	2-22-19 20:00	0.35	1486	7.65	25.6	2-22-19 20:00	-0.09	1696	7.89	2.2	7-23-19 13:45	21.45	1711	7.92	8.5	5-24-19 8:45	16.86	1129	8.46	20.6					
2-22-19 20:15	-0.05	1059	8.32	0.5	2-22-19 20:15	0.26	1485	7.65	23.4	2-22-19 20:15	-0.09	1695	7.89	2.2	7-23-19 14:00	21.38	1711	7.50	8.5	5-24-19 9:00	16.89	1131	8.46	18.3					
2-22-19 20:30	-0.05	1060	8.34	0.5	2-22-19 20:30	0.26	1482	7.64	23.3	2-22-19 20:30	-0.09	1696	7.88	2.2	7-23-19 14:15	21.35	1712	7.06	8.5	5-24-19 9:15	16.90	1134	8.45	21.3					
2-22-19 20:45	-0.05	1060	8.35	0.5	2-22-19 20:45	0.25	1487	7.64	23.8	2-22-19 20:45	-0.09	1696	7.88	2.2	7-23-19 14:30	21.37	1711	8.10	8.5	5-24-19 9:30	16.98	1130	8.46	18.6					
2-22-19 21:00	-0.05	1058	8.36	0.5	2-22-19 21:00	0.17	1492	7.64	23.2	2-22-19 21:00	-0.09	1695	7.88	2.2	7-23-19 14:45	21.38	1710	7.54	8.5	5-24-19 9:45	17.00	1131	8.46	24.1					
2-22-19 21:15	-0.05	1059	8.36	0.5	2-22-19 21:15	0.26	1493	7.64	23.8	2-22-19 21:15	-0.09	1696	7.89	2.1	7-23-19 15:00	21.37	1710	7.07	8.5	5-24-19 10:00	17.08	1132	8.46	20.3					
2-22-19 21:30	-0.05	1059	8.36	0.5	2-22-19 21:30	0.32	1496	7.64	24.2	2-22-19 21:30	-0.10	1696	7.89	2.1	7-23-19 15:15	21.43	1709	7.03	8.5	5-24-19 10:15	17.16	1129	8.46	22.4					
2-22-19 21:45	-0.05	1060	8.37	0.5	2-22-19 21:45	0.36	1492	7.64	24.6	2-22-19 21:45	-0.09	1696	7.89	2.1	7-23-19 15:30	21.43	1710	7.89	8.5	5-24-19 10:30	17.21	1128	8.46	19.8					
2-22-19 22:00	-0.05	1058	8.38	0.5	2-22-19 22:00	0.25	1485	7.63	23.6	2-22-19 22:00	-0.09	1696	7.89	2.1	7-23-19 15:45	21.46	1710	7.53	8.5	5-24-19 10:45	17.30	1130	8.46	24.0					
2-22-19 22:15	-0.05	1058	8.40	0.5	2-22-19 22:15	0.25	1487	7.63	23.3	2-22-19 22:15	-0.10	1696	7.89	2.2	7-23-19 16:00	21.56	1711	7.41	8.5	5-24-19 11:00	17.39	1130	8.46	18.9					
2-22-19 22:30	-0.05	1059	8.40	0.5	2-22-19 22:30	0.19	1480	7.63	21.6	2-22-19 22:30	-0.09	1696	7.88	2.2	7-23-19 16:15	21.66	1712	7.73	8.5	5-24-19 11:15	17.68	1135	8.44	26.2					
2-22-19 22:45	-0.05	1061	8.41	0.5	2-22-19 22:45	0.20	1485	7.63	22.5	2-22-19 22:45	-0.09	1696	7.88	2.1	7-23-19 16:30	21.72	1713	7.43	8.5	5-24-19 11:45									
2-22-19 23:00	-0.05	1059	8.42	0.5	2-22-19 23:00	0.19	1482	7.63	21.0	2-22-19 23:00	-0.09	1696	7.88	2.1	7-23-19 16:45	21.79	1711	7.12	8.5	5-24-19 12:00									
2-22-19 23:15	-0.05	1061	8.42	0.5	2-22-19 23:15	0.32	1487	7.64	24.4	2-22-19 23:15	-0.09	1696	7.88	2.1	7-23-19 17:00	21.86	1710	8.31	8.5	5-24-19 12:15									
2-22-19 23:30	-0.05	1060	8.44	0.5	2-22-19 23:30	0.29	1485	7.64	24.1	2-22-19 23:30	-0.09	1696	7.89	2.2	7-23-19 17:15	22.06	1710	7.77	8.5	5-24-19 12:30									
2-22-19 23:45	-0.05	1060	8.45	0.5	2-22-19 23:45	0.23	1492	7.64	23.6	2-22-19 23:45	-0.09	1696	7.89	2.1	7-23-19 17:30	22.21	1711	7.87	8.5	5-24-19 12:45									
2-23-19 0:00	-0.05	1059	8.45	0.5	2-23-19 0:00	0.24	1493	7.64	24.3	2-23-19 0:00	-0.09	1696	7.89	2.1	7-23-19 17:45	22.34	1712	7.53	8.5	5-24-19 13:00									
2-23-19 0:15	-0.05	1061	8.46	0.5	2-23-19 0:15	0.39	1489	7.65	27.1	2-23-19 0:15	-0.09	1696	7.89	2.1	7-23-19 18:00	22.43	1712	7.37	8.5	5-24-19 13:15	20.00	1136	8.42	32.6					
2-23-19 0:30	-0.05	1058	8.46	0.6	2-23-19 0:30	0.30	1488	7.64	25.0	2-23-19 0:30	-0.09	1696	7.88	2.1	7-23-19 18:15	22.54	1712	7.42	8.5	5-24-19 13:30	20.10	1137	8.42	22.0					
2-23-19 0:45	-0.05	1060	8.48	0.5	2-23-19 0:45	0.21	1490	7.64	25.8	2-23-19 0:45	-0.09	1696	7.88	2.2	7-23-19 18:30	22.75	1714	7.07	8.5	5-24-19 13:45	20.21	1138	8.42	21.7					
2-23-19 1:00	-0.05	1059	8.49	0.5	2-23-19 1:00	0.36	1488	7.65	26.6	2-23-19 1:00	-0.09	1696	7.89	2.1	7-23-19 18:45	22.89	1712	7.44	8.5	5-24-19 14:00	20.48	1137	8.41	18.6					
2-23-19 1:15	-0.05	1060	8.50	0.6	2-23-19 1:15	0.28	1491	7.65	27.0	2-23-19 1:15	-0.09	1696	7.89	2.1	7-23-19 19:00	22.95	1713	7.00	8.5	5-24-19 14:15	21.17	1138	8.41	21.9					
2-23-19 1:30	-0.05	1062	8.51	0.6	2-23-19 1:30	0.24	1486	7.64	28.6	2-23-19 1:30	-0.09	1696	7.89	2.1	7-23-19 19:15	22.97	1711	7.09	8.5	5-24-19 14:30	20.96	1140	8.41	17.8					
2-23-19 1:45	-0.04	1060	8.54	0.5	2-23-19 1:45	0.27	1491	7.64	27.9	2-23-19 1:45	-0.09	1696	7.89	2.1	7-23-19 19:30	22.94	1711	7.91	8.5	5-24-19 14:45	21.03	1137	8.40	25.3					
2-23-19 2:00	-0.04	1059	8.59	0.6	2-23-19 2:00	0.37	1488	7.65	30.1	2-23-19 2:00	-0.09	1696	7.89	2.1	7-23-19 19:45	22.85	1711	8.05	8.5	5-24-19 15:00	21.10	1139	8.41	17.1					
2-23-19 2:15	-0.03	1058	8.64	0.6	2-23-19 2:15					2-23-19 2:15	-0.09	1696	7.88	2.2	7-23-19 20:00	22.66	1710	9.41	8.5	5-24-19 15:15	21.58	1141	8.40	26.3					
2-23-19 2:30	-0.03	1060	8.73	0.6	2-23-19 2:30	0.17	1492	7.64	26.6	2-23-19 2:30	-0.09	1696	7.89	2.1	7-23-19 20:15	22.54	1711	10.28	8.5	5-24-19 15:30	21.60	1145	8.40	20.2					
2-23-19 2:45	-0.03	1056	8.77	0.6	2-23-19 2:45	0.30	1488	7.65	35.9	2-23-19 2:45	-0.09	1696	7.88	2.1	7-23-19 20:30	22.48	1709	13.34	8.5	5-24-19 15:45	21.95	1143	8.40	26.1					
2-23-19 3:00	-0.03	1056	8.79	0.6	2-23-19 3:00	0.35	1487	7.66	28.1	2-23-19 3:00	-0.09	1696	7.88	2.1	7-23-19 20:45	22.49	1711	11.30	8.5	5-24-19 16:00	22.20	1143	8.42	20.7					
2-23-19 3:15	-0.03	1056	8.81	0.7	2-23-19 3:15	0.32	1487	7.65	26.6	2-23-19 3:15	-0.09	1697	7.89	2.1	7-23-19 21:00	22.54	1712	13.06	8.5	5-24-19 16:15	22.00	1143	8.41	24.0					
2-23-19 3:30	-0.03	1056	8.83	0.7	2-23-19 3:30	0.23	1490	7.65	17.7	2-23-19 3:30	-0.09	1697	7.89	2.0	7-23-19 21:15	22.77	1711	11.75	8.5	5-24-19 16:30	21.62	1136	8.42	18.9					
2-23-19 3:45	-0.04	1056	8.85	0.6	2-23-19 3:45	0.21	1490	7.65	22.3	2-23-19 3:45	-0.09	1697	7.89	2.0	7-23-19 21:30	23.11	1714	8.84	8.5	5-24-19 16:45	19.60	1116	8.44	20.6					
2-23-19 4:00	-0.04	1054	8.86	0.7	2-23-19 4:00	0.34	1490	7.66	29.5	2-23-19 4:00	-0.09	1697	7.89	2.1	7-23-19 21:45	23.45	1714	9.05	8.5	5-24-19 17:00	18.48	1129	8.48	16.2					
2-23-19 4:15	-0.04	1055	8.88	0.7	2-23-19 4:15	0.23	1486	7.65	22.5	2-23-19 4:15	-0.09	1697	7.89	2.1	7-23-19 22:00	23.63	1713	9.53	8.5	5-24-19 17:15	18.17	1132	8.49	23.0					
2-23-19 4:30	-0.04	1054	8.88	0.7	2-23-19 4:30	0.16	1492	7.65	22.6	2-23-19 4:30	-0.09	1696	7.88	2.1	7-23-19 22:15	23.55	1715	13.48	8.5	5-24-19 17:30	17.87	1132	8.49	18.5					
2-23-19 4:45	-0.04	1054	8.89	0.7	2-23-19 4:45	0.16	1493	7.63	18.9	2-23-19 4:45	-0.09	1696	7.88	2.1	7-23-19 22:30	23.69	1715	10.96	8.5	5-24-19 17:45	17.68	1131	8.49	25.9					
2-23-19 5:00	-0.04	1054	8.90	0.7	2-23-19 5:00	0.27	1492	7.64	19.0	2-23-19 5:00	-0.09	1696	7.88	2.1	7-23-19 22:45	23.60	1713	9.14	8.5	5-24-19 18:00	17.61	1132	8.47	30.5					
2-23-19 5:15	-0.04	1054	8.91	0.7	2-23-19 5:15	0.32	1499	7.64	20.7	2-23-19 5:15	-0.09	1696	7.89	2.0	7-23-19 23:00	23.62	1715	9.02	8.5	5-24-19 18:15	17.69	1135	8.46	26.4					
2-23-19 5:30	-0.04	1054	8.92	0.6	2-23-19 5:30	0.35	1494	7.64	21.5	2-23-19 5:30	-0.09	1697	7.89	2.0	7-23-19 23:15	23.64	1715	9.25	8.5	5-24-19 18:30	18.09	1137	8.47	19.3					
2-23-19 5:45	-0.04	1054	8.92	0.7	2-23-19 5:45	0.27	1489	7.64	21.4	2-23-19 5:45	-0.09	1697	7.89	2.0	7-23-19 23:30	23.64	1714	8.48	8.5	5-24-19 18:45	18.51	1135	8.47	18.8					
2-23-19 6:00	-0.04	1054	8.92	0.7	2-23-19 6:00	0.21	1489	7.64	19.5	2-23-19 6:00	-0.09	1696	7.89	2.0	7-23-19 23:45	23.71	1715	8.30	8.5	5-24-19 19:00	18.80	1143	8.48	24.2					
2-23-19 6:15	-0.04	1053	8.93	0.7	2-23-19 6:15	0.28	1499	7.64	23.7	2-23-19 6:15	-0.09	1696	7.89	2.1	7-24-19 0:00	23.73	1714	8.93	8.5	5-24-19 19:15	18.73	1141	8.48	23.9					
2-23-19 6:30	-0.04	1053	8.93	0.7	2-23-19 6:30	0.36	1497	7.64	23.7	2-23-19 6:30	-0.09	1696	7.89	2.1	7-24-19 0:15	23.73	1715	9.07	8.5	5-24-19 19:30	18.73	1138	8.49	28.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-23-19 6:45	-0.04	1053	8.93	0.7	2-23-19 6:45	0.30	1497	7.65	23.9	2-23-19 6:45	-0.09	1696	7.88	2.1	7-24-19 0:30	23.75	1716	8.39	8.5	5-24-19 19:45	18.76	1140	8.49	28.3					
2-23-19 7:00	-0.04	1054	8.93	0.7	2-23-19 7:00	0.36	1496	7.65	25.6	2-23-19 7:00	-0.09	1696	7.88	2.1	7-24-19 0:45	23.75	1715	8.19	8.5	5-24-19 20:00	18.76	1136	8.48	22.8					
2-23-19 7:15	-0.04	1053	8.93	0.7	2-23-19 7:15	0.27	1490	7.64	18.4	2-23-19 7:15	-0.09	1696	7.89	2.1	7-24-19 1:00	23.74	1717	8.05	8.5	5-24-19 20:15	18.64	1138	8.50	27.5					
2-23-19 7:30	-0.04	1054	8.92	0.7	2-23-19 7:30	0.30	1496	7.64	24.5	2-23-19 7:30	-0.09	1696	7.89	2.0	7-24-19 1:15	23.73	1716	8.09	8.5	5-24-19 20:30	18.64	1136	8.50	24.7					
2-23-19 7:45	-0.05	1054	8.92	0.7	2-23-19 7:45	0.35	1496	7.65	20.7	2-23-19 7:45	-0.09	1697	7.89	2.0	7-24-19 1:30	23.72	1714	7.87	8.5	5-24-19 20:45	18.59	1136	8.49	28.9					
2-23-19 8:00	-0.05	1054	8.92	0.7	2-23-19 8:00	0.34	1495	7.64	20.6	2-23-19 8:00	-0.09	1696	7.89	2.0	7-24-19 1:45	23.71	1717	8.08	8.5	5-24-19 21:00	18.64	1138	8.49	25.2					
2-23-19 8:15	-0.05	1055	8.91	0.7	2-23-19 8:15	0.31	1495	7.65	22.7	2-23-19 8:15	-0.08	1696	7.89	2.0	7-24-19 2:00	23.69	1716	7.59	8.5	5-24-19 21:15	18.57	1138	8.49	30.8					
2-23-19 8:30	-0.05	1054	8.92	0.7	2-23-19 8:30	0.28	1497	7.64	22.0	2-23-19 8:30	-0.08	1696	7.89	2.1	7-24-19 2:15	23.65	1716	7.81	8.5	5-24-19 21:30	18.51	1137	8.49	22.5					
2-23-19 8:45	-0.05	1055	8.91	0.7	2-23-19 8:45	0.27	1495	7.64	21.3	2-23-19 8:45	-0.09	1696	7.88	2.0	7-24-19 2:30	23.59	1717	7.99	8.5	5-24-19 21:45	18.47	1138	8.49	30.6					
2-23-19 9:00	-0.05	1054	8.91	0.7	2-23-19 9:00	0.35	1494	7.64	23.5	2-23-19 9:00	-0.09	1696	7.88	2.1	7-24-19 2:45	23.55	1715	7.56	8.5	5-24-19 22:00	18.42	1139	8.48	21.8					
2-23-19 9:15	-0.05	1055	8.91	0.7	2-23-19 9:15	0.35	1493	7.65	24.5	2-23-19 9:15	-0.09	1696	7.88	2.0	7-24-19 3:00	23.51	1716	7.84	8.5	5-24-19 22:15	18.34	1139	8.48	28.5					
2-23-19 9:30	-0.05	1056	8.91	0.7	2-23-19 9:30	0.33	1492	7.65	23.3	2-23-19 9:30	-0.09	1696	7.89	2.0	7-24-19 3:15	23.44	1715	7.59	8.5	5-24-19 22:30	18.29	1136	8.48	19.0					
2-23-19 9:45	-0.05	1056	8.91	0.7	2-23-19 9:45	0.26	1491	7.64	23.8	2-23-19 9:45	-0.09	1696	7.89	2.0	7-24-19 3:30	23.42	1715	7.37	8.5	5-24-19 22:45	18.24	1138	8.48	29.1					
2-23-19 10:00	-0.05	1055	8.90	0.7	2-23-19 10:00	0.29	1494	7.64	21.6	2-23-19 10:00	-0.09	1697	7.89	2.0	7-24-19 3:45	23.40	1714	7.34	8.5	5-24-19 23:00	18.19	1135	8.48	22.0					
2-23-19 10:15	-0.05	1055	8.90	0.7	2-23-19 10:15	0.31	1494	7.64	21.4	2-23-19 10:15	-0.09	1696	7.88	2.1	7-24-19 4:00	23.36	1715	7.65	8.5	5-24-19 23:15	18.11	1137	8.48	31.3					
2-23-19 10:30	-0.05	1055	8.90	0.7	2-23-19 10:30	0.30	1495	7.64	22.2	2-23-19 10:30	-0.08	1696	7.89	2.0	7-24-19 4:15	23.32	1715	8.44	8.5	5-24-19 23:30	18.07	1141	8.48	21.7					
2-23-19 10:45	-0.05	1055	8.90	0.7	2-23-19 10:45	0.31	1495	7.64	19.8	2-23-19 10:45	-0.08	1696	7.88	2.1	7-24-19 4:30	23.29	1714	7.00	8.5	5-24-19 23:45	18.04	1135	8.47	29.6					
2-23-19 11:00	-0.05	1056	8.90	0.8	2-23-19 11:00	0.30	1495	7.64	22.1	2-23-19 11:00	-0.08	1696	7.89	2.1	7-24-19 4:45	23.25	1716	7.33	8.5	5-25-19 0:00	18.01	1133	8.48	22.4					
2-23-19 11:15	-0.05	1055	8.90	0.7	2-23-19 11:15	0.33	1496	7.64	21.3	2-23-19 11:15	-0.09	1697	7.89	2.1	7-24-19 5:00	23.21	1717	7.26	8.5	5-25-19 0:15	17.99	1133	8.47	26.0					
2-23-19 11:30	-0.05	1057	8.89	0.7	2-23-19 11:30	0.33	1495	7.64	21.3	2-23-19 11:30	-0.09	1697	7.89	2.0	7-24-19 5:15	23.18	1716	6.50	8.5	5-25-19 0:30	17.95	1136	8.48	18.6					
2-23-19 11:45	-0.06	1058	8.89	0.7	2-23-19 11:45	0.37	1495	7.64	21.6	2-23-19 11:45	-0.09	1697	7.89	2.0	7-24-19 5:30	23.11	1717	6.88	8.5	5-25-19 0:45	17.89	1136	8.47	30.4					
2-23-19 12:00	-0.06	1059	8.89	0.7	2-23-19 12:00	0.33	1495	7.64	19.5	2-23-19 12:00	-0.09	1697	7.89	2.0	7-24-19 5:45	23.07	1716	6.79	8.5	5-25-19 1:00	17.87	1137	8.47	22.0					
2-23-19 12:15	-0.06	1057	8.89	0.7	2-23-19 12:15	0.37	1496	7.65	21.5	2-23-19 12:15	-0.08	1697	7.88	2.0	7-24-19 6:00	23.01	1715	6.72	8.5	5-25-19 1:15	17.81	1138	8.46	29.1					
2-23-19 12:30	-0.06	1057	8.89	0.7	2-23-19 12:30	0.36	1494	7.65	21.4	2-23-19 12:30	-0.08	1697	7.88	3.8	7-24-19 6:15	23.02	1717	6.69	8.5	5-25-19 1:30	17.74	1139	8.46	20.9					
2-23-19 12:45	-0.06	1057	8.89	0.7	2-23-19 12:45	0.39	1494	7.65	21.1	2-23-19 12:45	-0.09	1699	7.89	7.4	7-24-19 6:30	22.97	1716	6.46	8.5	5-25-19 1:45	17.74	1138	8.46	32.2					
2-23-19 13:00	-0.06	1059	8.87	0.6	2-23-19 13:00	0.39	1494	7.65	19.7	2-23-19 13:00	-0.09	1698	7.89	4.9	7-24-19 6:45	22.91	1716	6.52	8.5	5-25-19 2:00	17.72	1138	8.46	20.8					
2-23-19 13:15	-0.05	1059	8.85	0.9	2-23-19 13:15	0.35	1494	7.65	20.3	2-23-19 13:15	-0.09	1699	7.89	2.8	7-24-19 7:00	22.85	1714	6.60	8.5	5-25-19 2:15	17.67	1137	8.46	31.9					
2-23-19 13:30	-0.06	1059	8.86	0.8	2-23-19 13:30	0.33	1494	7.65	19.5	2-23-19 13:30	-0.09	1698	7.89	2.5	7-24-19 7:15	22.82	1717	6.72	8.5	5-25-19 2:30	17.62	1137	8.46	21.3					
2-23-19 13:45	-0.06	1059	8.86	0.8	2-23-19 13:45	0.34	1494	7.65	19.5	2-23-19 13:45	-0.08	1698	7.89	2.2	7-24-19 7:30	22.77	1715	6.23	8.5	5-25-19 2:45	17.56	1136	8.45	34.2					
2-23-19 14:00	-0.06	1058	8.86	0.7	2-23-19 14:00	0.39	1494	7.64	19.6	2-23-19 14:00	-0.08	1697	7.89	2.1	7-24-19 7:45	22.75	1715	6.68	8.5	5-25-19 3:00	17.51	1136	8.45	18.8					
2-23-19 14:15	-0.06	1059	8.84	0.7	2-23-19 14:15	0.40	1499	7.64	20.6	2-23-19 14:15	-0.08	1696	7.89	2.3	7-24-19 8:00	22.73	1716	6.76	8.5	5-25-19 3:15	17.46	1138	8.45	32.8					
2-23-19 14:30	-0.05	1060	8.84	0.8	2-23-19 14:30	0.40	1496	7.65	19.2	2-23-19 14:30	-0.07	1696	7.88	2.2	7-24-19 8:15	22.68	1717	6.00	8.5	5-25-19 3:30	17.45	1136	8.45	21.2					
2-23-19 14:45	-0.05	1061	8.80	0.7	2-23-19 14:45	0.41	1499	7.65	19.9	2-23-19 14:45	-0.07	1695	7.88	2.3	7-24-19 8:30	22.64	1716	6.04	8.5	5-25-19 3:45	17.39	1137	8.45	30.8					
2-23-19 15:00	-0.05	1062	8.81	0.8	2-23-19 15:00	0.40	1499	7.65	20.4	2-23-19 15:00	-0.07	1695	7.88	2.1	7-24-19 8:45	22.59	1715	6.09	8.5	5-25-19 4:00	17.36	1136	8.45	24.6					
2-23-19 15:15	-0.05	1062	8.82	0.7	2-23-19 15:15	0.40	1498	7.65	20.1	2-23-19 15:15	-0.07	1695	7.89	2.0	7-24-19 9:00	22.55	1715	6.32	8.5	5-25-19 4:15	17.30	1139	8.45	36.4					
2-23-19 15:30	-0.05	1061	8.83	0.7	2-23-19 15:30	0.39	1497	7.65	19.1	2-23-19 15:30	-0.07	1695	7.89	2.0	7-24-19 9:15	22.51	1713	6.05	8.5	5-25-19 4:30	17.25	1138	8.44	22.5					
2-23-19 15:45	-0.05	1061	8.83	0.7	2-23-19 15:45	0.36	1499	7.65	19.7	2-23-19 15:45	-0.07	1695	7.89	2.0	7-24-19 9:30	22.47	1715	6.01	8.5	5-25-19 4:45	17.19	1139	8.44	34.1					
2-23-19 16:00	-0.05	1062	8.83	0.8	2-23-19 16:00	0.36	1498	7.65	20.5	2-23-19 16:00	-0.07	1695	7.89	2.0	7-24-19 9:45	22.43	1715	6.26	8.5	5-25-19 5:00	17.18	1140	8.45	25.3					
2-23-19 16:15	-0.05	1062	8.83	0.7	2-23-19 16:15	0.33	1497	7.65	19.6	2-23-19 16:15	-0.07	1696	7.89	2.2	7-24-19 10:00	22.41	1716	6.33	8.5	5-25-19 5:15	17.10	1141	8.44	30.5					
2-23-19 16:30	-0.05	1060	8.82	0.8	2-23-19 16:30	0.33	1497	7.65	19.6	2-23-19 16:30	-0.07	1696	7.89	2.1	7-24-19 10:15	22.38	1715	6.94	8.5	5-25-19 5:30	17.12	1141	8.45	22.6					
2-23-19 16:45	-0.04	1061	8.77	0.8	2-23-19 16:45	0.36	1497	7.65	17.9	2-23-19 16:45	-0.07	1696	7.89	2.1	7-24-19 10:30	22.34	1715	6.58	8.5	5-25-19 5:45	17.08	1141	8.45	33.5					
2-23-19 17:00	-0.04	1060	8.76	0.7	2-23-19 17:00	0.38	1497	7.66	20.6	2-23-19 17:00	-0.07	1696	7.89	2.1	7-24-19 10:45	22.31	1716	7.42	8.5	5-25-19 6:00	16.98	1142	8.45	19.2					
2-23-19 17:15	-0.04	1060	8.76	0.7	2-23-19 17:15	0.46	1496	7.66	17.3	2-23-19 17:15	-0.08	1697	7.89	2.0	7-24-19 11:00	22.28	1715	6.58	8.5	5-25-19 6:15	17.00	1143	8.45	39.5					
2-23-19 17:30	-0.04	1060	8.74	0.8	2-23-19 17:30	0.36	1494	7.65	18.7	2-23-19 17:30	-0.08	1697	7.89	2.0	7-24-19 11:15	22.21	1714	6.48	8.5	5-25-19 6:30	16.88	1144	8.45	26.9					
2-23-19 17:45	-0.04	1059	8.71	0.8	2-23-19 17:45	0.38	1497	7.65	19.9	2-23-19 17:45	-0.08	1697	7.89	2.0	7-24-19 11:30	22.18	1715	6.49	8.5	5-25-19 6:45	16.89	1146	8.45	36.6					
2-23-19 18:00	-0.04	1060	8.69	0.7	2-23-19 18:00	0.33	1496	7.65	19.4	2-23-19 18:00	-0.08	1698	7.89	2.0	7-24-19 11:45	22.15	1716	6.68	8.5	5-25-19 7:00	16.90	1146	8.45	18.5					
2-23-19 18:15	-0.04	1061	8.68	0.8	2-23-19 18:15	0.22	1497	7.65	19.3	2-23-19 18:15	-0.08	1698	7.89	2.2	7-24-19 12:00	22.11	1715	6.69	8.5	5-25-19 7:15	16.91	1146	8.44	35.0					
2-23-19 18:30	-0.04	1060	8.67	0.8	2-23-19 18:30	0.24	1496	7.65	18.5	2-23-19 18:30	-0.08	1698	7.89	2.1	7-24-19 12:15	22.08	1715	6.87	8.5	5-25-19 7:30	16.89	1145	8.45	21.0					
2-23-19 18:45	-0.04	1060	8.65	0.8	2-23-19 18:45	0.35	1498	7.65	18.9	2-23-19 18:45	-0.08	1698	7.89	2.1	7-24-19 12:30	22.05	1714	7.05	8.5	5-25-19 7:45	16.90	1145	8.45	38.0					
2-23-19 19:00	-0.04	1058	8.63	0.8	2-23-19 19:00	0.37	1502	7.65	19.2	2-23-19 19:00	-0.08	1699	7.88	2.1	7-24-19 12:45	21.96	1713	7.06	8.5	5-25-19 8:00	16.86	1145	8.45	23.7					
2-23-19 19:15	-0.04	1059	8.60	0.9	2-23-19 19:15	0.36	1501	7.65	19.2	2-23-19 19:15	-0.08	1699	7.89	0.8	7-24-19 13:00	21.94	1715	6.96	8.5	5-25-19 8:15	16.84	1145	8.45	38.4					
2-23-19 19:30	-0.03	1057	8.58	0.9	2-23-19 19:30	0.32	1503	7.65	19.3	2-23-19 19:30	-0.08	1699	7.89	0.8	7-24-19 13:15	21.89	1715	7.06	8.5	5-25-19 8:30	16.83	1145	8.45	22.3					
2-23-19 19:45	-0.03	1056	8.55	1.0	2-23-19 19:45	0.36	1504	7.65	19.4	2-23-19 19:45	-0.07	1699	7.89	0.7	7-24-19 13:30	21.83	1714	7.44	8.5	5-25-19 8:45	16.87	1146	8.45	32.2					
2-23-19 20:00	-0.03	1054	8.53	1.0	2-23-19 20:00	0.30	1504	7.65	19.5	2-23-19 20:00	-0.08	1699	7.89	0.7	7-24-19 13:45	21.80	1715	7.24	8.5	5-25-19 9:00	16.94	1145	8.45	21.3					
2-23-19 20:15	-0.03	1053	8.51	1.0	2-23-19 20:15	0.28	1505	7.65	19.1	2-23-19 20:15	-0.08	1699	7.88	2.1	7-24-19 14:00	21.78	1713	6.81	8.5	5-25-19 9:15	16.88	1147	8.45	29.7					
2-23-19 20:30	-0.02	1051	8.50	1.0	2-23-19 20:30	0.28	1506	7.65	19.1	2-23-19 20:30	-0.09	1700	7.88	2.0	7-24-19 14:15	21.74	1714	7.39	8.5	5-25-19 9:30	16.93	1146	8.45	22.6					
2-23-19 20:45	-0.02	1051	8.48	1.1	2-23-19 20:45	0.27	1504	7.65	19.1	2-23-19 20:45	-0.09	1700	7.88	2.0	7-24-19 14:30	21.69	1714	7.46	8.5	5-25-19 9:45	17.07	1151	8.45	31.2					
2-23-19 21:00	-0.02	1049	8.47	1.1	2-23-19 21:00	0.33	1502	7.66	18.9	2-23-19 21:00	-0.09	1701	7.88	2.0	7-24-19 14:45	21.65	1712	7.35	8.5	5-25-19 10:00	17.12	1150	8.45	19.6					
2-23-19 21:15	-0.03	1049	8.46	1.1	2-23-19 21:15	0.27	1501	7.65	18.8	2-23-19 21:15	-0.09	1701	7.89	2.0	7-24-19 15:00	21.63	1715	7.24	8.5	5-25-19 10:15	17.13	1152	8.46	34.3					
2-23-19 21:30	-0.03	1048	8.45	1.1	2-23-19 21:30	0.27	1502	7.65	18.4	2-23-19 21:30	-0.09	1701	7.88	2.0	7-24-19 15:15	21.58	1714	7.74	8.5	5-25-19 10:30	17.18	1150	8.46	24.7					
2-23-19 21:45	-0.03	1048	8.45	1.1	2-23-19 21:45	0.31	1502	7.65	18.4	2-23-19 21:45	-0.09	1701	7.89	1.9	7-24-19 15:30	21.54	1713	8.00	8.5	5-25-19 10:45	17.22	1153	8.45	23.8					
2-23-19 22:00	-0.03	1047	8.44	1.1	2-23-19 22:00	0.31	1503	7.66	18.3	2-23-19 22:00	-0.09	1701	7.89	1.9	7-24-19 15:45	21.51	1715	7.92	8.5	5-25-19 11:00	17.29	1156	8.45	22.2					
2-23-19 22:15	-0.03	1046	8.43	1.2	2-23-19 22:15	0.29	1502	7.66	18.6	2-23-19 22:15	-0.09	1700	7.88	2.0	7-24-19 16:00	21.47	1714	7.90	8.5	5-25-19 11:15	17.38	1154	8.45	32.6					
2-23-19 22:30	-0.03	1045	8.43	1.2	2-23-19 22:30	0.29	1504	7.66	19.0	2-23-19 22:30	-0.09	1700	7.88	2.0	7-24-19 16:15	21.44	1714	7.99	8.5	5-25-19 11:30	17.49	1154	8.45	22.6					
2-23-19 22:45	-0.03	1045	8.43	1.2	2-23-19 22:45	0.29	1504	7.66	18.9	2-23-19 22:45	-0.09	1700	7.88	2.0	7-24-19 16:30	21.42	1714	7.37	8.5	5-25-19 11:45	17.56	1152	8.45	29.9					
2-23-19 23:00	-0.03	1045	8.42	1.2	2-23-19 23:00	0.30	1505	7.66	18.6	2-23-19 23:00	-0.09	1700	7.88	2.0	7-24-19 16:45	21.39	1713	7.32	8.5	5-25-19 12:00	17.56	1152	8.45	21.8					
2-23-19 23:15	-0.03	1045	8.42	1.3	2-23-19 23:15	0.30	1504	7.66	18.9	2-23-19 23:15	-0.09	1701	7.89	0.8	7-24-19 17:00	21.36	1713	7.88	8.5	5-25-19 12:15	17.64	1154	8.45	37.2					
2-23-19 23:30	-0.04	1045	8.42	1.2	2-23-19 23:30	0.29	1503	7.66	18.9	2-23-19 23:30	-0.08	1700	7.89	0.7	7-24-19 17:15	21.30	1712	7.95	8.5	5-25-19 12:30	17.57	1152	8.45	22.3					
2-23-19 23:45	-0.04	1044	8.42	1.2	2-23-19 23:45	0.32	1503	7.66	18.8	2-23-19 23:45	-0.08	1700	7.89	0.7	7-24-19 17:30	21.27	1712	7.89	8.5	5-25-19 12:45	17.58	1154	8.46	35.1					
2-24-19 0:00	-0.04	1043	8.42	1.2	2-24-19 0:00	0.29	1502	7.66	18.7	2-24-19 0:00	-0.07	1700	7.89	0.7	7-24-19 17:45	21.26	1712	7.87	8.5	5-25-19 13:00	17.69	1157	8.46	34.4					
2-24-19 0:15	-0.04	1044	8.42	1.2	2-24-19 0:15	0.26	1503	7.66	18.0	2-24-19 0:15	-0.07	1699	7.88	2.0	7-24-19 18:00	21.20	1711	7.68	8.5	5-25-19 13:15	17.59	1159	8.46	41.1					
2-24-19 0:30	-0.04	1043	8.42	1.2	2-24-19 0:30	0.21	1497	7.65	17.8	2-24-19 0:30	-0.08	1699	7.88	2.0	7-24-19 18:15	21.15	1711	7.83	8.5	5-25-19 13:30	17.61	1159	8.46	27.1					
2-24-19 0:45	-0.04	1043	8.42	1.2	2-24-19 0:45	0.20	1501	7.66	18.5	2-24-19 0:45	-0.08	1699	7.88	2.0	7-24-19 18:30	20.99	1710	8.99	8.5	5-25-19 13:45	17.61	1161	8.47	41.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-24-19 1:00	-0.04	1042	8.41	1.2	2-24-19 1:00	0.24	1499	7.66	18.4	2-24-19 1:00	-0.08	1700	7.88	2.0	7-24-19 18:45	20.93	1711	8.82	8.5	5-25-19 14:00	17.57	1163	8.47	36.6					
2-24-19 1:15	-0.04	1044	8.41	1.3	2-24-19 1:15	0.21	1496	7.65	18.0	2-24-19 1:15	-0.08	1699	7.88	1.9	7-24-19 19:00	20.91	1712	9.01	8.5	5-25-19 14:15	17.59	1164	8.45	54.0					
2-24-19 1:30	-0.04	1046	8.41	1.3	2-24-19 1:30	0.12	1493	7.66	16.8	2-24-19 1:30	-0.08	1700	7.88	1.8	7-24-19 19:15	20.88	1711	10.11	8.5	5-25-19 14:30	17.68	1166	8.46	34.5					
2-24-19 1:45	-0.04	1042	8.41	1.2	2-24-19 1:45	0.15	1497	7.66	18.2	2-24-19 1:45	-0.08	1700	7.88	1.9	7-24-19 19:30	20.79	1711	10.21	8.5	5-25-19 14:45	17.71	1166	8.46	48.5					
2-24-19 2:00	-0.04	1044	8.41	1.2	2-24-19 2:00	0.22	1502	7.66	17.9	2-24-19 2:00	-0.08	1700	7.88	1.9	7-24-19 19:45	20.70	1710	9.45	8.5	5-25-19 15:00	17.78	1165	8.46	28.7					
2-24-19 2:15	-0.04	1042	8.41	1.3	2-24-19 2:15	0.27	1503	7.66	16.1	2-24-19 2:15	-0.08	1700	7.88	1.9	7-24-19 20:00	20.75	1711	8.37	8.5	5-25-19 15:15	18.02	1168	8.45	44.1					
2-24-19 2:30	-0.04	1040	8.41	1.3	2-24-19 2:30	0.21	1503	7.65	18.3	2-24-19 2:30	-0.08	1700	7.88	2.0	7-24-19 20:15	20.76	1709	8.53	8.5	5-25-19 15:30	18.13	1165	8.46	31.1					
2-24-19 2:45	-0.04	1040	8.41	1.3	2-24-19 2:45	0.23	1505	7.65	17.9	2-24-19 2:45	-0.08	1700	7.88	1.9	7-24-19 20:30	20.73	1707	9.23	8.5	5-25-19 15:45	18.27	1164	8.46	48.3					
2-24-19 3:00	-0.04	1043	8.41	1.2	2-24-19 3:00	0.19	1500	7.65	16.4	2-24-19 3:00	-0.08	1700	7.88	2.0	7-24-19 20:45	20.70	1707	9.01	8.5	5-25-19 16:00	18.43	1163	8.45	25.8					
2-24-19 3:15	-0.04	1042	8.40	1.2	2-24-19 3:15	0.25	1508	7.66	17.9	2-24-19 3:15	-0.08	1701	7.88	1.9	7-24-19 21:00	20.67	1707	8.97	8.5	5-25-19 16:15	18.59	1162	8.45	38.3					
2-24-19 3:30	-0.04	1041	8.40	1.2	2-24-19 3:30					2-24-19 3:30	-0.08	1701	7.88	1.9	7-24-19 21:15	20.63	1707	8.66	8.5	5-25-19 16:30	18.67	1161	8.45	25.4					
2-24-19 3:45	-0.04	1040	8.40	1.2	2-24-19 3:45	0.15	1502	7.65	16.4	2-24-19 3:45	-0.08	1700	7.88	1.9	7-24-19 21:30	20.60	1707	8.48	8.5	5-25-19 16:45	18.78	1162	8.44	40.0					
2-24-19 4:00	-0.04	1040	8.39	1.2	2-24-19 4:00	0.16	1507	7.66	16.4	2-24-19 4:00	-0.08	1700	7.88	1.9	7-24-19 21:45	20.58	1706	9.63	8.5	5-25-19 17:00	18.62	1160	8.45	26.3					
2-24-19 4:15	-0.05	1039	8.39	1.2	2-24-19 4:15	0.17	1502	7.66	15.9	2-24-19 4:15	-0.08	1700	7.88	1.9	7-24-19 22:00	20.56	1706	10.43	8.5	5-25-19 17:15	18.43	1162	8.45	43.3					
2-24-19 4:30	-0.04	1045	8.39	1.3	2-24-19 4:30	0.19	1505	7.66	17.2	2-24-19 4:30	-0.08	1700	7.87	2.0	7-24-19 22:15	20.55	1704	8.82	8.5	5-25-19 17:30	18.30	1161	8.47	30.3					
2-24-19 4:45	-0.04	1044	8.39	1.2	2-24-19 4:45	0.14	1500	7.66	15.9	2-24-19 4:45	-0.08	1700	7.87	2.0	7-24-19 22:30	20.49	1704	8.91	8.5	5-25-19 17:45	18.20	1162	8.46	44.2					
2-24-19 5:00	-0.04	1044	8.39	1.2	2-24-19 5:00	0.15	1505	7.66	16.7	2-24-19 5:00	-0.08	1701	7.88	1.9	7-24-19 22:45	20.51	1704	9.09	8.5	5-25-19 18:00	18.15	1162	8.47	28.6					
2-24-19 5:15	-0.04	1041	8.39	1.3	2-24-19 5:15	0.20	1509	7.66	18.0	2-24-19 5:15	-0.08	1701	7.88	1.9	7-24-19 23:00	20.48	1704	8.34	8.5	5-25-19 18:15	18.05	1163	8.47	42.5					
2-24-19 5:30	-0.04	1041	8.39	1.2	2-24-19 5:30	0.22	1509	7.66	17.5	2-24-19 5:30	-0.08	1701	7.88	1.9	7-24-19 23:15	20.46	1704	8.76	8.5	5-25-19 18:30	18.03	1162	8.48	29.3					
2-24-19 5:45	-0.04	1039	8.38	1.3	2-24-19 5:45	0.18	1511	7.66	18.0	2-24-19 5:45	-0.08	1702	7.88	1.9	7-24-19 23:30	20.44	1703	8.88	8.5	5-25-19 18:45	18.03	1163	8.48	46.6					
2-24-19 6:00	-0.03	1037	8.38	1.6	2-24-19 6:00	0.15	1511	7.66	18.4	2-24-19 6:00	-0.08	1702	7.88	1.8	7-24-19 23:45	20.41	1704	8.98	8.5	5-25-19 19:00	18.05	1163	8.48	32.6					
2-24-19 6:15	-0.04	1039	8.38	1.4	2-24-19 6:15	0.15	1516	7.66	15.2	2-24-19 6:15	-0.09	1702	7.88	2.0	7-25-19 0:00	20.38	1704	9.40	8.5	5-25-19 19:15	18.03	1164	8.47	42.2					
2-24-19 6:30	-0.05	1041	8.38	1.5	2-24-19 6:30	0.19	1513	7.66	17.1	2-24-19 6:30	-0.08	1702	7.88	1.9	7-25-19 0:15	20.36	1704	12.11	8.5	5-25-19 19:30	18.06	1164	8.47	32.3					
2-24-19 6:45	-0.05	1041	8.38	1.5	2-24-19 6:45	0.16	1506	7.66	16.5	2-24-19 6:45	-0.08	1702	7.88	1.9	7-25-19 0:30	20.34	1703	10.27	8.5	5-25-19 19:45	18.04	1164	8.48	42.6					
2-24-19 7:00	-0.04	1039	8.37	1.8	2-24-19 7:00	0.20	1504	7.65	16.5	2-24-19 7:00	-0.08	1702	7.88	1.9	7-25-19 0:45	20.32	1703	9.61	8.5	5-25-19 20:00	18.05	1163	8.48	27.3					
2-24-19 7:15	-0.03	1037	8.37	2.0	2-24-19 7:15	0.11	1505	7.65	14.4	2-24-19 7:15	-0.08	1702	7.88	1.9	7-25-19 1:00	20.29	1702	9.06	8.5	5-25-19 20:15	18.03	1164	8.48	33.0					
2-24-19 7:30	-0.03	1035	8.36	2.3	2-24-19 7:30	0.13	1503	7.65	15.8	2-24-19 7:30	-0.08	1702	7.88	1.9	7-25-19 1:15	20.26	1701	9.47	8.5	5-25-19 20:30	18.00	1163	8.48	27.2					
2-24-19 7:45	-0.03	1032	8.35	2.7	2-24-19 7:45	0.23	1523	7.66	17.8	2-24-19 7:45	-0.08	1702	7.88	1.9	7-25-19 1:30	20.22	1702	9.62	8.5	5-25-19 20:45	17.98	1164	8.48	41.5					
2-24-19 8:00	-0.03	1033	8.34	2.9	2-24-19 8:00	0.21	1519	7.66	17.0	2-24-19 8:00	-0.08	1702	7.88	1.9	7-25-19 1:45	20.20	1702	8.90	8.5	5-25-19 21:00	17.96	1163	8.49	25.5					
2-24-19 8:15	-0.03	1030	8.33	3.3	2-24-19 8:15	0.18	1508	7.65	16.0	2-24-19 8:15	-0.08	1702	7.87	1.9	7-25-19 2:00	20.18	1701	9.74	8.5	5-25-19 21:15	17.93	1164	8.48	46.9					
2-24-19 8:30	-0.03	1029	8.33	3.4	2-24-19 8:30	0.18	1516	7.66	17.2	2-24-19 8:30	-0.08	1702	7.87	2.0	7-25-19 2:15	20.16	1702	9.45	8.5	5-25-19 21:30	17.91	1162	8.49	23.7					
2-24-19 8:45	-0.03	1028	8.32	3.6	2-24-19 8:45	0.16	1513	7.66	17.8	2-24-19 8:45	-0.08	1702	7.87	1.9	7-25-19 2:30	20.14	1702	9.35	8.5	5-25-19 21:45	17.91	1164	8.49	42.1					
2-24-19 9:00	-0.02	1028	8.32	3.5	2-24-19 9:00	0.17	1504	7.65	17.0	2-24-19 9:00	-0.08	1702	7.87	2.0	7-25-19 2:45	20.12	1703	8.60	8.5	5-25-19 22:00	17.89	1162	8.48	25.3					
2-24-19 9:15	-0.02	1028	8.31	3.5	2-24-19 9:15	0.19	1506	7.64	16.4	2-24-19 9:15	-0.08	1702	7.88	1.9	7-25-19 3:00	20.10	1702	8.63	8.5	5-25-19 22:15	17.89	1165	8.48	39.5					
2-24-19 9:30	-0.02	1026	8.31	3.4	2-24-19 9:30	0.19	1515	7.65	17.7	2-24-19 9:30	-0.08	1703	7.88	1.9	7-25-19 3:15	20.07	1702	9.04	8.5	5-25-19 22:30	17.83	1163	8.48	27.4					
2-24-19 9:45	-0.02	1023	8.30	3.3	2-24-19 9:45	0.12	1506	7.65	15.5	2-24-19 9:45	-0.08	1703	7.88	1.9	7-25-19 3:30	20.04	1702	8.91	8.5	5-25-19 22:45	17.80	1163	8.48	45.9					
2-24-19 10:00	-0.02	1024	8.30	3.4	2-24-19 10:00	0.17	1520	7.66	17.0	2-24-19 10:00	-0.08	1703	7.88	1.8	7-25-19 3:45	20.03	1702	8.40	8.5	5-25-19 23:00	17.76	1163	8.48	26.1					
2-24-19 10:15	-0.03	1023	8.29	3.2	2-24-19 10:15	0.15	1506	7.65	16.5	2-24-19 10:15	-0.08	1703	7.88	1.9	7-25-19 4:00	19.98	1702	8.38	8.5	5-25-19 23:15	17.67	1164	8.47	44.6					
2-24-19 10:30	-0.03	1024	8.29	3.1	2-24-19 10:30	0.18	1512	7.65	17.0	2-24-19 10:30	-0.08	1703	7.88	1.9	7-25-19 4:15	19.95	1702	8.84	8.5	5-25-19 23:30	17.67	1162	8.48	28.5					
2-24-19 10:45	-0.03	1023	8.29	2.9	2-24-19 10:45	0.21	1516	7.66	18.7	2-24-19 10:45	-0.08	1703	7.88	1.8	7-25-19 4:30	19.92	1702	9.17	8.5	5-25-19 23:45	17.67	1164	8.48	47.2					
2-24-19 11:00	-0.04	1024	8.28	2.9	2-24-19 11:00	0.20	1518	7.66	15.2	2-24-19 11:00	-0.08	1703	7.88	1.9	7-25-19 4:45	19.90	1703	8.05	8.5	5-26-19 0:00	17.64	1163	8.47	26.2					
2-24-19 11:15	-0.04	1022	8.28	2.8	2-24-19 11:15	0.20	1518	7.66	17.9	2-24-19 11:15	-0.08	1703	7.88	1.9	7-25-19 5:00	19.85	1702	10.37	8.5	5-26-19 0:15	17.62	1164	8.47	42.9					
2-24-19 11:30	-0.04	1023	8.28	2.9	2-24-19 11:30	0.24	1522	7.65	18.8	2-24-19 11:30	-0.08	1703	7.88	1.8	7-25-19 5:15	19.82	1702	8.97	8.5	5-26-19 0:30	17.59	1164	8.47	30.6					
2-24-19 11:45	-0.03	1023	8.27	2.7	2-24-19 11:45	0.24	1523	7.66	18.4	2-24-19 11:45	-0.08	1703	7.88	1.8	7-25-19 5:30	19.78	1701	8.69	8.5	5-26-19 0:45	17.52	1164	8.47	45.8					
2-24-19 12:00	-0.04	1024	8.27	2.8	2-24-19 12:00	0.27	1522	7.65	17.1	2-24-19 12:00	-0.08	1704	7.88	1.8	7-25-19 5:45	19.73	1702	8.08	8.5	5-26-19 1:00	17.48	1164	8.46	23.0					
2-24-19 12:15	-0.04	1025	8.28	2.7	2-24-19 12:15	0.28	1525	7.65	17.0	2-24-19 12:15	-0.08	1703	7.88	1.9	7-25-19 6:00	19.72	1702	8.49	8.5	5-26-19 1:15	17.41	1164	8.46	41.5					
2-24-19 12:30	-0.04	1024	8.27	2.8	2-24-19 12:30	0.20	1524	7.66	15.7	2-24-19 12:30	-0.10	1709	7.89	2.1	7-25-19 6:15	19.68	1702	9.66	8.5	5-26-19 1:30	17.38	1164	8.46	22.1					
2-24-19 12:45	-0.05	1023	8.27	3.9	2-24-19 12:45	0.27	1525	7.65	16.6	2-24-19 12:45	-0.09	1707	7.88	2.0	7-25-19 6:30	19.66	1701	7.68	8.5	5-26-19 1:45	17.35	1164	8.46	45.6					
2-24-19 13:00	-0.05	1026	8.27	3.4	2-24-19 13:00	0.28	1524	7.65	17.7	2-24-19 13:00	-0.09	1706	7.88	2.0	7-25-19 6:45	19.62	1702	12.00	8.5	5-26-19 2:00	17.28	1164	8.46	28.8					
2-24-19 13:15	-0.05	1023	8.26	3.2	2-24-19 13:15	0.29	1526	7.65	16.0	2-24-19 13:15	-0.08	1706	7.88	1.9	7-25-19 7:00	19.59	1702	7.95	8.5	5-26-19 2:15	17.26	1164	8.46	45.7					
2-24-19 13:30	-0.05	1025	8.27	3.2	2-24-19 13:30	0.23	1526	7.65	16.6	2-24-19 13:30	-0.08	1706	7.88	1.8	7-25-19 7:15	19.56	1701	7.60	8.5	5-26-19 2:30	17.26	1163	8.46	27.1					
2-24-19 13:45	-0.05	1025	8.27	3.2	2-24-19 13:45	0.21	1512	7.65	15.2	2-24-19 13:45	-0.07	1705	7.88	1.8	7-25-19 7:30	19.54	1703	8.11	8.5	5-26-19 2:45	17.24	1165	8.46	48.0					
2-24-19 14:00	-0.05	1025	8.27	3.0	2-24-19 14:00	0.21	1515	7.65	15.1	2-24-19 14:00	-0.07	1705	7.88	1.9	7-25-19 7:45	19.50	1702	7.42	8.5	5-26-19 3:00	17.21	1164	8.46	22.7					
2-24-19 14:15	-0.05	1025	8.27	2.7	2-24-19 14:15	0.25	1522	7.65	15.8	2-24-19 14:15	-0.07	1705	7.87	1.9	7-25-19 8:00	19.47	1702	7.52	8.5	5-26-19 3:15	17.12	1165	8.45	42.5					
2-24-19 14:30	-0.05	1025	8.26	3.4	2-24-19 14:30	0.23	1515	7.65	15.0	2-24-19 14:30	-0.07	1706	7.88	2.0	7-25-19 8:15	19.44	1703	7.71	8.5	5-26-19 3:30	17.09	1164	8.46	23.8					
2-24-19 14:45	-0.05	1022	8.24	3.9	2-24-19 14:45	0.16	1529	7.65	15.7	2-24-19 14:45	-0.08	1706	7.88	1.9	7-25-19 8:30	19.41	1703	7.04	8.5	5-26-19 3:45	17.04	1164	8.46	47.1					
2-24-19 15:00	-0.05	1022	8.23	4.4	2-24-19 15:00	0.16	1531	7.65	16.0	2-24-19 15:00	-0.09	1706	7.88	1.9	7-25-19 8:45	19.36	1703	7.58	8.5	5-26-19 4:00	17.01	1164	8.45	22.0					
2-24-19 15:15	-0.04	1021	8.22	4.1	2-24-19 15:15	0.09	1531	7.65	16.2	2-24-19 15:15	-0.08	1707	7.88	1.9	7-25-19 9:00	19.32	1703	7.02	8.5	5-26-19 4:15	16.96	1164	8.45	48.2					
2-24-19 15:30	-0.04	1021	8.22	4.5	2-24-19 15:30	0.10	1528	7.65	15.7	2-24-19 15:30	-0.09	1707	7.88	1.8	7-25-19 9:15	19.30	1702	8.24	8.5	5-26-19 4:30	16.89	1164	8.45	25.4					
2-24-19 15:45	-0.04	1019	8.19	5.3	2-24-19 15:45	0.12	1530	7.65	16.2	2-24-19 15:45	-0.08	1708	7.88	1.8	7-25-19 9:30	19.29	1703	7.56	8.5	5-26-19 4:45	16.90	1165	8.45	39.5					
2-24-19 16:00	-0.04	1019	8.19	5.2	2-24-19 16:00	0.07	1531	7.65	15.6	2-24-19 16:00	-0.08	1707	7.88	1.8	7-25-19 9:45	19.24	1702	7.90	8.5	5-26-19 5:00	16.87	1165	8.45	29.9					
2-24-19 16:15	-0.04	1016	8.19	5.7	2-24-19 16:15	0.06	1532	7.65	16.1	2-24-19 16:15	-0.08	1707	7.88	1.9	7-25-19 10:00	19.22	1703	7.47	8.5	5-26-19 5:15	16.78	1165	8.44	50.3					
2-24-19 16:30	-0.04	1014	8.16	6.8	2-24-19 16:30	0.12	1509	7.65	15.1	2-24-19 16:30	-0.08	1707	7.88	1.9	7-25-19 10:15	19.19	1703	7.35	8.5	5-26-19 5:30	16.76	1164	8.45	25.3					
2-24-19 16:45	-0.04	1010	8.13	8.0	2-24-19 16:45	0.12	1501	7.64	14.1	2-24-19 16:45	-0.08	1707	7.88	1.9	7-25-19 10:30	19.13	1703	7.13	8.5	5-26-19 5:45	16.71	1165	8.45	52.3					
2-24-19 17:00	-0.04	1009	8.12	8.3	2-24-19 17:00	0.13	1502	7.64	14.1	2-24-19 17:00	-0.08	1708	7.88	2.0	7-25-19 10:45	19.11	1705	7.87	8.5	5-26-19 6:00	16.71	1165	8.45	30.2					
2-24-19 17:15	-0.03	1005	8.10	9.7	2-24-19 17:15	0.15	1498	7.64	14.0	2-24-19 17:15	-0.08	1708	7.88	1.8	7-25-19 11:00	19.09	1703	8.20	8.5	5-26-19 6:15	16.71	1165	8.45	46.4					
2-24-19 17:30	-0.03	1005	8.08	9.6	2-24-19 17:30	0.16	1497	7.64	13.9	2-24-19 17:30	-0.08	1708	7.88	1.8	7-25-19 11:15	19.07	1704	7.93	8.5	5-26-19 6:30	16.68	1165	8.45	30.2					
2-24-19 17:45	-0.04	1002	8.07	10.2	2-24-19 17:45	0.13	1502	7.64	14.4	2-24-19 17:45	-0.08	1708	7.88	1.8	7-25-19 11:30	19.03	1704	9.26	8.5	5-26-19 6:45	16.67	1164	8.45	56.4					
2-24-19 18:00	-0.04	1001	8.07	9.9	2-24-19 18:00	0.12	1508	7.65	14.8	2-24-19 18:00	-0.08	1708	7.88	1.8	7-25-19 11:45	19.02	1701	7.10	8.5	5-26-19 7:00	16.64	1164	8.45	25.4					
2-24-19 18:15	-0.04	1003	8.06	10.2	2-24-19 18:15	0.12	1504	7.64	16.2	2-24-19 18:15	-0.08	1708	7.88	1.9	7-25-19 12:00	18.98	1703	9.09	8.5	5-26-19 7:15	16.64	1165	8.45	55.4					
2-24-19 18:30	-0.04	1003	8.05	10.4	2-24-19 18:30	0.07	1520	7.65	16.1	2-24-19 18:30	-0.08	1708	7.87	1.9	7-25-19 12:15	18.95	1704	8.10	8.5	5-26-19 7:30	16.67	1164	8.45	28.8					
2-24-19 18:45	-0.04	1003	8.05	10.1	2-24-19 18:45	0.03	1520	7.65	14.6	2-24-19 18:45	-0.08	1708	7.88	1.9	7-25-19 12:30	18.92	1703	7.66	8.5	5-26-19 7:45	16.71	1164	8.45	48.4					
2-24-19 19:00	-0.04	1002	8.05	10.3	2-24-19 19:00	0.03	1522	7.65	15.6	2-24-19 19:00	-0.08	1709	7.87	1.9	7-25-19 12:45	18.89	1704	7.75	8.5	5-26-19 8:00	16.76	1164	8.45	29.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-24-19 19:15	-0.04	1001	8.05	10.2	2-24-19 19:15	0.02	1520	7.65	22.7	2-24-19 19:15	-0.08	1709	7.88	1.8	7-25-19 13:00	18.88	1704	7.68	8.5	5-26-19 8:15	16.81	1165	8.45	47.7					
2-24-19 19:30	-0.04	1000	8.04	10.6	2-24-19 19:30	0.02	1520	7.65	35.1	2-24-19 19:30	-0.08	1709	7.88	1.8	7-25-19 13:15	18.88	1704	7.81	8.5	5-26-19 8:30	16.88	1165	8.44	27.5					
2-24-19 19:45	-0.04	999	8.04	10.2	2-24-19 19:45	0.02	1524	7.65	28.3	2-24-19 19:45	-0.08	1709	7.88	1.8	7-25-19 13:30	18.86	1704	9.69	8.5	5-26-19 8:45	16.98	1165	8.44	54.2					
2-24-19 20:00	-0.04	999	8.04	10.4	2-24-19 20:00	0.04	1521	7.65	38.0	2-24-19 20:00	-0.08	1709	7.88	1.8	7-25-19 13:45	18.83	1703	8.95	8.5	5-26-19 9:00	17.12	1164	8.44	30.8					
2-24-19 20:15	-0.04	998	8.03	10.5	2-24-19 20:15	0.06	1520	7.65	29.0	2-24-19 20:15	-0.08	1710	7.88	1.8	7-25-19 14:00	18.84	1704	7.60	8.5	5-26-19 9:15	17.11	1166	8.44	56.7					
2-24-19 20:30	-0.04	997	8.01	10.3	2-24-19 20:30	0.06	1520	7.65	33.7	2-24-19 20:30	-0.09	1710	7.87	1.9	7-25-19 14:15	18.83	1703	8.60	8.5	5-26-19 9:30	17.23	1165	8.44	25.0					
2-24-19 20:45	-0.04	996	8.01	10.5	2-24-19 20:45	0.07	1514	7.65	25.7	2-24-19 20:45	-0.09	1710	7.87	1.8	7-25-19 14:30	18.84	1703	8.05	8.5	5-26-19 9:45	17.37	1167	8.44	53.0					
2-24-19 21:00	-0.04	997	8.00	10.5	2-24-19 21:00	0.07	1515	7.65	23.5	2-24-19 21:00	-0.09	1710	7.87	1.9	7-25-19 14:45	18.84	1703	8.15	8.5	5-26-19 10:00	17.66	1168	8.44	29.7					
2-24-19 21:15	-0.04	994	8.00	10.3	2-24-19 21:15	0.09	1505	7.64	16.1	2-24-19 21:15	-0.09	1711	7.88	1.9	7-25-19 15:00	18.92	1703	8.36	8.5	5-26-19 10:15	17.80	1170	8.43	48.1					
2-24-19 21:30	-0.04	995	7.99	10.8	2-24-19 21:30					2-24-19 21:30	-0.09	1711	7.88	1.9	7-25-19 15:15	18.93	1704	8.03	8.5	5-26-19 10:30	17.90	1170	8.43	27.4					
2-24-19 21:45	-0.04	992	7.97	11.0	2-24-19 21:45	0.16	1498	7.63	12.5	2-24-19 21:45	-0.09	1711	7.88	1.8	7-25-19 15:30	18.97	1703	8.33	8.5	5-26-19 10:45	18.30	1174	8.42	59.7					
2-24-19 22:00	-0.04	990	7.96	11.0	2-24-19 22:00	0.09	1512	7.64	21.4	2-24-19 22:00	-0.09	1711	7.88	1.7	7-25-19 15:45	19.02	1704	8.00	8.5	5-26-19 11:00	18.47	1169	8.42	34.1					
2-24-19 22:15	-0.04	990	7.95	11.5	2-24-19 22:15	0.08	1518	7.64	24.8	2-24-19 22:15	-0.09	1711	7.88	1.8	7-25-19 16:00	19.10	1703	8.53	8.5	5-26-19 11:15	18.79	1172	8.40	54.3					
2-24-19 22:30	-0.04	988	7.94	11.5	2-24-19 22:30	0.08	1521	7.65	25.0	2-24-19 22:30	-0.09	1711	7.87	1.8	7-25-19 16:15	19.14	1704	7.81	8.5	5-26-19 11:30	18.79	1170	8.41	30.6					
2-24-19 22:45	-0.04	984	7.93	11.9	2-24-19 22:45	0.08	1523	7.65	25.7	2-24-19 22:45	-0.09	1711	7.87	1.8	7-25-19 16:30	19.21	1703	8.37	8.5	5-26-19 11:45	19.11	1170	8.40	50.6					
2-24-19 23:00	-0.04	985	7.93	12.1	2-24-19 23:00	0.09	1519	7.65	24.1	2-24-19 23:00	-0.09	1712	7.87	1.8	7-25-19 16:45	19.21	1704	8.12	8.5	5-26-19 12:00	19.05	1169	8.40	32.2					
2-24-19 23:15	-0.04	984	7.91	12.2	2-24-19 23:15	0.16	1517	7.64	24.8	2-24-19 23:15	-0.09	1712	7.88	1.8	7-25-19 17:00	19.25	1705	8.19	8.5	5-26-19 12:15	19.33	1168	8.40	51.8					
2-24-19 23:30	-0.04	982	7.91	12.3	2-24-19 23:30	0.07	1521	7.66	35.7	2-24-19 23:30	-0.09	1712	7.88	1.8	7-25-19 17:15	19.33	1704	8.00	8.5	5-26-19 12:30	20.10	1174	8.40	33.0					
2-24-19 23:45	-0.03	982	7.90	12.0	2-24-19 23:45	0.11	1518	7.65	31.7	2-24-19 23:45	-0.09	1712	7.88	1.8	7-25-19 17:30	19.42	1705	8.28	8.5	5-26-19 12:45	19.57	1173	8.40	57.6					
2-25-19 0:00	-0.03	977	7.89	12.7	2-25-19 0:00	0.10	1514	7.65	25.9	2-25-19 0:00	-0.09	1712	7.88	1.8	7-25-19 17:45	19.51	1703	8.68	8.5	5-26-19 13:00	20.36	1176	8.40	32.9					
2-25-19 0:15	-0.03	977	7.88	12.5	2-25-19 0:15	0.15	1508	7.64	24.7	2-25-19 0:15	-0.08	1712	7.88	1.8	7-25-19 18:00	19.62	1705	8.85	8.5	5-26-19 13:15	20.34	1179	8.39	59.4					
2-25-19 0:30	-0.03	976	7.88	12.8	2-25-19 0:30	0.14	1514	7.65	27.7	2-25-19 0:30	-0.09	1712	7.87	1.8	7-25-19 18:15	19.69	1706	8.40	8.5	5-26-19 13:30	20.54	1178	8.40	40.4					
2-25-19 0:45	-0.03	975	7.87	13.1	2-25-19 0:45	0.18	1518	7.66	30.0	2-25-19 0:45	-0.09	1712	7.87	1.8	7-25-19 18:30	19.83	1705	8.18	8.5	5-26-19 13:45	20.28	1175	8.39	61.5					
2-25-19 1:00	-0.03	973	7.86	13.0	2-25-19 1:00	0.14	1516	7.65	28.5	2-25-19 1:00	-0.09	1712	7.87	1.7	7-25-19 18:45	19.92	1705	9.07	8.5	5-26-19 14:00	21.04	1180	8.40	35.9					
2-25-19 1:15	-0.03	972	7.85	13.2	2-25-19 1:15	0.13	1519	7.66	40.0	2-25-19 1:15	-0.09	1712	7.88	1.7	7-25-19 19:00	19.97	1706	7.75	8.5	5-26-19 14:15	20.92	1181	8.39	63.4					
2-25-19 1:30	-0.03	972	7.85	13.1	2-25-19 1:30	0.09	1522	7.66	40.3	2-25-19 1:30	-0.09	1713	7.88	1.9	7-25-19 19:15	20.05	1707	8.20	8.5	5-26-19 14:30	21.21	1183	8.39	35.3					
2-25-19 1:45	-0.03	973	7.85	13.1	2-25-19 1:45	0.10	1521	7.66	26.6	2-25-19 1:45	-0.08	1713	7.88	1.8	7-25-19 19:30	20.21	1706	8.72	8.5	5-26-19 14:45	21.05	1177	8.39	61.5					
2-25-19 2:00	-0.03	971	7.83	12.5	2-25-19 2:00	0.10	1521	7.65	29.5	2-25-19 2:00	-0.08	1713	7.88	1.7	7-25-19 19:45	20.30	1706	8.18	8.5	5-26-19 15:00	21.31	1183	8.39	35.1					
2-25-19 2:15	-0.03	968	7.83	13.0	2-25-19 2:15	0.12	1522	7.65	25.7	2-25-19 2:15	-0.08	1712	7.87	1.8	7-25-19 20:00	20.48	1707	7.93	8.5	5-26-19 15:15	21.13	1182	8.38	61.8					
2-25-19 2:30	-0.04	971	7.83	12.4	2-25-19 2:30	0.12	1513	7.65	26.4	2-25-19 2:30	-0.08	1713	7.87	1.8	7-25-19 20:15	20.66	1708	8.84	8.5	5-26-19 15:30	21.04	1181	8.39	29.9					
2-25-19 2:45	-0.04	969	7.83	13.0	2-25-19 2:45	0.13	1515	7.65	28.7	2-25-19 2:45	-0.08	1713	7.87	1.8	7-25-19 20:30	20.84	1707	8.27	8.5	5-26-19 15:45	20.67	1180	8.39	51.2					
2-25-19 3:00	-0.04	971	7.83	12.6	2-25-19 3:00	0.07	1528	7.66	34.9	2-25-19 3:00	-0.08	1713	7.87	1.7	7-25-19 20:45	21.00	1707	8.11	8.5	5-26-19 16:00	20.50	1180	8.41	25.8					
2-25-19 3:15	-0.04	973	7.83	12.4	2-25-19 3:15	0.10	1522	7.66	30.8	2-25-19 3:15	-0.09	1713	7.88	1.9	7-25-19 21:00	21.22	1710	8.32	8.5	5-26-19 16:15	20.42	1185	8.40	54.6					
2-25-19 3:30	-0.04	973	7.83	12.3	2-25-19 3:30	0.09	1522	7.66	27.9	2-25-19 3:30	-0.09	1714	7.88	1.7	7-25-19 21:15	21.34	1707	7.50	8.5	5-26-19 16:30	20.41	1182	8.42	29.6					
2-25-19 3:45	-0.04	973	7.83	12.0	2-25-19 3:45	0.10	1515	7.65	23.6	2-25-19 3:45	-0.09	1713	7.88	1.7	7-25-19 21:30	21.63	1708	8.43	8.5	5-26-19 16:45	20.37	1183	8.41	66.9					
2-25-19 4:00	-0.05	973	7.83	11.8	2-25-19 4:00	0.09	1522	7.65	26.2	2-25-19 4:00	-0.09	1714	7.88	1.7	7-25-19 21:45	21.60	1708	7.66	8.5	5-26-19 17:00	20.34	1183	8.42	30.7					
2-25-19 4:15	-0.05	974	7.83	11.8	2-25-19 4:15					2-25-19 4:15	-0.08	1713	7.88	1.8	7-25-19 22:00	21.62	1707	8.54	8.5	5-26-19 17:15	20.50	1186	8.41	74.9					
2-25-19 4:30	-0.05	974	7.82	11.7	2-25-19 4:30	0.07	1528	7.67	33.2	2-25-19 4:30	-0.08	1713	7.87	1.8	7-25-19 22:15	21.88	1710	8.82	8.5	5-26-19 17:30	20.66	1185	8.42	32.1					
2-25-19 4:45	-0.05	974	7.81	11.4	2-25-19 4:45	0.10	1529	7.68	37.3	2-25-19 4:45	-0.08	1713	7.87	1.7	7-25-19 22:30	22.03	1710	8.16	8.5	5-26-19 17:45	20.72	1195	8.42	54.9					
2-25-19 5:00	-0.05	975	7.82	11.5	2-25-19 5:00	0.12	1529	7.67	36.6	2-25-19 5:00	-0.08	1713	7.87	1.8	7-25-19 22:45	22.21	1710	8.51	8.5	5-26-19 18:00	20.96	1193	8.42	30.4					
2-25-19 5:15	-0.05	976	7.83	11.7	2-25-19 5:15	0.12	1523	7.66	32.7	2-25-19 5:15	-0.08	1713	7.87	1.8	7-25-19 23:00	22.24	1709	8.15	8.5	5-26-19 18:15	21.09	1193	8.41	59.3					
2-25-19 5:30	-0.05	976	7.83	11.2	2-25-19 5:30	0.10	1524	7.66	29.5	2-25-19 5:30	-0.08	1714	7.88	1.7	7-25-19 23:15	22.47	1711	10.14	8.5	5-26-19 18:30	21.14	1191	8.41	28.8					
2-25-19 5:45	-0.05	978	7.83	11.5	2-25-19 5:45	0.09	1526	7.67	30.4	2-25-19 5:45	-0.08	1714	7.88	1.7	7-25-19 23:30	22.53	1711	7.98	8.5	5-26-19 18:45	21.13	1188	8.40	74.5					
2-25-19 6:00	-0.05	977	7.83	11.2	2-25-19 6:00	0.07	1525	7.66	30.1	2-25-19 6:00	-0.08	1714	7.88	1.7	7-25-19 23:45	22.61	1710	8.40	8.5	5-26-19 19:00	21.06	1192	8.41	38.3					
2-25-19 6:15	-0.05	977	7.83	11.2	2-25-19 6:15	0.08	1524	7.67	29.3	2-25-19 6:15	-0.08	1714	7.87	1.7	7-26-19 0:00	22.52	1710	8.09	8.5	5-26-19 19:15	20.97	1191	8.41	67.6					
2-25-19 6:30	-0.05	977	7.82	11.1	2-25-19 6:30	0.08	1531	7.67	34.1	2-25-19 6:30	-0.08	1714	7.88	1.7	7-26-19 0:15	22.63	1712	8.01	8.5	5-26-19 19:30	20.95	1190	8.42	32.5					
2-25-19 6:45	-0.05	976	7.83	11.2	2-25-19 6:45					2-25-19 6:45	-0.08	1714	7.88	1.8	7-26-19 0:30	22.62	1712	8.19	8.5	5-26-19 19:45	20.90	1190	8.41	67.0					
2-25-19 7:00	-0.05	977	7.83	11.2	2-25-19 7:00	0.06	1531	7.67	33.1	2-25-19 7:00	-0.08	1714	7.87	1.7	7-26-19 0:45	22.60	1712	8.34	8.5	5-26-19 20:00	20.86	1187	8.42	25.9					
2-25-19 7:15	-0.05	975	7.83	11.0	2-25-19 7:15	0.05	1532	7.67	32.4	2-25-19 7:15	-0.08	1714	7.88	1.7	7-26-19 1:00	22.62	1712	8.39	8.5	5-26-19 20:15	20.83	1190	8.42	67.4					
2-25-19 7:30	-0.05	977	7.83	11.4	2-25-19 7:30	0.07	1531	7.67	32.7	2-25-19 7:30	-0.08	1714	7.88	1.7	7-26-19 1:15	22.63	1714	8.18	8.5	5-26-19 20:30	20.80	1189	8.42	38.3					
2-25-19 7:45	-0.05	975	7.83	11.6	2-25-19 7:45	0.08	1525	7.66	27.8	2-25-19 7:45	-0.08	1714	7.88	1.8	7-26-19 1:30	22.60	1713	7.80	8.5	5-26-19 20:45	20.75	1188	8.42	77.3					
2-25-19 8:00	-0.05	976	7.83	11.0	2-25-19 8:00	0.07	1528	7.66	29.1	2-25-19 8:00	-0.08	1715	7.88	1.8	7-26-19 1:45	22.57	1713	7.96	8.5	5-26-19 21:00	20.69	1186	8.42	34.9					
2-25-19 8:15	-0.05	980	7.84	9.9	2-25-19 8:15	0.10	1528	7.66	30.8	2-25-19 8:15	-0.08	1714	7.87	1.7	7-26-19 2:00	22.58	1714	7.72	8.5	5-26-19 21:15	20.61	1189	8.42	77.6					
2-25-19 8:30	-0.05	981	7.84	9.7	2-25-19 8:30	0.06	1529	7.67	29.3	2-25-19 8:30	-0.08	1714	7.87	1.7	7-26-19 2:15	22.56	1713	7.84	8.5	5-26-19 21:30	20.52	1187	8.43	34.0					
2-25-19 8:45	-0.05	980	7.84	9.6	2-25-19 8:45	0.06	1530	7.66	31.2	2-25-19 8:45	-0.08	1715	7.87	1.8	7-26-19 2:30	22.50	1713	7.13	8.5	5-26-19 21:45	20.45	1187	8.42	77.5					
2-25-19 9:00	-0.05	980	7.84	10.0	2-25-19 9:00	0.04	1533	7.67	29.6	2-25-19 9:00	-0.08	1715	7.88	1.8	7-26-19 2:45	22.43	1711	7.23	8.5	5-26-19 22:00	20.39	1188	8.42	31.8					
2-25-19 9:15	-0.05	978	7.84	10.4	2-25-19 9:15	0.03	1534	7.68	30.2	2-25-19 9:15	-0.08	1715	7.88	1.7	7-26-19 3:00	22.36	1711	7.60	8.5	5-26-19 22:15	20.28	1187	8.42	79.8					
2-25-19 9:30	-0.05	977	7.84	10.9	2-25-19 9:30	0.06	1530	7.67	29.9	2-25-19 9:30	-0.08	1715	7.88	1.7	7-26-19 3:15	22.29	1713	7.40	8.5	5-26-19 22:30	20.20	1187	8.42	38.4					
2-25-19 9:45	-0.05	981	7.84	10.3	2-25-19 9:45	0.05	1529	7.66	29.9	2-25-19 9:45	-0.08	1716	7.88	1.7	7-26-19 3:30	22.22	1712	7.11	8.5	5-26-19 22:45	20.09	1187	8.42	72.2					
2-25-19 10:00	-0.05	983	7.84	9.3	2-25-19 10:00	0.04	1535	7.67	33.0	2-25-19 10:00	-0.08	1716	7.88	1.7	7-26-19 3:45	22.16	1712	7.27	8.5	5-26-19 23:00	20.03	1189	8.43	30.0					
2-25-19 10:15	-0.05	982	7.84	9.3	2-25-19 10:15	0.08	1536	7.67	34.4	2-25-19 10:15	-0.08	1716	7.88	1.8	7-26-19 4:00	22.08	1712	6.86	8.5	5-26-19 23:15	19.94	1190	8.41	60.6					
2-25-19 10:30	-0.05	982	7.84	9.6	2-25-19 10:30	0.07	1539	7.68	35.1	2-25-19 10:30	-0.08	1716	7.88	1.8	7-26-19 4:15	22.02	1712	7.42	8.5	5-26-19 23:30	19.88	1185	8.42	35.0					
2-25-19 10:45	-0.05	983	7.84	9.5	2-25-19 10:45	0.05	1538	7.67	36.0	2-25-19 10:45	-0.08	1716	7.88	1.7	7-26-19 4:30	21.94	1712	7.15	8.5	5-26-19 23:45	19.74	1185	8.43	71.2					
2-25-19 11:00	-0.04	984	7.84	9.3	2-25-19 11:00	0.08	1528	7.66	32.7	2-25-19 11:00	-0.08	1716	7.88	1.7	7-26-19 4:45	21.86	1712	10.33	8.5	5-27-19 0:00	19.67	1188	8.43	26.1					
2-25-19 11:15	-0.05	985	7.85	8.9	2-25-19 11:15	0.11	1527	7.65	31.2	2-25-19 11:15	-0.08	1717	7.87	1.8	7-26-19 5:00	21.79	1711	6.89	8.5	5-27-19 0:15	19.66	1186	8.43	74.4					
2-25-19 11:30	-0.05	985	7.85	9.3	2-25-19 11:30	0.06	1541	7.67	33.3	2-25-19 11:30	-0.08	1717	7.88	1.7	7-26-19 5:15	21.67	1712	7.02	8.5	5-27-19 0:30	19.60	1183	8.43	33.9					
2-25-19 11:45	-0.04	986	7.85	8.8	2-25-19 11:45	0.09	1540	7.67	32.6	2-25-19 11:45	-0.08	1717	7.88	1.7	7-26-19 5:30	21.58	1711	7.31	8.6	5-27-19 0:45	19.50	1184	8.42	80.3					
2-25-19 12:00	-0.05	987	7.85	9.1	2-25-19 12:00	0.07	1541	7.67	28.7	2-25-19 12:00	-0.08	1717	7.88	1.7	7-26-19 5:45	21.53	1711	7.95	8.5	5-27-19 1:00	19.39	1185	8.42	35.4					
2-25-19 12:15	-0.05	986	7.86	8.7	2-25-19 12:15	0.10	1536	7.67	28.8	2-25-19 12:15	-0.08	1717	7.87	1.8	7-26-19 6:00	21.46	1710	7.97	8.5	5-27-19 1:15	19.31	1187	8.42	76.6					
2-25-19 12:30	-0.05	987	7.86	11.2	2-25-19 12:30	0.11	1533	7.66	31.7	2-25-19 12:30	-0.08	1718	7.87	1.7	7-26-19 6:15	21.41	1711	7.75	8.5	5-27-19 1:30	19.31	1184	8.43	34.3					
2-25-19 12:45	-0.05	987	7.86	9.8	2-25-19 12:45	0.11	1537	7.67	27.9	2-25-19 12:45	-0.08	1718	7.87	1.7	7-26-19 6:30	21.33	1710	8.00	8.5	5-27-19 1:45	19.26	1185	8.42	80.0					
2-25-19 13:00	-0.05	987	7.86	9.1	2-25-19 13:00	0.09	1538	7.66	29.2	2-25-19 13:00	-0.08	1718	7.87	1.8	7-26-19 6:45	21.28	1711	7.28	8.5	5-27-19 2:00	19.18	1184	8.42	40.9					
2-25-19 13:15	-0.05	989	7.87	9.1	2-25-19 13:15	0.13	1529	7.66	25.0	2-25-19 13:15	-0.11	1728	7.88	1.8	7-26-19 7:00	21.20	1710	7.53	8.5	5-27-19 2:15	19.12	1184	8.42	86.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-25-19 13:30	-0.05	990	7.86	8.8	2-25-19 13:30	0.12	1543	7.67	33.2	2-25-19 13:30	-0.10	1725	7.88	1.7	7-26-19 7:15	21.12	1711	7.77	8.5	5-27-19 2:30	19.04	1184	8.42	32.0					
2-25-19 13:45	-0.05	992	7.86	8.4	2-25-19 13:45	0.21	1542	7.67	35.1	2-25-19 13:45	-0.10	1723	7.88	1.7	7-26-19 7:30	21.04	1710	7.98	8.5	5-27-19 2:45	18.96	1185	8.43	87.3					
2-25-19 14:00	-0.05	992	7.87	8.5	2-25-19 14:00	0.16	1542	7.67	34.2	2-25-19 14:00	-0.09	1720	7.88	1.6	7-26-19 7:45	20.97	1711	6.84	8.5	5-27-19 3:00	18.90	1184	8.42	34.3					
2-25-19 14:15	-0.05	993	7.87	8.7	2-25-19 14:15	0.30	1536	7.67	27.9	2-25-19 14:15	-0.08	1720	7.88	1.7	7-26-19 8:00	20.90	1709	7.41	8.5	5-27-19 3:15	18.83	1185	8.42	81.0					
2-25-19 14:30	-0.04	993	7.86	8.0	2-25-19 14:30	0.28	1539	7.67	33.1	2-25-19 14:30	-0.09	1720	7.87	1.7	7-26-19 8:15	20.83	1711	7.58	8.5	5-27-19 3:30	18.78	1183	8.42	30.5					
2-25-19 14:45	-0.04	995	7.86	8.3	2-25-19 14:45	0.17	1543	7.67	32.7	2-25-19 14:45	-0.08	1720	7.87	1.7	7-26-19 8:30	20.74	1711	6.99	8.5	5-27-19 3:45	18.73	1182	8.42	95.3					
2-25-19 15:00	-0.04	993	7.86	8.4	2-25-19 15:00	0.19	1542	7.67	32.0	2-25-19 15:00	-0.08	1719	7.87	1.7	7-26-19 8:45	20.69	1710	7.82	8.5	5-27-19 4:00	18.65	1183	8.42	43.0					
2-25-19 15:15	-0.05	992	7.86	8.0	2-25-19 15:15	0.21	1543	7.67	33.7	2-25-19 15:15	-0.08	1720	7.88	1.6	7-26-19 9:00	20.62	1711	7.61	8.5	5-27-19 4:15	18.60	1184	8.42	91.6					
2-25-19 15:30	-0.05	993	7.86	8.2	2-25-19 15:30	0.16	1543	7.67	29.7	2-25-19 15:30	-0.08	1720	7.87	1.7	7-26-19 9:15	20.54	1710	6.78	8.5	5-27-19 4:30	18.51	1182	8.41	38.5					
2-25-19 15:45	-0.05	996	7.86	8.3	2-25-19 15:45	0.19	1548	7.67	33.3	2-25-19 15:45	-0.08	1720	7.87	1.7	7-26-19 9:30	20.47	1710	7.19	8.5	5-27-19 4:45	18.46	1183	8.42	94.6					
2-25-19 16:00	-0.05	995	7.86	8.0	2-25-19 16:00	0.15	1537	7.66	27.4	2-25-19 16:00	-0.08	1720	7.87	1.6	7-26-19 9:45	20.43	1710	6.71	8.5	5-27-19 5:00	18.39	1183	8.41	38.8					
2-25-19 16:15	-0.05	996	7.86	8.0	2-25-19 16:15	0.25	1550	7.67	33.4	2-25-19 16:15	-0.08	1720	7.87	1.7	7-26-19 10:00	20.34	1710	6.82	8.5	5-27-19 5:15	18.30	1184	8.41	95.6					
2-25-19 16:30	-0.05	994	7.86	8.2	2-25-19 16:30	0.26	1548	7.67	32.8	2-25-19 16:30	-0.08	1720	7.87	1.7	7-26-19 10:15	20.28	1710	6.47	8.5	5-27-19 5:30	18.27	1183	8.41	37.1					
2-25-19 16:45	-0.05	996	7.86	8.4	2-25-19 16:45	0.14	1545	7.67	30.4	2-25-19 16:45	-0.08	1720	7.87	1.7	7-26-19 10:30	20.22	1709	7.00	8.5	5-27-19 5:45	18.16	1183	8.42	93.0					
2-25-19 17:00	-0.05	996	7.86	7.9	2-25-19 17:00	0.34	1547	7.67	32.5	2-25-19 17:00	-0.08	1720	7.87	1.8	7-26-19 10:45	20.16	1710	6.73	8.5	5-27-19 6:00	18.13	1182	8.42	35.2					
2-25-19 17:15	-0.05	997	7.86	7.9	2-25-19 17:15	0.35	1550	7.67	32.0	2-25-19 17:15	-0.08	1720	7.87	1.7	7-26-19 11:00	20.09	1711	6.96	8.5	5-27-19 6:15	18.06	1184	8.42	92.2					
2-25-19 17:30	-0.05	996	7.86	7.7	2-25-19 17:30	0.26	1543	7.67	28.9	2-25-19 17:30	-0.08	1720	7.88	1.7	7-26-19 11:15	20.03	1710	6.61	8.5	5-27-19 6:30	17.99	1182	8.42	31.1					
2-25-19 17:45	-0.05	995	7.86	7.4	2-25-19 17:45	0.18	1529	7.66	20.4	2-25-19 17:45	-0.08	1720	7.87	1.6	7-26-19 11:30	19.96	1711	6.58	8.5	5-27-19 6:45	17.97	1185	8.43	86.8					
2-25-19 18:00	-0.05	997	7.87	7.7	2-25-19 18:00	0.15	1535	7.66	26.3	2-25-19 18:00	-0.08	1721	7.87	1.6	7-26-19 11:45	19.91	1709	6.34	8.5	5-27-19 7:00	17.95	1183	8.43	38.3					
2-25-19 18:15	-0.04	998	7.86	7.4	2-25-19 18:15	0.12	1546	7.67	27.0	2-25-19 18:15	-0.08	1721	7.88	1.7	7-26-19 12:00	19.87	1709	6.75	8.5	5-27-19 7:15	17.93	1185	8.41	89.4					
2-25-19 18:30	-0.05	997	7.86	7.5	2-25-19 18:30	0.16	1535	7.66	22.6	2-25-19 18:30	-0.08	1721	7.87	1.7	7-26-19 12:15	19.78	1710	7.34	8.5	5-27-19 7:30	17.90	1186	8.42	34.7					
2-25-19 18:45	-0.05	999	7.87	7.3	2-25-19 18:45	0.13	1547	7.67	29.0	2-25-19 18:45	-0.08	1721	7.87	1.7	7-26-19 12:30	19.75	1711	7.53	8.5	5-27-19 7:45	17.90	1188	8.43	87.8					
2-25-19 19:00	-0.05	997	7.86	7.2	2-25-19 19:00	0.10	1548	7.67	27.2	2-25-19 19:00	-0.08	1721	7.88	1.7	7-26-19 12:45	19.71	1710	7.37	8.5	5-27-19 8:00	17.91	1191	8.43	33.4					
2-25-19 19:15	-0.05	997	7.86	7.6	2-25-19 19:15	0.15	1551	7.67	27.4	2-25-19 19:15	-0.08	1721	7.87	1.7	7-26-19 13:00	19.69	1711	7.00	8.5	5-27-19 8:15	17.98	1199	8.42	90.9					
2-25-19 19:30	-0.05	996	7.86	7.4	2-25-19 19:30	0.12	1549	7.67	27.3	2-25-19 19:30	-0.08	1721	7.88	1.7	7-26-19 13:15	19.61	1711	8.05	8.5	5-27-19 8:30	18.03	1199	8.42	34.3					
2-25-19 19:45	-0.05	998	7.86	7.1	2-25-19 19:45	0.24	1550	7.67	27.6	2-25-19 19:45	-0.08	1722	7.87	1.7	7-26-19 13:30	19.55	1711	7.27	8.5	5-27-19 8:45	18.03	1196	8.43	92.7					
2-25-19 20:00	-0.05	997	7.86	7.2	2-25-19 20:00	0.15	1550	7.67	26.7	2-25-19 20:00	-0.08	1722	7.87	1.7	7-26-19 13:45	19.54	1709	7.05	8.5	5-27-19 9:00	18.09	1196	8.42	40.8					
2-25-19 20:15	-0.05	996	7.86	7.3	2-25-19 20:15	0.13	1548	7.67	26.0	2-25-19 20:15	-0.08	1722	7.87	1.8	7-26-19 14:00	19.51	1709	7.48	8.5	5-27-19 9:15	18.15	1200	8.41	88.1					
2-25-19 20:30	-0.05	997	7.86	7.3	2-25-19 20:30	0.13	1552	7.67	26.3	2-25-19 20:30	-0.08	1722	7.87	1.7	7-26-19 14:15	19.50	1709	7.31	8.5	5-27-19 9:30	18.21	1195	8.42	38.9					
2-25-19 20:45	-0.05	998	7.86	7.2	2-25-19 20:45	0.18	1553	7.67	27.0	2-25-19 20:45	-0.08	1722	7.87	1.7	7-26-19 14:30	19.50	1709	7.58	8.5	5-27-19 9:45	18.26	1198	8.41	94.5					
2-25-19 21:00	-0.05	997	7.86	7.0	2-25-19 21:00	0.16	1549	7.68	26.8	2-25-19 21:00	-0.08	1722	7.87	1.7	7-26-19 14:45	19.48	1710	7.27	8.5	5-27-19 10:00	18.28	1196	8.42	36.0					
2-25-19 21:15	-0.05	998	7.86	6.8	2-25-19 21:15	0.32	1553	7.67	25.7	2-25-19 21:15	-0.08	1723	7.87	1.7	7-26-19 15:00	19.52	1709	7.31	8.5	5-27-19 10:15	18.31	1195	8.42	93.3					
2-25-19 21:30	-0.05	997	7.86	6.8	2-25-19 21:30	0.32	1551	7.68	29.9	2-25-19 21:30	-0.08	1723	7.87	1.6	7-26-19 15:15	19.53	1710	8.41	8.5	5-27-19 10:30	18.32	1195	8.43	42.9					
2-25-19 21:45	-0.05	999	7.86	6.7	2-25-19 21:45	0.24	1549	7.68	26.5	2-25-19 21:45	-0.08	1723	7.87	1.6	7-26-19 15:30	19.58	1708	7.76	8.5	5-27-19 10:45	18.34	1198	8.42	92.4					
2-25-19 22:00	-0.05	998	7.86	6.6	2-25-19 22:00	0.20	1545	7.66	24.0	2-25-19 22:00	-0.08	1723	7.87	1.6	7-26-19 15:45	19.64	1709	7.60	8.5	5-27-19 11:00	18.41	1201	8.42	41.9					
2-25-19 22:15	-0.05	998	7.84	6.8	2-25-19 22:15	0.14	1542	7.67	23.0	2-25-19 22:15	-0.08	1723	7.87	1.6	7-26-19 16:00	19.72	1711	7.25	8.5	5-27-19 11:15	18.48	1204	8.41	97.6					
2-25-19 22:30	-0.05	998	7.86	6.7	2-25-19 22:30	0.11	1546	7.67	23.8	2-25-19 22:30	-0.08	1723	7.87	1.6	7-26-19 16:15	19.75	1712	7.50	8.5	5-27-19 11:30	18.62	1201	8.42	43.5					
2-25-19 22:45	-0.05	999	7.86	6.7	2-25-19 22:45	0.11	1547	7.67	25.5	2-25-19 22:45	-0.08	1723	7.87	1.7	7-26-19 16:30	19.83	1713	8.29	8.5	5-27-19 11:45	18.75	1204	8.41	111.0					
2-25-19 23:00	-0.05	1000	7.87	7.1	2-25-19 23:00	0.14	1538	7.66	19.8	2-25-19 23:00	-0.08	1723	7.87	1.7	7-26-19 16:45	19.96	1713	7.82	8.5	5-27-19 12:00	18.89	1200	8.40	40.3					
2-25-19 23:15	-0.05	999	7.87	6.8	2-25-19 23:15	0.12	1548	7.68	25.7	2-25-19 23:15	-0.09	1723	7.87	1.6	7-26-19 17:00	20.08	1714	7.76	8.5	5-27-19 12:15	18.96	1200	8.40	105.2					
2-25-19 23:30	-0.05	999	7.86	6.8	2-25-19 23:30	0.12	1546	7.67	24.6	2-25-19 23:30	-0.08	1723	7.87	1.6	7-26-19 17:15	20.16	1712	8.17	8.5	5-27-19 12:30	19.12	1201	8.41	42.4					
2-25-19 23:45	-0.05	999	7.86	6.6	2-25-19 23:45	0.10	1550	7.68	24.8	2-25-19 23:45	-0.09	1724	7.87	1.6	7-26-19 17:30	20.23	1714	8.40	8.5	5-27-19 12:45	19.30	1202	8.40	105.8					
2-26-19 0:00	-0.05	998	7.85	6.4	2-26-19 0:00	0.12	1546	7.67	25.6	2-26-19 0:00	-0.09	1725	7.87	1.6	7-26-19 17:45	20.29	1713	8.24	8.5	5-27-19 13:00	19.53	1202	8.39	47.3					
2-26-19 0:15	-0.05	999	7.85	6.5	2-26-19 0:15	0.17	1548	7.68	28.2	2-26-19 0:15	-0.09	1724	7.87	1.7	7-26-19 18:00	20.36	1713	8.21	8.5	5-27-19 13:15	19.59	1200	8.39	99.4					
2-26-19 0:30	-0.05	999	7.85	6.4	2-26-19 0:30	0.14	1550	7.67	29.0	2-26-19 0:30	-0.08	1724	7.87	1.7	7-26-19 18:15	20.49	1713	8.66	8.5	5-27-19 13:30	19.78	1199	8.40	38.7					
2-26-19 0:45	-0.05	999	7.85	6.0	2-26-19 0:45	0.18	1549	7.67	28.1	2-26-19 0:45	-0.09	1724	7.87	1.7	7-26-19 18:30	20.70	1715	8.25	8.5	5-27-19 13:45	19.71	1201	8.39	110.8					
2-26-19 1:00	-0.05	1000	7.85	6.1	2-26-19 1:00	0.17	1548	7.68	29.9	2-26-19 1:00	-0.08	1724	7.87	1.6	7-26-19 18:45	20.68	1714	8.85	8.5	5-27-19 14:00	20.41	1206	8.39	47.0					
2-26-19 1:15	-0.05	1002	7.85	6.1	2-26-19 1:15	0.18	1542	7.66	23.8	2-26-19 1:15	-0.09	1724	7.87	1.6	7-26-19 19:00	20.84	1714	8.48	8.5	5-27-19 14:15	20.91	1208	8.39	114.7					
2-26-19 1:30	-0.05	1000	7.84	6.0	2-26-19 1:30	0.20	1548	7.67	28.1	2-26-19 1:30	-0.09	1724	7.87	1.6	7-26-19 19:15	20.93	1714	8.30	8.5	5-27-19 14:30	21.07	1209	8.39	48.3					
2-26-19 1:45	-0.05	1001	7.84	6.1	2-26-19 1:45	0.25	1550	7.68	29.3	2-26-19 1:45	-0.09	1724	7.87	1.6	7-26-19 19:30	21.17	1715	8.18	8.5	5-27-19 14:45	21.37	1211	8.38	121.1					
2-26-19 2:00	-0.05	1001	7.84	6.0	2-26-19 2:00	0.18	1549	7.67	28.7	2-26-19 2:00	-0.09	1725	7.87	1.7	7-26-19 19:45	21.29	1714	8.17	8.5	5-27-19 15:00	21.63	1213	8.39	43.1					
2-26-19 2:15	-0.05	1003	7.84	5.9	2-26-19 2:15	0.17	1550	7.67	30.8	2-26-19 2:15	-0.09	1724	7.87	1.7	7-26-19 20:00	21.25	1714	8.20	8.5	5-27-19 15:15	21.73	1215	8.37	124.2					
2-26-19 2:30	-0.05	1002	7.84	5.9	2-26-19 2:30	0.13	1552	7.67	27.0	2-26-19 2:30	-0.09	1725	7.87	1.7	7-26-19 20:15	21.32	1715	8.10	8.5	5-27-19 15:30	21.96	1217	8.38	71.8					
2-26-19 2:45	-0.05	1003	7.84	5.8	2-26-19 2:45	0.21	1557	7.67	25.7	2-26-19 2:45	-0.08	1724	7.87	1.7	7-26-19 20:30	21.44	1717	8.18	8.5	5-27-19 15:45	22.13	1216	8.38	101.5					
2-26-19 3:00	-0.06	1001	7.84	5.8	2-26-19 3:00	0.20	1558	7.67	26.0	2-26-19 3:00	-0.09	1724	7.87	1.6	7-26-19 20:45	21.41	1716	8.73	8.5	5-27-19 16:00	21.97	1212	8.38	54.2					
2-26-19 3:15	-0.06	1001	7.83	5.9	2-26-19 3:15	0.20	1547	7.67	20.3	2-26-19 3:15	-0.09	1724	7.87	1.6	7-26-19 21:00	21.46	1716	9.29	8.5	5-27-19 16:15	20.41	1195	8.40	116.9					
2-26-19 3:30	-0.05	1003	7.84	5.7	2-26-19 3:30	0.18	1541	7.66	17.9	2-26-19 3:30	-0.09	1724	7.87	1.6	7-26-19 21:15	21.48	1716	8.84	8.5	5-27-19 16:30	19.99	1200	8.41	50.1					
2-26-19 3:45	-0.06	1004	7.84	5.8	2-26-19 3:45	0.22	1549	7.67	23.6	2-26-19 3:45	-0.09	1725	7.87	1.6	7-26-19 21:30	21.48	1716	8.47	8.5	5-27-19 16:45	19.84	1202	8.42	125.8					
2-26-19 4:00	-0.06	1004	7.84	5.7	2-26-19 4:00	0.22	1552	7.67	24.7	2-26-19 4:00	-0.09	1724	7.87	1.6	7-26-19 21:45	21.56	1716	8.35	8.5	5-27-19 17:00	19.63	1201	8.43	46.4					
2-26-19 4:15	-0.06	1004	7.84	5.6	2-26-19 4:15	0.29	1577	7.66	37.5	2-26-19 4:15	-0.09	1724	7.87	1.7	7-26-19 22:00	21.66	1716	8.36	8.5	5-27-19 17:15	19.54	1202	8.43	112.4					
2-26-19 4:30	-0.06	1002	7.84	5.5	2-26-19 4:30	0.21	1569	7.66	46.0	2-26-19 4:30	-0.08	1724	7.87	1.6	7-26-19 22:15	21.56	1715	8.51	8.5	5-27-19 17:30	19.50	1202	8.44	58.9					
2-26-19 4:45	-0.06	1003	7.84	5.5	2-26-19 4:45	0.18	1555	7.67	25.1	2-26-19 4:45	-0.09	1725	7.87	1.7	7-26-19 22:30	21.68	1717	8.92	8.5	5-27-19 17:45	19.80	1218	8.44	128.3					
2-26-19 5:00	-0.06	1005	7.84	5.5	2-26-19 5:00	0.20	1542	7.66	44.0	2-26-19 5:00	-0.08	1724	7.87	1.6	7-26-19 22:45	21.78	1717	8.13	8.5	5-27-19 18:00	20.43	1214	8.43	54.7					
2-26-19 5:15	-0.06	1003	7.84	5.7	2-26-19 5:15	0.12	1557	7.66	46.9	2-26-19 5:15	-0.09	1725	7.87	1.6	7-26-19 23:00	21.81	1716	8.25	8.5	5-27-19 18:15	20.84	1218	8.41	128.2					
2-26-19 5:30	-0.06	1005	7.83	5.7	2-26-19 5:30	0.18	1564	7.66	61.2	2-26-19 5:30	-0.09	1724	7.87	1.5	7-26-19 23:15	21.63	1716	8.17	8.5	5-27-19 18:30	21.00	1220	8.41	54.1					
2-26-19 5:45	-0.06	1004	7.83	5.4	2-26-19 5:45	0.21	1564	7.66	49.0	2-26-19 5:45	-0.09	1725	7.87	1.6	7-26-19 23:30	21.58	1716	8.62	8.6	5-27-19 18:45	21.09	1221	8.41	153.9					
2-26-19 6:00	-0.06	1006	7.83	5.5	2-26-19 6:00	0.16	1558	7.66	39.6	2-26-19 6:00	-0.09	1725	7.87	1.6	7-26-19 23:45	21.60	1717	8.44	8.6	5-27-19 19:00	21.16	1218	8.40	46.0					
2-26-19 6:15	-0.06	1007	7.83	5.5	2-26-19 6:15	0.11	1556	7.66	34.9	2-26-19 6:15	-0.08	1725	7.87	1.7	7-27-19 0:00	21.54	1717	8.62	8.6	5-27-19 19:15	21.21	1218	8.40	125.5					
2-26-19 6:30	-0.06	1006	7.83	5.5	2-26-19 6:30	0.20	1565	7.66	30.2	2-26-19 6:30	-0.08	1725	7.87	1.6	7-27-19 0:15	21.49	1717	8.47	8.6	5-27-19 19:30	21.20	1220	8.42	53.0					
2-26-19 6:45	-0.06	1006	7.83	5.5	2-26-19 6:45	0.20	1567	7.66	33.1	2-26-19 6:45	-0.08	1724	7.87	1.7	7-27-19 0:30	21.51	1716	8.75	8.6	5-27-19 19:45	21.18	1219	8.40	119.5					
2-26-19 7:00	-0.06	1007	7.83	5.3	2-26-19 7:00	0.17	1560	7.66	89.1	2-26-19 7:00	-0.08	1724	7.87	1.6	7-27-19 0:45	21.50	1716	8.16	8.6	5-27-19 20:00	21.14	1219	8.41	61.8					
2-26-19 7:15	-0.06	1007	7.83	5.4	2-26-19 7:15	0.32	1554	7.65	119.6	2-26-19 7:15	-0.09	1724	7.87	1.6	7-27-19 1:00	21.49	1716	8.90	8.6	5-27-19 20:15	21.09	1217	8.40	139.3					
2-26-19 7:30	-0.06	1006	7.83	5.3	2-26-19 7:30	0.27	1551	7.66	103.8	2-26-19 7:30	-0.09	1725	7.87	1.6	7-27-19 1:15	21.49	1717	9.12	8.6	5-27-19 20:30	21.04	1217	8.41	54.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-26-19 7:45	-0.06	1008	7.84	5.2	2-26-19 7:45	0.20	1565	7.66	49.1	2-26-19 7:45	-0.09	1725	7.87	1.6	7-27-19 1:30	21.44	1717	8.10	8.6	5-27-19 20:45	20.97	1220	8.41	140.0					
2-26-19 8:00	-0.06	1008	7.84	5.2	2-26-19 8:00	0.16	1567	7.66	42.4	2-26-19 8:00	-0.08	1725	7.87	1.6	7-27-19 1:45	21.44	1717	9.44	8.6	5-27-19 21:00	20.89	1213	8.43	59.4					
2-26-19 8:15	-0.05	1010	7.83	5.1	2-26-19 8:15	0.15	1562	7.66	58.6	2-26-19 8:15	-0.08	1725	7.87	1.6	7-27-19 2:00	21.43	1717	7.91	8.6	5-27-19 21:15	20.83	1218	8.42	133.3					
2-26-19 8:30	-0.05	1016	7.82	4.6	2-26-19 8:30	0.23	1557	7.66	72.5	2-26-19 8:30	-0.08	1725	7.87	1.7	7-27-19 2:15	21.40	1716	8.29	8.6	5-27-19 21:30	20.83	1216	8.43	66.2					
2-26-19 8:45	-0.05	1016	7.81	4.4	2-26-19 8:45	0.14	1563	7.66	64.2	2-26-19 8:45	-0.08	1725	7.86	1.7	7-27-19 2:30	21.39	1717	7.91	8.6	5-27-19 21:45	20.78	1217	8.42	155.6					
2-26-19 9:00	-0.05	1017	7.81	4.3	2-26-19 9:00	0.27	1553	7.66	90.6	2-26-19 9:00	-0.08	1725	7.87	1.6	7-27-19 2:45	21.36	1717	8.11	8.6	5-27-19 22:00	20.73	1218	8.42	73.1					
2-26-19 9:15	-0.05	1016	7.81	4.3	2-26-19 9:15	0.21	1557	7.66	61.8	2-26-19 9:15	-0.09	1725	7.87	1.5	7-27-19 3:00	21.34	1717	8.17	8.6	5-27-19 22:15	20.66	1214	8.42	135.7					
2-26-19 9:30	-0.05	1015	7.82	4.7	2-26-19 9:30	0.17	1556	7.66	65.7	2-26-19 9:30	-0.09	1725	7.87	1.6	7-27-19 3:15	21.28	1717	7.94	8.6	5-27-19 22:30	20.57	1214	8.43	69.1					
2-26-19 9:45	-0.06	1016	7.83	5.2	2-26-19 9:45	0.20	1552	7.66	66.8	2-26-19 9:45	-0.09	1726	7.87	1.5	7-27-19 3:30	21.23	1718	7.80	8.6	5-27-19 22:45	20.48	1215	8.43	182.8					
2-26-19 10:00	-0.06	1015	7.84	5.0	2-26-19 10:00	0.18	1554	7.66	65.3	2-26-19 10:00	-0.09	1726	7.87	1.6	7-27-19 3:45	21.19	1717	7.55	8.6	5-27-19 23:00	20.43	1215	8.43	70.5					
2-26-19 10:15	-0.06	1020	7.84	4.7	2-26-19 10:15	0.21	1551	7.66	64.6	2-26-19 10:15	-0.08	1726	7.87	1.6	7-27-19 4:00	21.15	1716	7.43	8.6	5-27-19 23:15	20.36	1215	8.42	151.2					
2-26-19 10:30	-0.06	1017	7.84	4.8	2-26-19 10:30	0.28	1556	7.66	71.2	2-26-19 10:30	-0.08	1726	7.86	1.6	7-27-19 4:15	21.11	1717	8.20	8.6	5-27-19 23:30	20.36	1214	8.42	63.5					
2-26-19 10:45	-0.06	1017	7.84	4.8	2-26-19 10:45	0.23	1559	7.66	68.4	2-26-19 10:45	-0.08	1726	7.87	1.7	7-27-19 4:30	21.03	1717	7.59	8.6	5-27-19 23:45	20.30	1214	8.42	149.8					
2-26-19 11:00	-0.06	1017	7.85	4.7	2-26-19 11:00	0.27	1550	7.67	74.1	2-26-19 11:00	-0.08	1726	7.86	1.6	7-27-19 4:45	20.98	1717	7.81	8.6	5-28-19 0:00	20.23	1222	8.42	60.3					
2-26-19 11:15	-0.06	1017	7.85	4.7	2-26-19 11:15	0.36	1548	7.67	71.2	2-26-19 11:15	-0.09	1726	7.87	1.6	7-27-19 5:00	20.96	1717	7.90	8.6	5-28-19 0:15	20.16	1219	8.42	138.4					
2-26-19 11:30	-0.06	1017	7.85	4.7	2-26-19 11:30	0.33	1552	7.67	70.9	2-26-19 11:30	-0.10	1727	7.87	1.7	7-27-19 5:15	20.90	1717	8.04	8.6	5-28-19 0:30	20.10	1215	8.42	60.2					
2-26-19 11:45	-0.06	1020	7.85	4.5	2-26-19 11:45	0.18	1552	7.67	64.4	2-26-19 11:45	-0.10	1737	7.87	1.7	7-27-19 5:30	20.87	1717	7.08	8.6	5-28-19 0:45	20.03	1214	8.42	138.3					
2-26-19 12:00	-0.05	1022	7.82	4.4	2-26-19 12:00	0.18	1551	7.66	43.2	2-26-19 12:00	-0.09	1729	7.87	1.6	7-27-19 5:45	20.82	1718	6.85	8.6	5-28-19 1:00	19.93	1216	8.42	68.4					
2-26-19 12:15	-0.06	1020	7.84	4.5	2-26-19 12:15	0.18	1550	7.67	59.3	2-26-19 12:15	-0.09	1728	7.87	1.7	7-27-19 6:00	20.80	1716	6.80	8.6	5-28-19 1:15	19.80	1217	8.42	138.1					
2-26-19 12:30	-0.06	1020	7.84	4.7	2-26-19 12:30	0.33	1553	7.67	64.2	2-26-19 12:30	-0.09	1727	7.87	1.6	7-27-19 6:15	20.76	1717	6.69	8.6	5-28-19 1:30	19.79	1214	8.42	69.1					
2-26-19 12:45	-0.06	1020	7.85	4.5	2-26-19 12:45	0.35	1556	7.66	65.8	2-26-19 12:45	-0.09	1727	7.87	1.6	7-27-19 6:30	20.75	1716	7.09	8.6	5-28-19 1:45	19.74	1216	8.42	156.5					
2-26-19 13:00	-0.06	1023	7.85	4.5	2-26-19 13:00	0.26	1549	7.67	55.4	2-26-19 13:00	-0.08	1727	7.87	1.6	7-27-19 6:45	20.70	1715	7.06	8.6	5-28-19 2:00	19.68	1212	8.41	62.3					
2-26-19 13:15	-0.06	1024	7.85	4.3	2-26-19 13:15	0.18	1552	7.67	46.2	2-26-19 13:15	-0.08	1727	7.87	1.5	7-27-19 7:00	20.68	1717	8.48	8.5	5-28-19 2:15	19.62	1212	8.42	149.9					
2-26-19 13:30	-0.06	1026	7.85	4.4	2-26-19 13:30	0.25	1555	7.67	61.6	2-26-19 13:30	-0.08	1727	7.87	1.5	7-27-19 7:15	20.63	1718	6.40	8.5	5-28-19 2:30	19.59	1213	8.42	58.4					
2-26-19 13:45	-0.05	1027	7.83	4.2	2-26-19 13:45	0.27	1556	7.66	65.6	2-26-19 13:45					7-27-19 7:30	20.60	1717	6.52	8.5	5-28-19 2:45	19.52	1214	8.41	155.4					
2-26-19 14:00	-0.06	1025	7.84	4.4	2-26-19 14:00	0.27	1555	7.67	54.5	2-26-19 14:00	-0.08	1726	7.87	1.6	7-27-19 7:45	20.56	1717	6.34	8.5	5-28-19 3:00	19.47	1213	8.42	69.9					
2-26-19 14:15	-0.06	1027	7.85	4.6	2-26-19 14:15	0.45	1556	7.67	56.2	2-26-19 14:15	-0.08	1726	7.87	1.5	7-27-19 8:00	20.54	1717	6.47	8.5	5-28-19 3:15	19.38	1215	8.41	176.2					
2-26-19 14:30	-0.06	1028	7.85	4.4	2-26-19 14:30	0.26	1554	7.67	51.6	2-26-19 14:30	-0.08	1727	7.87	1.6	7-27-19 8:15	20.50	1717	6.22	8.5	5-28-19 3:30	19.35	1213	8.41	65.8					
2-26-19 14:45	-0.06	1026	7.85	4.5	2-26-19 14:45	0.51	1554	7.67	52.0	2-26-19 14:45	-0.08	1727	7.87	1.6	7-27-19 8:30	20.46	1717	6.04	8.5	5-28-19 3:45	19.28	1214	8.42	171.7					
2-26-19 15:00	-0.06	1025	7.85	4.5	2-26-19 15:00	0.50	1551	7.67	58.2	2-26-19 15:00	-0.08	1727	7.87	1.6	7-27-19 8:45	20.43	1717	6.12	8.5	5-28-19 4:00	19.22	1213	8.41	81.5					
2-26-19 15:15	-0.06	1030	7.85	4.5	2-26-19 15:15	0.47	1552	7.67	50.0	2-26-19 15:15	-0.08	1727	7.87	1.5	7-27-19 9:00	20.42	1718	6.00	8.5	5-28-19 4:15	19.17	1216	8.42	177.0					
2-26-19 15:30	-0.06	1027	7.85	4.5	2-26-19 15:30	0.46	1548	7.67	55.4	2-26-19 15:30	-0.08	1727	7.87	1.5	7-27-19 9:15	20.39	1717	6.00	8.5	5-28-19 4:30	19.10	1212	8.41	74.8					
2-26-19 15:45	-0.06	1023	7.86	4.5	2-26-19 15:45	0.33	1550	7.67	57.1	2-26-19 15:45	-0.08	1727	7.87	1.6	7-27-19 9:30	20.35	1717	5.90	8.5	5-28-19 4:45	19.05	1213	8.41	175.6					
2-26-19 16:00	-0.06	1028	7.86	4.3	2-26-19 16:00	0.27	1550	7.67	51.1	2-26-19 16:00	-0.08	1727	7.87	1.5	7-27-19 9:45	20.33	1717	7.39	8.5	5-28-19 5:00	18.98	1211	8.42	75.1					
2-26-19 16:15	-0.06	1032	7.84	3.8	2-26-19 16:15	0.42	1552	7.67	50.5	2-26-19 16:15	-0.08	1728	7.87	1.5	7-27-19 10:00	20.29	1717	6.98	8.5	5-28-19 5:15	18.92	1211	8.41	173.2					
2-26-19 16:30	-0.06	1026	7.85	4.4	2-26-19 16:30	0.38	1552	7.67	49.3	2-26-19 16:30	-0.08	1728	7.87	1.6	7-27-19 10:15	20.28	1717	9.68	8.5	5-28-19 5:30	18.86	1212	8.42	71.4					
2-26-19 16:45	-0.03	1022	7.97	7.1	2-26-19 16:45	0.35	1559	7.67	55.5	2-26-19 16:45	-0.08	1728	7.87	1.6	7-27-19 10:30	20.23	1716	6.20	8.5	5-28-19 5:45	18.83	1212	8.41	172.9					
2-26-19 17:00	-0.04	1019	8.12	7.2	2-26-19 17:00	0.38	1551	7.67	47.3	2-26-19 17:00	-0.08	1728	7.87	1.6	7-27-19 10:45	20.21	1716	6.12	8.5	5-28-19 6:00	18.74	1212	8.41	74.6					
2-26-19 17:15	-0.03	1017	8.11	8.4	2-26-19 17:15	0.28	1553	7.67	44.6	2-26-19 17:15	-0.08	1728	7.88	1.5	7-27-19 11:00	20.17	1718	5.65	8.5	5-28-19 6:15	18.66	1213	8.41	191.4					
2-26-19 17:30	-0.03	1014	8.16	8.3	2-26-19 17:30	0.29	1559	7.67	47.1	2-26-19 17:30	-0.08	1728	7.88	1.5	7-27-19 11:15	20.15	1717	5.78	8.5	5-28-19 6:30	18.65	1213	8.42	70.6					
2-26-19 17:45	-0.02	1007	8.16	13.1	2-26-19 17:45	0.51	1558	7.67	51.6	2-26-19 17:45	-0.08	1728	7.87	1.5	7-27-19 11:30	20.12	1716	5.63	8.5	5-28-19 6:45	18.62	1213	8.41	180.3					
2-26-19 18:00	-0.02	1004	8.17	12.8	2-26-19 18:00	0.47	1556	7.67	52.0	2-26-19 18:00	-0.08	1729	7.88	1.5	7-27-19 11:45	20.09	1717	5.61	8.5	5-28-19 7:00	18.58	1214	8.41	72.7					
2-26-19 18:15	-0.02	999	8.18	13.5	2-26-19 18:15	0.49	1553	7.67	49.5	2-26-19 18:15	-0.08	1729	7.87	1.6	7-27-19 12:00	20.05	1717	5.72	8.5	5-28-19 7:15	18.57	1214	8.41	165.6					
2-26-19 18:30	-0.02	994	8.18	13.6	2-26-19 18:30	0.48	1552	7.67	49.5	2-26-19 18:30	-0.08	1729	7.87	1.5	7-27-19 12:15	20.02	1718	6.54	8.5	5-28-19 7:30	18.60	1214	8.40	68.4					
2-26-19 18:45	-0.02	990	8.18	13.7	2-26-19 18:45	0.51	1552	7.67	49.7	2-26-19 18:45	-0.08	1729	7.87	1.5	7-27-19 12:30	20.02	1717	6.08	8.5	5-28-19 7:45	18.59	1214	8.40	155.4					
2-26-19 19:00	-0.01	985	8.17	14.1	2-26-19 19:00	0.45	1550	7.67	47.2	2-26-19 19:00	-0.08	1729	7.87	1.5	7-27-19 12:45	19.99	1717	5.99	8.5	5-28-19 8:00	18.59	1213	8.42	85.0					
2-26-19 19:15	-0.01	980	8.16	13.5	2-26-19 19:15	0.46	1552	7.67	48.2	2-26-19 19:15	-0.08	1729	7.87	1.5	7-27-19 13:00	19.95	1717	5.81	8.5	5-28-19 8:15	18.62	1214	8.41	168.5					
2-26-19 19:30	-0.01	980	8.15	13.8	2-26-19 19:30	0.45	1551	7.67	49.6	2-26-19 19:30	-0.09	1729	7.87	1.5	7-27-19 13:15	19.93	1718	5.86	8.5	5-28-19 8:30	18.70	1214	8.41	74.2					
2-26-19 19:45	0.00	979	8.14	13.4	2-26-19 19:45	0.48	1553	7.68	49.8	2-26-19 19:45	-0.08	1729	7.87	1.6	7-27-19 13:30	19.91	1717	5.83	8.5	5-28-19 8:45	18.74	1215	8.40	192.2					
2-26-19 20:00	0.00	974	8.13	14.8	2-26-19 20:00	0.31	1555	7.67	41.0	2-26-19 20:00	-0.09	1729	7.87	1.5	7-27-19 13:45	19.87	1717	5.82	8.5	5-28-19 9:00	18.81	1213	8.40	97.2					
2-26-19 20:15	0.00	973	8.11	13.6	2-26-19 20:15	0.38	1560	7.67	43.5	2-26-19 20:15	-0.08	1729	7.87	1.6	7-27-19 14:00	19.85	1717	6.45	8.5	5-28-19 9:15	18.79	1215	8.40	174.7					
2-26-19 20:30	0.00	969	8.10	13.6	2-26-19 20:30	0.43	1560	7.67	57.4	2-26-19 20:30	-0.09	1729	7.87	1.6	7-27-19 14:15	19.81	1717	6.80	8.5	5-28-19 9:30	18.85	1214	8.41	85.8					
2-26-19 20:45	-0.01	968	8.10	13.0	2-26-19 20:45	0.43	1555	7.67	63.5	2-26-19 20:45	-0.08	1729	7.87	1.6	7-27-19 14:30	19.77	1717	6.54	8.5	5-28-19 9:45	18.91	1214	8.40	199.7					
2-26-19 21:00	0.00	965	8.09	14.1	2-26-19 21:00	0.41	1552	7.67	58.4	2-26-19 21:00	-0.09	1729	7.87	1.6	7-27-19 14:45	19.76	1717	7.79	8.5	5-28-19 10:00	18.91	1214	8.40	76.1					
2-26-19 21:15	0.00	963	8.07	13.2	2-26-19 21:15	0.43	1554	7.67	58.4	2-26-19 21:15	-0.09	1729	7.87	1.5	7-27-19 15:00	19.75	1717	6.65	8.5	5-28-19 10:15	18.93	1223	8.41	166.5					
2-26-19 21:30	0.00	961	8.07	13.3	2-26-19 21:30	0.30	1549	7.67	44.5	2-26-19 21:30	-0.09	1730	7.87	1.6	7-27-19 15:15	19.74	1717	6.62	8.5	5-28-19 10:30	18.92	1225	8.41	81.9					
2-26-19 21:45	0.00	959	8.06	12.2	2-26-19 21:45	0.27	1559	7.67	46.8	2-26-19 21:45	-0.09	1730	7.87	1.5	7-27-19 15:30	19.75	1718	6.60	8.5	5-28-19 10:45	18.99	1227	8.40	200.0					
2-26-19 22:00	0.00	956	8.05	13.1	2-26-19 22:00	0.35	1554	7.67	50.3	2-26-19 22:00	-0.09	1730	7.87	1.5	7-27-19 15:45	19.73	1717	7.06	8.5	5-28-19 11:00	19.12	1226	8.40	79.4					
2-26-19 22:15	0.00	953	8.03	12.3	2-26-19 22:15	0.33	1558	7.67	48.8	2-26-19 22:15	-0.09	1730	7.87	1.5	7-27-19 16:00	19.68	1717	6.57	8.5	5-28-19 11:15	19.19	1226	8.39	195.5					
2-26-19 22:30	0.00	951	8.02	12.6	2-26-19 22:30	0.25	1552	7.67	45.3	2-26-19 22:30	-0.09	1730	7.87	1.5	7-27-19 16:15	19.64	1718	6.60	8.5	5-28-19 11:30	19.29	1224	8.40	88.8					
2-26-19 22:45	-0.01	951	8.01	12.5	2-26-19 22:45	0.35	1552	7.67	52.1	2-26-19 22:45	-0.09	1730	7.87	1.6	7-27-19 16:30	19.61	1717	7.09	8.5	5-28-19 11:45	19.35	1224	8.40	216.7					
2-26-19 23:00	-0.01	947	8.00	12.2	2-26-19 23:00	0.36	1552	7.67	50.6	2-26-19 23:00	-0.09	1730	7.87	1.5	7-27-19 16:45	19.60	1717	6.71	8.5	5-28-19 12:00	19.42	1224	8.40	100.7					
2-26-19 23:15	-0.01	947	7.99	11.6	2-26-19 23:15	0.35	1553	7.67	49.9	2-26-19 23:15	-0.09	1730	7.87	1.5	7-27-19 17:00	19.60	1718	7.20	8.5	5-28-19 12:15	19.53	1224	8.40	228.8					
2-26-19 23:30	-0.01	947	7.99	11.7	2-26-19 23:30	0.25	1553	7.67	43.5	2-26-19 23:30	-0.09	1730	7.87	1.5	7-27-19 17:15	19.59	1718	7.68	8.5	5-28-19 12:30	19.58	1226	8.40	97.9					
2-26-19 23:45	-0.01	943	7.96	11.7	2-26-19 23:45	0.31	1549	7.67	41.4	2-26-19 23:45	-0.09	1730	7.87	1.5	7-27-19 17:30	19.52	1717	7.25	8.6	5-28-19 12:45	19.63	1226	8.40	213.4					
2-27-19 0:00	-0.01	943	7.96	11.3	2-27-19 0:00	0.34	1552	7.67	43.9	2-27-19 0:00	-0.09	1730	7.87	1.5	7-27-19 17:45	19.49	1717	7.65	8.6	5-28-19 13:00	19.65	1228	8.40	99.8					
2-27-19 0:15	-0.01	940	7.95	11.2	2-27-19 0:15	0.39	1554	7.68	48.9	2-27-19 0:15	-0.09	1730	7.87	1.6	7-27-19 18:00	19.51	1718	7.05	8.6	5-28-19 13:15	19.75	1230	8.39	230.6					
2-27-19 0:30	-0.03	942	7.95	10.7	2-27-19 0:30	0.35	1551	7.68	44.0	2-27-19 0:30	-0.09	1730	7.86	1.6	7-27-19 18:15	19.51	1718	7.92	8.6	5-28-19 13:30	20.02	1230	8.39	111.1					
2-27-19 0:45	-0.03	940	7.96	10.5	2-27-19 0:45	0.34	1553	7.68	47.8	2-27-19 0:45	-0.09	1730	7.86	1.6	7-27-19 18:30	19.53	1717	7.24	8.6	5-29-19 0:00									
2-27-19 1:00	-0.03	940	7.95	10.0	2-27-19 1:00	0.36	1552	7.68	49.4	2-27-19 1:00	-0.08	1730	7.86	1.6	7-27-19 18:45	19.53	1717	7.85	8.6	5-29-19 17:15	19.54	1241	8.38	343.5					
2-27-19 1:15	-0.03	940	7.95	10.3	2-27-19 1:15	0.33	1552	7.68	49.0	2-27-19 1:15	-0.09	1731	7.87	1.5	7-27-19 19:00	19.51	1716	7.32	8.6	5-29-19 17:30	19.60	1240	8.38	184.3					
2-27-19 1:30	-0.03	936	7.95	10.7	2-27-19 1:30	0.33	1552	7.68	46.4	2-27-19 1:30	-0.09	1731	7.87	1.5	7-27-19 19:15	19.50	1715	7.49	8.6	5-29-19 17:45	19.64	1241	8.37	318.4					
2-27-19 1:45	-0.02	937	7.94	10.6	2-27-19 1:45	0.34	1553	7.68	44.8	2-27-19 1:45	-0.09	1731	7.87	1.5	7-27-19 19:30	19.48	1715	7.43	8.6	5-29-19 18:00	19.69	1241	8.37	173.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-27-19 2:00	-0.03	937	7.93	10.0	2-27-19 2:00	0.33	1553	7.68	40.2	2-27-19 2:00	-0.09	1731	7.87	1.4	7-27-19 19:45	19.52	1714	7.75	8.6	5-29-19 18:15	19.75	1243	8.36	355.6					
2-27-19 2:15	-0.02	934	7.92	10.1	2-27-19 2:15	0.33	1552	7.68	46.9	2-27-19 2:15	-0.08	1731	7.87	1.6	7-27-19 20:00	19.52	1715	7.51	8.6	5-29-19 18:30	19.82	1242	8.38	180.6					
2-27-19 2:30	-0.02	933	7.92	9.8	2-27-19 2:30	0.22	1551	7.68	45.8	2-27-19 2:30	-0.08	1731	7.86	1.6	7-27-19 20:15	19.51	1714	7.98	8.6	5-29-19 18:45	19.94	1245	8.37	338.4					
2-27-19 2:45	-0.03	936	7.91	9.6	2-27-19 2:45	0.18	1554	7.67	41.5	2-27-19 2:45	-0.08	1731	7.86	1.5	7-27-19 20:30	19.49	1711	7.21	8.6	5-29-19 19:00	20.04	1245	8.37	189.4					
2-27-19 3:00	-0.03	934	7.92	9.4	2-27-19 3:00	0.24	1554	7.68	41.8	2-27-19 3:00	-0.08	1731	7.86	1.5	7-27-19 20:45	19.46	1708	7.54	8.6	5-29-19 19:15	20.17	1246	8.36	336.8					
2-27-19 3:15	-0.02	932	7.91	9.6	2-27-19 3:15	0.26	1554	7.68	42.2	2-27-19 3:15	-0.09	1731	7.87	1.5	7-27-19 21:00	19.40	1703	8.32	8.6	5-29-19 19:30	20.34	1246	8.36	201.2					
2-27-19 3:30	-0.03	930	7.88	10.1	2-27-19 3:30	0.21	1557	7.67	40.9	2-27-19 3:30	-0.09	1732	7.87	1.5	7-27-19 21:15	19.37	1702	8.50	8.6	5-29-19 19:45	20.69	1249	8.36	338.3					
2-27-19 3:45	-0.03	932	7.89	8.9	2-27-19 3:45	0.11	1552	7.67	37.3	2-27-19 3:45	-0.09	1731	7.87	1.4	7-27-19 21:30	19.36	1703	8.31	8.6	5-29-19 20:00	21.31	1248	8.35	188.2					
2-27-19 4:00	-0.03	931	7.87	9.6	2-27-19 4:00	0.12	1556	7.67	38.2	2-27-19 4:00	-0.09	1732	7.87	1.5	7-27-19 21:45	19.37	1702	7.83	8.6	5-29-19 20:15	21.22	1248	8.34	357.2					
2-27-19 4:15	-0.04	928	7.87	8.7	2-27-19 4:15	0.15	1558	7.66	37.8	2-27-19 4:15	-0.08	1731	7.87	1.6	7-27-19 22:00	19.39	1703	7.99	8.6	5-29-19 20:30	21.56	1248	8.34	225.9					
2-27-19 4:30	-0.04	930	7.86	8.9	2-27-19 4:30	0.14	1553	7.65	33.8	2-27-19 4:30	-0.08	1731	7.87	1.6	7-27-19 22:15	19.39	1702	7.85	8.6	5-29-19 20:45	21.36	1243	8.32	360.6					
2-27-19 4:45	-0.03	930	7.86	8.4	2-27-19 4:45	0.15	1552	7.66	33.6	2-27-19 4:45	-0.08	1731	7.87	1.5	7-27-19 22:30	19.45	1704	7.76	8.6	5-29-19 21:00	20.94	1245	8.35	213.8					
2-27-19 5:00	-0.03	923	7.83	8.6	2-27-19 5:00	0.18	1558	7.66	40.1	2-27-19 5:00	-0.08	1732	7.87	1.5	7-27-19 22:45	19.51	1704	7.82	8.6	5-29-19 21:15	20.95	1250	8.35	395.9					
2-27-19 5:15	-0.02	923	7.82	8.6	2-27-19 5:15	0.16	1562	7.66	37.0	2-27-19 5:15	-0.09	1732	7.87	1.5	7-27-19 23:00	19.59	1704	8.51	8.6	5-29-19 21:30	20.71	1247	8.36	220.6					
2-27-19 5:30	-0.03	921	7.80	8.1	2-27-19 5:30	0.17	1556	7.65	32.4	2-27-19 5:30	-0.09	1732	7.87	1.5	7-27-19 23:15	19.69	1703	8.21	8.6	5-29-19 21:45	20.56	1245	8.36	358.1					
2-27-19 5:45	-0.03	923	7.80	8.3	2-27-19 5:45	0.13	1551	7.65	28.1	2-27-19 5:45	-0.08	1732	7.87	1.4	7-27-19 23:30	19.79	1705	8.76	8.6	5-29-19 22:00	20.55	1245	8.37	209.4					
2-27-19 6:00	-0.03	924	7.79	8.1	2-27-19 6:00	0.13	1551	7.65	29.3	2-27-19 6:00	-0.08	1732	7.87	1.4	7-27-19 23:45	19.97	1704	8.25	8.6	5-29-19 22:15	20.63	1255	8.37	378.2					
2-27-19 6:15	-0.03	919	7.78	8.3	2-27-19 6:15	0.12	1555	7.65	31.4	2-27-19 6:15	-0.08	1732	7.86	1.5	7-28-19 0:00	20.01	1705	7.61	8.6	5-29-19 22:30	20.81	1253	8.37	222.8					
2-27-19 6:30	-0.03	918	7.77	8.2	2-27-19 6:30	0.12	1555	7.65	31.2	2-27-19 6:30	-0.08	1732	7.86	1.5	7-28-19 0:15	20.12	1706	7.81	8.6	5-29-19 22:45	20.88	1254	8.37	380.9					
2-27-19 6:45	-0.04	919	7.78	7.8	2-27-19 6:45	0.13	1555	7.65	32.9	2-27-19 6:45	-0.08	1732	7.86	1.5	7-28-19 0:30	20.08	1705	7.79	8.6	5-29-19 23:00	20.93	1254	8.37	245.3					
2-27-19 7:00	-0.04	919	7.78	7.1	2-27-19 7:00	0.13	1556	7.66	33.1	2-27-19 7:00	-0.08	1732	7.86	1.5	7-28-19 0:45	20.24	1705	7.36	8.6	5-29-19 23:15	20.97	1257	8.37	415.2					
2-27-19 7:15	-0.04	919	7.78	7.5	2-27-19 7:15	0.12	1556	7.65	31.5	2-27-19 7:15	-0.08	1733	7.87	1.5	7-28-19 1:00	20.35	1705	7.68	8.6	5-29-19 23:30	21.14	1258	8.37	243.5					
2-27-19 7:30	-0.04	919	7.77	7.3	2-27-19 7:30	0.13	1555	7.66	31.9	2-27-19 7:30	-0.08	1733	7.87	1.5	7-28-19 1:15	20.35	1706	7.42	8.6	5-29-19 23:45	21.31	1259	8.35	410.3					
2-27-19 7:45	-0.04	918	7.77	7.3	2-27-19 7:45	0.16	1556	7.66	32.2	2-27-19 7:45	-0.08	1733	7.87	1.5	7-28-19 1:30	20.39	1706	7.97	8.6	5-30-19 0:00	21.51	1258	8.36	247.1					
2-27-19 8:00	-0.04	920	7.77	7.7	2-27-19 8:00	0.15	1556	7.66	31.4	2-27-19 8:00	-0.08	1733	7.87	1.4	7-28-19 1:45	20.50	1705	7.61	8.6	5-30-19 0:15	21.55	1258	8.35	354.8					
2-27-19 8:15	-0.04	917	7.77	7.6	2-27-19 8:15	0.13	1557	7.66	32.1	2-27-19 8:15	-0.08	1732	7.87	1.5	7-28-19 2:00	20.47	1705	7.58	8.6	5-30-19 0:30	21.55	1258	8.37	220.6					
2-27-19 8:30	-0.03	919	7.77	7.6	2-27-19 8:30	0.10	1560	7.66	32.7	2-27-19 8:30	-0.08	1733	7.86	1.5	7-28-19 2:15	20.50	1706	7.44	8.6	5-30-19 0:45	21.55	1258	8.36	359.3					
2-27-19 8:45	-0.04	917	7.76	7.6	2-27-19 8:45	0.09	1562	7.66	33.6	2-27-19 8:45	-0.08	1733	7.86	1.5	7-28-19 2:30	20.46	1706	7.47	8.6	5-30-19 1:00	21.53	1260	8.37	249.4					
2-27-19 9:00	-0.04	916	7.76	7.3	2-27-19 9:00	0.09	1565	7.66	36.1	2-27-19 9:00	-0.08	1733	7.86	1.5	7-28-19 2:45	20.47	1706	7.38	8.6	5-30-19 1:15	21.50	1256	8.36	413.3					
2-27-19 9:15	-0.04	917	7.76	7.8	2-27-19 9:15	0.10	1559	7.66	30.1	2-27-19 9:15	-0.09	1733	7.87	1.5	7-28-19 3:00	20.46	1706	7.29	8.6	5-30-19 1:30	21.51	1258	8.37	269.9					
2-27-19 9:30	-0.04	917	7.76	7.6	2-27-19 9:30	0.09	1562	7.66	33.3	2-27-19 9:30	-0.09	1733	7.87	1.4	7-28-19 3:15	20.42	1705	7.09	8.6	5-30-19 1:45	21.48	1259	8.37	411.5					
2-27-19 9:45	-0.03	915	7.75	7.4	2-27-19 9:45	0.10	1562	7.66	32.3	2-27-19 9:45	-0.08	1733	7.87	1.5	7-28-19 3:30	20.41	1706	8.71	8.6	5-30-19 2:00	21.47	1257	8.36	247.9					
2-27-19 10:00	-0.04	917	7.75	7.5	2-27-19 10:00	0.14	1559	7.66	30.6	2-27-19 10:00	-0.08	1733	7.87	1.4	7-28-19 3:45	20.40	1706	7.37	8.6	5-30-19 2:15	21.38	1258	8.36	389.7					
2-27-19 10:15	-0.05	916	7.76	7.0	2-27-19 10:15	0.17	1567	7.67	35.6	2-27-19 10:15					7-28-19 4:00	20.37	1706	6.55	8.6	5-30-19 2:30	21.40	1257	8.37	263.8					
2-27-19 10:30	-0.05	917	7.76	7.2	2-27-19 10:30	0.15	1566	7.66	35.6	2-27-19 10:30	-0.09	1734	7.87	1.5	7-28-19 4:15	20.33	1706	6.70	8.6	5-30-19 2:45	21.40	1258	8.37	417.4					
2-27-19 10:45	-0.05	919	7.76	7.3	2-27-19 10:45	0.12	1560	7.66	28.2	2-27-19 10:45	-0.09	1734	7.87	1.5	7-28-19 4:30	20.28	1707	7.03	8.6	5-30-19 3:00	21.39	1258	8.38	270.9					
2-27-19 11:00	-0.04	915	7.75	7.4	2-27-19 11:00	0.12	1564	7.66	33.8	2-27-19 11:00	-0.09	1734	7.87	1.5	7-28-19 4:45	20.26	1706	6.78	8.6	5-30-19 3:15	21.40	1259	8.36	411.2					
2-27-19 11:15	-0.03	914	7.75	7.3	2-27-19 11:15	0.16	1558	7.65	26.0	2-27-19 11:15	-0.09	1735	7.87	1.5	7-28-19 5:00	20.23	1705	7.07	8.6	5-30-19 3:30	21.39	1259	8.38	264.5					
2-27-19 11:30	-0.05	914	7.75	7.0	2-27-19 11:30	0.15	1562	7.66	27.8	2-27-19 11:30	-0.11	1738	7.87	1.4	7-28-19 5:15	20.20	1705	7.20	8.6	5-30-19 3:45	21.37	1259	8.37	441.6					
2-27-19 11:45	-0.05	916	7.76	7.2	2-27-19 11:45	0.14	1565	7.66	31.1	2-27-19 11:45	-0.10	1740	7.87	1.4	7-28-19 5:30	20.19	1706	6.88	8.6	5-30-19 4:00	21.31	1262	8.38	255.0					
2-27-19 12:00	-0.05	915	7.76	8.2	2-27-19 12:00	0.14	1566	7.66	28.5	2-27-19 12:00	-0.10	1737	7.87	1.4	7-28-19 5:45	20.16	1706	6.70	8.6	5-30-19 4:15	21.29	1261	8.37	435.7					
2-27-19 12:15	-0.04	911	7.76	7.9	2-27-19 12:15	0.17	1562	7.66	27.7	2-27-19 12:15	-0.09	1736	7.87	1.5	7-28-19 6:00	20.11	1706	6.63	8.6	5-30-19 4:30	21.27	1258	8.39	241.5					
2-27-19 12:30	-0.02	907	7.75	8.0	2-27-19 12:30	0.18	1564	7.66	29.8	2-27-19 12:30	-0.09	1735	7.87	1.4	7-28-19 6:15	20.10	1705	6.24	8.6	5-30-19 4:45	21.22	1259	8.38	416.7					
2-27-19 12:45	-0.04	912	7.76	7.7	2-27-19 12:45	0.16	1568	7.66	31.2	2-27-19 12:45	-0.09	1735	7.87	1.5	7-28-19 6:30	20.06	1704	6.56	8.6	5-30-19 5:00	21.13	1258	8.38	255.2					
2-27-19 13:00	-0.04	911	7.76	7.3	2-27-19 13:00	0.15	1567	7.66	28.9	2-27-19 13:00	-0.09	1735	7.86	1.5	7-28-19 6:45	20.03	1705	6.85	8.6	5-30-19 5:15	21.01	1258	8.38	398.3					
2-27-19 13:15	-0.04	913	7.76	7.4	2-27-19 13:15	0.19	1565	7.66	29.3	2-27-19 13:15	-0.09	1734	7.87	1.4	7-28-19 7:00	20.00	1705	6.50	8.6	5-30-19 5:30	20.97	1257	8.38	266.7					
2-27-19 13:30	-0.04	913	7.76	7.3	2-27-19 13:30	0.19	1566	7.66	27.9	2-27-19 13:30	-0.08	1734	7.87	1.4	7-28-19 7:15	19.96	1705	6.85	8.6	5-30-19 5:45	20.90	1258	8.37	439.3					
2-27-19 13:45	-0.04	912	7.75	7.2	2-27-19 13:45	0.19	1570	7.66	31.1	2-27-19 13:45	-0.08	1734	7.87	1.4	7-28-19 7:30	19.93	1705	6.59	8.6	5-30-19 6:00	20.83	1257	8.38	265.1					
2-27-19 14:00	-0.04	909	7.75	7.2	2-27-19 14:00	0.18	1568	7.66	28.7	2-27-19 14:00	-0.08	1734	7.87	1.4	7-28-19 7:45	19.91	1705	6.35	8.5	5-30-19 6:15	20.77	1258	8.36	408.6					
2-27-19 14:15	-0.04	910	7.76	7.4	2-27-19 14:15	0.19	1571	7.67	30.4	2-27-19 14:15	-0.08	1734	7.87	1.5	7-28-19 8:00	19.85	1706	8.62	8.6	5-30-19 6:30	20.74	1256	8.37	254.9					
2-27-19 14:30	-0.04	908	7.75	7.1	2-27-19 14:30	0.20	1569	7.67	29.8	2-27-19 14:30	-0.08	1735	7.87	1.5	7-28-19 8:15	19.81	1706	6.89	8.6	5-30-19 6:45	20.67	1257	8.36	413.8					
2-27-19 14:45	-0.04	909	7.75	7.4	2-27-19 14:45	0.25	1569	7.67	30.5	2-27-19 14:45	-0.08	1735	7.87	1.5	7-28-19 8:30	19.78	1705	6.25	8.5	5-30-19 7:00	20.63	1257	8.38	252.2					
2-27-19 15:00	-0.04	912	7.75	7.5	2-27-19 15:00	0.23	1566	7.66	28.6	2-27-19 15:00	-0.08	1735	7.87	1.5	7-28-19 8:45	19.74	1706	6.16	8.5	5-30-19 7:15	20.57	1258	8.36	407.1					
2-27-19 15:15	-0.04	910	7.75	7.3	2-27-19 15:15	0.22	1566	7.67	27.8	2-27-19 15:15	-0.08	1735	7.87	1.4	7-28-19 9:00	19.70	1705	6.82	8.5	5-30-19 7:30	20.55	1258	8.39	245.0					
2-27-19 15:30	-0.05	911	7.75	7.6	2-27-19 15:30	0.22	1565	7.66	27.2	2-27-19 15:30	-0.09	1735	7.87	1.4	7-28-19 9:15	19.66	1705	6.62	8.5	5-30-19 7:45	20.56	1259	8.38	436.2					
2-27-19 15:45	-0.04	909	7.75	7.6	2-27-19 15:45	0.27	1570	7.66	31.3	2-27-19 15:45	-0.08	1735	7.87	1.4	7-28-19 9:30	19.61	1705	6.50	8.5	5-30-19 8:00	20.49	1258	8.39	248.1					
2-27-19 16:00	-0.03	909	7.75	7.4	2-27-19 16:00	0.28	1568	7.67	30.3	2-27-19 16:00	-0.09	1735	7.87	1.4	7-28-19 9:45	19.56	1705	6.33	8.5	5-30-19 8:15	20.40	1260	8.38	429.6					
2-27-19 16:15	-0.03	908	7.76	7.2	2-27-19 16:15	0.28	1565	7.66	28.0	2-27-19 16:15	-0.08	1735	7.87	1.5	7-28-19 10:00	19.52	1706	6.47	8.5	5-30-19 8:30	20.38	1260	8.39	263.5					
2-27-19 16:30	-0.04	908	7.76	7.1	2-27-19 16:30	0.24	1567	7.67	28.6	2-27-19 16:30	-0.08	1735	7.87	1.4	7-28-19 10:15	19.48	1705	6.46	8.5	5-30-19 8:45	20.41	1260	8.38	446.3					
2-27-19 16:45	-0.04	908	7.76	6.9	2-27-19 16:45	0.21	1567	7.67	27.1	2-27-19 16:45	-0.08	1735	7.86	1.5	7-28-19 10:30	19.44	1705	6.14	8.5	5-30-19 9:00	20.40	1263	8.38	255.6					
2-27-19 17:00	-0.05	909	7.76	6.9	2-27-19 17:00	0.23	1566	7.66	25.6	2-27-19 17:00	-0.08	1736	7.86	1.4	7-28-19 10:45	19.40	1705	6.59	8.5	5-30-19 9:15	20.33	1261	8.38	423.5					
2-27-19 17:15	-0.05	909	7.76	6.8	2-27-19 17:15	0.34	1572	7.67	28.3	2-27-19 17:15	-0.08	1736	7.87	1.5	7-28-19 11:00	19.36	1706	5.99	8.5	5-30-19 9:30	20.37	1265	8.39	267.9					
2-27-19 17:30	-0.05	910	7.76	7.0	2-27-19 17:30	0.27	1571	7.67	29.8	2-27-19 17:30	-0.08	1736	7.87	1.4	7-28-19 11:15	19.32	1705	5.93	8.5	5-30-19 9:45	20.39	1269	8.38	478.7					
2-27-19 17:45	-0.05	909	7.76	6.7	2-27-19 17:45	0.36	1572	7.67	28.4	2-27-19 17:45	-0.09	1736	7.87	1.4	7-28-19 11:30	19.28	1706	6.41	8.5	5-30-19 10:00	20.40	1274	8.38	265.1					
2-27-19 18:00	-0.05	909	7.76	6.6	2-27-19 18:00	0.26	1568	7.67	27.7	2-27-19 18:00	-0.09	1736	7.87	1.3	7-28-19 11:45	19.24	1705	6.24	8.5	5-30-19 10:15	20.30	1271	8.37	457.3					
2-27-19 18:15	-0.05	908	7.76	6.7	2-27-19 18:15	0.26	1570	7.67	28.6	2-27-19 18:15	-0.08	1736	7.87	1.5	7-28-19 12:00	19.23	1706	6.65	8.5	5-30-19 10:30	20.30	1272	8.38	261.0					
2-27-19 18:30	-0.05	909	7.76	6.6	2-27-19 18:30	0.23	1567	7.66	25.7	2-27-19 18:30	-0.08	1736	7.87	1.5	7-28-19 12:15	19.21	1706	6.25	8.5	5-30-19 10:45	20.27	1273	8.38	427.1					
2-27-19 18:45	-0.05	907	7.76	7.0	2-27-19 18:45	0.24	1573	7.67	27.5	2-27-19 18:45	-0.08	1736	7.86	1.4	7-28-19 12:30	19.20	1706	6.24	8.5	5-30-19 11:00	20.26	1270	8.38	257.4					
2-27-19 19:00	-0.05	909	7.76	6.8	2-27-19 19:00	0.22	1570	7.67	26.6	2-27-19 19:00	-0.08	1736	7.86	1.4	7-28-19 12:45	19.18	1706	6.40	8.5	5-30-19 11:15	20.21	1269	8.38	458.7					
2-27-19 19:15	-0.05	909	7.76	6.7	2-27-19 19:15	0.28	1573	7.67	26.5	2-27-19 19:15	-0.08	1736	7.87	1.4	7-28-19 13:00	19.14	1706	6.68	8.5	5-30-19 11:30	20.20	1269	8.38	282.8					
2-27-19 19:30	-0.05	908	7.76	6.9	2-27-19 19:30	0.28	1573	7.68	27.2	2-27-19 19:30	-0.08	1736	7.87	1.4	7-28-19 13:15	19.11	1706	6.41	8.5	5-30-19 11:45	20.15	1270	8.38	432.0					
2-27-19 19:45	-0.05	906	7.76	6.7	2-27-19 19:45	0.29	1573	7.67	27.0	2-27-19 19:45	-0.08	1736	7.87	1.4	7-28-19 13:30	19.08	1706	7.70	8.5	5-30-19 12:00	20.02	1268	8.38	264.0					
2-27-19 20:00	-0.05	908	7.76	6.4	2-27-19 20:00	0.34	1573	7.67	24.7	2-27-19 20:00	-0.08	1736	7.87	1.4	7-28-19 13:45	19.08	1706	6.62	8.5	5-30-19 12:15	19.96	1268	8.36	449.2					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-27-19 20:15	-0.05	908	7.76	6.8	2-27-19 20:15	0.32	1576	7.67	26.7	2-27-19 20:15	-0.08	1735	7.87	1.5	7-28-19 14:00	19.05	1705	7.78	8.5	5-30-19 12:30	19.91	1267	8.36	249.4					
2-27-19 20:30	-0.05	908	7.76	6.5	2-27-19 20:30	0.28	1579	7.67	26.2	2-27-19 20:30	-0.08	1735	7.86	1.5	7-28-19 14:15	19.03	1705	7.13	8.5	5-30-19 12:45	19.84	1267	8.36	447.8					
2-27-19 20:45	-0.05	909	7.76	6.9	2-27-19 20:45	0.20	1574	7.67	26.0	2-27-19 20:45	-0.08	1735	7.86	1.5	7-28-19 14:30	19.04	1705	6.85	8.5	5-30-19 13:00	19.78	1267	8.36	267.2					
2-27-19 21:00	-0.05	909	7.75	6.3	2-27-19 21:00	0.20	1574	7.67	26.1	2-27-19 21:00	-0.08	1735	7.86	1.5	7-28-19 14:45	19.04	1706	7.04	8.5	5-30-19 13:15	19.76	1268	8.35	449.7					
2-27-19 21:15	-0.03	908	7.73	6.3	2-27-19 21:15	0.28	1581	7.67	24.6	2-27-19 21:15	-0.08	1735	7.87	1.5	7-28-19 15:00	19.10	1705	7.44	8.5	5-30-19 13:30	19.72	1266	8.35	251.2					
2-27-19 21:30	-0.03	905	7.73	5.9	2-27-19 21:30	0.29	1584	7.67	27.2	2-27-19 21:30	-0.08	1735	7.87	1.4	7-28-19 15:15	19.11	1705	7.00	8.5	5-30-19 13:45	19.70	1269	8.35	441.1					
2-27-19 21:45	-0.04	907	7.73	5.6	2-27-19 21:45					2-27-19 21:45	-0.08	1735	7.87	1.4	7-28-19 15:30	19.09	1705	6.77	8.5	5-30-19 14:00	19.68	1268	8.35	267.8					
2-27-19 22:00	-0.05	906	7.73	6.1	2-27-19 22:00	0.26	1587	7.67	26.9	2-27-19 22:00	-0.08	1735	7.87	1.4	7-28-19 15:45	19.10	1706	7.20	8.5	5-30-19 14:15	19.68	1269	8.33	415.7					
2-27-19 22:15	-0.05	908	7.74	5.9	2-27-19 22:15	0.16	1574	7.66	24.2	2-27-19 22:15	-0.08	1735	7.86	1.4	7-28-19 16:00	19.08	1706	7.75	8.5	5-30-19 14:30	19.67	1268	8.34	275.7					
2-27-19 22:30	-0.05	909	7.76	5.6	2-27-19 22:30	0.21	1578	7.66	24.1	2-27-19 22:30	-0.08	1735	7.87	1.5	7-28-19 16:15	19.17	1706	7.34	8.5	5-30-19 14:45	19.67	1269	8.34	409.2					
2-27-19 22:45	-0.05	908	7.76	5.6	2-27-19 22:45	0.19	1575	7.66	23.9	2-27-19 22:45	-0.08	1735	7.86	1.4	7-28-19 16:30	19.29	1705	7.58	8.5	5-30-19 15:00	19.66	1268	8.35	277.7					
2-27-19 23:00	-0.05	908	7.75	5.8	2-27-19 23:00	0.21	1582	7.66	25.3	2-27-19 23:00	-0.08	1735	7.86	1.4	7-28-19 16:45	19.30	1705	6.95	8.5	5-30-19 15:15	19.68	1268	8.33	437.2					
2-27-19 23:15	-0.05	907	7.74	5.7	2-27-19 23:15	0.21	1583	7.67	25.5	2-27-19 23:15	-0.08	1735	7.87	1.4	7-28-19 17:00	19.34	1704	7.10	8.5	5-30-19 15:30	19.69	1268	8.34	252.3					
2-27-19 23:30	-0.03	901	7.70	5.9	2-27-19 23:30	0.22	1586	7.67	25.4	2-27-19 23:30	-0.09	1736	7.87	1.4	7-28-19 17:15	19.40	1706	7.06	8.5	5-30-19 15:45	19.69	1270	8.33	411.2					
2-27-19 23:45	-0.04	904	7.71	5.8	2-27-19 23:45	0.28	1587	7.67	25.7	2-27-19 23:45	-0.09	1736	7.87	1.3	7-28-19 17:30	19.43	1706	7.35	8.5	5-30-19 16:00	19.78	1268	8.34	235.1					
2-28-19 0:00	-0.04	904	7.71	5.5	2-28-19 0:00	0.20	1581	7.67	25.7	2-28-19 0:00	-0.09	1736	7.87	1.3	7-28-19 17:45	19.54	1705	7.06	8.5	5-30-19 16:15	19.79	1270	8.33	391.7					
2-28-19 0:15	-0.04	903	7.72	5.5	2-28-19 0:15	0.09	1571	7.65	20.3	2-28-19 0:15	-0.08	1736	7.87	1.5	7-28-19 18:00	19.63	1705	7.61	8.5	5-30-19 16:30	19.83	1269	8.34	238.1					
2-28-19 0:30	-0.04	903	7.72	5.3	2-28-19 0:30	0.11	1571	7.65	20.2	2-28-19 0:30	-0.08	1736	7.86	1.5	7-28-19 18:15	19.63	1708	8.01	8.5	5-30-19 16:45	19.91	1269	8.32	390.3					
2-28-19 0:45	-0.04	904	7.71	5.2	2-28-19 0:45	0.13	1581	7.66	22.9	2-28-19 0:45	-0.08	1736	7.87	1.5	7-28-19 18:30	20.02	1707	7.65	8.5	5-30-19 17:00	19.92	1268	8.32	241.0					
2-28-19 1:00	-0.04	905	7.70	5.4	2-28-19 1:00	0.15	1571	7.65	23.7	2-28-19 1:00	-0.09	1736	7.87	1.4	7-28-19 18:45	20.05	1707	8.21	8.5	5-30-19 17:15	19.92	1274	8.32	382.2					
2-28-19 1:15	-0.04	906	7.70	5.5	2-28-19 1:15	0.15	1571	7.65	21.2	2-28-19 1:15	-0.09	1736	7.87	1.4	7-28-19 19:00	20.12	1707	7.16	8.5	5-30-19 17:30	19.96	1277	8.34	232.9					
2-28-19 1:30	-0.04	904	7.70	5.3	2-28-19 1:30	0.15	1573	7.65	22.2	2-28-19 1:30	-0.09	1737	7.87	1.3	7-28-19 19:15	20.14	1707	7.41	8.5	5-30-19 17:45	20.05	1282	8.34	378.5					
2-28-19 1:45	-0.04	902	7.70	5.2	2-28-19 1:45	0.19	1576	7.65	24.8	2-28-19 1:45	-0.09	1737	7.87	1.3	7-28-19 19:30	20.29	1708	7.52	8.5	5-30-19 18:00	20.19	1278	8.34	239.2					
2-28-19 2:00	-0.04	904	7.70	5.4	2-28-19 2:00	0.14	1577	7.66	24.8	2-28-19 2:00	-0.09	1737	7.87	1.4	7-28-19 19:45	20.27	1708	7.64	8.5	5-30-19 18:15	20.25	1281	8.33	406.6					
2-28-19 2:15	-0.04	903	7.69	5.4	2-28-19 2:15	0.19	1585	7.66	23.7	2-28-19 2:15	-0.09	1737	7.87	1.4	7-28-19 20:00	20.33	1708	8.62	8.5	5-30-19 18:30	20.32	1279	8.35	234.7					
2-28-19 2:30	-0.04	903	7.69	5.2	2-28-19 2:30	0.16	1577	7.65	23.7	2-28-19 2:30	-0.09	1737	7.87	1.4	7-28-19 20:15	20.45	1709	8.17	8.5	5-30-19 18:45	20.71	1284	8.34	387.8					
2-28-19 2:45	-0.04	903	7.69	5.9	2-28-19 2:45	0.15	1583	7.66	23.5	2-28-19 2:45	-0.09	1737	7.86	1.4	7-28-19 20:30	20.69	1709	7.78	8.5	5-30-19 19:00	20.93	1285	8.34	253.5					
2-28-19 3:00	-0.04	903	7.69	5.3	2-28-19 3:00	0.14	1579	7.66	24.1	2-28-19 3:00	-0.09	1737	7.87	1.4	7-28-19 20:45	20.72	1707	8.51	8.5	5-30-19 19:15	20.99	1287	8.33	386.7					
2-28-19 3:15	-0.05	904	7.69	5.4	2-28-19 3:15	0.15	1580	7.65	23.8	2-28-19 3:15	-0.09	1738	7.87	1.4	7-28-19 21:00	20.92	1709	8.18	8.5	5-30-19 19:30	21.17	1285	8.34	271.2					
2-28-19 3:30	-0.05	904	7.69	5.6	2-28-19 3:30	0.18	1585	7.66	25.9	2-28-19 3:30	-0.09	1738	7.87	1.5	7-28-19 21:15	21.05	1708	7.85	8.5	5-30-19 19:45	21.39	1287	8.33	419.8					
2-28-19 3:45	-0.05	905	7.69	5.5	2-28-19 3:45	0.18	1586	7.66	27.1	2-28-19 3:45	-0.09	1738	7.87	1.4	7-28-19 21:30	21.16	1710	8.30	8.5	5-30-19 20:00	21.52	1285	8.33	254.9					
2-28-19 4:00	-0.05	905	7.69	5.7	2-28-19 4:00	0.16	1585	7.66	25.5	2-28-19 4:00	-0.09	1739	7.87	1.3	7-28-19 21:45	21.41	1711	8.33	8.5	5-30-19 20:15	21.76	1288	8.33	419.3					
2-28-19 4:15	-0.05	906	7.69	5.2	2-28-19 4:15	0.17	1587	7.66	26.0	2-28-19 4:15	-0.09	1738	7.86	1.4	7-28-19 22:00	21.47	1710	8.02	8.5	5-30-19 20:30	21.88	1286	8.33	250.8					
2-28-19 4:30	-0.05	905	7.69	4.9	2-28-19 4:30	0.14	1583	7.66	23.8	2-28-19 4:30	-0.09	1739	7.87	1.4	7-28-19 22:15	21.64	1711	8.05	8.5	5-30-19 20:45	22.02	1289	8.33	393.7					
2-28-19 4:45	-0.05	904	7.69	4.8	2-28-19 4:45	0.15	1585	7.66	24.8	2-28-19 4:45	-0.09	1739	7.86	1.4	7-28-19 22:30	21.69	1711	8.64	8.5	5-30-19 21:00	22.11	1287	8.33	316.7					
2-28-19 5:00	-0.05	906	7.69	4.8	2-28-19 5:00	0.16	1582	7.66	23.8	2-28-19 5:00	-0.09	1739	7.86	1.4	7-28-19 22:45	21.78	1710	7.88	8.5	5-30-19 21:15	22.18	1289	8.33	429.7					
2-28-19 5:15	-0.04	908	7.69	5.1	2-28-19 5:15	0.14	1581	7.66	23.8	2-28-19 5:15	-0.09	1739	7.87	1.4	7-28-19 23:00	21.74	1711	8.08	8.5	5-30-19 21:30	22.12	1286	8.33	272.2					
2-28-19 5:30	-0.04	911	7.68	5.4	2-28-19 5:30	0.13	1587	7.66	25.0	2-28-19 5:30	-0.09	1739	7.87	1.3	7-28-19 23:15	21.90	1713	9.23	8.5	5-30-19 21:45	22.42	1289	8.33	421.2					
2-28-19 5:45	-0.05	910	7.68	5.3	2-28-19 5:45	0.13	1587	7.66	24.5	2-28-19 5:45	-0.09	1739	7.87	1.4	7-28-19 23:30	21.95	1712	8.01	8.5	5-30-19 22:00	22.57	1289	8.33	272.8					
2-28-19 6:00	-0.05	906	7.68	5.3	2-28-19 6:00	0.21	1587	7.66	24.3	2-28-19 6:00	-0.09	1739	7.87	1.4	7-28-19 23:45	22.01	1711	8.44	8.5	5-30-19 22:15	22.52	1289	8.32	395.3					
2-28-19 6:15	-0.05	907	7.68	5.4	2-28-19 6:15	0.18	1586	7.66	24.5	2-28-19 6:15	-0.09	1739	7.86	1.4	7-29-19 0:00	22.08	1713	8.12	8.5	5-30-19 22:30	22.66	1291	8.34	288.7					
2-28-19 6:30	-0.05	910	7.68	5.4	2-28-19 6:30	0.12	1584	7.66	23.7	2-28-19 6:30	-0.09	1739	7.86	1.3	7-29-19 0:15	22.07	1713	7.63	8.5	5-30-19 22:45	22.69	1290	8.33	414.2					
2-28-19 6:45	-0.05	909	7.68	5.2	2-28-19 6:45	0.12	1582	7.66	22.4	2-28-19 6:45	-0.09	1739	7.86	1.4	7-29-19 0:30	22.13	1713	8.23	8.5	5-30-19 23:00	22.75	1289	8.34	276.4					
2-28-19 7:00	-0.05	908	7.68	5.3	2-28-19 7:00	0.12	1584	7.66	22.8	2-28-19 7:00	-0.08	1739	7.86	1.4	7-29-19 0:45	22.12	1714	8.25	8.6	5-30-19 23:15	22.62	1290	8.33	397.5					
2-28-19 7:15	-0.05	910	7.68	5.3	2-28-19 7:15					2-28-19 7:15	-0.09	1739	7.87	1.4	7-29-19 1:00	22.07	1712	7.62	8.6	5-30-19 23:30	22.66	1289	8.33	271.6					
2-28-19 7:30	-0.05	909	7.68	5.4	2-28-19 7:30	0.13	1587	7.67	23.5	2-28-19 7:30	-0.09	1739	7.86	1.3	7-29-19 1:15	22.06	1713	7.77	8.6	5-30-19 23:45	22.67	1289	8.34	356.7					
2-28-19 7:45	-0.05	909	7.68	5.4	2-28-19 7:45	0.15	1588	7.67	23.5	2-28-19 7:45	-0.09	1739	7.86	1.4	7-29-19 1:30	22.02	1713	7.53	8.6	5-31-19 0:00	22.50	1288	8.34	252.4					
2-28-19 8:00	-0.05	910	7.68	5.1	2-28-19 8:00	0.13	1586	7.66	22.4	2-28-19 8:00	-0.09	1739	7.86	1.4	7-29-19 1:45	22.01	1713	7.97	8.6	5-31-19 0:15	22.46	1289	8.34	339.2					
2-28-19 8:15	-0.05	909	7.68	5.0	2-28-19 8:15	0.11	1587	7.67	22.4	2-28-19 8:15	-0.09	1739	7.86	1.4	7-29-19 2:00	21.98	1714	7.58	8.6	5-31-19 0:30	22.40	1288	8.35	251.1					
2-28-19 8:30	-0.05	911	7.67	5.1	2-28-19 8:30	0.11	1588	7.67	22.4	2-28-19 8:30	-0.09	1739	7.86	1.4	7-29-19 2:15	21.93	1713	7.95	8.6	5-31-19 0:45	22.37	1288	8.35	314.1					
2-28-19 8:45	-0.05	910	7.68	4.9	2-28-19 8:45	0.11	1585	7.66	20.7	2-28-19 8:45	-0.09	1739	7.86	1.4	7-29-19 2:30	21.87	1713	7.41	8.6	5-31-19 1:00	22.34	1288	8.35	247.2					
2-28-19 9:00	-0.05	912	7.68	5.0	2-28-19 9:00	0.12	1585	7.66	20.3	2-28-19 9:00	-0.09	1739	7.86	1.4	7-29-19 2:45	21.81	1713	8.20	8.6	5-31-19 1:15	22.27	1288	8.35	333.6					
2-28-19 9:15	-0.05	912	7.68	5.0	2-28-19 9:15	0.14	1588	7.67	22.6	2-28-19 9:15	-0.09	1740	7.86	1.3	7-29-19 3:00	21.74	1713	7.50	8.6	5-31-19 1:30	22.24	1288	8.36	230.5					
2-28-19 9:30	-0.05	911	7.68	5.1	2-28-19 9:30	0.13	1587	7.66	21.0	2-28-19 9:30	-0.09	1740	7.86	1.4	7-29-19 3:15	21.69	1713	7.13	8.6	5-31-19 1:45	22.19	1288	8.35	334.3					
2-28-19 9:45	-0.05	912	7.67	4.7	2-28-19 9:45	0.16	1589	7.67	21.9	2-28-19 9:45	-0.09	1740	7.86	1.3	7-29-19 3:30	21.64	1712	7.44	8.6	5-31-19 2:00	22.11	1287	8.36	259.1					
2-28-19 10:00	-0.05	912	7.68	4.8	2-28-19 10:00	0.21	1591	7.67	22.2	2-28-19 10:00	-0.09	1740	7.86	1.3	7-29-19 3:45	21.57	1713	7.34	8.5	5-31-19 2:15	22.06	1287	8.36	227.7					
2-28-19 10:15	-0.05	912	7.67	4.6	2-28-19 10:15	0.17	1591	7.67	22.1	2-28-19 10:15	-0.09	1740	7.86	1.4	7-29-19 4:00	21.47	1712	7.28	8.6	5-31-19 2:30	21.98	1288	8.36	320.4					
2-28-19 10:30	-0.05	913	7.67	4.7	2-28-19 10:30	0.15	1588	7.66	20.6	2-28-19 10:30	-0.09	1740	7.86	1.4	7-29-19 4:15	21.39	1711	7.95	8.6	5-31-19 2:45	21.92	1287	8.36	252.1					
2-28-19 10:45	-0.05	913	7.67	4.9	2-28-19 10:45	0.14	1584	7.66	19.3	2-28-19 10:45	-0.09	1740	7.86	1.4	7-29-19 4:30	21.35	1712	7.33	8.6	5-31-19 3:00	21.85	1287	8.37	325.4					
2-28-19 11:00	-0.05	914	7.67	4.8	2-28-19 11:00	0.15	1586	7.66	19.8	2-28-19 11:00	-0.09	1740	7.86	1.4	7-29-19 4:45	21.26	1712	8.24	8.6	5-31-19 3:15	21.77	1286	8.37	228.1					
2-28-19 11:15	-0.05	914	7.67	4.9	2-28-19 11:15	0.14	1589	7.66	19.6	2-28-19 11:15	-0.09	1740	7.86	1.3	7-29-19 5:00	21.21	1712	7.46	8.6	5-31-19 3:30	21.72	1288	8.37	331.8					
2-28-19 11:30	-0.05	914	7.67	4.6	2-28-19 11:30	0.16	1587	7.66	19.9	2-28-19 11:30	-0.09	1740	7.86	1.3	7-29-19 5:15	21.09	1712	7.96	8.6	5-31-19 3:45	21.70	1287	8.36	246.8					
2-28-19 11:45	-0.05	912	7.67	4.5	2-28-19 11:45	0.17	1593	7.67	21.1	2-28-19 11:45	-0.09	1740	7.86	1.3	7-29-19 5:30	21.06	1712	8.45	8.6	5-31-19 4:00	21.62	1288	8.36	247.0					
2-28-19 12:00	-0.05	914	7.68	4.7	2-28-19 12:00	0.18	1592	7.67	22.5	2-28-19 12:00	-0.09	1740	7.86	1.3	7-29-19 5:45	20.99	1712	7.23	8.6	5-31-19 4:15	21.51	1287	8.37	208.9					
2-28-19 12:15	-0.05	913	7.70	4.9	2-28-19 12:15	0.20	1593	7.67	21.0	2-28-19 12:15	-0.11	1746	7.86	1.4	7-29-19 6:00	20.95	1711	7.19	8.6	5-31-19 4:30	21.46	1288	8.37	322.9					
2-28-19 12:30	-0.04	911	7.72	5.7	2-28-19 12:30	0.14	1590	7.66	19.9	2-28-19 12:30	-0.10	1744	7.87	1.5	7-29-19 6:15	20.88	1712	7.27	8.6	5-31-19 4:45	21.40	1286	8.37	200.5					
2-28-19 12:45	-0.04	907	7.73	6.1	2-28-19 12:45	0.15	1589	7.66	19.2	2-28-19 12:45	-0.09	1744	7.86	1.5	7-29-19 6:30	20.84	1712	6.85	8.6	5-31-19 5:00	21.31	1287	8.37	331.0					
2-28-19 13:00	-0.05	908	7.72	5.6	2-28-19 13:00	0.15	1589	7.66	18.5	2-28-19 13:00	-0.09	1742	7.86	1.5	7-29-19 6:45	20.80	1712	7.09	8.6	5-31-19 5:15	21.29	1287	8.37	217.1					
2-28-19 13:15	-0.04	907	7.73	5.6	2-28-19 13:15	0.14	1595	7.67	20.1	2-28-19 13:15	-0.09	1741	7.86	1.3	7-29-19 7:00	20.74	1712	6.91	8.6	5-31-19 5:30	21.20	1287	8.37	335.4					
2-28-19 13:30	-0.03	903	7.75	6.7	2-28-19 13:30	0.16	1591	7.67	19.1	2-28-19 13:30	-0.08	1742	7.86	1.2	7-29-19 7:15	20.67	1712	7.25	8.6	5-31-19 5:45	21.15	1287	8.37	222.1					
2-28-19 13:45	-0.04	905	7.74	6.3	2-28-19 13:45	0.15	1592	7.66	19.7	2-28-19 13:45	-0.09	1741	7.86	1.3	7-29-19 7:30	20.64	1713	8.32	8.6	5-31-19 6:00	21.07	1287	8.37	329.3					
2-28-19 14:00	-0.04	906	7.74	6.2	2-28-19 14:00	0.16	1589	7.67	18.8	2-28-19 14:00	-0.09	1742	7.86	1.3	7-29-19 7:45	20.56	1712	7.58	8.6	5-31-19 6:15	20.97	1287	8.37	197.4					
2-28-19 14:15	-0.04	906	7.74	5.9	2-28-19 14:15	0.20	1594	7.67	20.0	2-28-19 14:15	-0.09	1742	7.86	1.3	7-29-19 8:00	20.51	1711	7.21	8.6	5-31-19 6:30	20.90	1287	8.37	312.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
2-28-19 14:30	-0.04	906	7.74	6.0	2-28-19 14:30	0.29	1594	7.67	19.8	2-28-19 14:30	-0.08	1741	7.86	1.2	7-29-19 8:15	20.44	1712	7.20	8.6	5-31-19 6:45	20.81	1286	8.37	212.1					
2-28-19 14:45	-0.04	906	7.74	6.2	2-28-19 14:45	0.28	1594	7.68	19.7	2-28-19 14:45	-0.08	1741	7.86	1.3	7-29-19 8:30	20.39	1712	7.05	8.6	5-31-19 7:00	20.74	1287	8.37	311.2					
2-28-19 15:00	-0.03	902	7.75	6.2	2-28-19 15:00	0.31	1595	7.68	20.0	2-28-19 15:00	-0.08	1741	7.86	1.3	7-29-19 8:45	20.32	1711	7.08	8.5	5-31-19 7:15	20.65	1287	8.38	191.7					
2-28-19 15:15	-0.03	901	7.75	6.4	2-28-19 15:15	0.22	1592	7.67	18.9	2-28-19 15:15	-0.09	1741	7.86	1.3	7-29-19 9:00	20.25	1712	9.46	8.6	5-31-19 7:30	20.61	1287	8.37	295.7					
2-28-19 15:30	-0.03	903	7.75	6.4	2-28-19 15:30	0.18	1589	7.66	17.8	2-28-19 15:30	-0.09	1741	7.86	1.3	7-29-19 9:15	20.19	1712	7.14	8.6	5-31-19 7:45	20.55	1286	8.37	210.4					
2-28-19 15:45	-0.04	902	7.76	6.2	2-28-19 15:45	0.15	1585	7.66	16.4	2-28-19 15:45	-0.09	1742	7.86	1.3	7-29-19 9:30	20.10	1712	7.24	8.6	5-31-19 8:00	20.48	1288	8.37	310.9					
2-28-19 16:00	-0.04	902	7.76	6.2	2-28-19 16:00	0.16	1591	7.66	18.1	2-28-19 16:00	-0.09	1742	7.87	1.2	7-29-19 9:45	20.03	1713	7.24	8.6	5-31-19 8:15	20.43	1286	8.36	199.9					
2-28-19 16:15	-0.04	903	7.76	6.5	2-28-19 16:15	0.18	1589	7.66	17.2	2-28-19 16:15	-0.09	1742	7.86	1.4	7-29-19 10:00	19.97	1713	6.81	8.5	5-31-19 8:30	20.37	1288	8.37	294.4					
2-28-19 16:30	-0.04	902	7.76	6.5	2-28-19 16:30	0.18	1589	7.66	18.1	2-28-19 16:30	-0.09	1742	7.86	1.3	7-29-19 10:15	19.90	1711	6.66	8.5	5-31-19 8:45	20.30	1287	8.37	197.9					
2-28-19 16:45	-0.04	901	7.76	6.3	2-28-19 16:45	0.20	1588	7.67	17.8	2-28-19 16:45	-0.09	1742	7.86	1.3	7-29-19 10:30	19.82	1712	7.30	8.5	5-31-19 9:00	20.27	1288	8.36	309.9					
2-28-19 17:00	-0.04	898	7.77	6.8	2-28-19 17:00	0.16	1590	7.67	17.7	2-28-19 17:00	-0.09	1742	7.86	1.4	7-29-19 10:45	19.74	1712	7.33	8.5	5-31-19 9:15	20.25	1287	8.36	215.7					
2-28-19 17:15	-0.04	899	7.77	6.3	2-28-19 17:15	0.22	1594	7.67	18.8	2-28-19 17:15	-0.09	1743	7.86	1.3	7-29-19 11:00	19.68	1712	7.00	8.5	5-31-19 9:30									
2-28-19 17:30	-0.04	900	7.77	6.2	2-28-19 17:30	0.20	1593	7.67	18.5	2-28-19 17:30	-0.09	1743	7.86	1.2	7-29-19 11:15	19.59	1711	7.19	8.5	5-31-19 9:45									
2-28-19 17:45	-0.04	899	7.77	6.4	2-28-19 17:45	0.17	1592	7.67	17.7	2-28-19 17:45	-0.09	1743	7.86	1.2	7-29-19 11:30	19.51	1712	7.00	8.5	5-31-19 10:00									
2-28-19 18:00	-0.04	898	7.77	6.3	2-28-19 18:00	0.19	1589	7.67	17.1	2-28-19 18:00	-0.09	1743	7.87	1.2	7-29-19 11:45	19.45	1712	6.66	8.5	5-31-19 10:15	19.99	1287	8.36	187.2					
2-28-19 18:15	-0.04	895	7.77	6.4	2-28-19 18:15	0.17	1590	7.67	16.8	2-28-19 18:15	-0.09	1743	7.86	1.3	7-29-19 12:00	19.36	1712	7.59	8.5	5-31-19 10:30	19.97	1288	8.36	300.1					
2-28-19 18:30	-0.04	896	7.78	6.2	2-28-19 18:30	0.16	1590	7.67	17.0	2-28-19 18:30	-0.09	1743	7.86	1.3	7-29-19 12:15	19.29	1712	7.16	8.5	5-31-19 10:45	19.95	1286	8.36	189.2					
2-28-19 18:45	-0.04	895	7.77	6.0	2-28-19 18:45	0.14	1590	7.67	16.6	2-28-19 18:45	-0.08	1743	7.87	1.4	7-29-19 12:30	19.23	1713	10.15	8.5	5-31-19 11:00	19.89	1288	8.35	283.1					
2-28-19 19:00	-0.04	894	7.78	6.2	2-28-19 19:00	0.11	1591	7.67	16.4	2-28-19 19:00	-0.08	1743	7.86	1.3	7-29-19 12:45	19.16	1712	7.97	8.5	5-31-19 11:15	19.82	1287	8.36	179.7					
2-28-19 19:15	-0.04	894	7.78	6.7	2-28-19 19:15	0.12	1590	7.67	16.7	2-28-19 19:15	-0.08	1743	7.86	1.3	7-29-19 13:00	19.08	1711	7.12	8.5	5-31-19 11:30	19.75	1288	8.35	283.6					
2-28-19 19:30	-0.04	892	7.78	6.3	2-28-19 19:30	0.13	1590	7.67	15.9	2-28-19 19:30	-0.08	1743	7.86	1.3	7-29-19 13:15	19.02	1712	9.35	8.5	5-31-19 11:45	19.73	1287	8.36	183.2					
2-28-19 19:45	-0.04	893	7.77	6.1	2-28-19 19:45	0.12	1591	7.67	16.3	2-28-19 19:45	-0.08	1743	7.86	1.3	7-29-19 13:30	18.96	1712	7.34	8.5	5-31-19 12:00	19.67	1288	8.35	281.8					
2-28-19 20:00	-0.04	893	7.78	6.1	2-28-19 20:00	0.12	1588	7.66	16.0	2-28-19 20:00	-0.08	1743	7.86	1.3	7-29-19 13:45	18.90	1712	7.74	8.5	5-31-19 12:15	19.55	1288	8.35	178.2					
2-28-19 20:15	-0.04	891	7.77	6.4	2-28-19 20:15	0.10	1591	7.67	16.0	2-28-19 20:15	-0.08	1743	7.86	1.3	7-29-19 14:00	18.89	1712	7.12	8.5	5-31-19 12:30	19.54	1289	8.35	277.9					
2-28-19 20:30	-0.05	892	7.77	6.0	2-28-19 20:30	0.13	1590	7.67	15.6	2-28-19 20:30	-0.08	1743	7.87	1.3	7-29-19 14:15	18.84	1712	7.40	8.5	5-31-19 12:45	19.44	1288	8.36	179.2					
2-28-19 20:45	-0.05	892	7.78	6.1	2-28-19 20:45	0.14	1590	7.67	15.7	2-28-19 20:45	-0.08	1743	7.86	1.3	7-29-19 14:30	18.83	1714	7.12	8.5	5-31-19 13:00	19.36	1289	8.35	259.2					
2-28-19 21:00	-0.05	893	7.78	6.0	2-28-19 21:00	0.13	1590	7.67	15.5	2-28-19 21:00	-0.09	1743	7.86	1.3	7-29-19 14:45	18.83	1712	7.03	8.5	5-31-19 13:15	19.30	1289	8.36	183.7					
2-28-19 21:15	-0.05	893	7.78	6.0	2-28-19 21:15	0.15	1589	7.67	15.4	2-28-19 21:15	-0.08	1742	7.86	1.3	7-29-19 15:00	18.82	1712	9.69	8.5	5-31-19 13:30	19.27	1291	8.35	254.9					
2-28-19 21:30	-0.05	892	7.78	6.1	2-28-19 21:30	0.13	1589	7.67	15.3	2-28-19 21:30	-0.08	1743	7.86	1.3	7-29-19 15:15	18.82	1712	7.43	8.5	5-31-19 13:45	19.20	1290	8.36	178.3					
2-28-19 21:45	-0.05	891	7.77	5.9	2-28-19 21:45	0.15	1590	7.67	15.5	2-28-19 21:45	-0.07	1742	7.86	1.3	7-29-19 15:30	18.83	1711	7.99	8.5	5-31-19 14:00	19.17	1290	8.35	254.5					
2-28-19 22:00	-0.05	892	7.77	5.6	2-28-19 22:00	0.15	1599	7.68	16.5	2-28-19 22:00	-0.07	1743	7.86	1.2	7-29-19 15:45	18.87	1711	7.46	8.5	5-31-19 14:15	19.09	1290	8.35	157.5					
2-28-19 22:15	-0.05	892	7.77	5.3	2-28-19 22:15	0.17	1599	7.68	20.2	2-28-19 22:15	-0.08	1742	7.86	1.3	7-29-19 16:00	18.92	1711	6.98	8.5	5-31-19 14:30	19.09	1291	8.35	232.3					
2-28-19 22:30	-0.05	895	7.77	5.5	2-28-19 22:30	0.17	1598	7.68	17.6	2-28-19 22:30	-0.08	1742	7.86	1.3	7-29-19 16:15	19.00	1712	7.81	8.5	5-31-19 14:45	19.05	1291	8.36	161.7					
2-28-19 22:45	-0.05	893	7.76	5.5	2-28-19 22:45	0.15	1597	7.67	23.4	2-28-19 22:45	-0.08	1742	7.85	1.3	7-29-19 16:30	19.06	1711	7.31	8.5	5-31-19 15:00	19.00	1291	8.36	240.5					
2-28-19 23:00	-0.05	894	7.76	5.3	2-28-19 23:00	0.13	1600	7.67	58.6	2-28-19 23:00	-0.08	1743	7.85	1.3	7-29-19 16:45	19.17	1713	7.35	8.5	5-31-19 15:15	19.00	1291	8.36	153.2					
2-28-19 23:15	-0.05	894	7.77	5.5	2-28-19 23:15	0.10	1601	7.68	56.1	2-28-19 23:15	-0.08	1744	7.86	1.2	7-29-19 17:00	19.25	1713	7.47	8.5	5-31-19 15:30	19.03	1292	8.35	233.9					
2-28-19 23:30	-0.04	893	7.75	5.4	2-28-19 23:30	0.10	1599	7.67	49.0	2-28-19 23:30	-0.08	1743	7.86	1.2	7-29-19 17:15	19.23	1714	7.39	8.5	5-31-19 15:45	19.03	1290	8.36	148.6					
2-28-19 23:45	-0.04	895	7.75	5.2	2-28-19 23:45	0.10	1599	7.68	53.4	2-28-19 23:45	-0.09	1744	7.86	1.2	7-29-19 17:30	19.39	1713	7.13	8.5	5-31-19 16:00	19.07	1293	8.35	236.4					
3-1-19 0:00	-0.05	893	7.76	5.2	3-1-19 0:00	0.12	1597	7.68	50.6	3-1-19 0:00	-0.09	1744	7.86	1.2	7-29-19 17:45	19.44	1714	7.48	8.5	5-31-19 16:15	19.08	1292	8.35	144.2					
3-1-19 0:15	-0.05	894	7.76	5.3	3-1-19 0:15	0.09	1595	7.68	44.7	3-1-19 0:15	-0.08	1744	7.86	1.3	7-29-19 18:00	19.55	1714	7.53	8.5	5-31-19 16:30	19.07	1293	8.36	222.6					
3-1-19 0:30	-0.05	895	7.76	5.1	3-1-19 0:30	0.14	1598	7.69	54.9	3-1-19 0:30	-0.08	1744	7.86	1.3	7-29-19 18:15	19.63	1714	7.02	8.5	5-31-19 16:45	19.14	1292	8.36	156.6					
3-1-19 0:45	-0.05	896	7.76	5.2	3-1-19 0:45	0.12	1597	7.69	50.8	3-1-19 0:45	-0.08	1743	7.86	1.3	7-29-19 18:30	19.80	1716	7.43	8.5	5-31-19 17:00	19.24	1294	8.35	218.0					
3-1-19 1:00	-0.05	895	7.76	5.2	3-1-19 1:00	0.10	1598	7.69	50.0	3-1-19 1:00	-0.08	1743	7.86	1.3	7-29-19 18:45	19.91	1716	7.34	8.5	5-31-19 17:15	19.41	1293	8.35	160.3					
3-1-19 1:15	-0.05	892	7.76	5.1	3-1-19 1:15	0.08	1598	7.69	49.4	3-1-19 1:15	-0.08	1743	7.86	1.2	7-29-19 19:00	19.96	1716	7.64	8.5	5-31-19 17:30	19.44	1293	8.35	231.0					
3-1-19 1:30	-0.05	895	7.76	5.1	3-1-19 1:30	0.09	1599	7.69	50.7	3-1-19 1:30	-0.07	1743	7.86	1.2	7-29-19 19:15	20.11	1715	6.96	8.5	5-31-19 17:45	19.46	1292	8.35	160.3					
3-1-19 1:45	-0.05	895	7.76	5.1	3-1-19 1:45	0.08	1598	7.68	48.3	3-1-19 1:45	-0.08	1744	7.86	1.2	7-29-19 19:30	20.30	1716	7.38	8.5	5-31-19 18:00	19.55	1294	8.35	220.2					
3-1-19 2:00	-0.05	897	7.76	4.8	3-1-19 2:00	0.07	1599	7.69	46.4	3-1-19 2:00	-0.08	1744	7.86	1.2	7-29-19 19:45	20.40	1715	7.50	8.5	5-31-19 18:15	19.66	1293	8.35	165.6					
3-1-19 2:15	-0.05	897	7.76	4.7	3-1-19 2:15	0.12	1601	7.69	50.7	3-1-19 2:15	-0.07	1743	7.86	1.3	7-29-19 20:00	20.53	1717	7.78	8.5	5-31-19 18:30	19.82	1295	8.35	237.2					
3-1-19 2:30	-0.05	896	7.76	4.8	3-1-19 2:30	0.13	1601	7.69	49.7	3-1-19 2:30	-0.07	1743	7.86	1.3	7-29-19 20:15	20.65	1716	7.75	8.5	5-31-19 18:45	19.93	1294	8.35	156.2					
3-1-19 2:45	-0.05	896	7.76	4.6	3-1-19 2:45	0.13	1601	7.69	51.3	3-1-19 2:45	-0.07	1743	7.86	1.3	7-29-19 20:30	20.78	1716	8.46	8.5	5-31-19 19:00	20.05	1293	8.33	233.3					
3-1-19 3:00	-0.05	896	7.75	4.5	3-1-19 3:00	0.13	1599	7.69	48.3	3-1-19 3:00	-0.08	1744	7.86	1.3	7-29-19 20:45	20.89	1717	7.72	8.5	5-31-19 19:15	20.20	1293	8.33	149.5					
3-1-19 3:15	-0.05	898	7.75	4.5	3-1-19 3:15	0.06	1599	7.68	46.8	3-1-19 3:15	-0.08	1744	7.86	1.2	7-29-19 21:00	21.06	1718	7.41	8.5	5-31-19 19:30	20.30	1295	8.33	218.1					
3-1-19 3:30	-0.05	896	7.75	4.4	3-1-19 3:30	0.05	1599	7.68	45.5	3-1-19 3:30	-0.08	1745	7.86	1.3	7-29-19 21:15	21.01	1717	7.48	8.5	5-31-19 19:45	20.46	1294	8.33	155.2					
3-1-19 3:45	-0.05	898	7.75	4.3	3-1-19 3:45	0.03	1600	7.68	37.6	3-1-19 3:45	-0.08	1745	7.86	1.3	7-29-19 21:30	21.13	1718	8.49	8.5	5-31-19 20:00	20.55	1294	8.32	232.0					
3-1-19 4:00	-0.05	897	7.75	4.0	3-1-19 4:00	0.03	1598	7.67	49.1	3-1-19 4:00	-0.07	1743	7.86	1.2	7-29-19 21:45	21.16	1717	7.71	8.5	5-31-19 20:15	20.79	1297	8.32	154.2					
3-1-19 4:15	-0.05	897	7.75	4.3	3-1-19 4:15	0.06	1603	7.69	53.1	3-1-19 4:15	-0.07	1743	7.86	1.3	7-29-19 22:00	21.19	1717	7.53	8.5	5-31-19 20:30	20.92	1294	8.32	227.3					
3-1-19 4:30	-0.05	897	7.75	4.0	3-1-19 4:30	0.04	1602	7.68	56.9	3-1-19 4:30	-0.07	1744	7.86	1.3	7-29-19 22:15	21.17	1718	9.26	8.5	5-31-19 20:45	20.93	1295	8.33	155.3					
3-1-19 4:45	-0.05	900	7.75	4.1	3-1-19 4:45	0.04	1601	7.68	50.3	3-1-19 4:45	-0.07	1743	7.86	1.3	7-29-19 22:30	21.30	1719	7.54	8.5	5-31-19 21:00	21.12	1294	8.32	223.8					
3-1-19 5:00	-0.05	898	7.75	3.9	3-1-19 5:00	0.04	1601	7.68	50.4	3-1-19 5:00	-0.07	1743	7.85	1.2	7-29-19 22:45	21.35	1718	7.60	8.5	5-31-19 21:15	21.17	1295	8.32	148.7					
3-1-19 5:15	-0.05	899	7.76	3.8	3-1-19 5:15	0.02	1603	7.68	49.6	3-1-19 5:15	-0.07	1743	7.86	1.2	7-29-19 23:00	21.28	1719	8.03	8.5	5-31-19 21:30	21.37	1293	8.31	216.3					
3-1-19 5:30	-0.05	897	7.76	3.7	3-1-19 5:30	0.06	1606	7.69	59.9	3-1-19 5:30	-0.08	1744	7.86	1.2	7-29-19 23:15	21.29	1719	8.75	8.5	5-31-19 21:45	21.42	1293	8.31	146.8					
3-1-19 5:45	-0.05	900	7.76	3.7	3-1-19 5:45	0.05	1608	7.69	62.2	3-1-19 5:45	-0.08	1744	7.86	1.3	7-29-19 23:30	21.28	1718	7.45	8.5	5-31-19 22:00	21.19	1247	8.31	207.2					
3-1-19 6:00	-0.05	898	7.76	3.7	3-1-19 6:00	0.05	1609	7.68	70.4	3-1-19 6:00	-0.07	1744	7.86	1.3	7-29-19 23:45	21.20	1719	7.43	8.6	5-31-19 22:15	21.18	1297	8.31	136.5					
3-1-19 6:15	-0.05	898	7.76	3.5	3-1-19 6:15	0.04	1610	7.68	58.3	3-1-19 6:15	-0.07	1743	7.86	1.3	7-30-19 0:00	21.20	1719	8.51	8.6	5-31-19 22:30	21.92	1240	8.31	209.6					
3-1-19 6:30	-0.05	899	7.76	3.5	3-1-19 6:30	0.05	1611	7.68	57.6	3-1-19 6:30	-0.07	1743	7.86	1.2	7-30-19 0:15	21.27	1719	8.34	8.6	5-31-19 22:45	21.93	1296	8.31	140.4					
3-1-19 6:45	-0.05	900	7.76	3.4	3-1-19 6:45	0.04	1611	7.68	55.9	3-1-19 6:45	-0.07	1743	7.86	1.3	7-30-19 0:30	21.28	1718	7.61	8.6	5-31-19 23:00	21.48	1293	8.29	211.3					
3-1-19 7:00	-0.05	898	7.77	3.2	3-1-19 7:00	0.04	1611	7.68	58.0	3-1-19 7:00	-0.07	1743	7.86	1.3	7-30-19 0:45	21.29	1718	7.12	8.6	5-31-19 23:15	21.34	1293	8.31	138.6					
3-1-19 7:15	-0.05	899	7.77	3.2	3-1-19 7:15	0.03	1611	7.69	60.3	3-1-19 7:15	-0.08	1744	7.86	1.2	7-30-19 1:00	21.36	1719	7.52	8.6	5-31-19 23:30	21.65	1242	8.30	197.8					
3-1-19 7:30	-0.05	900	7.77	3.2	3-1-19 7:30	0.02	1611	7.69	56.7	3-1-19 7:30	-0.08	1744	7.86	1.3	7-30-19 1:15	21.35	1720	7.28	8.5	5-31-19 23:45	21.45	1293	8.31	128.3					
3-1-19 7:45	-0.05	901	7.77	3.2	3-1-19 7:45	0.02	1611	7.69	56.3	3-1-19 7:45	-0.08	1744	7.86	1.2	7-30-19 1:30	21.33	1718	7.45	8.5	6-1-19 0:00	21.31	1295	8.30	186.8					
3-1-19 8:00	-0.05	899	7.77	3.1	3-1-19 8:00	0.01	1611	7.69	55.0	3-1-19 8:00	-0.08	1744	7.86	1.2	7-30-19 1:45	21.32	1719	8.10	8.6	6-1-19 0:15	21.16	1295	8.30	113.1					
3-1-19 8:15	-0.05	899	7.78	2.8	3-1-19 8:15	0.00	1610	7.69	56.1	3-1-19 8:15	-0.08	1744	7.86	1.2	7-30-19 2:00	21.29	1719	7.40	8.6	6-1-19 0:30	21.29	1294	8.30	168.2					
3-1-19 8:30	-0.05	899	7.78	4.3	3-1-19 8:30	-0.01	1610	7.69	57.2	3-1-19 8:30	-0.08	1745	7.85	1.2	7-30-19 2:15	21.25	1719	7.07	8.6	6-1-19 0:45									

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-1-19 8:45	-0.05	900	7.79	3.0	3-1-19 8:45	-0.02	1611	7.69	54.3	3-1-19 8:45	-0.08	1744	7.85	1.3	7-30-19 2:30	21.20	1719	7.17	8.6	6-1-19 1:00									
3-1-19 9:00	-0.05	901	7.79	2.8	3-1-19 9:00	-0.01	1611	7.69	54.6	3-1-19 9:00	-0.08	1744	7.85	1.2	7-30-19 2:45	21.18	1720	6.99	8.6	6-1-19 1:15									
3-1-19 9:15	-0.05	902	7.80	2.7	3-1-19 9:15	0.01	1611	7.69	52.7	3-1-19 9:15	-0.08	1745	7.86	1.2	7-30-19 3:00	21.16	1720	7.42	8.5	6-1-19 1:30									
3-1-19 9:30	-0.05	901	7.80	2.6	3-1-19 9:30	-0.01	1613	7.69	54.0	3-1-19 9:30	-0.08	1745	7.86	1.3	7-30-19 3:15	21.11	1719	6.92	8.6	6-1-19 1:45									
3-1-19 9:45	-0.04	899	7.82	2.7	3-1-19 9:45	0.03	1614	7.69	54.3	3-1-19 9:45	-0.08	1745	7.86	1.2	7-30-19 3:30	21.07	1719	7.62	8.6	6-1-19 2:00									
3-1-19 10:00	-0.05	902	7.82	2.7	3-1-19 10:00	0.03	1617	7.69	52.5	3-1-19 10:00	-0.08	1745	7.86	1.2	7-30-19 3:45	21.02	1719	7.27	8.5	6-1-19 2:15	21.79	1308	8.30	149.4					
3-1-19 10:15	-0.05	902	7.83	2.6	3-1-19 10:15	0.03	1617	7.69	52.2	3-1-19 10:15	-0.08	1745	7.86	1.3	7-30-19 4:00	20.98	1720	7.18	8.5	6-1-19 2:30	21.80	1308	8.31	103.8					
3-1-19 10:30	-0.05	904	7.84	2.4	3-1-19 10:30	0.03	1617	7.69	53.2	3-1-19 10:30	-0.08	1745	7.86	1.2	7-30-19 4:15	20.92	1719	7.98	8.5	6-1-19 2:45	21.77	1310	8.31	130.8					
3-1-19 10:45	-0.05	904	7.84	2.5	3-1-19 10:45	0.03	1617	7.69	50.9	3-1-19 10:45	-0.08	1745	7.86	1.2	7-30-19 4:30	20.89	1719	6.99	8.5	6-1-19 3:00	21.76	1310	8.32	99.7					
3-1-19 11:00	-0.05	903	7.85	2.5	3-1-19 11:00	0.01	1618	7.69	48.2	3-1-19 11:00	-0.08	1746	7.86	1.2	7-30-19 4:45	20.84	1719	7.18	8.5	6-1-19 3:15	21.72	1311	8.28	126.4					
3-1-19 11:15	-0.05	905	7.85	2.3	3-1-19 11:15	0.07	1619	7.69	49.9	3-1-19 11:15	-0.08	1746	7.86	1.2	7-30-19 5:00	20.80	1718	6.94	8.5	6-1-19 3:30	21.65	1309	8.31	107.1					
3-1-19 11:30	-0.04	904	7.85	2.4	3-1-19 11:30	0.08	1619	7.69	48.9	3-1-19 11:30	-0.08	1746	7.86	1.3	7-30-19 5:15	20.73	1718	6.98	8.6	6-1-19 3:45	21.57	1310	8.30	131.7					
3-1-19 11:45	-0.04	902	7.86	2.3	3-1-19 11:45	0.08	1620	7.69	52.7	3-1-19 11:45	-0.08	1746	7.86	1.2	7-30-19 5:30	20.66	1717	7.49	8.6	6-1-19 4:00	21.48	1308	8.31	96.7					
3-1-19 12:00	-0.04	902	7.86	2.3	3-1-19 12:00	0.09	1621	7.69	49.1	3-1-19 12:00	-0.11	1752	7.86	1.3	7-30-19 5:45	20.62	1717	7.57	8.5	6-1-19 4:15	21.40	1310	8.30	123.0					
3-1-19 12:15	-0.04	904	7.87	2.3	3-1-19 12:15	0.11	1622	7.69	50.3	3-1-19 12:15	-0.09	1750	7.86	1.3	7-30-19 6:00	20.55	1719	7.53	8.6	6-1-19 4:30	21.32	1309	8.31	92.6					
3-1-19 12:30	-0.04	902	7.88	2.5	3-1-19 12:30	0.12	1622	7.69	51.7	3-1-19 12:30	-0.09	1749	7.86	1.3	7-30-19 6:15	20.47	1718	8.17	8.6	6-1-19 4:45	21.26	1310	8.31	121.4					
3-1-19 12:45	-0.05	903	7.89	2.1	3-1-19 12:45	0.11	1621	7.69	48.2	3-1-19 12:45	-0.08	1748	7.85	1.3	7-30-19 6:30	20.42	1718	7.21	8.6	6-1-19 5:00	21.17	1308	8.32	85.6					
3-1-19 13:00	-0.05	903	7.89	2.2	3-1-19 13:00	0.10	1622	7.69	48.6	3-1-19 13:00	-0.08	1747	7.86	1.3	7-30-19 6:45	20.34	1718	7.04	8.6	6-1-19 5:15	21.09	1311	8.32	109.2					
3-1-19 13:15	-0.04	903	7.89	2.0	3-1-19 13:15	0.12	1622	7.69	46.1	3-1-19 13:15	-0.08	1747	7.86	1.2	7-30-19 7:00	20.28	1718	6.66	8.6	6-1-19 5:30	21.01	1307	8.33	88.7					
3-1-19 13:30	-0.04	903	7.90	1.9	3-1-19 13:30	0.12	1622	7.69	49.0	3-1-19 13:30	-0.08	1747	7.86	1.2	7-30-19 7:15	20.24	1718	6.98	8.5	6-1-19 5:45	20.95	1309	8.31	118.3					
3-1-19 13:45	-0.04	904	7.91	1.8	3-1-19 13:45	0.11	1621	7.69	46.4	3-1-19 13:45	-0.08	1747	7.86	1.2	7-30-19 7:30	20.19	1718	7.19	8.5	6-1-19 6:00	20.89	1308	8.33	87.7					
3-1-19 14:00	-0.04	904	7.92	1.8	3-1-19 14:00	0.15	1622	7.69	48.3	3-1-19 14:00	-0.08	1748	7.86	1.1	7-30-19 7:45	20.12	1717	6.70	8.6	6-1-19 6:15	20.79	1309	8.33	122.2					
3-1-19 14:15	-0.04	903	7.92	1.7	3-1-19 14:15	0.16	1622	7.69	45.0	3-1-19 14:15	-0.08	1747	7.86	1.3	7-30-19 8:00	20.05	1717	7.42	8.6	6-1-19 6:30	20.78	1308	8.35	81.2					
3-1-19 14:30	-0.04	904	7.92	1.7	3-1-19 14:30	0.17	1622	7.69	42.9	3-1-19 14:30	-0.08	1747	7.86	1.3	7-30-19 8:15	20.01	1718	7.68	8.5	6-1-19 6:45	20.73	1308	8.33	116.1					
3-1-19 14:45	-0.04	904	7.93	1.7	3-1-19 14:45	0.17	1622	7.69	41.4	3-1-19 14:45	-0.08	1747	7.86	1.2	7-30-19 8:30	19.95	1718	6.75	8.5	6-1-19 7:00	20.71	1307	8.34	83.0					
3-1-19 15:00	-0.04	903	7.93	2.8	3-1-19 15:00	0.17	1623	7.69	42.0	3-1-19 15:00	-0.08	1747	7.86	1.3	7-30-19 8:45	19.91	1717	6.22	8.5	6-1-19 7:15	20.66	1309	8.32	116.2					
3-1-19 15:15	-0.05	904	7.93	1.6	3-1-19 15:15	0.20	1623	7.69	39.4	3-1-19 15:15	-0.08	1748	7.86	1.2	7-30-19 9:00	19.83	1717	7.63	8.5	6-1-19 7:30	20.61	1308	8.33	84.2					
3-1-19 15:30	-0.05	905	7.93	1.6	3-1-19 15:30	0.19	1622	7.69	44.8	3-1-19 15:30	-0.08	1748	7.86	1.2	7-30-19 9:15	19.76	1718	6.54	8.5	6-1-19 7:45	20.56	1308	8.33	118.1					
3-1-19 15:45	-0.05	904	7.93	1.5	3-1-19 15:45	0.20	1623	7.69	40.3	3-1-19 15:45	-0.08	1748	7.86	1.4	7-30-19 9:30	19.68	1718	6.78	8.5	6-1-19 8:00	20.51	1308	8.34	84.1					
3-1-19 16:00	-0.05	904	7.93	1.6	3-1-19 16:00	0.22	1623	7.69	40.1	3-1-19 16:00	-0.08	1748	7.86	1.2	7-30-19 9:45	19.64	1718	6.86	8.5	6-1-19 8:15	20.44	1310	8.33	110.2					
3-1-19 16:15	-0.05	905	7.93	1.6	3-1-19 16:15	0.22	1622	7.69	38.0	3-1-19 16:15	-0.07	1747	7.86	1.3	7-30-19 10:00	19.56	1718	6.67	8.5	6-1-19 8:30	20.41	1308	8.34	87.5					
3-1-19 16:30	-0.05	902	7.94	1.5	3-1-19 16:30	0.22	1621	7.70	42.2	3-1-19 16:30	-0.07	1747	7.86	1.2	7-30-19 10:15	19.49	1719	6.19	8.5	6-1-19 8:45	20.33	1309	8.32	112.2					
3-1-19 16:45	-0.05	902	7.94	1.6	3-1-19 16:45	0.22	1621	7.70	39.8	3-1-19 16:45	-0.07	1747	7.85	1.2	7-30-19 10:30	19.42	1718	6.91	8.5	6-1-19 9:00	20.26	1308	8.34	83.9					
3-1-19 17:00	-0.04	904	7.95	1.7	3-1-19 17:00	0.21	1620	7.70	38.3	3-1-19 17:00	-0.07	1747	7.86	1.3	7-30-19 10:45	19.36	1718	6.75	8.5	6-1-19 9:15	20.23	1309	8.34	115.0					
3-1-19 17:15	-0.04	906	7.96	1.5	3-1-19 17:15	0.20	1621	7.70	38.6	3-1-19 17:15	-0.07	1747	7.86	1.2	7-30-19 11:00	19.29	1718	6.81	8.5	6-1-19 9:30	20.19	1308	8.35	83.3					
3-1-19 17:30	-0.05	905	7.96	1.5	3-1-19 17:30	0.17	1620	7.70	38.7	3-1-19 17:30	-0.07	1748	7.86	1.2	7-30-19 11:15	19.25	1717	6.83	8.5	6-1-19 9:45	20.09	1309	8.35	112.3					
3-1-19 17:45	-0.05	905	7.96	1.5	3-1-19 17:45	0.22	1623	7.70	36.4	3-1-19 17:45	-0.08	1748	7.86	1.2	7-30-19 11:30	19.16	1718	6.57	8.5	6-1-19 10:00	20.13	1309	8.34	85.7					
3-1-19 18:00	-0.05	906	7.96	1.5	3-1-19 18:00	0.21	1622	7.70	36.7	3-1-19 18:00	-0.08	1748	7.86	1.2	7-30-19 11:45	19.09	1718	6.96	8.5	6-1-19 10:15	20.03	1309	8.34	111.0					
3-1-19 18:15	-0.05	906	7.96	1.5	3-1-19 18:15	0.19	1623	7.70	35.1	3-1-19 18:15	-0.08	1747	7.86	1.2	7-30-19 12:00	19.01	1718	6.73	8.5	6-1-19 10:30	20.02	1309	8.35	86.5					
3-1-19 18:30	-0.05	906	7.97	1.5	3-1-19 18:30	0.17	1623	7.70	36.3	3-1-19 18:30	-0.07	1747	7.86	1.3	7-30-19 12:15	18.98	1719	7.17	8.5	6-1-19 10:45	19.97	1310	8.34	101.2					
3-1-19 18:45	-0.05	905	7.97	1.6	3-1-19 18:45	0.17	1622	7.70	36.1	3-1-19 18:45	-0.07	1748	7.86	1.2	7-30-19 12:30	18.91	1718	7.50	8.5	6-1-19 11:00	19.91	1309	8.34	78.1					
3-1-19 19:00	-0.05	907	7.97	1.5	3-1-19 19:00	0.14	1623	7.70	37.8	3-1-19 19:00	-0.07	1748	7.86	1.2	7-30-19 12:45	18.83	1719	6.86	8.5	6-1-19 11:15	19.90	1310	8.34	109.7					
3-1-19 19:15	-0.05	905	7.97	1.4	3-1-19 19:15	0.10	1624	7.70	35.4	3-1-19 19:15	-0.07	1748	7.86	1.1	7-30-19 13:00	18.77	1718	7.63	8.5	6-1-19 11:30	19.86	1310	8.34	85.9					
3-1-19 19:30	-0.05	905	7.98	1.5	3-1-19 19:30	0.12	1624	7.70	37.3	3-1-19 19:30	-0.07	1748	7.86	1.2	7-30-19 13:15	18.68	1717	7.05	8.5	6-1-19 11:45	19.83	1310	8.34	104.4					
3-1-19 19:45	-0.05	905	7.98	1.4	3-1-19 19:45	0.11	1624	7.70	35.0	3-1-19 19:45	-0.07	1748	7.86	1.2	7-30-19 13:30	18.66	1718	6.90	8.5	6-1-19 12:00	19.78	1309	8.34	78.9					
3-1-19 20:00	-0.05	904	7.98	1.3	3-1-19 20:00	0.08	1623	7.70	35.3	3-1-19 20:00	-0.07	1748	7.86	1.2	7-30-19 13:45	18.62	1718	7.16	8.5	6-1-19 12:15	19.76	1311	8.34	110.8					
3-1-19 20:15	-0.04	904	8.00	1.7	3-1-19 20:15	0.04	1624	7.70	34.0	3-1-19 20:15	-0.07	1748	7.85	1.2	7-30-19 14:00	18.56	1718	7.49	8.5	6-1-19 12:30	19.76	1309	8.34	78.5					
3-1-19 20:30	-0.04	905	8.00	1.7	3-1-19 20:30	0.06	1624	7.70	35.0	3-1-19 20:30	-0.07	1748	7.86	1.2	7-30-19 14:15	18.53	1717	7.10	8.5	6-1-19 12:45	19.75	1311	8.33	109.3					
3-1-19 20:45	-0.04	903	8.02	1.8	3-1-19 20:45	0.09	1624	7.71	34.4	3-1-19 20:45	-0.07	1748	7.86	1.2	7-30-19 14:30	18.51	1720	6.86	8.5	6-1-19 13:00	19.69	1309	8.34	80.4					
3-1-19 21:00	-0.04	904	8.02	1.7	3-1-19 21:00	0.06	1629	7.71	34.5	3-1-19 21:00	-0.07	1748	7.86	1.2	7-30-19 14:45	18.47	1718	7.24	8.5	6-1-19 13:15	19.68	1309	8.33	107.2					
3-1-19 21:15	-0.04	904	8.02	1.9	3-1-19 21:15	0.06	1627	7.71	33.4	3-1-19 21:15	-0.08	1748	7.86	1.2	7-30-19 15:00	18.45	1718	7.42	8.5	6-1-19 13:30	19.64	1310	8.33	78.0					
3-1-19 21:30	-0.02	901	8.08	2.4	3-1-19 21:30	0.06	1630	7.70	32.0	3-1-19 21:30	-0.08	1749	7.86	1.2	7-30-19 15:15	18.43	1718	7.78	8.5	6-1-19 13:45	19.62	1312	8.32	103.7					
3-1-19 21:45	-0.02	899	8.09	2.5	3-1-19 21:45	0.10	1626	7.70	33.8	3-1-19 21:45	-0.08	1749	7.86	1.2	7-30-19 15:30	18.45	1719	7.14	8.5	6-1-19 14:00	19.60	1309	8.34	73.4					
3-1-19 22:00	-0.02	900	8.10	2.7	3-1-19 22:00	0.06	1631	7.70	32.1	3-1-19 22:00	-0.08	1749	7.86	1.2	7-30-19 15:45	18.44	1719	7.61	8.5	6-1-19 14:15	19.58	1311	8.33	104.7					
3-1-19 22:15	-0.03	901	8.10	2.8	3-1-19 22:15	0.09	1629	7.70	32.7	3-1-19 22:15	-0.08	1749	7.85	1.2	7-30-19 16:00	18.46	1719	7.69	8.5	6-1-19 14:30	19.63	1310	8.34	77.6					
3-1-19 22:30	-0.03	900	8.10	2.8	3-1-19 22:30	0.07	1632	7.70	33.5	3-1-19 22:30	-0.08	1749	7.86	1.2	7-30-19 16:15	18.48	1718	7.73	8.5	6-1-19 14:45	19.64	1311	8.33	104.1					
3-1-19 22:45	-0.02	898	8.11	2.8	3-1-19 22:45	0.06	1633	7.70	32.5	3-1-19 22:45	-0.08	1749	7.86	1.2	7-30-19 16:30	18.50	1719	7.37	8.5	6-1-19 15:00	19.67	1310	8.33	75.0					
3-1-19 23:00	-0.02	897	8.12	3.0	3-1-19 23:00	0.06	1634	7.70	32.6	3-1-19 23:00	-0.08	1749	7.86	1.1	7-30-19 16:45	18.52	1718	7.04	8.5	6-1-19 15:15	19.71	1311	8.32	103.7					
3-1-19 23:15	-0.03	898	8.11	3.1	3-1-19 23:15	0.04	1636	7.70	31.4	3-1-19 23:15	-0.08	1749	7.86	1.1	7-30-19 17:00	18.55	1720	7.14	8.5	6-1-19 15:30	19.70	1310	8.32	73.5					
3-1-19 23:30	-0.03	897	8.11	2.8	3-1-19 23:30	0.04	1636	7.70	30.6	3-1-19 23:30	-0.08	1750	7.86	1.1	7-30-19 17:15	18.60	1720	7.76	8.5	6-1-19 15:45	19.72	1311	8.32	100.8					
3-1-19 23:45	-0.03	897	8.11	2.8	3-1-19 23:45	0.04	1636	7.70	32.9	3-1-19 23:45	-0.08	1750	7.86	1.2	7-30-19 17:30	18.70	1718	8.19	8.5	6-1-19 16:00	19.71	1310	8.32	70.2					
3-2-19 0:00	-0.03	897	8.11	2.7	3-2-19 0:00	0.03	1639	7.69	31.0	3-2-19 0:00	-0.08	1750	7.86	1.1	7-30-19 17:45	18.79	1720	7.51	8.5	6-1-19 16:15	19.72	1312	8.31	96.0					
3-2-19 0:15	-0.03	897	8.11	2.8	3-2-19 0:15	0.04	1641	7.69	29.3	3-2-19 0:15	-0.08	1750	7.85	1.2	7-30-19 18:00	18.94	1719	7.20	8.5	6-1-19 16:30	19.79	1311	8.32	66.5					
3-2-19 0:30	-0.03	898	8.11	2.7	3-2-19 0:30	0.03	1641	7.69	30.9	3-2-19 0:30	-0.08	1750	7.86	1.2	7-30-19 18:15	18.94	1718	7.40	8.5	6-1-19 16:45	19.87	1312	8.31	96.6					
3-2-19 0:45	-0.03	896	8.10	2.6	3-2-19 0:45	0.02	1641	7.69	31.1	3-2-19 0:45	-0.08	1750	7.85	1.2	7-30-19 18:30	19.09	1719	7.29	8.5	6-1-19 17:00	19.97	1312	8.31	73.6					
3-2-19 1:00	-0.04	897	8.10	2.7	3-2-19 1:00	0.02	1641	7.69	33.6	3-2-19 1:00	-0.08	1750	7.85	1.2	7-30-19 18:45	19.19	1719	7.29	8.5	6-1-19 17:15	20.10	1313	8.30	99.1					
3-2-19 1:15	-0.04	898	8.10	2.7	3-2-19 1:15	0.01	1641	7.69	30.6	3-2-19 1:15	-0.08	1751	7.86	1.1	7-30-19 19:00	19.44	1720	6.91	8.5	6-1-19 17:30	20.23	1314	8.30	72.8					
3-2-19 1:30	-0.04	896	8.10	2.7	3-2-19 1:30	0.00	1643	7.69	29.8	3-2-19 1:30	-0.08	1751	7.86	1.1	7-30-19 19:15	19.62	1721	9.12	8.5	6-1-19 17:45	20.56	1315	8.29	97.6					
3-2-19 1:45	-0.04	894	8.10	2.7	3-2-19 1:45	-0.01	1642	7.69	32.6	3-2-19 1:45	-0.08	1752	7.86	1.2	7-30-19 19:30	19.78	1721	6.60	8.5	6-1-19 18:00	20.76	1317	8.29	75.9					
3-2-19 2:00	-0.04	896	8.10	2.7	3-2-19 2:00	-0.01	1643	7.69	30.3	3-2-19 2:00	-0.08	1752	7.86	1.2	7-30-19 19:45	19.93	1721	6.92	8.5	6-1-19 18:15	20.66	1317	8.28	97.6					
3-2-19 2:15	-0.04	895	8.09	2.5	3-2-19 2:15	-0.02	1643	7.69	31.1	3-2-19 2:15	-0.08	1751	7.86	1.2	7-30-19 20:15	19.96	1707	8.73	8.5	6-1-19 18:30	20.98	1319	8.30	72.0					
3-2-19 2:30	-0.04	895	8.09	2.7	3-2-19 2:30	-0.01	1643	7.69	30.4	3-2-19 2:30	-0.08	1752	7.86	1.2	7-30-19 20:30	19.90	1707	7.57	8.5	6-1-19 18:45	21.03	1318	8.29	96.1					
3-2-19 2:45	-0.04	894	8.09	2.5	3-2-19 2:45	-0.01	1643	7.69	30.5	3-2-19 2:45	-0.08	1752	7.86	1.2	7-30-19 20:45	19.97	1708	7.08	8.5	6-1-19 19:00	20.92	1316	8.29	76.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-2-19 3:00	-0.04	894	8.09	2.5	3-2-19 3:00	-0.02	1643	7.69	29.3	3-2-19 3:00	-0.08	1752	7.86	1.2	7-30-19 21:00	20.01	1709	7.11	8.5	6-1-19 19:15	20.91	1318	8.28	103.8					
3-2-19 3:15	-0.04	896	8.09	2.7	3-2-19 3:15	-0.02	1644	7.69	29.0	3-2-19 3:15	-0.08	1752	7.86	1.2	7-30-19 21:15	19.89	1706	7.48	8.5	6-1-19 19:30	20.72	1315	8.28	80.0					
3-2-19 3:30	-0.05	895	8.09	2.5	3-2-19 3:30	-0.02	1644	7.69	29.4	3-2-19 3:30	-0.08	1752	7.86	1.1	7-30-19 21:30	19.93	1708	7.10	8.5	6-1-19 19:45	20.74	1320	8.28	105.6					
3-2-19 3:45	-0.05	896	8.09	2.4	3-2-19 3:45	-0.02	1644	7.69	28.9	3-2-19 3:45	-0.07	1753	7.86	1.2	7-30-19 21:45	20.01	1708	7.48	8.5	6-1-19 20:00	20.98	1319	8.29	84.6					
3-2-19 4:00	-0.05	895	8.09	2.5	3-2-19 4:00	-0.01	1644	7.69	28.6	3-2-19 4:00	-0.07	1752	7.86	1.2	7-30-19 22:00	20.77	1711	7.51	8.5	6-1-19 20:15	21.04	1323	8.28	98.9					
3-2-19 4:15	-0.05	895	8.09	2.6	3-2-19 4:15	-0.01	1644	7.69	28.4	3-2-19 4:15	-0.07	1752	7.86	1.2	7-30-19 22:15	21.61	1716	6.29	8.5	6-1-19 20:30	21.20	1323	8.28	71.5					
3-2-19 4:30	-0.05	894	8.09	2.5	3-2-19 4:30	-0.01	1644	7.69	27.8	3-2-19 4:30	-0.07	1752	7.86	1.1	7-30-19 22:30	21.51	1709	6.78	8.5	6-1-19 20:45	21.50	1322	8.28	101.5					
3-2-19 4:45	-0.05	895	8.09	2.6	3-2-19 4:45	-0.01	1644	7.69	28.2	3-2-19 4:45	-0.07	1752	7.85	1.2	7-30-19 22:45	21.53	1712	6.43	8.5	6-1-19 21:00	21.53	1323	8.29	87.1					
3-2-19 5:00	-0.05	895	8.09	2.6	3-2-19 5:00	-0.02	1645	7.69	27.1	3-2-19 5:00	-0.07	1752	7.86	1.2	7-30-19 23:00	21.50	1712	6.22	8.5	6-1-19 21:15	21.60	1324	8.28	105.3					
3-2-19 5:15	-0.05	894	8.09	2.5	3-2-19 5:15	-0.02	1645	7.69	26.6	3-2-19 5:15	-0.07	1753	7.86	1.2	7-30-19 23:15	21.42	1711	6.24	8.5	6-1-19 21:30	21.62	1324	8.29	82.2					
3-2-19 5:30	-0.05	893	8.08	2.6	3-2-19 5:30	-0.02	1645	7.69	26.5	3-2-19 5:30	-0.07	1753	7.86	1.1	7-30-19 23:30	21.06	1700	6.63	8.5	6-1-19 21:45	21.68	1323	8.29	113.9					
3-2-19 5:45	-0.05	895	8.08	2.7	3-2-19 5:45	-0.01	1644	7.69	27.3	3-2-19 5:45	-0.07	1753	7.86	1.4	7-30-19 23:45	20.50	1699	8.79	8.6	6-1-19 22:00	21.73	1324	8.29	84.0					
3-2-19 6:00	-0.05	894	8.08	2.6	3-2-19 6:00	-0.02	1644	7.69	26.2	3-2-19 6:00	-0.07	1753	7.86	1.2	7-31-19 0:00	20.23	1703	8.73	8.6	6-1-19 22:15	21.75	1324	8.28	99.7					
3-2-19 6:15	-0.05	896	8.08	2.7	3-2-19 6:15	-0.02	1644	7.69	26.4	3-2-19 6:15	-0.07	1753	7.86	1.2	7-31-19 0:15	21.14	1715	5.67	8.5	6-1-19 22:30	21.86	1322	8.29	105.6					
3-2-19 6:30	-0.04	893	8.08	2.7	3-2-19 6:30	-0.02	1644	7.69	26.3	3-2-19 6:30	-0.07	1753	7.86	1.2	7-31-19 0:30	21.48	1713	6.18	8.5	6-1-19 22:45	21.85	1323	8.29	75.3					
3-2-19 6:45	-0.04	893	8.08	2.6	3-2-19 6:45	-0.02	1644	7.69	26.1	3-2-19 6:45	-0.07	1753	7.86	1.2	7-31-19 0:45	21.46	1714	6.42	8.5	6-1-19 23:00	21.88	1324	8.29	87.9					
3-2-19 7:00	-0.04	892	8.08	2.8	3-2-19 7:00	-0.02	1644	7.69	25.7	3-2-19 7:00	-0.07	1753	7.86	1.2	7-31-19 1:00	21.39	1712	6.25	8.5	6-1-19 23:15	21.82	1324	8.28	101.3					
3-2-19 7:15	-0.03	891	8.07	3.0	3-2-19 7:15	-0.02	1644	7.69	25.5	3-2-19 7:15	-0.07	1754	7.86	1.1	7-31-19 1:15	21.40	1715	6.34	8.5	6-1-19 23:30	21.77	1323	8.29	86.7					
3-2-19 7:30	-0.03	889	8.07	3.0	3-2-19 7:30	-0.03	1644	7.69	25.2	3-2-19 7:30	-0.07	1754	7.86	1.2	7-31-19 1:30	21.34	1713	6.08	8.5	6-1-19 23:45	21.67	1323	8.28	103.0					
3-2-19 7:45	-0.03	888	8.07	3.2	3-2-19 7:45	-0.02	1643	7.69	24.8	3-2-19 7:45	-0.07	1755	7.86	1.1	7-31-19 1:45	21.26	1714	6.71	8.6	6-2-19 0:00	21.53	1324	8.28	81.2					
3-2-19 8:00	-0.03	887	8.06	3.4	3-2-19 8:00	-0.01	1643	7.68	24.3	3-2-19 8:00	-0.08	1756	7.86	1.2	7-31-19 2:00	21.16	1714	6.11	8.6	6-2-19 0:15	21.52	1326	8.27	97.3					
3-2-19 8:15	-0.03	886	8.06	3.5	3-2-19 8:15	-0.01	1642	7.68	23.0	3-2-19 8:15	-0.07	1754	7.86	1.1	7-31-19 2:15	21.02	1715	5.92	8.6	6-2-19 0:30	21.59	1325	8.28	78.6					
3-2-19 8:30	-0.02	885	8.06	3.3	3-2-19 8:30	-0.02	1642	7.67	15.7	3-2-19 8:30	-0.07	1754	7.85	1.2	7-31-19 2:30	20.96	1714	6.84	8.6	6-2-19 0:45	21.56	1325	8.27	96.3					
3-2-19 8:45	-0.02	883	8.05	3.3	3-2-19 8:45	-0.02	1640	7.67	21.5	3-2-19 8:45	-0.07	1754	7.85	1.2	7-31-19 2:45	20.91	1714	6.62	8.6	6-2-19 1:00	21.47	1325	8.29	76.5					
3-2-19 9:00	-0.02	882	8.05	3.5	3-2-19 9:00	-0.02	1636	7.68	21.9	3-2-19 9:00	-0.07	1755	7.85	1.2	7-31-19 3:00	20.84	1713	7.16	8.6	6-2-19 1:15	21.39	1326	8.29	91.5					
3-2-19 9:15	-0.03	883	8.05	3.9	3-2-19 9:15	-0.02	1634	7.68	22.8	3-2-19 9:15	-0.07	1755	7.86	1.2	7-31-19 3:15	20.78	1712	5.89	8.5	6-2-19 1:30	21.39	1326	8.29	73.2					
3-2-19 9:30	-0.03	881	8.05	3.4	3-2-19 9:30	-0.02	1634	7.68	23.2	3-2-19 9:30	-0.07	1755	7.86	1.2	7-31-19 3:30	20.70	1713	6.66	8.5	6-2-19 1:45	21.37	1327	8.29	96.2					
3-2-19 9:45	-0.03	881	8.04	3.4	3-2-19 9:45	-0.02	1633	7.67	22.5	3-2-19 9:45	-0.07	1756	7.86	1.2	7-31-19 3:45	20.68	1713	5.98	8.5	6-2-19 2:00	21.38	1325	8.29	75.3					
3-2-19 10:00	-0.03	881	8.04	3.5	3-2-19 10:00	-0.02	1633	7.67	21.6	3-2-19 10:00	-0.07	1755	7.86	1.2	7-31-19 4:00	20.63	1712	6.02	8.5	6-2-19 2:15	21.29	1327	8.28	94.7					
3-2-19 10:15	-0.03	881	8.04	3.5	3-2-19 10:15	-0.02	1632	7.66	18.5	3-2-19 10:15	-0.07	1756	7.86	1.2	7-31-19 4:15	20.57	1714	6.06	8.5	6-2-19 2:30	21.22	1325	8.29	71.5					
3-2-19 10:30	-0.03	880	8.04	3.4	3-2-19 10:30	-0.02	1632	7.65	19.7	3-2-19 10:30	-0.07	1757	7.86	1.3	7-31-19 4:30	20.48	1712	6.21	8.5	6-2-19 2:45	21.18	1326	8.30	87.4					
3-2-19 10:45	-0.03	880	8.04	3.3	3-2-19 10:45	-0.03	1631	7.65	19.0	3-2-19 10:45	-0.07	1757	7.86	1.2	7-31-19 4:45	20.40	1713	5.61	8.5	6-2-19 3:00	21.20	1325	8.30	70.3					
3-2-19 11:00	-0.03	879	8.03	3.5	3-2-19 11:00	-0.03	1630	7.63	17.7	3-2-19 11:00	-0.06	1756	7.86	1.1	7-31-19 5:00	20.33	1714	6.53	8.5	6-2-19 3:15	21.12	1325	8.29	92.5					
3-2-19 11:15	-0.04	879	8.03	3.4	3-2-19 11:15	-0.03	1630	7.62	17.3	3-2-19 11:15	-0.07	1756	7.86	1.2	7-31-19 5:15	20.28	1714	6.17	8.5	6-2-19 3:30	21.09	1326	8.30	67.3					
3-2-19 11:30	-0.04	881	8.03	3.9	3-2-19 11:30	-0.03	1630	7.61	15.8	3-2-19 11:30	-0.06	1756	7.86	1.2	7-31-19 5:30	20.22	1712	5.56	8.5	6-2-19 3:45	20.98	1327	8.30	85.7					
3-2-19 11:45	-0.04	879	8.03	3.5	3-2-19 11:45	-0.03	1630	7.61	15.1	3-2-19 11:45	-0.06	1757	7.86	1.1	7-31-19 5:45	20.17	1712	5.66	8.5	6-2-19 4:00	20.98	1325	8.30	68.7					
3-2-19 12:00	-0.04	879	8.03	3.4	3-2-19 12:00	-0.04	1629	7.63	15.4	3-2-19 12:00	-0.07	1756	7.86	1.1	7-31-19 6:00	20.11	1713	5.50	8.5	6-2-19 4:15	20.90	1327	8.29	83.9					
3-2-19 12:15	-0.04	880	8.03	3.6	3-2-19 12:15	-0.04	1629	7.61	9.7	3-2-19 12:15	-0.09	1763	7.87	1.2	7-31-19 6:15	20.05	1714	5.76	8.5	6-2-19 4:30	20.86	1326	8.30	67.0					
3-2-19 12:30	-0.05	879	8.03	3.3	3-2-19 12:30	-0.04	1630	7.60	11.0	3-2-19 12:30	-0.08	1763	7.87	1.3	7-31-19 6:30	20.00	1712	6.50	8.5	6-2-19 4:45	20.79	1326	8.30	82.7					
3-2-19 12:45	-0.04	881	8.03	5.8	3-2-19 12:45	-0.03	1630	7.60	12.8	3-2-19 12:45	-0.07	1759	7.86	1.2	7-31-19 6:45	19.97	1712	6.08	8.5	6-2-19 5:00	20.71	1325	8.30	64.8					
3-2-19 13:00	-0.05	878	8.04	4.1	3-2-19 13:00	-0.04	1630	7.60	11.2	3-2-19 13:00	-0.07	1759	7.86	1.1	7-31-19 7:00	19.93	1714	5.61	8.5	6-2-19 5:15	20.69	1327	8.30	84.4					
3-2-19 13:15	-0.05	879	8.04	3.8	3-2-19 13:15	-0.04	1631	7.60	10.9	3-2-19 13:15	-0.07	1760	7.86	1.1	7-31-19 7:15	19.90	1713	5.68	8.5	6-2-19 5:30	20.64	1325	8.31	64.3					
3-2-19 13:30	-0.04	878	8.03	3.8	3-2-19 13:30	-0.04	1631	7.60	10.8	3-2-19 13:30	-0.07	1759	7.86	1.1	7-31-19 7:30	19.87	1713	5.73	8.5	6-2-19 5:45	20.62	1326	8.30	80.3					
3-2-19 13:45	-0.03	879	8.03	3.7	3-2-19 13:45	-0.04	1631	7.60	10.5	3-2-19 13:45	-0.07	1759	7.86	1.1	7-31-19 7:45	19.83	1713	5.43	8.5	6-2-19 6:00	20.44	1325	8.32	63.2					
3-2-19 14:00	-0.03	879	8.03	3.6	3-2-19 14:00	-0.04	1631	7.59	9.8	3-2-19 14:00	-0.07	1759	7.86	1.1	7-31-19 8:00	19.77	1712	5.50	8.5	6-2-19 6:15	20.39	1327	8.28	84.5					
3-2-19 14:15	-0.03	878	8.03	3.3	3-2-19 14:15	-0.04	1632	7.59	9.1	3-2-19 14:15	-0.07	1759	7.86	1.2	7-31-19 8:15	19.72	1713	5.58	8.5	6-2-19 6:30	20.33	1325	8.28	69.6					
3-2-19 14:30	-0.03	878	8.03	3.5	3-2-19 14:30	-0.03	1632	7.60	8.9	3-2-19 14:30	-0.07	1759	7.86	1.2	7-31-19 8:30	19.67	1712	5.51	8.5	6-2-19 6:45	20.24	1327	8.27	87.0					
3-2-19 14:45	-0.03	878	8.03	3.4	3-2-19 14:45	-0.04	1632	7.59	8.1	3-2-19 14:45	-0.07	1759	7.86	1.2	7-31-19 8:45	19.62	1711	6.72	8.5	6-2-19 7:00	20.19	1326	8.26	67.8					
3-2-19 15:00	-0.03	878	8.03	3.5	3-2-19 15:00	-0.04	1632	7.59	8.0	3-2-19 15:00	-0.07	1759	7.86	1.1	7-31-19 9:00	19.58	1711	5.93	8.5	6-2-19 7:15	20.09	1328	8.26	81.7					
3-2-19 15:15	-0.04	876	8.03	3.3	3-2-19 15:15	-0.02	1633	7.60	12.0	3-2-19 15:15	-0.07	1759	7.86	1.1	7-31-19 9:15	19.54	1710	6.26	8.5	6-2-19 7:30	20.04	1326	8.27	65.0					
3-2-19 15:30	-0.04	877	8.03	3.3	3-2-19 15:30	-0.02	1633	7.60	11.4	3-2-19 15:30	-0.07	1759	7.86	1.2	7-31-19 9:30	19.52	1712	5.96	8.5	6-2-19 7:45	20.01	1327	8.26	79.5					
3-2-19 15:45	-0.04	879	8.03	3.4	3-2-19 15:45	-0.03	1634	7.60	10.6	3-2-19 15:45	-0.07	1759	7.86	1.1	7-31-19 9:45	19.47	1712	5.82	8.5	6-2-19 8:00	19.90	1326	8.26	62.3					
3-2-19 16:00	-0.04	876	8.03	3.2	3-2-19 16:00	-0.04	1636	7.60	10.6	3-2-19 16:00	-0.07	1759	7.86	1.1	7-31-19 10:00	19.45	1711	6.04	8.5	6-2-19 8:15	19.87	1327	8.26	80.7					
3-2-19 16:15	-0.04	878	8.03	3.2	3-2-19 16:15	-0.04	1635	7.60	10.9	3-2-19 16:15	-0.07	1759	7.86	1.2	7-31-19 10:15	19.39	1712	11.97	8.5	6-2-19 8:30	19.85	1326	8.26	63.6					
3-2-19 16:30	-0.04	877	8.03	3.2	3-2-19 16:30	-0.04	1635	7.60	10.3	3-2-19 16:30	-0.07	1759	7.86	1.2	7-31-19 10:30	19.37	1712	5.92	8.5	6-2-19 8:45	19.80	1328	8.27	79.2					
3-2-19 16:45	-0.04	878	8.03	3.1	3-2-19 16:45	-0.03	1635	7.60	10.7	3-2-19 16:45	-0.07	1760	7.86	1.1	7-31-19 10:45	19.29	1711	5.97	8.5	6-2-19 9:00	19.76	1326	8.27	63.1					
3-2-19 17:00	-0.04	878	8.03	3.2	3-2-19 17:00	-0.03	1635	7.60	10.7	3-2-19 17:00	-0.07	1760	7.86	1.2	7-31-19 11:00	19.28	1711	6.81	8.5	6-2-19 9:15	19.71	1327	8.27	76.9					
3-2-19 17:15	-0.05	877	8.03	3.2	3-2-19 17:15	-0.03	1635	7.60	11.0	3-2-19 17:15	-0.07	1760	7.86	1.1	7-31-19 11:15	19.22	1711	6.02	8.5	6-2-19 9:30	19.66	1327	8.27	61.7					
3-2-19 17:30	-0.05	876	8.03	3.3	3-2-19 17:30	-0.03	1635	7.60	11.0	3-2-19 17:30	-0.07	1760	7.86	1.1	7-31-19 11:30	19.18	1712	6.58	8.5	6-2-19 9:45	19.61	1327	8.27	75.1					
3-2-19 17:45	-0.05	876	8.03	3.2	3-2-19 17:45	-0.03	1635	7.60	10.2	3-2-19 17:45	-0.07	1760	7.86	1.1	7-31-19 11:45	19.11	1711	5.80	8.5	6-2-19 10:00	19.54	1326	8.27	61.9					
3-2-19 18:00	-0.05	878	8.03	3.1	3-2-19 18:00	-0.03	1635	7.60	10.9	3-2-19 18:00	-0.07	1761	7.86	1.2	7-31-19 12:00	19.09	1711	5.82	8.5	6-2-19 10:15	19.47	1328	8.27	75.7					
3-2-19 18:15	-0.05	876	8.03	3.1	3-2-19 18:15	-0.03	1635	7.60	11.5	3-2-19 18:15	-0.07	1761	7.86	1.1	7-31-19 12:15	19.06	1712	6.99	8.5	6-2-19 10:30	19.44	1327	8.28	57.3					
3-2-19 18:30	-0.05	876	8.03	3.0	3-2-19 18:30	-0.03	1635	7.60	11.0	3-2-19 18:30	-0.07	1761	7.86	1.2	7-31-19 12:30	19.02	1711	6.10	8.5	6-2-19 10:45	19.39	1327	8.27	73.7					
3-2-19 18:45	-0.05	877	8.03	2.9	3-2-19 18:45	-0.03	1635	7.60	10.7	3-2-19 18:45	-0.07	1761	7.86	1.1	7-31-19 12:45	18.98	1712	6.42	8.5	6-2-19 11:00	19.29	1326	8.27	59.3					
3-2-19 19:00	-0.05	877	8.03	2.9	3-2-19 19:00	-0.03	1635	7.60	10.6	3-2-19 19:00	-0.07	1761	7.86	1.1	7-31-19 13:00	18.96	1712	6.29	8.5	6-2-19 11:15	19.27	1328	8.28	73.4					
3-2-19 19:15	-0.05	877	8.04	3.1	3-2-19 19:15	-0.03	1635	7.60	10.1	3-2-19 19:15	-0.07	1761	7.86	1.1	7-31-19 13:15	18.93	1713	6.17	8.5	6-2-19 11:30	19.22	1326	8.28	59.4					
3-2-19 19:30	-0.05	878	8.04	2.8	3-2-19 19:30	-0.03	1635	7.60	10.6	3-2-19 19:30	-0.07	1761	7.86	1.1	7-31-19 13:30	18.88	1712	7.97	8.5	6-2-19 11:45	19.23	1327	8.27	73.7					
3-2-19 19:45	-0.05	877	8.04	3.1	3-2-19 19:45	-0.03	1635	7.61	10.6	3-2-19 19:45	-0.07	1761	7.86	1.1	7-31-19 13:45	18.87	1712	6.83	8.5	6-2-19 12:00	19.13	1326	8.28	56.7					
3-2-19 20:00	-0.05	878	8.04	2.9	3-2-19 20:00	-0.03	1636	7.61	10.4	3-2-19 20:00	-0.07	1762	7.86	1.1	7-31-19 14:00	18.87	1710	6.43	8.5	6-2-19 12:15	19.06	1328	8.27	72.0					
3-2-19 20:15	-0.05	877	8.04	2.9	3-2-19 20:15	-0.03	1635	7.61	10.4	3-2-19 20:15	-0.07	1762	7.86	1.2	7-31-19 14:15	18.86	1712	6.14	8.5	6-2-19 12:30	19.02	1326	8.28	57.6					
3-2-19 20:30	-0.05	878	8.04	3.0	3-2-19 20:30	-0.03	1635	7.61	10.5	3-2-19 20:30	-0.07	1762	7.86	1.1	7-31-19 14:30	18.83	1710	6.79	8.5	6-2-19 12:45	19.05	1327	8.28	72.2					
3-2-19 20:45	-0.05	878	8.04	2.8	3-2-19 20:45	-0.03	1636	7.61	10.2	3-2-19 20:45	-0.07	1762	7.86	1.2	7-31-19 14:45	18.84	1712	7.43	8.5	6-2-19 13:00	18.97	1326	8.27	57.2					
3-2-19 21:00	-0.05	879	8.05	3.4	3-2-19 21:00	-0.03	1636	7.61	9.8	3-2-19 21:00	-0.08	1762	7.85	1.1	7-31-19 15:00	18.85	1708	6.92	8.5	6-2-19 13:15	18.90	1327	8.28	72.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-2-19 21:15	-0.05	878	8.05	2.9	3-2-19 21:15	-0.03	1636	7.61	10.1	3-2-19 21:15	-0.08	1763	7.86	1.1	7-31-19 15:15	18.91	1711	6.76	8.5	6-2-19 13:30	18.85	1326	8.27	58.2					
3-2-19 21:30	-0.05	878	8.05	2.7	3-2-19 21:30	-0.03	1637	7.60	9.4	3-2-19 21:30	-0.08	1763	7.86	1.1	7-31-19 15:30	18.96	1710	6.45	8.5	6-2-19 13:45	18.81	1326	8.27	73.9					
3-2-19 21:45	-0.05	878	8.05	2.9	3-2-19 21:45	-0.03	1637	7.60	9.2	3-2-19 21:45	-0.08	1763	7.86	1.1	7-31-19 15:45	19.05	1710	8.57	8.5	6-2-19 14:00	18.83	1325	8.27	54.5					
3-2-19 22:00	-0.05	879	8.05	2.7	3-2-19 22:00	-0.03	1637	7.60	9.4	3-2-19 22:00	-0.08	1763	7.86	1.1	7-31-19 16:00	19.12	1708	6.49	8.5	6-2-19 14:15	18.80	1327	8.27	70.1					
3-2-19 22:15	-0.05	879	8.05	2.8	3-2-19 22:15	-0.03	1637	7.60	9.5	3-2-19 22:15	-0.08	1763	7.86	1.1	7-31-19 16:15	19.12	1710	6.87	8.5	6-2-19 14:30	18.89	1326	8.28	55.1					
3-2-19 22:30	-0.05	879	8.05	2.9	3-2-19 22:30					3-2-19 22:30	-0.08	1764	7.85	1.2	7-31-19 16:30	19.16	1710	7.05	8.5	6-2-19 14:45	18.85	1326	8.27	70.8					
3-2-19 22:45	-0.05	877	8.05	2.7	3-2-19 22:45	-0.03	1638	7.61	9.7	3-2-19 22:45	-0.08	1764	7.85	1.2	7-31-19 16:45	19.18	1709	15.04	8.5	6-2-19 15:00	18.89	1325	8.28	56.3					
3-2-19 23:00	-0.05	879	8.05	2.6	3-2-19 23:00	-0.03	1638	7.60	9.5	3-2-19 23:00	-0.08	1764	7.86	1.1	7-31-19 17:00	19.27	1713	7.03	8.5	6-2-19 15:15	18.95	1327	8.27	69.5					
3-2-19 23:15	-0.05	879	8.05	2.6	3-2-19 23:15	-0.03	1638	7.60	9.4	3-2-19 23:15	-0.08	1764	7.86	1.2	7-31-19 17:15	19.45	1713	7.38	8.5	6-2-19 15:30	18.98	1326	8.28	53.8					
3-2-19 23:30	-0.05	879	8.05	2.6	3-2-19 23:30	-0.02	1639	7.60	9.1	3-2-19 23:30	-0.08	1764	7.86	1.1	7-31-19 17:30	19.50	1710	6.84	8.5	6-2-19 15:45	18.95	1327	8.26	69.4					
3-2-19 23:45	-0.05	878	8.05	2.7	3-2-19 23:45	-0.02	1639	7.60	9.2	3-2-19 23:45	-0.08	1765	7.86	1.1	7-31-19 17:45	19.60	1711	6.45	8.5	6-2-19 16:00	18.85	1338	8.29	54.2					
3-3-19 0:00	-0.05	878	8.05	2.6	3-3-19 0:00					3-3-19 0:00	-0.08	1765	7.86	1.1	7-31-19 18:00	19.69	1710	9.40	8.5	6-2-19 16:15	18.92	1339	8.28	69.8					
3-3-19 0:15	-0.05	878	8.05	2.5	3-3-19 0:15	-0.02	1640	7.60	8.9	3-3-19 0:15	-0.08	1765	7.86	1.1	7-31-19 18:15	19.70	1711	7.28	8.5	6-2-19 16:30	18.97	1340	8.28	54.9					
3-3-19 0:30	-0.05	879	8.05	2.5	3-3-19 0:30	-0.02	1640	7.60	8.8	3-3-19 0:30	-0.08	1765	7.86	1.1	7-31-19 18:30	19.78	1711	6.68	8.5	6-2-19 16:45	19.05	1345	8.28	69.9					
3-3-19 0:45	-0.05	879	8.05	2.7	3-3-19 0:45	-0.02	1640	7.60	9.1	3-3-19 0:45	-0.08	1766	7.86	1.1	7-31-19 18:45	19.75	1713	6.84	8.5	6-2-19 17:00	19.03	1346	8.28	64.0					
3-3-19 1:00	-0.05	879	8.05	2.7	3-3-19 1:00	-0.02	1640	7.60	9.0	3-3-19 1:00	-0.08	1766	7.86	1.1	7-31-19 19:00	19.76	1712	6.90	8.5	6-2-19 17:15	19.03	1347	8.28	72.8					
3-3-19 1:15	-0.05	879	8.05	2.4	3-3-19 1:15	-0.02	1640	7.60	9.0	3-3-19 1:15	-0.08	1766	7.86	1.1	7-31-19 19:15	19.84	1712	6.94	8.5	6-2-19 17:30	18.96	1345	8.29	54.5					
3-3-19 1:30	-0.05	879	8.05	2.5	3-3-19 1:30	-0.02	1641	7.60	8.9	3-3-19 1:30	-0.08	1766	7.86	1.1	7-31-19 19:30	19.87	1710	6.70	8.5	6-2-19 17:45	19.00	1347	8.29	70.6					
3-3-19 1:45	-0.05	879	8.05	2.5	3-3-19 1:45	-0.02	1641	7.60	8.9	3-3-19 1:45	-0.08	1767	7.86	1.1	7-31-19 19:45	19.87	1711	6.87	8.5	6-2-19 18:00	19.04	1348	8.29	55.7					
3-3-19 2:00	-0.05	880	8.06	2.4	3-3-19 2:00	-0.02	1641	7.60	8.5	3-3-19 2:00	-0.08	1767	7.86	1.1	7-31-19 20:00	19.92	1711	7.51	8.5	6-2-19 18:15	19.13	1349	8.27	71.4					
3-3-19 2:15	-0.05	879	8.06	2.3	3-3-19 2:15	-0.02	1642	7.60	8.4	3-3-19 2:15	-0.08	1767	7.86	1.2	7-31-19 20:15	20.03	1710	8.27	8.5	6-2-19 18:30	19.17	1346	8.28	54.0					
3-3-19 2:30	-0.05	880	8.06	2.4	3-3-19 2:30	-0.02	1642	7.60	8.3	3-3-19 2:30	-0.08	1767	7.86	1.2	7-31-19 20:30	20.10	1710	7.56	8.5	6-2-19 18:45	19.29	1346	8.28	71.1					
3-3-19 2:45	-0.05	878	8.05	2.3	3-3-19 2:45	-0.02	1643	7.60	8.3	3-3-19 2:45	-0.08	1767	7.85	1.1	7-31-19 20:45	20.25	1711	7.90	8.5	6-2-19 19:00	19.33	1344	8.28	55.6					
3-3-19 3:00	-0.05	880	8.06	2.4	3-3-19 3:00	-0.02	1643	7.60	8.2	3-3-19 3:00	-0.08	1767	7.85	1.1	7-31-19 21:00	20.29	1712	6.69	8.5	6-2-19 19:15	19.42	1347	8.27	69.0					
3-3-19 3:15	-0.05	880	8.06	2.5	3-3-19 3:15	-0.02	1643	7.60	8.2	3-3-19 3:15	-0.08	1768	7.86	1.1	7-31-19 21:15	20.43	1711	7.70	8.5	6-2-19 19:30	19.48	1342	8.28	58.5					
3-3-19 3:30	-0.05	879	8.06	2.4	3-3-19 3:30	-0.02	1643	7.59	8.2	3-3-19 3:30	-0.08	1768	7.86	1.1	7-31-19 21:30	20.96	1716	7.05	8.5	6-2-19 19:45	19.53	1346	8.27	68.6					
3-3-19 3:45	-0.05	879	8.06	2.3	3-3-19 3:45	-0.02	1644	7.59	8.2	3-3-19 3:45	-0.08	1768	7.86	1.1	7-31-19 21:45	21.17	1714	7.66	8.5	6-2-19 20:00	19.62	1344	8.28	55.0					
3-3-19 4:00	-0.05	880	8.06	2.4	3-3-19 4:00	-0.02	1644	7.60	8.0	3-3-19 4:00	-0.08	1768	7.86	1.1	7-31-19 22:00	21.32	1715	7.42	8.5	6-2-19 20:15	19.71	1344	8.26	68.2					
3-3-19 4:15	-0.05	882	8.06	2.2	3-3-19 4:15	-0.02	1645	7.60	8.1	3-3-19 4:15	-0.08	1768	7.85	1.1	7-31-19 22:15	21.48	1716	7.22	8.5	6-2-19 20:30	19.97	1344	8.27	55.5					
3-3-19 4:30	-0.05	879	8.06	2.2	3-3-19 4:30	-0.02	1645	7.60	8.3	3-3-19 4:30	-0.08	1768	7.86	1.1	7-31-19 22:30	21.50	1714	7.14	8.5	6-2-19 20:45	20.07	1345	8.27	67.5					
3-3-19 4:45	-0.05	881	8.06	2.3	3-3-19 4:45	-0.02	1646	7.60	8.2	3-3-19 4:45					7-31-19 22:45	21.48	1716	7.42	8.5	6-2-19 21:00	20.14	1344	8.27	56.9					
3-3-19 5:00	-0.05	881	8.06	2.2	3-3-19 5:00	-0.02	1646	7.60	8.4	3-3-19 5:00	-0.08	1768	7.86	1.1	7-31-19 23:00	21.64	1716	7.40	8.5	6-2-19 21:15	20.41	1345	8.27	66.9					
3-3-19 5:15	-0.05	882	8.06	2.2	3-3-19 5:15	-0.02	1646	7.60	8.6	3-3-19 5:15	-0.08	1769	7.86	1.1	7-31-19 23:15	21.67	1713	7.02	8.5	6-2-19 21:30	20.39	1345	8.27	52.3					
3-3-19 5:30	-0.05	883	8.06	2.2	3-3-19 5:30	-0.02	1647	7.60	8.5	3-3-19 5:30	-0.08	1769	7.85	1.1	7-31-19 23:30	21.67	1714	7.80	8.5	6-2-19 21:45	20.45	1345	8.27	68.2					
3-3-19 5:45	-0.05	884	8.06	2.2	3-3-19 5:45	-0.02	1647	7.60	8.6	3-3-19 5:45	-0.08	1769	7.85	1.0	7-31-19 23:45	21.90	1718	7.20	8.5	6-2-19 22:00	20.42	1344	8.28	55.0					
3-3-19 6:00	-0.05	883	8.06	2.1	3-3-19 6:00	-0.02	1648	7.60	8.6	3-3-19 6:00	-0.08	1769	7.86	1.1	8-1-19 0:00	21.92	1716	6.69	8.5	6-2-19 22:15	20.49	1345	8.27	65.5					
3-3-19 6:15	-0.05	884	8.06	2.5	3-3-19 6:15	-0.02	1648	7.60	8.6	3-3-19 6:15	-0.07	1769	7.86	1.2	8-1-19 0:15	21.88	1714	7.78	8.5	6-2-19 22:30	20.53	1345	8.28	56.2					
3-3-19 6:30	-0.05	884	8.06	2.1	3-3-19 6:30	-0.02	1649	7.60	8.5	3-3-19 6:30	-0.07	1769	7.85	1.1	8-1-19 0:30	21.99	1716	7.20	8.5	6-2-19 22:45	20.58	1345	8.28	71.8					
3-3-19 6:45	-0.05	883	8.06	2.0	3-3-19 6:45	-0.02	1649	7.60	8.4	3-3-19 6:45	-0.07	1769	7.85	1.2	8-1-19 0:45	21.98	1715	7.12	8.5	6-2-19 23:00	20.68	1346	8.29	56.5					
3-3-19 7:00	-0.05	885	8.06	2.0	3-3-19 7:00	-0.02	1650	7.60	8.2	3-3-19 7:00	-0.07	1769	7.86	1.2	8-1-19 1:00	22.00	1717	7.29	8.5	6-2-19 23:15	20.73	1346	8.28	66.5					
3-3-19 7:15	-0.05	883	8.06	2.0	3-3-19 7:15	-0.02	1650	7.60	8.0	3-3-19 7:15	-0.07	1769	7.85	1.1	8-1-19 1:15	21.96	1716	7.17	8.5	6-2-19 23:30	20.70	1346	8.29	53.1					
3-3-19 7:30	-0.05	884	8.06	2.0	3-3-19 7:30	-0.02	1651	7.60	7.9	3-3-19 7:30	-0.07	1769	7.85	1.1	8-1-19 1:30	21.88	1713	6.87	8.5	6-2-19 23:45	20.65	1347	8.29	60.7					
3-3-19 7:45	-0.04	884	8.06	2.1	3-3-19 7:45	-0.03	1651	7.59	8.0	3-3-19 7:45	-0.07	1769	7.85	1.0	8-1-19 1:45	21.83	1715	6.49	8.5	6-3-19 0:00	20.59	1347	8.29	51.7					
3-3-19 8:00	-0.04	885	8.06	2.0	3-3-19 8:00	-0.03	1652	7.59	7.9	3-3-19 8:00	-0.07	1769	7.85	1.1	8-1-19 2:00	21.78	1715	7.13	8.5	6-3-19 0:15	20.45	1348	8.29	58.7					
3-3-19 8:15	-0.04	885	8.06	1.9	3-3-19 8:15	-0.03	1652	7.59	7.7	3-3-19 8:15	-0.07	1769	7.85	1.1	8-1-19 2:15	21.78	1714	5.93	8.5	6-3-19 0:30	20.49	1347	8.30	45.8					
3-3-19 8:30	-0.05	885	8.06	2.0	3-3-19 8:30	-0.03	1653	7.59	7.9	3-3-19 8:30	-0.07	1769	7.85	1.1	8-1-19 2:30	21.82	1715	6.20	8.5	6-3-19 0:45	20.40	1348	8.30	60.7					
3-3-19 8:45	-0.04	887	8.06	2.0	3-3-19 8:45	-0.03	1653	7.59	7.9	3-3-19 8:45	-0.07	1769	7.85	1.2	8-1-19 2:45	21.78	1716	7.20	8.5	6-3-19 1:00	20.41	1347	8.30	52.2					
3-3-19 9:00	-0.03	890	8.07	1.9	3-3-19 9:00	-0.03	1653	7.59	7.9	3-3-19 9:00	-0.07	1769	7.85	1.1	8-1-19 3:00	21.74	1716	6.25	8.5	6-3-19 1:15	20.38	1347	8.30	60.6					
3-3-19 9:15	-0.03	888	8.07	1.8	3-3-19 9:15	-0.03	1654	7.59	7.9	3-3-19 9:15	-0.07	1770	7.85	1.1	8-1-19 3:15	21.69	1715	8.56	8.5	6-3-19 1:30	20.34	1346	8.31	45.7					
3-3-19 9:30	-0.04	889	8.07	1.9	3-3-19 9:30	-0.03	1655	7.59	7.9	3-3-19 9:30	-0.07	1770	7.85	1.1	8-1-19 3:30	21.61	1716	6.49	8.5	6-3-19 1:45	20.30	1348	8.30	56.2					
3-3-19 9:45	-0.05	890	8.07	1.7	3-3-19 9:45	-0.03	1655	7.59	7.8	3-3-19 9:45	-0.07	1770	7.85	1.0	8-1-19 3:45	21.54	1715	6.38	8.5	6-3-19 2:00	20.26	1347	8.31	47.3					
3-3-19 10:00	-0.05	891	8.07	1.8	3-3-19 10:00	-0.03	1656	7.59	7.7	3-3-19 10:00	-0.07	1770	7.85	1.1	8-1-19 4:00	21.48	1717	6.63	8.5	6-3-19 2:15	20.18	1348	8.30	63.0					
3-3-19 10:15	-0.05	894	8.07	1.9	3-3-19 10:15	-0.03	1656	7.59	7.7	3-3-19 10:15	-0.07	1770	7.85	1.1	8-1-19 4:15	21.42	1715	6.05	8.5	6-3-19 2:30	20.13	1347	8.32	48.3					
3-3-19 10:30	-0.05	894	8.07	1.9	3-3-19 10:30	-0.02	1656	7.59	7.7	3-3-19 10:30	-0.07	1770	7.85	1.1	8-1-19 4:30	21.35	1716	6.19	8.5	6-3-19 2:45	20.10	1349	8.31	61.6					
3-3-19 10:45	-0.04	891	8.07	1.7	3-3-19 10:45	-0.02	1657	7.60	7.7	3-3-19 10:45	-0.07	1771	7.85	1.1	8-1-19 4:45	21.30	1716	6.33	8.5	6-3-19 3:00	20.05	1347	8.32	52.6					
3-3-19 11:00	-0.04	893	8.07	1.7	3-3-19 11:00	-0.02	1657	7.60	7.8	3-3-19 11:00	-0.07	1771	7.85	1.1	8-1-19 5:00	21.25	1715	6.44	8.5	6-3-19 3:15	20.00	1348	8.32	63.3					
3-3-19 11:15	-0.04	893	8.07	1.6	3-3-19 11:15	-0.02	1658	7.60	7.7	3-3-19 11:15	-0.07	1771	7.85	1.0	8-1-19 5:15	21.20	1714	6.25	8.5	6-3-19 3:30	19.97	1347	8.32	49.0					
3-3-19 11:30	-0.04	894	8.07	1.6	3-3-19 11:30	-0.02	1658	7.60	7.7	3-3-19 11:30					8-1-19 5:30	21.15	1716	6.26	8.5	6-3-19 3:45	19.90	1348	8.31	55.6					
3-3-19 11:45	-0.04	892	8.07	1.5	3-3-19 11:45	-0.02	1659	7.60	7.8	3-3-19 11:45					8-1-19 5:45	21.08	1715	6.85	8.5	6-3-19 4:00	19.83	1347	8.32	46.8					
3-3-19 12:00	-0.04	893	8.07	1.6	3-3-19 12:00	-0.02	1659	7.60	7.7	3-3-19 12:00	-0.08	1772	7.85	1.1	8-1-19 6:00	21.01	1716	6.15	8.5	6-3-19 4:15	19.83	1349	8.31	56.2					
3-3-19 12:15	-0.04	892	8.07	1.6	3-3-19 12:15	-0.02	1660	7.60	7.8	3-3-19 12:15	-0.07	1772	7.85	1.0	8-1-19 6:15	20.96	1715	6.26	8.5	6-3-19 4:30	19.77	1347	8.32	45.6					
3-3-19 12:30	-0.04	891	8.07	1.6	3-3-19 12:30	-0.02	1660	7.59	7.8	3-3-19 12:30	-0.07	1773	7.85	1.1	8-1-19 6:30	20.91	1716	6.23	8.5	6-3-19 4:45	19.74	1348	8.32	67.9					
3-3-19 12:45	-0.04	892	8.07	1.4	3-3-19 12:45	-0.02	1661	7.60	7.7	3-3-19 12:45	-0.08	1773	7.85	1.1	8-1-19 6:45	20.86	1713	7.06	8.5	6-3-19 5:00	19.73	1347	8.32	50.5					
3-3-19 13:00	-0.04	894	8.07	1.5	3-3-19 13:00	-0.02	1661	7.60	7.8	3-3-19 13:00	-0.08	1773	7.85	1.1	8-1-19 7:00	20.81	1715	7.26	8.5	6-3-19 5:15	19.73	1347	8.32	75.6					
3-3-19 13:15	-0.04	893	8.07	1.4	3-3-19 13:15	-0.02	1661	7.60	7.7	3-3-19 13:15	-0.08	1773	7.85	1.0	8-1-19 7:15	20.74	1715	6.54	8.5	6-3-19 5:30	19.72	1347	8.32	53.2					
3-3-19 13:30	-0.04	893	8.07	1.4	3-3-19 13:30	-0.02	1662	7.60	7.6	3-3-19 13:30					8-1-19 7:30	20.68	1715	7.57	8.5	6-3-19 5:45	19.67	1347	8.31	77.7					
3-3-19 13:45	-0.05	895	8.07	1.4	3-3-19 13:45	-0.02	1662	7.60	8.1	3-3-19 13:45	-0.08	1774	7.85	1.1	8-1-19 7:45	20.59	1714	6.67	8.5	6-3-19 6:00	19.65	1347	8.31	57.6					
3-3-19 14:00	-0.05	894	8.07	1.4	3-3-19 14:00	0.00	1658	7.60	15.3	3-3-19 14:00	-0.08	1774	7.85	1.1	8-1-19 8:00	20.52	1714	6.07	8.5	6-3-19 6:15	19.56	1348	8.31	67.9					
3-3-19 14:15	-0.05	894	8.07	1.4	3-3-19 14:15	0.00	1657	7.60	12.7	3-3-19 14:15	-0.10	1779	7.87	1.2	8-1-19 8:15	20.46	1713	6.87	8.5	6-3-19 6:30	19.57	1347	8.32	54.9					
3-3-19 14:30	-0.05	894	8.07	1.3	3-3-19 14:30	0.00	1658	7.60	11.0	3-3-19 14:30	-0.09	1777	7.85	1.1	8-1-19 8:30	20.42	1715	6.67	8.5	6-3-19 6:45	19.60	1348	8.32	68.1					
3-3-19 14:45	-0.05	894	8.06	1.3	3-3-19 14:45	0.00	1659	7.60	11.5	3-3-19 14:45	-0.08	1777	7.85	1.1	8-1-19 8:45	20.35	1713	6.54	8.5	6-3-19 7:00	19.52	1348	8.32	48.9					
3-3-19 15:00	-0.05	893	8.07	1.5	3-3-19 15:00	0.00	1660	7.60	10.4	3-3-19 15:00	-0.08	1777	7.85	1.2	8-1-19 9:00	20.33	1714	7.05	8.5	6-3-19 7:15	19.45	1347	8.32	70.8					
3-3-19 15:15	-0.05	893	8.07	1.3	3-3-19 15:15	-0.01	1661	7.60	10.0	3-3-19 15:15	-0.08	1777	7.85	1.1	8-1-19 9:15	20.26	1713	6.12	8.5	6-3-19 7:30	19.40	1347	8.31	51.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-3-19 15:30	-0.05	894	8.07	1.7	3-3-19 15:30	-0.01	1662	7.60	9.6	3-3-19 15:30	-0.07	1776	7.85	1.0	8-1-19 9:30	20.20	1715	7.56	8.5	6-3-19 7:45	19.34	1348	8.32	64.3					
3-3-19 15:45	-0.05	896	8.07	1.3	3-3-19 15:45	-0.01	1663	7.60	9.2	3-3-19 15:45	-0.07	1777	7.85	1.0	8-1-19 9:45	20.16	1714	6.42	8.5	6-3-19 8:00	19.29	1346	8.32	53.8					
3-3-19 16:00	-0.05	898	8.07	1.4	3-3-19 16:00	-0.01	1664	7.60	8.8	3-3-19 16:00	-0.07	1777	7.85	1.1	8-1-19 10:00	20.10	1713	6.46	8.5	6-3-19 8:15	19.24	1347	8.31	71.6					
3-3-19 16:15	-0.05	897	8.07	1.4	3-3-19 16:15	-0.01	1665	7.60	8.5	3-3-19 16:15	-0.07	1776	7.85	1.1	8-1-19 10:15	20.09	1715	6.44	8.5	6-3-19 8:30	19.26	1346	8.32	57.2					
3-3-19 16:30	-0.03	896	8.06	1.1	3-3-19 16:30	-0.01	1665	7.60	8.5	3-3-19 16:30	-0.07	1776	7.85	1.1	8-1-19 10:30	20.06	1715	6.62	8.5	6-3-19 8:45	19.20	1347	8.32	69.8					
3-3-19 16:45	-0.03	897	8.07	1.1	3-3-19 16:45	-0.01	1666	7.60	8.3	3-3-19 16:45	-0.07	1776	7.85	1.1	8-1-19 10:45	20.00	1713	6.82	8.5	6-3-19 9:00	19.12	1346	8.32	57.6					
3-3-19 17:00	-0.04	898	8.07	1.4	3-3-19 17:00	-0.01	1667	7.60	8.2	3-3-19 17:00	-0.08	1777	7.85	1.1	8-1-19 11:00	19.94	1714	6.55	8.5	6-3-19 9:15	19.05	1347	8.31	66.0					
3-3-19 17:15	-0.04	898	8.06	1.2	3-3-19 17:15	-0.01	1667	7.60	8.1	3-3-19 17:15	-0.08	1777	7.85	1.1	8-1-19 11:15	19.89	1714	6.25	8.5	6-3-19 9:30	18.98	1346	8.32	52.9					
3-3-19 17:30	-0.05	899	8.07	1.2	3-3-19 17:30	-0.01	1668	7.60	8.0	3-3-19 17:30	-0.07	1777	7.85	1.1	8-1-19 11:30	19.82	1714	7.43	8.5	6-3-19 9:45	18.93	1348	8.32	72.2					
3-3-19 17:45	-0.05	899	8.07	1.1	3-3-19 17:45	-0.01	1668	7.60	7.8	3-3-19 17:45	-0.07	1777	7.85	1.1	8-1-19 11:45	19.81	1714	6.49	8.5	6-3-19 10:00	18.96	1345	8.32	49.5					
3-3-19 18:00	-0.05	900	8.07	1.1	3-3-19 18:00	-0.01	1669	7.60	7.9	3-3-19 18:00	-0.07	1777	7.85	1.0	8-1-19 12:00	19.76	1714	7.21	8.5	6-3-19 10:15	18.91	1346	8.31	61.3					
3-3-19 18:15	-0.05	901	8.07	1.3	3-3-19 18:15	-0.01	1669	7.60	7.8	3-3-19 18:15	-0.07	1777	7.84	1.0	8-1-19 12:15	19.71	1715	6.46	8.5	6-3-19 10:30	18.83	1345	8.32	56.8					
3-3-19 18:30	-0.05	901	8.07	1.0	3-3-19 18:30	-0.01	1668	7.60	7.7	3-3-19 18:30	-0.07	1777	7.85	1.1	8-1-19 12:30	19.66	1715	7.05	8.5	6-3-19 10:45	18.76	1347	8.31	76.3					
3-3-19 18:45	-0.05	899	8.07	1.1	3-3-19 18:45	-0.01	1669	7.60	7.9	3-3-19 18:45	-0.07	1777	7.85	1.1	8-1-19 12:45	19.61	1714	6.47	8.5	6-3-19 11:00	18.69	1346	8.32	61.7					
3-3-19 19:00	-0.05	900	8.07	1.1	3-3-19 19:00	-0.01	1669	7.60	7.8	3-3-19 19:00	-0.07	1777	7.84	1.1	8-1-19 13:00	19.56	1716	8.12	8.5	6-3-19 11:15	18.64	1346	8.32	73.6					
3-3-19 19:15	-0.05	901	8.07	1.0	3-3-19 19:15	-0.01	1670	7.60	7.9	3-3-19 19:15	-0.08	1777	7.85	1.1	8-1-19 13:15	19.53	1714	6.29	8.5	6-3-19 11:30	18.70	1345	8.32	64.0					
3-3-19 19:30	-0.05	900	8.07	1.0	3-3-19 19:30	-0.01	1670	7.60	7.9	3-3-19 19:30	-0.08	1777	7.85	1.0	8-1-19 13:30	19.53	1715	6.52	8.5	6-3-19 11:45	18.65	1347	8.32	70.2					
3-3-19 19:45	-0.05	902	8.07	1.0	3-3-19 19:45	-0.01	1670	7.60	7.9	3-3-19 19:45	-0.08	1778	7.85	1.0	8-1-19 13:45	19.52	1713	6.29	8.5	6-3-19 12:00	18.59	1346	8.31	61.6					
3-3-19 20:00	-0.05	902	8.07	1.0	3-3-19 20:00	-0.01	1671	7.60	8.0	3-3-19 20:00	-0.08	1778	7.85	1.0	8-1-19 14:00	19.49	1715	6.59	8.5	6-3-19 12:15	18.49	1347	8.31	77.4					
3-3-19 20:15	-0.05	900	8.07	1.0	3-3-19 20:15	-0.01	1671	7.60	7.8	3-3-19 20:15	-0.08	1778	7.85	1.1	8-1-19 14:15	19.46	1714	7.06	8.5	6-3-19 12:30	18.45	1346	8.31	58.4					
3-3-19 20:30	-0.05	902	8.07	1.0	3-3-19 20:30	-0.01	1671	7.60	7.7	3-3-19 20:30	-0.08	1778	7.85	1.1	8-1-19 14:30	19.42	1714	6.75	8.5	6-3-19 12:45	18.37	1347	8.32	62.7					
3-3-19 20:45	-0.05	903	8.07	0.9	3-3-19 20:45	-0.01	1671	7.59	7.8	3-3-19 20:45	-0.08	1778	7.85	1.1	8-1-19 14:45	19.42	1714	6.51	8.5	6-3-19 13:00	18.43	1347	8.31	56.8					
3-3-19 21:00	-0.05	902	8.07	1.0	3-3-19 21:00	-0.01	1671	7.60	7.8	3-3-19 21:00	-0.08	1778	7.85	1.1	8-1-19 15:00	19.43	1715	6.41	8.5	6-3-19 13:15	18.37	1347	8.31	74.7					
3-3-19 21:15	-0.05	902	8.07	0.9	3-3-19 21:15	-0.01	1672	7.59	7.8	3-3-19 21:15	-0.08	1778	7.85	1.1	8-1-19 15:15	19.43	1714	6.49	8.5	6-3-19 13:30	18.33	1346	8.31	62.7					
3-3-19 21:30	-0.05	903	8.07	1.0	3-3-19 21:30	-0.01	1672	7.59	7.8	3-3-19 21:30	-0.08	1778	7.85	1.0	8-1-19 15:30	19.44	1715	7.39	8.5	6-3-19 13:45	18.30	1347	8.32	66.9					
3-3-19 21:45	-0.05	904	8.07	0.9	3-3-19 21:45	-0.01	1673	7.59	7.9	3-3-19 21:45	-0.08	1779	7.85	1.0	8-1-19 15:45	19.45	1714	6.32	8.5	6-3-19 14:00	18.30	1346	8.31	62.5					
3-3-19 22:00	-0.05	904	8.07	1.0	3-3-19 22:00	-0.01	1674	7.59	7.9	3-3-19 22:00	-0.08	1779	7.85	1.1	8-1-19 16:00	19.43	1713	6.76	8.5	6-3-19 14:15	18.38	1348	8.29	59.4					
3-3-19 22:15	-0.05	904	8.07	0.9	3-3-19 22:15	-0.02	1674	7.59	7.7	3-3-19 22:15	-0.08	1779	7.85	1.1	8-1-19 16:15	19.43	1715	6.34	8.5	6-3-19 14:30	18.40	1346	8.30	57.7					
3-3-19 22:30	-0.05	903	8.07	0.9	3-3-19 22:30	-0.02	1675	7.59	7.9	3-3-19 22:30	-0.08	1779	7.84	1.1	8-1-19 16:30	19.46	1714	6.84	8.5	6-3-19 14:45	18.34	1346	8.31	61.4					
3-3-19 22:45	-0.05	904	8.07	0.9	3-3-19 22:45	-0.02	1675	7.60	7.8	3-3-19 22:45	-0.08	1779	7.84	1.1	8-1-19 16:45	19.51	1714	6.30	8.5	6-3-19 15:00	18.34	1345	8.32	61.7					
3-3-19 23:00	-0.05	905	8.07	0.9	3-3-19 23:00	-0.02	1676	7.60	7.8	3-3-19 23:00	-0.08	1780	7.84	1.0	8-1-19 17:00	19.53	1712	6.65	8.5	6-3-19 15:15	18.39	1347	8.31	70.6					
3-3-19 23:15	-0.05	906	8.07	0.9	3-3-19 23:15	-0.02	1676	7.59	7.9	3-3-19 23:15	-0.08	1780	7.85	1.1	8-1-19 17:15	19.55	1714	6.72	8.5	6-3-19 15:30	18.47	1345	8.31	73.3					
3-3-19 23:30	-0.05	906	8.07	1.0	3-3-19 23:30	-0.02	1676	7.60	8.1	3-3-19 23:30	-0.08	1780	7.85	1.1	8-1-19 17:30	19.60	1713	7.67	8.5	6-3-19 15:45	18.48	1346	8.31	69.7					
3-3-19 23:45	-0.05	905	8.07	0.8	3-3-19 23:45	-0.02	1677	7.60	7.8	3-3-19 23:45	-0.08	1780	7.84	1.1	8-1-19 17:45	19.57	1714	7.46	8.5	6-3-19 16:00	18.56	1346	8.30	64.7					
3-4-19 0:00	-0.05	907	8.08	0.8	3-4-19 0:00	-0.02	1677	7.60	7.9	3-4-19 0:00	-0.08	1780	7.84	1.1	8-1-19 18:00	19.61	1714	7.67	8.5	6-3-19 16:15	18.39	1352	8.30	67.2					
3-4-19 0:15	-0.05	906	8.07	0.9	3-4-19 0:15	-0.02	1678	7.60	8.0	3-4-19 0:15	-0.08	1781	7.84	1.2	8-1-19 18:15	19.65	1714	11.57	8.5	6-3-19 16:30	18.45	1352	8.30	69.8					
3-4-19 0:30	-0.05	906	8.07	0.8	3-4-19 0:30	-0.02	1678	7.60	7.9	3-4-19 0:30	-0.08	1781	7.84	1.1	8-1-19 18:30	19.71	1714	7.95	8.5	6-3-19 16:45	18.43	1356	8.31	71.2					
3-4-19 0:45	-0.05	907	8.07	0.8	3-4-19 0:45	-0.02	1678	7.60	7.9	3-4-19 0:45	-0.08	1781	7.84	1.1	8-1-19 18:45	19.80	1713	7.79	8.5	6-3-19 17:00	18.48	1355	8.31	74.7					
3-4-19 1:00	-0.05	907	8.07	0.8	3-4-19 1:00	-0.02	1679	7.60	8.0	3-4-19 1:00	-0.08	1780	7.84	1.1	8-1-19 19:00	19.83	1714	7.89	8.5	6-3-19 17:15	18.58	1355	8.30	82.1					
3-4-19 1:15	-0.05	906	8.07	0.7	3-4-19 1:15	-0.02	1679	7.60	8.1	3-4-19 1:15	-0.08	1781	7.84	1.1	8-1-19 19:15	19.85	1712	8.63	8.5	6-3-19 17:30	18.57	1353	8.30	84.0					
3-4-19 1:30	-0.05	907	8.07	0.8	3-4-19 1:30	-0.02	1679	7.60	8.0	3-4-19 1:30	-0.09	1784	7.84	1.1	8-1-19 19:30	19.91	1713	7.48	8.5	6-3-19 17:45	18.58	1354	8.30	88.6					
3-4-19 1:45	-0.05	908	8.07	0.7	3-4-19 1:45	-0.02	1680	7.60	8.2	3-4-19 1:45	-0.10	1784	7.85	1.0	8-1-19 19:45	20.02	1713	7.81	8.5	6-3-19 18:00	18.50	1354	8.30	82.1					
3-4-19 2:00	-0.05	908	8.07	0.7	3-4-19 2:00	-0.02	1680	7.60	8.1	3-4-19 2:00	-0.09	1784	7.84	1.1	8-1-19 20:00	20.10	1714	8.47	8.5	6-3-19 18:15	18.61	1355	8.29	95.1					
3-4-19 2:15	-0.05	909	8.07	0.8	3-4-19 2:15	-0.02	1680	7.60	8.1	3-4-19 2:15	-0.09	1783	7.84	1.1	8-1-19 20:15	20.18	1715	7.57	8.5	6-3-19 18:30	18.61	1354	8.31	86.0					
3-4-19 2:30	-0.05	908	8.07	0.7	3-4-19 2:30	-0.02	1681	7.60	8.2	3-4-19 2:30	-0.09	1783	7.84	1.1	8-1-19 20:30	20.31	1716	7.69	8.5	6-3-19 18:45	18.63	1356	8.30	95.1					
3-4-19 2:45	-0.05	907	8.07	0.7	3-4-19 2:45	-0.02	1681	7.60	8.5	3-4-19 2:45	-0.08	1783	7.84	1.1	8-1-19 20:45	20.57	1717	7.60	8.5	6-3-19 19:00	18.57	1353	8.31	87.3					
3-4-19 3:00	-0.05	908	8.07	0.8	3-4-19 3:00	-0.02	1681	7.60	8.2	3-4-19 3:00	-0.09	1783	7.84	1.3	8-1-19 21:00	20.68	1715	7.10	8.5	6-3-19 19:15	18.68	1355	8.31	87.1					
3-4-19 3:15	-0.05	908	8.07	0.7	3-4-19 3:15	-0.02	1681	7.60	8.4	3-4-19 3:15	-0.09	1784	7.84	1.0	8-1-19 21:15	20.83	1716	6.86	8.5	6-3-19 19:30	18.66	1353	8.31	83.0					
3-4-19 3:30	-0.05	908	8.07	0.7	3-4-19 3:30	-0.02	1681	7.60	8.1	3-4-19 3:30	-0.09	1784	7.84	1.1	8-1-19 21:30	20.95	1717	6.87	8.5	6-3-19 19:45	18.76	1355	8.31	85.7					
3-4-19 3:45	-0.05	908	8.08	0.9	3-4-19 3:45	-0.02	1682	7.60	8.4	3-4-19 3:45	-0.09	1784	7.84	1.1	8-1-19 21:45	21.09	1718	6.90	8.5	6-3-19 20:00	18.79	1354	8.31	89.2					
3-4-19 4:00	-0.05	909	8.07	0.7	3-4-19 4:00	-0.02	1684	7.60	8.2	3-4-19 4:00	-0.09	1784	7.84	1.1	8-1-19 22:00	21.16	1717	7.06	8.5	6-3-19 20:15	18.76	1355	8.30	107.1					
3-4-19 4:15	-0.05	910	8.08	0.7	3-4-19 4:15	-0.02	1685	7.60	8.2	3-4-19 4:15	-0.09	1784	7.84	1.1	8-1-19 22:15	21.28	1718	6.60	8.5	6-3-19 20:30	18.88	1353	8.31	100.1					
3-4-19 4:30	-0.05	910	8.07	0.8	3-4-19 4:30	-0.02	1685	7.60	8.3	3-4-19 4:30	-0.09	1785	7.84	1.1	8-1-19 22:30	21.31	1717	6.58	8.5	6-3-19 20:45	19.00	1354	8.30	116.2					
3-4-19 4:45	-0.05	912	8.08	0.7	3-4-19 4:45	-0.02	1686	7.60	8.3	3-4-19 4:45	-0.09	1785	7.84	1.1	8-1-19 22:45	21.40	1717	7.14	8.5	6-3-19 21:00	18.86	1354	8.29	108.0					
3-4-19 5:00	-0.05	910	8.08	0.7	3-4-19 5:00	-0.02	1686	7.60	8.4	3-4-19 5:00	-0.09	1785	7.84	1.0	8-1-19 23:00	21.46	1717	6.89	8.5	6-3-19 21:15	18.86	1355	8.30	120.6					
3-4-19 5:15	-0.05	911	8.08	0.7	3-4-19 5:15	-0.02	1687	7.60	8.3	3-4-19 5:15	-0.09	1785	7.84	1.1	8-1-19 23:15	21.50	1717	6.77	8.5	6-3-19 21:30	18.84	1355	8.30	99.4					
3-4-19 5:30	-0.05	911	8.08	0.7	3-4-19 5:30	-0.02	1687	7.60	8.1	3-4-19 5:30	-0.09	1785	7.84	1.0	8-1-19 23:30	21.55	1718	8.72	8.5	6-3-19 21:45	18.85	1356	8.30	115.2					
3-4-19 5:45	-0.05	911	8.08	0.7	3-4-19 5:45	-0.02	1688	7.60	8.1	3-4-19 5:45	-0.09	1786	7.84	1.0	8-1-19 23:45	21.62	1717	6.92	8.5	6-3-19 22:00	18.92	1355	8.30	105.5					
3-4-19 6:00	-0.05	911	8.08	0.8	3-4-19 6:00	-0.02	1688	7.60	8.3	3-4-19 6:00	-0.09	1786	7.84	1.1	8-2-19 0:00	21.64	1716	6.81	8.5	6-3-19 22:15	18.93	1356	8.29	120.1					
3-4-19 6:15	-0.05	912	8.08	0.7	3-4-19 6:15	-0.02	1688	7.60	8.1	3-4-19 6:15	-0.09	1786	7.84	1.1	8-2-19 0:15	21.64	1716	6.89	8.5	6-3-19 22:30	18.82	1354	8.30	103.7					
3-4-19 6:30	-0.05	911	8.08	0.7	3-4-19 6:30	-0.02	1689	7.60	8.1	3-4-19 6:30	-0.09	1787	7.83	1.1	8-2-19 0:30	21.59	1714	7.00	8.5	6-3-19 22:45	18.82	1356	8.30	115.4					
3-4-19 6:45	-0.05	912	8.08	0.9	3-4-19 6:45					3-4-19 6:45	-0.09	1787	7.84	1.1	8-2-19 0:45	21.59	1716	6.85	8.5	6-3-19 23:00	18.75	1355	8.31	120.6					
3-4-19 7:00	-0.05	912	8.08	0.6	3-4-19 7:00	-0.02	1689	7.59	8.1	3-4-19 7:00	-0.09	1788	7.83	1.0	8-2-19 1:00	21.61	1715	6.68	8.5	6-3-19 23:15	18.67	1349	8.31	140.1					
3-4-19 7:15	-0.05	914	8.08	0.6	3-4-19 7:15	-0.02	1690	7.60	8.2	3-4-19 7:15	-0.10	1788	7.84	1.1	8-2-19 1:15	21.58	1714	6.32	8.5	6-3-19 23:30	18.67	1354	8.31	114.6					
3-4-19 7:30	-0.05	913	8.08	0.7	3-4-19 7:30	-0.02	1690	7.59	8.2	3-4-19 7:30	-0.10	1788	7.84	1.1	8-2-19 1:30	21.51	1716	5.99	8.5	6-4-19 0:00	18.63	1355	8.31	114.5					
3-4-19 7:45	-0.05	914	8.08	0.6	3-4-19 7:45	-0.02	1690	7.59	8.2	3-4-19 7:45	-0.10	1788	7.84	1.0	8-2-19 1:45	21.46	1717	6.39	8.5	6-4-19 0:15	18.55	1353	8.31	112.9					
3-4-19 8:00	-0.05	913	8.08	0.6	3-4-19 8:00	-0.02	1691	7.59	8.2	3-4-19 8:00	-0.10	1788	7.84	1.1	8-2-19 2:00	21.52	1718	5.73	8.5	6-4-19 0:30	18.44	1350	8.33	144.3					
3-4-19 8:15	-0.05	914	8.08	0.6	3-4-19 8:15	-0.01	1691	7.59	8.2	3-4-19 8:15	-0.10	1788	7.84	1.1	8-2-19 2:15	21.51	1718	5.96	8.5	6-4-19 0:45	18.50	1352	8.32	110.1					
3-4-19 8:30	-0.05	915	8.08	0.6	3-4-19 8:30	-0.01	1693	7.59	8.2	3-4-19 8:30	-0.09	1789	7.84	1.1	8-2-19 2:30	21.48	1717	7.05	8.5	6-4-19 1:00	18.48	1353	8.32	129.4					
3-4-19 8:45	-0.05	914	8.08	0.6	3-4-19 8:45	-0.01	1694	7.59	8.2	3-4-19 8:45	-0.10	1789	7.84	1.1	8-2-19 2:45	21.46	1719	6.65	8.5	6-4-19 1:15	18.54	1352	8.32	128.9					
3-4-19 9:00	-0.05	915	8.08	0.6	3-4-19 9:00	-0.01	1694	7.59	8.2	3-4-19 9:00	-0.10	1789	7.83	1.1	8-2-19 3:00	21.41	1718	7.05	8.5	6-4-19 1:30	18.60	1352	8.32	135.1					
3-4-19 9:15	-0.05	914	8.08	0.6	3-4-19 9:15	-0.01	1695	7.59	8.2	3-4-19 9:15	-0.10	1789	7.84	1.0	8-2-19 3:15	21.38	1719	7.26	8.5	6-4-19 1:45	18.60	1351	8.31	116.0					
3-4-19 9:30	-0.05	914	8.08	0.6	3-4-19 9:30	-0.01	1695	7.59	8.2	3-4-19 9:30	-0.10	1790	7.84	1.1	8-2-19 3:30	21.34	1718	6.28	8.5	6-4-19 2:00	18.56	1352	8.32	138.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-4-19 9:45	-0.05	916	8.08	0.6	3-4-19 9:45	-0.01	1696	7.59	8.1	3-4-19 9:45	-0.10	1790	7.84	1.1	8-2-19 3:45	21.29	1717	6.36	8.5	6-4-19 2:15	18.48	1352	8.32	123.0					
3-4-19 10:00	-0.05	916	8.08	0.6	3-4-19 10:00	-0.01	1696	7.60	8.2	3-4-19 10:00					8-2-19 4:00	21.25	1718	5.93	8.5	6-4-19 2:30	18.45	1352	8.32	137.3					
3-4-19 10:15	-0.05	916	8.08	0.6	3-4-19 10:15	-0.01	1696	7.59	8.3	3-4-19 10:15	-0.10	1790	7.84	1.1	8-2-19 4:15	21.18	1717	5.84	8.5	6-4-19 2:45	18.41	1351	8.33	112.1					
3-4-19 10:30	-0.05	917	8.08	0.6	3-4-19 10:30	-0.01	1697	7.59	8.2	3-4-19 10:30	-0.10	1790	7.84	1.0	8-2-19 4:30	21.13	1718	6.39	8.5	6-4-19 3:00	18.40	1352	8.33	117.2					
3-4-19 10:45	-0.05	917	8.08	0.5	3-4-19 10:45	-0.01	1697	7.59	8.2	3-4-19 10:45	-0.10	1791	7.84	1.0	8-2-19 4:45	21.08	1717	6.66	8.5	6-4-19 3:15	18.35	1352	8.33	98.5					
3-4-19 11:00	-0.05	917	8.08	0.6	3-4-19 11:00	-0.01	1698	7.59	8.1	3-4-19 11:00	-0.10	1791	7.84	1.0	8-2-19 5:00	21.01	1716	7.12	8.5	6-4-19 3:30	18.30	1351	8.33	114.4					
3-4-19 11:15	-0.05	917	8.08	0.7	3-4-19 11:15	-0.01	1698	7.59	8.3	3-4-19 11:15	-0.10	1791	7.84	1.1	8-2-19 5:15	20.95	1716	5.66	8.5	6-4-19 3:45	18.27	1351	8.33	100.6					
3-4-19 11:30	-0.05	917	8.08	0.5	3-4-19 11:30	-0.01	1699	7.59	8.2	3-4-19 11:30	-0.10	1791	7.84	1.0	8-2-19 5:30	20.89	1717	5.88	8.5	6-4-19 4:00	18.28	1352	8.32	113.6					
3-4-19 11:45	-0.05	918	8.08	0.5	3-4-19 11:45	-0.01	1699	7.59	8.1	3-4-19 11:45	-0.10	1792	7.84	1.0	8-2-19 5:45	20.84	1716	5.81	8.5	6-4-19 4:15	18.22	1352	8.32	99.0					
3-4-19 12:00	-0.05	917	8.08	0.5	3-4-19 12:00	-0.01	1700	7.59	8.3	3-4-19 12:00	-0.10	1793	7.84	1.0	8-2-19 6:00	20.77	1717	5.61	8.5	6-4-19 4:30	18.21	1352	8.32	106.1					
3-4-19 12:15	-0.05	918	8.08	0.7	3-4-19 12:15	-0.01	1700	7.59	8.3	3-4-19 12:15	-0.10	1792	7.84	1.1	8-2-19 6:15	20.71	1716	6.05	8.5	6-4-19 4:45	18.19	1351	8.33	93.7					
3-4-19 12:30	-0.05	918	8.08	0.7	3-4-19 12:30	-0.01	1699	7.59	8.2	3-4-19 12:30	-0.10	1792	7.84	1.2	8-2-19 6:30	20.65	1714	7.00	8.5	6-4-19 5:00	18.15	1352	8.31	101.1					
3-4-19 12:45	-0.05	919	8.08	0.5	3-4-19 12:45	-0.01	1701	7.59	8.2	3-4-19 12:45	-0.10	1792	7.84	1.1	8-2-19 6:45	20.57	1716	6.13	8.5	6-4-19 5:15	18.10	1351	8.33	93.2					
3-4-19 13:00	-0.05	918	8.08	0.5	3-4-19 13:00	-0.01	1702	7.59	8.2	3-4-19 13:00	-0.10	1793	7.84	1.1	8-2-19 7:00	20.50	1717	5.85	8.5	6-4-19 5:30	18.07	1352	8.32	99.8					
3-4-19 13:15	-0.05	919	8.08	0.6	3-4-19 13:15	-0.01	1702	7.59	8.1	3-4-19 13:15	-0.10	1794	7.84	1.0	8-2-19 7:15	20.46	1716	6.30	8.5	6-4-19 5:45	17.98	1351	8.33	89.2					
3-4-19 13:30	-0.05	919	8.08	0.5	3-4-19 13:30	-0.01	1704	7.59	8.3	3-4-19 13:30	-0.10	1793	7.84	1.0	8-2-19 7:30	20.41	1717	6.44	8.5	6-4-19 6:00	17.96	1352	8.33	100.6					
3-4-19 13:45	-0.05	919	8.09	0.4	3-4-19 13:45	-0.01	1704	7.59	8.2	3-4-19 13:45	-0.10	1793	7.84	1.0	8-2-19 7:45	20.34	1716	6.53	8.5	6-4-19 6:15	17.90	1352	8.32	91.6					
3-4-19 14:00	-0.05	920	8.09	0.5	3-4-19 14:00	-0.01	1704	7.59	8.2	3-4-19 14:00	-0.10	1793	7.84	1.0	8-2-19 8:00	20.28	1716	6.53	8.5	6-4-19 6:30	17.88	1352	8.33	102.1					
3-4-19 14:15	-0.05	920	8.08	0.8	3-4-19 14:15	-0.01	1705	7.59	8.2	3-4-19 14:15	-0.10	1793	7.84	1.0	8-2-19 8:15	20.22	1718	7.30	8.5	6-4-19 6:45	17.88	1351	8.33	87.4					
3-4-19 14:30	-0.05	920	8.08	0.5	3-4-19 14:30	-0.01	1706	7.59	8.4	3-4-19 14:30	-0.10	1793	7.84	1.1	8-2-19 8:30	20.16	1717	6.09	8.5	6-4-19 7:00	17.84	1351	8.33	102.1					
3-4-19 14:45	-0.05	921	8.08	0.4	3-4-19 14:45					3-4-19 14:45	-0.10	1793	7.84	1.1	8-2-19 8:45	20.10	1716	7.01	8.5	6-4-19 7:15	17.82	1350	8.33	88.5					
3-4-19 15:00	-0.05	921	8.08	0.5	3-4-19 15:00	-0.01	1706	7.59	8.5	3-4-19 15:00	-0.09	1794	7.84	1.0	8-2-19 9:00	20.03	1716	6.69	8.5	6-4-19 7:30	17.77	1351	8.33	99.3					
3-4-19 15:15	-0.05	920	8.08	0.5	3-4-19 15:15	-0.01	1707	7.59	8.4	3-4-19 15:15	-0.10	1794	7.84	1.0	8-2-19 9:15	19.97	1717	6.60	8.5	6-4-19 7:45	17.71	1350	8.32	86.4					
3-4-19 15:30	-0.05	918	8.09	1.4	3-4-19 15:30	-0.01	1707	7.59	8.3	3-4-19 15:30	-0.10	1794	7.84	1.0	8-2-19 9:30	19.91	1715	6.02	8.5	6-4-19 8:00	17.64	1352	8.32	99.8					
3-4-19 15:45	-0.05	918	8.09	1.1	3-4-19 15:45	-0.01	1708	7.59	8.2	3-4-19 15:45	-0.10	1795	7.84	1.1	8-2-19 9:45	19.84	1717	7.03	8.5	6-4-19 8:15	17.58	1351	8.32	85.3					
3-4-19 16:00	-0.05	919	8.09	0.8	3-4-19 16:00	-0.01	1708	7.59	8.2	3-4-19 16:00	-0.10	1795	7.84	1.1	8-2-19 10:00	19.76	1715	7.84	8.5	6-4-19 8:30	17.61	1352	8.33	95.5					
3-4-19 16:15	-0.05	919	8.09	0.9	3-4-19 16:15	-0.01	1708	7.59	8.4	3-4-19 16:15	-0.10	1794	7.84	1.1	8-2-19 10:15	19.70	1718	6.09	8.5	6-4-19 8:45	17.56	1351	8.33	87.9					
3-4-19 16:30	-0.06	919	8.09	0.8	3-4-19 16:30	-0.01	1707	7.60	8.6	3-4-19 16:30	-0.12	1797	7.84	1.0	8-2-19 10:30	19.65	1717	6.20	8.5	6-4-19 9:00	17.50	1351	8.32	100.9					
3-4-19 16:45	-0.06	919	8.09	0.8	3-4-19 16:45	-0.01	1708	7.60	8.7	3-4-19 16:45	-0.10	1800	7.85	1.3	8-2-19 10:45	19.56	1717	6.22	8.5	6-4-19 9:15	17.44	1350	8.33	85.1					
3-4-19 17:00	-0.05	920	8.09	1.0	3-4-19 17:00	-0.01	1709	7.60	8.4	3-4-19 17:00	-0.10	1797	7.85	1.2	8-2-19 11:00	19.50	1717	6.73	8.5	6-4-19 9:30	17.47	1352	8.33	97.4					
3-4-19 17:15	-0.06	920	8.09	0.7	3-4-19 17:15	-0.01	1710	7.60	8.3	3-4-19 17:15	-0.10	1798	7.84	1.1	8-2-19 11:15	19.42	1717	6.53	8.5	6-4-19 9:45	17.43	1350	8.33	84.2					
3-4-19 17:30	-0.05	918	8.09	0.8	3-4-19 17:30	-0.01	1710	7.59	8.2	3-4-19 17:30	-0.10	1797	7.84	1.0	8-2-19 11:30	19.35	1717	6.34	8.5	6-4-19 10:00	17.35	1352	8.32	97.9					
3-4-19 17:45	-0.05	919	8.09	0.8	3-4-19 17:45	-0.01	1711	7.59	8.1	3-4-19 17:45	-0.10	1797	7.84	1.0	8-2-19 11:45	19.28	1716	7.61	8.5	6-4-19 10:15	17.28	1352	8.32	84.1					
3-4-19 18:00	-0.05	920	8.09	0.7	3-4-19 18:00	-0.01	1712	7.59	8.1	3-4-19 18:00	-0.10	1797	7.84	1.0	8-2-19 12:00	19.20	1717	6.74	8.5	6-4-19 10:30	17.23	1352	8.32	92.7					
3-4-19 18:15	-0.05	920	8.09	0.7	3-4-19 18:15	-0.01	1713	7.59	8.1	3-4-19 18:15	-0.10	1797	7.84	1.0	8-2-19 12:15	19.12	1717	6.33	8.5	6-4-19 10:45	17.20	1351	8.33	77.9					
3-4-19 18:30	-0.05	921	8.09	0.7	3-4-19 18:30	-0.01	1713	7.59	8.1	3-4-19 18:30	-0.10	1797	7.83	1.0	8-2-19 12:30	19.06	1716	6.93	8.5	6-4-19 11:00	17.14	1352	8.33	102.1					
3-4-19 18:45	-0.05	920	8.09	0.7	3-4-19 18:45	-0.01	1713	7.59	8.1	3-4-19 18:45	-0.10	1796	7.83	1.0	8-2-19 12:45	18.98	1715	7.71	8.5	6-4-19 11:15	17.15	1350	8.33	79.0					
3-4-19 19:00	-0.05	920	8.09	0.8	3-4-19 19:00	-0.01	1714	7.59	8.2	3-4-19 19:00	-0.10	1797	7.83	1.0	8-2-19 13:00	18.92	1715	7.42	8.5	6-4-19 11:30	17.17	1352	8.32	95.5					
3-4-19 19:15	-0.05	920	8.09	0.7	3-4-19 19:15	-0.01	1715	7.59	8.2	3-4-19 19:15	-0.10	1797	7.84	1.0	8-2-19 13:15	18.86	1717	6.54	8.5	6-4-19 11:45	17.08	1350	8.32	81.7					
3-4-19 19:30	-0.05	920	8.09	0.6	3-4-19 19:30	-0.01	1715	7.59	8.1	3-4-19 19:30	-0.10	1797	7.84	1.1	8-2-19 13:30	18.79	1717	7.16	8.5	6-4-19 12:00	17.02	1352	8.32	94.4					
3-4-19 19:45	-0.05	920	8.09	0.6	3-4-19 19:45	-0.01	1715	7.59	8.0	3-4-19 19:45	-0.10	1797	7.84	1.0	8-2-19 13:45	18.73	1717	6.60	8.5	6-4-19 12:15	16.91	1352	8.32	83.3					
3-4-19 20:00	-0.05	920	8.09	0.6	3-4-19 20:00	-0.01	1716	7.59	8.1	3-4-19 20:00	-0.10	1797	7.84	1.0	8-2-19 14:00	18.71	1714	6.92	8.5	6-4-19 12:30	16.87	1352	8.32	95.0					
3-4-19 20:15	-0.05	921	8.09	0.7	3-4-19 20:15	-0.01	1716	7.59	8.0	3-4-19 20:15	-0.10	1797	7.84	1.0	8-2-19 14:15	18.67	1717	6.46	8.5	6-4-19 12:45	16.86	1351	8.33	84.8					
3-4-19 20:30	-0.05	920	8.09	0.7	3-4-19 20:30	-0.01	1717	7.59	8.2	3-4-19 20:30	-0.10	1797	7.84	1.1	8-2-19 14:30	18.64	1716	7.07	8.5	6-4-19 13:00	16.83	1352	8.32	95.5					
3-4-19 20:45	-0.05	919	8.09	0.7	3-4-19 20:45	-0.01	1718	7.59	8.2	3-4-19 20:45	-0.10	1797	7.84	1.0	8-2-19 14:45	18.59	1718	7.49	8.5	6-4-19 13:15	16.83	1352	8.32	86.7					
3-4-19 21:00	-0.05	920	8.09	0.6	3-4-19 21:00	-0.01	1716	7.59	8.3	3-4-19 21:00	-0.10	1797	7.83	1.1	8-2-19 15:00	18.58	1714	6.86	8.5	6-4-19 13:30	16.80	1352	8.32	97.2					
3-4-19 21:15	-0.05	923	8.09	0.6	3-4-19 21:15	-0.01	1717	7.59	8.3	3-4-19 21:15	-0.10	1797	7.84	1.0	8-2-19 15:15	18.58	1717	6.95	8.5	6-4-19 13:45	16.80	1352	8.32	84.9					
3-4-19 21:30	-0.05	921	8.09	0.6	3-4-19 21:30	-0.01	1717	7.59	8.2	3-4-19 21:30	-0.10	1797	7.84	1.0	8-2-19 15:30	18.60	1716	7.49	8.5	6-4-19 14:00	16.82	1351	8.32	94.2					
3-4-19 21:45	-0.05	921	8.09	0.5	3-4-19 21:45	-0.01	1716	7.59	8.1	3-4-19 21:45	-0.10	1797	7.84	1.1	8-2-19 15:45	18.61	1714	6.97	8.5	6-4-19 14:15	16.82	1352	8.31	84.2					
3-4-19 22:00	-0.05	921	8.09	0.5	3-4-19 22:00	-0.01	1717	7.59	8.1	3-4-19 22:00	-0.10	1797	7.84	1.1	8-2-19 16:00	18.66	1717	7.15	8.5	6-4-19 14:30	16.84	1353	8.32	93.8					
3-4-19 22:15	-0.05	921	8.09	0.6	3-4-19 22:15	-0.01	1717	7.59	8.1	3-4-19 22:15	-0.10	1798	7.84	1.1	8-2-19 16:15	18.72	1718	6.61	8.5	6-4-19 14:45	16.88	1352	8.32	82.6					
3-4-19 22:30	-0.05	921	8.09	0.6	3-4-19 22:30	-0.01	1717	7.59	8.1	3-4-19 22:30	-0.10	1798	7.84	1.0	8-2-19 16:30	18.76	1719	7.62	8.5	6-4-19 15:00	16.93	1352	8.32	102.2					
3-4-19 22:45	-0.05	922	8.09	0.6	3-4-19 22:45					3-4-19 22:45	-0.10	1798	7.84	1.1	8-2-19 16:45	18.74	1719	7.27	8.5	6-4-19 15:15	17.03	1351	8.32	79.1					
3-4-19 23:00	-0.05	923	8.09	0.5	3-4-19 23:00	-0.01	1718	7.59	8.0	3-4-19 23:00	-0.10	1798	7.84	1.1	8-2-19 17:00	18.76	1718	6.63	8.5	6-4-19 15:30	17.09	1354	8.32	100.3					
3-4-19 23:15	-0.05	922	8.09	0.7	3-4-19 23:15	-0.02	1720	7.59	8.1	3-4-19 23:15	-0.10	1798	7.84	1.0	8-2-19 17:15	18.77	1718	6.89	8.5	6-4-19 15:45	17.13	1351	8.32	80.2					
3-4-19 23:30	-0.05	923	8.09	0.5	3-4-19 23:30	-0.02	1720	7.59	8.2	3-4-19 23:30	-0.10	1799	7.84	1.0	8-2-19 17:30	18.83	1716	7.08	8.5	6-4-19 16:00	17.21	1352	8.32	100.9					
3-4-19 23:45	-0.05	922	8.09	0.5	3-4-19 23:45	-0.02	1720	7.59	8.1	3-4-19 23:45	-0.10	1798	7.84	1.0	8-2-19 17:45	18.85	1719	6.51	8.5	6-4-19 16:15	17.17	1352	8.32	77.3					
3-5-19 0:00	-0.05	922	8.09	0.5	3-5-19 0:00	-0.02	1721	7.59	8.2	3-5-19 0:00					8-2-19 18:00	18.83	1718	6.83	8.5	6-4-19 16:30	17.32	1353	8.32	102.6					
3-5-19 0:15	-0.05	922	8.09	0.5	3-5-19 0:15	-0.02	1721	7.59	8.2	3-5-19 0:15	-0.10	1799	7.84	1.1	8-2-19 18:15	18.85	1717	6.94	8.5	6-4-19 16:45	17.28	1353	8.32	76.4					
3-5-19 0:30	-0.05	923	8.09	0.5	3-5-19 0:30	-0.02	1722	7.59	8.1	3-5-19 0:30	-0.10	1799	7.84	1.1	8-2-19 18:30	18.89	1719	6.86	8.5	6-4-19 17:00	17.45	1355	8.32	100.8					
3-5-19 0:45	-0.05	924	8.09	0.5	3-5-19 0:45	-0.02	1723	7.59	8.0	3-5-19 0:45	-0.10	1799	7.84	1.0	8-2-19 18:45	18.90	1719	6.80	8.5	6-4-19 17:15	17.44	1355	8.33	84.5					
3-5-19 1:00	-0.05	923	8.09	0.6	3-5-19 1:00	-0.02	1722	7.59	8.0	3-5-19 1:00	-0.10	1799	7.84	1.1	8-2-19 19:00	18.94	1719	6.83	8.5	6-4-19 17:30	17.84	1357	8.33	100.3					
3-5-19 1:15	-0.05	922	8.09	0.5	3-5-19 1:15	-0.02	1722	7.59	8.2	3-5-19 1:15	-0.10	1799	7.84	1.0	8-2-19 19:15	18.95	1719	7.38	8.5	6-4-19 17:45	17.64	1354	8.32	84.1					
3-5-19 1:30	-0.05	924	8.09	0.5	3-5-19 1:30	-0.02	1722	7.59	8.1	3-5-19 1:30	-0.10	1799	7.84	1.0	8-2-19 19:30	18.95	1720	6.73	8.5	6-4-19 18:00	17.90	1359	8.33	101.5					
3-5-19 1:45	-0.05	926	8.09	0.5	3-5-19 1:45	-0.02	1723	7.59	8.2	3-5-19 1:45	-0.10	1800	7.83	1.0	8-2-19 19:45	18.96	1718	6.94	8.5	6-4-19 18:15	18.14	1361	8.32	81.4					
3-5-19 2:00	-0.05	923	8.09	0.4	3-5-19 2:00	-0.02	1724	7.59	8.1	3-5-19 2:00	-0.10	1800	7.84	1.0	8-2-19 20:00	19.01	1719	7.10	8.5	6-4-19 18:30	18.11	1359	8.33	106.6					
3-5-19 2:15	-0.05	924	8.09	0.4	3-5-19 2:15	-0.02	1724	7.59	8.1	3-5-19 2:15	-0.10	1800	7.84	1.1	8-2-19 20:15	19.03	1720	7.68	8.5	6-4-19 18:45	18.43	1358	8.32	83.2					
3-5-19 2:30	-0.05	924	8.09	0.4	3-5-19 2:30	-0.02	1724	7.59	8.0	3-5-19 2:30	-0.10	1800	7.84	1.3	8-2-19 20:30	19.08	1718	7.70	8.5	6-4-19 19:00	18.48	1356	8.32	88.9					
3-5-19 2:45	-0.05	924	8.09	0.5	3-5-19 2:45	-0.02	1725	7.59	7.9	3-5-19 2:45	-0.10	1801	7.84	1.0	8-2-19 20:45	19.12	1720	6.83	8.5	6-4-19 19:30	18.77	1358	8.32	79.6					
3-5-19 3:00	-0.05	925	8.09	0.4	3-5-19 3:00	-0.02	1724	7.59	8.1	3-5-19 3:00	-0.10	1801	7.84	1.1	8-2-19 21:00	19.18	1719	6.73	8.5	6-4-19 19:45	18.84	1360	8.32	113.3					
3-5-19 3:15	-0.05	925	8.09	0.4	3-5-19 3:15	-0.02	1727	7.59	8.1	3-5-19 3:15	-0.10	1801	7.84	1.0	8-2-19 21:15	19.19	1718	10.05	8.5	6-4-19 20:00	19.00	1359	8.32	80.8					
3-5-19 3:30	-0.05	925	8.09	0.4	3-5-19 3:30	-0.02	1728	7.59	8.1	3-5-19 3:30	-0.10	1802	7.84	1.0	8-2-19 21:30	19.23	1719	9.57	8.5	6-4-19 20:15	18.97	1360	8.31	91.6					
3-5-19 3:45	-0.05	926	8.09	0.5	3-5-19 3:45	-0.02	1729	7.59	7.9	3-5-19 3:45	-0.10	1802	7.84	1.0	8-2-19 21:45	19.26	1720	6.60	8.5	6-4-19 20:30	18.99	1360	8.32	79.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-5-19 4:00	-0.05	927	8.09	0.4	3-5-19 4:00	-0.02	1729	7.59	8.0	3-5-19 4:00	-0.10	1802	7.84	1.0	8-2-19 22:00	19.31	1719	6.78	8.5	6-4-19 20:45	18.99	1361	8.31	92.3					
3-5-19 4:15	-0.05	927	8.09	0.4	3-5-19 4:15	-0.02	1729	7.59	8.1	3-5-19 4:15	-0.10	1802	7.84	1.1	8-2-19 22:15	19.34	1719	7.12	8.5	6-4-19 21:00	18.73	1358	8.31	82.5					
3-5-19 4:30	-0.05	927	8.09	0.4	3-5-19 4:30	-0.02	1730	7.59	7.9	3-5-19 4:30	-0.11	1802	7.84	1.0	8-2-19 22:30	19.36	1720	7.38	8.5	6-4-19 21:15	17.88	1367	8.32	93.3					
3-5-19 4:45	-0.05	926	8.09	0.4	3-5-19 4:45	-0.02	1731	7.59	8.0	3-5-19 4:45	-0.10	1802	7.84	1.1	8-2-19 22:45	19.38	1720	7.25	8.5	6-4-19 21:30	17.79	1366	8.33	86.5					
3-5-19 5:00	-0.05	928	8.09	0.4	3-5-19 5:00	-0.02	1730	7.59	8.2	3-5-19 5:00	-0.10	1802	7.84	1.1	8-2-19 23:00	19.38	1719	6.52	8.5	6-4-19 21:45	17.87	1366	8.34	99.0					
3-5-19 5:15	-0.05	928	8.09	0.4	3-5-19 5:15	-0.02	1731	7.59	7.9	3-5-19 5:15	-0.11	1803	7.83	1.0	8-2-19 23:15	19.37	1716	6.62	8.5	6-4-19 22:00	17.90	1365	8.34	82.7					
3-5-19 5:30	-0.05	928	8.09	0.4	3-5-19 5:30	-0.02	1731	7.59	8.1	3-5-19 5:30	-0.11	1803	7.83	1.0	8-2-19 23:30	19.34	1718	6.93	8.5	6-4-19 22:15	17.87	1365	8.34	98.6					
3-5-19 5:45	-0.05	928	8.09	0.4	3-5-19 5:45	-0.02	1732	7.59	7.8	3-5-19 5:45	-0.11	1803	7.83	1.0	8-2-19 23:45	19.34	1720	6.71	8.5	6-4-19 22:30	17.92	1364	8.34	84.4					
3-5-19 6:00	-0.05	929	8.09	0.4	3-5-19 6:00	-0.02	1732	7.59	8.0	3-5-19 6:00	-0.11	1803	7.84	1.0	8-3-19 0:00	19.34	1720	6.80	8.5	6-4-19 22:45	17.92	1364	8.34	96.0					
3-5-19 6:15	-0.05	929	8.09	0.4	3-5-19 6:15	-0.02	1732	7.59	7.9	3-5-19 6:15	-0.11	1802	7.84	1.0	8-3-19 0:15	19.34	1720	7.15	8.5	6-4-19 23:00	17.94	1364	8.34	83.2					
3-5-19 6:30	-0.05	930	8.09	0.4	3-5-19 6:30	-0.02	1732	7.59	7.8	3-5-19 6:30	-0.11	1803	7.84	1.0	8-3-19 0:30	19.33	1718	6.78	8.5	6-4-19 23:15	17.95	1364	8.34	94.3					
3-5-19 6:45	-0.05	929	8.09	0.4	3-5-19 6:45	-0.02	1732	7.59	7.9	3-5-19 6:45	-0.11	1803	7.84	1.1	8-3-19 0:45	19.35	1718	6.95	8.5	6-4-19 23:30	17.94	1363	8.35	88.1					
3-5-19 7:00	-0.05	931	8.09	0.4	3-5-19 7:00	-0.02	1732	7.59	7.7	3-5-19 7:00	-0.11	1803	7.83	1.0	8-3-19 1:00	19.37	1719	7.07	8.5	6-4-19 23:45	17.94	1364	8.35	105.9					
3-5-19 7:15	-0.06	931	8.09	0.4	3-5-19 7:15	-0.02	1732	7.59	8.0	3-5-19 7:15	-0.11	1804	7.83	1.0	8-3-19 1:15	19.36	1720	6.82	8.5	6-5-19 0:00	17.90	1364	8.35	88.7					
3-5-19 7:30	-0.06	932	8.09	0.3	3-5-19 7:30	-0.02	1735	7.59	7.8	3-5-19 7:30	-0.11	1804	7.83	1.0	8-3-19 1:30	19.35	1716	6.80	8.5	6-5-19 0:15	17.88	1365	8.34	104.0					
3-5-19 7:45	-0.06	932	8.09	0.4	3-5-19 7:45	-0.02	1735	7.59	7.8	3-5-19 7:45	-0.11	1804	7.83	1.0	8-3-19 1:45	19.36	1718	11.55	8.5	6-5-19 0:30	17.87	1364	8.35	87.5					
3-5-19 8:00	-0.06	932	8.09	0.4	3-5-19 8:00	-0.02	1736	7.59	8.0	3-5-19 8:00	-0.11	1805	7.83	1.0	8-3-19 2:00	19.35	1719	8.20	8.5	6-5-19 0:45	17.86	1365	8.35	101.9					
3-5-19 8:15	-0.06	933	8.09	0.4	3-5-19 8:15	-0.02	1737	7.59	7.8	3-5-19 8:15	-0.11	1804	7.84	1.0	8-3-19 2:15	19.34	1718	7.01	8.5	6-5-19 1:00	17.88	1364	8.35	87.1					
3-5-19 8:30	-0.05	933	8.09	0.3	3-5-19 8:30	-0.02	1737	7.59	7.7	3-5-19 8:30	-0.11	1804	7.84	1.0	8-3-19 2:30	19.29	1718	7.14	8.5	6-5-19 1:15	17.90	1365	8.35	105.3					
3-5-19 8:45	-0.05	934	8.09	0.4	3-5-19 8:45	-0.02	1737	7.59	7.8	3-5-19 8:45	-0.11	1804	7.84	1.1	8-3-19 2:45	19.27	1716	8.23	8.5	6-5-19 1:30	17.90	1363	8.35	88.6					
3-5-19 9:00	-0.06	933	8.09	0.4	3-5-19 9:00	-0.02	1737	7.59	7.8	3-5-19 9:00	-0.11	1804	7.83	1.0	8-3-19 3:00	19.25	1719	7.67	8.5	6-5-19 1:45	17.98	1365	8.34	104.3					
3-5-19 9:15	-0.06	934	8.09	0.4	3-5-19 9:15	-0.02	1738	7.59	7.9	3-5-19 9:15	-0.11	1804	7.83	1.0	8-3-19 3:15	19.23	1720	6.63	8.5	6-5-19 2:00	17.97	1363	8.34	89.6					
3-5-19 9:30	-0.06	934	8.09	0.3	3-5-19 9:30	-0.02	1739	7.59	7.8	3-5-19 9:30	-0.11	1807	7.83	1.0	8-3-19 3:30	19.21	1718	7.65	8.5	6-5-19 2:15	17.87	1364	8.34	101.0					
3-5-19 9:45	-0.06	933	8.09	0.3	3-5-19 9:45	-0.02	1739	7.59	7.9	3-5-19 9:45					8-3-19 3:45	19.18	1720	6.97	8.5	6-5-19 2:30	17.89	1363	8.35	84.4					
3-5-19 10:00	-0.06	934	8.09	0.4	3-5-19 10:00	-0.02	1740	7.59	7.8	3-5-19 10:00	-0.11	1806	7.83	1.0	8-3-19 4:00	19.14	1718	6.59	8.5	6-5-19 2:45	17.87	1364	8.35	102.3					
3-5-19 10:15	-0.05	934	8.09	0.4	3-5-19 10:15	-0.02	1740	7.59	7.8	3-5-19 10:15	-0.11	1805	7.83	1.0	8-3-19 4:15	19.12	1719	6.77	8.5	6-5-19 3:00	17.83	1364	8.34	85.3					
3-5-19 10:30	-0.06	934	8.09	0.3	3-5-19 10:30	-0.02	1741	7.59	7.6	3-5-19 10:30	-0.11	1805	7.84	1.0	8-3-19 4:30	19.05	1720	6.54	8.5	6-5-19 3:15	17.77	1365	8.35	102.1					
3-5-19 10:45	-0.05	935	8.09	0.3	3-5-19 10:45	-0.02	1741	7.59	7.8	3-5-19 10:45	-0.11	1805	7.83	1.0	8-3-19 4:45	19.04	1720	7.18	8.5	6-5-19 3:30	17.74	1364	8.35	88.0					
3-5-19 11:00	-0.06	935	8.09	0.4	3-5-19 11:00	-0.02	1740	7.59	7.9	3-5-19 11:00	-0.11	1805	7.83	1.0	8-3-19 5:00	19.02	1718	6.85	8.5	6-5-19 3:45	17.74	1365	8.34	101.4					
3-5-19 11:15	-0.05	935	8.09	0.3	3-5-19 11:15	-0.02	1741	7.59	7.8	3-5-19 11:15	-0.11	1806	7.83	1.0	8-3-19 5:15	18.99	1719	6.76	8.5	6-5-19 4:00	17.67	1365	8.35	85.9					
3-5-19 11:30	-0.06	934	8.09	0.3	3-5-19 11:30	-0.02	1742	7.59	7.8	3-5-19 11:30	-0.11	1807	7.83	1.0	8-3-19 5:30	18.94	1720	6.53	8.5	6-5-19 4:15	17.60	1367	8.34	100.2					
3-5-19 11:45	-0.06	935	8.09	0.3	3-5-19 11:45	-0.02	1742	7.59	7.9	3-5-19 11:45	-0.11	1807	7.83	1.0	8-3-19 5:45	18.90	1718	6.60	8.5	6-5-19 4:30	17.61	1365	8.35	83.5					
3-5-19 12:00	-0.06	935	8.09	0.3	3-5-19 12:00	-0.02	1743	7.59	7.8	3-5-19 12:00	-0.11	1807	7.83	0.9	8-3-19 6:00	18.85	1719	6.83	8.5	6-5-19 4:45	17.59	1366	8.35	100.7					
3-5-19 12:15	-0.06	935	8.09	0.4	3-5-19 12:15	-0.02	1742	7.59	7.8	3-5-19 12:15	-0.11	1807	7.84	0.9	8-3-19 6:15	18.83	1719	7.04	8.5	6-5-19 5:00	17.55	1364	8.35	91.5					
3-5-19 12:30	-0.05	937	8.09	0.3	3-5-19 12:30	-0.04	1747	7.59	7.9	3-5-19 12:30	-0.11	1807	7.83	1.1	8-3-19 6:30	18.81	1719	6.45	8.5	6-5-19 5:15	17.54	1365	8.35	102.5					
3-5-19 12:45	-0.06	936	8.09	0.3	3-5-19 12:45	-0.03	1747	7.59	7.7	3-5-19 12:45	-0.11	1807	7.83	1.0	8-3-19 6:45	18.78	1718	6.69	8.5	6-5-19 5:30	17.48	1365	8.35	85.1					
3-5-19 13:00	-0.06	937	8.09	0.3	3-5-19 13:00	-0.02	1746	7.59	7.9	3-5-19 13:00	-0.11	1810	7.84	1.4	8-3-19 7:00	18.72	1719	7.25	8.5	6-5-19 5:45	17.48	1366	8.35	97.0					
3-5-19 13:15	-0.06	936	8.09	0.4	3-5-19 13:15	-0.02	1745	7.59	7.9	3-5-19 13:15	-0.12	1812	7.84	1.0	8-3-19 7:15	18.66	1720	6.47	8.5	6-5-19 6:00	17.47	1364	8.35	82.5					
3-5-19 13:30	-0.06	937	8.09	0.3	3-5-19 13:30	-0.01	1745	7.59	8.0	3-5-19 13:30	-0.11	1809	7.83	1.0	8-3-19 7:30	18.63	1720	6.39	8.5	6-5-19 6:15	17.39	1366	8.34	108.5					
3-5-19 13:45	-0.05	938	8.10	1.0	3-5-19 13:45	-0.01	1746	7.59	7.9	3-5-19 13:45	-0.11	1809	7.83	1.0	8-3-19 7:45	18.61	1719	6.77	8.5	6-5-19 6:30	17.43	1365	8.34	82.1					
3-5-19 14:00	-0.04	938	8.09	0.6	3-5-19 14:00	-0.01	1744	7.59	8.0	3-5-19 14:00	-0.11	1808	7.83	1.0	8-3-19 8:00	18.58	1719	6.35	8.5	6-5-19 6:45	17.38	1365	8.34	97.3					
3-5-19 14:15	-0.05	938	8.09	0.6	3-5-19 14:15	-0.01	1745	7.59	8.0	3-5-19 14:15	-0.11	1808	7.84	1.0	8-3-19 8:15	18.53	1720	6.62	8.5	6-5-19 7:00	17.35	1364	8.35	81.4					
3-5-19 14:30	-0.05	938	8.09	0.5	3-5-19 14:30	-0.01	1746	7.59	8.1	3-5-19 14:30	-0.11	1808	7.83	1.0	8-3-19 8:30	18.48	1719	6.47	8.5	6-5-19 7:15	17.29	1365	8.35	95.2					
3-5-19 14:45	-0.05	938	8.09	0.6	3-5-19 14:45	-0.01	1747	7.59	7.8	3-5-19 14:45	-0.11	1809	7.83	1.0	8-3-19 8:45	18.44	1719	7.06	8.5	6-5-19 7:30	17.23	1364	8.35	80.8					
3-5-19 15:00	-0.05	937	8.09	0.5	3-5-19 15:00	-0.01	1747	7.59	7.8	3-5-19 15:00	-0.11	1808	7.83	1.0	8-3-19 9:00	18.40	1718	6.48	8.5	6-5-19 7:45	17.22	1365	8.35	95.7					
3-5-19 15:15	-0.05	938	8.09	0.5	3-5-19 15:15	-0.01	1748	7.59	7.9	3-5-19 15:15	-0.11	1809	7.83	0.9	8-3-19 9:15	18.38	1720	6.83	8.5	6-5-19 8:00	17.18	1365	8.35	82.0					
3-5-19 15:30	-0.05	938	8.10	0.5	3-5-19 15:30	-0.01	1749	7.59	8.0	3-5-19 15:30	-0.11	1809	7.83	1.0	8-3-19 9:30	18.32	1717	6.38	8.5	6-5-19 8:15	17.16	1366	8.34	97.2					
3-5-19 15:45	-0.05	938	8.10	0.5	3-5-19 15:45	-0.01	1747	7.59	8.0	3-5-19 15:45	-0.11	1809	7.83	1.0	8-3-19 9:45	18.27	1718	6.40	8.5	6-5-19 8:30	17.14	1365	8.35	82.2					
3-5-19 16:00	-0.05	939	8.10	0.4	3-5-19 16:00	-0.01	1749	7.59	8.2	3-5-19 16:00	-0.11	1809	7.83	0.9	8-3-19 10:00	18.24	1717	7.54	8.5	6-5-19 8:45	17.12	1365	8.35	98.2					
3-5-19 16:15	-0.05	939	8.10	0.5	3-5-19 16:15	-0.01	1750	7.59	7.9	3-5-19 16:15	-0.11	1809	7.84	1.0	8-3-19 10:15	18.18	1718	6.31	8.5	6-5-19 9:00	17.08	1365	8.35	80.9					
3-5-19 16:30	-0.05	940	8.10	0.4	3-5-19 16:30	-0.01	1750	7.59	8.1	3-5-19 16:30	-0.11	1809	7.83	1.0	8-3-19 10:30	18.13	1718	7.78	8.5	6-5-19 9:15	17.02	1365	8.35	98.3					
3-5-19 16:45	-0.05	940	8.10	0.4	3-5-19 16:45	-0.01	1750	7.59	8.0	3-5-19 16:45	-0.11	1809	7.84	1.0	8-3-19 10:45	18.10	1720	7.09	8.5	6-5-19 9:30	16.97	1364	8.35	87.9					
3-5-19 17:00	-0.05	941	8.10	0.5	3-5-19 17:00	-0.01	1751	7.59	7.9	3-5-19 17:00	-0.11	1809	7.84	1.0	8-3-19 11:00	18.05	1720	6.55	8.5	6-5-19 9:45	16.96	1365	8.35	95.0					
3-5-19 17:15	-0.05	939	8.09	0.4	3-5-19 17:15	-0.01	1751	7.59	7.6	3-5-19 17:15	-0.11	1810	7.83	1.0	8-3-19 11:15	18.03	1720	6.41	8.5	6-5-19 10:00	16.98	1365	8.35	79.2					
3-5-19 17:30	-0.05	941	8.09	0.4	3-5-19 17:30	-0.01	1752	7.59	7.5	3-5-19 17:30	-0.11	1810	7.83	1.0	8-3-19 11:30	17.98	1718	6.72	8.5	6-5-19 10:15	16.90	1366	8.34	91.3					
3-5-19 17:45	-0.05	941	8.09	0.4	3-5-19 17:45	-0.01	1752	7.59	7.9	3-5-19 17:45	-0.11	1810	7.83	1.0	8-3-19 11:45	17.93	1720	6.43	8.5	6-5-19 10:30	16.88	1365	8.35	77.8					
3-5-19 18:00	-0.05	943	8.09	0.4	3-5-19 18:00	-0.01	1754	7.59	7.7	3-5-19 18:00	-0.11	1811	7.83	1.0	8-3-19 12:00	17.89	1721	6.36	8.5	6-5-19 10:45	16.83	1366	8.35	92.9					
3-5-19 18:15	-0.05	941	8.09	0.4	3-5-19 18:15	-0.01	1754	7.59	7.8	3-5-19 18:15	-0.11	1810	7.83	1.0	8-3-19 12:15	17.85	1719	6.80	8.5	6-5-19 11:00	16.82	1364	8.35	76.7					
3-5-19 18:30	-0.05	943	8.09	0.3	3-5-19 18:30	-0.01	1756	7.59	7.8	3-5-19 18:30	-0.11	1810	7.83	1.0	8-3-19 12:30	17.79	1720	6.57	8.5	6-5-19 11:15	16.78	1365	8.35	96.0					
3-5-19 18:45	-0.05	943	8.09	0.3	3-5-19 18:45	-0.01	1756	7.59	7.7	3-5-19 18:45	-0.11	1810	7.84	1.0	8-3-19 12:45	17.73	1719	6.48	8.5	6-5-19 11:30	16.76	1365	8.35	76.9					
3-5-19 19:00	-0.05	944	8.09	0.3	3-5-19 19:00	-0.01	1756	7.59	7.7	3-5-19 19:00	-0.11	1810	7.84	1.0	8-3-19 13:00	17.70	1720	6.67	8.5	6-5-19 11:45	16.77	1365	8.34	92.8					
3-5-19 19:15	-0.05	943	8.09	0.3	3-5-19 19:15	-0.01	1757	7.59	7.7	3-5-19 19:15	-0.11	1810	7.83	0.9	8-3-19 13:15	17.67	1721	6.77	8.5	6-5-19 12:00	16.72	1365	8.35	75.2					
3-5-19 19:30	-0.05	943	8.09	0.3	3-5-19 19:30	-0.01	1757	7.59	7.7	3-5-19 19:30	-0.11	1810	7.83	1.0	8-3-19 13:30	17.64	1721	6.61	8.5	6-5-19 12:15	16.60	1366	8.34	94.0					
3-5-19 19:45	-0.05	944	8.09	0.3	3-5-19 19:45	-0.01	1757	7.59	7.5	3-5-19 19:45	-0.11	1810	7.83	0.9	8-3-19 13:45	17.59	1719	7.06	8.5	6-5-19 12:30	16.55	1364	8.35	74.4					
3-5-19 20:00	-0.05	946	8.09	0.3	3-5-19 20:00	-0.01	1757	7.59	7.6	3-5-19 20:00	-0.11	1810	7.83	1.0	8-3-19 14:00	17.58	1720	8.36	8.5	6-5-19 12:45	16.50	1365	8.35	108.0					
3-5-19 20:15	-0.05	945	8.09	0.3	3-5-19 20:15	-0.01	1758	7.59	7.6	3-5-19 20:15	-0.11	1810	7.84	1.0	8-3-19 14:15	17.54	1719	6.66	8.5	6-5-19 13:00	16.47	1365	8.35	75.8					
3-5-19 20:30	-0.05	943	8.09	0.3	3-5-19 20:30	-0.01	1758	7.59	7.6	3-5-19 20:30	-0.11	1810	7.83	1.1	8-3-19 14:30	17.51	1718	6.73	8.5	6-5-19 13:15	16.43	1367	8.35	99.6					
3-5-19 20:45	-0.05	945	8.09	0.3	3-5-19 20:45	-0.01	1759	7.59	7.6	3-5-19 20:45	-0.11	1811	7.83	1.0	8-3-19 14:45	17.50	1719	10.63	8.5	6-5-19 13:30	16.42	1366	8.35	75.8					
3-5-19 21:00	-0.05	945	8.09	0.3	3-5-19 21:00	-0.02	1760	7.59	7.8	3-5-19 21:00	-0.11	1810	7.83	1.0	8-3-19 15:00	17.45	1719	6.96	8.5	6-5-19 13:45	16.43	1366	8.35	97.9					
3-5-19 21:15	-0.05	944	8.09	0.3	3-5-19 21:15	-0.02	1757	7.59	7.6	3-5-19 21:15	-0.11	1812	7.83	1.0	8-3-19 15:15	17.45	1721	6.56	8.5	6-5-19 14:00	16.36	1365	8.35	76.3					
3-5-19 21:30	-0.05	945	8.08	0.3	3-5-19 21:30	-0.02	1760	7.59	7.6	3-5-19 21:30	-0.11	1811	7.83	1.0	8-3-19 15:30	17.46	1722	6.98	8.5	6-5-19 14:15	16.36	1367	8.34	111.2					
3-5-19 21:45	-0.05	945	8.09	0.2	3-5-19 21:45	-0.02	1761	7.59	7.6	3-5-19 21:45	-0.11	1811	7.83	0.9	8-3-19 15:45	17.48	1721	6.79	8.5	6-5-19 14:30	16.39	1365	8.34	78.9					
3-5-19 22:00	-0.05	945	8.08	0.3	3-5-19 22:00	-0.02	1777	7.59	7.5	3-5-19 22:00	-0.11	1811	7.83	1.0	8-3-19 16:00	17.48	1718	6.73	8.5	6-5-19 14:45	16.40	1366	8.34	100.2					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-5-19 22:15	-0.05	946	8.08	0.3	3-5-19 22:15	-0.02	1761	7.59	7.4	3-5-19 22:15	-0.11	1810	7.83	1.0	8-3-19 16:15	17.55	1717	6.90	8.5	6-5-19 15:00	16.36	1365	8.34	80.2					
3-5-19 22:30	-0.05	946	8.08	0.3	3-5-19 22:30	-0.02	1761	7.59	7.4	3-5-19 22:30	-0.11	1811	7.83	1.0	8-3-19 16:30	17.63	1720	6.51	8.5	6-5-19 15:15	16.34	1366	8.35	98.1					
3-5-19 22:45	-0.05	946	8.08	0.3	3-5-19 22:45	-0.02	1762	7.59	7.7	3-5-19 22:45	-0.11	1811	7.83	1.0	8-3-19 16:45	17.73	1720	6.56	8.5	6-5-19 15:30	16.31	1364	8.35	76.0					
3-5-19 23:00	-0.05	946	8.08	0.3	3-5-19 23:00	-0.02	1763	7.59	7.4	3-5-19 23:00	-0.11	1811	7.83	1.0	8-3-19 17:00	17.84	1721	6.57	8.5	6-5-19 15:45	16.35	1366	8.35	97.9					
3-5-19 23:15	-0.05	946	8.08	0.2	3-5-19 23:15	-0.02	1764	7.59	7.5	3-5-19 23:15	-0.11	1812	7.83	1.0	8-3-19 17:15	17.99	1721	6.55	8.5	6-5-19 16:00	16.42	1366	8.35	76.2					
3-5-19 23:30	-0.05	946	8.09	0.3	3-5-19 23:30	-0.02	1763	7.59	7.4	3-5-19 23:30	-0.11	1812	7.83	1.0	8-3-19 17:30	18.06	1719	6.68	8.5	6-5-19 16:15	16.45	1367	8.34	98.4					
3-5-19 23:45	-0.05	945	8.09	0.3	3-5-19 23:45	-0.02	1764	7.59	7.6	3-5-19 23:45	-0.11	1812	7.83	1.0	8-3-19 17:45	18.13	1720	6.75	8.5	6-5-19 16:30	16.48	1365	8.35	74.4					
3-6-19 0:00	-0.05	946	8.09	0.3	3-6-19 0:00	-0.02	1765	7.59	7.4	3-6-19 0:00	-0.11	1812	7.83	1.0	8-3-19 18:00	18.22	1719	6.50	8.5	6-5-19 16:45	16.54	1366	8.34	90.7					
3-6-19 0:15	-0.05	946	8.09	0.2	3-6-19 0:15	-0.02	1765	7.59	7.4	3-6-19 0:15	-0.11	1812	7.84	1.1	8-3-19 18:15	18.30	1719	6.24	8.5	6-5-19 17:00	16.57	1365	8.34	77.0					
3-6-19 0:30	-0.05	948	8.09	0.4	3-6-19 0:30	-0.02	1765	7.59	7.5	3-6-19 0:30	-0.11	1811	7.84	1.0	8-3-19 18:30	18.44	1719	6.81	8.5	6-5-19 17:15	16.53	1366	8.33	105.8					
3-6-19 0:45	-0.05	946	8.09	0.3	3-6-19 0:45	-0.02	1766	7.59	7.6	3-6-19 0:45	-0.11	1812	7.83	1.0	8-3-19 18:45	18.37	1722	6.60	8.5	6-5-19 17:30	16.53	1365	8.35	93.2					
3-6-19 1:00	-0.05	948	8.09	0.3	3-6-19 1:00	-0.02	1766	7.59	7.4	3-6-19 1:00	-0.11	1812	7.83	1.0	8-3-19 19:00	18.51	1721	6.38	8.5	6-5-19 17:45	16.69	1367	8.34	115.7					
3-6-19 1:15	-0.05	947	8.09	0.3	3-6-19 1:15	-0.02	1766	7.59	7.4	3-6-19 1:15	-0.11	1813	7.83	1.0	8-3-19 19:15	18.60	1720	6.69	8.5	6-5-19 18:00	16.88	1366	8.34	98.1					
3-6-19 1:30	-0.05	946	8.09	0.3	3-6-19 1:30					3-6-19 1:30	-0.12	1814	7.83	1.0	8-3-19 19:30	18.74	1720	6.52	8.5	6-5-19 18:15	16.94	1368	8.33	156.7					
3-6-19 1:45	-0.05	948	8.09	0.3	3-6-19 1:45	-0.02	1767	7.59	7.5	3-6-19 1:45	-0.11	1814	7.83	1.0	8-3-19 19:45	19.48	1724	6.17	8.5	6-5-19 18:30	16.71	1366	8.34	86.9					
3-6-19 2:00	-0.05	947	8.09	0.3	3-6-19 2:00	-0.02	1767	7.59	7.6	3-6-19 2:00	-0.11	1814	7.83	1.0	8-3-19 20:00	19.75	1724	6.55	8.5	6-5-19 18:45	16.68	1368	8.34	151.6					
3-6-19 2:15	-0.05	946	8.09	0.3	3-6-19 2:15	-0.02	1767	7.58	7.6	3-6-19 2:15	-0.11	1812	7.83	1.0	8-3-19 20:15	19.97	1723	6.52	8.5	6-5-19 19:00	16.57	1369	8.36	47.9					
3-6-19 2:30	-0.05	947	8.08	0.3	3-6-19 2:30	-0.02	1767	7.58	7.6	3-6-19 2:30	-0.11	1812	7.83	1.0	8-3-19 20:30	20.38	1727	6.51	8.5	6-5-19 19:15	16.52	1372	8.36	61.6					
3-6-19 2:45	-0.05	947	8.08	0.3	3-6-19 2:45	-0.02	1769	7.58	7.8	3-6-19 2:45	-0.11	1813	7.82	1.0	8-3-19 20:45	20.22	1723	6.53	8.5	6-5-19 19:30	16.51	1374	8.36	47.0					
3-6-19 3:00	-0.05	948	8.08	0.3	3-6-19 3:00	-0.02	1769	7.58	7.9	3-6-19 3:00	-0.11	1813	7.83	1.0	8-3-19 21:00	20.67	1724	6.73	8.5	6-5-19 19:45	16.60	1375	8.36	49.8					
3-6-19 3:15	-0.05	949	8.09	0.2	3-6-19 3:15	-0.02	1769	7.58	7.4	3-6-19 3:15	-0.11	1814	7.83	1.0	8-3-19 21:15	20.68	1724	6.67	8.5	6-5-19 20:00	16.61	1374	8.36	101.3					
3-6-19 3:30	-0.05	948	8.09	0.3	3-6-19 3:30	-0.02	1770	7.58	7.5	3-6-19 3:30	-0.11	1815	7.83	1.0	8-3-19 21:30	20.95	1726	6.53	8.5	6-5-19 20:15	16.74	1374	8.35	48.3					
3-6-19 3:45	-0.05	947	8.08	0.2	3-6-19 3:45	-0.02	1770	7.58	7.5	3-6-19 3:45	-0.12	1816	7.83	1.0	8-3-19 21:45	21.08	1726	6.76	8.5	6-5-19 20:30	16.88	1372	8.35	189.8					
3-6-19 4:00	-0.05	948	8.09	0.3	3-6-19 4:00	-0.02	1774	7.58	7.5	3-6-19 4:00	-0.12	1815	7.83	1.0	8-3-19 22:00	21.18	1725	10.74	8.5	6-5-19 20:45	16.96	1374	8.35	62.3					
3-6-19 4:15	-0.05	949	8.09	0.2	3-6-19 4:15	-0.02	1772	7.58	7.4	3-6-19 4:15	-0.11	1814	7.83	1.0	8-3-19 22:15	20.90	1726	9.62	8.5	6-5-19 21:00	17.16	1372	8.35	70.4					
3-6-19 4:30	-0.05	951	8.09	0.2	3-6-19 4:30	-0.02	1771	7.58	7.4	3-6-19 4:30	-0.12	1814	7.83	1.0	8-3-19 22:30	21.08	1726	13.22	8.5	6-5-19 21:15	17.04	1373	8.35	53.2					
3-6-19 4:45	-0.05	948	8.09	0.3	3-6-19 4:45	-0.02	1772	7.58	7.5	3-6-19 4:45	-0.12	1814	7.83	1.0	8-3-19 22:45	21.05	1724	9.97	8.5	6-5-19 21:30	16.95	1373	8.35	37.9					
3-6-19 5:00	-0.05	949	8.08	0.2	3-6-19 5:00	-0.02	1773	7.58	7.5	3-6-19 5:00	-0.12	1814	7.83	1.0	8-3-19 23:00	21.03	1725	8.79	8.5	6-5-19 21:45	16.93	1373	8.35	59.4					
3-6-19 5:15	-0.05	949	8.08	0.3	3-6-19 5:15	-0.02	1773	7.58	7.5	3-6-19 5:15	-0.12	1815	7.83	1.0	8-3-19 23:15	21.13	1725	9.36	8.5	6-5-19 22:00	16.99	1374	8.35	38.1					
3-6-19 5:30	-0.05	949	8.08	0.2	3-6-19 5:30	-0.02	1774	7.58	7.3	3-6-19 5:30	-0.12	1815	7.83	1.0	8-3-19 23:30	21.15	1725	7.72	8.5	6-5-19 22:15	17.15	1376	8.34	145.3					
3-6-19 5:45	-0.05	949	8.08	0.2	3-6-19 5:45	-0.02	1774	7.58	7.4	3-6-19 5:45	-0.12	1816	7.83	1.0	8-3-19 23:45	21.16	1725	8.16	8.5	6-5-19 22:30	17.25	1374	8.35	51.7					
3-6-19 6:00	-0.05	950	8.08	0.2	3-6-19 6:00	-0.02	1773	7.58	7.5	3-6-19 6:00	-0.12	1815	7.83	1.0	8-4-19 0:00	21.25	1726	8.74	8.5	6-5-19 22:45	17.29	1374	8.35	87.1					
3-6-19 6:15	-0.05	949	8.08	0.2	3-6-19 6:15	-0.02	1774	7.58	7.3	3-6-19 6:15	-0.12	1815	7.83	1.0	8-4-19 0:15	21.33	1728	8.22	8.5	6-5-19 23:00	17.40	1375	8.35	34.1					
3-6-19 6:30	-0.05	949	8.08	0.2	3-6-19 6:30	-0.02	1775	7.58	7.4	3-6-19 6:30	-0.12	1815	7.83	1.1	8-4-19 0:30	21.33	1726	9.03	8.5	6-5-19 23:15	17.41	1375	8.35	64.1					
3-6-19 6:45	-0.05	949	8.08	0.2	3-6-19 6:45	-0.02	1774	7.58	7.5	3-6-19 6:45	-0.12	1815	7.83	1.0	8-4-19 0:45	21.32	1726	7.17	8.5	6-5-19 23:30	17.40	1374	8.35	34.1					
3-6-19 7:00	-0.05	950	8.09	0.2	3-6-19 7:00	-0.02	1775	7.58	7.3	3-6-19 7:00	-0.12	1815	7.83	1.0	8-4-19 1:00	21.41	1726	8.06	8.5	6-5-19 23:45	17.39	1375	8.35	50.9					
3-6-19 7:15	-0.05	950	8.08	0.2	3-6-19 7:15	-0.02	1777	7.58	7.3	3-6-19 7:15	-0.12	1820	7.83	1.0	8-4-19 1:15	21.40	1726	7.19	8.5	6-6-19 0:00	17.39	1375	8.35	46.9					
3-6-19 7:30	-0.05	949	8.08	0.3	3-6-19 7:30	-0.02	1775	7.58	7.4	3-6-19 7:30	-0.12	1817	7.83	1.0	8-4-19 1:30	21.43	1727	7.08	8.5	6-6-19 0:15	17.34	1376	8.34	44.7					
3-6-19 7:45	-0.05	949	8.08	0.1	3-6-19 7:45	-0.02	1777	7.58	7.4	3-6-19 7:45	-0.12	1817	7.83	1.1	8-4-19 1:45	21.44	1728	7.97	8.5	6-6-19 0:30	17.34	1375	8.34	35.0					
3-6-19 8:00	-0.05	950	8.08	0.2	3-6-19 8:00	-0.02	1777	7.58	7.4	3-6-19 8:00	-0.12	1820	7.83	1.0	8-4-19 2:00	21.45	1727	7.10	8.5	6-6-19 0:45	17.29	1376	8.34	50.8					
3-6-19 8:15	-0.05	951	8.08	0.2	3-6-19 8:15	-0.02	1778	7.58	7.4	3-6-19 8:15	-0.12	1816	7.83	1.0	8-4-19 2:15	21.44	1727	7.20	8.5	6-6-19 1:00	17.28	1375	8.34	47.9					
3-6-19 8:30	-0.05	952	8.08	0.2	3-6-19 8:30	-0.02	1778	7.58	7.3	3-6-19 8:30	-0.12	1817	7.83	1.0	8-4-19 2:30	21.41	1727	7.15	8.5	6-6-19 1:15	17.15	1375	8.35	188.0					
3-6-19 8:45	-0.05	951	8.08	0.2	3-6-19 8:45	-0.02	1778	7.58	7.2	3-6-19 8:45	-0.12	1816	7.83	1.0	8-4-19 2:45	21.37	1727	7.47	8.5	6-6-19 1:30	17.13	1375	8.36	38.4					
3-6-19 9:00	-0.05	952	8.08	0.2	3-6-19 9:00	-0.02	1779	7.58	7.2	3-6-19 9:00	-0.12	1817	7.83	1.0	8-4-19 3:00	21.35	1727	7.86	8.5	6-6-19 1:45	17.11	1376	8.36	45.6					
3-6-19 9:15	-0.05	952	8.08	0.2	3-6-19 9:15	-0.02	1779	7.58	7.4	3-6-19 9:15	-0.12	1817	7.83	1.0	8-4-19 3:15	21.32	1727	6.93	8.5	6-6-19 2:00	17.13	1375	8.36	33.7					
3-6-19 9:30	-0.05	954	8.08	0.2	3-6-19 9:30	-0.02	1781	7.58	7.4	3-6-19 9:30	-0.12	1818	7.83	1.0	8-4-19 3:30	21.29	1729	6.56	8.5	6-6-19 2:15	17.11	1376	8.35	45.4					
3-6-19 9:45	-0.05	952	8.08	0.2	3-6-19 9:45	-0.02	1782	7.58	7.2	3-6-19 9:45	-0.12	1818	7.83	1.0	8-4-19 3:45	21.24	1729	6.60	8.5	6-6-19 2:30	17.12	1376	8.36	27.0					
3-6-19 10:00	-0.05	951	8.08	0.2	3-6-19 10:00	-0.02	1781	7.58	7.3	3-6-19 10:00	-0.12	1818	7.83	1.0	8-4-19 4:00	21.20	1727	6.76	8.5	6-6-19 2:45	17.07	1376	8.36	49.8					
3-6-19 10:15	-0.05	952	8.08	0.2	3-6-19 10:15	-0.02	1782	7.58	7.3	3-6-19 10:15	-0.12	1817	7.83	1.0	8-4-19 4:15	21.15	1728	8.43	8.5	6-6-19 3:00	17.02	1376	8.36	45.7					
3-6-19 10:30	-0.05	952	8.08	0.2	3-6-19 10:30	-0.02	1783	7.58	7.2	3-6-19 10:30	-0.12	1817	7.82	1.0	8-4-19 4:30	21.08	1729	7.20	8.5	6-6-19 3:15	17.03	1376	8.36	45.2					
3-6-19 10:45	-0.05	952	8.08	0.2	3-6-19 10:45	-0.02	1783	7.58	7.3	3-6-19 10:45	-0.12	1818	7.82	1.1	8-4-19 4:45	21.02	1729	6.59	8.5	6-6-19 3:30	17.01	1374	8.36	37.7					
3-6-19 11:00	-0.05	953	8.08	0.2	3-6-19 11:00	-0.02	1783	7.58	7.2	3-6-19 11:00	-0.12	1818	7.82	1.0	8-4-19 5:00	20.95	1726	6.10	8.5	6-6-19 3:45	17.00	1376	8.36	37.4					
3-6-19 11:15	-0.05	952	8.08	0.2	3-6-19 11:15	-0.02	1783	7.58	7.2	3-6-19 11:15	-0.12	1822	7.83	1.0	8-4-19 5:15	20.86	1728	6.54	8.5	6-6-19 4:00	16.96	1376	8.36	31.2					
3-6-19 11:30	-0.05	952	8.08	0.2	3-6-19 11:30	-0.02	1783	7.58	7.2	3-6-19 11:30	-0.13	1826	7.83	1.0	8-4-19 5:30	20.79	1728	6.30	8.5	6-6-19 4:15	16.85	1376	8.36	46.1					
3-6-19 11:45	-0.05	953	8.08	0.2	3-6-19 11:45	-0.02	1784	7.58	7.1	3-6-19 11:45	-0.12	1820	7.83	1.0	8-4-19 5:45	20.70	1727	6.09	8.5	6-6-19 4:30	16.89	1376	8.36	28.5					
3-6-19 12:00	-0.05	952	8.08	0.2	3-6-19 12:00	-0.02	1784	7.58	7.1	3-6-19 12:00	-0.13	1824	7.83	1.0	8-4-19 6:00	20.62	1728	5.77	8.5	6-6-19 4:45	16.90	1376	8.36	48.7					
3-6-19 12:15	-0.05	952	8.08	0.2	3-6-19 12:15	-0.02	1784	7.58	7.2	3-6-19 12:15	-0.12	1819	7.83	1.0	8-4-19 6:15	20.56	1726	6.22	8.5	6-6-19 5:00	16.89	1375	8.37	37.3					
3-6-19 12:30	-0.05	953	8.08	0.1	3-6-19 12:30	-0.01	1783	7.58	7.3	3-6-19 12:30	-0.12	1819	7.83	1.0	8-4-19 6:30	20.49	1726	6.66	8.5	6-6-19 5:15	16.87	1376	8.36	39.8					
3-6-19 12:45	-0.05	952	8.08	0.2	3-6-19 12:45	-0.02	1786	7.58	7.2	3-6-19 12:45	-0.12	1819	7.83	1.1	8-4-19 6:45	20.42	1727	5.88	8.5	6-6-19 5:30	16.82	1375	8.37	29.4					
3-6-19 13:00	-0.05	953	8.08	0.2	3-6-19 13:00	-0.01	1787	7.58	7.3	3-6-19 13:00	-0.13	1819	7.83	1.0	8-4-19 7:00	20.37	1728	6.33	8.5	6-6-19 5:45	16.80	1375	8.36	33.0					
3-6-19 13:15	-0.05	954	8.08	0.2	3-6-19 13:15	-0.01	1787	7.58	7.3	3-6-19 13:15	-0.13	1821	7.83	1.0	8-4-19 7:15	20.30	1726	6.01	8.5	6-6-19 6:00	16.76	1375	8.37	33.9					
3-6-19 13:30	-0.05	953	8.08	0.1	3-6-19 13:30	-0.02	1791	7.58	7.5	3-6-19 13:30	-0.12	1822	7.83	1.0	8-4-19 7:30	20.25	1726	6.05	8.5	6-6-19 6:15	16.71	1375	8.36	32.9					
3-6-19 13:45	-0.05	952	8.08	0.2	3-6-19 13:45	-0.02	1789	7.58	7.2	3-6-19 13:45	-0.14	1816	7.87	47.0	8-4-19 7:45	20.19	1725	6.44	8.5	6-6-19 6:30	16.71	1374	8.37	30.1					
3-6-19 14:00	-0.05	954	8.08	0.2	3-6-19 14:00	-0.02	1789	7.58	7.4	3-6-19 14:00	-0.13	1823	7.84	1.6	8-4-19 8:00	20.15	1727	6.49	8.5	6-6-19 6:45	16.73	1374	8.37	46.5					
3-6-19 14:15	-0.05	954	8.08	0.2	3-6-19 14:15	-0.01	1788	7.58	7.2	3-6-19 14:15	-0.12	1818	7.83	8.3	8-4-19 8:15	20.10	1726	6.49	8.5	6-6-19 7:00	16.70	1373	8.37	32.3					
3-6-19 14:30	-0.05	955	8.08	0.2	3-6-19 14:30					3-6-19 14:30	-0.12	1823	7.83	4.3	8-4-19 8:30	20.05	1726	6.20	8.5	6-6-19 7:15	16.62	1373	8.37	44.3					
3-6-19 14:45	-0.05	953	8.08	0.1	3-6-19 14:45	-0.01	1788	7.58	7.2	3-6-19 14:45	-0.12	1820	7.83	1.7	8-4-19 8:45	20.00	1725	6.81	8.5	6-6-19 7:30	16.59	1373	8.37	57.6					
3-6-19 15:00	-0.05	954	8.09	1.5	3-6-19 15:00	-0.01	1789	7.58	7.3	3-6-19 15:00	-0.12	1820	7.83	2.1	8-4-19 9:00	19.96	1725	6.11	8.5	6-6-19 7:45	16.56	1374	8.37	45.3					
3-6-19 15:15	-0.05	955	8.08	0.4	3-6-19 15:15	-0.01	1788	7.58	7.3	3-6-19 15:15	-0.12	1830	7.83	1.1	8-4-19 9:15	19.91	1727	6.07	8.5	6-6-19 8:00	16.52	1373	8.37	66.4					
3-6-19 15:30	-0.05	956	8.08	0.3	3-6-19 15:30	-0.01	1789	7.58	7.5	3-6-19 15:30	-0.12	1829	7.83	1.0	8-4-19 9:30	19.88	1726	6.38	8.5	6-6-19 8:15	16.51	1375	8.36	41.4					
3-6-19 15:45	-0.05	956	8.08	0.3	3-6-19 15:45	-0.01	1791	7.58	7.5	3-6-19 15:45	-0.12	1828	7.83	1.0	8-4-19 9:45	19.84	1726	6.07	8.5	6-6-19 8:30	16.51	1373	8.37	29.5					
3-6-19 16:00	-0.05	956	8.08	0.3	3-6-19 16:00	-0.01	1791	7.58	7.5	3-6-19 16:00	-0.12	1827	7.83	1.0	8-4-19 10:00	19.79	1725	7.71	8.5	6-6-19 8:45	16.50	1374	8.36	45.2					
3-6-19 16:15	-0.05	956	8.08	0.3	3-6-19 16:15	-0.01	1792	7.58	7.2	3-6-19 16:15	-0.12	1820	7.83	1.2	8-4-19 10:15	19.75	1727	6.03	8.5	6-6-19 9:00	16.44	1373	8.37	25.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-6-19 16:30	-0.05	955	8.08	0.3	3-6-19 16:30	-0.01	1792	7.58	7.2	3-6-19 16:30	-0.12	1820	7.82	1.2	8-4-19 10:30	19.69	1727	6.10	8.5	6-6-19 9:15	16.44	1374	8.36	44.3					
3-6-19 16:45	-0.05	956	8.08	0.2	3-6-19 16:45	-0.01	1793	7.58	7.1	3-6-19 16:45	-0.12	1820	7.82	1.2	8-4-19 10:45	19.65	1725	6.18	8.5	6-6-19 9:30	16.41	1373	8.37	26.0					
3-6-19 17:00	-0.05	957	8.08	0.2	3-6-19 17:00	-0.01	1793	7.58	7.0	3-6-19 17:00	-0.12	1820	7.82	1.2	8-4-19 11:00	19.62	1725	5.89	8.5	6-6-19 9:45	16.41	1374	8.36	37.6					
3-6-19 17:15	-0.05	956	8.08	0.2	3-6-19 17:15	-0.01	1793	7.58	7.0	3-6-19 17:15	-0.12	1824	7.83	1.0	8-4-19 11:15	19.58	1727	6.00	8.5	6-6-19 10:00	16.37	1373	8.37	23.5					
3-6-19 17:30	-0.06	955	8.08	0.3	3-6-19 17:30	-0.01	1793	7.58	7.2	3-6-19 17:30	-0.12	1822	7.83	0.9	8-4-19 11:30	19.54	1726	5.84	8.5	6-6-19 10:15	16.34	1375	8.35	36.8					
3-6-19 17:45	-0.06	956	8.08	0.3	3-6-19 17:45	-0.01	1793	7.58	7.3	3-6-19 17:45	-0.12	1822	7.83	1.0	8-4-19 11:45	19.50	1727	6.17	8.5	6-6-19 10:30	16.28	1373	8.36	29.9					
3-6-19 18:00	-0.06	956	8.08	0.2	3-6-19 18:00	-0.01	1793	7.58	7.2	3-6-19 18:00	-0.12	1823	7.83	1.0	8-4-19 12:00	19.45	1726	6.53	8.5	6-6-19 10:45	16.26	1374	8.36	39.3					
3-6-19 18:15	-0.06	956	8.08	0.3	3-6-19 18:15	-0.01	1794	7.58	7.3	3-6-19 18:15	-0.12	1821	7.83	1.1	8-4-19 12:15	19.43	1727	5.85	8.5	6-6-19 11:00	16.26	1374	8.37	22.3					
3-6-19 18:30	-0.05	956	8.08	0.2	3-6-19 18:30	-0.01	1794	7.58	7.2	3-6-19 18:30	-0.12	1820	7.83	1.1	8-4-19 12:30	19.38	1726	6.10	8.5	6-6-19 11:15	16.22	1374	8.36	29.5					
3-6-19 18:45	-0.05	957	8.08	0.3	3-6-19 18:45	-0.01	1795	7.58	7.1	3-6-19 18:45	-0.12	1820	7.83	1.1	8-4-19 12:45	19.36	1727	6.35	8.5	6-6-19 11:30	16.21	1373	8.36	25.1					
3-6-19 19:00	-0.05	958	8.08	0.2	3-6-19 19:00	-0.01	1795	7.58	7.2	3-6-19 19:00	-0.12	1821	7.83	1.1	8-4-19 13:00	19.32	1726	6.13	8.5	6-6-19 11:45	16.17	1374	8.36	27.9					
3-6-19 19:15	-0.05	957	8.08	0.2	3-6-19 19:15	-0.01	1795	7.58	7.3	3-6-19 19:15	-0.12	1823	7.83	1.0	8-4-19 13:15	19.28	1725	7.38	8.5	6-6-19 12:00	16.16	1374	8.36	24.7					
3-6-19 19:30	-0.05	957	8.08	0.2	3-6-19 19:30	-0.01	1796	7.58	7.2	3-6-19 19:30	-0.12	1822	7.83	1.0	8-4-19 13:30	19.26	1728	6.35	8.5	6-6-19 12:15	16.10	1374	8.35	30.5					
3-6-19 19:45	-0.05	959	8.08	0.3	3-6-19 19:45	-0.01	1796	7.58	7.1	3-6-19 19:45	-0.12	1823	7.83	1.0	8-4-19 13:45	19.23	1725	6.49	8.5	6-6-19 12:30	16.10	1374	8.36	23.5					
3-6-19 20:00	-0.05	957	8.08	0.2	3-6-19 20:00	-0.01	1796	7.58	7.2	3-6-19 20:00	-0.12	1822	7.83	1.0	8-4-19 14:00	19.21	1726	6.27	8.5	6-6-19 12:45	16.08	1374	8.36	32.8					
3-6-19 20:15	-0.05	959	8.08	0.3	3-6-19 20:15	-0.01	1797	7.57	7.4	3-6-19 20:15	-0.12	1820	7.84	1.0	8-4-19 14:15	19.17	1725	6.53	8.5	6-6-19 13:00	16.05	1374	8.36	19.7					
3-6-19 20:30	-0.05	959	8.08	0.1	3-6-19 20:30	-0.02	1797	7.57	7.3	3-6-19 20:30	-0.12	1821	7.83	1.1	8-4-19 14:30	19.15	1726	6.35	8.5	6-6-19 13:15	16.05	1374	8.36	27.0					
3-6-19 20:45	-0.05	959	8.08	0.2	3-6-19 20:45	-0.02	1799	7.57	7.0	3-6-19 20:45	-0.12	1821	7.83	1.0	8-4-19 14:45	19.13	1725	6.28	8.5	6-6-19 13:30	16.04	1374	8.36	21.3					
3-6-19 21:00	-0.05	958	8.08	0.2	3-6-19 21:00	-0.02	1800	7.57	7.1	3-6-19 21:00	-0.12	1820	7.83	1.0	8-4-19 15:00	19.12	1728	6.73	8.5	6-6-19 13:45	16.03	1373	8.36	21.3					
3-6-19 21:15	-0.05	959	8.08	0.2	3-6-19 21:15	-0.02	1802	7.57	7.1	3-6-19 21:15	-0.12	1823	7.84	0.1	8-4-19 15:15	19.16	1725	6.84	8.5	6-6-19 14:00	16.01	1373	8.36	35.0					
3-6-19 21:30	-0.05	959	8.08	0.1	3-6-19 21:30	-0.02	1801	7.57	7.1	3-6-19 21:30	-0.11	1821	7.83	0.0	8-4-19 15:30	19.17	1724	6.29	8.5	6-6-19 14:15	15.98	1374	8.35	13.3					
3-6-19 21:45	-0.05	960	8.07	0.1	3-6-19 21:45	-0.02	1802	7.57	7.2	3-6-19 21:45	-0.11	1821	7.83	0.0	8-4-19 15:45	19.24	1725	6.71	8.5	6-6-19 14:30	15.99	1374	8.36	12.8					
3-6-19 22:00	-0.05	961	8.08	0.1	3-6-19 22:00	-0.02	1801	7.57	7.3	3-6-19 22:00	-0.11	1820	7.83	0.0	8-4-19 16:00	19.28	1724	6.39	8.5	6-6-19 14:45	15.99	1375	8.37	14.0					
3-6-19 22:15	-0.05	959	8.08	0.1	3-6-19 22:15	-0.02	1803	7.57	7.2	3-6-19 22:15	-0.11	1820	7.82	1.1	8-4-19 16:15	19.35	1726	6.19	8.5	6-6-19 15:00	16.03	1373	8.36	13.4					
3-6-19 22:30	-0.05	960	8.08	0.2	3-6-19 22:30	-0.02	1803	7.57	7.1	3-6-19 22:30	-0.11	1820	7.83	1.0	8-4-19 16:30	19.38	1726	6.37	8.5	6-6-19 15:15	16.05	1375	8.36	12.6					
3-6-19 22:45	-0.05	961	8.08	0.2	3-6-19 22:45	-0.02	1803	7.57	7.2	3-6-19 22:45	-0.12	1820	7.82	1.0	8-4-19 16:45	19.46	1724	6.55	8.5	6-6-19 15:30	16.05	1374	8.37	13.3					
3-6-19 23:00	-0.05	960	8.08	0.1	3-6-19 23:00	-0.02	1804	7.57	7.3	3-6-19 23:00	-0.12	1820	7.82	1.0	8-4-19 17:00	19.51	1725	7.14	8.5	6-6-19 15:45	16.12	1374	8.36	12.4					
3-6-19 23:15	-0.05	961	8.08	0.1	3-6-19 23:15	-0.02	1805	7.57	7.2	3-6-19 23:15	-0.12	1823	7.83	0.9	8-4-19 17:15	19.74	1726	6.05	8.5	6-6-19 16:00	16.16	1373	8.36	14.7					
3-6-19 23:30	-0.05	961	8.07	0.1	3-6-19 23:30	-0.02	1805	7.57	7.4	3-6-19 23:30	-0.12	1823	7.83	1.0	8-4-19 17:30	19.88	1728	6.30	8.5	6-6-19 16:15	16.09	1375	8.35	14.9					
3-6-19 23:45	-0.05	960	8.07	0.1	3-6-19 23:45	-0.02	1805	7.57	7.4	3-6-19 23:45	-0.12	1823	7.83	1.0	8-4-19 17:45	19.83	1727	6.46	8.5	6-6-19 16:30	16.10	1374	8.36	17.4					
3-7-19 0:00	-0.05	960	8.07	0.2	3-7-19 0:00	-0.02	1805	7.57	7.0	3-7-19 0:00	-0.12	1821	7.83	0.9	8-4-19 18:00	19.90	1727	7.49	8.5	6-6-19 16:45	16.10	1375	8.36	19.4					
3-7-19 0:15	-0.05	962	8.07	0.1	3-7-19 0:15	-0.02	1805	7.57	6.9	3-7-19 0:15	-0.11	1815	7.83	0.9	8-4-19 18:15	19.98	1729	6.43	8.5	6-6-19 17:00	16.08	1374	8.37	20.5					
3-7-19 0:30	-0.05	960	8.07	0.1	3-7-19 0:30	-0.02	1806	7.57	6.8	3-7-19 0:30	-0.12	1814	7.83	0.9	8-4-19 18:30	20.12	1728	6.03	8.5	6-6-19 17:15	16.11	1375	8.36	18.9					
3-7-19 0:45	-0.05	960	8.08	0.1	3-7-19 0:45	-0.02	1806	7.57	7.0	3-7-19 0:45	-0.12	1814	7.83	0.9	8-4-19 18:45	20.20	1729	5.91	8.5	6-6-19 17:30	16.12	1375	8.37	20.0					
3-7-19 1:00	-0.05	961	8.08	0.1	3-7-19 1:00	-0.02	1806	7.57	6.9	3-7-19 1:00	-0.12	1814	7.83	0.9	8-4-19 19:00	20.28	1728	7.59	8.5	6-6-19 17:45	16.13	1376	8.37	19.1					
3-7-19 1:15	-0.05	961	8.08	0.1	3-7-19 1:15	-0.02	1806	7.57	7.1	3-7-19 1:15	-0.12	1822	7.83	1.1	8-4-19 19:15	20.47	1730	6.53	8.5	6-6-19 18:00	16.11	1375	8.37	19.4					
3-7-19 1:30	-0.05	961	8.08	0.1	3-7-19 1:30	-0.02	1807	7.57	6.9	3-7-19 1:30	-0.12	1822	7.83	0.9	8-4-19 19:30	20.58	1728	5.99	8.5	6-6-19 18:15	16.08	1377	8.35	21.0					
3-7-19 1:45	-0.05	963	8.08	0.2	3-7-19 1:45	-0.02	1807	7.57	6.9	3-7-19 1:45	-0.12	1822	7.83	0.9	8-4-19 19:45	20.92	1730	6.11	8.5	6-6-19 18:30	16.11	1374	8.36	19.9					
3-7-19 2:00	-0.05	961	8.08	0.1	3-7-19 2:00	-0.02	1806	7.57	7.0	3-7-19 2:00	-0.12	1821	7.83	0.9	8-4-19 20:00	21.06	1730	6.46	8.5	6-6-19 18:45	16.16	1376	8.36	18.9					
3-7-19 2:15	-0.05	962	8.08	0.1	3-7-19 2:15	-0.02	1808	7.57	6.9	3-7-19 2:15	-0.11	1814	7.83	0.8	8-4-19 20:15	21.27	1727	6.66	8.5	6-6-19 19:00	16.16	1375	8.36	20.1					
3-7-19 2:30	-0.05	963	8.08	0.1	3-7-19 2:30	-0.02	1808	7.57	6.9	3-7-19 2:30	-0.12	1814	7.83	0.9	8-4-19 20:30	21.48	1730	6.79	8.5	6-6-19 19:15	16.19	1376	8.35	19.3					
3-7-19 2:45	-0.05	962	8.08	0.1	3-7-19 2:45	-0.02	1808	7.57	6.8	3-7-19 2:45	-0.11	1814	7.83	0.9	8-4-19 20:45	21.73	1729	6.39	8.5	6-6-19 19:30	16.15	1375	8.36	21.0					
3-7-19 3:00	-0.05	964	8.08	0.1	3-7-19 3:00	-0.02	1808	7.57	6.9	3-7-19 3:00	-0.12	1813	7.83	0.9	8-4-19 21:00	21.85	1730	6.84	8.5	6-6-19 19:45	16.07	1376	8.37	16.6					
3-7-19 3:15	-0.05	963	8.08	0.1	3-7-19 3:15	-0.02	1809	7.57	7.0	3-7-19 3:15	-0.12	1817	7.83	0.8	8-4-19 21:15	22.08	1730	6.46	8.5	6-6-19 20:00	16.01	1375	8.37	16.2					
3-7-19 3:30	-0.05	963	8.08	0.1	3-7-19 3:30	-0.02	1810	7.57	7.0	3-7-19 3:30	-0.12	1815	7.83	0.9	8-4-19 21:30	22.04	1732	6.81	8.5	6-6-19 20:15	15.97	1377	8.36	16.4					
3-7-19 3:45	-0.05	964	8.08	0.1	3-7-19 3:45	-0.02	1811	7.57	6.9	3-7-19 3:45	-0.12	1815	7.83	0.9	8-4-19 21:45	22.29	1733	7.06	8.5	6-6-19 20:30	16.05	1376	8.37	16.8					
3-7-19 4:00	-0.05	965	8.08	0.1	3-7-19 4:00	-0.02	1810	7.57	6.8	3-7-19 4:00	-0.12	1815	7.83	0.8	8-4-19 22:00	22.31	1731	7.01	8.5	6-6-19 20:45	16.09	1376	8.36	16.4					
3-7-19 4:15	-0.05	964	8.08	0.1	3-7-19 4:15	-0.02	1812	7.57	6.8	3-7-19 4:15	-0.12	1814	7.83	0.8	8-4-19 22:15	22.46	1730	7.50	8.5	6-6-19 21:00	16.11	1375	8.37	16.9					
3-7-19 4:30	-0.05	966	8.08	0.1	3-7-19 4:30	-0.02	1812	7.57	6.9	3-7-19 4:30	-0.12	1814	7.83	0.9	8-4-19 22:30	22.34	1730	7.34	8.5	6-6-19 21:15	16.15	1376	8.36	16.2					
3-7-19 4:45	-0.05	966	8.08	0.1	3-7-19 4:45	-0.02	1813	7.57	6.9	3-7-19 4:45	-0.12	1814	7.83	0.8	8-4-19 22:45	22.56	1731	6.63	8.5	6-6-19 21:30	16.18	1375	8.37	16.4					
3-7-19 5:00	-0.05	966	8.08	0.1	3-7-19 5:00	-0.02	1812	7.57	6.9	3-7-19 5:00	-0.12	1814	7.83	0.9	8-4-19 23:00	22.68	1733	6.90	8.5	6-6-19 21:45									
3-7-19 5:15	-0.05	964	8.09	0.1	3-7-19 5:15	-0.02	1814	7.57	6.8	3-7-19 5:15	-0.12	1814	7.83	0.8	8-4-19 23:15	22.71	1734	6.84	8.5	6-6-19 22:00									
3-7-19 5:30	-0.05	964	8.09	0.1	3-7-19 5:30	-0.02	1814	7.57	6.8	3-7-19 5:30	-0.12	1814	7.83	0.9	8-4-19 23:30	22.73	1732	6.66	8.5	6-6-19 22:15	16.13	1376	8.37	14.9					
3-7-19 5:45	-0.05	964	8.09	0.1	3-7-19 5:45	-0.02	1814	7.57	6.8	3-7-19 5:45	-0.12	1814	7.83	0.9	8-4-19 23:45	22.84	1730	6.60	8.5	6-6-19 22:30	16.10	1376	8.37	14.9					
3-7-19 6:00	-0.05	966	8.09	0.1	3-7-19 6:00	-0.02	1815	7.57	6.8	3-7-19 6:00	-0.12	1813	7.83	0.8	8-5-19 0:00	22.86	1730	6.60	8.5	6-6-19 22:45	16.11	1376	8.37	15.3					
3-7-19 6:15	-0.05	966	8.09	0.1	3-7-19 6:15	-0.02	1816	7.57	6.9	3-7-19 6:15	-0.12	1814	7.83	0.9	8-5-19 0:15	23.08	1734	6.93	8.5	6-6-19 23:00	16.04	1376	8.37	14.8					
3-7-19 6:30	-0.05	966	8.09	0.1	3-7-19 6:30	-0.02	1816	7.57	6.8	3-7-19 6:30	-0.12	1813	7.83	0.8	8-5-19 0:30	22.99	1731	6.92	8.5	6-6-19 23:15	15.97	1375	8.37	17.3					
3-7-19 6:45	-0.05	965	8.09	0.1	3-7-19 6:45	-0.02	1817	7.57	6.8	3-7-19 6:45	-0.12	1814	7.83	0.9	8-5-19 0:45	23.08	1734	7.18	8.5	6-6-19 23:30	15.90	1377	8.38	15.2					
3-7-19 7:00	-0.05	965	8.09	0.0	3-7-19 7:00	-0.02	1817	7.57	6.8	3-7-19 7:00	-0.12	1814	7.83	0.9	8-5-19 1:00	22.93	1731	6.34	8.5	6-6-19 23:45	15.88	1377	8.38	15.3					
3-7-19 7:15	-0.05	966	8.09	0.1	3-7-19 7:15	-0.02	1816	7.57	6.8	3-7-19 7:15	-0.12	1814	7.83	0.9	8-5-19 1:15	23.17	1734	7.00	8.5	6-7-19 0:00	15.85	1377	8.38	14.4					
3-7-19 7:30	-0.05	966	8.09	0.1	3-7-19 7:30	-0.02	1815	7.57	6.8	3-7-19 7:30	-0.12	1814	7.83	0.8	8-5-19 1:30	22.89	1725	7.02	8.5	6-7-19 0:15	15.82	1378	8.37	15.7					
3-7-19 7:45	-0.05	968	8.09	0.0	3-7-19 7:45	-0.02	1818	7.57	6.7	3-7-19 7:45	-0.12	1813	7.83	0.9	8-5-19 1:45	22.48	1730	6.84	8.5	6-7-19 0:30	15.81	1378	8.38	14.6					
3-7-19 8:00	-0.05	967	8.09	0.0	3-7-19 8:00	-0.02	1818	7.57	6.7	3-7-19 8:00	-0.12	1814	7.83	0.9	8-5-19 2:00	22.32	1729	7.32	8.5	6-7-19 0:45	15.80	1377	8.38	15.9					
3-7-19 8:15	-0.05	966	8.09	0.1	3-7-19 8:15	-0.02	1819	7.57	6.8	3-7-19 8:15	-0.12	1814	7.83	0.9	8-5-19 2:15	22.40	1731	6.91	8.5	6-7-19 1:00	15.81	1378	8.38	14.5					
3-7-19 8:30	-0.05	967	8.09	0.1	3-7-19 8:30	-0.02	1818	7.57	6.9	3-7-19 8:30	-0.12	1814	7.83	0.9	8-5-19 2:30	22.35	1727	6.90	8.5	6-7-19 1:15	15.82	1377	8.38	15.4					
3-7-19 8:45	-0.05	967	8.08	0.1	3-7-19 8:45	-0.02	1819	7.57	6.9	3-7-19 8:45	-0.12	1814	7.83	0.9	8-5-19 2:45	22.29	1728	6.54	8.5	6-7-19 1:30	15.82	1377	8.38	14.8					
3-7-19 9:00	-0.05	966	8.09	0.1	3-7-19 9:00	-0.02	1820	7.57	6.9	3-7-19 9:00	-0.12	1814	7.83	0.9	8-5-19 3:00	22.25	1727	6.83	8.5	6-7-19 1:45	15.81	1377	8.38	15.9					
3-7-19 9:15	-0.05	969	8.09	0.0	3-7-19 9:15	-0.01	1820	7.57	6.8	3-7-19 9:15	-0.12	1813	7.83	0.8	8-5-19 3:15	22.12	1728	7.12	8.5	6-7-19 2:00	15.81	1378	8.37	15.3					
3-7-19 9:30	-0.05	967	8.09	0.0	3-7-19 9:30	-0.02	1820	7.57	6.8	3-7-19 9:30	-0.12	1813	7.83	0.8	8-5-19 3:30	21.98	1726	7.32	8.5	6-7-19 2:15	15.78	1377	8.37	15.0					
3-7-19 9:45	-0.05	967	8.09	0.0	3-7-19 9:45	-0.02	1822	7.57	6.8	3-7-19 9:45	-0.12	1814	7.83	0.9	8-5-19 3:45	21.96	1729	7.20	8.5	6-7-19 2:30	15.79	1378	8.37	14.0					
3-7-19 10:00	-0.05	968	8.09	0.0	3-7-19 10:00	-0.01	1822	7.57	6.9	3-7-19 10:00	-0.12	1813	7.83	0.9	8-5-19 4:00	21.92	1729	7.88	8.5	6-7-19 2:45	15.78	1377	8.37	14.3					
3-7-19 10:15	-0.05	969	8.09	0.1	3-7-19 10:15	-0.01	1822	7.57	6.8	3-7-19 10:15	-0.12	1813	7.83	0.9	8-5-19 4:15	21.88	1728	6.95	8.5	6-7-19 3:00	15.74	1378	8.37	15.8					
3-7-19 10:30	-0.05	967	8.09	0.0	3-7-19 10:30	-0.01	1822	7.57	6.9	3-7-19 10:30	-0.12	1813	7.83	0.9	8-5-19 4:30	21.84	1728	7.22	8.5	6-7-19 3:15	15.71	1376	8.38	14.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-7-19 10:45	-0.05	969	8.09	0.0	3-7-19 10:45	-0.01	1823	7.57	7.0	3-7-19 10:45	-0.12	1813	7.83	0.8	8-5-19 4:45	21.79	1728	7.14	8.5	6-7-19 3:30	15.69	1378	8.37	13.5					
3-7-19 11:00	-0.05	969	8.09	0.0	3-7-19 11:00	-0.01	1824	7.57	7.1	3-7-19 11:00	-0.12	1813	7.83	0.8	8-5-19 5:00	21.74	1728	7.04	8.5	6-7-19 3:45	15.68	1376	8.38	13.2					
3-7-19 11:15	-0.05	969	8.09	0.0	3-7-19 11:15	-0.01	1823	7.57	7.0	3-7-19 11:15	-0.12	1813	7.83	0.8	8-5-19 5:15	21.72	1727	6.38	8.5	6-7-19 4:00	15.66	1378	8.37	13.7					
3-7-19 11:30	-0.05	968	8.09	0.1	3-7-19 11:30	-0.01	1829	7.57	7.2	3-7-19 11:30	-0.12	1813	7.83	0.8	8-5-19 5:30	21.72	1728	6.66	8.5	6-7-19 4:15	15.64	1378	8.37	13.3					
3-7-19 11:45	-0.05	969	8.09	0.0	3-7-19 11:45	-0.01	1824	7.57	6.8	3-7-19 11:45	-0.12	1813	7.83	0.9	8-5-19 5:45	21.70	1727	6.85	8.5	6-7-19 4:30	15.64	1377	8.37	13.7					
3-7-19 12:00	-0.05	971	8.09	0.0	3-7-19 12:00	-0.01	1826	7.57	6.7	3-7-19 12:00	-0.12	1813	7.83	0.9	8-5-19 6:00	21.67	1728	6.75	8.5	6-7-19 4:45	15.62	1377	8.37	11.8					
3-7-19 12:15	-0.05	969	8.09	0.0	3-7-19 12:15	-0.01	1825	7.57	6.7	3-7-19 12:15	-0.12	1813	7.83	0.9	8-5-19 6:15	21.65	1730	7.52	8.5	6-7-19 5:00	15.61	1377	8.37	13.7					
3-7-19 12:30	-0.05	971	8.09	0.0	3-7-19 12:30	-0.01	1825	7.56	6.8	3-7-19 12:30	-0.12	1813	7.83	0.9	8-5-19 6:30	21.62	1728	6.35	8.5	6-7-19 5:15	15.56	1376	8.37	13.1					
3-7-19 12:45	-0.05	972	8.09	0.0	3-7-19 12:45	-0.01	1825	7.56	6.8	3-7-19 12:45	-0.12	1813	7.83	0.8	8-5-19 6:45	21.59	1728	6.81	8.5	6-7-19 5:30	15.52	1376	8.37	14.3					
3-7-19 13:00	-0.05	971	8.09	0.1	3-7-19 13:00	-0.01	1828	7.56	6.7	3-7-19 13:00	-0.12	1813	7.83	0.8	8-5-19 7:00	21.56	1729	6.08	8.5	6-7-19 5:45	15.53	1377	8.37	13.4					
3-7-19 13:15	-0.05	969	8.08	0.0	3-7-19 13:15	0.00	1828	7.56	6.9	3-7-19 13:15	-0.12	1813	7.83	0.8	8-5-19 7:15	21.53	1729	6.33	8.5	6-7-19 6:00	15.51	1377	8.37	11.8					
3-7-19 13:30	-0.05	969	8.08	0.0	3-7-19 13:30	0.00	1827	7.56	6.9	3-7-19 13:30	-0.12	1813	7.83	0.8	8-5-19 7:30	21.50	1729	6.26	8.5	6-7-19 6:15	15.45	1377	8.36	11.8					
3-7-19 13:45	-0.05	971	8.08	0.0	3-7-19 13:45	-0.02	1830	7.56	6.9	3-7-19 13:45	-0.12	1813	7.83	0.9	8-5-19 7:45	21.47	1728	6.47	8.5	6-7-19 6:30	15.44	1377	8.37	12.0					
3-7-19 14:00	-0.05	971	8.08	0.0	3-7-19 14:15	-0.04	1831	7.34	6.8	3-7-19 14:15	-0.15	1823	6.18	1.0	8-5-19 8:00	21.44	1727	6.43	8.5	6-7-19 6:45	15.40	1376	8.37	11.4					
3-7-19 14:15	-0.05	969	8.08	0.0	3-7-19 14:30	-0.02	1830	7.56	6.7	3-7-19 14:30	-0.12	1821	7.77	0.9	8-5-19 8:15	21.41	1729	8.86	8.5	6-7-19 7:00	15.37	1376	8.37	11.3					
3-7-19 14:30	-0.05	969	8.08	0.0	3-7-19 14:45	-0.01	1830	7.56	6.6	3-7-19 14:45	-0.12	1821	7.81	0.9	8-5-19 8:30	21.37	1727	6.29	8.5	6-7-19 7:15	15.36	1377	8.37	10.9					
3-7-19 14:45	-0.05	969	8.08	0.1	3-7-19 15:00	-0.01	1831	7.56	6.6	3-7-19 15:00	-0.11	1821	7.81	1.0	8-5-19 8:45	21.34	1729	6.48	8.5	6-7-19 7:30	15.32	1378	8.37	14.4					
3-7-19 15:00	-0.05	970	8.09	0.0	3-7-19 15:15	-0.01	1831	7.56	6.5	3-7-19 15:15	-0.11	1820	7.82	1.1	8-5-19 9:00	21.30	1727	6.40	8.5	6-7-19 7:45	15.28	1377	8.37	11.3					
3-7-19 15:15	-0.05	969	8.09	0.0	3-7-19 15:30	0.00	1831	7.56	6.6	3-7-19 15:30	-0.11	1821	7.82	0.9	8-5-19 9:15	21.28	1729	6.14	8.5	6-7-19 8:00	15.27	1378	8.37	11.8					
3-7-19 15:30	-0.05	970	8.09	0.0	3-7-19 15:45	0.00	1831	7.56	6.8	3-7-19 15:45	-0.18	1726	7.92	103.8	8-5-19 9:30	21.23	1729	6.97	8.5	6-7-19 8:15	15.22	1378	8.37	11.5					
3-7-19 15:45	-0.05	972	8.09	0.1	3-7-19 16:00	0.00	1832	7.56	6.7	3-7-19 16:00	-0.15	1530	7.85	2.0	8-5-19 9:45	21.19	1729	5.88	8.5	6-7-19 8:30	15.21	1378	8.37	11.9					
3-7-19 16:00	-0.05	970	8.09	0.2	3-7-19 16:15	0.00	1832	7.56	6.7	3-7-19 16:15	-0.14	1433	7.85	1.5	8-5-19 10:00	21.17	1728	6.09	8.5	6-7-19 8:45	15.19	1377	8.38	11.3					
3-7-19 16:30	-0.06	958	8.09	0.2	3-7-19 16:30	0.00	1832	7.56	6.8	3-7-19 16:30	-0.14	1351	7.84	1.4	8-5-19 10:15	21.10	1728	6.63	8.5	6-7-19 9:00	15.15	1378	8.37	11.7					
3-7-19 16:45	-0.06	958	8.09	0.4	3-7-19 16:45	0.00	1833	7.56	7.2	3-7-19 16:45	-0.14	1324	7.84	1.6	8-5-19 10:30	21.08	1729	5.97	8.5	6-7-19 9:15	15.14	1377	8.37	13.9					
3-7-19 17:00	-0.06	959	8.09	0.2	3-7-19 17:00	0.00	1833	7.56	7.0	3-7-19 17:00	-0.13	1317	7.84	1.5	8-5-19 10:45	21.00	1728	6.02	8.5	6-7-19 9:30	15.12	1377	8.37	11.5					
3-7-19 17:15	-0.06	958	8.09	0.2	3-7-19 17:15	0.00	1832	7.56	6.5	3-7-19 17:15	-0.12	1337	7.84	1.5	8-5-19 11:00	20.96	1727	6.29	8.5	6-7-19 9:45	15.08	1377	8.37	10.8					
3-7-19 17:30	-0.06	958	8.09	0.1	3-7-19 17:30	0.00	1834	7.56	6.4	3-7-19 17:30	-0.13	1365	7.84	1.7	8-5-19 11:15	20.91	1727	6.01	8.5	6-7-19 10:00	15.02	1377	8.37	11.1					
3-7-19 17:45	-0.06	960	8.09	0.2	3-7-19 17:45	0.00	1834	7.56	6.5	3-7-19 17:45	-0.12	1400	7.84	1.6	8-5-19 11:30	20.87	1728	5.90	8.5	6-7-19 10:15	15.01	1378	8.37	16.1					
3-7-19 18:00	-0.06	956	8.09	0.1	3-7-19 18:00	0.01	1834	7.56	6.7	3-7-19 18:00	-0.12	1423	7.84	1.7	8-5-19 11:45	20.84	1727	6.32	8.5	6-7-19 10:30	15.01	1378	8.37	11.0					
3-7-19 18:15	-0.06	957	8.09	0.2	3-7-19 18:15	0.00	1834	7.56	6.5	3-7-19 18:15	-0.12	1438	7.84	1.5	8-5-19 12:00	20.77	1727	6.59	8.5	6-7-19 10:45	14.99	1377	8.37	15.2					
3-7-19 18:30	-0.06	958	8.09	0.1	3-7-19 18:30	0.00	1835	7.56	6.6	3-7-19 18:30	-0.12	1446	7.84	1.4	8-5-19 12:15	20.74	1728	6.58	8.5	6-7-19 11:00	14.94	1378	8.37	11.1					
3-7-19 18:45	-0.06	954	8.09	0.2	3-7-19 18:45	0.00	1835	7.56	6.6	3-7-19 18:45	-0.12	1456	7.84	1.4	8-5-19 12:30	20.69	1729	6.43	8.5	6-7-19 11:15	14.88	1377	8.38	10.8					
3-7-19 19:00	-0.06	961	8.09	0.1	3-7-19 19:00	0.00	1835	7.56	6.5	3-7-19 19:00	-0.12	1451	7.84	1.4	8-5-19 12:45	20.65	1728	6.50	8.5	6-7-19 11:30	14.83	1378	8.38	10.2					
3-7-19 19:15	-0.06	958	8.09	0.1	3-7-19 19:15	0.00	1835	7.56	6.6	3-7-19 19:15	-0.12	1465	7.84	1.4	8-5-19 13:00	20.61	1725	6.45	8.5	6-7-19 11:45	14.88	1377	8.37	14.2					
3-7-19 19:30	-0.06	952	8.09	0.2	3-7-19 19:30	0.00	1835	7.56	6.7	3-7-19 19:30	-0.12	1483	7.84	1.5	8-5-19 13:15	20.57	1727	6.41	8.5	6-7-19 12:00	14.86	1378	8.37	10.1					
3-7-19 19:45	-0.06	960	8.09	0.1	3-7-19 19:45	0.00	1836	7.56	6.4	3-7-19 19:45	-0.12	1508	7.84	1.5	8-5-19 13:30	20.56	1726	6.47	8.5	6-7-19 12:15	14.81	1378	8.36	11.5					
3-7-19 20:00	-0.06	958	8.09	0.1	3-7-19 20:00	0.00	1835	7.56	6.5	3-7-19 20:00	-0.12	1520	7.84	1.7	8-5-19 13:45	20.55	1727	7.90	8.5	6-7-19 12:30	14.80	1378	8.37	9.8					
3-7-19 20:15	-0.06	958	8.09	0.1	3-7-19 20:15	0.00	1836	7.56	6.4	3-7-19 20:15	-0.12	1523	7.84	1.6	8-5-19 14:00	20.50	1728	6.32	8.5	6-7-19 12:45	14.78	1378	8.37	9.7					
3-7-19 20:30	-0.06	959	8.10	0.1	3-7-19 20:30	0.00	1838	7.56	6.6	3-7-19 20:30	-0.12	1538	7.84	1.5	8-5-19 14:15	20.45	1728	6.57	8.5	6-7-19 13:00	14.79	1378	8.37	10.0					
3-7-19 20:45	-0.06	955	8.10	0.2	3-7-19 20:45	-0.01	1840	7.56	6.6	3-7-19 20:45	-0.11	1538	7.84	1.6	8-5-19 14:30	20.41	1726	6.06	8.5	6-7-19 13:15	14.80	1378	8.37	10.1					
3-7-19 21:00	-0.06	960	8.10	0.2	3-7-19 21:00	-0.01	1841	7.56	6.5	3-7-19 21:00	-0.11	1533	7.84	1.6	8-5-19 14:45	20.42	1726	6.08	8.5	6-7-19 13:30	14.78	1378	8.37	10.2					
3-7-19 21:15	-0.06	958	8.10	0.1	3-7-19 21:15	-0.01	1842	7.56	6.5	3-7-19 21:15	-0.12	1542	7.84	1.7	8-5-19 15:00	20.42	1728	7.16	8.5	6-7-19 13:45	14.76	1377	8.37	10.2					
3-7-19 21:30	-0.06	961	8.10	0.1	3-7-19 21:30	-0.01	1843	7.56	6.5	3-7-19 21:30	-0.12	1522	7.84	5.8	8-5-19 15:15	20.42	1728	6.53	8.5	6-7-19 14:00	14.79	1378	8.37	10.0					
3-7-19 21:45	-0.06	961	8.10	0.1	3-7-19 21:45	-0.01	1843	7.56	6.5	3-7-19 21:45	-0.12	1540	7.84	1.7	8-5-19 15:30	20.42	1726	7.05	8.5	6-7-19 14:15	14.77	1378	8.36	10.1					
3-7-19 22:00	-0.06	959	8.10	0.1	3-7-19 22:00	-0.01	1844	7.56	6.5	3-7-19 22:00	-0.12	1529	7.83	2.3	8-5-19 15:45	20.44	1727	6.73	8.5	6-7-19 14:30	14.79	1377	8.37	9.7					
3-7-19 22:15	-0.06	959	8.10	0.1	3-7-19 22:15	-0.01	1888	7.56	6.5	3-7-19 22:15	-0.12	1521	7.83	7.4	8-5-19 16:00	20.45	1727	7.23	8.5	6-7-19 14:45	14.84	1377	8.37	10.7					
3-7-19 22:30	-0.07	960	8.10	0.1	3-7-19 22:30	-0.01	1844	7.56	6.4	3-7-19 22:30	-0.11	1511	7.83	7.9	8-5-19 16:15	20.47	1727	6.79	8.5	6-7-19 15:00	14.89	1378	8.36	10.0					
3-7-19 22:45	-0.07	961	8.10	0.1	3-7-19 22:45	-0.01	1845	7.56	6.5	3-7-19 22:45	-0.12	1504	7.83	11.8	8-5-19 16:30	20.58	1728	6.48	8.5	6-7-19 15:15	14.89	1377	8.37	9.7					
3-7-19 23:00	-0.07	961	8.10	0.1	3-7-19 23:00	-0.01	1845	7.56	6.6	3-7-19 23:00	-0.11	1502	7.83	15.8	8-5-19 16:45	20.62	1728	8.28	8.5	6-7-19 15:30	14.92	1378	8.37	9.9					
3-7-19 23:15	-0.07	960	8.10	0.1	3-7-19 23:15	-0.01	1844	7.56	6.6	3-7-19 23:15	-0.11	1510	7.83	21.9	8-5-19 17:00	20.67	1727	6.37	8.5	6-7-19 15:45	14.97	1377	8.37	10.1					
3-7-19 23:30	-0.07	960	8.10	0.1	3-7-19 23:30	-0.01	1845	7.56	6.5	3-7-19 23:30	-0.11	1520	7.83	19.7	8-5-19 17:15	20.71	1727	6.28	8.5	6-7-19 16:00	14.97	1378	8.37	10.1					
3-7-19 23:45	-0.07	958	8.10	0.0	3-7-19 23:45	-0.01	1846	7.56	6.6	3-7-19 23:45	-0.11	1526	7.83	13.4	8-5-19 17:30	20.86	1727	6.60	8.5	6-7-19 16:15	14.98	1378	8.36	9.5					
3-8-19 0:00	-0.07	965	8.10	0.1	3-8-19 0:00	-0.01	1846	7.56	6.4	3-8-19 0:00	-0.11	1523	7.83	9.2	8-5-19 17:45	20.98	1728	6.24	8.5	6-7-19 16:30	14.97	1385	8.36	11.6					
3-8-19 0:15	-0.07	962	8.10	0.0	3-8-19 0:15	-0.01	1847	7.56	6.4	3-8-19 0:15	-0.11	1515	7.83	7.6	8-5-19 18:00	21.19	1729	6.50	8.5	6-7-19 16:45	14.95	1389	8.37	11.4					
3-8-19 0:30	-0.07	962	8.10	0.1	3-8-19 0:30	-0.01	1849	7.56	6.4	3-8-19 0:30	-0.12	1544	7.83	6.9	8-5-19 18:15	21.25	1728	6.41	8.5	6-7-19 17:00	15.00	1388	8.36	12.9					
3-8-19 0:45	-0.07	960	8.10	0.0	3-8-19 0:45	-0.01	1849	7.56	6.4	3-8-19 0:45	-0.11	1539	7.83	7.3	8-5-19 18:30	21.29	1728	6.71	8.5	6-7-19 17:15	14.98	1388	8.37	10.5					
3-8-19 1:00	-0.07	965	8.10	0.0	3-8-19 1:00	-0.01	1850	7.56	6.5	3-8-19 1:00	-0.12	1522	7.83	8.9	8-5-19 18:45	21.34	1730	6.34	8.5	6-7-19 17:30	14.91	1388	8.37	10.8					
3-8-19 1:15	-0.07	961	8.11	0.0	3-8-19 1:15	-0.01	1849	7.56	6.5	3-8-19 1:15	-0.11	1503	7.83	10.8	8-5-19 19:00	21.62	1730	6.13	8.5	6-7-19 17:45	14.89	1393	8.36	13.8					
3-8-19 1:30	-0.07	958	8.11	0.0	3-8-19 1:30	-0.02	1849	7.56	6.5	3-8-19 1:30	-0.11	1501	7.83	13.8	8-5-19 19:15	21.73	1728	7.05	8.5	6-7-19 18:00	14.90	1392	8.36	19.9					
3-8-19 1:45	-0.06	961	8.11	0.0	3-8-19 1:45	-0.02	1849	7.56	6.4	3-8-19 1:45	-0.11	1497	7.83	27.3	8-5-19 19:30	21.80	1728	6.56	8.5	6-7-19 18:15	14.94	1393	8.36	11.8					
3-8-19 2:00	-0.07	959	8.11	0.1	3-8-19 2:00	-0.02	1849	7.56	6.4	3-8-19 2:00	-0.11	1494	7.83	143.4	8-5-19 19:45	21.83	1729	6.06	8.5	6-7-19 18:30	14.95	1394	8.36	11.6					
3-8-19 2:15	-0.07	960	8.11	0.1	3-8-19 2:15	-0.02	1849	7.56	6.4	3-8-19 2:15	-0.11	1482	7.83	23.9	8-5-19 20:00	21.90	1729	6.06	8.5	6-7-19 18:45	14.91	1392	8.37	10.9					
3-8-19 2:30	-0.07	961	8.11	0.0	3-8-19 2:30	-0.02	1850	7.56	6.4	3-8-19 2:30	-0.12	1469	7.83	23.7	8-5-19 20:15	21.97	1729	6.13	8.5	6-7-19 19:00	14.90	1393	8.36	11.2					
3-8-19 2:45	-0.07	960	8.12	0.1	3-8-19 2:45	-0.02	1849	7.56	6.3	3-8-19 2:45	-0.11	1465	7.83	27.4	8-5-19 20:30	22.18	1730	5.90	8.5	6-7-19 19:15	14.96	1395	8.36	13.0					
3-8-19 3:00	-0.06	960	8.12	0.1	3-8-19 3:00	-0.02	1850	7.56	6.7	3-8-19 3:00	-0.12	1452	7.83	28.2	8-5-19 20:45	22.24	1732	6.11	8.5	6-7-19 19:30	15.02	1392	8.36	13.2					
3-8-19 3:15	-0.07	963	8.13	0.4	3-8-19 3:15	-0.02	1851	7.56	6.4	3-8-19 3:15	-0.11	1444	7.83	27.5	8-5-19 21:00	22.34	1731	6.02	8.5	6-7-19 19:45	15.07	1391	8.36	11.7					
3-8-19 3:30	-0.06	963	8.13	0.1	3-8-19 3:30	-0.01	1852	7.55	6.5	3-8-19 3:30	-0.11	1428	7.83	26.9	8-5-19 21:15	22.48	1731	6.04	8.5	6-7-19 20:00	15.08	1393	8.36	10.6					
3-8-19 3:45	-0.06	961	8.13	0.0	3-8-19 3:45	-0.01	1852	7.55	6.5	3-8-19 3:45	-0.12	1411	7.83	26.0	8-5-19 21:30	22.54	1728	6.03	8.5	6-7-19 20:15	15.14	1392	8.35	10.7					
3-8-19 4:00	-0.07	965	8.14	0.1	3-8-19 4:00	-0.01	1853	7.55	6.4	3-8-19 4:00	-0.12	1404	7.83	26.3	8-5-19 21:45	22.49	1731	5.98	8.5	6-7-19 20:30	15.25	1390	8.36	12.9					
3-8-19 4:15	-0.07	965	8.14	0.1	3-8-19 4:15	-0.01	1853	7.55	6.3	3-8-19 4:15	-0.12	1409	7.83	25.5	8-5-19 22:00	22.54	1730	6.09	8.5	6-7-19 20:45	15.31	1389	8.36	11.8					
3-8-19 4:30	-0.06	962	8.14	0.1	3-8-19 4:30	-0.01	1854	7.55	6.5	3-8-19 4:30	-0.12	1402	7.83	25.6	8-5-19 22:15	23.08	1739	6.19	8.5	6-7-19 21:00	15.36	1388	8.36	10.8					
3-8-19 4:45	-0.07	965	8.16	0.2	3-8-19 4:45	-0.01	1854	7.55	6.5	3-8-19 4:45	-0.12	1393	7.83	26.2	8-5-19 22:30	23.41	1733	5.94	8.5	6-7-19 21:15	15.41	1388	8.36	11.3					
3-8-19 5:00	-0.07	966	8.16	0.1	3-8-19 5:00	-0.01	1855	7.55	5.8	3-8-19 5:00	-0.12	1388	7.83	28.2	8-5-19 22:45	23.28	1732	6.19	8.5	6-7-19 21:30	15.45	1388	8.36	11.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-8-19 5:15	-0.06	963	8.17	0.1	3-8-19 5:15	-0.01	1854	7.55	6.7	3-8-19 5:15	-0.12	1383	7.83	30.1	8-5-19 23:00	23.55	1735	6.38	8.5	6-7-19 21:45	15.54	1388	8.36	11.2					
3-8-19 5:30	-0.06	961	8.17	0.1	3-8-19 5:30	-0.01	1855	7.55	6.4	3-8-19 5:30	-0.12	1365	7.83	28.8	8-5-19 23:15	23.42	1732	6.16	8.5	6-7-19 22:00	15.49	1388	8.36	11.8					
3-8-19 5:45	-0.06	963	8.17	0.1	3-8-19 5:45	-0.01	1855	7.55	6.6	3-8-19 5:45	-0.12	1366	7.83	29.7	8-5-19 23:30	23.37	1731	6.35	8.5	6-7-19 22:15	15.43	1388	8.36	11.4					
3-8-19 6:00	-0.06	964	8.18	0.1	3-8-19 6:00	-0.01	1857	7.55	6.4	3-8-19 6:00	-0.12	1377	7.83	35.9	8-5-19 23:45	23.42	1733	6.20	8.5	6-7-19 22:30									
3-8-19 6:15	-0.06	962	8.19	0.1	3-8-19 6:15	-0.01	1857	7.55	6.3	3-8-19 6:15	-0.12	1379	7.83	35.0	8-6-19 0:00	23.42	1732	6.05	8.5	6-7-19 22:45									
3-8-19 6:30	-0.06	959	8.20	0.1	3-8-19 6:30	-0.01	1858	7.55	6.3	3-8-19 6:30	-0.13	1369	7.83	35.2	8-6-19 0:15	23.38	1732	6.36	8.5	6-7-19 23:00									
3-8-19 6:45	-0.06	962	8.20	0.1	3-8-19 6:45	-0.01	1858	7.55	5.2	3-8-19 6:45	-0.13	1370	7.83	35.2	8-6-19 0:30	23.28	1728	6.34	8.5	6-7-19 23:15									
3-8-19 7:00	-0.06	964	8.20	0.1	3-8-19 7:00	-0.01	1858	7.55	4.6	3-8-19 7:00	-0.12	1385	7.83	36.3	8-6-19 0:45	22.96	1728	6.65	8.5	6-7-19 23:30									
3-8-19 7:15	-0.06	962	8.21	0.1	3-8-19 7:15	-0.01	1858	7.55	6.3	3-8-19 7:15	-0.13	1407	7.83	34.8	8-6-19 1:00	22.65	1727	8.10	8.5	6-7-19 23:45									
3-8-19 7:30	-0.06	965	8.21	0.1	3-8-19 7:30	-0.01	1859	7.55	6.4	3-8-19 7:30	-0.13	1404	7.83	37.5	8-6-19 1:15	22.55	1727	7.68	8.5	6-8-19 0:00									
3-8-19 7:45	-0.06	964	8.22	0.1	3-8-19 7:45	-0.01	1859	7.55	6.4	3-8-19 7:45	-0.12	1404	7.83	38.0	8-6-19 1:30	22.48	1728	13.10	8.5	6-8-19 0:15	15.88	1391	8.36	11.8					
3-8-19 8:00	-0.06	961	8.22	0.1	3-8-19 8:00	-0.01	1859	7.55	6.3	3-8-19 8:00	-0.12	1400	7.83	32.2	8-6-19 1:45	22.84	1733	6.44	8.5	6-8-19 0:30	15.91	1392	8.35	11.5					
3-8-19 8:15	-0.06	963	8.22	0.1	3-8-19 8:15	-0.01	1858	7.55	6.3	3-8-19 8:15	-0.12	1398	7.83	34.2	8-6-19 2:00	22.95	1725	6.04	8.5	6-8-19 0:45	15.86	1391	8.36	11.7					
3-8-19 8:30	-0.06	961	8.22	0.1	3-8-19 8:30	-0.01	1858	7.55	6.4	3-8-19 8:30	-0.12	1392	7.83	35.1	8-6-19 2:15	22.93	1723	6.56	8.5	6-8-19 1:00	15.96	1393	8.36	12.0					
3-8-19 8:45	-0.06	963	8.23	0.1	3-8-19 8:45	-0.01	1860	7.55	6.3	3-8-19 8:45	-0.12	1394	7.83	36.0	8-6-19 2:30	22.88	1724	6.37	8.5	6-8-19 1:15	15.95	1391	8.36	11.0					
3-8-19 9:00	-0.06	964	8.23	0.0	3-8-19 9:00	-0.01	1860	7.55	6.3	3-8-19 9:00	-0.12	1405	7.83	38.1	8-6-19 2:45	22.80	1722	6.59	8.5	6-8-19 1:30	15.93	1392	8.36	11.8					
3-8-19 9:15	-0.06	963	8.23	0.1	3-8-19 9:15	-0.01	1860	7.55	6.3	3-8-19 9:15	-0.12	1442	7.83	39.3	8-6-19 3:00	22.77	1722	5.88	8.5	6-8-19 1:45	15.86	1391	8.36	10.7					
3-8-19 9:30	-0.06	964	8.23	0.0	3-8-19 9:30	-0.01	1860	7.55	6.3	3-8-19 9:30	-0.12	1428	7.83	40.2	8-6-19 3:15	22.68	1722	6.68	8.5	6-8-19 2:00	15.83	1392	8.36	10.8					
3-8-19 9:45	-0.06	965	8.23	0.0	3-8-19 9:45	-0.01	1861	7.55	6.4	3-8-19 9:45	-0.12	1425	7.83	40.8	8-6-19 3:30	22.63	1722	6.02	8.5	6-8-19 2:15	15.76	1392	8.35	10.0					
3-8-19 10:00	-0.06	964	8.23	0.0	3-8-19 10:00	-0.01	1861	7.55	6.4	3-8-19 10:00	-0.12	1441	7.83	44.5	8-6-19 3:45	22.56	1722	6.56	8.5	6-8-19 2:30	15.81	1392	8.36	11.6					
3-8-19 10:15	-0.06	965	8.23	0.0	3-8-19 10:15	-0.01	1861	7.55	6.3	3-8-19 10:15	-0.12	1449	7.83	56.9	8-6-19 4:00	22.51	1722	5.83	8.5	6-8-19 2:45	15.79	1392	8.36	10.6					
3-8-19 10:30	-0.06	965	8.23	0.0	3-8-19 10:30	-0.01	1861	7.55	6.3	3-8-19 10:30	-0.12	1451	7.83	57.9	8-6-19 4:15	22.48	1722	5.86	8.5	6-8-19 3:00	15.80	1392	8.36	10.3					
3-8-19 10:45	-0.06	966	8.23	0.0	3-8-19 10:45	-0.01	1861	7.55	6.3	3-8-19 10:45	-0.12	1444	7.83	58.9	8-6-19 4:30	22.43	1721	5.67	8.5	6-8-19 3:15	15.76	1392	8.36	11.8					
3-8-19 11:00	-0.06	963	8.23	0.0	3-8-19 11:00	0.00	1861	7.55	6.3	3-8-19 11:00	-0.12	1439	7.83	61.3	8-6-19 4:45	22.42	1723	6.61	8.5	6-8-19 3:30	15.73	1392	8.36	11.2					
3-8-19 11:15	-0.06	964	8.22	0.1	3-8-19 11:15	0.00	1862	7.55	6.3	3-8-19 11:15	-0.12	1425	7.83	68.1	8-6-19 5:00	22.36	1723	6.39	8.5	6-8-19 3:45	15.72	1392	8.37	11.8					
3-8-19 11:30	-0.06	963	8.22	0.0	3-8-19 11:30	0.00	1862	7.55	6.4	3-8-19 11:30	-0.11	1426	7.83	67.3	8-6-19 5:15	22.33	1724	5.83	8.5	6-8-19 4:00	15.70	1393	8.36	11.0					
3-8-19 11:45	-0.06	963	8.23	0.0	3-8-19 11:45					3-8-19 11:45	-0.12	1423	7.83	95.6	8-6-19 5:30	22.30	1724	5.87	8.5	6-8-19 4:15	15.66	1391	8.36	9.9					
3-8-19 12:00	-0.06	965	8.22	0.0	3-8-19 12:00	-0.01	1860	7.55	6.6	3-8-19 12:00	-0.13	1520	7.83	39.9	8-6-19 5:45	22.26	1722	5.98	8.5	6-8-19 4:30	15.61	1393	8.37	9.6					
3-8-19 12:15	-0.06	958	8.22	0.1	3-8-19 12:15	-0.01	1866	7.55	6.4	3-8-19 12:15	-0.14	1308	7.83	13.0	8-6-19 6:00	22.22	1722	5.79	8.5	6-8-19 4:45	15.62	1392	8.37	11.0					
3-8-19 12:30	-0.06	963	8.22	0.0	3-8-19 12:45	-0.03	1868	7.32	6.8	3-8-19 12:45	-0.15	1304	6.12	13.6	8-6-19 6:15	22.15	1722	5.34	8.5	6-8-19 5:00	15.60	1392	8.37	9.5					
3-8-19 12:45	-0.06	963	8.22	0.0	3-8-19 13:00	0.00	1866	7.54	6.8	3-8-19 13:00	-0.13	1300	7.77	14.6	8-6-19 6:30	22.11	1722	6.72	8.5	6-8-19 5:15	15.56	1391	8.37	9.2					
3-8-19 13:00	-0.06	962	8.22	0.0	3-8-19 13:15	0.01	1866	7.54	6.7	3-8-19 13:15	-0.12	1298	7.80	14.3	8-6-19 6:45	22.08	1720	5.55	8.5	6-8-19 5:30	15.53	1392	8.37	9.4					
3-8-19 13:15	-0.06	961	8.23	0.5	3-8-19 13:30	0.01	1867	7.55	6.9	3-8-19 13:30	-0.13	1303	7.82	14.3	8-6-19 7:00	22.02	1722	5.59	8.5	6-8-19 5:45	15.50	1392	8.37	8.9					
3-8-19 13:30	-0.06	960	8.23	0.1	3-8-19 13:45	0.01	1867	7.55	7.0	3-8-19 13:45	-0.13	1293	7.82	15.8	8-6-19 7:15	21.98	1722	5.24	8.5	6-8-19 6:00	15.47	1393	8.37	9.4					
3-8-19 13:45	-0.06	958	8.23	0.4	3-8-19 14:00	0.01	1870	7.55	7.2	3-8-19 14:00	-0.12	1294	7.82	9.4	8-6-19 7:30	21.93	1721	5.90	8.5	6-8-19 6:15	15.42	1392	8.36	10.4					
3-8-19 14:00	-0.05	960	8.23	0.1	3-8-19 14:15	0.01	1867	7.55	7.4	3-8-19 14:15	-0.12	1282	7.83	17.0	8-6-19 7:45	21.89	1722	5.43	8.5	6-8-19 6:30	15.42	1392	8.37	10.1					
3-8-19 14:15	-0.05	963	8.23	0.0	3-8-19 14:30	0.01	1868	7.55	7.6	3-8-19 14:30	-0.12	1271	7.82	16.8	8-6-19 8:00	21.86	1723	5.60	8.5	6-8-19 6:45	15.38	1391	8.37	9.7					
3-8-19 14:30	-0.05	961	8.23	0.0	3-8-19 14:45	0.01	1867	7.55	8.3	3-8-19 14:45	-0.12	1263	7.82	17.2	8-6-19 8:15	21.84	1723	6.58	8.5	6-8-19 7:00	15.37	1393	8.37	9.5					
3-8-19 14:45	-0.05	960	8.23	0.0	3-8-19 15:00	0.01	1868	7.55	6.8	3-8-19 15:00	-0.12	1256	7.82	17.8	8-6-19 8:30	21.80	1721	5.75	8.5	6-8-19 7:15	15.34	1392	8.38	8.9					
3-8-19 15:00	-0.05	963	8.23	0.2	3-8-19 15:15					3-8-19 15:15	-0.12	1247	7.82	19.1	8-6-19 8:45	21.76	1721	5.42	8.5	6-8-19 7:30	15.31	1392	8.37	8.7					
3-8-19 15:15	-0.05	964	8.23	0.0	3-8-19 15:30	0.01	1869	7.55	6.7	3-8-19 15:30	-0.12	1239	7.83	19.0	8-6-19 9:00	21.72	1720	5.56	8.5	6-8-19 7:45	15.30	1392	8.37	10.2					
3-8-19 15:30	-0.05	959	8.23	0.0	3-8-19 15:45	0.01	1869	7.55	6.9	3-8-19 15:45	-0.12	1242	7.83	21.2	8-6-19 9:15	21.69	1722	5.88	8.5	6-8-19 8:00	15.25	1392	8.37	9.1					
3-8-19 15:45	-0.06	964	8.23	0.0	3-8-19 16:00	0.01	1870	7.55	6.9	3-8-19 16:00	-0.12	1239	7.82	21.8	8-6-19 9:30	21.66	1721	6.45	8.5	6-8-19 8:15	15.21	1391	8.37	11.0					
3-8-19 16:00	-0.06	963	8.23	0.0	3-8-19 16:15	0.01	1871	7.55	6.8	3-8-19 16:15	-0.12	1255	7.83	22.7	8-6-19 9:45	21.63	1722	6.08	8.5	6-8-19 8:30	15.23	1392	8.37	8.8					
3-8-19 16:15	-0.06	966	8.23	0.1	3-8-19 16:30	0.01	1871	7.55	6.8	3-8-19 16:30	-0.12	1257	7.83	23.4	8-6-19 10:00	21.59	1720	8.21	8.5	6-8-19 8:45	15.19	1391	8.38	9.0					
3-8-19 16:30	-0.06	963	8.23	0.0	3-8-19 16:45	0.01	1872	7.55	6.8	3-8-19 16:45	-0.13	1262	7.83	23.9	8-6-19 10:15	21.56	1722	7.35	8.5	6-8-19 9:00	15.17	1392	8.37	9.0					
3-8-19 16:45	-0.06	960	8.23	0.0	3-8-19 17:00	0.01	1873	7.55	6.9	3-8-19 17:00	-0.12	1265	7.83	24.5	8-6-19 10:30	21.52	1722	6.31	8.5	6-8-19 9:15	15.15	1391	8.37	8.5					
3-8-19 17:00	-0.06	959	8.24	0.0	3-8-19 17:15	0.01	1873	7.55	6.9	3-8-19 17:15	-0.13	1263	7.83	25.4	8-6-19 10:45	21.46	1722	5.86	8.5	6-8-19 9:30	15.11	1392	8.37	9.8					
3-8-19 17:15	-0.06	962	8.24	0.0	3-8-19 17:30	0.01	1873	7.55	6.9	3-8-19 17:30	-0.12	1269	7.83	26.3	8-6-19 11:00	21.42	1722	5.77	8.5	6-8-19 9:45	15.08	1391	8.37	8.7					
3-8-19 17:30	-0.06	964	8.24	0.0	3-8-19 17:45	0.01	1874	7.55	7.0	3-8-19 17:45	-0.13	1261	7.83	26.5	8-6-19 11:15	21.38	1722	6.21	8.5	6-8-19 10:00	15.05	1392	8.38	8.1					
3-8-19 17:45	-0.06	963	8.24	0.0	3-8-19 18:00	0.01	1875	7.55	6.7	3-8-19 18:00	-0.12	1271	7.83	28.3	8-6-19 11:30	21.36	1723	5.70	8.5	6-8-19 10:15	14.99	1392	8.37	8.2					
3-8-19 18:00	-0.05	961	8.26	0.0	3-8-19 18:15	0.01	1876	7.55	6.9	3-8-19 18:15	-0.12	1272	7.83	29.3	8-6-19 11:45	21.30	1723	5.96	8.5	6-8-19 10:30	15.01	1392	8.37	8.3					
3-8-19 18:15	-0.06	965	8.26	0.0	3-8-19 18:30	0.01	1876	7.55	6.8	3-8-19 18:30	-0.12	1278	7.83	29.7	8-6-19 12:00	21.28	1722	5.93	8.5	6-8-19 10:45	14.95	1391	8.38	9.4					
3-8-19 18:30	-0.06	962	8.27	0.0	3-8-19 18:45	0.01	1876	7.55	5.9	3-8-19 18:45	-0.12	1300	7.83	30.1	8-6-19 12:15	21.26	1723	5.82	8.4	6-8-19 11:00	14.92	1393	8.37	8.1					
3-8-19 18:45	-0.06	960	8.28	0.0	3-8-19 19:00	0.01	1877	7.55	6.7	3-8-19 19:00	-0.12	1294	7.83	30.4	8-6-19 12:30	21.23	1723	5.99	8.4	6-8-19 11:15	14.89	1392	8.38	8.9					
3-8-19 19:00	-0.06	960	8.29	0.0	3-8-19 19:15	0.01	1877	7.55	6.8	3-8-19 19:15	-0.12	1294	7.83	30.5	8-6-19 12:45	21.19	1723	5.99	8.4	6-8-19 11:30	14.87	1392	8.37	8.5					
3-8-19 19:15	-0.06	964	8.29	0.0	3-8-19 19:30	0.01	1878	7.55	6.8	3-8-19 19:30	-0.12	1286	7.83	30.9	8-6-19 13:00	21.16	1724	6.81	8.4	6-8-19 11:45	14.84	1391	8.38	8.3					
3-8-19 19:30	-0.06	964	8.30	0.0	3-8-19 19:45	0.01	1876	7.55	6.7	3-8-19 19:45	-0.12	1248	7.83	31.2	8-6-19 13:15	21.14	1723	6.24	8.4	6-8-19 12:00	14.84	1393	8.37	15.9					
3-8-19 19:45	-0.06	963	8.30	0.0	3-8-19 20:00	0.01	1879	7.55	6.9	3-8-19 20:00	-0.12	1174	7.83	31.5	8-6-19 13:30	21.11	1724	6.85	8.4	6-8-19 12:15	14.79	1393	8.37	8.2					
3-8-19 20:00	-0.06	964	8.30	0.0	3-8-19 20:15	0.01	1879	7.55	6.9	3-8-19 20:15	-0.12	1163	7.83	31.8	8-6-19 13:45	21.07	1724	6.32	8.4	6-8-19 12:30	14.81	1393	8.37	7.9					
3-8-19 20:15	-0.06	964	8.31	0.0	3-8-19 20:30	0.00	1880	7.54	6.7	3-8-19 20:30	-0.12	1143	7.83	32.0	8-6-19 14:00	21.04	1723	6.38	8.4	6-8-19 12:45	14.79	1392	8.37	8.6					
3-8-19 20:30	-0.06	961	8.31	0.0	3-8-19 20:45	0.00	1880	7.54	6.7	3-8-19 20:45	-0.12	1132	7.83	32.4	8-6-19 14:15	20.98	1722	6.42	8.4	6-8-19 13:00	14.77	1393	8.37	8.3					
3-8-19 20:45	-0.06	964	8.31	0.0	3-8-19 21:00	0.00	1879	7.54	6.6	3-8-19 21:00	-0.12	1147	7.83	32.5	8-6-19 14:30	20.97	1723	6.30	8.4	6-8-19 13:15	14.75	1392	8.37	8.9					
3-8-19 21:00	-0.06	965	8.31	0.0	3-8-19 21:15	0.01	1880	7.54	6.7	3-8-19 21:15	-0.12	1160	7.83	33.5	8-6-19 14:45	20.94	1722	6.52	8.4	6-8-19 13:30	14.73	1393	8.37	8.5					
3-8-19 21:15	-0.06	964	8.31	0.0	3-8-19 21:30	0.00	1879	7.54	6.7	3-8-19 21:30	-0.12	1181	7.83	33.8	8-6-19 15:00	20.92	1723	6.78	8.4	6-8-19 13:45	14.73	1392	8.38	7.9					
3-8-19 21:30	-0.06	962	8.32	0.0	3-8-19 21:45	0.00	1879	7.54	6.7	3-8-19 21:45	-0.12	1196	7.83	34.3	8-6-19 15:15	20.90	1724	6.48	8.4	6-8-19 14:00	14.69	1393	8.37	8.2					
3-8-19 21:45	-0.06	965	8.32	0.0	3-8-19 22:00	0.00	1880	7.54	6.7	3-8-19 22:00	-0.12	1203	7.83	34.6	8-6-19 15:30	20.86	1723	6.43	8.4	6-8-19 14:15	14.67	1392	8.37	7.7					
3-8-19 22:00	-0.06	965	8.32	0.0	3-8-19 22:15	0.00	1880	7.54	6.7	3-8-19 22:15	-0.12	1214	7.83	35.4	8-6-19 15:45	20.84	1723	6.42	8.4	6-8-19 14:30	14.68	1392	8.38	8.5					
3-8-19 22:15	-0.06	965	8.32	0.0	3-8-19 22:30	0.00	1882	7.54	6.5	3-8-19 22:30	-0.12	1224	7.83	35.9	8-6-19 16:00	20.83	1724	6.11	8.4	6-8-19 14:45	14.69	1392	8.38	7.7					
3-8-19 22:30	-0.06	969	8.32	0.0	3-8-19 22:45	0.00	1882	7.54	6.6	3-8-19 22:45	-0.12	1236	7.83	36.5	8-6-19 16:15	20.80	1724	6.63	8.4	6-8-19 15:00	14.73	1393	8.37	7.8					
3-8-19 22:45	-0.06	968	8.32	0.0	3-8-19 23:00	0.00	1882	7.54	6.7	3-8-19 23:00	-0.12	1246	7.83	36.9	8-6-19 16:30	20.77	1722	6.69	8.4	6-8-19 15:15	14.75	1392	8.38	7.9					
3-8-19 23:00	-0.06	964	8.32	0.0	3-8-19 23:15	0.00	1883	7.54	6.5	3-8-19 23:15	-0.12	1248	7.83	37.7	8-6-19 16:45	20.75	1724	9.25	8.4	6-8-19 15:30	14.79	1393	8.38	8.4					
3-8-19 23:15	-0.06	966	8.32	0.0	3-8-19 23:30	0.00	1884	7.54	7.1	3-8-19 23:30	-0.12	1249	7.83	42.2	8-6-19 17:00	20.75	1723	6.57	8.4	6-8-19 15:45	14.87	1393	8.37	8.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-8-19 23:30	-0.06	964	8.32	0.0	3-8-19 23:45	0.00	1884	7.54	6.8	3-8-19 23:45	-0.12	1248	7.83	46.0	8-6-19 17:15	20.76	1722	6.60	8.4	6-8-19 16:00	14.96	1396	8.37	7.9					
3-8-19 23:45	-0.06	965	8.32	0.0	3-9-19 0:00	0.00	1885	7.54	6.8	3-9-19 0:00	-0.12	1229	7.83	39.4	8-6-19 17:30	20.75	1723	6.33	8.4	6-8-19 16:15	14.96	1397	8.36	8.3					
3-9-19 0:00	-0.06	965	8.33	0.0	3-9-19 0:15	0.00	1886	7.54	6.7	3-9-19 0:15	-0.12	1204	7.83	35.0	8-6-19 17:45	20.75	1723	6.46	8.4	6-8-19 16:30	15.04	1403	8.36	8.6					
3-9-19 0:15	-0.06	968	8.33	0.0	3-9-19 0:30	0.00	1886	7.54	6.8	3-9-19 0:30	-0.12	1212	7.83	31.7	8-6-19 18:00	20.73	1724	6.10	8.4	6-8-19 16:45	15.09	1403	8.37	9.1					
3-9-19 0:30	-0.06	965	8.33	0.0	3-9-19 0:45	0.00	1885	7.54	6.7	3-9-19 0:45	-0.12	1219	7.83	31.6	8-6-19 18:15	20.72	1723	6.86	8.4	6-8-19 17:00	15.14	1404	8.37	11.2					
3-9-19 0:45	-0.06	965	8.34	0.0	3-9-19 1:00	0.00	1886	7.54	6.8	3-9-19 1:00	-0.12	1215	7.83	32.4	8-6-19 18:30	20.73	1722	6.51	8.4	6-8-19 17:15	15.20	1403	8.37	14.2					
3-9-19 1:00	-0.06	967	8.34	0.0	3-9-19 1:15	-0.01	1887	7.54	6.7	3-9-19 1:15	-0.12	1221	7.83	33.3	8-6-19 18:45	20.71	1723	7.09	8.4	6-8-19 17:30	15.16	1403	8.37	14.3					
3-9-19 1:15	-0.06	963	8.34	0.0	3-9-19 1:30	-0.01	1891	7.54	6.7	3-9-19 1:30	-0.12	1235	7.83	34.3	8-6-19 19:00	20.77	1721	6.34	8.4	6-8-19 17:45	15.24	1402	8.37	15.6					
3-9-19 1:30	-0.06	966	8.35	0.0	3-9-19 1:45	-0.01	1888	7.54	6.8	3-9-19 1:45	-0.12	1265	7.83	36.6	8-6-19 19:15	20.78	1722	6.35	8.4	6-8-19 18:00	15.40	1405	8.37	16.7					
3-9-19 1:45	-0.06	967	8.35	0.0	3-9-19 2:00	-0.01	1887	7.54	6.7	3-9-19 2:00	-0.12	1273	7.83	42.2	8-6-19 19:30	20.76	1722	6.07	8.4	6-8-19 18:15	15.74	1407	8.36	14.9					
3-9-19 2:00	-0.06	964	8.35	0.0	3-9-19 2:15	-0.01	1887	7.54	6.7	3-9-19 2:15	-0.12	1257	7.83	50.2	8-6-19 19:45	20.74	1724	7.25	8.4	6-8-19 18:30	15.76	1405	8.37	19.1					
3-9-19 2:15	-0.06	969	8.35	0.0	3-9-19 2:30	-0.01	1888	7.54	6.7	3-9-19 2:30	-0.13	1244	7.83	53.4	8-6-19 20:00	20.73	1722	6.78	8.4	6-8-19 18:45	15.69	1402	8.37	15.1					
3-9-19 2:30	-0.06	965	8.35	0.0	3-9-19 2:45	-0.01	1889	7.54	6.5	3-9-19 2:45	-0.12	1232	7.83	54.5	8-6-19 20:15	20.72	1723	5.94	8.4	6-8-19 19:00	15.98	1405	8.36	15.4					
3-9-19 2:45	-0.06	964	8.35	0.0	3-9-19 3:00	-0.01	1889	7.54	6.6	3-9-19 3:00	-0.12	1212	7.83	56.1	8-6-19 20:30	20.73	1724	9.24	8.4	6-8-19 19:15	16.00	1404	8.36	16.6					
3-9-19 3:00	-0.06	968	8.35	0.0	3-9-19 3:15	-0.01	1889	7.54	6.5	3-9-19 3:15	-0.13	1207	7.83	56.8	8-6-19 20:45	20.74	1722	7.06	8.4	6-8-19 19:30	16.10	1405	8.37	16.0					
3-9-19 3:15	-0.06	967	8.35	0.0	3-9-19 3:30	-0.01	1890	7.54	6.6	3-9-19 3:30	-0.13	1207	7.83	55.3	8-6-19 21:00	20.78	1722	6.12	8.4	6-8-19 19:45	16.13	1404	8.36	15.7					
3-9-19 3:30	-0.06	968	8.35	0.0	3-9-19 3:45	-0.01	1890	7.54	6.7	3-9-19 3:45	-0.12	1213	7.83	57.0	8-6-19 21:15	20.78	1723	6.52	8.4	6-8-19 20:00	16.16	1406	8.36	16.3					
3-9-19 3:45	-0.06	971	8.35	0.0	3-9-19 4:00	-0.01	1890	7.54	6.6	3-9-19 4:00	-0.13	1215	7.83	57.1	8-6-19 21:30	20.79	1722	9.37	8.4	6-8-19 20:15	16.28	1407	8.36	14.7					
3-9-19 4:00	-0.06	971	8.35	0.0	3-9-19 4:15	-0.01	1891	7.54	6.7	3-9-19 4:15	-0.12	1209	7.83	57.8	8-6-19 21:45	20.81	1721	8.19	8.4	6-8-19 20:30	16.36	1406	8.36	14.1					
3-9-19 4:15	-0.06	966	8.35	0.0	3-9-19 4:30	-0.01	1891	7.54	6.7	3-9-19 4:30	-0.12	1207	7.83	59.3	8-6-19 22:00	20.83	1723	11.35	8.4	6-8-19 20:45	16.23	1405	8.36	13.6					
3-9-19 4:30	-0.06	969	8.36	0.0	3-9-19 4:45	-0.01	1891	7.54	6.8	3-9-19 4:45	-0.12	1186	7.83	60.5	8-6-19 22:15	20.84	1723	6.58	8.4	6-8-19 21:00	16.51	1410	8.36	13.9					
3-9-19 4:45	-0.06	967	8.36	0.0	3-9-19 5:00	-0.01	1891	7.54	6.8	3-9-19 5:00	-0.12	1157	7.83	61.9	8-6-19 22:30	20.85	1722	7.90	8.5	6-8-19 21:15	16.59	1403	8.35	14.0					
3-9-19 5:00	-0.06	969	8.36	0.0	3-9-19 5:15	-0.01	1892	7.54	7.0	3-9-19 5:15	-0.12	1164	7.83	63.2	8-6-19 22:45	20.79	1722	10.56	8.5	6-8-19 21:30	17.07	1408	8.35	13.8					
3-9-19 5:15	-0.06	968	8.36	0.0	3-9-19 5:30	-0.01	1892	7.54	7.0	3-9-19 5:30	-0.12	1160	7.83	65.1	8-6-19 23:00	20.83	1723	10.35	8.5	6-8-19 21:45	17.01	1408	8.35	14.0					
3-9-19 5:30	-0.06	968	8.35	0.0	3-9-19 5:45	-0.01	1893	7.54	6.5	3-9-19 5:45	-0.12	1173	7.83	65.8	8-6-19 23:15	20.82	1723	7.33	8.5	6-8-19 22:00	17.03	1411	8.35	15.0					
3-9-19 5:45	-0.06	964	8.35	0.0	3-9-19 6:00	-0.01	1894	7.54	6.5	3-9-19 6:00	-0.12	1186	7.83	67.9	8-6-19 23:30	20.82	1721	7.63	8.5	6-8-19 22:15	17.14	1408	8.35	13.9					
3-9-19 6:00	-0.06	965	8.35	0.0	3-9-19 6:15	-0.01	1896	7.54	6.6	3-9-19 6:15	-0.12	1218	7.83	68.7	8-6-19 23:45	20.79	1722	8.60	8.5	6-8-19 22:30	17.23	1408	8.35	15.3					
3-9-19 6:15	-0.06	964	8.35	0.0	3-9-19 6:30	-0.01	1894	7.54	6.6	3-9-19 6:30	-0.12	1229	7.83	70.5	8-7-19 0:00	20.78	1722	10.44	8.5	6-8-19 22:45	17.23	1410	8.36	13.2					
3-9-19 6:30	-0.06	968	8.35	0.0	3-9-19 6:45	-0.01	1894	7.54	6.6	3-9-19 6:45	-0.11	1255	7.83	73.3	8-7-19 0:15	20.76	1722	8.52	8.5	6-8-19 23:00	17.33	1410	8.36	13.6					
3-9-19 6:45	-0.06	965	8.35	0.0	3-9-19 7:00	-0.01	1894	7.54	6.6	3-9-19 7:00	-0.12	1250	7.83	69.4	8-7-19 0:30	20.77	1722	6.86	8.5	6-8-19 23:15	17.30	1409	8.36	12.6					
3-9-19 7:00	-0.06	967	8.35	0.0	3-9-19 7:15	-0.01	1895	7.54	6.5	3-9-19 7:15	-0.12	1225	7.83	53.7	8-7-19 0:45	20.78	1722	7.14	8.5	6-8-19 23:30	17.08	1408	8.34	19.1					
3-9-19 7:15	-0.06	965	8.35	0.0	3-9-19 7:30	-0.01	1895	7.54	6.6	3-9-19 7:30	-0.12	1222	7.83	56.8	8-7-19 1:00	20.77	1721	6.70	8.5	6-8-19 23:45	17.44	1412	8.36	13.1					
3-9-19 7:30	-0.06	967	8.35	0.0	3-9-19 7:45	-0.01	1896	7.54	6.5	3-9-19 7:45	-0.12	1213	7.83	60.1	8-7-19 1:15	20.77	1723	6.66	8.5	6-9-19 0:00	17.67	1414	8.36	13.4					
3-9-19 7:45	-0.06	964	8.35	0.0	3-9-19 8:00	-0.01	1898	7.54	6.6	3-9-19 8:00	-0.12	1188	7.83	63.6	8-7-19 1:30	20.76	1722	5.17	8.5	6-9-19 0:15	17.57	1412	8.35	12.6					
3-9-19 8:00	-0.06	966	8.35	0.0	3-9-19 8:15	-0.01	1898	7.54	6.1	3-9-19 8:15	-0.12	1188	7.83	68.8	8-7-19 1:45	20.74	1722	6.36	8.5	6-9-19 0:30	17.67	1415	8.35	13.8					
3-9-19 8:15	-0.06	967	8.35	0.0	3-9-19 8:30	-0.01	1898	7.54	6.5	3-9-19 8:30	-0.12	1193	7.83	73.7	8-7-19 2:00	20.74	1722	6.29	8.5	6-9-19 0:45	17.76	1415	8.36	13.1					
3-9-19 8:30	-0.06	967	8.35	0.0	3-9-19 8:45	0.00	1896	7.54	6.4	3-9-19 8:45	-0.13	1196	7.83	79.7	8-7-19 2:15	20.73	1723	6.12	8.5	6-9-19 1:00	17.87	1416	8.36	11.6					
3-9-19 8:45	-0.06	965	8.35	0.0	3-9-19 9:00	0.00	1897	7.54	6.5	3-9-19 9:00	-0.12	1185	7.83	81.8	8-7-19 2:30	20.71	1723	14.14	8.5	6-9-19 1:15	17.94	1416	8.36	13.0					
3-9-19 9:00	-0.06	966	8.35	0.0	3-9-19 9:15	0.00	1898	7.54	6.5	3-9-19 9:15	-0.13	1180	7.83	83.1	8-7-19 2:45	20.70	1723	5.35	8.5	6-9-19 1:30	17.95	1415	8.35	12.3					
3-9-19 9:15	-0.06	965	8.35	0.0	3-9-19 9:30	0.00	1898	7.54	6.5	3-9-19 9:30	-0.13	1175	7.83	84.2	8-7-19 3:00	20.68	1724	5.50	8.5	6-9-19 1:45	17.89	1414	8.36	12.1					
3-9-19 9:30	-0.06	966	8.35	0.0	3-9-19 9:45	0.00	1898	7.54	6.4	3-9-19 9:45	-0.13	1168	7.83	85.7	8-7-19 3:15	20.66	1723	5.71	8.5	6-9-19 2:00	17.87	1416	8.35	12.2					
3-9-19 9:45	-0.06	969	8.35	0.0	3-9-19 10:00	0.00	1898	7.54	6.4	3-9-19 10:00	-0.13	1160	7.83	87.6	8-7-19 3:30	20.63	1723	5.33	8.5	6-9-19 2:15	17.76	1415	8.36	11.0					
3-9-19 10:00	-0.06	964	8.35	0.0	3-9-19 10:15	0.00	1901	7.54	6.3	3-9-19 10:15	-0.13	1175	7.83	89.0	8-7-19 3:45	20.59	1722	5.15	8.5	6-9-19 2:30	17.70	1415	8.36	11.7					
3-9-19 10:15	-0.06	964	8.35	0.0	3-9-19 10:30	0.00	1900	7.54	6.4	3-9-19 10:30	-0.13	1180	7.83	91.3	8-7-19 4:00	20.55	1723	7.91	8.5	6-9-19 2:45	17.64	1415	8.37	10.8					
3-9-19 10:30	-0.06	966	8.35	0.0	3-9-19 10:45	0.00	1899	7.54	6.2	3-9-19 10:45	-0.13	1196	7.83	93.5	8-7-19 4:15	20.51	1722	5.00	8.5	6-9-19 3:00	17.56	1415	8.37	10.9					
3-9-19 10:45	-0.06	964	8.35	0.0	3-9-19 11:00	0.00	1899	7.54	6.4	3-9-19 11:00	-0.13	1211	7.83	94.8	8-7-19 4:30	20.46	1722	5.67	8.5	6-9-19 3:15	17.40	1413	8.37	11.1					
3-9-19 11:00	-0.06	963	8.35	0.0	3-9-19 11:15	0.00	1900	7.54	6.3	3-9-19 11:15	-0.13	1295	7.83	93.5	8-7-19 4:45	20.47	1723	4.90	8.5	6-9-19 3:30	17.24	1414	8.36	12.1					
3-9-19 11:15	-0.06	962	8.35	0.0	3-9-19 11:30	0.00	1900	7.54	6.3	3-9-19 11:30	-0.13	1280	7.83	93.8	8-7-19 5:00	20.43	1722	5.86	8.5	6-9-19 3:45	17.20	1414	8.38	11.6					
3-9-19 11:30	-0.06	967	8.35	0.0	3-9-19 11:45	0.00	1901	7.54	6.4	3-9-19 11:45	-0.13	1282	7.83	97.1	8-7-19 5:15	20.39	1723	4.36	8.5	6-9-19 4:00	17.15	1414	8.38	11.7					
3-9-19 11:45	-0.06	971	8.35	0.0	3-9-19 12:00	-0.02	1902	7.54	6.3	3-9-19 12:00	-0.11	1758	7.83	27.8	8-7-19 5:30	20.36	1723	5.64	8.5	6-9-19 4:15	17.10	1414	8.37	12.3					
3-9-19 12:00	-0.06	963	8.35	0.2	3-9-19 12:15	-0.01	1902	7.54	6.3	3-9-19 12:15	-0.11	1727	7.83	1.3	8-7-19 5:45	20.32	1723	4.93	8.5	6-9-19 4:30	17.08	1415	8.38	11.5					
3-9-19 12:15	-0.06	963	8.35	0.0	3-9-19 12:30	-0.01	1900	7.54	6.2	3-9-19 12:30	-0.11	1731	7.83	1.4	8-7-19 6:00	20.28	1723	5.90	8.5	6-9-19 4:45	17.05	1414	8.38	11.7					
3-9-19 12:30	-0.06	960	8.35	0.0	3-9-19 12:45	-0.01	1902	7.54	6.3	3-9-19 12:45	-0.10	1731	7.83	1.4	8-7-19 6:15	20.24	1724	6.49	8.5	6-9-19 5:00	17.04	1415	8.38	11.6					
3-9-19 12:45	-0.06	961	8.35	0.0	3-9-19 13:00	0.00	1903	7.54	6.4	3-9-19 13:00	-0.10	1731	7.83	1.4	8-7-19 6:30	20.20	1723	4.29	8.5	6-9-19 5:15	17.00	1414	8.38	10.6					
3-9-19 13:00	-0.06	962	8.35	0.0	3-9-19 13:15	0.01	1903	7.54	6.3	3-9-19 13:15	-0.12	1849	7.83	1.1	8-7-19 6:45	20.19	1723	4.05	8.5	6-9-19 5:30	16.97	1414	8.39	10.7					
3-9-19 13:15	-0.05	915	8.35	0.4	3-9-19 13:30	0.01	1904	7.54	6.4	3-9-19 13:30	-0.11	1849	7.83	1.0	8-7-19 7:00	20.13	1722	4.28	8.5	6-9-19 5:45	16.92	1414	8.39	11.3					
3-9-19 13:30	-0.06	963	8.35	0.2	3-9-19 13:45	0.01	1904	7.54	6.4	3-9-19 13:45	-0.10	1847	7.83	1.0	8-7-19 7:15	20.09	1722	5.40	8.5	6-9-19 6:00	16.86	1414	8.38	9.9					
3-9-19 13:45	-0.06	967	8.35	0.4	3-9-19 14:00	0.01	1904	7.54	6.4	3-9-19 14:00	-0.10	1847	7.83	1.0	8-7-19 7:30	20.05	1724	7.62	8.5	6-9-19 6:15	16.74	1413	8.38	9.9					
3-9-19 14:00	-0.05	967	8.35	0.0	3-9-19 14:15	0.01	1906	7.54	6.4	3-9-19 14:15	-0.09	1851	7.82	1.1	8-7-19 7:45	19.99	1722	4.84	8.5	6-9-19 6:30	16.66	1414	8.39	11.1					
3-9-19 14:15	-0.05	967	8.35	0.7	3-9-19 14:30	0.01	1905	7.54	6.4	3-9-19 14:30	-0.09	1848	7.82	1.0	8-7-19 8:00	19.97	1722	5.89	8.5	6-9-19 6:45	16.62	1413	8.39	10.1					
3-9-19 14:30	-0.05	965	8.35	0.0	3-9-19 14:45	0.01	1905	7.54	6.3	3-9-19 14:45	-0.09	1851	7.82	1.0	8-7-19 8:15	19.95	1723	4.04	8.5	6-9-19 7:00	16.60	1414	8.39	10.0					
3-9-19 14:45	-0.05	962	8.35	0.0	3-9-19 15:00	0.01	1906	7.54	5.8	3-9-19 15:00	-0.09	1849	7.82	0.9	8-7-19 8:30	19.90	1723	5.26	8.5	6-9-19 7:15	16.56	1413	8.39	10.5					
3-9-19 15:00	-0.05	962	8.35	0.0	3-9-19 15:15	0.02	1906	7.54	6.4	3-9-19 15:15	-0.09	1848	7.82	0.9	8-7-19 8:45	19.85	1722	3.81	8.5	6-9-19 7:30	16.52	1414	8.39	9.8					
3-9-19 15:15	-0.05	966	8.35	0.0	3-9-19 15:30	0.02	1905	7.54	6.5	3-9-19 15:30	-0.09	1847	7.82	1.0	8-7-19 9:00	19.81	1723	4.15	8.5	6-9-19 7:45	16.47	1413	8.39	10.9					
3-9-19 15:30	-0.05	965	8.35	0.0	3-9-19 15:45	0.02	1905	7.54	6.4	3-9-19 15:45	-0.09	1848	7.83	1.0	8-7-19 9:15	19.76	1722	4.62	8.5	6-9-19 8:00	16.43	1414	8.39	10.6					
3-9-19 15:45	-0.05	966	8.35	0.0	3-9-19 16:00	0.02	1905	7.54	6.5	3-9-19 16:00	-0.09	1848	7.82	1.0	8-7-19 9:30	19.69	1722	4.38	8.5	6-9-19 8:15	16.39	1414	8.38	9.9					
3-9-19 16:00	-0.06	965	8.35	0.0	3-9-19 16:15	0.02	1907	7.54	6.6	3-9-19 16:15	-0.09	1849	7.82	2.9	8-7-19 9:45	19.72	1723	4.31	8.5	6-9-19 8:30	16.36	1414	8.39	10.9					
3-9-19 16:15	-0.06	963	8.35	0.0	3-9-19 16:30	0.02	1906	7.54	6.6	3-9-19 16:30	-0.09	1849	7.83	1.5	8-7-19 10:00	19.68	1722	4.96	8.5	6-9-19 8:45	16.31	1414	8.39	10.2					
3-9-19 16:30	-0.06	968	8.35	0.0	3-9-19 16:45	0.02	1908	7.54	6.5	3-9-19 16:45	-0.09	1856	7.83	2.0	8-7-19 10:15	19.63	1723	3.91	8.5	6-9-19 9:00	16.25	1414	8.39	10.4					
3-9-19 16:45	-0.06	966	8.35	0.0	3-9-19 17:00	0.02	1910	7.54	6.5	3-9-19 17:00	-0.09	1856	7.83	1.1	8-7-19 10:30	19.57	1722	3.78	8.5	6-9-19 9:15	16.24	1413	8.39	9.8					
3-9-19 17:00	-0.06	965	8.35	0.0	3-9-19 17:15	0.02	1910	7.54	6.7	3-9-19 17:15	-0.09	1849	7.83	1.0	8-7-19 10:45	19.55	1722	3.87	8.5	6-9-19 9:30	16.19	1413	8.39	12.4					
3-9-19 17:15	-0.06	965	8.35	0.0	3-9-19 17:30	0.02	1910	7.54	6.6	3-9-19 17:30	-0.09	1848	7.83	1.1	8-7-19 11:00	19.51	1723	5.03	8.5	6-9-19 9:45	16.17	1413	8.39	9.6					
3-9-19 17:30	-0.06	968	8.35	0.0	3-9-19 17:45	0.02	1910	7.54	6.9	3-9-19 17:45	-0.09	1848	7.83	1.2	8-7-19 11:15	19.49	1723	3.60	8.5	6-9-19 10:00	16.11	1414	8.39	10.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-9-19 17:45	-0.06	967	8.35	0.0	3-9-19 18:00	0.02	1911	7.54	6.5	3-9-19 18:00	-0.09	1849	7.83	1.3	8-7-19 11:30	19.42	1723	5.06	8.5	6-9-19 10:15	16.04	1414	8.38	10.4					
3-9-19 18:00	-0.06	965	8.35	0.0	3-9-19 18:15	0.02	1911	7.54	6.5	3-9-19 18:15	-0.09	1849	7.83	0.9	8-7-19 11:45	19.40	1721	3.67	8.4	6-9-19 10:30	15.98	1415	8.38	11.6					
3-9-19 18:15	-0.06	965	8.35	0.0	3-9-19 18:30	0.02	1911	7.54	6.5	3-9-19 18:30	-0.09	1849	7.82	1.0	8-7-19 12:00	19.36	1723	3.44	8.5	6-9-19 10:45	15.98	1418	8.37	10.6					
3-9-19 18:30	-0.06	969	8.35	0.0	3-9-19 18:45	0.01	1912	7.54	5.5	3-9-19 18:45	-0.09	1850	7.82	1.0	8-7-19 12:15	19.35	1723	4.18	8.5	6-9-19 11:00	15.95	1421	8.37	11.5					
3-9-19 18:45	-0.06	967	8.35	0.0	3-9-19 19:00	0.02	1912	7.54	6.4	3-9-19 19:00	-0.09	1850	7.82	1.1	8-7-19 12:30	19.34	1722	3.94	8.5	6-9-19 11:15	15.90	1422	8.36	10.7					
3-9-19 19:00	-0.06	967	8.35	0.4	3-9-19 19:15	0.01	1914	7.54	6.4	3-9-19 19:15	-0.09	1850	7.82	1.1	8-7-19 12:45	19.30	1725	3.47	8.5	6-9-19 11:30	15.87	1423	8.36	11.6					
3-9-19 19:15	-0.06	970	8.35	0.0	3-9-19 19:30	0.01	1914	7.54	6.4	3-9-19 19:30	-0.09	1850	7.83	1.0	8-7-19 13:00	19.27	1723	4.08	8.5	6-9-19 11:45	15.82	1422	8.36	10.8					
3-9-19 19:30	-0.06	964	8.35	0.0	3-9-19 19:45	0.02	1916	7.54	6.4	3-9-19 19:45	-0.09	1850	7.83	1.0	8-7-19 13:15	19.23	1723	3.99	8.5	6-9-19 12:00	15.79	1422	8.37	10.5					
3-9-19 19:45	-0.06	967	8.35	0.0	3-9-19 20:00	0.01	1915	7.54	6.5	3-9-19 20:00	-0.09	1850	7.83	1.0	8-7-19 13:30	19.18	1723	5.20	8.5	6-9-19 12:15	15.74	1423	8.36	10.3					
3-9-19 20:00	-0.06	964	8.35	0.0	3-9-19 20:15	0.01	1915	7.53	6.5	3-9-19 20:15	-0.09	1849	7.83	0.9	8-7-19 13:45	19.19	1724	3.88	8.5	6-9-19 12:30	15.75	1424	8.37	10.7					
3-9-19 20:15	-0.06	967	8.35	0.0	3-9-19 20:30	0.01	1918	7.54	6.5	3-9-19 20:30	-0.09	1851	7.83	0.9	8-7-19 14:00	19.19	1723	4.40	8.5	6-9-19 12:45	15.68	1423	8.37	10.5					
3-9-19 20:30	-0.06	966	8.35	0.0	3-9-19 20:45	0.01	1917	7.53	6.6	3-9-19 20:45	-0.09	1852	7.83	1.0	8-7-19 14:15	19.17	1721	3.76	8.5	6-9-19 13:00	15.69	1427	8.36	10.6					
3-9-19 20:45	-0.06	965	8.35	0.0	3-9-19 21:00	0.01	1916	7.53	6.6	3-9-19 21:00	-0.09	1852	7.83	1.0	8-7-19 14:30	19.16	1723	3.83	8.4	6-9-19 13:15	15.68	1425	8.36	12.2					
3-9-19 21:00	-0.06	965	8.35	0.0	3-9-19 21:15	0.01	1916	7.53	6.8	3-9-19 21:15	-0.09	1851	7.83	0.9	8-7-19 14:45	19.12	1722	3.70	8.5	6-9-19 13:30	15.67	1429	8.36	10.9					
3-9-19 21:15	-0.06	963	8.35	0.0	3-9-19 21:30	0.01	1917	7.53	5.7	3-9-19 21:30	-0.09	1851	7.83	0.8	8-7-19 15:00	19.09	1723	4.93	8.5	6-9-19 13:45	15.66	1427	8.36	11.1					
3-9-19 21:30	-0.06	963	8.35	0.0	3-9-19 21:45	0.01	1919	7.53	6.5	3-9-19 21:45	-0.09	1851	7.83	0.9	8-7-19 15:15	19.05	1723	4.88	8.5	6-9-19 14:00	15.72	1430	8.36	10.9					
3-9-19 21:45	-0.06	966	8.35	0.0	3-9-19 22:00	0.01	1915	7.53	6.4	3-9-19 22:00	-0.09	1851	7.83	0.9	8-7-19 15:30	19.05	1721	3.67	8.5	6-9-19 14:15	15.76	1428	8.35	10.8					
3-9-19 22:00	-0.06	968	8.35	0.0	3-9-19 22:15	0.01	1918	7.53	5.5	3-9-19 22:15	-0.09	1851	7.83	0.9	8-7-19 15:45	19.11	1724	4.16	8.5	6-9-19 14:30	15.78	1429	8.36	13.1					
3-9-19 22:15	-0.06	965	8.35	0.0	3-9-19 22:30	0.01	1918	7.53	6.5	3-9-19 22:30	-0.09	1849	7.82	0.9	8-7-19 16:00	19.10	1723	7.45	8.5	6-9-19 14:45	15.84	1430	8.36	11.1					
3-9-19 22:30	-0.06	964	8.35	0.0	3-9-19 22:45	0.01	1919	7.53	6.4	3-9-19 22:45	-0.09	1848	7.82	3.1	8-7-19 16:15	19.10	1723	7.70	8.5	6-9-19 15:00	15.85	1430	8.36	11.4					
3-9-19 22:45	-0.06	965	8.35	0.0	3-9-19 23:00	0.00	1920	7.53	6.4	3-9-19 23:00	-0.09	1849	7.82	0.9	8-7-19 16:30	19.07	1723	3.80	8.5	6-9-19 15:15	15.92	1429	8.36	11.0					
3-9-19 23:00	-0.06	966	8.35	0.0	3-9-19 23:15	0.00	1915	7.53	6.4	3-9-19 23:15	-0.09	1849	7.83	0.1	8-7-19 16:45	19.09	1721	4.90	8.5	6-9-19 15:30	15.98	1427	8.36	11.9					
3-9-19 23:15	-0.06	967	8.35	0.0	3-9-19 23:30	0.00	1920	7.53	6.4	3-9-19 23:30	-0.08	1849	7.83	0.0	8-7-19 17:00	19.13	1722	4.30	8.5	6-9-19 15:45	15.99	1427	8.36	11.0					
3-9-19 23:30	-0.06	965	8.35	0.0	3-9-19 23:45	0.01	1920	7.53	6.2	3-9-19 23:45	-0.07	1849	7.83	0.0	8-7-19 17:15	19.13	1722	3.80	8.5	6-9-19 16:00	16.06	1427	8.36	11.7					
3-9-19 23:45	-0.06	965	8.35	0.0	3-10-19 0:00	0.00	1920	7.53	6.3	3-10-19 0:00	-0.07	1849	7.83	0.0	8-7-19 17:30	19.14	1722	3.79	8.5	6-9-19 16:15	16.10	1427	8.36	10.9					
3-10-19 0:00	-0.06	970	8.35	0.0	3-10-19 0:15	0.01	1921	7.53	6.4	3-10-19 0:15	-0.08	1850	7.82	0.9	8-7-19 17:45	19.18	1720	4.64	8.5	6-9-19 16:30	16.23	1428	8.36	11.4					
3-10-19 0:15	-0.06	970	8.35	0.0	3-10-19 0:30	0.01	1921	7.53	6.5	3-10-19 0:30	-0.08	1850	7.82	1.0	8-7-19 18:00	19.19	1722	3.92	8.5	6-9-19 16:45	16.25	1428	8.36	13.1					
3-10-19 0:30	-0.06	969	8.35	0.0	3-10-19 0:45	0.00	1921	7.53	6.4	3-10-19 0:45	-0.09	1851	7.82	1.0	8-7-19 18:15	19.26	1722	3.96	8.5	6-9-19 17:00	16.32	1427	8.36	12.0					
3-10-19 0:45	-0.06	964	8.35	0.0	3-10-19 1:00	0.00	1922	7.53	6.4	3-10-19 1:00	-0.09	1851	7.82	1.0	8-7-19 18:30	19.32	1722	3.96	8.5	6-9-19 17:15	16.35	1428	8.36	11.4					
3-10-19 1:00	-0.06	967	8.35	0.0	3-10-19 1:15	0.00	1922	7.53	6.5	3-10-19 1:15	-0.09	1852	7.83	1.8	8-7-19 18:45	19.35	1722	3.72	8.5	6-9-19 17:30	16.47	1434	8.36	11.3					
3-10-19 1:15	-0.06	971	8.35	0.0	3-10-19 1:30	0.00	1924	7.53	6.5	3-10-19 1:30	-0.09	1852	7.83	1.6	8-7-19 19:00	19.39	1721	5.05	8.5	6-9-19 17:45	16.45	1431	8.36	11.6					
3-10-19 1:30	-0.06	970	8.35	0.0	3-10-19 1:45	0.01	1924	7.53	6.3	3-10-19 1:45	-0.09	1853	7.83	1.6	8-7-19 19:15	19.41	1721	7.01	8.5	6-9-19 18:00	16.42	1428	8.37	12.1					
3-10-19 1:45	-0.06	967	8.34	0.0	3-10-19 2:00	0.01	1924	7.53	6.3	3-10-19 2:00	-0.09	1852	7.83	1.7	8-7-19 19:30	19.47	1722	7.95	8.5	6-9-19 18:15	16.35	1427	8.37	11.6					
3-10-19 2:00	-0.06	966	8.34	0.0	3-10-19 2:15	0.01	1923	7.53	6.3	3-10-19 2:15	-0.09	1852	7.82	1.0	8-7-19 19:45	19.46	1721	6.35	8.5	6-9-19 18:30	16.47	1431	8.37	13.2					
3-10-19 2:15	-0.06	970	8.34	0.1	3-10-19 2:30	0.00	1925	7.53	6.3	3-10-19 2:30	-0.09	1853	7.82	0.9	8-7-19 20:00	19.48	1718	6.89	8.5	6-9-19 18:45	16.47	1438	8.36	15.1					
3-10-19 2:30	-0.06	970	8.34	0.0	3-10-19 2:45	0.00	1926	7.53	6.3	3-10-19 2:45	-0.09	1852	7.82	0.9	8-7-19 20:15	19.52	1721	5.62	8.5	6-9-19 19:00	16.67	1450	8.35	15.6					
3-10-19 2:45	-0.06	967	8.34	0.0	3-10-19 3:00	0.00	1924	7.53	6.4	3-10-19 3:00	-0.09	1852	7.83	0.9	8-7-19 20:30	19.53	1722	5.87	8.5	6-9-19 19:15	16.80	1448	8.36	14.2					
3-10-19 3:00	-0.06	967	8.34	0.0	3-10-19 3:15	0.00	1923	7.53	6.4	3-10-19 3:15	-0.10	1852	7.83	0.9	8-7-19 20:45	19.65	1723	5.31	8.5	6-9-19 19:30	16.98	1446	8.35	14.0					
3-10-19 3:15	-0.06	968	8.34	0.0	3-10-19 3:30	0.00	1918	7.53	6.5	3-10-19 3:30	-0.10	1852	7.83	0.9	8-7-19 21:00	19.77	1722	4.56	8.5	6-9-19 19:45	17.11	1443	8.35	14.3					
3-10-19 3:30	-0.06	967	8.33	0.0	3-10-19 3:45	0.00	1926	7.53	6.3	3-10-19 3:45	-0.09	1851	7.83	0.9	8-7-19 21:15	19.82	1722	4.60	8.5	6-9-19 20:00	17.30	1442	8.35	11.9					
3-10-19 3:45	-0.06	961	8.34	0.0	3-10-19 4:00	0.00	1921	7.53	6.3	3-10-19 4:00	-0.10	1852	7.83	0.9	8-7-19 21:30	19.86	1723	4.06	8.5	6-9-19 20:15	17.40	1444	8.35	12.3					
3-10-19 4:00	-0.06	971	8.34	0.0	3-10-19 4:15	0.00	1926	7.53	6.2	3-10-19 4:15	-0.10	1853	7.82	0.9	8-7-19 21:45	19.93	1723	4.46	8.5	6-9-19 20:30	17.36	1442	8.34	11.9					
3-10-19 4:15	-0.06	967	8.33	0.1	3-10-19 4:30	0.00	1926	7.53	6.3	3-10-19 4:30	-0.10	1854	7.82	0.9	8-7-19 22:00	19.97	1722	4.15	8.5	6-9-19 20:45	17.27	1440	8.35	13.2					
3-10-19 4:30	-0.06	969	8.33	0.1	3-10-19 4:45	0.00	1928	7.53	6.2	3-10-19 4:45	-0.10	1854	7.82	1.0	8-7-19 22:15	20.17	1723	4.17	8.5	6-9-19 21:00	17.75	1445	8.35	12.7					
3-10-19 4:45	-0.06	970	8.33	0.2	3-10-19 5:00	0.00	1927	7.53	6.3	3-10-19 5:00	-0.10	1854	7.82	1.0	8-7-19 22:30	20.27	1725	4.49	8.5	6-9-19 21:15	18.12	1445	8.35	12.7					
3-10-19 5:00	-0.06	965	8.33	0.2	3-10-19 5:15	0.00	1928	7.53	6.1	3-10-19 5:15	-0.10	1851	7.82	0.8	8-7-19 22:45	20.43	1725	5.29	8.5	6-9-19 21:30	18.22	1442	8.35	12.3					
3-10-19 5:15	-0.06	966	8.32	0.2	3-10-19 5:30	0.00	1928	7.53	6.1	3-10-19 5:30	-0.10	1855	7.82	0.9	8-7-19 23:00	20.54	1724	4.08	8.5	6-9-19 21:45	18.32	1444	8.35	11.1					
3-10-19 5:30	-0.06	962	8.32	0.3	3-10-19 5:45	0.01	1927	7.53	6.4	3-10-19 5:45	-0.10	1857	7.82	0.9	8-7-19 23:15	20.60	1725	4.26	8.5	6-9-19 22:00	18.43	1443	8.35	11.9					
3-10-19 5:45	-0.06	965	8.32	0.3	3-10-19 6:00	0.00	1928	7.53	6.2	3-10-19 6:00	-0.10	1859	7.82	0.9	8-7-19 23:30	20.73	1725	4.02	8.5	6-9-19 22:15	18.55	1444	8.35	11.6					
3-10-19 6:00	-0.06	967	8.31	0.3	3-10-19 6:15	0.00	1929	7.53	6.3	3-10-19 6:15	-0.10	1854	7.82	0.9	8-7-19 23:45	20.79	1725	4.34	8.5	6-9-19 22:30	18.72	1443	8.35	11.2					
3-10-19 6:15	-0.06	967	8.31	0.3	3-10-19 6:30	0.00	1929	7.53	6.3	3-10-19 6:30	-0.10	1855	7.82	0.9	8-8-19 0:00	20.79	1724	4.15	8.5	6-9-19 22:45	18.73	1442	8.35	10.9					
3-10-19 6:30	-0.06	966	8.31	0.3	3-10-19 6:45	0.00	1930	7.53	6.2	3-10-19 6:45	-0.10	1854	7.82	1.0	8-8-19 0:15	20.75	1724	4.62	8.5	6-9-19 23:00	18.87	1443	8.35	11.2					
3-10-19 6:45	-0.06	960	8.31	0.4	3-10-19 7:00	0.00	1931	7.53	6.3	3-10-19 7:00	-0.10	1855	7.82	0.9	8-8-19 0:30	20.80	1724	4.50	8.5	6-9-19 23:15	18.71	1438	8.35	13.0					
3-10-19 7:00	-0.06	965	8.31	0.4	3-10-19 7:15	0.00	1928	7.53	6.3	3-10-19 7:15	-0.10	1854	7.82	0.9	8-8-19 0:45	20.82	1725	4.47	8.5	6-9-19 23:30	18.49	1443	8.35	12.1					
3-10-19 7:15	-0.06	964	8.31	0.4	3-10-19 7:30	0.00	1931	7.53	6.2	3-10-19 7:30	-0.10	1855	7.82	0.9	8-8-19 1:00	20.85	1725	4.31	8.5	6-9-19 23:45	18.74	1444	8.35	12.1					
3-10-19 7:30	-0.06	965	8.31	0.3	3-10-19 7:45	0.00	1932	7.53	6.3	3-10-19 7:45	-0.10	1854	7.82	0.9	8-8-19 1:15	20.85	1725	4.36	8.5	6-10-19 0:00	18.96	1447	8.35	12.3					
3-10-19 7:45	-0.06	970	8.31	0.4	3-10-19 8:00	0.00	1932	7.53	6.4	3-10-19 8:00	-0.10	1854	7.82	0.8	8-8-19 1:30	20.85	1725	4.69	8.5	6-10-19 0:15	19.00	1445	8.35	12.3					
3-10-19 8:00	-0.06	962	8.31	0.3	3-10-19 8:15	0.00	1932	7.53	6.4	3-10-19 8:15	-0.10	1855	7.82	1.0	8-8-19 1:45	20.83	1723	4.47	8.5	6-10-19 0:30	19.14	1446	8.35	12.0					
3-10-19 8:15	-0.06	962	8.31	0.4	3-10-19 8:30	0.00	1932	7.53	6.3	3-10-19 8:30	-0.10	1855	7.82	1.0	8-8-19 2:00	20.84	1724	4.67	8.5	6-10-19 0:45	19.22	1445	8.36	14.0					
3-10-19 8:30	-0.06	961	8.31	0.5	3-10-19 8:45	0.00	1937	7.53	6.3	3-10-19 8:45	-0.10	1854	7.82	1.2	8-8-19 2:15	20.78	1725	4.67	8.5	6-10-19 1:00	19.22	1445	8.35	11.6					
3-10-19 8:45	-0.06	969	8.31	0.3	3-10-19 9:00	0.00	1933	7.53	6.3	3-10-19 9:00	-0.10	1855	7.82	1.3	8-8-19 2:30	20.77	1726	4.19	8.5	6-10-19 1:15	19.33	1446	8.35	12.4					
3-10-19 9:00	-0.06	960	8.31	1.0	3-10-19 9:15	0.01	1932	7.53	6.2	3-10-19 9:15	-0.10	1854	7.82	0.9	8-8-19 2:45	20.74	1726	4.55	8.5	6-10-19 1:30	19.36	1446	8.35	11.5					
3-10-19 9:15	-0.06	965	8.31	0.3	3-10-19 9:30	0.01	1933	7.53	6.2	3-10-19 9:30	-0.10	1855	7.82	0.8	8-8-19 3:00	20.71	1726	4.47	8.5	6-10-19 1:45	19.37	1445	8.36	11.9					
3-10-19 9:30	-0.06	962	8.30	0.3	3-10-19 9:45	0.00	1934	7.53	6.3	3-10-19 9:45	-0.10	1857	7.82	0.9	8-8-19 3:15	20.60	1724	4.72	8.5	6-10-19 2:00	19.36	1446	8.35	11.6					
3-10-19 9:45	-0.06	968	8.30	0.4	3-10-19 10:00	0.00	1934	7.53	5.2	3-10-19 10:00	-0.11	1858	7.82	0.9	8-8-19 3:30	20.53	1726	4.41	8.5	6-10-19 2:15	19.26	1445	8.35	11.2					
3-10-19 10:00	-0.06	964	8.30	0.4	3-10-19 10:15	0.01	1932	7.53	6.0	3-10-19 10:15	-0.10	1858	7.82	0.9	8-8-19 3:45	20.45	1725	4.44	8.5	6-10-19 2:30	19.22	1446	8.36	11.1					
3-10-19 10:15	-0.06	967	8.31	0.3	3-10-19 10:30	0.01	1933	7.53	5.4	3-10-19 10:30	-0.10	1858	7.82	1.0	8-8-19 4:00	20.43	1724	4.49	8.5	6-10-19 2:45	19.16	1445	8.36	10.5					
3-10-19 10:30	-0.06	963	8.30	0.3	3-10-19 10:45	0.01	1932	7.53	6.0	3-10-19 10:45					8-8-19 4:15	20.39	1723	4.71	8.5	6-10-19 3:00	19.11	1446	8.36	11.0					
3-10-19 10:45	-0.06	964	8.30	0.3	3-10-19 11:00	0.01	1932	7.53	6.1	3-10-19 11:00	-0.10	1858	7.82	1.6	8-8-19 4:30	20.34	1724	4.42	8.5	6-10-19 3:15	19.09	1445	8.36	10.4					
3-10-19 11:00	-0.06	974	8.30	0.3	3-10-19 11:15	0.01	1933	7.53	6.2	3-10-19 11:15	-0.10	1857	7.82	0.8	8-8-19 4:45	20.30	1725	4.32	8.5	6-10-19 3:30	19.04	1447	8.36	10.7					
3-10-19 11:15	-0.06	962	8.30	0.5	3-10-19 11:30	0.01	1932	7.53	6.2	3-10-19 11:30	-0.10	1857	7.82	0.9	8-8-19 5:00	20.25	1724	4.98	8.5	6-10-19 3:45	18.96	1445	8.37	10.2					
3-10-19 11:30	-0.06	964	8.30	0.4	3-10-19 11:45	0.01	1934	7.53	6.1	3-10-19 11:45	-0.10	1857	7.82	0.9	8-8-19 5:15	20.20	1724	4.15	8.5	6-10-19 4:00	18.85	1446	8.36	9.9					
3-10-19 11:45	-0.06	963	8.30	0.4	3-10-19 12:00	0.01	1934	7.53	6.2	3-10-19 12:00	-0.10	1856	7.82	0.9	8-8-19 5:30	20.13	1725	4.50	8.5	6-10-19 4:15	18.73	1446	8.36	9.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-10-19 12:00	-0.06	965	8.30	0.4	3-10-19 12:15	0.01	1935	7.53	6.3	3-10-19 12:15	-0.10	1857	7.82	1.0	8-8-19 5:45	20.10	1725	4.40	8.5	6-10-19 4:30	18.65	1458	8.37	9.1					
3-10-19 12:15	-0.06	967	8.30	0.4	3-10-19 12:30	0.00	1938	7.53	6.2	3-10-19 12:30	-0.11	1857	7.82	0.9	8-8-19 6:00	20.06	1725	5.12	8.5	6-10-19 4:45	18.60	1446	8.37	9.4					
3-10-19 12:30	-0.06	965	8.30	0.4	3-10-19 12:45	-0.01	1934	7.53	5.9	3-10-19 12:45	-0.12	1861	7.83	1.5	8-8-19 6:15	20.02	1722	5.16	8.5	6-10-19 5:00	18.55	1446	8.37	9.2					
3-10-19 12:45	-0.06	967	8.30	0.4	3-10-19 13:00	0.00	1935	7.53	6.5	3-10-19 13:00	-0.11	1856	7.82	1.3	8-8-19 6:30	19.96	1722	4.06	8.5	6-10-19 5:15	18.49	1446	8.38	10.2					
3-10-19 13:00	-0.06	964	8.30	0.3	3-10-19 13:15	0.00	1933	7.53	6.3	3-10-19 13:15	-0.11	1864	7.83	0.9	8-8-19 6:45	19.92	1723	3.96	8.5	6-10-19 5:30	18.43	1446	8.38	10.2					
3-10-19 13:15	-0.06	965	8.30	0.4	3-10-19 13:30	0.00	1936	7.53	5.5	3-10-19 13:30	-0.11	1862	7.83	0.9	8-8-19 7:00	19.88	1721	6.33	8.5	6-10-19 5:45	18.42	1445	8.38	10.3					
3-10-19 13:30	-0.06	964	8.30	0.4	3-10-19 13:45	0.00	1937	7.53	6.3	3-10-19 13:45	-0.11	1862	7.83	1.0	8-8-19 7:15	19.82	1723	3.89	8.5	6-10-19 6:00	18.39	1447	8.38	9.9					
3-10-19 13:45	-0.06	963	8.30	0.5	3-10-19 14:00					3-10-19 14:00	-0.11	1860	7.83	0.9	8-8-19 7:30	19.80	1723	3.93	8.5	6-10-19 6:15	18.34	1446	8.37	10.5					
3-10-19 14:00	-0.05	966	8.30	0.8	3-10-19 14:15	0.01	1935	7.53	6.5	3-10-19 14:15	-0.11	1856	7.82	1.0	8-8-19 7:45	19.78	1722	4.42	8.5	6-10-19 6:30	18.33	1446	8.38	11.1					
3-10-19 14:15					3-10-19 14:30	0.01	1937	7.53	6.6	3-10-19 14:30	-0.10	1859	7.82	0.9	8-8-19 8:00	19.72	1721	3.93	8.5	6-10-19 6:45	18.26	1446	8.38	9.1					
3-10-19 14:30					3-10-19 14:45	0.01	1937	7.53	6.7	3-10-19 14:45	-0.10	1857	7.82	0.9	8-8-19 8:15	19.68	1722	4.17	8.5	6-10-19 7:00	18.18	1447	8.37	9.6					
3-10-19 15:45	-0.05	962	8.30	0.4	3-10-19 15:00	0.01	1939	7.53	6.2	3-10-19 15:00	-0.10	1856	7.82	1.0	8-8-19 8:30	19.65	1721	3.97	8.5	6-10-19 7:15	18.13	1446	8.38	9.5					
3-10-19 16:00	-0.05	964	8.30	0.4	3-10-19 15:15	0.01	1940	7.53	6.2	3-10-19 15:15	-0.10	1852	7.82	0.9	8-8-19 8:45	19.59	1722	4.06	8.5	6-10-19 7:30	18.07	1447	8.38	9.2					
3-10-19 16:15	-0.05	960	8.30	0.4	3-10-19 15:30	0.01	1938	7.53	6.2	3-10-19 15:30	-0.10	1855	7.82	0.9	8-8-19 9:00	19.57	1723	4.33	8.5	6-10-19 7:45	18.04	1446	8.38	9.8					
3-10-19 16:30	-0.05	960	8.30	0.4	3-10-19 15:45	0.01	1941	7.53	6.3	3-10-19 15:45	-0.10	1855	7.82	0.9	8-8-19 9:15	19.53	1720	4.08	8.5	6-10-19 8:00	18.01	1446	8.38	12.1					
3-10-19 16:45	-0.05	958	8.30	0.4	3-10-19 16:00	0.01	1941	7.53	6.3	3-10-19 16:00	-0.10	1855	7.82	1.0	8-8-19 9:30	19.49	1720	4.25	8.5	6-10-19 8:15	17.96	1447	8.37	8.8					
3-10-19 17:00	-0.05	957	8.30	0.3	3-10-19 16:15	0.01	1941	7.53	6.2	3-10-19 16:15	-0.10	1856	7.82	1.0	8-8-19 9:45	19.49	1719	3.96	8.5	6-10-19 8:30	17.95	1448	8.38	8.9					
3-10-19 17:15	-0.04	956	8.31	0.3	3-10-19 16:30	0.01	1941	7.53	6.2	3-10-19 16:30	-0.10	1857	7.82	1.1	8-8-19 10:00	19.44	1720	4.25	8.5	6-10-19 8:45	17.89	1446	8.38	8.8					
3-10-19 17:30	-0.04	956	8.31	0.4	3-10-19 16:45	0.01	1939	7.53	6.2	3-10-19 16:45	-0.10	1857	7.82	0.9	8-8-19 10:15	19.35	1720	4.01	8.5	6-10-19 9:00	17.84	1447	8.38	9.2					
3-10-19 17:45	-0.05	956	8.32	0.3	3-10-19 17:00	0.01	1942	7.53	6.3	3-10-19 17:00	-0.10	1857	7.82	0.9	8-8-19 10:30	19.31	1716	4.11	8.5	6-10-19 9:15	17.78	1447	8.39	8.6					
3-10-19 18:00	-0.05	956	8.32	0.3	3-10-19 17:15	0.01	1943	7.53	6.2	3-10-19 17:15	-0.10	1860	7.82	0.9	8-8-19 10:45	19.28	1717	8.14	8.5	6-10-19 9:30	17.73	1448	8.38	10.3					
3-10-19 18:15	-0.05	955	8.33	0.3	3-10-19 17:30	0.01	1942	7.53	6.2	3-10-19 17:30	-0.10	1859	7.82	0.9	8-8-19 11:00	19.24	1719	3.96	8.5	6-10-19 9:45	17.67	1446	8.38	8.3					
3-10-19 18:30	-0.05	957	8.33	0.3	3-10-19 17:45	0.01	1942	7.53	6.1	3-10-19 17:45	-0.10	1859	7.82	0.9	8-8-19 11:15	19.19	1716	4.39	8.5	6-10-19 10:00	17.59	1448	8.38	9.3					
3-10-19 18:45	-0.05	955	8.33	0.4	3-10-19 18:00	0.01	1943	7.53	6.2	3-10-19 18:00	-0.10	1859	7.82	0.9	8-8-19 11:30	19.15	1717	4.38	8.5	6-10-19 10:15	17.52	1447	8.37	9.2					
3-10-19 19:00	-0.05	952	8.34	0.3	3-10-19 18:15	0.01	1945	7.53	6.2	3-10-19 18:15	-0.10	1857	7.82	0.9	8-8-19 11:45	19.09	1715	3.99	8.5	6-10-19 10:30	17.46	1448	8.39	9.0					
3-10-19 19:15	-0.05	955	8.34	0.3	3-10-19 18:30	0.01	1943	7.53	6.2	3-10-19 18:30	-0.10	1858	7.82	0.9	8-8-19 12:00	19.05	1714	3.76	8.5	6-10-19 10:45	17.43	1447	8.39	9.1					
3-10-19 19:30	-0.05	954	8.34	0.3	3-10-19 18:45	0.01	1943	7.53	6.2	3-10-19 18:45	-0.10	1858	7.82	1.0	8-8-19 12:15	19.02	1716	3.89	8.5	6-10-19 11:00	17.39	1450	8.38	9.3					
3-10-19 19:45	-0.05	955	8.34	0.3	3-10-19 19:00	0.01	1944	7.53	5.7	3-10-19 19:00	-0.11	1858	7.82	1.0	8-8-19 12:30	19.01	1717	3.89	8.5	6-10-19 11:15	17.34	1449	8.38	9.0					
3-10-19 20:00	-0.05	953	8.34	0.3	3-10-19 19:15	0.02	1942	7.53	6.2	3-10-19 19:15	-0.11	1860	7.82	0.9	8-8-19 12:45	18.96	1715	4.22	8.5	6-10-19 11:30	17.29	1451	8.38	9.4					
3-10-19 20:15	-0.05	955	8.34	0.3	3-10-19 19:30	0.02	1942	7.53	6.3	3-10-19 19:30	-0.10	1860	7.82	0.9	8-8-19 13:00	18.87	1716	4.54	8.5	6-10-19 11:45	17.28	1452	8.38	9.2					
3-10-19 20:30	-0.05	953	8.34	0.3	3-10-19 19:45	0.02	1943	7.53	6.4	3-10-19 19:45	-0.10	1860	7.82	0.9	8-8-19 13:15	18.86	1716	4.13	8.5	6-10-19 12:00	17.24	1455	8.38	9.5					
3-10-19 20:45	-0.05	953	8.34	0.3	3-10-19 20:00	0.02	1945	7.53	6.3	3-10-19 20:00	-0.10	1861	7.82	0.9	8-8-19 13:30	18.84	1712	4.27	8.5	6-10-19 12:15	17.20	1458	8.37	9.1					
3-10-19 21:00	-0.05	952	8.34	0.4	3-10-19 20:15	0.01	1944	7.53	6.3	3-10-19 20:15	-0.10	1858	7.82	1.0	8-8-19 13:45	18.78	1713	4.18	8.5	6-10-19 12:30	17.20	1458	8.38	9.2					
3-10-19 21:15	-0.05	951	8.34	0.3	3-10-19 20:30	0.01	1944	7.53	6.2	3-10-19 20:30	-0.10	1858	7.82	0.9	8-8-19 14:00	18.72	1713	4.30	8.5	6-10-19 12:45	17.17	1457	8.38	10.2					
3-10-19 21:30	-0.05	954	8.34	0.3	3-10-19 20:45	0.01	1944	7.53	6.3	3-10-19 20:45	-0.10	1858	7.82	1.0	8-8-19 14:15	18.68	1714	4.51	8.5	6-10-19 13:00	17.12	1458	8.38	9.1					
3-10-19 21:45	-0.05	953	8.34	0.3	3-10-19 21:00	0.01	1949	7.52	6.3	3-10-19 21:00	-0.10	1861	7.82	1.0	8-8-19 14:30	18.66	1713	4.39	8.5	6-10-19 13:15	17.12	1459	8.38	8.9					
3-10-19 22:00	-0.05	955	8.34	0.3	3-10-19 21:15	0.01	1948	7.53	6.2	3-10-19 21:15	-0.10	1861	7.82	0.9	8-8-19 14:45	18.64	1714	4.47	8.5	6-10-19 13:30	17.11	1460	8.38	9.5					
3-10-19 22:15	-0.06	953	8.34	0.3	3-10-19 21:30	0.01	1948	7.52	6.4	3-10-19 21:30	-0.10	1862	7.82	0.9	8-8-19 15:00	18.57	1713	4.28	8.5	6-10-19 13:45	17.10	1462	8.38	9.6					
3-10-19 22:30	-0.06	954	8.34	0.3	3-10-19 21:45	0.01	1949	7.52	6.5	3-10-19 21:45	-0.10	1862	7.82	0.9	8-8-19 15:15	18.53	1714	4.26	8.5	6-10-19 14:00	17.10	1463	8.38	9.9					
3-10-19 22:45	-0.06	954	8.34	0.3	3-10-19 22:00	0.01	1948	7.52	6.4	3-10-19 22:00	-0.10	1859	7.82	0.9	8-8-19 15:30	18.52	1712	4.76	8.5	6-10-19 14:15	17.08	1463	8.37	9.8					
3-10-19 23:00	-0.06	954	8.35	0.3	3-10-19 22:15	0.01	1949	7.52	6.4	3-10-19 22:15	-0.10	1861	7.82	0.9	8-8-19 15:45	18.49	1710	4.48	8.5	6-10-19 14:30	17.03	1463	8.38	10.2					
3-10-19 23:15	-0.06	955	8.35	0.3	3-10-19 22:30	0.01	1948	7.52	6.4	3-10-19 22:30	-0.10	1859	7.82	1.0	8-8-19 16:00	18.47	1714	4.30	8.5	6-10-19 14:45	17.03	1464	8.38	10.2					
3-10-19 23:30	-0.06	955	8.35	0.3	3-10-19 22:45	0.01	1949	7.52	6.1	3-10-19 22:45	-0.10	1863	7.82	1.2	8-8-19 16:15	18.43	1711	4.81	8.5	6-10-19 15:00	17.03	1467	8.38	9.8					
3-10-19 23:45	-0.06	957	8.35	0.3	3-10-19 23:00	0.01	1949	7.52	6.2	3-10-19 23:00	-0.10	1863	7.81	2.1	8-8-19 16:30	18.40	1712	5.34	8.5	6-10-19 15:15	17.06	1474	8.38	10.5					
3-11-19 0:00	-0.06	956	8.35	0.3	3-10-19 23:15	0.01	1949	7.52	6.2	3-10-19 23:15	-0.10	1858	7.82	0.9	8-8-19 16:45	18.40	1709	4.48	8.5	6-10-19 15:30	17.11	1479	8.37	10.1					
3-11-19 0:15	-0.06	954	8.35	0.3	3-10-19 23:30	0.01	1950	7.52	6.2	3-10-19 23:30	-0.10	1859	7.82	1.0	8-8-19 17:00	18.38	1713	4.66	8.5	6-10-19 15:45	17.18	1491	8.35	11.1					
3-11-19 0:30	-0.06	955	8.35	0.2	3-10-19 23:45	0.01	1950	7.52	6.3	3-10-19 23:45	-0.10	1859	7.82	0.9	8-8-19 17:15	18.36	1711	4.45	8.5	6-10-19 16:00	17.18	1494	8.35	9.7					
3-11-19 0:45	-0.06	953	8.35	0.3	3-11-19 0:00	0.01	1952	7.52	6.3	3-11-19 0:00	-0.10	1859	7.82	0.9	8-8-19 17:30	18.36	1713	4.86	8.5	6-10-19 16:15	17.21	1498	8.34	11.1					
3-11-19 1:00	-0.06	956	8.35	0.2	3-11-19 0:15	0.01	1955	7.52	6.2	3-11-19 0:15	-0.10	1858	7.82	0.9	8-8-19 17:45	18.32	1710	4.85	8.5	6-10-19 16:30	17.30	1516	8.33	13.1					
3-11-19 1:15	-0.06	953	8.35	0.3	3-11-19 0:30	0.01	1951	7.52	6.3	3-11-19 0:30	-0.10	1857	7.82	1.0	8-8-19 18:00	18.30	1709	4.77	8.5	6-10-19 16:45	17.26	1532	8.31	49.0					
3-11-19 1:30	-0.06	959	8.35	0.3	3-11-19 0:45	0.01	1952	7.52	6.4	3-11-19 0:45	-0.10	1858	7.82	1.6	8-8-19 18:15	18.28	1713	5.74	8.5	6-10-19 17:00	17.28	1509	8.34	26.0					
3-11-19 1:45	-0.06	954	8.35	0.3	3-11-19 1:00	0.01	1951	7.52	6.4	3-11-19 1:00	-0.10	1857	7.81	1.5	8-8-19 18:30	18.26	1712	4.93	8.5	6-10-19 17:15	17.41	1505	8.34	24.6					
3-11-19 2:00	-0.06	954	8.35	0.2	3-11-19 1:15	0.01	1952	7.52	6.4	3-11-19 1:15	-0.10	1860	7.82	1.0	8-8-19 18:45	18.29	1712	4.57	8.5	6-10-19 17:30	17.46	1498	8.34	21.8					
3-11-19 2:15	-0.06	953	8.35	0.3	3-11-19 1:30	0.01	1950	7.52	6.6	3-11-19 1:30	-0.10	1861	7.82	0.9	8-8-19 19:00	18.31	1712	4.87	8.5	6-10-19 17:45	17.54	1495	8.35	20.9					
3-11-19 2:30	-0.06	957	8.35	0.3	3-11-19 1:45	0.01	1952	7.52	6.1	3-11-19 1:45	-0.10	1861	7.82	1.0	8-8-19 19:15	18.32	1710	5.08	8.5	6-10-19 18:00	17.59	1490	8.35	16.0					
3-11-19 2:45	-0.06	956	8.35	0.3	3-11-19 2:00	0.01	1953	7.52	6.0	3-11-19 2:00	-0.10	1861	7.82	1.0	8-8-19 19:30	18.30	1713	5.02	8.5	6-10-19 18:15	17.71	1498	8.34	20.9					
3-11-19 3:00	-0.06	954	8.35	0.3	3-11-19 2:15	0.01	1952	7.52	6.1	3-11-19 2:15	-0.10	1858	7.82	1.1	8-8-19 19:45	18.28	1711	4.86	8.5	6-10-19 18:45	17.83	1490	8.35	15.0					
3-11-19 3:15	-0.06	954	8.35	0.3	3-11-19 2:30	0.01	1952	7.52	6.2	3-11-19 2:30	-0.10	1859	7.82	1.1	8-8-19 20:00	18.30	1714	4.86	8.5	6-10-19 19:00	17.90	1485	8.35	14.0					
3-11-19 3:30	-0.06	955	8.35	0.3	3-11-19 2:45	0.01	1951	7.52	6.1	3-11-19 2:45	-0.10	1859	7.82	1.0	8-8-19 20:15	18.30	1713	5.14	8.5	6-10-19 19:15	17.92	1484	8.35	12.9					
3-11-19 3:45	-0.06	955	8.35	0.3	3-11-19 3:00	0.01	1955	7.52	6.0	3-11-19 3:00	-0.10	1859	7.81	0.9	8-8-19 20:30	18.32	1712	5.02	8.5	6-10-19 19:30	18.04	1485	8.36	12.8					
3-11-19 4:00	-0.06	953	8.35	0.2	3-11-19 3:15	0.01	1950	7.52	6.1	3-11-19 3:15	-0.10	1857	7.82	0.9	8-8-19 20:45	18.35	1712	4.73	8.5	6-10-19 19:45	18.09	1485	8.35	11.2					
3-11-19 4:15	-0.06	958	8.35	0.2	3-11-19 3:30	0.01	1952	7.52	6.0	3-11-19 3:30	-0.10	1858	7.82	0.9	8-8-19 21:00	18.35	1713	4.81	8.5	6-10-19 20:00	18.24	1484	8.35	14.1					
3-11-19 4:30	-0.06	957	8.35	0.3	3-11-19 3:45	0.01	1951	7.52	6.1	3-11-19 3:45	-0.10	1859	7.82	0.9	8-8-19 21:15	18.36	1712	5.29	8.5	6-10-19 20:15	18.20	1487	8.34	12.8					
3-11-19 4:45	-0.06	956	8.35	0.2	3-11-19 4:00	0.01	1951	7.52	6.1	3-11-19 4:00	-0.10	1864	7.82	0.9	8-8-19 21:30	18.36	1713	5.43	8.5	6-10-19 20:30	18.26	1484	8.36	11.5					
3-11-19 5:00	-0.06	954	8.35	0.3	3-11-19 4:15	0.01	1953	7.52	6.0	3-11-19 4:15					8-8-19 21:45	18.36	1714	5.35	8.5	6-10-19 20:45	18.41	1485	8.35	11.9					
3-11-19 5:15	-0.06	953	8.35	0.3	3-11-19 4:30	0.01	1954	7.52	6.0	3-11-19 4:30	-0.10	1860	7.82	1.1	8-8-19 22:00	18.37	1711	5.14	8.5	6-10-19 21:00	18.42	1484	8.35	19.5					
3-11-19 5:30	-0.06	953	8.35	0.2	3-11-19 4:45	0.01	1953	7.52	6.0	3-11-19 4:45	-0.10	1860	7.82	0.9	8-8-19 22:15	18.40	1713	5.39	8.5	6-10-19 21:15	18.50	1489	8.35	14.3					
3-11-19 5:45	-0.06	951	8.35	0.3	3-11-19 5:00	0.01	1953	7.52	6.1	3-11-19 5:00	-0.10	1860	7.81	1.0	8-8-19 22:30	18.39	1714	6.45	8.5	6-10-19 21:30	18.64	1494	8.35	13.2					
3-11-19 6:00	-0.06	957	8.35	0.3	3-11-19 5:15	0.01	1952	7.52	6.1	3-11-19 5:15	-0.10	1860	7.82	0.9	8-8-19 22:45	18.38	1712	6.94	8.5	6-10-19 21:45	18.96	1489	8.34	12.3					
3-11-19 6:15	-0.05	957	8.35	0.3	3-11-19 5:30	0.02	1952	7.52	6.0	3-11-19 5:30	-0.10	1860	7.82	0.9	8-8-19 23:00	18.34	1710	5.48	8.5	6-10-19 22:00	18.82	1487	8.35	12.0					
3-11-19 6:30	-0.06	953	8.35	0.3	3-11-19 5:45	0.01	1954	7.52	6.1	3-11-19 5:45	-0.10	1860	7.82	0.9	8-8-19 23:15	18.34	1713	5.48	8.5	6-10-19 22:15	18.91	1490	8.34	10.4					
3-11-19 6:45	-0.05	953	8.35	0.3	3-11-19 6:00	0.01	1955	7.52	6.0	3-11-19 6:00	-0.10	1860	7.82	0.8	8-8-19 23:30	18.34	1714	5.74	8.5	6-10-19 22:30	19.16	1488	8.35	11.7					
3-11-19 7:00	-0.05	953	8.35	0.3	3-11-19 6:15	0.02	1955	7.52	6.0	3-11-19 6:15	-0.10	1862	7.82	0.9	8-8-19 23:45	18.32	1711	5.45	8.5	6-10-19 22:45	19.28	1489	8.35	12.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-11-19 7:15	-0.05	951	8.35	0.3	3-11-19 6:30	0.02	1955	7.52	5.9	3-11-19 6:30	-0.10	1860	7.82	0.9	8-9-19 0:00	18.30	1712	5.31	8.5	6-10-19 23:00	19.24	1487	8.35	12.0					
3-11-19 7:30	-0.05	952	8.35	0.3	3-11-19 6:45	0.02	1954	7.52	5.9	3-11-19 6:45					8-9-19 0:15	18.27	1710	5.38	8.5	6-10-19 23:15	19.36	1487	8.35	11.5					
3-11-19 7:45	-0.05	950	8.35	0.3	3-11-19 7:00	0.02	1963	7.52	5.9	3-11-19 7:00	-0.10	1859	7.82	0.9	8-9-19 0:30	18.23	1712	6.40	8.5	6-10-19 23:30	19.35	1482	8.36	11.6					
3-11-19 8:00	-0.05	955	8.35	0.3	3-11-19 7:15	0.02	1954	7.52	5.9	3-11-19 7:15	-0.10	1852	7.82	0.9	8-9-19 0:45	18.19	1712	7.89	8.5	6-10-19 23:45	19.38	1482	8.35	10.6					
3-11-19 8:15	-0.05	951	8.34	0.3	3-11-19 7:30	0.02	1954	7.52	6.0	3-11-19 7:30	-0.10	1862	7.82	0.9	8-9-19 1:00	18.17	1710	5.42	8.5	6-11-19 0:00	19.46	1482	8.36	10.4					
3-11-19 8:30	-0.05	953	8.34	0.3	3-11-19 7:45	0.02	1953	7.52	5.9	3-11-19 7:45	-0.10	1861	7.82	0.8	8-9-19 1:15	18.15	1711	5.70	8.5	6-11-19 0:15	19.47	1483	8.35	10.4					
3-11-19 8:45	-0.05	950	8.34	0.6	3-11-19 8:00	0.02	1952	7.52	5.9	3-11-19 8:00	-0.10	1861	7.82	0.9	8-9-19 1:30	18.11	1709	5.85	8.5	6-11-19 0:30	19.49	1482	8.35	9.8					
3-11-19 9:00	-0.05	955	8.34	0.3	3-11-19 8:15	0.02	1953	7.52	6.0	3-11-19 8:15	-0.10	1861	7.82	1.1	8-9-19 1:45	18.10	1710	5.53	8.5	6-11-19 0:45	19.49	1482	8.35	10.0					
3-11-19 9:15	-0.05	951	8.34	0.3	3-11-19 8:30	0.02	1954	7.52	5.9	3-11-19 8:30	-0.10	1861	7.82	1.1	8-9-19 2:00	18.06	1707	5.93	8.5	6-11-19 1:00	19.53	1482	8.36	9.6					
3-11-19 9:30	-0.05	946	8.34	2.7	3-11-19 8:45	0.02	1955	7.52	5.7	3-11-19 8:45	-0.10	1863	7.82	1.0	8-9-19 2:15	18.04	1706	5.31	8.5	6-11-19 1:15	19.60	1482	8.36	9.9					
3-11-19 9:45	-0.05	949	8.34	0.4	3-11-19 9:00	0.02	1956	7.52	5.9	3-11-19 9:00	-0.10	1861	7.81	1.0	8-9-19 2:30	17.98	1707	5.38	8.5	6-11-19 1:30	19.51	1481	8.36	10.0					
3-11-19 10:00	-0.05	952	8.34	0.3	3-11-19 9:15	0.02	1955	7.52	5.9	3-11-19 9:15	-0.10	1861	7.82	0.9	8-9-19 2:45	17.95	1705	5.55	8.5	6-11-19 1:45	18.90	1487	8.34	11.4					
3-11-19 10:15	-0.05	952	8.34	0.3	3-11-19 9:30	0.02	1956	7.52	5.8	3-11-19 9:30	-0.10	1863	7.82	0.9	8-9-19 3:00	17.94	1706	5.72	8.5	6-11-19 2:00	18.91	1489	8.36	10.2					
3-11-19 10:30	-0.05	949	8.34	0.4	3-11-19 9:45	0.02	1956	7.52	5.7	3-11-19 9:45	-0.10	1864	7.82	1.0	8-9-19 3:15	17.90	1704	5.39	8.5	6-11-19 2:15	18.97	1489	8.35	9.9					
3-11-19 10:45	-0.05	946	8.34	0.4	3-11-19 10:00	0.02	1955	7.52	6.0	3-11-19 10:00	-0.10	1864	7.82	0.9	8-9-19 3:30	17.85	1707	6.34	8.5	6-11-19 2:30	19.00	1487	8.36	10.0					
3-11-19 11:00	-0.05	950	8.34	0.4	3-11-19 10:15	0.02	1956	7.52	5.8	3-11-19 10:15	-0.10	1861	7.82	0.9	8-9-19 3:45	17.82	1706	5.61	8.5	6-11-19 2:45	19.00	1487	8.36	9.9					
3-11-19 11:15	-0.05	953	8.34	0.3	3-11-19 10:30	0.02	1955	7.52	5.9	3-11-19 10:30	-0.10	1864	7.82	0.9	8-9-19 4:00	17.81	1708	7.27	8.5	6-11-19 3:00	19.06	1484	8.37	9.4					
3-11-19 11:30	-0.05	947	8.34	0.4	3-11-19 10:45	0.02	1954	7.52	5.8	3-11-19 10:45	-0.10	1861	7.82	0.9	8-9-19 4:15	17.75	1705	6.98	8.5	6-11-19 3:15	19.08	1485	8.37	9.5					
3-11-19 11:45	-0.05	946	8.34	0.3	3-11-19 11:00	0.02	1954	7.52	6.0	3-11-19 11:00	-0.10	1859	7.82	0.9	8-9-19 4:30	17.71	1705	6.07	8.5	6-11-19 3:30	19.09	1485	8.37	9.4					
3-11-19 12:00	-0.06	951	8.34	0.3	3-11-19 11:15	0.02	1955	7.52	6.0	3-11-19 11:15	-0.10	1861	7.82	0.9	8-9-19 4:45	17.66	1706	6.35	8.5	6-11-19 3:45	19.07	1486	8.37	9.8					
3-11-19 12:15	-0.05	952	8.34	0.3	3-11-19 11:30	0.02	1956	7.52	6.0	3-11-19 11:30	-0.10	1860	7.82	5.4	8-9-19 5:00	17.63	1708	10.53	8.5	6-11-19 4:00	19.05	1485	8.37	9.6					
3-11-19 12:30	-0.05	948	8.33	0.3	3-11-19 11:45	0.02	1955	7.52	6.0	3-11-19 11:45	-0.10	1861	7.82	5.8	8-9-19 5:15	17.61	1708	7.37	8.5	6-11-19 4:15	19.02	1487	8.36	9.9					
3-11-19 12:45	-0.05	946	8.34	0.4	3-11-19 12:00	0.02	1956	7.52	6.1	3-11-19 12:00	-0.10	1862	7.82	6.2	8-9-19 5:30	17.58	1706	8.50	8.5	6-11-19 4:30	19.03	1485	8.37	9.8					
3-11-19 13:00	-0.05	953	8.34	0.3	3-11-19 12:15	0.02	1954	7.52	6.0	3-11-19 12:15	-0.10	1861	7.82	6.1	8-9-19 5:45	17.54	1705	8.74	8.5	6-11-19 4:45	19.01	1486	8.37	9.7					
3-11-19 13:15	-0.06	946	8.34	0.4	3-11-19 12:30	0.02	1957	7.52	6.0	3-11-19 12:30	-0.10	1862	7.82	5.6	8-9-19 6:00	17.53	1706	8.51	8.5	6-11-19 5:00	18.93	1484	8.37	9.0					
3-11-19 13:30	-0.05	948	8.33	0.4	3-11-19 12:45	-0.01	1965	7.52	5.8	3-11-19 12:45	-0.11	1867	7.83	1.6	8-9-19 6:15	17.49	1707	10.95	8.5	6-11-19 5:15	18.91	1486	8.37	8.7					
3-11-19 13:45	-0.06	949	8.34	0.4	3-11-19 13:00	0.01	1961	7.52	5.8	3-11-19 13:00	-0.11	1867	7.82	1.2	8-9-19 6:30	17.45	1707	9.16	8.5	6-11-19 5:30	18.88	1484	8.37	9.1					
3-11-19 14:00	-0.05	947	8.34	0.5	3-11-19 13:15	0.01	1960	7.52	5.5	3-11-19 13:15	-0.10	1866	7.82	1.3	8-9-19 6:45	17.38	1706	7.49	8.5	6-11-19 5:45	18.83	1485	8.37	8.5					
3-11-19 14:15	-0.05	948	8.34	0.7	3-11-19 13:30	0.02	1957	7.52	5.9	3-11-19 13:30	-0.10	1866	7.83	1.5	8-9-19 7:00	17.35	1706	8.35	8.5	6-11-19 6:00	18.81	1485	8.37	9.9					
3-11-19 14:30	-0.05	948	8.34	0.5	3-11-19 13:45	0.03	1956	7.52	6.0	3-11-19 13:45	-0.10	1867	7.83	1.9	8-9-19 7:15	17.35	1708	8.76	8.5	6-11-19 6:15	18.73	1486	8.36	8.1					
3-11-19 14:45	-0.06	951	8.34	0.5	3-11-19 14:00	0.03	1956	7.52	6.0	3-11-19 14:00	-0.10	1869	7.83	2.3	8-9-19 7:30	17.30	1705	8.23	8.5	6-11-19 6:30	18.69	1484	8.37	8.1					
3-11-19 15:00	-0.06	947	8.34	0.5	3-11-19 14:15	0.03	1956	7.52	6.0	3-11-19 14:15	-0.10	1869	7.82	1.1	8-9-19 7:45	17.26	1707	8.01	8.5	6-11-19 6:45	18.65	1485	8.37	8.3					
3-11-19 15:15	-0.06	951	8.34	0.5	3-11-19 14:30	0.03	1957	7.52	5.9	3-11-19 14:30	-0.10	1864	7.82	1.2	8-9-19 8:00	17.22	1706	7.67	8.5	6-11-19 7:00	18.58	1484	8.38	7.7					
3-11-19 15:30	-0.06	949	8.34	0.5	3-11-19 14:45	0.03	1956	7.52	5.9	3-11-19 14:45	-0.09	1865	7.82	1.2	8-9-19 8:15	17.21	1706	8.64	8.5	6-11-19 7:15	18.57	1485	8.38	8.8					
3-11-19 15:45	-0.06	950	8.34	0.5	3-11-19 15:00	0.02	1959	7.52	6.0	3-11-19 15:00	-0.09	1872	7.82	1.1	8-9-19 8:30	17.16	1707	8.50	8.5	6-11-19 7:30	18.51	1485	8.38	8.6					
3-11-19 16:00	-0.06	953	8.34	0.5	3-11-19 15:15	0.03	1957	7.52	5.9	3-11-19 15:15	-0.10	1864	7.82	0.9	8-9-19 8:45	17.11	1706	8.77	8.5	6-11-19 7:45	18.49	1486	8.38	11.1					
3-11-19 16:15	-0.06	949	8.34	0.5	3-11-19 15:30	0.03	1957	7.52	5.9	3-11-19 15:30	-0.10	1864	7.82	1.0	8-9-19 9:00	17.08	1707	7.31	8.5	6-11-19 8:00	18.44	1486	8.38	8.3					
3-11-19 16:30	-0.06	950	8.34	0.5	3-11-19 15:45	0.03	1956	7.51	6.0	3-11-19 15:45	-0.10	1864	7.82	1.0	8-9-19 9:15	17.05	1706	8.60	8.5	6-11-19 8:15	18.41	1500	8.34	9.7					
3-11-19 16:45	-0.06	952	8.34	0.4	3-11-19 16:00	0.03	1954	7.52	6.0	3-11-19 16:00	-0.09	1864	7.82	1.1	8-9-19 9:30	17.02	1707	6.79	8.5	6-11-19 8:30	18.36	1500	8.35	9.5					
3-11-19 17:00	-0.06	949	8.34	0.5	3-11-19 16:15	0.03	1955	7.52	6.1	3-11-19 16:15	-0.09	1864	7.82	1.0	8-9-19 9:45	17.00	1706	7.63	8.5	6-11-19 8:45	18.32	1502	8.34	9.3					
3-11-19 17:15	-0.06	949	8.33	0.5	3-11-19 16:30	0.04	1955	7.52	6.0	3-11-19 16:30	-0.09	1867	7.82	1.0	8-9-19 10:00	16.97	1707	7.52	8.5	6-11-19 9:00	18.25	1504	8.34	10.4					
3-11-19 17:30	-0.06	952	8.33	0.3	3-11-19 16:45	0.04	1955	7.52	6.2	3-11-19 16:45	-0.09	1864	7.81	1.3	8-9-19 10:15	16.94	1707	8.57	8.5	6-11-19 9:15	18.22	1506	8.34	10.7					
3-11-19 17:45	-0.06	949	8.33	0.4	3-11-19 17:00	0.04	1958	7.52	6.2	3-11-19 17:00	-0.09	1869	7.82	1.1	8-9-19 10:30	16.91	1706	7.30	8.5	6-11-19 9:30	18.17	1505	8.34	9.4					
3-11-19 18:00	-0.06	952	8.34	0.4	3-11-19 17:15	0.04	1958	7.52	6.2	3-11-19 17:15	-0.09	1862	7.82	0.9	8-9-19 10:45	16.88	1708	7.05	8.5	6-11-19 9:45	18.13	1508	8.33	10.7					
3-11-19 18:15	-0.06	950	8.34	0.4	3-11-19 17:30	0.04	1959	7.52	6.1	3-11-19 17:30	-0.09	1865	7.82	1.0	8-9-19 11:00	16.86	1706	7.39	8.5	6-11-19 10:00	18.07	1506	8.33	10.7					
3-11-19 18:30	-0.06	952	8.33	0.3	3-11-19 17:45	0.04	1960	7.52	6.2	3-11-19 17:45	-0.09	1866	7.82	0.9	8-9-19 11:15	16.83	1707	6.58	8.5	6-11-19 10:15	18.02	1508	8.32	9.4					
3-11-19 18:45	-0.06	952	8.33	0.4	3-11-19 18:00	0.03	1964	7.52	6.2	3-11-19 18:00	-0.09	1866	7.82	1.0	8-9-19 11:30	16.79	1707	7.39	8.5	6-11-19 10:30	17.98	1507	8.34	9.4					
3-11-19 19:00	-0.06	949	8.33	0.4	3-11-19 18:15	0.01	1968	7.52	5.9	3-11-19 18:15	-0.09	1862	7.82	0.9	8-9-19 11:45	16.75	1707	8.14	8.5	6-11-19 10:45	17.93	1509	8.33	9.6					
3-11-19 19:15	-0.06	952	8.33	0.3	3-11-19 18:30	0.00	1970	7.52	6.1	3-11-19 18:30	-0.09	1863	7.82	0.9	8-9-19 12:00	16.72	1706	6.57	8.5	6-11-19 11:00	17.89	1510	8.33	9.8					
3-11-19 19:30	-0.06	952	8.33	0.4	3-11-19 18:45	-0.01	1973	7.52	5.8	3-11-19 18:45	-0.09	1865	7.82	1.0	8-9-19 12:15	16.70	1707	6.58	8.5	6-11-19 11:15	17.85	1510	8.33	9.7					
3-11-19 19:45	-0.06	949	8.33	0.4	3-11-19 19:00	-0.01	1972	7.52	5.7	3-11-19 19:00	-0.09	1885	7.82	1.0	8-9-19 12:30	16.70	1708	7.41	8.5	6-11-19 11:30	17.79	1509	8.33	9.6					
3-11-19 20:00	-0.06	951	8.33	0.4	3-11-19 19:15	-0.01	1977	7.52	5.5	3-11-19 19:15	-0.09	1865	7.82	0.9	8-9-19 12:45	16.67	1706	9.21	8.5	6-11-19 11:45	17.79	1509	8.33	9.3					
3-11-19 20:15	-0.06	952	8.32	0.3	3-11-19 19:30	0.00	1971	7.52	5.5	3-11-19 19:30	-0.09	1865	7.82	0.9	8-9-19 13:00	16.62	1708	7.00	8.5	6-11-19 12:00	17.74	1507	8.34	9.3					
3-11-19 20:30	-0.06	950	8.32	0.9	3-11-19 19:45	0.01	1969	7.52	5.6	3-11-19 19:45	-0.09	1865	7.82	1.2	8-9-19 13:15	16.63	1708	6.86	8.5	6-11-19 12:15	17.68	1508	8.33	9.1					
3-11-19 20:45	-0.06	953	8.32	0.3	3-11-19 20:00	0.01	1968	7.52	5.9	3-11-19 20:00	-0.09	1865	7.82	1.1	8-9-19 13:30	16.61	1706	7.21	8.5	6-11-19 12:30	17.65	1507	8.34	8.7					
3-11-19 21:00	-0.06	952	8.32	0.3	3-11-19 20:15	0.02	1968	7.52	6.0	3-11-19 20:15	-0.09	1861	7.82	0.9	8-9-19 13:45	16.58	1709	7.54	8.5	6-11-19 12:45	17.61	1507	8.34	66.4					
3-11-19 21:15	-0.06	951	8.32	0.3	3-11-19 20:30	0.02	1959	7.52	5.6	3-11-19 20:30	-0.09	1864	7.82	1.0	8-9-19 14:00	16.53	1706	8.88	8.5	6-11-19 13:00	17.59	1506	8.34	10.2					
3-11-19 21:30	-0.06	954	8.32	0.3	3-11-19 20:45	0.02	1959	7.52	5.8	3-11-19 20:45	-0.09	1863	7.82	1.1	8-9-19 14:15	16.51	1708	8.49	8.5	6-11-19 13:15	17.51	1507	8.34	10.4					
3-11-19 21:45	-0.06	953	8.32	0.3	3-11-19 21:00	-0.01	1949	7.51	4.9	3-11-19 21:00	-0.09	1864	7.81	1.0	8-9-19 14:30	16.52	1707	7.10	8.5	6-11-19 13:30	17.51	1506	8.34	9.3					
3-11-19 22:00	-0.06	952	8.32	0.3	3-11-19 21:15	-0.04	1921	7.51	6.3	3-11-19 21:15	-0.09	1863	7.82	0.9	8-9-19 14:45	16.52	1709	7.35	8.5	6-11-19 13:45	17.52	1506	8.34	9.1					
3-11-19 22:15	-0.06	951	8.32	0.3	3-11-19 21:30	-0.03	1886	7.52	12.2	3-11-19 21:30	-0.09	1864	7.82	0.9	8-9-19 15:00	16.51	1707	7.87	8.5	6-11-19 14:00	17.52	1506	8.35	9.4					
3-11-19 22:30	-0.06	953	8.32	0.5	3-11-19 21:45	-0.02	1810	7.55	51.7	3-11-19 21:45	-0.09	1864	7.82	1.0	8-9-19 15:15	16.47	1708	8.03	8.5	6-11-19 14:15	17.55	1508	8.34	9.4					
3-11-19 22:45	-0.06	954	8.32	0.3	3-11-19 22:00	-0.02	1342	7.64	147.4	3-11-19 22:00	-0.09	1864	7.82	1.0	8-9-19 15:30	16.48	1707	7.82	8.5	6-11-19 14:30	17.60	1506	8.35	9.2					
3-11-19 23:00	-0.06	952	8.32	0.2	3-11-19 22:15	0.00	742	8.57	155.2	3-11-19 22:15	-0.09	1865	7.81	1.0	8-9-19 15:45	16.48	1707	9.17	8.5	6-11-19 14:45	17.65	1508	8.34	9.7					
3-11-19 23:15	-0.06	953	8.32	0.8	3-11-19 22:30	0.00	689	8.78	146.5	3-11-19 22:30	-0.09	1868	7.81	1.0	8-9-19 16:00	16.52	1707	8.02	8.5	6-11-19 15:00	17.72	1506	8.34	9.2					
3-11-19 23:30	-0.06	955	8.32	0.3	3-11-19 22:45	-0.01	679	8.79	139.7	3-11-19 22:45	-0.09	1859	7.82	1.0	8-9-19 16:15	16.55	1710	7.38	8.5	6-11-19 15:15	17.75	1506	8.34	9.7					
3-11-19 23:45	-0.06	953	8.32	0.3	3-11-19 23:00	-0.01	676	8.79	125.4	3-11-19 23:00	-0.09	1863	7.82	1.1	8-9-19 16:30	16.58	1709	7.92	8.5	6-11-19 15:30	17.77	1506	8.34	9.4					
3-12-19 0:00	-0.06	953	8.32	0.3	3-11-19 23:15	-0.01	674	8.77	116.1	3-11-19 23:15	-0.09	1869	7.82	1.0	8-9-19 16:45	16.58	1708	8.11	8.5	6-11-19 15:45	17.81	1505	8.34	9.2					
3-12-19 0:15	-0.06	952	8.32	0.3	3-11-19 23:30	-0.01	671	8.80	103.3	3-11-19 23:30	-0.09	1865	7.82	1.2	8-9-19 17:00	16.57	1709	7.21	8.5	6-11-19 16:00	17.79	1499	8.35	9.4					
3-12-19 0:30	-0.06	953	8.31	0.3	3-11-19 23:45	-0.02	670	8.79	96.2	3-11-19 23:45	-0.09	1865	7.82	0.9	8-9-19 17:15	16.56	1709	7.39	8.5	6-11-19 16:15	17.81	1502	8.35	9.1					
3-12-19 0:45	-0.06	955	8.31	0.2	3-12-19 0:00	-0.02	668	8.80	85.4	3-12-19 0:00	-0.09	1864	7.81	1.0	8-9-19 17:30	16.56	1707	7.22	8.5	6-11-19 16:30	17.89	1500	8.35	9.3					
3-12-19 1:00	-0.06	955	8.31	0.4	3-12-19 0:15	-0.02	666	8.79	87.2	3-12-19 0:15	-0.09	1865	7.82	1.1	8-9-19 17:45	16.58	1709	7.59	8.5	6-11-19 16:45	17.92	1501	8.34	10.3					
3-12-19 1:15	-0.06	953	8.30	0.2	3-12-19 0:30	-0.02	664	8.81	82.7	3-12-19 0:30	-0.09	1863	7.82	1.0	8-9-19 18:00	16.61	1708	8.19	8.5	6-11-19 17:00	18.06	1502	8.35	10.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-12-19 1:30	-0.06	954	8.30	0.2	3-12-19 0:45	-0.02	664	8.81	77.4	3-12-19 0:45	-0.09	1867	7.81	1.3	8-9-19 18:15	16.66	1709	7.82	8.5	6-11-19 17:15	18.11	1502	8.35	9.6					
3-12-19 1:45	-0.06	952	8.30	0.2	3-12-19 1:00	-0.02	664	8.81	74.0	3-12-19 1:00	-0.09	1865	7.81	1.0	8-9-19 18:30	16.78	1710	7.56	8.5	6-11-19 17:30	18.15	1501	8.35	9.8					
3-12-19 2:00	-0.06	955	8.29	0.2	3-12-19 1:15	-0.02	664	8.81	66.7	3-12-19 1:15	-0.09	1864	7.81	1.0	8-9-19 18:45	16.88	1709	7.05	8.5	6-11-19 17:45	18.17	1500	8.34	9.9					
3-12-19 2:15	-0.06	955	8.29	0.5	3-12-19 1:30	-0.02	663	8.82	67.0	3-12-19 1:30	-0.09	1864	7.81	0.9	8-9-19 19:00	16.94	1710	7.42	8.5	6-11-19 18:00	18.18	1500	8.34	10.9					
3-12-19 2:30	-0.06	955	8.29	0.1	3-12-19 1:45	-0.02	663	8.81	64.3	3-12-19 1:45	-0.09	1865	7.82	0.9	8-9-19 19:15	17.06	1709	8.12	8.5	6-11-19 18:15	18.35	1503	8.34	10.6					
3-12-19 2:45	-0.06	954	8.29	0.2	3-12-19 2:00	-0.02	662	8.82	61.9	3-12-19 2:00	-0.09	1865	7.82	1.0	8-9-19 19:30	17.06	1711	7.61	8.5	6-11-19 18:30	18.17	1500	8.34	10.0					
3-12-19 3:00	-0.06	956	8.29	0.2	3-12-19 2:15	-0.02	662	8.81	60.5	3-12-19 2:15	-0.09	1863	7.82	1.0	8-9-19 19:45	17.14	1711	7.28	8.5	6-11-19 18:45	18.16	1501	8.34	8.8					
3-12-19 3:15	-0.06	955	8.29	0.2	3-12-19 2:30	-0.02	662	8.82	57.7	3-12-19 2:30					8-9-19 20:00	17.23	1711	7.50	8.5	6-11-19 19:00	18.13	1498	8.35	8.3					
3-12-19 3:30	-0.06	953	8.29	0.2	3-12-19 2:45	-0.01	661	8.82	55.0	3-12-19 2:45	-0.09	1865	7.82	1.0	8-9-19 20:15	17.30	1713	7.48	8.5	6-11-19 19:15	18.19	1500	8.35	9.7					
3-12-19 3:45	-0.06	953	8.29	0.1	3-12-19 3:00	-0.01	662	8.81	52.2	3-12-19 3:00	-0.09	1865	7.82	1.0	8-9-19 20:30	17.37	1711	8.08	8.5	6-11-19 19:30	18.25	1501	8.35	9.7					
3-12-19 4:00	-0.06	956	8.29	0.1	3-12-19 3:15	-0.01	662	8.82	49.8	3-12-19 3:15	-0.09	1868	7.82	0.9	8-9-19 20:45	17.38	1711	7.39	8.5	6-11-19 19:45	18.40	1501	8.34	9.3					
3-12-19 4:15	-0.06	953	8.29	0.2	3-12-19 3:30	-0.01	662	8.82	48.5	3-12-19 3:30	-0.09	1874	7.82	1.0	8-9-19 21:00	17.46	1710	9.63	8.5	6-11-19 20:00	18.67	1506	8.35	10.2					
3-12-19 4:30	-0.06	955	8.28	0.1	3-12-19 3:45	-0.01	662	8.82	47.8	3-12-19 3:45	-0.09	1867	7.82	0.9	8-9-19 21:15	17.46	1709	7.54	8.5	6-11-19 20:15	18.64	1500	8.34	10.2					
3-12-19 4:45	-0.06	955	8.28	0.1	3-12-19 4:00	-0.02	661	8.82	44.3	3-12-19 4:00	-0.09	1867	7.82	1.0	8-9-19 21:45	17.60	1714	7.35	8.5	6-11-19 20:30	18.73	1499	8.35	10.0					
3-12-19 5:00	-0.06	955	8.28	0.1	3-12-19 4:15	-0.01	661	8.82	45.7	3-12-19 4:15					8-9-19 22:00	17.68	1712	7.30	8.5	6-11-19 20:45	18.85	1499	8.34	9.6					
3-12-19 5:15	-0.06	955	8.28	0.1	3-12-19 4:30	-0.01	661	8.82	45.4	3-12-19 4:30	-0.09	1865	7.81	1.1	8-9-19 22:15	17.70	1711	7.14	8.5	6-11-19 21:00	18.85	1499	8.34	10.3					
3-12-19 5:30	-0.06	953	8.28	0.1	3-12-19 4:45	-0.01	661	8.83	44.3	3-12-19 4:45	-0.09	1865	7.82	1.0	8-9-19 22:30	17.78	1713	7.40	8.5	6-11-19 21:15	19.02	1499	8.34	10.6					
3-12-19 5:45	-0.06	957	8.28	0.3	3-12-19 5:00	-0.01	661	8.83	43.9	3-12-19 5:00	-0.09	1865	7.81	1.0	8-9-19 22:45	17.78	1711	7.86	8.5	6-11-19 21:30	18.99	1499	8.34	9.2					
3-12-19 6:00	-0.06	953	8.28	0.1	3-12-19 5:15	-0.01	661	8.83	42.9	3-12-19 5:15	-0.09	1864	7.81	0.9	8-9-19 23:00	17.76	1710	7.38	8.5	6-11-19 21:45	18.98	1502	8.34	9.5					
3-12-19 6:15	-0.06	957	8.28	0.1	3-12-19 5:30	-0.01	661	8.83	42.8	3-12-19 5:30	-0.09	1864	7.81	0.9	8-9-19 23:15	17.78	1713	6.93	8.5	6-11-19 22:00	19.02	1502	8.34	9.4					
3-12-19 6:30	-0.06	956	8.28	0.1	3-12-19 5:45	-0.01	661	8.83	41.9	3-12-19 5:45	-0.09	1864	7.81	0.9	8-9-19 23:30	17.90	1711	7.25	8.5	6-11-19 22:15	19.08	1504	8.34	14.7					
3-12-19 6:45	-0.06	955	8.28	0.1	3-12-19 6:00	-0.01	661	8.83	40.1	3-12-19 6:00	-0.09	1865	7.81	1.0	8-9-19 23:45	17.92	1711	6.83	8.5	6-11-19 22:30	19.19	1501	8.34	11.4					
3-12-19 7:00	-0.06	956	8.28	0.1	3-12-19 6:15	-0.01	661	8.83	39.9	3-12-19 6:15	-0.09	1864	7.81	1.0	8-10-19 0:00	17.89	1711	6.51	8.5	6-11-19 22:45	19.27	1503	8.34	10.0					
3-12-19 7:15	-0.06	958	8.28	0.1	3-12-19 6:30	-0.01	661	8.83	38.8	3-12-19 6:30	-0.08	1867	7.81	1.1	8-10-19 0:15	17.92	1711	6.68	8.5	6-11-19 23:00	19.31	1502	8.34	9.8					
3-12-19 7:30	-0.06	955	8.28	0.1	3-12-19 6:45	-0.01	661	8.83	38.0	3-12-19 6:45	-0.08	1862	7.81	1.1	8-10-19 0:30	18.04	1713	6.67	8.5	6-11-19 23:15	19.32	1504	8.34	9.0					
3-12-19 7:45	-0.06	957	8.28	0.1	3-12-19 7:00	-0.01	661	8.83	37.9	3-12-19 7:00	-0.08	1863	7.80	1.3	8-10-19 0:45	18.07	1712	7.60	8.5	6-11-19 23:30	19.42	1502	8.35	10.1					
3-12-19 8:00	-0.06	954	8.28	0.1	3-12-19 7:15	-0.01	661	8.83	36.8	3-12-19 7:15	-0.09	1864	7.81	1.1	8-10-19 1:00	18.21	1713	7.06	8.5	6-11-19 23:45	19.42	1504	8.34	9.6					
3-12-19 8:15	-0.06	956	8.28	0.1	3-12-19 7:30	-0.01	661	8.83	36.2	3-12-19 7:30	-0.08	1863	7.81	0.9	8-10-19 1:15	18.20	1710	6.93	8.5	6-12-19 0:00	19.40	1502	8.34	9.7					
3-12-19 8:30	-0.06	957	8.28	0.1	3-12-19 7:45	-0.01	662	8.83	35.8	3-12-19 7:45	-0.09	1863	7.81	1.0	8-10-19 1:30	18.15	1714	6.80	8.5	6-12-19 0:15	19.40	1505	8.33	8.9					
3-12-19 8:45	-0.06	959	8.28	0.1	3-12-19 8:00	-0.01	662	8.83	35.1	3-12-19 8:00	-0.08	1863	7.81	1.0	8-10-19 1:45	18.15	1712	7.01	8.5	6-12-19 0:30	19.40	1504	8.35	9.6					
3-12-19 9:00	-0.06	957	8.28	0.1	3-12-19 8:15	-0.01	662	8.83	34.6	3-12-19 8:15	-0.08	1861	7.80	1.0	8-10-19 2:00	18.14	1712	9.32	8.5	6-12-19 0:45	19.43	1504	8.34	12.7					
3-12-19 9:15	-0.06	957	8.28	0.1	3-12-19 8:30	-0.01	662	8.83	34.1	3-12-19 8:30	-0.08	1862	7.81	1.1	8-10-19 2:15	18.12	1712	7.94	8.5	6-12-19 1:00	19.44	1504	8.35	11.8					
3-12-19 9:30	-0.06	959	8.28	0.1	3-12-19 8:45	-0.01	662	8.83	33.5	3-12-19 8:45	-0.08	1862	7.81	1.0	8-10-19 2:30	18.09	1714	7.12	8.5	6-12-19 1:15	19.46	1505	8.34	8.5					
3-12-19 9:45	-0.06	958	8.28	0.1	3-12-19 9:00	-0.01	663	8.83	33.1	3-12-19 9:00	-0.08	1862	7.81	1.0	8-10-19 2:45	18.05	1712	6.73	8.5	6-12-19 1:30	19.46	1504	8.34	8.8					
3-12-19 10:00	-0.06	959	8.28	0.1	3-12-19 9:15	-0.01	663	8.83	32.9	3-12-19 9:15	-0.09	1862	7.81	1.0	8-10-19 3:00	18.00	1713	6.94	8.5	6-12-19 1:45	19.50	1504	8.34	8.4					
3-12-19 10:15	-0.06	957	8.28	0.1	3-12-19 9:30	-0.01	663	8.83	32.2	3-12-19 9:30	-0.09	1862	7.81	1.0	8-10-19 3:15	17.94	1713	7.13	8.5	6-12-19 2:00	19.46	1503	8.35	10.5					
3-12-19 10:30	-0.06	959	8.28	0.1	3-12-19 9:45	-0.01	663	8.83	31.9	3-12-19 9:45	-0.10	1863	7.81	1.0	8-10-19 3:30	17.92	1715	6.52	8.5	6-12-19 2:15	19.45	1504	8.34	9.0					
3-12-19 10:45	-0.06	959	8.28	0.2	3-12-19 10:00	0.00	663	8.83	30.8	3-12-19 10:00	-0.09	1863	7.81	1.0	8-10-19 3:45	17.86	1712	6.81	8.5	6-12-19 2:30	19.44	1503	8.35	8.5					
3-12-19 11:00	-0.06	960	8.28	0.1	3-12-19 10:15	0.00	664	8.83	30.8	3-12-19 10:15	-0.08	1864	7.81	1.0	8-10-19 4:00	17.79	1713	6.13	8.5	6-12-19 2:45	19.44	1504	8.35	8.0					
3-12-19 11:15	-0.06	959	8.29	0.1	3-12-19 10:30	0.00	664	8.83	30.3	3-12-19 10:30	-0.08	1864	7.81	1.1	8-10-19 4:15	17.77	1713	6.43	8.5	6-12-19 3:00	19.44	1503	8.35	8.0					
3-12-19 11:30	-0.06	958	8.29	0.1	3-12-19 10:45	0.00	664	8.83	29.6	3-12-19 10:45	-0.08	1871	7.81	1.1	8-10-19 4:30	17.71	1711	7.02	8.5	6-12-19 3:15	19.44	1504	8.35	10.9					
3-12-19 11:45	-0.06	960	8.29	0.2	3-12-19 11:00	0.00	665	8.83	29.1	3-12-19 11:00	-0.08	1864	7.81	1.3	8-10-19 4:45	17.67	1712	6.58	8.5	6-12-19 3:30	19.41	1503	8.36	7.7					
3-12-19 12:00	-0.06	960	8.29	0.1	3-12-19 11:15	0.00	665	8.83	28.9	3-12-19 11:15	-0.08	1863	7.81	1.0	8-10-19 5:00	17.61	1711	7.29	8.5	6-12-19 3:45	19.40	1504	8.35	8.6					
3-12-19 12:15	-0.06	961	8.29	0.1	3-12-19 11:30	0.00	665	8.84	28.9	3-12-19 11:30	-0.09	1863	7.81	1.0	8-10-19 5:15	17.56	1712	6.36	8.5	6-12-19 4:00	19.37	1503	8.36	9.2					
3-12-19 12:30	-0.06	961	8.29	0.2	3-12-19 12:00	-0.02	666	8.69	27.6	3-12-19 12:00	-0.12	1867	6.22	1.1	8-10-19 5:30	17.48	1712	6.03	8.5	6-12-19 4:15	19.35	1505	8.35	7.8					
3-12-19 12:45	-0.06	959	8.29	0.1	3-12-19 12:15	0.01	666	8.82	26.7	3-12-19 12:15	-0.10	1863	7.76	1.3	8-10-19 5:45	17.44	1712	6.11	8.5	6-12-19 4:30	19.31	1503	8.36	7.8					
3-12-19 13:00	-0.06	962	8.29	0.6	3-12-19 12:30	0.01	666	8.83	26.6	3-12-19 12:30	-0.09	1865	7.79	1.3	8-10-19 6:00	17.38	1713	5.99	8.5	6-12-19 4:45	19.32	1504	8.36	8.1					
3-12-19 13:15	-0.06	963	8.29	0.1	3-12-19 12:45	0.01	667	8.83	25.8	3-12-19 12:45	-0.08	1866	7.80	1.2	8-10-19 6:15	17.36	1712	5.92	8.5	6-12-19 5:00	19.32	1503	8.36	9.0					
3-12-19 13:30	-0.06	962	8.29	0.1	3-12-19 13:00	0.02	669	8.83	25.1	3-12-19 13:00	-0.08	1866	7.80	1.4	8-10-19 6:30	17.27	1711	5.96	8.5	6-12-19 5:15	19.31	1504	8.36	7.8					
3-12-19 13:45	-0.06	965	8.29	0.1	3-12-19 13:15	0.02	669	8.83	24.8	3-12-19 13:15	-0.09	1867	7.81	1.3	8-10-19 6:45	17.22	1714	5.97	8.5	6-12-19 5:30	19.27	1503	8.37	10.0					
3-12-19 14:00	-0.06	964	8.29	0.1	3-12-19 13:30	0.02	670	8.83	24.1	3-12-19 13:30	-0.09	1865	7.81	2.5	8-10-19 7:00	17.18	1712	5.58	8.5	6-12-19 5:45	19.23	1503	8.36	7.7					
3-12-19 14:15	-0.06	965	8.29	0.2	3-12-19 13:45	0.02	670	8.82	23.9	3-12-19 13:45	-0.08	1867	7.81	1.5	8-10-19 7:15	17.12	1712	5.73	8.5	6-12-19 6:00	19.19	1503	8.37	7.9					
3-12-19 14:30	-0.06	966	8.29	0.1	3-12-19 14:00	0.03	670	8.82	22.5	3-12-19 14:00	-0.08	1868	7.81	1.5	8-10-19 7:30	17.09	1712	6.02	8.5	6-12-19 6:15	19.14	1505	8.36	8.0					
3-12-19 14:45	-0.06	965	8.29	0.1	3-12-19 14:15	0.02	671	8.82	21.6	3-12-19 14:15	-0.08	1862	7.81	2.4	8-10-19 7:45	17.05	1715	5.81	8.5	6-12-19 6:30	19.11	1502	8.37	7.5					
3-12-19 15:00	-0.06	968	8.29	0.1	3-12-19 14:30	0.01	671	8.82	21.9	3-12-19 14:30	-0.08	1863	7.81	2.5	8-10-19 8:00	16.98	1713	5.39	8.5	6-12-19 6:45	19.09	1504	8.37	7.9					
3-12-19 15:15	-0.06	965	8.29	0.1	3-12-19 14:45	0.01	672	8.82	17.5	3-12-19 14:45	-0.08	1863	7.81	2.3	8-10-19 8:15	16.96	1712	5.88	8.5	6-12-19 7:00	19.08	1503	8.37	7.5					
3-12-19 15:30	-0.06	966	8.29	0.1	3-12-19 15:00	0.02	672	8.81	19.7	3-12-19 15:00	-0.09	1863	7.81	2.8	8-10-19 8:30	16.92	1712	5.81	8.5	6-12-19 7:15	19.05	1503	8.37	7.5					
3-12-19 15:45	-0.06	966	8.29	0.1	3-12-19 15:15	0.02	673	8.81	18.2	3-12-19 15:15	-0.08	1860	7.81	5.5	8-10-19 8:45	16.86	1713	5.37	8.5	6-12-19 7:30	19.03	1503	8.38	8.0					
3-12-19 16:00	-0.06	967	8.29	0.1	3-12-19 15:30	0.01	673	8.81	22.3	3-12-19 15:30	-0.08	1858	7.81	4.2	8-10-19 9:00	16.87	1713	6.47	8.5	6-12-19 7:45	18.99	1504	8.37	7.7					
3-12-19 16:15	-0.06	966	8.29	0.1	3-12-19 15:45	0.01	671	8.81	21.7	3-12-19 15:45	-0.08	1856	7.81	5.5	8-10-19 9:15	16.85	1713	5.18	8.5	6-12-19 8:00	18.98	1503	8.37	7.4					
3-12-19 16:30	-0.06	967	8.29	0.1	3-12-19 16:00	0.01	672	8.82	18.4	3-12-19 16:00	-0.08	1855	7.81	5.3	8-10-19 9:30	16.80	1711	5.15	8.5	6-12-19 8:15	18.92	1504	8.37	7.6					
3-12-19 16:45	-0.06	967	8.29	0.2	3-12-19 16:15	0.01	672	8.81	22.6	3-12-19 16:15	-0.08	1855	7.81	5.4	8-10-19 9:45	16.73	1712	6.21	8.5	6-12-19 8:30	18.89	1503	8.37	7.3					
3-12-19 17:00	-0.06	969	8.29	0.0	3-12-19 16:30	0.00	672	8.81	20.6	3-12-19 16:30	-0.08	1854	7.81	6.1	8-10-19 10:00	16.70	1713	5.26	8.5	6-12-19 8:45	18.85	1503	8.38	7.4					
3-12-19 17:15	-0.06	968	8.29	0.1	3-12-19 16:45	0.00	672	8.82	19.3	3-12-19 16:45	-0.08	1854	7.81	6.4	8-10-19 10:15	16.65	1714	5.09	8.5	6-12-19 9:00	18.86	1503	8.38	7.5					
3-12-19 17:30	-0.06	970	8.29	0.1	3-12-19 17:00	0.01	671	8.81	21.3	3-12-19 17:00	-0.08	1853	7.81	6.2	8-10-19 10:30	16.61	1713	5.10	8.5	6-12-19 9:15	18.84	1503	8.38	7.1					
3-12-19 17:45	-0.06	968	8.29	0.1	3-12-19 17:15	0.01	671	8.80	21.0	3-12-19 17:15	-0.08	1854	7.81	5.1	8-10-19 10:45	16.58	1712	5.47	8.5	6-12-19 9:30	18.79	1503	8.38	7.1					
3-12-19 18:00	-0.06	969	8.29	0.1	3-12-19 17:30	0.01	671	8.81	21.1	3-12-19 17:30	-0.08	1853	7.81	5.9	8-10-19 11:00	16.54	1713	11.24	8.5	6-12-19 9:45	18.77	1503	8.38	12.3					
3-12-19 18:15	-0.06	969	8.29	0.1	3-12-19 17:45	0.01	671	8.81	20.3	3-12-19 17:45	-0.08	1854	7.81	5.8	8-10-19 11:15	16.48	1713	5.08	8.5	6-12-19 10:00	18.73	1502	8.38	7.4					
3-12-19 18:30	-0.06	968	8.29	0.1	3-12-19 18:00	0.01	671	8.81	20.7	3-12-19 18:00	-0.08	1854	7.81	5.4	8-10-19 11:30	16.42	1712	5.37	8.5	6-12-19 10:15	18.66	1504	8.37	8.0					
3-12-19 18:45	-0.06	968	8.29	0.1	3-12-19 18:15	0.01	671	8.81	21.1	3-12-19 18:15	-0.09	1856	7.81	6.2	8-10-19 11:45	16.37	1714	6.00	8.5	6-12-19 10:30	18.68	1503	8.38	7.4					
3-12-19 19:00	-0.06	970	8.29	0.1	3-12-19 18:30	0.01	671	8.80	22.7	3-12-19 18:30	-0.09	1852	7.81	6.1	8-10-19 12:00	16.34	1712	5.87	8.5	6-12-19 10:45	18.65	1503	8.38	7.0					
3-12-19 19:15	-0.06	969	8.29	0.1	3-12-19 18:45	0.01	671	8.81	21.1	3-12-19 18:45	-0.09	1854	7.81	6.3	8-10-19 12:15	16.32	1714	5.47	8.5	6-12-19 11:00	18.62	1503	8.38	7.0					
3-12-19 19:30	-0.06	970	8.29	0.1	3-12-19 19:00	0.01	671	8.81	21.4	3-12-19 19:00	-0.09	1852	7.81	5.7	8-10-19 12:30	16.27	1713	4.87	8.5	6-12-19 11:15	18.60	1504	8.38	7.2					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-12-19 19:45	-0.06	971	8.29	0.1	3-12-19 19:15	0.00	671	8.81	21.5	3-12-19 19:15	-0.09	1853	7.81	5.1	8-10-19 12:45	16.21	1714	4.96	8.5	6-12-19 11:30	18.53	1503	8.38	7.1					
3-12-19 20:00	-0.06	970	8.29	0.1	3-12-19 19:30	0.00	672	8.80	17.5	3-12-19 19:30	-0.09	1853	7.81	5.4	8-10-19 13:00	16.17	1714	4.96	8.5	6-12-19 11:45	18.49	1503	8.38	7.7					
3-12-19 20:15	-0.06	971	8.29	0.1	3-12-19 19:45	0.00	672	8.80	18.6	3-12-19 19:45	-0.09	1852	7.81	5.1	8-10-19 13:15	16.11	1715	6.03	8.5	6-12-19 12:00	18.42	1502	8.38	7.3					
3-12-19 20:30	-0.06	967	8.29	0.1	3-12-19 20:00	0.00	672	8.80	17.9	3-12-19 20:00	-0.09	1853	7.81	5.3	8-10-19 13:30	16.09	1713	5.10	8.5	6-12-19 12:15	18.36	1504	8.38	6.7					
3-12-19 20:45	-0.06	971	8.29	0.1	3-12-19 20:15	0.00	672	8.81	18.0	3-12-19 20:15	-0.09	1853	7.81	6.0	8-10-19 13:45	16.09	1713	5.08	8.5	6-12-19 12:30	18.33	1503	8.38	7.4					
3-12-19 21:00	-0.06	972	8.29	0.1	3-12-19 20:30	0.00	672	8.81	15.6	3-12-19 20:30	-0.09	1853	7.81	5.4	8-10-19 14:00	16.00	1712	4.75	8.5	6-12-19 12:45	18.34	1503	8.38	7.0					
3-12-19 21:15	-0.06	972	8.29	0.1	3-12-19 20:45	0.00	672	8.80	12.3	3-12-19 20:45	-0.09	1854	7.81	5.3	8-10-19 14:15	15.99	1713	5.66	8.5	6-12-19 13:00	18.35	1503	8.38	6.7					
3-12-19 21:30	-0.06	970	8.29	0.1	3-12-19 21:00	0.00	672	8.80	15.7	3-12-19 21:00	-0.09	1853	7.82	5.0	8-10-19 14:30	16.02	1715	8.61	8.5	6-12-19 13:15	18.35	1504	8.38	7.2					
3-12-19 21:45	-0.06	967	8.29	0.2	3-12-19 21:15	0.00	672	8.80	10.7	3-12-19 21:15	-0.09	1854	7.82	3.2	8-10-19 14:45	16.00	1713	4.67	8.5	6-12-19 13:30	18.33	1503	8.38	7.0					
3-12-19 22:00	-0.06	971	8.29	0.2	3-12-19 21:30	-0.01	673	8.80	14.6	3-12-19 21:30	-0.08	1854	7.82	2.5	8-10-19 15:00	16.01	1715	4.99	8.5	6-12-19 13:45	18.30	1503	8.38	7.2					
3-12-19 22:15	-0.06	972	8.29	0.1	3-12-19 21:45	0.00	672	8.80	8.6	3-12-19 21:45	-0.08	1853	7.82	1.7	8-10-19 15:15	15.99	1714	4.91	8.5	6-12-19 14:00	18.26	1502	8.38	7.5					
3-12-19 22:30	-0.06	971	8.29	0.2	3-12-19 22:00	-0.01	673	8.80	9.5	3-12-19 22:00	-0.08	1853	7.82	2.0	8-10-19 15:30	15.97	1714	5.86	8.5	6-12-19 14:15	18.27	1504	8.37	7.3					
3-12-19 22:45	-0.06	970	8.29	0.1	3-12-19 22:15	-0.01	672	8.80	13.4	3-12-19 22:15	-0.08	1852	7.81	4.8	8-10-19 15:45	15.96	1714	5.16	8.5	6-12-19 14:30	18.30	1502	8.39	7.4					
3-12-19 23:00	-0.06	972	8.29	0.1	3-12-19 22:30	-0.01	670	8.80	14.7	3-12-19 22:30	-0.08	1852	7.81	4.7	8-10-19 16:00	16.00	1714	5.02	8.5	6-12-19 14:45	18.35	1503	8.38	7.2					
3-12-19 23:15	-0.06	972	8.29	0.1	3-12-19 22:45	-0.01	665	8.80	14.6	3-12-19 22:45	-0.09	1852	7.81	4.8	8-10-19 16:15	16.03	1714	4.85	8.5	6-12-19 15:00	18.42	1502	8.38	7.2					
3-12-19 23:30	-0.06	970	8.30	0.2	3-12-19 23:00	-0.01	653	8.77	20.4	3-12-19 23:00	-0.09	1852	7.81	4.5	8-10-19 16:30	16.05	1714	6.18	8.5	6-12-19 15:15	18.51	1502	8.38	7.5					
3-12-19 23:45	-0.06	972	8.29	0.1	3-12-19 23:15	-0.01	632	8.70	30.8	3-12-19 23:15	-0.09	1853	7.82	2.3	8-10-19 16:45	16.02	1713	4.34	8.5	6-12-19 15:30	18.56	1501	8.38	7.7					
3-13-19 0:00	-0.06	972	8.29	0.1	3-12-19 23:30	-0.01	592	8.52	42.5	3-12-19 23:30	-0.08	1853	7.82	2.1	8-10-19 17:00	16.09	1715	4.54	8.5	6-12-19 15:45	18.63	1502	8.38	7.2					
3-13-19 0:15	-0.06	972	8.30	0.1	3-12-19 23:45	0.00	579	8.42	46.8	3-12-19 23:45	-0.08	1853	7.82	1.7	8-10-19 17:15	16.13	1714	4.67	8.5	6-12-19 16:00	18.61	1501	8.38	6.8					
3-13-19 0:30	-0.06	972	8.30	0.2	3-13-19 0:00	0.00	574	8.43	51.5	3-13-19 0:00	-0.08	1852	7.82	2.0	8-10-19 17:30	16.26	1712	5.39	8.5	6-12-19 16:15	18.70	1502	8.37	7.5					
3-13-19 0:45	-0.06	972	8.29	0.1	3-13-19 0:15	0.01	576	8.45	51.4	3-13-19 0:15	-0.08	1852	7.81	3.9	8-10-19 17:45	16.33	1712	5.38	8.5	6-12-19 16:30	18.77	1503	8.38	7.2					
3-13-19 1:00	-0.06	969	8.29	0.1	3-13-19 0:30	0.00	583	8.49	54.0	3-13-19 0:30	-0.09	1853	7.81	3.9	8-10-19 18:00	16.38	1714	5.26	8.5	6-12-19 16:45	18.78	1503	8.37	6.9					
3-13-19 1:15	-0.06	970	8.29	0.1	3-13-19 0:45	0.00	588	8.51	53.4	3-13-19 0:45	-0.09	1853	7.81	4.0	8-10-19 18:15	16.48	1713	6.04	8.5	6-12-19 17:00	18.78	1502	8.37	6.9					
3-13-19 1:30	-0.06	973	8.30	0.1	3-13-19 1:00	0.00	591	8.53	53.2	3-13-19 1:00	-0.09	1853	7.81	3.7	8-10-19 18:30	16.61	1714	5.81	8.5	6-12-19 17:15	18.86	1503	8.37	7.2					
3-13-19 1:45	-0.06	968	8.30	0.1	3-13-19 1:15	0.00	595	8.55	49.2	3-13-19 1:15	-0.09	1853	7.82	1.8	8-10-19 18:45	16.72	1715	5.15	8.5	6-12-19 17:30	18.94	1503	8.36	7.5					
3-13-19 2:00	-0.06	969	8.30	0.2	3-13-19 1:30	-0.01	596	8.57	51.5	3-13-19 1:30	-0.09	1853	7.82	1.5	8-10-19 19:00	16.89	1715	5.14	8.5	6-12-19 17:45	19.02	1503	8.36	7.4					
3-13-19 2:15	-0.06	973	8.31	0.1	3-13-19 1:45	-0.01	596	8.59	50.1	3-13-19 1:45	-0.08	1852	7.82	1.7	8-10-19 19:15	17.01	1716	4.95	8.5	6-12-19 18:00	19.06	1504	8.36	7.8					
3-13-19 2:30	-0.06	971	8.30	0.1	3-13-19 2:00	-0.01	597	8.61	46.8	3-13-19 2:00	-0.08	1852	7.82	1.3	8-10-19 19:30	16.97	1712	4.77	8.5	6-12-19 18:15	19.13	1506	8.35	7.6					
3-13-19 2:45	-0.06	971	8.30	0.1	3-13-19 2:15	-0.01	605	8.62	47.6	3-13-19 2:15	-0.08	1852	7.81	3.5	8-10-19 19:45	16.77	1714	6.25	8.5	6-12-19 18:30	19.19	1504	8.36	8.4					
3-13-19 3:00	-0.06	972	8.31	0.1	3-13-19 2:30	-0.01	604	8.61	44.1	3-13-19 2:30	-0.09	1854	7.81	3.5	8-10-19 20:00	16.71	1714	6.34	8.5	6-12-19 18:45	19.31	1506	8.36	8.0					
3-13-19 3:15	-0.06	975	8.30	0.1	3-13-19 2:45	-0.01	606	8.62	44.4	3-13-19 2:45	-0.09	1853	7.81	3.5	8-10-19 20:15	16.70	1714	6.64	8.5	6-12-19 19:00	19.40	1504	8.36	8.4					
3-13-19 3:30	-0.06	972	8.30	0.1	3-13-19 3:00	-0.01	611	8.62	43.4	3-13-19 3:00	-0.09	1852	7.81	3.7	8-10-19 20:30	16.68	1714	6.65	8.5	6-12-19 19:15	19.59	1509	8.36	8.1					
3-13-19 3:45	-0.06	973	8.30	0.1	3-13-19 3:15	-0.01	613	8.62	42.0	3-13-19 3:15	-0.09	1853	7.81	3.5	8-10-19 20:45	16.68	1713	6.79	8.5	6-12-19 19:30	19.58	1504	8.36	8.7					
3-13-19 4:00	-0.06	975	8.30	0.1	3-13-19 3:30	-0.01	617	8.62	40.3	3-13-19 3:30	-0.09	1853	7.81	3.8	8-10-19 21:00	16.88	1715	6.12	8.5	6-12-19 19:45	19.70	1506	8.35	9.0					
3-13-19 4:15	-0.06	974	8.30	0.1	3-13-19 3:45	-0.01	621	8.62	40.0	3-13-19 3:45	-0.10	1853	7.81	3.3	8-10-19 21:15	17.00	1714	5.31	8.5	6-12-19 20:00	19.81	1505	8.35	8.8					
3-13-19 4:30	-0.06	973	8.30	0.1	3-13-19 4:00	-0.01	618	8.63	39.0	3-13-19 4:00	-0.10	1853	7.81	3.3	8-10-19 21:30	17.06	1716	5.56	8.5	6-12-19 20:15	19.85	1507	8.35	8.9					
3-13-19 4:45	-0.06	974	8.30	0.1	3-13-19 4:15	-0.01	623	8.63	38.7	3-13-19 4:15	-0.09	1853	7.81	3.4	8-10-19 21:45	17.14	1715	6.55	8.5	6-12-19 20:30	19.89	1506	8.35	9.6					
3-13-19 5:00	-0.06	972	8.30	0.1	3-13-19 4:30	-0.01	619	8.64	38.5	3-13-19 4:30	-0.09	1852	7.81	3.2	8-10-19 22:00	17.25	1714	5.52	8.5	6-12-19 20:45	20.30	1509	8.35	8.3					
3-13-19 5:15	-0.06	974	8.30	0.1	3-13-19 4:45	-0.01	621	8.64	39.2	3-13-19 4:45	-0.09	1852	7.81	3.3	8-10-19 22:15	17.39	1716	7.12	8.5	6-12-19 21:00	20.41	1507	8.35	9.1					
3-13-19 5:30	-0.06	974	8.30	0.1	3-13-19 5:00	-0.01	623	8.64	39.0	3-13-19 5:00	-0.09	1852	7.81	3.2	8-10-19 22:30	17.49	1714	6.56	8.5	6-12-19 21:15	20.73	1510	8.35	9.2					
3-13-19 5:45	-0.06	976	8.30	0.1	3-13-19 5:15	-0.01	620	8.64	38.6	3-13-19 5:15	-0.09	1853	7.82	1.8	8-10-19 22:45	17.55	1715	5.54	8.5	6-12-19 21:30	20.64	1507	8.35	8.1					
3-13-19 6:00	-0.06	976	8.30	0.1	3-13-19 5:30	-0.01	568	8.62	47.4	3-13-19 5:30	-0.07	1853	7.81	1.2	8-10-19 23:00	17.59	1715	6.69	8.5	6-12-19 21:45	20.47	1504	8.34	9.4					
3-13-19 6:15	-0.06	976	8.30	0.1	3-13-19 5:45	-0.01	524	8.51	60.0	3-13-19 5:45	-0.07	1852	7.82	1.1	8-10-19 23:15	17.66	1716	5.41	8.5	6-12-19 22:00	20.54	1506	8.34	8.6					
3-13-19 6:30	-0.06	975	8.30	0.1	3-13-19 6:00	-0.02	529	8.51	57.0	3-13-19 6:00	-0.07	1852	7.81	1.0	8-10-19 23:30	17.70	1716	5.22	8.5	6-12-19 22:15	20.64	1510	8.34	9.5					
3-13-19 6:45	-0.06	975	8.30	0.1	3-13-19 6:15	-0.02	536	8.51	49.9	3-13-19 6:15	-0.08	1852	7.81	3.2	8-10-19 23:45	17.86	1714	6.19	8.5	6-12-19 22:30	20.78	1505	8.34	9.0					
3-13-19 7:00	-0.06	976	8.30	0.1	3-13-19 6:30	-0.01	546	8.52	55.4	3-13-19 6:30	-0.08	1852	7.81	3.3	8-11-19 0:00	17.81	1716	4.98	8.5	6-12-19 22:45	20.49	1507	8.34	9.0					
3-13-19 7:15	-0.06	976	8.30	0.1	3-13-19 6:45	-0.01	546	8.52	51.7	3-13-19 6:45	-0.09	1853	7.81	3.3	8-11-19 0:15	17.81	1714	5.59	8.5	6-12-19 23:00	20.39	1507	8.35	10.0					
3-13-19 7:30	-0.06	974	8.30	0.1	3-13-19 7:00	-0.01	556	8.53	48.5	3-13-19 7:00	-0.09	1853	7.81	3.3	8-11-19 0:30	17.95	1716	5.31	8.5	6-12-19 23:15	20.33	1510	8.35	9.2					
3-13-19 7:45	-0.06	973	8.30	0.1	3-13-19 7:15	-0.01	568	8.54	45.0	3-13-19 7:15	-0.09	1855	7.82	1.2	8-11-19 0:45	18.01	1717	5.40	8.5	6-12-19 23:30	20.29	1507	8.35	7.6					
3-13-19 8:00	-0.06	977	8.30	0.1	3-13-19 7:30	-0.01	574	8.55	39.6	3-13-19 7:30	-0.08	1854	7.82	1.4	8-11-19 1:00	18.02	1717	5.39	8.5	6-12-19 23:45	20.34	1509	8.35	7.6					
3-13-19 8:15	-0.06	977	8.30	0.1	3-13-19 7:45	-0.01	578	8.56	38.7	3-13-19 7:45	-0.08	1854	7.82	0.8	8-11-19 1:15	18.01	1717	5.18	8.5	6-13-19 0:00	20.56	1510	8.36	8.3					
3-13-19 8:30	-0.06	977	8.30	0.1	3-13-19 8:00	-0.01	576	8.58	36.1	3-13-19 8:00	-0.07	1854	7.82	1.0	8-11-19 1:30	18.03	1716	5.41	8.5	6-13-19 0:15	20.72	1513	8.35	9.2					
3-13-19 8:45	-0.06	975	8.30	0.1	3-13-19 8:15	-0.01	581	8.58	35.5	3-13-19 8:15	-0.08	1854	7.81	3.2	8-11-19 1:45	18.02	1715	5.70	8.5	6-13-19 0:30	20.92	1511	8.36	9.4					
3-13-19 9:00	-0.06	978	8.30	0.1	3-13-19 8:30	0.00	586	8.59	32.8	3-13-19 8:30	-0.08	1853	7.81	3.3	8-11-19 2:00	18.01	1720	5.57	8.5	6-13-19 0:45	21.14	1497	8.35	9.5					
3-13-19 9:15	-0.06	976	8.30	0.0	3-13-19 8:45	0.00	588	8.60	32.8	3-13-19 8:45	-0.08	1857	7.81	3.3	8-11-19 2:15	18.00	1716	5.15	8.5	6-13-19 1:00	21.49	1518	8.35	10.1					
3-13-19 9:30	-0.06	977	8.30	0.1	3-13-19 9:00	0.00	591	8.59	33.1	3-13-19 9:00	-0.09	1854	7.81	3.3	8-11-19 2:30	18.00	1716	5.76	8.5	6-13-19 1:15	21.64	1521	8.35	9.8					
3-13-19 9:45	-0.06	977	8.30	0.1	3-13-19 9:15	0.00	594	8.59	31.4	3-13-19 9:15	-0.09	1853	7.81	2.7	8-11-19 2:45	17.98	1715	5.26	8.5	6-13-19 1:30	21.72	1517	8.34	10.5					
3-13-19 10:00	-0.06	975	8.30	0.1	3-13-19 9:30	0.00	594	8.59	31.9	3-13-19 9:30	-0.08	1853	7.81	3.4	8-11-19 3:00	17.95	1714	6.25	8.5	6-13-19 1:45	21.61	1516	8.34	10.2					
3-13-19 10:15	-0.06	976	8.30	0.2	3-13-19 9:45	0.00	586	8.59	33.4	3-13-19 9:45	-0.08	1854	7.81	3.2	8-11-19 3:15	17.92	1716	4.93	8.5	6-13-19 2:00	21.24	1510	8.35	10.5					
3-13-19 10:30	-0.06	977	8.30	0.1	3-13-19 10:00	0.00	591	8.59	29.8	3-13-19 10:00	-0.08	1853	7.81	3.1	8-11-19 3:30	17.86	1717	4.70	8.5	6-13-19 2:15	20.87	1509	8.34	11.1					
3-13-19 10:45	-0.06	977	8.30	0.1	3-13-19 10:15	0.00	585	8.60	32.0	3-13-19 10:15	-0.08	1855	7.82	3.2	8-11-19 3:45	17.82	1716	5.03	8.5	6-13-19 2:30	20.51	1507	8.35	10.4					
3-13-19 11:00	-0.06	978	8.30	0.1	3-13-19 10:30					3-13-19 10:30	-0.08	1854	7.82	3.3	8-11-19 4:00	17.78	1715	4.89	8.5	6-13-19 2:45	20.37	1508	8.35	9.9					
3-13-19 11:15	-0.06	974	8.30	0.1	3-13-19 10:45	0.00	603	8.59	21.7	3-13-19 10:45	-0.08	1854	7.82	3.3	8-11-19 4:15	17.75	1716	5.59	8.5	6-13-19 3:00	20.28	1508	8.35	11.6					
3-13-19 11:30	-0.06	977	8.30	0.1	3-13-19 11:00	0.01	600	8.60	23.1	3-13-19 11:00	-0.08	1854	7.81	3.3	8-11-19 4:30	17.69	1716	4.84	8.5	6-13-19 3:15	20.31	1510	8.35	10.2					
3-13-19 11:45	-0.06	977	8.30	0.1	3-13-19 11:15	0.01	597	8.59	23.0	3-13-19 11:15	-0.08	1855	7.82	2.8	8-11-19 4:45	17.67	1717	5.11	8.5	6-13-19 3:30	20.29	1509	8.36	11.2					
3-13-19 12:00	-0.06	979	8.30	0.1	3-13-19 11:30					3-13-19 11:30	-0.08	1854	7.82	2.4	8-11-19 5:00	17.62	1717	4.80	8.5	6-13-19 3:45	20.27	1510	8.35	10.3					
3-13-19 12:15	-0.06	978	8.30	0.1	3-13-19 11:45					3-13-19 11:45	-0.10	1855	7.83	3.0	8-11-19 5:15	17.59	1715	4.32	8.5	6-13-19 4:00	20.25	1509	8.35	12.2					
3-13-19 12:30	-0.06	980	8.30	0.1	3-13-19 12:00					3-13-19 12:00	-0.11	1860	7.82	3.1	8-11-19 5:30	17.56	1716	4.34	8.5	6-13-19 4:15	20.22	1511	8.35	10.8					
3-13-19 12:45	-0.06	977	8.30	0.1	3-13-19 12:15					3-13-19 12:15	-0.10	1859	7.82	3.5	8-11-19 5:45	17.54	1715	5.00	8.5	6-13-19 4:30	20.39	1512	8.37	10.7					
3-13-19 13:00	-0.06	979	8.30	0.1	3-13-19 12:30					3-13-19 12:30					8-11-19 6:00	17.50	1715	4.60	8.5	6-13-19 4:45	20.39	1513	8.36	10.4					
3-13-19 13:15	-0.06	978	8.30	0.1	3-13-19 12:45					3-13-19 12:45	-0.09	1861	7.82	3.3	8-11-19 6:15	17.45	1716	4.84	8.5	6-13-19 5:00	20.36	1512	8.36	10.4					
3-13-19 13:30	-0.06	978	8.31	0.1	3-13-19 13:00					3-13-19 13:00	-0.09	1861	7.82	3.3	8-11-19 6:30	17.42	1715	4.55	8.5	6-13-19 5:15	20.40	1514	8.37	11.2					
3-13-19 13:45	-0.04	985	8.30	1.3	3-13-19 13:15					3-13-19 13:15	-0.10	1861	7.82	3.0	8-11-19 6:45	17.37	1716	5.23	8.5	6-13-19 5:30	20.44	1514	8.37	10.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-13-19 14:00	-0.05	992	8.31	3.6	3-13-19 13:30					3-13-19 13:30	-0.09	1861	7.82	2.9	8-11-19 7:00	17.34	1717	5.20	8.5	6-13-19 5:45	20.43	1515	8.37	9.3					
3-13-19 14:15	-0.05	995	8.30	3.1	3-13-19 13:45					3-13-19 13:45	-0.10	1861	7.82	2.4	8-11-19 7:15	17.31	1716	4.37	8.5	6-13-19 6:00	20.41	1513	8.37	9.4					
3-13-19 14:30	-0.05	999	8.30	3.5	3-13-19 14:00					3-13-19 14:00	-0.09	1861	7.82	2.4	8-11-19 7:30	17.25	1717	4.66	8.5	6-13-19 6:15	20.36	1515	8.36	8.8					
3-13-19 14:45	-0.05	996	8.30	3.7	3-13-19 14:15					3-13-19 14:15	-0.09	1860	7.82	1.7	8-11-19 7:45	17.22	1716	4.24	8.5	6-13-19 6:30	20.34	1512	8.37	9.8					
3-13-19 15:00	-0.05	996	8.30	3.4	3-13-19 14:30					3-13-19 14:30	-0.08	1858	7.82	1.1	8-11-19 8:00	17.21	1715	5.15	8.5	6-13-19 6:45	20.32	1514	8.37	9.1					
3-13-19 15:15	-0.05	994	8.30	3.0	3-13-19 14:45					3-13-19 14:45	-0.08	1857	7.82	0.9	8-11-19 8:15	17.17	1715	4.40	8.5	6-13-19 7:00	20.26	1513	8.37	8.9					
3-13-19 15:30	-0.06	995	8.30	2.8	3-13-19 15:00					3-13-19 15:00	-0.08	1857	7.82	1.1	8-11-19 8:30	17.14	1716	5.11	8.5	6-13-19 7:15	20.23	1513	8.37	8.5					
3-13-19 15:45	-0.05	994	8.30	3.0	3-13-19 15:15					3-13-19 15:15	-0.08	1860	7.82	2.5	8-11-19 8:45	17.09	1716	4.55	8.5	6-13-19 7:30	20.18	1512	8.37	9.4					
3-13-19 16:00	-0.05	996	8.30	3.6	3-13-19 15:30					3-13-19 15:30	-0.09	1860	7.82	2.4	8-11-19 9:00	17.03	1716	4.58	8.5	6-13-19 7:45	20.16	1514	8.37	9.1					
3-13-19 16:15	-0.05	997	8.30	3.7	3-13-19 15:45					3-13-19 15:45	-0.09	1860	7.82	2.7	8-11-19 9:15	16.96	1716	3.96	8.5	6-13-19 8:00	20.16	1513	8.38	8.6					
3-13-19 16:30	-0.05	998	8.30	3.7	3-13-19 16:00					3-13-19 16:00	-0.09	1860	7.82	2.6	8-11-19 9:30	16.95	1717	3.99	8.5	6-13-19 8:15	20.07	1514	8.37	9.6					
3-13-19 16:45	-0.05	1000	8.30	3.5	3-13-19 16:15					3-13-19 16:15	-0.09	1860	7.81	2.8	8-11-19 9:45	16.95	1718	3.96	8.5	6-13-19 8:30	20.05	1513	8.38	9.9					
3-13-19 17:00	-0.05	1001	8.30	3.7	3-13-19 16:30					3-13-19 16:30	-0.09	1860	7.81	2.7	8-11-19 10:00	16.90	1717	4.54	8.5	6-13-19 8:45	20.03	1514	8.37	8.4					
3-13-19 17:15	-0.05	1000	8.30	3.5	3-13-19 16:45					3-13-19 16:45	-0.09	1860	7.82	2.7	8-11-19 10:15	16.84	1716	3.88	8.5	6-13-19 9:00	19.98	1512	8.38	8.6					
3-13-19 17:30	-0.06	998	8.30	2.8	3-13-19 17:00					3-13-19 17:00	-0.09	1860	7.82	2.6	8-11-19 10:30	16.78	1715	3.94	8.5	6-13-19 9:15	19.95	1514	8.37	8.3					
3-13-19 17:45	-0.06	998	8.30	2.4	3-13-19 17:15					3-13-19 17:15	-0.09	1860	7.82	2.6	8-11-19 10:45	16.75	1717	4.48	8.5	6-13-19 9:30	19.92	1513	8.37	8.6					
3-13-19 18:00	-0.06	990	8.31	1.9	3-13-19 17:30					3-13-19 17:30	-0.09	1860	7.82	2.4	8-11-19 11:00	16.73	1716	3.99	8.5	6-13-19 9:45	19.92	1513	8.37	8.3					
3-13-19 18:15	-0.06	993	8.31	1.4	3-13-19 17:45					3-13-19 17:45	-0.09	1860	7.82	2.5	8-11-19 11:15	16.73	1716	4.12	8.5	6-13-19 10:00	19.89	1512	8.38	8.3					
3-13-19 18:30	-0.06	998	8.31	3.0	3-13-19 18:00					3-13-19 18:00	-0.09	1861	7.82	2.5	8-11-19 11:30	16.69	1716	4.50	8.5	6-13-19 10:15	19.81	1515	8.37	11.2					
3-13-19 18:45	-0.05	996	8.31	4.7	3-13-19 18:15					3-13-19 18:15	-0.09	1861	7.82	2.6	8-11-19 11:45	16.65	1717	4.55	8.5	6-13-19 10:30	19.80	1512	8.37	8.1					
3-13-19 19:00	-0.03	1008	8.31	39.2	3-13-19 18:30					3-13-19 18:30	-0.09	1861	7.81	2.6	8-11-19 12:00	16.59	1717	4.19	8.5	6-13-19 10:45	19.74	1513	8.37	7.8					
3-13-19 19:15	0.00	999	8.30	66.1	3-13-19 18:45					3-13-19 18:45	-0.09	1861	7.82	2.6	8-11-19 12:15	16.53	1717	4.31	8.5	6-13-19 11:00	19.67	1512	8.37	8.3					
3-13-19 19:30	0.03	991	8.30	82.1	3-13-19 19:00					3-13-19 19:00	-0.09	1860	7.82	2.6	8-11-19 12:30	16.51	1718	5.52	8.5	6-13-19 11:15	19.69	1513	8.38	8.1					
3-13-19 19:45	0.04	982	8.29	88.0	3-13-19 19:15					3-13-19 19:15	-0.09	1861	7.82	2.4	8-11-19 12:45	16.46	1718	4.47	8.5	6-13-19 11:30	19.68	1512	8.38	8.3					
3-13-19 20:00	0.07	971	8.29	88.9	3-13-19 19:30					3-13-19 19:30	-0.10	1853	7.82	2.6	8-11-19 13:00	16.41	1717	7.04	8.5	6-13-19 11:45	19.62	1514	8.38	8.5					
3-13-19 20:15	0.05	962	8.30	90.4	3-13-19 19:45					3-13-19 19:45	-0.09	1866	7.82	2.9	8-11-19 13:15	16.38	1719	3.97	8.5	6-13-19 12:00	19.60	1512	8.38	8.7					
3-13-19 20:30	0.06	950	8.30	86.4	3-13-19 20:00					3-13-19 20:00	-0.08	1863	7.82	3.2	8-11-19 13:30	16.34	1719	4.38	8.5	6-13-19 12:15	19.52	1514	8.37	8.3					
3-13-19 20:45	0.03	950	8.30	81.7	3-13-19 20:15					3-13-19 20:15	-0.09	1864	7.83	3.3	8-11-19 13:45	16.30	1718	4.55	8.5	6-13-19 12:30	19.48	1512	8.38	8.0					
3-13-19 21:00	0.02	943	8.30	83.4	3-13-19 20:30					3-13-19 20:30	-0.09	1865	7.83	4.2	8-11-19 14:00	16.27	1718	4.68	8.5	6-13-19 12:45	19.48	1514	8.38	8.2					
3-13-19 21:15	0.00	941	8.30	77.9	3-13-19 20:45					3-13-19 20:45	-0.09	1864	7.83	3.0	8-11-19 14:15	16.25	1718	5.31	8.5	6-13-19 13:00	19.46	1512	8.38	8.1					
3-13-19 21:30	0.00	933	8.30	77.2	3-13-19 21:00					3-13-19 21:00	-0.09	1866	7.83	2.9	8-11-19 14:30	16.22	1718	4.63	8.5	6-13-19 13:15	19.44	1513	8.38	8.3					
3-13-19 21:45	0.01	930	8.31	74.6	3-13-19 21:15					3-13-19 21:15	-0.09	1864	7.82	2.5	8-11-19 14:45	16.22	1718	4.56	8.5	6-13-19 13:30	19.41	1512	8.38	8.4					
3-13-19 22:00	0.01	929	8.31	69.6	3-13-19 21:30					3-13-19 21:30	-0.09	1864	7.82	2.6	8-11-19 15:00	16.18	1719	9.28	8.5	6-13-19 13:45	19.39	1513	8.38	8.5					
3-13-19 22:15	0.00	929	8.31	63.1	3-13-19 21:45					3-13-19 21:45	-0.09	1865	7.82	2.4	8-11-19 15:15	16.19	1718	4.61	8.5	6-13-19 14:00	19.36	1513	8.38	8.7					
3-13-19 22:30	0.00	927	8.31	60.7	3-13-19 22:00					3-13-19 22:00	-0.09	1865	7.82	2.4	8-11-19 15:30	16.17	1719	4.66	8.5	6-13-19 14:15	19.32	1514	8.38	7.9					
3-13-19 22:45	-0.01	924	8.31	57.6	3-13-19 22:15					3-13-19 22:15	-0.09	1865	7.82	2.7	8-11-19 15:45	16.17	1717	4.75	8.5	6-13-19 14:30	19.34	1513	8.38	8.7					
3-13-19 23:00	-0.01	924	8.31	56.4	3-13-19 22:30					3-13-19 22:30	-0.09	1865	7.82	2.6	8-11-19 16:00	16.18	1718	4.74	8.5	6-13-19 14:45	19.36	1513	8.38	8.6					
3-13-19 23:15	-0.03	925	8.31	54.8	3-13-19 22:45					3-13-19 22:45	-0.09	1864	7.82	2.6	8-11-19 16:15	16.18	1719	4.55	8.5	6-13-19 15:00	19.35	1512	8.38	8.7					
3-13-19 23:30	-0.03	921	8.31	50.9	3-13-19 23:00					3-13-19 23:00	-0.09	1864	7.82	2.7	8-11-19 16:30	16.20	1719	5.08	8.5	6-13-19 15:15	19.39	1513	8.38	9.3					
3-13-19 23:45	-0.03	920	8.31	48.5	3-13-19 23:15					3-13-19 23:15	-0.09	1867	7.82	2.4	8-11-19 16:45	16.21	1718	4.62	8.5	6-13-19 15:30	19.54	1513	8.38	9.6					
3-14-19 0:00	-0.03	919	8.31	46.7	3-13-19 23:30					3-13-19 23:30	-0.09	1867	7.82	2.4	8-11-19 17:00	16.23	1719	4.63	8.5	6-13-19 15:45	19.49	1513	8.38	9.4					
3-14-19 0:15	-0.03	918	8.31	44.6	3-13-19 23:45					3-13-19 23:45	-0.09	1867	7.82	2.7	8-11-19 17:15	16.22	1719	4.71	8.5	6-13-19 16:00	19.47	1512	8.38	10.8					
3-14-19 0:30	-0.03	919	8.31	43.2	3-14-19 0:00	0.01	354	8.12	65.5	3-14-19 0:00	-0.09	1867	7.83	2.7	8-11-19 17:30	16.24	1719	5.01	8.5	6-13-19 16:15	19.47	1513	8.37	9.5					
3-14-19 0:45	-0.03	917	8.31	40.9	3-14-19 0:15	0.01	354	8.10	67.7	3-14-19 0:15	-0.09	1865	7.82	2.8	8-11-19 17:45	16.28	1718	4.93	8.5	6-13-19 16:30	19.58	1512	8.38	9.4					
3-14-19 1:00	-0.04	911	8.31	39.9	3-14-19 0:30	0.01	354	8.09	65.0	3-14-19 0:30	-0.09	1865	7.82	2.8	8-11-19 18:00	16.33	1720	4.42	8.5	6-13-19 16:45	19.59	1513	8.37	9.7					
3-14-19 1:15	-0.04	916	8.31	37.3	3-14-19 0:45					3-14-19 0:45	-0.09	1864	7.82	2.6	8-11-19 18:15	16.41	1720	4.46	8.5	6-13-19 17:00	19.69	1511	8.37	10.8					
3-14-19 1:30	-0.04	912	8.31	36.2	3-14-19 1:00					3-14-19 1:00	-0.09	1865	7.82	2.7	8-11-19 18:30	16.48	1718	4.45	8.5	6-13-19 17:15	19.77	1512	8.36	10.3					
3-14-19 1:45	-0.04	911	8.31	35.2	3-14-19 1:15					3-14-19 1:15	-0.09	1865	7.83	2.6	8-11-19 18:45	16.60	1720	4.41	8.5	6-13-19 17:30	19.73	1512	8.37	10.2					
3-14-19 2:00	-0.04	911	8.31	33.9	3-14-19 1:30	0.01	354	8.12	65.7	3-14-19 1:30	-0.09	1865	7.82	2.7	8-11-19 19:00	16.73	1719	4.40	8.5	6-13-19 17:45	19.84	1512	8.36	10.9					
3-14-19 2:15	-0.04	909	8.31	33.4	3-14-19 1:45					3-14-19 1:45	-0.09	1865	7.83	2.5	8-11-19 19:15	16.88	1720	4.73	8.5	6-13-19 18:00	19.92	1512	8.36	11.0					
3-14-19 2:30	-0.04	908	8.31	32.0	3-14-19 2:00					3-14-19 2:00	-0.09	1865	7.83	2.8	8-11-19 19:30	17.05	1720	4.52	8.5	6-13-19 18:15	19.96	1512	8.35	11.0					
3-14-19 2:45	-0.05	909	8.31	29.3	3-14-19 2:15					3-14-19 2:15	-0.09	1865	7.82	2.6	8-11-19 19:45	17.31	1719	4.78	8.5	6-13-19 18:30	20.08	1511	8.35	12.0					
3-14-19 3:00	-0.04	906	8.31	28.7	3-14-19 2:30					3-14-19 2:30	-0.09	1865	7.82	2.6	8-11-19 20:00	17.51	1719	4.45	8.5	6-13-19 18:45	20.30	1512	8.35	11.5					
3-14-19 3:15	-0.04	905	8.31	28.3	3-14-19 2:45					3-14-19 2:45	-0.09	1865	7.82	2.8	8-11-19 20:15	17.70	1718	4.65	8.5	6-13-19 19:00	20.38	1511	8.35	12.4					
3-14-19 3:30	-0.04	904	8.31	27.3	3-14-19 3:00	0.01	355	8.12	64.9	3-14-19 3:00	-0.09	1865	7.82	2.8	8-11-19 20:30	17.79	1719	4.47	8.5	6-13-19 19:15	20.29	1512	8.35	13.2					
3-14-19 3:45	-0.04	901	8.31	26.3	3-14-19 3:15					3-14-19 3:15	-0.09	1865	7.82	2.3	8-11-19 20:45	17.95	1719	4.35	8.5	6-13-19 19:30	19.95	1510	8.36	14.0					
3-14-19 4:00	-0.04	901	8.31	24.9	3-14-19 3:30	0.01	354	8.12	66.5	3-14-19 3:30	-0.09	1865	7.82	2.5	8-11-19 21:00	18.04	1719	4.41	8.5	6-13-19 19:45	19.89	1514	8.36	9.0					
3-14-19 4:15	-0.04	898	8.31	24.1	3-14-19 3:45					3-14-19 3:45	-0.09	1865	7.82	2.5	8-11-19 21:15	18.09	1717	4.53	8.5	6-13-19 20:00	19.95	1514	8.36	9.4					
3-14-19 4:30	-0.05	899	8.31	23.2	3-14-19 4:00	0.01	355	8.13	64.6	3-14-19 4:00	-0.09	1865	7.82	2.4	8-11-19 21:30	18.17	1717	4.27	8.5	6-13-19 20:15	20.08	1516	8.35	10.9					
3-14-19 4:45	-0.05	896	8.31	22.0	3-14-19 4:15					3-14-19 4:15	-0.09	1865	7.82	2.5	8-11-19 21:45	18.18	1716	5.05	8.5	6-13-19 20:45	20.30	1514	8.35	10.3					
3-14-19 5:00	-0.05	894	8.31	21.5	3-14-19 4:30					3-14-19 4:30	-0.09	1866	7.82	2.5	8-11-19 22:00	18.02	1717	5.69	8.6	6-13-19 21:00	20.27	1513	8.36	10.9					
3-14-19 5:15	-0.05	892	8.31	21.2	3-14-19 4:45					3-14-19 4:45	-0.09	1866	7.82	2.4	8-11-19 22:15	17.98	1714	5.27	8.6	6-13-19 21:15	20.33	1513	8.36	11.5					
3-14-19 5:30	-0.05	891	8.31	20.1	3-14-19 5:00					3-14-19 5:00	-0.09	1866	7.82	2.5	8-11-19 22:30	17.95	1716	5.04	8.6	6-13-19 21:30	20.41	1512	8.36	11.0					
3-14-19 5:45	-0.05	889	8.31	19.4	3-14-19 5:15					3-14-19 5:15	-0.09	1866	7.82	2.3	8-11-19 22:45	17.98	1718	4.65	8.6	6-13-19 21:45	20.50	1513	8.35	10.5					
3-14-19 6:00	-0.05	889	8.31	19.1	3-14-19 5:30					3-14-19 5:30	-0.09	1866	7.82	2.4	8-11-19 23:00	18.07	1716	4.53	8.6	6-13-19 22:00	20.41	1512	8.35	11.1					
3-14-19 6:15	-0.05	888	8.31	18.4	3-14-19 5:45					3-14-19 5:45	-0.09	1866	7.82	2.4	8-11-19 23:15	18.12	1717	4.37	8.6	6-13-19 22:15	20.35	1515	8.35	11.0					
3-14-19 6:30	-0.05	888	8.30	18.0	3-14-19 6:00					3-14-19 6:00	-0.09	1866	7.82	2.3	8-11-19 23:30	18.19	1716	4.34	8.6	6-13-19 22:30	20.36	1514	8.36	10.0					
3-14-19 6:45	-0.05	882	8.30	17.3	3-14-19 6:15	0.01	356	8.13	64.8	3-14-19 6:15	-0.09	1866	7.82	2.5	8-11-19 23:45	18.35	1718	5.00	8.6	6-13-19 22:45	20.32	1514	8.35	11.3					
3-14-19 7:00	-0.05	884	8.30	17.3	3-14-19 6:30					3-14-19 6:30	-0.09	1867	7.82	2.5	8-12-19 0:00	18.80	1717	4.07	8.6	6-13-19 23:00	20.30	1513	8.35	11.9					
3-14-19 7:15	-0.05	882	8.30	17.2	3-14-19 6:45					3-14-19 6:45	-0.09	1867	7.82	2.4	8-12-19 0:15	19.21	1719	3.71	8.5	6-13-19 23:15	20.49	1515	8.35	10.0					
3-14-19 7:30	-0.05	881	8.29	16.6	3-14-19 7:00					3-14-19 7:00	-0.09	1867	7.82	2.3	8-12-19 0:30	19.39	1716	3.72	8.5	6-13-19 23:30	20.62	1513	8.35	10.0					
3-14-19 7:45	-0.05	880	8.29	15.2	3-14-19 7:15	0.01	355	8.15	65.0	3-14-19 7:15	-0.09	1866	7.83	2.3	8-12-19 0:45	19.54	1718	3.62	8.5	6-13-19 23:45	20.71	1515	8.35	10.8					
3-14-19 8:00	-0.05	878	8.29	14.9	3-14-19 7:30					3-14-19 7:30	-0.09	1866	7.82	2.3	8-12-19 1:00	19.37	1715	3.71	8.5	6-14-19 0:00	20.82	1514	8.36	11.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-14-19 8:15	-0.05	875	8.29	14.5	3-14-19 7:45	0.01	355	8.17	62.4	3-14-19 7:45	-0.09	1867	7.82	2.2	8-12-19 1:15	19.53	1715	3.52	8.5	6-14-19 0:15	20.95	1515	8.35	11.6					
3-14-19 8:30	-0.05	874	8.29	15.1	3-14-19 8:00	0.01	356	8.16	62.6	3-14-19 8:00	-0.09	1866	7.82	2.2	8-12-19 1:30	19.55	1714	4.09	8.5	6-14-19 0:30	20.98	1514	8.36	11.5					
3-14-19 8:45	-0.04	874	8.28	14.8	3-14-19 8:15	0.01	356	8.16	62.3	3-14-19 8:15	-0.09	1867	7.82	2.5	8-12-19 1:45	19.08	1713	4.55	8.6	6-14-19 0:45	21.04	1499	8.36	10.9					
3-14-19 9:00	-0.05	870	8.28	14.0	3-14-19 8:30					3-14-19 8:30	-0.09	1867	7.82	2.4	8-12-19 2:00	18.94	1713	4.38	8.6	6-14-19 1:00	21.00	1514	8.36	11.6					
3-14-19 9:15	-0.04	869	8.28	14.7	3-14-19 8:45	0.01	356	8.15	59.7	3-14-19 8:45	-0.08	1867	7.82	2.4	8-12-19 2:15	18.75	1711	4.45	8.6	6-14-19 1:15	21.02	1515	8.36	10.1					
3-14-19 9:30	-0.04	865	8.27	13.8	3-14-19 9:00	0.01	357	8.13	62.8	3-14-19 9:00	-0.08	1868	7.82	2.4	8-12-19 2:30	18.59	1712	5.37	8.6	6-14-19 1:30	21.08	1516	8.36	10.0					
3-14-19 9:45	0.06	0	7.95	0.0	3-14-19 9:15	0.01	356	8.13	63.4	3-14-19 9:15	-0.08	1868	7.83	1.1	8-12-19 2:45	18.87	1715	8.60	8.6	6-14-19 1:45	21.10	1516	8.36	10.9					
3-14-19 10:00	1.09	0	9.04	0.9	3-14-19 9:30	0.01	357	8.13	63.8	3-14-19 9:30	-0.08	1868	7.83	0.9	8-12-19 3:00	19.72	1718	3.14	8.5	6-14-19 2:00	21.12	1515	8.36	10.3					
3-14-19 10:15					3-14-19 9:45	0.01	357	8.13	63.6	3-14-19 9:45	-0.07	1868	7.83	0.8	8-12-19 3:15	20.30	1729	3.16	8.5	6-14-19 2:15	21.08	1516	8.35	9.9					
3-14-19 10:30					3-14-19 10:00	0.01	357	8.13	63.2	3-14-19 10:00	-0.07	1868	7.83	0.8	8-12-19 3:30	20.28	1729	2.81	8.5	6-14-19 2:30	21.10	1516	8.36	9.5					
3-14-19 10:45					3-14-19 10:15					3-14-19 10:15	-0.07	1868	7.82	2.4	8-12-19 3:45	20.20	1729	2.77	8.5	6-14-19 2:45	21.12	1516	8.36	10.6					
3-14-19 11:00					3-14-19 10:30	0.01	358	8.14	60.6	3-14-19 10:30	-0.08	1868	7.82	2.4	8-12-19 4:00	20.11	1728	2.50	8.5	6-14-19 3:00	21.12	1516	8.36	9.6					
3-14-19 11:15					3-14-19 10:45					3-14-19 10:45	-0.08	1868	7.82	2.4	8-12-19 4:15	20.00	1728	2.57	8.5	6-14-19 3:15	21.11	1517	8.36	9.6					
3-14-19 11:30					3-14-19 11:00	0.01	358	8.12	61.7	3-14-19 11:00	-0.08	1868	7.82	2.4	8-12-19 4:30	19.88	1729	3.63	8.5	6-14-19 3:30	21.08	1515	8.35	9.3					
3-14-19 11:45					3-14-19 11:15	0.01	358	8.12	59.3	3-14-19 11:15	-0.08	1868	7.82	2.2	8-12-19 4:45	19.75	1727	3.15	8.5	6-14-19 3:45	21.06	1517	8.36	8.4					
3-14-19 12:00					3-14-19 11:30	0.01	358	8.12	58.9	3-14-19 11:30	-0.08	1868	7.82	2.2	8-12-19 5:00	19.61	1728	2.77	8.5	6-14-19 4:00	21.05	1516	8.36	8.6					
3-14-19 12:15					3-14-19 11:45	0.02	359	8.12	60.0	3-14-19 11:45	-0.08	1868	7.82	2.3	8-12-19 5:15	19.52	1728	2.77	8.5	6-14-19 4:15	21.00	1517	8.36	8.1					
3-14-19 12:30					3-14-19 12:00	0.02	359	8.11	58.5	3-14-19 12:00	-0.08	1868	7.82	2.1	8-12-19 5:30	19.43	1728	2.64	8.5	6-14-19 4:30	20.98	1516	8.37	8.3					
3-14-19 12:45	1.98	880	7.51	14.8	3-14-19 12:15	0.02	359	8.11	58.9	3-14-19 12:15	-0.08	1869	7.83	2.4	8-12-19 5:45	19.32	1727	2.72	8.5	6-14-19 4:45	20.95	1516	8.36	9.7					
3-14-19 13:00	0.40	1000	7.90	14.4	3-14-19 12:30	0.02	359	8.11	58.3	3-14-19 12:30	-0.08	1869	7.82	2.4	8-12-19 6:00	19.21	1725	3.21	8.6	6-14-19 5:00	20.92	1515	8.36	8.5					
3-14-19 13:15	0.16	1003	7.91	13.9	3-14-19 12:45					3-14-19 12:45	-0.08	1869	7.82	2.3	8-12-19 6:15	19.12	1727	2.71	8.6	6-14-19 5:15	20.88	1516	8.37	7.9					
3-14-19 13:30	0.07	1006	7.95	13.9	3-14-19 13:00					3-14-19 13:00	-0.08	1869	7.82	2.3	8-12-19 6:30	19.00	1727	2.50	8.6	6-14-19 5:30	20.82	1515	8.37	8.4					
3-14-19 13:45	0.03	1006	8.02	13.6	3-14-19 13:15					3-14-19 13:15	-0.08	1869	7.82	2.2	8-12-19 6:45	18.93	1725	3.28	8.6	6-14-19 5:45	20.77	1516	8.37	8.0					
3-14-19 14:00	0.01	1008	8.13	14.0	3-14-19 13:30					3-14-19 13:30	-0.08	1869	7.82	2.2	8-12-19 7:00	18.82	1726	2.56	8.6	6-14-19 6:00	20.72	1515	8.37	8.3					
3-14-19 14:15	0.00	1008	8.22	13.7	3-14-19 13:45					3-14-19 13:45	-0.08	1869	7.82	2.2	8-12-19 7:15	18.75	1725	2.80	8.5	6-14-19 6:15	20.61	1516	8.36	7.9					
3-14-19 14:30	-0.01	1008	8.25	13.9	3-14-19 14:00					3-14-19 14:00	-0.08	1869	7.82	2.1	8-12-19 7:30	18.70	1726	2.64	8.5	6-14-19 6:30	20.58	1515	8.37	8.3					
3-14-19 14:45	-0.01	1008	8.26	13.8	3-14-19 14:15					3-14-19 14:15	-0.08	1869	7.82	2.4	8-12-19 7:45	18.61	1726	2.98	8.5	6-14-19 6:45	20.56	1516	8.37	8.9					
3-14-19 15:00	-0.02	1010	8.25	13.9	3-14-19 14:30					3-14-19 14:30	-0.08	1869	7.82	2.5	8-12-19 8:00	18.50	1721	2.66	8.5	6-14-19 7:00	20.51	1515	8.37	8.3					
3-14-19 15:15	-0.02	1008	8.24	13.8	3-14-19 14:45					3-14-19 14:45	-0.08	1869	7.83	2.3	8-12-19 8:15	18.11	1715	4.14	8.6	6-14-19 7:15	20.46	1516	8.37	8.1					
3-14-19 15:30	-0.03	1009	8.24	13.7	3-14-19 15:00					3-14-19 15:00	-0.08	1869	7.83	2.3	8-12-19 8:30	18.00	1716	5.02	8.6	6-14-19 7:30	20.40	1514	8.37	8.3					
3-14-19 15:45	-0.03	1010	8.24	13.6	3-14-19 15:15					3-14-19 15:15	-0.08	1869	7.82	2.2	8-12-19 8:45	17.88	1716	5.61	8.6	6-14-19 7:45	20.35	1515	8.37	7.9					
3-14-19 16:00	-0.04	1010	8.24	13.5	3-14-19 15:30	0.03	402	8.10	51.8	3-14-19 15:30	-0.08	1869	7.82	2.2	8-12-19 9:00	17.80	1719	5.57	8.6	6-14-19 8:00	20.33	1515	8.37	8.1					
3-14-19 16:15	-0.04	1009	8.24	13.8	3-14-19 15:45	0.02	444	8.12	50.4	3-14-19 15:45	-0.08	1869	7.83	2.2	8-12-19 9:15	17.76	1720	5.29	8.6	6-14-19 8:15	20.30	1516	8.36	8.2					
3-14-19 16:30	-0.04	1009	8.23	13.6	3-14-19 16:00					3-14-19 16:00	-0.08	1869	7.83	2.2	8-12-19 9:30	17.66	1719	4.78	8.5	6-14-19 8:30	20.29	1514	8.37	8.6					
3-14-19 16:45	-0.04	1009	8.23	13.5	3-14-19 16:15	0.03	499	8.24	24.9	3-14-19 16:15	-0.08	1869	7.82	2.3	8-12-19 9:45	17.60	1721	4.50	8.5	6-14-19 8:45	20.25	1516	8.37	7.6					
3-14-19 17:00	-0.04	1010	8.23	13.7	3-14-19 16:30	0.02	531	8.33	22.8	3-14-19 16:30	-0.07	1870	7.82	2.3	8-12-19 10:00	17.56	1720	4.68	8.6	6-14-19 9:00	20.22	1514	8.37	8.5					
3-14-19 17:15	-0.04	1010	8.23	13.9	3-14-19 16:45	0.03	545	8.40	20.0	3-14-19 16:45	-0.08	1870	7.82	2.2	8-12-19 10:15	17.50	1719	4.43	8.6	6-14-19 9:15	20.17	1515	8.37	7.7					
3-14-19 17:30	-0.04	1009	8.23	13.9	3-14-19 17:00	0.03	556	8.42	18.5	3-14-19 17:00	-0.11	1873	7.83	3.3	8-12-19 10:30	17.45	1720	3.86	8.6	6-14-19 9:30	20.13	1514	8.37	8.9					
3-14-19 17:45	-0.04	1009	8.22	13.7	3-14-19 17:15	0.02	561	8.45	18.2	3-14-19 17:15	-0.09	1870	7.84	2.0	8-12-19 10:45	17.45	1720	3.71	8.6	6-14-19 9:45	20.12	1515	8.37	8.6					
3-14-19 18:00	-0.04	1008	8.22	14.0	3-14-19 17:30					3-14-19 17:30	-0.08	1869	7.84	1.3	8-12-19 11:00	17.41	1721	3.32	8.6	6-14-19 10:00	20.05	1514	8.37	8.9					
3-14-19 18:15	-0.04	1009	8.18	13.2	3-14-19 17:45					3-14-19 17:45	-0.08	1868	7.83	1.3	8-12-19 11:15	17.35	1721	3.90	8.5	6-14-19 10:15	19.97	1515	8.36	7.4					
3-14-19 18:30	-0.04	1007	8.22	13.4	3-14-19 18:00	0.02	580	8.52	15.1	3-14-19 18:00	-0.07	1868	7.83	1.4	8-12-19 11:30	17.30	1721	3.23	8.6	6-14-19 10:30	19.97	1514	8.37	9.5					
3-14-19 18:45	-0.04	1008	8.22	13.1	3-14-19 18:15	0.02	583	8.54	15.7	3-14-19 18:15	-0.07	1868	7.83	2.9	8-12-19 11:45	17.24	1719	3.48	8.6	6-14-19 10:45	19.92	1515	8.37	7.4					
3-14-19 19:00	-0.04	1007	8.22	13.0	3-14-19 18:30					3-14-19 18:30	-0.08	1868	7.82	2.8	8-12-19 12:00	17.20	1720	3.94	8.6	6-14-19 11:00	19.88	1514	8.37	7.4					
3-14-19 19:15	-0.04	1007	8.22	11.8	3-14-19 18:45					3-14-19 18:45	-0.08	1869	7.82	2.9	8-12-19 12:15	17.13	1719	3.87	8.6	6-14-19 11:15	19.87	1516	8.37	7.5					
3-14-19 19:30	-0.04	1007	8.22	12.2	3-14-19 19:00					3-14-19 19:00	-0.08	1868	7.82	2.9	8-12-19 12:30	17.09	1718	3.48	8.6	6-14-19 11:30	19.88	1514	8.37	7.7					
3-14-19 19:45	-0.04	1007	8.22	13.7	3-14-19 19:15					3-14-19 19:15	-0.08	1868	7.83	1.4	8-12-19 12:45	17.06	1720	3.48	8.5	6-14-19 11:45	19.85	1515	8.37	8.5					
3-14-19 20:00	-0.04	1006	8.22	12.5	3-14-19 19:30					3-14-19 19:30	-0.07	1868	7.82	1.2	8-12-19 13:00	17.00	1720	3.23	8.5	6-14-19 12:00	19.82	1514	8.37	8.0					
3-14-19 20:15	-0.04	1007	8.21	11.4	3-14-19 19:45					3-14-19 19:45	-0.07	1868	7.82	1.1	8-12-19 13:15	16.98	1721	4.26	8.5	6-14-19 12:15	19.75	1515	8.36	7.6					
3-14-19 20:30	-0.04	1006	8.21	12.1	3-14-19 20:00	0.01	585	8.53	15.3	3-14-19 20:00	-0.07	1868	7.82	1.2	8-12-19 13:30	16.93	1720	4.16	8.5	6-14-19 12:30	19.75	1514	8.37	7.5					
3-14-19 20:45	-0.04	1006	8.21	12.1	3-14-19 20:15					3-14-19 20:15	-0.07	1866	7.81	3.1	8-12-19 13:45	16.90	1720	3.59	8.5	6-14-19 12:45	19.71	1515	8.37	7.9					
3-14-19 21:00	-0.04	1006	8.21	11.2	3-14-19 20:30	0.01	584	8.57	20.0	3-14-19 20:30	-0.08	1867	7.82	3.0	8-12-19 14:00	16.89	1721	3.51	8.5	6-14-19 13:00	19.68	1514	8.37	7.4					
3-14-19 21:15	-0.04	1005	8.21	11.2	3-14-19 20:45					3-14-19 20:45	-0.08	1866	7.82	3.2	8-12-19 14:15	16.87	1721	3.75	8.5	6-14-19 13:15	19.66	1515	8.37	7.6					
3-14-19 21:30	-0.04	1005	8.21	11.3	3-14-19 21:00					3-14-19 21:00	-0.08	1866	7.82	3.1						6-14-19 13:30	19.65	1514	8.37	9.6					
3-14-19 21:45	-0.04	1004	8.21	11.1	3-14-19 21:15					3-14-19 21:15	-0.08	1867	7.83	1.5						6-14-19 13:45	19.64	1515	8.37	7.8					
3-14-19 22:00	-0.04	1005	8.21	9.8	3-14-19 21:30					3-14-19 21:30	-0.08	1867	7.83	1.3						6-14-19 14:00	19.66	1514	8.37	9.2					
3-14-19 22:15	-0.04	1006	8.21	8.4	3-14-19 21:45					3-14-19 21:45	-0.07	1867	7.82	1.1						6-14-19 14:15	19.60	1516	8.36	8.2					
3-14-19 22:30	-0.04	1005	8.21	8.5	3-14-19 22:00					3-14-19 22:00	-0.07	1867	7.82	1.0						6-14-19 14:30	19.61	1514	8.37	8.0					
3-14-19 22:45	-0.04	1004	8.21	8.9	3-14-19 22:15					3-14-19 22:15										6-14-19 14:45	19.60	1515	8.37	8.0					
3-14-19 23:00	-0.05	1002	8.21	8.6	3-14-19 22:30	0.01	575	8.51	17.3	3-14-19 22:30	-0.08	1868	7.82	2.9						6-14-19 15:00	19.58	1514	8.37	10.7					
3-14-19 23:15	-0.04	1002	8.21	8.3	3-14-19 22:45	0.01	574	8.54	17.3	3-14-19 22:45	-0.08	1868	7.82	2.8						6-14-19 15:15	19.59	1515	8.37	8.1					
3-14-19 23:30	-0.04	1000	8.21	8.6	3-14-19 23:00	0.01	574	8.59	16.8	3-14-19 23:00	-0.08	1867	7.82	2.8						6-14-19 15:30	19.61	1514	8.38	9.8					
3-14-19 23:45	-0.04	1000	8.21	8.0	3-14-19 23:15					3-14-19 23:15	-0.09	1868	7.82	2.6						6-14-19 15:45	19.69	1515	8.37	9.7					
3-15-19 0:00	-0.05	997	8.21	9.4	3-14-19 23:30	0.01	573	8.66	14.7	3-14-19 23:30	-0.08	1868	7.82	2.5						6-14-19 16:00	19.78	1514	8.36	9.0					
3-15-19 0:15	-0.04	997	8.21	9.6	3-14-19 23:45	0.01	573	8.69	14.2	3-14-19 23:45	-0.09	1868	7.82	2.5						6-14-19 16:15	19.70	1515	8.35	9.2					
3-15-19 0:30	-0.04	992	8.22	13.8	3-15-19 0:00	0.01	575	8.75	13.9	3-15-19 0:00	-0.09	1868	7.82	2.4						6-14-19 16:30	19.68	1513	8.36	9.1					
3-15-19 0:45	-0.04	987	8.22	18.0	3-15-19 0:15	0.01	571	8.71	18.3	3-15-19 0:15										6-14-19 16:45	19.67	1515	8.36	9.0					
3-15-19 1:00	-0.01	963	8.23	45.1	3-15-19 0:30	0.01	569	8.69	14.8	3-15-19 0:30	-0.08	1868	7.82	2.7						6-14-19 17:00	19.69	1514	8.35	9.9					
3-15-19 1:15	0.00	952	8.23	64.2	3-15-19 0:45	0.01	569	8.70	18.2	3-15-19 0:45	-0.08	1868	7.82	2.7						6-14-19 17:15	19.68	1515	8.36	9.4					
3-15-19 1:30	-0.02	953	8.22	45.7	3-15-19 1:00	0.01	569	8.70	18.7	3-15-19 1:00	-0.08	1868	7.82	2.7						6-14-19 17:30	19.81	1515	8.37	9.6					
3-15-19 1:45	-0.02	948	8.21	48.9	3-15-19 1:15	0.01	567	8.68	20.3	3-15-19 1:15	-0.08	1869	7.83	1.4						6-14-19 17:45	19.91	1515	8.36	9.4					
3-15-19 2:00	-0.02	941	8.22	52.7	3-15-19 1:30	0.01	565	8.68	19.1	3-15-19 1:30	-0.07	1869	7.83	1.1						6-14-19 18:00	20.04	1515	8.36	9.2					
3-15-19 2:15	-0.01	934	8.21	67.4	3-15-19 1:45	0.01	564	8.69	14.3	3-15-19 1:45	-0.07	1869	7.83	0.9						6-14-19 18:15	20.11	1516	8.35	8.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-15-19 2:30	-0.01	928	8.21	65.8	3-15-19 2:00	0.01	559	8.68	19.1	3-15-19 2:00	-0.06	1869	7.83	0.8						6-14-19 18:30	20.16	1517	8.36	8.8					
3-15-19 2:45	-0.01	922	8.20	72.7	3-15-19 2:15	0.01	550	8.63	23.1	3-15-19 2:15	-0.07	1868	7.82	2.7						6-14-19 18:45	20.08	1516	8.36	10.9					
3-15-19 3:00	0.00	918	8.20	70.4	3-15-19 2:30	0.01	546	8.63	24.3	3-15-19 2:30	-0.07	1868	7.82	2.8						6-14-19 19:00	20.17	1516	8.36	9.2					
3-15-19 3:15	0.01	911	8.19	72.4	3-15-19 2:45	0.01	538	8.55	26.5	3-15-19 2:45	-0.07	1868	7.82	2.8						6-14-19 19:15	20.34	1518	8.35	8.9					
3-15-19 3:30	0.00	912	8.20	70.9	3-15-19 3:00	0.01	533	8.51	27.7	3-15-19 3:00	-0.07	1868	7.82	2.7						6-14-19 19:30	20.39	1516	8.35	9.0					
3-15-19 3:45	0.00	908	8.20	69.9	3-15-19 3:15	0.01	530	8.49	29.6	3-15-19 3:15	-0.07	1868	7.83	1.2						6-14-19 19:45	20.40	1517	8.35	9.6					
3-15-19 4:00	0.00	904	8.20	77.1	3-15-19 3:30	0.01	526	8.47	32.5	3-15-19 3:30	-0.06	1868	7.83	1.0						6-14-19 20:00	20.34	1516	8.36	11.3					
3-15-19 4:15	-0.01	905	8.19	64.9	3-15-19 3:45	0.01	514	8.41	33.3	3-15-19 3:45	-0.06	1868	7.83	1.0						6-14-19 20:15	20.42	1519	8.35	10.7					
3-15-19 4:30	-0.02	902	8.20	64.3	3-15-19 4:00	0.01	502	8.37	37.2	3-15-19 4:00	-0.06	1868	7.83	0.9						6-14-19 20:30	20.56	1518	8.36	9.8					
3-15-19 4:45	-0.02	898	8.20	66.6	3-15-19 4:15	0.01	491	8.36	38.3	3-15-19 4:15	-0.06	1868	7.82	2.7						6-14-19 20:45	20.66	1519	8.35	10.2					
3-15-19 5:00	-0.02	897	8.19	67.6	3-15-19 4:30					3-15-19 4:30	-0.06	1868	7.82	2.7						6-14-19 21:00	20.66	1518	8.35	9.8					
3-15-19 5:15	-0.02	893	8.20	70.9	3-15-19 4:45	0.01	483	8.31	34.9	3-15-19 4:45	-0.06	1868	7.82	2.7						6-14-19 21:15	20.83	1518	8.35	9.9					
3-15-19 5:30	-0.02	891	8.19	70.0	3-15-19 5:00	0.01	483	8.33	33.0	3-15-19 5:00	-0.07	1868	7.82	2.7						6-14-19 21:30	20.70	1518	8.35	10.5					
3-15-19 5:45	-0.02	888	8.19	67.9	3-15-19 5:15	0.01	483	8.36	34.1	3-15-19 5:15	-0.07	1869	7.82	2.5						6-14-19 21:45	20.61	1517	8.34	10.3					
3-15-19 6:00	-0.02	890	8.19	61.2	3-15-19 5:30	0.01	483	8.41	33.9	3-15-19 5:30	-0.07	1869	7.82	2.6						6-14-19 22:00	20.58	1518	8.35	9.9					
3-15-19 6:15	-0.02	889	8.20	60.7	3-15-19 5:45	0.01	484	8.44	33.5	3-15-19 5:45	-0.07	1869	7.82	2.5						6-14-19 22:15	20.58	1519	8.35	9.8					
3-15-19 6:30	-0.03	888	8.19	56.6	3-15-19 6:00	0.01	484	8.45	33.3	3-15-19 6:00	-0.07	1868	7.82	2.5						6-14-19 22:30	20.61	1518	8.36	9.7					
3-15-19 6:45	-0.03	886	8.19	55.4	3-15-19 6:15	0.01	483	8.45	33.2	3-15-19 6:15	-0.07	1869	7.82	2.7						6-14-19 22:45	20.65	1519	8.36	10.0					
3-15-19 7:00	-0.03	887	8.20	50.1	3-15-19 6:30	0.01	483	8.45	33.1	3-15-19 6:30	-0.07	1869	7.82	2.6						6-14-19 23:00	20.74	1519	8.36	10.5					
3-15-19 7:15	-0.03	885	8.19	48.8	3-15-19 6:45	0.01	482	8.45	33.1	3-15-19 6:45	-0.07	1869	7.82	2.6						6-14-19 23:15	20.89	1521	8.36	9.8					
3-15-19 7:30	-0.03	884	8.19	48.3	3-15-19 7:00	0.01	482	8.45	32.7	3-15-19 7:00	-0.07	1869	7.82	2.6						6-14-19 23:30	21.11	1520	8.36	10.5					
3-15-19 7:45	-0.03	883	8.19	46.8	3-15-19 7:15	0.01	481	8.42	33.5	3-15-19 7:15	-0.07	1870	7.83	0.9						6-14-19 23:45	21.29	1521	8.36	10.5					
3-15-19 8:00	-0.04	883	8.19	43.0	3-15-19 7:30	0.01	481	8.42	33.8	3-15-19 7:30	-0.06	1870	7.83	0.9						6-15-19 0:00	21.50	1521	8.36	10.8					
3-15-19 8:15	-0.04	882	8.19	41.1	3-15-19 7:45	0.01	481	8.43	33.5	3-15-19 7:45	-0.05	1870	7.83	0.9						6-15-19 0:15	21.51	1516	8.34	10.7					
3-15-19 8:30	-0.04	882	8.20	38.4	3-15-19 8:00	0.01	481	8.42	33.5	3-15-19 8:00	-0.05	1870	7.83	0.8						6-15-19 0:30	21.58	1521	8.35	10.8					
3-15-19 8:45	-0.04	882	8.20	38.8	3-15-19 8:15	0.01	480	8.41	33.4	3-15-19 8:15	-0.05	1869	7.82	2.7						6-15-19 0:45	21.55	1521	8.34	11.0					
3-15-19 9:00	-0.04	882	8.20	38.6	3-15-19 8:30	0.01	479	8.40	34.0	3-15-19 8:30	-0.06	1869	7.82	2.8						6-15-19 1:00	21.50	1521	8.36	10.9					
3-15-19 9:15	-0.04	882	8.20	37.4	3-15-19 8:45	0.01	480	8.39	33.4	3-15-19 8:45	-0.06	1868	7.82	3.0						6-15-19 1:15	21.56	1521	8.35	11.0					
3-15-19 9:30	-0.04	881	8.20	37.1	3-15-19 9:00	0.01	479	8.40	33.8	3-15-19 9:00	-0.07	1868	7.82	3.7						6-15-19 1:30	21.50	1519	8.35	11.0					
3-15-19 9:45	-0.04	880	8.20	36.3	3-15-19 9:15	0.01	478	8.40	34.6	3-15-19 9:15	-0.06	1868	7.82	2.5						6-15-19 1:45	21.37	1519	8.35	10.8					
3-15-19 10:00	-0.04	878	8.20	34.8	3-15-19 9:30	0.01	477	8.39	34.3	3-15-19 9:30	-0.05	1867	7.82	2.0						6-15-19 2:00	21.30	1520	8.35	10.0					
3-15-19 10:15	-0.04	878	8.19	34.4	3-15-19 9:45	0.01	477	8.38	34.7	3-15-19 9:45	-0.04	1867	7.82	1.9						6-15-19 2:15	21.15	1518	8.34	10.1					
3-15-19 10:30	-0.04	876	8.19	33.4	3-15-19 10:00	0.01	476	8.37	34.7	3-15-19 10:00	-0.04	1866	7.82	2.1						6-15-19 2:30	21.07	1517	8.36	9.7					
3-15-19 10:45	-0.04	878	8.19	33.2	3-15-19 10:15	0.02	475	8.36	34.9	3-15-19 10:15	-0.05	1865	7.81	4.7						6-15-19 2:45	21.04	1519	8.35	10.1					
3-15-19 11:00	-0.04	877	8.19	32.5	3-15-19 10:30					3-15-19 10:30	-0.05	1865	7.81	4.6						6-15-19 3:00	21.01	1517	8.34	11.3					
3-15-19 11:15	-0.04	877	8.19	32.0	3-15-19 10:45					3-15-19 10:45	-0.06	1864	7.81	4.7						6-15-19 3:15	20.95	1518	8.35	9.8					
3-15-19 11:30	-0.04	875	8.20	32.2	3-15-19 11:00					3-15-19 11:00	-0.07	1865	7.81	4.7						6-15-19 3:30	20.90	1518	8.35	9.5					
3-15-19 11:45	-0.04	876	8.20	33.1	3-15-19 11:15	0.00	332	8.04	57.8	3-15-19 11:15	-0.06	1865	7.81	4.9						6-15-19 3:45	20.87	1519	8.36	8.9					
3-15-19 12:00	-0.04	876	8.19	30.3	3-15-19 11:30	0.01	331	8.03	58.1	3-15-19 11:30	-0.06	1864	7.81	4.5						6-15-19 4:00	20.85	1519	8.37	9.2					
3-15-19 12:15	-0.03	875	8.19	30.8	3-15-19 11:45					3-15-19 11:45	-0.10	1868	7.83	7.3						6-15-19 4:15	20.80	1521	8.36	9.5					
3-15-19 12:30	-0.01	876	8.20	28.8	3-15-19 12:00					3-15-19 12:00	-0.09	1867	7.83	7.3						6-15-19 4:30	20.83	1518	8.37	9.2					
3-15-19 12:45	0.00	692	9.00	138.1	3-15-19 12:15					3-15-19 12:15	-0.09	1867	7.82	6.9						6-15-19 4:45	20.81	1521	8.37	10.1					
3-15-19 13:15	-0.02	714	9.01	136.0	3-15-19 12:30					3-15-19 12:30	-0.08	1867	7.82	6.1						6-15-19 5:00	20.78	1519	8.36	10.8					
3-15-19 13:30	-0.01	723	9.02	140.2	3-15-19 12:45					3-15-19 12:45	-0.09	1867	7.82	5.4						6-15-19 5:15	20.74	1520	8.36	9.4					
3-15-19 13:45	0.01	721	9.01	145.6	3-15-19 13:00					3-15-19 13:00	-0.08	1866	7.82	5.6						6-15-19 5:30	20.72	1519	8.36	9.1					
3-15-19 14:00	0.01	739	9.01	152.2	3-15-19 13:15					3-15-19 13:15	-0.09	1866	7.82	5.3						6-15-19 5:45	20.70	1520	8.36	9.4					
3-15-19 14:15	0.03	733	9.01	165.0	3-15-19 13:30					3-15-19 13:30	-0.08	1865	7.82	5.0						6-15-19 6:00	20.66	1519	8.36	9.2					
3-15-19 14:30	0.02	751	9.03	156.1	3-15-19 13:45					3-15-19 13:45	-0.08	1866	7.82	4.9						6-15-19 6:15	20.61	1521	8.36	9.5					
3-15-19 14:45	0.03	795	9.06	156.0	3-15-19 14:00					3-15-19 14:00	-0.08	1866	7.82	5.1						6-15-19 6:30	20.62	1520	8.36	9.4					
3-15-19 15:00	0.02	816	9.07	142.7	3-15-19 14:15					3-15-19 14:15	-0.08	1866	7.82	5.1						6-15-19 6:45	20.56	1520	8.36	9.1					
3-15-19 15:15	0.01	834	9.08	145.7	3-15-19 14:30					3-15-19 14:30	-0.09	1866	7.82	5.8						6-15-19 7:00	20.51	1519	8.36	9.2					
3-15-19 15:30	0.01	863	9.11	138.2	3-15-19 14:45					3-15-19 14:45	-0.09	1866	7.82	5.4						6-15-19 7:15	20.45	1520	8.36	8.8					
3-15-19 15:45	0.01	935	9.17	117.7	3-15-19 15:00					3-15-19 15:00	-0.10	1867	7.82	5.3						6-15-19 7:30	20.40	1519	8.37	8.6					
3-15-19 16:00	-0.01	981	9.20	115.4	3-15-19 15:15					3-15-19 15:15	-0.09	1866	7.82	4.8						6-15-19 7:45	20.38	1520	8.37	8.6					
3-15-19 16:15	-0.02	1045	9.23	104.7	3-15-19 15:30					3-15-19 15:30	-0.09	1866	7.82	5.0						6-15-19 8:00	20.36	1519	8.37	8.8					
3-15-19 16:30	-0.01	1103	9.26	98.0	3-15-19 15:45					3-15-19 15:45	-0.09	1866	7.82	5.1						6-15-19 8:15	20.33	1521	8.36	8.7					
3-15-19 16:45	-0.03	1149	9.29	86.0	3-15-19 16:00					3-15-19 16:00	-0.08	1866	7.82	4.8						6-15-19 8:30	20.30	1519	8.37	10.3					
3-15-19 17:00	-0.03	1189	9.30	82.8	3-15-19 16:15					3-15-19 16:15	-0.09	1866	7.82	4.6						6-15-19 8:45	20.23	1520	8.36	8.8					
3-15-19 17:15	-0.03	1233	9.32	72.1	3-15-19 16:30					3-15-19 16:30	-0.08	1688	7.86	23.6						6-15-19 9:00	20.18	1518	8.37	8.5					
3-15-19 17:30	-0.03	1252	9.32	70.6	3-15-19 16:45					3-15-19 16:45	-0.04	1508	7.91	72.1						6-15-19 9:15	20.12	1520	8.37	8.3					
3-15-19 17:45	-0.03	1286	9.33	64.6	3-15-19 17:00					3-15-19 17:00	0.07	1184	7.92	533.8						6-15-19 9:30	20.10	1518	8.37	9.6					
3-15-19 18:00	-0.04	1298	9.34	59.9	3-15-19 17:15					3-15-19 17:15	0.01	1350	7.92	79.7						6-15-19 9:45	20.09	1520	8.36	9.2					
3-15-19 18:15	-0.04	1322	9.34	59.0	3-15-19 17:30					3-15-19 17:30	0.00	1378	7.91	111.0						6-15-19 10:00	20.03	1519	8.37	8.2					
3-15-19 18:30	-0.04	1330	9.35	54.8	3-15-19 17:45					3-15-19 17:45	-0.01	1370	7.91	135.0						6-15-19 10:15	19.98	1522	8.36	8.4					
3-15-19 18:45	-0.05	1333	9.35	53.5	3-15-19 18:00					3-15-19 18:00	-0.02	1371	7.91	167.4						6-15-19 10:30	19.98	1520	8.37	9.0					
3-15-19 19:00	-0.05	1349	9.35	53.1	3-15-19 18:15					3-15-19 18:15	-0.03	1391	7.90	287.6						6-15-19 10:45	19.91	1520	8.36	8.2					
3-15-19 19:15	-0.05	1353	9.35	51.5	3-15-19 18:30					3-15-19 18:30	-0.04	1386	7.90	325.3						6-15-19 11:00	19.88	1519	8.36	11.0					
3-15-19 19:30	-0.05	1361	9.35	49.7	3-15-19 18:45					3-15-19 18:45	-0.05	1382	7.90	300.2						6-15-19 11:15	19.82	1520	8.36	8.2					
3-15-19 19:45	-0.05	1369	9.35	48.6	3-15-19 19:00					3-15-19 19:00	-0.06	1387	7.90	295.6						6-15-19 11:30	19.79	1519	8.37	8.0					
3-15-19 20:00	-0.05	1381	9.36	47.0	3-15-19 19:15					3-15-19 19:15	-0.06	1379	7.90	243.9						6-15-19 11:45	19.78	1520	8.37	8.4					
3-15-19 20:15	-0.05	1385	9.36	45.1	3-15-19 19:30					3-15-19 19:30	-0.06	1372	7.91	282.9						6-15-19 12:00	19.76	1519	8.37	8.5					
3-15-19 20:30	-0.06	1392	9.36	44.2	3-15-19 19:45					3-15-19 19:45	-0.06	1375	7.91	281.0						6-15-19 12:15	19.71	1520	8.36	8.2					
3-15-19 20:45	-0.05	1400	9.36	42.2	3-15-19 20:00					3-15-19 20:00	-0.06	1375	7.91	284.6						6-15-19 12:30	19.68	1519	8.36	8.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-15-19 21:00	-0.06	1399	9.36	40.8	3-15-19 20:15					3-15-19 20:15	-0.07	1379	7.91	307.0						6-15-19 12:45	19.63	1520	8.36	8.2					
3-15-19 21:15	-0.06	1408	9.36	40.4	3-15-19 20:30					3-15-19 20:30	-0.08	1379	7.91	295.5						6-15-19 13:00	19.62	1518	8.37	8.3					
3-15-19 21:30	-0.06	1409	9.36	39.0	3-15-19 20:45					3-15-19 20:45	-0.08	1381	7.91	289.4						6-15-19 13:15	19.59	1519	8.36	8.4					
3-15-19 21:45	-0.06	1420	9.36	38.6	3-15-19 21:00					3-15-19 21:00	-0.08	1384	7.91	286.7						6-15-19 13:30	19.54	1519	8.36	8.1					
3-15-19 22:00	-0.06	1422	9.36	36.1	3-15-19 21:15					3-15-19 21:15	-0.08	1385	7.91	220.9						6-15-19 13:45	19.52	1520	8.36	8.3					
3-15-19 22:15	-0.06	1427	9.36	36.0	3-15-19 21:30					3-15-19 21:30	-0.08	1386	7.91	234.1						6-15-19 14:00	19.53	1519	8.37	8.9					
3-15-19 22:30	-0.06	1428	9.36	35.0	3-15-19 21:45					3-15-19 21:45	-0.08	1385	7.91	225.5						6-15-19 14:15	19.51	1520	8.36	8.9					
3-15-19 22:45	-0.06	1431	9.36	33.8	3-15-19 22:00					3-15-19 22:00	-0.08	1381	7.91	251.3						6-15-19 14:30	19.49	1518	8.37	9.1					
3-15-19 23:00	-0.06	1436	9.36	33.5	3-15-19 22:15					3-15-19 22:15	-0.08	1382	7.92	150.0						6-15-19 14:45	19.51	1517	8.37	8.9					
3-15-19 23:15	-0.06	1439	9.36	32.5	3-15-19 22:30					3-15-19 22:30	-0.07	1379	7.92	140.4						6-15-19 15:00	19.55	1518	8.37	8.9					
3-15-19 23:30	-0.06	1447	9.36	32.4	3-15-19 22:45					3-15-19 22:45	-0.08	1377	7.92	272.0						6-15-19 15:15	19.60	1519	8.37	25.6					
3-15-19 23:45	-0.06	1447	9.36	32.2	3-15-19 23:00					3-15-19 23:00	-0.08	1383	7.92	172.8						6-15-19 15:30	19.54	1519	8.37	22.5					
3-16-19 0:00	-0.06	1448	9.36	31.3	3-15-19 23:15					3-15-19 23:15	-0.08	1385	7.91	239.4						6-15-19 15:45	19.54	1521	8.38	26.3					
3-16-19 0:15	-0.06	1453	9.36	30.9	3-15-19 23:30					3-15-19 23:30	-0.08	1387	7.91	235.2						6-15-19 16:00	19.64	1519	8.37	27.6					
3-16-19 0:30	-0.06	1454	9.37	31.3	3-15-19 23:45					3-15-19 23:45	-0.09	1387	7.91	231.0						6-15-19 16:15	19.71	1521	8.37	27.0					
3-16-19 0:45	-0.06	1458	9.37	30.7	3-16-19 0:00					3-16-19 0:00	-0.09	1387	7.91	231.7						6-15-19 16:30	19.75	1521	8.37	28.4					
3-16-19 1:00	-0.06	1458	9.37	29.9	3-16-19 0:15					3-16-19 0:15	-0.09	1386	7.91	244.8						6-15-19 16:45	19.81	1522	8.37	29.2					
3-16-19 1:15	-0.06	1460	9.37	29.8	3-16-19 0:30					3-16-19 0:30	-0.09	1389	7.92	223.8						6-15-19 17:00	19.93	1522	8.37	25.2					
3-16-19 1:30	-0.06	1462	9.37	29.2	3-16-19 0:45					3-16-19 0:45	-0.10	1386	7.92	239.4						6-15-19 17:15	20.08	1524	8.37	28.3					
3-16-19 1:45	-0.06	1464	9.37	29.9	3-16-19 1:00					3-16-19 1:00	-0.10	1386	7.92	246.6						6-15-19 17:30	20.38	1524	8.36	21.7					
3-16-19 2:00	-0.06	1466	9.37	30.4	3-16-19 1:15					3-16-19 1:15	-0.10	1390	7.91	229.2						6-15-19 17:45	20.69	1524	8.36	20.6					
3-16-19 2:15	-0.06	1464	9.37	29.0	3-16-19 1:30					3-16-19 1:30	-0.10	1392	7.91	194.2						6-15-19 18:00	20.81	1522	8.35	15.3					
3-16-19 2:30	-0.06	1468	9.37	28.5	3-16-19 1:45					3-16-19 1:45	-0.09	1391	7.91	195.5						6-15-19 18:15	21.02	1525	8.33	13.5					
3-16-19 2:45	-0.06	1464	9.37	27.8	3-16-19 2:00					3-16-19 2:00	-0.09	1389	7.92	216.8						6-15-19 18:30	21.23	1524	8.33	13.7					
3-16-19 3:00	-0.06	1473	9.37	28.7	3-16-19 2:15					3-16-19 2:15	-0.09	1388	7.91	230.4						6-15-19 18:45	21.49	1506	8.33	13.2					
3-16-19 3:15	-0.06	1470	9.37	28.7	3-16-19 2:30					3-16-19 2:30	-0.10	1390	7.92	215.9						6-15-19 19:00	21.69	1526	8.32	14.9					
3-16-19 3:30	-0.06	1472	9.37	27.6	3-16-19 2:45					3-16-19 2:45	-0.10	1395	7.91	223.4						6-15-19 19:15	21.96	1505	8.33	13.0					
3-16-19 3:45	-0.06	1470	9.37	28.7	3-16-19 3:00					3-16-19 3:00	-0.10	1396	7.92	227.5						6-15-19 19:30	22.44	1527	8.33	13.9					
3-16-19 4:00	-0.06	1477	9.37	26.9	3-16-19 3:15					3-16-19 3:15	-0.10	1398	7.92	143.8						6-15-19 19:45	22.36	1519	8.32	14.2					
3-16-19 4:15	-0.06	1476	9.37	27.5	3-16-19 3:30					3-16-19 3:30	-0.10	1393	7.92	138.5						6-15-19 20:00	22.43	1525	8.33	13.0					
3-16-19 4:30	-0.06	1477	9.37	27.2	3-16-19 3:45					3-16-19 3:45	-0.09	1390	7.92	120.3						6-15-19 20:15	22.97	1531	8.32	12.5					
3-16-19 4:45	-0.06	1477	9.37	28.4	3-16-19 4:00					3-16-19 4:00	-0.09	1400	7.92	130.2						6-15-19 20:30	23.33	1529	8.33	13.6					
3-16-19 5:00	-0.06	1479	9.37	28.3	3-16-19 4:15					3-16-19 4:15	-0.09	1454	7.91	142.6						6-15-19 20:45	23.45	1529	8.32	12.1					
3-16-19 5:15	-0.06	1481	9.37	27.4	3-16-19 4:30					3-16-19 4:30	-0.10	1463	7.90	143.6						6-15-19 21:00	23.40	1527	8.32	12.5					
3-16-19 5:30	-0.06	1482	9.37	27.7	3-16-19 4:45					3-16-19 4:45	-0.10	1469	7.90	136.5						6-15-19 21:15	23.94	1533	8.32	12.5					
3-16-19 5:45	-0.06	1483	9.37	27.2	3-16-19 5:00					3-16-19 5:00	-0.11	1490	7.90	115.1						6-15-19 21:30	23.99	1529	8.32	12.2					
3-16-19 6:00	-0.06	1485	9.37	27.4	3-16-19 5:15					3-16-19 5:15	-0.11	1500	7.90	112.8						6-15-19 21:45	24.34	1531	8.32	11.9					
3-16-19 6:15	-0.06	1483	9.37	28.9	3-16-19 5:30					3-16-19 5:30	-0.10	1500	7.89	131.9						6-15-19 22:00	24.20	1532	8.31	12.1					
3-16-19 6:30	-0.06	1482	9.37	29.4	3-16-19 5:45					3-16-19 5:45	-0.11	1507	7.89	129.9						6-15-19 22:15	24.21	1531	8.31	12.2					
3-16-19 6:45	-0.06	1484	9.37	27.8	3-16-19 6:00					3-16-19 6:00	-0.11	1508	7.89	135.6						6-15-19 22:30	24.24	1531	8.31	11.2					
3-16-19 7:00	-0.06	1484	9.37	27.6	3-16-19 6:15					3-16-19 6:15	-0.11	1517	7.89	105.3						6-15-19 22:45	24.49	1533	8.31	11.8					
3-16-19 7:15	-0.06	1486	9.37	28.4	3-16-19 6:30					3-16-19 6:30	-0.10	1523	7.89	103.1						6-15-19 23:00	24.51	1527	8.31	11.3					
3-16-19 7:30	-0.06	1487	9.37	28.0	3-16-19 6:45					3-16-19 6:45	-0.11	1527	7.89	95.7						6-15-19 23:15	24.84	1534	8.32	12.3					
3-16-19 7:45	-0.06	1487	9.38	27.0	3-16-19 7:00					3-16-19 7:00	-0.10	1527	7.89	97.0						6-15-19 23:30	25.00	1535	8.32	11.7					
3-16-19 8:00	-0.05	1488	9.38	27.1	3-16-19 7:15					3-16-19 7:15	-0.10	1521	7.90	76.0						6-15-19 23:45	25.14	1535	8.31	11.6					
3-16-19 8:15	-0.05	1486	9.38	28.1	3-16-19 7:30					3-16-19 7:30	-0.08	1512	7.90	72.8						6-16-19 0:00	25.26	1535	8.31	11.1					
3-16-19 8:30	-0.04	1487	9.38	27.9	3-16-19 7:45					3-16-19 7:45	-0.07	1508	7.90	83.4						6-16-19 0:15	25.27	1535	8.31	11.9					
3-16-19 8:45	-0.03	1486	9.38	27.7	3-16-19 8:00					3-16-19 8:00	-0.07	1505	7.90	79.4						6-16-19 0:30	25.32	1532	8.32	11.5					
3-16-19 9:00	-0.01	1487	9.38	27.5	3-16-19 8:15					3-16-19 8:15	-0.08	1499	7.89	126.1						6-16-19 0:45	25.35	1538	8.32	13.4					
3-16-19 9:15	0.01	1485	9.38	28.7	3-16-19 8:30					3-16-19 8:30	-0.08	1492	7.89	137.2						6-16-19 1:00	25.41	1534	8.32	12.7					
3-16-19 9:30	0.03	1488	9.37	26.8	3-16-19 8:45					3-16-19 8:45	-0.09	1487	7.89	139.9						6-16-19 1:15	25.36	1535	8.31	11.6					
3-16-19 9:45	0.06	1482	9.37	28.6	3-16-19 9:00					3-16-19 9:00	-0.09	1483	7.90	150.4						6-16-19 1:30	25.29	1534	8.31	11.4					
3-16-19 10:00	0.08	1480	9.37	28.9	3-16-19 9:15					3-16-19 9:15	-0.09	1485	7.90	141.1						6-16-19 1:45	25.25	1535	8.31	10.8					
3-16-19 10:15	0.11	1478	9.37	28.7	3-16-19 9:30					3-16-19 9:30	-0.09	1490	7.90	130.6						6-16-19 2:00	25.13	1533	8.33	11.4					
3-16-19 10:30	0.14	1471	9.37	30.5	3-16-19 9:45					3-16-19 9:45	-0.09	1490	7.90	130.4						6-16-19 2:15	25.01	1536	8.32	11.2					
3-16-19 10:45	0.17	1465	9.37	32.6	3-16-19 10:00					3-16-19 10:00	-0.08	1488	7.90	128.6						6-16-19 2:30	24.86	1532	8.34	13.2					
3-16-19 11:00	0.20	1463	9.37	31.8	3-16-19 10:15	1.29	2	8.52	7.9	3-16-19 10:15	-0.10	1476	7.91	133.9						6-16-19 2:45	24.85	1536	8.33	11.9					
3-16-19 11:15	0.23	1459	9.37	31.7	3-16-19 10:30	0.76	597	8.45	51.2	3-16-19 10:30	-0.09	1477	7.91	117.9						6-16-19 3:00	24.78	1535	8.34	12.1					
3-16-19 11:30	0.23	1456	9.37	33.0	3-16-19 10:45					3-16-19 10:45	-0.08	1479	7.91	110.2						6-16-19 3:15	24.75	1540	8.33	11.7					
3-16-19 11:45	0.22	1457	9.37	34.7	3-16-19 11:00					3-16-19 11:00	-0.08	1479	7.91	102.3						6-16-19 3:30	24.63	1533	8.33	13.9					
3-16-19 12:00	0.20	1461	9.37	33.1	3-16-19 11:15					3-16-19 11:15	-0.08	1479	7.90	141.3						6-16-19 3:45	24.54	1536	8.32	11.2					
3-16-19 12:15	0.19	1458	9.37	33.4	3-16-19 11:30					3-16-19 11:30	-0.08	1482	7.90	139.9						6-16-19 4:00	24.44	1534	8.33	11.4					
3-16-19 12:30	0.17	1461	9.37	31.8	3-16-19 11:45					3-16-19 11:45	-0.08	1484	7.90	138.6						6-16-19 4:15	24.28	1537	8.32	10.2					
3-16-19 12:45	0.16	1459	9.37	33.1	3-16-19 12:00					3-16-19 12:00	-0.08	1486	7.90	139.0						6-16-19 4:30	24.19	1532	8.33	10.6					
3-16-19 13:00	0.16	1464	9.37	32.9	3-16-19 12:15					3-16-19 12:15	-0.08	1488	7.91	124.2						6-16-19 4:45	24.09	1531	8.32	10.2					
3-16-19 13:15	0.15	1463	9.37	30.9	3-16-19 12:30					3-16-19 12:30	-0.08	1490	7.91	117.6						6-16-19 5:00	23.97	1531	8.33	10.1					
3-16-19 13:30	0.15	1461	9.37	32.9	3-16-19 12:45					3-16-19 12:45	-0.08	1492	7.91	110.4						6-16-19 5:15	23.84	1532	8.32	10.0					
3-16-19 13:45	0.02	1383	9.37	37.3	3-16-19 13:00					3-16-19 13:00	-0.08	1494	7.91	105.8						6-16-19 5:30	23.74	1530	8.33	10.4					
3-16-19 14:00	0.00	1402	9.38	34.7	3-16-19 13:15					3-16-19 13:15	-0.08	1505	7.90	116.1						6-16-19 5:45	23.63	1532	8.32	10.3					
3-16-19 14:15	0.00	1412	9.38	31.8	3-16-19 13:30					3-16-19 13:30	-0.09	1504	7.90	123.6						6-16-19 6:00	23.52	1542	8.31	10.2					
3-16-19 14:30	0.00	1418	9.38	31.4	3-16-19 13:45					3-16-19 13:45	-0.09	1507	7.90	121.2						6-16-19 6:15	23.41	1530	8.32	10.5					
3-16-19 14:45	0.00	1421	9.38	31.8	3-16-19 14:00					3-16-19 14:00	-0.09	1509	7.90	122.8						6-16-19 6:30	23.34	1530	8.32	10.6					
3-16-19 15:00	-0.01	1419	9.38	31.5	3-16-19 14:15					3-16-19 14:15	-0.09	1507	7.89	133.8						6-16-19 6:45	23.27	1530	8.33	9.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-16-19 15:15	-0.02	1421	9.38	31.8	3-16-19 14:30					3-16-19 14:30	-0.09	1510	7.90	119.3						6-16-19 7:00	23.16	1529	8.33	9.9					
3-16-19 15:30	-0.01	1422	9.38	30.3	3-16-19 14:45					3-16-19 14:45	-0.09	1511	7.90	118.8						6-16-19 7:15	23.02	1530	8.32	9.9					
3-16-19 15:45	-0.01	1424	9.38	29.2	3-16-19 15:00					3-16-19 15:00	-0.08	1512	7.90	113.6						6-16-19 7:30	22.87	1529	8.32	9.6					
3-16-19 16:00	-0.02	1426	9.38	30.2	3-16-19 15:15					3-16-19 15:15	-0.08	1510	7.90	105.1						6-16-19 7:45	22.74	1530	8.33	9.9					
3-16-19 16:15	-0.02	1424	9.38	30.5	3-16-19 15:30					3-16-19 15:30	-0.08	1508	7.90	114.7						6-16-19 8:00	22.64	1528	8.32	10.3					
3-16-19 16:30	-0.02	1424	9.38	30.3	3-16-19 15:45					3-16-19 15:45	-0.07	1507	7.90	115.6						6-16-19 8:15	22.51	1529	8.32	10.6					
3-16-19 16:45	-0.03	1425	9.38	30.0	3-16-19 16:00					3-16-19 16:00	-0.08	1508	7.90	112.3						6-16-19 8:30	22.44	1527	8.32	10.1					
3-16-19 17:00	-0.03	1425	9.38	30.2	3-16-19 16:15					3-16-19 16:15	-0.07	1511	7.90	114.6						6-16-19 8:45	22.34	1528	8.32	10.4					
3-16-19 17:15	-0.03	1424	9.38	30.1	3-16-19 16:30					3-16-19 16:30	-0.07	1513	7.90	111.9						6-16-19 9:00	22.24	1528	8.32	11.0					
3-16-19 17:30	-0.03	1423	9.38	29.7	3-16-19 16:45					3-16-19 16:45	-0.07	1513	7.90	114.7						6-16-19 9:15	22.15	1528	8.32	12.4					
3-16-19 17:45	-0.04	1423	9.38	30.0	3-16-19 17:00					3-16-19 17:00	-0.07	1512	7.90	113.1						6-16-19 9:30	22.07	1528	8.32	9.7					
3-16-19 18:00	-0.04	1425	9.38	31.2	3-16-19 17:15					3-16-19 17:15	-0.07	1512	7.90	105.2						6-16-19 9:45	22.00	1529	8.32	9.6					
3-16-19 18:15	-0.04	1425	9.38	31.1	3-16-19 17:30					3-16-19 17:30	-0.07	1512	7.90	106.8						6-16-19 10:00	21.90	1527	8.32	10.5					
3-16-19 18:30	-0.04	1422	9.38	31.5	3-16-19 17:45					3-16-19 17:45	-0.07	1512	7.90	104.1						6-16-19 10:15	21.76	1529	8.30	9.9					
3-16-19 18:45	-0.05	1425	9.38	30.7	3-16-19 18:00					3-16-19 18:00	-0.07	1511	7.90	107.5						6-16-19 10:30	21.72	1528	8.33	9.5					
3-16-19 19:00	-0.05	1424	9.38	32.4	3-16-19 18:15					3-16-19 18:15	-0.06	1512	7.90	112.8						6-16-19 10:45	21.65	1529	8.33	9.1					
3-16-19 19:15	-0.05	1424	9.38	31.2	3-16-19 18:30					3-16-19 18:30	-0.07	1513	7.90	110.9						6-16-19 11:00	21.58	1528	8.33	9.5					
3-16-19 19:30	-0.05	1424	9.38	31.9	3-16-19 18:45					3-16-19 18:45	-0.07	1514	7.90	113.5						6-16-19 11:15	21.47	1528	8.33	9.5					
3-16-19 19:45	-0.05	1425	9.38	31.2	3-16-19 19:00					3-16-19 19:00	-0.07	1514	7.90	115.7						6-16-19 11:30	21.39	1528	8.33	9.2					
3-16-19 20:00	-0.05	1424	9.38	31.2	3-16-19 19:15					3-16-19 19:15	-0.07	1513	7.90	97.6						6-16-19 11:45	21.31	1529	8.32	8.9					
3-16-19 20:15	-0.05	1426	9.38	32.0	3-16-19 19:30					3-16-19 19:30	-0.05	1513	7.90	88.0						6-16-19 12:00	21.24	1528	8.32	9.1					
3-16-19 20:30	-0.05	1422	9.38	30.4	3-16-19 19:45					3-16-19 19:45	-0.05	1513	7.90	85.2						6-16-19 12:15	21.17	1528	8.31	9.3					
3-16-19 20:45	-0.05	1422	9.38	31.5	3-16-19 20:00					3-16-19 20:00	-0.05	1512	7.90	82.2						6-16-19 12:30	21.13	1528	8.32	9.4					
3-16-19 21:00	-0.06	1423	9.38	30.8	3-16-19 20:15					3-16-19 20:15	-0.05	1509	7.90	114.7						6-16-19 12:45	21.09	1529	8.32	9.1					
3-16-19 21:15	-0.05	1422	9.38	31.7	3-16-19 20:30					3-16-19 20:30	-0.05	1500	7.90	116.4						6-16-19 13:00	21.05	1527	8.32	10.2					
3-16-19 21:30	-0.05	1422	9.38	31.7	3-16-19 20:45					3-16-19 20:45	-0.05	1498	7.90	112.5						6-16-19 13:15	20.97	1528	8.31	9.1					
3-16-19 21:45	-0.06	1424	9.38	31.6	3-16-19 21:00					3-16-19 21:00	-0.05	1495	7.90	115.5						6-16-19 13:30	20.94	1527	8.32	10.5					
3-16-19 22:00	-0.06	1424	9.38	31.8	3-16-19 21:15					3-16-19 21:15	-0.04	1492	7.90	104.6						6-16-19 13:45	20.95	1528	8.32	10.8					
3-16-19 22:15	-0.05	1423	9.38	31.1	3-16-19 21:30					3-16-19 21:30	-0.03	1490	7.90	100.6						6-16-19 14:00	20.94	1527	8.32	11.4					
3-16-19 22:30	-0.06	1422	9.38	33.0	3-16-19 21:45					3-16-19 21:45	-0.03	1489	7.90	101.1						6-16-19 14:15	20.95	1529	8.32	10.2					
3-16-19 22:45	-0.06	1422	9.38	32.1	3-16-19 22:00					3-16-19 22:00	-0.04	1487	7.90	99.8						6-16-19 14:30	21.01	1526	8.32	9.9					
3-16-19 23:00	-0.06	1423	9.38	33.0	3-16-19 22:15					3-16-19 22:15	-0.03	1486	7.90	97.5						6-16-19 14:45	21.05	1527	8.32	10.3					
3-16-19 23:15	-0.06	1425	9.38	32.5	3-16-19 22:30					3-16-19 22:30	-0.03	1487	7.90	88.3						6-16-19 15:00	21.10	1527	8.33	11.5					
3-16-19 23:30	-0.06	1426	9.38	32.8	3-16-19 22:45					3-16-19 22:45	-0.04	1487	7.91	88.5						6-16-19 15:15	21.16	1527	8.32	10.5					
3-16-19 23:45	-0.06	1422	9.38	32.8	3-16-19 23:00					3-16-19 23:00	-0.04	1487	7.90	85.4						6-16-19 15:30	21.22	1526	8.33	10.9					
3-17-19 0:00	-0.06	1424	9.38	32.4	3-16-19 23:15					3-16-19 23:15	-0.04	1487	7.90	80.4						6-16-19 15:45	21.30	1527	8.32	10.9					
3-17-19 0:15	-0.06	1427	9.38	29.8	3-16-19 23:30					3-16-19 23:30	-0.04	1487	7.90	78.9						6-16-19 16:00	21.34	1526	8.33	10.5					
3-17-19 0:30	-0.06	1425	9.38	32.5	3-16-19 23:45					3-16-19 23:45	-0.04	1486	7.90	74.7						6-16-19 16:15	21.40	1527	8.32	10.8					
3-17-19 0:45	-0.06	1424	9.38	33.2	3-17-19 0:00					3-17-19 0:00	-0.04	1485	7.90	68.8						6-16-19 16:30	21.48	1526	8.33	10.8					
3-17-19 1:00	-0.06	1425	9.38	33.8	3-17-19 0:15					3-17-19 0:15	-0.04	1486	7.91	76.7						6-16-19 16:45	21.58	1527	8.31	13.0					
3-17-19 1:15	-0.06	1424	9.38	33.8	3-17-19 0:30					3-17-19 0:30	-0.04	1483	7.91	79.0						6-16-19 17:00	21.89	1527	8.32	10.9					
3-17-19 1:30	-0.06	1424	9.38	34.3	3-17-19 0:45					3-17-19 0:45	-0.04	1480	7.91	80.4						6-16-19 17:15	22.07	1530	8.31	11.4					
3-17-19 1:45	-0.06	1424	9.38	33.5	3-17-19 1:00					3-17-19 1:00	-0.04	1476	7.91	82.1						6-16-19 17:30	22.17	1528	8.31	12.3					
3-17-19 2:00	-0.06	1425	9.38	34.1	3-17-19 1:15					3-17-19 1:15	-0.04	1475	7.91	76.7						6-16-19 17:45	22.53	1526	8.31	12.3					
3-17-19 2:15	-0.06	1424	9.38	34.0	3-17-19 1:30					3-17-19 1:30	-0.04	1471	7.90	77.8						6-16-19 18:00	22.76	1529	8.31	13.5					
3-17-19 2:30	-0.06	1424	9.38	34.0	3-17-19 1:45					3-17-19 1:45	-0.04	1469	7.91	75.0						6-16-19 18:15	22.77	1527	8.30	12.0					
3-17-19 2:45	-0.06	1425	9.38	32.9	3-17-19 2:00					3-17-19 2:00	-0.04	1466	7.91	75.2						6-16-19 18:30	22.85	1526	8.31	12.5					
3-17-19 3:00	-0.06	1425	9.38	33.5	3-17-19 2:15					3-17-19 2:15	-0.03	1465	7.91	77.2						6-16-19 18:45	23.12	1530	8.30	11.6					
3-17-19 3:15	-0.06	1426	9.38	33.8	3-17-19 2:30					3-17-19 2:30	-0.02	1462	7.91	75.8						6-16-19 19:00	23.14	1524	8.31	12.2					
3-17-19 3:30	-0.06	1424	9.38	33.6	3-17-19 2:45					3-17-19 2:45	-0.04	1445	7.91	88.4						6-16-19 19:15	23.91	1510	8.31	11.6					
3-17-19 3:45	-0.06	1425	9.38	34.5	3-17-19 3:00					3-17-19 3:00	-0.04	1454	7.91	85.7						6-16-19 19:30	23.49	1529	8.31	11.0					
3-17-19 4:00	-0.06	1425	9.38	33.9	3-17-19 3:15					3-17-19 3:15	-0.03	1453	7.92	72.3						6-16-19 19:45	23.82	1508	8.30	10.8					
3-17-19 4:15	-0.06	1424	9.38	34.4	3-17-19 3:30					3-17-19 3:30	-0.01	1452	7.92	66.8						6-16-19 20:00	23.62	1529	8.30	14.2					
3-17-19 4:30	-0.06	1424	9.38	34.5	3-17-19 3:45					3-17-19 3:45	-0.01	1451	7.91	61.4						6-16-19 20:15	23.65	1533	8.29	10.7					
3-17-19 4:45	-0.06	1425	9.38	33.7	3-17-19 4:00					3-17-19 4:00	0.00	1450	7.91	61.5						6-16-19 20:30	23.65	1530	8.29	11.1					
3-17-19 5:00	-0.06	1425	9.38	33.9	3-17-19 4:15					3-17-19 4:15	-0.01	1441	7.91	84.9						6-16-19 20:45	23.78	1533	8.29	11.0					
3-17-19 5:15	-0.06	1424	9.38	34.7	3-17-19 4:30					3-17-19 4:30	-0.02	1437	7.91	79.4						6-16-19 21:00	23.97	1532	8.31	10.6					
3-17-19 5:30	-0.06	1425	9.38	35.1	3-17-19 4:45					3-17-19 4:45	-0.02	1437	7.91	81.5						6-16-19 21:15	23.83	1533	8.30	11.2					
3-17-19 5:45	-0.06	1425	9.38	34.5	3-17-19 5:00					3-17-19 5:00	-0.03	1435	7.91	75.8						6-16-19 21:30	23.85	1531	8.30	10.9					
3-17-19 6:00	-0.06	1426	9.38	34.4	3-17-19 5:15					3-17-19 5:15	-0.03	1431	7.91	77.0						6-16-19 21:45	23.96	1535	8.30	10.6					
3-17-19 6:15	-0.06	1424	9.38	35.2	3-17-19 5:30					3-17-19 5:30	-0.04	1427	7.91	77.8						6-16-19 22:00	24.05	1533	8.31	9.9					
3-17-19 6:30	-0.06	1425	9.38	34.8	3-17-19 5:45					3-17-19 5:45	-0.04	1423	7.91	79.7						6-16-19 22:15	24.11	1535	8.30	10.0					
3-17-19 6:45	-0.06	1426	9.38	34.4	3-17-19 6:00					3-17-19 6:00	-0.05	1418	7.91	81.3						6-16-19 22:30	24.24	1535	8.31	10.5					
3-17-19 7:00	-0.06	1425	9.38	32.9	3-17-19 6:15					3-17-19 6:15	-0.05	1414	7.92	93.5						6-16-19 22:45	24.35	1534	8.30	9.8					
3-17-19 7:15	-0.06	1426	9.38	34.6	3-17-19 6:30					3-17-19 6:30	-0.05	1408	7.92	97.1						6-16-19 23:00	24.41	1537	8.31	10.0					
3-17-19 7:30	-0.06	1425	9.38	34.6	3-17-19 6:45					3-17-19 6:45	-0.05	1404	7.92	95.7						6-16-19 23:15	24.42	1537	8.30	13.1					
3-17-19 7:45	-0.06	1425	9.38	34.8	3-17-19 7:00					3-17-19 7:00	-0.06	1398	7.91	101.7						6-16-19 23:30	24.43	1538	8.31	10.4					
3-17-19 8:00	-0.05	1425	9.38	34.3	3-17-19 7:15					3-17-19 7:15	-0.05	1396	7.93	91.9						6-16-19 23:45	24.43	1540	8.30	11.5					
3-17-19 8:15	-0.04	1425	9.38	34.9	3-17-19 7:30					3-17-19 7:30	-0.04	1394	7.92	74.8						6-17-19 0:00	24.44	1538	8.31	11.1					
3-17-19 8:30	-0.03	1424	9.38	35.7	3-17-19 7:45					3-17-19 7:45	-0.04	1393	7.92	77.3						6-17-19 0:15	24.63	1539	8.31	12.3					
3-17-19 8:45	-0.02	1423	9.38	35.5	3-17-19 8:00					3-17-19 8:00	-0.04	1391	7.92	67.4						6-17-19 0:30	24.70	1537	8.31	15.6					
3-17-19 9:00	-0.01	1425	9.37	35.4	3-17-19 8:15					3-17-19 8:15	-0.05	1377	7.92	110.9						6-17-19 0:45	24.72	1538	8.31	13.3					
3-17-19 9:15	-0.02	1423	9.38	34.8	3-17-19 8:30					3-17-19 8:30	-0.05	1373	7.91	128.4						6-17-19 1:00	24.74	1541	8.31	13.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-17-19 9:30	0.01	1423	9.37	34.6	3-17-19 8:45					3-17-19 8:45	-0.06	1371	7.91	115.6						6-17-19 1:15	24.63	1537	8.31	12.6					
3-17-19 9:45	0.02	1420	9.38	34.8	3-17-19 9:00					3-17-19 9:00	-0.06	1370	7.92	121.1						6-17-19 1:30	24.52	1536	8.32	12.5					
3-17-19 10:00	0.03	1421	9.37	34.9	3-17-19 9:15					3-17-19 9:15	-0.06	1368	7.92	120.0						6-17-19 1:45	24.50	1541	8.31	12.3					
3-17-19 10:15	0.05	1420	9.37	35.1	3-17-19 9:30					3-17-19 9:30	-0.05	1365	7.92	119.0						6-17-19 2:00	24.47	1539	8.32	13.6					
3-17-19 10:30	0.06	1419	9.38	34.7	3-17-19 9:45					3-17-19 9:45	-0.05	1363	7.92	112.3						6-17-19 2:15	24.43	1538	8.30	12.1					
3-17-19 10:45	0.07	1418	9.37	34.1	3-17-19 10:00					3-17-19 10:00	-0.04	1357	7.92	108.3						6-17-19 2:30	24.42	1537	8.31	11.0					
3-17-19 11:00	0.08	1417	9.38	34.3	3-17-19 10:15					3-17-19 10:15	-0.03	1359	7.93	97.3						6-17-19 2:45	24.38	1536	8.31	10.1					
3-17-19 11:15	0.09	1417	9.37	33.8	3-17-19 10:30					3-17-19 10:30	-0.03	1356	7.93	100.6						6-17-19 3:00	24.24	1534	8.31	12.5					
3-17-19 11:30	0.10	1416	9.37	34.5	3-17-19 10:45					3-17-19 10:45	-0.03	1354	7.93	104.7						6-17-19 3:15	24.16	1537	8.31	10.7					
3-17-19 11:45	0.11	1415	9.37	34.1	3-17-19 11:00					3-17-19 11:00	-0.02	1352	7.92	104.8						6-17-19 3:30	24.09	1533	8.31	11.0					
3-17-19 12:00	0.11	1414	9.37	33.6	3-17-19 11:15					3-17-19 11:15	-0.03	1352	7.94	88.7						6-17-19 3:45	24.02	1535	8.31	10.7					
3-17-19 12:15	0.12	1414	9.37	33.6	3-17-19 11:30					3-17-19 11:30	-0.02	1352	7.93	76.3						6-17-19 4:00	23.94	1535	8.30	10.8					
3-17-19 12:30	0.13	1414	9.37	34.3	3-17-19 11:45					3-17-19 11:45	-0.02	1346	7.94	90.4						6-17-19 4:15	23.82	1536	8.30	10.5					
3-17-19 12:45	0.14	1412	9.38	33.8	3-17-19 12:00					3-17-19 12:00	1.20	828	7.42	218.8						6-17-19 4:30	23.77	1533	8.30	10.7					
3-17-19 13:00	0.13	1411	9.37	32.1	3-17-19 12:15					3-17-19 12:15	1.55	790	8.21	191.7						6-17-19 4:45	23.72	1535	8.30	11.6					
3-17-19 13:15	0.16	1404	9.37	41.4	3-17-19 12:30					3-17-19 12:30	1.52	811	8.23	192.0						6-17-19 5:00	23.64	1535	8.31	10.8					
3-17-19 13:30	0.19	1404	9.37	33.7	3-17-19 12:45					3-17-19 12:45	1.87	823	8.24	179.3						6-17-19 5:15	23.58	1536	8.30	11.4					
3-17-19 13:45	0.16	1404	9.37	33.1	3-17-19 13:00					3-17-19 13:00	1.79	833	8.23	177.1						6-17-19 5:30	23.53	1534	8.31	13.6					
3-17-19 14:00	0.19	1410	9.37	36.9	3-17-19 13:15					3-17-19 13:15	2.12	839	8.25	163.2						6-17-19 5:45	23.48	1535	8.31	11.6					
3-17-19 14:15	0.12	1401	9.37	36.3	3-17-19 13:30					3-17-19 13:30	2.33	839	8.25	163.6						6-17-19 6:00	23.40	1534	8.31	12.0					
3-17-19 14:30	0.06	1366	9.37	38.9	3-17-19 13:45					3-17-19 13:45	2.63	834	8.24	160.9						6-17-19 6:15	23.28	1534	8.29	11.9					
3-17-19 14:45	0.13	1323	9.36	34.3	3-17-19 14:00					3-17-19 14:00	2.82	824	8.24	154.6						6-17-19 6:30	23.21	1534	8.31	11.8					
3-17-19 15:00	0.12	1281	9.36	36.9	3-17-19 14:15					3-17-19 14:15	2.62	783	8.25	154.1						6-17-19 6:45	23.10	1534	8.31	11.5					
3-17-19 15:15	0.27	1225	9.35	141.3	3-17-19 14:30					3-17-19 14:30	1.75	764	8.29	176.4						6-17-19 7:00	23.02	1534	8.32	12.6					
3-17-19 15:30	0.68	446	9.26	2729.6	3-17-19 14:45					3-17-19 14:45	1.64	773	8.29	197.4						6-17-19 7:15	22.97	1535	8.33	11.1					
3-17-19 15:45	0.38	299	9.01	3082.4	3-17-19 15:00					3-17-19 15:00	1.29	799	8.28	207.5						6-17-19 7:30	22.92	1533	8.33	11.5					
3-17-19 16:00	0.42	262	8.92	3577.7	3-17-19 15:15					3-17-19 15:15	1.35	785	8.28	212.8						6-17-19 7:45	22.81	1534	8.32	12.0					
3-17-19 16:15	0.50	244	8.88	4046.5	3-17-19 15:30					3-17-19 15:30	1.22	794	8.28	188.2						6-17-19 8:00	22.76	1534	8.32	11.3					
3-17-19 16:30	0.44	249	8.93	3845.0	3-17-19 15:45					3-17-19 15:45	1.20	791	8.28	215.1						6-17-19 8:15	22.71	1536	8.31	11.5					
3-17-19 16:45	0.64	272	8.88	4919.4	3-17-19 16:00					3-17-19 16:00	1.05	801	8.27	203.6						6-17-19 8:30	22.68	1534	8.32	13.4					
3-17-19 17:00	0.38	294	8.88	5125.1	3-17-19 16:15					3-17-19 16:15	1.04	794	8.27	237.6						6-17-19 8:45	22.64	1534	8.31	11.1					
3-17-19 17:15	0.48	292	8.73	5231.5	3-17-19 16:30					3-17-19 16:30	1.16	793	8.26	233.6						6-17-19 9:00	22.56	1532	8.32	11.5					
3-17-19 17:30	0.38	303	8.79	5049.1	3-17-19 16:45					3-17-19 16:45	1.15	788	8.26	218.3						6-17-19 9:15	22.49	1533	8.31	9.7					
3-17-19 17:45	0.32	325	8.79	4780.8	3-17-19 17:00					3-17-19 17:00	1.15	787	8.26	215.5						6-17-19 9:30	22.41	1533	8.32	10.1					
3-17-19 18:00	0.29	332	8.72	4683.4	3-17-19 17:15					3-17-19 17:15	0.99	784	8.27	206.6						6-17-19 9:45	22.35	1535	8.31	10.0					
3-17-19 18:15	0.24	328	8.71	4556.8	3-17-19 17:30					3-17-19 17:30	0.93	785	8.28	203.5						6-17-19 10:00	22.31	1533	8.31	9.1					
3-17-19 18:30	0.16	332	8.71	4224.3	3-17-19 17:45					3-17-19 17:45	0.94	793	8.28	201.9						6-17-19 10:15	22.24	1534	8.30	8.7					
3-17-19 18:45	0.12	321	8.66	3951.6	3-17-19 18:00					3-17-19 18:00	0.80	798	8.27	205.6						6-17-19 10:30	22.22	1533	8.31	9.3					
3-17-19 19:00	0.06	334	8.72	3723.9	3-17-19 18:15					3-17-19 18:15	0.73	796	8.27	238.7						6-17-19 10:45	22.17	1534	8.31	9.7					
3-17-19 19:15	0.01	366	8.48	3007.9	3-17-19 18:30					3-17-19 18:30	0.63	802	8.26	237.9						6-17-19 11:00	22.11	1533	8.30	10.2					
3-17-19 19:30	0.00	360	8.52	2368.7	3-17-19 18:45					3-17-19 18:45	0.59	795	8.26	235.5						6-17-19 11:15	22.05	1534	8.31	9.1					
3-17-19 19:45	0.00	343	8.58	2666.4	3-17-19 19:00					3-17-19 19:00	0.46	794	8.26	221.1						6-17-19 11:30	21.96	1532	8.31	9.2					
3-17-19 20:00	-0.01	343	8.59	2519.6	3-17-19 19:15					3-17-19 19:15	0.41	794	8.28	219.0						6-17-19 11:45	21.87	1533	8.30	9.7					
3-17-19 20:15	-0.02	345	8.60	2007.3	3-17-19 19:30					3-17-19 19:30	0.35	795	8.28	224.2						6-17-19 12:00	21.86	1533	8.31	9.2					
3-17-19 20:30	-0.03	360	8.60	1526.4	3-17-19 19:45					3-17-19 19:45	0.33	795	8.28	212.4						6-17-19 12:15	21.81	1535	8.30	9.1					
3-17-19 20:45	-0.03	391	8.49	1169.3	3-17-19 20:00					3-17-19 20:00	0.27	793	8.27	212.7						6-17-19 12:30	21.82	1533	8.30	9.2					
3-17-19 21:00	-0.03	408	8.43	1046.5	3-17-19 20:15					3-17-19 20:15	0.24	793	8.27	225.0						6-17-19 12:45	21.81	1534	8.30	9.3					
3-17-19 21:15	-0.03	424	8.38	836.9	3-17-19 20:30					3-17-19 20:30	0.23	794	8.28	228.8						6-17-19 13:00	21.76	1533	8.30	9.6					
3-17-19 21:30	-0.03	420	8.40	857.6	3-17-19 20:45					3-17-19 20:45	0.20	793	8.27	211.3						6-17-19 13:15	21.73	1534	8.30	9.3					
3-17-19 21:45	-0.03	423	8.40	724.6	3-17-19 21:00					3-17-19 21:00	0.16	793	8.26	223.4						6-17-19 13:30	21.67	1533	8.30	9.6					
3-17-19 22:00	-0.03	426	8.38	602.7	3-17-19 21:15					3-17-19 21:15	0.15	792	8.27	207.7						6-17-19 13:45	21.67	1533	8.30	10.1					
3-17-19 22:15	-0.03	425	8.38	599.0	3-17-19 21:30					3-17-19 21:30	0.12	793	8.26	208.6						6-17-19 14:00	21.66	1532	8.30	10.5					
3-17-19 22:30	-0.03	420	8.40	587.5	3-17-19 21:45					3-17-19 21:45	0.10	792	8.26	202.9						6-17-19 14:15	21.67	1534	8.30	10.1					
3-17-19 22:45	-0.03	423	8.40	565.9	3-17-19 22:00					3-17-19 22:00	0.06	789	8.26	208.7						6-17-19 14:30	21.71	1532	8.30	9.6					
3-17-19 23:00	-0.03	423	8.41	562.8	3-17-19 22:15					3-17-19 22:15	0.06	791	8.27	221.0						6-17-19 14:45	21.76	1533	8.30	9.6					
3-17-19 23:15	-0.03	419	8.42	510.2	3-17-19 22:30					3-17-19 22:30	0.05	790	8.26	231.6						6-17-19 15:00	21.81	1532	8.30	10.9					
3-17-19 23:30	-0.03	420	8.42	485.0	3-17-19 22:45					3-17-19 22:45	0.05	790	8.26	217.0						6-17-19 15:15	21.89	1532	8.30	12.1					
3-17-19 23:45	-0.03	419	8.42	452.8	3-17-19 23:00					3-17-19 23:00	0.03	792	8.27	216.4						6-17-19 15:30	21.96	1532	8.31	11.3					
3-18-19 0:00	-0.03	419	8.42	458.4	3-17-19 23:15					3-17-19 23:15	0.03	792	8.27	211.9						6-17-19 15:45	22.03	1533	8.30	10.6					
3-18-19 0:15	-0.03	418	8.42	423.7	3-17-19 23:30					3-17-19 23:30	0.02	792	8.27	207.5						6-17-19 16:00	22.14	1531	8.30	11.1					
3-18-19 0:30	-0.03	420	8.42	399.5	3-17-19 23:45					3-17-19 23:45	0.02	792	8.27	207.7						6-17-19 16:15	22.15	1534	8.29	10.0					
3-18-19 0:45	-0.03	419	8.43	391.4	3-18-19 0:00					3-18-19 0:00	0.01	792	8.27	210.8						6-17-19 16:30	22.23	1531	8.29	13.3					
3-18-19 1:00	-0.03	419	8.43	350.2	3-18-19 0:15					3-18-19 0:15	0.00	792	8.27	224.1						6-17-19 16:45	22.35	1533	8.28	11.4					
3-18-19 1:15	-0.03	419	8.42	349.1	3-18-19 0:30					3-18-19 0:30	-0.01	792	8.26	214.7						6-17-19 17:00	22.73	1534	8.28	10.2					
3-18-19 1:30	-0.03	419	8.41	336.4	3-18-19 0:45					3-18-19 0:45	-0.02	792	8.28	217.3						6-17-19 17:15	22.85	1534	8.29	10.6					
3-18-19 1:45	-0.03	419	8.42	317.3	3-18-19 1:00					3-18-19 1:00	-0.03	792	8.25	221.3						6-17-19 17:30	22.85	1531	8.28	11.1					
3-18-19 2:00	-0.03	419	8.42	317.1	3-18-19 1:15					3-18-19 1:15	-0.03	793	8.27	209.4						6-17-19 17:45	23.18	1532	8.28	12.0					
3-18-19 2:15	-0.03	419	8.42	299.0	3-18-19 1:30					3-18-19 1:30	-0.03	794	8.27	208.1						6-17-19 18:00	23.42	1536	8.29	12.3					
3-18-19 2:30	-0.03	419	8.42	297.9	3-18-19 1:45					3-18-19 1:45	-0.03	794	8.27	207.5						6-17-19 18:15	23.53	1538	8.28	11.8					
3-18-19 2:45	-0.03	418	8.42	294.5	3-18-19 2:00					3-18-19 2:00	-0.03	793	8.27	205.8						6-17-19 18:30	23.66	1533	8.28	11.6					
3-18-19 3:00	-0.03	418	8.42	279.1	3-18-19 2:15					3-18-19 2:15	-0.04	794	8.28	218.8						6-17-19 18:45	23.68	1536	8.27	12.0					
3-18-19 3:15	-0.03	418	8.42	270.1	3-18-19 2:30					3-18-19 2:30	-0.04	794	8.25	210.7						6-17-19 19:00	23.78	1536	8.29	11.3					
3-18-19 3:30	-0.03	418	8.43	258.7	3-18-19 2:45					3-18-19 2:45	-0.04	794	8.25	215.0						6-17-19 19:15	23.92	1537	8.29	11.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-18-19 3:45	-0.03	417	8.43	259.5	3-18-19 3:00					3-18-19 3:00	-0.05	794	8.25	217.2						6-17-19 19:30	24.03	1535	8.29	23.6					
3-18-19 4:00	-0.03	417	8.43	249.8	3-18-19 3:15					3-18-19 3:15	-0.05	795	8.27	207.0						6-17-19 19:45	23.97	1536	8.29	16.6					
3-18-19 4:15	-0.03	417	8.43	249.9	3-18-19 3:30					3-18-19 3:30	-0.05	795	8.26	208.1						6-17-19 20:00	23.91	1537	8.30	18.8					
3-18-19 4:30	-0.03	416	8.43	234.1	3-18-19 3:45					3-18-19 3:45	-0.05	795	8.27	209.7						6-17-19 20:15	23.99	1540	8.30	15.2					
3-18-19 4:45	-0.03	416	8.43	233.2	3-18-19 4:00					3-18-19 4:00	-0.05	795	8.27	208.8						6-17-19 20:30	24.06	1538	8.31	15.9					
3-18-19 5:00	-0.03	417	8.44	228.4	3-18-19 4:15					3-18-19 4:15	-0.06	795	8.28	215.6						6-17-19 20:45	23.99	1535	8.30	13.4					
3-18-19 5:15	-0.03	416	8.43	227.9	3-18-19 4:30					3-18-19 4:30	-0.06	795	8.25	210.6						6-17-19 21:00	23.86	1536	8.30	14.5					
3-18-19 5:30	-0.03	415	8.43	228.1	3-18-19 4:45					3-18-19 4:45	-0.06	795	8.28	214.6						6-17-19 21:15	23.95	1537	8.30	15.0					
3-18-19 5:45	-0.03	415	8.43	218.7	3-18-19 5:00					3-18-19 5:00	-0.06	795	8.28	218.6						6-17-19 21:30	23.93	1536	8.29	16.3					
3-18-19 6:00	-0.03	415	8.43	213.0	3-18-19 5:15					3-18-19 5:15	-0.06	795	8.29	192.2						6-17-19 21:45	23.88	1541	8.29	12.6					
3-18-19 6:15	-0.03	414	8.43	213.0	3-18-19 5:30	0.13	640	8.51	39.6	3-18-19 5:30	-0.05	795	8.29	179.8						6-17-19 22:00	24.08	1537	8.29	12.9					
3-18-19 6:30	-0.03	412	8.42	219.1	3-18-19 5:45	0.14	620	8.53	47.1	3-18-19 5:45	-0.05	795	8.28	176.6						6-17-19 22:15	24.16	1536	8.29	14.2					
3-18-19 6:45	-0.03	411	8.41	219.9	3-18-19 6:00	0.14	622	8.53	47.1	3-18-19 6:00	-0.05	795	8.28	175.3						6-17-19 22:30	24.13	1539	8.30	14.4					
3-18-19 7:00	-0.03	411	8.42	212.3	3-18-19 6:15	0.15	646	8.53	43.0	3-18-19 6:15	-0.05	795	8.25	214.6						6-17-19 22:45	24.17	1540	8.30	13.7					
3-18-19 7:15	-0.03	410	8.41	212.3	3-18-19 6:30	0.14	624	8.54	48.1	3-18-19 6:30	-0.06	795	8.25	216.7						6-17-19 23:00	24.19	1538	8.30	13.6					
3-18-19 7:30	-0.03	410	8.40	211.2	3-18-19 6:45	0.13	654	8.52	36.9	3-18-19 6:45	-0.06	795	8.25	215.9						6-17-19 23:15	24.06	1538	8.30	11.8					
3-18-19 7:45	-0.03	410	8.41	216.2	3-18-19 7:00	0.13	654	8.52	37.6	3-18-19 7:00	-0.06	795	8.25	212.8						6-17-19 23:30	23.99	1536	8.30	11.8					
3-18-19 8:00	-0.03	410	8.41	207.2	3-18-19 7:15					3-18-19 7:15	-0.07	795	8.27	209.7						6-17-19 23:45	24.00	1539	8.30	12.3					
3-18-19 8:15	-0.03	409	8.41	208.7	3-18-19 7:30	0.13	643	8.52	40.2	3-18-19 7:30	-0.06	795	8.27	203.5						6-18-19 0:00	23.97	1539	8.30	11.8					
3-18-19 8:30	-0.03	409	8.41	206.3	3-18-19 7:45					3-18-19 7:45	-0.06	795	8.27	203.7						6-18-19 0:15	23.89	1539	8.29	12.5					
3-18-19 8:45	0.00	411	8.41	199.2	3-18-19 8:00	0.17	647	8.53	42.2	3-18-19 8:00	-0.06	795	8.27	202.8						6-18-19 0:30	23.85	1538	8.29	14.2					
3-18-19 9:00	0.08	412	8.40	187.1	3-18-19 8:15	0.18	640	8.53	43.1	3-18-19 8:15	-0.06	796	8.27	215.6						6-18-19 0:45	23.81	1538	8.28	12.8					
3-18-19 9:15	0.15	415	8.41	173.9	3-18-19 8:30	0.18	644	8.53	41.2	3-18-19 8:30	-0.05	798	8.28	213.8						6-18-19 1:00	23.76	1537	8.28	12.8					
3-18-19 9:30	0.20	416	8.40	172.7	3-18-19 8:45	0.19	651	8.51	37.8	3-18-19 8:45	-0.03	798	8.28	209.1						6-18-19 1:15	23.73	1538	8.29	13.2					
3-18-19 9:45	0.24	416	8.40	167.6	3-18-19 9:00	0.23	636	8.52	40.2	3-18-19 9:00	0.01	797	8.27	209.1						6-18-19 1:30	23.73	1538	8.30	13.4					
3-18-19 10:00	0.30	416	8.40	167.9	3-18-19 9:15	0.26	644	8.52	39.2	3-18-19 9:15	0.07	796	8.28	189.1						6-18-19 1:45	23.64	1538	8.31	13.8					
3-18-19 10:30	0.37	413	8.39	162.8	3-18-19 9:30	0.24	651	8.51	42.1	3-18-19 9:30	0.14	795	8.29	189.1						6-18-19 2:00	23.65	1537	8.31	13.9					
3-18-19 10:45	0.49	412	8.39	155.9	3-18-19 9:45	0.28	621	8.55	41.9	3-18-19 9:45	0.20	794	8.29	187.0						6-18-19 2:15	23.62	1539	8.30	12.7					
3-18-19 11:00	0.57	412	8.39	150.4	3-18-19 10:00	0.32	597	8.55	45.9	3-18-19 10:00	0.28	792	8.29	185.7						6-18-19 2:30	23.58	1540	8.31	12.7					
3-18-19 11:15	0.63	407	8.39	166.6	3-18-19 10:15	0.31	556	8.54	53.6	3-18-19 10:15	0.38	789	8.26	205.4						6-18-19 2:45	23.52	1539	8.31	12.5					
3-18-19 11:30	0.67	406	8.39	155.7	3-18-19 10:30	0.44	504	8.52	72.4	3-18-19 10:30	0.49	788	8.26	213.6						6-18-19 3:00	23.48	1539	8.32	14.2					
3-18-19 11:45	0.71	405	8.39	154.9	3-18-19 10:45	0.58	482	8.46	70.0	3-18-19 10:45	0.59	786	8.25	203.1						6-18-19 3:15	23.44	1540	8.32	12.9					
3-18-19 12:00	0.75	403	8.39	160.9	3-18-19 11:00	0.68	479	8.44	68.8	3-18-19 11:00	0.72	784	8.25	202.6						6-18-19 3:30	23.41	1540	8.32	12.1					
3-18-19 12:15	0.81	399	8.39	155.1	3-18-19 11:15	0.82	465	8.37	72.9	3-18-19 11:15	0.85	783	8.26	192.0						6-18-19 3:45	23.35	1539	8.32	11.9					
3-18-19 12:30	0.82	393	8.40	174.3	3-18-19 11:30					3-18-19 11:30	0.93	780	8.26	183.9						6-18-19 4:00	23.35	1540	8.32	11.9					
3-18-19 12:45	0.94	382	8.40	189.5	3-18-19 11:45					3-18-19 11:45	1.01	777	8.26	189.1						6-18-19 4:15	23.30	1542	8.31	12.5					
3-18-19 13:00	1.01	380	8.41	174.6	3-18-19 12:00					3-18-19 12:00	1.10	775	8.26	190.0						6-18-19 4:30	23.29	1539	8.31	12.5					
3-18-19 13:15	1.06	383	8.42	180.2	3-18-19 12:15					3-18-19 12:15	1.11	767	8.27	195.2						6-18-19 4:45	23.28	1538	8.31	13.0					
3-18-19 13:30	1.05	384	8.42	180.8	3-18-19 12:30					3-18-19 12:30	1.19	768	8.26	190.8						6-18-19 5:00	23.23	1539	8.31	11.8					
3-18-19 13:45	1.07	382	8.42	180.0	3-18-19 12:45					3-18-19 12:45	2.03	720	8.26	179.2						6-18-19 5:15	23.19	1539	8.31	11.4					
3-18-19 14:00	1.23	375	8.43	194.5	3-18-19 13:00					3-18-19 13:00	2.04	729	8.26	174.2						6-18-19 5:30	23.16	1539	8.31	11.6					
3-18-19 14:15	1.33	331	8.47	297.7	3-18-19 13:15					3-18-19 13:15	1.99	731	8.27	158.3						6-18-19 5:45	23.09	1539	8.31	11.4					
3-18-19 14:30	1.53	344	8.50	292.7	3-18-19 13:30	0.77	583	8.42	54.7	3-18-19 13:30	2.06	737	8.26	164.4						6-18-19 6:00	23.01	1539	8.31	12.6					
3-18-19 14:45	1.76	302	8.62	483.2	3-18-19 13:45	0.38	642	8.48	38.2	3-18-19 13:45	1.92	737	8.27	165.9						6-18-19 6:15	22.91	1540	8.30	16.8					
3-18-19 15:00	1.49	243	8.63	994.3	3-18-19 14:00	0.36	656	8.45	36.5	3-18-19 14:00	1.81	723	8.27	161.5						6-18-19 6:30	22.87	1539	8.30	16.5					
3-18-19 15:15	1.13	217	8.65	2149.6	3-18-19 14:15	0.33	649	8.47	35.3	3-18-19 14:15	1.79	746	8.27	178.5						6-18-19 6:45	22.82	1540	8.30	21.4					
3-18-19 15:30	0.73	229	8.68	3970.3	3-18-19 14:30	0.33	659	8.47	34.1	3-18-19 14:30	1.77	739	8.26	176.9						6-18-19 7:00	22.77	1539	8.30	19.0					
3-18-19 15:45	0.59	234	8.69	4537.7	3-18-19 14:45					3-18-19 14:45	2.09	734	8.26	175.6						6-18-19 7:15	22.69	1539	8.31	19.1					
3-18-19 16:00	0.41	246	8.69	4474.7	3-18-19 15:00	0.60	679	8.41	65.2	3-18-19 15:00	1.76	727	8.27	213.1						6-18-19 7:30	22.59	1538	8.31	18.0					
3-18-19 16:15	0.41	276	8.68	4038.6	3-18-19 15:15	0.77	681	8.36	75.6	3-18-19 15:15	1.35	731	8.28	200.9						6-18-19 7:45	22.57	1539	8.31	18.5					
3-18-19 16:30	0.48	294	8.65	3984.3	3-18-19 15:30	0.76	680	8.37	106.0	3-18-19 15:30	1.17	736	8.28	184.2						6-18-19 8:00	22.52	1538	8.30	17.7					
3-18-19 16:45	0.55	305	8.63	3839.4	3-18-19 15:45	0.90	674	8.31	86.5	3-18-19 15:45	1.36	737	8.27	196.0						6-18-19 8:15	22.45	1539	8.30	17.2					
3-18-19 17:00	0.59	316	8.61	3801.2	3-18-19 16:00	0.81	679	8.32	99.6	3-18-19 16:00	1.45	741	8.27	212.2						6-18-19 8:30	22.43	1537	8.30	15.8					
3-18-19 17:15	0.54	327	8.61	3872.2	3-18-19 16:15					3-18-19 16:15	1.36	737	8.25	275.8						6-18-19 8:45	22.34	1539	8.30	16.4					
3-18-19 17:30	0.53	342	8.60	3653.0	3-18-19 16:30					3-18-19 16:30	1.23	745	8.24	294.5						6-18-19 9:00	22.28	1538	8.30	16.8					
3-18-19 17:45	0.53	345	8.60	3380.4	3-18-19 16:45					3-18-19 16:45	1.13	741	8.23	302.6						6-18-19 9:15	22.21	1539	8.29	19.5					
3-18-19 18:00	0.33	341	8.61	3266.8	3-18-19 17:00					3-18-19 17:00	0.96	729	8.23	619.4						6-18-19 9:30	22.15	1538	8.29	19.5					
3-18-19 18:15	0.26	342	8.61	3245.9	3-18-19 17:15					3-18-19 17:15	0.88	740	8.25	522.4						6-18-19 9:45	22.07	1538	8.29	17.3					
3-18-19 18:30	0.19	341	8.61	3176.2	3-18-19 17:30	0.79	655	8.26	118.2	3-18-19 17:30	0.87	733	8.26	375.7						6-18-19 10:00	22.00	1537	8.29	18.0					
3-18-19 18:45	0.17	341	8.62	2945.8	3-18-19 17:45	0.78	661	8.28	103.1	3-18-19 17:45	1.02	733	8.27	336.3						6-18-19 10:15	21.94	1540	8.29	19.0					
3-18-19 19:00	0.27	375	8.53	2475.7	3-18-19 18:00					3-18-19 18:00	1.04	731	8.26	353.2						6-18-19 10:30	21.89	1537	8.29	17.0					
3-18-19 19:15	0.14	381	8.53	2263.8	3-18-19 18:15					3-18-19 18:15	0.86	733	8.25	383.0						6-18-19 10:45	21.84	1538	8.29	17.8					
3-18-19 19:30	0.08	382	8.53	2264.6	3-18-19 18:30					3-18-19 18:30	0.82	734	8.27	372.7						6-18-19 11:00	21.81	1537	8.29	17.0					
3-18-19 19:45	0.02	378	8.55	2093.8	3-18-19 18:45					3-18-19 18:45	0.86	732	8.27	362.7						6-18-19 11:15	21.82	1534	8.29	16.5					
3-18-19 20:00	0.00	372	8.56	2070.3	3-18-19 19:00					3-18-19 19:00	0.78	730	8.24	361.6						6-18-19 11:30	21.73	1537	8.28	15.4					
3-18-19 20:15	-0.01	386	8.52	1980.8	3-18-19 19:15	0.55	648	8.28	135.3	3-18-19 19:15	0.64	730	8.27	320.4						6-18-19 11:45	21.65	1538	8.29	16.3					
3-18-19 20:30	-0.01	376	8.57	1961.1	3-18-19 19:30	0.48	661	8.32	46.2	3-18-19 19:30	0.47	729	8.27	302.4						6-18-19 12:00	21.58	1537	8.29	16.4					
3-18-19 20:45	-0.01	377	8.57	1973.0	3-18-19 19:45	0.48	675	8.21	96.8	3-18-19 19:45	0.50	725	8.27	313.7						6-18-19 12:15	21.54	1539	8.29	16.6					
3-18-19 21:00	-0.02	375	8.56	1912.3	3-18-19 20:00	0.55	649	8.28	91.6	3-18-19 20:00	0.46	726	8.28	323.9						6-18-19 12:30	21.54	1537	8.29	15.2					
3-18-19 21:15	-0.02	372	8.57	1909.2	3-18-19 20:15	0.50	667	8.28	66.9	3-18-19 20:15	0.23	723	8.26	361.7						6-18-19 12:45	21.46	1538	8.29	16.6					
3-18-19 21:30	-0.03	374	8.56	1853.5	3-18-19 20:30	0.51	666	8.26	76.2	3-18-19 20:30	0.21	727	8.27	343.8						6-18-19 13:00	21.42	1537	8.29	19.0					
3-18-19 21:45	-0.03	375	8.56	1746.8	3-18-19 20:45	0.46	656	8.29	101.4	3-18-19 20:45	0.14	730	8.25	322.4						6-18-19 13:15	21.39	1538	8.29	19.9					
3-18-19 22:00	-0.03	378	8.56	1704.5	3-18-19 21:00	0.39	665	8.33	96.3	3-18-19 21:00	0.13	734	8.25	328.0						6-18-19 13:30	21.32	1537	8.29	21.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-18-19 22:15	-0.03	381	8.55	1652.1	3-18-19 21:15	0.34	662	8.38	52.1	3-18-19 21:15	0.07	738	8.26	306.7						6-18-19 13:45	21.27	1539	8.30	20.4					
3-18-19 22:30	-0.03	384	8.54	1568.4	3-18-19 21:30	0.35	662	8.37	50.9	3-18-19 21:30	0.05	739	8.26	326.1						6-18-19 14:00	21.31	1538	8.30	17.9					
3-18-19 22:45	-0.03	385	8.54	1530.1	3-18-19 21:45	0.37	640	8.30	78.1	3-18-19 21:45	0.04	740	8.27	305.3						6-18-19 14:15	21.24	1539	8.30	17.7					
3-18-19 23:00	-0.03	387	8.53	1470.4	3-18-19 22:00	0.38	621	8.29	82.0	3-18-19 22:00	0.04	741	8.27	304.3						6-18-19 14:30	21.18	1538	8.31	20.4					
3-18-19 23:15	-0.03	390	8.53	1398.3	3-18-19 22:15	0.36	618	8.28	82.9	3-18-19 22:15	0.02	739	8.25	313.1						6-18-19 14:45	21.23	1539	8.30	19.5					
3-18-19 23:30	-0.03	393	8.53	1362.6	3-18-19 22:30	0.32	612	8.28	77.8	3-18-19 22:30										6-18-19 15:00	21.29	1539	8.31	21.3					
3-18-19 23:45	-0.03	400	8.52	1308.1	3-18-19 22:45	0.28	595	8.27	84.2	3-18-19 22:45	0.01	737	8.24	301.0						6-18-19 15:15	21.30	1540	8.31	19.1					
3-19-19 0:00	-0.03	401	8.51	1245.7	3-18-19 23:00	0.27	597	8.30	76.7	3-18-19 23:00	0.00	736	8.25	300.2						6-18-19 15:30	21.35	1539	8.31	22.1					
3-19-19 0:15	-0.04	404	8.51	1225.4	3-18-19 23:15	0.26	586	8.26	84.9	3-18-19 23:15	-0.01	736	8.27	274.5						6-18-19 15:45	21.37	1540	8.31	20.4					
3-19-19 0:30	-0.04	405	8.50	1159.9	3-18-19 23:30	0.27	578	8.26	101.5	3-18-19 23:30	-0.01	736	8.28	267.0						6-18-19 16:00	21.46	1540	8.32	21.0					
3-19-19 0:45	-0.04	406	8.50	1156.7	3-18-19 23:45	0.29	579	8.25	94.9	3-18-19 23:45	-0.02	737	8.28	265.5						6-18-19 16:15	21.53	1542	8.31	22.4					
3-19-19 1:00	-0.04	408	8.50	1093.5	3-19-19 0:00	0.22	580	8.26	76.7	3-19-19 0:00	-0.02	738	8.28	262.7						6-18-19 16:30	21.63	1541	8.32	23.5					
3-19-19 1:15	-0.04	408	8.50	1061.6	3-19-19 0:15	0.22	575	8.27	76.9	3-19-19 0:15	-0.02	737	8.24	299.5						6-18-19 16:45	21.69	1542	8.32	23.0					
3-19-19 1:30	-0.04	409	8.49	1033.4	3-19-19 0:30	0.21	570	8.26	86.4	3-19-19 0:30	-0.03	737	8.24	301.4						6-18-19 17:00	21.82	1542	8.32	20.8					
3-19-19 1:45	-0.04	406	8.50	1020.1	3-19-19 0:45	0.20	573	8.24	87.0	3-19-19 0:45	-0.03	737	8.23	306.6						6-18-19 17:15	21.85	1545	8.32	23.6					
3-19-19 2:00	-0.04	407	8.50	998.4	3-19-19 1:00	0.24	561	8.23	80.9	3-19-19 1:00	-0.04	737	8.24	304.2						6-18-19 17:30	22.00	1545	8.33	27.3					
3-19-19 2:15	-0.04	409	8.50	958.6	3-19-19 1:15	0.20	563	8.22	93.4	3-19-19 1:15	-0.04	737	8.26	288.1						6-18-19 17:45	22.03	1545	8.32	21.4					
3-19-19 2:30	-0.04	409	8.50	944.1	3-19-19 1:30	0.25	554	8.21	101.4	3-19-19 1:30	-0.04	738	8.25	293.2						6-18-19 18:00	22.09	1544	8.32	23.2					
3-19-19 2:45	-0.04	410	8.50	920.8	3-19-19 1:45	0.20	560	8.21	91.7	3-19-19 1:45	-0.04	738	8.26	295.8						6-18-19 18:15	22.28	1546	8.31	23.0					
3-19-19 3:00	-0.04	410	8.50	897.0	3-19-19 2:00	0.16	566	8.21	80.1	3-19-19 2:00	-0.05	738	8.26	298.3						6-18-19 18:30	22.20	1546	8.33	21.4					
3-19-19 3:15	-0.04	410	8.49	861.1	3-19-19 2:15	0.15	558	8.21	87.8	3-19-19 2:15	-0.06	738	8.26	305.1						6-18-19 18:45	22.40	1550	8.33	24.6					
3-19-19 3:30	-0.04	411	8.50	838.5	3-19-19 2:30	0.14	554	8.21	90.4	3-19-19 2:30	-0.06	738	8.24	303.9						6-18-19 19:00	22.42	1547	8.32	21.4					
3-19-19 3:45	-0.04	411	8.50	824.5	3-19-19 2:45	0.15	555	8.20	83.3	3-19-19 2:45	-0.06	738	8.24	308.0						6-18-19 19:15	22.49	1547	8.32	19.9					
3-19-19 4:00	-0.04	413	8.49	798.9	3-19-19 3:00	0.15	555	8.20	81.7	3-19-19 3:00	-0.06	738	8.24	306.5						6-18-19 19:30	22.55	1547	8.32	20.6					
3-19-19 4:15	-0.04	414	8.49	783.5	3-19-19 3:15	0.14	564	8.20	66.0	3-19-19 3:15	-0.06	737	8.26	302.0						6-18-19 19:45	22.55	1548	8.32	20.5					
3-19-19 4:30	-0.04	413	8.49	770.2	3-19-19 3:30	0.14	559	8.20	71.1	3-19-19 3:30	-0.06	737	8.25	290.4						6-18-19 20:00	22.50	1547	8.33	20.2					
3-19-19 4:45	-0.04	412	8.49	758.4	3-19-19 3:45	0.10	562	8.20	68.8	3-19-19 3:45	-0.06	737	8.26	302.8						6-18-19 20:15	22.65	1551	8.32	21.6					
3-19-19 5:00	-0.04	413	8.49	742.8	3-19-19 4:00	0.15	554	8.20	71.6	3-19-19 4:00	-0.06	737	8.26	299.1						6-18-19 20:30	22.89	1551	8.33	24.4					
3-19-19 5:15	-0.04	413	8.50	717.4	3-19-19 4:15	0.13	559	8.20	65.3	3-19-19 4:15	-0.06	737	8.25	308.1						6-18-19 20:45	22.80	1550	8.32	19.6					
3-19-19 5:30	-0.04	414	8.49	708.0	3-19-19 4:30	0.13	559	8.19	64.4	3-19-19 4:30	-0.06	737	8.26	305.3						6-18-19 21:00	22.72	1550	8.33	22.0					
3-19-19 5:45	-0.04	414	8.49	698.5	3-19-19 4:45	0.12	560	8.19	62.1	3-19-19 4:45	-0.06	738	8.25	306.4						6-18-19 21:15	22.87	1552	8.33	21.1					
3-19-19 6:00	-0.04	414	8.50	684.9	3-19-19 5:00	0.11	562	8.20	58.8	3-19-19 5:00	-0.05	738	8.24	306.0						6-18-19 21:30	22.82	1550	8.33	19.9					
3-19-19 6:15	-0.04	415	8.49	670.4	3-19-19 5:15	0.12	554	8.18	62.7	3-19-19 5:15	-0.05	738	8.25	295.8						6-18-19 22:00	22.94	1551	8.34	23.4					
3-19-19 6:30	-0.04	416	8.50	661.1	3-19-19 5:30	0.13	553	8.18	65.2	3-19-19 5:30	-0.06	739	8.25	294.5						6-18-19 22:15	22.87	1554	8.33	20.3					
3-19-19 6:45	-0.04	417	8.50	639.9	3-19-19 5:45	0.12	555	8.18	57.7	3-19-19 5:45	-0.06	739	8.25	296.4						6-18-19 22:30	23.00	1553	8.34	19.4					
3-19-19 7:00	-0.04	423	8.50	622.8	3-19-19 6:00	0.12	552	8.16	61.1	3-19-19 6:00	-0.06	739	8.25	296.9						6-18-19 22:45	22.83	1552	8.34	19.1					
3-19-19 7:15	-0.04	426	8.49	604.2	3-19-19 6:15	0.13	548	8.15	66.9	3-19-19 6:15	-0.06	739	8.26	298.5						6-18-19 23:00	22.77	1551	8.34	19.3					
3-19-19 7:30	-0.04	432	8.47	573.2	3-19-19 6:30	0.09	552	8.16	59.0	3-19-19 6:30	-0.06	739	8.26	296.1						6-18-19 23:15	22.86	1553	8.34	19.3					
3-19-19 7:45	-0.04	438	8.47	569.7	3-19-19 6:45	0.10	548	8.17	68.8	3-19-19 6:45	-0.06	739	8.25	299.0						6-18-19 23:30	22.85	1557	8.33	18.5					
3-19-19 8:00	-0.04	444	8.46	538.3	3-19-19 7:00	0.08	551	8.16	56.1	3-19-19 7:00	-0.05	739	8.24	301.1						6-18-19 23:45	22.90	1557	8.34	17.1					
3-19-19 8:15	-0.04	451	8.45	535.7	3-19-19 7:15	0.07	556	8.16	56.6	3-19-19 7:15	-0.06	739	8.25	288.9						6-19-19 0:00	22.91	1559	8.34	17.9					
3-19-19 8:30	-0.04	441	8.45	542.1	3-19-19 7:30	0.08	556	8.16	52.9	3-19-19 7:30	-0.06	740	8.25	289.3						6-19-19 0:15	22.66	1582	8.32	15.9					
3-19-19 8:45	-0.03	461	8.45	504.6	3-19-19 7:45	0.07	553	8.16	61.3	3-19-19 7:45	-0.06	739	8.25	284.4						6-19-19 0:30	22.65	1611	8.32	16.1					
3-19-19 9:00	-0.01	485	8.41	439.6	3-19-19 8:00	0.07	557	8.16	58.2	3-19-19 8:00	-0.06	740	8.25	282.9						6-19-19 0:45	22.58	1618	8.32	14.8					
3-19-19 9:15	0.02	499	8.39	408.9	3-19-19 8:15	0.11	557	8.14	48.8	3-19-19 8:15	-0.06	739	8.26	297.6						6-19-19 1:00	22.54	1633	8.31	15.7					
3-19-19 9:30	0.08	511	8.39	396.3	3-19-19 8:30	0.13	559	8.16	47.9	3-19-19 8:30	-0.06	739	8.26	294.1						6-19-19 1:15	22.54	1634	8.31	14.1					
3-19-19 9:45	0.30	499	8.38	388.0	3-19-19 8:45	0.20	555	8.14	49.1	3-19-19 8:45	-0.06	740	8.26	293.9						6-19-19 1:30	22.52	1637	8.31	15.4					
3-19-19 10:00	0.40	502	8.38	382.3	3-19-19 9:00					3-19-19 9:00	-0.03	740	8.24	282.3						6-19-19 1:45	22.42	1639	8.31	13.5					
3-19-19 10:15	0.44	500	8.37	411.4	3-19-19 9:15					3-19-19 9:15	0.08	738	8.26	278.6						6-19-19 2:00	22.39	1631	8.32	13.8					
3-19-19 10:30	0.64	503	8.37	368.9	3-19-19 9:30					3-19-19 9:30	0.19	737	8.26	257.1						6-19-19 2:15	22.26	1626	8.32	13.8					
3-19-19 10:45	0.79	503	8.37	366.2	3-19-19 9:45					3-19-19 9:45	0.29	737	8.25	247.3						6-19-19 2:30	22.23	1625	8.33	14.0					
3-19-19 11:00	0.95	504	8.37	343.2	3-19-19 10:00	0.44	553	8.15	49.2	3-19-19 10:00	0.39	736	8.25	250.1						6-19-19 2:45	22.21	1629	8.33	13.6					
3-19-19 11:15	1.15	503	8.36	344.5	3-19-19 10:15	0.44	549	8.13	48.5	3-19-19 10:15	0.38	738	8.26	272.2						6-19-19 3:00	22.12	1625	8.33	13.7					
3-19-19 11:30	1.34	502	8.36	330.2	3-19-19 10:30					3-19-19 10:30	0.60	735	8.24	257.5						6-19-19 3:15	22.01	1620	8.34	13.8					
3-19-19 11:45	1.54	498	8.36	341.5	3-19-19 10:45					3-19-19 10:45	0.72	736	8.24	264.8						6-19-19 3:30	21.94	1617	8.34	13.1					
3-19-19 12:00	1.75	494	8.36	337.4	3-19-19 11:00	0.48	550	8.13	48.6	3-19-19 11:00	0.78	736	8.25	265.5						6-19-19 3:45	22.00	1615	8.34	12.6					
3-19-19 12:15	1.98	492	8.36	345.0	3-19-19 11:15					3-19-19 11:15	0.82	736	8.26	243.2						6-19-19 4:00	21.94	1612	8.34	12.9					
3-19-19 12:30	2.14	488	8.36	353.6	3-19-19 11:30					3-19-19 11:30	0.81	735	8.26	228.2						6-19-19 4:15	21.84	1617	8.33	12.5					
3-19-19 12:45	2.23	487	8.36	356.9	3-19-19 11:45					3-19-19 11:45	0.98	736	8.25	246.5						6-19-19 4:30	21.80	1617	8.33	12.6					
3-19-19 13:00	2.29	485	8.36	336.9	3-19-19 12:00					3-19-19 12:00	1.06	736	8.26	247.6						6-19-19 4:45	21.71	1617	8.33	12.0					
3-19-19 13:15	2.31	483	8.36	351.4	3-19-19 12:15					3-19-19 12:15	1.03	740	8.23	266.3						6-19-19 5:00	21.71	1616	8.33	13.1					
3-19-19 13:30	2.28	477	8.37	359.1	3-19-19 12:30					3-19-19 12:30	1.12	736	8.23	259.4						6-19-19 5:15	21.58	1617	8.34	12.1					
3-19-19 13:45	2.19	481	8.36	349.0	3-19-19 12:45					3-19-19 12:45	1.20	738	8.23	252.2						6-19-19 5:30	21.56	1617	8.34	11.7					
3-19-19 14:00	2.03	472	8.38	402.8	3-19-19 13:00					3-19-19 13:00	1.18	741	8.22	253.5						6-19-19 5:45	21.51	1618	8.34	12.0					
3-19-19 14:15	1.79	469	8.40	442.8	3-19-19 13:15					3-19-19 13:15	1.09	761	8.23	251.1						6-19-19 6:00	21.46	1617	8.34	12.9					
3-19-19 14:30	2.00	480	8.39	375.0	3-19-19 13:30					3-19-19 13:30	1.11	753	8.24	257.6						6-19-19 6:15	21.35	1619	8.33	14.4					
3-19-19 14:45	2.00	481	8.39	366.3	3-19-19 13:45					3-19-19 13:45	1.33	744	8.24	248.3						6-19-19 6:30	21.36	1617	8.34	12.0					
3-19-19 15:00	1.93	476	8.39	371.7	3-19-19 14:00					3-19-19 14:00	1.75	743	8.24	232.8						6-19-19 6:45	21.29	1618	8.34	13.2					
3-19-19 15:15	1.63	456	8.43	568.6	3-19-19 14:15					3-19-19 14:15										6-19-19 7:00	21.25	1616	8.34	11.8					
3-19-19 15:30	1.66	431	8.45	580.4	3-19-19 14:45	1.76	744	7.24	218.9	3-19-19 14:45										6-19-19 7:15	21.22	1620	8.34	11.9					
3-19-19 15:45	1.46	416	8.47	718.8	3-19-19 15:00					3-19-19 15:00	1.69	748	8.19	222.1						6-19-19 7:30	21.16	1618	8.34	11.1					
3-19-19 16:00	1.88	309	8.46	1575.5	3-19-19 15:15					3-19-19 15:15	1.78	743	8.20	223.1						6-19-19 7:45	21.06	1619	8.34	11.4					
3-19-19 16:15	1.86	298	8.48	2343.6	3-19-19 15:30					3-19-19 15:30	1.68	746	8.20	228.2						6-19-19 8:00	21.00	1618	8.33	11.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-19-19 16:30	1.40	291	8.50	3218.4	3-19-19 15:45					3-19-19 15:45	1.58	748	8.22	230.4						6-19-19 8:15	20.92	1620	8.33	12.1					
3-19-19 16:45	1.25	285	8.51	3752.2	3-19-19 16:00					3-19-19 16:00	1.46	748	8.22	226.2						6-19-19 8:30	20.87	1618	8.34	11.1					
3-19-19 17:00	1.22	285	8.52	3950.2	3-19-19 16:15					3-19-19 16:15	1.37	750	8.23	228.3						6-19-19 8:45	20.78	1618	8.34	10.9					
3-19-19 17:15	1.08	289	8.52	3978.9	3-19-19 16:30					3-19-19 16:30	1.16	747	8.22	233.6						6-19-19 9:00	20.78	1621	8.34	14.9					
3-19-19 17:30	0.75	291	8.53	3855.4	3-19-19 16:45					3-19-19 16:45	1.15	751	8.25	236.1						6-19-19 9:15	20.81	1624	8.34	10.6					
3-19-19 17:45	0.75	299	8.52	3635.5	3-19-19 17:00					3-19-19 17:00	1.06	755	8.25	225.7						6-19-19 9:30	20.72	1624	8.34	11.7					
3-19-19 18:00	0.64	299	8.53	3538.6	3-19-19 17:15					3-19-19 17:15	0.91	754	8.23	239.9						6-19-19 9:45	20.63	1624	8.33	10.4					
3-19-19 18:15	0.63	298	8.53	3390.4	3-19-19 17:30					3-19-19 17:30	0.88	749	8.23	240.4						6-19-19 10:00	20.54	1622	8.34	10.1					
3-19-19 18:30	0.61	303	8.53	3224.4	3-19-19 17:45					3-19-19 17:45	0.80	753	8.23	230.9						6-19-19 10:15	20.46	1624	8.33	10.3					
3-19-19 18:45	0.55	304	8.53	3168.5	3-19-19 18:00					3-19-19 18:00	0.76	751	8.23	229.1						6-19-19 10:30	20.39	1622	8.33	10.6					
3-19-19 19:00	0.52	305	8.52	3025.5	3-19-19 18:15					3-19-19 18:15	0.66	759	8.23	205.1						6-19-19 10:45	20.33	1624	8.34	12.1					
3-19-19 19:15	0.44	309	8.53	2816.3	3-19-19 18:30					3-19-19 18:30	0.60	760	8.23	202.9						6-19-19 11:00	20.28	1623	8.34	11.1					
3-19-19 19:30	0.37	309	8.53	2717.2	3-19-19 18:45					3-19-19 18:45	0.58	754	8.22	228.3						6-19-19 11:15	20.22	1625	8.33	10.6					
3-19-19 19:45	0.32	309	8.53	2554.0	3-19-19 19:00					3-19-19 19:00	0.55	755	8.22	223.5						6-19-19 11:30	20.15	1626	8.34	10.3					
3-19-19 20:00	0.31	310	8.53	2478.1	3-19-19 19:15					3-19-19 19:15	0.54	756	8.23	220.8						6-19-19 11:45	20.15	1631	8.33	10.5					
3-19-19 20:15	0.29	310	8.53	2353.9	3-19-19 19:30					3-19-19 19:30	0.54	750	8.23	220.7						6-19-19 12:00	20.14	1634	8.32	11.5					
3-19-19 20:30	0.27	311	8.53	2176.5	3-19-19 19:45					3-19-19 19:45	0.51	746	8.23	224.9						6-19-19 12:15	20.09	1635	8.32	11.6					
3-19-19 20:45	0.22	311	8.53	2113.9	3-19-19 20:00					3-19-19 20:00	0.48	745	8.23	215.4						6-19-19 12:30	20.03	1632	8.33	12.3					
3-19-19 21:00	0.20	311	8.53	2071.3	3-19-19 20:15					3-19-19 20:15	0.45	744	8.23	212.1						6-19-19 12:45	19.93	1636	8.33	11.4					
3-19-19 21:15	0.17	310	8.53	1974.3	3-19-19 20:30					3-19-19 20:30	0.41	744	8.23	217.1						6-19-19 13:00	19.87	1634	8.33	12.6					
3-19-19 21:30	0.14	309	8.54	1901.2	3-19-19 20:45					3-19-19 20:45	0.37	745	8.24	217.3						6-19-19 13:15	19.85	1639	8.32	10.8					
3-19-19 21:45	0.12	310	8.54	1799.1	3-19-19 21:00					3-19-19 21:00	0.34	743	8.22	215.2						6-19-19 13:30	19.84	1644	8.32	10.8					
3-19-19 22:00	0.09	309	8.53	1780.8	3-19-19 21:15					3-19-19 21:15	0.31	739	8.24	218.0						6-19-19 13:45	19.77	1648	8.32	11.7					
3-19-19 22:15	0.07	310	8.53	1697.4	3-19-19 21:30					3-19-19 21:30	0.29	734	8.23	213.7						6-19-19 14:00	19.80	1653	8.32	11.7					
3-19-19 22:30	0.07	309	8.54	1642.5	3-19-19 21:45					3-19-19 21:45	0.26	741	8.24	210.3						6-19-19 14:15	19.82	1655	8.31	12.3					
3-19-19 22:45	0.06	309	8.54	1578.2	3-19-19 22:00					3-19-19 22:00	0.24	745	8.23	198.7						6-19-19 14:30	19.82	1652	8.32	13.4					
3-19-19 23:00	0.05	310	8.54	1533.6	3-19-19 22:15					3-19-19 22:15	0.22	746	8.23	194.6						6-19-19 14:45	19.84	1653	8.32	12.9					
3-19-19 23:15	0.05	310	8.54	1469.0	3-19-19 22:30					3-19-19 22:30	0.20	747	8.23	195.5						6-19-19 15:00	19.85	1654	8.33	15.0					
3-19-19 23:30	0.05	309	8.54	1426.6	3-19-19 22:45					3-19-19 22:45	0.18	744	8.22	202.5						6-19-19 15:15	19.85	1650	8.33	14.0					
3-19-19 23:45	0.05	309	8.54	1410.5	3-19-19 23:00					3-19-19 23:00	0.17	742	8.22	199.1						6-19-19 15:30	19.81	1649	8.34	13.3					
3-20-19 0:00	0.04	309	8.54	1356.8	3-19-19 23:15					3-19-19 23:15	0.16	747	8.21	191.9						6-19-19 15:45	19.78	1659	8.33	18.1					
3-20-19 0:15	0.04	309	8.53	1319.8	3-19-19 23:30					3-19-19 23:30	0.15	741	8.22	197.0						6-19-19 16:00	19.81	1664	8.33	22.6					
3-20-19 0:30	0.04	309	8.54	1290.9	3-19-19 23:45					3-19-19 23:45	0.14	742	8.23	186.4						6-19-19 16:15	19.72	1657	8.32	22.1					
3-20-19 0:45	0.03	310	8.53	1238.7	3-20-19 0:00					3-20-19 0:00	0.12	742	8.22	184.4						6-19-19 16:30	19.73	1653	8.34	24.2					
3-20-19 1:00	0.03	310	8.53	1217.2	3-20-19 0:15					3-20-19 0:15	0.11	743	8.22	179.2						6-19-19 16:45	19.72	1649	8.33	22.7					
3-20-19 1:15	0.02	310	8.53	1165.2	3-20-19 0:30					3-20-19 0:30	0.09	743	8.22	180.5						6-19-19 17:00	19.71	1644	8.34	21.0					
3-20-19 1:30	0.02	310	8.53	1147.4	3-20-19 0:45					3-20-19 0:45	0.08	741	8.21	188.1						6-19-19 17:15	19.68	1643	8.34	19.4					
3-20-19 1:45	0.02	310	8.53	1111.2	3-20-19 1:00					3-20-19 1:00	0.07	741	8.23	182.8						6-19-19 17:30	19.68	1642	8.35	19.0					
3-20-19 2:00	0.02	310	8.53	1078.7	3-20-19 1:15					3-20-19 1:15	0.06	740	8.23	185.8						6-19-19 17:45	19.68	1644	8.34	17.4					
3-20-19 2:15	0.01	310	8.53	1058.6	3-20-19 1:30					3-20-19 1:30	0.05	739	8.24	179.7						6-19-19 18:00	19.64	1646	8.34	20.2					
3-20-19 2:30	0.01	310	8.53	1038.1	3-20-19 1:45					3-20-19 1:45	0.04	739	8.24	178.2						6-19-19 18:15	19.58	1647	8.34	18.5					
3-20-19 2:45	0.01	310	8.53	1015.0	3-20-19 2:00					3-20-19 2:00	0.03	739	8.24	174.9						6-19-19 18:30	19.64	1644	8.35	18.1					
3-20-19 3:00	0.01	310	8.53	988.2	3-20-19 2:15					3-20-19 2:15	0.02	738	8.25	178.0						6-19-19 18:45	19.66	1645	8.34	17.9					
3-20-19 3:15	0.01	311	8.53	992.1	3-20-19 2:30					3-20-19 2:30	0.01	738	8.25	176.2						6-19-19 19:00	19.63	1643	8.35	17.3					
3-20-19 3:30	0.00	311	8.53	962.7	3-20-19 2:45					3-20-19 2:45	0.00	737	8.25	181.8						6-19-19 19:15	19.67	1643	8.35	17.2					
3-20-19 3:45	0.00	311	8.53	924.4	3-20-19 3:00					3-20-19 3:00	0.00	737	8.26	176.3						6-19-19 19:30	19.74	1639	8.35	15.3					
3-20-19 4:00	0.00	311	8.53	917.1	3-20-19 3:15					3-20-19 3:15	0.00	737	8.24	175.7						6-19-19 19:45	19.78	1641	8.34	16.4					
3-20-19 4:15	0.00	311	8.53	897.7	3-20-19 3:30					3-20-19 3:30	0.00	737	8.25	174.1						6-19-19 20:00	19.74	1638	8.35	17.4					
3-20-19 4:30	0.00	311	8.53	872.0	3-20-19 3:45					3-20-19 3:45	-0.01	737	8.24	166.5						6-19-19 20:15	19.69	1640	8.35	14.4					
3-20-19 4:45	-0.01	312	8.52	870.5	3-20-19 4:00					3-20-19 4:00	-0.01	736	8.24	172.5						6-19-19 20:30	19.81	1638	8.36	14.2					
3-20-19 5:00	-0.01	312	8.52	848.5	3-20-19 4:15					3-20-19 4:15	-0.02	735	8.24	168.2						6-19-19 20:45	19.99	1643	8.36	15.1					
3-20-19 5:15	-0.01	312	8.52	835.4	3-20-19 4:30					3-20-19 4:30	-0.03	734	8.25	168.4						6-19-19 21:00	20.12	1640	8.36	17.3					
3-20-19 5:30	-0.01	312	8.52	816.1	3-20-19 4:45					3-20-19 4:45	-0.03	732	8.26	178.0						6-19-19 21:15	20.14	1641	8.36	15.7					
3-20-19 5:45	-0.01	312	8.52	808.3	3-20-19 5:00					3-20-19 5:00	-0.03	732	8.25	173.3						6-19-19 21:30	20.27	1639	8.36	15.1					
3-20-19 6:00	-0.01	312	8.52	801.7	3-20-19 5:15					3-20-19 5:15	-0.04	731	8.23	172.6						6-19-19 21:45	20.27	1637	8.36	15.3					
3-20-19 6:15	-0.01	313	8.52	782.0	3-20-19 5:30					3-20-19 5:30	-0.04	731	8.25	174.1						6-19-19 22:00	20.22	1636	8.36	15.6					
3-20-19 6:30	-0.02	313	8.52	778.9	3-20-19 5:45					3-20-19 5:45	-0.04	731	8.25	168.2						6-19-19 22:15	20.12	1640	8.35	15.9					
3-20-19 6:45	-0.02	314	8.52	762.8	3-20-19 6:00					3-20-19 6:00	-0.05	731	8.25	167.8						6-19-19 22:30	20.01	1645	8.35	15.3					
3-20-19 7:00	-0.02	313	8.52	753.4	3-20-19 6:15					3-20-19 6:15	-0.05	731	8.25	164.8						6-19-19 22:45	19.97	1640	8.35	17.4					
3-20-19 7:15	-0.02	314	8.52	738.2	3-20-19 6:30					3-20-19 6:30	-0.05	731	8.25	165.1						6-19-19 23:00	19.94	1639	8.36	14.9					
3-20-19 7:30	-0.02	314	8.52	729.9	3-20-19 6:45					3-20-19 6:45	-0.05	731	8.26	171.9						6-19-19 23:15	19.89	1643	8.36	15.3					
3-20-19 7:45	-0.02	314	8.52	713.5	3-20-19 7:00					3-20-19 7:00	-0.05	731	8.26	168.3						6-19-19 23:30	19.85	1645	8.36	16.5					
3-20-19 8:00	-0.02	316	8.52	713.7	3-20-19 7:15					3-20-19 7:15	-0.06	731	8.26	166.8						6-19-19 23:45	19.87	1646	8.36	15.9					
3-20-19 8:15	-0.02	316	8.52	690.0	3-20-19 7:30					3-20-19 7:30	-0.06	731	8.25	172.5						6-20-19 0:00	19.97	1647	8.35	15.5					
3-20-19 8:30	-0.02	316	8.52	692.0	3-20-19 7:45					3-20-19 7:45	-0.06	732	8.26	160.9						6-20-19 0:15	19.92	1647	8.34	16.0					
3-20-19 8:45	-0.02	316	8.52	662.4	3-20-19 8:00					3-20-19 8:00	-0.06	732	8.25	159.0						6-20-19 0:30	19.88	1645	8.35	16.9					
3-20-19 9:00	-0.02	315	8.52	666.1	3-20-19 8:15					3-20-19 8:15	-0.06	732	8.26	156.8						6-20-19 0:45	19.86	1645	8.35	15.5					
3-20-19 9:15	-0.02	315	8.52	666.2	3-20-19 8:30					3-20-19 8:30	-0.05	733	8.26	157.3						6-20-19 1:00	19.86	1644	8.35	14.6					
3-20-19 9:30	-0.02	314	8.52	683.0	3-20-19 8:45					3-20-19 8:45	-0.03	734	8.27	164.4						6-20-19 1:15	19.86	1645	8.36	13.9					
3-20-19 9:45	0.00	314	8.52	684.6	3-20-19 9:00					3-20-19 9:00	0.01	734	8.26	156.6						6-20-19 1:30	19.83	1643	8.35	12.5					
3-20-19 10:00	0.07	313	8.52	676.1	3-20-19 9:15					3-20-19 9:15	0.05	734	8.25	147.5						6-20-19 1:45	19.83	1645	8.35	13.4					
3-20-19 10:15	0.11	313	8.52	695.8	3-20-19 9:30					3-20-19 9:30	0.07	735	8.24	149.0						6-20-19 2:00	19.77	1644	8.36	15.2					
3-20-19 10:30	0.31	313	8.52	676.5	3-20-19 9:45					3-20-19 9:45	0.13	733	8.25	152.0						6-20-19 2:15	19.74	1645	8.34	14.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-20-19 10:45	0.53	315	8.51	648.7	3-20-19 10:00					3-20-19 10:00	0.24	732	8.25	147.4						6-20-19 2:30	19.72	1644	8.34	13.5					
3-20-19 11:00	0.58	314	8.51	667.7	3-20-19 10:15					3-20-19 10:15	0.48	718	8.25	128.7						6-20-19 2:45	19.67	1645	8.35	14.2					
3-20-19 11:15	0.82	316	8.50	636.0	3-20-19 10:30					3-20-19 10:30	0.62	712	8.26	130.5						6-20-19 3:00	19.66	1644	8.35	13.5					
3-20-19 11:30	1.07	316	8.50	603.0	3-20-19 10:45					3-20-19 10:45	0.76	708	8.26	129.8						6-20-19 3:15	19.63	1645	8.35	12.9					
3-20-19 11:45	1.32	320	8.49	569.5	3-20-19 11:00					3-20-19 11:00	0.88	705	8.26	138.2						6-20-19 3:30	19.56	1643	8.36	13.8					
3-20-19 12:00	1.59	323	8.49	504.6	3-20-19 11:15					3-20-19 11:15	0.98	699	8.26	130.6						6-20-19 3:45	19.53	1645	8.36	16.5					
3-20-19 12:15	1.80	325	8.48	487.2	3-20-19 11:30					3-20-19 11:30	1.04	698	8.27	127.8						6-20-19 4:00	19.56	1643	8.36	18.5					
3-20-19 12:30	1.91	325	8.49	516.4	3-20-19 11:45					3-20-19 11:45	1.06	702	8.25	125.4						6-20-19 4:15	19.50	1644	8.34	21.1					
3-20-19 12:45	1.82	318	8.50	630.2	3-20-19 12:00					3-20-19 12:00	1.10	706	8.24	132.8						6-20-19 4:30	19.47	1642	8.36	20.7					
3-20-19 13:00	1.64	312	8.50	704.3	3-20-19 12:15					3-20-19 12:15	1.13	706	8.24	128.1						6-20-19 4:45	19.37	1643	8.36	21.2					
3-20-19 13:15	1.48	308	8.51	759.0	3-20-19 12:30					3-20-19 12:30	1.16	706	8.25	126.8						6-20-19 5:00	19.36	1641	8.36	22.9					
3-20-19 13:30	1.25	303	8.51	854.5	3-20-19 12:45					3-20-19 12:45	1.20	705	8.26	131.6						6-20-19 5:15	19.30	1642	8.36	19.8					
3-20-19 13:45	1.22	299	8.52	922.2	3-20-19 13:00					3-20-19 13:00	1.23	703	8.25	131.4						6-20-19 5:30	19.31	1641	8.35	21.1					
3-20-19 14:00	0.89	299	8.54	910.9	3-20-19 13:15					3-20-19 13:15	1.24	703	8.25	129.9						6-20-19 5:45	19.25	1641	8.36	23.7					
3-20-19 14:15	0.76	297	8.55	994.8	3-20-19 13:30					3-20-19 13:30	1.30	702	8.25	131.8						6-20-19 6:00	19.22	1640	8.35	21.2					
3-20-19 14:30	0.61	297	8.56	1005.8	3-20-19 13:45					3-20-19 13:45	1.30	702	8.25	127.3						6-20-19 6:15	19.16	1642	8.35	19.6					
3-20-19 14:45	0.50	297	8.56	1030.3	3-20-19 14:00					3-20-19 14:00	1.36	702	8.23	127.4						6-20-19 6:30	19.08	1641	8.36	19.8					
3-20-19 15:00	0.39	296	8.57	1119.2	3-20-19 14:15					3-20-19 14:15	1.37	706	8.25	134.0						6-20-19 6:45	19.02	1641	8.36	19.7					
3-20-19 15:15	0.33	297	8.58	1373.3	3-20-19 14:30					3-20-19 14:30	1.37	704	8.25	126.4						6-20-19 7:00	19.01	1640	8.36	20.3					
3-20-19 15:30	0.79	297	8.57	1356.0	3-20-19 14:45					3-20-19 14:45	1.40	704	8.25	140.3						6-20-19 7:15	18.98	1641	8.35	20.3					
3-20-19 15:45	0.74	300	8.56	1406.5	3-20-19 15:00					3-20-19 15:00	1.39	704	8.26	133.7						6-20-19 7:30	18.86	1639	8.36	18.5					
3-20-19 16:00	0.74	301	8.55	1433.5	3-20-19 15:15					3-20-19 15:15	1.35	704	8.27	134.8						6-20-19 7:45	18.88	1641	8.35	17.2					
3-20-19 16:15	0.84	305	8.51	1345.4	3-20-19 15:30					3-20-19 15:30	1.33	702	8.25	140.9						6-20-19 8:00	18.81	1639	8.35	15.3					
3-20-19 16:30	0.76	301	8.51	1488.3	3-20-19 15:45					3-20-19 15:45	1.33	705	8.27	138.1						6-20-19 8:15	18.73	1640	8.35	14.7					
3-20-19 16:45	0.66	295	8.51	1477.5	3-20-19 16:00					3-20-19 16:00	1.30	703	8.26	137.8						6-20-19 8:30	18.67	1639	8.35	16.0					
3-20-19 17:00	0.59	293	8.53	1566.3	3-20-19 16:15					3-20-19 16:15	1.26	703	8.26	134.5						6-20-19 8:45	18.63	1641	8.35	22.2					
3-20-19 17:15	0.49	284	8.56	1783.6	3-20-19 16:30					3-20-19 16:30	1.23	702	8.26	136.4						6-20-19 9:00	18.58	1639	8.35	14.1					
3-20-19 17:30	0.75	283	8.55	1658.2	3-20-19 16:45					3-20-19 16:45	1.21	701	8.25	139.6						6-20-19 9:15	18.51	1640	8.36	15.0					
3-20-19 17:45	0.71	280	8.56	1747.8	3-20-19 17:00					3-20-19 17:00	1.20	701	8.25	140.3						6-20-19 9:30	18.44	1639	8.35	14.4					
3-20-19 18:00	0.65	279	8.56	1731.3	3-20-19 17:15					3-20-19 17:15	1.19	700	8.26	136.7						6-20-19 9:45	18.37	1641	8.35	14.8					
3-20-19 18:15	0.60	279	8.55	1724.3	3-20-19 17:30					3-20-19 17:30	1.15	699	8.27	136.8						6-20-19 10:00	18.33	1638	8.35	14.0					
3-20-19 18:30	0.55	278	8.56	1727.7	3-20-19 17:45					3-20-19 17:45	1.12	700	8.27	132.0						6-20-19 10:15	18.26	1640	8.34	15.4					
3-20-19 18:45	0.45	277	8.56	1703.2	3-20-19 18:00					3-20-19 18:00	1.09	699	8.27	134.0						6-20-19 10:30	18.19	1637	8.34	13.4					
3-20-19 19:00	0.36	272	8.58	1706.0	3-20-19 18:15					3-20-19 18:15	1.03	698	8.27	130.7						6-20-19 10:45	18.12	1639	8.34	13.9					
3-20-19 19:15	0.27	268	8.59	1728.0	3-20-19 18:30					3-20-19 18:30	0.96	697	8.27	130.7						6-20-19 11:00	18.06	1638	8.34	29.3					
3-20-19 19:30	0.19	267	8.60	1751.4	3-20-19 18:45					3-20-19 18:45	0.91	696	8.28	140.1						6-20-19 11:15	18.00	1639	8.34	29.1					
3-20-19 19:45	0.12	267	8.60	1750.3	3-20-19 19:00					3-20-19 19:00	0.86	695	8.28	135.5						6-20-19 11:30	17.95	1638	8.34	31.9					
3-20-19 20:00	0.08	268	8.61	1748.1	3-20-19 19:15					3-20-19 19:15	0.81	695	8.28	134.3						6-20-19 11:45	17.89	1639	8.34	30.2					
3-20-19 20:15	0.05	271	8.59	1717.0	3-20-19 19:30					3-20-19 19:30	0.75	694	8.27	135.0						6-20-19 12:00	17.83	1638	8.34	31.4					
3-20-19 20:30	0.04	272	8.58	1666.1	3-20-19 19:45					3-20-19 19:45	0.69	693	8.28	133.2						6-20-19 12:15	17.79	1639	8.33	36.2					
3-20-19 20:45	0.03	272	8.58	1671.9	3-20-19 20:00					3-20-19 20:00	0.62	693	8.27	130.2						6-20-19 12:30	17.74	1638	8.34	31.3					
3-20-19 21:00	0.02	275	8.56	1649.2	3-20-19 20:15					3-20-19 20:15	0.56	693	8.27	127.0						6-20-19 12:45	17.66	1639	8.34	22.8					
3-20-19 21:15	0.02	277	8.56	1638.0	3-20-19 20:30					3-20-19 20:30	0.52	693	8.27	124.0						6-20-19 13:00	17.60	1639	8.34	23.1					
3-20-19 21:30	0.02	275	8.57	1567.6	3-20-19 20:45					3-20-19 20:45	0.46	693	8.27	129.1						6-20-19 13:15	17.53	1641	8.34	17.2					
3-20-19 21:45	0.01	275	8.57	1568.0	3-20-19 21:00					3-20-19 21:00	0.42	693	8.27	130.0						6-20-19 13:30	17.50	1640	8.34	19.7					
3-20-19 22:00	0.01	274	8.56	1531.2	3-20-19 21:15					3-20-19 21:15	0.38	694	8.24	121.6						6-20-19 13:45	17.44	1641	8.34	17.4					
3-20-19 22:15	0.01	273	8.56	1489.4	3-20-19 21:30					3-20-19 21:30	0.34	695	8.27	123.6						6-20-19 14:00	17.40	1640	8.34	17.8					
3-20-19 22:30	0.01	273	8.56	1454.3	3-20-19 21:45					3-20-19 21:45	0.30	695	8.27	117.3						6-20-19 14:15	17.33	1641	8.34	16.8					
3-20-19 22:45	0.01	274	8.56	1415.3	3-20-19 22:00					3-20-19 22:00	0.26	696	8.26	116.1						6-20-19 14:30	17.28	1640	8.35	15.7					
3-20-19 23:00	0.01	274	8.56	1404.6	3-20-19 22:15					3-20-19 22:15	0.23	697	8.26	114.5						6-20-19 14:45	17.24	1642	8.35	15.1					
3-20-19 23:15	0.01	274	8.56	1367.6	3-20-19 22:30					3-20-19 22:30	0.21	698	8.26	115.0						6-20-19 15:00	17.14	1641	8.35	16.5					
3-20-19 23:30	0.00	273	8.55	1282.9	3-20-19 22:45					3-20-19 22:45	0.18	699	8.26	113.7						6-20-19 15:15	17.14	1643	8.35	15.3					
3-20-19 23:45	0.00	273	8.56	1297.2	3-20-19 23:00					3-20-19 23:00	0.16	700	8.26	112.9						6-20-19 15:30	17.12	1642	8.35	15.7					
3-21-19 0:00	0.00	272	8.56	1285.7	3-20-19 23:15					3-20-19 23:15	0.14	701	8.26	109.7						6-20-19 15:45	17.03	1642	8.35	16.9					
3-21-19 0:15	-0.01	275	8.55	1266.2	3-20-19 23:30					3-20-19 23:30	0.12	702	8.26	109.2						6-20-19 16:00	16.99	1643	8.35	15.0					
3-21-19 0:30	-0.01	279	8.54	1277.0	3-20-19 23:45					3-20-19 23:45	0.11	703	8.26	106.9						6-20-19 16:15	16.93	1645	8.35	14.5					
3-21-19 0:45	-0.02	277	8.54	1223.2	3-21-19 0:00					3-21-19 0:00	0.10	704	8.25	106.3						6-20-19 16:30	16.89	1643	8.36	15.5					
3-21-19 1:00	-0.02	277	8.53	1197.4	3-21-19 0:15					3-21-19 0:15	0.08	704	8.25	104.0						6-20-19 16:45	16.85	1643	8.36	14.2					
3-21-19 1:15	-0.02	277	8.54	1195.8	3-21-19 0:30					3-21-19 0:30	0.07	705	8.25	101.1						6-20-19 17:00	16.84	1644	8.36	14.0					
3-21-19 1:30	-0.02	275	8.53	1143.6	3-21-19 0:45					3-21-19 0:45	0.07	705	8.25	106.2						6-20-19 17:15	16.82	1645	8.36	13.5					
3-21-19 1:45	-0.02	275	8.53	1132.4	3-21-19 1:00					3-21-19 1:00	0.06	706	8.24	100.0						6-20-19 17:30	16.73	1644	8.36	14.8					
3-21-19 2:00	-0.02	276	8.53	1112.4	3-21-19 1:15					3-21-19 1:15	0.05	706	8.25	96.6						6-20-19 17:45	16.70	1644	8.36	14.9					
3-21-19 2:15	-0.02	277	8.53	1082.3	3-21-19 1:30					3-21-19 1:30	0.05	706	8.25	97.3						6-20-19 18:00	16.71	1644	8.37	13.3					
3-21-19 2:30	0.00	322	8.49	940.1	3-21-19 1:45					3-21-19 1:45	0.04	707	8.25	95.0						6-20-19 18:15	16.61	1645	8.36	15.9					
3-21-19 2:45	0.00	388	8.47	800.1	3-21-19 2:00					3-21-19 2:00	0.04	707	8.24	92.6						6-20-19 18:30	16.63	1644	8.37	14.0					
3-21-19 3:00	-0.01	400	8.44	731.0	3-21-19 2:15					3-21-19 2:15	0.03	707	8.24	92.1						6-20-19 18:45	16.57	1644	8.37	15.5					
3-21-19 3:15	-0.01	424	8.43	675.2	3-21-19 2:30					3-21-19 2:30	0.03	708	8.24	89.7						6-20-19 19:00	16.54	1644	8.38	14.6					
3-21-19 3:30	-0.01	421	8.43	718.2	3-21-19 2:45					3-21-19 2:45	0.03	707	8.25	89.8						6-20-19 19:15	16.53	1647	8.37	15.5					
3-21-19 3:45	-0.01	430	8.43	696.3	3-21-19 3:00					3-21-19 3:00	0.03	707	8.25	87.6						6-20-19 19:30	16.49	1645	8.38	13.6					
3-21-19 4:00	-0.02	443	8.42	645.1	3-21-19 3:15					3-21-19 3:15	0.02	707	8.23	84.4						6-20-19 19:45	16.47	1647	8.38	13.6					
3-21-19 4:15	0.02	460	8.45	979.0	3-21-19 3:30					3-21-19 3:30	0.02	707	8.23	84.6						6-20-19 20:00	16.45	1646	8.38	14.0					
3-21-19 4:30	0.08	556	8.37	740.9	3-21-19 3:45					3-21-19 3:45	0.02	707	8.24	88.2						6-20-19 20:15	16.44	1647	8.37	14.1					
3-21-19 4:45	0.08	615	8.33	634.6	3-21-19 4:00					3-21-19 4:00	0.02	706	8.24	84.9						6-20-19 20:30	16.42	1646	8.39	13.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-21-19 5:00	0.06	626	8.32	608.7	3-21-19 4:15					3-21-19 4:15	0.01	706	8.24	86.9						6-20-19 20:45	16.39	1648	8.39	14.3					
3-21-19 5:15	0.05	630	8.32	591.1	3-21-19 4:30					3-21-19 4:30	0.01	706	8.24	86.7						6-20-19 21:00	16.39	1646	8.39	15.1					
3-21-19 5:30	0.04	638	8.31	569.8	3-21-19 4:45					3-21-19 4:45	0.01	705	8.26	87.3						6-20-19 21:15	16.38	1647	8.39	14.2					
3-21-19 5:45	0.04	643	8.31	561.0	3-21-19 5:00					3-21-19 5:00	0.01	705	8.25	85.5						6-20-19 21:30	16.36	1646	8.40	15.2					
3-21-19 6:00	0.03	640	8.32	562.7	3-21-19 5:15					3-21-19 5:15	0.01	704	8.25	86.1						6-20-19 21:45	16.24	1648	8.40	23.7					
3-21-19 6:15	0.02	631	8.32	564.0	3-21-19 5:30					3-21-19 5:30	0.01	703	8.24	87.7						6-20-19 22:00	16.22	1647	8.41	24.5					
3-21-19 6:30	0.03	627	8.33	535.9	3-21-19 5:45					3-21-19 5:45	0.01	703	8.25	88.2						6-20-19 22:15	16.24	1648	8.40	20.3					
3-21-19 6:45	0.02	631	8.33	499.9	3-21-19 6:00					3-21-19 6:00	0.00	704	8.24	85.7						6-20-19 22:30	16.24	1647	8.41	18.8					
3-21-19 7:00	0.02	630	8.33	516.2	3-21-19 6:15					3-21-19 6:15	0.00	703	8.24	86.2						6-20-19 22:45	16.20	1647	8.41	18.4					
3-21-19 7:15	0.01	628	8.33	502.4	3-21-19 6:30					3-21-19 6:30	0.00	703	8.24	84.7						6-20-19 23:00	16.17	1648	8.41	18.8					
3-21-19 7:30	0.00	620	8.33	504.8	3-21-19 6:45					3-21-19 6:45	-0.01	701	8.25	89.5						6-20-19 23:15	16.17	1649	8.41	18.4					
3-21-19 7:45	0.00	612	8.34	517.1	3-21-19 7:00					3-21-19 7:00	-0.01	700	8.24	90.7						6-20-19 23:30	16.21	1648	8.41	17.7					
3-21-19 8:00	-0.01	605	8.34	510.6	3-21-19 7:15					3-21-19 7:15	0.00	700	8.24	90.5						6-20-19 23:45	16.20	1649	8.41	19.2					
3-21-19 8:15	-0.01	606	8.35	499.4	3-21-19 7:30					3-21-19 7:30	0.00	699	8.24	90.1						6-21-19 0:00	16.17	1648	8.42	19.8					
3-21-19 8:30	-0.01	606	8.35	485.8	3-21-19 7:45					3-21-19 7:45	0.00	700	8.24	89.6						6-21-19 0:15	16.13	1651	8.41	18.9					
3-21-19 8:45	-0.01	605	8.35	473.1	3-21-19 8:00					3-21-19 8:00	0.01	699	8.24	88.7						6-21-19 0:30	16.13	1649	8.42	18.0					
3-21-19 9:00	-0.01	603	8.34	471.3	3-21-19 8:15					3-21-19 8:15	0.05	698	8.25	88.3						6-21-19 0:45	16.14	1650	8.42	16.0					
3-21-19 9:15	-0.01	603	8.35	451.8	3-21-19 8:30					3-21-19 8:30	0.09	696	8.25	88.0						6-21-19 1:00	16.14	1649	8.42	17.5					
3-21-19 9:30	0.00	606	8.35	438.2	3-21-19 8:45					3-21-19 8:45	0.13	696	8.26	92.4						6-21-19 1:15	16.09	1651	8.42	18.5					
3-21-19 9:45	0.00	604	8.35	423.6	3-21-19 9:00					3-21-19 9:00	0.16	699	8.23	90.6						6-21-19 1:30	16.08	1650	8.42	16.8					
3-21-19 10:00	0.02	604	8.35	440.9	3-21-19 9:15					3-21-19 9:15	0.22	699	8.24	90.8						6-21-19 1:45	16.04	1651	8.43	17.4					
3-21-19 10:15	0.04	596	8.35	448.5	3-21-19 9:30					3-21-19 9:30	0.30	698	8.23	89.5						6-21-19 2:00	16.03	1650	8.42	16.9					
3-21-19 10:30	0.07	606	8.34	433.7	3-21-19 9:45					3-21-19 9:45	0.40	695	8.25	82.4						6-21-19 2:15	15.96	1652	8.42	16.0					
3-21-19 10:45	0.12	612	8.34	414.3	3-21-19 10:00					3-21-19 10:00	0.47	693	8.25	79.9						6-21-19 2:30	15.95	1651	8.43	16.7					
3-21-19 11:00	0.19	611	8.33	402.7	3-21-19 10:15					3-21-19 10:15	0.55	692	8.24	81.0						6-21-19 2:45	15.92	1653	8.42	15.9					
3-21-19 11:15	0.25	612	8.33	392.4	3-21-19 10:30					3-21-19 10:30	0.65	689	8.24	78.9						6-21-19 3:00	15.91	1651	8.42	18.0					
3-21-19 11:30	0.31	612	8.33	372.1	3-21-19 10:45					3-21-19 10:45	0.76	686	8.25	81.6						6-21-19 3:15	15.90	1652	8.42	14.7					
3-21-19 11:45	0.38	613	8.33	371.3	3-21-19 11:00					3-21-19 11:00	0.84	684	8.24	79.4						6-21-19 3:30	15.85	1651	8.43	16.7					
3-21-19 12:00	0.42	610	8.34	384.7	3-21-19 11:15					3-21-19 11:15	0.95	681	8.24	80.9						6-21-19 3:45	15.85	1652	8.42	15.1					
3-21-19 12:15	0.38	601	8.35	424.9	3-21-19 11:30					3-21-19 11:30	1.22	665	8.23	84.6						6-21-19 4:00	15.79	1651	8.42	15.3					
3-21-19 12:30	0.37	588	8.36	429.4	3-21-19 11:45					3-21-19 11:45	1.41	654	8.24	75.7						6-21-19 4:15	15.77	1653	8.41	14.2					
3-21-19 12:45	0.38	586	8.36	425.8	3-21-19 12:00					3-21-19 12:00	1.29	669	8.24	66.9						6-21-19 4:30	15.78	1652	8.41	14.3					
3-21-19 13:00	0.40	589	8.35	398.3	3-21-19 12:15					3-21-19 12:15	1.28	675	8.23	61.3						6-21-19 4:45	15.77	1652	8.41	13.8					
3-21-19 13:15	0.39	589	8.36	420.6	3-21-19 12:30					3-21-19 12:30	1.24	679	8.23	62.8						6-21-19 5:00	15.76	1652	8.41	13.6					
3-21-19 13:30	0.99	609	8.33	361.0	3-21-19 12:45					3-21-19 12:45	1.29	682	8.25	67.0						6-21-19 5:15	15.73	1652	8.40	13.0					
3-21-19 13:45	1.56	639	8.28	245.1	3-21-19 13:00					3-21-19 13:00	1.21	687	8.23	67.7						6-21-19 5:30	15.70	1651	8.41	13.6					
3-21-19 14:00	1.61	616	8.29	484.0	3-21-19 13:15					3-21-19 13:15	1.19	689	8.24	67.4						6-21-19 5:45	15.69	1652	8.41	13.4					
3-21-19 14:15	1.29	563	8.35	620.5	3-21-19 13:30					3-21-19 13:30	1.20	691	8.23	68.7						6-21-19 6:00	15.70	1651	8.41	13.0					
3-21-19 14:30	1.16	533	8.39	758.3	3-21-19 13:45					3-21-19 13:45	1.22	687	8.24	67.5						6-21-19 6:15	15.67	1652	8.40	13.3					
3-21-19 14:45	1.13	524	8.40	843.9	3-21-19 14:00					3-21-19 14:00	1.20	689	8.24	69.0						6-21-19 6:30	15.66	1651	8.41	13.2					
3-21-19 15:00	1.02	501	8.43	903.8	3-21-19 14:15					3-21-19 14:15	1.16	690	8.24	69.3						6-21-19 6:45	15.65	1652	8.41	12.8					
3-21-19 15:15	0.93	488	8.45	953.5	3-21-19 14:30					3-21-19 14:30	1.15	689	8.24	71.9						6-21-19 7:00	15.63	1651	8.41	12.5					
3-21-19 15:30	0.88	456	8.52	1175.8	3-21-19 14:45					3-21-19 14:45	1.17	686	8.25	76.0						6-21-19 7:15	15.60	1653	8.41	12.6					
3-21-19 15:45	0.80	452	8.56	1201.6	3-21-19 15:00					3-21-19 15:00	1.17	686	8.24	76.0						6-21-19 7:30	15.56	1651	8.41	12.1					
3-21-19 16:00	0.76	473	8.50	1112.1	3-21-19 15:15					3-21-19 15:15	1.14	691	8.25	74.3						6-21-19 7:45	15.49	1651	8.41	13.6					
3-21-19 16:15	0.74	489	8.48	1148.7	3-21-19 15:30					3-21-19 15:30	1.09	692	8.25	74.0						6-21-19 8:00	15.46	1651	8.42	12.0					
3-21-19 16:30	0.72	506	8.42	1055.6	3-21-19 15:45					3-21-19 15:45	1.13	689	8.25	72.2						6-21-19 8:15	15.44	1653	8.41	11.9					
3-21-19 16:45	0.64	508	8.43	1122.1	3-21-19 16:00					3-21-19 16:00	1.03	692	8.25	75.0						6-21-19 8:30	15.46	1651	8.41	12.1					
3-21-19 17:00	1.60	465	8.42	1260.1	3-21-19 16:15					3-21-19 16:15	0.97	696	8.24	72.4						6-21-19 8:45	15.41	1653	8.42	12.5					
3-21-19 17:15	1.09	467	8.51	1348.8	3-21-19 16:30					3-21-19 16:30	0.99	697	8.24	70.3						6-21-19 9:00	15.35	1651	8.42	13.6					
3-21-19 17:30	0.86	484	8.48	1296.4	3-21-19 16:45					3-21-19 16:45										6-21-19 9:15	15.37	1652	8.42	11.9					
3-21-19 17:45	0.69	482	8.46	1237.8	3-21-19 17:00					3-21-19 17:00	0.91	704	8.24	70.9						6-21-19 9:30	15.35	1651	8.41	12.2					
3-21-19 18:00	0.48	480	8.43	1251.4	3-21-19 17:15					3-21-19 17:15	0.83	705	8.24	70.5						6-21-19 9:45	15.33	1651	8.41	12.0					
3-21-19 18:15	0.36	477	8.47	1367.0	3-21-19 17:30					3-21-19 17:30	0.77	705	8.24	71.5						6-21-19 10:00	15.30	1653	8.42	12.5					
3-21-19 18:30	0.29	466	8.50	1469.8	3-21-19 17:45					3-21-19 17:45	0.74	699	8.25	68.3						6-21-19 10:15	15.23	1653	8.41	12.0					
3-21-19 18:45	0.22	460	8.52	1581.3	3-21-19 18:00					3-21-19 18:00	0.70	698	8.25	69.6						6-21-19 10:30	15.23	1651	8.42	12.4					
3-21-19 19:00	0.17	458	8.52	1557.2	3-21-19 18:15					3-21-19 18:15	0.70	691	8.24	70.3						6-21-19 10:45	15.22	1653	8.41	13.8					
3-21-19 19:15	0.13	452	8.53	1633.1	3-21-19 18:30					3-21-19 18:30	0.69	692	8.24	73.9						6-21-19 11:00	15.17	1651	8.42	11.5					
3-21-19 19:30	0.10	446	8.54	1650.8	3-21-19 18:45					3-21-19 18:45	0.70	691	8.24	74.7						6-21-19 11:15	15.16	1653	8.41	12.1					
3-21-19 19:45	0.07	438	8.56	1685.5	3-21-19 19:00					3-21-19 19:00	0.77	685	8.25	72.9						6-21-19 11:30	15.16	1652	8.41	12.5					
3-21-19 20:00	0.06	425	8.58	1736.6	3-21-19 19:15					3-21-19 19:15	0.67	685	8.23	78.5						6-21-19 11:45	15.11	1653	8.41	11.3					
3-21-19 20:15	0.05	417	8.59	1767.5	3-21-19 19:30					3-21-19 19:30	0.60	687	8.25	77.4						6-21-19 12:00	15.08	1652	8.42	12.1					
3-21-19 20:30	0.04	412	8.60	1730.6	3-21-19 19:45					3-21-19 19:45	0.63	674	8.25	75.2						6-21-19 12:15	15.04	1654	8.40	11.4					
3-21-19 20:45	0.03	410	8.60	1730.3	3-21-19 20:00					3-21-19 20:00	0.60	670	8.26	77.0						6-21-19 12:30	15.05	1653	8.42	11.7					
3-21-19 21:00	0.03	411	8.61	1723.2	3-21-19 20:15					3-21-19 20:15	0.57	669	8.25	68.5						6-21-19 12:45	15.01	1653	8.41	11.4					
3-21-19 21:15	0.02	409	8.61	1742.7	3-21-19 20:30					3-21-19 20:30	0.56	661	8.25	70.6						6-21-19 13:00	14.99	1653	8.41	11.8					
3-21-19 21:30	0.02	409	8.61	1733.2	3-21-19 20:45					3-21-19 20:45	0.58	665	8.26	75.3						6-21-19 13:15	14.97	1654	8.41	12.7					
3-21-19 21:45	0.01	409	8.61	1695.5	3-21-19 21:00					3-21-19 21:00	0.55	663	8.26	74.6						6-21-19 13:30	14.91	1654	8.42	12.2					
3-21-19 22:00	0.01	409	8.61	1703.7	3-21-19 21:15					3-21-19 21:15	0.60	656	8.23	72.5						6-21-19 13:45	14.91	1655	8.41	10.9					
3-21-19 22:15	0.01	408	8.61	1700.0	3-21-19 21:30					3-21-19 21:30	0.63	647	8.24	70.8						6-21-19 14:00	14.90	1655	8.42	14.7					
3-21-19 22:30	0.01	407	8.61	1669.6	3-21-19 21:45					3-21-19 21:45	0.65	633	8.24	75.5						6-21-19 14:15	14.90	1658	8.41	11.1					
3-21-19 22:45	0.01	404	8.60	1646.5	3-21-19 22:00					3-21-19 22:00	0.65	628	8.24	73.9						6-21-19 14:30	14.89	1658	8.42	14.1					
3-21-19 23:00	0.01	402	8.60	1644.5	3-21-19 22:15					3-21-19 22:15	0.63	624	8.24	71.4						6-21-19 14:45	14.94	1660	8.41	13.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-21-19 23:15	0.01	401	8.60	1651.6	3-21-19 22:30					3-21-19 22:30	0.64	617	8.24	69.5						6-21-19 15:00	14.99	1659	8.42	13.3					
3-21-19 23:30	0.00	400	8.60	1644.6	3-21-19 22:45					3-21-19 22:45	0.65	617	8.24	74.0						6-21-19 15:15	15.05	1664	8.41	13.4					
3-21-19 23:45	0.01	403	8.57	1584.8	3-21-19 23:00					3-21-19 23:00	0.62	615	8.24	74.6						6-21-19 15:30	15.05	1665	8.41	13.0					
3-22-19 0:00	0.01	406	8.55	1574.8	3-21-19 23:15					3-21-19 23:15	0.58	612	8.27	73.7						6-21-19 15:45	15.03	1667	8.42	12.7					
3-22-19 0:15	0.01	408	8.55	1585.9	3-21-19 23:30					3-21-19 23:30	0.57	611	8.27	75.3						6-21-19 16:00	15.03	1662	8.42	12.2					
3-22-19 0:30	0.00	409	8.54	1566.1	3-21-19 23:45					3-21-19 23:45	0.54	610	8.26	72.2						6-21-19 16:15	15.07	1668	8.41	12.1					
3-22-19 0:45	0.00	413	8.53	1532.7	3-22-19 0:00					3-22-19 0:00	0.50	611	8.25	73.7						6-21-19 16:30	15.10	1665	8.42	12.6					
3-22-19 1:00	0.00	414	8.52	1545.5	3-22-19 0:15					3-22-19 0:15	0.47	616	8.26	76.2						6-21-19 16:45	15.08	1665	8.42	12.6					
3-22-19 1:15	-0.01	418	8.51	1542.7	3-22-19 0:30					3-22-19 0:30	0.44	617	8.27	77.9						6-21-19 17:00	15.04	1668	8.42	12.5					
3-22-19 1:30	-0.01	422	8.50	1514.6	3-22-19 0:45					3-22-19 0:45	0.38	623	8.27	85.3						6-21-19 17:15	15.18	1674	8.41	14.2					
3-22-19 1:45	-0.01	427	8.48	1452.2	3-22-19 1:00					3-22-19 1:00	0.29	631	8.27	96.9						6-21-19 17:30	15.16	1668	8.42	13.3					
3-22-19 2:00	-0.01	427	8.48	1470.5	3-22-19 1:15					3-22-19 1:15	0.23	638	8.30	105.7						6-21-19 17:45	15.36	1667	8.42	12.9					
3-22-19 2:15	-0.01	430	8.48	1441.4	3-22-19 1:30					3-22-19 1:30	0.18	640	8.30	106.1						6-21-19 18:00	15.42	1665	8.42	12.5					
3-22-19 2:30	-0.01	432	8.48	1446.8	3-22-19 1:45					3-22-19 1:45	0.15	640	8.29	104.3						6-21-19 18:15	15.46	1666	8.41	12.5					
3-22-19 2:45	-0.01	427	8.49	1428.7	3-22-19 2:00					3-22-19 2:00	0.13	639	8.29	106.6						6-21-19 18:30	15.50	1665	8.42	12.2					
3-22-19 3:00	-0.01	433	8.47	1400.5	3-22-19 2:15					3-22-19 2:15	0.12	636	8.29	106.3						6-21-19 18:45	15.56	1665	8.41	12.9					
3-22-19 3:15	-0.01	435	8.46	1384.7	3-22-19 2:30					3-22-19 2:30	0.11	632	8.31	113.0						6-21-19 19:00	15.61	1664	8.42	12.5					
3-22-19 3:30	-0.02	437	8.46	1369.1	3-22-19 2:45					3-22-19 2:45	0.12	631	8.33	115.9						6-21-19 19:15	15.84	1665	8.41	12.5					
3-22-19 3:45	-0.02	441	8.45	1357.8	3-22-19 3:00					3-22-19 3:00	0.12	629	8.34	118.8						6-21-19 19:30	15.78	1667	8.41	13.0					
3-22-19 4:00	-0.02	440	8.45	1342.8	3-22-19 3:15					3-22-19 3:15	0.11	628	8.34	115.5						6-21-19 19:45	15.77	1665	8.41	12.9					
3-22-19 4:15	-0.02	442	8.45	1336.6	3-22-19 3:30					3-22-19 3:30	0.11	628	8.34	113.6						6-21-19 20:00	15.82	1665	8.41	13.4					
3-22-19 4:30	-0.02	446	8.44	1371.5	3-22-19 3:45					3-22-19 3:45	0.10	627	8.34	109.9						6-21-19 20:15	15.89	1670	8.40	13.0					
3-22-19 4:45	-0.02	435	8.44	1341.4	3-22-19 4:00					3-22-19 4:00	0.10	627	8.33	107.4						6-21-19 20:30	15.99	1667	8.40	12.5					
3-22-19 5:00	-0.02	437	8.46	1301.5	3-22-19 4:15					3-22-19 4:15	0.09	628	8.33	105.7						6-21-19 20:45	16.10	1667	8.40	12.8					
3-22-19 5:15	-0.02	440	8.46	1293.8	3-22-19 4:30					3-22-19 4:30	0.09	628	8.33	104.9						6-21-19 21:15	16.20	1666	8.40	12.6					
3-22-19 5:30	-0.02	440	8.46	1282.9	3-22-19 4:45					3-22-19 4:45	0.08	628	8.33	107.2						6-21-19 21:30	16.33	1665	8.39	13.1					
3-22-19 5:45	-0.02	441	8.46	1274.0	3-22-19 5:00					3-22-19 5:00	0.08	628	8.34	105.2						6-21-19 21:45	16.42	1667	8.39	12.2					
3-22-19 6:00	-0.03	440	8.46	1269.7	3-22-19 5:15					3-22-19 5:15	0.07	629	8.33	99.7						6-21-19 22:00	16.45	1666	8.39	13.0					
3-22-19 6:15	-0.03	438	8.47	1253.8	3-22-19 5:30					3-22-19 5:30	0.07	629	8.33	101.1						6-21-19 22:15	16.45	1667	8.39	13.8					
3-22-19 6:30	-0.02	431	8.48	1273.6	3-22-19 5:45					3-22-19 5:45	0.06	629	8.32	95.8						6-21-19 22:30	16.59	1667	8.39	12.6					
3-22-19 6:45	-0.03	432	8.49	1245.7	3-22-19 6:00					3-22-19 6:00	0.06	628	8.31	92.4						6-21-19 22:45	16.73	1667	8.39	12.5					
3-22-19 7:00	-0.03	432	8.49	1249.3	3-22-19 6:15					3-22-19 6:15	0.05	628	8.31	90.8						6-21-19 23:00	16.78	1669	8.39	13.1					
3-22-19 7:15	-0.03	434	8.48	1208.4	3-22-19 6:30					3-22-19 6:30	0.05	628	8.31	89.9						6-21-19 23:15	16.96	1668	8.39	12.4					
3-22-19 7:30	-0.03	435	8.48	1207.0	3-22-19 6:45					3-22-19 6:45	0.05	627	8.29	93.9						6-21-19 23:30	17.17	1668	8.39	12.3					
3-22-19 7:45	-0.03	435	8.48	1205.3	3-22-19 7:00					3-22-19 7:00	0.04	627	8.31	90.4						6-21-19 23:45	17.33	1669	8.38	11.3					
3-22-19 8:00	-0.03	434	8.48	1203.7	3-22-19 7:15					3-22-19 7:15	0.04	627	8.31	90.8						6-22-19 0:00	17.39	1668	8.39	12.1					
3-22-19 8:15	-0.02	434	8.48	1181.1	3-22-19 7:30					3-22-19 7:30	0.05	627	8.30	90.3						6-22-19 0:15	17.45	1669	8.38	11.9					
3-22-19 8:30	-0.02	431	8.49	1193.0	3-22-19 7:45					3-22-19 7:45	0.05	626	8.29	86.8						6-22-19 0:30	17.61	1667	8.39	12.1					
3-22-19 8:45	-0.02	425	8.52	1190.7	3-22-19 8:00					3-22-19 8:00	0.07	625	8.29	81.8						6-22-19 0:45	17.80	1669	8.39	11.6					
3-22-19 9:00	-0.02	420	8.54	1197.8	3-22-19 8:15					3-22-19 8:15	0.11	625	8.28	82.6						6-22-19 1:00	17.88	1667	8.39	11.4					
3-22-19 9:15	-0.02	416	8.55	1197.4	3-22-19 8:30					3-22-19 8:30	0.17	623	8.27	72.1						6-22-19 1:15	17.89	1668	8.38	11.4					
3-22-19 9:30	-0.02	415	8.56	1209.4	3-22-19 8:45					3-22-19 8:45	0.26	621	8.26	82.0						6-22-19 1:30	17.93	1668	8.38	11.1					
3-22-19 9:45	-0.01	417	8.56	1174.7	3-22-19 9:00					3-22-19 9:00	0.32	621	8.26	76.1						6-22-19 1:45	17.94	1668	8.38	10.8					
3-22-19 10:00	-0.01	416	8.56	1162.6	3-22-19 9:15					3-22-19 9:15	0.43	619	8.26	75.2						6-22-19 2:00	17.93	1666	8.39	11.2					
3-22-19 10:15	0.00	416	8.56	1169.5	3-22-19 9:30					3-22-19 9:30	0.53	615	8.27	73.6						6-22-19 2:15	17.86	1668	8.38	11.1					
3-22-19 10:30	0.01	415	8.56	1154.4	3-22-19 9:45					3-22-19 9:45	0.61	614	8.26	69.3						6-22-19 2:30	17.87	1668	8.39	10.8					
3-22-19 10:45	0.05	413	8.55	1182.7	3-22-19 10:00					3-22-19 10:00	0.70	612	8.25	75.6						6-22-19 2:45	17.89	1669	8.39	10.9					
3-22-19 11:00	0.02	410	8.56	1260.9	3-22-19 10:15					3-22-19 10:15	0.77	614	8.27	78.0						6-22-19 3:00	17.89	1668	8.38	10.5					
3-22-19 11:15	0.03	409	8.57	1247.3	3-22-19 10:30					3-22-19 10:30	0.92	611	8.27	78.9						6-22-19 3:15	17.87	1668	8.37	11.2					
3-22-19 11:30	0.06	406	8.60	1250.1	3-22-19 10:45					3-22-19 10:45	0.96	609	8.28	81.9						6-22-19 3:30	17.81	1668	8.39	10.3					
3-22-19 11:45	0.13	403	8.61	1219.7	3-22-19 11:00					3-22-19 11:00	1.00	608	8.27	82.6						6-22-19 3:45	17.76	1668	8.38	10.5					
3-22-19 12:00	0.23	401	8.63	1138.9	3-22-19 11:15					3-22-19 11:15	1.06	607	8.27	83.5						6-22-19 4:00	17.71	1667	8.39	10.0					
3-22-19 12:15	0.34	393	8.66	1141.1	3-22-19 11:30					3-22-19 11:30	1.15	603	8.24	83.7						6-22-19 4:15	17.62	1669	8.38	9.9					
3-22-19 12:30	0.47	392	8.69	1102.4	3-22-19 11:45					3-22-19 11:45	1.26	599	8.26	81.5						6-22-19 4:30	17.57	1667	8.38	10.0					
3-22-19 12:45	0.55	390	8.68	1062.8	3-22-19 12:00					3-22-19 12:00	1.28	601	8.26	81.2						6-22-19 4:45	17.50	1668	8.39	9.4					
3-22-19 13:00	0.58	391	8.68	1057.6	3-22-19 12:15					3-22-19 12:15	1.32	602	8.26	82.9						6-22-19 5:00	17.41	1667	8.40	12.1					
3-22-19 13:15	0.56	391	8.67	1042.9	3-22-19 12:30					3-22-19 12:30	1.36	602	8.26	83.7						6-22-19 5:15	17.34	1668	8.39	11.0					
3-22-19 13:30	0.66	389	8.66	1088.7	3-22-19 12:45					3-22-19 12:45	1.41	601	8.27	87.9						6-22-19 5:30	17.27	1666	8.39	10.1					
3-22-19 13:45	0.69	386	8.66	1030.6	3-22-19 13:00					3-22-19 13:00	1.46	600	8.27	89.9						6-22-19 5:45	17.22	1668	8.40	10.3					
3-22-19 14:00	0.69	381	8.68	1032.7	3-22-19 13:15					3-22-19 13:15	1.48	599	8.27	91.2						6-22-19 6:00	17.20	1667	8.40	9.9					
3-22-19 14:15	0.78	381	8.67	1040.2	3-22-19 13:30					3-22-19 13:30	1.54	597	8.27	91.6						6-22-19 6:15	17.13	1668	8.38	10.2					
3-22-19 14:30	0.83	379	8.67	989.2	3-22-19 13:45					3-22-19 13:45	1.60	594	8.28	90.0						6-22-19 6:30	17.08	1666	8.39	10.4					
3-22-19 14:45	0.84	380	8.67	1010.4	3-22-19 14:00					3-22-19 14:00	1.64	590	8.27	93.9						6-22-19 6:45	17.04	1667	8.40	10.3					
3-22-19 15:00	0.88	377	8.66	1013.8	3-22-19 14:15					3-22-19 14:15	1.61	589	8.28	94.8						6-22-19 7:00	17.01	1666	8.40	10.3					
3-22-19 15:15	0.98	365	8.66	1128.1	3-22-19 14:30					3-22-19 14:30	1.65	589	8.28	94.4						6-22-19 7:15	16.96	1668	8.40	11.3					
3-22-19 15:30	0.98	369	8.61	1006.0	3-22-19 14:45					3-22-19 14:45	1.69	586	8.26	97.6						6-22-19 7:30	16.91	1666	8.39	10.0					
3-22-19 15:45	0.99	378	8.62	953.1	3-22-19 15:00					3-22-19 15:00	1.76	583	8.28	100.3						6-22-19 7:45	16.86	1668	8.39	9.7					
3-22-19 16:00	0.97	381	8.63	949.9	3-22-19 15:15					3-22-19 15:15	1.99	577	8.29	103.1						6-22-19 8:00	16.79	1666	8.39	9.6					
3-22-19 16:15	0.98	379	8.64	1003.4	3-22-19 15:30					3-22-19 15:30	2.03	577	8.30	105.6						6-22-19 8:15	16.71	1667	8.38	10.2					
3-22-19 16:30	1.01	374	8.64	959.7	3-22-19 15:45					3-22-19 15:45	2.59	567	8.29	104.1						6-22-19 8:30	16.64	1666	8.40	9.4					
3-22-19 16:45	0.97	382	8.63	961.2	3-22-19 16:00					3-22-19 16:00	2.93	549	8.26	97.7						6-22-19 8:45	16.57	1667	8.40	9.7					
3-22-19 17:00	0.94	375	8.64	1027.3	3-22-19 16:15					3-22-19 16:15	3.05	543	8.25	88.6						6-22-19 9:00	16.59	1667	8.40	9.5					
3-22-19 17:15	0.86	372	8.64	1025.9	3-22-19 16:30					3-22-19 16:30	3.05	546	8.26	99.0						6-22-19 9:15	16.54	1667	8.40	10.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-22-19 17:30	0.80	368	8.65	1039.9	3-22-19 16:45					3-22-19 16:45	3.10	533	8.27	96.9						6-22-19 9:30	16.42	1664	8.41	10.2					
3-22-19 17:45	0.66	368	8.65	1095.3	3-22-19 17:00					3-22-19 17:00	3.16	523	8.27	89.5						6-22-19 9:45	16.37	1666	8.40	10.0					
3-22-19 18:00	0.58	371	8.65	1067.8	3-22-19 17:15					3-22-19 17:15	3.17	516	8.27	93.4						6-22-19 10:00	16.34	1666	8.40	9.8					
3-22-19 18:15	0.49	372	8.64	1066.8	3-22-19 17:30					3-22-19 17:30	3.77	490	8.26	65.9						6-22-19 10:15	16.24	1668	8.39	9.9					
3-22-19 18:30	0.45	373	8.64	1096.9	3-22-19 17:45					3-22-19 17:45	3.71	494	8.24	52.2						6-22-19 10:30	16.21	1665	8.40	10.2					
3-22-19 18:45	0.41	371	8.64	1087.6	3-22-19 18:00					3-22-19 18:00	3.11	497	8.24	75.3						6-22-19 10:45	16.15	1667	8.40	9.9					
3-22-19 19:00	0.39	370	8.64	1118.9	3-22-19 18:15					3-22-19 18:15	2.78	510	8.27	89.0						6-22-19 11:00	16.09	1666	8.40	10.3					
3-22-19 19:15	0.35	370	8.64	1012.6	3-22-19 18:30					3-22-19 18:30	2.59	513	8.28	96.2						6-22-19 11:15	16.04	1667	8.40	9.6					
3-22-19 19:30	0.30	370	8.63	1068.0	3-22-19 18:45					3-22-19 18:45	2.19	521	8.29	89.5						6-22-19 11:30	15.95	1666	8.40	11.0					
3-22-19 19:45	0.27	372	8.62	1039.0	3-22-19 19:00					3-22-19 19:00	2.28	514	8.29	82.7						6-22-19 11:45	15.95	1667	8.40	10.5					
3-22-19 20:00	0.25	372	8.63	1012.7	3-22-19 19:15					3-22-19 19:15	2.16	512	8.29	76.5						6-22-19 12:00	15.92	1667	8.40	10.2					
3-22-19 20:15	0.22	370	8.65	1029.3	3-22-19 19:30					3-22-19 19:30	1.98	514	8.29	83.5						6-22-19 12:15	15.85	1669	8.39	10.4					
3-22-19 20:30	0.19	370	8.64	1005.0	3-22-19 19:45					3-22-19 19:45	1.78	531	8.29	98.8						6-22-19 12:30	15.78	1666	8.40	10.4					
3-22-19 20:45	0.16	369	8.63	1049.2	3-22-19 20:00					3-22-19 20:00	1.39	545	8.30	104.9						6-22-19 12:45	15.84	1667	8.39	11.5					
3-22-19 21:00	0.13	375	8.61	974.8	3-22-19 20:15					3-22-19 20:15	1.23	536	8.30	108.3						6-22-19 13:00	15.75	1666	8.39	11.2					
3-22-19 21:15	0.23	419	8.45	811.0	3-22-19 20:30					3-22-19 20:30	1.02	554	8.32	113.6						6-22-19 13:15	15.75	1667	8.39	10.6					
3-22-19 21:30	0.21	424	8.45	716.0	3-22-19 20:45					3-22-19 20:45	0.91	558	8.32	117.3						6-22-19 13:30	15.68	1666	8.39	10.4					
3-22-19 21:45	0.22	408	8.51	824.3	3-22-19 21:00					3-22-19 21:00	0.79	560	8.32	119.2						6-22-19 13:45	15.72	1667	8.40	11.4					
3-22-19 22:00	0.13	417	8.48	781.9	3-22-19 21:15					3-22-19 21:15	0.61	564	8.32	119.3						6-22-19 14:00	15.72	1666	8.40	11.2					
3-22-19 22:15	0.17	403	8.51	808.2	3-22-19 21:30					3-22-19 21:30	0.53	567	8.31	119.1						6-22-19 14:15	15.75	1668	8.38	11.5					
3-22-19 22:30	0.10	410	8.50	717.5	3-22-19 21:45					3-22-19 21:45	0.51	564	8.33	116.3						6-22-19 14:30	15.82	1666	8.40	12.2					
3-22-19 22:45	0.13	401	8.51	796.7	3-22-19 22:00					3-22-19 22:00	0.48	563	8.34	116.6						6-22-19 14:45	15.88	1667	8.39	11.7					
3-22-19 23:00	0.11	411	8.51	620.3	3-22-19 22:15					3-22-19 22:15	0.44	560	8.33	114.8						6-22-19 15:00	16.01	1666	8.39	14.3					
3-22-19 23:15	0.17	421	8.48	537.5	3-22-19 22:30					3-22-19 22:30	0.40	555	8.32	107.5						6-22-19 15:15	16.12	1666	8.39	12.5					
3-22-19 23:30	0.16	396	8.50	824.1	3-22-19 22:45					3-22-19 22:45	0.35	561	8.32	113.9						6-22-19 15:30	16.23	1665	8.40	12.5					
3-22-19 23:45	0.16	401	8.49	750.3	3-22-19 23:00					3-22-19 23:00	0.29	565	8.33	110.3						6-22-19 15:45	16.37	1668	8.39	12.5					
3-23-19 0:00	0.12	391	8.52	931.7	3-22-19 23:15					3-22-19 23:15	0.23	565	8.32	114.4						6-22-19 16:00	16.50	1665	8.39	13.8					
3-23-19 0:15	0.12	412	8.47	638.6	3-22-19 23:30					3-22-19 23:30	0.16	567	8.32	114.0						6-22-19 16:15	16.68	1668	8.39	13.9					
3-23-19 0:30	0.14	407	8.49	677.5	3-22-19 23:45					3-22-19 23:45	0.11	561	8.32	105.3						6-22-19 16:30	16.85	1667	8.39	16.3					
3-23-19 0:45	0.08	410	8.47	679.8	3-23-19 0:00					3-23-19 0:00	0.08	563	8.31	108.2						6-22-19 16:45	17.14	1666	8.39	19.1					
3-23-19 1:00	0.12	406	8.48	675.2	3-23-19 0:15					3-23-19 0:15	0.05	562	8.32	103.8						6-22-19 17:00	16.98	1664	8.39	13.6					
3-23-19 1:15	0.07	408	8.48	662.5	3-23-19 0:30					3-23-19 0:30	0.02	560	8.31	101.0						6-22-19 17:15	17.22	1663	8.38	14.6					
3-23-19 1:30	0.16	411	8.47	612.4	3-23-19 0:45					3-23-19 0:45	0.00	558	8.31	101.2						6-22-19 17:30	17.50	1664	8.38	14.1					
3-23-19 1:45	0.13	405	8.48	701.9	3-23-19 1:00					3-23-19 1:00	-0.02	564	8.33	112.4						6-22-19 17:45	17.18	1661	8.38	13.4					
3-23-19 2:00	0.09	400	8.50	702.5	3-23-19 1:15					3-23-19 1:15	-0.04	565	8.32	113.1						6-22-19 18:00	17.27	1664	8.37	12.6					
3-23-19 2:15	0.11	405	8.49	619.4	3-23-19 1:30					3-23-19 1:30	-0.05	565	8.32	111.8						6-22-19 18:15	17.70	1667	8.36	12.8					
3-23-19 2:30	0.08	399	8.49	684.1	3-23-19 1:45					3-23-19 1:45	-0.06	552	8.26	92.1						6-22-19 18:30	18.00	1668	8.37	12.3					
3-23-19 2:45	0.16	407	8.48	643.2	3-23-19 2:00					3-23-19 2:00	-0.08	551	8.24	98.2						6-22-19 18:45	18.23	1668	8.37	12.6					
3-23-19 3:00	0.13	409	8.47	602.4	3-23-19 2:15					3-23-19 2:15	-0.10	547	8.26	94.0						6-22-19 19:00	18.47	1667	8.36	12.5					
3-23-19 3:15	0.12	405	8.48	691.1	3-23-19 2:30					3-23-19 2:30	-0.08	543	8.24	91.4						6-22-19 19:15	18.71	1671	8.36	12.2					
3-23-19 3:30	0.07	407	8.47	409.2	3-23-19 2:45					3-23-19 2:45	-0.05	542	8.23	93.9						6-22-19 19:30	19.04	1668	8.35	12.2					
3-23-19 3:45	0.31	425	8.42	466.5	3-23-19 3:00					3-23-19 3:00	-0.05	551	8.21	106.4						6-22-19 19:45	19.90	1669	8.36	13.4					
3-23-19 4:00	0.24	425	8.42	494.8	3-23-19 3:15					3-23-19 3:15	-0.06	539	8.23	94.3						6-22-19 20:00	19.51	1667	8.36	13.4					
3-23-19 4:15	0.17	425	8.42	475.6	3-23-19 3:30					3-23-19 3:30	-0.05	533	8.21	90.4						6-22-19 20:15	20.39	1675	8.35	12.5					
3-23-19 4:30	0.17	432	8.42	396.8	3-23-19 3:45					3-23-19 3:45	-0.05	495	8.24	63.7						6-22-19 20:30	20.80	1674	8.36	14.4					
3-23-19 4:45	0.12	423	8.43	464.3	3-23-19 4:00					3-23-19 4:00	-0.05	486	8.22	62.0						6-22-19 20:45	20.31	1672	8.35	12.0					
3-23-19 5:00	0.16	427	8.43	457.5	3-23-19 4:15					3-23-19 4:15	-0.05	474	8.22	62.6						6-22-19 21:00	20.07	1671	8.35	12.1					
3-23-19 5:15	0.12	428	8.42	450.7	3-23-19 4:30					3-23-19 4:30	-0.05	476	8.21	53.5						6-22-19 21:15	20.68	1683	8.36	13.4					
3-23-19 5:30	0.10	433	8.41	378.3	3-23-19 4:45					3-23-19 4:45	-0.06	493	8.21	77.3						6-22-19 21:30	20.72	1671	8.35	12.2					
3-23-19 5:45	0.32	430	8.41	411.8	3-23-19 5:00					3-23-19 5:00	-0.07	498	8.21	66.2						6-22-19 21:45	20.97	1669	8.35	12.0					
3-23-19 6:00	0.23	430	8.41	405.1	3-23-19 5:15					3-23-19 5:15	-0.07	491	8.20	62.7						6-22-19 22:00	21.39	1683	8.36	13.1					
3-23-19 6:15	0.34	430	8.41	396.2	3-23-19 5:30					3-23-19 5:30	-0.07	490	8.19	63.3						6-22-19 22:15	21.41	1690	8.34	15.5					
3-23-19 6:30	0.26	429	8.41	393.3	3-23-19 5:45					3-23-19 5:45	-0.08	465	8.21	50.6						6-22-19 22:30	21.75	1679	8.34	13.1					
3-23-19 6:45	0.23	429	8.41	413.0	3-23-19 6:00					3-23-19 6:00	-0.08	460	8.18	47.3						6-22-19 22:45	21.74	1696	8.35	19.8					
3-23-19 7:00	0.17	429	8.41	407.8	3-23-19 6:15					3-23-19 6:15	-0.08	460	8.14	47.5						6-22-19 23:00	21.86	1678	8.35	19.2					
3-23-19 7:15	0.15	429	8.41	409.8	3-23-19 6:30					3-23-19 6:30	-0.08	457	8.15	48.5						6-22-19 23:15	22.09	1678	8.34	15.6					
3-23-19 7:30	0.13	429	8.41	407.6	3-23-19 6:45					3-23-19 6:45	-0.09	469	8.17	52.7						6-22-19 23:30	22.12	1676	8.35	16.5					
3-23-19 7:45	0.12	430	8.41	407.8	3-23-19 7:00					3-23-19 7:00	-0.09	475	8.16	57.9						6-22-19 23:45	22.15	1677	8.33	13.8					
3-23-19 8:00	0.11	430	8.41	402.8	3-23-19 7:15					3-23-19 7:15	-0.09	472	8.18	57.8						6-23-19 0:00	22.33	1675	8.36	18.1					
3-23-19 8:15	0.11	429	8.41	406.1	3-23-19 7:30					3-23-19 7:30	-0.09	469	8.17	54.1						6-23-19 0:15	22.07	1683	8.33	12.5					
3-23-19 8:30	0.12	429	8.41	416.4	3-23-19 7:45					3-23-19 7:45	-0.07	445	8.19	45.2						6-23-19 0:30	21.94	1682	8.34	12.9					
3-23-19 8:45	0.12	435	8.39	401.8	3-23-19 8:00					3-23-19 8:00	-0.03	427	8.16	42.4						6-23-19 0:45	21.73	1670	8.33	12.4					
3-23-19 9:00	0.13	446	8.32	399.3	3-23-19 8:15					3-23-19 8:15	0.06	426	8.17	42.2						6-23-19 1:00	21.84	1678	8.36	12.7					
3-23-19 9:15	0.16	460	8.18	394.4	3-23-19 8:30					3-23-19 8:30	0.17	421	8.18	41.1						6-23-19 1:15	21.86	1679	8.35	13.9					
3-23-19 9:30	0.20	467	8.08	508.9	3-23-19 8:45					3-23-19 8:45	0.28	428	8.20	51.2						6-23-19 1:30	21.77	1677	8.36	12.9					
3-23-19 9:45	0.27	467	8.10	364.1	3-23-19 9:00					3-23-19 9:00	0.42	436	8.13	49.5						6-23-19 1:45	21.60	1679	8.35	11.9					
3-23-19 10:00	0.31	466	8.10	387.2	3-23-19 9:15					3-23-19 9:15	0.63	430	8.17	48.0						6-23-19 2:00	21.47	1675	8.35	12.3					
3-23-19 10:15	0.42	459	8.12	384.2	3-23-19 9:30					3-23-19 9:30	0.80	420	8.19	45.1						6-23-19 2:15	21.25	1670	8.35	12.1					
3-23-19 10:30	0.48	460	8.11	384.4	3-23-19 9:45					3-23-19 9:45	0.96	396	8.19	38.8						6-23-19 2:30	21.01	1673	8.35	15.8					
3-23-19 10:45	0.60	469	8.02	367.2	3-23-19 10:00					3-23-19 10:00	1.26	400	8.17	36.6						6-23-19 2:45	20.80	1674	8.35	13.6					
3-23-19 11:00	0.65	484	7.91	334.4	3-23-19 10:15					3-23-19 10:15	1.36	440	8.18	46.2						6-23-19 3:00	20.71	1672	8.36	13.0					
3-23-19 11:15	0.69	497	7.82	305.5	3-23-19 10:30					3-23-19 10:30	1.24	522	8.26	66.6						6-23-19 3:15	20.61	1675	8.36	12.3					
3-23-19 11:30	0.78	493	7.83	351.4	3-23-19 10:45					3-23-19 10:45	1.22	505	8.29	66.1						6-23-19 3:30	20.54	1674	8.35	13.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-23-19 11:45	0.84	477	7.90	378.7	3-23-19 11:00					3-23-19 11:00	1.21	550	8.31	92.7						6-23-19 3:45	20.48	1674	8.37	11.4					
3-23-19 12:00	0.88	469	7.95	356.7	3-23-19 11:15					3-23-19 11:15	1.23	557	8.32	99.7						6-23-19 4:00	20.42	1676	8.38	11.6					
3-23-19 12:15	1.45	378	8.20	283.5	3-23-19 11:30					3-23-19 11:30	1.25	559	8.30	100.8						6-23-19 4:15	19.90	1669	8.36	13.3					
3-23-19 12:30	1.56	369	8.32	311.7	3-23-19 11:45					3-23-19 11:45	1.35	556	8.32	97.0						6-23-19 4:30	19.06	1667	8.36	14.7					
3-23-19 12:45	1.98	362	8.35	302.7	3-23-19 12:00					3-23-19 12:00	1.35	559	8.32	98.8						6-23-19 4:45	18.51	1662	8.37	15.7					
3-23-19 13:00	2.17	375	8.34	293.3	3-23-19 12:15					3-23-19 12:15	1.35	574	8.30	94.8						6-23-19 5:00	17.86	1661	8.35	21.7					
3-23-19 13:15	2.46	375	8.35	260.4	3-23-19 12:30					3-23-19 12:30	1.22	589	8.28	86.9						6-23-19 5:15	17.56	1671	8.31	19.9					
3-23-19 13:30	2.47	378	8.36	384.9	3-23-19 12:45					3-23-19 12:45	1.12	610	8.24	67.3						6-23-19 5:30	17.51	1672	8.27	18.5					
3-23-19 13:45	1.93	370	8.35	696.3	3-23-19 13:00					3-23-19 13:00	1.84	571	8.26	107.0						6-23-19 5:45	17.51	1668	8.23	17.9					
3-23-19 14:00	1.92	367	8.35	707.0	3-23-19 13:15					3-23-19 13:15	1.59	598	8.25	83.3						6-23-19 6:00	17.48	1674	8.21	17.5					
3-23-19 14:15	2.02	367	8.36	646.8	3-23-19 13:30					3-23-19 13:30	1.44	599	8.28	91.9						6-23-19 6:15	17.44	1674	8.19	20.9					
3-23-19 14:30	2.23	363	8.36	692.1	3-23-19 13:45					3-23-19 13:45	1.41	589	8.32	95.2						6-23-19 6:30	17.44	1670	8.19	18.3					
3-23-19 14:45	2.11	376	8.37	583.6	3-23-19 14:00					3-23-19 14:00	1.37	552	8.36	106.6						6-23-19 6:45	17.46	1671	8.19	17.4					
3-23-19 15:00	2.25	405	8.36	427.5	3-23-19 14:15					3-23-19 14:15	1.53	557	8.38	96.8						6-23-19 7:00	17.56	1672	8.20	14.5					
3-23-19 15:15	2.11	411	8.38	341.1	3-23-19 14:30					3-23-19 14:30	1.70	562	8.36	95.7						6-23-19 7:15	17.70	1675	8.21	13.2					
3-23-19 15:30	1.51	419	8.39	362.0	3-23-19 14:45					3-23-19 14:45	2.71	502	8.29	79.9						6-23-19 7:30	17.88	1673	8.23	12.7					
3-23-19 15:45	1.64	422	8.39	347.8	3-23-19 15:00					3-23-19 15:00	2.36	519	8.33	86.3						6-23-19 7:45	18.07	1674	8.26	11.8					
3-23-19 16:00	1.54	424	8.39	288.0	3-23-19 15:15					3-23-19 15:15	2.27	507	8.29	85.1						6-23-19 8:00	18.01	1671	8.30	11.6					
3-23-19 16:15	1.27	424	8.39	278.7	3-23-19 15:30					3-23-19 15:30	2.20	546	8.31	90.8						6-23-19 8:15	17.94	1674	8.31	11.0					
3-23-19 16:30	1.28	420	8.39	250.7	3-23-19 15:45					3-23-19 15:45	1.19	665	8.21	86.2						6-23-19 8:30	17.91	1673	8.33	11.2					
3-23-19 16:45	1.13	420	8.40	273.3	3-23-19 16:00					3-23-19 16:00	1.36	626	8.23	118.7						6-23-19 8:45	17.87	1674	8.34	11.0					
3-23-19 17:00	1.08	420	8.40	279.4	3-23-19 16:15					3-23-19 16:15	1.06	632	8.25	91.8						6-23-19 9:00	17.79	1674	8.36	11.6					
3-23-19 17:15	1.11	420	8.40	286.2	3-23-19 16:30					3-23-19 16:30	0.84	657	8.23	76.8						6-23-19 9:15	17.77	1674	8.35	11.7					
3-23-19 17:30	1.15	418	8.39	264.0	3-23-19 16:45					3-23-19 16:45	0.79	661	8.23	73.0						6-23-19 9:30	17.70	1673	8.35	11.0					
3-23-19 17:45	1.17	415	8.38	244.6	3-23-19 17:00					3-23-19 17:00	0.72	677	8.23	70.5						6-23-19 9:45	17.64	1675	8.35	11.6					
3-23-19 18:00	1.11	412	8.35	227.6	3-23-19 17:15					3-23-19 17:15	0.61	692	8.21	65.0						6-23-19 10:00	17.55	1672	8.37	12.1					
3-23-19 18:15	0.97	417	8.37	230.9	3-23-19 17:30					3-23-19 17:30	0.56	692	8.21	120.9						6-23-19 10:15	17.56	1675	8.36	12.2					
3-23-19 18:30	0.95	416	8.39	225.7	3-23-19 17:45					3-23-19 17:45	0.58	687	8.20	110.6						6-23-19 10:30	17.69	1673	8.37	10.9					
3-23-19 18:45	0.92	415	8.38	223.0	3-23-19 18:00					3-23-19 18:00	0.66	660	8.19	325.1						6-23-19 10:45	17.72	1675	8.36	12.0					
3-23-19 19:00	0.86	413	8.37	225.2	3-23-19 18:15					3-23-19 18:15	0.74	635	8.18	337.3						6-23-19 11:00	17.85	1676	8.37	10.3					
3-23-19 19:15	0.80	411	8.37	219.2	3-23-19 18:30					3-23-19 18:30	0.69	627	8.18	300.9						6-23-19 11:15	17.87	1676	8.37	10.4					
3-23-19 19:30	0.71	409	8.37	219.4	3-23-19 18:45					3-23-19 18:45	0.74	656	8.20	193.7						6-23-19 11:30	17.90	1676	8.37	12.6					
3-23-19 19:45	0.63	407	8.37	214.2	3-23-19 19:00					3-23-19 19:00	0.59	636	8.20	281.9						6-23-19 11:45	17.90	1678	8.37	11.1					
3-23-19 20:00	0.56	407	8.37	216.8	3-23-19 19:15					3-23-19 19:15	0.57	663	8.19	226.9						6-23-19 12:00	17.88	1677	8.37	11.0					
3-23-19 20:15	0.51	405	8.38	210.9	3-23-19 19:30					3-23-19 19:30	0.52	660	8.18	230.2						6-23-19 12:15	17.88	1680	8.37	10.6					
3-23-19 20:30	0.47	405	8.38	214.5	3-23-19 19:45					3-23-19 19:45	0.50	662	8.19	202.0						6-23-19 12:30	17.88	1675	8.37	11.9					
3-23-19 20:45	0.42	405	8.38	214.6	3-23-19 20:00					3-23-19 20:00	0.46	663	8.18	202.4						6-23-19 12:45	17.83	1678	8.38	10.3					
3-23-19 21:00	0.34	397	8.39	239.0	3-23-19 20:15					3-23-19 20:15	0.41	663	8.19	208.5						6-23-19 13:00	17.79	1677	8.37	10.6					
3-23-19 21:15	0.32	413	8.40	216.0	3-23-19 20:30					3-23-19 20:30	0.36	662	8.18	205.5						6-23-19 13:15	17.80	1678	8.37	9.7					
3-23-19 21:30	0.52	420	8.40	223.3	3-23-19 20:45					3-23-19 20:45	0.33	662	8.20	210.8						6-23-19 13:30	17.77	1678	8.37	10.1					
3-23-19 21:45	0.52	420	8.40	219.3	3-23-19 21:00					3-23-19 21:00	0.33	685	8.18	176.2						6-23-19 13:45	17.82	1678	8.37	10.4					
3-23-19 22:00	0.40	417	8.41	212.3	3-23-19 21:15					3-23-19 21:15	0.32	688	8.17	108.4						6-23-19 14:00	17.89	1679	8.37	11.3					
3-23-19 22:15	0.35	418	8.41	214.2	3-23-19 21:30					3-23-19 21:30	0.30	691	8.17	87.1						6-23-19 14:15	17.87	1679	8.35	12.5					
3-23-19 22:30	0.32	418	8.41	211.2	3-23-19 21:45					3-23-19 21:45	0.32	695	8.18	63.5						6-23-19 14:30	17.86	1676	8.37	11.0					
3-23-19 22:45	0.24	416	8.41	205.7	3-23-19 22:00					3-23-19 22:00	0.33	694	8.19	61.4						6-23-19 14:45	17.81	1677	8.37	10.6					
3-23-19 23:00	0.16	414	8.41	199.6	3-23-19 22:15					3-23-19 22:15	0.28	681	8.18	75.0						6-23-19 15:00	17.71	1676	8.35	23.9					
3-23-19 23:15	0.11	413	8.40	192.1	3-23-19 22:30					3-23-19 22:30	0.17	674	8.18	118.5						6-23-19 15:15	17.62	1676	8.34	15.3					
3-23-19 23:30	0.14	409	8.40	200.3	3-23-19 22:45					3-23-19 22:45	0.17	676	8.19	156.5						6-23-19 15:30	17.62	1675	8.33	15.7					
3-23-19 23:45	0.10	410	8.40	197.0	3-23-19 23:00					3-23-19 23:00	0.17	670	8.18	148.9						6-23-19 15:45	17.64	1678	8.33	15.2					
3-24-19 0:00	0.04	412	8.40	181.4	3-23-19 23:15					3-23-19 23:15	0.20	674	8.17	115.5						6-23-19 16:00	17.70	1675	8.33	15.5					
3-24-19 0:15	0.55	403	8.38	269.0	3-23-19 23:30					3-23-19 23:30	0.20	679	8.18	106.0						6-23-19 16:15	17.77	1678	8.33	15.0					
3-24-19 0:30	0.66	402	8.37	261.6	3-23-19 23:45					3-23-19 23:45	0.21	678	8.19	90.9						6-23-19 16:30	17.80	1676	8.34	20.3					
3-24-19 0:45	0.63	402	8.38	254.6	3-24-19 0:00					3-24-19 0:00	0.21	677	8.18	82.8						6-23-19 16:45	17.97	1678	8.34	14.8					
3-24-19 1:00	0.38	402	8.39	245.3	3-24-19 0:15					3-24-19 0:15	0.22	673	8.19	76.2						6-23-19 17:00	17.98	1676	8.33	17.0					
3-24-19 1:15	0.35	402	8.38	248.3	3-24-19 0:30					3-24-19 0:30	0.22	671	8.18	77.9						6-23-19 17:15	17.95	1678	8.34	18.5					
3-24-19 1:30	0.32	401	8.39	241.5	3-24-19 0:45					3-24-19 0:45	0.21	674	8.19	82.5						6-23-19 17:30	17.96	1677	8.35	19.1					
3-24-19 1:45	0.29	401	8.39	237.2	3-24-19 1:00					3-24-19 1:00	0.20	665	8.18	84.2						6-23-19 17:45	18.07	1675	8.34	19.7					
3-24-19 2:00	0.18	402	8.39	240.9	3-24-19 1:15					3-24-19 1:15	0.20	666	8.18	84.1						6-23-19 18:00	18.20	1676	8.34	19.8					
3-24-19 2:15	0.13	402	8.39	235.1	3-24-19 1:30					3-24-19 1:30	0.18	669	8.19	82.2						6-23-19 18:15	18.22	1676	8.34	24.5					
3-24-19 2:30	0.11	401	8.39	231.6	3-24-19 1:45					3-24-19 1:45	0.13	672	8.18	70.9						6-23-19 18:30	18.27	1676	8.35	17.4					
3-24-19 2:45	0.08	401	8.39	224.2	3-24-19 2:00					3-24-19 2:00	0.14	671	8.19	65.4						6-23-19 18:45	18.08	1661	8.37	18.2					
3-24-19 3:00	0.04	400	8.37	208.5	3-24-19 2:15					3-24-19 2:15	0.14	669	8.20	69.0						6-23-19 19:00	18.11	1671	8.36	20.6					
3-24-19 3:15	0.36	402	8.34	215.9	3-24-19 2:30					3-24-19 2:30	0.14	666	8.19	72.5						6-23-19 19:15	18.13	1671	8.36	19.5					
3-24-19 3:30	0.62	403	8.33	248.6	3-24-19 2:45					3-24-19 2:45	0.14	670	8.19	76.4						6-23-19 19:30	18.18	1673	8.37	19.3					
3-24-19 3:45	0.63	404	8.33	242.3	3-24-19 3:00					3-24-19 3:00	0.14	668	8.19	79.6						6-23-19 19:45	18.27	1670	8.37	32.1					
3-24-19 4:00	0.57	404	8.33	234.9	3-24-19 3:15					3-24-19 3:15	0.13	668	8.19	84.1						6-23-19 20:00	18.34	1671	8.36	30.5					
3-24-19 4:15	0.22	406	8.33	209.8	3-24-19 3:30					3-24-19 3:30	0.11	665	8.19	89.4						6-23-19 20:15	18.19	1670	8.36	23.4					
3-24-19 4:30	0.57	408	8.33	219.1	3-24-19 3:45					3-24-19 3:45	0.11	659	8.19	90.5						6-23-19 20:30	18.14	1668	8.37	17.7					
3-24-19 4:45	0.59	409	8.33	218.6	3-24-19 4:00					3-24-19 4:00	0.11	656	8.19	94.4						6-23-19 20:45	18.14	1668	8.37	17.2					
3-24-19 5:00	0.44	408	8.33	217.8	3-24-19 4:15					3-24-19 4:15	0.11	654	8.19	91.5						6-23-19 21:00	18.09	1666	8.38	18.4					
3-24-19 5:15	0.24	408	8.34	220.8	3-24-19 4:30					3-24-19 4:30	0.11	653	8.19	95.2						6-23-19 21:15	18.10	1668	8.37	19.1					
3-24-19 5:30	0.78	427	8.28	245.2	3-24-19 4:45					3-24-19 4:45	0.10	652	8.21	97.7						6-23-19 21:30	18.22	1668	8.37	20.2					
3-24-19 5:45	0.76	429	8.28	243.5	3-24-19 5:00					3-24-19 5:00	0.10	650	8.20	96.5						6-23-19 21:45	18.36	1669	8.36	16.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-24-19 6:00	0.64	427	8.28	238.4	3-24-19 5:15					3-24-19 5:15	0.10	649	8.20	90.8						6-23-19 22:00	18.33	1670	8.36	19.0					
3-24-19 6:15	0.45	425	8.29	237.6	3-24-19 5:30					3-24-19 5:30	0.09	649	8.21	88.4						6-23-19 22:15	18.28	1673	8.36	20.0					
3-24-19 6:30	0.42	421	8.30	225.1	3-24-19 5:45					3-24-19 5:45	0.09	645	8.21	84.3						6-23-19 22:30	18.42	1671	8.36	19.2					
3-24-19 6:45	0.40	422	8.30	224.0	3-24-19 6:00					3-24-19 6:00	0.08	645	8.21	85.7						6-23-19 22:45	18.64	1672	8.36	17.9					
3-24-19 7:00	0.37	421	8.30	220.4	3-24-19 6:15					3-24-19 6:15	0.08	644	8.20	83.1						6-23-19 23:00	18.69	1668	8.36	18.3					
3-24-19 7:15	0.33	421	8.30	219.6	3-24-19 6:30					3-24-19 6:30	0.07	643	8.20	83.6						6-23-19 23:15	18.66	1670	8.36	17.3					
3-24-19 7:30	0.30	421	8.30	214.6	3-24-19 6:45					3-24-19 6:45	0.07	645	8.22	87.1						6-23-19 23:30	18.55	1669	8.36	17.3					
3-24-19 7:45	0.27	421	8.30	213.9	3-24-19 7:00					3-24-19 7:00	0.06	645	8.21	85.6						6-23-19 23:45	18.52	1670	8.36	17.7					
3-24-19 8:00	0.23	421	8.30	212.8	3-24-19 7:15					3-24-19 7:15	0.06	644	8.19	86.3						6-24-19 0:00	18.54	1669	8.36	17.7					
3-24-19 8:15	0.20	421	8.30	215.0	3-24-19 7:30					3-24-19 7:30	0.06	643	8.20	85.1						6-24-19 0:15	18.53	1672	8.35	19.4					
3-24-19 8:30	0.17	421	8.30	208.3	3-24-19 7:45					3-24-19 7:45	0.05	651	8.20	70.3						6-24-19 0:30	18.62	1673	8.36	17.6					
3-24-19 8:45	0.16	421	8.30	208.5	3-24-19 8:00					3-24-19 8:00	0.06	647	8.20	72.2						6-24-19 0:45	18.65	1673	8.36	18.3					
3-24-19 9:00	0.14	420	8.30	205.4	3-24-19 8:15					3-24-19 8:15	0.06	635	8.20	85.7						6-24-19 1:00	18.59	1671	8.36	18.3					
3-24-19 9:15	0.13	420	8.30	205.8	3-24-19 8:30					3-24-19 8:30	0.07	646	8.21	80.3						6-24-19 1:15	18.66	1672	8.36	19.4					
3-24-19 9:30	0.12	421	8.30	203.8	3-24-19 8:45					3-24-19 8:45	0.09	659	8.19	90.4						6-24-19 1:30	18.68	1669	8.37	17.4					
3-24-19 9:45	0.12	420	8.31	207.4	3-24-19 9:00					3-24-19 9:00	0.10	661	8.19	91.4						6-24-19 1:45	18.68	1671	8.36	17.5					
3-24-19 10:00	0.12	422	8.30	198.8	3-24-19 9:15					3-24-19 9:15	0.14	653	8.20	107.8						6-24-19 2:00	18.67	1670	8.36	16.6					
3-24-19 10:15	0.11	451	8.05	145.6	3-24-19 9:30					3-24-19 9:30	0.15	640	8.19	122.0						6-24-19 2:15	18.65	1672	8.35	16.7					
3-24-19 10:30	0.11	482	7.55	128.6	3-24-19 9:45					3-24-19 9:45	0.11	658	8.19	129.2						6-24-19 2:30	18.66	1670	8.36	15.8					
3-24-19 10:45	0.12	509	7.39	119.4	3-24-19 10:00					3-24-19 10:00	0.11	663	8.17	139.1						6-24-19 2:45	18.70	1670	8.36	15.3					
3-24-19 11:00	0.15	542	7.36	104.3	3-24-19 10:15					3-24-19 10:15										6-24-19 3:00	18.71	1670	8.36	18.1					
3-24-19 11:15	0.21	575	7.32	108.4	3-24-19 10:30					3-24-19 10:30	0.15	659	8.18	166.2						6-24-19 3:15	18.69	1671	8.36	16.0					
3-24-19 11:30	0.30	600	7.30	95.8	3-24-19 10:45					3-24-19 10:45	0.21	656	8.17	173.6						6-24-19 3:30	18.68	1671	8.36	15.4					
3-24-19 11:45	0.31	610	7.30	104.6	3-24-19 11:00					3-24-19 11:00	0.30	655	8.18	166.0						6-24-19 3:45	18.66	1672	8.36	14.3					
3-24-19 12:00	0.35	611	7.30	99.3	3-24-19 11:15					3-24-19 11:15	0.40	652	8.19	168.9						6-24-19 4:00	18.65	1670	8.36	14.5					
3-24-19 12:15	0.47	586	7.32	135.2	3-24-19 11:30					3-24-19 11:30	0.48	653	8.18	170.2						6-24-19 4:15	18.63	1673	8.35	14.2					
3-24-19 12:30	1.25	522	7.64	156.4	3-24-19 11:45					3-24-19 11:45	0.58	652	8.18	140.8						6-24-19 4:30	18.62	1670	8.36	14.6					
3-24-19 12:45	1.45	414	7.83	194.7	3-24-19 12:00	0.80	687	7.79	31.4	3-24-19 12:00	0.72	649	8.18	135.9						6-24-19 4:45	18.60	1673	8.36	14.0					
3-24-19 13:00	1.54	400	8.21	200.0	3-24-19 12:15	0.84	698	7.81	31.4	3-24-19 12:15	0.88	644	8.18	132.5						6-24-19 5:00	18.58	1671	8.37	13.6					
3-24-19 13:15	1.83	392	8.23	197.4	3-24-19 12:30	0.98	701	7.81	22.3	3-24-19 12:30	1.09	634	8.19	114.2						6-24-19 5:15	18.56	1672	8.36	13.9					
3-24-19 13:30	1.80	396	8.24	180.8	3-24-19 12:45	0.98	704	7.82	22.5	3-24-19 12:45	1.34	622	8.21	132.2						6-24-19 5:30	18.54	1670	8.36	13.0					
3-24-19 13:45	1.99	401	8.25	174.0	3-24-19 13:00	0.99	699	7.82	26.2	3-24-19 13:00	1.41	619	8.20	127.6						6-24-19 5:45	18.52	1671	8.36	13.1					
3-24-19 14:00	2.25	399	8.25	190.4	3-24-19 13:15	0.82	709	7.82	22.8	3-24-19 13:15	1.44	617	8.19	128.5						6-24-19 6:00	18.51	1671	8.36	13.4					
3-24-19 14:15	2.46	395	8.24	200.4	3-24-19 13:30	0.81	712	7.83	22.4	3-24-19 13:30	1.50	615	8.20	137.6						6-24-19 6:15	18.47	1671	8.36	12.8					
3-24-19 14:30	2.75	384	8.25	183.2	3-24-19 13:45	0.83	712	7.83	23.1	3-24-19 13:45	1.47	613	8.20	131.5						6-24-19 6:30	18.48	1670	8.37	12.6					
3-24-19 14:45	2.40	399	8.23	168.6	3-24-19 14:00	0.88	716	7.83	19.7	3-24-19 14:00	1.47	613	8.20	133.4						6-24-19 6:45	18.46	1671	8.36	12.9					
3-24-19 15:00	2.34	402	8.24	159.6	3-24-19 14:15	0.99	713	7.82	20.4	3-24-19 14:15	1.58	614	8.20	138.8						6-24-19 7:00	18.43	1670	8.36	13.6					
3-24-19 15:15	2.20	406	8.24	165.8	3-24-19 14:30	1.08	709	7.82	23.6	3-24-19 14:30	1.60	619	8.19	147.7						6-24-19 7:15	18.40	1672	8.36	12.5					
3-24-19 15:30	2.07	415	8.23	175.3	3-24-19 14:45	1.12	709	7.82	20.2	3-24-19 14:45	1.69	619	8.20	158.7						6-24-19 7:30	18.38	1669	8.36	12.4					
3-24-19 15:45	1.84	435	8.22	178.4	3-24-19 15:00	1.50	662	7.81	29.7	3-24-19 15:00	1.55	623	8.17	179.3						6-24-19 7:45	18.33	1668	8.36	12.0					
3-24-19 16:00	1.85	448	8.22	177.1	3-24-19 15:15	1.52	682	7.81	26.0	3-24-19 15:15	1.56	623	8.18	188.0						6-24-19 8:00	18.31	1667	8.37	13.7					
3-24-19 16:15	1.85	469	8.21	174.0	3-24-19 15:30	1.16	703	7.82	26.9	3-24-19 15:30	1.62	620	8.18	176.1						6-24-19 8:15	18.31	1669	8.36	12.1					
3-24-19 16:30	1.77	475	8.20	175.6	3-24-19 15:45	1.06	708	7.82	24.7	3-24-19 15:45	1.69	628	8.19	171.1						6-24-19 8:30	18.30	1668	8.37	11.8					
3-24-19 16:45	1.76	456	8.20	162.1	3-24-19 16:00	1.12	701	7.81	27.1	3-24-19 16:00	1.64	618	8.19	175.0						6-24-19 8:45	18.29	1668	8.36	13.9					
3-24-19 17:00	1.74	455	8.21	156.5	3-24-19 16:15	1.26	694	7.81	28.1	3-24-19 16:15	1.57	620	8.20	174.2						6-24-19 9:00	18.25	1668	8.37	11.7					
3-24-19 17:15	1.60	448	8.22	143.1	3-24-19 16:30	1.25	699	7.81	26.3	3-24-19 16:30	1.59	620	8.20	176.2						6-24-19 9:15	18.25	1668	8.36	11.8					
3-24-19 17:30	1.49	454	8.22	139.2	3-24-19 16:45	1.67	542	7.84	39.1	3-24-19 16:45	1.53	619	8.20	189.3						6-24-19 9:30	18.20	1667	8.37	11.7					
3-24-19 17:45	1.44	455	8.22	137.4	3-24-19 17:00	1.70	652	7.78	30.9	3-24-19 17:00	1.47	616	8.20	195.8						6-24-19 9:45	18.19	1667	8.37	11.6					
3-24-19 18:00	1.35	445	8.22	123.5	3-24-19 17:15	1.62	663	7.80	31.5	3-24-19 17:15	1.43	615	8.22	194.9						6-24-19 10:00	18.16	1667	8.37	12.6					
3-24-19 18:15	1.27	451	8.21	130.7	3-24-19 17:30	1.35	688	7.81	32.7	3-24-19 17:30	1.41	613	8.21	197.4						6-24-19 10:15	18.15	1669	8.36	11.4					
3-24-19 18:30	1.11	449	8.23	130.0	3-24-19 17:45	1.18	706	7.82	37.7	3-24-19 17:45	1.30	612	8.21	189.3						6-24-19 10:30	18.14	1667	8.37	11.4					
3-24-19 18:45	1.04	451	8.22	129.2	3-24-19 18:00	0.93	716	7.82	44.9	3-24-19 18:00	1.24	611	8.22	188.5						6-24-19 10:45	18.12	1667	8.37	11.7					
3-24-19 19:00	1.01	452	8.22	127.1	3-24-19 18:15	0.91	720	7.82	38.1	3-24-19 18:15	1.12	607	8.22	195.7						6-24-19 11:00	18.11	1668	8.37	11.8					
3-24-19 19:15	0.75	450	8.23	121.0	3-24-19 18:30	0.92	716	7.82	33.3	3-24-19 18:30	1.03	601	8.24	215.8						6-24-19 11:15	18.11	1669	8.36	10.9					
3-24-19 19:30	0.80	450	8.23	121.4	3-24-19 18:45	0.89	713	7.82	33.9	3-24-19 18:45	0.92	603	8.26	230.1						6-24-19 11:30	18.07	1667	8.36	11.0					
3-24-19 19:45	0.67	447	8.23	122.2	3-24-19 19:00	0.86	717	7.83	32.1	3-24-19 19:00	0.86	606	8.26	239.8						6-24-19 11:45	18.05	1668	8.36	10.8					
3-24-19 20:00	0.72	446	8.22	121.4	3-24-19 19:15	0.73	721	7.83	32.6	3-24-19 19:15	0.80	604	8.26	241.1						6-24-19 12:00	18.03	1666	8.36	11.1					
3-24-19 20:15	0.72	445	8.22	120.3	3-24-19 19:30	0.59	727	7.82	26.8	3-24-19 19:30	0.72	601	8.27	249.9						6-24-19 12:15	17.97	1668	8.36	11.7					
3-24-19 20:30	0.68	444	8.22	119.8	3-24-19 19:45	0.51	731	7.82	27.1	3-24-19 19:45	0.67	601	8.27	239.2						6-24-19 12:30	17.98	1665	8.37	11.0					
3-24-19 20:45	0.63	444	8.22	116.9	3-24-19 20:00	0.51	727	7.82	24.8	3-24-19 20:00	0.59	602	8.26	246.3						6-24-19 12:45	17.97	1665	8.36	10.7					
3-24-19 21:00	0.56	443	8.22	118.6	3-24-19 20:15	0.50	724	7.83	24.6	3-24-19 20:15	0.49	603	8.27	244.3						6-24-19 13:00	17.95	1666	8.36	10.8					
3-24-19 21:15	0.48	443	8.22	118.8	3-24-19 20:30	0.49	722	7.83	23.2	3-24-19 20:30	0.53	595	8.25	197.9						6-24-19 13:15	17.94	1665	8.36	12.3					
3-24-19 21:30	0.39	442	8.21	113.3	3-24-19 20:45	0.47	727	7.82	23.5	3-24-19 20:45	0.56	593	8.23	207.5						6-24-19 13:30	17.93	1665	8.36	11.4					
3-24-19 21:45	0.34	441	8.21	115.1	3-24-19 21:00	0.49	722	7.83	25.3	3-24-19 21:00	0.51	592	8.24	202.8						6-24-19 13:45	17.90	1694	8.36	10.8					
3-24-19 22:00	0.30	441	8.21	113.4	3-24-19 21:15	0.48	725	7.83	23.7	3-24-19 21:15	0.46	593	8.25	205.0						6-24-19 14:00	17.90	1666	8.36	10.9					
3-24-19 22:15	0.25	440	8.22	117.4	3-24-19 21:30	0.44	727	7.83	24.8	3-24-19 21:30	0.43	595	8.25	211.6						6-24-19 14:15	17.88	1665	8.35	10.9					
3-24-19 22:30	0.22	440	8.22	110.7	3-24-19 21:45	0.41	732	7.83	26.2	3-24-19 21:45	0.38	596	8.25	215.7						6-24-19 14:30	17.86	1665	8.36	11.1					
3-24-19 22:45	0.18	439	8.22	114.1	3-24-19 22:00	0.41	729	7.83	24.5	3-24-19 22:00	0.33	596	8.25	216.4						6-24-19 14:45	17.86	1666	8.36	10.6					
3-24-19 23:00	0.14	440	8.22	110.4	3-24-19 22:15	0.37	731	7.82	25.0	3-24-19 22:15	0.28	596	8.25	223.9						6-24-19 15:00	17.84	1664	8.36	11.1					
3-24-19 23:15	0.11	439	8.22	111.3	3-24-19 22:30	0.36	731	7.83	25.2	3-24-19 22:30	0.27	595	8.25	201.7						6-24-19 15:15	17.84	1666	8.35	15.3					
3-24-19 23:30	0.09	439	8.23	110.4	3-24-19 22:45	0.30	734	7.82	25.2	3-24-19 22:45	0.25	595	8.25	207.9						6-24-19 15:30	17.84	1665	8.35	14.8					
3-24-19 23:45	0.08	439	8.22	107.4	3-24-19 23:00	0.28	735	7.82	24.5	3-24-19 23:00	0.25	594	8.24	190.2						6-24-19 15:45	17.81	1666	8.35	14.9					
3-25-19 0:00	0.04	437	8.23	108.3	3-24-19 23:15	0.29	734	7.82	24.4	3-24-19 23:15	0.25	593	8.23	189.2						6-24-19 16:00	17.78	1665	8.35	13.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-25-19 0:15	0.03	439	8.21	104.8	3-24-19 23:30	0.29	734	7.82	24.6	3-24-19 23:30	0.22	592	8.24	188.5						6-24-19 16:15	17.75	1666	8.35	13.4					
3-25-19 0:30	0.02	437	8.21	104.1	3-24-19 23:45	0.30	734	7.82	24.0	3-24-19 23:45	0.18	593	8.24	186.3						6-24-19 16:30	17.75	1665	8.36	13.3					
3-25-19 0:45	0.02	437	8.22	102.2	3-25-19 0:00	0.30	734	7.82	23.2	3-25-19 0:00	0.14	593	8.24	197.4						6-24-19 16:45	17.77	1666	8.35	12.7					
3-25-19 1:00	0.01	426	8.23	94.0	3-25-19 0:15	0.25	739	7.82	24.0	3-25-19 0:15	0.09	594	8.24	205.6						6-24-19 17:00	17.75	1664	8.35	13.9					
3-25-19 1:15	0.00	433	8.21	99.1	3-25-19 0:30	0.26	739	7.82	24.0	3-25-19 0:30	0.07	594	8.25	204.2						6-24-19 17:15	17.71	1659	8.35	13.8					
3-25-19 1:30	-0.01	432	8.21	97.6	3-25-19 0:45	0.27	739	7.82	23.4	3-25-19 0:45	0.05	593	8.26	218.7						6-24-19 17:30	17.70	1659	8.35	14.9					
3-25-19 1:45	-0.01	433	8.20	95.9	3-25-19 1:00	0.25	740	7.82	23.4	3-25-19 1:00	0.04	594	8.26	216.0						6-24-19 17:45	17.71	1660	8.35	14.7					
3-25-19 2:00	-0.01	432	8.22	97.6	3-25-19 1:15	0.25	740	7.82	23.7	3-25-19 1:15	0.02	594	8.25	218.6						6-24-19 18:00	17.68	1657	8.36	16.8					
3-25-19 2:15	-0.01	431	8.24	97.9	3-25-19 1:30	0.22	742	7.82	23.5	3-25-19 1:30	0.02	594	8.26	220.9						6-24-19 18:15	17.65	1656	8.35	16.2					
3-25-19 2:30	-0.02	430	8.24	94.0	3-25-19 1:45	0.20	743	7.82	22.5	3-25-19 1:45	0.01	594	8.25	203.2						6-24-19 18:30	17.73	1655	8.35	23.6					
3-25-19 2:45	-0.02	429	8.24	91.3	3-25-19 2:00	0.19	744	7.82	23.3	3-25-19 2:00	0.00	593	8.25	205.3						6-24-19 18:45	17.75	1657	8.35	28.9					
3-25-19 3:00	-0.02	430	8.21	94.0	3-25-19 2:15	0.19	744	7.82	22.9	3-25-19 2:15	-0.01	593	8.25	205.3						6-24-19 19:00	17.68	1654	8.36	27.9					
3-25-19 3:15	-0.02	431	8.20	97.4	3-25-19 2:30	0.18	744	7.82	22.7	3-25-19 2:30	-0.02	594	8.25	208.4						6-24-19 19:15	17.67	1652	8.37	25.6					
3-25-19 3:30	-0.02	429	8.22	91.6	3-25-19 2:45	0.19	744	7.81	22.4	3-25-19 2:45	-0.03	594	8.25	214.8						6-24-19 19:30	17.68	1651	8.37	26.4					
3-25-19 3:45	-0.02	430	8.22	96.0	3-25-19 3:00	0.18	745	7.81	22.3	3-25-19 3:00	-0.03	593	8.23	210.9						6-24-19 19:45	17.69	1652	8.36	28.3					
3-25-19 4:00	-0.02	430	8.23	97.5	3-25-19 3:15	0.18	745	7.81	20.9	3-25-19 3:15	-0.03	593	8.23	204.5						6-24-19 20:00	17.67	1651	8.37	24.7					
3-25-19 4:15	-0.03	429	8.21	137.8	3-25-19 3:30	0.17	745	7.81	22.2	3-25-19 3:30	-0.02	592	8.23	203.2						6-24-19 20:15	17.66	1652	8.36	27.7					
3-25-19 4:30	-0.03	432	8.21	94.7	3-25-19 3:45	0.17	745	7.81	21.9	3-25-19 3:45	-0.02	592	8.25	191.9						6-24-19 20:30	17.58	1646	8.36	43.0					
3-25-19 4:45	-0.03	431	8.21	100.7	3-25-19 4:00	0.18	745	7.81	21.5	3-25-19 4:00	-0.02	592	8.25	193.7						6-24-19 20:45	17.51	1646	8.35	58.8					
3-25-19 5:00	-0.03	429	8.22	89.2	3-25-19 4:15	0.16	746	7.81	21.9	3-25-19 4:15	-0.03	591	8.25	192.5						6-24-19 21:00	17.43	1645	8.36	58.4					
3-25-19 5:15	-0.03	430	8.21	92.7	3-25-19 4:30	0.17	745	7.81	22.1	3-25-19 4:30	-0.03	591	8.25	191.9						6-24-19 21:15	17.43	1640	8.35	61.7					
3-25-19 5:30	-0.03	430	8.21	94.2	3-25-19 4:45	0.17	745	7.81	21.3	3-25-19 4:45	-0.03	590	8.24	201.3						6-24-19 21:30	17.43	1639	8.36	56.4					
3-25-19 5:45	-0.03	430	8.19	94.9	3-25-19 5:00	0.18	745	7.81	20.9	3-25-19 5:00	-0.03	590	8.22	201.4						6-24-19 21:45	17.44	1639	8.36	57.2					
3-25-19 6:00	-0.03	428	8.15	144.9	3-25-19 5:15	0.17	745	7.81	20.9	3-25-19 5:15	-0.03	590	8.26	197.8						6-24-19 22:00	17.45	1638	8.35	62.9					
3-25-19 6:15	-0.03	420	8.10	234.4	3-25-19 5:30	0.17	745	7.81	20.6	3-25-19 5:30	-0.04	590	8.25	198.8						6-24-19 22:15	17.41	1632	8.34	67.6					
3-25-19 6:30	-0.02	543	8.20	104.9	3-25-19 5:45	0.17	745	7.81	20.6	3-25-19 5:45	-0.04	590	8.25	191.8						6-24-19 22:30	17.35	1622	8.35	70.8					
3-25-19 6:45	-0.02	560	8.22	98.0	3-25-19 6:00	0.17	745	7.81	21.4	3-25-19 6:00	-0.05	590	8.25	193.7						6-24-19 22:45	17.35	1619	8.34	88.7					
3-25-19 7:00	-0.02	562	8.22	99.5	3-25-19 6:15	0.17	746	7.81	21.0	3-25-19 6:15	-0.05	590	8.25	195.3						6-24-19 23:00	17.33	1607	8.34	107.0					
3-25-19 7:15	-0.02	562	8.22	95.9	3-25-19 6:30	0.17	746	7.81	21.4	3-25-19 6:30	-0.05	589	8.25	195.1						6-24-19 23:15	17.14	1563	8.31	125.1					
3-25-19 7:30	-0.02	561	8.22	95.8	3-25-19 6:45	0.17	746	7.81	22.0	3-25-19 6:45	-0.06	589	8.26	205.3						6-24-19 23:30	17.03	1533	8.29	153.7					
3-25-19 7:45	-0.02	560	8.21	97.6	3-25-19 7:00	0.17	746	7.81	21.8	3-25-19 7:00	-0.06	589	8.26	203.6						6-24-19 23:45	17.05	1534	8.28	122.3					
3-25-19 8:00	-0.01	560	8.22	98.2	3-25-19 7:15	0.17	746	7.81	21.8	3-25-19 7:15	-0.06	589	8.26	203.1						6-25-19 0:00	17.02	1514	8.27	98.1					
3-25-19 8:15	-0.01	559	8.22	100.8	3-25-19 7:30	0.17	745	7.81	22.6	3-25-19 7:30	-0.06	589	8.26	201.0						6-25-19 0:15	16.87	1505	8.24	128.3					
3-25-19 8:30	0.00	558	8.22	100.1	3-25-19 7:45	0.19	743	7.81	21.9	3-25-19 7:45	-0.06	589	8.25	195.0						6-25-19 0:30	16.89	1506	8.25	123.0					
3-25-19 8:45	0.01	557	8.22	100.1	3-25-19 8:00	0.19	743	7.81	21.9	3-25-19 8:00	-0.06	589	8.26	194.3						6-25-19 0:45	16.99	1514	8.26	79.4					
3-25-19 9:00	0.02	556	8.22	101.1	3-25-19 8:15	0.20	743	7.81	21.2	3-25-19 8:15	-0.05	589	8.26	194.4						6-25-19 1:00	17.00	1511	8.25	87.4					
3-25-19 9:15	0.04	555	8.22	99.6	3-25-19 8:30	0.22	742	7.81	22.4	3-25-19 8:30	-0.05	589	8.26	198.6						6-25-19 1:15	16.97	1507	8.25	80.1					
3-25-19 9:30	0.06	553	8.22	99.2	3-25-19 8:45	0.23	742	7.81	21.8	3-25-19 8:45	-0.04	589	8.27	202.3						6-25-19 1:30	16.92	1499	8.24	83.8					
3-25-19 9:45	0.08	553	8.22	102.5	3-25-19 9:00	0.25	741	7.81	21.8	3-25-19 9:00	-0.02	589	8.26	202.1						6-25-19 1:45	16.89	1495	8.23	91.8					
3-25-19 10:00	0.11	552	8.22	99.8	3-25-19 9:15	0.26	741	7.81	21.7	3-25-19 9:15	-0.01	589	8.24	196.6						6-25-19 2:00	16.87	1496	8.23	71.9					
3-25-19 10:15	0.14	551	8.20	101.7	3-25-19 9:30	0.28	740	7.81	22.4	3-25-19 9:30	0.01	589	8.26	196.1						6-25-19 2:15	16.90	1498	8.22	60.5					
3-25-19 10:30	0.16	550	8.20	102.5	3-25-19 9:45	0.31	739	7.82	22.7	3-25-19 9:45	0.04	589	8.26	188.2						6-25-19 2:30	16.96	1505	8.23	63.0					
3-25-19 10:45	0.17	548	8.20	101.7	3-25-19 10:00	0.34	739	7.82	21.8	3-25-19 10:00	0.07	589	8.25	188.2						6-25-19 2:45	16.98	1504	8.23	57.3					
3-25-19 11:00	0.18	548	8.20	104.3	3-25-19 10:15	0.36	738	7.82	22.5	3-25-19 10:15	0.13	589	8.26	179.5						6-25-19 3:00	16.99	1504	8.23	60.1					
3-25-19 11:15	0.19	547	8.20	105.3	3-25-19 10:30	0.37	739	7.82	23.9	3-25-19 10:30	0.21	588	8.25	169.2						6-25-19 3:15	16.97	1503	8.22	55.3					
3-25-19 11:30	0.22	546	8.21	104.1	3-25-19 10:45	0.38	738	7.82	20.7	3-25-19 10:45	0.26	588	8.25	177.4						6-25-19 3:30	16.93	1497	8.22	61.3					
3-25-19 11:45	0.25	544	8.21	105.4	3-25-19 11:00	0.39	738	7.82	21.6	3-25-19 11:00	0.29	588	8.24	168.4						6-25-19 3:45	16.92	1499	8.23	54.5					
3-25-19 12:00	0.30	543	8.21	107.4	3-25-19 11:15	0.40	738	7.82	21.3	3-25-19 11:15	0.33	588	8.24	165.5						6-25-19 4:00	16.91	1500	8.24	54.5					
3-25-19 12:15	0.34	541	8.22	106.5	3-25-19 11:30	0.41	737	7.82	21.8	3-25-19 11:30	0.36	586	8.24	164.8						6-25-19 4:15	16.88	1503	8.23	49.2					
3-25-19 12:30	0.41	537	8.20	115.9	3-25-19 11:45	0.43	737	7.82	20.5	3-25-19 11:45	0.40	585	8.24	150.9						6-25-19 4:30	16.87	1500	8.23	45.6					
3-25-19 12:45	0.52	534	8.18	114.8	3-25-19 12:00	0.43	737	7.82	21.5	3-25-19 12:00	0.44	581	8.24	157.8						6-25-19 4:45	16.88	1504	8.24	44.2					
3-25-19 13:00	0.64	529	8.19	109.7	3-25-19 12:15	0.48	735	7.82	21.4	3-25-19 12:15	0.50	580	8.24	157.4						6-25-19 5:00	16.85	1503	8.23	43.7					
3-25-19 13:15	0.77	524	8.18	113.4	3-25-19 12:30	0.49	735	7.82	21.3	3-25-19 12:30	0.57	581	8.24	145.9						6-25-19 5:15	16.84	1494	8.22	42.1					
3-25-19 13:30	0.98	520	8.19	111.9	3-25-19 12:45	0.52	735	7.82	21.3	3-25-19 12:45	0.64	583	8.22	152.7						6-25-19 5:30	16.81	1498	8.23	43.6					
3-25-19 13:45	1.30	508	8.18	116.0	3-25-19 13:00	0.50	735	7.82	22.3	3-25-19 13:00	0.70	578	8.21	154.3						6-25-19 5:45	16.78	1493	8.22	42.8					
3-25-19 14:00	1.59	496	8.17	114.0	3-25-19 13:15	0.57	733	7.82	21.1	3-25-19 13:15	0.77	577	8.24	154.8						6-25-19 6:00	16.77	1486	8.21	43.7					
3-25-19 14:15	2.43	448	8.24	113.5	3-25-19 13:30	0.65	731	7.82	20.1	3-25-19 13:30	0.92	574	8.25	149.4						6-25-19 6:15	16.76	1499	8.22	41.3					
3-25-19 14:30	2.50	433	8.26	122.4	3-25-19 13:45	0.83	730	7.82	21.9	3-25-19 13:45	1.23	567	8.24	143.3						6-25-19 6:30	16.79	1501	8.23	45.5					
3-25-19 14:45	2.70	426	8.27	126.3	3-25-19 14:00	1.00	725	7.82	20.5	3-25-19 14:00	1.48	566	8.24	148.1						6-25-19 6:45	16.79	1510	8.24	38.0					
3-25-19 15:00	2.83	486	8.16	109.4	3-25-19 14:15	0.98	707	7.83	33.3	3-25-19 14:15	1.70	566	8.24	149.9						6-25-19 7:00	16.79	1514	8.25	35.3					
3-25-19 15:15	2.88	550	8.06	84.7	3-25-19 14:30	1.12	695	7.82	29.6	3-25-19 14:30	1.73	567	8.24	163.1						6-25-19 7:15	16.80	1519	8.25	36.3					
3-25-19 15:30	2.79	559	8.06	86.5	3-25-19 14:45	1.14	711	7.82	26.6	3-25-19 14:45	1.75	566	8.24	164.0						6-25-19 7:30	16.77	1511	8.25	41.4					
3-25-19 15:45	2.64	563	8.06	82.4	3-25-19 15:00	1.12	719	7.82	28.3	3-25-19 15:00	1.82	556	8.24	165.3						6-25-19 7:45	16.75	1513	8.25	34.2					
3-25-19 16:00	2.62	561	8.06	86.9	3-25-19 15:15	1.14	711	7.82	27.7	3-25-19 15:15	1.87	554	8.24	156.6						6-25-19 8:00	16.74	1512	8.26	36.3					
3-25-19 16:15	2.62	568	8.06	86.5	3-25-19 15:30	1.12	702	7.82	25.6	3-25-19 15:30	2.07	546	8.24	172.5						6-25-19 8:15	16.74	1517	8.25	34.3					
3-25-19 16:30	2.54	566	8.07	84.4	3-25-19 15:45	1.05	712	7.82	28.7	3-25-19 15:45	2.18	547	8.24	170.1						6-25-19 8:30	16.73	1514	8.25	39.8					
3-25-19 16:45	2.44	562	8.07	91.2	3-25-19 16:00	1.20	717	7.82	26.4	3-25-19 16:00	1.60	570	8.26	227.0						6-25-19 8:45	16.72	1512	8.25	33.8					
3-25-19 17:00	2.22	562	8.08	93.6	3-25-19 16:15	1.12	716	7.82	24.2	3-25-19 16:15	1.55	568	8.30	239.3						6-25-19 9:00	16.70	1506	8.25	40.4					
3-25-19 17:15	2.00	559	8.09	101.1	3-25-19 16:30	1.05	713	7.83	25.6	3-25-19 16:30	1.37	571	8.31	229.9						6-25-19 9:15	16.69	1506	8.25	35.7					
3-25-19 17:30	1.85	557	8.09	100.7	3-25-19 16:45	1.19	695	7.83	26.9	3-25-19 16:45	1.28	571	8.31	240.4						6-25-19 9:30	16.66	1506	8.25	35.4					
3-25-19 17:45	1.71	550	8.10	98.8	3-25-19 17:00	1.18	698	7.83	26.2	3-25-19 17:00	1.23	571	8.30	248.2						6-25-19 9:45	16.63	1502	8.25	38.4					
3-25-19 18:00	1.62	539	8.11	100.6	3-25-19 17:15	1.20	695	7.83	27.2	3-25-19 17:15	1.20	572	8.31	235.2						6-25-19 10:00	16.63	1506	8.26	39.7					
3-25-19 18:15	1.58	530	8.12	101.5	3-25-19 17:30	1.17	694	7.83	28.8	3-25-19 17:30	1.16	571	8.30	246.2						6-25-19 10:15	16.60	1507	8.25	36.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-25-19 18:30	1.56	518	8.13	100.9	3-25-19 17:45	1.12	693	7.83	27.3	3-25-19 17:45	1.15	569	8.28	205.9						6-25-19 10:30	16.62	1508	8.26	37.8					
3-25-19 18:45	1.49	513	8.12	99.0	3-25-19 18:00	1.12	692	7.83	30.7	3-25-19 18:00	1.02	568	8.29	211.8						6-25-19 10:45	16.61	1510	8.26	39.6					
3-25-19 19:00	1.41	507	8.12	103.1	3-25-19 18:15	1.08	689	7.82	31.8	3-25-19 18:15	0.94	568	8.29	202.4						6-25-19 11:00	16.58	1510	8.26	33.4					
3-25-19 19:15	1.30	505	8.10	110.1	3-25-19 18:30	1.04	691	7.82	30.7	3-25-19 18:30	0.84	571	8.28	194.7						6-25-19 11:15	16.58	1512	8.26	42.3					
3-25-19 19:30	1.18	501	8.10	116.1	3-25-19 18:45	1.00	691	7.82	30.1	3-25-19 18:45	0.76	575	8.27	208.6						6-25-19 11:30	16.56	1508	8.26	37.2					
3-25-19 19:45	1.01	558	8.07	80.6	3-25-19 19:00	0.96	690	7.82	30.6	3-25-19 19:00	0.71	578	8.27	208.4						6-25-19 11:45	16.57	1508	8.26	35.6					
3-25-19 20:00	0.96	563	8.06	81.7	3-25-19 19:15	0.91	691	7.82	30.6	3-25-19 19:15	0.67	578	8.27	205.4						6-25-19 12:00	16.54	1509	8.26	37.6					
3-25-19 20:15	0.92	574	8.07	76.3	3-25-19 19:30	0.88	691	7.82	30.9	3-25-19 19:30	0.62	584	8.27	222.3						6-25-19 12:15	16.54	1516	8.26	33.3					
3-25-19 20:30	0.85	582	8.06	75.8	3-25-19 19:45	0.84	691	7.82	31.0	3-25-19 19:45	0.59	584	8.28	229.0						6-25-19 12:30	16.55	1515	8.27	33.2					
3-25-19 20:45	0.81	581	8.07	76.4	3-25-19 20:00	0.82	692	7.83	29.6	3-25-19 20:00	0.55	584	8.29	235.3						6-25-19 12:45	16.53	1513	8.26	31.1					
3-25-19 21:00	0.76	578	8.07	79.5	3-25-19 20:15	0.77	698	7.83	29.8	3-25-19 20:15	0.56	586	8.29	231.8						6-25-19 13:00	16.51	1513	8.27	32.7					
3-25-19 21:15	0.70	578	8.07	76.8	3-25-19 20:30	0.70	698	7.83	29.1	3-25-19 20:30	0.35	586	8.31	257.9						6-25-19 13:15	16.52	1512	8.26	36.8					
3-25-19 21:30	0.63	574	8.07	72.4	3-25-19 20:45	0.67	704	7.83	28.5	3-25-19 20:45	0.23	586	8.33	272.7						6-25-19 13:30	16.51	1511	8.26	37.7					
3-25-19 21:45	0.56	572	8.08	77.1	3-25-19 21:00	0.69	703	7.83	27.9	3-25-19 21:00	0.21	586	8.34	281.6						6-25-19 13:45	16.51	1512	8.26	32.1					
3-25-19 22:00	0.50	571	8.08	74.7	3-25-19 21:15	0.60	712	7.82	27.9	3-25-19 21:15	0.20	586	8.31	285.1						6-25-19 14:00	16.50	1513	8.27	32.2					
3-25-19 22:15	0.45	570	8.08	75.5	3-25-19 21:30	0.52	722	7.83	25.8	3-25-19 21:30	0.12	589	8.36	306.0						6-25-19 14:15	16.49	1511	8.25	32.2					
3-25-19 22:30	0.40	569	8.08	74.2	3-25-19 21:45	0.52	720	7.82	24.6	3-25-19 21:45	0.13	589	8.35	297.1						6-25-19 14:30	16.49	1517	8.29	37.7					
3-25-19 22:45	0.33	567	8.08	76.5	3-25-19 22:00	0.49	722	7.83	24.0	3-25-19 22:00	0.19	584	8.34	267.9						6-25-19 14:45	16.53	1546	8.33	46.5					
3-25-19 23:00	0.29	565	8.08	86.8	3-25-19 22:15	0.46	724	7.83	24.5	3-25-19 22:15	0.23	585	8.33	277.6						6-25-19 15:00	16.54	1543	8.33	43.7					
3-25-19 23:15	0.26	565	8.08	80.4	3-25-19 22:30	0.44	729	7.83	21.4	3-25-19 22:30	0.26	585	8.33	259.7						6-25-19 15:15	16.57	1562	8.36	44.8					
3-25-19 23:30	0.23	565	8.08	80.3	3-25-19 22:45	0.41	731	7.83	21.4	3-25-19 22:45	0.13	581	8.32	259.8						6-25-19 15:30	16.57	1573	8.40	55.5					
3-25-19 23:45	0.21	565	8.08	78.2	3-25-19 23:00	0.41	731	7.83	21.8	3-25-19 23:00	-0.01	587	8.33	295.5						6-25-19 15:45	16.59	1583	8.42	55.2					
3-26-19 0:00	0.17	562	8.08	78.0	3-25-19 23:15	0.40	732	7.83	21.7	3-25-19 23:15	-0.02	588	8.34	304.8						6-25-19 16:00	16.58	1581	8.42	50.2					
3-26-19 0:15	0.15	563	8.08	75.8	3-25-19 23:30	0.39	733	7.83	21.0	3-25-19 23:30	-0.03	587	8.36	290.0						6-25-19 16:15	16.58	1584	8.41	52.2					
3-26-19 0:30	0.14	563	8.08	77.6	3-25-19 23:45	0.38	734	7.83	22.5	3-25-19 23:45	-0.04	587	8.35	274.5						6-25-19 16:30	16.57	1582	8.41	59.5					
3-26-19 0:45	0.13	562	8.08	75.6	3-26-19 0:00	0.37	735	7.82	21.8	3-26-19 0:00	-0.03	584	8.35	262.7						6-25-19 16:45	16.61	1581	8.40	52.8					
3-26-19 1:00	0.11	562	8.08	75.3	3-26-19 0:15	0.35	736	7.82	21.5	3-26-19 0:15	-0.04	584	8.35	278.0						6-25-19 17:00	16.65	1579	8.40	55.0					
3-26-19 1:15	0.08	562	8.08	80.2	3-26-19 0:30	0.34	736	7.82	21.9	3-26-19 0:30	-0.04	585	8.35	276.0						6-25-19 17:15	16.62	1575	8.38	46.1					
3-26-19 1:30	0.06	562	8.09	74.4	3-26-19 0:45	0.34	736	7.82	22.4	3-26-19 0:45	-0.05	585	8.32	281.6						6-25-19 17:30	16.66	1563	8.33	42.2					
3-26-19 1:45	0.06	561	8.09	76.6	3-26-19 1:00	0.34	736	7.82	21.2	3-26-19 1:00	-0.04	584	8.32	272.0						6-25-19 17:45	16.69	1561	8.32	42.7					
3-26-19 2:00	0.05	560	8.09	78.1	3-26-19 1:15	0.33	737	7.81	21.4	3-26-19 1:15	-0.04	585	8.33	255.5						6-25-19 18:00	16.79	1558	8.31	49.7					
3-26-19 2:15	0.05	560	8.09	76.1	3-26-19 1:30	0.31	738	7.81	20.9	3-26-19 1:30	-0.06	593	8.30	252.3						6-25-19 18:15	16.92	1558	8.30	35.1					
3-26-19 2:30	0.04	560	8.08	74.3	3-26-19 1:45	0.31	738	7.81	21.0	3-26-19 1:45	-0.07	593	8.33	246.6						6-25-19 18:30	16.78	1556	8.31	34.5					
3-26-19 2:45	0.02	562	8.09	86.9	3-26-19 2:00	0.31	738	7.81	20.9	3-26-19 2:00	-0.07	595	8.33	226.5						6-25-19 18:45	16.95	1556	8.31	31.8					
3-26-19 3:00	0.00	570	8.23	82.1	3-26-19 2:15	0.30	739	7.81	20.2	3-26-19 2:15	-0.07	595	8.32	223.2						6-25-19 19:00	17.10	1559	8.32	31.2					
3-26-19 3:15	-0.02	573	8.27	85.9	3-26-19 2:30	0.29	740	7.81	20.5	3-26-19 2:30	-0.07	594	8.32	245.8						6-25-19 19:15	17.32	1561	8.32	30.8					
3-26-19 3:30	-0.02	573	8.28	83.2	3-26-19 2:45	0.28	740	7.81	19.9	3-26-19 2:45	-0.09	598	8.34	252.4						6-25-19 19:30	17.60	1562	8.33	26.3					
3-26-19 3:45	-0.02	577	8.28	81.7	3-26-19 3:00	0.28	740	7.81	19.7	3-26-19 3:00	-0.08	595	8.32	253.1						6-25-19 19:45	17.63	1562	8.33	24.0					
3-26-19 4:00	-0.02	578	8.28	85.1	3-26-19 3:15	0.28	740	7.81	19.4	3-26-19 3:15	-0.09	595	8.32	254.4						6-25-19 20:00	17.74	1562	8.32	25.9					
3-26-19 4:15	-0.02	578	8.27	91.6	3-26-19 3:30	0.27	740	7.81	20.3	3-26-19 3:30	-0.08	591	8.32	258.7						6-25-19 20:15	17.60	1562	8.31	23.8					
3-26-19 4:30	-0.03	582	8.27	98.6	3-26-19 3:45	0.27	740	7.81	19.6	3-26-19 3:45	-0.07	593	8.32	245.7						6-25-19 20:30	17.57	1561	8.33	23.4					
3-26-19 4:45	-0.03	582	8.27	92.6	3-26-19 4:00	0.27	740	7.80	19.6	3-26-19 4:00	-0.06	593	8.32	245.5						6-25-19 21:00	17.68	1565	8.32	27.2					
3-26-19 5:00	-0.03	587	8.27	84.6	3-26-19 4:15	0.26	740	7.80	19.3	3-26-19 4:15	-0.06	593	8.32	244.1						6-25-19 21:15	17.43	1561	8.32	23.9					
3-26-19 5:15	-0.03	586	8.27	83.3	3-26-19 4:30	0.26	740	7.80	19.4	3-26-19 4:30	-0.06	594	8.32	233.1						6-25-19 21:30	17.39	1561	8.31	23.5					
3-26-19 5:30	-0.03	588	8.28	93.0	3-26-19 4:45	0.26	740	7.80	18.8	3-26-19 4:45	-0.06	593	8.31	228.0						6-25-19 21:45	17.53	1571	8.30	28.5					
3-26-19 5:45	-0.03	587	8.27	102.9	3-26-19 5:00	0.24	740	7.80	18.3	3-26-19 5:00	-0.08	612	8.30	226.2						6-25-19 22:00	17.59	1568	8.30	30.7					
3-26-19 6:00	-0.03	592	8.27	84.9	3-26-19 5:15	0.23	741	7.80	19.3	3-26-19 5:15	-0.09	606	8.30	225.9						6-25-19 22:15	17.79	1576	8.28	25.8					
3-26-19 6:15	-0.03	593	8.28	100.7	3-26-19 5:30	0.23	741	7.80	20.3	3-26-19 5:30	-0.09	609	8.29	234.0						6-25-19 22:30	17.92	1573	8.28	28.3					
3-26-19 6:30	-0.03	596	8.27	72.7	3-26-19 5:45	0.22	742	7.81	20.8	3-26-19 5:45	-0.07	614	8.31	181.6						6-25-19 22:45	18.11	1574	8.29	25.8					
3-26-19 6:45	-0.03	594	8.27	78.4	3-26-19 6:00	0.22	742	7.80	21.2	3-26-19 6:00	-0.05	595	8.29	201.0						6-25-19 23:00	18.20	1575	8.29	29.0					
3-26-19 7:00	-0.03	596	8.27	76.0	3-26-19 6:15	0.21	742	7.80	20.6	3-26-19 6:15	-0.04	593	8.28	204.9						6-25-19 23:15	17.78	1568	8.28	26.7					
3-26-19 7:15	-0.03	596	8.28	90.8	3-26-19 6:30	0.21	742	7.80	20.5	3-26-19 6:30	-0.05	593	8.28	202.3						6-25-19 23:30	17.45	1566	8.29	24.9					
3-26-19 7:30	-0.02	598	8.28	97.2	3-26-19 6:45	0.21	742	7.80	21.2	3-26-19 6:45	-0.05	594	8.28	207.4						6-25-19 23:45	17.77	1574	8.27	28.0					
3-26-19 7:45	-0.01	600	8.28	99.6	3-26-19 7:00	0.21	742	7.80	21.6	3-26-19 7:00	-0.05	593	8.28	207.5						6-26-19 0:00	17.70	1570	8.26	28.9					
3-26-19 8:00	0.02	604	8.27	88.0	3-26-19 7:15	0.21	742	7.80	20.7	3-26-19 7:15	-0.05	595	8.29	203.4						6-26-19 0:15	17.71	1574	8.26	23.8					
3-26-19 8:15	0.06	606	8.27	83.7	3-26-19 7:30	0.21	742	7.80	20.9	3-26-19 7:30	-0.06	606	8.28	204.1						6-26-19 0:30	17.92	1577	8.28	23.6					
3-26-19 8:30	0.11	612	8.27	70.4	3-26-19 7:45	0.22	742	7.80	21.0	3-26-19 7:45	-0.05	614	8.28	158.4						6-26-19 0:45	18.36	1581	8.29	22.3					
3-26-19 8:45	0.18	611	8.26	72.5	3-26-19 8:00	0.23	742	7.80	21.2	3-26-19 8:00	0.00	612	8.28	171.2						6-26-19 1:00	18.49	1579	8.29	23.2					
3-26-19 9:00	0.26	608	8.26	67.0	3-26-19 8:15	0.25	742	7.80	20.7	3-26-19 8:15	0.07	601	8.29	193.9						6-26-19 1:15	18.60	1580	8.29	21.8					
3-26-19 9:15	0.36	605	8.27	80.4	3-26-19 8:30	0.28	741	7.80	20.2	3-26-19 8:30	0.14	594	8.29	196.0						6-26-19 1:30	18.66	1579	8.29	21.6					
3-26-19 9:30	0.45	603	8.27	80.0	3-26-19 8:45	0.32	741	7.80	19.2	3-26-19 8:45	0.21	593	8.28	200.0						6-26-19 1:45	18.74	1581	8.29	20.0					
3-26-19 9:45	0.56	605	8.27	74.6	3-26-19 9:00	0.36	740	7.80	18.4	3-26-19 9:00	0.30	591	8.28	203.3						6-26-19 2:00	18.76	1579	8.29	19.4					
3-26-19 10:00	0.63	602	8.28	102.2	3-26-19 9:15	0.40	739	7.80	19.8	3-26-19 9:15	0.39	590	8.29	207.8						6-26-19 2:15	18.78	1582	8.29	19.3					
3-26-19 10:15	0.75	599	8.27	90.7	3-26-19 9:30	0.44	737	7.81	19.8	3-26-19 9:30	0.48	592	8.28	199.9						6-26-19 2:30	18.83	1581	8.29	19.9					
3-26-19 10:30	0.88	598	8.27	108.3	3-26-19 9:45	0.50	737	7.81	16.9	3-26-19 9:45	0.57	594	8.28	171.9						6-26-19 2:45	18.82	1581	8.29	17.3					
3-26-19 10:45	1.06	601	8.26	74.7	3-26-19 10:00	0.54	736	7.81	17.3	3-26-19 10:00	0.65	596	8.27	171.3						6-26-19 3:00	18.82	1580	8.29	17.5					
3-26-19 11:00	1.24	602	8.26	66.9	3-26-19 10:15	0.58	734	7.81	17.9	3-26-19 10:15	0.61	594	8.29	196.4						6-26-19 3:15	18.80	1581	8.29	17.6					
3-26-19 11:15	1.40	601	8.27	64.6	3-26-19 10:30	0.63	731	7.81	16.1	3-26-19 10:30	0.66	596	8.29	178.0						6-26-19 3:30	18.78	1580	8.29	16.5					
3-26-19 11:30	1.84	592	8.27	70.0	3-26-19 10:45	0.70	730	7.81	14.8	3-26-19 10:45	0.70	594	8.30	205.4						6-26-19 3:45	18.75	1580	8.30	15.5					
3-26-19 11:45	1.86	708	8.04	46.2	3-26-19 11:00	0.77	727	7.81	15.6	3-26-19 11:00	0.71	593	8.32	220.3						6-26-19 4:00	18.71	1579	8.30	15.3					
3-26-19 12:00	1.93	766	7.88	41.5	3-26-19 11:15	0.81	727	7.81	15.4	3-26-19 11:15	0.77	591	8.33	209.4						6-26-19 4:15	18.67	1581	8.29	13.4					
3-26-19 12:15	1.98	774	7.84	42.8	3-26-19 11:30	0.81	732	7.81	18.3	3-26-19 11:30	0.89	582	8.29	203.0						6-26-19 4:30	18.66	1579	8.30	15.8					
3-26-19 12:30	2.15	785	7.82	42.5	3-26-19 11:45	0.78	730	7.81	18.5	3-26-19 11:45	0.89	578	8.30	190.1						6-26-19 4:45	18.64	1580	8.31	13.8					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-26-19 12:45	2.26	780	7.83	46.9	3-26-19 12:00	0.83	732	7.80	20.3	3-26-19 12:00	0.83	576	8.31	193.1						6-26-19 5:00	18.65	1579	8.31	15.1					
3-26-19 13:00	2.18	771	7.84	59.6	3-26-19 12:15	0.90	732	7.81	14.4	3-26-19 12:15	0.96	574	8.31	189.2						6-26-19 5:15	18.71	1580	8.32	13.1					
3-26-19 13:15	2.13	772	7.85	52.4	3-26-19 12:30	0.90	733	7.81	17.8	3-26-19 12:30	0.97	578	8.29	192.9						6-26-19 5:30	18.71	1579	8.32	13.0					
3-26-19 13:30	2.12	767	7.85	53.5	3-26-19 12:45	0.89	732	7.81	15.7	3-26-19 12:45	1.05	584	8.29	207.7						6-26-19 5:45	18.70	1579	8.33	13.3					
3-26-19 13:45	2.41	761	7.86	60.4	3-26-19 13:00	0.88	728	7.81	19.5	3-26-19 13:00	1.13	582	8.29	208.7						6-26-19 6:00	18.74	1571	8.33	13.2					
3-26-19 14:00	2.49	758	7.87	55.8	3-26-19 13:15	0.92	726	7.81	21.0	3-26-19 13:15	1.21	579	8.29	206.6						6-26-19 6:15	18.75	1575	8.28	14.4					
3-26-19 14:15	2.40	758	7.87	60.7	3-26-19 13:30	0.99	727	7.81	16.0	3-26-19 13:30	1.23	577	8.29	204.9						6-26-19 6:30	18.73	1576	8.32	14.3					
3-26-19 14:30	2.39	754	7.89	62.5	3-26-19 13:45	1.04	722	7.81	20.6	3-26-19 13:45	1.22	578	8.30	195.1						6-26-19 6:45	18.69	1575	8.32	13.3					
3-26-19 14:45	2.61	749	7.87	63.5	3-26-19 14:00	1.06	727	7.81	19.6	3-26-19 14:00	1.29	565	8.25	191.1						6-26-19 7:00	18.66	1572	8.32	16.6					
3-26-19 15:00	2.83	761	7.85	48.4	3-26-19 14:15	1.07	727	7.81	19.1	3-26-19 14:15	1.12	594	8.31	194.2						6-26-19 7:15	18.56	1572	8.33	20.2					
3-26-19 15:15	2.74	757	7.87	58.7	3-26-19 14:30	1.16	721	7.80	20.1	3-26-19 14:30	1.22	590	8.31	155.5						6-26-19 7:30	18.16	1570	8.28	34.0					
3-26-19 15:30	2.63	783	7.86	57.6	3-26-19 14:45	1.15	702	7.82	26.4	3-26-19 14:45	1.32	582	8.29	156.3						6-26-19 7:45	18.14	1573	8.30	24.0					
3-26-19 15:45	2.71	778	7.86	54.8	3-26-19 15:00	1.09	716	7.80	19.8	3-26-19 15:00	1.21	587	8.27	161.9						6-26-19 8:00	18.15	1572	8.31	19.7					
3-26-19 16:00	2.50	784	7.87	56.7	3-26-19 15:15	1.26	700	7.79	23.1	3-26-19 15:15	1.08	590	8.28	152.5						6-26-19 8:15	18.08	1573	8.30	18.9					
3-26-19 16:15	2.14	801	7.87	53.0	3-26-19 15:30	1.32	700	7.80	22.9	3-26-19 15:30	0.91	594	8.28	161.8						6-26-19 8:30	18.10	1572	8.31	18.3					
3-26-19 16:30	1.94	800	7.87	56.2	3-26-19 15:45	1.50	695	7.79	25.4	3-26-19 15:45	0.99	592	8.29	159.7						6-26-19 8:45	18.06	1573	8.31	18.4					
3-26-19 16:45	1.71	798	7.88	56.5	3-26-19 16:00	1.58	694	7.79	24.0	3-26-19 16:00	0.99	593	8.31	163.6						6-26-19 9:00	18.02	1572	8.31	18.8					
3-26-19 17:00	1.52	792	7.89	58.0	3-26-19 16:15	1.41	699	7.79	23.7	3-26-19 16:15	0.94	594	8.29	174.6						6-26-19 9:15	18.01	1573	8.30	19.4					
3-26-19 17:15	1.58	580	8.02	64.9	3-26-19 16:30	1.33	703	7.79	21.7	3-26-19 16:30	1.05	579	8.31	174.4						6-26-19 9:30	17.97	1572	8.31	19.5					
3-26-19 17:30	1.50	549	8.00	68.0	3-26-19 16:45	1.30	696	7.80	23.9	3-26-19 16:45	0.74	604	8.32	190.7						6-26-19 9:45	17.92	1573	8.31	17.0					
3-26-19 17:45	1.32	601	7.88	68.9	3-26-19 17:00	1.28	694	7.80	24.1	3-26-19 17:00	0.78	589	8.33	208.9						6-26-19 10:00	17.88	1572	8.31	16.6					
3-26-19 18:00	1.34	673	7.95	100.0	3-26-19 17:15	1.32	685	7.81	26.9	3-26-19 17:15	1.10	583	8.34	185.9						6-26-19 10:15	17.88	1574	8.31	17.5					
3-26-19 18:15	1.22	655	7.96	77.5	3-26-19 17:30	1.31	685	7.81	27.1	3-26-19 17:30	1.14	560	8.33	171.7						6-26-19 10:30	17.87	1573	8.32	16.4					
3-26-19 18:30	1.23	675	8.01	96.8	3-26-19 17:45	1.25	686	7.81	29.2	3-26-19 17:45	0.72	597	8.32	148.3						6-26-19 10:45	17.84	1573	8.31	17.0					
3-26-19 18:45	1.29	735	8.12	136.1	3-26-19 18:00	1.25	675	7.81	31.1	3-26-19 18:00	0.71	596	8.32	146.9						6-26-19 11:00	17.80	1572	8.31	15.4					
3-26-19 19:00	1.13	734	8.12	128.5	3-26-19 18:15	1.22	675	7.81	30.2	3-26-19 18:15	0.65	600	8.31	161.1						6-26-19 11:15	17.78	1574	8.31	16.9					
3-26-19 19:15	1.19	760	8.14	143.5	3-26-19 18:30	1.19	674	7.81	31.8	3-26-19 18:30	0.64	602	8.31	166.5						6-26-19 11:30	17.81	1574	8.32	15.4					
3-26-19 19:30	1.08	783	8.14	129.8	3-26-19 18:45	1.11	680	7.81	30.9	3-26-19 18:45	0.62	595	8.34	186.7						6-26-19 11:45	17.79	1574	8.32	16.7					
3-26-19 19:45	1.03	788	8.14	114.0	3-26-19 19:00	1.13	684	7.81	29.1	3-26-19 19:00	0.67	602	8.34	175.9						6-26-19 12:00	17.77	1573	8.32	16.1					
3-26-19 20:00	0.98	785	8.14	121.0	3-26-19 19:15	1.11	681	7.81	30.4	3-26-19 19:15	0.63	600	8.34	172.1						6-26-19 12:15	17.72	1574	8.31	17.2					
3-26-19 20:15	0.84	795	8.14	115.6	3-26-19 19:30	0.99	685	7.81	28.9	3-26-19 19:30	0.59	623	8.32	160.7						6-26-19 12:30	17.71	1573	8.32	17.3					
3-26-19 20:30	0.79	796	8.13	107.8	3-26-19 19:45	0.83	706	7.81	26.2	3-26-19 19:45	0.52	597	8.30	158.8						6-26-19 12:45	17.71	1573	8.32	15.3					
3-26-19 20:45	0.70	795	8.14	113.5	3-26-19 20:00	0.78	709	7.81	25.6	3-26-19 20:00	0.53	596	8.30	168.0						6-26-19 13:00	17.69	1572	8.32	15.1					
3-26-19 21:00	0.56	802	8.14	108.4	3-26-19 20:15	0.81	703	7.81	24.7	3-26-19 20:15	0.42	623	8.31	179.3						6-26-19 13:15	17.67	1574	8.32	14.4					
3-26-19 21:15	0.50	803	8.14	111.7	3-26-19 20:30	0.72	712	7.81	23.2	3-26-19 20:30	0.40	602	8.31	183.3						6-26-19 13:30	17.69	1572	8.32	13.6					
3-26-19 21:30	0.44	801	8.14	113.9	3-26-19 20:45	0.67	718	7.81	22.2	3-26-19 20:45	0.32	607	8.32	189.7						6-26-19 13:45	17.70	1574	8.32	14.5					
3-26-19 21:45	0.41	799	8.14	111.2	3-26-19 21:00	0.65	723	7.80	19.4	3-26-19 21:00	0.34	608	8.33	186.7						6-26-19 14:00	17.70	1573	8.32	14.2					
3-26-19 22:00	0.36	795	8.15	111.6	3-26-19 21:15	0.60	727	7.80	18.3	3-26-19 21:15	0.38	606	8.32	176.1						6-26-19 14:15	17.72	1574	8.32	16.0					
3-26-19 22:15	0.32	794	8.15	114.0	3-26-19 21:30	0.58	727	7.80	21.2	3-26-19 21:30	0.37	605	8.32	175.8						6-26-19 14:30	17.74	1573	8.33	15.5					
3-26-19 22:30	0.27	796	8.15	107.1	3-26-19 21:45	0.57	728	7.80	21.6	3-26-19 21:45	0.40	603	8.30	165.1						6-26-19 14:45	17.73	1573	8.32	22.3					
3-26-19 22:45	0.24	796	8.14	106.2	3-26-19 22:00	0.55	730	7.80	18.9	3-26-19 22:00	0.46	606	8.30	153.2						6-26-19 15:00	17.74	1573	8.33	14.8					
3-26-19 23:00	0.25	801	8.14	90.7	3-26-19 22:15	0.52	731	7.80	19.7	3-26-19 22:15	0.47	609	8.31	154.6						6-26-19 15:15	17.75	1573	8.33	14.8					
3-26-19 23:15	0.59	830	7.99	56.0	3-26-19 22:30	0.50	732	7.80	18.7	3-26-19 22:30	0.46	618	8.33	149.5						6-26-19 15:30	17.78	1572	8.33	15.0					
3-26-19 23:30	0.67	855	7.97	51.3	3-26-19 22:45	0.50	732	7.80	19.0	3-26-19 22:45	0.40	621	8.34	165.9						6-26-19 15:45	17.84	1570	8.30	18.2					
3-26-19 23:45	0.70	869	7.96	48.2	3-26-19 23:00	0.51	731	7.80	18.3	3-26-19 23:00	0.34	634	8.35	158.0						6-26-19 16:00	17.85	1568	8.30	21.4					
3-27-19 0:00	0.68	868	7.96	50.5	3-26-19 23:15	0.48	733	7.80	18.7	3-26-19 23:15	0.30	635	8.38	150.3						6-26-19 16:15	17.91	1568	8.27	20.7					
3-27-19 0:15	0.66	870	7.96	49.0	3-26-19 23:30	0.47	734	7.80	19.2	3-26-19 23:30	0.38	627	8.33	147.8						6-26-19 16:30	17.99	1567	8.28	20.3					
3-27-19 0:30	0.64	868	7.98	50.9	3-26-19 23:45	0.45	734	7.80	18.9	3-26-19 23:45	0.37	627	8.33	143.5						6-26-19 16:45	18.00	1568	8.29	20.3					
3-27-19 0:45	0.61	865	7.97	51.6	3-27-19 0:00	0.44	735	7.80	18.7	3-27-19 0:00	0.35	620	8.32	151.3						6-26-19 17:00	18.03	1566	8.29	19.3					
3-27-19 1:00	0.55	865	7.98	51.0	3-27-19 0:15	0.43	735	7.79	17.9	3-27-19 0:15	0.31	618	8.33	149.1						6-26-19 17:15	18.20	1568	8.30	23.7					
3-27-19 1:15	0.49	860	7.98	58.5	3-27-19 0:30	0.41	735	7.79	18.3	3-27-19 0:30	0.21	618	8.34	156.1						6-26-19 17:30	18.34	1567	8.29	25.6					
3-27-19 1:30	0.44	861	7.98	52.6	3-27-19 0:45	0.41	735	7.79	17.9	3-27-19 0:45	0.13	628	8.35	148.9						6-26-19 17:45	18.48	1568	8.30	25.6					
3-27-19 1:45	0.40	861	7.98	54.6	3-27-19 1:00	0.41	735	7.79	17.7	3-27-19 1:00	0.08	626	8.35	150.1						6-26-19 18:00	18.48	1569	8.30	23.6					
3-27-19 2:00	0.36	858	7.98	55.1	3-27-19 1:15	0.40	736	7.79	17.2	3-27-19 1:15	0.06	618	8.34	162.1						6-26-19 18:15	18.56	1570	8.30	25.4					
3-27-19 2:15	0.32	858	7.98	52.7	3-27-19 1:30	0.39	736	7.79	16.5	3-27-19 1:30	0.04	618	8.34	161.0						6-26-19 18:30	18.76	1569	8.31	23.4					
3-27-19 2:30	0.28	855	7.99	53.8	3-27-19 1:45	0.37	737	7.79	16.3	3-27-19 1:45	0.01	616	8.35	148.5						6-26-19 18:45	18.86	1570	8.32	21.8					
3-27-19 2:45	0.24	856	7.99	53.0	3-27-19 2:00	0.36	737	7.79	15.9	3-27-19 2:00	-0.01	612	8.34	156.1						6-26-19 19:00	18.97	1567	8.32	23.2					
3-27-19 3:00	0.21	855	7.98	56.4	3-27-19 2:15	0.37	736	7.79	16.0	3-27-19 2:15	-0.02	608	8.34	161.6						6-26-19 19:15	19.08	1568	8.32	24.2					
3-27-19 3:15	0.18	852	7.99	61.2	3-27-19 2:30	0.36	736	7.79	15.8	3-27-19 2:30	-0.02	601	8.34	161.4						6-26-19 19:30	19.67	1571	8.32	24.2					
3-27-19 3:30	0.15	852	7.98	56.2	3-27-19 2:45	0.35	736	7.79	15.8	3-27-19 2:45	-0.02	612	8.34	140.6						6-26-19 19:45	20.49	1576	8.32	18.8					
3-27-19 3:45	0.12	852	7.99	54.5	3-27-19 3:00	0.35	736	7.79	16.7	3-27-19 3:00	-0.01	611	8.33	144.2						6-26-19 20:00	21.07	1573	8.31	16.9					
3-27-19 4:00	0.10	851	7.99	54.4	3-27-19 3:15	0.33	737	7.79	17.1	3-27-19 3:15	-0.02	610	8.36	140.7						6-26-19 20:15	21.14	1574	8.29	17.4					
3-27-19 4:15	0.09	851	7.99	54.7	3-27-19 3:30	0.34	737	7.79	17.0	3-27-19 3:30	-0.02	608	8.37	136.6						6-26-19 20:30	21.00	1571	8.31	17.9					
3-27-19 4:30	0.06	850	7.99	54.9	3-27-19 3:45	0.33	737	7.79	17.4	3-27-19 3:45	-0.02	604	8.36	131.9						6-26-19 20:45	20.99	1574	8.31	18.6					
3-27-19 4:45	0.18	845	7.95	110.2	3-27-19 4:00	0.33	737	7.79	16.6	3-27-19 4:00	-0.03	602	8.35	131.6						6-26-19 21:00	21.27	1577	8.32	20.2					
3-27-19 5:00	0.58	851	7.83	82.9	3-27-19 4:15	0.33	737	7.79	17.2	3-27-19 4:15	-0.03	600	8.35	126.6						6-26-19 21:15	21.47	1574	8.33	25.1					
3-27-19 5:15	0.64	846	7.80	83.7	3-27-19 4:30	0.32	737	7.78	16.9	3-27-19 4:30	-0.04	597	8.35	126.0						6-26-19 21:30	21.37	1572	8.33	22.1					
3-27-19 5:30	0.74	846	7.78	86.0	3-27-19 4:45	0.31	738	7.78	17.4	3-27-19 4:45	-0.05	602	8.37	127.0						6-26-19 21:45	21.56	1575	8.33	21.1					
3-27-19 5:45	0.75	847	7.78	82.3	3-27-19 5:00	0.31	738	7.78	17.2	3-27-19 5:00	-0.05	602	8.36	120.0						6-26-19 22:00	21.92	1573	8.34	19.5					
3-27-19 6:00	0.74	847	7.80	80.6	3-27-19 5:15	0.30	738	7.78	17.3	3-27-19 5:15	-0.07	600	8.36	114.3						6-26-19 22:15	22.21	1575	8.33	20.6					
3-27-19 6:15	0.70	845	7.80	81.5	3-27-19 5:30	0.31	737	7.78	17.3	3-27-19 5:30	-0.08	599	8.35	114.5						6-26-19 22:30	22.21	1572	8.34	27.8					
3-27-19 6:30	0.66	848	7.81	72.3	3-27-19 5:45	0.30	738	7.78	16.9	3-27-19 5:45	-0.08	589	8.34	104.7						6-26-19 22:45	22.28	1573	8.34	18.9					
3-27-19 6:45	0.61	848	7.81	69.6	3-27-19 6:00	0.30	738	7.78	17.1	3-27-19 6:00	-0.09	590	8.34	100.0						6-26-19 23:00	22.41	1572	8.33	17.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-27-19 7:00	0.58	848	7.82	67.5	3-27-19 6:15	0.29	738	7.78	17.4	3-27-19 6:15	-0.10	590	8.34	102.9						6-26-19 23:15	22.39	1570	8.33	19.0					
3-27-19 7:15	0.54	846	7.82	66.4	3-27-19 6:30	0.29	738	7.78	17.1	3-27-19 6:30	-0.11	590	8.33	109.2						6-26-19 23:30	22.93	1573	8.34	19.4					
3-27-19 7:30	0.49	842	7.82	66.4	3-27-19 6:45	0.29	738	7.78	16.8	3-27-19 6:45	-0.13	597	8.33	106.4						6-26-19 23:45	23.23	1576	8.34	16.8					
3-27-19 7:45	0.45	843	7.82	70.1	3-27-19 7:00	0.29	737	7.78	17.0	3-27-19 7:00	-0.13	597	8.33	107.0						6-27-19 0:00	23.33	1570	8.34	18.7					
3-27-19 8:00	0.42	845	7.82	64.3	3-27-19 7:15	0.29	737	7.78	17.1	3-27-19 7:15	-0.13	596	8.32	103.2						6-27-19 0:15	23.50	1577	8.35	17.7					
3-27-19 8:15	0.40	844	7.82	66.8	3-27-19 7:30	0.30	737	7.78	16.9	3-27-19 7:30	-0.13	597	8.31	103.0						6-27-19 0:30	23.23	1575	8.35	16.7					
3-27-19 8:30	0.39	845	7.83	65.5	3-27-19 7:45	0.31	735	7.78	17.5	3-27-19 7:45	-0.09	595	8.30	109.2						6-27-19 0:45	23.43	1578	8.36	18.0					
3-27-19 8:45	0.40	843	7.83	60.6	3-27-19 8:00	0.33	734	7.78	17.0	3-27-19 8:00	-0.02	577	8.30	89.7						6-27-19 1:00	23.49	1577	8.37	21.9					
3-27-19 9:00	0.42	842	7.83	62.0	3-27-19 8:15	0.36	734	7.78	17.3	3-27-19 8:15	0.08	600	8.30	130.4						6-27-19 1:15	23.31	1574	8.37	28.0					
3-27-19 9:15	0.44	842	7.83	56.9	3-27-19 8:30	0.41	733	7.78	17.9	3-27-19 8:30	0.12	604	8.37	86.9						6-27-19 1:30	21.60	1535	8.35	223.3					
3-27-19 9:30	0.50	842	7.83	53.2	3-27-19 8:45	0.46	731	7.78	18.8	3-27-19 8:45	0.20	605	8.34	115.2						6-27-19 1:45	21.19	1534	8.34	168.4					
3-27-19 9:45	0.65	837	7.87	53.2	3-27-19 9:00	0.52	728	7.78	20.4	3-27-19 9:00	0.34	620	8.44	104.6						6-27-19 2:00	20.98	1531	8.38	206.8					
3-27-19 10:00	0.84	834	7.93	49.2	3-27-19 9:15	0.58	725	7.78	20.9	3-27-19 9:15	0.49	643	8.38	140.6						6-27-19 2:15	20.91	1537	8.37	187.6					
3-27-19 10:15	1.00	831	7.95	47.3	3-27-19 9:30	0.64	723	7.79	21.0	3-27-19 9:30	0.61	651	8.37	138.5						6-27-19 2:30	20.79	1534	8.37	152.6					
3-27-19 10:30	1.15	828	7.97	48.0	3-27-19 9:45	0.71	720	7.79	22.7	3-27-19 9:45	0.72	655	8.41	137.3						6-27-19 2:45	20.81	1536	8.36	125.6					
3-27-19 10:45	1.29	827	7.99	48.8	3-27-19 10:00	0.79	717	7.79	23.1	3-27-19 10:00	0.84	664	8.42	107.7						6-27-19 3:00	20.82	1533	8.35	111.6					
3-27-19 11:00	1.65	830	8.00	49.3	3-27-19 10:15	0.86	713	7.79	23.2	3-27-19 10:15	0.97	669	8.39	141.1						6-27-19 3:15	20.82	1537	8.34	86.6					
3-27-19 11:15	1.79	829	7.87	54.7	3-27-19 10:30	0.90	714	7.79	23.6	3-27-19 10:30	1.07	643	8.34	136.6						6-27-19 3:30	20.82	1530	8.34	90.9					
3-27-19 11:30	1.83	827	7.79	62.4	3-27-19 10:45	0.97	712	7.79	22.9	3-27-19 10:45	1.22	650	8.40	132.6						6-27-19 3:45	20.77	1532	8.34	74.6					
3-27-19 11:45	1.94	825	7.81	62.5	3-27-19 11:00	1.00	716	7.78	21.3	3-27-19 11:00	1.36	639	8.36	136.4						6-27-19 4:00	20.71	1533	8.34	64.6					
3-27-19 12:00	1.98	823	7.80	66.3	3-27-19 11:15	1.06	713	7.78	19.1	3-27-19 11:15	1.69	624	8.32	133.8						6-27-19 4:15	20.68	1533	8.33	54.3					
3-27-19 12:15	2.05	819	7.79	68.5	3-27-19 11:30	1.12	712	7.78	18.0	3-27-19 11:30	1.87	618	8.35	141.3						6-27-19 4:30	20.68	1533	8.34	54.5					
3-27-19 12:30	2.22	818	7.79	68.8	3-27-19 11:45	1.20	708	7.78	21.5	3-27-19 11:45	2.03	595	8.43	112.7						6-27-19 4:45	20.64	1536	8.34	40.5					
3-27-19 12:45	2.55	810	7.80	75.1	3-27-19 12:00	1.26	705	7.78	20.0	3-27-19 12:00	2.49	581	8.43	102.0						6-27-19 5:00	20.64	1539	8.33	44.5					
3-27-19 13:00	2.80	814	7.83	60.2	3-27-19 12:15	1.32	707	7.78	18.5	3-27-19 12:15	2.96	546	8.39	104.2						6-27-19 5:15	20.61	1539	8.33	36.1					
3-27-19 13:15	2.92	811	7.85	59.1	3-27-19 12:30	1.39	704	7.78	19.9	3-27-19 12:30	2.94	569	8.45	98.7						6-27-19 5:30	20.56	1540	8.33	44.3					
3-27-19 13:30	2.70	808	7.86	63.5	3-27-19 12:45	1.42	700	7.78	21.4	3-27-19 12:45	3.03	576	8.53	69.9						6-27-19 5:45	20.51	1540	8.33	44.4					
3-27-19 13:45	2.66	803	7.80	73.2	3-27-19 13:00	1.43	710	7.78	18.4	3-27-19 13:00	2.80	629	8.43	130.0						6-27-19 6:00	20.48	1541	8.33	50.8					
3-27-19 14:00	2.75	804	7.80	66.7	3-27-19 13:15	1.48	703	7.78	20.1	3-27-19 13:15	3.23	606	8.36	116.9						6-27-19 6:15	20.41	1545	8.31	45.4					
3-27-19 14:15	2.56	820	7.75	69.0	3-27-19 13:30	1.52	703	7.78	19.5	3-27-19 13:30	3.64	557	8.34	101.2						6-27-19 6:30	20.39	1544	8.31	43.0					
3-27-19 14:30	2.39	842	7.75	69.6	3-27-19 13:45	1.50	706	7.78	22.2	3-27-19 13:45	4.08	522	8.34	81.5						6-27-19 6:45	20.35	1545	8.31	39.3					
3-27-19 14:45	2.51	844	7.76	63.4	3-27-19 14:00	1.54	710	7.78	17.6	3-27-19 14:00	4.31	514	8.39	86.7						6-27-19 7:00	20.29	1545	8.31	39.5					
3-27-19 15:00	2.55	841	7.75	64.2	3-27-19 14:15	1.53	712	7.78	18.0	3-27-19 14:15	4.02	400	8.44	70.2						6-27-19 7:15	20.24	1546	8.31	42.5					
3-27-19 15:15	2.42	849	7.78	66.2	3-27-19 14:30					3-27-19 14:30	3.83	414	8.47	98.6						6-27-19 7:30	20.22	1545	8.30	41.7					
3-27-19 15:30	2.50	855	7.79	63.1	3-27-19 14:45	1.50	714	7.77	19.7	3-27-19 14:45	4.15	425	8.46	90.4						6-27-19 7:45	20.20	1546	8.30	43.9					
3-27-19 15:45	2.48	857	7.79	62.2	3-27-19 15:15	1.42	713	7.74	20.4	3-27-19 15:15	2.44	549	8.42	81.5						6-27-19 8:00	20.11	1548	8.30	40.2					
3-27-19 16:00	2.38	861	7.80	62.6	3-27-19 15:30	1.39	718	7.77	18.7	3-27-19 15:30	2.52	469	8.46	84.0						6-27-19 8:15	20.09	1551	8.29	35.0					
3-27-19 16:15	2.38	858	7.80	62.0	3-27-19 15:45	1.41	716	7.77	20.1	3-27-19 15:45	2.29	608	8.48	68.1						6-27-19 8:30	20.05	1550	8.30	36.4					
3-27-19 16:30	2.22	859	7.81	63.6	3-27-19 16:00	1.50	711	7.77	23.3	3-27-19 16:00	2.19	493	8.49	76.9						6-27-19 8:45	20.04	1552	8.30	32.7					
3-27-19 16:45	2.05	857	7.81	63.5	3-27-19 16:15	1.42	719	7.77	18.6	3-27-19 16:15	2.33	624	8.43	95.7						6-27-19 9:00	20.01	1551	8.30	34.7					
3-27-19 17:00	1.86	865	7.82	65.6	3-27-19 16:30	1.41	719	7.78	19.7	3-27-19 16:30	2.13	523	8.49	86.6						6-27-19 9:15	19.91	1551	8.31	36.1					
3-27-19 17:15	1.74	870	7.84	63.2	3-27-19 16:45	1.39	717	7.77	22.1	3-27-19 16:45	2.29	514	8.51	74.9						6-27-19 9:30	19.82	1550	8.32	32.7					
3-27-19 17:30	1.62	893	7.88	70.4	3-27-19 17:00	1.37	718	7.78	18.0	3-27-19 17:00	2.12	435	8.49	98.5						6-27-19 9:45	19.78	1552	8.32	30.3					
3-27-19 17:45	1.54	898	7.88	65.2	3-27-19 17:15	1.72	608	7.81	42.7	3-27-19 17:15	1.95	420	8.47	89.4						6-27-19 10:00	19.75	1553	8.32	30.7					
3-27-19 18:00	1.41	911	7.91	79.0	3-27-19 17:30	1.63	650	7.80	38.0	3-27-19 17:30	1.78	503	8.49	89.3						6-27-19 10:15	19.69	1557	8.31	28.9					
3-27-19 18:15	1.55	927	7.92	95.3	3-27-19 17:45	1.52	668	7.79	31.2	3-27-19 17:45	1.73	602	8.48	86.6						6-27-19 10:30	19.69	1556	8.32	29.1					
3-27-19 18:30	1.71	924	7.93	88.0	3-27-19 18:00	1.42	682	7.78	23.7	3-27-19 18:00	1.80	605	8.52	83.8						6-27-19 10:45	19.69	1557	8.32	27.7					
3-27-19 18:45	1.50	919	7.94	82.5	3-27-19 18:15	1.26	699	7.78	22.8	3-27-19 18:15	1.65	499	8.48	81.3						6-27-19 11:00	19.66	1557	8.32	27.5					
3-27-19 19:00	1.47	919	7.94	91.7	3-27-19 18:30	1.24	663	7.79	33.7	3-27-19 18:30	1.73	550	8.47	73.1						6-27-19 11:15	19.64	1559	8.32	29.0					
3-27-19 19:15	1.51	908	7.94	89.5	3-27-19 18:45	1.19	657	7.80	34.7	3-27-19 18:45	1.65	395	8.52	70.3						6-27-19 11:30	19.60	1557	8.32	28.0					
3-27-19 19:30	1.13	887	7.95	104.2	3-27-19 19:00	1.03	709	7.78	26.0	3-27-19 19:00	1.31	367	8.50	78.3						6-27-19 11:45	19.58	1558	8.32	25.3					
3-27-19 19:45	0.93	882	7.97	88.6	3-27-19 19:15	1.03	704	7.78	30.0	3-27-19 19:15	1.21	456	8.48	80.0						6-27-19 12:00	19.55	1557	8.32	28.2					
3-27-19 20:00	0.97	880	7.96	92.8	3-27-19 19:30	0.99	703	7.78	29.3	3-27-19 19:30	0.98	443	8.45	84.2						6-27-19 12:15	19.47	1559	8.31	26.8					
3-27-19 20:15	0.84	879	7.97	92.8	3-27-19 19:45	0.95	710	7.78	29.8	3-27-19 19:45	0.68	667	8.47	84.5						6-27-19 12:30	19.46	1558	8.32	26.0					
3-27-19 20:30	0.71	877	7.97	93.6	3-27-19 20:00	0.88	713	7.78	27.9	3-27-19 20:00	0.67	585	8.46	77.1						6-27-19 12:45	19.44	1559	8.32	26.0					
3-27-19 20:45	0.64	877	7.97	93.8	3-27-19 20:15	0.89	714	7.78	27.7	3-27-19 20:15	0.51	569	8.44	72.3						6-27-19 13:00	19.41	1560	8.32	25.5					
3-27-19 21:00	0.52	877	7.97	87.7	3-27-19 20:30	0.91	705	7.78	30.5	3-27-19 20:30	0.40	552	8.44	68.7						6-27-19 13:15	19.40	1560	8.32	23.4					
3-27-19 21:15	0.41	875	7.98	85.5	3-27-19 20:45	0.89	708	7.78	26.0	3-27-19 20:45	0.41	413	8.41	70.6						6-27-19 13:30	19.38	1560	8.32	23.3					
3-27-19 21:30	0.35	875	7.98	86.8	3-27-19 21:00	0.84	712	7.78	26.1	3-27-19 21:00	0.45	410	8.41	67.9						6-27-19 13:45	19.36	1562	8.32	23.5					
3-27-19 21:45	0.31	874	7.97	84.8	3-27-19 21:15	0.79	719	7.78	22.6	3-27-19 21:15	0.30	425	8.39	69.2						6-27-19 14:00	19.37	1573	8.32	23.4					
3-27-19 22:00	0.26	874	7.98	85.4	3-27-19 21:30	0.76	720	7.78	22.3	3-27-19 21:30	0.25	418	8.37	64.2						6-27-19 14:15	19.37	1583	8.31	21.5					
3-27-19 22:15	0.20	876	7.98	82.0	3-27-19 21:45	0.74	722	7.78	22.1	3-27-19 21:45	0.10	521	8.39	59.9						6-27-19 14:30	19.35	1586	8.32	22.6					
3-27-19 22:30	0.15	877	7.98	78.3	3-27-19 22:00	0.71	721	7.78	22.1	3-27-19 22:00	0.00	507	8.39	53.0						6-27-19 14:45	19.40	1608	8.31	21.9					
3-27-19 22:45	0.09	877	7.98	74.8	3-27-19 22:15	0.68	721	7.78	23.2	3-27-19 22:15	-0.02	499	8.37	58.7						6-27-19 15:00	19.39	1610	8.31	21.3					
3-27-19 23:00	0.38	864	7.96	69.9	3-27-19 22:30	0.66	720	7.78	23.8	3-27-19 22:30	-0.06	495	8.37	62.2						6-27-19 15:15	19.39	1612	8.30	20.7					
3-27-19 23:15	0.68	855	7.93	64.0	3-27-19 22:45	0.65	721	7.78	23.3	3-27-19 22:45	-0.13	435	8.33	71.3						6-27-19 15:30	19.37	1611	8.31	20.9					
3-27-19 23:30	0.96	850	7.93	66.5	3-27-19 23:00	0.64	718	7.78	26.1	3-27-19 23:00	-0.13	444	8.33	69.9						6-27-19 15:45	19.37	1621	8.31	21.0					
3-27-19 23:45	0.95	851	7.93	66.3	3-27-19 23:15	0.63	721	7.78	24.0	3-27-19 23:15	-0.13	449	8.35	63.3						6-27-19 16:00	19.39	1623	8.30	20.2					
3-28-19 0:00	0.89	849	7.94	65.0	3-27-19 23:30	0.61	722	7.78	24.1	3-27-19 23:30	-0.15	457	8.31	68.1						6-27-19 16:15	19.35	1623	8.30	24.1					
3-28-19 0:15	0.83	851	7.94	66.4	3-27-19 23:45	0.59	722	7.78	23.7	3-27-19 23:45	-0.15	497	8.35	72.1						6-27-19 16:30	19.35	1620	8.31	23.5					
3-28-19 0:30	0.76	850	7.95	68.3	3-28-19 0:00	0.58	726	7.77	21.9	3-28-19 0:00	-0.13	502	8.34	76.6						6-27-19 16:45	19.30	1612	8.32	19.9					
3-28-19 0:45	0.68	851	7.95	68.7	3-28-19 0:15	0.56	727	7.77	21.3	3-28-19 0:15	-0.13	503	8.34	75.1						6-27-19 17:00	19.31	1606	8.33	22.4					
3-28-19 1:00	0.62	852	7.95	69.7	3-28-19 0:30	0.55	729	7.77	20.7	3-28-19 0:30	-0.14	507	8.33	79.0						6-27-19 17:15	19.33	1602	8.33	20.2					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-28-19 1:15	0.54	851	7.95	69.3	3-28-19 0:45	0.53	733	7.77	19.8	3-28-19 0:45	-0.16	497	8.30	81.6						6-27-19 17:30	19.39	1608	8.33	22.6					
3-28-19 1:30	0.48	850	7.96	64.9	3-28-19 1:00	0.55	729	7.77	19.4	3-28-19 1:00	-0.16	505	8.33	80.1						6-27-19 17:45	19.37	1602	8.34	19.2					
3-28-19 1:45	0.43	850	7.96	66.0	3-28-19 1:15	0.54	727	7.77	20.3	3-28-19 1:15	-0.15	504	8.33	81.8						6-27-19 18:00	19.47	1604	8.33	19.1					
3-28-19 2:00	0.38	849	7.96	67.5	3-28-19 1:30	0.53	727	7.77	19.7	3-28-19 1:30	-0.15	506	8.31	78.9						6-27-19 18:15	19.52	1647	8.30	18.7					
3-28-19 2:15	0.32	850	7.96	65.7	3-28-19 1:45	0.53	727	7.77	20.0	3-28-19 1:45	-0.16	500	8.31	73.5						6-27-19 18:30	19.69	1623	8.32	22.1					
3-28-19 2:30	0.27	851	7.95	61.4	3-28-19 2:00	0.54	725	7.77	20.8	3-28-19 2:00	-0.17	492	8.31	77.6						6-27-19 18:45	19.70	1619	8.32	22.2					
3-28-19 2:45	0.20	852	7.96	61.2	3-28-19 2:15	0.51	725	7.78	22.0	3-28-19 2:15	-0.17	502	8.31	80.2						6-27-19 19:00	19.66	1628	8.33	21.3					
3-28-19 3:00	0.18	854	7.96	58.8	3-28-19 2:30	0.52	728	7.78	20.7	3-28-19 2:30	-0.19	522	8.31	81.1						6-27-19 19:15	19.77	1644	8.33	22.0					
3-28-19 3:15	0.11	860	7.96	58.3	3-28-19 2:45	0.53	729	7.78	21.1	3-28-19 2:45	-0.19	542	8.29	85.7						6-27-19 19:30	19.78	1625	8.34	20.2					
3-28-19 3:30	0.07	867	7.97	52.7	3-28-19 3:00	0.55	726	7.78	22.2	3-28-19 3:00	-0.20	573	8.30	85.8						6-27-19 19:45	19.79	1635	8.34	21.6					
3-28-19 3:45	0.03	869	7.98	51.8	3-28-19 3:15	0.54	727	7.78	23.0	3-28-19 3:15	-0.20	688	8.30	83.9						6-27-19 20:00	19.77	1630	8.34	21.5					
3-28-19 4:00	0.02	870	7.98	50.9	3-28-19 3:30	0.55	728	7.77	21.9	3-28-19 3:30	-0.22	229	8.29	81.1						6-27-19 20:15	19.88	1629	8.35	17.7					
3-28-19 4:15	0.01	870	7.98	48.7	3-28-19 3:45	0.54	729	7.77	21.0	3-28-19 3:45	-0.20	17	8.32	69.8						6-27-19 20:30	19.97	1615	8.36	17.9					
3-28-19 4:30	0.00	870	7.98	49.3	3-28-19 4:00	0.54	730	7.77	21.1	3-28-19 4:00	-0.22	25	8.31	51.4						6-27-19 20:45	20.10	1617	8.35	19.3					
3-28-19 4:45	-0.01	872	7.97	48.3	3-28-19 4:15	0.54	728	7.77	20.5	3-28-19 4:15	-0.22	145	8.30	40.3						6-27-19 21:00	20.14	1610	8.35	18.3					
3-28-19 5:00	-0.01	872	7.97	48.5	3-28-19 4:30	0.54	727	7.78	22.8	3-28-19 4:30	-0.25	102	8.34	39.3						6-27-19 21:15	20.06	1615	8.34	18.1					
3-28-19 5:15	-0.02	872	7.97	49.9	3-28-19 4:45	0.54	726	7.78	22.3	3-28-19 4:45	-0.25	68	8.29	58.1						6-27-19 21:30	20.01	1628	8.34	17.8					
3-28-19 5:30	-0.02	872	7.97	48.7	3-28-19 5:00	0.54	725	7.78	22.6	3-28-19 5:00	-0.30	43	8.31	34.6						6-27-19 21:45	19.94	1642	8.32	16.7					
3-28-19 5:45	-0.02	872	7.97	48.1	3-28-19 5:15	0.54	725	7.78	23.5	3-28-19 5:15	-0.28	30	8.30	24.3						6-27-19 22:00	19.91	1637	8.33	16.2					
3-28-19 6:00	-0.02	872	7.97	46.5	3-28-19 5:30	0.54	724	7.78	26.0	3-28-19 5:30	-0.29	23	8.31	32.2						6-27-19 22:15	19.89	1623	8.34	15.7					
3-28-19 6:15	-0.02	871	7.96	46.9	3-28-19 5:45	0.55	724	7.78	24.8	3-28-19 5:45	-0.29	18	8.33	28.5						6-27-19 22:30	19.93	1625	8.35	17.5					
3-28-19 6:30	-0.03	870	7.96	46.1	3-28-19 6:00	0.55	723	7.78	24.8	3-28-19 6:00	-0.33	15	8.33	24.6						6-27-19 22:45	19.96	1623	8.35	15.7					
3-28-19 6:45	-0.03	870	7.96	46.9	3-28-19 6:15	0.55	725	7.78	24.7	3-28-19 6:15	-0.32	0	8.34	19.7						6-27-19 23:00	20.02	1622	8.36	14.5					
3-28-19 7:00	-0.02	870	7.96	46.4	3-28-19 6:30	0.54	727	7.78	27.0	3-28-19 6:30	-0.34	0	8.32	21.6						6-27-19 23:15	20.10	1622	8.36	15.8					
3-28-19 7:15	-0.02	871	7.96	47.9	3-28-19 6:45	0.54	728	7.78	25.0	3-28-19 6:45	-0.37	0	8.35	23.0						6-27-19 23:30	20.16	1615	8.37	15.0					
3-28-19 7:30	-0.01	871	7.96	45.1	3-28-19 7:00	0.52	726	7.78	24.2	3-28-19 7:00	-0.37	0	8.34	27.0						6-27-19 23:45	20.15	1621	8.36	15.6					
3-28-19 7:45	0.02	870	7.96	43.7	3-28-19 7:15	0.52	727	7.78	23.8	3-28-19 7:15	-0.38	0	8.36	25.1						6-28-19 0:00	20.09	1626	8.35	15.9					
3-28-19 8:00	0.06	870	7.96	43.3	3-28-19 7:30	0.51	727	7.77	23.2	3-28-19 7:30	-0.34	7	8.35	25.3						6-28-19 0:15	20.04	1637	8.34	16.0					
3-28-19 8:15	0.11	871	7.96	42.3	3-28-19 7:45	0.50	727	7.78	24.0	3-28-19 7:45	0.18	4	8.35	25.0						6-28-19 0:30	20.03	1641	8.34	15.7					
3-28-19 8:30	0.16	871	7.95	40.6	3-28-19 8:00	0.53	726	7.77	24.5	3-28-19 8:00	0.66	10	8.33	23.0						6-28-19 0:45	19.98	1638	8.35	14.6					
3-28-19 8:45	0.25	870	7.94	39.0	3-28-19 8:15	0.54	731	7.77	26.0	3-28-19 8:15	0.97	10	8.28	20.3						6-28-19 1:00	20.00	1620	8.36	15.2					
3-28-19 9:00	0.34	863	7.92	37.1	3-28-19 8:30	0.58	730	7.77	22.9	3-28-19 8:30	1.35	14	8.21	21.3						6-28-19 1:15	19.98	1623	8.36	14.8					
3-28-19 9:15	0.45	862	7.91	35.1	3-28-19 8:45	0.62	729	7.77	25.3	3-28-19 8:45	2.00	385	8.23	24.9						6-28-19 1:30	19.96	1622	8.37	14.7					
3-28-19 9:30	0.54	861	7.91	33.8	3-28-19 9:00	0.63	730	7.77	23.0	3-28-19 9:00	2.54	414	8.21	39.9						6-28-19 1:45	19.96	1627	8.36	14.1					
3-28-19 9:45	0.63	861	7.91	36.4	3-28-19 9:15	0.65	733	7.77	22.9	3-28-19 9:15	3.03	415	8.23	46.7						6-28-19 2:00	19.97	1625	8.36	14.1					
3-28-19 10:00	0.74	859	7.91	36.4	3-28-19 9:30	0.68	732	7.77	23.1	3-28-19 9:30	3.15	444	8.18	58.1						6-28-19 2:15	19.92	1628	8.36	14.1					
3-28-19 10:15	0.85	855	7.92	37.6	3-28-19 9:45	0.73	730	7.77	23.2	3-28-19 9:45	2.86	493	8.16	49.8						6-28-19 2:30	19.91	1626	8.36	12.5					
3-28-19 10:30	0.93	848	7.92	69.9	3-28-19 10:00	0.75	732	7.77	22.8	3-28-19 10:00	2.78	483	8.28	67.4						6-28-19 2:45	19.88	1624	8.37	14.3					
3-28-19 10:45	1.03	849	7.92	41.5	3-28-19 10:15	0.79	730	7.77	24.8	3-28-19 10:15	2.65	473	8.28	62.9						6-28-19 3:00	19.84	1624	8.37	16.1					
3-28-19 11:00	1.12	846	7.93	43.7	3-28-19 10:30					3-28-19 10:30	2.67	468	8.26	58.3						6-28-19 3:15	19.83	1638	8.36	15.1					
3-28-19 11:15	1.21	840	7.93	41.1	3-28-19 10:45	0.95	733	7.77	23.7	3-28-19 10:45	2.63	420	8.24	67.3						6-28-19 3:30	19.79	1648	8.36	12.5					
3-28-19 11:30	1.27	840	7.93	41.5	3-28-19 11:00	1.08	737	7.77	21.0	3-28-19 11:00	2.64	419	8.21	61.1						6-28-19 3:45	19.70	1648	8.36	13.3					
3-28-19 11:45	1.37	835	7.94	41.4	3-28-19 11:15	1.16	723	7.77	25.4	3-28-19 11:15	2.81	406	8.17	49.4						6-28-19 4:00	19.72	1645	8.36	13.1					
3-28-19 12:00	1.46	829	7.94	42.4	3-28-19 11:30	1.19	736	7.77	18.7	3-28-19 11:30	2.84	406	8.16	51.0						6-28-19 4:15	19.67	1649	8.35	13.5					
3-28-19 12:15	1.64	819	7.96	40.1	3-28-19 11:45	1.12	727	7.78	16.1	3-28-19 11:45	2.76	457	8.16	48.9						6-28-19 4:30	19.65	1647	8.37	13.4					
3-28-19 12:30	1.74	813	7.97	41.1	3-28-19 12:00	1.36	721	7.77	21.7	3-28-19 12:00	2.25	521	8.07	39.1						6-28-19 4:45	19.64	1645	8.37	13.1					
3-28-19 12:45	1.89	803	7.98	43.0	3-28-19 12:15	1.42	723	7.77	20.5	3-28-19 12:15	1.23	917	8.01	22.5						6-28-19 5:00	19.59	1646	8.37	12.0					
3-28-19 13:00	2.00	792	7.99	43.5	3-28-19 12:30	1.34	739	7.78	19.7	3-28-19 12:30	1.12	928	8.00	25.9						6-28-19 5:15	19.58	1650	8.36	13.7					
3-28-19 13:15	2.12	778	8.00	47.1	3-28-19 12:45	1.27	748	7.78	15.9	3-28-19 12:45	1.14	930	7.98	23.8						6-28-19 5:30	19.51	1648	8.37	12.6					
3-28-19 13:30	2.24	766	8.01	45.4	3-28-19 13:00	1.25	751	7.80	11.1	3-28-19 13:00	1.31	930	8.00	26.4						6-28-19 5:45	19.48	1648	8.37	12.8					
3-28-19 13:45	2.43	751	8.01	49.1	3-28-19 13:15	1.37	748	7.79	12.3	3-28-19 13:15	1.26	935	7.94	24.0						6-28-19 6:00	19.45	1652	8.37	12.7					
3-28-19 14:00	2.47	744	8.03	50.1	3-28-19 13:30	1.40	745	7.80	15.1	3-28-19 13:30	1.25	939	7.92	26.1						6-28-19 6:15	19.36	1649	8.37	12.7					
3-28-19 14:15	2.63	732	8.04	54.4	3-28-19 13:45	1.38	740	7.78	15.1	3-28-19 13:45	1.23	940	7.87	23.3						6-28-19 6:30	19.33	1649	8.37	12.9					
3-28-19 14:30	2.77	719	8.05	57.3	3-28-19 14:00	1.38	742	7.77	17.5	3-28-19 14:00	1.18	939	7.84	21.9						6-28-19 6:45	19.33	1658	8.37	12.8					
3-28-19 14:45	2.80	712	8.04	57.5	3-28-19 14:15	1.52	739	7.77	15.0	3-28-19 14:15	1.30	945	7.84	24.4						6-28-19 7:00	19.32	1659	8.36	12.3					
3-28-19 15:00	2.79	705	8.04	61.1	3-28-19 14:30	1.52	739	7.77	14.9	3-28-19 14:30	1.17	947	7.82	23.5						6-28-19 7:15	19.26	1660	8.37	12.0					
3-28-19 15:15	2.72	697	8.06	64.3	3-28-19 14:45	1.51	736	7.77	14.3	3-28-19 14:45	1.12	945	7.85	21.7						6-28-19 7:30	19.19	1653	8.37	11.7					
3-28-19 15:30	2.65	690	8.07	72.8	3-28-19 15:00	1.50	739	7.78	17.4	3-28-19 15:00	1.09	947	7.85	26.5						6-28-19 7:45	19.14	1653	8.37	13.5					
3-28-19 15:45	2.67	678	8.09	78.7	3-28-19 15:15	1.73	734	7.77	16.5	3-28-19 15:15	1.02	949	7.84	24.1						6-28-19 8:00	19.13	1652	8.38	12.2					
3-28-19 16:00	2.59	671	8.11	86.2	3-28-19 15:30	1.61	733	7.77	16.2	3-28-19 15:30	0.95	945	7.87	24.0						6-28-19 8:15	19.05	1652	8.36	13.3					
3-28-19 16:15	2.53	663	8.11	86.2	3-28-19 15:45	1.48	734	7.78	13.8	3-28-19 15:45	1.09	942	7.88	28.2						6-28-19 8:30	19.05	1651	8.38	11.6					
3-28-19 16:30	2.53	654	8.13	89.2	3-28-19 16:00	1.45	736	7.77	12.2	3-28-19 16:00	0.98	944	7.86	24.9						6-28-19 8:45	18.99	1649	8.38	12.1					
3-28-19 16:45	2.40	651	8.13	84.2	3-28-19 16:15	1.51	730	7.76	13.2	3-28-19 16:15	0.97	942	7.85	25.6						6-28-19 9:00	18.98	1647	8.38	11.8					
3-28-19 17:00	2.16	644	8.13	91.5	3-28-19 16:30	1.52	727	7.77	19.3	3-28-19 16:30	0.94	941	7.83	22.1						6-28-19 9:15	18.95	1649	8.37	13.3					
3-28-19 17:15	2.04	638	8.14	91.6	3-28-19 16:45	1.56	721	7.78	17.9	3-28-19 16:45	1.06	942	7.85	25.6						6-28-19 9:30	18.91	1648	8.38	11.3					
3-28-19 17:30	1.93	628	8.15	93.6	3-28-19 17:00	1.65	713	7.80	27.0	3-28-19 17:00	1.18	944	7.88	25.4						6-28-19 9:45	18.88	1650	8.38	11.9					
3-28-19 17:45	1.75	620	8.15	96.7	3-28-19 17:15	1.74	697	7.80	30.3	3-28-19 17:15	1.19	954	7.83	30.5						6-28-19 10:00	18.86	1649	8.38	10.8					
3-28-19 18:00	1.66	597	8.16	86.0	3-28-19 17:30	1.83	695	7.80	27.9	3-28-19 17:30	1.09	959	7.83	33.2						6-28-19 10:15	18.84	1653	8.37	11.4					
3-28-19 18:15	1.56	595	8.16	83.2	3-28-19 17:45	1.68	699	7.80	28.2	3-28-19 17:45	1.05	940	7.84	23.9						6-28-19 10:30	18.79	1652	8.38	10.9					
3-28-19 18:30	1.41	594	8.16	85.8	3-28-19 18:00	1.75	687	7.80	31.5	3-28-19 18:00	1.17	948	7.86	26.2						6-28-19 10:45	18.77	1651	8.38	11.8					
3-28-19 18:45	1.16	594	8.17	87.0	3-28-19 18:15	1.62	694	7.80	29.0	3-28-19 18:15	1.14	947	7.86	30.0						6-28-19 11:00	18.74	1652	8.38	11.3					
3-28-19 19:00	0.94	594	8.17	88.7	3-28-19 18:30	1.64	685	7.81	32.3	3-28-19 18:30	1.08	955	7.83	29.4						6-28-19 11:15	18.73	1656	8.38	13.3					
3-28-19 19:15	0.83	594	8.16	86.1	3-28-19 18:45	1.43	709	7.80	28.0	3-28-19 18:45	1.10	946	7.86	27.8						6-28-19 11:30	18.74	1656	8.37	13.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-28-19 19:30	0.73	593	8.16	88.0	3-28-19 19:00	1.38	708	7.80	26.7	3-28-19 19:00	1.06	957	7.84	28.9						6-28-19 11:45	18.71	1656	8.38	14.3					
3-28-19 19:45	0.60	590	8.16	85.9	3-28-19 19:15	1.44	698	7.80	27.7	3-28-19 19:15	0.96	962	7.83	28.1						6-28-19 12:00	18.67	1650	8.38	13.3					
3-28-19 20:00	0.44	589	8.18	90.9	3-28-19 19:30	1.40	697	7.80	26.3	3-28-19 19:30	0.99	962	7.82	30.0						6-28-19 12:15	18.60	1643	8.38	14.8					
3-28-19 20:15	0.37	592	8.19	91.5	3-28-19 19:45	1.32	700	7.80	26.2	3-28-19 19:45	0.94	960	7.83	27.8						6-28-19 12:30	18.56	1636	8.38	15.8					
3-28-19 20:30	0.31	593	8.21	93.0	3-28-19 20:00	1.30	698	7.79	23.7	3-28-19 20:00	0.99	959	7.82	25.4						6-28-19 12:45	18.55	1637	8.38	17.1					
3-28-19 20:45	0.27	594	8.23	94.8	3-28-19 20:15	1.28	695	7.78	24.5	3-28-19 20:15	0.92	960	7.82	30.3						6-28-19 13:00	18.49	1634	8.38	17.5					
3-28-19 21:00	0.21	592	8.24	96.0	3-28-19 20:30	1.24	699	7.80	24.8	3-28-19 20:30	0.85	958	7.83	27.4						6-28-19 13:15	18.44	1634	8.39	17.0					
3-28-19 21:15	0.16	591	8.24	93.5	3-28-19 20:45	1.16	713	7.79	24.6	3-28-19 20:45	0.83	959	7.83	29.3						6-28-19 13:30	18.44	1633	8.39	18.1					
3-28-19 21:30	0.13	591	8.25	94.4	3-28-19 21:00	1.14	712	7.79	24.9	3-28-19 21:00	0.82	960	7.82	29.0						6-28-19 13:45	18.43	1630	8.38	20.4					
3-28-19 21:45	0.12	590	8.24	94.7	3-28-19 21:15	1.10	712	7.79	24.9	3-28-19 21:15	0.72	961	7.82	28.5						6-28-19 14:00	18.41	1627	8.38	20.6					
3-28-19 22:00	0.10	590	8.24	93.8	3-28-19 21:30	1.06	718	7.79	21.1	3-28-19 21:30	0.71	961	7.82	27.2						6-28-19 14:15	18.38	1625	8.38	20.9					
3-28-19 22:15	0.07	589	8.25	93.6	3-28-19 21:45	1.02	723	7.79	20.9	3-28-19 21:45	0.71	962	7.82	25.5						6-28-19 14:30	18.38	1624	8.39	21.2					
3-28-19 22:30	0.06	589	8.24	91.0	3-28-19 22:00	0.98	725	7.79	20.5	3-28-19 22:00	0.61	963	7.82	25.6						6-28-19 14:45	18.36	1621	8.39	21.0					
3-28-19 22:45	0.05	589	8.25	91.5	3-28-19 22:15	0.95	728	7.80	20.2	3-28-19 22:15	0.64	964	7.82	26.1						6-28-19 15:00	18.36	1619	8.39	19.7					
3-28-19 23:00	0.05	588	8.24	89.8	3-28-19 22:30	0.93	730	7.80	20.5	3-28-19 22:30	0.62	965	7.82	26.7						6-28-19 15:15	18.37	1620	8.39	19.9					
3-28-19 23:15	0.03	587	8.26	91.3	3-28-19 22:45	0.92	732	7.80	19.8	3-28-19 22:45	0.58	963	7.82	27.6						6-28-19 15:30	18.37	1618	8.39	19.8					
3-28-19 23:30	0.02	587	8.24	89.9	3-28-19 23:00	0.93	735	7.80	20.1	3-28-19 23:00	0.54	962	7.82	24.6						6-28-19 15:45	18.42	1618	8.39	20.4					
3-28-19 23:45	0.02	587	8.25	89.4	3-28-19 23:15	0.90	734	7.81	23.8	3-28-19 23:15	0.53	961	7.82	24.6						6-28-19 16:00	18.46	1615	8.39	21.1					
3-29-19 0:00	0.02	587	8.25	90.0	3-28-19 23:30	0.91	732	7.80	22.2	3-28-19 23:30	0.48	961	7.82	23.9						6-28-19 16:15	18.55	1616	8.38	29.1					
3-29-19 0:15	0.01	586	8.23	85.4	3-28-19 23:45	1.00	756	7.80	20.3	3-28-19 23:45	0.47	961	7.81	21.7						6-28-19 16:30	18.70	1615	8.37	38.0					
3-29-19 0:30	0.00	587	8.22	87.8	3-29-19 0:00	0.96	764	7.81	18.7	3-29-19 0:00	0.43	961	7.81	21.0						6-28-19 16:45	18.73	1626	8.38	27.7					
3-29-19 0:45	0.00	585	8.21	84.3	3-29-19 0:15	0.90	764	7.81	14.8	3-29-19 0:15	0.39	961	7.82	21.9						6-28-19 17:00	18.75	1637	8.37	31.6					
3-29-19 1:00	0.00	586	8.21	84.6	3-29-19 0:30	0.74	756	7.80	15.6	3-29-19 0:30	0.38	962	7.82	21.6						6-28-19 17:15	18.76	1628	8.36	29.8					
3-29-19 1:15	0.00	586	8.22	85.2	3-29-19 0:45	0.88	772	7.80	17.0	3-29-19 0:45	0.36	961	7.81	24.2						6-28-19 17:30	18.76	1645	8.36	34.3					
3-29-19 1:30	0.00	586	8.23	85.8	3-29-19 1:00	0.89	766	7.82	18.9	3-29-19 1:00	0.35	961	7.82	24.1						6-28-19 17:45	18.82	1637	8.36	29.5					
3-29-19 1:45	0.00	586	8.23	85.7	3-29-19 1:15	0.95	764	7.81	20.6	3-29-19 1:15	0.33	962	7.82	24.0						6-28-19 18:00	18.81	1646	8.35	29.5					
3-29-19 2:00	-0.01	584	8.24	81.3	3-29-19 1:30	0.81	747	7.81	21.3	3-29-19 1:30	0.31	963	7.82	25.3						6-28-19 18:15	18.72	1649	8.35	28.4					
3-29-19 2:15	-0.02	588	8.17	78.4	3-29-19 1:45	0.84	764	7.80	10.6	3-29-19 1:45	0.29	964	7.82	21.3						6-28-19 18:30	18.81	1643	8.36	28.6					
3-29-19 2:30	-0.02	588	8.14	79.4	3-29-19 2:00	0.81	760	7.80	14.7	3-29-19 2:00	0.27	962	7.82	22.1						6-28-19 18:45	18.96	1628	8.38	25.0					
3-29-19 2:45	-0.02	586	8.17	81.7	3-29-19 2:15	0.87	761	7.80	15.9	3-29-19 2:15	0.25	961	7.82	21.1						6-28-19 19:00	18.99	1624	8.38	23.6					
3-29-19 3:00	-0.02	586	8.19	84.5	3-29-19 2:30	0.77	762	7.80	15.9	3-29-19 2:30	0.23	961	7.82	21.2						6-28-19 19:15	18.99	1614	8.39	33.2					
3-29-19 3:15	-0.02	587	8.20	80.9	3-29-19 2:45	0.65	766	7.80	15.6	3-29-19 2:45	0.22	960	7.82	23.2						6-28-19 19:30	19.08	1595	8.40	45.8					
3-29-19 3:30	-0.03	586	8.15	78.3	3-29-19 3:00	0.63	773	7.81	14.5	3-29-19 3:00	0.21	961	7.82	23.8						6-28-19 19:45	19.60	1596	8.40	51.5					
3-29-19 3:45	-0.03	586	8.18	81.7	3-29-19 3:15	0.67	768	7.81	16.2	3-29-19 3:15	0.20	961	7.82	23.2						6-28-19 20:00	19.74	1597	8.39	24.8					
3-29-19 4:00	-0.03	587	8.16	80.1	3-29-19 3:30	0.70	760	7.81	16.2	3-29-19 3:30	0.21	963	7.82	24.0						6-28-19 20:15	19.71	1598	8.40	23.4					
3-29-19 4:15	-0.03	586	8.15	79.3	3-29-19 3:45	0.66	754	7.80	18.5	3-29-19 3:45	0.27	965	7.82	22.1						6-28-19 20:30	19.87	1597	8.41	22.1					
3-29-19 4:30	-0.03	587	8.15	78.0	3-29-19 4:00	0.67	754	7.80	15.0	3-29-19 4:00	0.34	966	7.82	20.9						6-28-19 20:45	19.88	1597	8.40	20.7					
3-29-19 4:45	-0.03	586	8.20	79.5	3-29-19 4:15	0.76	769	7.80	15.3	3-29-19 4:15	0.43	971	7.82	21.4						6-28-19 21:00	19.94	1600	8.41	18.0					
3-29-19 5:00	-0.03	587	8.13	76.6	3-29-19 4:30	0.63	761	7.80	10.6	3-29-19 4:30	0.51	975	7.81	22.2						6-28-19 21:15	19.81	1604	8.40	24.5					
3-29-19 5:15	-0.03	586	8.15	77.4	3-29-19 4:45	0.68	772	7.80	14.2	3-29-19 4:45	0.60	977	7.81	27.4						6-28-19 21:30	19.85	1604	8.40	22.0					
3-29-19 5:30	-0.03	586	8.15	78.6	3-29-19 5:00	0.61	763	7.80	16.7	3-29-19 5:00	0.77	975	7.81	27.9						6-28-19 21:45	19.74	1604	8.40	23.8					
3-29-19 5:45	-0.03	584	8.19	79.2	3-29-19 5:15	0.61	771	7.81	15.8	3-29-19 5:15	0.76	971	7.81	26.0						6-28-19 22:00	19.33	1645	8.36	26.2					
3-29-19 6:00	-0.03	588	8.14	80.3	3-29-19 5:30	0.69	762	7.80	18.0	3-29-19 5:30	0.82	965	7.81	26.5						6-28-19 22:15	19.43	1654	8.34	30.6					
3-29-19 6:15	-0.03	585	8.18	79.4	3-29-19 5:45	0.67	764	7.79	14.2	3-29-19 5:45	0.76	965	7.81	28.6						6-28-19 22:30	19.65	1639	8.36	27.4					
3-29-19 6:30	-0.03	586	8.17	76.5	3-29-19 6:00	0.65	761	7.80	14.2	3-29-19 6:00	0.79	973	7.81	29.3						6-28-19 22:45	19.73	1627	8.38	25.7					
3-29-19 6:45	-0.03	585	8.18	78.6	3-29-19 6:15	0.62	762	7.80	15.5	3-29-19 6:15	0.64	977	7.81	28.3						6-28-19 23:00	19.66	1627	8.38	25.0					
3-29-19 7:00	-0.03	584	8.18	80.2	3-29-19 6:30	0.62	767	7.79	14.9	3-29-19 6:30	0.65	969	7.81	32.2						6-28-19 23:15	19.59	1641	8.37	25.2					
3-29-19 7:15	-0.02	585	8.17	80.1	3-29-19 6:45					3-29-19 6:45	0.65	974	7.82	31.8						6-28-19 23:30	19.54	1649	8.36	25.5					
3-29-19 7:30	-0.01	586	8.16	79.5	3-29-19 7:00	0.65	760	7.80	19.4	3-29-19 7:00	0.55	971	7.82	29.2						6-28-19 23:45	19.47	1658	8.35	27.6					
3-29-19 7:45	0.01	586	8.16	79.1	3-29-19 7:15	0.69	772	7.79	18.6	3-29-19 7:15	0.53	972	7.82	27.8						6-29-19 0:00	19.71	1677	8.34	29.5					
3-29-19 8:00	0.05	585	8.16	78.9	3-29-19 7:30	0.72	757	7.81	19.8	3-29-19 7:30	0.57	973	7.81	27.6						6-29-19 0:15	20.00	1659	8.35	25.3					
3-29-19 8:15	0.10	584	8.16	76.6	3-29-19 7:45	0.68	749	7.82	22.8	3-29-19 7:45	0.56	974	7.81	26.4						6-29-19 0:30	20.32	1652	8.36	24.7					
3-29-19 8:30	0.16	584	8.16	77.4	3-29-19 8:00	0.69	760	7.80	16.4	3-29-19 8:00	0.63	978	7.81	25.7						6-29-19 0:45	20.30	1646	8.36	21.5					
3-29-19 8:45	0.22	582	8.19	84.1	3-29-19 8:15	0.66	760	7.80	18.2	3-29-19 8:15	0.73	976	7.81	26.7						6-29-19 1:00	20.30	1644	8.36	21.7					
3-29-19 9:00	0.30	584	8.19	84.4	3-29-19 8:30	0.69	768	7.79	15.9	3-29-19 8:30	0.97	977	7.81	31.1						6-29-19 1:15	20.28	1643	8.37	23.0					
3-29-19 9:15	0.42	582	8.18	79.4	3-29-19 8:45	0.69	770	7.79	15.8	3-29-19 8:45	1.03	977	7.80	30.5						6-29-19 1:30	20.23	1644	8.36	20.2					
3-29-19 9:30	0.56	579	8.19	79.6	3-29-19 9:00	0.79	759	7.80	19.8	3-29-19 9:00	1.17	978	7.80	30.2						6-29-19 1:45	20.25	1647	8.36	18.0					
3-29-19 9:45	0.70	576	8.21	81.3	3-29-19 9:15	0.82	752	7.81	19.8	3-29-19 9:15	1.20	973	7.81	27.3						6-29-19 2:00	20.24	1645	8.36	17.2					
3-29-19 10:00	0.88	571	8.24	78.8	3-29-19 9:30	0.85	748	7.81	21.3	3-29-19 9:30	1.26	972	7.81	26.7						6-29-19 2:15	20.19	1647	8.36	18.1					
3-29-19 10:15	1.03	568	8.27	78.6	3-29-19 9:45	0.88	753	7.81	20.0	3-29-19 9:45	1.20	967	7.81	23.2						6-29-19 2:30	20.20	1645	8.37	16.6					
3-29-19 10:30	1.17	566	8.26	76.9	3-29-19 10:00	0.96	750	7.81	18.4	3-29-19 10:00	1.24	966	7.81	23.9						6-29-19 2:45	20.17	1644	8.37	18.5					
3-29-19 10:45	1.34	563	8.25	76.7	3-29-19 10:15	1.02	751	7.81	17.3	3-29-19 10:15	0.93	959	7.81	22.8						6-29-19 3:00	20.16	1644	8.37	18.5					
3-29-19 11:00	1.55	559	8.25	71.5	3-29-19 10:30	1.09	753	7.80	16.7	3-29-19 10:30	0.91	968	7.81	23.6						6-29-19 3:15	20.13	1644	8.38	16.2					
3-29-19 11:15	1.81	551	8.25	74.7	3-29-19 10:45	1.17	747	7.82	21.3	3-29-19 10:45	0.96	966	7.81	26.5						6-29-19 3:30	20.11	1643	8.38	16.6					
3-29-19 11:30	2.12	542	8.23	76.6	3-29-19 11:00	1.25	745	7.81	18.8	3-29-19 11:00	0.90	968	7.82	24.8						6-29-19 3:45	20.08	1646	8.38	15.4					
3-29-19 11:45	2.46	529	8.23	78.0	3-29-19 11:15	1.36	742	7.81	19.0	3-29-19 11:15	0.82	966	7.82	23.0						6-29-19 4:00	20.07	1643	8.38	15.0					
3-29-19 12:00	2.61	521	8.25	79.0	3-29-19 11:30	1.45	743	7.81	22.5	3-29-19 11:30	1.07	969	7.82	23.7						6-29-19 4:15	20.04	1643	8.38	15.4					
3-29-19 12:15	2.75	515	8.25	79.9	3-29-19 11:45	1.53	745	7.81	22.3	3-29-19 11:45	1.13	971	7.81	23.5						6-29-19 4:30	20.00	1640	8.39	15.2					
3-29-19 12:30	2.87	514	8.25	78.7	3-29-19 12:00	1.64	740	7.81	24.6	3-29-19 12:00	1.24	970	7.81	21.5						6-29-19 4:45	19.98	1640	8.39	15.7					
3-29-19 12:45	2.99	511	8.26	78.1	3-29-19 12:15	1.73	738	7.81	22.1	3-29-19 12:15	1.48	971	7.81	21.0						6-29-19 5:00	19.98	1635	8.40	13.9					
3-29-19 13:00	3.13	506	8.26	82.1	3-29-19 12:30	1.79	740	7.81	21.2	3-29-19 12:30	1.47	968	7.81	20.8						6-29-19 5:15	19.96	1634	8.40	14.1					
3-29-19 13:15	3.28	502	8.26	79.0	3-29-19 12:45	1.86	735	7.81	19.3	3-29-19 12:45	1.57	971	7.81	22.3						6-29-19 5:30	19.93	1633	8.39	12.8					
3-29-19 13:30	3.36	496	8.26	84.8	3-29-19 13:00	1.85	745	7.81	19.8	3-29-19 13:00	1.43	970	7.81	24.3						6-29-19 5:45	19.90	1633	8.40	12.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-29-19 13:45	3.40	490	8.26	88.5	3-29-19 13:15	1.80	753	7.81	14.4	3-29-19 13:15	1.40	976	7.81	24.4						6-29-19 6:00	19.88	1629	8.40	12.7					
3-29-19 14:00	3.53	485	8.26	82.2	3-29-19 13:30	1.80	754	7.82	13.3	3-29-19 13:30	1.48	971	7.81	22.9						6-29-19 6:15	19.83	1632	8.39	13.2					
3-29-19 14:15	3.54	479	8.29	92.1	3-29-19 13:45	1.84	749	7.81	15.7	3-29-19 13:45	1.42	973	7.81	22.7						6-29-19 6:30	19.84	1629	8.40	12.0					
3-29-19 14:30	3.58	474	8.29	94.9	3-29-19 14:00	1.87	748	7.80	15.2	3-29-19 14:00	1.42	980	7.81	25.3						6-29-19 6:45	19.84	1624	8.41	14.0					
3-29-19 14:45	3.59	468	8.29	102.5	3-29-19 14:15	2.13	740	7.80	16.0	3-29-19 14:15	1.45	982	7.80	25.9						6-29-19 7:00	19.80	1624	8.41	11.7					
3-29-19 15:00	3.49	465	8.31	110.8	3-29-19 14:30	2.21	739	7.80	16.5	3-29-19 14:30	1.46	985	7.80	26.8						6-29-19 7:15	19.77	1628	8.40	12.7					
3-29-19 15:15	3.47	463	8.30	114.5	3-29-19 14:45	2.10	746	7.80	15.4	3-29-19 14:45	1.47	984	7.79	26.2						6-29-19 7:30	19.73	1627	8.41	12.6					
3-29-19 15:30	3.48	463	8.31	110.5	3-29-19 15:00	2.30	736	7.80	16.3	3-29-19 15:00	1.47	984	7.79	26.2						6-29-19 7:45	19.61	1584	8.37	127.0					
3-29-19 15:45	3.54	461	8.30	117.0	3-29-19 15:15	2.31	737	7.80	16.2	3-29-19 15:15	1.38	985	7.78	25.1						6-29-19 8:00	19.51	1587	8.36	89.8					
3-29-19 16:00	3.70	458	8.30	117.1	3-29-19 15:30	2.34	728	7.80	16.2	3-29-19 15:30	1.35	984	7.79	25.8						6-29-19 8:15	19.42	1588	8.34	64.1					
3-29-19 16:15	3.74	454	8.31	114.0	3-29-19 15:45	2.29	734	7.80	16.2	3-29-19 15:45	1.25	974	7.80	23.2						6-29-19 8:30	19.39	1577	8.35	44.2					
3-29-19 16:30	3.56	452	8.32	122.9	3-29-19 16:00	2.54	710	7.80	16.6	3-29-19 16:00	1.26	968	7.80	23.2						6-29-19 8:45	19.37	1570	8.35	38.3					
3-29-19 16:45	3.25	451	8.32	126.3	3-29-19 16:15	2.51	710	7.80	17.1	3-29-19 16:15	1.33	973	7.80	22.5						6-29-19 9:00	19.36	1567	8.36	38.3					
3-29-19 17:00	2.88	451	8.32	124.0	3-29-19 16:30	2.65	698	7.79	17.2	3-29-19 16:30	1.35	965	7.81	22.5						6-29-19 9:15	19.32	1560	8.35	35.4					
3-29-19 17:15	2.69	449	8.30	117.2	3-29-19 16:45	2.68	694	7.79	18.1	3-29-19 16:45	1.46	962	7.82	21.7						6-29-19 9:30	19.29	1550	8.35	34.1					
3-29-19 17:30	2.48	444	8.31	117.2	3-29-19 17:00	2.65	691	7.80	17.6	3-29-19 17:00	1.36	961	7.82	20.9						6-29-19 9:45	19.25	1546	8.35	33.9					
3-29-19 17:45	2.20	442	8.30	126.9	3-29-19 17:15	2.57	688	7.80	17.7	3-29-19 17:15	1.53	966	7.81	18.4						6-29-19 10:00	19.24	1555	8.35	26.9					
3-29-19 18:00	1.90	444	8.26	111.0	3-29-19 17:30	2.46	687	7.80	17.3	3-29-19 17:30	1.65	972	7.80	21.1						6-29-19 10:15	19.20	1558	8.35	25.8					
3-29-19 18:15	1.64	443	8.23	112.2	3-29-19 17:45	2.36	693	7.81	17.3	3-29-19 17:45	1.56	978	7.79	21.7						6-29-19 10:30	19.19	1557	8.36	57.3					
3-29-19 18:30	1.47	443	8.28	118.7	3-29-19 18:00	2.36	696	7.80	17.7	3-29-19 18:00	1.64	978	7.79	19.8						6-29-19 10:45	19.14	1542	8.35	41.0					
3-29-19 18:45	1.39	442	8.30	113.8	3-29-19 18:15	2.38	687	7.81	18.0	3-29-19 18:15	1.58	979	7.78	19.4						6-29-19 11:00	19.09	1539	8.34	33.9					
3-29-19 19:00	1.16	455	8.34	108.7	3-29-19 18:30					3-29-19 18:30	1.59	981	7.77	19.6						6-29-19 11:15	19.06	1547	8.33	36.2					
3-29-19 19:15	0.96	462	8.35	105.8	3-29-19 18:45	2.25	698	7.81	17.5	3-29-19 18:45	1.63	978	7.78	20.9						6-29-19 11:30	19.01	1548	8.33	30.9					
3-29-19 19:30	0.87	463	8.35	105.4	3-29-19 19:00	2.11	702	7.81	17.5	3-29-19 19:00	1.52	978	7.77	20.8						6-29-19 11:45	18.97	1553	8.32	29.5					
3-29-19 19:45	0.76	464	8.35	109.5	3-29-19 19:15	1.81	724	7.81	15.7	3-29-19 19:15	1.39	978	7.76	20.7						6-29-19 12:00	18.95	1554	8.32	28.0					
3-29-19 20:00	0.67	465	8.35	112.9	3-29-19 19:30	1.71	726	7.81	15.9	3-29-19 19:30	1.18	987	7.72	23.7						6-29-19 12:15	18.88	1563	8.31	24.8					
3-29-19 20:15	0.59	465	8.35	108.2	3-29-19 19:45	1.58	727	7.82	15.6	3-29-19 19:45	1.24	990	7.72	22.9						6-29-19 12:30	18.87	1574	8.31	24.2					
3-29-19 20:30	0.44	468	8.35	105.9	3-29-19 20:00	1.57	725	7.82	17.0	3-29-19 20:00	1.11	985	7.75	22.6						6-29-19 12:45	18.85	1584	8.31	24.8					
3-29-19 20:45	0.40	471	8.34	102.9	3-29-19 20:15	1.57	724	7.82	16.6	3-29-19 20:15	1.06	985	7.76	21.8						6-29-19 13:00	18.84	1599	8.30	24.5					
3-29-19 21:00	0.39	474	8.34	112.4	3-29-19 20:30	1.52	725	7.82	16.3	3-29-19 20:30	1.20	980	7.78	22.0						6-29-19 13:15	18.80	1600	8.30	24.7					
3-29-19 21:15	0.30	531	8.29	80.0	3-29-19 20:45	1.49	725	7.82	16.4	3-29-19 20:45	1.17	980	7.79	23.2						6-29-19 13:30	18.78	1598	8.30	24.2					
3-29-19 21:30	0.28	547	8.26	68.7	3-29-19 21:00	1.45	726	7.82	17.0	3-29-19 21:00	1.21	981	7.79	24.0						6-29-19 13:45	18.75	1587	8.31	25.5					
3-29-19 21:45	0.27	549	8.24	78.1	3-29-19 21:15	1.42	725	7.81	17.0	3-29-19 21:15	1.27	986	7.77	24.1						6-29-19 14:00	18.71	1568	8.31	24.7					
3-29-19 22:00	0.23	561	8.24	77.5	3-29-19 21:30	1.41	726	7.81	16.8	3-29-19 21:30	1.09	995	7.74	24.6						6-29-19 14:15	18.66	1560	8.30	25.6					
3-29-19 22:15	0.20	572	8.23	63.7	3-29-19 21:45	1.36	730	7.81	16.9	3-29-19 21:45	0.89	1010	7.71	20.1						6-29-19 14:30	18.63	1549	8.31	25.1					
3-29-19 22:30	0.17	578	8.23	63.1	3-29-19 22:00	1.37	728	7.81	16.6	3-29-19 22:00	0.82	1017	7.70	21.8						6-29-19 14:45	18.59	1543	8.30	26.8					
3-29-19 22:45	0.15	581	8.22	61.9	3-29-19 22:15	1.29	733	7.81	17.1	3-29-19 22:15	0.75	1021	7.68	19.8						6-29-19 15:00	18.62	1570	8.32	22.6					
3-29-19 23:00	0.12	583	8.22	61.6	3-29-19 22:30	1.26	735	7.81	16.9	3-29-19 22:30	0.67	1020	7.68	19.3						6-29-19 15:15	18.64	1570	8.31	21.4					
3-29-19 23:15	0.11	584	8.21	58.2	3-29-19 22:45	1.22	737	7.81	17.2	3-29-19 22:45	0.60	1022	7.67	19.0						6-29-19 15:30	18.67	1573	8.31	19.8					
3-29-19 23:30	0.10	587	8.21	60.9	3-29-19 23:00	1.21	737	7.81	16.9	3-29-19 23:00	0.58	1025	7.68	18.1						6-29-19 15:45	18.75	1610	8.33	17.4					
3-29-19 23:45	0.09	588	8.21	54.9	3-29-19 23:15	1.17	739	7.82	18.3	3-29-19 23:15	0.56	1028	7.68	16.7						6-29-19 16:00	18.76	1613	8.34	16.6					
3-30-19 0:00	0.08	589	8.21	53.7	3-29-19 23:30	1.14	739	7.82	19.7	3-29-19 23:30	0.54	1031	7.68	16.2						6-29-19 16:15	18.74	1616	8.33	16.8					
3-30-19 0:15	0.06	594	8.20	48.5	3-29-19 23:45	1.13	735	7.82	19.7	3-29-19 23:45	0.50	1035	7.68	15.7						6-29-19 16:30	18.75	1619	8.34	17.0					
3-30-19 0:30	0.06	598	8.18	50.1	3-30-19 0:00	1.10	734	7.82	20.3	3-30-19 0:00	0.46	1036	7.68	17.1						6-29-19 16:45	18.75	1616	8.35	17.1					
3-30-19 0:45	0.06	597	8.18	47.9	3-30-19 0:15	1.08	733	7.81	21.0	3-30-19 0:15	0.44	1035	7.67	18.7						6-29-19 17:00	18.78	1618	8.35	15.8					
3-30-19 1:00	0.06	595	8.18	54.6	3-30-19 0:30	1.04	734	7.82	23.5	3-30-19 0:30	0.42	1034	7.66	18.6						6-29-19 17:15	18.77	1620	8.36	15.7					
3-30-19 1:15	0.05	597	8.16	57.4	3-30-19 0:45	1.02	736	7.81	23.6	3-30-19 0:45	0.39	1033	7.65	18.6						6-29-19 17:30	18.84	1619	8.36	14.2					
3-30-19 1:30	0.04	601	8.16	53.9	3-30-19 1:00	1.00	743	7.81	23.6	3-30-19 1:00	0.39	1034	7.66	17.9						6-29-19 17:45	18.93	1621	8.36	13.0					
3-30-19 1:45	0.01	606	8.16	42.3	3-30-19 1:15	0.99	748	7.81	21.8	3-30-19 1:15	0.37	1034	7.65	18.3						6-29-19 18:00	18.90	1618	8.36	12.9					
3-30-19 2:00	0.01	608	8.14	86.3	3-30-19 1:30	0.98	744	7.81	21.6	3-30-19 1:30	0.37	1034	7.66	17.4						6-29-19 18:15	19.03	1621	8.36	14.4					
3-30-19 2:15	0.01	611	8.12	45.6	3-30-19 1:45	0.97	743	7.81	19.5	3-30-19 1:45	0.36	1034	7.65	17.9						6-29-19 18:30	19.02	1621	8.37	13.4					
3-30-19 2:30	0.00	615	8.12	40.8	3-30-19 2:00	0.95	743	7.81	19.7	3-30-19 2:00	0.34	1034	7.65	16.6						6-29-19 18:45	19.03	1626	8.37	14.4					
3-30-19 2:45	-0.01	623	8.08	41.1	3-30-19 2:15	0.93	742	7.81	19.0	3-30-19 2:15	0.34	1034	7.64	17.6						6-29-19 19:00	19.07	1626	8.38	13.9					
3-30-19 3:00	0.00	629	8.01	29.4	3-30-19 2:30	0.92	751	7.81	24.2	3-30-19 2:30	0.37	1036	7.65	17.1						6-29-19 19:15	19.10	1630	8.38	15.6					
3-30-19 3:15	0.01	634	7.91	23.0	3-30-19 2:45	0.88	758	7.82	22.8	3-30-19 2:45	0.42	1037	7.65	18.1						6-29-19 19:30	19.06	1629	8.39	13.6					
3-30-19 3:30	0.04	634	7.86	26.5	3-30-19 3:00	0.86	761	7.82	20.8	3-30-19 3:00	0.56	1037	7.63	19.0						6-29-19 19:45	19.02	1629	8.38	17.1					
3-30-19 3:45	0.04	633	7.86	26.8	3-30-19 3:15	0.86	760	7.82	20.2	3-30-19 3:15	0.68	1037	7.62	18.7						6-29-19 20:00	19.40	1625	8.40	19.5					
3-30-19 4:00	0.03	633	7.84	33.7	3-30-19 3:30	0.85	763	7.82	13.8	3-30-19 3:30	0.83	1038	7.61	19.9						6-29-19 20:15	19.82	1630	8.38	17.4					
3-30-19 4:15	0.02	632	7.83	25.3	3-30-19 3:45	0.85	763	7.82	11.9	3-30-19 3:45	0.97	1045	7.64	17.8						6-29-19 20:30	20.15	1628	8.37	15.4					
3-30-19 4:30	0.00	634	7.86	25.5	3-30-19 4:00	0.84	764	7.82	12.9	3-30-19 4:00	1.08	1056	7.65	15.6						6-29-19 20:45	20.02	1628	8.38	16.4					
3-30-19 4:45	-0.01	634	7.83	32.6	3-30-19 4:15	0.82	765	7.82	12.7	3-30-19 4:15	1.18	1060	7.64	14.9						6-29-19 21:00	20.08	1618	8.39	20.1					
3-30-19 5:00	-0.01	634	7.82	33.3	3-30-19 4:30	0.81	762	7.82	17.6	3-30-19 4:30	1.38	1065	7.63	14.4						6-29-19 21:15	19.82	1622	8.40	17.8					
3-30-19 5:15	-0.01	635	7.81	27.0	3-30-19 4:45	0.86	760	7.83	18.8	3-30-19 4:45	1.54	1067	7.62	13.4						6-29-19 21:30	20.02	1621	8.40	18.5					
3-30-19 5:30	-0.01	634	7.84	25.4	3-30-19 5:00	0.80	753	7.16	28.2	3-30-19 5:00	1.58	1074	7.63	11.1						6-29-19 21:45	20.05	1622	8.40	20.4					
3-30-19 5:45	-0.01	636	7.84	29.2	3-30-19 5:15	0.83	756	7.66	18.8	3-30-19 5:15	1.22	1060	7.63	9.4						6-29-19 22:00	20.26	1620	8.40	21.6					
3-30-19 6:00	-0.02	637	7.81	26.9	3-30-19 5:30	0.83	757	7.81	19.8	3-30-19 5:30	1.16	1056	7.63	8.7						6-29-19 22:15	20.68	1624	8.38	21.1					
3-30-19 6:15	-0.02	638	7.79	26.4	3-30-19 5:45	0.75	758	7.84	19.1	3-30-19 5:45	1.16	1070	7.64	10.4						6-29-19 22:30	20.97	1616	8.40	23.3					
3-30-19 6:30	-0.02	638	7.78	27.1	3-30-19 6:00	0.74	758	7.81	18.2	3-30-19 6:00	1.10	1053	7.64	9.0						6-29-19 22:45	21.25	1612	8.40	28.3					
3-30-19 6:45	-0.02	638	7.78	27.7	3-30-19 6:15	0.67	778	7.82	12.6	3-30-19 6:15	1.24	1072	7.64	9.2						6-29-19 23:00	21.47	1609	8.40	27.8					
3-30-19 7:00	-0.02	638	7.78	27.0	3-30-19 6:30	0.66	761	7.84	17.6	3-30-19 6:30	1.27	1075	7.65	8.3						6-29-19 23:15	21.32	1613	8.40	24.4					
3-30-19 7:15	-0.01	637	7.79	27.1	3-30-19 6:45	0.76	755	7.83	18.1	3-30-19 6:45	1.37	1069	7.63	8.4						6-29-19 23:30	21.13	1617	8.41	21.1					
3-30-19 7:30	0.01	637	7.78	27.2	3-30-19 7:00	0.74	759	7.84	16.7	3-30-19 7:00	1.40	1074	7.64	7.9						6-29-19 23:45	20.86	1617	8.41	20.2					
3-30-19 7:45	0.05	636	7.79	28.3	3-30-19 7:15	0.72	759	7.84	17.0	3-30-19 7:15	1.45	1078	7.63	7.4						6-30-19 0:00	20.81	1619	8.41	18.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-30-19 8:00	0.08	635	7.80	27.1	3-30-19 7:30	0.68	760	7.83	17.6	3-30-19 7:30	1.59	1077	7.64	7.9						6-30-19 0:15	20.37	1623	8.39	21.5					
3-30-19 8:15	0.13	634	7.82	27.8	3-30-19 7:45					3-30-19 7:45	1.63	1076	7.64	7.8						6-30-19 0:30	20.26	1628	8.39	20.1					
3-30-19 8:30	0.19	633	7.84	27.7	3-30-19 8:00	0.69	760	7.83	17.3	3-30-19 8:00	1.62	1080	7.64	7.7						6-30-19 0:45	20.42	1627	8.40	24.2					
3-30-19 8:45	0.26	631	7.85	28.0	3-30-19 8:15	0.73	759	7.82	16.8	3-30-19 8:15	1.75	1082	7.65	8.0						6-30-19 1:00	20.51	1625	8.41	21.0					
3-30-19 9:00	0.32	630	7.87	28.3	3-30-19 8:30	0.75	757	7.84	16.9	3-30-19 8:30	1.91	1085	7.65	8.0						6-30-19 1:15	20.58	1628	8.39	22.6					
3-30-19 9:15	0.42	628	7.85	27.8	3-30-19 8:45	0.79	755	7.84	17.9	3-30-19 8:45	1.78	1083	7.63	7.9						6-30-19 1:30	20.81	1620	8.42	16.7					
3-30-19 9:30	0.50	626	7.85	29.9	3-30-19 9:00	0.81	756	7.84	21.5	3-30-19 9:00	1.81	1083	7.65	7.6						6-30-19 1:45	21.03	1624	8.41	19.4					
3-30-19 9:45	0.60	623	7.84	31.8	3-30-19 9:15	0.87	755	7.85	19.5	3-30-19 9:15	1.96	1083	7.65	7.5						6-30-19 2:00	21.23	1623	8.40	16.9					
3-30-19 10:00	0.70	620	7.83	33.3	3-30-19 9:30	0.91	754	7.85	16.9	3-30-19 9:30	2.05	1086	7.63	8.0						6-30-19 2:15	21.33	1625	8.40	22.4					
3-30-19 10:15	0.79	618	7.83	35.9	3-30-19 9:45	0.97	752	7.84	22.9	3-30-19 9:45	2.05	1084	7.62	8.1						6-30-19 2:30	20.44	1623	8.39	25.1					
3-30-19 10:30	0.88	614	7.83	37.5	3-30-19 10:00	1.03	754	7.84	15.0	3-30-19 10:00	1.96	1086	7.62	7.4						6-30-19 2:45	20.17	1726	8.25	28.8					
3-30-19 10:45	0.96	612	7.83	43.5	3-30-19 10:15	1.11	754	7.84	14.4	3-30-19 10:15	2.12	1088	7.59	7.3						6-30-19 3:00	20.09	1676	8.34	29.6					
3-30-19 11:00	1.07	607	7.83	48.0	3-30-19 10:30	1.17	755	7.84	11.6	3-30-19 10:30	2.11	1091	7.57	7.4						6-30-19 3:15	20.09	1680	8.32	28.0					
3-30-19 11:15	1.19	603	7.83	48.8	3-30-19 10:45	1.23	743	7.81	10.4	3-30-19 10:45	2.03	1093	7.55	7.7						6-30-19 3:30	19.98	1687	8.29	27.5					
3-30-19 11:30	1.33	597	7.84	53.9	3-30-19 11:00	1.31	754	7.84	9.7	3-30-19 11:00	1.95	1093	7.55	7.7						6-30-19 3:45	19.98	1680	8.29	24.4					
3-30-19 11:45	1.44	595	7.84	55.2	3-30-19 11:15	1.43	751	7.83	11.2	3-30-19 11:15	1.90	1093	7.55	7.4						6-30-19 4:00	20.09	1667	8.31	23.4					
3-30-19 12:00	1.54	588	7.85	59.9	3-30-19 11:30	1.49	749	7.83	15.3	3-30-19 11:30	2.01	1091	7.56	7.2						6-30-19 4:15	20.23	1658	8.32	24.6					
3-30-19 12:15	1.58	584	7.85	62.0	3-30-19 11:45	1.59	741	7.83	17.1	3-30-19 11:45	1.86	1090	7.56	7.1						6-30-19 4:30	20.32	1652	8.32	21.1					
3-30-19 12:30	1.72	578	7.86	61.7	3-30-19 12:00	1.71	743	7.82	13.6	3-30-19 12:00	1.79	1092	7.56	6.4						6-30-19 4:45	20.31	1653	8.32	22.9					
3-30-19 12:45	1.96	569	7.88	67.2	3-30-19 12:15	1.80	745	7.83	13.8	3-30-19 12:15	1.79	1092	7.56	6.6						6-30-19 5:00	20.29	1651	8.32	22.1					
3-30-19 13:00	2.29	548	7.89	70.6	3-30-19 12:30	1.85	748	7.83	13.8	3-30-19 12:30	1.87	1092	7.56	6.4						6-30-19 5:15	20.29	1653	8.31	22.3					
3-30-19 13:15	2.59	537	8.00	70.7	3-30-19 12:45	1.91	751	7.83	13.3	3-30-19 12:45	1.85	1093	7.56	6.9						6-30-19 5:30	20.23	1651	8.31	20.1					
3-30-19 13:30	2.64	526	7.96	82.0	3-30-19 13:00	1.95	753	7.82	11.2	3-30-19 13:00	1.91	1093	7.56	7.6						6-30-19 5:45	20.18	1653	8.31	21.9					
3-30-19 13:45	2.59	524	7.93	97.6	3-30-19 13:15	2.13	751	7.81	11.7	3-30-19 13:15	1.96	1089	7.58	7.7						6-30-19 6:00	20.11	1652	8.31	19.8					
3-30-19 14:00	2.67	516	7.93	99.4	3-30-19 13:30	2.00	759	7.83	13.8	3-30-19 13:30	2.03	1088	7.57	7.4						6-30-19 6:15	20.05	1653	8.31	21.3					
3-30-19 14:15	2.80	508	7.94	104.8	3-30-19 13:45	2.04	758	7.83	15.0	3-30-19 13:45	2.13	1091	7.55	7.5						6-30-19 6:30	19.97	1652	8.31	19.5					
3-30-19 14:30	2.95	501	7.95	107.4	3-30-19 14:00	2.03	761	7.83	14.9	3-30-19 14:00	2.24	1096	7.55	8.1						6-30-19 6:45	19.94	1654	8.30	23.5					
3-30-19 14:45	3.27	494	7.96	103.7	3-30-19 14:15	2.15	756	7.82	15.1	3-30-19 14:15	2.45	1094	7.55	7.7						6-30-19 7:00	19.88	1654	8.30	18.6					
3-30-19 15:00	3.35	425	8.13	66.4	3-30-19 14:30	2.53	728	7.81	15.7	3-30-19 14:30	2.18	1098	7.55	7.8						6-30-19 7:15	19.84	1655	8.30	22.7					
3-30-19 15:15	3.17	396	8.06	62.6	3-30-19 14:45	2.43	749	7.80	14.7	3-30-19 14:45	2.07	1094	7.56	7.4						6-30-19 7:30	19.78	1655	8.30	20.0					
3-30-19 15:30	2.19	534	7.79	46.2	3-30-19 15:00	2.41	747	7.81	13.9	3-30-19 15:00	2.14	1089	7.56	7.5						6-30-19 7:45	19.71	1656	8.30	22.1					
3-30-19 15:45	2.24	520	7.83	45.6	3-30-19 15:15	2.87	709	7.79	16.1	3-30-19 15:15	2.19	1089	7.58	7.8						6-30-19 8:00	19.68	1656	8.29	20.0					
3-30-19 16:00	1.78	612	7.76	36.4	3-30-19 15:30	2.47	744	7.79	14.2	3-30-19 15:30	2.31	1081	7.61	8.5						6-30-19 8:15	19.63	1658	8.29	21.0					
3-30-19 16:15	1.63	667	7.74	29.3	3-30-19 15:45	3.50	652	7.75	14.0	3-30-19 15:45	2.55	1081	7.60	8.1						6-30-19 8:30	19.63	1657	8.29	19.3					
3-30-19 16:30	1.52	662	7.72	28.5	3-30-19 16:00	4.11	598	7.73	17.6	3-30-19 16:00	2.60	1081	7.59	7.9						6-30-19 8:45	19.58	1657	8.29	20.3					
3-30-19 16:45	1.31	726	7.69	23.4	3-30-19 16:15	3.84	570	7.74	20.1	3-30-19 16:15	2.43	1085	7.59	7.2						6-30-19 9:00	19.57	1658	8.29	19.0					
3-30-19 17:00	1.24	720	7.70	22.6	3-30-19 16:30	3.97	608	7.73	19.9	3-30-19 16:30	2.60	1088	7.57	7.5						6-30-19 9:15	19.55	1662	8.28	21.8					
3-30-19 17:15	1.23	719	7.68	24.8	3-30-19 16:45	3.76	514	7.78	28.8	3-30-19 16:45	2.54	1088	7.57	7.0						6-30-19 9:30	19.53	1664	8.27	18.3					
3-30-19 17:30	1.19	724	7.67	26.7	3-30-19 17:00	3.55	493	7.79	29.9	3-30-19 17:00	2.59	1090	7.56	7.3						6-30-19 9:45	19.52	1669	8.25	21.6					
3-30-19 17:45	1.22	713	7.65	27.7	3-30-19 17:15	3.29	483	7.78	41.2	3-30-19 17:15	2.71	1091	7.55	7.2						6-30-19 10:00	19.49	1674	8.23	20.0					
3-30-19 18:00	1.13	685	7.63	33.7	3-30-19 17:30	3.18	449	7.84	50.1	3-30-19 17:30	2.75	1094	7.55	7.8						6-30-19 10:15	19.46	1679	8.20	21.1					
3-30-19 18:15	0.99	656	7.60	38.9	3-30-19 17:45	2.55	500	7.80	34.0	3-30-19 17:45	2.48	1094	7.55	8.0						6-30-19 10:30	19.44	1687	8.17	18.7					
3-30-19 18:30	0.85	637	7.60	36.4	3-30-19 18:00	2.45	435	7.92	46.6	3-30-19 18:00	2.59	1098	7.55	7.9						6-30-19 10:45	19.52	1716	8.02	23.4					
3-30-19 18:45	0.89	594	7.58	36.8	3-30-19 18:15	2.73	470	7.88	37.9	3-30-19 18:15	2.93	1096	7.55	8.1						6-30-19 11:00	19.50	1719	8.02	19.7					
3-30-19 19:00	0.89	559	7.60	41.4	3-30-19 18:30	2.70	487	7.84	43.2	3-30-19 18:30	2.51	1099	7.55	8.1						6-30-19 11:15	19.52	1728	8.00	21.8					
3-30-19 19:15	1.18	499	7.65	57.7	3-30-19 18:45	2.66	446	7.88	52.7	3-30-19 18:45	2.44	1099	7.56	8.2						6-30-19 11:30	19.51	1730	7.97	18.9					
3-30-19 19:30	1.20	458	7.72	66.7	3-30-19 19:00	2.74	487	7.84	46.8	3-30-19 19:00	2.51	1100	7.56	7.3						6-30-19 11:45	19.47	1727	7.99	21.8					
3-30-19 19:45	1.11	462	7.72	65.3	3-30-19 19:15	2.58	562	7.77	17.7	3-30-19 19:15	2.12	1104	7.56	7.4						6-30-19 12:00	19.44	1730	7.97	18.6					
3-30-19 20:00	0.99	465	7.74	65.4	3-30-19 19:30	2.60	604	7.76	19.8	3-30-19 19:30	2.06	1104	7.57	7.7						6-30-19 12:15	19.36	1724	7.99	21.7					
3-30-19 20:15	0.94	489	7.70	63.0	3-30-19 19:45	2.66	264	8.08	39.4	3-30-19 19:45	2.04	1105	7.57	7.8						6-30-19 12:30	19.37	1725	7.99	19.1					
3-30-19 20:30	0.78	533	7.66	54.1	3-30-19 20:00	1.90	605	7.85	25.3	3-30-19 20:00	1.95	1105	7.57	7.6						6-30-19 12:45	19.34	1726	7.98	22.2					
3-30-19 20:45	0.73	540	7.64	52.7	3-30-19 20:15	1.87	621	7.85	24.2	3-30-19 20:15	1.83	1108	7.57	7.6						6-30-19 13:00	19.32	1724	7.98	20.1					
3-30-19 21:00	0.64	537	7.64	52.6	3-30-19 20:30	1.87	618	7.85	23.3	3-30-19 20:30	1.75	1109	7.57	7.8						6-30-19 13:15	19.30	1725	7.98	21.9					
3-30-19 21:15	0.58	532	7.65	51.9	3-30-19 20:45	1.90	627	7.84	26.9	3-30-19 20:45	1.69	1109	7.57	7.2						6-30-19 13:30	19.27	1724	7.98	19.8					
3-30-19 21:30	0.46	546	7.64	51.0	3-30-19 21:00	1.77	654	7.84	29.8	3-30-19 21:00	1.73	1110	7.57	7.1						6-30-19 13:45	19.25	1724	7.99	21.8					
3-30-19 21:45	0.43	551	7.64	48.1	3-30-19 21:15	1.64	656	7.85	30.2	3-30-19 21:15	1.68	1110	7.57	6.9						6-30-19 14:00	19.22	1722	7.99	19.6					
3-30-19 22:00	0.38	555	7.65	44.6	3-30-19 21:30	1.59	673	7.85	31.2	3-30-19 21:30	1.68	1112	7.57	7.1						6-30-19 14:15	19.17	1723	7.99	24.2					
3-30-19 22:15	0.36	553	7.64	51.3	3-30-19 21:45	1.42	689	7.85	33.2	3-30-19 21:45	1.70	1111	7.57	6.3						6-30-19 14:30	19.21	1721	7.98	20.9					
3-30-19 22:30	0.35	556	7.64	43.3	3-30-19 22:00	1.42	679	7.85	33.3	3-30-19 22:00	1.71	1112	7.57	6.7						6-30-19 14:45	19.22	1722	7.99	25.3					
3-30-19 22:45	0.34	557	7.64	44.5	3-30-19 22:15	1.38	711	7.84	19.9	3-30-19 22:15	1.66	1112	7.57	6.9						6-30-19 15:00	19.26	1721	7.99	21.7					
3-30-19 23:00	0.33	556	7.64	44.9	3-30-19 22:30	1.26	717	7.83	17.4	3-30-19 22:30	1.63	1112	7.57	6.7						6-30-19 15:15	19.32	1723	8.00	21.5					
3-30-19 23:15	0.45	530	7.72	45.9	3-30-19 22:45	1.21	710	7.83	19.7	3-30-19 22:45	1.62	1111	7.57	6.5						6-30-19 15:30	19.38	1721	7.99	19.9					
3-30-19 23:30	0.57	455	7.88	61.5	3-30-19 23:00	1.24	705	7.83	18.8	3-30-19 23:00	1.65	1111	7.56	6.9						6-30-19 15:45	19.46	1722	7.99	24.2					
3-30-19 23:45	0.65	536	7.80	55.2	3-30-19 23:15	1.14	695	7.83	17.5	3-30-19 23:15	1.61	1112	7.57	6.7						6-30-19 16:00	19.43	1721	7.98	19.4					
3-31-19 0:00	0.83	542	7.76	55.5	3-30-19 23:30	1.12	680	7.84	20.5	3-30-19 23:30	1.61	1110	7.56	7.4						6-30-19 16:15	19.38	1723	7.97	22.6					
3-31-19 0:15	0.82	554	7.76	51.8	3-30-19 23:45	0.80	605	7.82	23.2	3-30-19 23:45	1.66	1112	7.56	7.2						6-30-19 16:30	19.41	1722	7.99	18.6					
3-31-19 0:30	0.90	581	7.76	47.5	3-31-19 0:00	0.76	650	7.84	26.4	3-31-19 0:00	1.66	1114	7.56	7.1						6-30-19 16:45	19.47	1723	8.00	23.5					
3-31-19 0:45	0.84	594	7.77	45.8	3-31-19 0:15	0.64	650	7.83	21.7	3-31-19 0:15	1.56	1112	7.56	7.1						6-30-19 17:00	19.61	1719	8.03	17.3					
3-31-19 1:00	0.96	608	7.79	45.7	3-31-19 0:30	0.56	649	7.82	22.0	3-31-19 0:30	1.90	1108	7.56	7.2						6-30-19 17:15	19.84	1721	8.04	19.6					
3-31-19 1:15	1.08	609	7.82	46.1	3-31-19 0:45	0.54	655	7.83	21.0	3-31-19 0:45	1.93	1108	7.56	6.9						6-30-19 17:30	20.29	1718	8.05	17.5					
3-31-19 1:30	0.98	597	7.83	45.9	3-31-19 1:00	0.40	628	7.82	18.2	3-31-19 1:00	1.83	1112	7.56	6.8						6-30-19 17:45	20.35	1715	8.05	20.7					
3-31-19 1:45	0.86	607	7.84	44.0	3-31-19 1:15	0.58	651	7.82	18.2	3-31-19 1:15	1.67	1114	7.55	6.9						6-30-19 18:00	20.49	1713	8.08	18.1					
3-31-19 2:00	0.89	640	7.81	42.4	3-31-19 1:30	0.50	664	7.81	20.3	3-31-19 1:30	1.73	1114	7.56	6.8						6-30-19 18:15	20.46	1709	8.09	21.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-31-19 2:15	0.97	653	7.81	39.5	3-31-19 1:45	0.37	596	7.83	24.8	3-31-19 1:45	1.57	1116	7.55	6.7						6-30-19 18:30	20.80	1711	8.11	17.8					
3-31-19 2:30	1.04	656	7.80	41.2	3-31-19 2:00	0.41	642	7.84	24.7	3-31-19 2:00	1.58	1118	7.56	6.7						6-30-19 18:45	21.07	1709	8.10	20.7					
3-31-19 2:45	0.85	630	7.79	43.9	3-31-19 2:15	0.31	666	7.82	21.1	3-31-19 2:15	1.68	1115	7.56	6.9						6-30-19 19:00	21.08	1704	8.12	16.9					
3-31-19 3:00	0.67	578	7.75	47.4	3-31-19 2:30	0.40	665	7.83	21.3	3-31-19 2:30	1.77	1115	7.56	6.5						6-30-19 19:15	21.82	1711	8.10	18.9					
3-31-19 3:15	0.57	588	7.72	44.1	3-31-19 2:45	0.47	673	7.83	20.8	3-31-19 2:45	1.21	1108	7.56	6.4						6-30-19 19:30	21.78	1707	8.11	16.8					
3-31-19 3:30	0.59	588	7.70	44.0	3-31-19 3:00	0.44	679	7.83	20.0	3-31-19 3:00	1.52	1114	7.55	6.5						6-30-19 19:45	21.84	1710	8.10	23.6					
3-31-19 3:45	0.50	557	7.72	47.3	3-31-19 3:15	0.28	659	7.84	20.8	3-31-19 3:15	1.66	1115	7.55	6.3						6-30-19 20:00	22.31	1706	8.10	16.1					
3-31-19 4:00	0.50	564	7.70	47.0	3-31-19 3:30	0.26	654	7.84	20.9	3-31-19 3:30	1.41	1116	7.56	6.6						6-30-19 20:15	22.95	1711	8.11	18.0					
3-31-19 4:15	0.46	563	7.71	47.2	3-31-19 3:45	0.34	655	7.84	20.6	3-31-19 3:45	1.22	1117	7.56	6.4						6-30-19 20:30	23.10	1709	8.13	15.5					
3-31-19 4:30	0.40	576	7.70	44.0	3-31-19 4:00	0.37	662	7.83	19.6	3-31-19 4:00	1.26	1115	7.56	6.1						6-30-19 20:45	24.18	1716	8.16	17.8					
3-31-19 4:45	0.33	565	7.71	44.4	3-31-19 4:15	0.36	669	7.83	19.2	3-31-19 4:15	0.93	1107	7.56	5.8						6-30-19 21:00	23.98	1702	8.15	15.9					
3-31-19 5:00	0.24	561	7.71	42.2	3-31-19 4:30	0.27	673	7.83	17.9	3-31-19 4:30	1.19	1116	7.56	6.1						6-30-19 21:15	24.35	1710	8.16	20.4					
3-31-19 5:15	0.10	546	7.73	43.6	3-31-19 4:45	0.37	671	7.82	18.0	3-31-19 4:45	1.04	1112	7.56	6.2						6-30-19 21:30	24.15	1702	8.15	16.5					
3-31-19 5:30	0.14	552	7.69	44.4	3-31-19 5:00	0.42	679	7.82	17.7	3-31-19 5:00	0.92	1112	7.56	6.1						6-30-19 21:45	23.54	1705	8.15	18.4					
3-31-19 5:45	0.26	560	7.68	43.9	3-31-19 5:15	0.39	685	7.82	17.9	3-31-19 5:15	0.89	1114	7.56	6.4						6-30-19 22:00	24.48	1711	8.16	17.3					
3-31-19 6:00	0.22	560	7.68	42.9	3-31-19 5:30	0.45	689	7.82	16.5	3-31-19 5:30	0.83	1114	7.56	6.3						6-30-19 22:15	24.85	1712	8.17	20.2					
3-31-19 6:15	0.25	566	7.68	42.3	3-31-19 5:45	0.36	690	7.82	16.7	3-31-19 5:45	0.99	1115	7.56	6.5						6-30-19 22:30	24.66	1709	8.17	16.1					
3-31-19 6:30	0.23	569	7.68	43.2	3-31-19 6:00	0.34	695	7.82	15.8	3-31-19 6:00	1.15	1118	7.55	6.5						6-30-19 22:45	25.13	1712	8.18	22.0					
3-31-19 6:45	0.25	571	7.68	41.5	3-31-19 6:15	0.40	705	7.82	17.3	3-31-19 6:15	1.42	1120	7.55	4.6						6-30-19 23:00	25.23	1714	8.19	21.1					
3-31-19 7:00	0.25	572	7.68	40.7	3-31-19 6:30	0.45	705	7.82	17.6	3-31-19 6:30	1.79	1119	7.56	5.3						6-30-19 23:15	24.85	1707	8.18	18.9					
3-31-19 7:15	0.24	572	7.68	40.8	3-31-19 6:45	0.55	704	7.82	18.0	3-31-19 6:45	2.17	1115	7.55	6.1						6-30-19 23:30	25.16	1710	8.18	16.8					
3-31-19 7:30	0.23	573	7.68	41.2	3-31-19 7:00	0.58	702	7.82	18.4	3-31-19 7:00	2.47	1115	7.55	6.5						6-30-19 23:45	25.46	1706	8.19	18.9					
3-31-19 7:45	0.21	584	7.69	41.9	3-31-19 7:15	0.59	703	7.82	17.9	3-31-19 7:15	2.81	1123	7.53	6.8						7-1-19 0:00	25.62	1719	8.21	15.5					
3-31-19 8:00	0.21	593	7.72	43.7	3-31-19 7:30	0.57	707	7.82	17.8	3-31-19 7:30	3.15	1134	7.49	6.8						7-1-19 0:15	25.60	1709	8.22	20.7					
3-31-19 8:15	0.21	597	7.73	41.0	3-31-19 7:45	0.58	705	7.82	18.6	3-31-19 7:45	3.29	1154	7.48	6.2						7-1-19 0:30	25.47	1709	8.21	15.5					
3-31-19 8:30	0.26	594	7.74	39.2	3-31-19 8:00	0.62	703	7.82	17.7	3-31-19 8:00	3.57	1171	7.49	7.2						7-1-19 0:45	25.34	1706	8.22	25.1					
3-31-19 8:45	0.31	595	7.73	41.2	3-31-19 8:15	0.67	705	7.82	17.7	3-31-19 8:15	3.82	1167	7.49	8.6						7-1-19 1:00	25.20	1708	8.22	15.1					
3-31-19 9:00	0.42	585	7.72	42.9	3-31-19 8:30	0.76	700	7.82	16.9	3-31-19 8:30	3.76	1157	7.49	7.6						7-1-19 1:15	25.19	1715	8.21	17.7					
3-31-19 9:15	0.56	577	7.72	47.9	3-31-19 8:45	0.83	695	7.81	17.2	3-31-19 8:45	3.90	1162	7.49	7.9						7-1-19 1:30	24.84	1703	8.19	14.1					
3-31-19 9:30	0.63	575	7.71	45.1	3-31-19 9:00	0.92	690	7.81	17.4	3-31-19 9:00	3.47	1144	7.50	6.3						7-1-19 1:45	24.49	1731	8.18	15.4					
3-31-19 9:45	0.72	574	7.71	45.0	3-31-19 9:15	1.08	676	7.81	17.0	3-31-19 9:15	3.75	1155	7.49	6.4						7-1-19 2:00	24.13	1733	8.17	14.1					
3-31-19 10:00	0.76	574	7.72	44.4	3-31-19 9:30	1.19	671	7.81	17.2	3-31-19 9:30	3.64	1161	7.50	6.5						7-1-19 2:15	23.96	1755	8.17	16.7					
3-31-19 10:15	0.77	572	7.72	44.2	3-31-19 9:45	1.30	670	7.81	17.3	3-31-19 9:45	3.28	1170	7.50	6.3						7-1-19 2:30	20.94	1695	8.10	21.4					
3-31-19 10:30	0.77	572	7.72	43.1	3-31-19 10:00	1.11	685	7.81	16.3	3-31-19 10:00	3.18	1153	7.50	6.1						7-1-19 2:45	20.54	1697	8.12	26.0					
3-31-19 10:45	0.77	571	7.72	42.3	3-31-19 10:15	0.90	701	7.82	15.6	3-31-19 10:15	2.86	1157	7.50	5.7						7-1-19 3:00	20.50	1696	8.02	20.3					
3-31-19 11:00	0.82	569	7.72	43.1	3-31-19 10:30	0.74	715	7.82	14.7	3-31-19 10:30	2.60	1154	7.50	5.7						7-1-19 3:15	20.44	1695	6.45	22.4					
3-31-19 11:15	0.81	567	7.73	43.4	3-31-19 10:45	0.89	709	7.82	15.1	3-31-19 10:45	2.69	1153	7.50	6.2						7-1-19 3:30	20.93	1683	7.96	22.9					
3-31-19 11:30	0.81	580	7.72	41.3	3-31-19 11:00	0.96	712	7.82	15.3	3-31-19 11:00	2.72	1156	7.51	6.1						7-1-19 3:45	21.36	1683	7.96	25.0					
3-31-19 11:45	0.79	582	7.71	40.6	3-31-19 11:15	0.78	721	7.82	16.3	3-31-19 11:15	2.71	1156	7.50	6.0						7-1-19 4:00	21.77	1687	7.99	21.6					
3-31-19 12:00	0.76	585	7.71	40.4	3-31-19 11:30	0.82	715	7.82	16.9	3-31-19 11:30	2.89	1159	7.51	5.9						7-1-19 4:15	22.00	1686	8.01	26.3					
3-31-19 12:15	0.74	582	7.71	39.1	3-31-19 11:45	0.71	719	7.82	18.9	3-31-19 11:45	3.19	1162	7.50	6.0						7-1-19 4:30	22.07	1687	8.08	24.3					
3-31-19 12:30	0.76	582	7.71	40.7	3-31-19 12:00	1.13	707	7.82	16.3	3-31-19 12:00	3.14	1164	7.50	6.0						7-1-19 4:45	22.21	1690	8.13	26.2					
3-31-19 12:45	0.82	577	7.72	38.4	3-31-19 12:15	1.25	701	7.82	16.5	3-31-19 12:15	3.19	1160	7.50	5.8						7-1-19 5:00	22.21	1688	8.17	21.9					
3-31-19 13:00	0.89	574	7.73	39.3	3-31-19 12:30	0.96	716	7.82	18.0	3-31-19 12:30	3.34	1160	7.50	6.1						7-1-19 5:15	22.20	1688	8.18	26.1					
3-31-19 13:15	1.03	569	7.74	38.3	3-31-19 12:45	1.19	710	7.82	20.0	3-31-19 12:45	3.51	1160	7.50	7.3						7-1-19 5:30	22.16	1689	8.19	20.9					
3-31-19 13:30	1.12	567	7.76	39.3	3-31-19 13:00	1.39	715	7.81	16.7	3-31-19 13:00	3.67	1162	7.49	8.9						7-1-19 5:45	22.12	1690	8.19	23.2					
3-31-19 13:45	1.28	566	7.76	38.0	3-31-19 13:15	1.46	708	7.81	17.1	3-31-19 13:15	3.28	1166	7.49	9.3						7-1-19 6:00	22.02	1689	8.20	17.5					
3-31-19 14:00	1.56	569	7.76	37.7	3-31-19 13:30	1.53	724	7.81	19.1	3-31-19 13:30	3.26	1166	7.50	11.6						7-1-19 6:15	21.88	1689	8.19	21.7					
3-31-19 14:15	1.71	567	7.76	37.4	3-31-19 13:45	1.69	728	7.81	19.7	3-31-19 13:45	3.07	1155	7.50	7.5						7-1-19 6:30	21.51	1686	8.15	17.0					
3-31-19 14:30	1.65	564	7.75	35.1	3-31-19 14:00	1.99	704	7.81	17.9	3-31-19 14:00	2.99	1169	7.50	6.4						7-1-19 6:45	21.12	1685	8.14	26.3					
3-31-19 14:45	1.39	568	7.75	34.5	3-31-19 14:15	1.99	708	7.81	16.9	3-31-19 14:15	3.10	1169	7.49	6.4						7-1-19 7:00	20.82	1687	8.10	20.8					
3-31-19 15:00	1.45	565	7.75	35.3	3-31-19 14:30	2.02	707	7.81	16.6	3-31-19 14:30	3.30	1174	7.49	6.6						7-1-19 7:15	20.86	1686	8.12	24.1					
3-31-19 15:15	1.64	564	7.76	34.4	3-31-19 14:45	2.11	703	7.81	19.1	3-31-19 14:45	3.61	1173	7.49	6.7						7-1-19 7:30	20.87	1685	8.11	19.8					
3-31-19 15:30	1.85	564	7.76	36.6	3-31-19 15:00	2.62	695	7.81	18.8	3-31-19 15:00	3.49	1170	7.49	6.9						7-1-19 7:45	20.83	1685	8.11	21.1					
3-31-19 15:45	2.14	561	7.77	38.7	3-31-19 15:15	2.53	699	7.81	18.6	3-31-19 15:15	3.51	1177	7.49	8.6						7-1-19 8:00	20.80	1685	8.09	18.4					
3-31-19 16:00	2.22	559	7.76	36.5	3-31-19 15:30	2.54	701	7.80	17.5	3-31-19 15:30	3.49	1168	7.50	8.4						7-1-19 8:15	20.73	1689	8.07	21.8					
3-31-19 16:15	2.25	558	7.76	36.8	3-31-19 15:45	2.20	719	7.81	16.8	3-31-19 15:45	3.76	1157	7.49	6.8						7-1-19 8:30	20.70	1686	8.07	18.4					
3-31-19 16:30	2.33	557	7.76	39.7	3-31-19 16:00	2.44	713	7.80	16.5	3-31-19 16:00	3.28	1156	7.49	7.0						7-1-19 8:45	20.69	1689	8.07	21.9					
3-31-19 16:45	2.28	555	7.76	41.4	3-31-19 16:15	1.91	723	7.81	16.8	3-31-19 16:15	2.77	1171	7.50	6.8						7-1-19 9:00	20.63	1688	8.07	17.4					
3-31-19 17:00	2.16	554	7.76	42.2	3-31-19 16:30	2.22	713	7.81	16.7	3-31-19 16:30	2.48	1171	7.50	5.9						7-1-19 9:15	20.57	1690	8.07	21.1					
3-31-19 17:15	2.15	553	7.77	41.6	3-31-19 16:45	2.17	720	7.81	17.5	3-31-19 16:45	2.51	1162	7.51	5.4						7-1-19 9:30	20.52	1684	8.08	17.9					
3-31-19 17:30	2.05	550	7.77	42.2	3-31-19 17:00	2.09	724	7.81	16.8	3-31-19 17:00	2.56	1160	7.50	6.1						7-1-19 9:45	20.51	1688	8.07	21.1					
3-31-19 17:45	1.87	548	7.77	42.5	3-31-19 17:15	2.10	722	7.81	17.6	3-31-19 17:15	2.33	1157	7.51	5.8						7-1-19 10:00	20.47	1686	8.08	17.9					
3-31-19 18:00	1.73	546	7.78	41.6	3-31-19 17:30	2.13	717	7.82	18.0	3-31-19 17:30	2.53	1162	7.50	6.2						7-1-19 10:15	20.42	1686	8.07	20.9					
3-31-19 18:15	1.50	544	7.78	41.3	3-31-19 17:45	1.90	720	7.82	18.2	3-31-19 17:45	3.41	1173	7.50	5.5						7-1-19 10:30	20.35	1683	8.08	18.6					
3-31-19 18:30	1.18	542	7.79	42.6	3-31-19 18:00	2.05	705	7.83	18.4	3-31-19 18:00	3.78	1142	7.50	6.0						7-1-19 10:45	20.31	1683	8.09	21.1					
3-31-19 18:45	1.12	542	7.79	40.7	3-31-19 18:15	2.00	704	7.82	18.4	3-31-19 18:15	4.21	1156	7.50	6.2						7-1-19 11:00	20.29	1679	8.08	18.3					
3-31-19 19:00	1.02	547	7.79	41.8	3-31-19 18:30	1.82	708	7.82	19.9	3-31-19 18:30	4.62	1178	7.48	7.3						7-1-19 11:15	20.20	1680	8.10	21.7					
3-31-19 19:15	0.93	547	7.79	39.9	3-31-19 18:45	1.76	725	7.82	19.3	3-31-19 18:45	4.65	1164	7.47	8.8						7-1-19 11:30	20.19	1677	8.10	18.3					
3-31-19 19:30	0.85	548	7.79	41.3	3-31-19 19:00	1.46	746	7.82	26.4	3-31-19 19:00	3.82	1152	7.49	11.8						7-1-19 11:45	20.14	1677	8.11	21.8					
3-31-19 19:45	0.79	547	7.79	39.7	3-31-19 19:15	1.29	742	7.83	24.6	3-31-19 19:15	3.49	1149	7.50	11.2						7-1-19 12:00	20.07	1671	8.12	19.2					
3-31-19 20:00	0.71	544	7.79	38.4	3-31-19 19:30	1.28	741	7.82	30.3	3-31-19 19:30	3.46	1154	7.50	14.1						7-1-19 12:15	20.04	1671	8.11	24.4					
3-31-19 20:15	0.64	544	7.79	39.2	3-31-19 19:45	1.12	742	7.83	26.0	3-31-19 19:45	3.66	1151	7.49	7.2						7-1-19 12:30	20.03	1670	8.12	19.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
3-31-19 20:30	0.57	545	7.79	39.7	3-31-19 20:00	1.13	724	7.83	23.7	3-31-19 20:00	3.65	1166	7.49	8.1						7-1-19 12:45	20.01	1670	8.13	23.5					
3-31-19 20:45	0.50	544	7.79	40.1	3-31-19 20:15	1.07	727	7.82	21.4	3-31-19 20:15	3.57	1159	7.49	7.2						7-1-19 13:00	19.93	1668	8.14	18.9					
3-31-19 21:00	0.46	543	7.79	40.9	3-31-19 20:30	0.99	724	7.82	20.6	3-31-19 20:30	3.35	1156	7.49	6.2						7-1-19 13:15	19.81	1667	8.14	25.9					
3-31-19 21:15	0.42	544	7.79	38.8	3-31-19 20:45	0.95	722	7.82	18.8	3-31-19 20:45	3.20	1157	7.50	6.0						7-1-19 13:30	19.63	1642	8.11	36.4					
3-31-19 21:30	0.38	545	7.79	37.9	3-31-19 21:00	0.84	724	7.83	17.8	3-31-19 21:00	3.23	1169	7.49	8.0						7-1-19 13:45	19.51	1636	8.10	36.3					
3-31-19 21:45	0.33	547	7.80	40.3	3-31-19 21:15	0.83	720	7.83	18.3	3-31-19 21:15	3.41	1166	7.49	8.2						7-1-19 14:00	19.47	1624	8.08	39.4					
3-31-19 22:00	0.29	548	7.80	41.0	3-31-19 21:30	0.74	718	7.83	19.4	3-31-19 21:30	3.23	1168	7.50	8.5						7-1-19 14:15	19.41	1629	8.07	38.3					
3-31-19 22:15	0.27	548	7.80	39.3	3-31-19 21:45	0.57	734	7.80	20.7	3-31-19 21:45	3.20	1167	7.50	7.7						7-1-19 14:30	19.04	1587	7.95	47.5					
3-31-19 22:30	0.25	550	7.80	39.4	3-31-19 22:00	0.56	726	7.80	19.7	3-31-19 22:00	3.20	1159	7.49	6.9						7-1-19 14:45	18.54	1590	7.89	49.9					
3-31-19 22:45	0.23	551	7.80	37.5	3-31-19 22:15	0.55	720	7.80	19.1	3-31-19 22:15	3.30	1161	7.49	6.3						7-1-19 15:00	18.46	1594	7.91	37.3					
3-31-19 23:00	0.18	555	7.80	39.6	3-31-19 22:30	0.51	721	7.81	16.4	3-31-19 22:30	3.03	1164	7.49	5.3						7-1-19 15:15	18.44	1598	7.88	38.5					
3-31-19 23:15	0.15	558	7.80	37.0	3-31-19 22:45	0.47	721	7.81	17.0	3-31-19 22:45	3.09	1168	7.50	5.9						7-1-19 15:30	18.40	1596	7.88	32.7					
3-31-19 23:30	0.13	560	7.80	35.5	3-31-19 23:00	0.45	720	7.81	15.0	3-31-19 23:00	3.28	1167	7.49	6.4						7-1-19 15:45	18.40	1597	7.87	35.3					
3-31-19 23:45	0.12	560	7.80	37.4	3-31-19 23:15	0.42	718	7.81	16.3	3-31-19 23:15	3.25	1164	7.49	6.7						7-1-19 16:00	18.39	1598	7.89	29.9					
4-1-19 0:00	0.10	560	7.80	36.2	3-31-19 23:30	0.43	713	7.82	16.9	3-31-19 23:30	3.28	1164	7.48	6.6						7-1-19 16:15	18.44	1602	7.89	36.2					
4-1-19 0:15	0.09	560	7.80	36.4	3-31-19 23:45	0.46	706	7.82	17.6	3-31-19 23:45	3.18	1171	7.49	6.7						7-1-19 16:30	18.58	1605	7.93	27.9					
4-1-19 0:30	0.07	571	7.80	33.5	4-1-19 0:00	0.46	703	7.82	15.8	4-1-19 0:00	3.33	1172	7.49	7.0						7-1-19 16:45	18.72	1607	7.95	34.1					
4-1-19 0:45	0.09	655	7.73	31.9	4-1-19 0:15	0.44	700	7.83	16.1	4-1-19 0:15	3.28	1159	7.49	13.2						7-1-19 17:00	18.74	1603	7.97	27.8					
4-1-19 1:00	0.16	721	7.78	25.6	4-1-19 0:30	0.42	699	7.82	15.8	4-1-19 0:30	3.26	1166	7.49	7.4						7-1-19 17:15	18.02	1574	7.85	44.7					
4-1-19 1:15	0.17	767	7.82	21.5	4-1-19 0:45	0.42	695	7.83	16.1	4-1-19 0:45	3.22	1169	7.48	6.4						7-1-19 17:30	17.85	1595	7.89	58.8					
4-1-19 1:30	0.16	807	7.86	20.7	4-1-19 1:00	0.42	691	7.83	17.2	4-1-19 1:00	3.36	1171	7.49	6.6						7-1-19 17:45	18.26	1599	7.90	43.5					
4-1-19 1:45	0.15	821	7.88	19.8	4-1-19 1:15	0.43	688	7.83	16.1	4-1-19 1:15	3.53	1171	7.49	7.0						7-1-19 18:00	18.06	1591	7.88	41.2					
4-1-19 2:00	0.14	828	7.88	19.9	4-1-19 1:30	0.42	686	7.83	16.2	4-1-19 1:30	3.76	1188	7.47	10.4						7-1-19 18:15	18.25	1595	7.89	39.6					
4-1-19 2:15	0.12	828	7.87	19.6	4-1-19 1:45	0.43	684	7.83	16.7	4-1-19 1:45	3.91	1193	7.46	6.9						7-1-19 18:30	18.47	1593	7.96	43.9					
4-1-19 2:30	0.09	829	7.87	18.1	4-1-19 2:00	0.42	685	7.82	17.0	4-1-19 2:00	3.84	1193	7.46	7.0						7-1-19 18:45	18.48	1590	7.98	40.0					
4-1-19 2:45	0.07	830	7.86	18.2	4-1-19 2:15	0.43	685	7.83	16.4	4-1-19 2:15	3.80	1193	7.46	6.6						7-1-19 19:00	18.79	1597	8.00	35.3					
4-1-19 3:00	0.05	828	7.86	18.2	4-1-19 2:30	0.42	686	7.82	16.6	4-1-19 2:30	3.74	1191	7.46	6.9						7-1-19 19:15	18.82	1586	8.02	40.1					
4-1-19 3:15	0.03	830	7.86	21.8	4-1-19 2:45	0.40	689	7.82	16.4	4-1-19 2:45	3.71	1192	7.46	7.4						7-1-19 19:30	18.88	1584	8.04	34.3					
4-1-19 3:30	0.03	832	7.87	18.8	4-1-19 3:00	0.37	694	7.82	15.8	4-1-19 3:00	3.60	1191	7.46	11.9						7-1-19 19:45	19.32	1603	8.06	35.7					
4-1-19 3:45	0.05	836	7.88	17.5	4-1-19 3:15	0.34	696	7.83	14.5	4-1-19 3:15	3.51	1190	7.46	15.4						7-1-19 20:00	19.71	1603	8.05	28.5					
4-1-19 4:00	0.06	840	7.88	16.6	4-1-19 3:30	0.32	698	7.84	12.7	4-1-19 3:30	3.60	1195	7.47	19.3						7-1-19 20:15	19.75	1602	8.04	32.7					
4-1-19 4:15	0.07	842	7.88	15.9	4-1-19 3:45	0.31	698	7.84	12.5	4-1-19 3:45	3.91	1202	7.45	6.6						7-1-19 20:30	19.82	1601	8.04	28.7					
4-1-19 4:30	0.08	840	7.88	16.5	4-1-19 4:00	0.30	700	7.84	12.3	4-1-19 4:00	4.41	1214	7.45	7.5						7-1-19 20:45	19.68	1607	8.06	34.7					
4-1-19 4:45	0.06	842	7.88	16.7	4-1-19 4:15	0.28	701	7.83	11.5	4-1-19 4:15	4.32	1191	7.45	6.6						7-1-19 21:00	19.86	1601	8.04	29.8					
4-1-19 5:00	0.06	845	7.88	16.4	4-1-19 4:30	0.26	700	7.83	12.0	4-1-19 4:30	3.37	1200	7.46	6.6						7-1-19 21:15	19.76	1601	8.07	32.4					
4-1-19 5:15	0.07	845	7.88	16.9	4-1-19 4:45	0.25	700	7.83	10.8	4-1-19 4:45	2.80	1194	7.47	6.9						7-1-19 21:30	19.98	1605	8.07	26.7					
4-1-19 5:30	0.07	848	7.89	15.9	4-1-19 5:00	0.24	699	7.83	10.2	4-1-19 5:00	2.84	1195	7.47	7.1						7-1-19 21:45	20.04	1605	8.06	30.4					
4-1-19 5:45	0.08	849	7.90	15.3	4-1-19 5:15	0.24	699	7.83	9.7	4-1-19 5:15	3.07	1196	7.47	5.4						7-1-19 22:00	20.08	1596	8.03	27.3					
4-1-19 6:00	0.08	849	7.90	15.7	4-1-19 5:30	0.23	698	7.83	10.7	4-1-19 5:30	3.06	1194	7.46	5.7						7-1-19 22:15	20.16	1596	8.01	28.4					
4-1-19 6:15	0.07	847	7.90	15.0	4-1-19 5:45	0.22	697	7.83	11.1	4-1-19 5:45	3.25	1203	7.46	5.9						7-1-19 22:30	20.26	1602	8.07	23.3					
4-1-19 6:30	0.07	846	7.89	18.0	4-1-19 6:00	0.22	697	7.83	11.3	4-1-19 6:00	3.17	1200	7.46	5.8						7-1-19 22:45	20.21	1603	8.07	30.4					
4-1-19 6:45	0.07	845	7.89	15.8	4-1-19 6:15	0.22	696	7.83	11.2	4-1-19 6:15	3.27	1200	7.46	5.5						7-1-19 23:00	20.36	1606	8.08	23.2					
4-1-19 7:00	0.06	843	7.89	14.8	4-1-19 6:30	0.22	695	7.84	11.3	4-1-19 6:30	3.15	1200	7.46	5.7						7-1-19 23:15	20.39	1607	8.08	27.0					
4-1-19 7:15	0.07	842	7.89	15.9	4-1-19 6:45	0.22	695	7.84	11.3	4-1-19 6:45	2.94	1196	7.46	5.9						7-1-19 23:30	20.52	1605	8.08	23.1					
4-1-19 7:30	0.08	842	7.89	17.2	4-1-19 7:00	0.22	694	7.84	11.8	4-1-19 7:00	2.95	1200	7.46	5.9						7-1-19 23:45	20.64	1609	8.08	27.5					
4-1-19 7:45	0.11	844	7.89	17.5	4-1-19 7:15	0.22	694	7.84	12.2	4-1-19 7:15	2.99	1201	7.46	6.3						7-2-19 0:00	20.73	1607	8.08	22.1					
4-1-19 8:00	0.15	841	7.89	16.5	4-1-19 7:30	0.23	693	7.84	11.9	4-1-19 7:30	2.99	1203	7.46	6.6						7-2-19 0:15	20.77	1610	8.07	28.0					
4-1-19 8:15	0.20	841	7.90	15.7	4-1-19 7:45	0.25	693	7.84	12.7	4-1-19 7:45	3.12	1204	7.46	6.0						7-2-19 0:30	20.80	1611	8.08	20.4					
4-1-19 8:30	0.25	840	7.90	15.8	4-1-19 8:00	0.28	692	7.84	11.9	4-1-19 8:00	3.18	1206	7.46	6.1						7-2-19 0:45	20.94	1610	8.09	28.2					
4-1-19 8:45	0.32	839	7.90	16.8	4-1-19 8:15	0.32	691	7.84	11.7	4-1-19 8:15	3.36	1206	7.46	6.1						7-2-19 1:00	21.03	1609	8.10	19.6					
4-1-19 9:00	0.39	838	7.90	16.5	4-1-19 8:30	0.37	690	7.84	10.6	4-1-19 8:30	3.47	1205	7.46	6.5						7-2-19 1:15	21.04	1611	8.09	25.6					
4-1-19 9:15	0.46	836	7.90	15.9	4-1-19 8:45	0.44	687	7.84	11.2	4-1-19 8:45	3.49	1204	7.46	6.5						7-2-19 1:30	21.09	1610	8.10	19.3					
4-1-19 9:30	0.54	834	7.89	16.1	4-1-19 9:00	0.54	683	7.84	11.4	4-1-19 9:00	3.76	1208	7.45	6.1						7-2-19 1:45	21.04	1611	8.10	27.2					
4-1-19 9:45	0.62	832	7.90	15.9	4-1-19 9:15	0.63	679	7.84	10.6	4-1-19 9:15	3.93	1211	7.46	6.2						7-2-19 2:00	21.12	1609	8.10	19.5					
4-1-19 10:00	0.72	831	7.90	16.1	4-1-19 9:30	0.72	677	7.83	10.8	4-1-19 9:30	4.12	1216	7.45	6.9						7-2-19 2:15	21.14	1612	8.09	24.9					
4-1-19 10:15	0.81	827	7.89	15.9	4-1-19 9:45	0.85	673	7.83	11.1	4-1-19 9:45	4.22	1216	7.45	7.0						7-2-19 2:30	21.14	1611	8.09	19.1					
4-1-19 10:30	0.92	822	7.90	15.8	4-1-19 10:00	0.96	666	7.82	11.8	4-1-19 10:00	3.51	1210	7.46	6.4						7-2-19 2:45	21.11	1612	8.10	23.6					
4-1-19 10:45	1.01	821	7.89	15.5	4-1-19 10:15	1.05	670	7.82	11.8	4-1-19 10:15	3.74	1213	7.46	6.9						7-2-19 3:00	21.06	1610	8.10	18.0					
4-1-19 11:00	1.12	817	7.90	16.4	4-1-19 10:30	1.20	666	7.82	11.8	4-1-19 10:30	3.50	1207	7.46	7.9						7-2-19 3:15	21.02	1611	8.10	23.2					
4-1-19 11:15	1.22	814	7.90	15.9	4-1-19 10:45	1.30	666	7.82	11.9	4-1-19 10:45	3.42	1205	7.47	7.1						7-2-19 3:30	20.96	1610	8.10	16.1					
4-1-19 11:30	1.31	811	7.89	16.8	4-1-19 11:00	1.41	665	7.82	11.8	4-1-19 11:00	3.52	1210	7.46	7.1						7-2-19 3:45	20.90	1611	8.11	24.2					
4-1-19 11:45	1.42	807	7.90	17.8	4-1-19 11:15	1.52	665	7.81	11.7	4-1-19 11:15	3.58	1212	7.47	7.7						7-2-19 4:00	20.86	1611	8.11	16.9					
4-1-19 12:00	1.50	802	7.90	16.7	4-1-19 11:30	1.65	660	7.79	11.2	4-1-19 11:30	3.70	1209	7.47	9.4						7-2-19 4:15	20.77	1610	8.10	22.8					
4-1-19 12:15	1.60	797	7.90	17.4	4-1-19 11:45	1.76	660	7.79	12.7	4-1-19 11:45	3.64	1202	7.46	6.0						7-2-19 4:30	20.75	1609	8.11	16.2					
4-1-19 12:30	1.69	792	7.90	18.4	4-1-19 12:00	1.89	661	7.78	11.1	4-1-19 12:00	3.78	1203	7.46	6.6						7-2-19 4:45	20.69	1611	8.11	21.9					
4-1-19 12:45	1.75	789	7.89	17.9	4-1-19 12:15	1.94	663	7.77	10.6	4-1-19 12:15	3.96	1203	7.46	8.2						7-2-19 5:00	20.64	1609	8.12	17.1					
4-1-19 13:00	1.79	786	7.89	19.5	4-1-19 12:30	2.03	664	7.76	10.4	4-1-19 12:30	4.18	1208	7.45	8.7						7-2-19 5:15	20.57	1611	8.12	23.2					
4-1-19 13:15	1.89	779	7.89	20.2	4-1-19 12:45	2.12	666	7.76	10.1	4-1-19 12:45	3.44	1199	7.46	8.0						7-2-19 5:30	20.48	1609	8.12	18.5					
4-1-19 13:30	1.95	775	7.89	21.6	4-1-19 13:00	2.22	665	7.76	9.6	4-1-19 13:00	3.13	1203	7.47	8.7						7-2-19 5:45	20.40	1611	8.12	22.4					
4-1-19 13:45	1.97	772	7.90	23.5	4-1-19 13:15	2.42	661	7.77	9.9	4-1-19 13:15	3.28	1198	7.47	10.5						7-2-19 6:00	20.32	1609	8.12	15.7					
4-1-19 14:00	2.05	767	7.91	24.8	4-1-19 13:30	2.52	663	7.77	10.0	4-1-19 13:30	3.49	1198	7.47	10.5						7-2-19 6:15	20.24	1611	8.12	22.4					
4-1-19 14:15	2.16	761	7.90	29.9	4-1-19 13:45	2.65	660	7.77	10.2	4-1-19 13:45	3.39	1203	7.47	12.5						7-2-19 6:30	20.18	1608	8.13	16.0					
4-1-19 14:30	2.30	757	7.90	29.6	4-1-19 14:00	2.78	661	7.77	10.5	4-1-19 14:00	3.41	1194	7.46	6.1						7-2-19 6:45	20.12	1610	8.13	21.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-1-19 14:45	2.45	749	7.89	29.9	4-1-19 14:15	3.11	655	7.78	10.6	4-1-19 14:15	3.34	1187	7.47	4.4						7-2-19 7:00	20.06	1608	8.12	16.3					
4-1-19 15:00	2.50	744	7.89	31.3	4-1-19 14:30	3.25	654	7.78	10.6	4-1-19 14:30	2.94	1173	7.48	5.0						7-2-19 7:15	20.01	1609	8.12	21.9					
4-1-19 15:15	2.49	737	7.89	34.0	4-1-19 14:45	3.14	658	7.77	10.4	4-1-19 14:45	2.59	1188	7.48	5.0						7-2-19 7:30	19.93	1608	8.13	15.7					
4-1-19 15:30	2.54	724	7.88	28.5	4-1-19 15:00	3.25	651	7.78	10.1	4-1-19 15:00	2.31	1182	7.48	4.9						7-2-19 7:45	19.87	1609	8.13	22.3					
4-1-19 15:45	2.33	728	7.88	31.6	4-1-19 15:15	3.40	667	7.77	10.7	4-1-19 15:15	2.47	1181	7.48	4.9						7-2-19 8:00	19.79	1608	8.12	15.1					
4-1-19 16:00	2.19	706	7.83	28.9	4-1-19 15:30	3.52	658	7.77	10.3	4-1-19 15:30	2.79	1187	7.48	4.9						7-2-19 8:15	19.67	1607	8.12	21.6					
4-1-19 16:15	2.04	711	7.89	28.7	4-1-19 15:45	3.60	670	7.77	9.7	4-1-19 15:45										7-2-19 8:30	19.62	1607	8.13	15.1					
4-1-19 16:30	1.79	719	7.91	31.5	4-1-19 16:00	3.22	670	7.77	9.4	4-1-19 16:00	2.23	1187	7.48	6.0						7-2-19 8:45	19.48	1606	8.12	20.7					
4-1-19 16:45	1.64	703	7.90	35.4	4-1-19 16:15	3.56	699	7.77	9.8	4-1-19 16:15	4.85	1156	7.55	12.9						7-2-19 9:00	19.36	1598	8.10	15.3					
4-1-19 17:00	1.68	664	7.87	35.2	4-1-19 16:30	3.17	667	7.77	10.1	4-1-19 16:30	5.05	1181	7.55	12.7						7-2-19 9:15	19.17	1585	8.05	22.9					
4-1-19 17:15	1.90	623	7.85	33.1	4-1-19 16:45	3.13	675	7.77	11.0	4-1-19 16:45	3.19	1132	7.52	5.4						7-2-19 9:30	19.01	1579	8.04	16.2					
4-1-19 17:30	2.12	602	7.84	36.0	4-1-19 17:00	2.75	642	7.77	13.2	4-1-19 17:00	2.55	1160	7.51	7.2						7-2-19 9:45	18.88	1588	8.05	22.8					
4-1-19 17:45	2.07	597	7.85	34.3	4-1-19 17:15	3.08	637	7.76	12.9	4-1-19 17:15	3.36	1162	7.53	8.0						7-2-19 10:00	18.70	1577	8.03	15.7					
4-1-19 18:00	1.89	606	7.86	33.8	4-1-19 17:30	2.81	655	7.74	27.9	4-1-19 17:30	3.60	1164	7.52	6.9						7-2-19 10:15	18.56	1567	7.98	22.8					
4-1-19 18:15	1.83	599	7.85	31.6	4-1-19 17:45	3.11	569	7.78	17.3	4-1-19 17:45	3.55	1149	7.52	5.2						7-2-19 10:30	18.51	1567	7.99	15.1					
4-1-19 18:30	1.84	580	7.85	32.4	4-1-19 18:00	2.56	582	7.78	15.0	4-1-19 18:00	3.63	1176	7.50	5.5						7-2-19 10:45	18.46	1572	8.00	22.3					
4-1-19 18:45	1.70	579	7.84	34.1	4-1-19 18:15	2.26	599	7.79	13.7	4-1-19 18:15	4.18	1179	7.50	6.3						7-2-19 11:00	18.37	1569	7.98	15.5					
4-1-19 19:00	1.57	594	7.84	35.1	4-1-19 18:30	2.03	563	7.80	16.2	4-1-19 18:30	5.08	1215	7.51	9.3						7-2-19 11:15	18.30	1565	7.97	25.3					
4-1-19 19:15	1.38	590	7.85	33.7	4-1-19 18:45	2.31	569	7.80	17.6	4-1-19 18:45	4.99	1222	7.50	9.1						7-2-19 11:30	18.22	1563	7.95	15.7					
4-1-19 19:30	1.34	573	7.84	26.6	4-1-19 19:00	2.21	557	7.80	16.2	4-1-19 19:00	4.85	1212	7.51	9.7						7-2-19 11:45	18.12	1559	7.93	22.7					
4-1-19 19:45	1.17	577	7.84	27.3	4-1-19 19:15	1.87	515	7.83	18.7	4-1-19 19:15	4.65	1211	7.51	10.4						7-2-19 12:00	18.05	1559	7.92	16.3					
4-1-19 20:00	0.93	595	7.85	34.2	4-1-19 19:30	1.90	570	7.80	20.8	4-1-19 19:30	4.84	1219	7.49	13.0						7-2-19 12:15	17.95	1558	7.91	23.5					
4-1-19 20:15	0.71	601	7.86	35.5	4-1-19 19:45	1.98	546	7.80	21.4	4-1-19 19:45	4.93	1211	7.48	8.2						7-2-19 12:30	17.86	1556	7.90	17.1					
4-1-19 20:30	0.60	603	7.85	33.0	4-1-19 20:00	1.64	569	7.78	20.7	4-1-19 20:00	4.87	1216	7.48	7.8						7-2-19 12:45	17.84	1557	7.90	24.2					
4-1-19 20:45	0.64	583	7.84	27.8	4-1-19 20:15	1.91	573	7.81	15.5	4-1-19 20:15	4.71	1201	7.48	7.9						7-2-19 13:00	17.73	1555	7.90	19.1					
4-1-19 21:00	0.60	579	7.82	30.3	4-1-19 20:30	1.70	579	7.80	13.0	4-1-19 20:30	4.55	1201	7.48	7.8						7-2-19 13:15	17.67	1551	7.88	28.2					
4-1-19 21:15	0.48	586	7.84	32.3	4-1-19 20:45	1.55	598	7.79	12.7	4-1-19 20:45	4.16	1189	7.51	6.7						7-2-19 13:30	17.55	1541	7.84	19.2					
4-1-19 21:30	0.37	588	7.85	31.5	4-1-19 21:00	1.38	597	7.81	11.5	4-1-19 21:00	4.11	1191	7.50	6.7						7-2-19 13:45	17.45	1535	7.85	26.6					
4-1-19 21:45	0.29	591	7.85	34.2	4-1-19 21:15	1.37	574	7.79	16.1	4-1-19 21:15	3.96	1192	7.50	7.5						7-2-19 14:00	17.44	1536	7.87	19.8					
4-1-19 22:00	0.23	592	7.86	33.9	4-1-19 21:30	1.35	594	7.78	13.3	4-1-19 21:30	3.87	1199	7.50	11.7						7-2-19 14:15	17.45	1532	7.83	28.1					
4-1-19 22:15	0.22	591	7.85	32.6	4-1-19 21:45	1.20	603	7.79	11.9	4-1-19 21:45	3.82	1198	7.49	13.6						7-2-19 14:30	17.45	1532	7.85	20.0					
4-1-19 22:30	0.19	589	7.85	35.6	4-1-19 22:00	1.10	627	7.75	12.2	4-1-19 22:00	3.69	1201	7.49	9.1						7-2-19 14:45	17.43	1532	7.86	29.2					
4-1-19 22:45	0.15	588	7.85	35.5	4-1-19 22:15	1.10	624	7.72	13.7	4-1-19 22:15	3.57	1203	7.50	9.2						7-2-19 15:00	17.46	1539	7.90	19.0					
4-1-19 23:00	0.11	591	7.85	34.5	4-1-19 22:30	1.07	622	7.73	12.8	4-1-19 22:30	3.46	1205	7.50	10.1						7-2-19 15:15	17.49	1536	7.91	28.5					
4-1-19 23:15	0.10	592	7.85	34.5	4-1-19 22:45	1.05	625	7.75	12.2	4-1-19 22:45	3.43	1185	7.50	6.0						7-2-19 15:30	17.56	1537	7.92	18.3					
4-1-19 23:30	0.09	592	7.85	34.5	4-1-19 23:00	1.02	647	7.78	11.3	4-1-19 23:00	3.50	1197	7.50	6.1						7-2-19 15:45	17.63	1540	7.94	30.3					
4-1-19 23:45	0.08	593	7.86	33.9	4-1-19 23:15	0.99	650	7.78	10.0	4-1-19 23:15	3.40	1199	7.49	6.4						7-2-19 16:00	17.72	1546	7.97	21.5					
4-2-19 0:00	0.05	596	7.86	33.3	4-1-19 23:30	0.98	648	7.76	11.4	4-1-19 23:30	3.27	1199	7.49	13.8						7-2-19 16:15	17.77	1551	7.99	28.9					
4-2-19 0:15	0.02	599	7.86	33.2	4-1-19 23:45	0.92	654	7.79	9.5	4-1-19 23:45	3.30	1203	7.49	10.3						7-2-19 16:30	17.88	1554	8.03	18.9					
4-2-19 0:30	0.00	600	7.86	32.7	4-2-19 0:00	0.91	649	7.81	8.4	4-2-19 0:00	3.43	1200	7.49	11.2						7-2-19 16:45	17.96	1551	8.02	28.9					
4-2-19 0:45	-0.02	601	7.85	33.0	4-2-19 0:15	0.87	658	7.80	9.0	4-2-19 0:15	3.36	1202	7.50	9.8						7-2-19 17:00	18.02	1552	8.04	19.8					
4-2-19 1:00	-0.01	598	7.86	33.2	4-2-19 0:30	0.84	656	7.81	8.6	4-2-19 0:30	3.35	1188	7.50	4.9						7-2-19 17:15	18.12	1558	8.06	31.0					
4-2-19 1:15	-0.01	601	7.86	33.0	4-2-19 0:45	0.83	659	7.80	9.2	4-2-19 0:45	3.34	1196	7.50	5.2						7-2-19 17:30	18.16	1559	8.07	22.4					
4-2-19 1:30	-0.02	613	7.86	32.3	4-2-19 1:00	0.81	659	7.80	8.7	4-2-19 1:00	3.32	1200	7.49	5.1						7-2-19 17:45	18.20	1558	8.06	31.1					
4-2-19 1:45	-0.03	618	7.89	31.7	4-2-19 1:15	0.81	656	7.80	9.6	4-2-19 1:15	3.48	1205	7.49	5.9						7-2-19 18:00	18.22	1554	8.05	19.9					
4-2-19 2:00	-0.05	619	7.89	32.3	4-2-19 1:30	0.79	659	7.80	9.1	4-2-19 1:30	3.52	1206	7.49	5.6						7-2-19 18:15	18.40	1557	8.04	26.5					
4-2-19 2:15	-0.06	623	7.89	29.9	4-2-19 1:45	0.77	661	7.80	9.8	4-2-19 1:45	3.55	1207	7.49	13.1						7-2-19 18:30	18.54	1558	8.06	20.0					
4-2-19 2:30	-0.04	643	7.89	26.0	4-2-19 2:00	0.75	662	7.80	10.5	4-2-19 2:00	3.66	1213	7.49	12.4						7-2-19 18:45	18.67	1562	8.08	27.0					
4-2-19 2:45	-0.04	675	7.89	25.3	4-2-19 2:15	0.71	666	7.81	12.3	4-2-19 2:15	3.94	1233	7.50	10.4						7-2-19 19:00	18.81	1565	8.09	20.4					
4-2-19 3:00	-0.03	714	7.93	21.7	4-2-19 2:30	0.70	663	7.80	12.4	4-2-19 2:30	4.10	1235	7.50	11.3						7-2-19 19:15	18.89	1568	8.10	28.9					
4-2-19 3:15	-0.02	749	7.97	20.6	4-2-19 2:45	0.68	670	7.80	12.7	4-2-19 2:45	4.26	1227	7.51	8.7						7-2-19 19:30	18.96	1561	8.08	27.3					
4-2-19 3:30	-0.02	794	7.97	19.4	4-2-19 3:00	0.62	673	7.78	14.7	4-2-19 3:00	4.46	1223	7.51	7.4						7-2-19 19:45	19.03	1564	8.08	28.3					
4-2-19 3:45	-0.02	814	7.99	18.7	4-2-19 3:15	0.62	675	7.79	13.8	4-2-19 3:15	4.44	1222	7.51	8.4						7-2-19 20:00	19.28	1571	8.10	22.7					
4-2-19 4:00	0.00	823	8.07	16.1	4-2-19 3:30	0.59	677	7.80	12.8	4-2-19 3:30	4.45	1223	7.50	9.1						7-2-19 20:15	19.42	1573	8.10	30.2					
4-2-19 4:15	0.00	819	8.11	17.0	4-2-19 3:45	0.58	678	7.80	13.8	4-2-19 3:45	4.50	1214	7.50	8.1						7-2-19 20:30	19.50	1575	8.12	22.4					
4-2-19 4:30	0.00	829	8.11	15.7	4-2-19 4:00	0.56	680	7.79	13.2	4-2-19 4:00	4.45	1216	7.50	7.4						7-2-19 20:45	19.55	1575	8.12	30.2					
4-2-19 4:45	0.00	850	8.11	15.8	4-2-19 4:15	0.56	680	7.80	13.0	4-2-19 4:15	4.37	1213	7.51	7.2						7-2-19 21:00	19.59	1572	8.10	20.9					
4-2-19 5:00	-0.01	854	8.09	18.1	4-2-19 4:30	0.55	685	7.80	12.8	4-2-19 4:30	4.33	1214	7.51	9.5						7-2-19 21:15	19.68	1572	8.10	28.8					
4-2-19 5:15	-0.01	862	8.05	17.9	4-2-19 4:45	0.54	684	7.80	12.9	4-2-19 4:45	4.29	1214	7.51	8.7						7-2-19 21:30	19.58	1570	8.10	21.6					
4-2-19 5:30	-0.01	864	8.05	19.1	4-2-19 5:00	0.53	687	7.79	12.2	4-2-19 5:00	4.29	1209	7.51	9.7						7-2-19 21:45	19.80	1576	8.12	31.2					
4-2-19 5:45	-0.02	867	8.05	13.3	4-2-19 5:15	0.52	690	7.80	12.7	4-2-19 5:15	4.25	1210	7.51	14.4						7-2-19 22:00	20.03	1578	8.13	23.5					
4-2-19 6:00	-0.02	874	8.05	12.8	4-2-19 5:30	0.51	692	7.79	12.9	4-2-19 5:30	4.29	1213	7.52	16.6						7-2-19 22:15	20.10	1580	8.12	31.9					
4-2-19 6:15	-0.02	875	8.05	12.9	4-2-19 5:45	0.50	693	7.80	12.8	4-2-19 5:45	4.27	1208	7.51	7.1						7-2-19 22:30	20.36	1580	8.14	20.7					
4-2-19 6:30	-0.01	872	8.05	9.8	4-2-19 6:00					4-2-19 6:00	4.19	1208	7.51	7.3						7-2-19 22:45	20.58	1579	8.14	26.7					
4-2-19 6:45	0.00	871	8.04	9.6	4-2-19 6:15	0.49	693	7.79	13.6	4-2-19 6:15	4.17	1210	7.50	7.1						7-2-19 23:00	20.60	1580	8.14	18.2					
4-2-19 7:00	0.01	866	8.03	9.5	4-2-19 6:30	0.48	692	7.79	12.9	4-2-19 6:30	4.11	1210	7.51	8.7						7-2-19 23:15	20.60	1583	8.14	25.0					
4-2-19 7:15	0.03	862	8.01	9.9	4-2-19 6:45	0.48	696	7.79	13.0	4-2-19 6:45	4.08	1214	7.51	7.7						7-2-19 23:30	20.56	1584	8.15	17.7					
4-2-19 7:30	0.15	854	8.00	10.5	4-2-19 7:00	0.49	695	7.79	13.0	4-2-19 7:00	4.25	1217	7.51	10.3						7-2-19 23:45	20.56	1585	8.15	25.4					
4-2-19 7:45	0.53	835	8.00	13.9	4-2-19 7:15	0.50	693	7.79	12.8	4-2-19 7:15	4.44	1232	7.58	22.9						7-3-19 0:00	20.70	1585	8.16	18.8					
4-2-19 8:00	0.88	818	7.99	14.0	4-2-19 7:30	0.52	694	7.79	12.8	4-2-19 7:30	4.69	1233	7.64	37.1						7-3-19 0:15	20.93	1588	8.16	25.1					
4-2-19 8:15	0.91	824	7.99	12.1	4-2-19 7:45	0.55	693	7.79	12.5	4-2-19 7:45	4.90	1234	7.66	27.9						7-3-19 0:30	21.14	1587	8.17	19.2					
4-2-19 8:30	1.11	824	7.97	9.7	4-2-19 8:00	0.59	686	7.79	12.4	4-2-19 8:00	4.81	1232	7.66	27.4						7-3-19 0:45	21.20	1588	8.17	25.6					
4-2-19 8:45	1.36	821	7.96	10.4	4-2-19 8:15	0.65	676	7.79	12.0	4-2-19 8:15	4.70	1234	7.62	13.8						7-3-19 1:00	21.23	1588	8.18	18.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-2-19 9:00	1.47	822	7.95	8.7	4-2-19 8:30	0.72	677	7.78	12.6	4-2-19 8:30	4.79	1232	7.63	14.0						7-3-19 1:15	21.29	1589	8.18	25.3					
4-2-19 9:15	1.17	853	7.96	8.8	4-2-19 8:45	0.80	675	7.78	11.8	4-2-19 8:45	5.07	1230	7.62	16.5						7-3-19 1:30	21.22	1588	8.17	17.0					
4-2-19 9:30	1.35	843	7.96	9.0	4-2-19 9:00	0.92	669	7.78	12.1	4-2-19 9:00	5.19	1228	7.63	18.2						7-3-19 1:45	21.20	1589	8.18	22.5					
4-2-19 9:45	1.21	857	8.00	8.4	4-2-19 9:15	1.03	671	7.77	11.6	4-2-19 9:15	5.23	1226	7.63	20.7						7-3-19 2:00	21.17	1589	8.18	16.5					
4-2-19 10:00	1.26	853	8.01	8.4	4-2-19 9:30	1.16	670	7.78	11.4	4-2-19 9:30	5.21	1224	7.64	19.3						7-3-19 2:15	21.14	1590	8.18	21.3					
4-2-19 10:15	1.26	848	8.01	7.9	4-2-19 9:45	1.34	662	7.77	11.0	4-2-19 9:45	3.68	1199	7.52	5.9						7-3-19 2:30	21.19	1591	8.19	15.2					
4-2-19 10:30	1.08	844	8.03	8.2	4-2-19 10:00	1.50	646	7.77	10.8	4-2-19 10:00	3.40	1213	7.51	5.6						7-3-19 2:45	21.21	1592	8.19	21.0					
4-2-19 10:45	1.07	841	8.02	8.3	4-2-19 10:15	1.67	639	7.77	10.5	4-2-19 10:15	3.89	1227	7.51	5.7						7-3-19 3:00	21.18	1590	8.19	15.1					
4-2-19 11:00	1.02	840	8.02	8.2	4-2-19 10:30	1.75	640	7.76	11.2	4-2-19 10:30	4.15	1216	7.52	6.5						7-3-19 3:15	21.16	1591	8.18	19.4					
4-2-19 11:15	1.00	844	8.01	8.4	4-2-19 10:45	1.73	640	7.77	10.9	4-2-19 10:45	3.90	1202	7.52	5.9						7-3-19 3:30	21.13	1591	8.19	15.2					
4-2-19 11:30	1.00	845	8.01	8.8	4-2-19 11:00	1.78	655	7.76	10.8	4-2-19 11:00	3.92	1214	7.50	5.6						7-3-19 3:45	21.12	1593	8.20	18.3					
4-2-19 11:45	1.28	840	8.01	8.6	4-2-19 11:15	1.79	644	7.77	11.0	4-2-19 11:15	3.98	1215	7.50	5.8						7-3-19 4:00	21.07	1592	8.20	14.2					
4-2-19 12:00	1.31	836	7.99	8.9	4-2-19 11:30	1.80	648	7.76	11.4	4-2-19 11:30	4.03	1218	7.51	6.3						7-3-19 4:15	21.01	1594	8.19	18.5					
4-2-19 12:15	1.28	831	7.97	9.5	4-2-19 11:45	1.86	661	7.76	11.2	4-2-19 11:45	4.17	1214	7.51	6.6						7-3-19 4:30	20.98	1592	8.19	14.3					
4-2-19 12:30	1.36	778	7.94	9.8	4-2-19 12:00	1.96	655	7.76	10.8	4-2-19 12:00	4.27	1215	7.51	5.9						7-3-19 4:45	20.93	1593	8.20	17.8					
4-2-19 12:45	1.40	820	7.95	9.0	4-2-19 12:15	2.02	665	7.75	11.3	4-2-19 12:15	4.20	1216	7.52	6.1						7-3-19 5:00	20.87	1592	8.21	14.0					
4-2-19 13:00	1.21	837	7.96	10.2	4-2-19 12:30	2.18	653	7.76	10.6	4-2-19 12:30	4.62	1213	7.53	6.7						7-3-19 5:15	20.81	1593	8.21	18.4					
4-2-19 13:15	1.24	828	7.97	13.2	4-2-19 12:45	2.62	641	7.75	10.9	4-2-19 12:45	4.65	1206	7.55	6.2						7-3-19 5:30	20.73	1589	8.19	14.5					
4-2-19 13:30	1.38	823	7.98	11.5	4-2-19 13:00	3.21	589	7.75	12.7	4-2-19 13:00	4.50	1207	7.54	6.6						7-3-19 5:45	20.58	1585	8.17	19.6					
4-2-19 13:45	1.45	819	7.97	16.1	4-2-19 13:15	3.30	501	7.82	21.0	4-2-19 13:15	4.39	1206	7.54	7.4						7-3-19 6:00	20.45	1583	8.15	15.6					
4-2-19 14:00	1.67	828	7.96	17.3	4-2-19 13:30	3.56	534	7.83	23.6	4-2-19 13:30	3.87	1204	7.51	5.8						7-3-19 6:15	20.30	1582	8.14	19.9					
4-2-19 14:15	1.83	825	7.95	25.2	4-2-19 13:45	3.61	570	7.82	22.9	4-2-19 13:45	4.47	1212	7.53	5.9						7-3-19 6:30	20.25	1581	8.15	15.4					
4-2-19 14:30	2.40	784	7.97	73.9	4-2-19 14:00	3.74	524	7.84	22.4	4-2-19 14:00	4.06	1217	7.54	4.9						7-3-19 6:45	20.18	1582	8.14	20.2					
4-2-19 14:45	2.77	675	8.01	449.8	4-2-19 14:15	3.67	547	7.82	21.1	4-2-19 14:15	4.39	1219	7.53	5.6						7-3-19 7:00	20.11	1581	8.16	14.7					
4-2-19 15:00	1.79	719	7.97	274.2	4-2-19 14:30	4.47	607	7.80	21.1	4-2-19 14:30	4.01	1196	7.53	5.0						7-3-19 7:15	20.02	1581	8.16	19.1					
4-2-19 15:15	1.40	846	7.92	30.2	4-2-19 14:45	3.67	534	7.82	18.3	4-2-19 14:45	5.00	1173	7.58	10.9						7-3-19 7:30	19.99	1581	8.15	15.0					
4-2-19 15:30	1.28	853	7.90	28.6	4-2-19 15:00	3.69	574	7.82	18.8	4-2-19 15:00	5.08	1201	7.54	9.2						7-3-19 7:45	19.95	1582	8.15	18.2					
4-2-19 15:45	1.32	856	7.89	29.0	4-2-19 15:15	3.46	589	7.83	17.8	4-2-19 15:15	4.58	1178	7.58	9.4						7-3-19 8:00	19.92	1581	8.14	14.9					
4-2-19 16:00	1.32	870	7.88	29.8	4-2-19 15:30	3.40	570	7.84	17.8	4-2-19 15:30	5.57	1201	7.59	13.3						7-3-19 8:15	19.89	1583	8.14	17.0					
4-2-19 16:15	1.31	869	7.87	29.0	4-2-19 15:45	3.46	562	7.85	18.9	4-2-19 15:45	5.92	1196	7.64	18.2						7-3-19 8:30	19.93	1584	8.18	13.4					
4-2-19 16:30	1.26	885	7.87	28.1	4-2-19 16:00	3.49	607	7.84	20.4	4-2-19 16:00	6.07	1197	7.67	24.2						7-3-19 8:45	19.88	1585	8.17	17.3					
4-2-19 16:45	1.26	862	7.90	28.3	4-2-19 16:15	3.65	668	7.82	20.0	4-2-19 16:15	5.14	1126	7.64	16.6						7-3-19 9:00	19.85	1584	8.17	13.5					
4-2-19 17:00	1.22	886	7.91	30.4	4-2-19 16:30	3.43	560	7.84	21.3	4-2-19 16:30	4.81	1112	7.65	16.8						7-3-19 9:15	19.81	1584	8.16	17.2					
4-2-19 17:15	0.89	837	7.92	27.7	4-2-19 16:45	3.40	658	7.82	19.8	4-2-19 16:45	5.00	1120	7.66	13.8						7-3-19 9:30	19.81	1587	8.19	13.8					
4-2-19 17:30	0.86	847	7.90	27.2	4-2-19 17:00	3.45	683	7.82	19.7	4-2-19 17:00	5.01	1103	7.67	13.7						7-3-19 9:45	19.77	1588	8.19	17.3					
4-2-19 17:45	0.90	858	7.87	27.2	4-2-19 17:15	3.42	686	7.82	19.8	4-2-19 17:15	5.09	1113	7.71	17.2						7-3-19 10:00	19.72	1585	8.19	14.6					
4-2-19 18:00	0.99	850	7.87	27.9	4-2-19 17:30	3.14	559	7.85	19.9	4-2-19 17:30	5.06	1106	7.71	17.6						7-3-19 10:15	19.67	1588	8.18	17.8					
4-2-19 18:15	1.11	849	7.87	28.6	4-2-19 17:45	3.22	698	7.83	18.8	4-2-19 17:45	4.94	1115	7.71	15.3						7-3-19 10:30	19.65	1586	8.19	15.5					
4-2-19 18:30	1.04	836	7.87	27.6	4-2-19 18:00	3.03	648	7.85	19.3	4-2-19 18:00	4.89	1136	7.71	16.2						7-3-19 10:45	19.64	1589	8.19	18.0					
4-2-19 18:45	1.27	846	7.86	29.5	4-2-19 18:15	2.63	681	7.84	18.6	4-2-19 18:15	4.90	1109	7.72	16.5						7-3-19 11:00	19.59	1587	8.18	14.0					
4-2-19 19:00	1.26	841	7.86	28.3	4-2-19 18:30	2.32	661	7.84	18.2	4-2-19 18:30	4.64	1125	7.72	17.2						7-3-19 11:15	19.57	1588	8.18	17.6					
4-2-19 19:15	1.34	847	7.86	31.9	4-2-19 18:45	2.11	672	7.84	18.8	4-2-19 18:45	4.53	1105	7.72	16.9						7-3-19 11:30	19.54	1586	8.18	14.3					
4-2-19 19:30	1.39	864	7.87	33.1	4-2-19 19:00	2.06	706	7.84	23.6	4-2-19 19:00	4.89	1111	7.73	20.3						7-3-19 11:45	19.53	1588	8.19	17.6					
4-2-19 19:45	1.24	849	7.88	29.5	4-2-19 19:15	2.05	706	7.84	23.5	4-2-19 19:15	5.14	1133	7.75	24.6						7-3-19 12:00	19.49	1586	8.17	13.3					
4-2-19 20:00	1.15	846	7.88	28.6	4-2-19 19:30	1.96	703	7.85	22.4	4-2-19 19:30	5.10	1126	7.75	24.6						7-3-19 12:15	19.45	1589	8.18	16.3					
4-2-19 20:15	1.26	847	7.87	30.8	4-2-19 19:45	1.85	711	7.85	22.7	4-2-19 19:45	5.23	1138	7.76	23.9						7-3-19 12:30	19.45	1587	8.18	13.1					
4-2-19 20:30	0.99	828	7.88	29.3	4-2-19 20:00	1.91	730	7.84	25.6	4-2-19 20:00	5.36	1153	7.76	31.3						7-3-19 12:45	19.44	1587	8.19	17.0					
4-2-19 20:45	0.80	817	7.88	30.5	4-2-19 20:15	1.72	733	7.85	28.6	4-2-19 20:15	5.12	1147	7.76	24.7						7-3-19 13:00	19.39	1587	8.18	17.0					
4-2-19 21:00	1.13	837	7.88	31.2	4-2-19 20:30	1.50	731	7.85	29.7	4-2-19 20:30	5.26	1153	7.76	25.5						7-3-19 13:15	19.37	1587	8.19	17.1					
4-2-19 21:15	1.11	836	7.89	29.6	4-2-19 20:45	1.34	726	7.85	28.4	4-2-19 20:45	5.34	1157	7.76	24.3						7-3-19 13:30	19.36	1586	8.18	12.9					
4-2-19 21:30	0.91	823	7.89	30.5	4-2-19 21:00	1.28	721	7.85	27.6	4-2-19 21:00	5.44	1168	7.75	25.0						7-3-19 13:45	19.32	1587	8.19	17.3					
4-2-19 21:45	0.99	827	7.90	29.4	4-2-19 21:15	1.19	712	7.86	27.0	4-2-19 21:15	5.23	1159	7.76	24.7						7-3-19 14:00	19.32	1586	8.19	13.8					
4-2-19 22:00	1.03	835	7.92	48.0	4-2-19 21:30	1.20	713	7.85	26.1	4-2-19 21:30	5.41	1175	7.76	27.0						7-3-19 14:15	19.29	1587	8.18	16.8					
4-2-19 22:15	0.86	826	7.94	29.9	4-2-19 21:45	1.18	713	7.85	23.9	4-2-19 21:45	5.42	1145	7.77	32.8						7-3-19 14:30	19.29	1586	8.19	13.0					
4-2-19 22:30	0.87	832	7.94	30.4	4-2-19 22:00	1.25	714	7.85	24.4	4-2-19 22:00	5.31	1179	7.77	29.1						7-3-19 14:45	19.28	1587	8.19	17.5					
4-2-19 22:45	0.85	837	7.94	30.1	4-2-19 22:15	1.22	715	7.85	25.8	4-2-19 22:15	5.48	1187	7.77	27.6						7-3-19 15:00	19.28	1586	8.19	13.2					
4-2-19 23:00	1.01	863	7.94	29.7	4-2-19 22:30	1.22	715	7.85	24.9	4-2-19 22:30	5.39	1183	7.78	28.1						7-3-19 15:15	19.27	1587	8.20	17.0					
4-2-19 23:15	0.95	863	7.94	27.5	4-2-19 22:45	1.29	724	7.85	28.4	4-2-19 22:45	5.12	1179	7.78	26.8						7-3-19 15:30	19.35	1586	8.20	14.1					
4-2-19 23:30	0.92	873	7.94	30.3	4-2-19 23:00	1.26	727	7.85	27.6	4-2-19 23:00	5.49	1182	7.77	27.1						7-3-19 15:45	19.46	1586	8.20	16.9					
4-2-19 23:45	0.94	878	7.95	29.6	4-2-19 23:15	1.24	729	7.85	29.8	4-2-19 23:15	5.47	1192	7.76	27.9						7-3-19 16:00	19.49	1585	8.20	15.2					
4-3-19 0:00	0.63	852	7.95	26.7	4-2-19 23:30	1.20	731	7.85	30.3	4-2-19 23:30	5.38	1201	7.77	28.8						7-3-19 16:15	19.49	1587	8.19	18.2					
4-3-19 0:15	0.54	853	7.96	29.8	4-2-19 23:45	1.15	730	7.85	28.9	4-2-19 23:45	5.38	1195	7.77	26.9						7-3-19 16:30	19.50	1585	8.20	14.8					
4-3-19 0:30	0.45	866	7.96	31.0	4-3-19 0:00	1.17	732	7.85	30.1	4-3-19 0:00	5.39	1197	7.76	25.3						7-3-19 16:45	19.51	1587	8.20	18.7					
4-3-19 0:45	0.61	890	7.97	26.8	4-3-19 0:15	1.19	736	7.85	30.5	4-3-19 0:15	5.38	1201	7.76	26.7						7-3-19 17:00	19.65	1585	8.20	14.8					
4-3-19 1:00	0.57	894	7.97	25.6	4-3-19 0:30	1.14	734	7.85	31.1	4-3-19 0:30	5.32	1200	7.76	23.9						7-3-19 17:15	19.70	1587	8.19	18.1					
4-3-19 1:15	0.56	901	7.98	26.5	4-3-19 0:45	1.13	734	7.85	32.1	4-3-19 0:45	5.30	1192	7.76	27.8						7-3-19 17:30	19.74	1585	8.21	15.5					
4-3-19 1:30	0.41	884	7.98	26.9	4-3-19 1:00	1.14	731	7.85	31.5	4-3-19 1:00	5.27	1198	7.76	26.3						7-3-19 17:45	19.82	1587	8.20	17.9					
4-3-19 1:45	0.31	873	7.98	26.7	4-3-19 1:15	1.12	734	7.85	30.9	4-3-19 1:15	5.24	1198	7.77	25.5						7-3-19 18:00	19.86	1586	8.20	15.0					
4-3-19 2:00	0.19	863	7.98	27.7	4-3-19 1:30	1.12	732	7.85	31.5	4-3-19 1:30	5.21	1196	7.77	31.5						7-3-19 18:15	19.88	1587	8.19	16.7					
4-3-19 2:15	0.10	852	7.98	27.4	4-3-19 1:45	1.12	740	7.85	31.4	4-3-19 1:45	5.16	1199	7.77	25.7						7-3-19 18:30	20.07	1586	8.20	15.3					
4-3-19 2:30	0.09	860	7.98	27.2	4-3-19 2:00	1.01	735	7.85	31.5	4-3-19 2:00	5.21	1202	7.77	23.6						7-3-19 18:45	20.16	1587	8.20	17.5					
4-3-19 2:45	0.02	855	7.98	27.2	4-3-19 2:15	0.96	733	7.85	30.8	4-3-19 2:15	5.17	1205	7.78	24.2						7-3-19 19:00	20.25	1585	8.19	15.4					
4-3-19 3:00	-0.05	837	7.98	26.1	4-3-19 2:30	0.91	733	7.85	28.6	4-3-19 2:30	5.12	1207	7.78	23.5						7-3-19 19:15	20.19	1586	8.20	16.2					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-3-19 3:15	-0.06	848	7.98	26.2	4-3-19 2:45	0.83	727	7.85	28.0	4-3-19 2:45	5.09	1193	7.79	27.0						7-3-19 19:30	20.19	1587	8.22	15.0					
4-3-19 3:30	-0.05	864	7.98	24.9	4-3-19 3:00	0.81	728	7.85	27.7	4-3-19 3:00	5.06	1198	7.78	26.6						7-3-19 19:45	20.30	1589	8.22	16.7					
4-3-19 3:45	-0.07	842	7.98	27.2	4-3-19 3:15	0.80	731	7.85	26.9	4-3-19 3:15	5.03	1194	7.79	24.8						7-3-19 20:00	20.41	1586	8.22	14.8					
4-3-19 4:00	-0.08	844	7.98	25.6	4-3-19 3:30	0.75	733	7.85	26.8	4-3-19 3:30	5.07	1193	7.78	28.3						7-3-19 20:15	20.49	1588	8.21	18.6					
4-3-19 4:15	-0.07	840	7.98	27.7	4-3-19 3:45	0.68	734	7.85	26.2	4-3-19 3:45	5.01	1197	7.79	22.2						7-3-19 20:30	20.73	1587	8.21	14.7					
4-3-19 4:30	-0.12	843	7.99	25.2	4-3-19 4:00	0.65	735	7.85	26.0	4-3-19 4:00	4.97	1197	7.79	25.8						7-3-19 20:45	20.49	1589	8.20	18.0					
4-3-19 4:45	-0.08	834	7.98	24.2	4-3-19 4:15	0.60	735	7.86	26.6	4-3-19 4:15	4.93	1197	7.79	23.2						7-3-19 21:00	20.32	1596	8.23	15.2					
4-3-19 5:00	-0.02	870	7.97	23.7	4-3-19 4:30	0.61	735	7.85	26.0	4-3-19 4:30	4.95	1201	7.79	23.3						7-3-19 21:15	20.33	1596	8.24	18.4					
4-3-19 5:15	0.05	894	7.95	22.4	4-3-19 4:45	0.60	735	7.86	26.2	4-3-19 4:45	4.93	1198	7.79	24.2						7-3-19 21:30	20.40	1593	8.23	15.4					
4-3-19 5:30	0.09	906	7.95	22.3	4-3-19 5:00	0.59	735	7.85	26.7	4-3-19 5:00	4.88	1195	7.79	26.3						7-3-19 21:45	20.78	1596	8.23	17.8					
4-3-19 5:45	0.08	919	7.95	23.9	4-3-19 5:15	0.52	735	7.86	25.9	4-3-19 5:15	4.83	1189	7.79	30.4						7-3-19 22:00	21.07	1596	8.23	15.4					
4-3-19 6:00	0.07	922	7.95	23.8	4-3-19 5:30	0.53	735	7.85	25.4	4-3-19 5:30	4.82	1191	7.80	23.4						7-3-19 22:15	21.38	1599	8.24	17.5					
4-3-19 6:15	0.06	927	7.95	22.7	4-3-19 5:45	0.46	736	7.86	28.8	4-3-19 5:45	4.78	1195	7.80	19.0						7-3-19 22:30	21.66	1600	8.24	15.7					
4-3-19 6:30	0.04	929	7.95	22.7	4-3-19 6:00	0.39	736	7.85	24.3	4-3-19 6:00	4.84	1196	7.79	24.2						7-3-19 22:45	21.73	1598	8.24	17.7					
4-3-19 6:45	0.03	931	7.95	22.2	4-3-19 6:15	0.42	735	7.86	24.1	4-3-19 6:15	4.87	1196	7.80	22.1						7-3-19 23:00	21.16	1593	8.23	16.6					
4-3-19 7:00	0.08	909	7.96	21.2	4-3-19 6:30	0.35	737	7.86	23.1	4-3-19 6:30	4.84	1196	7.80	22.1						7-3-19 23:15	20.85	1595	8.24	18.9					
4-3-19 7:15	0.14	902	7.95	20.6	4-3-19 6:45	0.41	736	7.86	24.7	4-3-19 6:45	4.85	1192	7.80	20.1						7-3-19 23:30	20.68	1593	8.24	18.0					
4-3-19 7:30	0.15	904	7.95	19.7	4-3-19 7:00	0.41	734	7.85	24.3	4-3-19 7:00	4.80	1191	7.80	30.1						7-3-19 23:45	20.76	1596	8.24	18.4					
4-3-19 7:45	0.18	903	7.95	19.2	4-3-19 7:15	0.41	735	7.85	24.0	4-3-19 7:15	4.74	1198	7.80	23.0						7-4-19 0:00	20.85	1595	8.24	17.3					
4-3-19 8:00	0.23	905	7.95	19.3	4-3-19 7:30	0.46	734	7.85	24.4	4-3-19 7:30	4.76	1194	7.80	19.7						7-4-19 0:15	20.86	1598	8.25	19.6					
4-3-19 8:15	0.25	899	7.95	20.5	4-3-19 7:45	0.48	732	7.85	23.9	4-3-19 7:45	4.74	1198	7.81	23.8						7-4-19 0:30	20.93	1596	8.25	17.2					
4-3-19 8:30	0.31	890	7.96	21.4	4-3-19 8:00	0.53	732	7.85	23.9	4-3-19 8:00	4.73	1198	7.81	22.3						7-4-19 0:45	20.97	1597	8.25	19.8					
4-3-19 8:45	0.36	901	7.97	21.4	4-3-19 8:15	0.55	731	7.85	23.8	4-3-19 8:15	4.76	1197	7.81	20.2						7-4-19 1:00	21.01	1597	8.26	16.7					
4-3-19 9:00	0.45	909	7.96	23.6	4-3-19 8:30	0.61	733	7.85	24.2	4-3-19 8:30	4.71	1196	7.81	23.0						7-4-19 1:15	21.10	1600	8.27	19.4					
4-3-19 9:15	0.43	927	7.95	20.3	4-3-19 8:45	0.68	732	7.85	23.7	4-3-19 8:45	4.66	1189	7.81	25.4						7-4-19 1:30	21.14	1600	8.27	16.0					
4-3-19 9:30	0.48	935	7.95	20.4	4-3-19 9:00	0.68	732	7.85	23.7	4-3-19 9:00	4.67	1197	7.81	27.4						7-4-19 1:45	21.23	1604	8.28	18.5					
4-3-19 9:45	0.48	937	7.95	19.3	4-3-19 9:15	0.74	733	7.85	23.2	4-3-19 9:15	4.66	1192	7.81	27.7						7-4-19 2:00	21.32	1603	8.28	16.4					
4-3-19 10:00	0.52	936	7.95	19.3	4-3-19 9:30	0.80	732	7.85	22.9	4-3-19 9:30	4.51	1185	7.81	19.9						7-4-19 2:15	21.27	1605	8.27	19.3					
4-3-19 10:15	0.57	939	7.95	18.7	4-3-19 9:45	0.87	732	7.85	24.7	4-3-19 9:45	4.51	1192	7.81	24.2						7-4-19 2:30	21.29	1601	8.28	16.4					
4-3-19 10:30	0.57	932	7.95	17.4	4-3-19 10:00	0.94	732	7.85	19.9	4-3-19 10:00	4.66	1192	7.81	18.2						7-4-19 2:45	21.30	1603	8.28	18.9					
4-3-19 10:45	0.59	923	7.95	18.5	4-3-19 10:15	0.92	731	7.85	23.4	4-3-19 10:15	4.62	1192	7.82	20.1						7-4-19 3:00	21.24	1603	8.28	15.7					
4-3-19 11:00	0.60	932	7.95	18.0	4-3-19 10:30	0.98	730	7.85	22.7	4-3-19 10:30	4.61	1190	7.82	22.2						7-4-19 3:15	21.23	1603	8.28	18.5					
4-3-19 11:15	0.60	931	7.96	22.0	4-3-19 10:45	1.06	729	7.85	22.3	4-3-19 10:45	4.64	1191	7.81	17.7						7-4-19 3:30	21.20	1602	8.28	16.5					
4-3-19 11:30	0.59	934	7.96	18.6	4-3-19 11:00	1.15	727	7.85	18.5	4-3-19 11:00	4.69	1185	7.81	20.8						7-4-19 3:45	21.19	1603	8.28	18.4					
4-3-19 11:45	0.63	926	7.96	18.2	4-3-19 11:15	1.19	730	7.85	22.9	4-3-19 11:15	4.79	1194	7.81	18.3						7-4-19 4:00	21.16	1603	8.28	17.7					
4-3-19 12:00	0.67	911	7.96	17.9	4-3-19 11:30	1.18	730	7.84	21.6	4-3-19 11:30	4.83	1184	7.81	20.7						7-4-19 4:15	21.11	1603	8.27	18.1					
4-3-19 12:15	0.68	915	7.96	16.8	4-3-19 11:45	1.28	729	7.85	21.6	4-3-19 11:45	4.93	1192	7.80	18.0						7-4-19 4:30	21.09	1603	8.28	22.6					
4-3-19 12:30	0.70	933	7.96	18.0	4-3-19 12:00	1.17	722	7.85	18.8	4-3-19 12:00	5.00	1190	7.80	17.0						7-4-19 4:45	21.03	1603	8.28	18.3					
4-3-19 12:45	0.73	936	7.96	18.2	4-3-19 12:15	1.09	717	7.85	16.5	4-3-19 12:15	5.06	1190	7.81	16.9						7-4-19 5:00	21.01	1603	8.28	16.8					
4-3-19 13:00	0.88	913	7.96	16.8	4-3-19 12:30	1.22	716	7.85	16.3	4-3-19 12:30	5.09	1190	7.82	16.0						7-4-19 5:15	21.00	1603	8.28	18.8					
4-3-19 13:15	0.97	918	7.95	16.6	4-3-19 12:45	1.40	717	7.85	17.4	4-3-19 12:45	5.13	1192	7.81	18.2						7-4-19 5:30	20.95	1603	8.28	16.3					
4-3-19 13:30	1.11	897	7.95	16.6	4-3-19 13:00	1.42	715	7.85	15.5	4-3-19 13:00	5.18	1188	7.82	16.0						7-4-19 5:45	20.92	1605	8.28	18.7					
4-3-19 13:45	1.03	901	7.95	17.0	4-3-19 13:15	1.43	705	7.85	17.8	4-3-19 13:15	5.15	1187	7.81	16.0						7-4-19 6:00	20.89	1602	8.29	16.2					
4-3-19 14:00	1.07	903	7.96	16.5	4-3-19 13:30	1.59	711	7.85	16.2	4-3-19 13:30	5.04	1181	7.81	17.1						7-4-19 6:15	20.79	1604	8.28	18.3					
4-3-19 14:15	1.20	912	7.96	16.1	4-3-19 13:45	1.75	718	7.84	18.0	4-3-19 13:45	4.96	1179	7.82	20.1						7-4-19 6:30	20.77	1602	8.28	16.4					
4-3-19 14:30	1.29	921	7.96	17.4	4-3-19 14:00	1.85	717	7.84	17.3	4-3-19 14:00	4.90	1185	7.82	18.1						7-4-19 6:45	20.74	1603	8.28	18.3					
4-3-19 14:45	1.31	945	7.94	18.1	4-3-19 14:15	2.00	718	7.84	16.9	4-3-19 14:15	5.09	1185	7.82	16.7						7-4-19 7:00	20.71	1602	8.28	16.7					
4-3-19 15:00	1.46	903	7.95	19.3	4-3-19 14:30	2.22	716	7.84	16.4	4-3-19 14:30	5.10	1186	7.82	18.3						7-4-19 7:15	20.66	1603	8.28	18.8					
4-3-19 15:15	1.35	905	7.95	27.2	4-3-19 14:45	2.19	714	7.84	15.6	4-3-19 14:45	5.18	1184	7.81	17.0						7-4-19 7:30	20.62	1602	8.29	16.7					
4-3-19 15:30	1.60	911	7.96	27.6	4-3-19 15:00	2.10	717	7.84	18.3	4-3-19 15:00	5.19	1181	7.81	17.6						7-4-19 7:45	20.59	1603	8.28	21.2					
4-3-19 15:45	1.68	917	7.95	29.4	4-3-19 15:15	2.24	717	7.84	19.8	4-3-19 15:15	5.22	1181	7.82	18.7						7-4-19 8:00	20.53	1601	8.28	17.7					
4-3-19 16:00	1.68	908	7.96	29.0	4-3-19 15:30	2.37	720	7.84	21.0	4-3-19 15:30	5.26	1175	7.82	19.9						7-4-19 8:15	20.49	1603	8.28	21.9					
4-3-19 16:15	1.43	922	7.97	29.4	4-3-19 15:45	2.45	718	7.84	18.8	4-3-19 15:45	5.29	1178	7.82	15.6						7-4-19 8:30	20.44	1601	8.28	19.2					
4-3-19 16:30	1.57	922	7.96	31.3	4-3-19 16:00	2.18	718	7.84	20.4	4-3-19 16:00	5.33	1178	7.82	15.7						7-4-19 8:45	20.39	1601	8.28	23.5					
4-3-19 16:45	1.30	925	7.97	36.5	4-3-19 16:15	2.19	698	7.85	19.9	4-3-19 16:15	5.39	1181	7.83	15.5						7-4-19 9:00	20.35	1597	8.29	23.5					
4-3-19 17:00	1.08	929	7.98	57.3	4-3-19 16:30	2.66	708	7.84	20.3	4-3-19 16:30	5.19	1173	7.82	17.8						7-4-19 9:15	20.37	1578	8.29	40.3					
4-3-19 17:15	0.81	943	8.01	219.3	4-3-19 16:45	2.65	715	7.83	20.6	4-3-19 16:45	5.35	1184	7.82	19.2						7-4-19 9:30	20.32	1574	8.29	37.9					
4-3-19 17:30	0.64	957	8.02	260.0	4-3-19 17:00	2.74	716	7.83	20.0	4-3-19 17:00	5.33	1182	7.82	21.3						7-4-19 9:45	20.32	1574	8.29	37.3					
4-3-19 17:45	0.55	984	8.02	205.4	4-3-19 17:15	2.75	718	7.84	20.8	4-3-19 17:15	5.35	1186	7.82	18.5						7-4-19 10:00	20.28	1571	8.29	35.0					
4-3-19 18:00	0.45	992	8.02	127.9	4-3-19 17:30	2.61	717	7.84	19.0	4-3-19 17:30	5.23	1185	7.82	18.9						7-4-19 10:15	20.24	1573	8.28	35.2					
4-3-19 18:15	0.35	998	8.02	92.4	4-3-19 17:45	2.79	732	7.83	22.3	4-3-19 17:45	5.22	1183	7.83	20.3						7-4-19 10:30	20.20	1572	8.29	32.3					
4-3-19 18:30	0.29	1007	8.03	91.0	4-3-19 18:00	2.53	712	7.85	20.9	4-3-19 18:00	5.26	1180	7.83	16.8						7-4-19 10:45	20.16	1572	8.29	33.2					
4-3-19 18:45	0.24	1006	8.04	76.3	4-3-19 18:15	2.48	716	7.85	20.4	4-3-19 18:15	5.21	1190	7.83	21.2						7-4-19 11:00	20.10	1565	8.30	30.1					
4-3-19 19:00	0.20	1008	8.04	62.1	4-3-19 18:30	2.57	716	7.85	19.9	4-3-19 18:30	5.17	1190	7.83	21.5						7-4-19 11:15	20.07	1563	8.30	30.8					
4-3-19 19:15	0.13	1009	8.04	53.8	4-3-19 18:45	2.68	720	7.85	18.9	4-3-19 18:45	5.06	1180	7.83	18.5						7-4-19 11:30	20.02	1559	8.30	28.0					
4-3-19 19:30	0.05	1004	8.05	52.9	4-3-19 19:00	2.63	718	7.85	19.0	4-3-19 19:00	5.04	1181	7.83	22.6						7-4-19 11:45	19.99	1558	8.30	29.2					
4-3-19 19:45	-0.01	1009	8.05	48.6	4-3-19 19:15	2.51	717	7.85	18.4	4-3-19 19:15	5.06	1184	7.83	32.9						7-4-19 12:00	19.95	1558	8.30	26.4					
4-3-19 20:00	-0.05	1008	8.06	43.8	4-3-19 19:30	2.53	718	7.85	19.9	4-3-19 19:30	4.97	1181	7.83	35.7						7-4-19 12:15	19.92	1559	8.29	29.5					
4-3-19 20:15	-0.03	1024	8.05	38.6	4-3-19 19:45	2.51	726	7.85	24.4	4-3-19 19:45	4.95	1188	7.84	21.2						7-4-19 12:30	19.88	1556	8.30	25.2					
4-3-19 20:30	-0.08	1019	8.05	36.3	4-3-19 20:00	2.38	734	7.85	27.6	4-3-19 20:00	4.91	1185	7.84	20.7						7-4-19 12:45	19.88	1550	8.30	29.5					
4-3-19 20:45	-0.05	1024	8.05	34.4	4-3-19 20:15	2.40	735	7.84	27.3	4-3-19 20:15	4.90	1185	7.84	19.7						7-4-19 13:00	19.85	1551	8.30	25.0					
4-3-19 21:00	-0.04	1030	8.05	32.2	4-3-19 20:30	2.32	738	7.84	26.7	4-3-19 20:30	4.86	1184	7.84	20.9						7-4-19 13:15	19.81	1547	8.31	27.2					
4-3-19 21:15	-0.02	1032	8.05	31.3	4-3-19 20:45	2.24	737	7.84	26.7	4-3-19 20:45	4.81	1184	7.83	20.3						7-4-19 13:30	19.81	1546	8.31	24.8					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-3-19 21:30	-0.05	1029	8.05	34.3	4-3-19 21:00	2.31	740	7.83	27.0	4-3-19 21:00	4.75	1185	7.84	19.5						7-4-19 13:45	19.79	1544	8.31	27.3					
4-3-19 21:45	-0.05	1031	8.05	33.6	4-3-19 21:15	2.18	740	7.84	24.9	4-3-19 21:15	4.77	1186	7.84	20.5						7-4-19 14:00	19.76	1544	8.31	24.0					
4-3-19 22:00	-0.06	1031	8.06	29.1	4-3-19 21:30	2.11	739	7.84	35.5	4-3-19 21:30	4.72	1183	7.84	20.6						7-4-19 14:15	19.74	1545	8.30	26.8					
4-3-19 22:15	-0.06	1034	8.06	27.9	4-3-19 21:45	2.02	740	7.84	29.6	4-3-19 21:45	4.61	1174	7.85	19.1						7-4-19 14:30	19.72	1543	8.31	23.4					
4-3-19 22:30	-0.07	1035	8.06	28.6	4-3-19 22:00	2.02	740	7.85	36.6	4-3-19 22:00	4.66	1182	7.84	22.1						7-4-19 14:45	19.70	1543	8.31	25.3					
4-3-19 22:45	-0.07	1034	8.06	25.2	4-3-19 22:15	1.96	740	7.85	28.2	4-3-19 22:15	4.57	1181	7.85	18.7						7-4-19 15:00	19.65	1537	8.31	22.2					
4-3-19 23:00	-0.08	1039	8.06	25.4	4-3-19 22:30	1.96	741	7.84	26.2	4-3-19 22:30	4.56	1182	7.85	21.5						7-4-19 15:15	19.62	1535	8.31	23.6					
4-3-19 23:15	-0.09	1039	8.06	23.7	4-3-19 22:45	1.83	734	7.86	32.3	4-3-19 22:45	4.58	1181	7.84	20.9						7-4-19 15:30	19.59	1533	8.32	21.7					
4-3-19 23:30	-0.08	1040	8.06	23.7	4-3-19 23:00	1.76	733	7.87	31.6	4-3-19 23:00	4.54	1181	7.84	18.9						7-4-19 15:45	19.62	1535	8.32	25.3					
4-3-19 23:45	-0.08	1037	8.06	23.8	4-3-19 23:15	1.85	735	7.87	34.7	4-3-19 23:15	4.57	1179	7.84	19.6						7-4-19 16:00	19.72	1529	8.33	23.1					
4-4-19 0:00	-0.09	1037	8.06	22.3	4-3-19 23:30	1.83	734	7.87	35.1	4-3-19 23:30	4.56	1179	7.85	21.6						7-4-19 16:15	19.67	1527	8.33	25.3					
4-4-19 0:15	-0.09	1037	8.06	21.3	4-3-19 23:45	1.80	734	7.87	34.9	4-3-19 23:45	4.54	1180	7.85	18.2						7-4-19 16:30	19.72	1527	8.33	21.4					
4-4-19 0:30	-0.08	1037	8.06	19.9	4-4-19 0:00	1.72	730	7.87	35.9	4-4-19 0:00	4.53	1180	7.85	19.1						7-4-19 16:45	19.73	1525	8.34	25.2					
4-4-19 0:45	-0.08	1038	8.07	21.5	4-4-19 0:15	1.63	730	7.88	31.5	4-4-19 0:15	4.49	1179	7.85	19.5						7-4-19 17:00	19.70	1532	8.33	22.2					
4-4-19 1:00	-0.08	1044	8.07	20.0	4-4-19 0:30	1.84	733	7.87	32.4	4-4-19 0:30	4.40	1180	7.85	19.2						7-4-19 17:15	19.72	1535	8.33	23.6					
4-4-19 1:15	-0.08	1046	8.07	19.2	4-4-19 0:45	1.87	734	7.86	31.7	4-4-19 0:45	4.38	1180	7.85	17.8						7-4-19 17:30	19.80	1532	8.34	20.4					
4-4-19 1:30	-0.08	1044	8.06	18.3	4-4-19 1:00	1.76	734	7.87	28.3	4-4-19 1:00	4.39	1181	7.84	24.5						7-4-19 17:45	19.89	1531	8.34	21.7					
4-4-19 1:45	-0.08	1040	8.06	19.8	4-4-19 1:15					4-4-19 1:15	4.43	1183	7.85	19.7						7-4-19 18:00	19.94	1528	8.34	18.8					
4-4-19 2:00	-0.08	1062	8.04	19.2	4-4-19 1:30	1.77	734	7.86	26.7	4-4-19 1:30	4.51	1188	7.85	19.5						7-4-19 18:15	20.02	1530	8.34	22.1					
4-4-19 2:15	-0.08	1046	8.06	18.2	4-4-19 1:45	1.68	731	7.86	27.9	4-4-19 1:45	4.46	1183	7.85	17.2						7-4-19 18:30	20.12	1523	8.35	19.9					
4-4-19 2:30	-0.08	1067	8.02	19.0	4-4-19 2:00	1.55	730	7.86	24.8	4-4-19 2:00	4.41	1184	7.85	18.2						7-4-19 18:45	20.20	1523	8.34	22.3					
4-4-19 2:45	-0.08	1041	8.06	19.0	4-4-19 2:15	1.62	730	7.86	23.0	4-4-19 2:15	4.41	1185	7.85	17.8						7-4-19 19:00	20.22	1520	8.35	19.6					
4-4-19 3:00	-0.08	1038	8.06	19.8	4-4-19 2:30	1.62	730	7.86	23.5	4-4-19 2:30	4.39	1185	7.85	17.0						7-4-19 19:15	20.31	1527	8.35	21.5					
4-4-19 3:15	-0.08	1039	8.06	20.6	4-4-19 2:45	1.48	732	7.86	26.5	4-4-19 2:45	4.32	1180	7.85	18.7						7-4-19 19:30	20.28	1528	8.34	20.0					
4-4-19 3:30	-0.07	1043	8.06	20.1	4-4-19 3:00	1.35	736	7.87	28.2	4-4-19 3:00	4.33	1183	7.85	18.9						7-4-19 19:45	20.23	1533	8.34	21.9					
4-4-19 3:45	-0.07	1052	8.05	19.6	4-4-19 3:15	1.37	739	7.87	28.0	4-4-19 3:15	4.29	1184	7.85	19.0						7-4-19 20:00	20.18	1538	8.34	20.3					
4-4-19 4:00	-0.07	1055	8.05	18.8	4-4-19 3:30	1.33	735	7.87	25.2	4-4-19 3:30	4.29	1182	7.85	17.8						7-4-19 20:15	20.17	1543	8.34	22.9					
4-4-19 4:15	-0.07	1061	8.04	18.5	4-4-19 3:45	1.30	737	7.87	24.5	4-4-19 3:45	4.26	1184	7.85	20.1						7-4-19 20:30	20.23	1543	8.34	20.2					
4-4-19 4:30	-0.07	1065	8.03	17.3	4-4-19 4:00	1.26	737	7.87	24.0	4-4-19 4:00	4.23	1184	7.85	17.0						7-4-19 20:45	20.48	1545	8.35	22.5					
4-4-19 4:45	-0.07	1070	8.02	18.4	4-4-19 4:15	1.24	740	7.87	25.7	4-4-19 4:15	4.19	1183	7.86	18.1						7-4-19 21:00	20.49	1540	8.36	21.5					
4-4-19 5:00	-0.07	1073	8.02	17.5	4-4-19 4:30	1.15	741	7.87	24.4	4-4-19 4:30	4.17	1183	7.86	17.7						7-4-19 21:15	20.51	1545	8.35	23.1					
4-4-19 5:15	-0.07	1074	8.02	17.2	4-4-19 4:45	1.09	738	7.87	24.3	4-4-19 4:45	4.09	1180	7.86	16.4						7-4-19 21:30	20.57	1548	8.35	20.8					
4-4-19 5:30	-0.08	1075	8.02	16.7	4-4-19 5:00	1.03	738	7.87	20.2	4-4-19 5:00	4.02	1181	7.85	17.9						7-4-19 21:45	20.76	1549	8.34	23.1					
4-4-19 5:45	-0.08	1076	8.02	15.1	4-4-19 5:15	1.00	740	7.88	22.8	4-4-19 5:15	4.04	1184	7.86	16.8						7-4-19 22:00	20.80	1548	8.34	20.0					
4-4-19 6:00	-0.08	1075	8.02	16.4	4-4-19 5:30	0.96	741	7.88	22.4	4-4-19 5:30	4.01	1181	7.86	16.6						7-4-19 22:15	20.87	1552	8.33	22.7					
4-4-19 6:15	-0.07	1076	8.02	15.8	4-4-19 5:45	0.92	739	7.87	20.5	4-4-19 5:45	3.96	1181	7.86	17.1						7-4-19 22:30	20.90	1548	8.34	19.9					
4-4-19 6:30	-0.06	1076	8.01	14.2	4-4-19 6:00	0.87	739	7.87	18.7	4-4-19 6:00	3.99	1183	7.86	18.2						7-4-19 22:45	20.98	1550	8.34	22.5					
4-4-19 6:45	-0.06	1078	8.01	14.6	4-4-19 6:15	0.85	739	7.87	17.7	4-4-19 6:15	3.86	1184	7.86	22.0						7-4-19 23:00	21.09	1548	8.34	19.2					
4-4-19 7:00	-0.06	1079	8.01	13.7	4-4-19 6:30	0.83	738	7.87	17.2	4-4-19 6:30	3.91	1182	7.85	16.9						7-4-19 23:15	21.24	1551	8.34	20.8					
4-4-19 7:15	-0.06	1080	8.01	14.0	4-4-19 6:45	0.83	738	7.86	16.8	4-4-19 6:45	3.93	1183	7.85	16.3						7-4-19 23:30	21.10	1550	8.34	20.6					
4-4-19 7:30	-0.06	1080	8.00	12.4	4-4-19 7:00	0.76	737	7.86	14.6	4-4-19 7:00	3.82	1182	7.85	17.3						7-4-19 23:45	21.07	1552	8.35	24.2					
4-4-19 7:45	-0.05	1080	8.00	11.5	4-4-19 7:15	0.75	736	7.86	14.9	4-4-19 7:15	3.86	1182	7.86	19.1						7-5-19 0:00	21.18	1551	8.34	21.4					
4-4-19 8:00	-0.05	1078	8.00	11.5	4-4-19 7:30	0.78	736	7.85	15.8	4-4-19 7:30	3.80	1179	7.86	16.9						7-5-19 0:15	21.13	1552	8.33	24.2					
4-4-19 8:15	-0.05	1079	8.00	11.5	4-4-19 7:45	0.79	735	7.85	15.9	4-4-19 7:45	3.74	1180	7.86	16.5						7-5-19 0:30	21.13	1551	8.35	20.1					
4-4-19 8:30	-0.04	1081	8.00	11.4	4-4-19 8:00	0.77	733	7.85	15.3	4-4-19 8:00	3.69	1180	7.86	15.1						7-5-19 0:45	21.21	1552	8.34	23.0					
4-4-19 8:45	-0.03	1085	8.00	12.6	4-4-19 8:15	0.75	731	7.85	14.5	4-4-19 8:15	3.62	1181	7.86	18.6						7-5-19 1:00	21.16	1552	8.34	21.5					
4-4-19 9:00	-0.03	1087	7.99	12.0	4-4-19 8:30	0.76	728	7.86	14.0	4-4-19 8:30	3.72	1184	7.86	16.8						7-5-19 1:15	21.20	1552	8.34	24.2					
4-4-19 9:15	-0.03	1088	7.99	12.1	4-4-19 8:45	0.78	726	7.85	13.8	4-4-19 8:45	3.77	1184	7.85	17.5						7-5-19 1:30	21.22	1551	8.35	19.5					
4-4-19 9:30	-0.03	1089	7.99	11.9	4-4-19 9:00	0.79	725	7.85	13.8	4-4-19 9:00	3.76	1182	7.85	15.8						7-5-19 1:45	21.17	1553	8.35	22.0					
4-4-19 9:45	-0.03	1088	7.99	12.6	4-4-19 9:15	0.84	723	7.85	13.5	4-4-19 9:15	3.65	1179	7.86	15.3						7-5-19 2:00	21.17	1551	8.35	19.6					
4-4-19 10:00	-0.03	1091	7.98	11.6	4-4-19 9:30	0.86	723	7.85	13.5	4-4-19 9:30	3.53	1180	7.86	15.9						7-5-19 2:15	21.15	1553	8.34	20.0					
4-4-19 10:15	-0.02	1093	7.98	11.7	4-4-19 9:45	0.91	721	7.85	13.1	4-4-19 9:45	3.62	1182	7.86	17.5						7-5-19 2:30	21.04	1553	8.36	18.1					
4-4-19 10:30	-0.01	1093	7.98	12.1	4-4-19 10:00	0.94	721	7.85	13.1	4-4-19 10:00	3.65	1182	7.86	16.4						7-5-19 2:45	21.00	1555	8.37	20.6					
4-4-19 10:45	-0.01	1095	7.97	12.2	4-4-19 10:15	0.95	721	7.85	12.5	4-4-19 10:15	3.69	1183	7.86	18.8						7-5-19 3:00	20.97	1554	8.37	20.7					
4-4-19 11:00	0.01	1094	7.97	12.5	4-4-19 10:30	0.96	722	7.85	13.2	4-4-19 10:30	3.77	1184	7.86	17.3						7-5-19 3:15	20.91	1555	8.37	21.0					
4-4-19 11:15	0.02	1095	7.97	15.4	4-4-19 10:45	0.95	724	7.85	12.8	4-4-19 10:45	3.71	1184	7.86	16.5						7-5-19 3:30	20.88	1553	8.36	19.5					
4-4-19 11:30	0.04	1099	7.97	12.3	4-4-19 11:00	0.97	725	7.86	12.5	4-4-19 11:00	3.68	1181	7.85	17.7						7-5-19 3:45	20.88	1555	8.36	21.1					
4-4-19 11:45	0.06	1099	7.96	13.0	4-4-19 11:15	1.00	727	7.85	13.2	4-4-19 11:15	3.73	1181	7.86	17.7						7-5-19 4:00	20.88	1553	8.36	19.6					
4-4-19 12:00	0.08	1100	7.96	13.4	4-4-19 11:30	1.03	728	7.85	14.1	4-4-19 11:30	3.75	1182	7.86	16.7						7-5-19 4:15	20.83	1555	8.35	21.1					
4-4-19 12:15	0.09	1103	7.96	13.4	4-4-19 11:45	1.02	730	7.85	14.8	4-4-19 11:45	3.73	1187	7.86	18.5						7-5-19 4:30	20.80	1553	8.36	18.6					
4-4-19 12:30	0.10	1104	7.96	13.1	4-4-19 12:00	1.04	730	7.85	14.6	4-4-19 12:00	3.73	1183	7.86	17.7						7-5-19 4:45	20.76	1554	8.35	20.6					
4-4-19 12:45	0.11	1106	7.96	13.2	4-4-19 12:15	1.07	731	7.86	14.6	4-4-19 12:15	3.74	1184	7.87	16.1						7-5-19 5:00	20.73	1553	8.36	17.8					
4-4-19 13:00	0.12	1104	7.97	13.2	4-4-19 12:30	1.09	731	7.86	14.0	4-4-19 12:30	3.78	1184	7.87	16.4						7-5-19 5:15	20.74	1555	8.36	20.4					
4-4-19 13:15	0.12	1106	7.96	12.9	4-4-19 12:45	1.11	732	7.86	14.7	4-4-19 12:45	3.84	1183	7.86	19.0						7-5-19 5:30	20.72	1553	8.36	18.8					
4-4-19 13:30	0.15	1105	7.96	12.5	4-4-19 13:00	1.13	734	7.86	14.4	4-4-19 13:00	3.89	1183	7.87	18.1						7-5-19 5:45	20.70	1554	8.36	20.4					
4-4-19 13:45	0.18	1109	7.96	12.7	4-4-19 13:15	1.14	735	7.86	14.0	4-4-19 13:15	3.87	1179	7.87	15.0						7-5-19 6:00	20.65	1553	8.36	18.3					
4-4-19 14:00	0.19	1112	7.96	12.2	4-4-19 13:30	1.20	735	7.86	13.4	4-4-19 13:30	3.88	1178	7.86	16.1						7-5-19 6:15	20.58	1554	8.35	19.9					
4-4-19 14:15	0.20	1105	7.96	11.6	4-4-19 13:45	1.29	736	7.86	13.2	4-4-19 13:45	3.88	1179	7.86	15.7						7-5-19 6:30	20.56	1553	8.36	18.8					
4-4-19 14:30	0.21	1105	7.96	11.9	4-4-19 14:00	1.28	739	7.87	12.9	4-4-19 14:00	3.97	1182	7.86	16.6						7-5-19 6:45	20.54	1553	8.36	20.2					
4-4-19 14:45	0.21	1105	7.96	12.0	4-4-19 14:15	1.28	741	7.87	12.9	4-4-19 14:15	3.94	1172	7.87	15.4						7-5-19 7:00	20.51	1553	8.35	17.9					
4-4-19 15:00	0.22	1104	7.96	11.1	4-4-19 14:30					4-4-19 14:30	3.83	1165	7.87	14.2						7-5-19 7:15	20.48	1554	8.35	20.0					
4-4-19 15:15	0.22	1094	7.97	10.9	4-4-19 14:45	1.35	741	7.87	12.9	4-4-19 14:45	3.92	1175	7.87	14.8						7-5-19 7:30	20.43	1553	8.36	18.0					
4-4-19 15:30	0.24	1094	7.98	10.3	4-4-19 15:00	1.37	741	7.87	12.6	4-4-19 15:00	4.09	1176	7.85	15.5						7-5-19 7:45	20.40	1553	8.36	20.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-4-19 15:45	0.14	1083	7.96	40.9	4-4-19 15:15	1.39	741	7.87	12.4	4-4-19 15:15	4.04	1172	7.87	16.1						7-5-19 8:00	20.35	1553	8.36	18.6					
4-4-19 16:00	0.10	1078	7.96	39.4	4-4-19 15:30	1.39	741	7.87	11.9	4-4-19 15:30	4.16	1174	7.86	15.0						7-5-19 8:15	20.30	1553	8.35	20.1					
4-4-19 16:15	0.12	1084	7.97	38.8	4-4-19 15:45	1.39	741	7.87	11.2	4-4-19 15:45	4.16	1174	7.87	14.5						7-5-19 8:30	20.32	1552	8.36	18.0					
4-4-19 16:30	0.13	1091	7.96	34.1	4-4-19 16:00	1.40	741	7.87	11.1	4-4-19 16:00	4.12	1173	7.87	14.7						7-5-19 8:45	20.28	1553	8.35	20.5					
4-4-19 16:45	0.12	1099	7.96	40.4	4-4-19 16:15	1.39	742	7.87	10.3	4-4-19 16:15	4.15	1166	7.87	12.8						7-5-19 9:00	20.22	1552	8.36	18.7					
4-4-19 17:00	0.10	1104	7.96	17.8	4-4-19 16:30	1.39	741	7.87	9.9	4-4-19 16:30	4.45	1176	7.87	13.6						7-5-19 9:15	20.22	1553	8.35	20.7					
4-4-19 17:15	0.09	1107	7.96	18.0	4-4-19 16:45	1.39	741	7.87	9.6	4-4-19 16:45	4.44	1176	7.86	13.1						7-5-19 9:30	20.17	1552	8.36	17.9					
4-4-19 17:30	0.09	1107	7.96	10.9	4-4-19 17:00	1.38	742	7.87	9.8	4-4-19 17:00	4.38	1176	7.86	13.4						7-5-19 9:45	20.17	1553	8.35	20.0					
4-4-19 17:45	0.07	1107	7.96	10.8	4-4-19 17:15	1.36	741	7.87	10.0	4-4-19 17:15	4.28	1164	7.87	13.5						7-5-19 10:00	20.12	1552	8.35	18.3					
4-4-19 18:00	0.07	1106	7.96	10.9	4-4-19 17:30	1.35	740	7.87	9.9	4-4-19 17:30	4.20	1171	7.87	14.2						7-5-19 10:15	20.03	1553	8.35	20.6					
4-4-19 18:15	0.06	1107	7.96	11.4	4-4-19 17:45	1.33	740	7.87	10.1	4-4-19 17:45	4.13	1172	7.87	13.2						7-5-19 10:30	20.03	1552	8.35	17.3					
4-4-19 18:30	0.07	1102	7.97	9.4	4-4-19 18:00	1.30	740	7.87	10.0	4-4-19 18:00	4.21	1173	7.87	12.9						7-5-19 10:45	20.02	1553	8.35	20.3					
4-4-19 18:45	0.09	1100	7.97	8.9	4-4-19 18:15	1.26	740	7.87	10.1	4-4-19 18:15	4.13	1173	7.87	13.4						7-5-19 11:00	19.98	1552	8.35	18.3					
4-4-19 19:00	0.11	1099	7.97	8.4	4-4-19 18:30	1.22	740	7.87	10.3	4-4-19 18:30	4.15	1174	7.87	13.5						7-5-19 11:15	19.96	1552	8.34	23.4					
4-4-19 19:15	0.17	1093	7.98	8.2	4-4-19 18:45	1.18	741	7.87	10.0	4-4-19 18:45	4.14	1175	7.86	13.3						7-5-19 11:30	19.91	1551	8.35	21.2					
4-4-19 19:30	0.18	1090	7.98	8.0	4-4-19 19:00	1.15	742	7.87	10.3	4-4-19 19:00	4.10	1175	7.87	13.8						7-5-19 11:45	19.87	1552	8.35	22.7					
4-4-19 19:45	0.19	1092	7.99	8.0	4-4-19 19:15	1.10	742	7.87	10.1	4-4-19 19:15	4.09	1175	7.87	13.2						7-5-19 12:00	19.82	1551	8.35	22.2					
4-4-19 20:00	0.21	1090	7.99	8.0	4-4-19 19:30	1.04	745	7.87	9.9	4-4-19 19:30	4.08	1177	7.87	13.1						7-5-19 12:15	19.80	1553	8.34	24.4					
4-4-19 20:15	0.23	1087	7.99	8.3	4-4-19 19:45	0.97	749	7.87	9.6	4-4-19 19:45	4.06	1177	7.88	13.2						7-5-19 12:30	19.77	1550	8.35	21.9					
4-4-19 20:30	0.24	1089	7.99	8.1	4-4-19 20:00	0.92	750	7.87	9.5	4-4-19 20:00	4.03	1178	7.87	13.6						7-5-19 12:45	19.75	1552	8.35	23.6					
4-4-19 20:45	0.25	1087	7.99	8.2	4-4-19 20:15	0.87	751	7.87	9.0	4-4-19 20:15	3.99	1182	7.87	13.7						7-5-19 13:00	19.71	1550	8.35	20.8					
4-4-19 21:00	0.26	1087	7.99	8.1	4-4-19 20:30	0.83	751	7.88	8.6	4-4-19 20:30	3.98	1179	7.87	12.9						7-5-19 13:15	19.72	1552	8.35	24.5					
4-4-19 21:15	0.26	1082	7.99	7.7	4-4-19 20:45	0.79	752	7.88	8.6	4-4-19 20:45	3.84	1178	7.87	13.2						7-5-19 13:30	19.67	1550	8.35	22.2					
4-4-19 21:30	0.28	1088	7.99	7.6	4-4-19 21:00	0.76	752	7.88	9.0	4-4-19 21:00	4.00	1178	7.87	13.6						7-5-19 13:45	19.71	1551	8.35	24.0					
4-4-19 21:45	0.29	1089	7.98	7.7	4-4-19 21:15	0.72	753	7.88	9.3	4-4-19 21:15	4.02	1179	7.87	14.4						7-5-19 14:00	19.71	1550	8.35	21.7					
4-4-19 22:00	0.30	1093	7.97	7.5	4-4-19 21:30	0.68	753	7.88	9.5	4-4-19 21:30	4.13	1180	7.86	14.0						7-5-19 14:15	19.68	1552	8.34	24.1					
4-4-19 22:15	0.31	1096	7.96	7.9	4-4-19 21:45	0.66	753	7.88	9.3	4-4-19 21:45	4.02	1179	7.87	13.8						7-5-19 14:30	19.68	1550	8.35	20.7					
4-4-19 22:30	0.31	1087	7.98	7.6	4-4-19 22:00	0.62	754	7.88	9.5	4-4-19 22:00	3.91	1181	7.87	13.3						7-5-19 14:45	19.69	1551	8.35	24.4					
4-4-19 22:45	0.31	1088	7.98	7.4	4-4-19 22:15	0.61	754	7.88	9.5	4-4-19 22:15	3.86	1180	7.88	13.2						7-5-19 15:00	19.71	1552	8.35	20.9					
4-4-19 23:00	0.32	1092	7.97	7.7	4-4-19 22:30	0.58	755	7.88	9.3	4-4-19 22:30	3.90	1182	7.87	13.0						7-5-19 15:15	19.71	1551	8.36	23.1					
4-4-19 23:15	0.33	1097	7.97	7.8	4-4-19 22:45	0.57	754	7.88	9.5	4-4-19 22:45	3.90	1179	7.87	14.1						7-5-19 15:30	19.80	1549	8.36	21.2					
4-4-19 23:30	0.31	1115	7.95	8.4	4-4-19 23:00	0.56	754	7.88	9.0	4-4-19 23:00	3.87	1178	7.87	13.8						7-5-19 15:45	19.92	1546	8.37	23.2					
4-4-19 23:45	0.33	1122	7.93	8.4	4-4-19 23:15	0.54	754	7.88	9.1	4-4-19 23:15	3.75	1178	7.87	13.6						7-5-19 16:00	19.99	1535	8.37	20.9					
4-5-19 0:00	0.34	1109	7.95	7.7	4-4-19 23:30	0.53	754	7.88	9.2	4-4-19 23:30	3.69	1178	7.87	13.8						7-5-19 16:15	20.04	1529	8.38	23.6					
4-5-19 0:15	0.31	1101	7.96	7.5	4-4-19 23:45	0.52	754	7.88	9.0	4-4-19 23:45	3.72	1175	7.88	12.5						7-5-19 16:30	20.17	1528	8.38	21.6					
4-5-19 0:30	0.28	1106	7.97	7.2	4-5-19 0:00	0.50	754	7.88	8.9	4-5-19 0:00	3.65	1177	7.88	12.9						7-5-19 16:45	20.31	1529	8.38	23.3					
4-5-19 0:45	0.33	1122	7.96	7.3	4-5-19 0:15	0.49	754	7.88	9.0	4-5-19 0:15	3.53	1177	7.88	12.4						7-5-19 17:00	20.53	1528	8.38	21.8					
4-5-19 1:00	0.36	1128	7.95	6.8	4-5-19 0:30	0.48	753	7.88	9.0	4-5-19 0:30	3.47	1175	7.89	12.2						7-5-19 17:15	20.71	1532	8.38	24.9					
4-5-19 1:15	0.38	1138	7.95	6.9	4-5-19 0:45	0.48	753	7.88	9.2	4-5-19 0:45	3.63	1178	7.88	13.2						7-5-19 17:30	20.91	1529	8.38	22.5					
4-5-19 1:30	0.39	1140	7.95	7.0	4-5-19 1:00	0.46	753	7.89	9.4	4-5-19 1:00	3.67	1179	7.88	13.4						7-5-19 17:45	21.03	1527	8.39	24.5					
4-5-19 1:45	0.41	1144	7.95	6.7	4-5-19 1:15	0.46	752	7.88	9.5	4-5-19 1:15	3.74	1179	7.88	14.5						7-5-19 18:00	21.11	1527	8.38	21.9					
4-5-19 2:00	0.44	1150	7.95	7.4	4-5-19 1:30	0.45	752	7.88	9.5	4-5-19 1:30	3.73	1180	7.87	15.0						7-5-19 18:15	21.24	1528	8.38	23.9					
4-5-19 2:15	0.45	1132	7.96	7.1	4-5-19 1:45	0.45	752	7.88	9.8	4-5-19 1:45	3.74	1181	7.87	14.3						7-5-19 18:30	21.44	1522	8.39	26.2					
4-5-19 2:30	0.46	1143	7.95	7.1	4-5-19 2:00	0.44	751	7.88	9.8	4-5-19 2:00	3.82	1183	7.87	14.8						7-5-19 18:45	21.80	1519	8.39	27.7					
4-5-19 2:45	0.47	1154	7.94	7.1	4-5-19 2:15	0.43	751	7.88	9.7	4-5-19 2:15	3.83	1184	7.87	14.4						7-5-19 19:00	21.79	1523	8.39	27.7					
4-5-19 3:00	0.42	1170	7.94	8.0	4-5-19 2:30	0.43	751	7.88	9.7	4-5-19 2:30	3.82	1184	7.87	15.0						7-5-19 19:15	22.23	1527	8.39	25.1					
4-5-19 3:15	0.44	1173	7.95	7.7	4-5-19 2:45	0.43	750	7.88	9.7	4-5-19 2:45	3.73	1183	7.87	14.6						7-5-19 19:30	22.48	1528	8.39	24.2					
4-5-19 3:30	0.50	1159	7.96	7.4	4-5-19 3:00	0.43	750	7.88	10.0	4-5-19 3:00	3.66	1182	7.87	14.4						7-5-19 19:45	22.54	1519	8.38	25.7					
4-5-19 3:45	0.49	1157	7.97	6.8	4-5-19 3:15	0.42	750	7.88	9.7	4-5-19 3:15	3.63	1184	7.87	13.9						7-5-19 20:00	22.78	1527	8.38	25.3					
4-5-19 4:00	0.48	1170	7.96	7.7	4-5-19 3:30	0.41	749	7.89	9.7	4-5-19 3:30	3.67	1187	7.87	15.8						7-5-19 20:15	22.30	1519	8.38	27.4					
4-5-19 4:15	0.41	1186	7.96	8.1	4-5-19 3:45	0.42	749	7.88	9.8	4-5-19 3:45	3.66	1183	7.87	15.4						7-5-19 20:30	22.90	1526	8.38	22.5					
4-5-19 4:30	0.40	1183	7.97	7.5	4-5-19 4:00	0.42	749	7.88	9.7	4-5-19 4:00	3.67	1185	7.87	15.2						7-5-19 20:45	22.84	1522	8.38	26.7					
4-5-19 4:45	0.47	1172	7.98	7.4	4-5-19 4:15	0.41	749	7.88	9.5	4-5-19 4:15	3.63	1185	7.87	14.3						7-5-19 21:00	22.75	1520	8.39	26.0					
4-5-19 5:00	0.49	1175	7.99	6.9	4-5-19 4:30	0.40	748	7.89	9.6	4-5-19 4:30	3.58	1186	7.87	15.3						7-5-19 21:15	23.08	1523	8.38	29.4					
4-5-19 5:15	0.45	1185	7.96	6.3	4-5-19 4:45	0.41	748	7.88	9.4	4-5-19 4:45	3.56	1187	7.86	16.4						7-5-19 21:30	23.28	1520	8.38	23.7					
4-5-19 5:30	0.37	1198	7.95	6.8	4-5-19 5:00	0.40	748	7.88	9.6	4-5-19 5:00	3.54	1187	7.87	17.0						7-5-19 21:45	23.46	1523	8.38	24.6					
4-5-19 5:45	0.38	1195	7.95	6.7	4-5-19 5:15	0.40	748	7.88	9.9	4-5-19 5:15	3.58	1187	7.86	16.8						7-5-19 22:00	23.82	1518	8.39	24.8					
4-5-19 6:00	0.40	1190	7.97	7.0	4-5-19 5:30	0.39	748	7.88	10.0	4-5-19 5:30	3.56	1188	7.86	16.9						7-5-19 22:15	23.79	1521	8.39	27.1					
4-5-19 6:15	0.44	1188	7.97	7.3	4-5-19 5:45	0.38	750	7.88	10.1	4-5-19 5:45	3.56	1188	7.86	17.5						7-5-19 22:30	23.88	1521	8.39	23.4					
4-5-19 6:30	0.46	1186	7.98	6.8	4-5-19 6:00	0.35	754	7.88	10.1	4-5-19 6:00	3.61	1188	7.86	17.6						7-5-19 22:45	24.04	1531	8.39	28.9					
4-5-19 6:45	0.40	1196	7.97	7.0	4-5-19 6:15	0.32	754	7.88	8.7	4-5-19 6:15	3.61	1189	7.86	17.5						7-5-19 23:00	23.86	1519	8.39	27.7					
4-5-19 7:00	0.37	1200	7.97	7.0	4-5-19 6:30	0.31	754	7.88	9.0	4-5-19 6:30	3.58	1190	7.86	16.7						7-5-19 23:15	23.83	1519	8.40	26.0					
4-5-19 7:15	0.37	1201	7.97	6.9	4-5-19 6:45	0.31	755	7.88	8.1	4-5-19 6:45	3.60	1191	7.86	22.0						7-5-19 23:30	23.64	1521	8.39	23.4					
4-5-19 7:30	0.39	1203	7.96	7.2	4-5-19 7:00	0.31	755	7.88	8.0	4-5-19 7:00	3.60	1190	7.85	20.4						7-5-19 23:45	23.58	1523	8.40	26.5					
4-5-19 7:45	0.38	1209	7.96	7.1	4-5-19 7:15	0.31	754	7.88	7.5	4-5-19 7:15										7-6-19 0:00	23.58	1511	8.41	23.1					
4-5-19 8:00	0.44	1198	7.97	7.2	4-5-19 7:30	0.31	755	7.88	8.8	4-5-19 7:30	3.57	1191	7.85	21.2						7-6-19 0:15	23.54	1512	8.41	23.8					
4-5-19 8:15	0.45	1197	7.97	6.8	4-5-19 7:45	0.30	755	7.88	7.1	4-5-19 7:45	3.64	1192	7.85	18.0						7-6-19 0:30	23.47	1515	8.41	22.8					
4-5-19 8:30	0.45	1200	7.97	7.1	4-5-19 8:00	0.30	756	7.88	6.8	4-5-19 8:00	3.61	1192	7.86	19.9						7-6-19 0:45	23.52	1516	8.42	24.0					
4-5-19 8:45	0.45	1201	7.96	7.1	4-5-19 8:15	0.30	757	7.88	6.6	4-5-19 8:15	3.59	1191	7.86	17.2						7-6-19 1:00	23.48	1513	8.42	21.3					
4-5-19 9:00	0.43	1202	7.96	6.6	4-5-19 8:30	0.30	756	7.88	7.6	4-5-19 8:30	3.61	1194	7.85	20.7						7-6-19 1:15	23.41	1513	8.42	23.8					
4-5-19 9:15	0.41	1208	7.96	6.5	4-5-19 8:45	0.32	754	7.88	6.5	4-5-19 8:45	3.64	1192	7.85	21.3						7-6-19 1:30	23.36	1520	8.42	23.1					
4-5-19 9:30	0.42	1210	7.96	6.8	4-5-19 9:00	0.33	755	7.88	6.5	4-5-19 9:00	3.63	1192	7.85	21.1						7-6-19 1:45	23.32	1519	8.42	22.5					
4-5-19 9:45	0.40	1209	7.96	6.3	4-5-19 9:15	0.35	753	7.88	6.8	4-5-19 9:15	3.63	1193	7.85	20.1						7-6-19 2:00	23.25	1511	8.42	21.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-5-19 10:00	0.37	1215	7.95	6.4	4-5-19 9:30	0.36	754	7.88	5.7	4-5-19 9:30	3.69	1194	7.85	21.9						7-6-19 2:15	23.14	1516	8.42	23.6					
4-5-19 10:15	0.35	1221	7.95	6.3	4-5-19 9:45	0.39	754	7.88	4.7	4-5-19 9:45	3.73	1195	7.85	19.9						7-6-19 2:30	23.10	1513	8.42	22.1					
4-5-19 10:30	0.35	1228	7.95	6.5	4-5-19 10:00	0.40	754	7.88	5.1	4-5-19 10:00	3.74	1194	7.85	22.3						7-6-19 2:45	23.04	1514	8.42	22.5					
4-5-19 10:45	0.34	1234	7.94	6.5	4-5-19 10:15	0.41	753	7.88	6.1	4-5-19 10:15	3.73	1195	7.85	19.4						7-6-19 3:00	23.04	1514	8.42	20.8					
4-5-19 11:00	0.33	1233	7.94	6.4	4-5-19 10:30	0.43	753	7.88	7.1	4-5-19 10:30	3.71	1195	7.85	19.3						7-6-19 3:15	22.92	1518	8.42	22.8					
4-5-19 11:15	0.32	1236	7.93	6.5	4-5-19 10:45	0.45	753	7.87	9.2	4-5-19 10:45	3.72	1195	7.85	22.0						7-6-19 3:30	22.74	1514	8.43	21.9					
4-5-19 11:30	0.32	1235	7.93	6.4	4-5-19 11:00	0.46	753	7.87	7.6	4-5-19 11:00	3.74	1197	7.85	21.8						7-6-19 3:45	22.68	1517	8.42	22.1					
4-5-19 11:45	0.31	1236	7.92	6.7	4-5-19 11:15	0.48	753	7.87	7.9	4-5-19 11:15	3.75	1194	7.85	22.4						7-6-19 4:00	22.63	1517	8.41	19.6					
4-5-19 12:00	0.32	1240	7.91	7.1	4-5-19 11:30	0.50	754	7.87	8.6	4-5-19 11:30	3.75	1196	7.85	20.2						7-6-19 4:15	22.54	1518	8.41	22.2					
4-5-19 12:15	0.31	1244	7.91	6.9	4-5-19 11:45	0.51	754	7.88	8.7	4-5-19 11:45	3.78	1196	7.85	19.8						7-6-19 4:30	22.50	1519	8.41	19.2					
4-5-19 12:30	0.31	1247	7.90	7.4	4-5-19 12:00	0.53	755	7.87	8.4	4-5-19 12:00	3.76	1197	7.85	20.2						7-6-19 4:45	22.45	1520	8.40	21.3					
4-5-19 12:45	0.31	1249	7.90	7.2	4-5-19 12:15	0.55	754	7.87	8.5	4-5-19 12:15	3.80	1198	7.85	21.1						7-6-19 5:00	22.30	1515	8.40	18.6					
4-5-19 13:00	0.31	1251	7.89	7.1	4-5-19 12:30	0.57	755	7.88	9.1	4-5-19 12:30	3.82	1197	7.85	19.8						7-6-19 5:15	22.18	1516	8.40	22.0					
4-5-19 13:15	0.31	1254	7.90	6.7	4-5-19 12:45	0.58	755	7.87	10.8	4-5-19 12:45	3.77	1198	7.85	19.6						7-6-19 5:30	22.08	1517	8.41	19.1					
4-5-19 13:30	0.26	1218	7.86	45.1	4-5-19 13:00	0.59	755	7.87	9.4	4-5-19 13:00	3.79	1196	7.85	19.3						7-6-19 5:45	22.01	1518	8.40	20.2					
4-5-19 13:45	0.31	1257	7.89	8.2	4-5-19 13:15	0.61	755	7.87	10.2	4-5-19 13:15	3.84	1196	7.85	20.2						7-6-19 6:00	21.96	1518	8.40	17.5					
4-5-19 14:00	0.30	1265	7.89	7.0	4-5-19 13:30	0.63	755	7.87	11.0	4-5-19 13:30	3.88	1190	7.85	20.1						7-6-19 6:15	21.87	1519	8.39	19.5					
4-5-19 14:15	0.29	1268	7.88	6.9	4-5-19 13:45	0.65	755	7.87	11.2	4-5-19 13:45	3.92	1196	7.84	20.1						7-6-19 6:30	21.80	1518	8.40	16.9					
4-5-19 14:30	0.24	1270	7.84	10.7	4-5-19 14:00	0.66	755	7.88	10.2	4-5-19 14:00	3.92	1195	7.84	20.4						7-6-19 6:45	21.73	1519	8.39	19.2					
4-5-19 14:45	0.21	1270	7.79	16.3	4-5-19 14:15	0.67	755	7.88	10.3	4-5-19 14:15	3.93	1196	7.84	19.9						7-6-19 7:00	21.65	1519	8.39	16.5					
4-5-19 15:00	0.19	1270	7.79	14.8	4-5-19 14:30	0.68	753	7.87	11.0	4-5-19 14:30	3.94	1196	7.84	22.1						7-6-19 7:15	21.55	1519	8.38	19.7					
4-5-19 15:15	0.19	1272	7.80	15.6	4-5-19 14:45	0.68	751	7.88	11.9	4-5-19 14:45	3.91	1193	7.84	21.9						7-6-19 7:30	21.48	1519	8.39	17.0					
4-5-19 15:30	0.19	1273	7.81	14.5	4-5-19 15:00	0.67	749	7.88	13.0	4-5-19 15:00	3.92	1193	7.84	22.1						7-6-19 7:45	21.43	1520	8.39	19.9					
4-5-19 15:45	0.19	1271	7.82	14.1	4-5-19 15:15	0.70	740	7.88	19.7	4-5-19 15:15	3.94	1193	7.83	21.1						7-6-19 8:00	21.39	1519	8.38	17.0					
4-5-19 16:00	0.18	1272	7.82	13.5	4-5-19 15:30	0.72	732	7.89	24.0	4-5-19 15:30	3.88	1194	7.85	22.2						7-6-19 8:15	21.33	1521	8.38	19.5					
4-5-19 16:15	0.17	1273	7.82	13.0	4-5-19 15:45	0.77	720	7.89	29.0	4-5-19 15:45	3.91	1194	7.85	20.7						7-6-19 8:30	21.28	1520	8.38	15.9					
4-5-19 16:30	0.18	1273	7.83	12.9	4-5-19 16:00	0.77	720	7.90	26.3	4-5-19 16:00	3.94	1195	7.84	19.7						7-6-19 8:45	21.24	1521	8.38	18.8					
4-5-19 16:45	0.17	1274	7.83	12.3	4-5-19 16:15	0.70	729	7.90	22.3	4-5-19 16:15	3.89	1198	7.85	19.5						7-6-19 9:00	21.16	1520	8.38	16.3					
4-5-19 17:00	0.15	1272	7.83	13.2	4-5-19 16:30	0.61	738	7.89	15.6	4-5-19 16:30	3.93	1198	7.85	21.3						7-6-19 9:15	21.09	1520	8.38	18.6					
4-5-19 17:15	0.14	1274	7.84	12.7	4-5-19 16:45	0.56	742	7.89	14.2	4-5-19 16:45	3.95	1188	7.85	22.8						7-6-19 9:30	21.05	1519	8.37	15.8					
4-5-19 17:30	0.13	1274	7.84	12.5	4-5-19 17:00	0.53	744	7.88	13.1	4-5-19 17:00	3.97	1202	7.85	23.8						7-6-19 9:45	20.95	1520	8.37	19.0					
4-5-19 17:45	0.12	1274	7.84	11.8	4-5-19 17:15	0.53	742	7.89	13.9	4-5-19 17:15	3.98	1193	7.85	21.4						7-6-19 10:00	20.93	1519	8.37	16.0					
4-5-19 18:00	0.11	1277	7.84	12.3	4-5-19 17:30	0.53	744	7.89	14.3	4-5-19 17:30	3.96	1192	7.85	20.4						7-6-19 10:15	20.85	1520	8.37	18.8					
4-5-19 18:15	0.10	1277	7.84	12.0	4-5-19 17:45	0.53	744	7.89	13.4	4-5-19 17:45	3.94	1195	7.85	20.8						7-6-19 10:30	20.84	1520	8.38	15.6					
4-5-19 18:30	0.08	1275	7.84	11.8	4-5-19 18:00	0.56	741	7.89	13.4	4-5-19 18:00	3.93	1197	7.85	21.3						7-6-19 10:45	20.79	1520	8.37	19.4					
4-5-19 18:45	0.08	1276	7.85	11.5	4-5-19 18:15	0.59	740	7.89	13.7	4-5-19 18:15	3.93	1195	7.85	22.3						7-6-19 11:00	20.76	1519	8.37	15.7					
4-5-19 19:00	0.07	1277	7.85	11.2	4-5-19 18:30	0.63	729	7.89	55.5	4-5-19 18:30	3.93	1197	7.85	18.8						7-6-19 11:15	20.66	1520	8.37	19.3					
4-5-19 19:15	0.11	1275	7.86	6.5	4-5-19 18:45	0.65	699	7.90	76.8	4-5-19 18:45	3.93	1195	7.85	20.6						7-6-19 11:30	20.60	1519	8.36	16.0					
4-5-19 19:30	0.09	1278	7.86	10.4	4-5-19 19:00	0.66	683	7.91	88.0	4-5-19 19:00	3.93	1194	7.85	20.8						7-6-19 11:45	20.54	1520	8.36	18.6					
4-5-19 19:45	0.11	1276	7.87	5.6	4-5-19 19:15	0.64	671	7.91	90.0	4-5-19 19:15	3.93	1196	7.85	21.6						7-6-19 12:00	20.51	1519	8.37	16.0					
4-5-19 20:00	0.08	1278	7.87	10.0	4-5-19 19:30	0.63	651	7.92	91.7	4-5-19 19:30	3.97	1195	7.85	22.2						7-6-19 12:15	20.49	1521	8.36	19.0					
4-5-19 20:15	0.11	1277	7.87	5.5	4-5-19 19:45	0.65	629	7.92	96.5	4-5-19 19:45	3.91	1192	7.85	16.6						7-6-19 12:30	20.45	1519	8.37	15.3					
4-5-19 20:30	0.16	1274	7.88	3.9	4-5-19 20:00	0.67	615	7.93	98.8	4-5-19 20:00	3.74	1174	7.86	18.2						7-6-19 12:45	20.40	1521	8.37	19.1					
4-5-19 20:45	0.20	1270	7.89	3.8	4-5-19 20:15	0.66	604	7.93	101.4	4-5-19 20:15	3.94	1197	7.86	20.8						7-6-19 13:00	20.35	1519	8.37	15.6					
4-5-19 21:00	0.23	1270	7.89	4.0	4-5-19 20:30	0.66	593	7.93	109.1	4-5-19 20:30	3.98	1196	7.86	20.8						7-6-19 13:15	20.30	1520	8.37	18.8					
4-5-19 21:15	0.24	1270	7.89	4.1	4-5-19 20:45	0.68	580	7.93	107.3	4-5-19 20:45	3.95	1194	7.87	22.5						7-6-19 13:30	20.24	1520	8.37	15.8					
4-5-19 21:30	0.24	1270	7.89	3.9	4-5-19 21:00	0.68	570	7.93	112.6	4-5-19 21:00	3.96	1191	7.86	19.8						7-6-19 13:45	20.31	1521	8.37	18.9					
4-5-19 21:45	0.25	1268	7.89	3.9	4-5-19 21:15	0.70	565	7.92	120.6	4-5-19 21:15	3.99	1193	7.86	20.2						7-6-19 14:00	20.31	1519	8.38	16.1					
4-5-19 22:00	0.30	1274	7.88	4.2	4-5-19 21:30	0.69	567	7.92	125.9	4-5-19 21:30	3.94	1193	7.86	17.8						7-6-19 14:15	20.28	1521	8.37	19.6					
4-5-19 22:15	0.31	1272	7.88	4.2	4-5-19 21:45	0.64	572	7.91	117.8	4-5-19 21:45	3.75	1194	7.90	18.8						7-6-19 14:30	20.29	1519	8.38	16.0					
4-5-19 22:30	0.26	1269	7.89	3.8	4-5-19 22:00	0.59	582	7.92	105.8	4-5-19 22:00	3.84	1193	7.87	19.3						7-6-19 14:45	20.27	1520	8.38	17.5					
4-5-19 22:45	0.23	1272	7.89	4.0	4-5-19 22:15	0.57	575	7.92	108.2	4-5-19 22:15	3.81	1194	7.86	18.2						7-6-19 15:00	20.27	1519	8.39	16.5					
4-5-19 23:00	0.21	1273	7.89	3.6	4-5-19 22:30	0.53	572	7.91	109.5	4-5-19 22:30	3.82	1192	7.87	19.2						7-6-19 15:15	20.33	1520	8.39	19.0					
4-5-19 23:15	0.24	1274	7.88	3.6	4-5-19 22:45	0.48	576	7.91	101.6	4-5-19 22:45	3.89	1194	7.86	18.8						7-6-19 15:30	20.38	1518	8.39	16.6					
4-5-19 23:30	0.29	1275	7.88	4.2	4-5-19 23:00	0.41	584	7.91	97.9	4-5-19 23:00	3.90	1193	7.86	20.3						7-6-19 15:45	20.44	1520	8.39	19.3					
4-5-19 23:45	0.33	1282	7.86	4.5	4-5-19 23:15	0.33	590	7.91	89.9	4-5-19 23:15	3.88	1194	7.86	21.9						7-6-19 16:00	20.51	1519	8.39	16.6					
4-6-19 0:00	0.38	1280	7.87	4.4	4-5-19 23:30	0.30	596	7.91	70.3	4-5-19 23:30	3.81	1191	7.86	18.4						7-6-19 16:15	20.58	1520	8.38	18.7					
4-6-19 0:15	0.40	1285	7.87	4.7	4-5-19 23:45	0.31	593	7.91	69.1	4-5-19 23:45	3.89	1202	7.86	17.0						7-6-19 16:30	20.64	1518	8.39	17.1					
4-6-19 0:30	0.38	1284	7.84	4.6	4-6-19 0:00					4-6-19 0:00	3.72	1193	7.86	17.5						7-6-19 16:45	20.74	1520	8.39	19.5					
4-6-19 0:45	0.39	1284	7.85	4.3	4-6-19 0:15	0.34	576	7.92	78.4	4-6-19 0:15	3.73	1193	7.86	17.0						7-6-19 17:00	20.96	1520	8.39	17.0					
4-6-19 1:00	0.38	1285	7.86	3.9	4-6-19 0:30	0.35	570	7.92	92.1	4-6-19 0:30	3.53	1189	7.87	16.8						7-6-19 17:15	21.16	1521	8.39	19.1					
4-6-19 1:15	0.38	1291	7.87	4.0	4-6-19 0:45	0.33	575	7.92	91.5	4-6-19 0:45	3.62	1194	7.87	18.8						7-6-19 17:30	21.23	1518	8.39	16.5					
4-6-19 1:30	0.38	1286	7.88	3.5	4-6-19 1:00	0.31	578	7.92	82.1	4-6-19 1:00	3.71	1191	7.86	20.0						7-6-19 17:45	21.36	1521	8.38	18.2					
4-6-19 1:45	0.37	1290	7.88	4.2	4-6-19 1:15	0.31	574	7.92	88.3	4-6-19 1:15	3.64	1173	7.86	15.9						7-6-19 18:00	21.70	1521	8.38	17.1					
4-6-19 2:00	0.37	1291	7.88	4.2	4-6-19 1:30	0.31	569	7.92	93.9	4-6-19 1:30	3.47	1192	7.88	17.7						7-6-19 18:15	22.02	1524	8.37	18.5					
4-6-19 2:15	0.38	1294	7.87	3.9	4-6-19 1:45	0.31	560	7.92	90.7	4-6-19 1:45	3.59	1189	7.87	18.3						7-6-19 18:30	22.06	1522	8.38	16.7					
4-6-19 2:30	0.39	1298	7.86	4.0	4-6-19 2:00	0.31	557	7.92	89.8	4-6-19 2:00	3.27	1185	7.88	16.2						7-6-19 18:45	22.20	1520	8.38	18.7					
4-6-19 2:45	0.39	1298	7.87	3.9	4-6-19 2:15	0.33	541	7.92	106.2	4-6-19 2:15	3.32	1190	7.89	17.6						7-6-19 19:00	22.57	1523	8.38	17.3					
4-6-19 3:00	0.39	1301	7.88	3.9	4-6-19 2:30	0.32	537	7.92	99.1	4-6-19 2:30	3.22	1181	7.89	15.4						7-6-19 19:15	22.69	1525	8.37	19.3					
4-6-19 3:15	0.39	1301	7.88	3.7	4-6-19 2:45	0.31	536	7.92	101.6	4-6-19 2:45	3.33	1195	7.89	16.9						7-6-19 19:30	22.82	1520	8.38	16.5					
4-6-19 3:30	0.40	1304	7.88	3.9	4-6-19 3:00	0.31	527	7.91	108.0	4-6-19 3:00	3.54	1190	7.88	18.2						7-6-19 19:45	22.89	1522	8.37	19.3					
4-6-19 3:45	0.43	1303	7.87	4.4	4-6-19 3:15	0.34	509	7.91	126.6	4-6-19 3:15	3.52	1195	7.89	19.1						7-6-19 20:00	23.25	1523	8.38	17.5					
4-6-19 4:00	0.46	1305	7.88	5.1	4-6-19 3:30	0.36	497	7.90	135.8	4-6-19 3:30	3.55	1196	7.88	18.6						7-6-19 20:15	23.37	1524	8.38	19.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-6-19 4:15	0.46	1307	7.91	5.1	4-6-19 3:45	0.37	482	7.90	153.3	4-6-19 3:45	3.67	1195	7.88	18.8						7-6-19 20:30	22.99	1519	8.38	16.7					
4-6-19 4:30	0.45	1305	7.91	5.2	4-6-19 4:00	0.37	467	7.90	174.2	4-6-19 4:00	3.70	1195	7.88	18.0						7-6-19 20:45	23.04	1520	8.37	19.0					
4-6-19 4:45	0.43	1307	7.90	5.1	4-6-19 4:15	0.38	450	7.89	190.3	4-6-19 4:15	3.69	1194	7.88	19.1						7-6-19 21:00	23.19	1536	8.38	16.8					
4-6-19 5:00	0.42	1308	7.90	5.1	4-6-19 4:30	0.41	437	7.88	194.1	4-6-19 4:30	3.19	1174	7.90	16.4						7-6-19 21:15	24.15	1526	8.38	19.2					
4-6-19 5:15	0.41	1311	7.91	4.9	4-6-19 4:45	0.45	419	7.89	198.0	4-6-19 4:45	3.41	1189	7.88	18.0						7-6-19 21:30	24.12	1520	8.38	18.0					
4-6-19 5:30	0.40	1312	7.91	4.7	4-6-19 5:00	0.49	410	7.89	192.6	4-6-19 5:00	3.47	1186	7.88	18.6						7-6-19 21:45	24.09	1524	8.38	19.7					
4-6-19 5:45	0.42	1311	7.91	4.7	4-6-19 5:15	0.54	410	7.88	180.3	4-6-19 5:15	3.44	1191	7.89	17.9						7-6-19 22:00	23.92	1522	8.38	19.8					
4-6-19 6:00	0.42	1311	7.90	4.4	4-6-19 5:30	0.54	412	7.88	173.5	4-6-19 5:30	3.37	1183	7.91	18.8						7-6-19 22:15	24.57	1530	8.39	20.3					
4-6-19 6:15	0.41	1309	7.90	4.5	4-6-19 5:45	0.53	414	7.88	170.8	4-6-19 5:45	3.34	1185	7.92	16.8						7-6-19 22:30	24.40	1524	8.38	22.1					
4-6-19 6:30	0.40	1313	7.90	4.0	4-6-19 6:00	0.51	414	7.88	171.2	4-6-19 6:00	3.11	1182	7.92	16.7						7-6-19 22:45	24.75	1505	8.38	21.7					
4-6-19 6:45	0.41	1323	7.91	4.0	4-6-19 6:15	0.50	413	7.88	174.9	4-6-19 6:15	3.27	1181	7.91	17.4						7-6-19 23:00	24.65	1524	8.38	18.4					
4-6-19 7:00	0.41	1325	7.92	4.1	4-6-19 6:30	0.48	412	7.88	180.4	4-6-19 6:30	3.01	1184	7.92	16.2						7-6-19 23:15	24.86	1522	8.39	20.4					
4-6-19 7:15	0.41	1327	7.93	3.7	4-6-19 6:45	0.47	407	7.88	182.0	4-6-19 6:45	3.05	1192	7.92	18.8						7-6-19 23:30	24.96	1531	8.39	16.2					
4-6-19 7:30	0.40	1327	7.93	3.9	4-6-19 7:00	0.50	397	7.88	190.5	4-6-19 7:00	3.22	1201	7.91	18.4						7-6-19 23:45	25.00	1510	8.39	19.2					
4-6-19 7:45	0.38	1331	7.93	4.4	4-6-19 7:15					4-6-19 7:15	3.23	1192	7.91	17.5						7-7-19 0:00	25.13	1530	8.39	14.5					
4-6-19 8:00	0.37	1328	7.92	3.9	4-6-19 7:30	0.56	385	7.88	207.2	4-6-19 7:30	3.22	1187	7.91	17.4						7-7-19 0:15	25.06	1524	8.39	17.0					
4-6-19 8:15	0.36	1325	7.92	3.6	4-6-19 7:45	0.57	382	7.87	202.9	4-6-19 7:45	3.19	1189	7.91	16.5						7-7-19 0:30	25.03	1529	8.40	20.9					
4-6-19 8:30	0.35	1324	7.92	3.9	4-6-19 8:00	0.55	380	7.87	211.9	4-6-19 8:00	3.21	1192	7.91	17.6						7-7-19 0:45	24.90	1544	8.40	18.4					
4-6-19 8:45	0.35	1325	7.92	3.4	4-6-19 8:15	0.50	381	7.87	214.8	4-6-19 8:15	3.22	1192	7.91	16.8						7-7-19 1:00	24.84	1522	8.40	18.4					
4-6-19 9:00	0.35	1319	7.92	3.3	4-6-19 8:30	0.47	390	7.88	204.6	4-6-19 8:30	3.26	1193	7.91	16.8						7-7-19 1:15	24.82	1534	8.40	16.5					
4-6-19 9:15	0.33	1317	7.92	8.9	4-6-19 8:45	0.48	395	7.88	207.7	4-6-19 8:45	3.25	1192	7.90	17.3						7-7-19 1:30	24.78	1526	8.40	16.2					
4-6-19 9:30	0.33	1314	7.92	3.5	4-6-19 9:00	0.51	417	7.90	178.9	4-6-19 9:00	3.28	1193	7.91	16.2						7-7-19 1:45	24.71	1539	8.40	16.8					
4-6-19 9:45	0.33	1314	7.93	3.3	4-6-19 9:15	0.54	433	7.90	152.2	4-6-19 9:15	3.34	1195	7.91	16.1						7-7-19 2:00	24.63	1528	8.40	15.7					
4-6-19 10:00	0.33	1318	7.92	3.5	4-6-19 9:30	0.58	441	7.90	127.5	4-6-19 9:30	3.47	1195	7.90	15.8						7-7-19 2:15	24.52	1534	8.39	15.4					
4-6-19 10:15	0.34	1325	7.92	4.5	4-6-19 9:45	0.66	438	7.91	140.2	4-6-19 9:45	3.58	1192	7.90	16.0						7-7-19 2:30	24.43	1524	8.40	15.9					
4-6-19 10:30	0.34	1315	7.92	10.5	4-6-19 10:00	0.76	432	7.91	129.5	4-6-19 10:00	3.62	1195	7.90	16.5						7-7-19 2:45	24.37	1524	8.39	17.0					
4-6-19 10:45	0.35	1332	7.90	4.6	4-6-19 10:15	0.86	431	7.91	140.6	4-6-19 10:15	3.68	1196	7.90	16.3						7-7-19 3:00	24.25	1525	8.40	17.0					
4-6-19 11:00	0.35	1333	7.89	4.8	4-6-19 10:30	0.97	420	7.91	136.8	4-6-19 10:30	3.74	1195	7.90	16.0						7-7-19 3:15	24.22	1527	8.40	16.4					
4-6-19 11:15	0.35	1332	7.89	4.4	4-6-19 10:45	1.08	418	7.91	152.7	4-6-19 10:45	3.83	1195	7.90	16.9						7-7-19 3:30	24.19	1525	8.40	16.9					
4-6-19 11:30	0.36	1331	7.88	4.5	4-6-19 11:00	1.17	412	7.91	145.1	4-6-19 11:00	3.83	1188	7.90	16.3						7-7-19 3:45	24.13	1525	8.40	15.7					
4-6-19 11:45	0.38	1329	7.88	4.7	4-6-19 11:15	1.21	414	7.90	146.6	4-6-19 11:15	3.88	1195	7.90	15.5						7-7-19 4:00	24.04	1522	8.40	15.8					
4-6-19 12:00	0.38	1331	7.88	4.7	4-6-19 11:30	1.25	410	7.91	156.8	4-6-19 11:30	3.94	1196	7.90	16.0						7-7-19 4:15	23.96	1524	8.39	14.3					
4-6-19 12:15	0.37	1329	7.87	4.9	4-6-19 11:45	1.28	418	7.90	145.2	4-6-19 11:45	3.91	1195	7.90	15.7						7-7-19 4:30	23.91	1525	8.40	13.3					
4-6-19 12:30	0.38	1332	7.87	4.7	4-6-19 12:00	1.30	421	7.91	152.1	4-6-19 12:00	3.96	1195	7.90	15.0						7-7-19 4:45	23.82	1526	8.40	13.9					
4-6-19 12:45	0.39	1329	7.87	4.5	4-6-19 12:15	1.31	417	7.93	157.5	4-6-19 12:15	3.96	1198	7.90	14.9						7-7-19 5:00	23.71	1527	8.40	12.7					
4-6-19 13:00	0.41	1329	7.87	4.9	4-6-19 12:30	1.36	410	7.94	165.5	4-6-19 12:30	2.91	1179	7.93	12.1						7-7-19 5:15	23.63	1528	8.40	14.3					
4-6-19 13:15	0.43	1327	7.87	4.6	4-6-19 13:00	1.47	411	7.90	167.5	4-6-19 13:00	4.19	1195	7.78	15.0						7-7-19 5:30	23.53	1525	8.39	13.5					
4-6-19 13:30	0.47	1322	7.88	4.0	4-6-19 13:15	1.59	413	7.93	165.1	4-6-19 13:15	4.40	1192	7.90	14.8						7-7-19 5:45	23.44	1527	8.39	13.7					
4-6-19 13:45	0.50	1321	7.90	3.6	4-6-19 13:30	1.69	407	7.93	167.2	4-6-19 13:30	4.29	1190	7.91	14.5						7-7-19 6:00	23.36	1525	8.40	13.3					
4-6-19 14:00	0.55	1315	7.93	3.8	4-6-19 13:45	1.81	398	7.94	174.4	4-6-19 13:45	4.47	1193	7.92	15.7						7-7-19 6:15	23.26	1526	8.39	14.5					
4-6-19 14:15	0.54	1322	7.89	3.7	4-6-19 14:00	1.93	399	7.93	170.6	4-6-19 14:00	4.51	1195	7.93	15.8						7-7-19 6:30	23.17	1523	8.40	13.4					
4-6-19 14:30	0.65	1314	7.93	3.2	4-6-19 14:15	2.06	400	7.93	170.7	4-6-19 14:15	4.65	1194	7.92	16.3						7-7-19 6:45	23.06	1525	8.40	14.1					
4-6-19 14:45	0.68	1311	7.94	2.8	4-6-19 14:30	2.19	397	7.93	173.4	4-6-19 14:30	4.76	1196	7.91	15.5						7-7-19 7:00	22.97	1525	8.39	13.2					
4-6-19 15:00	0.65	1313	7.93	2.8	4-6-19 14:45	2.25	396	7.93	172.9	4-6-19 14:45	4.94	1191	7.91	16.3						7-7-19 7:15	22.88	1524	8.40	14.5					
4-6-19 15:15	0.86	1293	7.94	2.2	4-6-19 15:00	2.28	392	7.93	173.1	4-6-19 15:00	4.53	1191	7.92	16.6						7-7-19 7:30	22.77	1523	8.40	13.6					
4-6-19 15:30	1.05	1287	7.93	7.8	4-6-19 15:15	2.45	393	7.93	167.0	4-6-19 15:15	4.84	1196	7.92	16.5						7-7-19 7:45	22.72	1524	8.39	13.9					
4-6-19 15:45	1.13	1280	7.89	7.0	4-6-19 15:30	2.56	388	7.92	165.3	4-6-19 15:30	4.75	1190	7.92	16.5						7-7-19 8:00	22.65	1522	8.40	13.6					
4-6-19 16:00	1.23	1258	7.91	4.8	4-6-19 15:45	2.66	391	7.93	160.4	4-6-19 15:45	5.00	1191	7.93	16.6						7-7-19 8:15	22.58	1519	8.39	14.5					
4-6-19 16:15	1.09	1217	7.92	2.9	4-6-19 16:00	2.79	396	7.92	151.0	4-6-19 16:00	5.02	1202	7.94	16.2						7-7-19 8:30	22.55	1523	8.40	14.2					
4-6-19 16:30	0.95	1156	7.92	3.4	4-6-19 16:15	2.89	393	7.92	160.4	4-6-19 16:15	4.99	1190	7.96	16.6						7-7-19 8:45	22.50	1524	8.39	14.7					
4-6-19 16:45	0.90	1140	7.92	4.3	4-6-19 16:30	3.07	394	7.93	138.6	4-6-19 16:30	5.13	1187	7.96	16.7						7-7-19 9:00	22.44	1522	8.39	13.5					
4-6-19 17:00	0.81	1120	7.94	5.3	4-6-19 16:45	3.14	392	7.93	148.0	4-6-19 16:45	4.97	1187	7.96	15.9						7-7-19 9:15	22.40	1523	8.39	14.4					
4-6-19 17:15	0.77	1125	7.94	4.8	4-6-19 17:00	2.96	387	7.93	162.0	4-6-19 17:00	4.90	1191	7.98	17.2						7-7-19 9:30	22.33	1523	8.39	14.0					
4-6-19 17:30	0.75	1125	7.93	4.8	4-6-19 17:15	3.02	387	7.94	154.6	4-6-19 17:15	4.94	1187	8.00	16.3						7-7-19 9:45	22.25	1525	8.39	14.4					
4-6-19 17:45	0.75	1116	7.94	4.7	4-6-19 17:30	2.79	434	7.93	133.8	4-6-19 17:30	4.90	1195	8.03	19.1						7-7-19 10:00	22.18	1522	8.38	13.7					
4-6-19 18:00	0.62	1103	7.97	3.8	4-6-19 17:45	3.08	403	7.94	144.7	4-6-19 17:45	4.89	1198	8.06	18.3						7-7-19 10:15	22.11	1523	8.38	14.6					
4-6-19 18:15	0.52	1107	7.97	4.2	4-6-19 18:00	2.68	411	7.95	139.8	4-6-19 18:00	4.94	1199	8.07	18.7						7-7-19 10:30	22.06	1522	8.39	13.3					
4-6-19 18:30	0.46	1114	7.98	6.6	4-6-19 18:15	2.47	416	7.96	145.2	4-6-19 18:15	4.89	1200	8.09	22.0						7-7-19 10:45	22.02	1524	8.38	14.7					
4-6-19 18:45	0.51	1113	7.97	5.7	4-6-19 18:30	2.37	429	7.97	146.3	4-6-19 18:30	4.85	1202	8.10	22.4						7-7-19 11:00	21.96	1523	8.39	13.7					
4-6-19 19:00	0.49	1114	7.97	5.5	4-6-19 18:45	2.23	433	7.96	142.6	4-6-19 18:45	4.82	1216	8.11	22.7						7-7-19 11:15	21.91	1524	8.39	14.9					
4-6-19 19:15	0.42	1113	7.98	5.4	4-6-19 19:00	2.18	424	7.97	165.5	4-6-19 19:00	4.70	1206	8.12	22.4						7-7-19 11:30	21.85	1523	8.38	13.7					
4-6-19 19:30	0.32	1226	7.95	5.5	4-6-19 19:15	2.10	423	7.98	159.7	4-6-19 19:15	4.75	1201	8.14	34.0						7-7-19 11:45	21.78	1523	8.38	15.0					
4-6-19 19:45	0.29	1276	7.91	7.0	4-6-19 19:30	1.96	416	7.97	165.6	4-6-19 19:30	5.01	1208	8.14	39.3						7-7-19 12:00	21.71	1523	8.38	13.2					
4-6-19 20:00	0.26	1291	7.91	8.3	4-6-19 19:45	1.81	410	7.96	158.7	4-6-19 19:45	4.97	1210	8.14	31.0						7-7-19 12:15	21.63	1524	8.37	14.2					
4-6-19 20:15	0.24	1303	7.90	7.5	4-6-19 20:00	1.71	409	7.97	155.4	4-6-19 20:00	4.97	1210	8.13	30.9						7-7-19 12:30	21.58	1522	8.38	13.9					
4-6-19 20:30	0.23	1306	7.90	6.4	4-6-19 20:15	1.57	414	7.96	160.8	4-6-19 20:15	4.94	1213	8.14	31.0						7-7-19 12:45	21.53	1522	8.38	15.3					
4-6-19 20:45	0.23	1310	7.90	6.8	4-6-19 20:30	1.48	416	7.96	154.3	4-6-19 20:30	4.91	1212	8.14	28.3						7-7-19 13:00	21.48	1521	8.38	14.4					
4-6-19 21:00	0.21	1256	7.92	6.7	4-6-19 20:45	1.34	407	7.96	145.1	4-6-19 20:45	4.94	1210	8.15	31.3						7-7-19 13:15	21.44	1523	8.38	15.4					
4-6-19 21:15	0.21	1294	7.92	8.2	4-6-19 21:00	1.33	407	7.96	141.2	4-6-19 21:00	4.85	1213	8.15	30.9						7-7-19 13:30	21.40	1522	8.38	13.9					
4-6-19 21:30	0.21	1293	7.93	6.7	4-6-19 21:15	1.45	396	7.97	137.0	4-6-19 21:15	4.83	1217	8.16	106.7						7-7-19 13:45	21.38	1523	8.38	15.0					
4-6-19 21:45	0.19	1298	7.92	6.7	4-6-19 21:30	1.27	406	7.96	134.7	4-6-19 21:30	4.75	1218	8.17	26.7						7-7-19 14:00	21.37	1522	8.37	13.6					
4-6-19 22:00	0.19	1298	7.91	6.9	4-6-19 21:45	0.89	396	7.99	123.7	4-6-19 21:45	4.71	1217	8.18	25.4						7-7-19 14:15	21.33	1524	8.37	15.6					
4-6-19 22:15	0.19	1303	7.91	5.7	4-6-19 22:00	1.05	396	7.98	150.5	4-6-19 22:00	4.69	1220	8.18	24.0						7-7-19 14:30	21.32	1522	8.38	14.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-6-19 22:30	0.18	1303	7.91	5.9	4-6-19 22:15	1.24	391	7.97	131.1	4-6-19 22:15	4.69	1217	8.18	25.3						7-7-19 14:45	21.32	1522	8.37	14.7					
4-6-19 22:45	0.19	1303	7.91	4.9	4-6-19 22:30	1.16	386	7.98	112.7	4-6-19 22:30	4.71	1249	8.17	24.6						7-7-19 15:00	21.36	1522	8.38	14.5					
4-6-19 23:00	0.19	1306	7.91	4.4	4-6-19 22:45	1.16	387	7.98	122.0	4-6-19 22:45	4.73	1218	8.17	21.6						7-7-19 15:15	21.37	1522	8.37	15.3					
4-6-19 23:15	0.18	1306	7.90	4.4	4-6-19 23:00	0.95	388	7.99	119.4	4-6-19 23:00	4.73	1227	8.17	24.1						7-7-19 15:30	21.47	1522	8.39	14.0					
4-6-19 23:30	0.18	1309	7.89	3.5	4-6-19 23:15					4-6-19 23:15	4.70	1224	8.17	22.2						7-7-19 15:45	21.51	1522	8.39	15.2					
4-6-19 23:45	0.19	1311	7.89	3.6	4-6-19 23:30	1.45	392	7.97	128.8	4-6-19 23:30	4.80	1225	8.17	23.7						7-7-19 16:00	21.44	1521	8.39	14.6					
4-7-19 0:00	0.18	1308	7.89	3.7	4-6-19 23:45	1.25	398	7.96	108.5	4-6-19 23:45	4.65	1220	8.19	19.8						7-7-19 16:15	21.43	1523	8.38	17.6					
4-7-19 0:15	0.18	1312	7.88	3.2	4-7-19 0:00	1.22	405	7.97	89.4	4-7-19 0:00	4.75	1221	8.18	19.9						7-7-19 16:30	21.44	1521	8.36	15.4					
4-7-19 0:30	0.19	1312	7.88	3.2	4-7-19 0:15	1.10	412	7.95	52.3	4-7-19 0:15	4.78	1218	8.18	19.7						7-7-19 16:45	21.50	1524	8.35	17.2					
4-7-19 0:45	0.20	1316	7.88	3.0	4-7-19 0:30	1.25	418	7.96	60.6	4-7-19 0:30	4.74	1216	8.18	19.7						7-7-19 17:00	21.51	1523	8.36	15.8					
4-7-19 1:00	0.22	1324	7.89	3.2	4-7-19 0:45	1.41	416	7.95	81.6	4-7-19 0:45	4.68	1219	8.18	17.6						7-7-19 17:15	21.54	1525	8.37	16.7					
4-7-19 1:15	0.23	1328	7.89	2.8	4-7-19 1:00	1.50	419	7.95	76.2	4-7-19 1:00	4.68	1228	8.19	23.8						7-7-19 17:30	21.59	1523	8.38	15.6					
4-7-19 1:30	0.23	1330	7.89	2.9	4-7-19 1:15	0.88	397	7.99	116.7	4-7-19 1:15	4.72	1226	8.20	23.9						7-7-19 17:45	21.59	1524	8.38	17.2					
4-7-19 1:45	0.23	1333	7.89	2.9	4-7-19 1:30	0.91	393	7.98	113.9	4-7-19 1:30	4.69	1223	8.19	24.5						7-7-19 18:00	21.61	1523	8.38	14.9					
4-7-19 2:00	0.22	1326	7.90	3.3	4-7-19 1:45	1.08	401	7.97	94.6	4-7-19 1:45	4.62	1228	8.20	18.4						7-7-19 18:15	21.68	1525	8.39	17.2					
4-7-19 2:15	0.23	1334	7.90	2.9	4-7-19 2:00	1.23	400	7.96	100.7	4-7-19 2:00	4.60	1225	8.20	19.0						7-7-19 18:30	21.77	1524	8.39	15.7					
4-7-19 2:30	0.23	1337	7.90	2.8	4-7-19 2:15	1.00	391	7.96	74.8	4-7-19 2:15	4.66	1228	8.20	18.4						7-7-19 18:45	21.75	1525	8.39	18.0					
4-7-19 2:45	0.22	1340	7.90	3.1	4-7-19 2:30	1.08	385	7.98	96.4	4-7-19 2:30	4.62	1230	8.20	18.8						7-7-19 19:00	21.75	1524	8.39	16.6					
4-7-19 3:00	0.20	1342	7.91	2.7	4-7-19 2:45	1.10	379	7.97	90.6	4-7-19 2:45	4.60	1231	8.21	18.5						7-7-19 19:15	21.86	1525	8.39	16.3					
4-7-19 3:15	0.21	1341	7.92	2.8	4-7-19 3:00	0.92	364	7.97	74.9	4-7-19 3:00	4.62	1226	8.22	19.3						7-7-19 19:30	21.85	1523	8.39	16.0					
4-7-19 3:30	0.21	1339	7.92	3.1	4-7-19 3:15	0.70	391	7.98	104.6	4-7-19 3:15	4.53	1230	8.23	19.7						7-7-19 19:45	21.87	1525	8.39	16.6					
4-7-19 3:45	0.22	1335	7.92	2.8	4-7-19 3:30	0.75	393	7.97	109.3	4-7-19 3:30	4.58	1235	8.24	19.4						7-7-19 20:00	21.90	1524	8.39	16.5					
4-7-19 4:00	0.23	1331	7.93	3.7	4-7-19 3:45	0.93	380	7.97	114.4	4-7-19 3:45	4.54	1228	8.23	21.8						7-7-19 20:15	21.85	1526	8.38	16.8					
4-7-19 4:15	0.23	1332	7.94	4.3	4-7-19 4:00	0.70	395	7.97	113.6	4-7-19 4:00	4.47	1240	8.23	17.5						7-7-19 20:30	21.86	1524	8.39	15.2					
4-7-19 4:30	0.22	1330	7.94	3.9	4-7-19 4:15	0.74	384	7.97	118.8	4-7-19 4:15	4.53	1236	8.24	16.8						7-7-19 20:45	21.87	1525	8.39	17.2					
4-7-19 4:45	0.21	1325	7.95	4.3	4-7-19 4:30	0.66	398	7.97	109.6	4-7-19 4:30	4.54	1264	8.29	15.6						7-7-19 21:00	21.86	1524	8.39	16.8					
4-7-19 5:00	0.22	1323	7.95	4.9	4-7-19 4:45	0.92	387	7.98	94.8	4-7-19 4:45	4.66	1269	8.33	42.1						7-7-19 21:15	21.89	1526	8.39	17.7					
4-7-19 5:15	0.23	1320	7.95	4.9	4-7-19 5:00	0.82	393	7.97	95.1	4-7-19 5:00	4.65	1272	8.34	24.6						7-7-19 21:30	21.94	1524	8.40	15.8					
4-7-19 5:30	0.24	1316	7.95	7.7	4-7-19 5:15	0.58	406	7.97	124.5	4-7-19 5:15	4.56	1252	8.30	26.8						7-7-19 21:45	21.94	1525	8.40	17.2					
4-7-19 5:45	0.24	1313	7.96	7.8	4-7-19 5:30	0.69	404	7.97	96.0	4-7-19 5:30	4.49	1275	8.34	27.8						7-7-19 22:00	21.98	1524	8.40	16.4					
4-7-19 6:00	0.24	1310	7.96	8.7	4-7-19 5:45	0.94	381	7.97	130.7	4-7-19 5:45	4.39	1248	8.27	14.1						7-7-19 22:15	21.91	1526	8.39	17.5					
4-7-19 6:15	0.25	1306	7.96	8.7	4-7-19 6:00	0.95	385	7.98	101.6	4-7-19 6:00	4.25	1251	8.27	15.4						7-7-19 22:30	21.97	1525	8.40	16.1					
4-7-19 6:30	0.24	1304	7.96	8.3	4-7-19 6:15	0.98	387	7.98	101.6	4-7-19 6:15	4.24	1249	8.27	14.1						7-7-19 22:45	21.97	1526	8.40	16.8					
4-7-19 6:45	0.25	1304	7.96	8.2	4-7-19 6:30	0.98	387	7.97	93.0	4-7-19 6:30	4.13	1251	8.27	13.6						7-7-19 23:00	21.98	1525	8.40	16.3					
4-7-19 7:00	0.25	1298	7.96	7.0	4-7-19 6:45	1.00	385	7.97	111.1	4-7-19 6:45	4.09	1240	8.25	13.8						7-7-19 23:15	21.95	1526	8.40	17.8					
4-7-19 7:15	0.33	1297	7.96	5.8	4-7-19 7:00	1.05	383	7.97	110.4	4-7-19 7:00	4.05	1242	8.25	12.7						7-7-19 23:30	21.95	1525	8.41	16.7					
4-7-19 7:30	0.39	1291	7.96	7.5	4-7-19 7:15	1.08	383	7.96	115.0	4-7-19 7:15	4.08	1239	8.25	13.3						7-7-19 23:45	21.94	1527	8.41	17.3					
4-7-19 7:45	0.46	1285	7.95	8.7	4-7-19 7:30	1.09	381	7.97	116.3	4-7-19 7:30	4.01	1242	8.26	11.9						7-8-19 0:00	21.96	1525	8.40	16.7					
4-7-19 8:00	0.55	1282	7.95	7.2	4-7-19 7:45	1.21	389	7.97	118.3	4-7-19 7:45	4.14	1250	8.26	14.6						7-8-19 0:15	21.94	1527	8.40	16.7					
4-7-19 8:15	0.65	1280	7.95	7.6	4-7-19 8:00	1.20	382	7.99	122.2	4-7-19 8:00	4.21	1244	8.29	12.0						7-8-19 0:30	21.97	1525	8.40	16.1					
4-7-19 8:30	0.73	1274	7.95	8.1	4-7-19 8:15	1.28	381	7.99	122.9	4-7-19 8:15	4.10	1236	8.23	12.6						7-8-19 0:45	21.96	1526	8.41	18.2					
4-7-19 8:45	0.81	1268	7.95	7.8	4-7-19 8:30	1.41	386	8.00	118.2	4-7-19 8:30	4.13	1235	8.23	12.5						7-8-19 1:00	21.99	1525	8.41	16.8					
4-7-19 9:00	0.92	1267	7.94	8.9	4-7-19 8:45	1.51	391	8.01	114.6	4-7-19 8:45	4.18	1241	8.25	16.5						7-8-19 1:15	21.95	1527	8.41	17.4					
4-7-19 9:15	0.94	1262	7.94	8.8	4-7-19 9:00	1.64	389	8.01	113.8	4-7-19 9:00	4.33	1247	8.26	16.8						7-8-19 1:30	21.98	1526	8.40	17.2					
4-7-19 9:30	0.90	1263	7.93	9.9	4-7-19 9:15	1.76	386	8.02	111.6	4-7-19 9:15	4.29	1243	8.26	18.3						7-8-19 1:45	21.97	1525	8.40	18.2					
4-7-19 9:45	0.92	1260	7.93	10.4	4-7-19 9:30	1.70	402	8.03	107.5	4-7-19 9:30	4.37	1259	8.26	20.3						7-8-19 2:00	21.95	1525	8.41	16.3					
4-7-19 10:00	0.98	1257	7.92	9.5	4-7-19 9:45	1.78	410	8.03	99.6	4-7-19 9:45	4.46	1251	8.27	11.8						7-8-19 2:15	21.94	1527	8.40	17.5					
4-7-19 10:15	1.15	1253	7.91	10.1	4-7-19 10:00	1.91	406	8.03	206.5	4-7-19 10:00	4.55	1254	8.28	11.2						7-8-19 2:30	21.96	1526	8.40	15.8					
4-7-19 10:30	1.26	1248	7.90	11.8	4-7-19 10:15	2.01	418	8.01	97.6	4-7-19 10:15	4.64	1251	8.27	12.7						7-8-19 2:45	21.95	1527	8.40	15.8					
4-7-19 10:45	1.36	1237	7.90	12.5	4-7-19 10:30	2.11	418	7.99	108.1	4-7-19 10:30	4.76	1303	8.26	13.4						7-8-19 3:00	21.92	1526	8.41	16.6					
4-7-19 11:00	1.37	1235	7.92	10.7	4-7-19 10:45	2.23	408	8.03	135.4	4-7-19 10:45	4.90	1257	8.30	11.6						7-8-19 3:15	21.89	1527	8.41	19.1					
4-7-19 12:15	1.40	1217	7.93	11.2	4-7-19 11:00	2.36	413	8.04	121.3	4-7-19 11:00	5.03	1254	8.27	10.2						7-8-19 3:30	21.87	1526	8.40	16.2					
4-7-19 12:30	1.53	1199	7.91	11.5	4-7-19 11:15	2.49	412	8.06	119.4	4-7-19 11:15	5.30	1273	8.33	12.7						7-8-19 3:45	21.84	1527	8.41	16.8					
4-7-19 12:45	1.63	1200	7.92	11.9	4-7-19 11:30	2.70	403	8.06	108.5	4-7-19 11:30	5.38	1254	8.27	12.2						7-8-19 4:00	21.80	1526	8.41	15.9					
4-7-19 13:00	1.87	1189	7.92	8.9	4-7-19 11:45	2.95	399	8.03	105.7	4-7-19 11:45	5.40	1253	8.27	13.9						7-8-19 4:15	21.77	1527	8.40	16.6					
4-7-19 13:15	2.04	1174	7.91	6.9	4-7-19 12:00	2.79	418	8.04	105.5	4-7-19 12:00	5.36	1252	8.27	14.6						7-8-19 4:30	21.75	1526	8.40	15.7					
4-7-19 13:30	1.98	1176	7.92	7.4	4-7-19 12:15	2.87	420	8.08	112.3	4-7-19 12:15	5.43	1262	8.28	12.9						7-8-19 4:45	21.73	1527	8.40	16.5					
4-7-19 13:45	1.85	1175	7.91	8.1	4-7-19 12:30	2.94	413	8.08	128.5	4-7-19 12:30	5.60	1261	8.28	13.0						7-8-19 5:00	21.69	1526	8.40	15.2					
4-7-19 14:00	1.90	1179	7.91	12.4	4-7-19 12:45	2.95	422	8.08	125.3	4-7-19 12:45	5.60	1257	8.28	12.8						7-8-19 5:15	21.66	1526	8.39	16.3					
4-7-19 14:15	1.71	1179	7.92	10.4	4-7-19 13:30	4.28	417	8.02	97.4	4-7-19 13:30	6.17	1274	8.32	18.5						7-8-19 5:30	21.61	1525	8.41	15.4					
4-7-19 14:30	1.47	1169	7.93	12.4	4-7-19 13:45	4.07	417	8.03	101.6	4-7-19 13:45	6.22	1310	8.36	17.1						7-8-19 5:45	21.58	1527	8.40	15.7					
4-7-19 14:45	1.51	1196	7.93	15.8	4-7-19 14:00	3.93	417	8.02	92.6	4-7-19 14:00	6.26	1303	8.36	14.8						7-8-19 6:00	21.53	1526	8.41	15.7					
4-7-19 15:00	1.45	1165	7.93	13.4	4-7-19 14:15	3.63	444	8.01	103.3	4-7-19 14:15	6.37	1321	8.39	17.2						7-8-19 6:15	21.49	1527	8.40	15.9					
4-7-19 15:15	1.37	1116	7.94	13.9	4-7-19 14:30	3.47	447	8.01	94.8	4-7-19 14:30	6.47	1321	8.39	16.1						7-8-19 6:30	21.48	1524	8.41	15.1					
4-7-19 15:30	1.58	1206	7.93	19.5	4-7-19 14:45	3.48	472	8.00	90.0	4-7-19 14:45	6.51	1338	8.41	16.2						7-8-19 6:45	21.43	1527	8.40	16.3					
4-7-19 15:45	1.51	1145	7.95	14.8	4-7-19 15:00	3.81	463	8.02	114.7	4-7-19 15:00	6.65	1339	8.41	25.5						7-8-19 7:00	21.39	1525	8.41	14.8					
4-7-19 16:00	1.48	1106	7.95	14.2	4-7-19 15:15	3.96	445	8.04	101.1	4-7-19 15:15	6.68	1327	8.42	27.5						7-8-19 7:15	21.37	1527	8.40	15.8					
4-7-19 16:15	1.45	1168	7.95	16.5	4-7-19 15:30	4.08	458	8.02	126.6	4-7-19 15:30	6.81	1348	8.44	23.3						7-8-19 7:30	21.31	1525	8.41	15.0					
4-7-19 16:30	1.17	1136	7.94	17.3	4-7-19 15:45	3.69	501	7.96	142.4	4-7-19 15:45	6.91	1376	8.44	22.2						7-8-19 7:45	21.30	1526	8.40	15.9					
4-7-19 16:45	1.07	1133	7.96	14.8	4-7-19 16:00	3.72	522	7.96	129.8	4-7-19 16:00	6.92	1381	8.46	22.4						7-8-19 8:00	21.25	1526	8.40	14.5					
4-7-19 17:00	1.01	1023	7.97	14.8	4-7-19 16:15	3.71	515	7.97	133.1	4-7-19 16:15	7.01	1375	8.46	20.0						7-8-19 8:15	21.21	1527	8.40	16.3					
4-7-19 17:15	0.90	1032	7.96	14.3	4-7-19 16:30	3.56	526	7.96	142.2	4-7-19 16:30	6.99	1383	8.46	25.2						7-8-19 8:30	21.18	1525	8.40	15.3					
4-7-19 17:30	0.95	1019	7.98	16.9	4-7-19 16:45	3.19	550	7.95	137.3	4-7-19 16:45	7.05	1391	8.46	22.8						7-8-19 8:45	21.14	1527	8.39	16.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-7-19 17:45	0.80	1045	7.98	20.4	4-7-19 17:00	3.24	566	7.94	127.8	4-7-19 17:00	7.08	1387	8.47	22.0						7-8-19 9:00	21.10	1526	8.41	14.8					
4-7-19 18:00	0.83	1038	7.98	20.6	4-7-19 17:15	3.02	583	7.94	118.9	4-7-19 17:15	7.03	1386	8.48	21.8						7-8-19 9:15	21.07	1527	8.40	16.1					
4-7-19 18:15	0.74	1036	8.01	28.0	4-7-19 17:30	2.99	587	7.93	126.5	4-7-19 17:30	7.02	1399	8.48	30.3						7-8-19 9:30	20.99	1526	8.40	14.9					
4-7-19 18:30	0.76	1027	8.01	30.9	4-7-19 17:45	2.90	599	7.93	109.3	4-7-19 17:45	7.03	1368	8.48	17.3						7-8-19 9:45	21.00	1527	8.40	16.1					
4-7-19 18:45	0.74	1028	8.01	27.2	4-7-19 18:00	2.86	599	7.93	115.2	4-7-19 18:00	7.01	1405	8.49	21.1						7-8-19 10:00	20.96	1526	8.40	14.3					
4-7-19 19:00	0.71	1022	8.02	24.7	4-7-19 18:15	2.72	603	7.93	110.8	4-7-19 18:15	6.98	1358	8.49	23.8						7-8-19 10:15	20.91	1527	8.39	15.8					
4-7-19 19:15	0.83	1074	8.03	27.9	4-7-19 18:30	2.76	602	7.93	131.2	4-7-19 18:30	6.96	1403	8.50	22.5						7-8-19 10:30	20.89	1526	8.39	14.5					
4-7-19 19:30	0.87	1068	8.04	27.8	4-7-19 18:45	2.72	605	7.92	125.8	4-7-19 18:45	6.94	1414	8.50	31.0						7-8-19 10:45	20.85	1527	8.40	15.7					
4-7-19 19:45	0.83	1079	8.05	28.9	4-7-19 19:00	2.67	605	7.93	105.3	4-7-19 19:00	6.95	1415	8.50	27.2						7-8-19 11:00	20.81	1525	8.40	14.8					
4-7-19 20:00	0.75	1085	8.06	29.0	4-7-19 19:15	2.68	598	7.93	117.4	4-7-19 19:15	6.92	1415	8.50	24.4						7-8-19 11:15	20.81	1527	8.39	15.4					
4-7-19 20:15	0.59	1075	8.06	28.4	4-7-19 19:30	2.63	593	7.94	108.5	4-7-19 19:30	6.90	1414	8.50	23.6						7-8-19 11:30	20.75	1525	8.40	14.4					
4-7-19 20:30	0.55	1064	8.06	26.9	4-7-19 19:45	2.60	595	7.93	105.4	4-7-19 19:45	6.89	1409	8.50	22.6						7-8-19 11:45	20.72	1527	8.39	16.0					
4-7-19 20:45	0.53	1064	8.07	25.0	4-7-19 20:00	2.57	600	7.93	99.8	4-7-19 20:00	6.87	1411	8.50	22.0						7-8-19 12:00	20.70	1526	8.39	14.9					
4-7-19 21:00	0.50	1069	8.06	25.3	4-7-19 20:15	2.49	603	7.93	103.8	4-7-19 20:15	6.86	1413	8.50	16.1						7-8-19 12:15	20.64	1527	8.39	15.9					
4-7-19 21:15	0.39	1072	8.06	24.7	4-7-19 20:30	2.50	603	7.93	91.9	4-7-19 20:30	6.86	1416	8.50	21.7						7-8-19 12:30	20.61	1526	8.40	14.5					
4-7-19 21:30	0.32	1073	8.06	23.6	4-7-19 20:45	2.39	606	7.93	100.7	4-7-19 20:45	6.85	1415	8.50	18.9						7-8-19 12:45	20.60	1527	8.39	16.0					
4-7-19 21:45	0.30	1070	8.06	22.3	4-7-19 21:00	2.30	606	7.93	99.5	4-7-19 21:00	6.80	1403	8.51	13.5						7-8-19 13:00	20.55	1525	8.40	13.9					
4-7-19 22:00	0.30	1070	8.06	22.7	4-7-19 21:15	2.23	607	7.93	94.2	4-7-19 21:15	6.80	1418	8.51	14.7						7-8-19 13:15	20.52	1527	8.40	15.2					
4-7-19 22:15	0.28	1069	8.07	21.8	4-7-19 21:30	2.13	607	7.93	77.6	4-7-19 21:30	6.77	1419	8.50	16.6						7-8-19 13:30	20.50	1526	8.40	14.1					
4-7-19 22:30	0.27	1069	8.06	20.9	4-7-19 21:45	2.30	610	7.92	82.8	4-7-19 21:45	6.75	1422	8.50	14.8						7-8-19 13:45	20.48	1527	8.39	14.9					
4-7-19 22:45	0.26	1068	8.06	21.1	4-7-19 22:00	2.16	609	7.93	77.4	4-7-19 22:00	6.72	1423	8.51	12.9						7-8-19 14:00	20.46	1526	8.40	13.6					
4-7-19 23:00	0.22	1067	8.06	20.9	4-7-19 22:15	2.19	606	7.92	85.6	4-7-19 22:15	6.68	1421	8.51	14.9						7-8-19 14:15	20.43	1527	8.39	15.0					
4-7-19 23:15	0.20	1068	8.07	20.8	4-7-19 22:30	2.25	607	7.93	77.6	4-7-19 22:30	6.62	1422	8.51	13.9						7-8-19 14:30	20.41	1526	8.40	13.4					
4-7-19 23:30	0.21	1067	8.07	20.3	4-7-19 22:45	1.93	607	7.93	79.1	4-7-19 22:45	6.63	1420	8.51	17.3						7-8-19 14:45	20.37	1527	8.40	14.4					
4-7-19 23:45	0.20	1067	8.06	20.0	4-7-19 23:00	2.17	608	7.92	71.4	4-7-19 23:00	6.63	1420	8.51	12.9						7-8-19 15:00	20.34	1526	8.40	13.3					
4-8-19 0:00	0.20	1068	8.06	20.3	4-7-19 23:15	1.63	611	7.93	294.2	4-7-19 23:15	6.61	1420	8.51	14.4						7-8-19 15:15	20.34	1527	8.39	14.8					
4-8-19 0:15	0.19	1069	8.06	19.9	4-7-19 23:30	1.83	605	7.92	66.4	4-7-19 23:30	6.60	1421	8.51	16.5						7-8-19 15:30	20.27	1526	8.40	13.2					
4-8-19 0:30	0.19	1072	8.07	19.6	4-7-19 23:45	1.69	604	7.93	71.3	4-7-19 23:45	6.56	1425	8.50	13.2						7-8-19 15:45	20.21	1526	8.40	14.4					
4-8-19 0:45	0.19	1071	8.06	19.3	4-8-19 0:00	1.27	603	7.94	71.3	4-8-19 0:00	6.47	1427	8.51	13.4						7-8-19 16:00	20.20	1526	8.39	13.7					
4-8-19 1:00	0.18	1070	8.06	19.2	4-8-19 0:15	1.64	590	7.93	69.1	4-8-19 0:15	6.44	1427	8.51	12.4						7-8-19 16:15	20.13	1527	8.39	15.4					
4-8-19 1:15	0.17	1070	8.06	17.6	4-8-19 0:30	2.02	582	7.92	76.2	4-8-19 0:30	6.44	1429	8.51	20.1						7-8-19 16:30	20.10	1525	8.40	16.0					
4-8-19 1:30	0.17	1072	8.06	19.2	4-8-19 0:45	2.01	583	7.92	67.9	4-8-19 0:45	6.37	1427	8.51	14.2						7-8-19 16:45	20.10	1526	8.40	15.8					
4-8-19 1:45	0.17	1072	8.07	19.0	4-8-19 1:00	1.98	587	7.92	87.2	4-8-19 1:00	6.40	1436	8.51	19.8						7-8-19 17:00	20.03	1523	8.40	14.6					
4-8-19 2:00	0.15	1076	8.08	19.1	4-8-19 1:15	1.89	595	7.93	71.0	4-8-19 1:15	6.33	1432	8.51	13.8						7-8-19 17:15	20.04	1526	8.40	15.1					
4-8-19 2:15	0.14	1075	8.07	19.0	4-8-19 1:30	1.67	585	7.93	64.1	4-8-19 1:30	6.32	1427	8.51	15.3						7-8-19 17:30	19.98	1525	8.40	14.8					
4-8-19 2:30	0.14	1075	8.06	19.2	4-8-19 1:45	1.42	561	7.94	58.2	4-8-19 1:45	6.32	1443	8.51	14.2						7-8-19 17:45	19.93	1526	8.41	16.0					
4-8-19 2:45	0.14	1077	8.06	19.0	4-8-19 2:00	1.53	566	7.93	69.1	4-8-19 2:00	6.32	1436	8.51	13.8						7-8-19 18:00	19.94	1525	8.41	15.7					
4-8-19 3:00	0.13	1078	8.06	18.2	4-8-19 2:15	1.85	603	7.92	71.2	4-8-19 2:15	6.29	1432	8.51	14.1						7-8-19 18:15	19.85	1525	8.40	16.8					
4-8-19 3:15	0.13	1083	8.06	17.4	4-8-19 2:30	1.78	605	7.93	63.7	4-8-19 2:30	6.26	1438	8.51	13.1						7-8-19 18:30	19.79	1523	8.41	16.6					
4-8-19 3:30	0.11	1086	8.06	16.7	4-8-19 2:45	1.53	605	7.93	59.0	4-8-19 2:45	6.26	1440	8.51	12.8						7-8-19 18:45	19.77	1525	8.41	16.4					
4-8-19 3:45	0.10	1086	8.06	17.1	4-8-19 3:00	1.47	606	7.93	54.9	4-8-19 3:00	6.22	1444	8.51	13.0						7-8-19 19:00	19.75	1524	8.41	15.4					
4-8-19 4:00	0.10	1087	8.06	14.4	4-8-19 3:15	1.27	607	7.94	68.1	4-8-19 3:15	6.22	1431	8.50	13.8						7-8-19 19:15	19.74	1524	8.41	16.2					
4-8-19 4:15	0.09	1085	8.05	14.2	4-8-19 3:30	1.34	606	7.93	60.5	4-8-19 3:30	6.22	1430	8.51	13.3						7-8-19 19:30	19.69	1523	8.41	15.8					
4-8-19 4:30	0.10	1084	8.06	17.4	4-8-19 3:45	1.52	602	7.93	53.3	4-8-19 3:45	6.20	1433	8.51	13.7						7-8-19 19:45	19.63	1523	8.41	16.4					
4-8-19 4:45	0.11	1087	8.06	17.7	4-8-19 4:00	1.27	607	7.93	60.9	4-8-19 4:00	6.15	1436	8.51	14.3						7-8-19 20:00	19.57	1522	8.42	15.3					
4-8-19 5:00	0.11	1090	8.06	14.5	4-8-19 4:15	1.04	604	7.94	48.8	4-8-19 4:15	6.12	1434	8.51	14.6						7-8-19 20:15	19.56	1524	8.41	16.0					
4-8-19 5:15	0.10	1092	8.05	13.2	4-8-19 4:30	0.75	606	7.95	52.5	4-8-19 4:30	6.13	1439	8.51	12.3						7-8-19 20:30	19.55	1523	8.41	16.2					
4-8-19 5:30	0.10	1094	8.05	13.9	4-8-19 4:45	1.42	606	7.93	71.7	4-8-19 4:45	6.14	1439	8.50	15.9						7-8-19 20:45	19.51	1524	8.41	16.9					
4-8-19 5:45	0.10	1096	8.05	12.5	4-8-19 5:00	1.05	603	7.94	43.5	4-8-19 5:00	6.08	1440	8.51	12.8						7-8-19 21:00	19.47	1522	8.42	15.5					
4-8-19 6:00	0.10	1101	8.05	12.3	4-8-19 5:15	0.65	601	7.95	34.4	4-8-19 5:15	6.10	1445	8.50	16.8						7-8-19 21:15	19.45	1523	8.42	17.7					
4-8-19 6:15	0.10	1103	8.05	11.0	4-8-19 5:30	0.90	605	7.94	55.6	4-8-19 5:30	6.11	1435	8.50	20.4						7-8-19 21:30	19.44	1524	8.43	16.6					
4-8-19 6:30	0.10	1104	8.05	12.8	4-8-19 5:45	0.60	604	7.94	50.5	4-8-19 5:45	6.05	1444	8.49	13.4						7-8-19 21:45	19.46	1524	8.42	17.2					
4-8-19 6:45	0.12	1104	8.06	13.6	4-8-19 6:00	0.40	602	7.96	41.2	4-8-19 6:00	6.07	1448	8.49	15.9						7-8-19 22:00	19.45	1522	8.42	15.9					
4-8-19 7:00	0.14	1103	8.06	13.4	4-8-19 6:15	0.91	603	7.94	52.3	4-8-19 6:15	6.06	1453	8.48	14.8						7-8-19 22:15	19.42	1524	8.41	16.5					
4-8-19 7:15	0.19	1108	8.06	10.5	4-8-19 6:30	0.73	566	7.94	40.2	4-8-19 6:30	6.07	1442	8.48	15.1						7-8-19 22:30	19.40	1522	8.42	16.2					
4-8-19 7:30	0.23	1108	8.06	12.8	4-8-19 6:45	0.50	384	7.96	41.9	4-8-19 6:45	5.99	1449	8.47	13.9						7-8-19 22:45	19.38	1524	8.43	17.1					
4-8-19 7:45	0.26	1112	8.06	11.1	4-8-19 7:00	0.63	45	7.95	48.0	4-8-19 7:00	6.02	1449	8.48	16.3						7-8-19 23:00	19.36	1522	8.43	16.7					
4-8-19 8:00	0.34	1109	8.06	10.4	4-8-19 7:15	1.40	10	7.95	29.7	4-8-19 7:15	6.04	1448	8.48	16.4						7-8-19 23:15	19.33	1523	8.43	16.7					
4-8-19 8:15	0.45	1108	8.06	10.3	4-8-19 7:30	1.40	9	7.94	86.1	4-8-19 7:30	6.04	1448	8.48	17.5						7-8-19 23:30	19.35	1523	8.43	16.6					
4-8-19 8:30	0.51	1113	8.06	8.8	4-8-19 7:45	1.41	1	7.95	206.2	4-8-19 7:45	5.98	1443	8.48	12.5						7-8-19 23:45	19.37	1524	8.42	16.9					
4-8-19 8:45	0.65	1109	8.07	9.2	4-8-19 8:00	2.12	1	7.96	30.1	4-8-19 8:00	5.95	1445	8.48	17.0						7-9-19 0:00	19.37	1523	8.43	16.4					
4-8-19 9:00	0.82	1099	8.07	9.7	4-8-19 8:15	2.98	1	7.92	2.4	4-8-19 8:15	5.91	1442	8.49	14.3						7-9-19 0:15	19.34	1525	8.42	17.5					
4-8-19 9:15	1.00	1079	8.07	11.2	4-8-19 8:30	3.61	1	7.96	1.5	4-8-19 8:30	5.88	1437	8.50	12.8						7-9-19 0:30	19.35	1522	8.44	16.5					
4-8-19 9:30	1.15	1068	8.06	11.2	4-8-19 8:45	4.24	1	7.91	1.6	4-8-19 8:45	5.92	1442	8.50	11.7						7-9-19 0:45	19.39	1524	8.44	18.1					
4-8-19 9:45	1.32	1070	8.06	10.8	4-8-19 9:00	5.06	1	7.47	1.3	4-8-19 9:00	5.98	1441	8.50	15.0						7-9-19 1:00	19.40	1523	8.44	16.7					
4-8-19 10:00	1.51	1066	8.05	10.1	4-8-19 9:15	2.25	604	7.94	66.9	4-8-19 9:15	6.04	1442	8.49	13.3						7-9-19 1:15	19.34	1523	8.43	18.1					
4-8-19 10:15	1.75	1059	8.04	10.2	4-8-19 9:30	2.19	608	7.94	66.7	4-8-19 9:30	6.11	1445	8.49	15.3						7-9-19 1:30	19.23	1522	8.45	15.8					
4-8-19 10:30	1.76	1060	8.04	9.2	4-8-19 9:45	2.28	611	7.93	64.8	4-8-19 9:45	6.19	1445	8.48	13.2						7-9-19 1:45	19.21	1523	8.45	17.8					
4-8-19 10:45	1.91	1059	8.05	10.5	4-8-19 10:00	2.22	609	7.93	65.8	4-8-19 10:00	6.22	1447	8.47	12.9						7-9-19 2:00	19.14	1521	8.45	16.6					
4-8-19 11:00	1.96	1062	8.06	10.2	4-8-19 10:15	2.29	608	7.93	68.6	4-8-19 10:15	6.29	1446	8.46	13.3						7-9-19 2:15	19.09	1522	8.44	17.9					
4-8-19 11:15	1.93	1069	8.06	9.3	4-8-19 10:30	2.40	610	7.93	65.4	4-8-19 10:30	6.33	1445	8.46	13.6						7-9-19 2:30	19.07	1521	8.45	17.1					
4-8-19 11:30	1.95	1069	8.04	10.6	4-8-19 10:45	2.48	613	7.92	65.3	4-8-19 10:45	6.44	1444	8.45	13.1						7-9-19 2:45	19.05	1522	8.45	17.2					
4-8-19 11:45	1.93	1074	8.05	10.0	4-8-19 11:00	2.57	615	7.92	65.5	4-8-19 11:00	6.53	1447	8.45	14.0						7-9-19 3:00	19.04	1521	8.44	17.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-8-19 12:00	2.08	1066	8.04	9.7	4-8-19 11:15	2.52	616	7.92	63.5	4-8-19 11:15	6.52	1447	8.44	16.3						7-9-19 3:15	18.99	1521	8.44	17.4					
4-8-19 12:15	2.18	1047	8.05	9.0	4-8-19 11:30	2.70	620	7.92	62.9	4-8-19 11:30	6.69	1443	8.44	12.5						7-9-19 3:30	18.97	1521	8.44	15.8					
4-8-19 12:30	1.92	1046	8.02	12.0	4-8-19 11:45	2.73	620	7.92	63.2	4-8-19 11:45	6.61	1443	8.43	13.4						7-9-19 3:45	18.94	1521	8.44	17.9					
4-8-19 12:45	2.18	992	8.05	8.5	4-8-19 12:00	2.78	626	7.92	65.3	4-8-19 12:00	6.73	1447	8.42	14.7						7-9-19 4:00	18.93	1520	8.44	16.5					
4-8-19 13:00	2.04	997	8.03	9.0	4-8-19 12:15	2.77	620	7.92	70.4	4-8-19 12:15	6.92	1441	8.42	16.1						7-9-19 4:15	18.88	1522	8.43	17.0					
4-8-19 13:15	1.90	1026	8.00	10.8	4-8-19 12:30	2.80	623	7.92	71.8	4-8-19 12:30	7.05	1444	8.42	17.2						7-9-19 4:30	18.90	1520	8.44	16.1					
4-8-19 13:30	1.99	984	8.00	10.3	4-8-19 12:45	2.87	623	7.93	67.4	4-8-19 12:45	7.17	1444	8.42	15.2						7-9-19 4:45	18.87	1521	8.44	17.3					
4-8-19 13:45	2.15	1043	7.97	12.1	4-8-19 13:00	3.03	626	7.92	60.1	4-8-19 13:00	7.24	1445	8.42	17.7						7-9-19 5:00	18.85	1520	8.44	15.7					
4-8-19 14:00	2.34	1091	7.94	13.5	4-8-19 13:15	2.96	628	7.92	65.0	4-8-19 13:15	7.28	1441	8.42	16.8						7-9-19 5:15	18.82	1522	8.44	17.6					
4-8-19 14:15	2.59	1088	7.95	12.8	4-8-19 13:30	3.11	632	7.92	63.4	4-8-19 13:30	7.38	1444	8.42	17.3						7-9-19 5:30	18.79	1520	8.44	16.2					
4-8-19 14:30	2.44	1063	7.96	12.8	4-8-19 13:45	3.20	632	7.92	61.0	4-8-19 13:45	7.39	1443	8.41	14.6						7-9-19 5:45	18.73	1522	8.43	17.7					
4-8-19 14:45	2.20	1029	7.97	12.4	4-8-19 14:00	3.18	628	7.92	62.9	4-8-19 14:00	7.49	1441	8.41	12.5						7-9-19 6:00	18.71	1520	8.44	16.1					
4-8-19 15:00	2.27	1020	7.97	13.7	4-8-19 14:15	3.23	632	7.92	58.6	4-8-19 14:15	7.51	1440	8.39	12.8						7-9-19 6:15	18.66	1522	8.42	17.6					
4-8-19 15:15	2.16	1017	7.98	14.7	4-8-19 14:30	3.28	634	7.92	64.4	4-8-19 14:30	7.56	1445	8.39	13.8						7-9-19 6:30	18.62	1520	8.43	15.8					
4-8-19 15:30	2.35	1015	7.98	13.6	4-8-19 14:45	3.47	633	7.92	56.8	4-8-19 14:45	7.66	1436	8.38	12.7						7-9-19 6:45	18.64	1522	8.44	16.5					
4-8-19 15:45	2.21	1014	7.98	13.4	4-8-19 15:00	3.44	635	7.92	57.9	4-8-19 15:00	7.75	1441	8.39	15.8						7-9-19 7:00	18.62	1520	8.43	15.5					
4-8-19 16:00	2.25	1006	7.98	14.7	4-8-19 15:15	3.44	631	7.93	70.4	4-8-19 15:15	7.80	1438	8.39	14.6						7-9-19 7:15	18.61	1522	8.43	16.6					
4-8-19 16:15	2.31	1000	7.99	14.3	4-8-19 15:30	3.49	633	7.92	64.0	4-8-19 15:30	7.80	1434	8.38	15.2						7-9-19 7:30	18.59	1520	8.43	15.2					
4-8-19 16:30	2.31	985	7.99	15.0	4-8-19 15:45	3.61	628	7.93	67.0	4-8-19 15:45	7.89	1438	8.38	11.9						7-9-19 7:45	18.55	1522	8.43	16.2					
4-8-19 16:45	2.24	971	8.00	15.4	4-8-19 16:00	3.52	627	7.93	63.6	4-8-19 16:00	7.96	1440	8.39	13.0						7-9-19 8:00	18.53	1521	8.43	15.6					
4-8-19 17:00	2.25	966	8.00	16.0	4-8-19 16:15	3.68	628	7.93	64.6	4-8-19 16:15	7.94	1437	8.38	16.3						7-9-19 8:15	18.48	1522	8.42	16.4					
4-8-19 17:15	2.07	955	8.01	16.2	4-8-19 16:30	3.62	626	7.93	62.7	4-8-19 16:30	7.93	1438	8.37	13.3						7-9-19 8:30	18.45	1520	8.43	15.0					
4-8-19 17:30	2.01	950	8.02	18.2	4-8-19 16:45	3.66	630	7.93	65.7	4-8-19 16:45	7.91	1442	8.35	14.3						7-9-19 8:45	18.42	1521	8.43	16.3					
4-8-19 17:45	1.92	939	8.03	19.2	4-8-19 17:00	3.65	633	7.93	64.1	4-8-19 17:00	7.93	1436	8.36	13.0						7-9-19 9:00	18.39	1520	8.44	14.9					
4-8-19 18:00	1.89	942	8.03	17.1	4-8-19 17:15	3.58	612	7.93	61.4	4-8-19 17:15	8.01	1447	8.36	11.2						7-9-19 9:15	18.36	1521	8.43	16.1					
4-8-19 18:15	1.88	947	8.04	17.8	4-8-19 17:30	3.56	632	7.93	64.1	4-8-19 17:30	8.05	1436	8.36	13.9						7-9-19 9:30	18.37	1521	8.43	15.4					
4-8-19 18:30	1.79	944	8.03	16.6	4-8-19 17:45	3.57	632	7.94	62.1	4-8-19 17:45	8.04	1440	8.36	19.3						7-9-19 9:45	18.34	1522	8.43	16.1					
4-8-19 18:45	1.65	936	8.05	19.8	4-8-19 18:00	3.59	632	7.93	55.9	4-8-19 18:00	8.01	1438	8.36	11.6						7-9-19 10:00	18.33	1520	8.43	15.1					
4-8-19 19:00	1.65	937	8.05	16.7	4-8-19 18:15	3.48	630	7.93	58.2	4-8-19 18:15	8.00	1439	8.36	12.1						7-9-19 10:15	18.29	1522	8.42	16.1					
4-8-19 19:15	1.45	937	8.06	17.8	4-8-19 18:30	3.47	631	7.93	54.3	4-8-19 18:30	7.97	1443	8.36	11.4						7-9-19 10:30	18.28	1521	8.43	14.7					
4-8-19 19:30	1.42	938	8.07	15.9	4-8-19 18:45	3.46	629	7.94	54.0	4-8-19 18:45	7.94	1443	8.35	12.3						7-9-19 10:45	18.25	1522	8.43	15.8					
4-8-19 19:45	1.15	935	8.07	17.0	4-8-19 19:00					4-8-19 19:00	7.93	1418	8.35	15.8						7-9-19 11:00	18.22	1520	8.43	15.2					
4-8-19 20:00	1.06	933	8.07	15.7	4-8-19 19:15	3.37	621	7.94	65.6	4-8-19 19:15	7.90	1440	8.36	11.3						7-9-19 11:15	18.20	1521	8.43	16.0					
4-8-19 20:15	1.21	943	8.07	16.0	4-8-19 19:30	3.38	620	7.94	73.6	4-8-19 19:30	7.89	1439	8.36	12.9						7-9-19 11:30	18.17	1521	8.43	15.2					
4-8-19 20:30	1.21	950	8.07	15.1	4-8-19 19:45	3.39	621	7.94	70.2	4-8-19 19:45	7.91	1442	8.35	12.9						7-9-19 11:45	18.17	1522	8.43	15.9					
4-8-19 20:45	1.13	943	8.07	15.0	4-8-19 20:00	3.35	618	7.94	72.9	4-8-19 20:00	7.90	1442	8.35	11.1						7-9-19 12:00	18.13	1521	8.43	14.9					
4-8-19 21:00	1.09	952	8.07	14.9	4-8-19 20:15	3.35	618	7.94	71.2	4-8-19 20:15	7.90	1440	8.34	10.2						7-9-19 12:15	18.12	1522	8.42	16.3					
4-8-19 21:15	1.11	975	8.07	14.3	4-8-19 20:30	3.34	618	7.94	69.0	4-8-19 20:30	7.87	1439	8.35	11.8						7-9-19 12:30	18.10	1521	8.43	14.7					
4-8-19 21:30	1.12	984	8.07	14.1	4-8-19 20:45	3.33	619	7.94	60.5	4-8-19 20:45	7.82	1439	8.35	11.8						7-9-19 12:45	18.07	1522	8.43	15.8					
4-8-19 21:45	1.09	988	8.08	13.6	4-8-19 21:00	3.33	619	7.93	61.0	4-8-19 21:00	7.81	1440	8.35	10.8						7-9-19 13:00	18.04	1521	8.43	14.0					
4-8-19 22:00	1.03	991	8.09	16.0	4-8-19 21:15	3.21	620	7.94	57.9	4-8-19 21:15	7.78	1440	8.35	11.2						7-9-19 13:15	18.01	1522	8.43	15.6					
4-8-19 22:15	0.91	1009	8.10	14.2	4-8-19 21:30	3.14	621	7.94	59.1	4-8-19 21:30	7.73	1440	8.35	11.2						7-9-19 13:30	17.98	1521	8.44	15.5					
4-8-19 22:30	0.89	1018	8.10	12.9	4-8-19 21:45	3.19	619	7.94	55.1	4-8-19 21:45	7.72	1442	8.35	11.9						7-9-19 13:45	17.98	1522	8.44	16.0					
4-8-19 22:45	0.90	1016	8.10	13.4	4-8-19 22:00	3.27	620	7.93	59.8	4-8-19 22:00	7.69	1445	8.35	12.5						7-9-19 14:00	17.98	1521	8.44	15.5					
4-8-19 23:00	0.90	1018	8.10	13.0	4-8-19 22:15	3.23	621	7.93	55.6	4-8-19 22:15	7.64	1447	8.35	16.7						7-9-19 14:15	17.92	1523	8.43	15.5					
4-8-19 23:15	0.89	1021	8.10	12.2	4-8-19 22:30	3.26	620	7.94	62.6	4-8-19 22:30	7.61	1446	8.35	14.6						7-9-19 14:30	17.91	1521	8.44	15.6					
4-8-19 23:30	0.88	1018	8.10	11.6	4-8-19 22:45					4-8-19 22:45	7.58	1442	8.34	13.0						7-9-19 14:45	17.90	1523	8.44	16.1					
4-8-19 23:45	0.87	1020	8.11	11.8	4-8-19 23:00	3.26	622	7.93	66.2	4-8-19 23:00	7.55	1447	8.35	32.8						7-9-19 15:00	17.90	1522	8.44	15.0					
4-9-19 0:00	0.85	1022	8.11	12.2	4-8-19 23:15	3.31	618	7.93	77.5	4-8-19 23:15	7.51	1449	8.34	12.3						7-9-19 15:15	17.92	1522	8.44	16.1					
4-9-19 0:15	0.84	1022	8.11	12.2	4-8-19 23:30	2.94	618	7.95	58.9	4-8-19 23:30	7.44	1446	8.34	13.7						7-9-19 15:30	17.94	1521	8.45	15.6					
4-9-19 0:30	0.84	1022	8.11	12.3	4-8-19 23:45	3.03	618	7.94	60.9	4-8-19 23:45	7.45	1446	8.34	13.4						7-9-19 15:45	17.97	1522	8.45	16.2					
4-9-19 0:45	0.84	1023	8.11	12.1	4-9-19 0:00	3.06	606	7.94	57.8	4-9-19 0:00	7.43	1446	8.34	12.4						7-9-19 16:00	17.99	1522	8.45	15.5					
4-9-19 1:00	0.83	1023	8.11	12.6	4-9-19 0:15	2.94	616	7.94	61.6	4-9-19 0:15	7.41	1447	8.34	11.6						7-9-19 16:15	18.02	1523	8.45	16.4					
4-9-19 1:15	0.81	1024	8.11	12.5	4-9-19 0:30	2.72	617	7.94	58.3	4-9-19 0:30	7.40	1449	8.34	13.0						7-9-19 16:30	18.07	1522	8.46	15.5					
4-9-19 1:30	0.79	1024	8.11	11.9	4-9-19 0:45	2.74	608	7.94	53.2	4-9-19 0:45	7.36	1450	8.34	14.1						7-9-19 16:45	18.15	1522	8.46	16.7					
4-9-19 1:45	0.79	1024	8.11	11.7	4-9-19 1:00	3.02	618	7.94	59.1	4-9-19 1:00	7.32	1445	8.34	12.4						7-9-19 17:00	18.21	1522	8.46	16.6					
4-9-19 2:00	0.78	1027	8.11	10.9	4-9-19 1:15	2.79	619	7.94	52.2	4-9-19 1:15	7.26	1447	8.34	13.9						7-9-19 17:15	18.29	1523	8.46	17.1					
4-9-19 2:15	0.76	1028	8.10	11.1	4-9-19 1:30	3.06	619	7.94	61.0	4-9-19 1:30	7.29	1448	8.34	15.6						7-9-19 17:30	18.43	1522	8.47	15.7					
4-9-19 2:30	0.74	1028	8.11	11.0	4-9-19 1:45	3.16	618	7.93	62.0	4-9-19 1:45	7.28	1449	8.34	12.4						7-9-19 17:45	18.60	1523	8.47	17.8					
4-9-19 2:45	0.77	1030	8.11	10.7	4-9-19 2:00	3.20	617	7.93	61.1	4-9-19 2:00	7.22	1452	8.34	14.0						7-9-19 18:00	18.75	1522	8.46	17.7					
4-9-19 3:00	0.74	1037	8.11	9.5	4-9-19 2:15	3.01	619	7.93	53.4	4-9-19 2:15	7.18	1452	8.34	13.4						7-9-19 18:15	18.87	1523	8.46	17.8					
4-9-19 3:15	0.72	1041	8.11	9.4	4-9-19 2:30	3.03	617	7.94	58.5	4-9-19 2:30	7.16	1454	8.34	14.1						7-9-19 18:30	19.01	1522	8.46	16.7					
4-9-19 3:30	0.69	1044	8.11	9.4	4-9-19 2:45	3.08	616	7.93	61.8	4-9-19 2:45	7.18	1451	8.33	13.0						7-9-19 18:45	18.96	1523	8.46	17.8					
4-9-19 3:45	0.67	1049	8.11	9.2	4-9-19 3:00	3.11	616	7.93	64.3	4-9-19 3:00	7.17	1452	8.33	13.8						7-9-19 19:00	19.11	1520	8.46	17.0					
4-9-19 4:00	0.62	1055	8.11	8.8	4-9-19 3:15	3.08	616	7.93	53.4	4-9-19 3:15	7.13	1451	8.34	14.1						7-9-19 19:15	19.36	1523	8.45	18.3					
4-9-19 4:15	0.56	1065	8.11	7.8	4-9-19 3:30	3.06	616	7.94	59.0	4-9-19 3:30	7.11	1454	8.33	13.5						7-9-19 19:30	19.28	1522	8.45	18.2					
4-9-19 4:30	0.51	1071	8.12	7.5	4-9-19 3:45	2.73	619	7.94	53.7	4-9-19 3:45	7.09	1453	8.33	12.2						7-9-19 19:45	19.08	1524	8.46	20.6					
4-9-19 4:45	0.47	1076	8.12	7.2	4-9-19 4:00	2.89	617	7.94	51.8	4-9-19 4:00	7.03	1453	8.34	12.4						7-9-19 20:00	19.08	1522	8.46	17.7					
4-9-19 5:00	0.48	1078	8.12	7.5	4-9-19 4:15	2.65	616	7.94	51.0	4-9-19 4:15	6.96	1454	8.34	14.3						7-9-19 20:15	19.04	1524	8.45	16.7					
4-9-19 5:15	0.50	1075	8.12	8.6	4-9-19 4:30	2.87	619	7.94	56.0	4-9-19 4:30	6.94	1455	8.34	14.1						7-9-19 20:30	19.06	1522	8.46	18.4					
4-9-19 5:30	0.52	1076	8.12	8.8	4-9-19 4:45	2.73	618	7.94	55.2	4-9-19 4:45	6.87	1454	8.34	13.7						7-9-19 20:45	19.10	1523	8.46	18.1					
4-9-19 5:45	0.53	1077	8.12	8.7	4-9-19 5:00	2.71	622	7.93	54.1	4-9-19 5:00	6.84	1456	8.34	16.8						7-9-19 21:00	19.12	1524	8.47	17.5					
4-9-19 6:00	0.55	1075	8.12	8.6	4-9-19 5:15	2.98	620	7.93	57.9	4-9-19 5:15	6.89	1462	8.33	18.1						7-9-19 21:15	19.02	1523	8.46	17.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-9-19 6:15	0.59	1073	8.12	10.1	4-9-19 5:30	2.80	617	7.93	57.9	4-9-19 5:30	6.89	1462	8.32	16.7						7-9-19 21:30	19.00	1522	8.46	17.0					
4-9-19 6:30	0.64	1068	8.11	11.1	4-9-19 5:45	2.69	621	7.94	54.2	4-9-19 5:45	6.86	1461	8.32	18.9						7-9-19 21:45	18.96	1524	8.47	17.9					
4-9-19 6:45	0.65	1070	8.12	9.5	4-9-19 6:00	2.39	617	7.94	50.6	4-9-19 6:00	6.83	1463	8.32	14.7						7-9-19 22:00	18.99	1522	8.47	18.2					
4-9-19 7:00	0.62	1072	8.12	9.5	4-9-19 6:15	2.63	620	7.94	51.3	4-9-19 6:15	6.77	1463	8.32	21.0						7-9-19 22:15	18.99	1524	8.46	16.6					
4-9-19 7:15	0.66	1073	8.12	9.0	4-9-19 6:30	2.70	619	7.93	51.7	4-9-19 6:30	6.79	1468	8.31	16.3						7-9-19 22:30	19.03	1523	8.47	18.6					
4-9-19 7:30	0.75	1068	8.11	9.2	4-9-19 6:45	2.78	618	7.93	55.4	4-9-19 6:45	6.77	1465	8.32	17.1						7-9-19 22:45	19.02	1524	8.47	18.8					
4-9-19 7:45	0.87	1063	8.11	9.3	4-9-19 7:00	2.33	617	7.94	47.1	4-9-19 7:00	6.67	1466	8.32	20.4						7-9-19 23:00	19.00	1523	8.47	19.6					
4-9-19 8:00	0.98	1058	8.11	8.9	4-9-19 7:15	2.70	603	7.94	49.9	4-9-19 7:15	6.69	1470	8.31	17.7						7-9-19 23:15	18.97	1524	8.46	17.1					
4-9-19 8:15	1.05	1060	8.11	8.8	4-9-19 7:30	2.82	620	7.93	65.7	4-9-19 7:30	6.72	1473	8.30	17.5						7-9-19 23:30	18.95	1522	8.46	18.3					
4-9-19 8:30	1.12	1062	8.12	8.0	4-9-19 7:45	2.82	620	7.93	59.1	4-9-19 7:45	6.73	1469	8.30	17.0						7-9-19 23:45	18.95	1524	8.46	19.6					
4-9-19 8:45	1.21	1062	8.12	7.7	4-9-19 8:00	2.88	619	7.93	59.7	4-9-19 8:00	6.74	1473	8.30	15.4						7-10-19 0:00	18.90	1523	8.46	19.3					
4-9-19 9:00	1.32	1062	8.13	7.3	4-9-19 8:15	2.87	617	7.94	47.9	4-9-19 8:15	6.72	1473	8.30	13.9						7-10-19 0:15	18.87	1524	8.46	19.9					
4-9-19 9:15	1.41	1063	8.15	6.6	4-9-19 8:30	2.92	616	7.95	49.4	4-9-19 8:30	6.70	1472	8.30	18.3						7-10-19 0:30	18.86	1523	8.46	18.6					
4-9-19 9:30	1.51	1061	8.15	5.4	4-9-19 8:45	2.92	616	7.95	48.9	4-9-19 8:45	6.73	1470	8.30	18.9						7-10-19 0:45	18.85	1524	8.46	18.4					
4-9-19 9:45	1.62	1058	8.13	5.2	4-9-19 9:00	3.09	615	7.95	46.0	4-9-19 9:00	6.77	1471	8.30	14.8						7-10-19 1:00	18.80	1523	8.47	18.4					
4-9-19 10:00	1.75	1053	8.12	5.8	4-9-19 9:15	3.37	615	7.94	51.5	4-9-19 9:15	6.85	1471	8.29	14.9						7-10-19 1:15	18.80	1524	8.46	20.8					
4-9-19 10:15	1.90	1047	8.12	6.3	4-9-19 9:30	3.33	617	7.94	70.8	4-9-19 9:30	6.90	1471	8.29	16.8						7-10-19 1:30	18.76	1523	8.46	18.3					
4-9-19 10:30	2.04	1047	8.12	5.9	4-9-19 9:45	3.46	616	7.95	56.8	4-9-19 9:45	6.96	1470	8.30	13.9						7-10-19 1:45	18.74	1524	8.47	19.9					
4-9-19 10:45	2.18	1046	8.13	5.5	4-9-19 10:00	3.44	615	7.95	65.5	4-9-19 10:00	7.04	1472	8.29	18.2						7-10-19 2:00	18.73	1523	8.46	17.4					
4-9-19 11:00	2.32	1045	8.15	4.7	4-9-19 10:15	3.40	615	7.95	48.9	4-9-19 10:15	7.15	1471	8.28	14.5						7-10-19 2:15	18.71	1524	8.46	19.4					
4-9-19 11:15	2.45	1045	8.14	4.8	4-9-19 10:30	3.93	615	7.94	45.1	4-9-19 10:30	7.27	1472	8.28	13.3						7-10-19 2:30	18.70	1523	8.46	18.2					
4-9-19 11:30	2.62	1043	8.12	4.9	4-9-19 10:45	3.79	615	7.94	52.4	4-9-19 10:45	7.21	1467	8.29	13.6						7-10-19 2:45	18.70	1525	8.46	19.7					
4-9-19 11:45	2.88	1034	8.10	6.3	4-9-19 11:00	4.01	613	7.95	50.1	4-9-19 11:00	7.32	1465	8.30	15.0						7-10-19 3:00	18.69	1524	8.46	18.0					
4-9-19 12:00	3.11	1029	8.09	6.7	4-9-19 11:15	4.31	615	7.95	48.9	4-9-19 11:15	7.55	1472	8.29	13.8						7-10-19 3:15	18.68	1524	8.46	20.0					
4-9-19 12:15	3.26	1026	8.08	7.4	4-9-19 11:30	4.20	617	7.95	49.1	4-9-19 11:30	7.60	1455	8.22	17.1						7-10-19 3:30	18.65	1522	8.46	18.0					
4-9-19 12:30	3.39	1027	8.07	8.4	4-9-19 11:45	4.66	617	7.94	49.5	4-9-19 11:45	7.89	1472	8.23	17.2						7-10-19 3:45	18.62	1524	8.46	19.3					
4-9-19 12:45	3.56	1029	8.07	8.5	4-9-19 12:00	4.90	616	7.94	49.8	4-9-19 12:00	7.86	1458	8.22	17.6						7-10-19 4:00	18.59	1522	8.46	18.0					
4-9-19 13:00	3.76	1029	8.07	7.9	4-9-19 12:15	4.43	617	7.94	54.6	4-9-19 12:15	7.90	1462	8.22	15.7						7-10-19 4:15	18.54	1524	8.45	19.6					
4-9-19 13:15	3.86	1031	8.08	6.5	4-9-19 12:30	4.78	617	7.94	51.5	4-9-19 12:30	8.17	1455	8.22	12.3						7-10-19 4:30	18.53	1523	8.46	17.2					
4-9-19 13:30	3.61	1020	8.09	6.1	4-9-19 12:45	4.52	617	7.95	49.8	4-9-19 12:45	8.33	1459	8.21	11.7						7-10-19 4:45	18.53	1524	8.46	18.7					
4-9-19 13:45	3.16	1049	8.11	6.1	4-9-19 13:00	4.78	621	7.96	32.7	4-9-19 13:00	8.31	1460	8.22	13.5						7-10-19 5:00	18.52	1523	8.46	16.9					
4-9-19 14:00	2.89	1079	8.14	8.3	4-9-19 13:15	5.07	617	7.94	42.8	4-9-19 13:15	8.36	1455	8.20	16.2						7-10-19 5:15	18.52	1524	8.46	18.6					
4-9-19 14:15	3.24	1044	8.10	6.2	4-9-19 13:30	5.10	616	7.96	48.2	4-9-19 13:30	8.29	1462	8.24	13.9						7-10-19 5:30	18.51	1523	8.46	17.0					
4-9-19 14:30	2.80	1088	8.12	8.5	4-9-19 13:45	5.11	617	7.96	54.7	4-9-19 13:45	8.48	1462	8.20	13.2						7-10-19 5:45	18.50	1524	8.45	19.2					
4-9-19 14:45	2.95	1056	8.11	6.9	4-9-19 14:00	5.48	615	7.95	44.2	4-9-19 14:00	8.62	1459	8.22	14.0						7-10-19 6:00	18.47	1523	8.46	16.4					
4-9-19 15:00	3.19	1084	8.12	8.4	4-9-19 14:15	5.39	616	7.96	41.2	4-9-19 14:15	8.61	1457	8.22	25.6						7-10-19 6:15	18.43	1525	8.45	18.4					
4-9-19 15:15	3.40	864	8.10	5.3	4-9-19 14:30	4.85	618	7.97	42.9	4-9-19 14:30	8.73	1457	8.23	15.8						7-10-19 6:30	18.43	1523	8.46	16.6					
4-9-19 15:30	3.18	1085	8.11	7.6	4-9-19 14:45	4.79	609	7.98	43.9	4-9-19 14:45	8.92	1406	8.23	11.6						7-10-19 6:45	18.40	1524	8.45	18.5					
4-9-19 15:45	3.28	956	8.13	5.9	4-9-19 15:00	4.86	622	7.97	43.3	4-9-19 15:00	9.07	1457	8.22	13.8						7-10-19 7:00	18.38	1523	8.46	16.6					
4-9-19 16:00	3.38	920	8.13	5.8	4-9-19 15:15	5.05	608	7.98	42.4	4-9-19 15:15	9.16	1460	8.22	22.7						7-10-19 7:15	18.35	1524	8.45	18.0					
4-9-19 16:15	4.06	1030	8.15	6.7	4-9-19 15:30	4.60	621	7.98	49.8	4-9-19 15:30	9.13	1458	8.22	11.7						7-10-19 7:30	18.32	1523	8.45	15.8					
4-9-19 16:30	3.66	829	8.14	6.6	4-9-19 15:45	4.60	623	7.98	46.9	4-9-19 15:45	8.97	1458	8.22	11.3						7-10-19 7:45	18.30	1524	8.45	17.8					
4-9-19 16:45	2.77	785	8.13	7.3	4-9-19 16:00	4.90	624	7.97	45.6	4-9-19 16:00	9.01	1457	8.22	10.3						7-10-19 8:00	18.27	1523	8.45	15.7					
4-9-19 17:00	3.79	1017	8.15	8.5	4-9-19 16:15	5.23	623	7.97	42.9	4-9-19 16:15	9.10	1461	8.22	11.0						7-10-19 8:15	18.22	1524	8.44	18.2					
4-9-19 17:15	4.33	1049	8.17	7.4	4-9-19 16:30	5.00	624	7.99	40.2	4-9-19 16:30	9.10	1459	8.22	11.6						7-10-19 8:30	18.21	1523	8.45	15.7					
4-9-19 17:30	4.38	1037	8.17	8.1	4-9-19 16:45	4.93	624	7.99	53.2	4-9-19 16:45	9.06	1459	8.22	11.5						7-10-19 8:45	18.18	1524	8.45	17.6					
4-9-19 17:45	4.15	1056	8.18	9.4	4-9-19 17:00	4.97	623	7.99	40.9	4-9-19 17:00	9.09	1460	8.22	11.4						7-10-19 9:00	18.18	1524	8.46	15.4					
4-9-19 18:00	3.99	1077	8.18	10.5	4-9-19 17:15	4.96	623	7.99	40.2	4-9-19 17:15	9.07	1462	8.22	13.1						7-10-19 9:15	18.16	1525	8.45	17.1					
4-9-19 18:15	3.84	1031	8.18	8.9	4-9-19 17:30	4.90	623	8.00	40.1	4-9-19 17:30	9.06	1457	8.22	11.7						7-10-19 9:30	18.13	1524	8.45	15.7					
4-9-19 18:30	3.97	1044	8.18	9.4	4-9-19 17:45	4.83	608	8.01	42.1	4-9-19 17:45	9.01	1459	8.22	12.3						7-10-19 9:45	18.12	1526	8.45	17.0					
4-9-19 18:45	3.91	1055	8.18	10.4	4-9-19 18:00	4.64	610	8.01	41.8	4-9-19 18:00	8.98	1459	8.22	11.4						7-10-19 10:00	18.12	1525	8.45	16.0					
4-9-19 19:00	3.51	1039	8.19	8.6	4-9-19 18:15	4.40	624	8.00	45.2	4-9-19 18:15	8.97	1456	8.22	11.4						7-10-19 10:15	18.08	1527	8.44	17.2					
4-9-19 19:15	3.50	1050	8.19	12.9	4-9-19 18:30	4.35	624	8.01	44.9	4-9-19 18:30	8.85	1456	8.21	13.7						7-10-19 10:30	18.05	1525	8.45	15.5					
4-9-19 19:30	3.57	1063	8.18	16.6	4-9-19 18:45	4.30	623	8.00	47.6	4-9-19 18:45	8.80	1461	8.21	13.7						7-10-19 10:45	18.04	1526	8.45	17.4					
4-9-19 19:45	3.13	1050	8.19	12.6	4-9-19 19:00	4.25	625	8.01	42.8	4-9-19 19:00	8.76	1461	8.21	15.3						7-10-19 11:00	17.99	1525	8.45	15.7					
4-9-19 20:00	3.25	1059	8.19	12.0	4-9-19 19:15	4.28	622	8.02	46.2	4-9-19 19:15	8.72	1466	8.21	13.9						7-10-19 11:15	17.94	1527	8.45	17.3					
4-9-19 20:15	2.87	1061	8.19	11.6	4-9-19 19:30	4.29	626	8.00	42.8	4-9-19 19:30	8.71	1465	8.22	15.7						7-10-19 11:30	17.93	1526	8.45	16.1					
4-9-19 20:30	2.61	1058	8.20	12.4	4-9-19 19:45	4.24	625	8.00	43.4	4-9-19 19:45	8.69	1468	8.21	13.3						7-10-19 11:45	17.89	1528	8.45	17.3					
4-9-19 20:45	2.30	1051	8.21	11.3	4-9-19 20:00	4.26	623	8.00	41.6	4-9-19 20:00	8.66	1467	8.21	13.9						7-10-19 12:00	17.86	1527	8.45	15.7					
4-9-19 21:00	2.10	1068	8.21	10.7	4-9-19 20:15	4.18	605	8.01	43.1	4-9-19 20:15	8.63	1464	8.22	16.1						7-10-19 12:15	17.81	1529	8.44	17.4					
4-9-19 21:15	2.42	1072	8.20	12.1	4-9-19 20:30	4.22	620	8.00	42.9	4-9-19 20:30	8.64	1463	8.21	13.5						7-10-19 12:30	17.83	1528	8.45	16.1					
4-9-19 21:30	2.43	1057	8.19	11.7	4-9-19 20:45	4.18	619	8.00	41.9	4-9-19 20:45	8.55	1465	8.21	13.1						7-10-19 12:45	17.85	1529	8.45	17.7					
4-9-19 21:45	2.36	1062	8.20	11.5	4-9-19 21:00	4.11	613	8.02	42.0	4-9-19 21:00	8.48	1457	8.21	14.3						7-10-19 13:00	17.83	1528	8.45	16.4					
4-9-19 22:00	2.46	1055	8.19	10.9	4-9-19 21:15	4.12	618	8.00	43.9	4-9-19 21:15	8.45	1458	8.21	15.2						7-10-19 13:15	17.83	1529	8.45	17.2					
4-9-19 22:15	1.46	1039	8.21	11.3	4-9-19 21:30	4.08	619	8.00	42.6	4-9-19 21:30	8.38	1460	8.21	17.0						7-10-19 13:30	17.82	1528	8.45	16.7					
4-9-19 22:30	1.38	1037	8.21	10.3	4-9-19 21:45	4.10	619	8.00	43.8	4-9-19 21:45	8.33	1458	8.21	13.4						7-10-19 13:45	17.83	1529	8.45	17.4					
4-9-19 22:45	1.39	1039	8.21	10.8	4-9-19 22:00	4.11	619	8.00	45.0	4-9-19 22:00	8.28	1459	8.21	13.3						7-10-19 14:00	17.82	1531	8.45	15.8					
4-9-19 23:00	1.39	1031	8.20	12.1	4-9-19 22:15	3.96	618	8.00	41.7	4-9-19 22:15	8.27	1459	8.21	14.4						7-10-19 14:15	17.80	1533	8.45	17.3					
4-9-19 23:15	1.98	1059	8.19	12.7	4-9-19 22:30	3.89	617	8.00	41.9	4-9-19 22:30	8.25	1459	8.21	14.0						7-10-19 14:30	17.80	1531	8.45	14.7					
4-9-19 23:30	1.86	1051	8.19	12.5	4-9-19 22:45	3.94	618	8.00	41.7	4-9-19 22:45	8.19	1461	8.21	13.6						7-10-19 14:45	17.80	1534	8.45	17.3					
4-9-19 23:45	1.53	1051	8.20	12.3	4-9-19 23:00	3.98	614	8.00	42.9	4-9-19 23:00	8.13	1459	8.21	13.8						7-10-19 15:00	17.82	1532	8.45	15.6					
4-10-19 0:00	1.61	1052	8.19	11.7	4-9-19 23:15	3.98	620	7.99	40.8	4-9-19 23:15	8.09	1461	8.21	15.2						7-10-19 15:15	17.84	1534	8.45	16.8					
4-10-19 0:15	1.38	1052	8.20	11.4	4-9-19 23:30	4.10	620	7.99	41.4	4-9-19 23:30	8.07	1459	8.21	15.5						7-10-19 15:30	17.91	1534	8.46	15.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-10-19 0:30	1.51	1056	8.19	12.6	4-9-19 23:45	3.71	619	8.01	37.8	4-9-19 23:45	8.02	1462	8.22	15.1						7-10-19 15:45	17.91	1536	8.45	16.3					
4-10-19 0:45	1.53	1064	8.19	11.4	4-10-19 0:00	3.72	616	8.01	34.3	4-10-19 0:00	7.97	1464	8.21	238.9						7-10-19 16:00	17.87	1538	8.45	14.9					
4-10-19 1:00	1.58	1072	8.20	11.9	4-10-19 0:15	3.53	619	8.00	37.7	4-10-19 0:15	7.99	1460	8.21	14.3						7-10-19 16:15	17.82	1536	8.44	15.6					
4-10-19 1:15	1.45	1070	8.20	12.0	4-10-19 0:30	3.63	621	8.00	39.0	4-10-19 0:30	7.94	1458	8.21	13.6						7-10-19 16:30	17.88	1532	8.46	14.5					
4-10-19 1:30	1.49	1072	8.20	12.5	4-10-19 0:45	3.87	617	8.00	40.0	4-10-19 0:45	7.92	1460	8.21	14.1						7-10-19 16:45	18.01	1532	8.46	15.5					
4-10-19 1:45	1.45	1075	8.20	12.4	4-10-19 1:00	3.77	618	8.00	37.0	4-10-19 1:00	7.86	1463	8.22	13.0						7-10-19 17:00	18.13	1532	8.47	14.4					
4-10-19 2:00	1.47	1078	8.20	12.1	4-10-19 1:15	3.84	619	8.00	41.9	4-10-19 1:15	7.81	1460	8.22	14.6						7-10-19 17:15	18.10	1546	8.45	15.7					
4-10-19 2:15	1.39	1078	8.20	11.7	4-10-19 1:30	3.83	619	8.00	38.7	4-10-19 1:30	7.76	1463	8.21	14.2						7-10-19 17:30	17.97	1542	8.45	14.6					
4-10-19 2:30	1.23	1078	8.20	10.9	4-10-19 1:45	3.95	618	7.99	43.2	4-10-19 1:45	7.81	1461	8.21	16.3						7-10-19 17:45	18.05	1534	8.47	15.5					
4-10-19 2:45	1.25	1071	8.20	11.0	4-10-19 2:00	3.53	615	8.00	39.9	4-10-19 2:00	7.76	1462	8.21	14.0						7-10-19 18:00	18.11	1533	8.46	14.6					
4-10-19 3:00	1.25	1065	8.20	10.5	4-10-19 2:15	3.50	620	8.00	37.5	4-10-19 2:15	7.77	1461	8.21	14.2						7-10-19 18:15	18.22	1532	8.45	15.3					
4-10-19 3:15	1.25	1072	8.20	10.9	4-10-19 2:30	3.64	619	8.00	42.1	4-10-19 2:30	7.74	1459	8.21	13.1						7-10-19 18:30	18.25	1536	8.45	13.9					
4-10-19 3:30	1.19	1082	8.20	10.7	4-10-19 2:45	3.43	619	8.00	39.3	4-10-19 2:45	7.72	1461	8.21	17.1						7-10-19 18:45	18.32	1544	8.43	15.7					
4-10-19 3:45	1.26	1082	8.20	10.3	4-10-19 3:00	3.52	621	7.99	39.8	4-10-19 3:00	7.66	1461	8.21	13.4						7-10-19 19:00	18.51	1541	8.44	14.4					
4-10-19 4:00	1.31	1083	8.20	10.5	4-10-19 3:15	3.29	616	8.00	35.1	4-10-19 3:15	7.62	1462	8.21	13.0						7-10-19 19:15	18.51	1543	8.43	15.5					
4-10-19 4:15	1.38	1078	8.20	10.1	4-10-19 3:30	3.67	607	8.00	41.2	4-10-19 3:30	7.58	1462	8.21	17.2						7-10-19 19:30	18.44	1537	8.43	14.9					
4-10-19 4:30	1.36	1075	8.20	10.3	4-10-19 3:45	3.47	604	8.01	29.9	4-10-19 3:45	7.57	1464	8.21	14.4						7-10-19 19:45	18.44	1542	8.42	15.4					
4-10-19 4:45	1.33	1080	8.20	10.5	4-10-19 4:00	3.54	618	7.99	40.3	4-10-19 4:00	7.52	1464	8.22	14.8						7-10-19 20:00	18.44	1537	8.43	15.0					
4-10-19 5:00	1.32	1084	8.20	10.6	4-10-19 4:15	3.28	617	8.00	39.7	4-10-19 4:15	7.49	1463	8.22	15.5						7-10-19 20:15	18.44	1534	8.43	16.0					
4-10-19 5:15	1.33	1087	8.20	10.9	4-10-19 4:30	3.42	620	8.00	39.7	4-10-19 4:30	7.45	1464	8.22	13.7						7-10-19 20:30	18.48	1532	8.44	14.4					
4-10-19 5:30	1.25	1092	8.20	10.8	4-10-19 4:45	3.38	620	8.00	40.0	4-10-19 4:45	7.41	1463	8.21	15.6						7-10-19 20:45	18.54	1534	8.44	15.5					
4-10-19 5:45	1.20	1095	8.20	10.8	4-10-19 5:00	3.53	611	8.00	37.2	4-10-19 5:00	7.41	1462	8.21	16.1						7-10-19 21:00	18.63	1533	8.45	15.2					
4-10-19 6:00	1.16	1096	8.20	10.2	4-10-19 5:15	3.21	618	8.00	38.7	4-10-19 5:15	7.39	1465	8.21	16.6						7-10-19 21:15	18.88	1537	8.45	16.2					
4-10-19 6:15	1.13	1094	8.20	9.9	4-10-19 5:30	3.23	620	8.00	40.5	4-10-19 5:30	7.37	1459	8.21	14.6						7-10-19 21:30	19.07	1535	8.45	14.9					
4-10-19 6:30	1.06	1098	8.20	10.1	4-10-19 5:45	2.34	619	8.01	33.2	4-10-19 5:45	7.32	1464	8.21	15.8						7-10-19 21:45	19.45	1535	8.44	16.2					
4-10-19 6:45	1.07	1098	8.20	9.5	4-10-19 6:00	1.97	585	8.02	29.0	4-10-19 6:00	7.30	1467	8.21	14.4						7-10-19 22:00	19.85	1534	8.44	14.5					
4-10-19 7:00	1.13	1099	8.20	9.7	4-10-19 6:15	1.95	574	8.02	33.3	4-10-19 6:15	7.30	1465	8.21	14.2						7-10-19 22:15	20.11	1535	8.43	15.6					
4-10-19 7:15	1.14	1100	8.20	9.1	4-10-19 6:30	2.28	620	8.02	32.8	4-10-19 6:30	7.28	1463	8.21	15.8						7-10-19 22:30	20.28	1534	8.43	14.5					
4-10-19 7:30	1.25	1101	8.20	10.4	4-10-19 6:45	2.79	619	8.00	36.9	4-10-19 6:45	7.24	1462	8.21	13.4						7-10-19 22:45	20.35	1533	8.43	15.0					
4-10-19 7:45	1.40	1102	8.19	9.8	4-10-19 7:00	2.08	618	8.02	30.7	4-10-19 7:00	7.23	1460	8.21	15.3						7-10-19 23:00	20.35	1533	8.44	14.9					
4-10-19 8:00	1.55	1100	8.19	8.7	4-10-19 7:15	2.11	607	8.03	33.7	4-10-19 7:15	7.21	1461	8.21	17.9						7-10-19 23:15	20.54	1534	8.43	15.1					
4-10-19 8:15	1.57	1098	8.20	9.0	4-10-19 7:30	2.22	612	8.02	33.8	4-10-19 7:30	7.19	1461	8.21	16.9						7-10-19 23:30	20.67	1533	8.43	14.6					
4-10-19 8:30	1.61	1098	8.20	8.6	4-10-19 7:45	2.25	600	8.03	29.1	4-10-19 7:45	7.18	1463	8.21	15.6						7-10-19 23:45	20.67	1536	8.44	15.5					
4-10-19 8:45	1.80	1099	8.19	9.1	4-10-19 8:00	2.44	616	8.00	34.9	4-10-19 8:00	7.20	1463	8.21	15.2						7-11-19 0:00	20.78	1533	8.44	15.1					
4-10-19 9:00	1.94	1096	8.19	9.3	4-10-19 8:15	2.46	602	8.02	31.4	4-10-19 8:15	7.19	1462	8.21	19.3						7-11-19 0:15	20.88	1537	8.43	15.2					
4-10-19 9:15	2.04	1096	8.20	9.4	4-10-19 8:30	2.69	616	8.01	36.2	4-10-19 8:30	7.22	1461	8.21	16.2						7-11-19 0:30	21.00	1535	8.44	15.0					
4-10-19 9:30	2.13	1090	8.20	9.2	4-10-19 8:45	3.06	613	8.01	35.2	4-10-19 8:45	7.31	1462	8.21	16.9						7-11-19 0:45	21.07	1537	8.44	15.4					
4-10-19 9:45	2.17	1089	8.19	9.9	4-10-19 9:00	3.23	611	8.00	35.5	4-10-19 9:00	7.39	1462	8.21	16.3						7-11-19 1:00	21.03	1537	8.45	15.8					
4-10-19 10:00	2.09	1092	8.20	10.1	4-10-19 9:15	3.36	611	8.01	39.6	4-10-19 9:15	7.38	1466	8.21	18.0						7-11-19 1:15	20.94	1537	8.44	16.4					
4-10-19 10:15	2.14	1093	8.20	9.2	4-10-19 9:30	3.65	612	8.01	54.8	4-10-19 9:30	7.44	1460	8.21	16.5						7-11-19 1:30	20.70	1534	8.44	15.8					
4-10-19 10:30	2.22	1095	8.19	9.3	4-10-19 9:45	3.66	613	8.02	49.6	4-10-19 9:45	7.43	1462	8.22	25.4						7-11-19 1:45	20.72	1537	8.45	16.3					
4-10-19 10:45	2.37	1094	8.19	9.3	4-10-19 10:00	3.73	613	8.02	51.2	4-10-19 10:00	7.57	1463	8.22	15.7						7-11-19 2:00	20.67	1535	8.44	15.0					
4-10-19 11:00	2.43	1091	8.20	8.3	4-10-19 10:15	3.83	615	8.02	44.5	4-10-19 10:15	7.58	1463	8.22	18.3						7-11-19 2:15	20.59	1537	8.43	15.9					
4-10-19 11:15	2.50	1088	8.19	7.9	4-10-19 10:30	4.40	612	8.00	43.8	4-10-19 10:30	7.73	1463	8.21	17.6						7-11-19 2:30	20.54	1535	8.44	15.5					
4-10-19 11:30	2.43	1088	8.20	8.7	4-10-19 10:45	4.28	616	8.01	38.2	4-10-19 10:45	7.66	1464	8.21	15.9						7-11-19 2:45	20.47	1536	8.44	15.8					
4-10-19 11:45	2.54	1086	8.19	8.5	4-10-19 11:00	4.39	615	8.02	42.6	4-10-19 11:00	7.73	1458	8.20	17.8						7-11-19 3:00	20.43	1537	8.44	15.0					
4-10-19 12:00	2.60	1091	8.18	9.0	4-10-19 11:15	4.39	619	8.02	38.6	4-10-19 11:15	7.84	1462	8.20	18.0						7-11-19 3:15	20.38	1535	8.43	15.8					
4-10-19 12:15	2.55	1090	8.19	9.0	4-10-19 11:30	4.51	619	8.02	37.7	4-10-19 11:30	7.86	1459	8.20	20.9						7-11-19 3:30	20.31	1535	8.44	14.2					
4-10-19 12:30	2.31	1087	8.19	8.8	4-10-19 11:45	4.89	620	8.01	45.3	4-10-19 11:45	8.01	1457	8.20	20.3						7-11-19 3:45	20.21	1535	8.43	14.6					
4-10-19 12:45	2.31	1087	8.20	7.8	4-10-19 12:00	4.47	623	8.02	41.5	4-10-19 12:00	8.03	1461	8.21	19.0						7-11-19 4:00	19.96	1537	8.44	14.4					
4-10-19 13:00	2.50	1064	8.20	6.7	4-10-19 12:15	4.39	621	8.02	41.2	4-10-19 12:15	8.09	1459	8.21	18.9						7-11-19 4:15	19.83	1538	8.44	14.2					
4-10-19 13:15	2.33	980	8.19	6.4	4-10-19 12:30	4.54	621	8.03	40.9	4-10-19 12:30	8.11	1458	8.21	18.0						7-11-19 4:30	19.74	1535	8.44	13.8					
4-10-19 13:30	2.56	980	8.18	6.1	4-10-19 12:45	4.55	617	8.03	41.7	4-10-19 12:45	8.23	1457	8.20	19.3						7-11-19 4:45	19.63	1536	8.44	14.0					
4-10-19 13:45	2.81	1067	8.17	6.2	4-10-19 13:00	4.93	621	8.03	41.3	4-10-19 13:00	8.16	1453	8.20	17.9						7-11-19 5:00	19.57	1536	8.45	13.5					
4-10-19 14:00	3.97	1056	8.19	6.2	4-10-19 13:15	5.36	622	8.02	42.3	4-10-19 13:15	8.40	1449	8.18	20.7						7-11-19 5:15	19.52	1538	8.44	13.9					
4-10-19 14:15	4.01	1045	8.18	7.4	4-10-19 13:30	5.20	619	8.02	47.6	4-10-19 13:30	8.61	1450	8.18	19.3						7-11-19 5:30	19.45	1536	8.44	13.6					
4-10-19 14:30	4.16	1016	8.18	7.2	4-10-19 13:45	5.38	621	8.03	38.3	4-10-19 13:45	8.60	1451	8.19	15.8						7-11-19 5:45	19.40	1537	8.45	14.0					
4-10-19 14:45	4.74	1039	8.19	8.1	4-10-19 14:00	5.48	614	8.03	42.7	4-10-19 14:00	8.74	1456	8.19	17.1						7-11-19 6:00	19.38	1535	8.45	13.6					
4-10-19 15:00	4.60	954	8.20	7.3	4-10-19 14:15	5.16	598	8.05	36.5	4-10-19 14:15	8.86	1456	8.19	19.6						7-11-19 6:15	19.33	1537	8.44	14.0					
4-10-19 15:15	5.06	1060	8.22	8.3	4-10-19 14:30	5.52	612	8.05	33.7	4-10-19 14:30	9.00	1456	8.19	15.7						7-11-19 6:30	19.35	1535	8.45	13.6					
4-10-19 15:30	5.24	1068	8.22	8.4	4-10-19 14:45	5.46	601	8.04	31.0	4-10-19 14:45	8.91	1450	8.13	17.2						7-11-19 6:45	19.31	1536	8.44	14.1					
4-10-19 15:45	5.26	1046	8.22	8.2	4-10-19 15:00	5.18	616	8.05	47.3	4-10-19 15:00	9.09	1451	8.18	16.9						7-11-19 7:00	19.26	1535	8.44	13.1					
4-10-19 16:00	5.24	1054	8.23	8.9	4-10-19 15:15	5.93	599	8.05	37.8	4-10-19 15:15	9.31	1446	8.18	17.5						7-11-19 7:15	19.22	1536	8.44	13.5					
4-10-19 16:15	5.01	1007	8.23	7.8	4-10-19 15:30	6.10	612	8.04	39.4	4-10-19 15:30	9.30	1450	8.19	21.1						7-11-19 7:30	19.16	1535	8.44	13.4					
4-10-19 16:30	5.21	1054	8.24	8.7	4-10-19 15:45	5.89	612	8.04	43.1	4-10-19 15:45	9.36	1452	8.18	16.3						7-11-19 7:45	19.14	1537	8.44	14.1					
4-10-19 16:45	5.18	1084	8.24	10.5	4-10-19 16:00	5.80	610	8.06	40.8	4-10-19 16:00	9.52	1451	8.18	17.1						7-11-19 8:00	19.09	1535	8.44	13.6					
4-10-19 17:00	4.93	1077	8.24	11.7	4-10-19 16:15	5.70	598	8.07	39.4	4-10-19 16:15	9.52	1452	8.19	19.6						7-11-19 8:15	19.02	1536	8.43	15.6					
4-10-19 17:15	4.98	1074	8.26	11.0	4-10-19 16:30	5.35	615	8.07	40.5	4-10-19 16:30	9.51	1451	8.19	16.3						7-11-19 8:30	18.99	1536	8.44	13.3					
4-10-19 17:30	5.05	1072	8.26	11.9	4-10-19 16:45	5.13	616	8.08	40.8	4-10-19 16:45	9.57	1450	8.17	22.0						7-11-19 8:45	19.00	1537	8.44	13.2					
4-10-19 17:45	4.81	1059	8.26	9.4	4-10-19 17:00	5.06	596	8.08	39.5	4-10-19 17:00	9.55	1446	8.19	20.1						7-11-19 9:00	18.94	1535	8.44	13.6					
4-10-19 18:00	4.89	1077	8.25	11.4	4-10-19 17:15	5.15	607	8.08	38.8	4-10-19 17:15	9.56	1460	8.19	20.5						7-11-19 9:15	18.86	1536	8.43	14.1					
4-10-19 18:15	4.91	1078	8.26	12.5	4-10-19 17:30	5.15	616	8.08	37.7	4-10-19 17:30	9.52	1448	8.18	15.8						7-11-19 9:30	18.79	1535	8.44	13.6					
4-10-19 18:30	4.88	1068	8.26	11.3	4-10-19 17:45	5.22	615	8.07	39.0	4-10-19 17:45	9.47	1452	8.19	15.0						7-11-19 9:45	18.74	1538	8.43	14.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-10-19 18:45	4.88	1073	8.26	11.7	4-10-19 18:00	5.30	616	8.07	37.7	4-10-19 18:00	9.46	1448	8.19	15.5						7-11-19 10:00	18.71	1539	8.44	13.0					
4-10-19 19:00	4.86	1072	8.26	10.8	4-10-19 18:15					4-10-19 18:15	9.39	1447	8.19	16.8						7-11-19 10:15	18.66	1540	8.43	13.7					
4-10-19 19:15	4.82	1069	8.26	11.9	4-10-19 18:30	5.22	615	8.08	46.1	4-10-19 18:30	9.32	1448	8.19	15.7						7-11-19 10:30	18.66	1540	8.44	12.8					
4-10-19 19:30	4.56	1060	8.26	10.9	4-10-19 18:45	4.96	616	8.08	44.3	4-10-19 18:45	9.24	1451	8.19	16.2						7-11-19 10:45	18.61	1542	8.43	13.8					
4-10-19 19:45	4.59	1078	8.26	11.9	4-10-19 19:00	4.67	618	8.09	44.0	4-10-19 19:00	9.15	1449	8.19	14.5						7-11-19 11:00	18.59	1541	8.43	13.2					
4-10-19 20:00	4.53	1084	8.27	11.6	4-10-19 19:15	5.14	623	8.08	45.3	4-10-19 19:15	9.13	1445	8.19	17.8						7-11-19 11:15	18.58	1542	8.43	13.8					
4-10-19 20:15	3.94	1076	8.29	10.2	4-10-19 19:30	5.20	621	8.07	43.1	4-10-19 19:30	9.09	1443	8.19	17.4						7-11-19 11:30	18.54	1541	8.43	13.4					
4-10-19 20:30	4.07	1076	8.28	10.2	4-10-19 19:45	5.23	619	8.07	41.2	4-10-19 19:45	9.06	1449	8.19	16.9						7-11-19 11:45	18.48	1542	8.43	13.9					
4-10-19 20:45	4.29	1090	8.27	12.0	4-10-19 20:00	5.16	618	8.07	44.1	4-10-19 20:00	8.98	1449	8.19	15.5						7-11-19 12:00	18.45	1541	8.43	13.2					
4-10-19 21:00	4.14	1091	8.27	10.6	4-10-19 20:15	5.18	619	8.08	42.1	4-10-19 20:15	8.93	1451	8.19	15.1						7-11-19 12:15	18.42	1544	8.42	13.9					
4-10-19 21:15	3.98	1095	8.27	11.2	4-10-19 20:30	5.12	609	8.09	40.5	4-10-19 20:30	8.88	1451	8.19	14.7						7-11-19 12:30	18.42	1543	8.43	13.0					
4-10-19 21:30	3.25	1072	8.30	9.5	4-10-19 20:45	5.11	619	8.07	41.5	4-10-19 20:45	8.83	1448	8.18	13.9						7-11-19 12:45	18.38	1543	8.43	14.0					
4-10-19 21:45	3.84	1095	8.27	10.7	4-10-19 21:00	5.09	618	8.07	43.3	4-10-19 21:00	8.79	1447	8.19	13.6						7-11-19 13:00	18.41	1543	8.43	13.1					
4-10-19 22:00	3.62	1098	8.28	10.6	4-10-19 21:15	5.06	619	8.08	36.2	4-10-19 21:15	8.76	1449	8.19	14.1						7-11-19 13:15	18.35	1544	8.43	14.1					
4-10-19 22:15	3.76	1100	8.28	10.6	4-10-19 21:30	5.18	619	8.07	38.4	4-10-19 21:30	8.72	1444	8.18	14.7						7-11-19 13:30	18.30	1543	8.43	13.3					
4-10-19 22:30	3.17	1078	8.29	9.4	4-10-19 21:45	5.05	617	8.08	39.1	4-10-19 21:45	8.68	1446	8.18	13.0						7-11-19 13:45	18.23	1543	8.43	15.3					
4-10-19 22:45	3.23	1081	8.29	10.1	4-10-19 22:00	5.02	618	8.07	39.1	4-10-19 22:00	8.66	1445	8.18	15.2						7-11-19 14:00	18.20	1543	8.44	13.2					
4-10-19 23:00	3.25	1081	8.29	10.4	4-10-19 22:15	4.88	620	8.08	39.6	4-10-19 22:15	8.62	1445	8.18	13.0						7-11-19 14:15	18.22	1545	8.43	13.7					
4-10-19 23:15	3.06	1080	8.30	10.0	4-10-19 22:30	4.91	619	8.08	37.7	4-10-19 22:30	8.57	1445	8.18	13.2						7-11-19 14:30	18.26	1544	8.44	13.8					
4-10-19 23:30	2.97	1086	8.29	9.4	4-10-19 22:45	4.91	619	8.08	39.6	4-10-19 22:45	8.47	1443	8.19	13.9						7-11-19 14:45	18.26	1546	8.43	13.9					
4-10-19 23:45	2.70	1087	8.29	10.6	4-10-19 23:00	4.94	618	8.08	46.1	4-10-19 23:00	8.42	1444	8.18	19.3						7-11-19 15:00	18.29	1543	8.44	13.6					
4-11-19 0:00	3.11	1091	8.29	9.8	4-10-19 23:15	4.96	618	8.07	37.6	4-10-19 23:15	8.37	1438	8.19	34.4						7-11-19 15:15	18.28	1546	8.44	14.0					
4-11-19 0:15	3.30	1087	8.28	9.8	4-10-19 23:30	4.92	617	8.07	39.3	4-10-19 23:30	8.38	1433	8.19	40.7						7-11-19 15:30	18.29	1545	8.44	14.5					
4-11-19 0:30	3.71	1096	8.28	10.8	4-10-19 23:45	4.90	617	8.07	37.7	4-10-19 23:45	8.33	1419	8.20	77.3						7-11-19 15:45	18.40	1548	8.45	15.2					
4-11-19 0:45	3.49	1084	8.28	9.6	4-11-19 0:00	4.96	618	8.07	40.6	4-11-19 0:00	8.28	1422	8.20	57.5						7-11-19 16:00	18.50	1547	8.45	14.8					
4-11-19 1:00	3.56	1095	8.28	12.0	4-11-19 0:15	4.86	618	8.07	38.4	4-11-19 0:15	8.23	1425	8.19	54.1						7-11-19 16:15	18.56	1548	8.45	14.2					
4-11-19 1:15	3.78	1105	8.28	9.8	4-11-19 0:30	4.81	617	8.07	39.1	4-11-19 0:30	8.15	1429	8.19	46.1						7-11-19 16:30	18.68	1546	8.46	14.3					
4-11-19 1:30	3.61	1098	8.28	9.9	4-11-19 0:45	4.70	607	8.07	34.1	4-11-19 0:45	8.06	1425	8.19	44.0						7-11-19 16:45	18.90	1548	8.45	14.6					
4-11-19 1:45	3.50	1102	8.28	11.0	4-11-19 1:00	4.71	605	8.07	38.8	4-11-19 1:00	8.03	1426	8.20	40.2						7-11-19 17:00	18.91	1546	8.45	14.7					
4-11-19 2:00	3.23	1093	8.28	9.3	4-11-19 1:15	4.72	619	8.06	39.2	4-11-19 1:15	7.96	1423	8.19	46.7						7-11-19 17:15	19.02	1547	8.45	14.9					
4-11-19 2:15	3.49	1099	8.29	10.5	4-11-19 1:30	4.82	619	8.06	41.3	4-11-19 1:30	8.03	1423	8.19	50.4						7-11-19 17:30	19.12	1546	8.45	14.7					
4-11-19 2:30	3.44	1102	8.28	9.5	4-11-19 1:45	4.67	615	8.06	37.4	4-11-19 1:45	7.99	1421	8.19	42.6						7-11-19 17:45	19.17	1547	8.44	14.9					
4-11-19 2:45	3.56	1108	8.28	10.5	4-11-19 2:00	4.59	610	8.07	35.2	4-11-19 2:00	7.96	1421	8.19	45.3						7-11-19 18:00	19.62	1548	8.44	14.1					
4-11-19 3:00	3.54	1110	8.28	9.6	4-11-19 2:15	4.53	609	8.07	37.9	4-11-19 2:15	7.94	1422	8.19	45.8						7-11-19 18:15	19.81	1548	8.43	14.5					
4-11-19 3:15	3.11	1111	8.29	11.3	4-11-19 2:30	4.37	610	8.07	37.6	4-11-19 2:30	7.89	1419	8.19	63.2						7-11-19 18:30	20.15	1548	8.43	14.7					
4-11-19 3:30	3.00	1103	8.29	8.6	4-11-19 2:45	4.52	610	8.07	39.0	4-11-19 2:45	7.81	1417	8.19	44.4						7-11-19 18:45	20.34	1548	8.43	15.4					
4-11-19 3:45	3.06	1118	8.30	8.2	4-11-19 3:00	4.33	609	8.07	39.4	4-11-19 3:00	7.77	1416	8.20	45.6						7-11-19 19:00	20.56	1548	8.43	14.7					
4-11-19 4:00	3.25	1121	8.29	10.6	4-11-19 3:15	4.43	610	8.07	41.0	4-11-19 3:15	7.73	1413	8.19	40.3						7-11-19 19:15	20.66	1547	8.42	14.8					
4-11-19 4:15	3.23	1121	8.29	8.6	4-11-19 3:30	4.25	609	8.07	37.1	4-11-19 3:30	7.73	1410	8.19	38.8						7-11-19 19:30	20.81	1545	8.43	13.7					
4-11-19 4:30	3.15	1118	8.29	9.0	4-11-19 3:45	4.30	609	8.07	40.7	4-11-19 3:45	7.69	1411	8.19	46.3						7-11-19 19:45	20.72	1548	8.42	14.5					
4-11-19 4:45	3.21	1114	8.30	8.4	4-11-19 4:00	4.35	611	8.07	37.5	4-11-19 4:00	7.64	1409	8.19	53.5						7-11-19 20:00	20.46	1548	8.42	14.0					
4-11-19 5:00	3.33	1131	8.29	10.0	4-11-19 4:15	4.33	609	8.07	38.6	4-11-19 4:15	7.56	1410	8.19	42.6						7-11-19 20:15	20.46	1550	8.42	14.0					
4-11-19 5:15	3.45	1130	8.30	9.2	4-11-19 4:30	4.28	611	8.07	39.5	4-11-19 4:30	7.58	1409	8.19	41.2						7-11-19 20:30	20.35	1549	8.43	14.8					
4-11-19 5:30	3.10	1128	8.30	8.9	4-11-19 4:45	4.27	619	8.07	36.5	4-11-19 4:45	7.56	1410	8.19	37.2						7-11-19 20:45	20.28	1549	8.43	15.5					
4-11-19 5:45	2.83	1122	8.30	8.5	4-11-19 5:00	4.24	577	8.07	32.6	4-11-19 5:00	7.51	1409	8.19	37.4						7-11-19 21:00									
4-11-19 6:00	3.28	1131	8.30	8.9	4-11-19 5:15	4.14	614	8.07	39.3	4-11-19 5:15	7.50	1412	8.20	41.3						7-11-19 21:15									
4-11-19 6:15	3.28	1122	8.30	8.0	4-11-19 5:30	4.10	603	8.07	40.0	4-11-19 5:30	7.43	1411	8.19	39.1						7-11-19 21:30									
4-11-19 6:30	3.18	1125	8.29	8.5	4-11-19 5:45	4.03	621	8.06	41.4	4-11-19 5:45	7.44	1411	8.19	32.5						7-11-19 21:45									
4-11-19 6:45	3.26	1134	8.30	8.7	4-11-19 6:00	3.85	622	8.06	41.0	4-11-19 6:00	7.38	1410	8.19	33.8						7-11-19 22:00									
4-11-19 7:00	3.24	1135	8.29	8.1	4-11-19 6:15	3.78	621	8.06	40.5	4-11-19 6:15	7.35	1411	8.19	27.6						7-11-19 22:15	20.81	1564	8.42	15.8					
4-11-19 7:15	3.21	1134	8.30	9.2	4-11-19 6:30	3.73	622	8.06	44.1	4-11-19 6:30	7.34	1409	8.19	35.2						7-11-19 22:30	20.92	1560	8.42	15.9					
4-11-19 7:30	3.22	1136	8.30	8.0	4-11-19 6:45	3.80	607	8.06	37.1	4-11-19 6:45	7.29	1409	8.18	29.5						7-11-19 22:45	20.95	1560	8.42	15.1					
4-11-19 7:45	3.20	1147	8.30	9.2	4-11-19 7:00	3.64	624	8.07	43.8	4-11-19 7:00	7.27	1408	8.18	31.4						7-11-19 23:00	21.13	1560	8.41	14.8					
4-11-19 8:00	3.57	1145	8.30	8.6	4-11-19 7:15	3.54	616	8.09	39.4	4-11-19 7:15	7.25	1409	8.19	33.7						7-11-19 23:15	21.32	1561	8.42	15.1					
4-11-19 8:15	3.34	1141	8.29	9.1	4-11-19 7:30	3.45	624	8.07	39.8	4-11-19 7:30	7.21	1411	8.19	31.2						7-11-19 23:30	21.57	1557	8.42	13.3					
4-11-19 8:30	3.47	1140	8.29	8.7	4-11-19 7:45	3.51	624	8.09	40.9	4-11-19 7:45	7.17	1411	8.20	31.2						7-11-19 23:45	21.76	1558	8.42	14.9					
4-11-19 8:45	3.46	1142	8.29	8.3	4-11-19 8:00	3.36	623	8.07	39.1	4-11-19 8:00	7.17	1410	8.19	32.6						7-12-19 0:00	21.85	1557	8.41	12.6					
4-11-19 9:00	3.42	1143	8.29	8.3	4-11-19 8:15	3.45	623	8.07	41.3	4-11-19 8:15	7.15	1412	8.19	35.0						7-12-19 0:15	21.93	1558	8.41	14.6					
4-11-19 9:15	3.67	1143	8.29	8.8	4-11-19 8:30	3.64	624	8.08	41.3	4-11-19 8:30	7.14	1411	8.19	28.8						7-12-19 0:30	22.07	1557	8.42	15.6					
4-11-19 9:30	3.64	1142	8.30	8.6	4-11-19 8:45	3.79	624	8.07	41.0	4-11-19 8:45	7.15	1410	8.20	32.7						7-12-19 0:45	22.08	1559	8.41	15.3					
4-11-19 9:45	3.62	1142	8.30	8.1	4-11-19 9:00	3.87	622	8.07	42.1	4-11-19 9:00	7.12	1411	8.19	33.8						7-12-19 1:00	22.13	1559	8.42	14.5					
4-11-19 10:00	3.60	1141	8.30	8.6	4-11-19 9:15	3.88	622	8.07	40.8	4-11-19 9:15	7.17	1409	8.19	38.2						7-12-19 1:15	22.08	1559	8.41	15.4					
4-11-19 10:15	3.65	1141	8.30	8.5	4-11-19 9:30	3.99	579	8.07	33.3	4-11-19 9:30	7.16	1409	8.19	35.0						7-12-19 1:30	22.03	1559	8.42	14.8					
4-11-19 10:30	3.78	1144	8.30	10.5	4-11-19 9:45	3.97	620	8.07	38.8	4-11-19 9:45	7.15	1408	8.19	33.5						7-12-19 1:45	21.98	1560	8.41	15.5					
4-11-19 10:45	3.77	1141	8.30	10.5	4-11-19 10:00	4.02	608	8.08	38.0	4-11-19 10:00	7.19	1407	8.19	32.2						7-12-19 2:00	21.90	1559	8.42	16.3					
4-11-19 11:00	3.80	1142	8.30	11.9	4-11-19 10:15					4-11-19 10:15	7.20	1407	8.19	33.2						7-12-19 2:15	21.62	1559	8.42	15.7					
4-11-19 11:15	3.84	1142	8.30	11.2	4-11-19 10:30	4.26	605	8.08	32.5	4-11-19 10:30	7.23	1403	8.19	33.3						7-12-19 2:30	21.18	1562	8.41	15.0					
4-11-19 11:30	3.92	1141	8.30	10.3	4-11-19 10:45	4.32	622	8.08	36.8	4-11-19 10:45	7.25	1403	8.19	32.9						7-12-19 2:45	21.37	1561	8.43	15.4					
4-11-19 11:45	4.00	1140	8.30	11.5	4-11-19 11:00	4.27	618	8.08	34.9	4-11-19 11:00	7.28	1399	8.18	39.4						7-12-19 3:00	21.40	1559	8.43	15.3					
4-11-19 12:00	4.08	1142	8.29	11.8	4-11-19 11:15	4.48	617	8.08	35.4	4-11-19 11:15	7.31	1397	8.18	37.9						7-12-19 3:15	21.34	1559	8.42	14.8					
4-11-19 12:15	4.14	1142	8.29	10.5	4-11-19 11:30	4.57	616	8.09	38.8	4-11-19 11:30	7.38	1398	8.18	38.5						7-12-19 3:30	21.24	1560	8.43	14.4					
4-11-19 12:30	4.26	1142	8.30	10.7	4-11-19 11:45	4.71	615	8.09	43.0	4-11-19 11:45	7.41	1393	8.18	39.2						7-12-19 3:45	21.24	1560	8.42	14.2					
4-11-19 12:45	4.35	1141	8.30	11.1	4-11-19 12:00	4.77	614	8.09	47.3	4-11-19 12:00	7.43	1389	8.17	45.8						7-12-19 4:00	21.16	1559	8.43	14.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-11-19 13:00	4.45	1141	8.30	10.7	4-11-19 12:15	4.63	612	8.10	47.7	4-11-19 12:15	7.52	1389	8.17	38.7						7-12-19 4:15	21.13	1560	8.41	14.2					
4-11-19 13:15	4.48	1141	8.30	10.7	4-11-19 12:30	4.69	602	8.10	43.2	4-11-19 12:30	7.53	1392	8.17	39.1						7-12-19 4:30	21.13	1558	8.42	13.6					
4-11-19 13:30	4.53	1141	8.29	12.6	4-11-19 12:45	4.77	620	8.09	45.4	4-11-19 12:45	7.63	1390	8.18	50.1						7-12-19 4:45	21.10	1559	8.42	14.3					
4-11-19 13:45	4.78	1139	8.29	8.9	4-11-19 13:00	4.95	563	8.10	35.8	4-11-19 13:00	7.73	1392	8.18	35.4						7-12-19 5:00	21.03	1559	8.43	13.9					
4-11-19 14:00	4.92	1136	8.29	11.4	4-11-19 13:15	4.74	621	8.12	33.3	4-11-19 13:15	7.81	1392	8.18	30.4						7-12-19 5:15	20.99	1560	8.42	14.5					
4-11-19 14:15	5.16	1137	8.29	10.4	4-11-19 13:30	4.64	620	8.11	42.8	4-11-19 13:30	7.92	1391	8.17	31.9						7-12-19 5:30	20.96	1559	8.42	13.9					
4-11-19 14:30	5.41	1134	8.29	10.8	4-11-19 13:45	4.87	610	8.12	41.5	4-11-19 13:45	8.13	1391	8.17	34.2						7-12-19 5:45	20.91	1559	8.42	14.2					
4-11-19 14:45	5.80	1132	8.30	11.4	4-11-19 14:00	5.49	624	8.09	35.9	4-11-19 14:00	8.31	1384	8.16	30.6						7-12-19 6:00	20.85	1559	8.42	13.5					
4-11-19 15:00	5.56	1134	8.29	13.1	4-11-19 14:15	5.89	619	8.09	29.0	4-11-19 14:15	8.39	1386	8.16	31.1						7-12-19 6:15	20.75	1560	8.41	12.8					
4-11-19 15:15	5.52	1134	8.30	13.7	4-11-19 14:30	6.57	619	8.06	23.4	4-11-19 14:30	8.32	1392	8.17	30.5						7-12-19 6:30	20.71	1559	8.42	13.4					
4-11-19 15:30	5.34	1138	8.30	13.9	4-11-19 14:45	6.76	574	8.07	25.3	4-11-19 14:45	8.56	1391	8.18	31.2						7-12-19 6:45	20.67	1559	8.42	13.7					
4-11-19 15:45	5.20	1137	8.31	13.0	4-11-19 15:00	6.87	571	8.07	31.4	4-11-19 15:00	8.65	1385	8.18	28.4						7-12-19 7:00	20.62	1559	8.43	12.9					
4-11-19 16:00	5.26	1137	8.31	15.9	4-11-19 15:15	8.00	577	8.06	22.8	4-11-19 15:15	8.66	1383	8.17	28.7						7-12-19 7:15	20.57	1560	8.42	13.5					
4-11-19 16:15	5.28	1136	8.31	17.2	4-11-19 15:30	7.46	573	8.07	32.2	4-11-19 15:30	8.99	1391	8.17	28.8						7-12-19 7:30	20.52	1561	8.42	13.2					
4-11-19 16:30	5.15	1135	8.31	14.9	4-11-19 15:45	7.59	566	8.07	34.5	4-11-19 15:45	8.80	1393	8.18	28.1						7-12-19 7:45	20.51	1564	8.43	13.7					
4-11-19 16:45	5.17	1131	8.33	12.6	4-11-19 16:00	7.30	590	8.08	28.1	4-11-19 16:00	8.58	1393	8.18	30.7						7-12-19 8:00	20.46	1563	8.42	13.3					
4-11-19 17:00	5.21	1129	8.32	12.3	4-11-19 16:15	7.23	575	8.09	29.1	4-11-19 16:15	8.31	1393	8.18	28.4						7-12-19 8:15	20.40	1566	8.41	13.6					
4-11-19 17:15	5.28	1127	8.34	11.6	4-11-19 16:30	7.26	597	8.09	39.3	4-11-19 16:30	8.12	1391	8.18	35.1						7-12-19 8:30	20.37	1565	8.42	12.7					
4-11-19 17:30	4.95	1130	8.33	11.3	4-11-19 16:45	7.14	605	8.11	37.3	4-11-19 16:45	8.08	1380	8.18	42.6						7-12-19 8:45	20.36	1567	8.42	13.7					
4-11-19 17:45	4.88	1133	8.33	11.9	4-11-19 17:00	7.13	614	8.10	29.0	4-11-19 17:00	8.24	1384	8.17	36.5						7-12-19 9:00	20.30	1565	8.42	13.0					
4-11-19 18:00	4.90	1138	8.33	13.0	4-11-19 17:15	7.04	616	8.11	30.5	4-11-19 17:15	8.46	1388	8.18	32.3						7-12-19 9:15	20.25	1567	8.42	13.5					
4-11-19 18:15	4.88	1137	8.34	12.6	4-11-19 17:30	6.60	603	8.13	46.7	4-11-19 17:30	8.84	1394	8.18	26.6						7-12-19 9:30	20.20	1566	8.42	12.6					
4-11-19 18:30	4.76	1132	8.35	11.3	4-11-19 17:45	6.33	602	8.15	48.3	4-11-19 17:45	8.88	1389	8.18	25.6						7-12-19 9:45	20.17	1567	8.41	13.2					
4-11-19 18:45	4.51	1125	8.36	11.0	4-11-19 18:00	6.28	621	8.13	55.8	4-11-19 18:00	8.94	1389	8.18	26.0						7-12-19 10:00	20.13	1566	8.42	12.9					
4-11-19 19:00	4.26	1132	8.36	11.4	4-11-19 18:15	6.45	567	8.14	35.3	4-11-19 18:15	8.82	1388	8.18	27.0						7-12-19 10:15	20.08	1568	8.41	13.2					
4-11-19 19:15	4.61	1130	8.36	12.9	4-11-19 18:30	6.55	604	8.13	80.2	4-11-19 18:30	8.59	1383	8.19	27.2						7-12-19 10:30	20.03	1566	8.42	12.6					
4-11-19 19:30	4.41	1127	8.37	13.7	4-11-19 18:45	6.55	616	8.13	34.9	4-11-19 18:45	8.45	1385	8.19	29.1						7-12-19 10:45	19.98	1568	8.41	13.2					
4-11-19 19:45	4.35	1126	8.36	12.5	4-11-19 19:00	6.54	615	8.13	30.9	4-11-19 19:00	8.38	1385	8.18	35.0						7-12-19 11:00	19.91	1566	8.42	12.7					
4-11-19 20:00	4.30	1120	8.36	12.8	4-11-19 19:15	6.44	620	8.11	34.5	4-11-19 19:15	8.30	1379	8.18	35.6						7-12-19 11:15	19.87	1569	8.41	13.1					
4-11-19 20:15	4.55	1125	8.34	13.3	4-11-19 19:30	6.43	603	8.13	28.8	4-11-19 19:30	8.39	1380	8.18	36.5						7-12-19 11:30	19.85	1568	8.42	12.6					
4-11-19 20:30	4.83	1124	8.35	9.7	4-11-19 19:45	6.34	599	8.14	29.5	4-11-19 19:45	8.48	1379	8.18	36.7						7-12-19 11:45	19.83	1570	8.41	13.8					
4-11-19 20:45	5.07	1119	8.35	10.3	4-11-19 20:00	6.29	592	8.14	24.0	4-11-19 20:00	8.47	1373	8.18	41.6						7-12-19 12:00	19.81	1571	8.41	12.5					
4-11-19 21:00	5.13	1114	8.37	9.0	4-11-19 20:15	6.25	621	8.12	34.9	4-11-19 20:15	8.48	1365	8.19	52.4						7-12-19 12:15	19.76	1572	8.40	13.9					
4-11-19 21:15	5.40	1113	8.39	7.6	4-11-19 20:30	6.15	598	8.13	24.8	4-11-19 20:30	8.51	1374	8.19	48.4						7-12-19 12:30	19.73	1571	8.41	12.8					
4-11-19 21:30	5.15	1113	8.38	7.4	4-11-19 20:45	6.04	616	8.13	26.5	4-11-19 20:45	8.51	1369	8.18	50.3						7-12-19 12:45	19.66	1572	8.41	13.0					
4-11-19 21:45	5.11	1109	8.38	7.1	4-11-19 21:00	5.87	575	8.13	31.1	4-11-19 21:00	8.47	1370	8.18	42.8						7-12-19 13:00	19.61	1570	8.42	13.0					
4-11-19 22:00	5.29	1107	8.38	7.1	4-11-19 21:15	5.76	603	8.15	26.9	4-11-19 21:15	8.46	1375	8.18	33.3						7-12-19 13:15	19.57	1570	8.41	13.0					
4-11-19 22:15	5.35	1116	8.36	8.6	4-11-19 21:30	5.67	599	8.14	24.8	4-11-19 21:30	8.40	1372	8.18	34.9						7-12-19 13:30	19.54	1568	8.42	12.7					
4-11-19 22:30	5.61	1112	8.36	7.4	4-11-19 21:45	5.53	619	8.14	24.3	4-11-19 21:45	8.40	1374	8.18	34.1						7-12-19 13:45	19.52	1569	8.41	13.1					
4-11-19 22:45	5.46	1111	8.36	10.1	4-11-19 22:00	5.41	617	8.13	24.1	4-11-19 22:00	8.34	1374	8.19	37.4						7-12-19 14:00	19.53	1570	8.42	12.8					
4-11-19 23:00	5.37	1113	8.36	8.0	4-11-19 22:15	5.33	614	8.14	32.9	4-11-19 22:15	8.29	1373	8.19	33.8						7-12-19 14:15	19.53	1571	8.42	13.0					
4-11-19 23:15	5.32	1114	8.36	8.7	4-11-19 22:30	5.24	619	8.15	33.2	4-11-19 22:30	8.28	1372	8.19	40.1						7-12-19 14:30	19.57	1569	8.42	13.0					
4-11-19 23:30	5.23	1112	8.36	9.4	4-11-19 22:45	5.17	620	8.15	27.2	4-11-19 22:45	8.21	1372	8.19	36.9						7-12-19 14:45	19.61	1570	8.42	13.4					
4-11-19 23:45	5.17	1114	8.36	10.2	4-11-19 23:00	4.97	620	8.15	28.4	4-11-19 23:00	8.17	1369	8.19	34.3						7-12-19 15:00	19.66	1569	8.42	12.8					
4-12-19 0:00	5.16	1116	8.36	8.7	4-11-19 23:15	4.90	620	8.13	22.8	4-11-19 23:15	8.12	1367	8.19	39.8						7-12-19 15:15	19.71	1571	8.42	13.3					
4-12-19 0:15	5.14	1116	8.35	9.9	4-11-19 23:30	4.79	622	8.14	37.8	4-11-19 23:30	8.10	1362	8.19	44.4						7-12-19 15:30	19.78	1570	8.42	12.7					
4-12-19 0:30	5.11	1117	8.35	8.5	4-11-19 23:45	4.71	575	8.15	28.3	4-11-19 23:45	8.05	1364	8.19	42.9						7-12-19 15:45	19.85	1570	8.42	13.4					
4-12-19 0:45	5.10	1119	8.35	9.3	4-12-19 0:00	4.75	580	8.14	30.7	4-12-19 0:00	8.05	1364	8.19	37.6						7-12-19 16:00	19.88	1570	8.42	12.6					
4-12-19 1:00	5.06	1117	8.35	8.0	4-12-19 0:15	4.68	572	8.12	29.9	4-12-19 0:15	8.05	1362	8.19	44.1						7-12-19 16:15	19.88	1570	8.42	13.8					
4-12-19 1:15	5.03	1115	8.35	8.9	4-12-19 0:30	4.66	586	8.13	28.6	4-12-19 0:30	8.03	1363	8.19	33.4						7-12-19 16:30	19.91	1569	8.42	13.2					
4-12-19 1:30	4.89	1115	8.35	8.1	4-12-19 0:45	4.63	625	8.11	34.3	4-12-19 0:45	8.02	1362	8.19	30.8						7-12-19 16:45	19.88	1567	8.42	14.5					
4-12-19 1:45	4.94	1115	8.35	9.3	4-12-19 1:00	4.68	579	8.15	39.3	4-12-19 1:00	7.99	1361	8.19	33.5						7-12-19 17:00	19.84	1565	8.42	14.8					
4-12-19 2:00	4.75	1109	8.36	8.7	4-12-19 1:15	4.63	624	8.14	35.9	4-12-19 1:15	7.93	1361	8.19	37.8						7-12-19 17:15	19.98	1567	8.42	14.5					
4-12-19 2:15	4.72	1111	8.36	10.3	4-12-19 1:30	4.69	579	8.15	33.8	4-12-19 1:30	7.89	1362	8.19	33.5						7-12-19 17:30	20.10	1566	8.42	13.8					
4-12-19 2:30	4.68	1112	8.36	8.7	4-12-19 1:45	4.68	576	8.15	34.6	4-12-19 1:45	7.82	1363	8.20	31.0						7-12-19 17:45	20.22	1571	8.42	14.2					
4-12-19 2:45	4.68	1113	8.35	9.5	4-12-19 2:00	4.74	576	8.14	29.0	4-12-19 2:00	7.77	1364	8.19	32.7						7-12-19 18:00	20.22	1567	8.42	13.7					
4-12-19 3:00	4.62	1114	8.35	11.0	4-12-19 2:15	4.61	589	8.14	29.5	4-12-19 2:15	7.65	1355	8.21	34.0						7-12-19 18:15	20.25	1569	8.42	13.8					
4-12-19 3:15	4.58	1111	8.34	10.6	4-12-19 2:30	4.56	604	8.15	42.9	4-12-19 2:30	7.63	1356	8.20	34.8						7-12-19 18:30	20.33	1569	8.42	13.5					
4-12-19 3:30	4.55	1112	8.34	13.4	4-12-19 2:45	4.41	619	8.15	37.6	4-12-19 2:45	7.62	1355	8.21	38.4						7-12-19 18:45	20.50	1570	8.42	13.8					
4-12-19 3:45	4.50	1114	8.34	11.1	4-12-19 3:00	4.53	625	8.14	37.9	4-12-19 3:00	7.59	1353	8.21	32.8						7-12-19 19:00	20.52	1569	8.42	14.7					
4-12-19 4:00	4.52	1110	8.32	13.8	4-12-19 3:15	4.50	626	8.14	33.8	4-12-19 3:15	7.58	1353	8.21	33.4						7-12-19 19:15	21.06	1570	8.41	14.4					
4-12-19 4:15	4.46	1109	8.32	14.0	4-12-19 3:30	4.61	624	8.14	35.3	4-12-19 3:30	7.56	1352	8.21	30.0						7-12-19 19:30	20.97	1568	8.41	14.0					
4-12-19 4:30	4.42	1110	8.32	12.6	4-12-19 3:45	4.58	624	8.14	31.3	4-12-19 3:45	7.50	1352	8.21	30.3						7-12-19 19:45	21.29	1570	8.41	14.4					
4-12-19 4:45	4.42	1107	8.30	16.1	4-12-19 4:00	4.53	628	8.14	31.3	4-12-19 4:00	7.45	1348	8.21	28.8						7-12-19 20:00	21.35	1568	8.41	13.9					
4-12-19 5:00	4.35	1106	8.29	15.7	4-12-19 4:15	4.56	625	8.13	31.4	4-12-19 4:15	7.43	1349	8.21	28.9						7-12-19 20:15	21.64	1571	8.40	14.4					
4-12-19 5:15	4.35	1106	8.28	20.4	4-12-19 4:30	4.52	626	8.13	36.2	4-12-19 4:30	7.39	1349	8.22	35.9						7-12-19 20:30	22.04	1575	8.40	14.3					
4-12-19 5:30	4.27	1110	8.29	17.0	4-12-19 4:45	4.49	626	8.13	42.0	4-12-19 4:45	7.37	1349	8.22	29.6						7-12-19 20:45	22.46	1576	8.40	13.2					
4-12-19 5:45	4.34	1108	8.28	15.4	4-12-19 5:00	4.53	626	8.13	33.3	4-12-19 5:00	7.36	1348	8.22	32.0						7-12-19 21:00	22.50	1573	8.41	13.7					
4-12-19 6:00	4.25	1106	8.28	14.6	4-12-19 5:15	4.49	626	8.13	34.0	4-12-19 5:15	7.35	1348	8.22	26.1						7-12-19 21:15	22.73	1574	8.40	13.9					
4-12-19 6:15	4.26	1105	8.28	15.4	4-12-19 5:30	4.51	627	8.13	36.3	4-12-19 5:30	7.28	1350	8.22	26.2						7-12-19 21:30	22.88	1573	8.41	13.0					
4-12-19 6:30	4.19	1103	8.27	14.1	4-12-19 5:45	4.44	627	8.13	32.7	4-12-19 5:45	7.32	1346	8.22	27.7						7-12-19 21:45	23.00	1574	8.40	13.5					
4-12-19 6:45	4.18	1104	8.28	16.4	4-12-19 6:00	4.36	626	8.13	32.1	4-12-19 6:00	7.27	1347	8.22	23.6						7-12-19 22:00	23.19	1564	8.40	13.1					
4-12-19 7:00	4.20	1103	8.27	17.0	4-12-19 6:15	4.43	629	8.13	32.6	4-12-19 6:15	7.27	1347	8.22	26.7						7-12-19 22:15	23.23	1576	8.40	14.2					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-12-19 7:15	4.16	1103	8.28	16.1	4-12-19 6:30	4.51	628	8.13	31.5	4-12-19 6:30	7.25	1344	8.23	27.7						7-12-19 22:30	23.40	1574	8.41	14.3					
4-12-19 7:30	4.17	1101	8.27	15.6	4-12-19 6:45	4.51	631	8.13	31.8	4-12-19 6:45	7.23	1346	8.23	27.2						7-12-19 22:45	23.34	1575	8.40	14.2					
4-12-19 7:45	4.13	1101	8.27	19.2	4-12-19 7:00	4.42	631	8.13	27.4	4-12-19 7:00	7.21	1348	8.23	34.0						7-12-19 23:00	23.49	1574	8.41	13.2					
4-12-19 8:00	4.19	1098	8.26	17.8	4-12-19 7:15	4.44	631	8.12	32.0	4-12-19 7:15	7.22	1350	8.23	30.0						7-12-19 23:15	23.50	1575	8.40	16.5					
4-12-19 8:15	4.23	1094	8.24	20.3	4-12-19 7:30	4.45	629	8.13	32.8	4-12-19 7:30	7.20	1349	8.23	26.3						7-12-19 23:30	23.43	1573	8.40	13.1					
4-12-19 8:30	4.25	1098	8.26	18.1	4-12-19 7:45	4.39	631	8.13	30.7	4-12-19 7:45	7.16	1349	8.23	24.0						7-12-19 23:45	22.12	1565	8.40	15.9					
4-12-19 8:45	4.32	1097	8.26	20.0	4-12-19 8:00	4.51	632	8.12	50.7	4-12-19 8:00	7.15	1349	8.23	24.5						7-13-19 0:00	21.63	1567	8.42	15.1					
4-12-19 9:00	4.37	1094	8.25	20.0	4-12-19 8:15	4.68	629	8.12	38.6	4-12-19 8:15	7.17	1350	8.23	23.4						7-13-19 0:15	21.31	1579	8.43	15.5					
4-12-19 9:15	4.45	1093	8.24	21.3	4-12-19 8:30	5.02	628	8.08	23.6	4-12-19 8:30	7.23	1350	8.23	23.7						7-13-19 0:30	21.30	1568	8.43	16.2					
4-12-19 9:30	4.57	1087	8.20	24.3	4-12-19 8:45	5.25	627	8.09	21.2	4-12-19 8:45	7.26	1348	8.23	27.8						7-13-19 0:45	21.25	1568	8.42	17.9					
4-12-19 9:45	4.71	1085	8.19	25.5	4-12-19 9:00	5.50	626	8.11	19.7	4-12-19 9:00	7.36	1347	8.22	23.3						7-13-19 1:00	21.39	1568	8.43	15.9					
4-12-19 10:00	4.94	1083	8.19	24.8	4-12-19 9:15	5.69	624	8.14	25.6	4-12-19 9:15	7.42	1348	8.23	21.2						7-13-19 1:15	21.86	1574	8.43	15.1					
4-12-19 10:15	5.16	1081	8.19	21.1	4-12-19 9:30	5.42	626	8.14	32.0	4-12-19 9:30	7.44	1346	8.24	23.7						7-13-19 1:30	22.20	1573	8.43	14.0					
4-12-19 10:30	5.28	1080	8.19	22.7	4-12-19 9:45	5.79	625	8.14	26.1	4-12-19 9:45	7.59	1349	8.23	19.5						7-13-19 1:45	22.36	1574	8.43	15.1					
4-12-19 10:45	5.56	1078	8.19	24.2	4-12-19 10:00	5.92	626	8.14	29.8	4-12-19 10:00	7.74	1350	8.23	19.3						7-13-19 2:00	22.37	1572	8.42	13.8					
4-12-19 11:00	5.66	1078	8.19	21.5	4-12-19 10:15	6.16	619	8.14	31.5	4-12-19 10:15	7.98	1348	8.24	18.8						7-13-19 2:15	22.38	1573	8.40	14.6					
4-12-19 11:15	5.99	1078	8.19	22.0	4-12-19 10:30	6.02	605	8.14	47.4	4-12-19 10:30	8.13	1345	8.25	23.6						7-13-19 2:30	22.42	1569	8.42	13.5					
4-12-19 11:30	6.11	1079	8.21	17.2	4-12-19 10:45	6.11	600	8.12	27.9	4-12-19 10:45	8.35	1342	8.23	24.0						7-13-19 2:45	22.42	1573	8.41	11.2					
4-12-19 11:45	6.28	1082	8.22	19.1	4-12-19 11:00	6.29	595	8.15	33.1	4-12-19 11:00	8.56	1343	8.26	22.5						7-13-19 3:00	22.40	1571	8.41	14.4					
4-12-19 12:00	5.49	1069	8.22	19.8	4-12-19 11:15	6.38	610	8.14	34.1	4-12-19 11:15	8.94	1344	8.17	22.6						7-13-19 3:15	22.38	1573	8.41	12.8					
4-12-19 12:15	5.47	1075	8.24	20.6	4-12-19 11:30	6.56	613	8.13	30.3	4-12-19 11:30	9.02	1340	8.18	20.7						7-13-19 3:30	22.34	1571	8.41	13.3					
4-12-19 12:30	6.71	1079	8.22	16.8	4-12-19 11:45	6.93	592	8.13	40.7	4-12-19 11:45	8.82	1341	8.24	22.6						7-13-19 3:45	22.32	1570	8.41	13.1					
4-12-19 12:45	6.64	1070	8.23	18.3	4-12-19 12:00	7.44	577	8.13	32.2	4-12-19 12:00	8.91	1343	8.25	23.9						7-13-19 4:00	22.28	1571	8.41	12.6					
4-12-19 13:00	6.77	1069	8.22	18.4	4-12-19 12:15	6.96	572	8.14	33.4	4-12-19 12:15	9.01	1345	8.25	22.6						7-13-19 4:15	22.21	1571	8.40	13.1					
4-12-19 13:15	6.63	1063	8.21	19.1	4-12-19 12:30	6.79	559	8.16	41.2	4-12-19 12:30	9.52	1345	8.25	22.2						7-13-19 4:30	22.16	1572	8.42	12.7					
4-12-19 13:30	7.02	1065	8.22	19.2	4-12-19 12:45	7.22	607	8.15	32.5	4-12-19 12:45	9.49	1340	8.26	24.3						7-13-19 4:45	21.81	1569	8.41	13.9					
4-12-19 13:45	7.11	1064	8.21	17.9	4-12-19 13:00	5.63	614	8.17	37.5	4-12-19 13:00	9.61	1341	8.27	22.5						7-13-19 5:00	21.62	1570	8.42	13.2					
4-12-19 14:00	7.22	1060	8.20	18.5	4-12-19 13:15	6.26	616	8.18	35.1	4-12-19 13:15	9.67	1338	8.28	26.5						7-13-19 5:15	21.55	1570	8.42	13.5					
4-12-19 14:15	7.42	1057	8.22	18.8	4-12-19 13:30	6.27	616	8.18	34.8	4-12-19 13:30	9.73	1336	8.30	27.0						7-13-19 5:30	21.49	1570	8.41	14.0					
4-12-19 14:30	7.31	1053	8.22	18.6	4-12-19 13:45	5.67	615	8.19	36.4	4-12-19 13:45	9.93	1341	8.30	26.1						7-13-19 5:45	21.47	1571	8.40	13.9					
4-12-19 14:45	7.30	1046	8.22	17.7	4-12-19 14:00	5.92	617	8.19	35.4	4-12-19 14:00	9.91	1341	8.29	28.2						7-13-19 6:00	21.40	1570	8.41	14.2					
4-12-19 15:00	7.25	1047	8.20	18.8	4-12-19 14:15	5.92	617	8.19	37.8	4-12-19 14:15	10.01	1343	8.29	24.3						7-13-19 6:15	21.35	1572	8.39	14.2					
4-12-19 15:15	7.50	1055	8.21	18.7	4-12-19 14:30	5.86	620	8.19	36.2	4-12-19 14:30	10.14	1337	8.29	26.3						7-13-19 6:30	21.34	1570	8.41	13.6					
4-12-19 15:30	7.63	1059	8.22	19.6	4-12-19 14:45	6.19	621	8.19	35.0	4-12-19 14:45	10.20	1332	8.30	24.4						7-13-19 6:45	21.32	1570	8.40	14.2					
4-12-19 15:45	7.55	1049	8.22	18.9	4-12-19 15:00	6.28	622	8.18	37.9	4-12-19 15:00	10.03	1333	8.31	26.6						7-13-19 7:00	21.35	1571	8.42	13.4					
4-12-19 16:00	7.64	1061	8.20	25.4	4-12-19 15:15	6.28	618	8.19	37.8	4-12-19 15:15	10.13	1334	8.30	25.8						7-13-19 7:15	21.39	1571	8.42	13.4					
4-12-19 16:15	7.85	1062	8.21	21.2	4-12-19 15:30	6.08	630	8.20	38.0	4-12-19 15:30	10.11	1335	8.31	27.5						7-13-19 7:30	21.36	1570	8.42	13.5					
4-12-19 16:30	7.83	1059	8.21	21.4	4-12-19 15:45	6.19	617	8.20	45.4	4-12-19 15:45	10.14	1333	8.31	25.8						7-13-19 7:45	21.30	1571	8.41	13.7					
4-12-19 16:45	7.91	1059	8.21	20.3	4-12-19 16:00	6.16	584	8.21	35.2	4-12-19 16:00	10.11	1335	8.32	24.3						7-13-19 8:00	21.23	1568	8.41	12.5					
4-12-19 17:00	7.94	1063	8.22	21.3	4-12-19 16:15	6.27	578	8.21	36.8	4-12-19 16:15	10.07	1337	8.32	25.4						7-13-19 8:15	21.19	1575	8.40	13.5					
4-12-19 17:15	7.88	1065	8.22	21.4	4-12-19 16:30	6.33	608	8.21	36.0	4-12-19 16:30	10.07	1333	8.32	26.4						7-13-19 8:30	21.17	1569	8.41	13.1					
4-12-19 17:30	7.88	1066	8.22	17.8	4-12-19 16:45	6.33	611	8.22	36.9	4-12-19 16:45	9.94	1330	8.33	26.4						7-13-19 8:45	21.14	1571	8.39	13.4					
4-12-19 17:45	7.90	1070	8.23	18.3	4-12-19 17:00	6.17	610	8.22	36.0	4-12-19 17:00	10.03	1330	8.33	25.0						7-13-19 9:00	21.09	1570	8.40	12.8					
4-12-19 18:00	7.90	1069	8.23	18.3	4-12-19 17:15	6.14	625	8.22	34.9	4-12-19 17:15	9.75	1325	8.36	28.4						7-13-19 9:15	21.04	1571	8.40	13.4					
4-12-19 18:15	7.91	1066	8.23	20.3	4-12-19 17:30	6.16	627	8.22	34.1	4-12-19 17:30	9.74	1327	8.36	30.6						7-13-19 9:30	21.01	1569	8.41	13.4					
4-12-19 18:30	7.89	1067	8.24	19.0	4-12-19 17:45	6.29	628	8.21	34.7	4-12-19 17:45	9.67	1327	8.36	31.4						7-13-19 9:45	20.96	1571	8.40	13.5					
4-12-19 18:45	7.86	1069	8.24	19.5	4-12-19 18:00	6.35	627	8.21	35.3	4-12-19 18:00	9.59	1327	8.37	30.0						7-13-19 10:00	20.95	1570	8.40	12.8					
4-12-19 19:00	7.80	1070	8.25	19.9	4-12-19 18:15	6.23	627	8.22	36.3	4-12-19 18:15	9.50	1324	8.38	28.6						7-13-19 10:15	20.90	1571	8.39	13.4					
4-12-19 19:15	7.81	1066	8.25	21.5	4-12-19 18:30	6.20	628	8.23	36.4	4-12-19 18:30	9.46	1324	8.39	31.0						7-13-19 10:30	20.87	1570	8.40	13.2					
4-12-19 19:30	7.77	1068	8.25	21.2	4-12-19 18:45	6.34	628	8.21	35.5	4-12-19 18:45	9.40	1321	8.39	28.8						7-13-19 10:45	20.84	1570	8.39	12.8					
4-12-19 19:45	7.76	1066	8.25	23.9	4-12-19 19:00	6.23	627	8.22	45.1	4-12-19 19:00	9.32	1318	8.40	29.0						7-13-19 11:00	20.82	1570	8.40	12.8					
4-12-19 20:00	7.70	1070	8.25	18.9	4-12-19 19:15	6.07	628	8.23	75.5	4-12-19 19:15	9.14	1312	8.42	31.7						7-13-19 11:15	20.77	1574	8.39	13.3					
4-12-19 20:15	7.65	1070	8.25	18.0	4-12-19 19:30	6.20	630	8.22	46.3	4-12-19 19:30	9.12	1314	8.41	30.0						7-13-19 11:30	20.75	1570	8.39	13.1					
4-12-19 20:30	7.62	1069	8.25	18.8	4-12-19 19:45	6.43	628	8.21	48.6	4-12-19 19:45	9.06	1313	8.42	27.9						7-13-19 11:45	20.73	1571	8.39	13.5					
4-12-19 20:45	7.60	1070	8.26	17.3	4-12-19 20:00	6.39	628	8.21	50.4	4-12-19 20:00	8.99	1312	8.42	34.0						7-13-19 12:00	20.71	1570	8.40	13.0					
4-12-19 21:00	7.53	1068	8.26	19.2	4-12-19 20:15					4-12-19 20:15	8.92	1310	8.42	31.0						7-13-19 12:15	20.65	1572	8.38	13.8					
4-12-19 21:15	7.51	1067	8.26	20.3	4-12-19 20:30	6.22	630	8.21	50.8	4-12-19 20:30	8.90	1310	8.42	29.5						7-13-19 12:30	20.63	1570	8.40	13.2					
4-12-19 21:30	7.49	1070	8.26	20.2	4-12-19 20:45	6.25	630	8.20	50.1	4-12-19 20:45	8.89	1311	8.42	27.2						7-13-19 12:45	20.59	1572	8.40	13.0					
4-12-19 21:45	7.38	1071	8.26	16.9	4-12-19 21:00	6.28	630	8.19	50.1	4-12-19 21:00	8.88	1311	8.42	25.6						7-13-19 13:00	20.58	1570	8.40	13.2					
4-12-19 22:00	7.40	1071	8.26	19.7	4-12-19 21:15	6.21	631	8.19	53.2	4-12-19 21:15	8.86	1312	8.42	26.7						7-13-19 13:15	20.57	1571	8.40	13.3					
4-12-19 22:15	7.35	1072	8.26	18.8	4-12-19 21:30	6.19	631	8.17	61.1	4-12-19 21:30	8.82	1309	8.42	22.8						7-13-19 13:30	20.54	1570	8.41	12.8					
4-12-19 22:30	7.32	1072	8.25	15.4	4-12-19 21:45	6.32	631	8.19	83.0	4-12-19 21:45	8.81	1309	8.42	23.0						7-13-19 13:45	20.52	1570	8.40	13.6					
4-12-19 22:45	7.28	1070	8.26	16.4	4-12-19 22:00	6.31	631	8.18	63.4	4-12-19 22:00	8.78	1309	8.42	21.6						7-13-19 14:00	20.52	1570	8.41	12.9					
4-12-19 23:00	7.26	1072	8.26	15.2	4-12-19 22:15	6.29	631	8.20	30.9	4-12-19 22:15	8.75	1310	8.42	21.5						7-13-19 14:15	20.51	1572	8.41	14.1					
4-12-19 23:15	7.19	1073	8.27	14.8	4-12-19 22:30	6.30	631	8.19	25.1	4-12-19 22:30	8.72	1316	8.42	23.4						7-13-19 14:30	20.56	1570	8.42	12.8					
4-12-19 23:30	7.19	1075	8.26	15.4	4-12-19 22:45	6.31	631	8.18	21.3	4-12-19 22:45	8.71	1310	8.42	26.3						7-13-19 14:45	20.59	1571	8.41	13.6					
4-12-19 23:45	7.15	1074	8.27	15.4	4-12-19 23:00	6.27	632	8.20	23.7	4-12-19 23:00	8.69	1310	8.42	22.7						7-13-19 15:00	20.61	1570	8.42	13.0					
4-13-19 0:00	7.09	1073	8.26	15.4	4-12-19 23:15	6.24	632	8.19	24.0	4-12-19 23:15	8.64	1309	8.42	22.7						7-13-19 15:15	20.60	1571	8.41	12.8					
4-13-19 0:15	7.02	1071	8.28	14.6	4-12-19 23:30	6.21	631	8.18	32.7	4-12-19 23:30	8.60	1307	8.43	29.7						7-13-19 15:30	20.67	1570	8.42	13.6					
4-13-19 0:30	7.02	1074	8.28	15.2	4-12-19 23:45	6.18	632	8.19	37.9	4-12-19 23:45	8.61	1304	8.44	51.9						7-13-19 15:45	20.76	1571	8.42	13.5					
4-13-19 0:45	6.96	1070	8.28	16.0	4-13-19 0:00	6.22	631	8.19	142.2	4-13-19 0:00	8.54	1301	8.44	41.8						7-13-19 16:00	20.82	1569	8.42	13.2					
4-13-19 1:00	6.91	1072	8.28	15.3	4-13-19 0:15	6.13	621	8.19	31.6	4-13-19 0:15	8.52	1301	8.44	43.2						7-13-19 16:15	20.83	1571	8.40	14.2					
4-13-19 1:15	6.86	1074	8.28	16.1	4-13-19 0:30	6.11	601	8.19	22.5	4-13-19 0:30	8.45	1301	8.43	41.4						7-13-19 16:30	20.94	1570	8.42	13.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-13-19 1:30	6.77	1072	8.28	15.3	4-13-19 0:45	6.07	606	8.19	25.3	4-13-19 0:45	8.40	1304	8.43	36.8						7-13-19 16:45	21.09	1572	8.42	13.2					
4-13-19 1:45	6.81	1072	8.28	16.1	4-13-19 1:00	6.02	619	8.19	26.8	4-13-19 1:00	8.39	1305	8.44	38.1						7-13-19 17:00	21.30	1572	8.43	12.8					
4-13-19 2:00	6.72	1076	8.28	15.3	4-13-19 1:15	6.03	647	8.19	28.9	4-13-19 1:15	8.32	1306	8.44	37.9						7-13-19 17:15	21.36	1572	8.42	13.2					
4-13-19 2:15	6.68	1076	8.28	14.2	4-13-19 1:30	6.02	678	8.18	33.1	4-13-19 1:30	8.24	1306	8.44	35.3						7-13-19 17:30	21.44	1571	8.42	12.8					
4-13-19 2:30	6.55	1075	8.28	15.3	4-13-19 1:45	5.99	624	8.19	30.1	4-13-19 1:45	8.22	1306	8.44	30.8						7-13-19 17:45	21.73	1574	8.41	12.8					
4-13-19 2:45	6.58	1077	8.28	13.7	4-13-19 2:00	5.95	586	8.19	30.0	4-13-19 2:00	8.18	1307	8.44	29.1						7-13-19 18:00	21.89	1573	8.42	13.0					
4-13-19 3:00	6.40	1076	8.28	14.9	4-13-19 2:15	5.95	570	8.18	28.6	4-13-19 2:15	8.11	1306	8.44	40.7						7-13-19 18:15	22.01	1575	8.40	12.7					
4-13-19 3:15	6.47	1075	8.28	13.6	4-13-19 2:30	5.95	566	8.19	28.0	4-13-19 2:30	8.14	1306	8.44	33.2						7-13-19 18:30	22.25	1574	8.41	12.8					
4-13-19 3:30	6.43	1076	8.28	13.1	4-13-19 2:45	5.88	564	8.18	27.4	4-13-19 2:45	8.10	1309	8.44	36.3						7-13-19 18:45	22.37	1576	8.40	12.6					
4-13-19 3:45	6.32	1078	8.29	13.2	4-13-19 3:00	5.85	600	8.19	30.8	4-13-19 3:00	8.07	1304	8.44	29.2						7-13-19 19:00	22.54	1575	8.41	12.2					
4-13-19 4:00	6.34	1078	8.28	14.1	4-13-19 3:15	5.82	673	8.19	26.6	4-13-19 3:15	8.01	1304	8.44	30.7						7-13-19 19:15	22.87	1576	8.41	12.5					
4-13-19 4:15	6.28	1078	8.29	12.9	4-13-19 3:30	5.81	609	8.19	25.8	4-13-19 3:30	7.98	1304	8.44	31.6						7-13-19 19:30	22.89	1573	8.41	12.1					
4-13-19 4:30	6.15	1079	8.29	13.6	4-13-19 3:45	5.84	625	8.19	25.3	4-13-19 3:45	7.99	1304	8.44	31.2						7-13-19 19:45	23.36	1577	8.41	12.7					
4-13-19 4:45	6.16	1078	8.28	13.3	4-13-19 4:00	5.66	630	8.19	30.3	4-13-19 4:00	7.95	1312	8.44	28.8						7-13-19 20:00	23.34	1575	8.40	12.2					
4-13-19 5:00	6.08	1079	8.29	13.6	4-13-19 4:15	5.65	630	8.19	25.1	4-13-19 4:15	7.88	1304	8.44	26.5						7-13-19 20:15	23.44	1576	8.40	12.6					
4-13-19 5:15	6.10	1080	8.29	17.6	4-13-19 4:30	5.71	630	8.18	27.0	4-13-19 4:30	7.85	1303	8.44	26.9						7-13-19 20:30	23.37	1575	8.41	12.6					
4-13-19 5:30	6.02	1080	8.28	13.0	4-13-19 4:45	5.70	632	8.19	32.3	4-13-19 4:45	7.82	1303	8.44	29.4						7-13-19 20:45	23.70	1568	8.40	12.8					
4-13-19 5:45	5.92	1080	8.29	12.5	4-13-19 5:00	5.73	631	8.17	20.2	4-13-19 5:00	7.76	1302	8.44	23.5						7-13-19 21:00	24.03	1576	8.40	12.4					
4-13-19 6:00	5.90	1081	8.29	15.0	4-13-19 5:15	5.67	632	8.17	27.2	4-13-19 5:15	7.74	1303	8.44	27.0						7-13-19 21:15	24.31	1576	8.40	12.6					
4-13-19 6:15	5.88	1082	8.28	12.9	4-13-19 5:30	5.64	632	8.16	19.7	4-13-19 5:30	7.72	1303	8.44	22.7						7-13-19 21:30	24.51	1578	8.40	11.9					
4-13-19 6:30	5.83	1080	8.28	12.5	4-13-19 5:45	5.64	632	8.17	24.0	4-13-19 5:45	7.67	1301	8.43	25.8						7-13-19 21:45	24.77	1580	8.40	12.4					
4-13-19 6:45	5.72	1078	8.29	12.6	4-13-19 6:00	5.57	633	8.18	28.6	4-13-19 6:00	7.63	1300	8.43	25.3						7-13-19 22:00	24.80	1578	8.40	11.3					
4-13-19 7:00	5.80	1080	8.29	12.9	4-13-19 6:15	5.55	633	8.17	27.9	4-13-19 6:15	7.59	1299	8.43	26.1						7-13-19 22:15	24.92	1582	8.40	12.3					
4-13-19 7:15	5.73	1079	8.29	12.4	4-13-19 6:30	5.51	634	8.17	29.2	4-13-19 6:30	7.57	1298	8.42	23.7						7-13-19 22:30	24.97	1579	8.41	11.8					
4-13-19 7:30	5.63	1082	8.29	13.7	4-13-19 6:45	5.54	635	8.18	31.1	4-13-19 6:45	7.54	1299	8.42	24.6						7-13-19 22:45	24.96	1571	8.40	12.6					
4-13-19 7:45	5.58	1080	8.29	14.6	4-13-19 7:00	5.58	635	8.16	23.0	4-13-19 7:00	7.55	1298	8.42	26.6						7-13-19 23:00	24.87	1576	8.40	12.0					
4-13-19 8:00	5.66	1082	8.29	14.4	4-13-19 7:15	5.61	636	8.17	31.7	4-13-19 7:15	7.51	1298	8.42	23.6						7-13-19 23:15	24.50	1578	8.40	12.4					
4-13-19 8:15	5.71	1081	8.29	13.6	4-13-19 7:30	5.44	637	8.18	31.4	4-13-19 7:30	7.49	1296	8.41	25.4						7-13-19 23:30	24.23	1576	8.40	12.2					
4-13-19 8:30	5.73	1083	8.30	21.5	4-13-19 7:45	5.46	635	8.18	31.4	4-13-19 7:45	7.45	1296	8.41	20.0						7-13-19 23:45	22.83	1561	8.41	16.5					
4-13-19 8:45	5.75	1082	8.30	16.7	4-13-19 8:00	5.57	637	8.18	30.4	4-13-19 8:00	7.49	1296	8.41	22.0						7-14-19 0:00	22.31	1565	8.43	15.0					
4-13-19 9:00	5.76	1085	8.30	18.7	4-13-19 8:15					4-13-19 8:15	7.49	1296	8.41	21.9						7-14-19 0:15	22.13	1570	8.44	14.5					
4-13-19 9:15	5.77	1082	8.30	17.9	4-13-19 8:30	5.83	636	8.17	26.1	4-13-19 8:30	7.52	1296	8.42	22.6						7-14-19 0:30	22.22	1572	8.44	13.6					
4-13-19 9:30	5.77	1083	8.30	14.6	4-13-19 8:45	5.78	637	8.17	22.1	4-13-19 8:45	7.53	1296	8.42	20.2						7-14-19 0:45	22.61	1573	8.44	13.5					
4-13-19 9:45	5.86	1083	8.30	14.7	4-13-19 9:00	5.82	637	8.16	20.2	4-13-19 9:00	7.54	1295	8.41	23.6						7-14-19 1:00	22.92	1574	8.43	12.9					
4-13-19 10:00	5.91	1081	8.30	14.7	4-13-19 9:15	5.84	637	8.16	20.8	4-13-19 9:15	7.55	1297	8.42	28.6						7-14-19 1:15	23.11	1576	8.42	13.4					
4-13-19 10:15	5.99	1083	8.31	15.2	4-13-19 9:30	5.78	638	8.17	20.6	4-13-19 9:30	7.57	1296	8.41	20.3						7-14-19 1:30	23.18	1578	8.42	12.4					
4-13-19 10:30	6.05	1083	8.30	15.9	4-13-19 9:45	5.83	638	8.17	17.0	4-13-19 9:45	7.56	1297	8.41	16.7						7-14-19 1:45	23.17	1577	8.41	12.9					
4-13-19 10:45	6.08	1082	8.30	15.0	4-13-19 10:00	5.83	638	8.18	30.4	4-13-19 10:00	7.61	1296	8.40	17.9						7-14-19 2:00	23.19	1579	8.42	12.3					
4-13-19 11:00	6.18	1083	8.29	14.5	4-13-19 10:15	5.91	638	8.20	22.0	4-13-19 10:15	7.62	1297	8.40	19.4						7-14-19 2:15	23.17	1576	8.41	12.9					
4-13-19 11:15	6.52	1082	8.30	13.9	4-13-19 10:30	5.92	638	8.21	20.6	4-13-19 10:30	7.66	1298	8.41	19.8						7-14-19 2:30	23.16	1576	8.41	12.3					
4-13-19 11:30	6.81	1082	8.29	13.2	4-13-19 10:45	5.98	637	8.20	21.3	4-13-19 10:45	7.67	1295	8.41	18.2						7-14-19 2:45	23.14	1576	8.42	12.8					
4-13-19 11:45	7.10	1078	8.30	13.9	4-13-19 11:00	6.15	634	8.22	21.1	4-13-19 11:00	7.80	1295	8.41	18.0						7-14-19 3:00	23.12	1578	8.42	12.8					
4-13-19 12:00	7.05	1080	8.29	14.3	4-13-19 11:15	6.47	633	8.22	21.1	4-13-19 11:15	7.87	1297	8.41	16.8						7-14-19 3:15	23.11	1580	8.42	12.6					
4-13-19 12:15	7.02	1077	8.29	14.4	4-13-19 11:30	6.66	632	8.22	25.9	4-13-19 11:30	8.04	1299	8.43	16.2						7-14-19 3:30	23.10	1578	8.42	12.2					
4-13-19 12:30	7.39	1080	8.30	13.9	4-13-19 11:45	6.76	632	8.24	26.0	4-13-19 11:45	8.26	1297	8.41	17.9						7-14-19 3:45	23.04	1578	8.41	12.7					
4-13-19 12:45	7.32	1081	8.30	14.0	4-13-19 12:00	6.62	630	8.24	27.0	4-13-19 12:00	8.36	1296	8.42	18.3						7-14-19 4:00	22.98	1578	8.41	12.9					
4-13-19 13:00	7.20	1078	8.30	14.7	4-13-19 12:15	6.58	627	8.24	25.5	4-13-19 12:15	8.70	1299	8.42	15.5						7-14-19 4:15	22.93	1580	8.41	12.3					
4-13-19 13:15	7.33	1083	8.30	13.8	4-13-19 12:30	6.98	620	8.20	25.2	4-13-19 12:30	8.89	1298	8.42	16.9						7-14-19 4:30	22.90	1578	8.41	12.6					
4-13-19 13:30	7.36	1083	8.31	12.6	4-13-19 12:45	7.08	615	8.20	23.2	4-13-19 12:45	8.84	1297	8.42	19.6						7-14-19 4:45	22.84	1579	8.41	12.6					
4-13-19 13:45	7.17	1077	8.32	14.5	4-13-19 13:00	7.21	612	8.20	24.5	4-13-19 13:00	8.85	1297	8.42	19.8						7-14-19 5:00	22.80	1578	8.42	12.3					
4-13-19 14:00	7.08	1082	8.34	14.1	4-13-19 13:15	6.87	607	8.22	22.7	4-13-19 13:15	8.85	1294	8.42	17.8						7-14-19 5:15	22.71	1579	8.41	12.1					
4-13-19 14:15	7.29	1085	8.33	13.8	4-13-19 13:30	6.33	608	8.27	24.7	4-13-19 13:30	8.85	1295	8.42	19.8						7-14-19 5:30	22.63	1578	8.42	12.4					
4-13-19 14:30	7.29	1084	8.33	14.8	4-13-19 13:45	6.15	610	8.27	26.0	4-13-19 13:45	8.83	1297	8.43	23.2						7-14-19 5:45	22.59	1578	8.42	12.1					
4-13-19 14:45	7.29	1084	8.34	14.7	4-13-19 14:00	5.98	616	8.26	24.5	4-13-19 14:00	8.83	1297	8.43	17.0						7-14-19 6:00	22.58	1576	8.42	12.4					
4-13-19 15:00	7.33	1083	8.35	15.7	4-13-19 14:15	5.87	619	8.24	32.7	4-13-19 14:15	8.73	1296	8.44	22.8						7-14-19 6:15	22.51	1579	8.41	12.3					
4-13-19 15:15	7.26	1079	8.35	21.1	4-13-19 14:30	6.01	619	8.23	24.9	4-13-19 14:30	8.74	1296	8.44	20.4						7-14-19 6:30	22.49	1577	8.42	11.8					
4-13-19 15:30	7.25	1082	8.35	16.3	4-13-19 14:45	6.11	601	8.23	25.6	4-13-19 14:45	8.77	1290	8.44	20.1						7-14-19 6:45	22.44	1579	8.41	12.1					
4-13-19 15:45	7.36	1084	8.35	19.5	4-13-19 15:00	6.16	589	8.23	24.9	4-13-19 15:00	8.56	1292	8.45	24.4						7-14-19 7:00	22.36	1576	8.42	11.7					
4-13-19 16:00	7.42	1084	8.35	15.1	4-13-19 15:15	6.21	579	8.23	23.6	4-13-19 15:15	8.54	1291	8.46	27.1						7-14-19 7:15	22.30	1578	8.41	12.1					
4-13-19 16:15	7.40	1085	8.36	15.6	4-13-19 15:30	6.25	571	8.24	18.1	4-13-19 15:30	8.61	1291	8.45	26.1						7-14-19 7:30	22.24	1577	8.41	11.8					
4-13-19 16:30	7.39	1084	8.36	15.5	4-13-19 15:45	6.36	587	8.24	30.0	4-13-19 15:45	8.60	1293	8.46	22.4						7-14-19 7:45	22.14	1578	8.41	11.6					
4-13-19 16:45	7.42	1085	8.37	15.0	4-13-19 16:00	6.42	612	8.25	24.7	4-13-19 16:00	8.65	1292	8.46	20.4						7-14-19 8:00	22.10	1576	8.41	11.4					
4-13-19 17:00	7.42	1086	8.36	16.8	4-13-19 16:15	6.57	615	8.24	25.7	4-13-19 16:15	8.53	1287	8.47	23.6						7-14-19 8:15	22.01	1578	8.41	12.0					
4-13-19 17:15	7.37	1087	8.35	14.9	4-13-19 16:30	6.68	633	8.24	27.5	4-13-19 16:30	8.49	1288	8.48	25.0						7-14-19 8:30	21.97	1577	8.41	11.9					
4-13-19 17:30	7.40	1086	8.34	14.7	4-13-19 16:45	6.76	635	8.24	18.3	4-13-19 16:45	8.53	1287	8.47	21.2						7-14-19 8:45	21.92	1577	8.41	12.0					
4-13-19 17:45	7.41	1088	8.34	18.1	4-13-19 17:00	6.78	637	8.23	25.6	4-13-19 17:00	8.49	1287	8.47	22.9						7-14-19 9:00	21.89	1576	8.41	11.9					
4-13-19 18:00	7.43	1088	8.35	15.6	4-13-19 17:15	6.99	637	8.23	23.6	4-13-19 17:15	8.51	1286	8.47	20.9						7-14-19 9:15	21.81	1577	8.41	13.1					
4-13-19 18:15	7.35	1086	8.35	17.0	4-13-19 17:30	6.95	638	8.23	22.7	4-13-19 17:30	8.53	1288	8.47	22.6						7-14-19 9:30	21.74	1576	8.42	11.5					
4-13-19 18:30	7.26	1087	8.34	18.1	4-13-19 17:45	6.99	638	8.22	16.5	4-13-19 17:45	8.43	1283	8.49	24.6						7-14-19 9:45	21.71	1577	8.41	11.7					
4-13-19 18:45	7.24	1088	8.34	19.8	4-13-19 18:00	7.06	637	8.21	13.7	4-13-19 18:00	8.42	1283	8.48	26.2						7-14-19 10:00	21.68	1575	8.41	12.1					
4-13-19 19:00	7.20	1088	8.34	60.1	4-13-19 18:15	7.10	637	8.21	19.0	4-13-19 18:15	8.44	1283	8.48	24.3						7-14-19 10:15	21.61	1578	8.40	12.3					
4-13-19 19:15	7.18	1087	8.34	20.5	4-13-19 18:30	7.10	637	8.22	13.9	4-13-19 18:30	8.44	1282	8.48	23.3						7-14-19 10:30	21.60	1576	8.40	12.0					
4-13-19 19:30	7.14	1088	8.34	18.9	4-13-19 18:45	7.08	637	8.21	11.5	4-13-19 18:45	8.45	1285	8.48	22.3						7-14-19 10:45	21.53	1577	8.40	11.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-13-19 19:45	7.12	1088	8.34	20.0	4-13-19 19:00	7.07	638	8.20	11.6	4-13-19 19:00	8.47	1288	8.48	21.9						7-14-19 11:00	21.48	1576	8.40	12.2					
4-13-19 20:00	7.05	1088	8.34	17.9	4-13-19 19:15	7.05	637	8.21	11.9	4-13-19 19:15	8.46	1288	8.48	22.4						7-14-19 11:15	21.42	1577	8.40	12.3					
4-13-19 20:15	7.06	1088	8.33	19.9	4-13-19 19:30	7.01	638	8.21	11.0	4-13-19 19:30	8.44	1287	8.48	22.8						7-14-19 11:30	21.35	1576	8.40	11.8					
4-13-19 20:30	7.01	1089	8.33	18.6	4-13-19 19:45	6.95	638	8.21	11.0	4-13-19 19:45	8.40	1284	8.48	23.3						7-14-19 11:45	21.30	1577	8.39	12.1					
4-13-19 20:45	7.01	1088	8.34	19.4	4-13-19 20:00	6.90	638	8.22	13.5	4-13-19 20:00	8.37	1282	8.48	24.6						7-14-19 12:00	21.27	1576	8.40	11.9					
4-13-19 21:00	6.99	1087	8.34	18.5	4-13-19 20:15	6.83	639	8.22	18.3	4-13-19 20:15	8.23	1281	8.49	23.6						7-14-19 12:15	21.22	1578	8.39	12.1					
4-13-19 21:15	6.89	1090	8.34	20.1	4-13-19 20:30	6.79	639	8.23	16.8	4-13-19 20:30	8.12	1279	8.50	23.1						7-14-19 12:30	21.20	1576	8.40	11.9					
4-13-19 21:30	6.89	1090	8.35	18.5	4-13-19 20:45	6.75	639	8.23	16.4	4-13-19 20:45	8.09	1276	8.50	30.1						7-14-19 12:45	21.17	1577	8.39	12.4					
4-13-19 21:45	6.84	1089	8.34	20.1	4-13-19 21:00	6.74	639	8.23	17.6	4-13-19 21:00	8.07	1272	8.50	33.2						7-14-19 13:00	21.12	1576	8.40	12.5					
4-13-19 22:00	6.81	1091	8.33	17.5	4-13-19 21:15	6.68	638	8.22	21.8	4-13-19 21:15	8.04	1274	8.50	170.7						7-14-19 13:15	21.11	1577	8.40	12.4					
4-13-19 22:15	6.79	1091	8.33	19.0	4-13-19 21:30	6.58	639	8.22	22.2	4-13-19 21:30	8.00	1267	8.50	34.4						7-14-19 13:30	21.05	1577	8.40	12.2					
4-13-19 22:30	6.79	1091	8.33	18.2	4-13-19 21:45	6.56	640	8.23	40.8	4-13-19 21:45	7.98	1266	8.49	45.0						7-14-19 13:45	21.00	1577	8.39	12.5					
4-13-19 22:45	6.72	1093	8.33	16.7	4-13-19 22:00	6.46	636	8.20	20.4	4-13-19 22:00	7.91	1264	8.48	43.7						7-14-19 14:00	20.97	1576	8.41	12.4					
4-13-19 23:00	6.71	1094	8.33	16.4	4-13-19 22:15	6.36	636	8.23	30.3	4-13-19 22:15	7.87	1267	8.47	33.1						7-14-19 14:15	20.95	1578	8.40	12.4					
4-13-19 23:15	6.67	1093	8.33	18.5	4-13-19 22:30	6.16	636	8.24	24.8	4-13-19 22:30	7.90	1270	8.47	35.0						7-14-19 14:30	21.02	1576	8.41	12.1					
4-13-19 23:30	6.68	1094	8.33	20.7	4-13-19 22:45	6.02	637	8.24	25.8	4-13-19 22:45	7.89	1272	8.46	43.6						7-14-19 14:45	21.01	1577	8.40	12.4					
4-13-19 23:45	6.62	1094	8.33	16.8	4-13-19 23:00	5.90	639	8.23	16.0	4-13-19 23:00	7.88	1270	8.47	33.0						7-14-19 15:00	20.99	1575	8.41	12.2					
4-14-19 0:00	6.54	1088	8.33	17.2	4-13-19 23:15	5.89	639	8.23	13.7	4-13-19 23:15	7.85	1271	8.46	34.9						7-14-19 15:15	20.99	1578	8.41	12.4					
4-14-19 0:15	6.47	1093	8.33	15.6	4-13-19 23:30	5.96	638	8.24	24.0	4-13-19 23:30	7.84	1272	8.47	41.6						7-14-19 15:30	21.06	1576	8.41	12.5					
4-14-19 0:30	6.54	1095	8.32	17.4	4-13-19 23:45	5.96	637	8.24	21.0	4-13-19 23:45	7.81	1269	8.47	35.9						7-14-19 15:45	21.12	1577	8.40	12.7					
4-14-19 0:45	6.51	1093	8.33	16.5	4-14-19 0:00	5.94	635	8.25	25.0	4-14-19 0:00	7.79	1269	8.47	29.7						7-14-19 16:00	21.14	1577	8.41	12.6					
4-14-19 1:00	6.46	1093	8.33	16.8	4-14-19 0:15	5.92	622	8.25	21.3	4-14-19 0:15	7.79	1264	8.45	40.2						7-14-19 16:15	21.17	1583	8.40	12.6					
4-14-19 1:15	6.44	1094	8.33	16.6	4-14-19 0:30	5.92	617	8.25	22.9	4-14-19 0:30	7.79	1264	8.45	40.5						7-14-19 16:30	21.23	1581	8.41	12.6					
4-14-19 1:30	6.39	1095	8.33	16.2	4-14-19 0:45	5.95	618	8.24	21.6	4-14-19 0:45	7.77	1263	8.46	32.9						7-14-19 16:45	21.28	1583	8.41	13.1					
4-14-19 1:45	6.37	1095	8.32	16.1	4-14-19 1:00	5.86	618	8.23	18.3	4-14-19 1:00	7.76	1266	8.45	45.8						7-14-19 17:00	21.35	1581	8.41	13.8					
4-14-19 2:00	6.32	1095	8.32	16.0	4-14-19 1:15	5.81	625	8.25	22.3	4-14-19 1:15	7.71	1268	8.46	34.6						7-14-19 17:15	21.37	1581	8.41	13.6					
4-14-19 2:15	6.25	1096	8.33	15.8	4-14-19 1:30	5.74	627	8.25	22.3	4-14-19 1:30	7.66	1266	8.45	29.1						7-14-19 17:30	21.34	1580	8.41	13.7					
4-14-19 2:30	6.24	1095	8.32	16.4	4-14-19 1:45	5.68	621	8.25	20.8	4-14-19 1:45	7.60	1263	8.45	27.6						7-14-19 17:45	21.44	1583	8.42	13.5					
4-14-19 2:45	6.27	1095	8.32	15.8	4-14-19 2:00	5.65	602	8.24	20.7	4-14-19 2:00	7.54	1261	8.44	27.0						7-14-19 18:00	21.48	1582	8.42	13.1					
4-14-19 3:00	6.12	1096	8.32	18.4	4-14-19 2:15	5.67	590	8.25	21.6	4-14-19 2:15	7.51	1259	8.42	29.3						7-14-19 18:15	21.50	1584	8.40	13.9					
4-14-19 3:15	6.07	1095	8.32	18.5	4-14-19 2:30	5.57	589	8.24	21.7	4-14-19 2:30	7.50	1258	8.42	26.4						7-14-19 18:30	21.55	1583	8.41	13.2					
4-14-19 3:30	5.97	1095	8.32	16.1	4-14-19 2:45	5.55	584	8.24	21.3	4-14-19 2:45	7.48	1259	8.42	28.8						7-14-19 18:45	21.55	1584	8.40	13.8					
4-14-19 3:45	5.99	1097	8.32	16.4	4-14-19 3:00	5.52	609	8.23	24.5	4-14-19 3:00	7.46	1257	8.41	28.1						7-14-19 19:00	21.58	1583	8.41	13.5					
4-14-19 4:00	6.00	1096	8.31	15.3	4-14-19 3:15	5.53	623	8.24	22.8	4-14-19 3:15	7.44	1259	8.42	29.3						7-14-19 19:15	21.62	1584	8.40	14.1					
4-14-19 4:15	6.00	1095	8.31	16.1	4-14-19 3:30	5.51	623	8.24	25.8	4-14-19 3:30	7.39	1259	8.41	31.9						7-14-19 19:30	21.70	1582	8.41	13.3					
4-14-19 4:30	5.96	1099	8.32	17.9	4-14-19 3:45	5.50	641	8.24	23.0	4-14-19 3:45	7.38	1262	8.41	22.3						7-14-19 19:45	21.84	1583	8.41	14.1					
4-14-19 4:45	5.88	1098	8.31	16.9	4-14-19 4:00	5.44	643	8.24	23.9	4-14-19 4:00	7.36	1261	8.40	24.9						7-14-19 20:00	21.85	1583	8.41	14.0					
4-14-19 5:00	5.86	1097	8.31	15.3	4-14-19 4:15	5.57	644	8.24	24.1	4-14-19 4:15	7.33	1262	8.41	23.6						7-14-19 20:15	21.90	1586	8.40	14.2					
4-14-19 5:15	5.83	1100	8.31	16.9	4-14-19 4:30	5.48	643	8.24	22.8	4-14-19 4:30	7.31	1263	8.41	26.6						7-14-19 20:30	21.95	1584	8.41	13.3					
4-14-19 5:30	5.79	1099	8.31	19.1	4-14-19 4:45	5.52	644	8.23	22.5	4-14-19 4:45	7.31	1259	8.41	21.1						7-14-19 20:45	22.01	1585	8.42	13.3					
4-14-19 5:45	5.79	1100	8.31	15.9	4-14-19 5:00	5.44	644	8.23	21.0	4-14-19 5:00	7.27	1261	8.42	24.6						7-14-19 21:00	22.06	1584	8.42	13.3					
4-14-19 6:00	5.65	1101	8.31	15.5	4-14-19 5:15	5.38	645	8.23	22.4	4-14-19 5:15	7.24	1256	8.41	20.8						7-14-19 21:15	22.14	1584	8.41	13.6					
4-14-19 6:15	5.63	1102	8.31	16.6	4-14-19 5:30	5.37	645	8.24	19.5	4-14-19 5:30	7.21	1258	8.39	20.3						7-14-19 21:30	22.16	1583	8.42	13.2					
4-14-19 6:30	5.66	1102	8.31	17.7	4-14-19 5:45	5.34	646	8.23	22.1	4-14-19 5:45	7.20	1257	8.39	19.5						7-14-19 21:45	22.19	1584	8.41	13.2					
4-14-19 6:45	5.63	1101	8.30	13.3	4-14-19 6:00	5.39	646	8.23	22.5	4-14-19 6:00	7.18	1256	8.39	21.5						7-14-19 22:00	22.18	1585	8.42	13.4					
4-14-19 7:00	5.61	1103	8.30	14.6	4-14-19 6:15	5.36	648	8.22	23.3	4-14-19 6:15	7.17	1255	8.38	19.4						7-14-19 22:30	22.23	1589	8.41	14.2					
4-14-19 7:15	5.59	1103	8.30	19.6	4-14-19 6:30	5.36	649	8.23	23.1	4-14-19 6:30	7.14	1256	8.37	18.1						7-14-19 22:45	22.35	1587	8.41	13.7					
4-14-19 7:30	5.56	1102	8.30	13.4	4-14-19 6:45	5.37	648	8.23	27.2	4-14-19 6:45	7.14	1256	8.38	17.0						7-14-19 23:00	22.51	1590	8.41	13.3					
4-14-19 7:45	5.56	1102	8.30	13.1	4-14-19 7:00	5.27	648	8.22	26.4	4-14-19 7:00	7.12	1255	8.37	19.4						7-14-19 23:15	22.63	1588	8.40	13.7					
4-14-19 8:00	5.57	1103	8.30	13.2	4-14-19 7:15	5.27	648	8.22	20.4	4-14-19 7:15	7.10	1256	8.37	20.7						7-14-19 23:30	22.64	1588	8.40	13.1					
4-14-19 8:15	5.51	1104	8.30	14.7	4-14-19 7:30	5.27	648	8.23	22.3	4-14-19 7:30	7.08	1254	8.36	16.8						7-14-19 23:45	22.67	1587	8.41	13.3					
4-14-19 8:30	5.61	1103	8.31	14.7	4-14-19 7:45	5.34	649	8.23	24.2	4-14-19 7:45	7.06	1254	8.36	16.7						7-15-19 0:00	22.72	1589	8.41	14.0					
4-14-19 8:45	5.64	1104	8.30	16.2	4-14-19 8:00	5.37	649	8.23	67.3	4-14-19 8:00	7.06	1255	8.36	17.5						7-15-19 0:15	22.78	1589	8.40	13.5					
4-14-19 9:00	5.66	1106	8.31	16.0	4-14-19 8:15	5.31	648	8.22	21.9	4-14-19 8:15	7.04	1255	8.37	17.0						7-15-19 0:30	22.73	1589	8.40	14.2					
4-14-19 9:15	5.69	1106	8.31	13.3	4-14-19 8:30	5.30	649	8.21	20.3	4-14-19 8:30	7.05	1254	8.36	17.6						7-15-19 0:45	22.72	1588	8.41	13.6					
4-14-19 9:30	5.73	1105	8.31	13.0	4-14-19 8:45	5.31	648	8.21	25.0	4-14-19 8:45	7.03	1254	8.35	14.8						7-15-19 1:00	22.72	1589	8.40	13.5					
4-14-19 9:45	5.87	1105	8.32	12.8	4-14-19 9:00	5.39	648	8.23	28.2	4-14-19 9:00	7.03	1254	8.36	14.3						7-15-19 1:15	22.68	1588	8.40	13.6					
4-14-19 10:00	5.98	1106	8.32	12.7	4-14-19 9:15	5.49	647	8.23	33.9	4-14-19 9:15	7.05	1253	8.35	20.3						7-15-19 1:30	22.67	1589	8.40	13.5					
4-14-19 10:15	6.11	1107	8.32	12.5	4-14-19 9:30	5.61	647	8.24	22.5	4-14-19 9:30	7.08	1252	8.34	14.7						7-15-19 1:45	22.63	1588	8.40	13.3					
4-14-19 10:30	6.20	1105	8.32	12.3	4-14-19 9:45	6.04	644	8.23	24.6	4-14-19 9:45	7.14	1251	8.33	13.9						7-15-19 2:00	22.60	1589	8.39	13.2					
4-14-19 10:45	6.35	1105	8.32	13.3	4-14-19 10:00	6.28	644	8.23	17.1	4-14-19 10:00	7.23	1251	8.32	15.3						7-15-19 2:15	22.50	1588	8.40	13.7					
4-14-19 11:00	6.57	1108	8.32	12.4	4-14-19 10:15	6.23	642	8.26	21.1	4-14-19 10:15	7.29	1249	8.31	12.9						7-15-19 2:30	22.47	1588	8.40	13.6					
4-14-19 11:15	6.73	1108	8.30	11.2	4-14-19 10:30	6.04	643	8.26	22.2	4-14-19 10:30	7.28	1251	8.32	15.0						7-15-19 2:45	22.47	1588	8.40	13.2					
4-14-19 11:30	6.61	1104	8.31	13.4	4-14-19 10:45	5.96	644	8.27	20.9	4-14-19 10:45	7.32	1250	8.31	15.2						7-15-19 3:00	22.44	1588	8.40	13.0					
4-14-19 11:45	6.42	1110	8.33	12.1	4-14-19 11:00	6.18	642	8.27	17.5	4-14-19 11:00	7.44	1250	8.31	14.1						7-15-19 3:15	22.41	1588	8.40	12.8					
4-14-19 12:00	6.62	1110	8.34	15.7	4-14-19 11:15	6.55	642	8.25	15.1	4-14-19 11:15	7.53	1250	8.31	13.9						7-15-19 3:30	22.37	1588	8.39	13.0					
4-14-19 12:15	6.76	1112	8.34	12.3	4-14-19 11:30	7.07	624	8.21	18.3	4-14-19 11:30	7.92	1249	8.32	14.3						7-15-19 3:45	22.34	1588	8.41	12.9					
4-14-19 12:30	7.04	1111	8.35	12.6	4-14-19 11:45	6.92	613	8.24	21.1	4-14-19 11:45	7.77	1250	8.32	14.1						7-15-19 4:00	22.32	1589	8.40	12.9					
4-14-19 12:45	7.35	1110	8.33	12.9	4-14-19 12:00	6.21	616	8.27	20.1	4-14-19 12:00	7.89	1249	8.31	15.4						7-15-19 4:15	22.26	1588	8.40	13.1					
4-14-19 13:00	7.57	1108	8.33	13.0	4-14-19 12:15	6.16	625	8.28	20.4	4-14-19 12:15	7.76	1248	8.31	15.1						7-15-19 4:30	22.25	1589	8.40	12.4					
4-14-19 13:15	7.48	1105	8.34	12.8	4-14-19 12:30	6.39	632	8.29	20.9	4-14-19 12:30	7.80	1249	8.32	13.6						7-15-19 4:45	22.22	1587	8.41	12.9					
4-14-19 13:30	7.73	1107	8.35	12.6	4-14-19 12:45	6.79	615	8.26	21.6	4-14-19 12:45	7.91	1249	8.32	15.5						7-15-19 5:00	22.17	1588	8.40	13.0					
4-14-19 13:45	7.79	1106	8.35	14.3	4-14-19 13:00	6.81	608	8.26	19.8	4-14-19 13:00	8.18	1249	8.32	14.4						7-15-19 5:15	22.13	1587	8.41	12.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-14-19 14:00	8.12	1108	8.35	13.0
4-14-19 14:15	7.70	1110	8.35	16.9
4-14-19 14:30	7.73	1112	8.36	18.7
4-14-19 14:45	7.66	1114	8.37	15.7
4-14-19 15:00	7.68	1115	8.36	15.1
4-14-19 15:15	7.64	1114	8.37	18.9
4-14-19 15:30	7.57	1115	8.37	15.0
4-14-19 15:45	7.53	1116	8.38	17.1
4-14-19 16:00	7.49	1116	8.38	17.6
4-14-19 16:15	7.47	1117	8.38	17.8
4-14-19 16:30	7.46	1118	8.39	17.6
4-14-19 16:45	7.48	1118	8.38	16.8
4-14-19 17:00	7.52	1116	8.39	18.2
4-14-19 17:15	7.51	1117	8.39	16.2
4-14-19 17:30	7.53	1117	8.39	16.4
4-14-19 17:45	7.49	1120	8.39	21.7
4-14-19 18:00	7.56	1119	8.39	16.9
4-14-19 18:15	7.57	1120	8.39	15.1
4-14-19 18:30	7.54	1119	8.39	17.7
4-14-19 18:45	7.50	1121	8.40	18.0
4-14-19 19:00	7.48	1120	8.39	18.0
4-14-19 19:15	7.45	1122	8.40	17.8
4-14-19 19:30	7.41	1122	8.40	19.5
4-14-19 19:45	7.41	1123	8.40	19.0
4-14-19 20:00	7.34	1122	8.40	17.1
4-14-19 20:15	7.35	1124	8.40	15.3
4-14-19 20:30	7.31	1123	8.40	17.3
4-14-19 20:45	7.26	1123	8.41	18.4
4-14-19 21:00	7.25	1124	8.40	17.5
4-14-19 21:15	7.25	1123	8.40	17.2
4-14-19 21:30	7.24	1122	8.40	17.8
4-14-19 21:45	7.21	1125	8.40	22.3
4-14-19 22:00	7.18	1126	8.40	16.8
4-14-19 22:15	7.16	1126	8.40	17.3
4-14-19 22:30	7.13	1126	8.40	20.6
4-14-19 22:45	7.13	1129	8.40	17.6
4-14-19 23:00	7.12	1129	8.40	17.8
4-14-19 23:15	7.07	1130	8.40	21.9
4-14-19 23:30	7.05	1129	8.40	17.6
4-14-19 23:45	7.04	1131	8.40	17.6
4-15-19 0:00	7.03	1131	8.40	17.2
4-15-19 0:15	7.00	1132	8.40	16.5
4-15-19 0:30	6.93	1133	8.39	15.9
4-15-19 0:45	6.96	1133	8.39	19.3
4-15-19 1:00	6.94	1135	8.39	16.9
4-15-19 1:15	6.92	1134	8.39	17.2
4-15-19 1:30	6.89	1136	8.39	17.2
4-15-19 1:45	6.89	1134	8.38	19.7
4-15-19 2:00	6.88	1137	8.38	16.6
4-15-19 2:15	6.85	1135	8.38	18.2
4-15-19 2:30	6.87	1134	8.38	16.2
4-15-19 2:45	6.83	1134	8.38	16.0
4-15-19 3:00	6.81	1135	8.38	16.5
4-15-19 3:15	6.79	1134	8.38	15.8
4-15-19 3:30	6.79	1135	8.38	16.4
4-15-19 3:45	6.76	1135	8.38	15.5
4-15-19 4:00	6.75	1133	8.37	15.7
4-15-19 4:15	6.72	1135	8.38	17.0
4-15-19 4:30	6.72	1134	8.37	16.7
4-15-19 4:45	6.69	1134	8.37	16.8
4-15-19 5:00	6.69	1133	8.37	17.4
4-15-19 5:15	6.69	1134	8.36	18.0
4-15-19 5:30	6.64	1131	8.34	17.8
4-15-19 5:45	6.66	1132	8.34	18.4
4-15-19 6:00	6.67	1134	8.34	17.9
4-15-19 6:15	6.65	1132	8.34	17.8
4-15-19 6:30	6.63	1133	8.34	16.6
4-15-19 6:45	6.63	1132	8.35	16.8
4-15-19 7:00	6.64	1131	8.34	17.8
4-15-19 7:15	6.63	1132	8.34	16.2
4-15-19 7:30	6.61	1132	8.34	16.3
4-15-19 7:45	6.61	1131	8.34	17.3
4-15-19 8:00	6.62	1130	8.34	16.7

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-14-19 13:15	6.75	596	8.28	17.8
4-14-19 13:30	7.54	595	8.24	19.5
4-14-19 13:45	7.78	583	8.24	20.7
4-14-19 14:00	7.62	579	8.25	21.5
4-14-19 14:15	7.12	572	8.28	22.8
4-14-19 14:30	6.33	579	8.30	25.3
4-14-19 14:45	6.14	590	8.30	25.4
4-14-19 15:00	5.98	609	8.31	25.1
4-14-19 15:15	6.40	615	8.29	25.3
4-14-19 15:30	6.58	620	8.28	23.5
4-14-19 15:45	6.76	638	8.27	29.2
4-14-19 16:00	6.85	639	8.27	23.1
4-14-19 16:15	6.90	639	8.26	19.0
4-14-19 16:30	6.84	639	8.28	23.5
4-14-19 16:45	6.82	638	8.28	24.2
4-14-19 17:00	6.89	639	8.28	20.9
4-14-19 17:15	6.97	638	8.27	31.7
4-14-19 17:30	7.01	639	8.27	19.5
4-14-19 17:45	7.03	638	8.28	16.0
4-14-19 18:00	7.00	638	8.28	16.2
4-14-19 18:15	6.98	637	8.28	16.2
4-14-19 18:30	6.90	636	8.28	22.4
4-14-19 18:45	6.90	637	8.30	19.5
4-14-19 19:00	6.85	638	8.29	32.2
4-14-19 19:15	6.78	639	8.30	27.6
4-14-19 19:30	6.68	638	8.29	27.2
4-14-19 19:45	6.55	639	8.30	26.8
4-14-19 20:00	6.45	640	8.30	26.1
4-14-19 20:15	6.36	641	8.31	31.4
4-14-19 20:30	6.28	640	8.30	24.1
4-14-19 20:45	6.28	641	8.30	23.7
4-14-19 21:00	6.23	640	8.31	27.7
4-14-19 21:15	6.22	640	8.31	27.3
4-14-19 21:30	6.28	641	8.30	25.8
4-14-19 21:45	6.30	640	8.29	29.9
4-14-19 22:00	6.37	641	8.29	22.2
4-14-19 22:15	6.33	640	8.29	32.0
4-14-19 22:30	6.35	641	8.29	20.9
4-14-19 22:45	6.38	641	8.29	23.7
4-14-19 23:00	6.37	641	8.28	18.7
4-14-19 23:15	6.34	642	8.28	17.7
4-14-19 23:30	6.30	642	8.28	19.3
4-14-19 23:45	6.29	642	8.28	21.0
4-15-19 0:00	6.23	642	8.28	19.3
4-15-19 0:15	6.29	641	8.29	19.0
4-15-19 0:30	6.30	613	8.28	19.4
4-15-19 0:45	6.27	616	8.28	18.7
4-15-19 1:00	6.29	611	8.27	19.1
4-15-19 1:15	6.29	613	8.27	15.1
4-15-19 1:30	6.28	618	8.27	15.2
4-15-19 1:45	6.29	624	8.25	17.8
4-15-19 2:00	6.24	613	8.24	34.2
4-15-19 2:15	6.27	594	8.26	22.4
4-15-19 2:30	6.28	576	8.27	15.3
4-15-19 2:45	6.26	579	8.26	14.1
4-15-19 3:00	6.24	578	8.26	55.6
4-15-19 3:15	6.24	586	8.26	12.9
4-15-19 3:30	6.19	600	8.25	14.5
4-15-19 3:45	6.18	618	8.26	14.6
4-15-19 4:00	6.16	629	8.26	16.9
4-15-19 4:15	6.13	644	8.26	13.7
4-15-19 4:30	5.99	642	8.27	17.4
4-15-19 4:45	5.97	643	8.27	16.0
4-15-19 5:00	6.02	645	8.27	18.0
4-15-19 5:15	6.01	644	8.27	11.9
4-15-19 5:30	5.98	643	8.26	10.6
4-15-19 5:45	5.94	644	8.26	13.4
4-15-19 6:00	5.91	643	8.26	18.1
4-15-19 6:15	5.79	645	8.26	16.9
4-15-19 6:30	5.84	647	8.25	15.3
4-15-19 6:45	5.87	647	8.25	17.3
4-15-19 7:00	5.89	648	8.26	16.0
4-15-19 7:15	5.87	648	8.25	15.3

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-14-19 13:15	8.38	1251	8.32	13.2
4-14-19 13:30	8.47	1243	8.30	16.7
4-14-19 13:45	8.41	1246	8.28	16.7
4-14-19 14:00	8.73	1246	8.29	14.7
4-14-19 14:15	8.76	1248	8.31	14.4
4-14-19 14:30	8.65	1245	8.29	19.2
4-14-19 14:45	8.40	1243	8.30	17.3
4-14-19 15:00	8.28	1243	8.31	18.8
4-14-19 15:15	8.01	1241	8.29	34.1
4-14-19 15:30	7.92	1243	8.29	33.4
4-14-19 15:45	7.87	1238	8.27	40.6
4-14-19 16:00	7.92	1241	8.29	34.9
4-14-19 16:15	7.96	1242	8.29	38.8
4-14-19 16:30	8.03	1242	8.30	34.4
4-14-19 16:45	8.06	1242	8.30	32.4
4-14-19 17:00	8.13	1243	8.29	27.3
4-14-19 17:15	8.17	1244	8.30	21.1
4-14-19 17:30	8.22	1244	8.30	28.2
4-14-19 17:45	8.25	1243	8.31	21.8
4-14-19 18:00	8.26	1243	8.31	23.6
4-14-19 18:15	8.25	1242	8.30	22.2
4-14-19 18:30	8.20	1242	8.31	24.7
4-14-19 18:45	8.18	1241	8.31	23.3
4-14-19 19:00	8.16	1242	8.30	25.4
4-14-19 19:15	8.11	1242	8.30	24.2
4-14-19 19:30	8.07	1241	8.31	27.4
4-14-19 19:45	8.03	1240	8.31	27.7
4-14-19 20:00	7.99	1241	8.31	29.7
4-14-19 20:15	7.96	1240	8.32	34.3
4-14-19 20:30	7.93	1235	8.32	36.4
4-14-19 20:45	7.89	1236	8.32	30.2
4-14-19 21:00	7.89	1236	8.33	40.0
4-14-19 21:15	7.86	1235	8.33	38.4
4-14-19 21:30	7.82	1235	8.33	31.6
4-14-19 21:45	7.82	1236	8.33	31.9
4-14-19 22:00	7.80	1236	8.33	39.9
4-14-19 22:15	7.77	1235	8.33	27.6
4-14-19 22:30	7.77	1235	8.33	31.4
4-14-19 22:45	7.75	1235	8.33	30.5
4-14-19 23:00	7.72	1234	8.33	25.7
4-14-19 23:15	7.73	1236	8.33	27.0
4-14-19 23:30	7.72	1235	8.33	29.1
4-14-19 23:45	7.70	1234	8.33	30.4
4-15-19 0:00	7.70	1234	8.33	34.5
4-15-19 0:15	7.69	1234	8.33	27.0
4-15-19 0:30	7.68	1233	8.33	28.3
4-15-19 0:45	7.66	1234	8.33	25.1
4-15-19 1:00	7.64	1234	8.33	25.9
4-15-19 1:15	7.60	1232	8.33	28.2
4-15-19 1:30	7.60	1234	8.33	32.8
4-15-19 1:45	7.60	1234	8.33	21.0
4-15-19 2:00	7.59	1233	8.33	20.9
4-15-19 2:15	7.58	1234	8.33	20.9
4-15-19 2:30	7.57	1234	8.33	20.3
4-15-19 2:45	7.56	1233	8.33	23.6
4-15-19 3:00	7.55	1232	8.33	20.6
4-15-19 3:15	7.53	1233	8.33	20.4
4-15-19 3:30	7.51	1231	8.34	18.8
4-15-19 3:45	7.49	1233	8.33	18.7
4-15-19 4:00	7.48	1232	8.34	19.9
4-15-19 4:15	7.45	1230	8.33	31.1
4-15-19 4:30	7.42	1231	8.34	17.6
4-15-19 4:45	7.43	1230	8.34	19.2
4-15-19 5:00	7.47	1232	8.33	19.3
4-15-19 5:15	7.47	1232	8.33	18.2
4-15-19 5:30	7.47	1232	8.33	17.9
4-15-19 5:45	7.46	1232	8.33	17.4
4-15-19 6:00	7.44	1233	8.33	17.7
4-15-19 6:15	7.40	1231	8.33	16.5
4-15-19 6:30	7.41	1232	8.33	17.8
4-15-19 6:45	7.43	1232	8.33	17.7
4-15-19 7:00	7.41	1232	8.33	18.4
4-15-19 7:15	7.42	1232	8.33	16.9

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-15-19 5:30	22.08	1589	8.39	12.8
7-15-19 5:45	22.03	1587	8.39	13.1
7-15-19 6:00	21.98	1588	8.40	12.8
7-15-19 6:15	21.92	1587	8.40	12.7
7-15-19 6:30	21.90	1588	8.40	12.7
7-15-19 6:45	21.90	1587	8.41	12.5
7-15-19 7:00	21.87	1589	8.40	12.5
7-15-19 7:15	21.79	1587	8.40	12.8
7-15-19 7:30	21.78	1588	8.40	12.6
7-15-19 7:45	21.74	1588	8.41	12.3
7-15-19 8:00	21.70	1588	8.40	12.0
7-15-19 8:15	21.62	1591	8.40	12.9
7-15-19 8:30	21.59	1588	8.39	12.4
7-15-19 8:45	21.51	1587	8.40	12.5
7-15-19 9:00	21.47	1589	8.40	12.5
7-15-19 9:15	21.46	1587	8.40	12.2
7-15-19 9:30	21.44	1588	8.40	12.5
7-15-19 9:45	21.39	1587	8.40	12.5
7-15-19 10:00	21.36	1588	8.39	12.5
7-15-19 10:15	21.26	1588	8.39	12.4
7-15-19 10:30	21.22	1588	8.39	12.8
7-15-19 10:45	21.20	1587	8.40	12.1
7-15-19 11:00	21.24	1588	8.40	12.3
7-15-19 11:15	21.19	1587	8.39	12.1
7-15-19 11:30	21.13	1588	8.39	12.2
7-15-19 11:45	21.08	1587	8.39	12.2
7-15-19 12:00	21.02	1588	8.39	12.2
7-15-19 12:15	20.97	1587	8.39	13.9
7-15-19 12:30	20.99	1589	8.40	12.5
7-15-19 12:45	21.00	1587	8.40	12.4
7-15-19 13:00	20.97	1588	8.39	12.7
7-15-19 13:15	20.92	1587	8.40	12.3
7-15-19 13:30	20.89	1588	8.39	12.4
7-15-19 13:45	20.87	1587	8.40	12.2
7-15-19 14:00	20.84	1589	8.40	12.5
7-15-19 14:15	20.77	1587	8.39	12.5
7-15-19 14:30	20.78	1589	8.40	13.0
7-15-19 14:45	20.81	1587	8.40	12.4
7-15-19 15:00	20.84	1587	8.41	12.7
7-15-19 15:15	20.89	1586	8.41	12.4
7-15-19 15:30	20.98	1588	8.41	12.7
7-15-19 15:45	21.04	1586	8.42	12.8
7-15-19 16:00	21.10	1588	8.41	12.6
7-15-19 16:15	21.14	1586	8.41	12.3
7-15-19 16:30	21.23	1588	8.41	12.8
7-15-19 16:45	21.24	1586	8.42	12.3
7-15-19 17:00	21.28	1587	8.41	13.0
7-15-19 17:15	21.33	1586	8.42	12.8
7-15-19 17:30	21.38	1587	8.41	13.3
7-15-19 17:45	21.42	1585	8.41	13.0
7-15-19 18:00	21.43	1587	8.40	13.3
7-15-19 18:15	21.44	1587	8.41	13.1
7-15-19 18:30	21.46	1588	8.41	13.2
7-15-19 18:45	21.60	1589	8.41	12.8
7-15-19 19:00	21.75	1590	8.40	13.0
7-15-19 19:15	21.82	1588	8.41	13.2
7-15-19 19:30	21.91	1588	8.40	13.4
7-15-19 19:45	21.99	1588	8.40	13.0
7-15-19 20:00	21.97	1589	8.40	12.9
7-15-19 20:15	22.29	1590	8.40	13.2
7-15-19 20:30	22.44	1590	8.38	13.1
7-15-19 22:45	23.60	1600	8.38	13.3
7-15-19 23:00	23.87	1597	8.39	12.9
7-15-19 23:15	24.11	1598	8.37	13.1
7-15-19 23:30	24.15	1596	8.38	12.4
7-15-19 23:45	24.15	1597	8.37	12.7
7-16-19 0:00	24.01	1591	8.37	12.7
7-16-19 0:15	23.30	1587	8.36	12.9
7-16-19 0:30	23.09	1589	8.39	13.3
7-16-19 0:45	22.86	1589	8.37	13.2
7-16-19 1:00	22.71	1590	8.40	13.2
7-16-19 1:15	22.63	1591	8.38	14.0
7-16-19 1:30	22.74	1592	8.40	13.1

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-15-19 8:15	6.63	1131	8.35	15.8	4-15-19 7:30	5.93	649	8.26	14.4	4-15-19 7:30	7.41	1232	8.33	19.0						7-16-19 1:45	22.64	1565	8.41	13.5					
4-15-19 8:30	6.65	1130	8.35	16.9	4-15-19 7:45	5.95	649	8.26	12.2	4-15-19 7:45	7.42	1232	8.33	16.2						7-16-19 2:00	22.30	1571	8.41	18.4					
4-15-19 8:45	6.65	1130	8.35	15.9	4-15-19 8:00	5.95	649	8.26	13.6	4-15-19 8:00	7.41	1232	8.33	15.6						7-16-19 2:15	22.25	1573	8.40	16.9					
4-15-19 9:00	6.69	1131	8.35	15.6	4-15-19 8:15	5.99	649	8.26	12.3	4-15-19 8:15	7.41	1232	8.33	16.0						7-16-19 2:30	22.25	1570	8.40	17.2					
4-15-19 9:15	6.72	1131	8.35	15.6	4-15-19 8:30	6.02	649	8.26	14.7	4-15-19 8:30	7.42	1232	8.33	15.3						7-16-19 2:45	22.27	1569	8.39	17.4					
4-15-19 9:30	6.72	1132	8.35	15.9	4-15-19 8:45	6.04	649	8.25	14.1	4-15-19 8:45	7.43	1231	8.34	17.1						7-16-19 3:00	22.36	1564	8.41	17.1					
4-15-19 9:45	6.75	1132	8.35	16.1	4-15-19 9:00	6.11	650	8.25	14.8	4-15-19 9:00	7.43	1231	8.33	19.8						7-16-19 3:15	22.33	1564	8.40	15.8					
4-15-19 10:00	6.75	1132	8.36	15.6	4-15-19 9:15					4-15-19 9:15	7.46	1231	8.33	16.9						7-16-19 3:30	22.39	1572	8.40	14.9					
4-15-19 10:15	6.77	1130	8.37	17.6	4-15-19 9:30	6.22	650	8.24	18.7	4-15-19 9:30	7.47	1232	8.34	17.7						7-16-19 3:45	22.44	1576	8.40	14.5					
4-15-19 10:30	6.88	1129	8.34	17.1	4-15-19 9:45	6.24	650	8.19	26.4	4-15-19 9:45	7.48	1232	8.33	15.2						7-16-19 4:00	22.49	1569	8.40	14.5					
4-15-19 10:45	7.03	1130	8.34	18.5	4-15-19 10:00	6.24	650	8.22	26.7	4-15-19 10:00	7.47	1232	8.34	14.9						7-16-19 4:15	22.47	1567	8.39	14.6					
4-15-19 11:00	7.07	1128	8.34	16.7	4-15-19 10:15	6.23	650	8.22	17.2	4-15-19 10:15	7.49	1231	8.34	15.8						7-16-19 4:30	22.46	1565	8.40	14.0					
4-15-19 11:15	7.11	1126	8.34	17.2	4-15-19 10:30	6.28	649	8.26	13.1	4-15-19 10:30	7.50	1231	8.33	14.8						7-16-19 4:45	22.44	1568	8.39	13.8					
4-15-19 11:30	7.07	1121	8.28	18.0	4-15-19 10:45	6.31	648	8.28	12.3	4-15-19 10:45										7-16-19 5:00	22.44	1567	8.40	13.2					
4-15-19 11:45	7.15	1122	8.28	18.3	4-15-19 11:00	6.36	649	8.30	10.8	4-15-19 11:00	7.65	1229	8.31	15.3						7-16-19 5:15	22.39	1568	8.39	13.8					
4-15-19 12:00	7.24	1119	8.26	17.5	4-15-19 11:15	6.38	647	8.28	11.9	4-15-19 11:15	7.71	1231	8.33	17.6						7-16-19 5:30	22.35	1569	8.40	13.6					
4-15-19 12:15	7.35	1124	8.29	15.7	4-15-19 11:30	6.40	648	8.28	13.4	4-15-19 11:30	7.73	1228	8.31	15.5						7-16-19 5:45	22.30	1571	8.39	12.9					
4-15-19 12:30	7.69	1118	8.28	16.4	4-15-19 11:45	6.38	628	8.28	13.3	4-15-19 11:45	7.80	1230	8.31	15.0						7-16-19 6:00	22.26	1569	8.40	13.0					
4-15-19 12:45	7.88	1115	8.21	17.5	4-15-19 12:00	6.41	670	8.27	10.5	4-15-19 12:00	7.82	1229	8.31	14.7						7-16-19 6:15	22.17	1570	8.39	14.1					
4-15-19 13:00	8.01	1114	8.24	16.0	4-15-19 12:15	6.47	628	8.26	12.3	4-15-19 12:15	7.90	1228	8.31	14.2						7-16-19 6:30	22.15	1570	8.40	12.3					
4-15-19 13:15	8.16	1117	8.27	15.2	4-15-19 12:30	6.67	632	8.25	9.8	4-15-19 12:30	8.09	1227	8.31	13.9						7-16-19 6:45	22.11	1571	8.40	12.6					
4-15-19 13:30	8.22	1116	8.28	16.9	4-15-19 12:45	6.70	607	8.28	14.3	4-15-19 12:45	8.34	1225	8.30	15.6						7-16-19 7:00	22.10	1571	8.40	12.1					
4-15-19 13:45	8.49	1117	8.28	18.6	4-15-19 13:00	6.68	596	8.29	12.5	4-15-19 13:00	8.35	1226	8.29	15.0						7-16-19 7:15	22.06	1571	8.39	12.3					
4-15-19 14:00	8.32	1115	8.28	18.6	4-15-19 13:15	6.77	595	8.29	15.0	4-15-19 13:15	8.33	1226	8.30	14.7						7-16-19 7:30	22.01	1570	8.40	11.9					
4-15-19 14:15	8.15	1109	8.25	21.4	4-15-19 13:30	6.93	586	8.29	16.1	4-15-19 13:30	8.32	1227	8.30	14.9						7-16-19 7:45	21.92	1571	8.39	12.0					
4-15-19 14:30	8.03	1111	8.26	20.4	4-15-19 13:45	6.97	585	8.30	15.5	4-15-19 13:45	8.47	1227	8.30	14.2						7-16-19 8:00	21.87	1571	8.40	11.9					
4-15-19 14:45	7.58	1117	8.32	20.3	4-15-19 14:00	7.00	612	8.30	17.6	4-15-19 14:00	8.44	1222	8.30	13.7						7-16-19 8:15	21.86	1573	8.39	12.2					
4-15-19 15:00	7.52	1119	8.34	19.6	4-15-19 14:15	7.49	622	8.30	55.5	4-15-19 14:15	8.42	1227	8.30	14.6						7-16-19 8:30	21.84	1572	8.40	11.7					
4-15-19 15:15	7.56	1119	8.35	20.8	4-15-19 14:30	7.52	637	8.30	38.6	4-15-19 14:30	8.35	1227	8.31	13.6						7-16-19 8:45	21.82	1573	8.39	15.3					
4-15-19 15:30	7.83	1118	8.34	19.2	4-15-19 14:45	8.00	641	8.30	34.9	4-15-19 14:45	8.27	1226	8.31	16.1						7-16-19 9:00	21.78	1572	8.39	11.8					
4-15-19 15:45	7.70	1120	8.36	22.4	4-15-19 15:00	7.55	643	8.29	58.2	4-15-19 15:00	7.94	1224	8.31	15.1						7-16-19 9:15	21.73	1573	8.39	11.4					
4-15-19 16:00	7.81	1119	8.35	21.9	4-15-19 15:15	7.70	642	8.30	47.0	4-15-19 15:15	7.79	1227	8.31	15.1						7-16-19 9:30									
4-15-19 16:15	7.73	1119	8.36	22.0	4-15-19 15:30	7.74	641	8.29	65.9	4-15-19 15:30	7.76	1228	8.32	16.0						7-16-19 9:45									
4-15-19 16:30	7.83	1117	8.38	20.3	4-15-19 15:45	7.74	642	8.29	62.1	4-15-19 15:45	7.99	1229	8.32	14.7						7-16-19 10:00									
4-15-19 16:45	7.80	1118	8.36	19.8	4-15-19 16:00	7.91	641	8.29	37.5	4-15-19 16:00	8.09	1228	8.32	15.4						7-16-19 10:15	21.61	1575	8.39	11.9					
4-15-19 17:00	7.78	1117	8.36	20.0	4-15-19 16:15	7.69	635	8.30	25.0	4-15-19 16:15	8.08	1229	8.32	15.7						7-16-19 10:30	21.61	1574	8.39	11.8					
4-15-19 17:15	7.80	1117	8.36	19.8	4-15-19 16:30	7.58	634	8.31	21.9	4-15-19 16:30	8.07	1229	8.33	14.1						7-16-19 10:45	21.57	1576	8.39	12.0					
4-15-19 17:30	7.88	1116	8.35	18.8	4-15-19 16:45	7.49	639	8.31	21.7	4-15-19 16:45	8.10	1228	8.32	15.0						7-16-19 11:00	21.51	1575	8.39	11.9					
4-15-19 17:45	7.94	1115	8.35	19.1	4-15-19 17:00	7.48	639	8.31	21.8	4-15-19 17:00	8.37	1229	8.32	15.5						7-16-19 11:15	21.48	1576	8.39	11.8					
4-15-19 18:00	8.07	1115	8.35	28.9	4-15-19 17:15	7.51	638	8.30	17.0	4-15-19 17:15	8.50	1227	8.32	14.1						7-16-19 11:30	21.43	1575	8.39	11.9					
4-15-19 18:15	8.26	1114	8.35	16.4	4-15-19 17:30					4-15-19 17:30	8.53	1224	8.29	15.3						7-16-19 11:45	21.43	1577	8.39	11.8					
4-15-19 18:30	8.37	1112	8.36	16.0	4-15-19 17:45	7.45	641	8.26	20.0	4-15-19 17:45	8.47	1223	8.29	15.1						7-16-19 12:00	21.41	1576	8.39	12.1					
4-15-19 18:45	8.48	1111	8.37	16.3	4-15-19 18:00	7.42	642	8.25	19.3	4-15-19 18:00	8.47	1225	8.28	13.5						7-16-19 12:15	21.35	1577	8.38	12.5					
4-15-19 19:00	8.53	1110	8.38	15.6	4-15-19 18:15	7.39	643	8.24	21.6	4-15-19 18:15	8.51	1223	8.28	14.0						7-16-19 12:30	21.32	1576	8.39	12.8					
4-15-19 19:15	8.51	1110	8.37	15.8	4-15-19 18:30	7.33	643	8.25	37.0	4-15-19 18:30	8.51	1224	8.28	15.4						7-16-19 12:45	21.27	1577	8.39	12.4					
4-15-19 19:30	8.44	1110	8.37	13.2	4-15-19 18:45	7.25	643	8.27	52.0	4-15-19 18:45	8.55	1224	8.30	15.0						7-16-19 13:00	21.24	1577	8.40	12.7					
4-15-19 19:45	8.40	1110	8.38	14.6	4-15-19 19:00	7.19	644	8.29	51.7	4-15-19 19:00	8.52	1225	8.30	15.4						7-16-19 13:15	21.25	1578	8.39	13.2					
4-15-19 20:00	8.37	1111	8.38	16.3	4-15-19 19:15	7.13	644	8.30	310.2	4-15-19 19:15	8.56	1225	8.31	15.6						7-16-19 13:30	21.21	1577	8.39	13.1					
4-15-19 20:15	8.31	1112	8.38	15.3	4-15-19 19:30	7.10	643	8.31	37.1	4-15-19 19:30	8.55	1225	8.30	12.9						7-16-19 13:45	21.16	1577	8.39	15.0					
4-15-19 20:30	8.27	1111	8.39	13.8	4-15-19 19:45	6.90	643	8.29	22.2	4-15-19 19:45	8.51	1225	8.30	13.7						7-16-19 14:00	21.13	1577	8.39	13.3					
4-15-19 20:45	8.23	1111	8.39	16.1	4-15-19 20:00	6.78	646	8.31	19.1	4-15-19 20:00	8.50	1225	8.30	14.3						7-16-19 14:15	21.08	1578	8.39	13.2					
4-15-19 21:00	8.16	1112	8.40	16.4	4-15-19 20:15	6.82	644	8.32	20.3	4-15-19 20:15	8.46	1225	8.30	12.9						7-16-19 14:30	21.11	1577	8.40	13.1					
4-15-19 21:15	8.11	1113	8.39	14.0	4-15-19 20:30	6.82	643	8.30	17.7	4-15-19 20:30	8.44	1225	8.30	12.2						7-16-19 14:45	21.11	1578	8.40	13.5					
4-15-19 21:30	8.08	1113	8.39	16.8	4-15-19 20:45	6.86	643	8.28	21.7	4-15-19 20:45	8.43	1225	8.31	13.0						7-16-19 15:00	21.11	1577	8.40	13.2					
4-15-19 21:45	8.03	1113	8.39	14.7	4-15-19 21:00	6.80	640	8.29	19.1	4-15-19 21:00	8.37	1225	8.30	12.3						7-16-19 15:15	21.11	1578	8.40	13.3					
4-15-19 22:00	7.99	1112	8.39	16.3	4-15-19 21:15	6.77	607	8.29	20.1	4-15-19 21:15	8.32	1225	8.31	12.6						7-16-19 15:30	21.11	1577	8.40	13.6					
4-15-19 22:15	7.94	1113	8.39	15.2	4-15-19 21:30	6.77	637	8.29	19.4	4-15-19 21:30	8.28	1225	8.31	12.1						7-16-19 15:45	21.14	1578	8.40	13.9					
4-15-19 22:30	7.91	1114	8.39	15.6	4-15-19 21:45	6.78	652	8.28	20.0	4-15-19 21:45	8.23	1225	8.30	11.9						7-16-19 16:00	21.22	1577	8.42	13.2					
4-15-19 22:45	7.88	1112	8.39	15.2	4-15-19 22:00	6.74	607	8.28	22.7	4-15-19 22:00	8.19	1225	8.30	12.0						7-16-19 16:15	21.36	1578	8.41	13.5					
4-15-19 23:00	7.82	1113	8.39	14.4	4-15-19 22:15	6.74	582	8.29	21.5	4-15-19 22:15	8.15	1225	8.30	11.0						7-16-19 16:30	21.48	1576	8.41	13.4					
4-15-19 23:15	7.78	1112	8.39	15.9	4-15-19 22:30	6.73	566	8.30	45.1	4-15-19 22:30	8.10	1225	8.30	14.7						7-16-19 16:45	21.65	1579	8.41	13.4					
4-15-19 23:30	7.71	1112	8.39	13.8	4-15-19 22:45	6.76	569	8.30	45.0	4-15-19 22:45	8.08	1225	8.30	14.1						7-16-19 17:00	21.76	1577	8.41	13.1					
4-15-19 23:45	7.68	1114	8.38	13.6	4-15-19 23:00	6.70	561	8.29	42.7	4-15-19 23:00	8.03	1225	8.30	12.1						7-16-19 17:15	22.00	1579	8.41	13.3					
4-16-19 0:00	7.67	1114	8.39	16.1	4-15-19 23:15	6.69	569	8.29	45.5	4-15-19 23:15	7.99	1225	8.31	13.5						7-16-19 17:30	22.13	1578	8.40	13.6					
4-16-19 0:15	7.64	1114	8.38	15.0	4-15-19 23:30	6.61	673	8.30	47.0	4-15-19 23:30	7.94	1225	8.31	12.2						7-16-19 17:45	22.28	1579	8.40	13.4					
4-16-19 0:30	7.57	1114	8.39	13.9	4-15-19 23:45	6.59	625	8.30	46.6	4-15-19 23:45	7.88	1226	8.30	14.9						7-16-19 18:00	22.36	1578	8.40	13.1					
4-16-19 0:45	7.55	1114	8.38	14.3	4-16-19 0:00	6.56	643	8.29	46.4	4-16-19 0:00	7.86	1225	8.30	13.7						7-16-19 18:15	22.46	1579	8.39	13.3					
4-16-19 1:00	7.51	1115	8.38	15.3	4-16-19 0:15	6.51	644	8.28	45.4	4-16-19 0:15	7.84	1225	8.31	13.0						7-16-19 18:30	22.56	1578	8.40	13.0					
4-16-19 1:15	7.46	1115	8.39	13.8	4-16-19 0:30	6.52	643	8.29	51.3	4-16-19 0:30	7.81	1225	8.30	12.4						7-16-19 18:45	22.56	1577	8.40	13.1					
4-16-19 1:30	7.46	1115	8.38	14.8	4-16-19 0:45	6.50	644	8.29	49.8	4-16-19 0:45	7.80	1225	8.30	13.1						7-16-19 19:00	22.17	1571	8.40	15.5					
4-16-19 1:45	7.42	1114	8.38	14.5	4-16-19 1:00	6.33	646	8.31	49.9	4-16-19 1:00	7.73	1224	8.30	12.8						7-16-19 19:15	21.92	1573	8.40	14.4					
4-16-19 2:00	7.38	1115	8.38	15.4	4-16-19 1:15	6.28	646	8.31	52.0	4-16-19 1:15	7.69	1224	8.30	14.5						7-16-19 19:30	21.70	1576	8.40	15.4					
4-16-19 2:15	7.29	1114	8.38	15.9	4-16-19 1:30	6.30	645	8.31	53.0	4-16-19 1:30	7.66	1224	8.29	12.9						7-16-19 19:45	21.63	1602	8.39	13.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-16-19 2:30	7.32	1114	8.38	15.0	4-16-19 1:45	6.21	646	8.30	54.0	4-16-19 1:45	7.67	1224	8.30	12.6						7-16-19 20:00	21.68	1598	8.40	13.4					
4-16-19 2:45	7.28	1114	8.38	14.6	4-16-19 2:00	6.20	647	8.30	52.6	4-16-19 2:00	7.66	1224	8.30	14.5						7-16-19 20:15	21.79	1597	8.39	13.4					
4-16-19 3:00	7.20	1115	8.38	14.5	4-16-19 2:15	6.12	649	8.30	55.0	4-16-19 2:15	7.67	1224	8.30	12.5						7-16-19 20:30	22.07	1596	8.40	13.6					
4-16-19 3:15	7.20	1115	8.38	15.4	4-16-19 2:30	6.05	651	8.30	55.8	4-16-19 2:30	7.65	1224	8.29	12.9						7-16-19 20:45	22.35	1594	8.38	13.6					
4-16-19 3:30	7.14	1117	8.38	18.2	4-16-19 2:45	6.11	652	8.30	55.5	4-16-19 2:45	7.54	1225	8.31	13.6						7-16-19 21:00	22.43	1591	8.39	13.5					
4-16-19 3:45	7.14	1115	8.38	15.4	4-16-19 3:00	6.11	652	8.27	54.6	4-16-19 3:00	7.59	1224	8.30	13.6						7-16-19 21:15	22.39	1579	8.39	14.8					
4-16-19 4:00	7.11	1114	8.38	15.0	4-16-19 3:15	6.03	653	8.29	63.3	4-16-19 3:15	7.58	1224	8.30	12.5						7-16-19 21:30	22.38	1583	8.39	15.6					
4-16-19 4:15	7.03	1115	8.38	15.5	4-16-19 3:30	6.02	655	8.30	66.9	4-16-19 3:30	7.57	1225	8.30	12.3						7-16-19 21:45	22.39	1584	8.40	13.8					
4-16-19 4:30	6.99	1115	8.38	15.9	4-16-19 3:45	6.03	654	8.30	67.0	4-16-19 3:45	7.54	1225	8.30	12.6						7-16-19 22:00	22.42	1582	8.40	14.0					
4-16-19 4:45	6.94	1116	8.38	15.4	4-16-19 4:00	6.02	655	8.29	66.6	4-16-19 4:00	7.49	1225	8.30	11.4						7-16-19 22:15	22.40	1585	8.39	15.1					
4-16-19 5:00	6.89	1117	8.38	15.6	4-16-19 4:15	5.93	623	8.29	92.8	4-16-19 4:15	7.42	1224	8.30	11.3						7-16-19 22:30	22.08	1586	8.39	17.3					
4-16-19 5:15	6.85	1117	8.38	15.4	4-16-19 4:30	5.94	631	8.27	71.2	4-16-19 4:30	7.47	1225	8.30	11.7						7-16-19 22:45	21.90	1577	8.36	26.5					
4-16-19 5:30	6.87	1117	8.38	16.4	4-16-19 4:45	5.92	632	8.27	70.1	4-16-19 4:45	7.45	1225	8.30	12.7						7-16-19 23:00	22.12	1583	8.40	18.0					
4-16-19 5:45	6.85	1116	8.38	15.2	4-16-19 5:00	5.87	632	8.25	71.0	4-16-19 5:00	7.41	1224	8.30	11.3						7-16-19 23:15	22.40	1585	8.41	17.9					
4-16-19 6:00	6.86	1117	8.38	16.8	4-16-19 5:15	5.83	632	8.23	68.2	4-16-19 5:15	7.41	1224	8.30	10.4						7-16-19 23:30	22.70	1584	8.40	16.8					
4-16-19 6:15	6.80	1117	8.37	15.3	4-16-19 5:30	5.84	632	8.20	69.6	4-16-19 5:30	7.40	1225	8.30	11.7						7-16-19 23:45	22.91	1585	8.40	17.1					
4-16-19 6:30	6.82	1117	8.37	16.4	4-16-19 5:45	5.85	632	8.20	74.4	4-16-19 5:45	7.36	1225	8.30	11.4						7-17-19 0:00	23.25	1584	8.41	16.3					
4-16-19 6:45	6.77	1115	8.37	32.8	4-16-19 6:00	5.87	632	8.25	53.6	4-16-19 6:00	7.32	1225	8.30	11.5						7-17-19 0:15	23.51	1588	8.40	16.3					
4-16-19 7:00	6.69	1116	8.38	23.4	4-16-19 6:15	5.81	632	8.27	27.9	4-16-19 6:15	7.28	1224	8.30	12.1						7-17-19 0:30	23.83	1588	8.41	15.5					
4-16-19 7:15	6.66	1118	8.37	18.7	4-16-19 6:30	5.76	632	8.28	23.4	4-16-19 6:30	7.29	1225	8.30	12.1						7-17-19 0:45	23.84	1588	8.41	14.9					
4-16-19 7:30	6.67	1117	8.37	18.9	4-16-19 6:45	5.73	632	8.28	20.7	4-16-19 6:45	7.26	1225	8.31	12.8						7-17-19 1:00	23.84	1588	8.41	13.9					
4-16-19 7:45	6.71	1117	8.38	19.1	4-16-19 7:00	5.71	632	8.28	17.3	4-16-19 7:00	7.28	1225	8.30	11.9						7-17-19 1:15	23.89	1588	8.40	14.4					
4-16-19 8:00	6.63	1115	8.37	18.9	4-16-19 7:15	5.76	632	8.28	47.6	4-16-19 7:15	7.28	1224	8.30	11.5						7-17-19 1:30	23.91	1588	8.40	12.9					
4-16-19 8:15	6.60	1116	8.36	21.9	4-16-19 7:30	5.69	632	8.28	59.7	4-16-19 7:30	7.24	1224	8.31	12.9						7-17-19 1:45	23.84	1587	8.40	13.9					
4-16-19 8:30	6.64	1115	8.36	20.6	4-16-19 7:45	5.69	620	8.29	26.6	4-16-19 7:45	7.25	1225	8.31	12.2						7-17-19 2:00	23.80	1587	8.41	12.9					
4-16-19 8:45	6.58	1115	8.35	18.7	4-16-19 8:00	5.69	605	8.30	18.0	4-16-19 8:00	7.19	1225	8.31	11.7						7-17-19 2:15	23.71	1588	8.40	13.8					
4-16-19 9:00	6.62	1114	8.34	19.1	4-16-19 8:15	5.75	603	8.29	20.5	4-16-19 8:15	7.23	1225	8.30	12.3						7-17-19 2:30	23.66	1587	8.41	14.1					
4-16-19 9:15	6.65	1112	8.33	20.9	4-16-19 8:30	5.74	610	8.28	20.0	4-16-19 8:30	7.22	1225	8.31	11.2						7-17-19 2:45	23.58	1587	8.40	13.9					
4-16-19 9:30	6.61	1111	8.33	23.1	4-16-19 8:45	5.80	617	8.26	16.6	4-16-19 8:45	7.23	1225	8.31	11.6						7-17-19 3:00	23.46	1586	8.42	12.9					
4-16-19 9:45	6.64	1110	8.31	20.6	4-16-19 9:00	5.89	595	8.28	16.1	4-16-19 9:00	7.21	1225	8.31	14.9						7-17-19 3:15	23.30	1585	8.41	13.4					
4-16-19 10:00	6.72	1110	8.31	22.6	4-16-19 9:15	6.02	506	8.28	14.8	4-16-19 9:15	7.26	1225	8.31	12.2						7-17-19 3:30	23.17	1584	8.41	13.2					
4-16-19 10:15	6.78	1107	8.29	22.7	4-16-19 9:30	6.08	494	8.28	14.6	4-16-19 9:30	7.30	1225	8.31	14.1						7-17-19 3:45	23.09	1585	8.40	13.4					
4-16-19 10:30	6.83	1107	8.30	24.2	4-16-19 9:45	6.07	505	8.28	16.2	4-16-19 9:45	7.26	1224	8.31	11.8						7-17-19 4:00	23.01	1584	8.42	12.9					
4-16-19 10:45	6.93	1107	8.30	22.1	4-16-19 10:00	6.37	553	8.32	19.2	4-16-19 10:00	7.33	1224	8.31	11.3						7-17-19 4:15	22.94	1586	8.40	13.0					
4-16-19 11:00	6.95	1108	8.30	20.9	4-16-19 10:15	6.71	583	8.32	17.7	4-16-19 10:15	7.44	1224	8.31	11.0						7-17-19 4:30	22.87	1584	8.42	13.0					
4-16-19 11:15	6.88	1107	8.30	19.6	4-16-19 10:30	7.06	550	8.35	17.7	4-16-19 10:30	7.54	1224	8.31	10.6						7-17-19 4:45	22.87	1585	8.42	13.1					
4-16-19 11:30	6.99	1108	8.30	18.5	4-16-19 10:45	6.96	627	8.32	31.4	4-16-19 10:45	7.60	1224	8.32	15.6						7-17-19 5:00	22.86	1585	8.42	12.9					
4-16-19 11:45	7.18	1107	8.30	19.3	4-16-19 11:00	7.18	639	8.31	14.5	4-16-19 11:00	7.79	1225	8.32	11.2						7-17-19 5:15	22.82	1585	8.42	13.4					
4-16-19 12:00	7.62	1109	8.33	20.2	4-16-19 11:15	7.31	642	8.31	12.3	4-16-19 11:15	7.85	1224	8.32	11.4						7-17-19 5:30	22.74	1584	8.42	12.9					
4-16-19 12:15	7.63	1103	8.29	19.7	4-16-19 11:30					4-16-19 11:30	7.64	1222	8.31	13.2						7-17-19 5:45	22.67	1584	8.42	13.6					
4-16-19 12:30	7.73	1104	8.30	18.3	4-16-19 11:45	7.22	644	8.33	16.1	4-16-19 11:45	7.68	1224	8.31	11.3						7-17-19 6:00									
4-16-19 12:45	7.75	1106	8.31	18.5	4-16-19 12:00	7.27	644	8.33	16.0	4-16-19 12:00	7.90	1225	8.30	13.1						7-17-19 6:15	22.55	1584	8.42	13.4					
4-16-19 13:00	8.31	1104	8.30	17.9	4-16-19 12:15	7.93	644	8.31	19.8	4-16-19 12:15	7.85	1223	8.30	11.8						7-17-19 6:30	22.49	1584	8.43	12.8					
4-16-19 13:30	8.28	1107	8.32	21.0	4-16-19 12:30	7.99	642	8.31	36.6	4-16-19 12:30	8.06	1222	8.30	11.5						7-17-19 6:45	22.41	1584	8.41	13.1					
4-16-19 13:45	8.30	1108	8.33	18.6	4-16-19 12:45	8.12	641	8.31	36.5	4-16-19 12:45	8.16	1223	8.30	11.1						7-17-19 7:00	22.34	1584	8.43	12.8					
4-16-19 14:00	8.28	1107	8.32	17.2	4-16-19 13:00	8.46	642	8.31	42.8	4-16-19 13:00	8.53	1223	8.30	14.7						7-17-19 7:15	22.29	1584	8.42	12.9					
4-16-19 14:15	8.31	1108	8.32	19.9	4-16-19 13:15	8.46	642	8.30	62.8	4-16-19 13:15	8.55	1221	8.30	12.2						7-17-19 7:30	22.21	1584	8.42	12.7					
4-16-19 14:30	8.72	1107	8.35	17.6	4-16-19 13:30	8.37	639	8.30	56.6	4-16-19 13:30	8.82	1222	8.28	14.7						7-17-19 7:45	22.17	1584	8.42	12.9					
4-16-19 14:45	8.74	1107	8.35	18.2	4-16-19 13:45	8.24	639	8.29	70.2	4-16-19 13:45	8.87	1221	8.30	12.9						7-17-19 8:00	22.13	1583	8.43	12.7					
4-16-19 15:00	8.76	1105	8.35	17.2	4-16-19 14:00	8.15	641	8.31	72.8	4-16-19 14:00	8.87	1221	8.29	13.9						7-17-19 8:15	22.06	1585	8.42	12.9					
4-16-19 15:15	8.67	1107	8.33	18.3	4-16-19 14:15	8.30	637	8.32	107.9	4-16-19 14:15	8.93	1218	8.29	14.2						7-17-19 8:30	22.01	1583	8.43	12.7					
4-16-19 15:30	8.87	1107	8.34	17.4	4-16-19 14:30	8.03	640	8.34	72.0	4-16-19 14:30	8.89	1216	8.28	13.4						7-17-19 8:45	21.95	1584	8.42	12.8					
4-16-19 15:45	8.97	1106	8.32	17.1	4-16-19 14:45	7.81	638	8.35	72.3	4-16-19 14:45	9.06	1219	8.27	15.1						7-17-19 9:00	21.88	1583	8.43	12.9					
4-16-19 16:00	9.24	1104	8.35	16.4	4-16-19 15:00	7.55	637	8.34	103.8	4-16-19 15:00	9.04	1219	8.29	17.2						7-17-19 9:15	21.84	1584	8.42	12.8					
4-16-19 16:15	9.29	1104	8.34	16.3	4-16-19 15:15	7.38	637	8.35	23.2	4-16-19 15:15	8.99	1219	8.29	16.5						7-17-19 9:30	21.80	1584	8.43	12.3					
4-16-19 16:30	9.30	1101	8.31	17.0	4-16-19 15:30	7.35	622	8.34	24.2	4-16-19 15:30	8.97	1218	8.29	13.1						7-17-19 9:45	21.77	1584	8.42	13.4					
4-16-19 16:45	9.35	1098	8.30	17.2	4-16-19 15:45	7.65	638	8.33	31.3	4-16-19 15:45	8.99	1219	8.29	13.3						7-17-19 10:00	21.69	1583	8.42	12.4					
4-16-19 17:00	9.38	1098	8.31	17.4	4-16-19 16:00	7.77	638	8.33	32.3	4-16-19 16:00	9.03	1218	8.29	12.2						7-17-19 10:15	21.64	1585	8.41	12.4					
4-16-19 17:15	9.37	1097	8.31	17.2	4-16-19 16:15	7.76	639	8.33	35.2	4-16-19 16:15	9.03	1218	8.29	13.1						7-17-19 10:30	21.60	1583	8.42	12.6					
4-16-19 17:30	9.36	1097	8.31	19.0	4-16-19 16:30	7.79	635	8.33	18.4	4-16-19 16:30	9.08	1219	8.29	14.1						7-17-19 10:45	21.55	1584	8.42	12.3					
4-16-19 17:45	9.31	1099	8.31	16.2	4-16-19 16:45	7.63	634	8.34	56.1	4-16-19 16:45	9.07	1218	8.30	11.2						7-17-19 11:00	21.50	1584	8.42	12.3					
4-16-19 18:00	9.31	1101	8.33	15.0	4-16-19 17:00	7.57	630	8.34	1247.3	4-16-19 17:00	9.08	1218	8.30	11.1						7-17-19 11:15	21.46	1585	8.42	12.3					
4-16-19 18:15	9.28	1100	8.34	17.0	4-16-19 17:15	7.66	630	8.34	58.0	4-16-19 17:15	9.06	1217	8.30	14.2						7-17-19 11:30	21.39	1583	8.42	12.4					
4-16-19 18:30	9.23	1101	8.34	18.1	4-16-19 17:30	7.65	627	8.34	19.7	4-16-19 17:30	9.07	1218	8.30	12.8						7-17-19 11:45	21.37	1584	8.42	12.4					
4-16-19 18:45	9.24	1101	8.34	17.1	4-16-19 17:45	7.65	626	8.34	18.2	4-16-19 17:45	9.07	1218	8.30	12.2						7-17-19 12:00	21.33	1584	8.42	12.5					
4-16-19 19:00	9.24	1101	8.33	15.6	4-16-19 18:00	7.61	630	8.34	17.4	4-16-19 18:00	9.06	1218	8.30	11.9						7-17-19 12:15	21.23	1585	8.41	12.6					
4-16-19 19:15	9.22	1101	8.33	15.1	4-16-19 18:15	7.71	628	8.34	17.3	4-16-19 18:15	9.02	1218	8.30	12.4						7-17-19 12:30	21.24	1585	8.42	12.7					
4-16-19 19:30	9.18	1100	8.33	16.5	4-16-19 18:30	7.70	634	8.34	17.9	4-16-19 18:30	9.01	1218	8.30	11.9						7-17-19 12:45	21.20	1585	8.41	12.6					
4-16-19 19:45	9.18	1101	8.33	14.9	4-16-19 18:45	7.68	636	8.34	19.4	4-16-19 18:45	8.98	1217	8.30	13.0						7-17-19 13:00	21.14	1584	8.42	12.9					
4-16-19 20:00	9.15	1101	8.33	16.1	4-16-19 19:00	7.66	631	8.34	18.6	4-16-19 19:00	8.96	1217	8.30	11.5						7-17-19 13:15	21.10	1585	8.41	13.0					
4-16-19 20:15	9.09	1100	8.34	15.1	4-16-19 19:15	7.64	596	8.34	19.6	4-16-19 19:15	8.94	1217	8.29	12.0						7-17-19 13:30	21.06	1584	8.42	12.8					
4-16-19 20:30	9.05	1102	8.33	14.3	4-16-19 19:30	7.61	602	8.34	21.8	4-16-19 19:30	8.92	1216	8.30	12.2						7-17-19 13:45	21.08	1586	8.42	13.1					
4-16-19 20:45	8.98	1103	8.35	17.6	4-16-19 19:45	7.59	582	8.34	25.1	4-16-19 19:45	8.87	1217	8.30	12.1						7-17-19 14:00	21.07	1585	8.42	12.8					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-16-19 21:00	8.92	1104	8.35	16.7	4-16-19 20:00	7.62	577	8.34	29.6	4-16-19 20:00	8.90	1216	8.30	11.3						7-17-19 14:15	21.03	1586	8.42	13.4					
4-16-19 21:15	8.87	1100	8.34	18.1	4-16-19 20:15	7.51	569	8.34	23.7	4-16-19 20:15	8.83	1217	8.30	10.7						7-17-19 14:30	21.04	1585	8.43	13.2					
4-16-19 21:30	8.83	1102	8.35	17.8	4-16-19 20:30	7.55	567	8.34	26.0	4-16-19 20:30	8.83	1216	8.29	11.1						7-17-19 14:45	21.06	1586	8.43	13.4					
4-16-19 21:45	8.78	1102	8.34	17.0	4-16-19 20:45	7.56	547	8.34	29.5	4-16-19 20:45	8.81	1215	8.30	12.2						7-17-19 15:00	21.07	1586	8.43	13.2					
4-16-19 22:00	8.77	1101	8.34	17.2	4-16-19 21:00	7.45	562	8.33	31.8	4-16-19 21:00	8.74	1216	8.29	11.3						7-17-19 15:15	21.08	1587	8.42	13.4					
4-16-19 22:15	8.71	1099	8.35	18.3	4-16-19 21:15	7.43	644	8.34	31.8	4-16-19 21:15	8.73	1216	8.30	11.0						7-17-19 15:30	21.06	1586	8.43	13.7					
4-16-19 22:30	8.66	1101	8.36	15.1	4-16-19 21:30	7.38	588	8.34	34.3	4-16-19 21:30	8.71	1216	8.30	10.6						7-17-19 15:45	21.04	1587	8.43	13.8					
4-16-19 22:45	8.63	1103	8.36	15.2	4-16-19 21:45	7.33	592	8.33	22.2	4-16-19 21:45	8.65	1216	8.30	11.0						7-17-19 16:00	21.03	1586	8.43	13.3					
4-16-19 23:00	8.55	1101	8.35	14.8	4-16-19 22:00	7.41	619	8.33	21.0	4-16-19 22:00	8.66	1215	8.29	10.7						7-17-19 16:15	21.03	1588	8.42	13.8					
4-16-19 23:15	8.52	1097	8.34	16.1	4-16-19 22:15	7.38	644	8.33	21.4	4-16-19 22:15	8.60	1215	8.30	10.9						7-17-19 16:30	21.09	1586	8.44	13.4					
4-16-19 23:30	8.48	1101	8.36	17.0	4-16-19 22:30	7.39	653	8.33	19.8	4-16-19 22:30	8.61	1216	8.29	11.0						7-17-19 16:45	21.15	1587	8.43	13.6					
4-16-19 23:45	8.43	1102	8.37	17.4	4-16-19 22:45	7.38	653	8.33	154.8	4-16-19 22:45	8.60	1216	8.30	10.5						7-17-19 17:00	21.16	1586	8.43	13.5					
4-17-19 0:00	8.41	1102	8.38	18.9	4-16-19 23:00	7.35	653	8.32	13.0	4-16-19 23:00	8.55	1216	8.30	10.5						7-17-19 17:15	21.15	1586	8.42	13.3					
4-17-19 0:15	8.31	1101	8.36	15.8	4-16-19 23:15					4-16-19 23:15	8.55	1216	8.30	11.4						7-17-19 17:30	21.16	1586	8.43	13.5					
4-17-19 0:30	8.27	1101	8.35	17.2	4-16-19 23:30	7.35	650	8.32	12.8	4-16-19 23:30	8.56	1216	8.30	10.2						7-17-19 17:45	21.20	1586	8.42	13.3					
4-17-19 0:45	8.25	1102	8.37	16.2	4-16-19 23:45	7.30	652	8.32	11.5	4-16-19 23:45	8.54	1215	8.29	10.5						7-17-19 18:00	21.23	1585	8.44	13.2					
4-17-19 1:00	8.17	1100	8.38	16.2	4-17-19 0:00	7.32	652	8.31	10.6	4-17-19 0:00	8.51	1216	8.29	10.0						7-17-19 18:15	21.33	1587	8.44	13.1					
4-17-19 1:15	8.15	1100	8.35	14.7	4-17-19 0:15	7.37	651	8.31	11.0	4-17-19 0:15	8.51	1216	8.29	10.8						7-17-19 18:30	21.46	1585	8.44	13.1					
4-17-19 1:30	8.14	1102	8.34	13.4	4-17-19 0:30	7.37	652	8.30	11.6	4-17-19 0:30	8.50	1216	8.29	9.9						7-17-19 18:45	21.49	1586	8.42	13.1					
4-17-19 1:45	8.12	1102	8.37	15.6	4-17-19 0:45	7.30	652	8.29	15.0	4-17-19 0:45	8.48	1216	8.29	10.0						7-17-19 19:00	21.53	1586	8.44	13.0					
4-17-19 2:00	8.12	1103	8.37	16.2	4-17-19 1:00	7.30	652	8.31	12.4	4-17-19 1:00	8.47	1216	8.30	9.6						7-17-19 19:15	21.58	1586	8.43	13.0					
4-17-19 2:15	8.07	1101	8.37	16.8	4-17-19 1:15	7.23	651	8.31	13.9	4-17-19 1:15	8.44	1216	8.29	9.7						7-17-19 19:30	21.65	1585	8.45	12.8					
4-17-19 2:30	8.03	1103	8.37	15.3	4-17-19 1:30	7.27	653	8.30	85.1	4-17-19 1:30	8.42	1216	8.29	9.7						7-17-19 19:45	21.76	1587	8.43	12.5					
4-17-19 2:45	7.95	1101	8.36	16.0	4-17-19 1:45	7.22	653	8.31	13.7	4-17-19 1:45	8.40	1216	8.30	9.9						7-17-19 20:00	21.77	1585	8.44	13.0					
4-17-19 3:00	7.93	1100	8.35	16.3	4-17-19 2:00	7.16	651	8.30	13.4	4-17-19 2:00	8.38	1216	8.30	10.2						7-17-19 20:15	21.75	1587	8.44	16.8					
4-17-19 3:15	7.89	1100	8.34	14.5	4-17-19 2:15	7.17	650	8.26	15.9	4-17-19 2:15	8.33	1216	8.30	9.2						7-17-19 20:30	21.83	1585	8.45	13.1					
4-17-19 3:30	7.89	1100	8.35	16.0	4-17-19 2:30	7.16	649	8.22	12.2	4-17-19 2:30	8.32	1216	8.30	9.7						7-17-19 20:45	21.87	1587	8.45	12.6					
4-17-19 3:45	7.75	1102	8.36	14.9	4-17-19 2:45	7.15	649	8.23	11.9	4-17-19 2:45	8.31	1216	8.30	9.6						7-17-19 21:00	21.90	1586	8.45	12.5					
4-17-19 4:00	7.79	1102	8.34	15.1	4-17-19 3:00	7.12	649	8.22	15.6	4-17-19 3:00	8.27	1216	8.30	9.6						7-17-19 21:15	21.94	1587	8.44	12.4					
4-17-19 4:15	7.76	1101	8.34	14.3	4-17-19 3:15	7.09	649	8.23	17.4	4-17-19 3:15	8.23	1216	8.30	10.2						7-17-19 21:30	21.98	1586	8.46	12.6					
4-17-19 4:30	7.69	1100	8.34	14.3	4-17-19 3:30	7.08	649	8.28	17.4	4-17-19 3:30	8.22	1216	8.30	11.0						7-17-19 21:45	22.03	1586	8.45	12.5					
4-17-19 4:45	7.67	1101	8.34	14.8	4-17-19 3:45	7.02	649	8.30	50.2	4-17-19 3:45	8.19	1216	8.30	9.6						7-17-19 22:00	22.10	1586	8.46	12.0					
4-17-19 5:00	7.62	1103	8.35	14.5	4-17-19 4:00	6.98	649	8.30	34.4	4-17-19 4:00	8.13	1217	8.30	8.9						7-17-19 22:15	22.10	1587	8.44	11.9					
4-17-19 5:15	7.61	1102	8.36	15.0	4-17-19 4:15	6.93	650	8.30	14.4	4-17-19 4:15	8.17	1217	8.30	10.4						7-17-19 22:30	22.07	1585	8.46	12.0					
4-17-19 5:30	7.56	1105	8.36	15.0	4-17-19 4:30	6.92	649	8.30	12.4	4-17-19 4:30	8.13	1215	8.30	8.9						7-17-19 22:45	21.99	1582	8.45	11.8					
4-17-19 5:45	7.54	1107	8.35	14.9	4-17-19 4:45	6.88	649	8.29	13.1	4-17-19 4:45	8.11	1216	8.30	9.1						7-17-19 23:00	21.98	1580	8.47	11.7					
4-17-19 6:00	7.52	1108	8.35	14.5	4-17-19 5:00	6.85	647	8.31	12.9	4-17-19 5:00	8.09	1216	8.30	10.1						7-17-19 23:15	22.00	1581	8.46	11.3					
4-17-19 6:15	7.48	1112	8.34	13.4	4-17-19 5:15	6.73	645	8.30	13.9	4-17-19 5:15	8.00	1216	8.30	10.0						7-17-19 23:30	22.07	1581	8.48	11.6					
4-17-19 6:30	7.45	1110	8.34	13.7	4-17-19 5:30	6.82	623	8.31	15.0	4-17-19 5:30	8.00	1217	8.31	10.4						7-17-19 23:45	22.15	1582	8.47	10.9					
4-17-19 6:45	7.40	1112	8.34	14.9	4-17-19 5:45	6.86	623	8.31	16.7	4-17-19 5:45	8.01	1216	8.30	9.4						7-18-19 0:00	22.21	1581	8.48	10.8					
4-17-19 7:00	7.41	1108	8.34	14.4	4-17-19 6:00	6.81	620	8.32	18.8	4-17-19 6:00	8.01	1217	8.30	11.6						7-18-19 0:15	22.24	1582	8.46	10.8					
4-17-19 7:15	7.29	1109	8.34	15.5	4-17-19 6:15	6.74	619	8.32	15.0	4-17-19 6:15	8.00	1217	8.30	8.8						7-18-19 0:30	22.31	1582	8.48	10.9					
4-17-19 7:30	7.26	1106	8.34	14.4	4-17-19 6:30	6.70	605	8.32	14.3	4-17-19 6:30	7.97	1217	8.30	9.8						7-18-19 0:45	22.32	1583	8.47	10.7					
4-17-19 7:45	7.23	1104	8.34	14.5	4-17-19 6:45	6.70	583	8.32	17.5	4-17-19 6:45	7.96	1216	8.30	9.8						7-18-19 1:00	22.34	1582	8.48	11.0					
4-17-19 8:00	7.24	1112	8.34	13.2	4-17-19 7:00	6.72	578	8.32	17.2	4-17-19 7:00	7.91	1216	8.31	9.5						7-18-19 1:15	22.34	1583	8.47	10.9					
4-17-19 8:15	7.22	1108	8.34	13.0	4-17-19 7:15	6.76	583	8.32	16.6	4-17-19 7:15	7.88	1216	8.31	10.2						7-18-19 1:30	22.35	1582	8.48	10.6					
4-17-19 8:30	7.19	1109	8.34	13.8	4-17-19 7:30	6.78	583	8.32	18.6	4-17-19 7:30	7.86	1217	8.31	10.0						7-18-19 1:45	22.35	1582	8.47	10.6					
4-17-19 8:45	7.17	1110	8.34	14.9	4-17-19 7:45	6.76	608	8.32	13.8	4-17-19 7:45	7.80	1216	8.31	9.8						7-18-19 2:00	22.35	1581	8.48	10.5					
4-17-19 9:00	7.21	1112	8.34	13.0	4-17-19 8:00	6.76	646	8.32	14.5	4-17-19 8:00	7.83	1217	8.31	8.9						7-18-19 2:15	22.29	1583	8.48	10.7					
4-17-19 9:15	7.19	1111	8.34	12.8	4-17-19 8:15	6.78	663	8.32	15.3	4-17-19 8:15	7.81	1217	8.31	10.4						7-18-19 2:30	22.25	1582	8.48	10.5					
4-17-19 9:30	7.23	1110	8.34	13.0	4-17-19 8:30	6.81	670	8.31	13.8	4-17-19 8:30	7.79	1217	8.31	12.6						7-18-19 2:45	22.22	1583	8.48	10.2					
4-17-19 9:45	7.22	1111	8.35	12.2	4-17-19 8:45	6.72	673	8.31	13.1	4-17-19 8:45	7.77	1216	8.31	10.8						7-18-19 3:00	22.16	1584	8.49	10.3					
4-17-19 10:00	7.26	1111	8.35	15.1	4-17-19 9:00	6.77	675	8.31	14.6	4-17-19 9:00	7.79	1216	8.31	16.2						7-18-19 3:15	22.15	1584	8.49	10.3					
4-17-19 10:15	7.29	1111	8.35	14.8	4-17-19 9:15	6.82	675	8.31	13.6	4-17-19 9:15	7.77	1216	8.31	10.2						7-18-19 3:30	22.09	1581	8.49	10.2					
4-17-19 10:30	7.34	1112	8.35	12.9	4-17-19 9:30	6.92	684	8.30	13.9	4-17-19 9:30	7.79	1216	8.31	11.5						7-18-19 3:45	22.04	1582	8.49	10.0					
4-17-19 10:45	7.43	1109	8.36	13.9	4-17-19 9:45	7.01	696	8.30	14.4	4-17-19 9:45	7.82	1216	8.32	12.1						7-18-19 4:00	22.01	1582	8.49	9.9					
4-17-19 11:00	7.44	1112	8.36	14.6	4-17-19 10:00	6.92	706	8.30	14.5	4-17-19 10:00	7.81	1216	8.32	10.7						7-18-19 4:15	21.97	1583	8.48	10.0					
4-17-19 11:15	7.61	1111	8.36	13.4	4-17-19 10:15	6.91	713	8.30	15.2	4-17-19 10:15	7.80	1216	8.32	12.3						7-18-19 4:30	21.93	1582	8.49	9.8					
4-17-19 11:30	7.68	1110	8.37	18.9	4-17-19 10:30	7.01	717	8.30	15.4	4-17-19 10:30	7.82	1216	8.32	11.4						7-18-19 4:45	21.89	1583	8.49	9.8					
4-17-19 11:45	7.88	1110	8.37	12.9	4-17-19 10:45	7.20	716	8.30	14.8	4-17-19 10:45	7.88	1216	8.33	12.0						7-18-19 5:00	21.83	1582	8.48	9.7					
4-17-19 12:00	7.96	1112	8.37	13.6	4-17-19 11:00	7.24	713	8.30	13.9	4-17-19 11:00	7.92	1216	8.33	11.6						7-18-19 5:15	21.75	1583	8.48	9.8					
4-17-19 12:15	8.00	1111	8.37	14.7	4-17-19 11:15	7.23	703	8.31	14.1	4-17-19 11:15	7.96	1216	8.33	11.6						7-18-19 5:30	21.67	1582	8.49	9.7					
4-17-19 12:30	8.10	1110	8.38	15.0	4-17-19 11:30	7.37	694	8.31	14.5	4-17-19 11:30	8.04	1216	8.33	14.8						7-18-19 5:45	21.62	1582	8.46	9.7					
4-17-19 12:45	8.18	1111	8.38	19.5	4-17-19 11:45	7.37	692	8.32	15.5	4-17-19 11:45	8.10	1216	8.34	11.9						7-18-19 6:00	21.56	1581	8.48	9.7					
4-17-19 13:00	8.32	1111	8.39	14.1	4-17-19 12:00	7.61	688	8.31	15.2	4-17-19 12:00	8.25	1216	8.34	13.1						7-18-19 6:15	21.47	1583	8.48	9.7					
4-17-19 13:15	8.36	1109	8.39	16.0	4-17-19 12:15	7.58	685	8.31	16.1	4-17-19 12:15	8.30	1217	8.34	13.2						7-18-19 6:30	21.45	1582	8.49	9.7					
4-17-19 13:30	8.52	1110	8.39	15.1	4-17-19 12:30	7.58	679	8.32	25.6	4-17-19 12:30	8.41	1214	8.34	13.3						7-18-19 6:45	21.40	1583	8.48	9.6					
4-17-19 13:45	8.65	1110	8.41	13.8	4-17-19 12:45	7.68	678	8.32	19.8	4-17-19 12:45	8.48	1214	8.34	12.4						7-18-19 7:00	21.37	1583	8.48	9.7					
4-17-19 14:00	8.78	1109	8.40	14.1	4-17-19 13:00	7.73	676	8.32	26.6	4-17-19 13:00	8.50	1215	8.34	14.7						7-18-19 7:15	21.33	1585	8.47	9.7					
4-17-19 14:15	8.86	1110	8.41	15.9	4-17-19 13:15	7.86	674	8.32	56.9	4-17-19 13:15	8.60	1216	8.34	14.4						7-18-19 7:30	21.25	1585	8.47	9.7					
4-17-19 14:30	8.88	1109	8.41	13.5	4-17-19 13:30	7.95	675	8.32	139.7	4-17-19 13:30	8.56	1214	8.34	11.4						7-18-19 7:45	21.22	1588	8.46	9.7					
4-17-19 14:45	8.98	1109	8.41	14.2	4-17-19 13:45	8.08	672	8.32	24.6	4-17-19 13:45	8.70	1215	8.35	13.9						7-18-19 8:00	21.16	1587	8.46	9.7					
4-17-19 15:00	9.16	1110	8.42	14.1	4-17-19 14:00	8.26	671	8.31	23.0	4-17-19 14:00	8.74	1214	8.35	11.8						7-18-19 8:15	21.11	1589	8.45	9.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-17-19 15:15	9.26	1109	8.42	12.8	4-17-19 14:15	8.05	669	8.32	21.2	4-17-19 14:15	8.92	1216	8.35	14.7						7-18-19 8:30	21.06	1587	8.46	9.9					
4-17-19 15:30	9.36	1111	8.42	16.3	4-17-19 14:30	7.99	669	8.32	18.4	4-17-19 14:30	8.89	1215	8.35	15.2						7-18-19 8:45	21.04	1590	8.46	11.0					
4-17-19 15:45	9.45	1109	8.43	14.1	4-17-19 14:45	8.20	648	8.32	18.6	4-17-19 14:45	8.86	1214	8.35	13.4						7-18-19 9:00	20.99	1588	8.46	9.9					
4-17-19 16:00	9.48	1112	8.43	15.0	4-17-19 15:00	8.38	635	8.32	18.3	4-17-19 15:00										7-18-19 9:15	20.93	1589	8.45	9.9					
4-17-19 16:15	9.59	1108	8.44	17.6	4-17-19 15:15	8.45	641	8.32	18.7	4-17-19 15:15	9.06	1214	8.36	13.0						7-18-19 9:30	20.88	1588	8.46	10.1					
4-17-19 16:30	9.61	1110	8.43	15.5	4-17-19 15:30	8.47	642	8.32	20.7	4-17-19 15:30	9.17	1214	8.36	13.3						7-18-19 9:45	20.82	1589	8.45	10.1					
4-17-19 16:45	9.65	1110	8.44	15.7	4-17-19 15:45	8.59	628	8.32	21.5	4-17-19 15:45	9.15	1214	8.36	13.3						7-18-19 10:00	20.75	1588	8.46	10.3					
4-17-19 17:00	9.71	1110	8.45	14.6	4-17-19 16:00	8.67	615	8.32	19.5	4-17-19 16:00	9.15	1215	8.36	13.8						7-18-19 10:15	20.72	1591	8.45	10.4					
4-17-19 17:15	9.73	1109	8.44	13.7	4-17-19 16:15	8.69	592	8.32	30.9	4-17-19 16:15	9.29	1215	8.36	13.3						7-18-19 10:30	20.72	1590	8.45	10.4					
4-17-19 17:30	9.75	1112	8.45	24.9	4-17-19 16:30	8.72	594	8.32	37.9	4-17-19 16:30	9.36	1215	8.36	13.2						7-18-19 10:45	20.69	1591	8.45	10.4					
4-17-19 17:45	9.73	1112	8.45	15.5	4-17-19 16:45	8.74	599	8.32	40.9	4-17-19 16:45	9.39	1215	8.36	14.6						7-18-19 11:00	20.66	1591	8.45	10.2					
4-17-19 18:00	9.73	1114	8.46	14.6	4-17-19 17:00	8.73	611	8.32	31.4	4-17-19 17:00	9.39	1214	8.36	12.8						7-18-19 11:15	20.61	1592	8.45	10.4					
4-17-19 18:15	9.81	1111	8.48	15.2	4-17-19 17:15	8.70	655	8.32	26.0	4-17-19 17:15	9.41	1214	8.36	12.7						7-18-19 11:30	20.56	1591	8.44	10.4					
4-17-19 18:30	9.82	1112	8.47	15.2	4-17-19 17:30	8.65	670	8.33	26.2	4-17-19 17:30	9.36	1215	8.36	13.8						7-18-19 11:45	20.48	1592	8.44	10.4					
4-17-19 18:45	9.75	1112	8.48	15.3	4-17-19 17:45	8.67	670	8.33	27.7	4-17-19 17:45	9.32	1214	8.36	13.0						7-18-19 12:00	20.44	1590	8.45	10.4					
4-17-19 19:00	9.65	1114	8.48	14.6	4-17-19 18:00	8.64	673	8.33	28.3	4-17-19 18:00	9.30	1214	8.37	12.5						7-18-19 12:15	20.35	1592	8.44	10.4					
4-17-19 19:15	9.65	1115	8.48	15.8	4-17-19 18:15	8.62	673	8.33	27.8	4-17-19 18:15	9.29	1214	8.37	13.3						7-18-19 12:30	20.34	1592	8.44	10.5					
4-17-19 19:30	9.63	1115	8.48	13.8	4-17-19 18:30	8.60	664	8.33	32.4	4-17-19 18:30	9.30	1214	8.37	13.4						7-18-19 12:45	20.36	1596	8.44	10.4					
4-17-19 19:45	9.56	1115	8.48	17.9	4-17-19 18:45	8.66	673	8.33	30.7	4-17-19 18:45	9.31	1214	8.37	13.5						7-18-19 13:00	20.34	1595	8.44	10.6					
4-17-19 20:00	9.55	1114	8.48	16.1	4-17-19 19:00	8.65	673	8.33	34.0	4-17-19 19:00	9.25	1215	8.37	12.4						7-18-19 13:15	20.32	1596	8.44	10.5					
4-17-19 20:15	9.56	1114	8.50	17.1	4-17-19 19:15	8.65	672	8.33	31.5	4-17-19 19:15	9.22	1214	8.38	12.0						7-18-19 13:30	20.29	1594	8.44	10.8					
4-17-19 20:30	9.53	1115	8.49	15.5	4-17-19 19:30	8.59	671	8.33	35.9	4-17-19 19:30	9.21	1215	8.37	10.9						7-18-19 13:45	20.27	1595	8.44	10.6					
4-17-19 20:45	9.49	1115	8.50	17.5	4-17-19 19:45	8.60	671	8.32	34.1	4-17-19 19:45	9.19	1215	8.38	11.9						7-18-19 14:00	20.21	1593	8.45	10.6					
4-17-19 21:00	9.45	1115	8.49	16.1	4-17-19 20:00	8.61	671	8.33	38.8	4-17-19 20:00	9.15	1214	8.38	13.3						7-18-19 14:15	20.21	1596	8.45	10.7					
4-17-19 21:15	9.44	1117	8.49	15.3	4-17-19 20:15	8.57	670	8.33	37.1	4-17-19 20:15	9.12	1214	8.38	13.3						7-18-19 14:30	20.22	1594	8.45	10.8					
4-17-19 21:30	9.40	1115	8.49	15.2	4-17-19 20:30	8.56	670	8.33	20.5	4-17-19 20:30	9.11	1214	8.38	12.4						7-18-19 14:45	20.24	1596	8.45	10.7					
4-17-19 21:45	9.39	1115	8.49	14.9	4-17-19 20:45	8.53	671	8.33	21.4	4-17-19 20:45	9.06	1215	8.38	12.2						7-18-19 15:00	20.22	1593	8.46	10.9					
4-17-19 22:00	9.32	1115	8.49	15.1	4-17-19 21:00	8.49	670	8.32	20.8	4-17-19 21:00	9.05	1214	8.38	13.3						7-18-19 15:15	20.27	1599	8.45	10.9					
4-17-19 22:15	9.31	1115	8.49	15.1	4-17-19 21:15	8.49	670	8.33	23.3	4-17-19 21:15	9.00	1215	8.38	12.4						7-18-19 15:30	20.26	1595	8.46	10.9					
4-17-19 22:30	9.28	1116	8.49	14.5	4-17-19 21:30	8.46	667	8.33	31.3	4-17-19 21:30	9.05	1214	8.38	12.3						7-18-19 15:45	20.27	1599	8.46	10.9					
4-17-19 22:45	9.22	1116	8.49	14.4	4-17-19 21:45	8.46	666	8.32	19.0	4-17-19 21:45	9.05	1215	8.38	10.9						7-18-19 16:00	20.27	1604	8.45	10.8					
4-17-19 23:00	9.22	1115	8.49	14.8	4-17-19 22:00	8.43	658	8.32	19.4	4-17-19 22:00	9.05	1214	8.38	10.8						7-18-19 16:15	20.25	1608	8.44	10.7					
4-17-19 23:15	9.18	1117	8.49	14.6	4-17-19 22:15	8.42	649	8.32	17.4	4-17-19 22:15	9.03	1214	8.38	12.7						7-18-19 16:30	20.23	1605	8.46	10.8					
4-17-19 23:30	9.15	1115	8.48	14.3	4-17-19 22:30	8.41	651	8.32	16.3	4-17-19 22:30	9.02	1214	8.38	11.3						7-18-19 16:45	20.22	1606	8.45	10.7					
4-17-19 23:45	9.13	1118	8.48	13.3	4-17-19 22:45	8.39	657	8.32	18.7	4-17-19 22:45	9.00	1214	8.38	11.2						7-18-19 17:00	20.20	1612	8.45	10.6					
4-18-19 0:00	9.09	1119	8.48	12.4	4-17-19 23:00	8.33	640	8.32	19.9	4-17-19 23:00	8.98	1215	8.38	13.1						7-18-19 17:15	20.23	1615	8.44	11.1					
4-18-19 0:15	9.07	1119	8.47	11.9	4-17-19 23:15	8.33	630	8.32	21.4	4-17-19 23:15	8.99	1214	8.38	11.9						7-18-19 17:30	20.22	1611	8.45	10.8					
4-18-19 0:30	9.02	1119	8.48	13.6	4-17-19 23:30	8.33	621	8.32	18.0	4-17-19 23:30	8.96	1214	8.38	11.2						7-18-19 17:45	20.19	1612	8.45	11.1					
4-18-19 0:45	9.02	1119	8.48	13.4	4-17-19 23:45	8.29	619	8.32	18.2	4-17-19 23:45	8.94	1214	8.38	11.2						7-18-19 18:00	20.19	1620	8.44	11.3					
4-18-19 1:00	8.98	1119	8.47	12.8	4-18-19 0:00	8.37	632	8.32	17.7	4-18-19 0:00	8.92	1215	8.38	10.2						7-18-19 18:15	20.18	1624	8.44	10.9					
4-18-19 1:15	8.92	1119	8.48	13.5	4-18-19 0:15	8.35	657	8.31	14.1	4-18-19 0:15	8.90	1214	8.38	10.7						7-18-19 18:30	20.21	1625	8.44	11.1					
4-18-19 1:30	8.91	1119	8.48	13.1	4-18-19 0:30	8.33	675	8.31	12.5	4-18-19 0:30	8.88	1214	8.38	10.1						7-18-19 18:45	20.24	1627	8.44	11.2					
4-18-19 1:45	8.87	1118	8.48	12.8	4-18-19 0:45	8.24	680	8.32	12.5	4-18-19 0:45	8.85	1214	8.38	12.6						7-18-19 19:00	20.25	1630	8.44	10.9					
4-18-19 2:00	8.88	1120	8.48	12.4	4-18-19 1:00	8.23	682	8.31	15.5	4-18-19 1:00	8.83	1214	8.38	10.5						7-18-19 19:15	20.24	1625	8.44	11.3					
4-18-19 2:15	8.88	1120	8.48	13.3	4-18-19 1:15	8.28	683	8.31	16.2	4-18-19 1:15	8.80	1214	8.38	11.4						7-18-19 19:30	20.25	1624	8.44	11.1					
4-18-19 2:30	8.85	1120	8.48	13.1	4-18-19 1:30	8.27	683	8.31	13.7	4-18-19 1:30	8.79	1214	8.38	9.8						7-18-19 19:45	20.24	1626	8.44	11.2					
4-18-19 2:45	8.84	1122	8.47	13.2	4-18-19 1:45	8.24	683	8.31	16.8	4-18-19 1:45	8.77	1215	8.38	10.1						7-18-19 20:00	20.23	1620	8.45	11.4					
4-18-19 3:00	8.83	1121	8.48	12.8	4-18-19 2:00	8.25	684	8.30	15.3	4-18-19 2:00	8.76	1215	8.38	10.2						7-18-19 20:15	20.23	1624	8.44	11.3					
4-18-19 3:15	8.80	1121	8.47	12.6	4-18-19 2:15	8.18	684	8.31	17.2	4-18-19 2:15	8.73	1215	8.38	10.0						7-18-19 20:30	20.27	1619	8.46	11.1					
4-18-19 3:30	8.73	1120	8.47	15.6	4-18-19 2:30	8.20	684	8.31	15.0	4-18-19 2:30	8.74	1215	8.38	10.5						7-18-19 20:45	20.35	1619	8.46	10.8					
4-18-19 3:45	8.71	1121	8.47	12.7	4-18-19 2:45	8.15	685	8.31	20.4	4-18-19 2:45	8.71	1215	8.38	10.0						7-18-19 21:00	20.40	1617	8.47	11.0					
4-18-19 4:00	8.71	1120	8.47	12.7	4-18-19 3:00	8.10	686	8.31	16.3	4-18-19 3:00	8.70	1215	8.38	9.3						7-18-19 21:15	20.48	1618	8.47	11.1					
4-18-19 4:15	8.72	1127	8.47	12.6	4-18-19 3:15	8.09	684	8.31	26.9	4-18-19 3:15	8.60	1215	8.38	10.4						7-18-19 21:30	20.53	1617	8.47	11.0					
4-18-19 4:30	8.73	1129	8.47	12.9	4-18-19 3:30	8.10	684	8.29	16.2	4-18-19 3:30	8.60	1215	8.39	10.7						7-18-19 21:45	20.52	1620	8.46	11.0					
4-18-19 4:45	8.70	1128	8.47	12.9	4-18-19 3:45	8.09	685	8.26	16.0	4-18-19 3:45	8.66	1215	8.38	9.8						7-18-19 22:00	20.45	1616	8.46	11.1					
4-18-19 5:00	8.70	1130	8.46	12.6	4-18-19 4:00	8.08	739	8.23	13.8	4-18-19 4:00	8.66	1215	8.38	9.8						7-18-19 22:15	20.33	1614	8.46	11.1					
4-18-19 5:15	8.66	1135	8.46	11.5	4-18-19 4:15	8.02	739	8.23	47.0	4-18-19 4:15	8.64	1215	8.38	10.0						7-18-19 22:30	20.24	1612	8.46	11.6					
4-18-19 5:30	8.62	1143	8.46	12.0	4-18-19 4:30	7.97	739	8.28	16.1	4-18-19 4:30	8.59	1214	8.39	9.6						7-18-19 22:45	20.14	1604	8.48	11.7					
4-18-19 5:45	8.64	1148	8.46	12.0	4-18-19 4:45	8.00	740	8.28	19.5	4-18-19 4:45	8.56	1215	8.39	9.8						7-18-19 23:00	20.16	1605	8.48	11.3					
4-18-19 6:00	8.59	1143	8.46	13.5	4-18-19 5:00	7.96	740	8.31	22.0	4-18-19 5:00	8.54	1215	8.39	10.8						7-18-19 23:15	20.20	1609	8.48	11.4					
4-18-19 6:15	8.55	1142	8.46	12.2	4-18-19 5:15	7.94	740	8.31	87.1	4-18-19 5:15	8.58	1215	8.39	10.6						7-18-19 23:30	20.29	1608	8.48	11.3					
4-18-19 6:30	8.53	1148	8.46	11.4	4-18-19 5:30	7.96	740	8.31	49.2	4-18-19 5:30	8.49	1215	8.39	11.0						7-18-19 23:45	20.38	1610	8.48	11.5					
4-18-19 6:45	8.54	1152	8.45	12.3	4-18-19 5:45	7.90	747	8.31	21.4	4-18-19 5:45	8.46	1215	8.39	10.6						7-19-19 0:00	20.38	1609	8.47	11.3					
4-18-19 7:00	8.51	1152	8.45	11.1	4-18-19 6:00	7.86	738	8.31	17.7	4-18-19 6:00	8.45	1215	8.39	9.8						7-19-19 0:15	20.31	1608	8.46	11.5					
4-18-19 7:15	8.52	1148	8.45	11.4	4-18-19 6:15	7.85	739	8.31	17.3	4-18-19 6:15	8.49	1215	8.39	9.4						7-19-19 0:30	20.25	1607	8.48	10.9					
4-18-19 7:30	8.47	1151	8.45	10.8	4-18-19 6:30	7.88	740	8.30	17.1	4-18-19 6:30	8.47	1215	8.39	10.2						7-19-19 0:45	20.24	1610	8.47	11.5					
4-18-19 7:45	8.47	1145	8.44	10.5	4-18-19 6:45	7.87	736	8.30	17.2	4-18-19 6:45	8.43	1215	8.39	10.4						7-19-19 1:00	20.26	1612	8.47	11.4					
4-18-19 8:00	8.53	1147	8.45	12.1	4-18-19 7:00	7.83	710	8.30	17.9	4-18-19 7:00	8.44	1215	8.39	10.6						7-19-19 1:15	20.28	1617	8.46	12.5					
4-18-19 8:15	8.53	1153	8.44	13.3	4-18-19 7:15	7.85	713	8.30	18.2	4-18-19 7:15	8.46	1215	8.39	10.0						7-19-19 1:30	20.26	1616	8.47	11.4					
4-18-19 8:30	8.60	1151	8.44	12.2	4-18-19 7:30	7.85	721	8.30	18.1	4-18-19 7:30	8.47	1215	8.39	9.7						7-19-19 1:45	20.24	1617	8.46	11.6					
4-18-19 8:45	8.65	1154	8.45	11.2	4-18-19 7:45	7.88	712	8.30	17.2	4-18-19 7:45	8.47	1215	8.39	10.4						7-19-19 2:00	20.24	1617	8.47	11.5					
4-18-19 9:00	8.59	1138	8.46	12.4	4-18-19 8:00	7.94	691	8.30	19.0	4-18-19 8:00	8.47	1215	8.39	11.1						7-19-19 2:15	20.20	1619	8.46	11.5					
4-18-19 9:15	8.72	1144	8.46	14.9	4-18-19 8:15	7.97	682	8.30	19.7	4-18-19 8:15	8.46	1215	8.40	9.1						7-19-19 2:30	20.22	1620	8.46	11.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-18-19 9:30	8.69	1139	8.46	13.9	4-18-19 8:30	8.07	678	8.30	352.7	4-18-19 8:30	8.47	1215	8.40	9.3						7-19-19 2:45	20.19	1619	8.46	11.6					
4-18-19 9:45	8.73	1141	8.46	14.3	4-18-19 8:45	8.10	679	8.30	46.0	4-18-19 8:45	8.49	1215	8.40	10.7						7-19-19 3:00	20.17	1619	8.46	11.3					
4-18-19 10:00	8.81	1145	8.47	13.8	4-18-19 9:00	8.01	650	8.30	17.4	4-18-19 9:00	8.52	1215	8.40	11.4						7-19-19 3:15	20.14	1619	8.46	11.9					
4-18-19 10:15	8.87	1146	8.48	12.9	4-18-19 9:15	8.16	672	8.30	117.4	4-18-19 9:15	8.57	1215	8.40	11.4						7-19-19 3:30	20.13	1618	8.46	11.2					
4-18-19 10:30	8.97	1145	8.48	16.6	4-18-19 9:30	8.36	687	8.29	18.0	4-18-19 9:30	8.60	1215	8.40	9.6						7-19-19 3:45	20.11	1619	8.46	11.2					
4-18-19 10:45	9.01	1147	8.48	13.0	4-18-19 9:45	8.40	688	8.30	17.3	4-18-19 9:45	8.66	1216	8.40	10.5						7-19-19 4:00	20.09	1619	8.46	11.1					
4-18-19 11:00	9.13	1145	8.49	13.7	4-18-19 10:00	8.34	689	8.30	19.7	4-18-19 10:00	8.71	1215	8.40	9.9						7-19-19 4:15	20.06	1619	8.45	11.3					
4-18-19 11:15	9.18	1146	8.49	14.2	4-18-19 10:15	8.56	686	8.30	16.9	4-18-19 10:15	8.77	1216	8.40	9.9						7-19-19 4:30	20.06	1618	8.46	11.2					
4-18-19 11:30	9.34	1145	8.49	14.1	4-18-19 10:30	8.47	691	8.31	18.5	4-18-19 10:30	8.80	1216	8.41	10.0						7-19-19 4:45	20.03	1620	8.46	11.2					
4-18-19 11:45	9.41	1147	8.49	13.8	4-18-19 10:45	8.42	691	8.31	18.3	4-18-19 10:45	8.88	1215	8.41	14.3						7-19-19 5:00	20.00	1617	8.46	11.1					
4-18-19 12:00	9.48	1147	8.50	14.2	4-18-19 11:00	8.35	691	8.31	19.1	4-18-19 11:00	8.95	1213	8.41	15.4						7-19-19 5:15	19.97	1619	8.46	11.3					
4-18-19 12:15	9.50	1145	8.51	13.3	4-18-19 11:15	8.54	690	8.31	18.6	4-18-19 11:15	9.06	1216	8.41	14.4						7-19-19 5:30	19.96	1617	8.46	11.4					
4-18-19 12:30	9.52	1149	8.51	15.3	4-18-19 11:30	8.71	689	8.31	18.1	4-18-19 11:30	9.05	1214	8.41	12.1						7-19-19 5:45	19.91	1618	8.46	11.2					
4-18-19 12:45	9.56	1145	8.52	13.1	4-18-19 11:45	8.83	686	8.31	17.7	4-18-19 11:45	9.13	1215	8.41	12.1						7-19-19 6:00	19.89	1617	8.47	11.1					
4-18-19 13:00	9.60	1146	8.51	14.4	4-18-19 12:00	8.96	685	8.31	19.7	4-18-19 12:00	9.22	1215	8.41	12.1						7-19-19 6:15	19.88	1620	8.45	11.1					
4-18-19 13:15	9.62	1148	8.52	13.2	4-18-19 12:15	8.89	684	8.31	18.4	4-18-19 12:15	9.21	1215	8.41	12.6						7-19-19 6:30	19.88	1619	8.46	11.2					
4-18-19 13:30	9.64	1147	8.53	12.5	4-18-19 12:30	8.77	687	8.32	19.3	4-18-19 12:30	9.19	1215	8.41	11.5						7-19-19 6:45	19.85	1620	8.45	11.4					
4-18-19 13:45	9.71	1148	8.53	11.7	4-18-19 12:45	8.77	690	8.32	17.2	4-18-19 12:45	9.21	1215	8.42	13.1						7-19-19 7:00	19.82	1618	8.46	11.0					
4-18-19 14:00	9.80	1147	8.53	14.1	4-18-19 13:00	8.87	690	8.32	18.4	4-18-19 13:00	9.25	1215	8.42	13.7						7-19-19 7:15	19.81	1618	8.45	11.5					
4-18-19 14:15	9.99	1147	8.53	11.4	4-18-19 13:15	8.93	690	8.32	25.2	4-18-19 13:15	9.27	1215	8.42	13.5						7-19-19 7:30	19.78	1617	8.46	11.2					
4-18-19 14:30	10.07	1147	8.53	11.3	4-18-19 13:30	8.91	690	8.32	27.4	4-18-19 13:30	9.29	1215	8.42	13.2						7-19-19 7:45	19.77	1618	8.45	11.4					
4-18-19 14:45	10.14	1146	8.54	12.4	4-18-19 13:45	9.01	690	8.32	217.5	4-18-19 13:45	9.36	1216	8.42	14.6						7-19-19 8:00	19.75	1617	8.46	10.9					
4-18-19 15:00	10.22	1149	8.54	12.1	4-18-19 14:00	9.18	686	8.32	24.9	4-18-19 14:00	9.42	1216	8.42	13.6						7-19-19 8:15	19.71	1618	8.45	11.3					
4-18-19 15:15	10.32	1147	8.55	12.2	4-18-19 14:15	9.46	685	8.31	22.5	4-18-19 14:15	9.50	1216	8.42	12.9						7-19-19 8:30	19.71	1617	8.46	10.8					
4-18-19 15:30	10.34	1152	8.55	10.4	4-18-19 14:30	9.53	682	8.31	26.0	4-18-19 14:30	9.68	1218	8.43	15.6						7-19-19 8:45	19.69	1618	8.45	11.1					
4-18-19 15:45	10.32	1147	8.56	12.7	4-18-19 14:45	9.41	681	8.31	30.5	4-18-19 14:45	9.79	1216	8.43	14.9						7-19-19 9:00	19.67	1617	8.46	10.8					
4-18-19 16:00	10.30	1149	8.56	10.2	4-18-19 15:00	9.43	670	8.31	24.4	4-18-19 15:00	9.70	1215	8.43	13.9						7-19-19 9:15	19.65	1619	8.45	11.3					
4-18-19 16:15	10.30	1153	8.57	10.5	4-18-19 15:15	9.43	661	8.31	32.4	4-18-19 15:15	9.70	1215	8.43	16.2						7-19-19 9:30	19.64	1617	8.46	11.0					
4-18-19 16:30	10.30	1150	8.57	12.4	4-18-19 15:30	9.56	670	8.31	28.3	4-18-19 15:30	9.85	1216	8.43	15.0						7-19-19 9:45	19.62	1618	8.45	11.1					
4-18-19 16:45	10.31	1153	8.57	10.6	4-18-19 15:45	9.42	672	8.32	34.4	4-18-19 15:45	9.87	1216	8.43	15.8						7-19-19 10:00	19.60	1616	8.46	10.8					
4-18-19 17:00	10.32	1151	8.58	12.1	4-18-19 16:00	9.38	640	8.32	29.4	4-18-19 16:00	9.79	1215	8.43	14.8						7-19-19 10:15	19.57	1619	8.44	11.0					
4-18-19 17:15	10.29	1151	8.58	10.8	4-18-19 16:15	9.38	632	8.32	27.2	4-18-19 16:15	9.76	1215	8.43	14.2						7-19-19 10:30	19.58	1618	8.45	10.8					
4-18-19 17:30	10.30	1150	8.59	11.4	4-18-19 16:30	9.37	629	8.32	28.1	4-18-19 16:30	9.75	1215	8.44	15.8						7-19-19 10:45	19.57	1618	8.45	10.9					
4-18-19 17:45	10.35	1149	8.60	10.5	4-18-19 16:45	9.39	631	8.32	27.6	4-18-19 16:45	9.76	1215	8.43	15.4						7-19-19 11:00	19.55	1617	8.45	10.5					
4-18-19 18:00	10.30	1152	8.60	10.1	4-18-19 17:00	9.44	661	8.32	27.3	4-18-19 17:00	9.77	1215	8.44	15.0						7-19-19 11:15	19.53	1619	8.45	10.8					
4-18-19 18:15	10.25	1153	8.60	10.5	4-18-19 17:15	9.47	668	8.32	24.6	4-18-19 17:15	9.78	1215	8.44	13.0						7-19-19 11:30	19.52	1618	8.45	10.6					
4-18-19 18:30	10.25	1152	8.60	10.5	4-18-19 17:30	9.49	680	8.32	25.6	4-18-19 17:30	9.79	1215	8.44	14.6						7-19-19 11:45	19.50	1619	8.45	10.8					
4-18-19 18:45	10.25	1151	8.60	9.7	4-18-19 17:45	9.48	681	8.31	29.0	4-18-19 17:45	9.79	1215	8.44	13.8						7-19-19 12:00	19.48	1618	8.45	10.6					
4-18-19 19:00	10.22	1151	8.61	11.9	4-18-19 18:00	9.50	682	8.31	29.4	4-18-19 18:00	9.79	1215	8.44	14.3						7-19-19 12:15	19.45	1620	8.44	10.8					
4-18-19 19:15	10.23	1139	8.60	9.7	4-18-19 18:15	9.47	682	8.31	30.9	4-18-19 18:15	9.77	1215	8.45	13.6						7-19-19 12:30	19.45	1618	8.45	10.6					
4-18-19 19:30	10.18	1150	8.61	9.1	4-18-19 18:30	9.43	683	8.32	28.4	4-18-19 18:30	9.77	1215	8.45	13.1						7-19-19 12:45	19.43	1620	8.44	10.8					
4-18-19 19:45	10.13	1151	8.61	10.6	4-18-19 18:45	9.43	683	8.32	25.7	4-18-19 18:45	9.76	1215	8.44	15.1						7-19-19 13:00	19.41	1619	8.45	10.6					
4-18-19 20:00	10.13	1150	8.63	9.8	4-18-19 19:00	9.40	683	8.31	33.3	4-18-19 19:00	9.74	1215	8.45	14.1						7-19-19 13:15	19.36	1619	8.45	10.7					
4-18-19 20:15	10.11	1151	8.61	13.1	4-18-19 19:15	9.39	599	8.32	33.8	4-18-19 19:15	9.72	1215	8.45	13.8						7-19-19 13:30	19.32	1612	8.46	10.5					
4-18-19 20:30	10.07	1152	8.61	12.2	4-18-19 19:30	9.38	684	8.30	27.9	4-18-19 19:30	9.72	1215	8.45	12.2						7-19-19 13:45	19.35	1622	8.44	10.9					
4-18-19 20:45	10.08	1151	8.62	12.4	4-18-19 19:45	9.38	684	8.31	31.5	4-18-19 19:45	9.72	1215	8.45	14.4						7-19-19 14:00	19.34	1620	8.44	11.0					
4-18-19 21:00	10.00	1152	8.62	11.7	4-18-19 20:00	9.37	685	8.32	30.0	4-18-19 20:00	9.69	1215	8.45	13.6						7-19-19 14:15	19.30	1623	8.43	10.9					
4-18-19 21:15	9.97	1153	8.62	12.5	4-18-19 20:15	9.34	684	8.32	29.8	4-18-19 20:15	9.66	1215	8.45	13.3						7-19-19 14:30	19.30	1620	8.44	10.7					
4-18-19 21:30	9.92	1153	8.62	13.1	4-18-19 20:30	9.31	685	8.31	30.5	4-18-19 20:30	9.62	1215	8.45	13.1						7-19-19 14:45	19.29	1621	8.45	11.1					
4-18-19 21:45	9.88	1154	8.62	13.2	4-18-19 20:45	9.28	679	8.31	29.5	4-18-19 20:45	9.60	1215	8.45	14.0						7-19-19 15:00	19.29	1618	8.45	10.8					
4-18-19 22:00	9.87	1154	8.61	11.8	4-18-19 21:00	9.26	677	8.31	45.3	4-18-19 21:00	9.58	1215	8.45	12.9						7-19-19 15:15	19.31	1619	8.44	11.4					
4-18-19 22:15	9.82	1153	8.62	12.0	4-18-19 21:15	9.25	676	8.31	44.9	4-18-19 21:15	9.54	1214	8.45	13.6						7-19-19 15:30	19.32	1619	8.44	10.8					
4-18-19 22:30	9.80	1152	8.61	12.0	4-18-19 21:30	9.23	676	8.31	96.4	4-18-19 21:30	9.53	1215	8.45	12.4						7-19-19 15:45	19.32	1619	8.44	10.9					
4-18-19 22:45	9.76	1152	8.61	12.5	4-18-19 21:45	9.21	676	8.31	29.4	4-18-19 21:45	9.52	1216	8.45	12.3						7-19-19 16:00	19.34	1617	8.45	10.7					
4-18-19 23:00	9.72	1153	8.62	12.2	4-18-19 22:00	9.18	676	8.31	31.6	4-18-19 22:00	9.52	1215	8.45	12.6						7-19-19 16:15	19.36	1619	8.43	10.8					
4-18-19 23:15	9.68	1152	8.62	11.2	4-18-19 22:15	9.14	674	8.31	59.0	4-18-19 22:15	9.48	1215	8.46	11.6						7-19-19 16:30	19.36	1615	8.45	10.7					
4-18-19 23:30	9.63	1153	8.62	11.6	4-18-19 22:30	9.14	660	8.31	26.5	4-18-19 22:30	9.47	1215	8.46	13.0						7-19-19 16:45	19.38	1619	8.44	11.1					
4-18-19 23:45	9.59	1152	8.62	12.0	4-18-19 22:45	9.08	660	8.31	54.9	4-18-19 22:45	9.45	1216	8.46	12.8						7-19-19 17:00	19.24	1602	8.45	11.2					
4-19-19 0:00	9.53	1150	8.61	11.5	4-18-19 23:00	9.07	662	8.31	29.0	4-18-19 23:00	9.43	1215	8.45	12.8						7-19-19 17:15	19.13	1597	8.45	11.2					
4-19-19 0:15	9.49	1153	8.61	11.2	4-18-19 23:15	9.05	645	8.31	33.0	4-18-19 23:15	9.35	1216	8.45	12.6						7-19-19 17:30	19.16	1604	8.44	11.2					
4-19-19 0:30	9.46	1154	8.61	11.6	4-18-19 23:30	8.99	626	8.31	29.5	4-18-19 23:30	9.34	1215	8.45	12.5						7-19-19 17:45	19.18	1606	8.43	11.3					
4-19-19 0:45	9.40	1152	8.61	11.3	4-18-19 23:45	8.98	629	8.30	182.7	4-18-19 23:45	9.31	1216	8.46	13.6						7-19-19 18:00	19.20	1605	8.42	11.2					
4-19-19 1:00	9.35	1154	8.61	11.5	4-19-19 0:00	8.97	627	8.30	187.7	4-19-19 0:00	9.33	1216	8.46	12.0						7-19-19 18:15	19.30	1611	8.42	11.2					
4-19-19 1:15	9.31	1154	8.61	13.3	4-19-19 0:15	8.91	662	8.31	32.0	4-19-19 0:15	9.32	1216	8.46	12.9						7-19-19 18:30	19.35	1611	8.44	11.1					
4-19-19 1:30	9.24	1152	8.61	16.7	4-19-19 0:30	8.87	676	8.31	27.8	4-19-19 0:30	9.26	1216	8.46	12.0						7-19-19 18:45	19.41	1614	8.44	11.3					
4-19-19 1:45	9.16	1152	8.61	10.5	4-19-19 0:45	8.86	689	8.30	27.9	4-19-19 0:45	9.23	1215	8.46	13.7						7-19-19 19:00	19.41	1611	8.45	11.4					
4-19-19 2:00	9.17	1155	8.61	11.1	4-19-19 1:00	8.80	690	8.30	25.3	4-19-19 1:00	9.21	1216	8.46	13.1						7-19-19 19:15	19.52	1614	8.44	11.5					
4-19-19 2:15	9.16	1154	8.61	11.3	4-19-19 1:15	8.80	690	8.31	25.2	4-19-19 1:15	9.14	1216	8.46	11.2						7-19-19 19:30	19.52	1611	8.45	11.3					
4-19-19 2:30	9.05	1155	8.61	10.6	4-19-19 1:30	8.76	691	8.30	26.6	4-19-19 1:30	9.07	1216	8.46	11.0						7-19-19 19:45	19.54	1612	8.45	11.5					
4-19-19 2:45	8.99	1157	8.61	10.8	4-19-19 1:45	8.69	691	8.30	26.1	4-19-19 1:45	9.08	1216	8.46	11.9						7-19-19 20:00	19.57	1611	8.45	11.4					
4-19-19 3:00	8.89	1157	8.61	11.9	4-19-19 2:00	8.62	691	8.30	24.0	4-19-19 2:00	9.07	1216	8.46	12.4						7-19-19 20:15	19.58	1614	8.42	11.5					
4-19-19 3:15	8.87	1159	8.61	11.8	4-19-19 2:15	8.62	691	8.29	25.0	4-19-19 2:15	9.03	1216	8.46	11.6						7-19-19 20:30	19.61	1612	8.44	11.4					
4-19-19 3:30	8.67	1157	8.61	10.9	4-19-19 2:30	8.63	692	8.28	262.7	4-19-19 2:30	9.02	1216	8.46	11.3						7-19-19 20:45	19.62	1615	8.44	11.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-19-19 3:45	8.79	1160	8.60	10.2	4-19-19 2:45	8.60	693	8.29	93.0	4-19-19 2:45	9.00	1216	8.46	12.3						7-19-19 21:00	19.71	1615	8.44	11.4					
4-19-19 4:00	8.74	1162	8.60	9.1	4-19-19 3:00	8.53	694	8.30	24.5	4-19-19 3:00	8.99	1216	8.46	11.7						7-19-19 21:15	19.75	1613	8.45	11.6					
4-19-19 4:15	8.65	1160	8.60	11.6	4-19-19 3:15	8.51	694	8.29	22.4	4-19-19 3:15	8.94	1216	8.46	12.2						7-19-19 21:30	19.88	1611	8.45	11.1					
4-19-19 4:30	8.67	1163	8.60	9.8	4-19-19 3:30	8.48	695	8.29	25.3	4-19-19 3:30	8.88	1216	8.46	11.5						7-19-19 21:45	19.91	1612	8.44	11.4					
4-19-19 4:45	8.65	1163	8.60	10.0	4-19-19 3:45	8.43	695	8.29	24.4	4-19-19 3:45	8.86	1216	8.46	11.5						7-19-19 22:00	19.95	1612	8.45	11.1					
4-19-19 5:00	8.51	1161	8.60	10.1	4-19-19 4:00	8.45	696	8.27	27.1	4-19-19 4:00	8.83	1216	8.46	11.4						7-19-19 22:15	19.95	1612	8.45	11.7					
4-19-19 5:15	8.50	1163	8.60	10.9	4-19-19 4:15	8.35	695	8.28	108.1	4-19-19 4:15	8.80	1216	8.46	11.9						7-19-19 22:30	20.01	1608	8.46	11.3					
4-19-19 5:30	8.46	1164	8.60	9.7	4-19-19 4:30	8.37	695	8.28	26.5	4-19-19 4:30	8.75	1216	8.46	11.6						7-19-19 22:45	20.13	1608	8.46	11.6					
4-19-19 5:45	8.42	1164	8.60	9.9	4-19-19 4:45	8.30	694	8.28	21.1	4-19-19 4:45	8.66	1217	8.47	10.6						7-19-19 23:00	20.57	1612	8.45	10.8					
4-19-19 6:00	8.27	1163	8.60	10.6	4-19-19 5:00	8.27	692	8.28	23.2	4-19-19 5:00	8.57	1217	8.47	11.1						7-19-19 23:15	20.63	1607	8.43	11.4					
4-19-19 6:15	8.29	1167	8.60	9.7	4-19-19 5:15	8.19	671	8.29	23.1	4-19-19 5:15	8.55	1218	8.47	11.4						7-19-19 23:30	20.60	1611	8.44	10.8					
4-19-19 6:30	8.10	1165	8.60	9.1	4-19-19 5:30	8.22	676	8.29	25.4	4-19-19 5:30	8.53	1218	8.47	12.4						7-19-19 23:45	20.55	1602	8.44	11.1					
4-19-19 6:45	8.11	1168	8.60	8.6	4-19-19 5:45	8.16	688	8.29	23.4	4-19-19 5:45	8.54	1217	8.47	11.0						7-20-19 0:00	20.30	1600	8.47	10.7					
4-19-19 7:00	8.13	1166	8.59	9.5	4-19-19 6:00	8.14	659	8.28	18.8	4-19-19 6:00	8.48	1218	8.47	12.7						7-20-19 0:15	20.56	1602	8.45	11.2					
4-19-19 7:15	8.12	1167	8.60	10.3	4-19-19 6:15	8.06	647	8.28	111.4	4-19-19 6:15	8.49	1218	8.47	22.9						7-20-19 0:30	20.81	1609	8.45	10.8					
4-19-19 7:30	8.10	1166	8.60	10.3	4-19-19 6:30	8.01	636	8.29	23.0	4-19-19 6:30	8.43	1217	8.47	12.1						7-20-19 0:45	20.95	1615	8.46	11.3					
4-19-19 7:45	8.07	1164	8.60	10.0	4-19-19 6:45	7.88	661	8.29	32.3	4-19-19 6:45	8.41	1216	8.47	12.9						7-20-19 1:00	21.04	1610	8.45	10.7					
4-19-19 8:00	8.08	1164	8.60	9.8	4-19-19 7:00	7.87	676	8.29	23.3	4-19-19 7:00	8.40	1217	8.47	11.9						7-20-19 1:15	21.03	1610	8.46	11.3					
4-19-19 8:15	8.10	1165	8.60	9.9	4-19-19 7:15	7.88	693	8.29	56.4	4-19-19 7:15	8.36	1217	8.47	10.4						7-20-19 1:30	21.20	1607	8.46	10.7					
4-19-19 8:30	8.13	1166	8.60	10.1	4-19-19 7:30	7.96	693	8.29	21.4	4-19-19 7:30	8.37	1217	8.47	11.8						7-20-19 1:45	21.24	1607	8.45	11.1					
4-19-19 8:45	8.19	1168	8.60	8.8	4-19-19 7:45	8.09	694	8.29	24.7	4-19-19 7:45	8.33	1217	8.47	12.9						7-20-19 2:00	21.24	1606	8.46	11.1					
4-19-19 9:00	8.26	1165	8.60	10.4	4-19-19 8:00	8.16	693	8.29	115.5	4-19-19 8:00	8.32	1217	8.47	10.7						7-20-19 2:15	21.22	1608	8.45	11.2					
4-19-19 9:15	8.34	1163	8.60	10.4	4-19-19 8:15	8.19	694	8.29	135.8	4-19-19 8:15	8.33	1217	8.47	11.6						7-20-19 2:30	21.20	1606	8.46	10.8					
4-19-19 9:30	8.44	1169	8.60	9.5	4-19-19 8:30	8.37	692	8.29	20.9	4-19-19 8:30	8.36	1217	8.47	11.8						7-20-19 2:45	21.17	1607	8.45	11.1					
4-19-19 9:45	8.53	1170	8.59	10.3	4-19-19 8:45	8.51	692	8.29	20.2	4-19-19 8:45	8.40	1217	8.48	10.6						7-20-19 3:00	21.12	1606	8.46	10.5					
4-19-19 10:00	8.61	1168	8.59	10.0	4-19-19 9:00	8.71	693	8.30	20.3	4-19-19 9:00	8.46	1218	8.47	10.4						7-20-19 3:15	21.09	1606	8.45	11.0					
4-19-19 10:15	8.70	1169	8.59	10.1	4-19-19 9:15	8.44	695	8.29	24.7	4-19-19 9:15	8.55	1217	8.47	11.0						7-20-19 3:30	21.05	1606	8.46	10.6					
4-19-19 10:30	8.82	1169	8.59	9.9	4-19-19 9:30	8.47	696	8.29	25.3	4-19-19 9:30	8.62	1217	8.47	16.8						7-20-19 3:45	20.98	1606	8.45	11.6					
4-19-19 10:45	8.92	1170	8.60	10.6	4-19-19 9:45	8.50	696	8.28	24.0	4-19-19 9:45	8.65	1217	8.48	13.0						7-20-19 4:00	20.92	1605	8.47	10.5					
4-19-19 11:00	9.11	1168	8.60	9.7	4-19-19 10:00	8.65	692	8.29	21.2	4-19-19 10:00	8.62	1217	8.48	12.6						7-20-19 4:15	20.81	1608	8.45	11.1					
4-19-19 11:15	9.19	1169	8.59	9.3	4-19-19 10:15	8.67	692	8.30	23.3	4-19-19 10:15	8.69	1217	8.48	12.1						7-20-19 4:30	20.74	1606	8.46	10.3					
4-19-19 11:30	9.23	1169	8.59	9.1	4-19-19 10:30	8.75	691	8.30	29.8	4-19-19 10:30	8.81	1217	8.48	14.6						7-20-19 4:45	20.67	1607	8.45	11.0					
4-19-19 11:45	9.36	1171	8.59	9.7	4-19-19 10:45	8.87	691	8.30	34.4	4-19-19 10:45	8.80	1217	8.48	13.6						7-20-19 5:00	20.59	1606	8.47	10.2					
4-19-19 12:00	9.55	1169	8.60	9.7	4-19-19 11:00	8.78	692	8.30	91.4	4-19-19 11:00	8.93	1217	8.48	12.4						7-20-19 5:15	20.53	1607	8.46	10.8					
4-19-19 12:15	9.67	1170	8.60	8.9	4-19-19 11:15	8.84	690	8.31	24.3	4-19-19 11:15	9.08	1218	8.48	22.0						7-20-19 5:30	20.46	1606	8.47	10.4					
4-19-19 12:30	9.65	1170	8.60	9.9	4-19-19 11:30	9.06	696	8.32	22.9	4-19-19 11:30	9.11	1215	8.48	15.6						7-20-19 5:45	20.41	1607	8.46	12.6					
4-19-19 12:45	9.89	1170	8.61	9.7	4-19-19 11:45	9.11	678	8.31	23.6	4-19-19 11:45	9.16	1216	8.48	15.6						7-20-19 6:00	20.36	1605	8.46	10.2					
4-19-19 13:00	9.90	1168	8.61	7.8	4-19-19 12:00	9.13	671	8.31	25.7	4-19-19 12:00	9.32	1217	8.48	17.2						7-20-19 6:15	20.30	1607	8.46	10.9					
4-19-19 13:15	10.01	1169	8.60	9.9	4-19-19 12:15	9.26	671	8.30	30.5	4-19-19 12:15	9.44	1218	8.48	18.7						7-20-19 6:30	20.29	1605	8.47	10.2					
4-19-19 13:30	10.11	1170	8.61	9.1	4-19-19 12:30	9.26	679	8.30	35.2	4-19-19 12:30	9.46	1217	8.48	14.9						7-20-19 6:45	20.27	1607	8.47	10.8					
4-19-19 13:45	10.21	1173	8.60	9.5	4-19-19 12:45	8.95	674	8.31	23.1	4-19-19 12:45	9.53	1218	8.48	14.8						7-20-19 7:00	20.22	1605	8.46	10.1					
4-19-19 14:00	10.34	1171	8.61	9.4	4-19-19 13:00	9.13	651	8.31	23.6	4-19-19 13:00	9.52	1216	8.48	14.2						7-20-19 7:15	20.17	1606	8.46	10.7					
4-19-19 14:15	10.47	1170	8.61	8.5	4-19-19 13:15	9.15	642	8.31	25.2	4-19-19 13:15	9.58	1214	8.48	14.2						7-20-19 7:30	20.15	1605	8.47	10.1					
4-19-19 14:30	10.51	1169	8.63	8.7	4-19-19 13:30					4-19-19 13:30	9.67	1217	8.48	14.5						7-20-19 7:45	20.12	1606	8.46	11.0					
4-19-19 14:45	10.68	1166	8.62	8.5	4-19-19 13:45	9.61	643	8.31	24.8	4-19-19 13:45	9.75	1218	8.48	14.8						7-20-19 8:00	20.08	1606	8.46	10.3					
4-19-19 15:00	10.71	1173	8.62	8.9	4-19-19 14:00	9.47	667	8.31	27.2	4-19-19 14:00	9.84	1217	8.48	13.9						7-20-19 8:15	19.99	1606	8.46	11.0					
4-19-19 15:15	10.74	1171	8.62	8.5	4-19-19 14:15	9.70	684	8.29	26.0	4-19-19 14:15	9.99	1218	8.48	15.3						7-20-19 8:30	19.97	1606	8.47	10.2					
4-19-19 15:30	10.71	1173	8.62	9.8	4-19-19 14:30	9.56	683	8.31	24.1	4-19-19 14:30	9.96	1221	8.48	14.5						7-20-19 8:45	19.95	1607	8.46	11.0					
4-19-19 15:45	10.81	1171	8.65	9.7	4-19-19 14:45	9.75	659	8.31	24.4	4-19-19 14:45	10.01	1217	8.48	13.8						7-20-19 9:00	19.92	1606	8.46	10.4					
4-19-19 16:00	10.83	1172	8.65	8.9	4-19-19 15:00	9.77	656	8.31	26.4	4-19-19 15:00	10.10	1217	8.48	13.8						7-20-19 9:15	19.87	1607	8.45	11.0					
4-19-19 16:15	10.96	1171	8.65	8.9	4-19-19 15:15	9.52	657	8.31	28.4	4-19-19 15:15	10.18	1217	8.48	13.0						7-20-19 9:30	19.84	1606	8.45	10.4					
4-19-19 16:30	10.92	1174	8.65	7.6	4-19-19 15:30	9.52	657	8.32	25.9	4-19-19 15:30	10.13	1216	8.48	14.3						7-20-19 9:45	19.80	1608	8.45	10.8					
4-19-19 16:45	10.90	1174	8.66	8.0	4-19-19 15:45	9.60	656	8.31	26.0	4-19-19 15:45	10.10	1217	8.49	13.8						7-20-19 10:00	19.75	1606	8.46	10.1					
4-19-19 17:00	10.87	1176	8.66	8.6	4-19-19 16:00	9.73	655	8.31	26.5	4-19-19 16:00	10.09	1216	8.49	12.9						7-20-19 10:15	19.68	1609	8.45	10.9					
4-19-19 17:15	10.94	1174	8.67	8.9	4-19-19 16:15	9.75	655	8.29	27.6	4-19-19 16:15	10.16	1217	8.49	14.5						7-20-19 10:30	19.66	1607	8.45	10.2					
4-19-19 17:30	10.88	1177	8.67	8.1	4-19-19 16:30	9.90	657	8.32	25.6	4-19-19 16:30	10.19	1217	8.49	13.9						7-20-19 10:45	19.66	1610	8.44	11.0					
4-19-19 17:45	10.87	1178	8.68	7.7	4-19-19 16:45	9.72	657	8.32	28.0	4-19-19 16:45	10.26	1217	8.49	16.8						7-20-19 11:00	19.62	1609	8.45	10.2					
4-19-19 18:00	10.80	1188	8.67	7.9	4-19-19 17:00	9.65	658	8.33	27.9	4-19-19 17:00	10.18	1216	8.49	16.1						7-20-19 11:15	19.60	1611	8.44	10.9					
4-19-19 18:15	10.83	1179	8.68	14.3	4-19-19 17:15	9.68	681	8.33	29.9	4-19-19 17:15	10.16	1217	8.49	14.0						7-20-19 11:30	19.56	1611	8.44	10.1					
4-19-19 18:30	10.78	1179	8.68	7.5	4-19-19 17:30	9.71	682	8.33	39.5	4-19-19 17:30	10.19	1217	8.49	14.7						7-20-19 11:45	19.51	1611	8.43	11.0					
4-19-19 18:45	10.74	1178	8.69	7.7	4-19-19 17:45	9.74	681	8.33	216.2	4-19-19 17:45	10.15	1216	8.50	15.5						7-20-19 12:00	19.50	1610	8.44	10.2					
4-19-19 19:00	10.67	1180	8.69	7.9	4-19-19 18:00	9.66	681	8.33	28.1	4-19-19 18:00	10.12	1217	8.50	16.6						7-20-19 12:15	19.46	1612	8.43	10.9					
4-19-19 19:15	10.61	1179	8.69	9.2	4-19-19 18:15	9.65	680	8.33	32.4	4-19-19 18:15	10.13	1217	8.50	16.1						7-20-19 12:30	19.42	1611	8.44	10.3					
4-19-19 19:30	10.60	1182	8.69	8.7	4-19-19 18:30	9.66	679	8.33	23.9	4-19-19 18:30	10.10	1217	8.50	14.8						7-20-19 12:45	19.41	1613	8.44	11.0					
4-19-19 19:45	10.58	1181	8.70	9.8	4-19-19 18:45	9.62	619	8.33	22.1	4-19-19 18:45	10.08	1217	8.50	15.1						7-20-19 13:00	19.39	1613	8.43	10.2					
4-19-19 20:00	10.54	1181	8.70	10.9	4-19-19 19:00	9.62	593	8.33	24.8	4-19-19 19:00	10.06	1217	8.50	14.1						7-20-19 13:15	19.39	1613	8.43	10.8					
4-19-19 20:15	10.48	1182	8.69	12.3	4-19-19 19:15	9.60	555	8.33	23.2	4-19-19 19:15	10.04	1216	8.50	14.3						7-20-19 13:30	19.37	1613	8.43	10.2					
4-19-19 20:30	10.40	1184	8.69	11.5	4-19-19 19:30	9.63	534	8.32	24.6	4-19-19 19:30	10.04	1217	8.50	13.9						7-20-19 13:45	19.34	1614	8.43	10.8					
4-19-19 20:45	10.36	1181	8.69	10.8	4-19-19 19:45	9.62	549	8.32	23.4	4-19-19 19:45	9.99	1217	8.50	14.7						7-20-19 14:00	19.31	1612	8.43	10.1					
4-19-19 21:00	10.29	1183	8.69	11.8	4-19-19 20:00	9.62	605	8.32	25.2	4-19-19 20:00	9.95	1217	8.50	15.1						7-20-19 14:15	19.28	1615	8.43	10.8					
4-19-19 21:15	10.25	1183	8.69	11.0	4-19-19 20:15					4-19-19 20:15	9.92	1217	8.50	14.7						7-20-19 14:30	19.29	1614	8.44	10.0					
4-19-19 21:30	10.17	1184	8.69	10.8	4-19-19 20:30	9.53	630	8.32	20.7	4-19-19 20:30	9.84	1217	8.51	13.0						7-20-19 14:45	19.30	1614	8.43	11.0					
4-19-19 21:45	10.15	1183	8.69	10.9	4-19-19 20:45	9.51	691	8.32	22.0	4-19-19 20:45	9.85	1217	8.50	13.8						7-20-19 15:00	19.31	1615	8.44	9.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-19-19 22:00	10.09	1184	8.69	10.0
4-19-19 22:15	10.00	1182	8.69	10.4
4-19-19 22:30	9.94	1183	8.69	10.2
4-19-19 22:45	9.87	1184	8.70	13.3
4-19-19 23:00	9.83	1182	8.70	11.0
4-19-19 23:15	9.74	1184	8.69	11.0
4-19-19 23:30	9.70	1184	8.69	11.3
4-19-19 23:45	9.60	1184	8.69	10.9
4-20-19 0:00	9.59	1186	8.68	12.4
4-20-19 0:15	9.52	1188	8.69	11.6
4-20-19 0:30	9.46	1188	8.68	12.0
4-20-19 0:45	9.42	1190	8.69	10.0
4-20-19 1:00	9.37	1189	8.69	10.2
4-20-19 1:15	9.32	1190	8.69	10.7
4-20-19 1:30	9.29	1191	8.68	10.3
4-20-19 1:45	9.21	1192	8.69	11.0
4-20-19 2:00	9.16	1193	8.68	9.5
4-20-19 2:15	9.13	1191	8.68	10.7
4-20-19 2:30	9.06	1195	8.67	8.3
4-20-19 2:45	9.00	1194	8.67	9.7
4-20-19 3:00	8.99	1195	8.67	8.7
4-20-19 3:15	8.97	1193	8.67	9.4
4-20-19 3:30	8.94	1195	8.66	7.9
4-20-19 3:45	8.82	1194	8.67	9.3
4-20-19 4:00	8.83	1194	8.66	9.2
4-20-19 4:15	8.82	1195	8.66	9.3
4-20-19 4:30	8.84	1196	8.66	9.0
4-20-19 4:45	8.74	1196	8.66	8.3
4-20-19 5:00	8.68	1196	8.66	9.3
4-20-19 5:15	8.69	1195	8.65	8.9
4-20-19 5:30	8.66	1196	8.65	8.0
4-20-19 5:45	8.62	1196	8.65	8.0
4-20-19 6:00	8.61	1198	8.65	8.6
4-20-19 6:15	8.52	1198	8.65	7.7
4-20-19 6:30	8.38	1195	8.65	8.3
4-20-19 6:45	8.46	1198	8.65	9.1
4-20-19 7:00	8.42	1197	8.64	8.3
4-20-19 7:15	8.44	1195	8.64	7.8
4-20-19 7:30	8.36	1197	8.65	9.0
4-20-19 7:45	8.34	1197	8.65	8.3
4-20-19 8:00	8.39	1196	8.64	9.7
4-20-19 8:15	8.37	1194	8.64	8.5
4-20-19 8:30	8.40	1197	8.65	8.4
4-20-19 8:45	8.43	1196	8.64	8.8
4-20-19 9:00	8.55	1196	8.64	7.3
4-20-19 9:15	8.61	1195	8.64	9.7
4-20-19 9:30	8.58	1197	8.64	10.0
4-20-19 9:45	8.71	1200	8.64	8.5
4-20-19 10:00	8.72	1198	8.64	12.0
4-20-19 10:15	8.91	1201	8.66	8.2
4-20-19 10:30	8.96	1200	8.65	9.0
4-20-19 10:45	9.14	1198	8.65	11.4
4-20-19 11:00	9.24	1198	8.65	11.2
4-20-19 11:15	9.37	1197	8.66	11.8
4-20-19 11:30	9.39	1199	8.66	11.0
4-20-19 11:45	9.49	1202	8.66	9.4
4-20-19 12:00	9.67	1202	8.66	9.0
4-20-19 12:15	9.83	1201	8.65	9.5
4-20-19 12:30	10.12	1200	8.65	9.5
4-20-19 12:45	10.19	1198	8.65	9.6
4-20-19 13:00	10.29	1203	8.65	9.2
4-20-19 13:15	10.28	1202	8.66	10.6
4-20-19 13:30	10.39	1204	8.65	9.2
4-20-19 13:45	10.51	1202	8.65	17.5
4-20-19 14:00	10.52	1204	8.65	12.0
4-20-19 14:15	10.69	1205	8.65	8.9
4-20-19 14:30	10.77	1206	8.66	8.4
4-20-19 14:45	10.92	1204	8.68	8.6
4-20-19 15:00	10.96	1202	8.68	8.7
4-20-19 15:15	10.97	1203	8.67	10.7
4-20-19 15:30	11.06	1204	8.65	8.3
4-20-19 15:45	11.08	1206	8.66	8.4
4-20-19 16:00	11.22	1206	8.67	8.5

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-19-19 21:00	9.49	695	8.32	24.4
4-19-19 21:15	9.45	694	8.32	31.9
4-19-19 21:30	9.44	695	8.31	23.0
4-19-19 21:45	9.37	694	8.31	21.4
4-19-19 22:00	9.35	697	8.31	21.8
4-19-19 22:15	9.31	696	8.31	25.1
4-19-19 22:30	9.26	696	8.30	23.5
4-19-19 22:45	9.25	697	8.31	21.4
4-19-19 23:00	9.19	698	8.31	21.8
4-19-19 23:15	9.15	690	8.31	22.2
4-19-19 23:30	9.12	690	8.31	21.9
4-19-19 23:45	9.09	691	8.31	30.1
4-20-19 0:00	9.04	692	8.31	94.6
4-20-19 0:15	9.00	690	8.31	22.9
4-20-19 0:30	8.91	664	8.31	20.6
4-20-19 0:45	8.90	675	8.30	20.2
4-20-19 1:00	8.88	666	8.30	21.4
4-20-19 1:15	8.83	645	8.30	22.0
4-20-19 1:30	8.82	641	8.30	22.6
4-20-19 1:45	8.77	634	8.30	21.8
4-20-19 2:00	8.72	672	8.30	21.7
4-20-19 2:15	8.67	682	8.30	22.6
4-20-19 2:30	8.62	697	8.30	20.2
4-20-19 2:45	8.49	698	8.30	22.8
4-20-19 3:00	8.52	698	8.30	20.2
4-20-19 3:15	8.53	698	8.30	21.3
4-20-19 3:30	8.49	699	8.29	20.7
4-20-19 3:45	8.41	699	8.29	22.3
4-20-19 4:00	8.40	698	8.29	23.4
4-20-19 4:15	8.42	699	8.28	18.6
4-20-19 4:30	8.44	700	8.28	18.7
4-20-19 4:45	8.39	701	8.29	19.6
4-20-19 5:00	8.30	701	8.29	18.6
4-20-19 5:15	8.32	702	8.27	20.4
4-20-19 5:30	8.35	702	8.27	20.2
4-20-19 5:45	8.21	702	8.27	26.3
4-20-19 6:00	8.22	702	8.28	111.8
4-20-19 6:15	8.24	702	8.28	27.0
4-20-19 6:30	8.16	700	8.28	18.7
4-20-19 6:45	8.15	684	8.28	18.9
4-20-19 7:00	8.16	676	8.27	16.5
4-20-19 7:15	8.09	679	8.28	17.3
4-20-19 7:30	8.17	689	8.28	18.9
4-20-19 7:45	8.32	677	8.27	16.0
4-20-19 8:00	8.44	657	8.28	16.7
4-20-19 8:15	8.56	648	8.29	22.4
4-20-19 8:30	8.69	637	8.29	18.9
4-20-19 8:45	8.87	672	8.30	16.9
4-20-19 9:00	8.99	675	8.33	19.3
4-20-19 9:15	8.92	682	8.31	21.9
4-20-19 9:30	8.86	696	8.30	19.1
4-20-19 9:45	8.91	693	8.30	18.7
4-20-19 10:00	9.06	694	8.31	19.6
4-20-19 10:15	9.17	696	8.31	17.9
4-20-19 10:30	9.19	696	8.32	18.1
4-20-19 10:45	9.19	699	8.31	19.3
4-20-19 11:00	9.21	696	8.32	17.0
4-20-19 11:15	9.07	698	8.30	112.3
4-20-19 11:30	8.87	698	8.31	19.8
4-20-19 11:45	8.87	697	8.32	17.9
4-20-19 12:00	8.94	699	8.31	20.7
4-20-19 12:15	9.08	700	8.31	18.3
4-20-19 12:30	9.38	699	8.31	25.9
4-20-19 12:45	9.48	699	8.31	28.6
4-20-19 13:00	9.55	701	8.31	116.2
4-20-19 13:15	9.77	700	8.31	20.5
4-20-19 13:30	9.58	688	8.32	24.8
4-20-19 13:45	9.40	674	8.32	20.7
4-20-19 14:00	9.45	681	8.32	20.3
4-20-19 14:15	9.51	688	8.32	19.3
4-20-19 14:30	9.74	665	8.31	20.2
4-20-19 14:45	9.83	652	8.31	41.8
4-20-19 15:00	9.53	646	8.31	18.7

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-19-19 21:00	9.78	1217	8.51	16.3
4-19-19 21:15	9.72	1217	8.51	13.8
4-19-19 21:30	9.72	1217	8.51	14.6
4-19-19 21:45	9.68	1217	8.51	14.4
4-19-19 22:00	9.62	1217	8.51	16.0
4-19-19 22:15	9.58	1218	8.51	14.7
4-19-19 22:30	9.52	1217	8.51	14.1
4-19-19 22:45	9.50	1218	8.51	14.1
4-19-19 23:00	9.46	1217	8.51	14.7
4-19-19 23:15	9.45	1217	8.51	12.1
4-19-19 23:30	9.45	1218	8.51	13.5
4-19-19 23:45	9.41	1218	8.51	12.5
4-20-19 0:00	9.36	1218	8.51	13.1
4-20-19 0:15	9.34	1218	8.51	13.3
4-20-19 0:30	9.30	1218	8.51	14.2
4-20-19 0:45	9.25	1217	8.51	13.4
4-20-19 1:00	9.21	1218	8.51	14.9
4-20-19 1:15	9.18	1219	8.51	14.3
4-20-19 1:30	9.15	1218	8.51	14.3
4-20-19 1:45	9.09	1218	8.52	13.6
4-20-19 2:00	9.06	1219	8.52	12.8
4-20-19 2:15	9.01	1219	8.52	13.7
4-20-19 2:30	8.97	1218	8.52	13.4
4-20-19 2:45	8.96	1218	8.51	13.0
4-20-19 3:00	8.92	1218	8.52	14.0
4-20-19 3:15	8.96	1219	8.52	12.1
4-20-19 3:30	8.94	1218	8.52	12.8
4-20-19 3:45	8.89	1219	8.52	12.1
4-20-19 4:00	8.86	1218	8.52	12.7
4-20-19 4:15	8.84	1219	8.51	13.4
4-20-19 4:30	8.80	1219	8.51	12.3
4-20-19 4:45	8.77	1217	8.52	15.1
4-20-19 5:00	8.73	1219	8.52	12.9
4-20-19 5:15	8.68	1219	8.52	12.4
4-20-19 5:30	8.62	1219	8.52	14.0
4-20-19 5:45	8.62	1220	8.52	13.1
4-20-19 6:00	8.59	1220	8.52	12.0
4-20-19 6:15	8.55	1219	8.52	11.9
4-20-19 6:30	8.53	1219	8.52	11.7
4-20-19 6:45	8.52	1219	8.52	13.7
4-20-19 7:00	8.48	1219	8.52	14.7
4-20-19 7:15	8.46	1218	8.52	12.8
4-20-19 7:30	8.46	1219	8.52	12.4
4-20-19 7:45	8.46	1220	8.52	12.0
4-20-19 8:00	8.45	1219	8.52	12.4
4-20-19 8:15	8.45	1219	8.52	10.7
4-20-19 8:30	8.47	1219	8.52	12.2
4-20-19 8:45	8.52	1219	8.52	14.1
4-20-19 9:00	8.56	1219	8.52	12.3
4-20-19 9:15	8.61	1220	8.52	13.5
4-20-19 9:30	8.63	1219	8.52	12.8
4-20-19 9:45	8.70	1219	8.53	11.0
4-20-19 10:00	8.77	1219	8.53	11.4
4-20-19 10:15	8.91	1220	8.53	13.5
4-20-19 10:30	8.96	1219	8.53	14.0
4-20-19 10:45	9.03	1219	8.53	13.0
4-20-19 11:00	9.15	1220	8.53	13.1
4-20-19 11:15	9.19	1220	8.53	12.7
4-20-19 11:30	9.15	1219	8.53	12.1
4-20-19 11:45	9.04	1219	8.53	11.8
4-20-19 12:00	9.17	1221	8.53	12.5
4-20-19 12:15	9.20	1219	8.53	13.1
4-20-19 12:30	9.24	1219	8.53	13.4
4-20-19 12:45	9.48	1218	8.53	12.7
4-20-19 13:00	9.57	1219	8.53	14.4
4-20-19 13:15	9.77	1222	8.53	15.8
4-20-19 13:30	9.68	1218	8.53	11.9
4-20-19 13:45	9.87	1217	8.53	11.9
4-20-19 14:00	10.16	1218	8.53	12.7
4-20-19 14:15	10.13	1221	8.53	13.5
4-20-19 14:30	10.08	1220	8.53	13.0
4-20-19 14:45	10.04	1218	8.53	13.5
4-20-19 15:00	10.07	1219	8.53	14.0

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-20-19 15:15	19.32	1616	8.44	10.9
7-20-19 15:30	19.35	1615	8.45	10.3
7-20-19 15:45	19.46	1616	8.45	11.1
7-20-19 16:00	19.58	1615	8.45	10.6
7-20-19 16:15	19.63	1616	8.45	10.9
7-20-19 16:30	19.72	1616	8.46	10.5
7-20-19 16:45	19.84	1615	8.45	11.0
7-20-19 17:00	20.03	1613	8.45	10.1
7-20-19 17:15	20.15	1614	8.45	10.7
7-20-19 17:30	20.15	1616	8.45	10.7
7-20-19 17:45	20.33	1615	8.44	10.5
7-20-19 18:00	20.59	1613	8.44	10.1
7-20-19 18:15	20.79	1615	8.42	10.7
7-20-19 18:30	21.24	1616	8.44	9.9
7-20-19 18:45	21.37	1615	8.42	10.6
7-20-19 19:00	21.63	1616	8.43	10.1
7-20-19 19:15	21.87	1617	8.42	10.6
7-20-19 19:30	22.04	1615	8.42	10.0
7-20-19 19:45	22.52	1620	8.42	10.5
7-20-19 20:00	22.55	1619	8.43	10.7
7-20-19 20:15	22.86	1619	8.41	12.0
7-20-19 20:30	22.90	1616	8.42	9.9
7-20-19 20:45	23.15	1620	8.42	11.2
7-20-19 21:00	23.27	1613	8.41	10.6
7-20-19 21:15	23.21	1617	8.42	11.3
7-20-19 21:30	23.40	1615	8.42	10.0
7-20-19 21:45	23.54	1616	8.41	10.5
7-20-19 22:00	23.05	1608	8.42	9.6
7-20-19 22:15	23.18	1601	8.40	9.6
7-20-19 22:30	22.57	1610	8.41	9.4
7-20-19 22:45	23.51	1624	8.42	10.0
7-20-19 23:00	23.50	1615	8.43	9.0
7-20-19 23:15	23.58	1622	8.42	9.3
7-20-19 23:30	23.74	1620	8.42	9.3
7-20-19 23:45	23.84	1626	8.41	10.2
7-21-19 0:00	23.98	1620	8.42	9.6
7-21-19 0:15	24.04	1624	8.41	9.8
7-21-19 0:30	24.08	1621	8.42	8.8
7-21-19 0:45	24.10	1618	8.41	9.2
7-21-19 1:00	24.07	1622	8.43	9.5
7-21-19 1:15	24.07	1635	8.41	9.6
7-21-19 1:30	24.03	1620	8.43	9.5
7-21-19 1:45	23.90	1619	8.43	9.9
7-21-19 2:00	23.79	1617	8.44	9.2
7-21-19 2:15	23.70	1621	8.42	9.7
7-21-19 2:30	23.63	1623	8.43	9.3
7-21-19 2:45	23.55	1618	8.42	9.6
7-21-19 3:00	23.44	1620	8.43	9.1
7-21-19 3:15	23.32	1623	8.41	9.6
7-21-19 3:30	23.19	1615	8.43	9.0
7-21-19 3:45	23.11	1614	8.42	9.7
7-21-19 4:00	23.04	1619	8.43	9.3
7-21-19 4:15	22.95	1621	8.42	9.5
7-21-19 4:30	22.89	1619	8.43	9.1
7-21-19 4:45	22.79	1620	8.42	9.3
7-21-19 5:00	22.70	1618	8.43	9.0
7-21-19 5:15	22.59	1623	8.42	9.1
7-21-19 5:30	22.51	1623	8.44	8.8
7-21-19 5:45	22.43	1618	8.42	9.4
7-21-19 6:00	22.32	1616	8.43	8.9
7-21-19 6:15	22.23	1618	8.43	9.1
7-21-19 6:30	22.19	1618	8.44	8.5
7-21-19 6:45	22.11	1618	8.42	9.3
7-21-19 7:00	22.02	1618	8.44	9.0
7-21-19 7:15	21.92	1618	8.42	9.5
7-21-19 7:30	21.82	1618	8.44	9.1
7-21-19 7:45	21.78	1622	8.44	9.5
7-21-19 8:00	21.71	1621	8.44	9.2
7-21-19 8:15	21.60	1620	8.44	9.4
7-21-19 8:30	21.58	1619	8.44	8.9
7-21-19 8:45	21.46	1618	8.43	9.4
7-21-19 9:00	21.42	1618	8.44	9.1
7-21-19 9:15	21.34	1619	8.42	9.1

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-20-19 16:15	11.19	1203	8.68	8.8	4-20-19 15:15	9.75	652	8.30	19.9	4-20-19 15:15	10.10	1218	8.53	11.8						7-21-19 9:30	21.27	1618	8.43	9.1					
4-20-19 16:30	11.20	1205	8.68	8.8	4-20-19 15:30	9.81	683	8.31	18.7	4-20-19 15:30	10.13	1219	8.53	13.2						7-21-19 9:45	21.20	1619	8.42	9.2					
4-20-19 16:45	11.18	1206	8.68	12.9	4-20-19 15:45	9.92	694	8.31	18.2	4-20-19 15:45	10.16	1219	8.53	13.0						7-21-19 10:00	21.14	1619	8.43	8.9					
4-20-19 17:00	11.26	1207	8.67	8.9	4-20-19 16:00	9.96	691	8.33	25.1	4-20-19 16:00	10.20	1219	8.53	12.6						7-21-19 10:15	21.10	1621	8.42	9.2					
4-20-19 17:15	11.18	1209	8.67	11.6	4-20-19 16:15	9.95	689	8.33	18.3	4-20-19 16:15	10.19	1218	8.53	13.5						7-21-19 10:30	21.07	1620	8.42	9.1					
4-20-19 17:30	11.31	1207	8.68	8.7	4-20-19 16:30	9.90	692	8.32	18.1	4-20-19 16:30	10.29	1220	8.54	13.4						7-21-19 10:45	21.00	1620	8.41	9.3					
4-20-19 17:45	11.27	1209	8.68	8.2	4-20-19 16:45	10.14	692	8.32	17.5	4-20-19 16:45	10.36	1219	8.54	11.4						7-21-19 11:00	20.89	1620	8.42	8.8					
4-20-19 18:00	11.20	1211	8.68	10.4	4-20-19 17:00	10.11	692	8.31	19.4	4-20-19 17:00	10.37	1220	8.54	16.3						7-21-19 11:15	20.87	1620	8.41	9.2					
4-20-19 18:15	11.19	1208	8.70	7.1	4-20-19 17:15	9.98	693	8.32	17.8	4-20-19 17:15	10.26	1218	8.53	14.6						7-21-19 11:30	20.78	1621	8.41	8.9					
4-20-19 18:30	11.17	1208	8.68	8.4	4-20-19 17:30	10.07	694	8.30	16.6	4-20-19 17:30	10.30	1218	8.54	14.5						7-21-19 11:45	20.75	1622	8.41	9.4					
4-20-19 18:45	11.13	1210	8.69	7.9	4-20-19 17:45	10.00	695	8.32	17.6	4-20-19 17:45	10.31	1218	8.54	13.3						7-21-19 12:00	20.71	1622	8.41	9.1					
4-20-19 19:00	11.05	1209	8.69	8.1	4-20-19 18:00	9.84	696	8.32	20.0	4-20-19 18:00	10.33	1220	8.54	12.9						7-21-19 12:15	20.68	1625	8.41	8.9					
4-20-19 19:15	11.02	1210	8.69	8.8	4-20-19 18:15	9.86	697	8.31	18.6	4-20-19 18:15	10.34	1219	8.54	13.5						7-21-19 12:30	20.62	1618	8.40	8.9					
4-20-19 19:30	10.99	1210	8.70	8.4	4-20-19 18:30	9.78	697	8.32	20.2	4-20-19 18:30	10.29	1218	8.54	12.8						7-21-19 12:45	20.60	1624	8.41	9.0					
4-20-19 19:45	10.94	1210	8.69	7.8	4-20-19 18:45	9.74	696	8.33	28.6	4-20-19 18:45	10.27	1218	8.54	13.2						7-21-19 13:00	20.55	1624	8.41	9.0					
4-20-19 20:00	10.87	1208	8.70	13.1	4-20-19 19:00	9.68	696	8.33	129.2	4-20-19 19:00	10.23	1218	8.54	13.6						7-21-19 13:15	20.48	1625	8.40	9.4					
4-20-19 20:15	10.81	1209	8.70	9.0	4-20-19 19:15	9.64	690	8.33	24.5	4-20-19 19:15	10.18	1219	8.54	11.9						7-21-19 13:30	20.45	1627	8.41	9.2					
4-20-19 20:30	10.77	1209	8.70	8.2	4-20-19 19:30	9.61	673	8.34	18.3	4-20-19 19:30	10.12	1219	8.54	13.0						7-21-19 13:45	20.44	1629	8.40	9.1					
4-20-19 20:45	10.72	1212	8.70	8.3	4-20-19 19:45	9.55	685	8.34	19.0	4-20-19 19:45	10.11	1219	8.55	13.0						7-21-19 14:00	20.43	1626	8.41	9.5					
4-20-19 21:00	10.70	1210	8.70	9.0	4-20-19 20:00	9.52	673	8.34	18.3	4-20-19 20:00	10.11	1219	8.54	11.7						7-21-19 14:15	20.41	1629	8.41	9.2					
4-20-19 21:15	10.62	1214	8.70	7.8	4-20-19 20:15	9.49	653	8.34	18.6	4-20-19 20:15	10.10	1219	8.54	11.7						7-21-19 14:30	20.47	1628	8.41	9.2					
4-20-19 21:30	10.60	1213	8.70	7.6	4-20-19 20:30	9.51	644	8.34	18.0	4-20-19 20:30	10.08	1218	8.54	11.7						7-21-19 14:45	20.51	1628	8.41	9.9					
4-20-19 21:45	10.56	1213	8.70	7.8	4-20-19 20:45	9.39	652	8.34	17.9	4-20-19 20:45	10.04	1218	8.55	11.7						7-21-19 15:00	20.55	1628	8.42	8.9					
4-20-19 22:00	10.51	1213	8.70	9.1	4-20-19 21:00	9.41	680	8.33	15.7	4-20-19 21:00	10.02	1218	8.54	11.3						7-21-19 15:15	20.58	1629	8.43	9.4					
4-20-19 22:15	10.43	1212	8.71	8.2	4-20-19 21:15	9.33	695	8.33	27.5	4-20-19 21:15	9.99	1219	8.54	11.5						7-21-19 15:30	20.65	1627	8.43	9.6					
4-20-19 22:30	10.37	1213	8.71	8.7	4-20-19 21:30	9.32	694	8.33	15.0	4-20-19 21:30	9.94	1218	8.54	11.3						7-21-19 15:45	20.68	1630	8.43	9.9					
4-20-19 22:45	10.34	1214	8.70	8.8	4-20-19 21:45	9.33	696	8.33	14.8	4-20-19 21:45	9.89	1219	8.54	10.3						7-21-19 16:00	20.74	1628	8.44	9.5					
4-20-19 23:00	10.29	1215	8.70	7.5	4-20-19 22:00	9.33	696	8.33	18.0	4-20-19 22:00	9.87	1219	8.54	10.4						7-21-19 16:15	20.83	1629	8.43	10.0					
4-20-19 23:15	10.27	1210	8.70	7.1	4-20-19 22:15	9.33	697	8.33	15.0	4-20-19 22:15	9.85	1219	8.54	11.2						7-21-19 16:30	20.95	1629	8.44	9.3					
4-20-19 23:30	10.25	1214	8.70	8.5	4-20-19 22:30	9.26	697	8.33	17.6	4-20-19 22:30	9.82	1219	8.54	10.8						7-21-19 16:45	20.98	1630	8.44	9.3					
4-20-19 23:45	10.18	1213	8.70	7.7	4-20-19 22:45	9.27	697	8.32	18.0	4-20-19 22:45	9.79	1219	8.55	11.1						7-21-19 17:00	21.12	1630	8.44	9.1					
4-21-19 0:00	10.11	1213	8.70	10.3	4-20-19 23:00	9.12	698	8.33	22.2	4-20-19 23:00	9.75	1219	8.54	10.6						7-21-19 17:15	21.25	1630	8.43	9.3					
4-21-19 0:15	10.07	1214	8.70	9.6	4-20-19 23:15	9.09	698	8.33	17.8	4-20-19 23:15	9.70	1219	8.54	10.4						7-21-19 17:30	21.30	1629	8.44	8.9					
4-21-19 0:30	10.05	1215	8.70	10.4	4-20-19 23:30	9.03	699	8.31	15.0	4-20-19 23:30	9.71	1219	8.54	10.9						7-21-19 17:45	21.59	1634	8.44	9.2					
4-21-19 0:45	10.00	1215	8.70	9.9	4-20-19 23:45	8.94	698	8.30	15.2	4-20-19 23:45	9.69	1219	8.54	10.3						7-21-19 18:00	21.68	1630	8.43	8.8					
4-21-19 1:00	9.90	1216	8.70	9.0	4-21-19 0:00	8.94	699	8.30	24.3	4-21-19 0:00	9.64	1218	8.54	10.2						7-21-19 18:15	21.76	1634	8.42	9.2					
4-21-19 1:15	9.85	1214	8.70	8.7	4-21-19 0:15	8.98	682	8.31	34.8	4-21-19 0:15	9.56	1219	8.54	11.1						7-21-19 18:30	21.79	1632	8.42	9.0					
4-21-19 1:30	9.83	1216	8.69	9.3	4-21-19 0:30	8.95	674	8.31	17.2	4-21-19 0:30	9.52	1219	8.54	10.5						7-21-19 18:45	21.96	1634	8.42	9.2					
4-21-19 1:45	9.81	1214	8.69	12.2	4-21-19 0:45	8.96	682	8.31	13.8	4-21-19 0:45	9.50	1219	8.54	10.7						7-21-19 19:00	22.33	1633	8.42	8.9					
4-21-19 2:00	9.75	1215	8.70	10.0	4-21-19 1:00	8.84	687	8.32	14.9	4-21-19 1:00	9.41	1218	8.55	10.9						7-21-19 19:15	22.50	1634	8.42	9.1					
4-21-19 2:15	9.75	1215	8.69	10.7	4-21-19 1:15	8.89	657	8.31	17.4	4-21-19 1:15	9.38	1219	8.55	11.1						7-21-19 19:30	22.87	1638	8.42	8.8					
4-21-19 2:30	9.63	1214	8.70	10.9	4-21-19 1:30	8.83	649	8.31	21.3	4-21-19 1:30	9.34	1220	8.55	11.2						7-21-19 19:45	22.89	1639	8.41	9.4					
4-21-19 2:45	9.61	1215	8.70	10.3	4-21-19 1:45	8.67	650	8.31	15.1	4-21-19 1:45	9.32	1218	8.55	12.7						7-21-19 20:00	23.00	1636	8.41	8.6					
4-21-19 3:00	9.58	1214	8.70	11.0	4-21-19 2:00	8.72	683	8.31	14.4	4-21-19 2:00	9.28	1219	8.55	10.8						7-21-19 20:15	23.07	1637	8.41	9.1					
4-21-19 3:15	9.45	1213	8.70	10.0	4-21-19 2:15	8.64	682	8.31	15.8	4-21-19 2:15	9.27	1220	8.55	10.0						7-21-19 20:30	23.51	1641	8.41	8.7					
4-21-19 3:30	9.43	1213	8.70	10.4	4-21-19 2:30	8.57	696	8.32	20.9	4-21-19 2:30	9.24	1220	8.55	10.5						7-21-19 20:45	23.70	1642	8.40	9.1					
4-21-19 3:45	9.38	1218	8.70	9.3	4-21-19 2:45	8.70	697	8.32	19.4	4-21-19 2:45	9.22	1219	8.55	9.9						7-21-19 21:00	23.76	1640	8.41	9.0					
4-21-19 4:00	9.32	1218	8.70	7.8	4-21-19 3:00	8.64	697	8.31	14.7	4-21-19 3:00	9.19	1219	8.55	9.9						7-21-19 21:15	23.81	1639	8.40	9.2					
4-21-19 4:15	9.29	1219	8.69	7.3	4-21-19 3:15	8.52	698	8.32	15.8	4-21-19 3:15	9.10	1219	8.55	10.9						7-21-19 21:30	23.79	1640	8.41	8.9					
4-21-19 4:30	9.22	1219	8.69	7.4	4-21-19 3:30	8.41	698	8.32	15.5	4-21-19 3:30	9.04	1219	8.55	10.0						7-21-19 21:45	23.84	1640	8.39	9.1					
4-21-19 4:45	9.25	1218	8.69	7.2	4-21-19 3:45	8.41	698	8.30	15.6	4-21-19 3:45	9.07	1220	8.55	9.6						7-21-19 22:00	23.82	1641	8.40	8.9					
4-21-19 5:00	9.20	1217	8.68	7.6	4-21-19 4:00	8.36	698	8.30	177.5	4-21-19 4:00	9.06	1220	8.55	9.5						7-21-19 22:15	23.80	1642	8.39	9.2					
4-21-19 5:15	9.16	1221	8.68	7.4	4-21-19 4:15	8.33	700	8.30	17.6	4-21-19 4:15	9.06	1220	8.55	10.2						7-21-19 22:30	23.76	1639	8.41	9.0					
4-21-19 5:30	9.13	1220	8.67	8.8	4-21-19 4:30	8.28	699	8.28	19.7	4-21-19 4:30	9.04	1220	8.55	9.9						7-21-19 22:45	23.76	1641	8.42	9.4					
4-21-19 5:45	9.11	1220	8.68	7.7	4-21-19 4:45	8.26	700	8.27	30.9	4-21-19 4:45	9.01	1220	8.55	8.9						7-21-19 23:00	23.80	1641	8.43	11.5					
4-21-19 6:00	9.06	1219	8.68	7.7	4-21-19 5:00	8.17	695	8.30	17.7	4-21-19 5:00	8.98	1220	8.55	12.4						7-21-19 23:15	23.93	1643	8.43	9.9					
4-21-19 6:15	9.00	1223	8.66	8.4	4-21-19 5:15	8.07	674	8.31	14.6	4-21-19 5:15	8.94	1219	8.55	11.6						7-21-19 23:30	23.96	1641	8.43	11.2					
4-21-19 6:30	8.95	1221	8.67	8.7	4-21-19 5:30	8.11	686	8.31	14.6	4-21-19 5:30	8.89	1220	8.55	10.5						7-21-19 23:45	23.92	1642	8.43	10.2					
4-21-19 6:45	8.95	1223	8.65	7.4	4-21-19 5:45	8.10	669	8.31	15.9	4-21-19 5:45	8.87	1220	8.54	9.4						7-22-19 0:00	23.73	1640	8.43	8.6					
4-21-19 7:00	8.90	1226	8.65	8.5	4-21-19 6:00	8.11	653	8.31	15.3	4-21-19 6:00	8.83	1220	8.55	9.9						7-22-19 0:15	23.68	1640	8.43	9.9					
4-21-19 7:15	8.85	1224	8.65	9.4	4-21-19 6:15	8.12	646	8.29	13.7	4-21-19 6:15	8.80	1220	8.55	10.2						7-22-19 0:30	23.63	1638	8.44	9.4					
4-21-19 7:30	8.83	1226	8.65	8.8	4-21-19 6:30	8.13	661	8.29	12.6	4-21-19 6:30	8.76	1220	8.55	10.4						7-22-19 0:45	23.53	1638	8.44	9.7					
4-21-19 7:45	8.83	1225	8.63	8.5	4-21-19 6:45	8.10	680	8.29	15.4	4-21-19 6:45	8.75	1220	8.55	9.8						7-22-19 1:00	23.52	1639	8.44	9.2					
4-21-19 8:00	8.77	1227	8.65	8.5	4-21-19 7:00	8.12	697	8.29	14.9	4-21-19 7:00	8.72	1220	8.55	10.0						7-22-19 1:15	23.55	1648	8.43	10.3					
4-21-19 8:15	8.69	1227	8.65	8.8	4-21-19 7:15	8.11	697	8.30	15.6	4-21-19 7:15	8.68	1220	8.55	9.1						7-22-19 1:30	23.55	1643	8.43	9.7					
4-21-19 8:30	8.70	1227	8.64	10.1	4-21-19 7:30	8.08	698	8.27	14.4	4-21-19 7:30	8.64	1220	8.55	9.3						7-22-19 1:45	23.57	1644	8.44	10.6					
4-21-19 8:45	8.65	1228	8.63	10.6	4-21-19 7:45	8.07	698	8.27	14.8	4-21-19 7:45	8.68	1220	8.55	10.3						7-22-19 2:00	23.50	1637	8.44	9.7					
4-21-19 9:00	8.61	1231	8.62	10.7	4-21-19 8:00	8.18	698	8.29	15.1	4-21-19 8:00	8.67	1220	8.55	9.3						7-22-19 2:15	23.45	1641	8.43	10.3					
4-21-19 9:15	8.60	1229	8.62	12.5	4-21-19 8:15	8.37	697	8.29	14.4	4-21-19 8:15	8.71	1220	8.55	9.2						7-22-19 2:30	23.36	1641	8.44	9.4					
4-21-19 9:30	8.64	1231	8.61	11.6	4-21-19 8:30	8.45	697	8.27	13.0	4-21-19 8:30	8.72	1220	8.55	9.3						7-22-19 2:45	23.34	1641	8.43	9.7					
4-21-19 9:45	8.74	1235	8.60	11.2	4-21-19 8:45	8.39	698	8.29	15.2	4-21-19 8:45	8.71	1220	8.55	9.4						7-22-19 3:00	23.34	1638	8.43	9.3					
4-21-19 10:00	8.73	1234	8.60	11.8	4-21-19 9:00	8.34	697	8.28	13.7	4-21-19 9:00	8.73	1220	8.55	9.6						7-22-19 3:15	23.31	1639	8.42	9.5					
4-21-19 10:15	8.73	1232	8.61	14.4	4-21-19 9:15	8.40	682	8.27	15.0	4-21-19 9:15	8.76	1220	8.55	9.9						7-22-19 3:30	23.24	1639	8.42	9.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-21-19 10:30	8.74	1234	8.60	11.6	4-21-19 9:30	8.46	683	8.26	72.2	4-21-19 9:30	8.77	1220	8.55	9.6						7-22-19 3:45	23.18	1639	8.42	9.6					
4-21-19 10:45	8.81	1235	8.61	11.8	4-21-19 9:45	8.70	671	8.26	13.1	4-21-19 9:45	8.81	1220	8.55	10.8						7-22-19 4:00	23.11	1637	8.42	9.1					
4-21-19 11:00	8.86	1233	8.61	12.1	4-21-19 10:00	8.85	654	8.30	12.4	4-21-19 10:00	8.87	1220	8.55	9.4						7-22-19 4:15	23.00	1640	8.42	9.5					
4-21-19 11:15	8.94	1234	8.62	11.9	4-21-19 10:15	8.77	452	8.30	17.0	4-21-19 10:15	8.87	1220	8.55	9.7						7-22-19 4:30	22.92	1638	8.44	9.1					
4-21-19 11:30	8.88	1231	8.62	10.8	4-21-19 10:30					4-21-19 10:30	8.94	1220	8.55	9.1						7-22-19 4:45	22.81	1639	8.41	9.4					
4-21-19 11:45	8.91	1230	8.64	9.2	4-21-19 10:45	8.86	656	8.31	11.4	4-21-19 10:45	8.98	1220	8.56	11.0						7-22-19 5:00	22.67	1637	8.44	9.0					
4-21-19 12:00	9.02	1228	8.65	8.6	4-21-19 11:00	8.89	649	8.32	14.4	4-21-19 11:00	9.03	1220	8.55	9.6						7-22-19 5:15	22.54	1639	8.42	9.3					
4-21-19 12:15	9.18	1230	8.63	8.5	4-21-19 11:15	8.94	645	8.32	13.0	4-21-19 11:15	9.07	1220	8.56	9.2						7-22-19 5:30	22.42	1638	8.43	8.9					
4-21-19 12:30	9.24	1230	8.62	10.5	4-21-19 11:30	8.99	679	8.32	12.5	4-21-19 11:30	9.09	1220	8.56	9.9						7-22-19 5:45	22.31	1638	8.42	9.5					
4-21-19 12:45	9.26	1232	8.62	12.0	4-21-19 11:45	9.02	681	8.32	13.2	4-21-19 11:45	9.12	1220	8.56	9.5						7-22-19 6:00	22.23	1637	8.43	9.0					
4-21-19 13:00	9.19	1232	8.63	10.2	4-21-19 12:00	9.08	693	8.33	12.2	4-21-19 12:00	9.18	1220	8.56	9.9						7-22-19 6:15	22.13	1639	8.43	9.5					
4-21-19 13:15	9.24	1233	8.64	10.8	4-21-19 12:30	9.22	692	8.34	34.0	4-21-19 12:30	9.54	1220	8.56	9.7						7-22-19 6:30	22.08	1638	8.44	8.8					
4-21-19 13:30	9.37	1229	8.63	9.9	4-21-19 12:45	9.43	695	8.32	16.7	4-21-19 12:45	9.66	1219	8.56	9.8						7-22-19 6:45	22.04	1638	8.43	9.4					
4-21-19 13:45	9.55	1231	8.64	11.8	4-21-19 13:00	9.87	698	8.30	16.5	4-21-19 13:00	9.58	1219	8.56	10.6						7-22-19 7:00	22.00	1638	8.43	9.4					
4-21-19 14:00	9.55	1231	8.65	13.7	4-21-19 13:15	9.86	696	8.29	20.6	4-21-19 13:15	9.78	1220	8.56	13.4						7-22-19 7:15	21.94	1639	8.42	9.4					
4-21-19 14:15	9.78	1232	8.66	11.2	4-21-19 13:30	9.90	698	8.30	21.3	4-21-19 13:30	9.78	1220	8.56	11.1						7-22-19 7:30	21.87	1639	8.43	8.8					
4-21-19 14:30	10.03	1230	8.65	10.4	4-21-19 13:45	10.05	698	8.30	18.9	4-21-19 13:45	9.97	1219	8.56	11.1						7-22-19 7:45	21.81	1640	8.42	9.4					
4-21-19 14:45	10.10	1230	8.66	10.0	4-21-19 14:00	10.27	697	8.29	22.5	4-21-19 14:00	9.99	1220	8.56	11.1						7-22-19 8:00	21.77	1639	8.42	8.8					
4-21-19 15:00	10.38	1232	8.66	10.4	4-21-19 14:15	10.29	699	8.30	26.6	4-21-19 14:15	10.03	1219	8.56	10.5						7-22-19 8:15	21.72	1641	8.42	9.5					
4-21-19 15:15	10.47	1228	8.66	10.6	4-21-19 14:30	10.16	697	8.30	26.3	4-21-19 14:30	10.21	1219	8.56	11.6						7-22-19 8:30	21.70	1640	8.42	8.7					
4-21-19 15:30	10.62	1229	8.66	10.0	4-21-19 14:45	10.39	699	8.30	39.1	4-21-19 14:45	10.27	1219	8.56	10.8						7-22-19 8:45	21.66	1643	8.40	9.4					
4-21-19 15:45	10.64	1230	8.67	9.7	4-21-19 15:00	10.20	696	8.31	81.8	4-21-19 15:00	10.30	1219	8.56	11.8						7-22-19 9:00	21.61	1642	8.41	8.8					
4-21-19 16:00	10.72	1229	8.68	9.8	4-21-19 15:15	10.33	696	8.31	109.1	4-21-19 15:15	10.49	1220	8.56	14.2						7-22-19 9:15	21.57	1642	8.41	9.2					
4-21-19 16:15	10.85	1233	8.68	10.9	4-21-19 15:30	10.34	694	8.32	315.6	4-21-19 15:30	10.55	1220	8.56	13.0						7-22-19 9:30	21.52	1641	8.41	8.5					
4-21-19 16:30	10.98	1233	8.69	12.1	4-21-19 15:45	10.06	693	8.35	69.7	4-21-19 15:45	10.48	1220	8.56	12.8						7-22-19 9:45	21.46	1641	8.40	9.3					
4-21-19 16:45	11.00	1231	8.70	11.4	4-21-19 16:00	9.90	694	8.35	24.4	4-21-19 16:00	10.49	1219	8.56	13.8						7-22-19 10:00	21.44	1641	8.41	8.6					
4-21-19 17:00	10.97	1232	8.70	12.3	4-21-19 16:15	9.86	695	8.35	21.7	4-21-19 16:15	10.55	1220	8.56	14.5						7-22-19 10:15	21.37	1643	8.41	9.4					
4-21-19 17:15	10.98	1230	8.70	10.0	4-21-19 16:30	9.87	669	8.35	27.5	4-21-19 16:30	10.44	1219	8.57	13.3						7-22-19 10:30	21.37	1642	8.41	8.6					
4-21-19 17:30	10.98	1231	8.70	11.4	4-21-19 16:45	9.86	672	8.35	21.8	4-21-19 16:45	10.52	1219	8.56	16.2						7-22-19 10:45	21.33	1643	8.41	9.1					
4-21-19 17:45	10.97	1232	8.70	12.8	4-21-19 17:00	9.87	687	8.35	22.5	4-21-19 17:00	10.48	1218	8.57	15.9						7-22-19 11:00	21.32	1642	8.41	8.6					
4-21-19 18:00	10.98	1232	8.70	13.5	4-21-19 17:15	9.82	679	8.35	22.3	4-21-19 17:15	10.48	1219	8.57	13.5						7-22-19 11:15	21.29	1644	8.41	9.1					
4-21-19 18:15	10.98	1232	8.71	12.8	4-21-19 17:30	9.87	648	8.35	29.0	4-21-19 17:30	10.50	1219	8.57	14.5						7-22-19 11:30	21.22	1643	8.41	8.6					
4-21-19 18:30	10.96	1232	8.71	12.3	4-21-19 17:45	9.90	638	8.35	17.6	4-21-19 17:45	10.53	1219	8.57	15.1						7-22-19 11:45	21.18	1644	8.41	9.1					
4-21-19 18:45	10.97	1231	8.70	13.9	4-21-19 18:00	9.85	635	8.35	16.6	4-21-19 18:00	10.47	1219	8.57	13.7						7-22-19 12:00	21.11	1643	8.41	8.7					
4-21-19 19:00	10.92	1231	8.71	12.6	4-21-19 18:15	9.79	670	8.35	16.5	4-21-19 18:15	10.45	1219	8.57	15.2						7-22-19 12:15	21.03	1645	8.41	9.1					
4-21-19 19:15	10.92	1232	8.72	13.0	4-21-19 18:30	9.76	673	8.35	16.7	4-21-19 18:30	10.43	1220	8.57	16.7						7-22-19 12:30	21.04	1644	8.41	8.6					
4-21-19 19:30	10.89	1231	8.70	14.6	4-21-19 18:45	9.80	684	8.35	17.1	4-21-19 18:45	10.42	1219	8.58	16.2						7-22-19 12:45	21.02	1645	8.41	9.3					
4-21-19 19:45	10.88	1233	8.70	14.0	4-21-19 19:00	9.80	695	8.35	15.6	4-21-19 19:00	10.44	1219	8.58	15.3						7-22-19 13:00	21.00	1644	8.41	8.6					
4-21-19 20:00	10.79	1232	8.71	15.1	4-21-19 19:15	9.77	696	8.34	16.1	4-21-19 19:15	10.41	1219	8.58	14.7						7-22-19 13:15	21.00	1646	8.41	9.2					
4-21-19 20:15	10.77	1234	8.71	15.7	4-21-19 19:30	9.80	697	8.34	16.1	4-21-19 19:30	10.39	1219	8.57	17.7						7-22-19 13:30	21.02	1645	8.41	8.6					
4-21-19 20:30	10.73	1233	8.71	14.7	4-21-19 19:45	9.81	697	8.34	16.5	4-21-19 19:45	10.39	1219	8.57	14.0						7-22-19 13:45	21.00	1647	8.41	9.4					
4-21-19 20:45	10.73	1234	8.71	14.8	4-21-19 20:00	9.79	697	8.34	15.6	4-21-19 20:00	10.34	1219	8.58	13.3						7-22-19 14:00	20.98	1645	8.41	8.7					
4-21-19 21:00	10.70	1233	8.71	17.4	4-21-19 20:15	9.78	697	8.33	18.0	4-21-19 20:15	10.33	1219	8.58	14.4						7-22-19 14:15									
4-21-19 21:15	10.68	1234	8.71	13.9	4-21-19 20:30	9.69	697	8.33	18.7	4-21-19 20:30	10.31	1219	8.58	14.1						7-22-19 14:30									
4-21-19 21:30	10.66	1233	8.71	14.8	4-21-19 20:45	9.73	698	8.33	18.7	4-21-19 20:45	10.27	1219	8.58	13.5						7-22-19 14:45									
4-21-19 21:45	10.63	1231	8.71	13.2	4-21-19 21:00	9.63	697	8.33	20.4	4-21-19 21:00	10.24	1218	8.58	13.8						7-22-19 15:00									
4-21-19 22:00	10.62	1229	8.71	12.9	4-21-19 21:15	9.64	695	8.33	17.2	4-21-19 21:15	10.22	1219	8.58	14.2						7-22-19 15:15									
4-21-19 22:15	10.61	1234	8.71	12.8	4-21-19 21:30	9.65	695	8.32	18.6	4-21-19 21:30	10.15	1219	8.58	14.1						7-22-19 15:30									
4-21-19 22:30	10.56	1234	8.71	12.8	4-21-19 21:45	9.65	695	8.32	17.1	4-21-19 21:45	10.10	1219	8.58	13.6						7-22-19 15:45									
4-21-19 22:45	10.51	1234	8.71	12.3	4-21-19 22:00	9.67	694	8.32	17.7	4-21-19 22:00	10.10	1220	8.58	12.6						7-22-19 16:00									
4-21-19 23:00	10.48	1232	8.71	12.8	4-21-19 22:15	9.63	694	8.33	22.2	4-21-19 22:15	10.11	1219	8.57	12.2						7-22-19 16:15	21.24	1652	8.44	8.7					
4-21-19 23:15	10.44	1233	8.71	12.8	4-21-19 22:30	9.62	694	8.33	259.0	4-21-19 22:30	10.09	1219	8.57	12.7						7-22-19 16:30	21.34	1659	8.43	9.1					
4-21-19 23:30	10.40	1234	8.71	12.3	4-21-19 22:45	9.61	694	8.32	139.3	4-21-19 22:45	10.06	1219	8.58	13.6						7-22-19 16:45	21.40	1659	8.43	8.6					
4-21-19 23:45	10.38	1235	8.71	13.1	4-21-19 23:00	9.64	694	8.32	18.0	4-21-19 23:00	10.02	1219	8.57	13.2						7-22-19 17:00	21.40	1666	8.42	9.0					
4-22-19 0:00	10.38	1235	8.71	13.5	4-21-19 23:15	9.64	693	8.32	15.8	4-21-19 23:15	10.02	1219	8.58	11.6						7-22-19 17:15	21.45	1661	8.43	8.5					
4-22-19 0:15	10.35	1235	8.71	15.0	4-21-19 23:30	9.62	691	8.32	14.2	4-21-19 23:30	9.99	1219	8.58	14.1						7-22-19 17:30	21.43	1662	8.41	9.1					
4-22-19 0:30	10.31	1235	8.71	16.0	4-21-19 23:45	9.60	691	8.32	15.4	4-21-19 23:45	9.97	1220	8.57	12.7						7-22-19 17:45	21.52	1659	8.43	8.5					
4-22-19 0:45	10.30	1233	8.71	13.6	4-22-19 0:00	9.57	642	8.32	16.0	4-22-19 0:00	9.96	1219	8.57	12.0						7-22-19 18:00	21.60	1658	8.42	8.9					
4-22-19 1:00	10.24	1233	8.71	14.2	4-22-19 0:15	9.59	659	8.31	16.1	4-22-19 0:15	9.96	1220	8.57	12.3						7-22-19 18:15	21.65	1659	8.42	8.7					
4-22-19 1:15	10.23	1235	8.71	15.2	4-22-19 0:30	9.58	657	8.31	13.2	4-22-19 0:30	9.94	1219	8.57	11.8						7-22-19 18:30	21.75	1664	8.42	9.3					
4-22-19 1:30	10.19	1233	8.71	12.5	4-22-19 0:45	9.55	617	8.30	15.1	4-22-19 0:45	9.93	1219	8.57	11.2						7-22-19 18:45	21.88	1665	8.42	9.0					
4-22-19 1:45	10.17	1236	8.71	12.5	4-22-19 1:00	9.53	609	8.31	15.1	4-22-19 1:00	9.92	1219	8.57	11.7						7-22-19 19:00	21.98	1665	8.42	9.6					
4-22-19 2:00	10.14	1234	8.71	12.4	4-22-19 1:15	9.52	575	8.31	14.6	4-22-19 1:15	9.90	1219	8.57	11.6						7-22-19 19:15	22.11	1661	8.42	8.7					
4-22-19 2:15	10.12	1234	8.71	12.2	4-22-19 1:30	9.50	635	8.30	13.5	4-22-19 1:30	9.88	1219	8.57	12.0						7-22-19 19:30	22.22	1671	8.39	9.2					
4-22-19 2:30	10.13	1236	8.71	11.8	4-22-19 1:45	9.47	682	8.30	18.3	4-22-19 1:45	9.84	1220	8.57	12.3						7-22-19 19:45	22.37	1662	8.41	8.8					
4-22-19 2:45	10.07	1235	8.70	13.3	4-22-19 2:00	9.39	687	8.29	236.3	4-22-19 2:00	9.76	1219	8.57	12.2						7-22-19 20:00	22.46	1664	8.41	9.2					
4-22-19 3:00	10.04	1233	8.71	11.4	4-22-19 2:15	9.30	688	8.30	14.1	4-22-19 2:15	9.75	1220	8.57	11.6						7-22-19 20:15	22.58	1663	8.40	8.7					
4-22-19 3:15	10.01	1236	8.71	12.5	4-22-19 2:30	9.35	689	8.29	9.1	4-22-19 2:30	9.79	1220	8.57	10.8						7-22-19 20:30	23.16	1664	8.40	9.3					
4-22-19 3:30	9.97	1236	8.71	12.0	4-22-19 2:45	9.33	688	8.28	13.1	4-22-19 2:45	9.76	1219	8.57	11.8						7-22-19 20:45	23.47	1661	8.40	8.8					
4-22-19 3:45	9.98	1235	8.70	12.1	4-22-19 3:00	9.39	734	8.28	12.2	4-22-19 3:00	9.75	1220	8.58	11.2						7-22-19 21:00	23.82	1659	8.40	9.2					
4-22-19 4:00	9.93	1235	8.70	11.1	4-22-19 3:15	9.33	735	8.29	11.2	4-22-19 3:15	9.71	1219	8.58	11.8						7-22-19 21:15	24.04	1658	8.41	9.0					
4-22-19 4:15	9.91	1236	8.70	11.3	4-22-19 3:30	9.20	735	8.30	14.8	4-22-19 3:30	9.68	1220	8.58	11.4						7-22-19 21:30	24.27	1657	8.40	9.3					
4-22-19 4:30	9.88	1236	8.70	11.3	4-22-19 3:45	9.15	736	8.29	13.6	4-22-19 3:45	9.67	1220	8.57	10.9						7-22-19 21:45	24.48	1661	8.41	9.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-22-19 4:45	9.85	1236	8.70	10.7	4-22-19 4:00	9.14	737	8.29	195.9	4-22-19 4:00	9.69	1220	8.57	10.9						7-22-19 22:00	24.67	1660	8.40	9.2					
4-22-19 5:00	9.82	1236	8.69	12.6	4-22-19 4:15	9.12	739	8.27	13.2	4-22-19 4:15	9.68	1219	8.57	10.8						7-22-19 22:15	24.65	1658	8.41	10.7					
4-22-19 5:15	9.75	1236	8.69	11.2	4-22-19 4:30	9.10	737	8.26	14.8	4-22-19 4:30	9.60	1219	8.57	13.8						7-22-19 22:30	24.64	1655	8.41	11.3					
4-22-19 5:30	9.73	1235	8.69	11.2	4-22-19 4:45	9.05	739	8.29	22.9	4-22-19 4:45	9.61	1220	8.57	11.8						7-22-19 22:45	24.67	1657	8.41	10.2					
4-22-19 5:45	9.73	1235	8.69	10.8	4-22-19 5:00	9.11	737	8.29	24.4	4-22-19 5:00	9.59	1220	8.57	10.7						7-22-19 23:00	24.72	1661	8.41	12.5					
4-22-19 6:00	9.73	1237	8.68	10.2	4-22-19 5:15	9.13	740	8.29	181.4	4-22-19 5:15	9.59	1220	8.57	11.4						7-22-19 23:15	24.61	1661	8.42	10.3					
4-22-19 6:15	9.71	1238	8.67	10.7	4-22-19 5:30	9.13	739	8.29	35.5	4-22-19 5:30	9.60	1220	8.57	10.5						7-22-19 23:30	24.70	1670	8.42	10.9					
4-22-19 6:30	9.68	1237	8.67	10.8	4-22-19 5:45	9.12	739	8.28	15.4	4-22-19 5:45	9.59	1220	8.57	11.6						7-22-19 23:45	24.67	1662	8.42	10.1					
4-22-19 6:45	9.65	1239	8.67	10.3	4-22-19 6:00	9.06	738	8.28	16.0	4-22-19 6:00	9.58	1220	8.57	10.8						7-23-19 0:00	24.71	1660	8.42	11.0					
4-22-19 7:00	9.63	1239	8.67	10.0	4-22-19 6:15	9.07	709	8.28	21.9	4-22-19 6:15	9.57	1220	8.57	11.2						7-23-19 0:15	24.59	1663	8.42	9.4					
4-22-19 7:15	9.60	1237	8.66	10.1	4-22-19 6:30	9.09	727	8.27	14.7	4-22-19 6:30	9.55	1220	8.57	10.4						7-23-19 0:30	24.67	1662	8.42	9.0					
4-22-19 7:30	9.53	1238	8.65	11.3	4-22-19 6:45	9.01	729	8.28	18.4	4-22-19 6:45	9.52	1219	8.57	11.3						7-23-19 0:45	24.73	1667	8.43	9.8					
4-22-19 7:45	9.52	1239	8.65	10.7	4-22-19 7:00	9.04	698	8.28	20.4	4-22-19 7:00	9.53	1220	8.57	10.2						7-23-19 1:00	24.70	1666	8.43	9.7					
4-22-19 8:00	9.51	1242	8.64	11.6	4-22-19 7:15	9.08	690	8.28	25.4	4-22-19 7:15	9.50	1220	8.57	10.7						7-23-19 1:15	24.64	1669	8.44	9.7					
4-22-19 8:15	9.46	1243	8.63	11.6	4-22-19 7:30	9.06	683	8.27	14.2	4-22-19 7:30	9.50	1220	8.57	10.0						7-23-19 1:30	24.65	1665	8.43	8.7					
4-22-19 8:30	9.42	1244	8.63	12.4	4-22-19 7:45	8.99	666	8.28	14.5	4-22-19 7:45	9.49	1220	8.57	11.2						7-23-19 1:45	24.59	1669	8.43	8.6					
4-22-19 8:45	9.45	1244	8.63	11.5	4-22-19 8:00	8.95	684	8.28	46.1	4-22-19 8:00	9.49	1220	8.57	10.7						7-23-19 2:00	24.57	1655	8.42	10.6					
4-22-19 9:00	9.42	1242	8.63	11.1	4-22-19 8:15	8.96	697	8.28	22.4	4-22-19 8:15	9.44	1219	8.57	11.1						7-23-19 2:15	24.53	1686	8.42	9.5					
4-22-19 9:15	9.36	1245	8.63	12.1	4-22-19 8:30	8.93	698	8.28	116.4	4-22-19 8:30	9.45	1219	8.57	12.2						7-23-19 2:30	24.51	1675	8.41	10.5					
4-22-19 9:30	9.37	1246	8.62	11.3	4-22-19 8:45	8.91	699	8.28	15.2	4-22-19 8:45	9.47	1220	8.57	11.4						7-23-19 2:45	24.42	1663	8.42	9.0					
4-22-19 9:45	9.37	1244	8.62	11.4	4-22-19 9:00	8.92	699	8.28	15.7	4-22-19 9:00	9.45	1219	8.57	11.7						7-23-19 3:00	24.31	1662	8.40	9.4					
4-22-19 10:00	9.31	1245	8.62	12.9	4-22-19 9:15	8.92	700	8.28	16.0	4-22-19 9:15	9.41	1220	8.58	10.5						7-23-19 3:15	24.06	1674	8.41	8.6					
4-22-19 10:15	9.34	1246	8.61	12.8	4-22-19 9:30	8.92	700	8.28	14.5	4-22-19 9:30	9.41	1220	8.58	10.9						7-23-19 3:30	23.72	1660	8.41	9.1					
4-22-19 10:30	9.31	1245	8.61	12.1	4-22-19 9:45	8.95	701	8.28	15.1	4-22-19 9:45	9.45	1219	8.57	10.5						7-23-19 3:45	23.44	1666	8.41	8.7					
4-22-19 10:45	9.34	1242	8.61	12.1	4-22-19 10:00	8.95	701	8.27	16.6	4-22-19 10:00	9.40	1220	8.57	9.8						7-23-19 4:00	23.31	1668	8.41	9.2					
4-22-19 11:00	9.33	1246	8.61	12.4	4-22-19 10:15	8.95	700	8.28	14.3	4-22-19 10:15	9.43	1220	8.57	10.5						7-23-19 4:15	23.18	1669	8.41	8.7					
4-22-19 11:15	9.31	1247	8.60	13.5	4-22-19 10:30	8.98	703	8.28	13.2	4-22-19 10:30	9.39	1218	8.58	10.9						7-23-19 4:30	23.15	1677	8.39	9.4					
4-22-19 11:30	9.27	1248	8.59	13.7	4-22-19 10:45	9.03	701	8.28	26.5	4-22-19 10:45	9.44	1219	8.57	10.8						7-23-19 4:45	23.11	1674	8.39	8.3					
4-22-19 11:45	9.23	1250	8.59	13.9	4-22-19 11:00	9.07	703	8.27	18.8	4-22-19 11:00	9.48	1220	8.58	11.1						7-23-19 5:00	23.06	1672	8.40	8.7					
4-22-19 12:00	9.31	1251	8.60	12.9	4-22-19 11:15	9.09	701	8.27	16.6	4-22-19 11:15	9.47	1219	8.58	11.2						7-23-19 5:15	23.00	1671	8.41	8.4					
4-22-19 12:15	9.34	1250	8.60	12.1	4-22-19 11:30	9.09	700	8.28	16.5	4-22-19 11:30	9.46	1218	8.58	11.2						7-23-19 5:30	22.93	1676	8.41	8.8					
4-22-19 12:30	9.49	1249	8.60	13.8	4-22-19 11:45	9.07	698	8.29	22.5	4-22-19 11:45	9.45	1220	8.58	10.6						7-23-19 5:45	22.86	1670	8.41	8.6					
4-22-19 12:45	9.72	1252	8.57	14.8	4-22-19 12:00	9.14	701	8.28	42.5	4-22-19 12:00	9.49	1220	8.58	11.5						7-23-19 6:00	22.89	1672	8.40	8.7					
4-22-19 13:00	9.95	1252	8.57	14.5	4-22-19 12:15	9.22	699	8.29	171.4	4-22-19 12:15	9.51	1220	8.59	10.6						7-23-19 6:15	22.86	1674	8.40	8.1					
4-22-19 13:15	10.01	1251	8.58	14.1	4-22-19 12:30	9.36	698	8.29	34.2	4-22-19 12:30	9.62	1219	8.59	10.9						7-23-19 6:30	22.84	1673	8.40	8.4					
4-22-19 13:30	10.00	1259	8.56	15.8	4-22-19 12:45	9.66	703	8.27	17.5	4-22-19 12:45	9.72	1219	8.58	10.8						7-23-19 6:45	22.81	1672	8.39	8.1					
4-22-19 13:45	10.02	1262	8.55	16.6	4-22-19 13:00	9.90	698	8.27	27.5	4-22-19 13:00	9.92	1219	8.59	10.8						7-23-19 7:00	22.77	1673	8.39	8.7					
4-22-19 14:00	10.34	1259	8.56	16.0	4-22-19 13:15	9.96	698	8.27	20.0	4-22-19 13:15	10.05	1218	8.58	12.6						7-23-19 7:15	22.73	1673	8.39	8.3					
4-22-19 14:15	10.44	1258	8.57	15.0	4-22-19 13:30	9.90	670	8.28	17.6	4-22-19 13:30	10.10	1218	8.59	12.5						7-23-19 7:30	22.67	1670	8.40	8.6					
4-22-19 14:30	10.44	1255	8.57	14.9	4-22-19 13:45	9.81	680	8.28	16.0	4-22-19 13:45	10.15	1220	8.59	12.4						7-23-19 7:45	22.65	1669	8.40	7.8					
4-22-19 14:45	10.48	1255	8.59	14.9	4-22-19 14:00	9.84	685	8.29	15.4	4-22-19 14:00	10.23	1220	8.59	11.7						7-23-19 8:00	22.65	1667	8.40	8.5					
4-22-19 15:00	10.69	1255	8.58	14.5	4-22-19 14:15	9.85	655	8.29	15.9	4-22-19 14:15	10.33	1219	8.59	19.1						7-23-19 8:15	22.59	1670	8.40	8.0					
4-22-19 15:15	10.73	1256	8.59	15.0	4-22-19 14:30	9.73	649	8.29	15.3	4-22-19 14:30	10.25	1214	8.58	20.3						7-23-19 8:30	22.57	1673	8.40	8.5					
4-22-19 15:30	10.71	1256	8.60	15.5	4-22-19 14:45	9.87	646	8.29	16.5	4-22-19 14:45	10.46	1218	8.59	19.5						7-23-19 8:45	22.55	1670	8.40	7.7					
4-22-19 15:45	10.85	1255	8.60	14.2	4-22-19 15:00	9.92	655	8.29	16.0	4-22-19 15:00	10.35	1213	8.58	17.4						7-23-19 9:00	22.49	1671	8.38	8.6					
4-22-19 16:00	10.89	1256	8.59	15.0	4-22-19 15:15	10.01	684	8.29	15.5	4-22-19 15:15	10.34	1213	8.58	14.5						7-23-19 9:15	22.53	1683	8.41	7.7					
4-22-19 16:15	10.91	1255	8.60	14.3	4-22-19 15:30	10.13	685	8.28	16.2	4-22-19 15:30	10.54	1215	8.58	18.0						7-23-19 9:30	22.48	1688	8.40	8.5					
4-22-19 16:30	11.03	1257	8.60	15.0	4-22-19 15:45	10.18	694	8.29	14.0	4-22-19 15:45	10.58	1213	8.58	19.7						7-23-19 9:45	22.45	1669	8.41	7.8					
4-22-19 16:45	11.01	1256	8.60	14.5	4-22-19 16:00	10.22	695	8.29	16.7	4-22-19 16:00	10.64	1212	8.58	23.3						7-23-19 10:00	22.39	1670	8.40	9.1					
4-22-19 17:00	11.06	1258	8.61	14.5	4-22-19 16:15	10.37	695	8.29	15.4	4-22-19 16:15	10.71	1214	8.59	19.5						7-23-19 10:15	22.32	1671	8.40	7.7					
4-22-19 17:15	11.08	1256	8.61	14.3	4-22-19 16:30	10.38	694	8.29	16.2	4-22-19 16:30	10.78	1213	8.59	19.7						7-23-19 10:30	22.29	1672	8.40	8.4					
4-22-19 17:30	11.08	1255	8.61	14.6	4-22-19 16:45	10.39	693	8.29	15.3	4-22-19 16:45	10.79	1212	8.59	19.0						7-23-19 10:45	22.26	1670	8.40	8.0					
4-22-19 17:45	11.05	1257	8.61	14.5	4-22-19 17:00	10.46	692	8.29	14.9	4-22-19 17:00	10.76	1210	8.58	17.6						7-23-19 11:00	22.22	1671	8.40	8.5					
4-22-19 18:00	11.07	1257	8.62	13.1	4-22-19 17:15	10.48	691	8.29	15.6	4-22-19 17:15	10.82	1208	8.58	20.9						7-23-19 11:15	22.19	1671	8.41	7.6					
4-22-19 18:15	11.10	1256	8.63	16.1	4-22-19 17:30	10.49	690	8.29	15.8	4-22-19 17:30	10.83	1210	8.59	19.7						7-23-19 11:30	22.19	1670	8.40	8.4					
4-22-19 18:30	11.10	1257	8.63	14.7	4-22-19 17:45	10.53	690	8.29	15.2	4-22-19 17:45	10.79	1208	8.59	19.4						7-23-19 11:45	22.14	1669	8.41	7.8					
4-22-19 18:45	11.08	1258	8.63	14.8	4-22-19 18:00	10.50	689	8.30	16.4	4-22-19 18:00	10.75	1207	8.58	18.7						7-23-19 12:00	22.08	1671	8.40	8.5					
4-22-19 19:00	11.07	1258	8.63	16.5	4-22-19 18:15	10.54	693	8.29	16.1	4-22-19 18:15	10.76	1206	8.58	18.1						7-23-19 12:15	21.99	1671	8.41	8.2					
4-22-19 19:15	11.06	1259	8.63	18.4	4-22-19 18:30	10.50	692	8.29	21.5	4-22-19 18:30	10.74	1206	8.58	18.5						7-23-19 12:30	21.93	1672	8.40	8.4					
4-22-19 19:30	11.03	1258	8.63	16.8	4-22-19 18:45	10.46	691	8.29	20.0	4-22-19 18:45	10.74	1206	8.58	16.6						7-23-19 12:45	21.92	1670	8.41	7.7					
4-22-19 19:45	10.99	1257	8.63	16.0	4-22-19 19:00	10.47	690	8.30	27.8	4-22-19 19:00	10.72	1206	8.58	17.5						7-23-19 13:00	21.88	1672	8.40	8.5					
4-22-19 20:00	10.95	1257	8.63	17.2	4-22-19 19:15	10.46	689	8.29	415.5	4-22-19 19:15	10.68	1206	8.58	17.0						7-23-19 13:15	21.88	1670	8.41	7.7					
4-22-19 20:15	10.89	1258	8.63	19.7	4-22-19 19:30	10.45	688	8.29	162.8	4-22-19 19:30	10.64	1202	8.58	17.3						7-23-19 13:30	21.86	1672	8.40	8.7					
4-22-19 20:30	10.90	1258	8.64	19.0	4-22-19 19:45	10.41	687	8.29	18.0	4-22-19 19:45	10.61	1202	8.58	16.5						7-23-19 13:45	21.83	1671	8.40	7.8					
4-22-19 20:45	10.83	1256	8.64	18.9	4-22-19 20:00	10.41	696	8.29	16.0	4-22-19 20:00	10.57	1202	8.58	17.1						7-23-19 14:00	21.78	1672	8.39	8.4					
4-22-19 21:00	10.81	1257	8.64	17.8	4-22-19 20:15	10.35	703	8.29	15.7	4-22-19 20:15	10.60	1200	8.57	17.0						7-23-19 14:15	21.76	1672	8.42	8.1					
4-22-19 21:15	10.75	1258	8.64	16.1	4-22-19 20:30	10.37	672	8.28	16.0	4-22-19 20:30	10.55	1199	8.57	18.2						7-23-19 14:30	21.80	1672	8.41	8.6					
4-22-19 21:30	10.71	1258	8.64	17.9	4-22-19 20:45	10.36	663	8.29	15.8	4-22-19 20:45	10.55	1200	8.58	17.2						7-23-19 14:45	21.82	1671	8.41	8.0					
4-22-19 21:45	10.66	1257	8.63	16.0	4-22-19 21:00	10.35	674	8.28	16.5	4-22-19 21:00	10.49	1200	8.58	16.4						7-23-19 15:00	21.75	1673	8.42	8.4					
4-22-19 22:00	10.64	1258	8.63	14.9	4-22-19 21:15	10.30	684	8.29	15.8	4-22-19 21:15	10.49	1200	8.58	16.6						7-23-19 15:15	21.83	1671	8.42	7.9					
4-22-19 22:15	10.61	1259	8.63	16.0	4-22-19 21:30	10.28	658	8.29	15.3	4-22-19 21:30	10.46	1199	8.58	16.6						7-23-19 15:30	21.84	1672	8.42	8.6					
4-22-19 22:30	10.56	1259	8.63	16.1	4-22-19 21:45	10.27	645	8.28	16.4	4-22-19 21:45	10.43	1200	8.58	15.9						7-23-19 15:45	21.87	1671	8.42	7.7					
4-22-19 22:45	10.51	1257	8.62	15.6	4-22-19 22:00	10.25	642	8.27	14.7	4-22-19 22:00	10.38	1200	8.58	16.0						7-23-19 16:00	21.99	1672	8.43	8.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-22-19 23:00	10.47	1258	8.63	16.5	4-22-19 22:15	10.26	666	8.28	14.2	4-22-19 22:15	10.34	1199	8.57	15.8						7-23-19 16:15	21.94	1671	8.44	8.1					
4-22-19 23:15	10.42	1259	8.63	16.6	4-22-19 22:30	10.25	669	8.27	14.9	4-22-19 22:30	10.38	1199	8.57	19.7						7-23-19 16:30	22.06	1672	8.43	8.6					
4-22-19 23:30	10.36	1259	8.61	15.5	4-22-19 22:45	10.18	681	8.27	16.3	4-22-19 22:45	10.35	1199	8.57	15.3						7-23-19 16:45	22.10	1670	8.42	7.9					
4-22-19 23:45	10.29	1258	8.63	15.4	4-22-19 23:00	10.17	682	8.27	15.6	4-22-19 23:00	10.28	1199	8.58	15.6						7-23-19 17:00	22.19	1671	8.42	8.8					
4-23-19 0:00	10.24	1259	8.62	17.1	4-22-19 23:15	10.14	694	8.27	17.0	4-22-19 23:15	10.25	1200	8.58	17.7						7-23-19 17:15	22.24	1670	8.43	7.9					
4-23-19 0:15	10.21	1259	8.63	14.6	4-22-19 23:30	10.07	695	8.27	15.8	4-22-19 23:30	10.16	1199	8.58	16.1						7-23-19 17:30	22.36	1672	8.42	8.5					
4-23-19 0:30	10.17	1260	8.62	15.4	4-22-19 23:45	10.05	694	8.26	17.7	4-22-19 23:45	10.14	1200	8.58	16.0						7-23-19 17:45	22.46	1672	8.42	8.0					
4-23-19 0:45	10.08	1251	8.62	16.9	4-23-19 0:00	10.02	696	8.27	16.6	4-23-19 0:00	10.11	1199	8.58	15.4						7-23-19 18:00	22.83	1672	8.42	8.5					
4-23-19 1:00	10.06	1259	8.62	15.5	4-23-19 0:15	10.01	696	8.26	14.4	4-23-19 0:15	10.05	1199	8.57	16.1						7-23-19 18:15	22.96	1665	8.41	7.9					
4-23-19 1:15	9.99	1260	8.62	15.6	4-23-19 0:30	9.98	697	8.26	17.2	4-23-19 0:30	10.04	1199	8.58	15.4						7-23-19 18:30	23.07	1672	8.41	8.4					
4-23-19 1:30	9.92	1260	8.62	16.9	4-23-19 0:45	9.88	698	8.26	17.8	4-23-19 0:45	10.03	1198	8.58	14.9						7-23-19 18:45	23.15	1670	8.41	7.8					
4-23-19 1:45	9.88	1261	8.62	14.4	4-23-19 1:00	9.83	698	8.26	17.1	4-23-19 1:00	9.96	1198	8.57	13.9						7-23-19 19:00	23.20	1673	8.39	8.6					
4-23-19 2:00	9.78	1260	8.61	15.5	4-23-19 1:15	9.80	699	8.26	18.4	4-23-19 1:15	9.92	1198	8.58	15.3						7-23-19 19:15	23.31	1672	8.41	8.0					
4-23-19 2:15	9.75	1261	8.62	16.0	4-23-19 1:30	9.74	699	8.26	17.6	4-23-19 1:30	9.89	1197	8.58	15.5						7-23-19 19:30	23.54	1673	8.40	8.5					
4-23-19 2:30	9.73	1261	8.61	17.5	4-23-19 1:45	9.70	700	8.25	17.9	4-23-19 1:45	9.83	1198	8.57	14.7						7-23-19 19:45	24.30	1677	8.40	7.8					
4-23-19 2:45	9.64	1262	8.61	14.9	4-23-19 2:00	9.64	700	8.25	17.1	4-23-19 2:00	9.79	1198	8.57	14.6						7-23-19 20:00	24.61	1679	8.40	8.3					
4-23-19 3:00	9.63	1262	8.61	14.3	4-23-19 2:15	9.62	701	8.25	16.6	4-23-19 2:15	9.73	1198	8.57	13.6						7-23-19 20:15	25.16	1681	8.41	7.7					
4-23-19 3:15	9.53	1261	8.61	13.3	4-23-19 2:30	9.59	701	8.25	34.5	4-23-19 2:30	9.70	1198	8.58	14.9						7-23-19 20:30	25.50	1684	8.41	9.2					
4-23-19 3:30	9.50	1260	8.60	13.9	4-23-19 2:45	9.55	701	8.25	32.8	4-23-19 2:45	9.68	1197	8.57	16.6						7-23-19 20:45	25.35	1679	8.41	7.9					
4-23-19 3:45	9.39	1263	8.60	14.5	4-23-19 3:00					4-23-19 3:00	9.62	1196	8.57	15.4						7-23-19 21:00	25.54	1678	8.40	9.3					
4-23-19 4:00	9.36	1261	8.60	14.2	4-23-19 3:15	9.40	702	8.25	48.9	4-23-19 3:15	9.60	1197	8.57	15.5						7-23-19 21:15	25.78	1680	8.41	8.1					
4-23-19 4:15	9.34	1263	8.59	14.5	4-23-19 3:30	9.38	702	8.25	18.7	4-23-19 3:30	9.56	1197	8.57	13.1						7-23-19 21:30	25.81	1681	8.40	9.7					
4-23-19 4:30	9.24	1262	8.59	12.3	4-23-19 3:45	9.28	702	8.25	18.5	4-23-19 3:45	9.52	1196	8.57	14.8						7-23-19 21:45	25.88	1678	8.40	7.9					
4-23-19 4:45	9.19	1263	8.59	13.7	4-23-19 4:00	9.28	702	8.25	17.2	4-23-19 4:00	9.45	1197	8.57	14.4						7-23-19 22:00	26.03	1665	8.41	8.7					
4-23-19 5:00	9.14	1263	8.59	13.9	4-23-19 4:15	9.21	701	8.25	18.0	4-23-19 4:15	9.38	1197	8.58	14.5						7-23-19 22:15	25.85	1682	8.41	8.2					
4-23-19 5:15	9.06	1263	8.59	13.7	4-23-19 4:30	9.15	675	8.24	16.4	4-23-19 4:30	9.36	1197	8.58	14.5						7-23-19 22:30	25.76	1681	8.41	9.6					
4-23-19 5:30	9.09	1263	8.58	13.1	4-23-19 4:45	9.10	685	8.24	16.3	4-23-19 4:45	9.31	1197	8.57	15.6						7-23-19 22:45	25.61	1679	8.42	8.3					
4-23-19 5:45	9.02	1263	8.58	13.1	4-23-19 5:00	9.05	696	8.24	17.7	4-23-19 5:00	9.27	1196	8.57	14.5						7-23-19 23:00	25.40	1677	8.42	8.7					
4-23-19 6:00	8.92	1264	8.59	14.3	4-23-19 5:15	9.04	669	8.24	16.6	4-23-19 5:15	9.21	1197	8.58	14.3						7-23-19 23:15	25.42	1678	8.42	8.2					
4-23-19 6:15	8.90	1264	8.58	12.1	4-23-19 5:30	9.03	659	8.24	15.8	4-23-19 5:30	9.17	1197	8.57	15.4						7-23-19 23:30	25.29	1678	8.41	9.2					
4-23-19 6:30	8.89	1263	8.58	12.0	4-23-19 5:45	9.01	651	8.23	15.5	4-23-19 5:45	9.17	1197	8.57	16.0						7-23-19 23:45	25.23	1688	8.42	8.0					
4-23-19 6:45	8.79	1263	8.58	12.6	4-23-19 6:00	8.90	640	8.24	16.8	4-23-19 6:00	9.10	1197	8.58	13.6						7-24-19 0:00	25.19	1690	8.42	9.0					
4-23-19 7:00	8.78	1264	8.58	12.8	4-23-19 6:15	8.85	664	8.24	15.6	4-23-19 6:15	9.08	1196	8.58	14.7						7-24-19 0:15	25.14	1674	8.42	7.8					
4-23-19 7:15	8.80	1264	8.57	13.1	4-23-19 6:30	8.79	683	8.23	16.3	4-23-19 6:30	9.03	1197	8.57	14.7						7-24-19 0:30	25.16	1678	8.40	9.0					
4-23-19 7:30	8.77	1262	8.58	12.8	4-23-19 6:45	8.75	686	8.24	15.6	4-23-19 6:45	9.02	1197	8.58	15.7						7-24-19 0:45	25.08	1676	8.43	7.9					
4-23-19 7:45	8.75	1264	8.57	12.1	4-23-19 7:00	8.76	695	8.24	17.7	4-23-19 7:00	8.96	1196	8.57	13.7						7-24-19 1:00	25.02	1678	8.41	9.0					
4-23-19 8:00	8.74	1264	8.57	12.2	4-23-19 7:15	8.74	698	8.24	15.5	4-23-19 7:15	8.94	1195	8.58	13.1						7-24-19 1:15	24.98	1675	8.41	7.7					
4-23-19 8:15	8.70	1263	8.58	11.7	4-23-19 7:30	8.68	700	8.24	15.8	4-23-19 7:30	8.95	1196	8.58	14.5						7-24-19 1:30	24.93	1678	8.41	8.8					
4-23-19 8:30	8.71	1264	8.58	12.0	4-23-19 7:45	8.70	700	8.24	16.2	4-23-19 7:45	8.94	1196	8.58	14.9						7-24-19 1:45	24.87	1677	8.42	7.6					
4-23-19 8:45	8.72	1264	8.58	11.5	4-23-19 8:00	8.69	700	8.24	17.6	4-23-19 8:00	8.89	1196	8.58	12.9						7-24-19 2:00	24.80	1681	8.41	8.8					
4-23-19 9:00	8.75	1263	8.58	10.5	4-23-19 8:15	8.69	700	8.24	17.6	4-23-19 8:15	8.92	1196	8.58	14.9						7-24-19 2:15	24.60	1677	8.44	7.5					
4-23-19 9:15	8.79	1263	8.58	11.7	4-23-19 8:30	8.70	700	8.24	17.7	4-23-19 8:30	8.92	1196	8.58	12.5						7-24-19 2:30	24.57	1675	8.43	8.6					
4-23-19 9:30	8.84	1264	8.58	12.7	4-23-19 8:45	8.72	700	8.25	15.8	4-23-19 8:45	8.91	1196	8.58	13.8						7-24-19 2:45	24.54	1677	8.42	7.4					
4-23-19 9:45	8.92	1264	8.57	11.5	4-23-19 9:00	8.73	701	8.24	17.0	4-23-19 9:00	8.92	1196	8.58	13.9						7-24-19 3:00	24.49	1677	8.42	8.6					
4-23-19 10:00	9.01	1263	8.58	12.3	4-23-19 9:15	8.74	701	8.25	17.4	4-23-19 9:15	8.94	1196	8.59	14.6						7-24-19 3:15	24.40	1675	8.43	7.3					
4-23-19 10:15	9.06	1262	8.58	11.1	4-23-19 9:30	8.78	702	8.25	16.8	4-23-19 9:30	8.97	1196	8.59	14.2						7-24-19 3:30	24.36	1676	8.42	9.4					
4-23-19 10:30	9.16	1262	8.58	12.0	4-23-19 9:45	8.79	702	8.25	16.2	4-23-19 9:45	9.00	1196	8.59	12.9						7-24-19 3:45	24.31	1676	8.43	7.3					
4-23-19 10:45	9.23	1262	8.58	10.4	4-23-19 10:00	8.80	703	8.25	16.4	4-23-19 10:00	9.01	1196	8.59	15.2						7-24-19 4:00	24.26	1676	8.42	8.4					
4-23-19 11:00	9.33	1264	8.57	11.2	4-23-19 10:15	8.85	703	8.25	15.8	4-23-19 10:15	9.06	1195	8.59	13.6						7-24-19 4:15	24.15	1676	8.41	7.2					
4-23-19 11:15	9.43	1263	8.57	11.5	4-23-19 10:30	8.89	703	8.25	16.2	4-23-19 10:30	9.10	1196	8.59	14.2						7-24-19 4:30	24.08	1670	8.41	8.4					
4-23-19 11:30	9.56	1264	8.58	10.1	4-23-19 10:45	8.94	703	8.25	15.5	4-23-19 10:45	9.15	1195	8.59	12.9						7-24-19 4:45	23.98	1675	8.43	7.4					
4-23-19 11:45	9.71	1264	8.59	10.7	4-23-19 11:00	9.09	703	8.25	19.8	4-23-19 11:00										7-24-19 5:00	23.86	1684	8.39	8.3					
4-23-19 12:00	9.75	1263	8.59	9.0	4-23-19 11:15	9.21	704	8.25	26.7	4-23-19 11:15	9.28	1196	8.59	14.6						7-24-19 5:15	23.78	1674	8.40	7.1					
4-23-19 12:15	9.83	1263	8.58	9.6	4-23-19 11:30	9.34	703	8.26	318.1	4-23-19 11:30	9.38	1195	8.59	14.0						7-24-19 5:30	23.68	1673	8.40	8.3					
4-23-19 12:30	10.03	1260	8.59	10.3	4-23-19 11:45	9.38	703	8.26	206.4	4-23-19 11:45	9.49	1195	8.59	12.8						7-24-19 5:45	23.60	1671	8.40	7.2					
4-23-19 12:45	10.10	1262	8.60	10.2	4-23-19 12:00	9.52	703	8.26	23.9	4-23-19 12:00	9.54	1195	8.59	12.6						7-24-19 6:00	23.52	1670	8.41	8.5					
4-23-19 13:00	10.21	1261	8.59	13.0	4-23-19 12:15	9.48	701	8.26	17.5	4-23-19 12:15	9.55	1195	8.59	14.1						7-24-19 6:15	23.43	1670	8.42	7.2					
4-23-19 13:15	10.29	1262	8.59	9.8	4-23-19 12:30	9.46	702	8.27	15.8	4-23-19 12:30	9.68	1195	8.60	15.0						7-24-19 6:30	23.38	1670	8.40	8.5					
4-23-19 13:30	10.37	1261	8.60	10.0	4-23-19 12:45	9.70	702	8.26	17.4	4-23-19 12:45	9.79	1195	8.59	13.0						7-24-19 6:45	23.32	1669	8.40	7.1					
4-23-19 13:45	10.41	1262	8.61	9.8	4-23-19 13:00	9.81	700	8.26	17.8	4-23-19 13:00	9.79	1194	8.60	14.4						7-24-19 7:00	23.27	1669	8.40	8.7					
4-23-19 14:00	10.51	1264	8.61	9.5	4-23-19 13:15	9.76	677	8.26	17.6	4-23-19 13:15	9.94	1194	8.59	14.1						7-24-19 7:15	23.22	1669	8.40	7.1					
4-23-19 14:15	10.57	1261	8.61	10.7	4-23-19 13:30	9.84	682	8.26	16.9	4-23-19 13:30	9.97	1192	8.60	13.4						7-24-19 7:30	23.16	1669	8.39	7.9					
4-23-19 14:30	10.65	1262	8.62	11.2	4-23-19 13:45	9.87	694	8.27	17.0	4-23-19 13:45	10.00	1194	8.60	13.8						7-24-19 7:45	23.06	1669	8.41	7.0					
4-23-19 14:45	10.78	1260	8.63	27.2	4-23-19 14:00	9.98	676	8.27	16.8	4-23-19 14:00	10.05	1194	8.60	13.0						7-24-19 8:00	23.04	1669	8.40	7.9					
4-23-19 15:00	10.84	1260	8.64	12.6	4-23-19 14:15	10.05	660	8.26	16.4	4-23-19 14:15	10.09	1194	8.60	13.9						7-24-19 8:15	23.01	1670	8.41	7.2					
4-23-19 15:15	10.88	1261	8.62	12.4	4-23-19 14:30	10.20	655	8.27	17.4	4-23-19 14:30	10.12	1195	8.60	12.5						7-24-19 8:30	23.00	1670	8.40	8.0					
4-23-19 15:30	10.96	1261	8.63	13.3	4-23-19 14:45	10.27	643	8.27	17.4	4-23-19 14:45	10.24	1193	8.60	13.1						7-24-19 8:45	22.99	1670	8.41	7.0					
4-23-19 15:45	10.98	1262	8.63	12.1	4-23-19 15:00	10.17	650	8.27	17.1	4-23-19 15:00	10.25	1193	8.60	13.3						7-24-19 9:00	22.93	1671	8.41	8.1					
4-23-19 16:00	11.05	1262	8.62	12.9	4-23-19 15:15	10.22	679	8.28	15.7	4-23-19 15:15	10.34	1195	8.60	14.3						7-24-19 9:15	22.90	1670	8.41	7.1					
4-23-19 16:15	11.08	1263	8.62	13.8	4-23-19 15:30	10.27	682	8.27	19.5	4-23-19 15:30	10.36	1194	8.60	14.5						7-24-19 9:30	22.88	1671	8.40	8.0					
4-23-19 16:30	11.12	1263	8.64	12.2	4-23-19 15:45	10.29	682	8.28	21.9	4-23-19 15:45	10.37	1193	8.60	15.1						7-24-19 9:45	22.83	1669	8.40	7.4					
4-23-19 16:45	11.07	1263	8.63	12.9	4-23-19 16:00	10.37	693	8.27	19.0	4-23-19 16:00	10.40	1193	8.60	15.0						7-24-19 10:00	22.78	1671	8.38	8.0					
4-23-19 17:00	11.10	1262	8.63	15.5	4-23-19 16:15	10.35	695	8.28	23.0	4-23-19 16:15	10.46	1193	8.61	15.3						7-24-19 10:15	22.71	1670	8.42	7.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-23-19 17:15	11.13	1264	8.64	15.8	4-23-19 16:30	10.41	695	8.28	24.2	4-23-19 16:30	10.45	1193	8.61	14.7						7-24-19 10:30	22.70	1671	8.41	7.9					
4-23-19 17:30	11.10	1262	8.64	14.7	4-23-19 16:45	10.40	695	8.28	28.2	4-23-19 16:45	10.46	1192	8.61	14.2						7-24-19 10:45	22.70	1670	8.41	7.1					
4-23-19 17:45	11.04	1264	8.64	17.5	4-23-19 17:00	10.37	695	8.28	23.5	4-23-19 17:00	10.47	1193	8.61	14.1						7-24-19 11:00	22.64	1671	8.40	8.0					
4-23-19 18:00	11.07	1263	8.65	15.9	4-23-19 17:15	10.37	694	8.28	26.0	4-23-19 17:15	10.46	1193	8.61	13.7						7-24-19 11:15	22.61	1669	8.40	7.2					
4-23-19 18:15	11.04	1265	8.65	15.3	4-23-19 17:30	10.40	695	8.28	21.9	4-23-19 17:30	10.45	1193	8.61	14.0						7-24-19 11:30	22.58	1671	8.40	7.9					
4-23-19 18:30	11.03	1265	8.64	16.6	4-23-19 17:45	10.39	695	8.28	23.1	4-23-19 17:45	10.46	1192	8.61	13.4						7-24-19 11:45	22.55	1670	8.40	7.1					
4-23-19 18:45	10.95	1260	8.65	15.0	4-23-19 18:00	10.37	696	8.28	24.9	4-23-19 18:00	10.47	1193	8.61	13.5						7-24-19 12:00	22.52	1669	8.39	7.9					
4-23-19 19:00	10.95	1265	8.64	18.1	4-23-19 18:15	10.35	696	8.28	19.7	4-23-19 18:15	10.47	1193	8.62	14.2						7-24-19 12:15	22.46	1669	8.40	7.0					
4-23-19 19:15	10.91	1266	8.65	16.6	4-23-19 18:30	10.34	696	8.29	20.5	4-23-19 18:30	10.42	1193	8.62	13.0						7-24-19 12:30	22.42	1668	8.39	8.0					
4-23-19 19:30	10.84	1264	8.65	16.5	4-23-19 18:45	10.30	697	8.29	22.2	4-23-19 18:45	10.38	1193	8.62	14.3						7-24-19 12:45	22.38	1668	8.40	7.1					
4-23-19 19:45	10.79	1265	8.65	17.6	4-23-19 19:00	10.25	697	8.28	21.4	4-23-19 19:00	10.39	1193	8.62	13.1						7-24-19 13:00	22.37	1670	8.40	8.0					
4-23-19 20:00	10.75	1265	8.66	17.9	4-23-19 19:15	10.22	697	8.28	21.1	4-23-19 19:15	10.35	1193	8.62	13.0						7-24-19 13:15	22.35	1669	8.40	7.1					
4-23-19 20:15	10.67	1267	8.65	18.0	4-23-19 19:30	10.22	697	8.28	24.0	4-23-19 19:30	10.30	1192	8.62	13.2						7-24-19 13:30	22.35	1670	8.40	8.0					
4-23-19 20:30	10.61	1266	8.65	17.4	4-23-19 19:45	10.19	696	8.29	27.8	4-23-19 19:45	10.30	1193	8.62	14.9						7-24-19 13:45	22.32	1668	8.40	7.1					
4-23-19 20:45	10.54	1264	8.65	16.5	4-23-19 20:00	10.15	696	8.29	33.3	4-23-19 20:00	10.25	1192	8.62	13.5						7-24-19 14:00	22.29	1670	8.39	7.9					
4-23-19 21:00	10.50	1266	8.66	18.4	4-23-19 20:15	10.10	695	8.28	91.8	4-23-19 20:15	10.19	1193	8.62	13.3						7-24-19 14:15	22.24	1670	8.40	7.2					
4-23-19 21:15	10.38	1264	8.66	16.7	4-23-19 20:30	10.07	694	8.28	537.0	4-23-19 20:30	10.14	1193	8.62	13.2						7-24-19 14:30	22.20	1669	8.39	7.8					
4-23-19 21:30	10.32	1266	8.66	16.5	4-23-19 20:45	10.02	695	8.28	49.4	4-23-19 20:45	10.11	1193	8.62	12.5						7-24-19 14:45	22.17	1669	8.39	7.3					
4-23-19 21:45	10.34	1266	8.65	14.8	4-23-19 21:00	10.01	694	8.28	24.6	4-23-19 21:00	10.09	1192	8.62	13.7						7-24-19 15:00	22.20	1671	8.39	8.1					
4-23-19 22:00	10.25	1266	8.65	14.8	4-23-19 21:15	9.96	693	8.28	21.0	4-23-19 21:15	10.00	1194	8.62	13.5						7-24-19 15:15	22.17	1670	8.39	7.3					
4-23-19 22:15	10.20	1268	8.65	16.1	4-23-19 21:30	9.94	670	8.28	21.1	4-23-19 21:30	10.00	1193	8.62	12.3						7-24-19 15:30	22.15	1671	8.39	8.2					
4-23-19 22:30	10.20	1267	8.65	15.1	4-23-19 21:45	9.88	670	8.28	21.3	4-23-19 21:45	9.91	1193	8.62	14.9						7-24-19 15:45	22.15	1670	8.40	7.3					
4-23-19 22:45	10.10	1267	8.64	15.1	4-23-19 22:00	9.87	678	8.28	18.4	4-23-19 22:00	9.90	1193	8.62	12.7						7-24-19 16:00	22.13	1671	8.39	8.2					
4-23-19 23:00	10.10	1267	8.64	14.1	4-23-19 22:15	9.87	655	8.27	22.0	4-23-19 22:15	9.86	1193	8.62	12.0						7-24-19 16:15	22.08	1670	8.39	7.3					
4-23-19 23:15	10.02	1268	8.65	16.7	4-23-19 22:30	9.81	645	8.27	20.1	4-23-19 22:30	9.85	1193	8.62	12.0						7-24-19 16:30	22.05	1670	8.39	8.1					
4-23-19 23:30	10.00	1268	8.64	15.0	4-23-19 22:45	9.71	635	8.28	23.2	4-23-19 22:45	9.83	1193	8.62	11.4						7-24-19 16:45	22.04	1669	8.40	7.3					
4-23-19 23:45	9.96	1268	8.64	14.2	4-23-19 23:00	9.74	654	8.27	22.3	4-23-19 23:00	9.78	1192	8.62	11.8						7-24-19 17:00	22.01	1670	8.40	8.1					
4-24-19 0:00	9.91	1267	8.64	14.8	4-23-19 23:15	9.75	682	8.27	21.4	4-23-19 23:15	9.75	1193	8.62	11.2						7-24-19 17:15	21.94	1667	8.41	7.6					
4-24-19 0:15	9.89	1268	8.64	14.1	4-23-19 23:30	9.69	682	8.27	21.3	4-23-19 23:30	9.72	1193	8.62	10.5						7-24-19 17:30	21.94	1669	8.41	8.1					
4-24-19 0:30	9.83	1268	8.64	15.6	4-23-19 23:45	9.70	696	8.26	18.7	4-23-19 23:45	9.70	1193	8.62	11.8						7-24-19 17:45	21.92	1667	8.41	7.2					
4-24-19 0:45	9.75	1268	8.63	14.4	4-24-19 0:00	9.62	697	8.26	19.6	4-24-19 0:00	9.66	1193	8.61	10.9						7-24-19 18:00	21.90	1669	8.40	8.2					
4-24-19 1:00	9.70	1270	8.63	14.0	4-24-19 0:15	9.60	699	8.27	20.2	4-24-19 0:15	9.63	1193	8.61	10.9						7-24-19 18:15	21.84	1669	8.40	7.6					
4-24-19 1:15	9.66	1268	8.63	13.7	4-24-19 0:30	9.60	699	8.26	20.3	4-24-19 0:30	9.60	1193	8.61	10.8						7-24-19 18:30	21.77	1670	8.41	8.0					
4-24-19 1:30	9.60	1268	8.63	13.2	4-24-19 0:45	9.56	699	8.26	18.2	4-24-19 0:45	9.60	1193	8.62	10.8						7-24-19 18:45	21.75	1668	8.41	8.4					
4-24-19 1:45	9.51	1269	8.63	13.8	4-24-19 1:00	9.56	699	8.26	21.9	4-24-19 1:00	9.53	1193	8.62	11.1						7-24-19 19:00	21.74	1669	8.41	8.6					
4-24-19 2:00	9.48	1269	8.63	13.8	4-24-19 1:15	9.52	699	8.26	19.8	4-24-19 1:15	9.46	1193	8.62	13.0						7-24-19 19:15	21.69	1667	8.41	7.8					
4-24-19 2:15	9.36	1270	8.63	15.3	4-24-19 1:30	9.44	699	8.26	20.0	4-24-19 1:30	9.40	1192	8.62	12.9						7-24-19 19:30	21.68	1668	8.41	8.5					
4-24-19 2:30	9.39	1269	8.63	13.3	4-24-19 1:45	9.39	700	8.27	22.5	4-24-19 1:45	9.32	1193	8.62	11.3						7-24-19 19:45	21.63	1667	8.42	8.1					
4-24-19 2:45	9.27	1270	8.63	14.7	4-24-19 2:00	9.42	701	8.26	202.9	4-24-19 2:00	9.24	1194	8.62	10.7						7-24-19 20:00	21.62	1669	8.42	9.0					
4-24-19 3:00	9.15	1269	8.62	13.9	4-24-19 2:15	9.36	701	8.26	18.5	4-24-19 2:15	9.20	1193	8.62	12.2						7-24-19 20:15	21.54	1665	8.42	7.6					
4-24-19 3:15	9.17	1270	8.62	13.2	4-24-19 2:30	9.33	702	8.26	16.9	4-24-19 2:30	9.17	1193	8.62	11.7						7-24-19 20:30	21.56	1667	8.42	9.5					
4-24-19 3:30	9.17	1268	8.62	13.1	4-24-19 2:45	9.29	702	8.25	45.5	4-24-19 2:45	9.17	1194	8.62	11.2						7-24-19 20:45	21.54	1666	8.42	7.8					
4-24-19 3:45	9.07	1272	8.62	13.2	4-24-19 3:00	9.22	702	8.24	20.2	4-24-19 3:00	9.11	1193	8.62	11.8						7-24-19 21:00	21.50	1667	8.42	9.5					
4-24-19 4:00	9.02	1270	8.62	14.3	4-24-19 3:15	9.16	703	8.25	21.3	4-24-19 3:15	9.07	1194	8.62	14.3						7-24-19 21:15	21.44	1666	8.43	7.9					
4-24-19 4:15	8.96	1270	8.61	13.5	4-24-19 3:30	9.20	703	8.24	23.7	4-24-19 3:30	9.02	1193	8.62	11.4						7-24-19 21:30	21.39	1667	8.42	9.7					
4-24-19 4:30	8.94	1272	8.61	12.1	4-24-19 3:45	9.17	703	8.25	28.2	4-24-19 3:45	8.99	1193	8.62	12.5						7-24-19 21:45	21.39	1665	8.43	8.3					
4-24-19 4:45	8.87	1272	8.61	12.5	4-24-19 4:00					4-24-19 4:00	8.92	1193	8.62	10.6						7-24-19 22:00	21.37	1665	8.43	10.5					
4-24-19 5:00	8.79	1271	8.61	13.2	4-24-19 4:15	9.04	703	8.26	182.1	4-24-19 4:15	8.87	1194	8.62	10.5						7-24-19 22:15	21.33	1665	8.43	7.8					
4-24-19 5:15	8.81	1271	8.61	13.4	4-24-19 4:30	8.99	704	8.26	21.8	4-24-19 4:30	8.81	1195	8.62	11.4						7-24-19 22:30	21.33	1666	8.43	10.3					
4-24-19 5:30	8.73	1272	8.60	15.1	4-24-19 4:45	8.99	704	8.26	16.3	4-24-19 4:45	8.80	1194	8.62	10.5						7-24-19 22:45	21.31	1664	8.43	7.9					
4-24-19 5:45	8.67	1272	8.60	12.9	4-24-19 5:00	8.96	703	8.26	21.3	4-24-19 5:00	8.78	1195	8.62	10.3						7-24-19 23:00	21.28	1665	8.43	10.3					
4-24-19 6:00	8.61	1272	8.60	12.9	4-24-19 5:15	8.87	703	8.26	17.3	4-24-19 5:15	8.66	1195	8.62	11.6						7-24-19 23:15	21.27	1665	8.44	8.6					
4-24-19 6:15	8.57	1273	8.60	13.1	4-24-19 5:30	8.90	680	8.26	132.8	4-24-19 5:30	8.65	1195	8.62	11.9						7-24-19 23:30	21.24	1665	8.44	9.5					
4-24-19 6:30	8.55	1273	8.59	13.0	4-24-19 5:45	8.90	690	8.26	22.9	4-24-19 5:45	8.64	1194	8.62	10.7						7-24-19 23:45	21.18	1663	8.44	8.2					
4-24-19 6:45	8.50	1273	8.60	12.3	4-24-19 6:00	8.81	690	8.26	17.4	4-24-19 6:00	8.60	1194	8.62	11.9						7-25-19 0:00	21.16	1663	8.44	10.8					
4-24-19 7:00	8.44	1270	8.60	12.4	4-24-19 6:15	8.82	665	8.25	18.4	4-24-19 6:15	8.62	1194	8.62	10.0						7-25-19 0:15	21.12	1663	8.43	8.1					
4-24-19 7:15	8.43	1269	8.59	13.4	4-24-19 6:30					4-24-19 6:30	8.60	1195	8.62	12.2						7-25-19 0:30	21.11	1664	8.43	11.3					
4-24-19 7:30	8.40	1269	8.59	13.7	4-24-19 6:45	8.65	650	8.26	17.3	4-24-19 6:45	8.57	1195	8.62	9.3						7-25-19 0:45	21.07	1662	8.44	8.3					
4-24-19 7:45	8.38	1271	8.58	13.3	4-24-19 7:00	8.58	653	8.25	17.1	4-24-19 7:00	8.54	1195	8.62	11.9						7-25-19 1:00	21.03	1663	8.44	10.9					
4-24-19 8:00	8.38	1272	8.58	11.8	4-24-19 7:15	8.54	683	8.26	17.6	4-24-19 7:15	8.57	1195	8.62	11.2						7-25-19 1:15	21.00	1662	8.44	8.3					
4-24-19 8:15	8.32	1272	8.58	12.0	4-24-19 7:30	8.53	688	8.26	16.7	4-24-19 7:30	8.58	1195	8.62	9.9						7-25-19 1:30	20.99	1663	8.44	11.8					
4-24-19 8:30	8.35	1271	8.57	12.8	4-24-19 7:45	8.53	697	8.25	17.4	4-24-19 7:45	8.57	1195	8.62	10.5						7-25-19 1:45	20.96	1661	8.44	8.3					
4-24-19 8:45	8.42	1272	8.58	13.2	4-24-19 8:00	8.47	701	8.26	16.1	4-24-19 8:00	8.57	1195	8.62	11.3						7-25-19 2:00	20.94	1663	8.44	11.8					
4-24-19 9:00	8.40	1272	8.57	12.2	4-24-19 8:15	8.46	702	8.26	16.2	4-24-19 8:15	8.55	1195	8.63	11.4						7-25-19 2:15	20.90	1662	8.44	8.0					
4-24-19 9:15	8.39	1272	8.56	12.3	4-24-19 8:30	8.44	703	8.26	15.2	4-24-19 8:30	8.56	1195	8.63	10.6						7-25-19 2:30	20.88	1663	8.44	11.8					
4-24-19 9:30	8.42	1272	8.56	13.6	4-24-19 8:45	8.48	703	8.26	16.9	4-24-19 8:45	8.55	1195	8.63	10.9						7-25-19 2:45	20.87	1661	8.44	8.2					
4-24-19 9:45	8.49	1269	8.56	14.5	4-24-19 9:00	8.48	704	8.27	18.6	4-24-19 9:00										7-25-19 3:00	20.85	1662	8.43	10.9					
4-24-19 10:00	8.50	1272	8.56	12.6	4-24-19 9:15	8.48	704	8.26	15.3	4-24-19 9:15	8.58	1195	8.63	11.2						7-25-19 3:15	20.82	1661	8.44	8.2					
4-24-19 10:15	8.49	1274	8.56	14.2	4-24-19 9:30	8.47	705	8.27	17.2	4-24-19 9:30	8.59	1194	8.63	10.7						7-25-19 3:30	20.79	1662	8.43	11.1					
4-24-19 10:30	8.58	1271	8.57	13.9	4-24-19 9:45	8.47	706	8.27	24.4	4-24-19 9:45	8.62	1195	8.63	10.7						7-25-19 3:45	20.74	1662	8.44	7.9					
4-24-19 10:45	8.64	1273	8.58	14.6	4-24-19 10:00	8.50	706	8.27	18.8	4-24-19 10:00	8.66	1195	8.63	11.1						7-25-19 4:00	20.72	1663	8.44	11.5					
4-24-19 11:00	8.67	1273	8.58	15.7	4-24-19 10:15	8.53	707	8.27	18.3	4-24-19 10:15	8.70	1195	8.63	11.4						7-25-19 4:15	20.68	1662	8.44	7.8					
4-24-19 11:15	8.77	1272	8.57	14.9	4-24-19 10:30	8.41	708	8.27	20.8	4-24-19 10:30	8.68	1194	8.63	12.3						7-25-19 4:30	20.69	1662	8.43	12.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-24-19 11:30	8.86	1271	8.58	15.3	4-24-19 10:45	8.50	708	8.27	17.9	4-24-19 10:45	8.67	1195	8.64	11.4						7-25-19 4:45	20.65	1661	8.44	7.9					
4-24-19 11:45	8.78	1272	8.57	16.0	4-24-19 11:00	8.48	709	8.27	17.4	4-24-19 11:00	8.74	1195	8.64	11.9						7-25-19 5:00	20.62	1663	8.44	10.5					
4-24-19 12:00	8.80	1271	8.56	15.7	4-24-19 11:15	8.59	708	8.27	18.9	4-24-19 11:15	8.81	1195	8.64	12.7						7-25-19 5:15	20.60	1661	8.44	7.5					
4-24-19 12:15	8.84	1273	8.55	16.1	4-24-19 11:30	8.61	708	8.27	17.6	4-24-19 11:30	8.80	1194	8.64	12.3						7-25-19 5:30	20.58	1662	8.43	8.7					
4-24-19 12:30	8.86	1272	8.57	15.9	4-24-19 11:45	8.63	709	8.27	20.8	4-24-19 11:45	8.81	1194	8.64	11.3						7-25-19 5:45	20.55	1660	8.44	7.4					
4-24-19 12:45	8.99	1272	8.57	15.3	4-24-19 12:00	8.68	708	8.27	33.3	4-24-19 12:00	8.83	1195	8.64	11.6						7-25-19 6:00	20.52	1662	8.43	8.6					
4-24-19 13:00	8.98	1272	8.55	14.4	4-24-19 12:15	8.71	708	8.28	410.7	4-24-19 12:15	8.86	1195	8.64	12.5						7-25-19 6:15	20.48	1661	8.43	7.5					
4-24-19 13:15	9.02	1271	8.55	16.6	4-24-19 12:30	8.71	708	8.27	150.9	4-24-19 12:30	8.86	1194	8.64	11.5						7-25-19 6:30	20.47	1662	8.43	8.7					
4-24-19 13:30	9.14	1272	8.55	14.9	4-24-19 12:45	8.56	708	8.28	21.4	4-24-19 12:45	8.81	1194	8.64	13.0						7-25-19 6:45	20.47	1661	8.44	7.6					
4-24-19 13:45	9.20	1272	8.52	16.0	4-24-19 13:00	8.73	708	8.27	16.7	4-24-19 13:00	8.89	1195	8.64	12.4						7-25-19 7:00	20.45	1662	8.43	8.6					
4-24-19 14:00	9.19	1272	8.55	16.3	4-24-19 13:15	8.82	708	8.28	15.5	4-24-19 13:15	8.98	1195	8.64	11.8						7-25-19 7:15	20.44	1661	8.44	7.5					
4-24-19 14:15	9.21	1272	8.55	14.4	4-24-19 13:30	8.93	708	8.28	17.2	4-24-19 13:30	9.07	1194	8.64	12.9						7-25-19 7:30	20.41	1663	8.43	8.5					
4-24-19 14:30	9.31	1271	8.56	15.6	4-24-19 13:45	9.00	690	8.28	18.4	4-24-19 13:45	9.08	1195	8.64	11.6						7-25-19 7:45	20.38	1661	8.43	7.6					
4-24-19 14:45	9.15	1272	8.55	15.5	4-24-19 14:00	9.00	680	8.28	16.2	4-24-19 14:00	9.12	1195	8.64	13.8						7-25-19 8:00	20.35	1662	8.43	8.5					
4-24-19 15:00	9.22	1273	8.56	14.2	4-24-19 14:15	8.92	692	8.28	18.4	4-24-19 14:15	9.15	1195	8.65	13.3						7-25-19 8:15	20.31	1661	8.43	7.8					
4-24-19 15:15	9.20	1274	8.56	14.6	4-24-19 14:30	8.93	704	8.29	18.1	4-24-19 14:30	9.14	1195	8.65	13.0						7-25-19 8:30	20.31	1663	8.43	8.6					
4-24-19 15:30	9.26	1272	8.55	14.5	4-24-19 14:45	8.87	675	8.28	17.6	4-24-19 14:45	9.15	1195	8.64	14.1						7-25-19 8:45	20.30	1660	8.43	7.4					
4-24-19 15:45	9.25	1271	8.57	15.3	4-24-19 15:00	8.85	663	8.28	17.4	4-24-19 15:00	9.09	1195	8.65	13.7						7-25-19 9:00	20.28	1663	8.43	8.5					
4-24-19 16:00	9.24	1273	8.56	13.6	4-24-19 15:15	8.79	657	8.29	19.9	4-24-19 15:15	9.07	1194	8.65	12.3						7-25-19 9:15	20.26	1661	8.44	7.9					
4-24-19 16:15	9.33	1274	8.57	13.9	4-24-19 15:30	8.83	648	8.29	18.0	4-24-19 15:30	9.08	1195	8.65	13.1						7-25-19 9:30	20.22	1662	8.42	8.5					
4-24-19 16:30	9.31	1273	8.58	12.8	4-24-19 15:45	9.01	676	8.29	17.0	4-24-19 15:45	9.13	1195	8.65	12.2						7-25-19 9:45	20.16	1660	8.43	7.1					
4-24-19 16:45	9.26	1271	8.56	13.1	4-24-19 16:00	9.00	689	8.29	21.3	4-24-19 16:00	9.14	1195	8.65	12.3						7-25-19 10:00	20.15	1662	8.43	8.4					
4-24-19 17:00	9.18	1270	8.56	13.4	4-24-19 16:15	8.95	689	8.29	17.6	4-24-19 16:15	9.15	1195	8.65	14.5						7-25-19 10:15	20.09	1661	8.43	7.4					
4-24-19 17:15	9.10	1272	8.56	14.6	4-24-19 16:30	9.01	699	8.29	18.6	4-24-19 16:30	9.15	1194	8.65	13.7						7-25-19 10:30	20.06	1662	8.43	8.2					
4-24-19 17:30	9.07	1271	8.56	12.9	4-24-19 16:45	8.98	702	8.29	17.6	4-24-19 16:45	9.13	1195	8.65	14.6						7-25-19 10:45	20.06	1661	8.43	7.4					
4-24-19 17:45	9.21	1273	8.59	13.0	4-24-19 17:00	8.85	704	8.29	19.0	4-24-19 17:00	9.10	1195	8.66	16.3						7-25-19 11:00	20.05	1662	8.43	8.6					
4-24-19 18:00	9.10	1272	8.59	12.4	4-24-19 17:15	8.86	704	8.30	19.0	4-24-19 17:15	9.04	1194	8.66	13.4						7-25-19 11:15	19.99	1660	8.43	7.6					
4-24-19 18:15	9.16	1271	8.59	14.3	4-24-19 17:30	8.86	704	8.30	18.5	4-24-19 17:30	9.05	1194	8.66	12.8						7-25-19 11:30	19.98	1662	8.43	8.5					
4-24-19 18:30	9.11	1272	8.58	13.0	4-24-19 17:45	8.90	705	8.30	18.2	4-24-19 17:45	9.01	1195	8.66	13.1						7-25-19 11:45	19.94	1661	8.43	7.3					
4-24-19 18:45	9.04	1271	8.57	16.7	4-24-19 18:00	8.98	704	8.30	19.8	4-24-19 18:00	9.04	1195	8.66	15.3						7-25-19 12:00	19.92	1662	8.43	8.2					
4-24-19 19:00	9.02	1272	8.57	15.0	4-24-19 18:15	8.94	705	8.30	19.6	4-24-19 18:15	9.05	1195	8.66	15.7						7-25-19 12:15	19.88	1662	8.43	7.6					
4-24-19 19:15	8.97	1272	8.57	15.1	4-24-19 18:30	8.87	706	8.30	19.3	4-24-19 18:30	9.04	1195	8.66	14.7						7-25-19 12:30	19.87	1662	8.43	8.4					
4-24-19 19:30	8.92	1272	8.57	13.5	4-24-19 18:45	8.77	706	8.30	18.5	4-24-19 18:45	8.99	1195	8.66	16.0						7-25-19 12:45	19.85	1660	8.43	7.5					
4-24-19 19:45	8.85	1272	8.58	17.2	4-24-19 19:00	8.77	707	8.30	20.6	4-24-19 19:00	8.98	1195	8.66	14.2						7-25-19 13:00	19.82	1661	8.43	10.2					
4-24-19 20:00	8.75	1272	8.57	15.4	4-24-19 19:15	8.70	707	8.30	19.3	4-24-19 19:15	8.94	1194	8.66	14.8						7-25-19 13:15	19.79	1660	8.43	7.4					
4-24-19 20:15	8.70	1272	8.57	17.3	4-24-19 19:30	8.65	708	8.30	17.0	4-24-19 19:30	8.87	1194	8.65	14.3						7-25-19 13:30	19.76	1662	8.43	8.4					
4-24-19 20:30	8.60	1270	8.58	17.5	4-24-19 19:45	8.63	707	8.29	19.1	4-24-19 19:45	8.88	1195	8.65	12.7						7-25-19 13:45	19.73	1660	8.43	7.5					
4-24-19 20:45	8.54	1271	8.57	15.5	4-24-19 20:00	8.57	708	8.30	18.4	4-24-19 20:00	8.84	1195	8.65	13.0						7-25-19 14:00	19.74	1661	8.43	8.4					
4-24-19 21:00	8.51	1271	8.58	16.1	4-24-19 20:15	8.57	708	8.30	20.6	4-24-19 20:15	8.77	1194	8.65	14.6						7-25-19 14:15	19.71	1661	8.43	7.5					
4-24-19 21:15	8.39	1273	8.57	19.8	4-24-19 20:30	8.52	708	8.30	25.6	4-24-19 20:30	8.73	1195	8.64	13.9						7-25-19 14:30	19.72	1662	8.43	8.6					
4-24-19 21:30	8.36	1273	8.57	14.0	4-24-19 20:45	8.47	708	8.30	449.3	4-24-19 20:45	8.71	1195	8.64	14.5						7-25-19 14:45	19.72	1660	8.44	7.6					
4-24-19 21:45	8.26	1274	8.57	13.6	4-24-19 21:00	8.42	707	8.29	18.7	4-24-19 21:00	8.64	1194	8.65	13.0						7-25-19 15:00	19.78	1662	8.45	8.6					
4-24-19 22:00	8.22	1273	8.57	14.2	4-24-19 21:15	8.38	685	8.29	19.6	4-24-19 21:15	8.64	1194	8.64	15.9						7-25-19 15:15	19.82	1659	8.44	7.8					
4-24-19 22:15	8.19	1274	8.57	14.5	4-24-19 21:30	8.35	688	8.29	19.5	4-24-19 21:30	8.61	1194	8.64	12.4						7-25-19 15:30	19.80	1661	8.43	8.7					
4-24-19 22:30	8.13	1274	8.56	13.3	4-24-19 21:45	8.32	697	8.29	16.6	4-24-19 21:45	8.54	1194	8.64	13.9						7-25-19 15:45	19.79	1658	8.44	7.7					
4-24-19 22:45	8.08	1273	8.56	13.8	4-24-19 22:00	8.29	677	8.29	18.5	4-24-19 22:00	8.50	1195	8.64	14.0						7-25-19 16:00	19.81	1660	8.44	8.9					
4-24-19 23:00	8.06	1273	8.56	13.3	4-24-19 22:15	8.26	666	8.29	20.2	4-24-19 22:15	8.46	1195	8.64	14.4						7-25-19 16:15	19.73	1657	8.44	7.8					
4-24-19 23:15	7.95	1273	8.56	13.4	4-24-19 22:30	8.24	658	8.29	20.5	4-24-19 22:30	8.40	1194	8.64	13.1						7-25-19 16:30	19.64	1659	8.45	8.8					
4-24-19 23:30	7.93	1273	8.56	13.9	4-24-19 22:45	8.25	649	8.29	19.8	4-24-19 22:45	8.34	1195	8.64	11.8						7-25-19 16:45	19.61	1656	8.46	7.8					
4-24-19 23:45	7.95	1273	8.56	13.8	4-24-19 23:00	8.21	680	8.29	17.7	4-24-19 23:00	8.35	1194	8.64	12.7						7-25-19 17:00	19.62	1660	8.45	8.8					
4-25-19 0:00	7.87	1274	8.55	12.1	4-24-19 23:15	8.21	686	8.28	19.3	4-24-19 23:15	8.33	1194	8.63	11.8						7-25-19 17:15	19.66	1658	8.46	7.7					
4-25-19 0:15	7.85	1261	8.54	12.8	4-24-19 23:30	8.17	701	8.28	18.8	4-24-19 23:30	8.31	1195	8.64	11.3						7-25-19 17:30	19.79	1660	8.45	8.9					
4-25-19 0:30	7.80	1273	8.55	12.3	4-24-19 23:45	8.12	705	8.28	15.9	4-24-19 23:45	8.27	1195	8.63	11.9						7-25-19 17:45	19.77	1657	8.46	8.1					
4-25-19 0:45	7.75	1271	8.56	13.9	4-25-19 0:00					4-25-19 0:00	8.24	1195	8.63	11.1						7-25-19 18:00	19.87	1660	8.45	9.1					
4-25-19 1:00	7.70	1276	8.55	12.6	4-25-19 0:15	7.98	706	8.28	18.3	4-25-19 0:15	8.21	1195	8.63	12.1						7-25-19 18:15	19.84	1659	8.45	7.9					
4-25-19 1:15	7.66	1272	8.55	12.9	4-25-19 0:30	7.96	706	8.28	17.8	4-25-19 0:30	8.14	1194	8.63	13.1						7-25-19 18:30	20.01	1659	8.46	8.9					
4-25-19 1:30	7.57	1275	8.56	13.5	4-25-19 0:45	7.96	707	8.28	18.9	4-25-19 0:45	8.03	1195	8.63	16.0						7-25-19 18:45	20.02	1658	8.46	7.7					
4-25-19 1:45	7.45	1274	8.55	11.8	4-25-19 1:00	7.92	707	8.28	18.6	4-25-19 1:00	7.98	1195	8.63	12.2						7-25-19 19:00	20.13	1660	8.46	8.9					
4-25-19 2:00	7.35	1273	8.56	13.7	4-25-19 1:15	7.90	707	8.27	18.0	4-25-19 1:15	7.92	1194	8.63	12.2						7-25-19 19:15	20.18	1659	8.46	8.0					
4-25-19 2:15	7.28	1278	8.56	11.5	4-25-19 1:30	7.89	708	8.28	17.7	4-25-19 1:30	7.88	1195	8.63	11.7						7-25-19 19:30	20.32	1660	8.47	8.8					
4-25-19 2:30	7.32	1274	8.55	11.9	4-25-19 1:45	7.81	708	8.28	20.0	4-25-19 1:45	7.86	1196	8.63	11.7						7-25-19 19:45	20.45	1659	8.46	7.8					
4-25-19 2:45	7.27	1274	8.55	12.1	4-25-19 2:00	7.78	709	8.28	16.3	4-25-19 2:00	7.80	1196	8.63	11.7						7-25-19 20:00	20.49	1661	8.46	8.9					
4-25-19 3:00	7.13	1275	8.56	12.3	4-25-19 2:15	7.68	710	8.28	17.6	4-25-19 2:15	7.77	1194	8.63	10.5						7-25-19 20:15	20.50	1659	8.46	8.0					
4-25-19 3:15	7.13	1275	8.56	11.8	4-25-19 2:30	7.71	710	8.27	17.0	4-25-19 2:30	7.75	1196	8.63	10.2						7-25-19 20:30	20.54	1660	8.46	9.1					
4-25-19 3:30	7.09	1275	8.55	11.4	4-25-19 2:45	7.69	710	8.27	16.6	4-25-19 2:45	7.69	1194	8.63	13.6						7-25-19 20:45	20.62	1661	8.46	7.6					
4-25-19 3:45	7.00	1275	8.55	11.2	4-25-19 3:00	7.62	710	8.27	20.8	4-25-19 3:00	7.69	1195	8.63	13.7						7-25-19 21:00	20.70	1663	8.46	9.4					
4-25-19 4:00	6.92	1275	8.55	11.2	4-25-19 3:15	7.58	711	8.28	31.5	4-25-19 3:15	7.62	1195	8.63	11.6						7-25-19 21:15	20.90	1662	8.46	7.7					
4-25-19 4:15	6.71	1275	8.56	11.0	4-25-19 3:30	7.60	711	8.27	304.7	4-25-19 3:30	7.59	1195	8.63	11.6						7-25-19 21:30	20.97	1662	8.45	9.4					
4-25-19 4:30	6.77	1276	8.55	11.1	4-25-19 3:45	7.53	710	8.28	126.9	4-25-19 3:45	7.61	1195	8.62	12.0						7-25-19 21:45	20.96	1661	8.45	7.8					
4-25-19 4:45	6.72	1275	8.55	12.1	4-25-19 4:00	7.43	710	8.28	19.0	4-25-19 4:00	7.56	1196	8.62	10.7						7-25-19 22:00	21.09	1663	8.45	9.2					
4-25-19 5:00	6.65	1276	8.55	11.0	4-25-19 4:15	7.53	711	8.28	18.0	4-25-19 4:15	7.47	1195	8.63	10.5						7-25-19 22:15	21.34	1662	8.44	8.5					
4-25-19 5:15	6.52	1274	8.55	10.7	4-25-19 4:30	7.50	709	8.27	18.0	4-25-19 4:30	7.43	1195	8.63	12.1						7-25-19 22:30	21.57	1665	8.44	9.0					
4-25-19 5:30	6.43	1275	8.55	11.3	4-25-19 4:45	7.40	688	8.28	15.9	4-25-19 4:45	7.39	1196	8.62	38.4						7-25-19 22:45	21.83	1664	8.45	7.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-25-19 5:45	6.48	1276	8.54	10.9	4-25-19 5:00	7.38	688	8.28	17.1	4-25-19 5:00	7.37	1196	8.62	13.8						7-25-19 23:00	22.02	1667	8.45	9.1					
4-25-19 6:00	6.34	1274	8.54	10.5	4-25-19 5:15	7.36	698	8.27	17.7	4-25-19 5:15	7.32	1196	8.62	12.1						7-25-19 23:15	22.10	1664	8.45	7.8					
4-25-19 6:15	6.31	1276	8.54	10.3	4-25-19 5:30	7.31	681	8.28	17.8	4-25-19 5:30	7.28	1195	8.62	11.1						7-25-19 23:30	22.21	1666	8.45	9.2					
4-25-19 6:30	6.32	1273	8.54	10.2	4-25-19 5:45	7.26	666	8.27	20.0	4-25-19 5:45	7.20	1196	8.62	11.8						7-25-19 23:45	22.23	1665	8.45	7.8					
4-25-19 6:45	6.23	1277	8.54	10.9	4-25-19 6:00	7.23	659	8.27	19.0	4-25-19 6:00	7.16	1197	8.62	10.6						7-26-19 0:00	22.31	1668	8.45	9.3					
4-25-19 7:00	6.30	1274	8.53	10.3	4-25-19 6:15	7.13	650	8.28	17.9	4-25-19 6:15	7.11	1197	8.62	10.5						7-26-19 0:15	22.38	1667	8.44	7.7					
4-25-19 7:15	6.28	1274	8.53	9.5	4-25-19 6:30	7.14	682	8.27	18.7	4-25-19 6:30	7.11	1196	8.62	12.0						7-26-19 0:30	22.44	1668	8.45	9.1					
4-25-19 7:30	6.31	1274	8.53	10.3	4-25-19 6:45	7.06	694	8.28	17.9	4-25-19 6:45	7.10	1193	8.61	11.3						7-26-19 0:45	22.46	1666	8.45	8.0					
4-25-19 7:45	6.31	1273	8.53	11.4	4-25-19 7:00	7.07	693	8.27	17.7	4-25-19 7:00	7.07	1195	8.61	11.5						7-26-19 1:00	22.50	1668	8.44	9.1					
4-25-19 8:00	6.32	1274	8.53	11.8	4-25-19 7:15	7.06	703	8.27	16.6	4-25-19 7:15	7.08	1195	8.61	11.8						7-26-19 1:15	22.56	1666	8.46	7.6					
4-25-19 8:15	6.35	1273	8.52	10.2	4-25-19 7:30	7.05	707	8.28	19.2	4-25-19 7:30	7.09	1194	8.61	13.1						7-26-19 1:30	22.56	1667	8.44	9.3					
4-25-19 8:30	6.39	1274	8.53	9.3	4-25-19 7:45	7.01	708	8.28	19.9	4-25-19 7:45	7.08	1196	8.61	12.2						7-26-19 1:45	22.54	1667	8.45	7.6					
4-25-19 8:45	6.46	1272	8.52	10.1	4-25-19 8:00	7.03	708	8.28	16.5	4-25-19 8:00	7.11	1196	8.61	11.0						7-26-19 2:00	22.52	1667	8.43	9.2					
4-25-19 9:00	6.55	1272	8.52	10.5	4-25-19 8:15	6.98	709	8.28	15.8	4-25-19 8:15	7.11	1196	8.61	12.0						7-26-19 2:15	22.42	1667	8.44	7.6					
4-25-19 9:15	6.57	1272	8.53	10.2	4-25-19 8:30	7.01	709	8.28	20.0	4-25-19 8:30	7.13	1195	8.61	11.1						7-26-19 2:30	22.36	1668	8.44	9.2					
4-25-19 9:30	6.53	1273	8.53	11.0	4-25-19 8:45	6.99	709	8.28	18.9	4-25-19 8:45	7.17	1195	8.61	13.9						7-26-19 2:45	22.28	1667	8.45	7.4					
4-25-19 9:45	6.66	1272	8.53	10.6	4-25-19 9:00	7.07	710	8.28	18.9	4-25-19 9:00	7.25	1195	8.62	10.5						7-26-19 3:00	22.14	1667	8.44	9.2					
4-25-19 10:00	6.78	1273	8.54	9.9	4-25-19 9:15	7.14	709	8.28	17.3	4-25-19 9:15	7.31	1195	8.61	12.7						7-26-19 3:15	22.01	1664	8.44	7.5					
4-25-19 10:15	6.85	1272	8.53	10.4	4-25-19 9:30	6.99	709	8.29	18.0	4-25-19 9:30	7.36	1195	8.61	12.2						7-26-19 3:30	21.90	1666	8.45	9.6					
4-25-19 10:30	7.02	1270	8.53	10.7	4-25-19 9:45	6.99	710	8.29	17.0	4-25-19 9:45	7.38	1195	8.61	11.8						7-26-19 3:45	21.85	1664	8.44	7.4					
4-25-19 10:45	7.07	1271	8.53	10.3	4-25-19 10:00	6.88	712	8.30	16.7	4-25-19 10:00	7.46	1195	8.60	13.9						7-26-19 4:00	21.78	1665	8.43	9.2					
4-25-19 11:00	7.21	1271	8.53	9.3	4-25-19 10:15	6.97	712	8.31	17.8	4-25-19 10:15	7.54	1196	8.60	13.0						7-26-19 4:15	21.70	1664	8.45	7.6					
4-25-19 11:15	7.28	1270	8.53	10.1	4-25-19 10:30	7.07	714	8.30	18.8	4-25-19 10:30	7.65	1195	8.60	12.7						7-26-19 4:30	21.65	1664	8.44	9.3					
4-25-19 11:30	7.28	1269	8.53	10.3	4-25-19 10:45	7.18	714	8.29	20.7	4-25-19 10:45	7.77	1195	8.60	13.3						7-26-19 4:45	21.64	1664	8.46	7.4					
4-25-19 11:45	7.40	1269	8.52	10.4	4-25-19 11:00	7.39	714	8.28	22.2	4-25-19 11:00	8.06	1196	8.60	13.5						7-26-19 5:00	21.65	1666	8.46	9.2					
4-25-19 12:00	7.56	1270	8.54	8.9	4-25-19 11:15	7.55	714	8.28	19.2	4-25-19 11:15	8.06	1195	8.60	14.4						7-26-19 5:15	21.64	1664	8.46	7.2					
4-25-19 12:15	7.72	1268	8.54	10.0	4-25-19 11:30	7.42	711	8.30	24.0	4-25-19 11:30	7.97	1193	8.60	14.2						7-26-19 5:30	21.60	1666	8.45	9.3					
4-25-19 12:30	7.78	1269	8.54	10.0	4-25-19 11:45	7.51	713	8.29	22.7	4-25-19 11:45	8.13	1193	8.60	14.7						7-26-19 5:45	21.55	1664	8.46	7.2					
4-25-19 12:45	7.99	1268	8.55	9.3	4-25-19 12:00	7.64	713	8.29	173.3	4-25-19 12:00	8.09	1193	8.60	14.9						7-26-19 6:00	21.50	1665	8.45	9.2					
4-25-19 13:00	8.28	1267	8.54	9.8	4-25-19 12:15	7.73	712	8.30	269.4	4-25-19 12:15	8.05	1193	8.60	12.5						7-26-19 6:15	21.39	1664	8.45	7.2					
4-25-19 13:15	8.43	1269	8.54	10.1	4-25-19 12:30	7.77	711	8.30	34.4	4-25-19 12:30	8.42	1197	8.59	13.4						7-26-19 6:30	21.33	1665	8.45	9.3					
4-25-19 13:30	8.47	1267	8.54	10.0	4-25-19 12:45	7.70	711	8.30	24.6	4-25-19 12:45	8.56	1192	8.56	14.4						7-26-19 6:45	21.25	1663	8.45	7.3					
4-25-19 13:45	8.71	1270	8.53	10.9	4-25-19 13:00	7.79	711	8.30	20.5	4-25-19 13:00	8.50	1191	8.58	13.6						7-26-19 7:00	21.20	1665	8.45	9.1					
4-25-19 14:00	8.68	1268	8.54	9.7	4-25-19 13:15	8.02	711	8.29	19.6	4-25-19 13:15	8.65	1193	8.58	12.7						7-26-19 7:15	21.14	1664	8.44	7.4					
4-25-19 14:15	9.10	1270	8.53	9.9	4-25-19 13:30	8.18	690	8.29	17.9	4-25-19 13:30	8.88	1194	8.58	14.3						7-26-19 7:30	21.09	1664	8.45	9.4					
4-25-19 14:30	9.29	1266	8.52	9.4	4-25-19 13:45	8.38	688	8.30	16.4	4-25-19 13:45	8.94	1197	8.59	14.1						7-26-19 7:45	21.04	1663	8.45	7.0					
4-25-19 14:45	9.12	1265	8.53	11.7	4-25-19 14:00	8.46	700	8.30	17.7	4-25-19 14:00	8.89	1192	8.59	13.6						7-26-19 8:00	21.01	1665	8.45	9.4					
4-25-19 15:00	9.31	1266	8.54	9.6	4-25-19 14:15	8.46	697	8.30	18.4	4-25-19 14:15	9.04	1192	8.59	13.4						7-26-19 8:15	20.92	1663	8.45	7.5					
4-25-19 15:15	9.50	1266	8.55	9.5	4-25-19 14:30	8.49	671	8.30	19.3	4-25-19 14:30	9.16	1192	8.59	13.2						7-26-19 8:30	20.90	1665	8.45	9.1					
4-25-19 15:30	9.58	1265	8.54	9.2	4-25-19 14:45	8.53	662	8.31	18.0	4-25-19 14:45	9.18	1189	8.59	12.5						7-26-19 8:45	20.89	1663	8.45	7.6					
4-25-19 15:45	9.63	1266	8.54	9.1	4-25-19 15:00	8.51	659	8.31	21.3	4-25-19 15:00	9.45	1194	8.58	12.4						7-26-19 9:00	20.86	1664	8.44	9.5					
4-25-19 16:00	9.79	1266	8.55	10.2	4-25-19 15:15	8.71	650	8.30	20.2	4-25-19 15:15	9.41	1191	8.58	13.6						7-26-19 9:15	20.82	1663	8.45	7.1					
4-25-19 16:15	9.66	1263	8.55	11.2	4-25-19 15:30	8.72	687	8.31	19.4	4-25-19 15:30	9.37	1192	8.58	14.5						7-26-19 9:30	20.77	1664	8.44	9.5					
4-25-19 16:30	9.66	1267	8.55	10.5	4-25-19 15:45	8.74	688	8.31	17.3	4-25-19 15:45	9.52	1191	8.58	14.4						7-26-19 9:45	20.72	1663	8.44	7.3					
4-25-19 16:45	9.75	1265	8.56	9.8	4-25-19 16:00	8.68	693	8.31	19.7	4-25-19 16:00	9.52	1195	8.58	13.4						7-26-19 10:00	20.70	1664	8.44	9.5					
4-25-19 17:00	9.60	1264	8.55	12.7	4-25-19 16:15	8.72	704	8.31	24.1	4-25-19 16:15	9.57	1192	8.58	15.0						7-26-19 10:15	20.65	1663	8.44	7.3					
4-25-19 17:15	9.72	1265	8.55	10.1	4-25-19 16:30	8.85	705	8.32	23.6	4-25-19 16:30	9.50	1192	8.58	13.0						7-26-19 10:30	20.60	1664	8.43	9.5					
4-25-19 17:30	9.70	1265	8.56	12.8	4-25-19 16:45	8.89	706	8.31	21.8	4-25-19 16:45	9.39	1192	8.58	14.3						7-26-19 10:45	20.57	1663	8.44	7.2					
4-25-19 17:45	9.62	1266	8.55	11.6	4-25-19 17:00	8.74	706	8.32	20.4	4-25-19 17:00	9.49	1191	8.58	14.6						7-26-19 11:00	20.51	1663	8.43	9.6					
4-25-19 18:00	9.59	1260	8.56	10.5	4-25-19 17:15	8.79	707	8.32	18.6	4-25-19 17:15	9.43	1191	8.58	13.8						7-26-19 11:15	20.49	1662	8.44	7.5					
4-25-19 18:15	9.56	1265	8.56	10.3	4-25-19 17:30	8.84	707	8.32	19.8	4-25-19 17:30	9.44	1191	8.58	13.4						7-26-19 11:30	20.46	1665	8.43	9.3					
4-25-19 18:30	9.52	1266	8.56	11.4	4-25-19 17:45	8.72	707	8.32	19.8	4-25-19 17:45	9.36	1191	8.59	13.0						7-26-19 11:45	20.43	1663	8.43	7.2					
4-25-19 18:45	9.46	1265	8.56	11.9	4-25-19 18:00	8.67	707	8.33	22.1	4-25-19 18:00	9.32	1191	8.58	11.6						7-26-19 12:00	20.38	1664	8.43	9.5					
4-25-19 19:00	9.38	1260	8.56	10.9	4-25-19 18:15	8.71	708	8.32	20.7	4-25-19 18:15	9.29	1191	8.58	13.7						7-26-19 12:15	20.34	1663	8.43	7.4					
4-25-19 19:15	9.37	1265	8.56	11.0	4-25-19 18:30	8.65	708	8.32	20.3	4-25-19 18:30	9.24	1191	8.58	12.7						7-26-19 12:30	20.29	1665	8.43	9.5					
4-25-19 19:30	9.33	1265	8.56	11.8	4-25-19 18:45	8.69	709	8.31	18.8	4-25-19 18:45	9.19	1191	8.57	14.3						7-26-19 12:45	20.23	1662	8.42	7.5					
4-25-19 19:45	9.29	1265	8.56	43.5	4-25-19 19:00	8.68	710	8.31	18.5	4-25-19 19:00	9.20	1189	8.58	12.7						7-26-19 13:00	20.25	1664	8.43	9.7					
4-25-19 20:00	9.25	1264	8.56	11.0	4-25-19 19:15	8.66	708	8.30	17.9	4-25-19 19:15	9.22	1190	8.57	12.2						7-26-19 13:15	20.25	1663	8.44	7.4					
4-25-19 20:15	9.20	1290	8.56	11.7	4-25-19 19:30	8.60	708	8.30	20.5	4-25-19 19:30	9.18	1189	8.57	13.1						7-26-19 13:30	20.20	1665	8.44	9.3					
4-25-19 20:30	9.12	1264	8.55	11.1	4-25-19 19:45	8.56	687	8.29	19.7	4-25-19 19:45	9.18	1190	8.56	13.3						7-26-19 13:45	20.16	1663	8.44	7.1					
4-25-19 20:45	9.05	1265	8.55	17.1	4-25-19 20:00	8.50	688	8.30	22.7	4-25-19 20:00	9.18	1190	8.56	13.5						7-26-19 14:00	20.14	1664	8.44	9.6					
4-25-19 21:00	9.07	1264	8.54	13.0	4-25-19 20:15	8.52	687	8.30	75.2	4-25-19 20:15	9.13	1190	8.56	12.2						7-26-19 14:15	20.14	1664	8.44	7.2					
4-25-19 21:15	9.03	1264	8.55	15.0	4-25-19 20:30	8.51	711	8.31	250.2	4-25-19 20:30	9.13	1190	8.56	12.6						7-26-19 14:30	20.16	1665	8.43	9.3					
4-25-19 21:30	8.95	1264	8.55	25.8	4-25-19 20:45	8.42	710	8.31	24.2	4-25-19 20:45	9.08	1189	8.57	12.9						7-26-19 14:45	20.20	1664	8.45	7.3					
4-25-19 21:45	8.87	1266	8.56	18.4	4-25-19 21:00	8.38	710	8.31	17.7	4-25-19 21:00	9.06	1189	8.57	13.3						7-26-19 15:00	20.26	1664	8.44	9.0					
4-25-19 22:00	8.86	1267	8.55	16.0	4-25-19 21:15	8.44	709	8.31	17.9	4-25-19 21:15	9.03	1189	8.57	17.5						7-26-19 15:15	20.26	1662	8.45	7.2					
4-25-19 22:15	8.81	1265	8.55	16.7	4-25-19 21:30	8.40	682	8.31	16.9	4-25-19 21:30	8.96	1188	8.56	18.3						7-26-19 15:30	20.33	1665	8.44	9.5					
4-25-19 22:30	8.74	1265	8.55	15.6	4-25-19 21:45	8.38	696	8.31	18.7	4-25-19 21:45	8.88	1188	8.56	19.3						7-26-19 15:45	20.38	1663	8.46	7.3					
4-25-19 22:45	8.68	1265	8.55	13.3	4-25-19 22:00	8.33	700	8.31	16.0	4-25-19 22:00	8.81	1188	8.55	14.3						7-26-19 16:00	20.44	1664	8.45	9.7					
4-25-19 23:00	8.54	1266	8.56	13.4	4-25-19 22:15	8.29	674	8.31	18.3	4-25-19 22:15	8.86	1187	8.55	15.6						7-26-19 16:15	20.46	1664	8.45	7.1					
4-25-19 23:15	8.57	1266	8.55	15.0	4-25-19 22:30	8.28	658	8.31	18.6	4-25-19 22:30	8.81	1186	8.54	16.6						7-26-19 16:30	20.48	1664	8.46	9.8					
4-25-19 23:30	8.48	1263	8.56	12.9	4-25-19 22:45	8.25	652	8.31	19.3	4-25-19 22:45	8.79	1185	8.53	18.2						7-26-19 16:45	20.56	1663	8.46	7.1					
4-25-19 23:45	8.43	1265	8.56	14.2	4-25-19 23:00	8.23	652	8.31	17.7	4-25-19 23:00	8.71	1186	8.55	18.6						7-26-19 17:00	20.65	1664	8.45	8.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-26-19 0:00	8.35	1268	8.56	13.1	4-25-19 23:15	8.21	685	8.31	18.7	4-25-19 23:15	8.65	1188	8.54	35.6						7-26-19 17:15	20.70	1663	8.46	7.3					
4-26-19 0:15	8.26	1263	8.56	13.5	4-25-19 23:30	8.20	690	8.30	19.3	4-25-19 23:30	8.58	1187	8.55	20.6						7-26-19 17:30	20.77	1665	8.45	8.5					
4-26-19 0:30	8.14	1265	8.56	13.7	4-25-19 23:45	8.11	702	8.31	19.1	4-25-19 23:45	8.57	1187	8.55	20.4						7-26-19 17:45	20.92	1665	8.46	7.0					
4-26-19 0:45	8.07	1268	8.56	13.3	4-26-19 0:00	8.13	705	8.31	19.1	4-26-19 0:00	8.53	1187	8.55	19.1						7-26-19 18:00	20.92	1663	8.45	8.5					
4-26-19 1:00	8.09	1268	8.56	14.9	4-26-19 0:15	8.11	705	8.31	18.6	4-26-19 0:15	8.50	1187	8.55	24.6						7-26-19 18:15	20.88	1663	8.45	7.1					
4-26-19 1:15	7.95	1269	8.56	13.1	4-26-19 0:30	8.07	706	8.31	19.1	4-26-19 0:30	8.49	1187	8.54	19.1						7-26-19 18:30	20.95	1663	8.45	8.9					
4-26-19 1:30	7.95	1267	8.56	13.5	4-26-19 0:45	8.08	706	8.31	18.5	4-26-19 0:45	8.45	1187	8.55	20.1						7-26-19 18:45	21.00	1662	8.45	7.4					
4-26-19 1:45	7.92	1266	8.55	12.7	4-26-19 1:00	7.98	707	8.31	18.8	4-26-19 1:00	8.38	1186	8.55	20.5						7-26-19 19:00	21.43	1668	8.45	8.7					
4-26-19 2:00	7.82	1270	8.55	12.0	4-26-19 1:15	7.99	707	8.31	19.9	4-26-19 1:15	8.36	1186	8.54	22.3						7-26-19 19:15	21.56	1664	8.45	7.6					
4-26-19 2:15	7.74	1267	8.55	11.9	4-26-19 1:30	7.99	707	8.30	18.5	4-26-19 1:30	8.33	1186	8.54	20.9						7-26-19 19:30	21.75	1669	8.44	9.0					
4-26-19 2:30	7.68	1272	8.54	11.5	4-26-19 1:45	7.96	707	8.30	19.1	4-26-19 1:45	8.25	1185	8.54	22.4						7-26-19 19:45	21.77	1666	8.45	7.3					
4-26-19 2:45	7.53	1268	8.55	11.4	4-26-19 2:00	7.94	708	8.30	18.4	4-26-19 2:00	8.24	1185	8.53	20.5						7-26-19 20:00	21.80	1667	8.45	7.5					
4-26-19 3:00	7.51	1268	8.55	14.6	4-26-19 2:15	7.88	709	8.31	19.4	4-26-19 2:15	8.23	1185	8.53	20.6						7-26-19 20:15	21.63	1663	8.44	7.4					
4-26-19 3:15	7.50	1269	8.55	12.2	4-26-19 2:30	7.85	709	8.29	18.5	4-26-19 2:30	8.18	1186	8.53	18.3						7-26-19 20:30	21.85	1667	8.44	9.0					
4-26-19 3:30	7.45	1269	8.54	11.1	4-26-19 2:45	7.81	709	8.29	18.6	4-26-19 2:45	8.11	1186	8.53	23.1						7-26-19 20:45	22.01	1667	8.45	7.4					
4-26-19 3:45	7.42	1268	8.54	12.3	4-26-19 3:00	7.79	710	8.27	18.2	4-26-19 3:00	8.10	1186	8.54	22.6						7-26-19 21:00	21.91	1667	8.44	9.3					
4-26-19 4:00	7.29	1271	8.54	11.1	4-26-19 3:15	7.77	710	8.27	20.1	4-26-19 3:15	8.04	1186	8.53	19.7						7-26-19 21:15	21.58	1661	8.44	7.7					
4-26-19 4:15	7.25	1271	8.54	11.3	4-26-19 3:30	7.70	710	8.28	22.9	4-26-19 3:30	8.01	1186	8.53	21.1						7-26-19 21:30	21.52	1665	8.44	9.7					
4-26-19 4:30	7.22	1269	8.53	11.6	4-26-19 3:45	7.49	711	8.30	324.9	4-26-19 3:45	7.90	1188	8.54	20.0						7-26-19 21:45	21.64	1666	8.45	7.3					
4-26-19 4:45	7.16	1272	8.53	11.0	4-26-19 4:00	7.44	709	8.30	27.2	4-26-19 4:00	7.90	1186	8.53	19.1						7-26-19 22:00	21.80	1668	8.45	9.6					
4-26-19 5:00	7.15	1272	8.53	12.6	4-26-19 4:15	7.37	712	8.29	18.6	4-26-19 4:15	7.88	1188	8.54	21.9						7-26-19 22:15	22.16	1668	8.45	7.4					
4-26-19 5:15	7.11	1270	8.53	10.4	4-26-19 4:30	7.42	711	8.29	14.0	4-26-19 4:30	7.85	1187	8.53	20.6						7-26-19 22:30	22.31	1670	8.44	9.6					
4-26-19 5:30	7.02	1271	8.53	10.5	4-26-19 4:45	7.36	711	8.28	18.3	4-26-19 4:45	7.89	1186	8.53	24.0						7-26-19 22:45	22.43	1670	8.45	7.5					
4-26-19 5:45	7.06	1271	8.53	11.6	4-26-19 5:00	7.30	706	8.29	16.2	4-26-19 5:00	7.76	1184	8.54	26.2						7-26-19 23:00	22.47	1669	8.45	9.6					
4-26-19 6:00	6.96	1271	8.53	11.2	4-26-19 5:15	7.19	699	8.29	14.4	4-26-19 5:15	7.82	1187	8.53	24.1						7-26-19 23:15	22.38	1667	8.45	7.2					
4-26-19 6:15	6.94	1273	8.53	10.2	4-26-19 5:30	7.19	700	8.28	15.3	4-26-19 5:30	7.77	1186	8.53	23.4						7-26-19 23:30	22.10	1667	8.45	9.5					
4-26-19 6:30	6.97	1270	8.53	10.8	4-26-19 5:45	7.20	680	8.28	14.8	4-26-19 5:45	7.70	1185	8.53	22.9						7-26-19 23:45	21.90	1666	8.45	7.7					
4-26-19 6:45	6.94	1270	8.53	11.5	4-26-19 6:00	7.22	661	8.29	17.8	4-26-19 6:00	7.73	1186	8.53	22.6						7-27-19 0:00	21.85	1667	8.45	9.8					
4-26-19 7:00	7.02	1271	8.53	11.4	4-26-19 6:15	7.21	654	8.28	13.7	4-26-19 6:15	7.73	1185	8.53	24.6						7-27-19 0:15	21.82	1667	8.44	7.4					
4-26-19 7:15	7.02	1268	8.53	10.6	4-26-19 6:30	7.20	651	8.29	17.5	4-26-19 6:30	7.69	1185	8.53	25.4						7-27-19 0:30	21.86	1669	8.44	8.5					
4-26-19 7:30	6.98	1266	8.53	11.0	4-26-19 6:45	7.13	684	8.30	16.9	4-26-19 6:45	7.68	1182	8.53	35.1						7-27-19 0:45	21.87	1666	8.45	7.5					
4-26-19 7:45	6.98	1269	8.53	11.2	4-26-19 7:00	7.18	688	8.30	17.3	4-26-19 7:00	7.69	1180	8.53	56.7						7-27-19 1:00	21.89	1668	8.43	8.4					
4-26-19 8:00	6.99	1267	8.53	11.0	4-26-19 7:15	7.19	693	8.30	17.8	4-26-19 7:15	7.68	1177	8.52	42.9						7-27-19 1:15	21.89	1667	8.45	7.5					
4-26-19 8:15	7.04	1269	8.53	10.3	4-26-19 7:30	7.16	707	8.30	17.0	4-26-19 7:30	7.62	1179	8.52	36.8						7-27-19 1:30	21.89	1667	8.43	8.3					
4-26-19 8:30	7.10	1267	8.53	10.6	4-26-19 7:45	7.26	708	8.30	15.9	4-26-19 7:45	7.63	1179	8.52	34.5						7-27-19 1:45	21.86	1667	8.45	7.3					
4-26-19 8:45	7.15	1268	8.53	10.4	4-26-19 8:00	7.31	709	8.30	18.9	4-26-19 8:00	7.65	1179	8.52	39.5						7-27-19 2:00	21.85	1669	8.45	8.3					
4-26-19 9:00	7.21	1268	8.53	10.3	4-26-19 8:15	7.34	709	8.30	16.1	4-26-19 8:15	7.68	1181	8.53	27.9						7-27-19 2:15	21.87	1668	8.45	7.3					
4-26-19 9:15	7.36	1266	8.53	9.6	4-26-19 8:30					4-26-19 8:30	7.72	1180	8.52	29.7						7-27-19 2:30	21.88	1669	8.46	8.3					
4-26-19 9:30	7.56	1264	8.53	9.5	4-26-19 8:45	7.43	709	8.30	17.9	4-26-19 8:45	7.79	1179	8.53	31.5						7-27-19 2:45	21.86	1667	8.46	7.2					
4-26-19 9:45	7.31	1266	8.52	9.6	4-26-19 9:00	7.46	710	8.31	16.3	4-26-19 9:00	7.85	1179	8.53	34.9						7-27-19 3:00	21.86	1668	8.46	8.4					
4-26-19 10:00	7.34	1269	8.52	9.8	4-26-19 9:15	7.55	711	8.30	14.5	4-26-19 9:15	7.98	1181	8.53	27.4						7-27-19 3:15	21.80	1667	8.47	7.2					
4-26-19 10:15	7.44	1267	8.53	10.2	4-26-19 9:30	7.52	714	8.29	19.0	4-26-19 9:30	8.15	1179	8.52	29.3						7-27-19 3:30	21.82	1669	8.46	8.3					
4-26-19 10:30	7.55	1267	8.52	9.5	4-26-19 9:45	7.50	715	8.30	17.0	4-26-19 9:45	8.22	1179	8.52	30.4						7-27-19 3:45	21.79	1667	8.46	7.1					
4-26-19 10:45	7.57	1266	8.53	9.9	4-26-19 10:00	7.47	714	8.30	16.8	4-26-19 10:00	8.26	1180	8.52	28.9						7-27-19 4:00	21.75	1669	8.45	8.3					
4-26-19 11:00	7.49	1267	8.53	9.9	4-26-19 10:15	7.43	715	8.30	16.2	4-26-19 10:15	8.34	1180	8.52	26.6						7-27-19 4:15	21.71	1668	8.45	7.2					
4-26-19 11:15	7.46	1269	8.52	9.8	4-26-19 10:30	7.48	716	8.29	19.5	4-26-19 10:30	8.46	1181	8.52	26.9						7-27-19 4:30	21.69	1670	8.45	8.3					
4-26-19 11:30	7.63	1270	8.55	12.9	4-26-19 10:45	7.80	716	8.29	17.6	4-26-19 10:45	8.62	1181	8.53	28.7						7-27-19 4:45	21.65	1667	8.46	7.2					
4-26-19 11:45	7.80	1271	8.53	8.9	4-26-19 11:00	7.92	716	8.29	20.7	4-26-19 11:00	8.56	1179	8.52	29.4						7-27-19 5:00	21.61	1669	8.45	8.4					
4-26-19 12:00	7.89	1268	8.52	10.4	4-26-19 11:15	8.12	716	8.29	22.4	4-26-19 11:15	8.37	1179	8.53	31.0						7-27-19 5:15	21.57	1667	8.46	7.2					
4-26-19 12:15	7.86	1272	8.53	9.6	4-26-19 11:30	8.30	715	8.29	34.6	4-26-19 11:30	8.22	1178	8.52	33.2						7-27-19 5:30	21.55	1669	8.46	8.4					
4-26-19 12:30	8.02	1270	8.53	10.4	4-26-19 11:45	8.52	713	8.29	303.5	4-26-19 11:45	8.33	1179	8.53	30.4						7-27-19 5:45	21.55	1667	8.46	7.3					
4-26-19 12:45	8.07	1270	8.53	8.9	4-26-19 12:00	8.61	714	8.28	126.2	4-26-19 12:00	8.40	1179	8.53	29.0						7-27-19 6:00	21.49	1668	8.45	8.3					
4-26-19 13:00	8.17	1270	8.53	9.9	4-26-19 12:15	8.90	713	8.29	30.6	4-26-19 12:15	8.35	1179	8.53	28.1						7-27-19 6:15	21.40	1667	8.46	7.4					
4-26-19 13:15	8.24	1272	8.53	9.0	4-26-19 12:30	9.08	714	8.28	29.3	4-26-19 12:30	8.39	1179	8.53	29.7						7-27-19 6:30	21.37	1668	8.46	8.4					
4-26-19 13:30	8.38	1270	8.54	9.2	4-26-19 12:45	9.19	711	8.30	29.6	4-26-19 12:45	8.39	1179	8.53	30.2						7-27-19 6:45	21.37	1667	8.46	7.3					
4-26-19 13:45	8.43	1269	8.54	8.3	4-26-19 13:00	9.25	710	8.31	30.2	4-26-19 13:00	8.50	1180	8.53	27.6						7-27-19 7:00	21.39	1669	8.46	8.4					
4-26-19 14:00	8.36	1271	8.54	8.7	4-26-19 13:15	9.22	709	8.29	35.8	4-26-19 13:15	8.67	1178	8.53	26.4						7-27-19 7:15	21.34	1667	8.45	7.4					
4-26-19 14:15	8.42	1270	8.54	19.5	4-26-19 13:30	9.31	709	8.31	39.5	4-26-19 13:30	8.72	1178	8.52	27.3						7-27-19 7:30	21.29	1669	8.45	8.3					
4-26-19 14:30	8.46	1272	8.55	11.9	4-26-19 13:45	9.35	685	8.31	48.5	4-26-19 13:45	8.83	1177	8.53	25.8						7-27-19 7:45	21.25	1667	8.46	7.1					
4-26-19 14:45	8.53	1271	8.55	10.5	4-26-19 14:00	9.30	680	8.31	60.4	4-26-19 14:00	8.87	1177	8.53	24.9						7-27-19 8:00	21.21	1668	8.44	8.3					
4-26-19 15:00	8.67	1271	8.55	8.3	4-26-19 14:15	9.45	696	8.30	72.2	4-26-19 14:15	8.95	1178	8.53	28.1						7-27-19 8:15	21.19	1667	8.45	7.1					
4-26-19 15:15	8.82	1272	8.55	9.1	4-26-19 14:30	9.55	682	8.29	85.5	4-26-19 14:30	9.03	1178	8.52	24.9						7-27-19 8:30	21.20	1669	8.45	8.4					
4-26-19 15:30	8.86	1273	8.55	8.1	4-26-19 14:45	9.62	662	8.30	106.3	4-26-19 14:45	9.18	1177	8.52	26.7						7-27-19 8:45	21.17	1667	8.45	7.5					
4-26-19 15:45	8.88	1274	8.56	9.4	4-26-19 15:00	9.56	653	8.30	180.8	4-26-19 15:00	9.17	1177	8.53	24.2						7-27-19 9:00	21.13	1669	8.45	8.3					
4-26-19 16:00	8.92	1273	8.56	12.5	4-26-19 15:15	9.65	646	8.31	199.8	4-26-19 15:15	9.14	1176	8.53	25.4						7-27-19 9:15	21.10	1667	8.46	7.4					
4-26-19 16:15	8.98	1274	8.56	9.7	4-26-19 15:30	9.63	653	8.31	250.4	4-26-19 15:30	9.12	1176	8.52	24.1						7-27-19 9:30	21.05	1668	8.45	8.4					
4-26-19 16:30	9.03	1274	8.57	8.5	4-26-19 15:45	9.62	686	8.30	268.7	4-26-19 15:45	9.01	1176	8.53	25.4						7-27-19 9:45	21.01	1667	8.46	7.2					
4-26-19 16:45	9.01	1272	8.57	9.4	4-26-19 16:00	9.73	691	8.31	72.0	4-26-19 16:00	9.13	1176	8.53	29.7						7-27-19 10:00	21.01	1668	8.45	8.3					
4-26-19 17:00	8.99	1271	8.57	9.8	4-26-19 16:15	9.72	692	8.30	92.5	4-26-19 16:15	9.32	1176	8.52	22.1						7-27-19 10:15	20.96	1668	8.45	7.2					
4-26-19 17:15	9.04	1275	8.57	9.4	4-26-19 16:30	9.76	708	8.30	122.9	4-26-19 16:30	9.29	1176	8.52	24.9						7-27-19 10:30	20.96	1668	8.45	8.4					
4-26-19 17:30	9.02	1273	8.59	24.6	4-26-19 16:45	9.67	709	8.31	141.1	4-26-19 16:45	9.33	1176	8.53	25.7						7-27-19 10:45	20.91	1667	8.45	7.2					
4-26-19 17:45	9.01	1272	8.59	10.3	4-26-19 17:00	9.60	711	8.31	191.6	4-26-19 17:00	9.32	1175	8.53	25.2						7-27-19 11:00	20.89	1668	8.44	8.5					
4-26-19 18:00	9.01	1273	8.58	9.5	4-26-19 17:15	9.64	711	8.32	24.6	4-26-19 17:15	9.22	1175	8.53	22.9						7-27-19 11:15	20.84	1667	8.45	7.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-26-19 18:15	8.98	1272	8.59	10.3	4-26-19 17:30	9.63	710	8.32	29.4	4-26-19 17:30	9.36	1176	8.53	21.7						7-27-19 11:30	20.80	1668	8.44	8.4					
4-26-19 18:30	8.96	1274	8.59	9.4	4-26-19 17:45	9.61	712	8.32	39.7	4-26-19 17:45	9.33	1176	8.53	22.9						7-27-19 11:45	20.77	1667	8.45	7.1					
4-26-19 18:45	8.97	1273	8.60	9.4	4-26-19 18:00	9.59	713	8.31	52.4	4-26-19 18:00	9.30	1176	8.53	21.3						7-27-19 12:00	20.77	1669	8.45	8.4					
4-26-19 19:00	8.88	1272	8.60	9.3	4-26-19 18:15	9.56	713	8.31	69.3	4-26-19 18:15	9.31	1172	8.53	22.8						7-27-19 12:15	20.76	1667	8.44	7.1					
4-26-19 19:15	8.93	1274	8.60	9.5	4-26-19 18:30	9.49	713	8.32	77.3	4-26-19 18:30	9.30	1172	8.53	19.7						7-27-19 12:30	20.74	1668	8.44	8.5					
4-26-19 19:30	8.91	1274	8.60	9.5	4-26-19 18:45	9.43	705	8.32	89.3	4-26-19 18:45	9.26	1171	8.53	19.3						7-27-19 12:45	20.70	1666	8.45	7.1					
4-26-19 19:45	8.92	1273	8.60	9.8	4-26-19 19:00	9.40	705	8.32	88.3	4-26-19 19:00	9.25	1171	8.54	24.3						7-27-19 13:00	20.66	1668	8.44	8.6					
4-26-19 20:00	8.84	1271	8.60	9.0	4-26-19 19:15	9.32	706	8.32	97.2	4-26-19 19:15	9.18	1171	8.53	19.9						7-27-19 13:15	20.61	1667	8.45	7.1					
4-26-19 20:15	8.86	1275	8.60	10.0	4-26-19 19:30	9.18	695	8.30	107.9	4-26-19 19:30	9.20	1171	8.54	23.9						7-27-19 13:30	20.61	1669	8.44	8.4					
4-26-19 20:30	8.83	1273	8.60	9.1	4-26-19 19:45	9.15	695	8.30	110.7	4-26-19 19:45	9.14	1172	8.54	18.9						7-27-19 13:45	20.57	1667	8.44	6.9					
4-26-19 20:45	8.81	1273	8.60	11.1	4-26-19 20:00	9.02	694	8.30	120.1	4-26-19 20:00	9.16	1176	8.54	22.4						7-27-19 14:00	20.55	1668	8.45	8.5					
4-26-19 21:00	8.80	1274	8.60	9.3	4-26-19 20:15	9.00	695	8.30	129.7	4-26-19 20:15	9.13	1175	8.54	16.7						7-27-19 14:15	20.51	1668	8.45	7.0					
4-26-19 21:15	8.77	1276	8.60	9.3	4-26-19 20:30	8.97	692	8.29	138.0	4-26-19 20:30	9.13	1176	8.54	18.9						7-27-19 14:30	20.57	1669	8.45	8.4					
4-26-19 21:30	8.82	1298	8.60	37.6	4-26-19 20:45	8.97	692	8.30	425.7	4-26-19 20:45	9.11	1175	8.54	20.3						7-27-19 14:45	20.56	1667	8.45	7.1					
4-26-19 21:45	8.82	1272	8.60	10.2	4-26-19 21:00	8.95	690	8.30	316.7	4-26-19 21:00	9.11	1175	8.53	17.8						7-27-19 15:00	20.53	1669	8.44	8.6					
4-26-19 22:00	8.79	1274	8.60	8.6	4-26-19 21:15	8.90	691	8.31	90.6	4-26-19 21:15	9.09	1175	8.54	16.1						7-27-19 15:15	20.53	1667	8.45	7.1					
4-26-19 22:15	8.77	1276	8.60	8.8	4-26-19 21:30	8.92	687	8.30	80.6	4-26-19 21:30	9.06	1175	8.54	16.9						7-27-19 15:30	20.54	1668	8.44	8.7					
4-26-19 22:30	8.63	1273	8.60	8.7	4-26-19 21:45	8.82	687	8.30	72.0	4-26-19 21:45	9.04	1175	8.53	18.5						7-27-19 15:45	20.56	1667	8.45	7.3					
4-26-19 22:45	8.67	1273	8.60	8.6	4-26-19 22:00	8.80	686	8.29	74.4	4-26-19 22:00	9.03	1175	8.54	17.6						7-27-19 16:00	20.57	1669	8.44	8.5					
4-26-19 23:00	8.66	1276	8.60	9.8	4-26-19 22:15	8.77	697	8.29	76.2	4-26-19 22:15	9.00	1175	8.53	17.1						7-27-19 16:15	20.54	1667	8.45	7.2					
4-26-19 23:15	8.61	1275	8.60	8.6	4-26-19 22:30	8.73	644	8.29	77.0	4-26-19 22:30	8.98	1172	8.54	20.9						7-27-19 16:30	20.54	1669	8.45	8.5					
4-26-19 23:30	8.55	1278	8.60	10.9	4-26-19 22:45	8.69	668	8.29	85.0	4-26-19 22:45	8.98	1171	8.54	18.7						7-27-19 16:45	20.57	1667	8.46	7.2					
4-26-19 23:45	8.51	1276	8.61	8.8	4-26-19 23:00	8.65	658	8.30	102.6	4-26-19 23:00	8.94	1170	8.53	21.5						7-27-19 17:00	20.56	1668	8.45	8.4					
4-27-19 0:00	8.48	1278	8.61	9.1	4-26-19 23:15	8.60	650	8.31	107.5	4-26-19 23:15	8.90	1169	8.54	17.3						7-27-19 17:15	20.58	1667	8.46	7.1					
4-27-19 0:15	8.49	1278	8.60	9.1	4-26-19 23:30	8.61	638	8.31	109.1	4-26-19 23:30	8.82	1171	8.54	16.9						7-27-19 17:30	20.58	1668	8.45	8.4					
4-27-19 0:30	8.43	1276	8.60	8.8	4-26-19 23:45	8.56	638	8.31	124.4	4-26-19 23:45	8.83	1172	8.53	18.1						7-27-19 17:45	20.59	1667	8.46	7.3					
4-27-19 0:45	8.38	1278	8.60	9.6	4-27-19 0:00	8.49	677	8.30	123.5	4-27-19 0:00	8.81	1173	8.54	16.5						7-27-19 18:00	20.61	1668	8.45	8.7					
4-27-19 1:00	8.37	1279	8.60	9.4	4-27-19 0:15	8.41	682	8.31	126.7	4-27-19 0:15	8.81	1173	8.53	17.2						7-27-19 18:15	20.59	1668	8.45	7.2					
4-27-19 1:15	8.35	1277	8.60	9.1	4-27-19 0:30	8.40	701	8.30	96.0	4-27-19 0:30	8.75	1172	8.53	16.2						7-27-19 18:30	20.59	1669	8.44	8.6					
4-27-19 1:30	8.34	1277	8.60	8.6	4-27-19 0:45	8.32	706	8.31	105.1	4-27-19 0:45	8.70	1172	8.53	18.4						7-27-19 18:45	20.59	1666	8.46	7.3					
4-27-19 1:45	8.32	1276	8.60	8.9	4-27-19 1:00	8.31	707	8.31	104.2	4-27-19 1:00	8.70	1169	8.53	20.4						7-27-19 19:00	20.59	1669	8.45	8.9					
4-27-19 2:00	8.32	1277	8.60	8.3	4-27-19 1:15	8.29	708	8.31	109.8	4-27-19 1:15	8.72	1168	8.53	22.1						7-27-19 19:15	20.59	1667	8.45	7.2					
4-27-19 2:15	8.27	1280	8.60	8.3	4-27-19 1:30	8.31	708	8.29	111.5	4-27-19 1:30	8.69	1169	8.53	19.6						7-27-19 19:30	20.58	1668	8.45	8.7					
4-27-19 2:30	8.23	1278	8.60	8.7	4-27-19 1:45	8.28	708	8.29	111.5	4-27-19 1:45	8.67	1169	8.52	19.9						7-27-19 19:45	20.56	1667	8.46	7.4					
4-27-19 2:45	8.18	1278	8.60	8.2	4-27-19 2:00	8.27	709	8.29	277.7	4-27-19 2:00	8.66	1169	8.52	20.3						7-27-19 20:00	20.56	1669	8.45	8.7					
4-27-19 3:00	8.18	1279	8.60	8.5	4-27-19 2:15	8.27	709	8.29	215.4	4-27-19 2:15	8.64	1169	8.52	20.0						7-27-19 20:15	20.53	1667	8.46	7.2					
4-27-19 3:15	8.14	1279	8.60	8.1	4-27-19 2:30	8.22	709	8.30	111.5	4-27-19 2:30	8.61	1169	8.52	19.1						7-27-19 20:30	20.52	1667	8.45	9.0					
4-27-19 3:30	8.10	1279	8.60	8.2	4-27-19 2:45	8.23	710	8.29	117.1	4-27-19 2:45	8.60	1168	8.53	21.2						7-27-19 20:45	20.46	1662	8.47	7.5					
4-27-19 3:45	8.05	1280	8.60	7.9	4-27-19 3:00	8.23	711	8.27	117.6	4-27-19 3:00	8.58	1168	8.52	20.9						7-27-19 21:00	20.46	1665	8.46	8.3					
4-27-19 4:00	8.02	1278	8.59	8.5	4-27-19 3:15	8.19	711	8.28	113.0	4-27-19 3:15	8.52	1167	8.53	20.5						7-27-19 21:15	20.44	1662	8.46	7.4					
4-27-19 4:15	7.94	1278	8.59	7.8	4-27-19 3:30	8.17	711	8.26	119.3	4-27-19 3:30	8.53	1166	8.52	20.9						7-27-19 21:30	20.41	1663	8.46	9.2					
4-27-19 4:30	7.88	1277	8.60	8.4	4-27-19 3:45	8.06	711	8.22	126.7	4-27-19 3:45	8.51	1167	8.52	23.4						7-27-19 21:45	20.43	1660	8.47	7.4					
4-27-19 4:45	7.84	1281	8.60	8.2	4-27-19 4:00	7.99	712	8.22	130.5	4-27-19 4:00	8.48	1167	8.52	20.3						7-27-19 22:00	20.44	1662	8.46	8.5					
4-27-19 5:00	7.81	1278	8.59	8.5	4-27-19 4:15	7.96	712	8.25	137.1	4-27-19 4:15	8.42	1169	8.52	18.4						7-27-19 22:15	20.45	1661	8.47	7.4					
4-27-19 5:15	7.81	1279	8.59	8.2	4-27-19 4:30	7.88	712	8.27	183.5	4-27-19 4:30	8.41	1169	8.52	18.1						7-27-19 22:30	20.54	1662	8.47	8.7					
4-27-19 5:30	7.78	1281	8.59	7.9	4-27-19 4:45	7.81	712	8.29	236.9	4-27-19 4:45	8.39	1168	8.52	21.9						7-27-19 22:45	20.57	1660	8.48	7.5					
4-27-19 5:45	7.68	1280	8.59	7.5	4-27-19 5:00	7.82	712	8.30	21.5	4-27-19 5:00	8.38	1168	8.53	19.9						7-27-19 23:00	20.59	1660	8.47	8.9					
4-27-19 6:00	7.67	1282	8.60	8.0	4-27-19 5:15	7.77	708	8.30	16.8	4-27-19 5:15	8.30	1168	8.53	19.4						7-27-19 23:15	20.62	1657	8.48	7.7					
4-27-19 6:15	7.66	1281	8.59	7.7	4-27-19 5:30	7.80	713	8.30	14.8	4-27-19 5:30	8.29	1169	8.52	18.2						7-27-19 23:30	20.63	1658	8.47	9.0					
4-27-19 6:30	7.61	1282	8.59	8.4	4-27-19 5:45	7.84	713	8.30	14.0	4-27-19 5:45	8.27	1169	8.52	17.2						7-27-19 23:45	20.62	1657	8.48	7.6					
4-27-19 6:45	7.65	1280	8.58	7.8	4-27-19 6:00	7.84	694	8.30	15.4	4-27-19 6:00	8.15	1168	8.53	19.8						7-28-19 0:00	20.61	1659	8.47	8.9					
4-27-19 7:00	7.68	1280	8.58	8.0	4-27-19 6:15	7.83	683	8.30	15.9	4-27-19 6:15	8.23	1169	8.52	17.9						7-28-19 0:15	20.60	1658	8.48	7.6					
4-27-19 7:15	7.62	1279	8.58	7.6	4-27-19 6:30	7.77	699	8.30	14.7	4-27-19 6:30	8.18	1168	8.52	17.5						7-28-19 0:30	20.60	1657	8.48	9.1					
4-27-19 7:30	7.62	1280	8.57	7.9	4-27-19 6:45	7.74	700	8.30	14.4	4-27-19 6:45	8.15	1167	8.53	17.0						7-28-19 0:45	20.56	1653	8.48	7.8					
4-27-19 7:45	7.63	1279	8.58	8.0	4-27-19 7:00	7.68	669	8.29	16.1	4-27-19 7:00	8.19	1169	8.53	16.6						7-28-19 1:00	20.62	1654	8.48	9.4					
4-27-19 8:00	7.67	1280	8.58	8.7	4-27-19 7:15	7.60	656	8.31	17.2	4-27-19 7:15	8.12	1169	8.53	18.6						7-28-19 1:15	20.70	1655	8.49	7.9					
4-27-19 8:15	7.72	1281	8.58	8.7	4-27-19 7:30	7.66	648	8.31	16.3	4-27-19 7:30	8.17	1168	8.53	16.6						7-28-19 1:30	20.69	1656	8.48	9.1					
4-27-19 8:30	7.73	1277	8.58	9.1	4-27-19 7:45	7.75	674	8.30	16.8	4-27-19 7:45	8.16	1168	8.52	18.0						7-28-19 1:45	20.67	1654	8.47	7.7					
4-27-19 8:45	7.77	1280	8.59	8.5	4-27-19 8:00	7.74	695	8.31	16.4	4-27-19 8:00	8.21	1168	8.52	15.8						7-28-19 2:00	20.64	1656	8.45	9.1					
4-27-19 9:00	7.85	1280	8.60	7.3	4-27-19 8:15	7.84	690	8.31	16.9	4-27-19 8:15	8.18	1168	8.53	16.4						7-28-19 2:15	20.65	1655	8.47	7.7					
4-27-19 9:15	7.92	1279	8.59	8.8	4-27-19 8:30	7.85	705	8.31	17.4	4-27-19 8:30	8.19	1168	8.53	17.4						7-28-19 2:30	20.67	1656	8.47	9.2					
4-27-19 9:30	7.97	1279	8.59	7.8	4-27-19 8:45	7.92	708	8.31	17.8	4-27-19 8:45	8.25	1168	8.53	17.0						7-28-19 2:45	20.68	1655	8.47	7.5					
4-27-19 9:45	8.04	1278	8.58	8.0	4-27-19 9:00	7.99	709	8.31	17.3	4-27-19 9:00	8.27	1167	8.53	18.6						7-28-19 3:00	20.69	1656	8.46	9.2					
4-27-19 10:00	8.37	1277	8.58	7.7	4-27-19 9:15	8.05	709	8.32	17.5	4-27-19 9:15	8.34	1168	8.53	18.4						7-28-19 3:15	20.69	1655	8.47	7.4					
4-27-19 10:15	8.47	1278	8.57	7.6	4-27-19 9:30	8.09	709	8.32	17.0	4-27-19 9:30	8.42	1167	8.53	15.5						7-28-19 3:30	20.68	1656	8.46	9.3					
4-27-19 10:30	8.61	1278	8.57	9.9	4-27-19 9:45	8.15	709	8.32	17.3	4-27-19 9:45	8.50	1167	8.53	16.8						7-28-19 3:45	20.66	1655	8.46	7.3					
4-27-19 10:45	8.49	1277	8.56	7.1	4-27-19 10:00	8.19	708	8.32	18.3	4-27-19 10:00	8.59	1166	8.53	16.8						7-28-19 4:00	20.64	1656	8.45	9.0					
4-27-19 11:00	8.75	1281	8.55	7.2	4-27-19 10:15	8.25	709	8.33	16.5	4-27-19 10:15	8.78	1168	8.53	16.8						7-28-19 4:15	20.62	1656	8.46	7.3					
4-27-19 11:15	9.09	1278	8.55	7.7	4-27-19 10:30	8.31	711	8.32	17.8	4-27-19 10:30	8.87	1166	8.53	16.5						7-28-19 4:30	20.61	1657	8.46	10.3					
4-27-19 11:30	9.08	1277	8.56	10.5	4-27-19 10:45	8.64	712	8.32	18.2	4-27-19 10:45	9.05	1165	8.53	19.1						7-28-19 4:45	20.59	1655	8.47	7.4					
4-27-19 11:45	9.18	1277	8.56	7.3	4-27-19 11:00	8.98	712	8.31	19.6	4-27-19 11:00	9.17	1165	8.53	16.7						7-28-19 5:00	20.58	1656	8.46	8.9					
4-27-19 12:00	9.40	1275	8.55	7.7	4-27-19 11:15	9.22	712	8.31	20.0	4-27-19 11:15	9.23	1161	8.53	17.2						7-28-19 5:15	20.53	1655	8.47	7.3					
4-27-19 12:15	9.09	1277	8.55	7.8	4-27-19 11:30	9.16	711	8.30	18.6	4-27-19 11:30	9.52	1166	8.52	16.9						7-28-19 5:30	20.54	1657	8.47	9.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-27-19 12:30	9.54	1275	8.58	9.3	4-27-19 11:45	9.19	710	8.32	19.2	4-27-19 11:45	9.75	1163	8.52	16.7						7-28-19 5:45	20.54	1656	8.47	7.3					
4-27-19 12:45	9.39	1271	8.57	13.3	4-27-19 12:00	9.86	714	8.30	18.7	4-27-19 12:00	9.77	1166	8.52	17.2						7-28-19 6:00	20.53	1657	8.46	8.9					
4-27-19 13:00	9.07	1277	8.57	8.2	4-27-19 12:15	10.11	712	8.30	24.0	4-27-19 12:15	9.80	1164	8.53	16.0						7-28-19 6:15	20.49	1655	8.46	7.8					
4-27-19 13:15	9.14	1275	8.58	7.6	4-27-19 12:30	9.99	711	8.30	27.7	4-27-19 12:30	10.27	1162	8.52	15.9						7-28-19 6:30	20.48	1657	8.46	9.2					
4-27-19 13:30	9.23	1277	8.55	16.9	4-27-19 12:45	10.42	713	8.29	138.1	4-27-19 12:45	9.94	1161	8.52	17.0						7-28-19 6:45	20.47	1655	8.47	7.3					
4-27-19 13:45	9.02	1279	8.56	7.7	4-27-19 13:00	10.44	711	8.30	328.1	4-27-19 13:00	10.16	1165	8.52	16.4						7-28-19 7:00	20.45	1657	8.45	8.9					
4-27-19 14:00	9.12	1280	8.56	9.2	4-27-19 13:15	10.39	713	8.29	159.6	4-27-19 13:15	10.04	1159	8.51	17.4						7-28-19 7:15	20.43	1655	8.46	7.4					
4-27-19 14:15	9.19	1281	8.57	8.6	4-27-19 13:30	10.66	713	8.28	21.0	4-27-19 13:30	9.77	1157	8.52	17.6						7-28-19 7:30	20.40	1656	8.46	9.0					
4-27-19 14:30	9.31	1281	8.57	9.0	4-27-19 13:45	10.51	714	8.29	16.4	4-27-19 13:45	9.62	1158	8.53	19.2						7-28-19 7:45	20.35	1655	8.46	7.2					
4-27-19 14:45	9.43	1280	8.56	11.4	4-27-19 14:00	10.45	714	8.29	14.7	4-27-19 14:00	9.13	1162	8.55	16.8						7-28-19 8:00	20.33	1656	8.46	9.1					
4-27-19 15:00	9.48	1280	8.56	7.5	4-27-19 14:15	10.43	710	8.30	14.9	4-27-19 14:15	8.85	1161	8.56	18.6						7-28-19 8:15	20.28	1655	8.45	7.4					
4-27-19 15:15	9.34	1279	8.56	7.8	4-27-19 14:30	10.34	710	8.32	17.2	4-27-19 14:30	8.96	1161	8.54	18.7						7-28-19 8:30	20.27	1656	8.45	9.1					
4-27-19 15:30	9.35	1279	8.57	12.1	4-27-19 14:45	10.55	710	8.31	20.0	4-27-19 14:45	9.13	1160	8.54	17.3						7-28-19 8:45	20.27	1655	8.46	7.1					
4-27-19 15:45	9.37	1279	8.58	8.7	4-27-19 15:00	10.71	711	8.29	20.9	4-27-19 15:00	9.28	1160	8.55	17.3						7-28-19 9:00	20.24	1657	8.46	9.0					
4-27-19 16:00	9.58	1277	8.58	9.8	4-27-19 15:15	10.56	690	8.30	14.8	4-27-19 15:15	9.34	1160	8.54	17.8						7-28-19 9:15	20.19	1655	8.46	7.1					
4-27-19 16:15	9.81	1279	8.57	8.3	4-27-19 15:30	10.50	681	8.30	15.6	4-27-19 15:30	9.32	1161	8.55	16.6						7-28-19 9:30	20.15	1656	8.46	9.0					
4-27-19 16:30	9.86	1282	8.58	7.6	4-27-19 15:45	9.94	690	8.34	15.6	4-27-19 15:45	9.48	1159	8.55	18.9						7-28-19 9:45	20.13	1655	8.46	7.4					
4-27-19 16:45	10.07	1281	8.57	8.1	4-27-19 16:00	9.99	709	8.34	14.9	4-27-19 16:00	9.76	1160	8.54	17.2						7-28-19 10:00	20.10	1656	8.45	8.9					
4-27-19 17:00	10.14	1281	8.56	7.6	4-27-19 16:15	9.95	686	8.35	16.8	4-27-19 16:15	10.01	1158	8.53	15.9						7-28-19 10:15	20.04	1655	8.45	7.1					
4-27-19 17:15	10.23	1281	8.55	8.8	4-27-19 16:30	10.01	663	8.35	15.7	4-27-19 16:30	10.16	1159	8.54	15.4						7-28-19 10:30	20.05	1656	8.46	9.3					
4-27-19 17:30	10.24	1279	8.56	8.2	4-27-19 16:45					4-27-19 16:45	10.28	1156	8.53	16.0						7-28-19 10:45	20.07	1655	8.46	7.1					
4-27-19 17:45	10.09	1277	8.57	29.1	4-27-19 17:00	9.78	645	8.33	15.8	4-27-19 17:00	10.20	1155	8.53	18.6						7-28-19 11:00	20.07	1657	8.45	8.9					
4-27-19 18:00	10.11	1281	8.58	7.4	4-27-19 17:15	9.58	675	8.33	15.9	4-27-19 17:15	10.07	1156	8.54	15.4						7-28-19 11:15	20.01	1655	8.45	7.1					
4-27-19 18:15	10.15	1279	8.58	7.5	4-27-19 17:30	9.61	696	8.33	16.8	4-27-19 17:30	9.92	1156	8.54	15.6						7-28-19 11:30	20.00	1656	8.45	9.0					
4-27-19 18:30	10.11	1280	8.58	8.6	4-27-19 17:45	9.48	704	8.34	18.5	4-27-19 17:45	9.88	1157	8.54	17.0						7-28-19 11:45	19.99	1655	8.46	7.1					
4-27-19 18:45	10.04	1281	8.59	10.3	4-27-19 18:00	9.34	713	8.35	15.8	4-27-19 18:00	9.87	1157	8.55	16.5						7-28-19 12:00	19.95	1657	8.45	8.8					
4-27-19 19:00	10.02	1278	8.59	10.2	4-27-19 18:15	9.23	719	8.35	17.0	4-27-19 18:15	9.72	1158	8.55	21.6						7-28-19 12:15	19.88	1655	8.45	7.1					
4-27-19 19:15	9.93	1280	8.59	10.7	4-27-19 18:30	9.21	728	8.37	97.8	4-27-19 18:30	9.69	1157	8.56	17.6						7-28-19 12:30	19.91	1657	8.45	9.0					
4-27-19 19:30	9.95	1281	8.59	9.7	4-27-19 18:45	9.33	719	8.36	19.0	4-27-19 18:45	9.64	1157	8.55	16.6						7-28-19 12:45	19.91	1656	8.45	6.9					
4-27-19 19:45	9.88	1282	8.60	8.8	4-27-19 19:00	9.31	728	8.36	20.8	4-27-19 19:00	9.57	1157	8.55	17.7						7-28-19 13:00	19.92	1656	8.45	9.0					
4-27-19 20:00	9.87	1282	8.60	11.5	4-27-19 19:15	9.26	729	8.36	18.8	4-27-19 19:15	9.58	1157	8.56	19.7						7-28-19 13:15	19.89	1656	8.45	7.0					
4-27-19 20:15	9.85	1281	8.59	9.0	4-27-19 19:30	9.17	730	8.36	20.1	4-27-19 19:30	9.56	1157	8.56	16.9						7-28-19 13:30	19.86	1657	8.45	8.9					
4-27-19 20:30	9.79	1280	8.60	9.1	4-27-19 19:45	9.17	725	8.35	20.4	4-27-19 19:45	9.54	1157	8.56	17.6						7-28-19 13:45	19.85	1655	8.45	7.2					
4-27-19 20:45	9.77	1282	8.60	9.1	4-27-19 20:00	9.24	723	8.34	21.1	4-27-19 20:00	9.52	1157	8.55	17.5						7-28-19 14:00	19.84	1657	8.45	8.9					
4-27-19 21:00	9.75	1279	8.59	8.4	4-27-19 20:15	9.25	725	8.35	21.8	4-27-19 20:15	9.51	1157	8.56	19.6						7-28-19 14:15	19.80	1656	8.45	7.0					
4-27-19 21:15	9.74	1280	8.60	11.8	4-27-19 20:30	9.24	726	8.34	21.3	4-27-19 20:30	9.46	1157	8.56	17.6						7-28-19 14:30	19.83	1657	8.46	8.9					
4-27-19 21:30	9.69	1281	8.60	10.2	4-27-19 20:45	9.17	727	8.34	20.9	4-27-19 20:45	9.45	1157	8.56	16.0						7-28-19 14:45	19.87	1655	8.47	7.1					
4-27-19 21:45	9.61	1282	8.60	10.3	4-27-19 21:00	9.14	727	8.32	21.9	4-27-19 21:00	9.39	1157	8.56	16.1						7-28-19 15:00	19.97	1656	8.46	9.1					
4-27-19 22:00	9.60	1282	8.60	8.8	4-27-19 21:15	9.09	727	8.27	22.2	4-27-19 21:15	9.41	1157	8.55	15.6						7-28-19 15:15	19.94	1655	8.46	7.1					
4-27-19 22:15	9.54	1282	8.60	8.2	4-27-19 21:30	9.05	727	8.27	23.6	4-27-19 21:30	9.40	1156	8.56	15.3						7-28-19 15:30	19.89	1657	8.46	9.1					
4-27-19 22:30	9.52	1281	8.60	8.3	4-27-19 21:45	9.03	728	8.29	22.5	4-27-19 21:45	9.39	1157	8.55	14.3						7-28-19 15:45	19.89	1655	8.47	7.1					
4-27-19 22:45	9.47	1281	8.60	7.8	4-27-19 22:00	8.92	728	8.32	58.8	4-27-19 22:00	9.34	1157	8.56	18.0						7-28-19 16:00	19.91	1657	8.46	9.1					
4-27-19 23:00	9.42	1283	8.60	8.0	4-27-19 22:15	8.90	723	8.34	369.5	4-27-19 22:15	9.32	1157	8.56	16.3						7-28-19 16:15	19.96	1656	8.46	7.4					
4-27-19 23:15	9.35	1282	8.60	10.2	4-27-19 22:30	8.83	722	8.34	23.3	4-27-19 22:30	9.31	1159	8.55	18.9						7-28-19 16:30	20.04	1657	8.46	9.3					
4-27-19 23:30	9.31	1280	8.60	8.5	4-27-19 22:45	8.80	719	8.33	29.7	4-27-19 22:45	9.31	1159	8.55	16.7						7-28-19 16:45	20.11	1654	8.47	7.2					
4-27-19 23:45	9.23	1281	8.60	10.2	4-27-19 23:00	8.84	718	8.33	30.5	4-27-19 23:00	9.29	1160	8.55	18.7						7-28-19 17:00	20.08	1656	8.47	9.5					
4-28-19 0:00	9.21	1282	8.61	10.4	4-27-19 23:15	8.81	738	8.33	40.0	4-27-19 23:15	9.27	1162	8.54	18.4						7-28-19 17:15	20.12	1655	8.46	7.3					
4-28-19 0:15	9.20	1282	8.60	8.2	4-27-19 23:30	8.95	694	8.33	42.7	4-27-19 23:30	9.26	1163	8.54	23.1						7-28-19 17:30	20.12	1656	8.46	9.4					
4-28-19 0:30	9.15	1281	8.60	7.9	4-27-19 23:45	8.93	688	8.33	31.7	4-27-19 23:45	9.18	1161	8.54	21.0						7-28-19 17:45	20.22	1656	8.47	7.3					
4-28-19 0:45	8.98	1280	8.60	7.5	4-28-19 0:00	8.89	683	8.33	33.9	4-28-19 0:00	9.12	1161	8.54	21.2						7-28-19 18:00	20.34	1655	8.45	9.5					
4-28-19 1:00	8.99	1283	8.61	7.5	4-28-19 0:15	8.96	664	8.32	33.8	4-28-19 0:15	9.01	1162	8.54	20.5						7-28-19 18:15	20.39	1655	8.46	7.4					
4-28-19 1:15	8.96	1282	8.60	8.7	4-28-19 0:30	8.94	658	8.32	34.0	4-28-19 0:30	8.99	1161	8.54	20.1						7-28-19 18:30	20.48	1657	8.46	9.4					
4-28-19 1:30	8.83	1283	8.61	7.3	4-28-19 0:45	8.87	655	8.33	35.6	4-28-19 0:45	9.00	1161	8.54	19.0						7-28-19 18:45	20.48	1655	8.46	7.4					
4-28-19 1:45	8.82	1285	8.60	7.6	4-28-19 1:00	8.84	684	8.33	35.9	4-28-19 1:00	8.96	1162	8.54	19.4						7-28-19 19:00	20.51	1655	8.44	9.4					
4-28-19 2:00	8.76	1285	8.60	6.8	4-28-19 1:15	8.81	696	8.33	35.6	4-28-19 1:15	8.92	1162	8.54	20.5						7-28-19 19:15	20.44	1654	8.46	7.4					
4-28-19 2:15	8.71	1284	8.60	7.8	4-28-19 1:30	8.79	716	8.33	36.9	4-28-19 1:30	8.89	1162	8.54	19.7						7-28-19 19:30	20.41	1657	8.46	9.0					
4-28-19 2:30	8.67	1283	8.60	8.4	4-28-19 1:45	8.78	722	8.33	37.3	4-28-19 1:45	8.83	1162	8.54	19.5						7-28-19 19:45	20.50	1655	8.47	7.5					
4-28-19 2:45	8.61	1283	8.61	10.6	4-28-19 2:00	8.73	720	8.33	39.8	4-28-19 2:00	8.83	1163	8.54	21.0						7-28-19 20:00	20.75	1656	8.46	9.4					
4-28-19 3:00	8.56	1282	8.60	8.7	4-28-19 2:15	8.71	722	8.33	39.8	4-28-19 2:15	8.80	1163	8.54	20.6						7-28-19 20:15	21.00	1657	8.46	7.6					
4-28-19 3:15	8.50	1284	8.60	7.7	4-28-19 2:30	8.67	722	8.33	40.6	4-28-19 2:30	8.76	1163	8.54	29.6						7-28-19 20:30	21.32	1657	8.47	9.1					
4-28-19 3:30	8.38	1281	8.60	7.1	4-28-19 2:45	8.61	722	8.33	41.6	4-28-19 2:45	8.70	1163	8.54	23.1						7-28-19 20:45	21.47	1658	8.47	7.6					
4-28-19 3:45	8.34	1285	8.60	7.5	4-28-19 3:00	8.62	723	8.33	41.9	4-28-19 3:00	8.67	1162	8.54	20.4						7-28-19 21:00	21.54	1660	8.46	8.5					
4-28-19 4:00	8.29	1284	8.60	7.5	4-28-19 3:15	8.62	723	8.33	42.8	4-28-19 3:15	8.62	1165	8.54	19.9						7-28-19 21:15	21.83	1660	8.46	7.6					
4-28-19 4:15	8.28	1282	8.60	6.9	4-28-19 3:30	8.60	723	8.32	43.8	4-28-19 3:30	8.60	1166	8.53	21.5						7-28-19 21:30	22.02	1660	8.45	8.9					
4-28-19 4:30	8.19	1280	8.60	7.2	4-28-19 3:45	8.58	724	8.33	43.7	4-28-19 3:45	8.55	1165	8.54	21.4						7-28-19 21:45	22.10	1659	8.46	7.6					
4-28-19 4:45	8.17	1283	8.60	7.3	4-28-19 4:00	8.54	725	8.33	48.4	4-28-19 4:00	8.52	1165	8.53	23.6						7-28-19 22:00	22.19	1660	8.45	9.1					
4-28-19 5:00	8.15	1286	8.60	8.1	4-28-19 4:15	8.51	726	8.32	46.0	4-28-19 4:15	8.49	1166	8.53	22.0						7-28-19 22:15	22.29	1660	8.45	7.5					
4-28-19 5:15	8.07	1283	8.60	7.1	4-28-19 4:30	8.51	726	8.31	47.5	4-28-19 4:30	8.47	1167	8.53	21.4						7-28-19 22:30	22.47	1661	8.45	9.3					
4-28-19 5:30	8.00	1283	8.60	7.7	4-28-19 4:45	8.47	726	8.32	54.4	4-28-19 4:45	8.42	1168	8.52	20.7						7-28-19 22:45	22.51	1660	8.46	7.6					
4-28-19 5:45	7.96	1283	8.60	7.7	4-28-19 5:00	8.41	726	8.32	58.3	4-28-19 5:00	8.41	1166	8.53	20.7						7-28-19 23:00	22.63	1663	8.45	9.3					
4-28-19 6:00	7.93	1285	8.60	7.4	4-28-19 5:15	8.30	726	8.32	203.7	4-28-19 5:15	8.36	1167	8.53	20.8						7-28-19 23:15	22.65	1662	8.46	7.8					
4-28-19 6:15	7.85	1284	8.60	8.0	4-28-19 5:30	8.28	724	8.32	21.6	4-28-19 5:30	8.34	1167	8.53	21.5						7-28-19 23:30	22.66	1664	8.45	9.2					
4-28-19 6:30	7.83	1284	8.60	7.6	4-28-19 5:45	8.24	704	8.32	20.8	4-28-19 5:45	8.28	1166	8.53	18.8						7-28-19 23:45	22.55	1659	8.45	7.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-28-19 6:45	7.84	1282	8.60	6.5	4-28-19 6:00	8.25	708	8.31	24.8	4-28-19 6:00	8.22	1167	8.53	17.7						7-29-19 0:00	22.55	1660	8.46	9.4					
4-28-19 7:00	7.83	1284	8.59	7.5	4-28-19 6:15	8.23	714	8.31	23.1	4-28-19 6:15	8.21	1167	8.53	23.1						7-29-19 0:15	22.55	1659	8.46	7.3					
4-28-19 7:15	7.80	1282	8.60	7.6	4-28-19 6:30	8.15	700	8.32	22.2	4-28-19 6:30	8.18	1167	8.53	17.1						7-29-19 0:30	22.54	1660	8.46	9.5					
4-28-19 7:30	7.79	1282	8.60	8.0	4-28-19 6:45	8.13	684	8.32	20.8	4-28-19 6:45	8.17	1167	8.53	23.0						7-29-19 0:45	22.56	1660	8.46	7.3					
4-28-19 7:45	7.77	1284	8.60	7.7	4-28-19 7:00	8.12	672	8.32	123.4	4-28-19 7:00	8.16	1167	8.53	18.3						7-29-19 1:00	22.29	1652	8.45	9.8					
4-28-19 8:00	7.79	1282	8.60	7.5	4-28-19 7:15	8.16	666	8.32	21.7	4-28-19 7:15	8.17	1167	8.53	19.2						7-29-19 1:15	22.31	1658	8.47	7.3					
4-28-19 8:15	7.80	1285	8.60	6.9	4-28-19 7:30	8.21	679	8.32	23.8	4-28-19 7:30	8.16	1167	8.53	19.9						7-29-19 1:30	22.32	1660	8.46	9.2					
4-28-19 8:30	7.82	1280	8.60	9.0	4-28-19 7:45	8.18	706	8.32	22.7	4-28-19 7:45	8.16	1167	8.53	16.9						7-29-19 1:45	22.33	1659	8.47	7.6					
4-28-19 8:45	7.90	1281	8.61	7.2	4-28-19 8:00	8.18	707	8.32	22.9	4-28-19 8:00	8.19	1167	8.53	19.5						7-29-19 2:00	22.35	1661	8.46	9.3					
4-28-19 9:00	7.97	1283	8.60	7.9	4-28-19 8:15	8.18	723	8.32	21.4	4-28-19 8:15	8.20	1167	8.53	19.6						7-29-19 2:15	22.31	1660	8.46	7.3					
4-28-19 9:15	8.10	1283	8.60	8.6	4-28-19 8:30	8.17	725	8.32	21.0	4-28-19 8:30	8.25	1167	8.53	17.6						7-29-19 2:30	22.29	1661	8.44	9.6					
4-28-19 9:30	8.25	1282	8.60	9.3	4-28-19 8:45	8.18	726	8.33	23.0	4-28-19 8:45	8.28	1167	8.53	18.1						7-29-19 2:45	22.24	1660	8.46	7.3					
4-28-19 9:45	8.32	1282	8.60	7.2	4-28-19 9:00	8.23	725	8.33	24.9	4-28-19 9:00	8.36	1166	8.53	17.7						7-29-19 3:00	22.16	1660	8.46	9.1					
4-28-19 10:00	8.55	1282	8.60	7.5	4-28-19 9:15	8.29	726	8.34	28.0	4-28-19 9:15	8.49	1167	8.54	15.7						7-29-19 3:15	22.08	1658	8.47	7.2					
4-28-19 10:15	8.53	1282	8.60	7.5	4-28-19 9:30	8.19	727	8.33	27.0	4-28-19 9:30	8.61	1168	8.54	15.6						7-29-19 3:30	22.04	1659	8.46	9.2					
4-28-19 10:30	8.76	1282	8.61	7.2	4-28-19 9:45	8.21	728	8.33	21.2	4-28-19 9:45	8.68	1167	8.53	16.3						7-29-19 3:45	21.99	1658	8.47	7.3					
4-28-19 10:45	8.79	1280	8.61	7.3	4-28-19 10:00	8.28	728	8.33	20.9	4-28-19 10:00	8.68	1168	8.53	19.5						7-29-19 4:00	21.95	1659	8.45	9.1					
4-28-19 11:00	8.59	1280	8.60	6.5	4-28-19 10:15	8.40	731	8.34	21.8	4-28-19 10:15	8.83	1167	8.53	15.3						7-29-19 4:15	21.86	1659	8.46	7.3					
4-28-19 11:15	8.79	1279	8.60	7.3	4-28-19 10:30	8.62	730	8.33	21.0	4-28-19 10:30	9.04	1167	8.53	15.3						7-29-19 4:30	21.82	1659	8.45	9.3					
4-28-19 11:30	8.87	1281	8.59	7.3	4-28-19 10:45	8.81	731	8.32	22.1	4-28-19 10:45	9.25	1169	8.53	17.8						7-29-19 4:45	21.72	1658	8.47	7.4					
4-28-19 11:45	9.03	1281	8.60	8.1	4-28-19 11:00	9.23	731	8.30	22.3	4-28-19 11:00	9.42	1169	8.52	15.5						7-29-19 5:00	21.67	1659	8.47	9.3					
4-28-19 12:00	9.07	1277	8.61	7.1	4-28-19 11:15	9.35	729	8.31	21.6	4-28-19 11:15	9.36	1166	8.52	16.3						7-29-19 5:15	21.60	1657	8.47	7.1					
4-28-19 12:15	9.42	1280	8.60	7.1	4-28-19 11:30	9.27	729	8.32	22.2	4-28-19 11:30	9.41	1168	8.53	15.8						7-29-19 5:30	21.53	1659	8.46	9.3					
4-28-19 12:30	9.57	1280	8.59	8.4	4-28-19 11:45	8.97	727	8.36	25.6	4-28-19 11:45	10.07	1176	8.52	15.2						7-29-19 5:45	21.44	1657	8.47	7.3					
4-28-19 12:45	9.49	1279	8.59	11.3	4-28-19 12:00	8.86	726	8.36	150.6	4-28-19 12:00	9.94	1166	8.52	15.2						7-29-19 6:00	21.34	1658	8.45	9.2					
4-28-19 13:00	10.07	1280	8.58	6.9	4-28-19 12:15	9.92	731	8.32	233.3	4-28-19 12:15	10.47	1168	8.52	14.2						7-29-19 6:15	21.24	1657	8.46	7.3					
4-28-19 13:15	10.32	1278	8.57	7.0	4-28-19 12:30	9.37	725	8.35	25.0	4-28-19 12:30	10.38	1165	8.52	13.4						7-29-19 6:30	21.18	1657	8.46	8.9					
4-28-19 13:30	10.21	1281	8.58	8.8	4-28-19 12:45	9.19	727	8.37	27.9	4-28-19 12:45	10.98	1169	8.51	14.2						7-29-19 6:45	21.12	1656	8.47	7.4					
4-28-19 13:45	10.09	1279	8.58	6.4	4-28-19 13:00	9.88	778	8.34	25.1	4-28-19 13:00	10.96	1169	8.51	14.2						7-29-19 7:00	21.09	1657	8.47	9.4					
4-28-19 14:00	10.20	1277	8.59	7.0	4-28-19 13:15	10.06	778	8.33	24.7	4-28-19 13:15	11.09	1169	8.51	14.4						7-29-19 7:15	21.05	1657	8.47	7.3					
4-28-19 14:15	10.35	1278	8.59	6.1	4-28-19 13:30	9.66	750	8.34	26.5	4-28-19 13:30	11.28	1163	8.51	15.8						7-29-19 7:30	21.02	1658	8.47	9.5					
4-28-19 14:30	10.61	1280	8.58	6.5	4-28-19 13:45	9.44	694	8.34	16.2	4-28-19 13:45	11.23	1166	8.51	13.9						7-29-19 7:45	21.02	1657	8.47	7.4					
4-28-19 14:45	10.94	1278	8.59	6.9	4-28-19 14:00	8.92	705	8.37	26.8	4-28-19 14:00	10.98	1167	8.52	14.9						7-29-19 8:00	20.97	1657	8.46	9.3					
4-28-19 15:00	10.83	1277	8.58	6.1	4-28-19 14:15	9.08	710	8.37	31.0	4-28-19 14:15	11.00	1167	8.52	15.1						7-29-19 8:15	20.91	1657	8.46	7.3					
4-28-19 15:15	10.88	1277	8.58	11.2	4-28-19 14:30	9.11	684	8.38	32.2	4-28-19 14:30	11.01	1166	8.52	15.3						7-29-19 8:30	20.88	1658	8.46	9.4					
4-28-19 15:30	10.80	1270	8.60	6.8	4-28-19 14:45	9.30	673	8.38	29.2	4-28-19 14:45	10.96	1167	8.53	16.2						7-29-19 8:45	20.85	1656	8.46	7.2					
4-28-19 15:45	10.68	1278	8.60	8.0	4-28-19 15:00	9.38	666	8.37	28.0	4-28-19 15:00	11.17	1168	8.52	14.9						7-29-19 9:00	20.80	1657	8.45	9.3					
4-28-19 16:00	10.62	1291	8.62	6.3	4-28-19 15:15	9.18	657	8.38	38.0	4-28-19 15:15	11.27	1166	8.52	14.8						7-29-19 9:15	20.77	1656	8.46	7.3					
4-28-19 16:15	10.69	1278	8.63	6.8	4-28-19 15:30	9.25	695	8.37	46.8	4-28-19 15:30	11.31	1169	8.52	14.3						7-29-19 9:30	20.74	1657	8.46	9.5					
4-28-19 16:30	10.52	1279	8.62	6.4	4-28-19 15:45	9.26	707	8.36	19.6	4-28-19 15:45	11.18	1168	8.53	15.2						7-29-19 9:45	20.71	1656	8.46	7.3					
4-28-19 16:45	10.49	1281	8.63	6.8	4-28-19 16:00	8.89	702	8.40	24.0	4-28-19 16:00	10.87	1168	8.53	14.0						7-29-19 10:00	20.66	1657	8.45	9.3					
4-28-19 17:00	10.40	1280	8.64	7.4	4-28-19 16:15	8.73	720	8.41	17.1	4-28-19 16:15	10.76	1168	8.54	12.8						7-29-19 10:15	20.61	1656	8.45	7.3					
4-28-19 17:15	10.37	1279	8.64	7.0	4-28-19 16:30	8.93	725	8.37	28.3	4-28-19 16:30	10.63	1168	8.54	15.5						7-29-19 10:30	20.57	1657	8.45	9.2					
4-28-19 17:30	10.34	1281	8.64	7.9	4-28-19 16:45	8.99	725	8.36	17.2	4-28-19 16:45	10.62	1167	8.54	13.9						7-29-19 10:45	20.52	1655	8.46	7.4					
4-28-19 17:45	10.32	1280	8.63	8.2	4-28-19 17:00	9.00	726	8.36	17.6	4-28-19 17:00	10.41	1165	8.55	14.0						7-29-19 11:00	20.50	1657	8.46	9.2					
4-28-19 18:00	10.35	1279	8.63	7.1	4-28-19 17:15	9.02	726	8.35	16.9	4-28-19 17:15	10.30	1166	8.55	14.2						7-29-19 11:15	20.48	1656	8.46	7.2					
4-28-19 18:15	10.35	1279	8.64	8.2	4-28-19 17:30	9.00	726	8.36	21.6	4-28-19 17:30	10.27	1174	8.55	13.6						7-29-19 11:30	20.47	1657	8.45	9.1					
4-28-19 18:30	10.31	1280	8.64	7.5	4-28-19 17:45	9.07	726	8.37	193.4	4-28-19 17:45	10.20	1167	8.56	14.7						7-29-19 11:45	20.41	1656	8.45	7.4					
4-28-19 18:45	10.31	1280	8.64	8.4	4-28-19 18:00	9.12	726	8.37	25.5	4-28-19 18:00	10.15	1167	8.56	14.2						7-29-19 12:00	20.36	1657	8.45	8.2					
4-28-19 19:00	10.31	1280	8.65	7.3	4-28-19 18:15	9.15	726	8.36	30.8	4-28-19 18:15	10.10	1167	8.56	14.5						7-29-19 12:15	20.28	1656	8.44	7.3					
4-28-19 19:15	10.28	1281	8.65	7.9	4-28-19 18:30	9.09	726	8.36	28.8	4-28-19 18:30	10.08	1167	8.56	14.1						7-29-19 12:30	20.23	1657	8.45	8.4					
4-28-19 19:30	10.25	1279	8.65	7.5	4-28-19 18:45	9.10	726	8.37	38.2	4-28-19 18:45	10.02	1168	8.56	12.2						7-29-19 12:45	20.21	1656	8.46	7.2					
4-28-19 19:45	10.20	1280	8.65	8.8	4-28-19 19:00	9.11	727	8.36	39.3	4-28-19 19:00	10.01	1167	8.56	13.5						7-29-19 13:00	20.15	1656	8.46	8.5					
4-28-19 20:00	10.14	1279	8.65	7.3	4-28-19 19:15	9.22	729	8.32	40.2	4-28-19 19:15	9.98	1167	8.56	13.5						7-29-19 13:15	20.19	1656	8.46	7.1					
4-28-19 20:15	10.09	1282	8.65	6.7	4-28-19 19:30	9.24	731	8.32	41.8	4-28-19 19:30	9.95	1167	8.56	13.1						7-29-19 13:30	20.16	1657	8.46	8.3					
4-28-19 20:30	10.04	1280	8.65	6.9	4-28-19 19:45	9.24	728	8.35	48.0	4-28-19 19:45	9.92	1168	8.56	13.2						7-29-19 13:45	20.11	1655	8.46	7.2					
4-28-19 20:45	10.03	1280	8.65	6.9	4-28-19 20:00	9.24	729	8.36	49.7	4-28-19 20:00	9.89	1168	8.56	12.8						7-29-19 14:00	20.07	1657	8.45	8.4					
4-28-19 21:00	9.97	1279	8.65	7.7	4-28-19 20:15	9.19	729	8.35	112.2	4-28-19 20:15	9.86	1168	8.56	12.6						7-29-19 14:15	20.03	1656	8.45	7.1					
4-28-19 21:15	9.90	1281	8.66	7.8	4-28-19 20:30	9.09	729	8.36	253.1	4-28-19 20:30	9.80	1167	8.56	12.1						7-29-19 14:30	20.04	1657	8.46	8.4					
4-28-19 21:30	9.81	1270	8.66	18.5	4-28-19 20:45	9.03	728	8.36	43.0	4-28-19 20:45	9.74	1167	8.56	14.8						7-29-19 14:45	20.06	1655	8.46	7.1					
4-28-19 21:45	9.79	1280	8.66	6.7	4-28-19 21:00	9.03	725	8.36	42.8	4-28-19 21:00	9.69	1167	8.57	14.4						7-29-19 15:00	20.07	1657	8.47	8.3					
4-28-19 22:00	9.77	1281	8.66	7.1	4-28-19 21:15	8.99	751	8.36	51.6	4-28-19 21:15	9.66	1167	8.56	11.8						7-29-19 15:15	20.13	1656	8.47	7.1					
4-28-19 22:15	9.69	1282	8.66	8.5	4-28-19 21:30	8.90	747	8.36	52.3	4-28-19 21:30	9.63	1168	8.56	14.0						7-29-19 15:30	20.17	1656	8.45	8.5					
4-28-19 22:30	9.62	1281	8.66	7.0	4-28-19 21:45	8.89	697	8.36	52.7	4-28-19 21:45	9.59	1168	8.56	13.6						7-29-19 15:45	20.20	1655	8.48	7.1					
4-28-19 22:45	9.57	1281	8.66	7.3	4-28-19 22:00	8.88	708	8.36	61.2	4-28-19 22:00	9.57	1168	8.56	15.7						7-29-19 16:00	20.25	1656	8.47	8.5					
4-28-19 23:00	9.52	1281	8.66	6.7	4-28-19 22:15	8.88	686	8.36	62.9	4-28-19 22:15	9.52	1168	8.57	15.0						7-29-19 16:15	20.27	1656	8.47	7.3					
4-28-19 23:15	9.43	1282	8.66	6.5	4-28-19 22:30	8.89	675	8.36	90.6	4-28-19 22:30	9.47	1168	8.56	13.2						7-29-19 16:30	20.33	1656	8.48	8.3					
4-28-19 23:30	9.36	1282	8.66	6.6	4-28-19 22:45	8.80	674	8.36	284.9	4-28-19 22:45	9.45	1169	8.56	14.9						7-29-19 16:45	20.37	1655	8.48	7.4					
4-28-19 23:45	9.34	1281	8.66	6.8	4-28-19 23:00	8.78	675	8.36	89.9	4-28-19 23:00	9.39	1168	8.56	12.3						7-29-19 17:00	20.47	1658	8.48	8.4					
4-29-19 0:00	9.33	1281	8.66	6.4	4-28-19 23:15	8.78	704	8.36	98.9	4-28-19 23:15	9.34	1169	8.56	11.9						7-29-19 17:15	20.52	1655	8.48	7.2					
4-29-19 0:15	9.25	1282	8.66	6.2	4-28-19 23:30	8.71	709	8.36	83.4	4-28-19 23:30	9.28	1168	8.56	11.8						7-29-19 17:30	20.57	1658	8.48	8.1					
4-29-19 0:30	9.17	1282	8.66	6.4	4-28-19 23:45	8.70	722	8.36	87.0	4-28-19 23:45	9.25	1169	8.56	11.4						7-29-19 17:45	20.68	1655	8.48	7.4					
4-29-19 0:45	9.13	1283	8.66	6.1	4-29-19 0:00	8.72	726	8.36	88.6	4-29-19 0:00	9.21	1169	8.56	11.6						7-29-19 18:00	20.69	1657	8.47	8.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-29-19 1:00	9.07	1282	8.66	6.1	4-29-19 0:15	8.72	727	8.35	92.6	4-29-19 0:15	9.16	1168	8.56	11.9						7-29-19 18:15	20.78	1656	8.47	7.4					
4-29-19 1:15	8.99	1282	8.66	6.2	4-29-19 0:30	8.66	728	8.35	97.6	4-29-19 0:30	9.15	1169	8.56	13.0						7-29-19 18:30	20.87	1656	8.47	8.6					
4-29-19 1:30	8.99	1283	8.66	6.2	4-29-19 0:45	8.62	729	8.35	102.6	4-29-19 0:45	9.11	1167	8.55	14.3						7-29-19 18:45	20.90	1655	8.47	7.4					
4-29-19 1:45	8.91	1282	8.66	6.3	4-29-19 1:00	8.60	729	8.35	108.8	4-29-19 1:00	9.12	1170	8.55	14.0						7-29-19 19:00	21.06	1658	8.46	8.7					
4-29-19 2:00	8.86	1283	8.65	6.4	4-29-19 1:15	8.56	729	8.35	112.0	4-29-19 1:15	9.08	1169	8.55	15.6						7-29-19 19:15	21.21	1656	8.47	7.3					
4-29-19 2:15	8.76	1284	8.66	6.3	4-29-19 1:30	8.57	730	8.34	120.1	4-29-19 1:30	9.02	1170	8.55	13.9						7-29-19 19:30	21.30	1660	8.47	8.8					
4-29-19 2:30	8.69	1283	8.66	6.5	4-29-19 1:45	8.55	730	8.35	125.1	4-29-19 1:45	9.01	1170	8.55	13.5						7-29-19 19:45	21.55	1657	8.47	7.5					
4-29-19 2:45	8.70	1283	8.66	6.4	4-29-19 2:00	8.48	731	8.35	125.0	4-29-19 2:00	8.98	1170	8.55	14.7						7-29-19 20:00	21.49	1657	8.47	8.9					
4-29-19 3:00	8.66	1284	8.65	6.4	4-29-19 2:15	8.46	732	8.35	131.4	4-29-19 2:15	8.92	1170	8.54	15.2						7-29-19 20:15	21.51	1657	8.46	7.2					
4-29-19 3:15	8.56	1285	8.65	6.7	4-29-19 2:30	8.51	732	8.33	142.0	4-29-19 2:30	8.85	1171	8.54	13.2						7-29-19 20:30	21.53	1658	8.47	8.6					
4-29-19 3:30	8.55	1283	8.65	6.9	4-29-19 2:45	8.43	731	8.32	133.5	4-29-19 2:45	8.87	1170	8.54	15.6						7-29-19 20:45	21.43	1656	8.47	7.3					
4-29-19 3:45	8.49	1284	8.65	6.8	4-29-19 3:00	8.46	732	8.29	137.6	4-29-19 3:00	8.80	1171	8.54	15.2						7-29-19 21:00	21.51	1658	8.46	8.9					
4-29-19 4:00	8.42	1286	8.66	6.9	4-29-19 3:15	8.39	732	8.29	149.4	4-29-19 3:15	8.78	1172	8.54	16.5						7-29-19 21:15	21.62	1657	8.46	7.5					
4-29-19 4:15	8.41	1284	8.65	7.0	4-29-19 3:30	8.26	732	8.34	146.7	4-29-19 3:30	8.79	1170	8.54	14.8						7-29-19 21:30	21.81	1661	8.46	8.8					
4-29-19 4:30	8.34	1286	8.65	6.3	4-29-19 3:45	7.99	731	8.35	324.4	4-29-19 3:45	8.73	1171	8.54	15.0						7-29-19 21:45	21.94	1659	8.46	7.1					
4-29-19 4:45	8.36	1285	8.65	7.1	4-29-19 4:00	8.08	732	8.35	122.4	4-29-19 4:00	8.73	1171	8.54	14.0						7-29-19 22:00	21.99	1661	8.46	8.6					
4-29-19 5:00	8.31	1284	8.65	8.4	4-29-19 4:15	8.11	729	8.35	54.0	4-29-19 4:15	8.70	1172	8.54	13.0						7-29-19 22:15	22.03	1661	8.46	7.3					
4-29-19 5:15	8.25	1285	8.65	8.9	4-29-19 4:30	8.10	731	8.34	65.8	4-29-19 4:30	8.66	1172	8.53	13.8						7-29-19 22:30	22.17	1662	8.47	8.8					
4-29-19 5:30	8.17	1286	8.65	7.1	4-29-19 4:45	8.03	711	8.33	54.0	4-29-19 4:45	8.66	1171	8.54	20.8						7-29-19 22:45	22.27	1661	8.47	7.2					
4-29-19 5:45	8.14	1285	8.65	7.8	4-29-19 5:00	8.00	737	8.33	53.6	4-29-19 5:00	8.65	1171	8.54	13.3						7-29-19 23:00	22.27	1662	8.46	8.7					
4-29-19 6:00	8.15	1287	8.65	9.0	4-29-19 5:15	7.92	721	8.35	55.5	4-29-19 5:15	8.59	1171	8.53	13.5						7-29-19 23:15	22.25	1660	8.47	7.1					
4-29-19 6:15	8.08	1284	8.64	7.7	4-29-19 5:30	7.86	691	8.35	55.9	4-29-19 5:30	8.64	1172	8.54	16.2						7-29-19 23:30	22.24	1662	8.46	8.7					
4-29-19 6:30	8.05	1286	8.63	7.9	4-29-19 5:45	7.98	674	8.34	54.8	4-29-19 5:45	8.62	1171	8.54	14.7						7-29-19 23:45	22.28	1661	8.47	7.3					
4-29-19 6:45	7.96	1282	8.63	8.5	4-29-19 6:00	7.93	672	8.35	56.4	4-29-19 6:00	8.60	1171	8.54	14.7						7-30-19 0:00	22.35	1662	8.47	8.6					
4-29-19 7:00	7.80	1283	8.64	8.5	4-29-19 6:15	7.94	665	8.35	56.9	4-29-19 6:15	8.58	1172	8.53	14.1						7-30-19 0:15	22.36	1660	8.46	7.1					
4-29-19 7:15	7.80	1283	8.63	7.9	4-29-19 6:30	7.92	713	8.34	61.4	4-29-19 6:30	8.52	1171	8.53	15.0						7-30-19 0:30	22.38	1660	8.45	8.7					
4-29-19 7:30	7.89	1283	8.63	7.3	4-29-19 6:45	7.97	706	8.33	50.5	4-29-19 6:45	8.46	1173	8.53	17.6						7-30-19 0:45	22.38	1660	8.46	7.3					
4-29-19 7:45	7.88	1286	8.63	8.0	4-29-19 7:00	8.03	725	8.33	35.1	4-29-19 7:00	8.45	1172	8.53	19.5						7-30-19 1:00	22.39	1661	8.45	8.6					
4-29-19 8:00	7.92	1284	8.62	7.3	4-29-19 7:15	8.07	729	8.34	34.3	4-29-19 7:15	8.38	1172	8.53	16.8						7-30-19 1:15	22.37	1659	8.46	7.2					
4-29-19 8:15	7.91	1286	8.63	7.9	4-29-19 7:30	8.07	730	8.34	32.6	4-29-19 7:30	8.39	1173	8.53	14.4						7-30-19 1:30	22.38	1661	8.45	8.6					
4-29-19 8:30	7.89	1284	8.63	8.2	4-29-19 7:45	8.04	730	8.35	28.4	4-29-19 7:45	8.41	1173	8.53	14.6						7-30-19 1:45	22.32	1660	8.46	7.3					
4-29-19 8:45	7.92	1286	8.64	7.4	4-29-19 8:00	8.11	730	8.35	43.2	4-29-19 8:00	8.41	1173	8.53	13.7						7-30-19 2:00	22.28	1661	8.45	8.6					
4-29-19 9:00	7.94	1286	8.63	7.5	4-29-19 8:15	8.14	730	8.34	25.7	4-29-19 8:15	8.40	1173	8.52	18.8						7-30-19 2:15	22.20	1660	8.45	7.3					
4-29-19 9:15	7.91	1283	8.64	7.7	4-29-19 8:30	8.17	730	8.34	25.3	4-29-19 8:30	8.42	1174	8.52	14.6						7-30-19 2:30	22.17	1661	8.46	8.6					
4-29-19 9:30	7.86	1285	8.64	10.2	4-29-19 8:45	8.18	730	8.34	27.1	4-29-19 8:45	8.46	1174	8.52	15.0						7-30-19 2:45	22.13	1660	8.46	7.1					
4-29-19 9:45	7.82	1285	8.64	6.9	4-29-19 9:00	8.18	731	8.35	28.3	4-29-19 9:00	8.49	1174	8.52	14.9						7-30-19 3:00	22.05	1661	8.47	7.9					
4-29-19 10:00	7.74	1283	8.64	6.8	4-29-19 9:15	8.22	731	8.35	28.8	4-29-19 9:15	8.48	1174	8.52	14.5						7-30-19 3:15	21.99	1660	8.47	7.1					
4-29-19 10:15	7.79	1285	8.63	6.7	4-29-19 9:30	8.17	732	8.35	11.3	4-29-19 9:30	8.45	1175	8.51	16.2						7-30-19 3:30	21.96	1661	8.47	8.6					
4-29-19 10:30	7.83	1285	8.64	7.7	4-29-19 9:45	8.15	733	8.35	10.1	4-29-19 9:45	8.43	1175	8.51	15.7						7-30-19 3:45	21.95	1660	8.47	7.2					
4-29-19 10:45	7.90	1284	8.63	6.2	4-29-19 10:00	8.18	733	8.34	10.9	4-29-19 10:00	8.43	1174	8.51	15.6						7-30-19 4:00	21.91	1661	8.46	8.9					
4-29-19 11:00	7.95	1285	8.63	6.2	4-29-19 10:15	8.20	734	8.34	11.5	4-29-19 10:15	8.41	1174	8.51	17.0						7-30-19 4:15	21.83	1660	8.47	7.2					
4-29-19 11:15	8.00	1284	8.63	6.2	4-29-19 10:30	8.27	734	8.34	13.8	4-29-19 10:30	8.43	1174	8.51	17.1						7-30-19 4:30	21.81	1661	8.47	9.0					
4-29-19 11:30	8.09	1282	8.64	6.1	4-29-19 10:45	8.34	736	8.34	37.7	4-29-19 10:45	8.51	1173	8.51	15.5						7-30-19 4:45	21.78	1660	8.48	7.3					
4-29-19 11:45	8.23	1283	8.64	5.9	4-29-19 11:00					4-29-19 11:00	8.58	1174	8.51	14.0						7-30-19 5:00	21.74	1661	8.47	9.0					
4-29-19 12:00	8.53	1282	8.63	6.0	4-29-19 11:15	8.43	737	8.36	259.7	4-29-19 11:15	8.68	1174	8.51	14.2						7-30-19 5:15	21.70	1659	8.47	7.2					
4-29-19 12:15	8.66	1277	8.65	7.4	4-29-19 11:30	8.41	737	8.36	104.2	4-29-19 11:30	8.74	1174	8.51	14.4						7-30-19 5:30	21.68	1660	8.47	8.9					
4-29-19 12:30	8.97	1276	8.63	6.2	4-29-19 11:45	8.48	736	8.36	11.3	4-29-19 11:45	8.81	1174	8.51	14.5						7-30-19 5:45	21.62	1659	8.48	7.1					
4-29-19 12:45	9.04	1277	8.63	5.6	4-29-19 12:00	8.49	736	8.36	10.7	4-29-19 12:00	9.02	1172	8.51	14.9						7-30-19 6:00	21.57	1660	8.47	8.7					
4-29-19 13:00	9.68	1285	8.63	6.1	4-29-19 12:15	8.70	736	8.37	10.9	4-29-19 12:15	8.93	1174	8.51	14.6						7-30-19 6:15	21.50	1659	8.47	7.1					
4-29-19 13:15	9.05	1276	8.63	6.6	4-29-19 12:30	8.92	736	8.35	18.5	4-29-19 12:30	9.05	1173	8.51	15.3						7-30-19 6:30	21.46	1660	8.47	8.9					
4-29-19 13:30	8.89	1278	8.64	7.3	4-29-19 12:45	9.00	735	8.37	10.6	4-29-19 12:45	9.28	1173	8.51	14.4						7-30-19 6:45	21.40	1659	8.47	7.1					
4-29-19 13:45	9.08	1277	8.64	45.2	4-29-19 13:00	8.81	737	8.37	18.9	4-29-19 13:00	9.50	1173	8.50	14.8						7-30-19 7:00	21.37	1661	8.47	8.8					
4-29-19 14:00	9.15	1279	8.64	6.2	4-29-19 13:15	8.72	719	8.36	15.0	4-29-19 13:15	9.37	1173	8.50	17.5						7-30-19 7:15	21.32	1659	8.48	7.4					
4-29-19 14:15	9.22	1274	8.65	6.8	4-29-19 13:30	8.63	706	8.37	10.8	4-29-19 13:30	9.21	1173	8.50	16.9						7-30-19 7:30	21.30	1660	8.47	8.9					
4-29-19 14:30	9.29	1276	8.65	6.8	4-29-19 13:45	8.66	718	8.37	11.3	4-29-19 13:45	9.23	1172	8.50	17.0						7-30-19 7:45	21.26	1659	8.47	7.2					
4-29-19 14:45	9.24	1277	8.65	6.7	4-29-19 14:00	8.86	723	8.37	31.4	4-29-19 14:00	9.36	1173	8.50	14.7						7-30-19 8:00	21.19	1660	8.47	8.8					
4-29-19 15:00	9.27	1277	8.65	6.5	4-29-19 14:15	9.10	698	8.36	10.8	4-29-19 14:15	9.43	1172	8.50	14.7						7-30-19 8:15	21.13	1658	8.47	7.3					
4-29-19 15:15	9.37	1276	8.66	6.5	4-29-19 14:30	9.20	670	8.36	11.6	4-29-19 14:30	9.59	1172	8.50	14.3						7-30-19 8:30	21.09	1660	8.46	8.9					
4-29-19 15:30	9.60	1276	8.66	7.6	4-29-19 14:45	9.28	682	8.36	11.6	4-29-19 14:45	9.59	1172	8.50	15.4						7-30-19 8:45	21.05	1659	8.47	7.2					
4-29-19 15:45	9.39	1277	8.66	6.1	4-29-19 15:00	9.38	670	8.37	11.8	4-29-19 15:00	9.64	1171	8.50	15.1						7-30-19 9:00	21.07	1660	8.47	8.9					
4-29-19 16:00	9.42	1276	8.66	6.7	4-29-19 15:15	9.50	707	8.37	1176.3	4-29-19 15:15	9.66	1171	8.50	15.0						7-30-19 9:15	21.01	1659	8.46	7.1					
4-29-19 16:15	9.49	1277	8.66	6.4	4-29-19 15:30	9.53	716	8.38	829.1	4-29-19 15:30	9.69	1172	8.50	15.9						7-30-19 9:30	20.94	1660	8.46	8.8					
4-29-19 16:30	9.50	1278	8.65	8.9	4-29-19 15:45	9.55	716	8.37	13.8	4-29-19 15:45	9.81	1172	8.50	18.9						7-30-19 9:45	20.90	1659	8.47	7.2					
4-29-19 16:45	9.48	1276	8.66	8.5	4-29-19 16:00	9.53	728	8.37	14.5	4-29-19 16:00	9.74	1172	8.50	14.6						7-30-19 10:00	20.83	1661	8.46	8.7					
4-29-19 17:00	9.52	1276	8.67	5.8	4-29-19 16:15	9.41	731	8.38	14.7	4-29-19 16:15	9.73	1172	8.50	15.0						7-30-19 10:15	20.79	1660	8.46	7.4					
4-29-19 17:15	9.50	1277	8.67	5.4	4-29-19 16:30	9.46	732	8.38	16.9	4-29-19 16:30	9.88	1172	8.50	14.1						7-30-19 10:30	20.76	1661	8.46	8.8					
4-29-19 17:30	9.52	1277	8.68	5.1	4-29-19 16:45	9.50	733	8.38	15.4	4-29-19 16:45	9.91	1170	8.50	15.1						7-30-19 10:45	20.73	1660	8.47	6.9					
4-29-19 17:45	9.56	1276	8.68	5.7	4-29-19 17:00	9.42	735	8.38	18.4	4-29-19 17:00	9.91	1171	8.50	14.7						7-30-19 11:00	20.69	1661	8.46	8.6					
4-29-19 18:00	9.53	1278	8.68	5.6	4-29-19 17:15	9.37	737	8.38	21.7	4-29-19 17:15	9.80	1173	8.50	14.8						7-30-19 11:15	20.62	1660	8.46	6.7					
4-29-19 18:15	9.52	1275	8.68	5.6	4-29-19 17:30	9.32	740	8.38	21.5	4-29-19 17:30	9.82	1172	8.50	14.9						7-30-19 11:30	20.56	1661	8.45	8.9					
4-29-19 18:30	9.53	1276	8.69	7.0	4-29-19 17:45	9.36	737	8.37	21.7	4-29-19 17:45	9.81	1172	8.50	14.5						7-30-19 11:45	20.51	1660	8.46	7.2					
4-29-19 18:45	9.51	1276	8.70	6.0	4-29-19 18:00	9.32	737	8.38	23.3	4-29-19 18:00	9.80	1172	8.50	14.0						7-30-19 12:00	20.45	1661	8.46	8.8					
4-29-19 19:00	9.46	1275	8.69	7.6	4-29-19 18:15	9.31	737	8.39	28.8	4-29-19 18:15	9.75	1172	8.50	16.5						7-30-19 12:15	20.38	1659	8.46	7.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-29-19 19:15	9.41	1277	8.70	6.4	4-29-19 18:30	9.32	738	8.39	28.7	4-29-19 18:30	9.75	1172	8.51	13.9						7-30-19 12:30	20.35	1661	8.46	8.8					
4-29-19 19:30	9.37	1277	8.70	5.5	4-29-19 18:45	9.30	738	8.38	32.9	4-29-19 18:45	9.74	1172	8.51	14.6						7-30-19 12:45	20.30	1659	8.47	7.1					
4-29-19 19:45	9.32	1280	8.70	6.8	4-29-19 19:00	9.28	737	8.37	34.5	4-29-19 19:00	9.70	1171	8.51	12.7						7-30-19 13:00	20.31	1662	8.46	8.7					
4-29-19 20:00	9.27	1278	8.70	8.0	4-29-19 19:15	9.27	738	8.37	43.2	4-29-19 19:15	9.66	1171	8.50	14.6						7-30-19 13:15	20.27	1659	8.46	7.3					
4-29-19 20:15	9.20	1275	8.70	5.3	4-29-19 19:30	9.22	739	8.39	51.3	4-29-19 19:30	9.63	1172	8.50	13.5						7-30-19 13:30	20.21	1660	8.46	9.1					
4-29-19 20:30	9.18	1278	8.70	5.0	4-29-19 19:45	9.20	740	8.39	39.4	4-29-19 19:45	9.60	1172	8.51	14.6						7-30-19 13:45	20.18	1659	8.46	6.9					
4-29-19 20:45	9.15	1279	8.69	4.8	4-29-19 20:00	9.17	740	8.39	50.3	4-29-19 20:00	9.53	1173	8.51	13.6						7-30-19 14:00	20.14	1661	8.46	9.0					
4-29-19 21:00	9.11	1280	8.69	4.7	4-29-19 20:15	9.12	740	8.39	340.3	4-29-19 20:15	9.50	1173	8.51	13.8						7-30-19 14:15	20.10	1661	8.46	7.1					
4-29-19 21:15	9.07	1280	8.68	4.6	4-29-19 20:30	9.09	741	8.40	312.4	4-29-19 20:30	9.44	1173	8.50	13.3						7-30-19 14:30	20.06	1661	8.46	9.0					
4-29-19 21:30	9.02	1280	8.69	7.2	4-29-19 20:45	9.11	740	8.38	52.5	4-29-19 20:45	9.43	1170	8.50	13.0						7-30-19 14:45	20.07	1661	8.46	7.0					
4-29-19 21:45	9.00	1281	8.68	5.7	4-29-19 21:00	9.07	738	8.39	59.8	4-29-19 21:00	9.40	1173	8.50	16.2						7-30-19 15:00	20.06	1663	8.46	9.1					
4-29-19 22:00	8.96	1281	8.68	7.1	4-29-19 21:15	9.07	736	8.38	62.3	4-29-19 21:15	9.36	1173	8.50	12.6						7-30-19 15:15	20.04	1663	8.46	7.0					
4-29-19 22:15	8.93	1279	8.68	4.7	4-29-19 21:30	9.05	733	8.38	14.8	4-29-19 21:30	9.31	1173	8.50	14.1						7-30-19 15:30	20.02	1665	8.46	8.9					
4-29-19 22:30	8.91	1266	8.68	4.6	4-29-19 21:45	9.07	757	8.38	18.2	4-29-19 21:45	9.29	1174	8.50	13.1						7-30-19 15:45	20.06	1665	8.46	7.2					
4-29-19 22:45	8.89	1280	8.68	4.8	4-29-19 22:00	9.05	679	8.39	12.5	4-29-19 22:00	9.25	1173	8.50	15.8						7-30-19 16:00	20.06	1668	8.45	9.0					
4-29-19 23:00	8.88	1281	8.68	4.4	4-29-19 22:15	9.01	687	8.38	12.2	4-29-19 22:15	9.24	1174	8.50	21.5						7-30-19 16:15	20.06	1666	8.46	7.1					
4-29-19 23:15	8.84	1280	8.68	5.6	4-29-19 22:30	8.98	713	8.38	12.4	4-29-19 22:30	9.19	1174	8.50	12.9						7-30-19 16:30	20.08	1668	8.46	9.2					
4-29-19 23:30	8.80	1280	8.68	4.6	4-29-19 22:45	8.95	688	8.38	12.5	4-29-19 22:45	9.16	1173	8.50	13.1						7-30-19 16:45	20.10	1671	8.46	7.2					
4-29-19 23:45	8.79	1280	8.68	5.4	4-29-19 23:00	8.97	661	8.38	12.3	4-29-19 23:00	9.10	1173	8.49	13.6						7-30-19 17:00	20.08	1673	8.45	8.5					
4-30-19 0:00	8.77	1282	8.68	4.6	4-29-19 23:15	8.96	664	8.38	15.2	4-29-19 23:15	9.09	1174	8.49	13.6						7-30-19 17:15	20.04	1670	8.47	7.1					
4-30-19 0:15	8.72	1281	8.68	4.4	4-29-19 23:30	8.90	658	8.37	14.8	4-29-19 23:30	9.07	1174	8.49	13.6						7-30-19 17:30	20.10	1672	8.46	8.3					
4-30-19 0:30	8.68	1282	8.68	4.2	4-29-19 23:45	8.90	675	8.37	30.7	4-29-19 23:45	9.03	1174	8.49	11.9						7-30-19 17:45	20.14	1676	8.46	7.0					
4-30-19 0:45	8.67	1281	8.68	4.6	4-30-19 0:00	8.92	716	8.37	16.0	4-30-19 0:00	8.99	1173	8.49	13.7						7-30-19 18:00	20.22	1676	8.46	8.6					
4-30-19 1:00	8.61	1279	8.68	4.2	4-30-19 0:15	8.89	738	8.37	17.4	4-30-19 0:15	8.99	1174	8.49	13.3						7-30-19 18:15	20.20	1674	8.46	7.1					
4-30-19 1:15	8.56	1281	8.68	4.0	4-30-19 0:30	8.80	749	8.37	13.1	4-30-19 0:30	8.99	1174	8.48	14.1						7-30-19 18:30	20.29	1680	8.45	8.5					
4-30-19 1:30	8.55	1282	8.68	4.5	4-30-19 0:45	8.77	754	8.37	13.5	4-30-19 0:45	8.97	1173	8.48	15.1						7-30-19 18:45	20.37	1675	8.46	7.0					
4-30-19 1:45	8.51	1279	8.68	4.1	4-30-19 1:00	8.79	755	8.37	13.3	4-30-19 1:00	8.94	1173	8.48	15.4						7-30-19 19:00	20.38	1680	8.44	8.7					
4-30-19 2:00	8.44	1282	8.67	5.3	4-30-19 1:15	8.79	756	8.37	13.6	4-30-19 1:15	8.88	1173	8.48	14.3						7-30-19 19:15	20.41	1680	8.45	7.1					
4-30-19 2:15	8.36	1282	8.68	5.9	4-30-19 1:30	8.75	757	8.38	14.0	4-30-19 1:30	8.86	1174	8.48	14.7						7-30-19 19:30	20.49	1680	8.44	8.7					
4-30-19 2:30	8.38	1281	8.67	5.6	4-30-19 1:45	8.73	753	8.38	14.0	4-30-19 1:45	8.81	1174	8.47	15.8						7-30-19 19:45	20.52	1680	8.45	7.2					
4-30-19 2:45	8.26	1282	8.67	4.5	4-30-19 2:00	8.73	754	8.37	13.8	4-30-19 2:00	8.76	1174	8.48	17.6						7-30-19 20:00	20.75	1680	8.44	8.7					
4-30-19 3:00	8.27	1283	8.67	4.1	4-30-19 2:15	8.71	723	8.37	12.5	4-30-19 2:15	8.73	1175	8.48	20.2						7-30-19 20:15	20.76	1677	8.44	7.1					
4-30-19 3:15	8.25	1283	8.67	4.3	4-30-19 2:30	8.69	723	8.37	11.2	4-30-19 2:30	8.70	1174	8.47	17.8						7-30-19 20:30	20.80	1680	8.44	8.7					
4-30-19 3:30	8.24	1283	8.67	4.8	4-30-19 2:45	8.70	724	8.37	11.5	4-30-19 2:45	8.73	1175	8.47	18.1						7-30-19 20:45	20.82	1679	8.44	7.0					
4-30-19 3:45	8.22	1281	8.67	4.5	4-30-19 3:00	8.68	724	8.36	11.6	4-30-19 3:00	8.75	1175	8.46	20.2						7-30-19 21:00									
4-30-19 4:00	8.18	1283	8.66	4.4	4-30-19 3:15	8.61	724	8.36	11.7	4-30-19 3:15	8.74	1174	8.46	20.7						7-30-19 21:15									
4-30-19 4:15	8.15	1281	8.66	4.4	4-30-19 3:30	8.58	725	8.34	11.9	4-30-19 3:30	8.69	1174	8.46	19.8						7-30-19 21:30									
4-30-19 4:30	8.11	1284	8.66	4.6	4-30-19 3:45	8.57	725	8.34	10.3	4-30-19 3:45	8.69	1174	8.46	21.9						7-30-19 21:45									
4-30-19 4:45	8.10	1284	8.66	5.0	4-30-19 4:00	8.55	725	8.34	11.7	4-30-19 4:00	8.64	1175	8.46	22.4						7-30-19 22:00									
4-30-19 5:00	8.06	1282	8.66	5.1	4-30-19 4:15	8.55	726	8.36	14.1	4-30-19 4:15	8.66	1174	8.47	21.9						7-30-19 22:15	20.94	1684	8.43	7.2					
4-30-19 5:15	8.10	1283	8.66	5.8	4-30-19 4:30	8.49	725	8.36	39.3	4-30-19 4:30	8.68	1174	8.46	23.3						7-30-19 22:30	21.01	1685	8.43	8.6					
4-30-19 5:30	8.03	1284	8.66	4.3	4-30-19 4:45	8.49	727	8.36	294.4	4-30-19 4:45	8.62	1175	8.47	22.3						7-30-19 22:45	21.03	1681	8.44	7.2					
4-30-19 5:45	7.99	1284	8.66	4.4	4-30-19 5:00	8.49	727	8.36	30.3	4-30-19 5:00	8.60	1175	8.47	27.9						7-30-19 23:00	21.03	1682	8.43	8.5					
4-30-19 6:00	7.98	1283	8.66	4.6	4-30-19 5:15	8.45	727	8.36	12.4	4-30-19 5:15	8.58	1175	8.46	22.2						7-30-19 23:15	21.11	1680	8.44	7.1					
4-30-19 6:15	7.95	1286	8.65	4.4	4-30-19 5:30	8.43	726	8.35	19.1	4-30-19 5:30	8.51	1174	8.47	23.6						7-30-19 23:30	21.14	1681	8.45	8.5					
4-30-19 6:30	7.89	1282	8.66	4.7	4-30-19 5:45	8.41	727	8.35	13.9	4-30-19 5:45	8.51	1175	8.47	21.0						7-30-19 23:45	21.16	1679	8.46	7.2					
4-30-19 6:45	7.87	1283	8.66	6.4	4-30-19 6:00	8.38	776	8.36	13.4	4-30-19 6:00	8.45	1175	8.47	21.2						7-31-19 0:00	21.13	1680	8.44	8.6					
4-30-19 7:00	7.86	1285	8.66	4.3	4-30-19 6:15	8.39	776	8.36	12.2	4-30-19 6:15	8.44	1175	8.47	21.0						7-31-19 0:15	21.00	1679	8.45	7.2					
4-30-19 7:15	7.82	1284	8.66	4.2	4-30-19 6:30	8.39	774	8.36	13.0	4-30-19 6:30	8.38	1175	8.47	20.9						7-31-19 0:30	20.88	1681	8.44	8.6					
4-30-19 7:30	7.83	1284	8.66	6.1	4-30-19 6:45	8.41	751	8.36	12.7	4-30-19 6:45	8.41	1176	8.47	21.9						7-31-19 0:45	20.77	1680	8.44	7.1					
4-30-19 7:45	7.75	1284	8.66	3.9	4-30-19 7:00	8.39	741	8.35	13.7	4-30-19 7:00	8.39	1175	8.47	20.1						7-31-19 1:00	20.79	1681	8.44	8.7					
4-30-19 8:00	7.76	1288	8.66	4.5	4-30-19 7:15	8.36	766	8.36	13.7	4-30-19 7:15	8.34	1176	8.47	21.6						7-31-19 1:15	20.80	1680	8.45	7.6					
4-30-19 8:15	7.76	1282	8.66	4.4	4-30-19 7:30	8.32	778	8.35	12.7	4-30-19 7:30	8.34	1176	8.47	20.5						7-31-19 1:30	20.73	1682	8.45	8.4					
4-30-19 8:30	7.73	1282	8.66	4.4	4-30-19 7:45	8.32	751	8.35	12.6	4-30-19 7:45	8.34	1176	8.47	21.8						7-31-19 1:45	20.68	1680	8.46	7.2					
4-30-19 8:45	7.73	1284	8.66	4.1	4-30-19 8:00	8.31	717	8.36	13.6	4-30-19 8:00	8.29	1175	8.47	18.5						7-31-19 2:00	20.70	1682	8.45	8.4					
4-30-19 9:00	7.73	1283	8.66	4.5	4-30-19 8:15	8.30	719	8.36	13.7	4-30-19 8:15	8.30	1176	8.47	22.2						7-31-19 2:15	20.66	1682	8.45	7.0					
4-30-19 9:15	7.75	1282	8.67	3.7	4-30-19 8:30	8.26	739	8.36	13.7	4-30-19 8:30	8.31	1175	8.47	19.4						7-31-19 2:30	20.64	1682	8.45	8.2					
4-30-19 9:30	7.77	1281	8.67	4.0	4-30-19 8:45	8.24	708	8.36	14.1	4-30-19 8:45	8.27	1175	8.47	19.3						7-31-19 2:45	20.64	1680	8.46	7.2					
4-30-19 9:45	7.82	1282	8.67	4.6	4-30-19 9:00	8.27	722	8.37	14.5	4-30-19 9:00	8.32	1176	8.47	20.2						7-31-19 3:00	20.61	1682	8.45	8.8					
4-30-19 10:00	7.88	1283	8.66	5.3	4-30-19 9:15	8.23	735	8.37	14.7	4-30-19 9:15	8.35	1175	8.48	20.1						7-31-19 3:15	20.57	1681	8.45	7.3					
4-30-19 10:15	7.92	1283	8.67	4.9	4-30-19 9:30	8.24	742	8.36	12.7	4-30-19 9:30	8.33	1174	8.47	18.1						7-31-19 3:30	20.56	1685	8.45	8.8					
4-30-19 10:30	7.90	1282	8.66	6.6	4-30-19 9:45	8.24	742	8.37	12.9	4-30-19 9:45	8.34	1175	8.47	19.2						7-31-19 3:45	20.52	1683	8.45	7.3					
4-30-19 10:45	7.96	1281	8.67	4.6	4-30-19 10:00	8.27	746	8.36	12.0	4-30-19 10:00	8.45	1175	8.47	17.7						7-31-19 4:00	20.48	1685	8.45	8.8					
4-30-19 11:00	7.99	1283	8.67	5.0	4-30-19 10:15	8.36	742	8.36	12.2	4-30-19 10:15	8.54	1176	8.47	18.1						7-31-19 4:15	20.41	1683	8.45	7.3					
4-30-19 11:15	8.03	1282	8.68	5.7	4-30-19 10:30	8.30	743	8.37	977.5	4-30-19 10:30	8.49	1175	8.47	19.0						7-31-19 4:30	20.41	1685	8.44	8.7					
4-30-19 11:30	8.09	1282	8.68	4.3	4-30-19 10:45	8.34	743	8.37	10.4	4-30-19 10:45	8.47	1176	8.48	19.8						7-31-19 4:45	20.37	1684	8.44	7.2					
4-30-19 11:45	8.20	1282	8.67	4.2	4-30-19 11:00	8.38	747	8.37	12.3	4-30-19 11:00	8.51	1175	8.48	19.8						7-31-19 5:00	20.34	1686	8.45	8.8					
4-30-19 12:00	8.27	1265	8.67	4.2	4-30-19 11:15	8.33	751	8.38	12.0	4-30-19 11:15	8.53	1176	8.48	20.0						7-31-19 5:15	20.31	1685	8.44	7.0					
4-30-19 12:15	8.24	1281	8.65	4.2	4-30-19 11:30	8.30	750	8.37	54.8	4-30-19 11:30	8.54	1175	8.48	19.5						7-31-19 5:30	20.28	1686	8.44	8.0					
4-30-19 12:30	8.40	1280	8.67	4.2	4-30-19 11:45	8.35	748	8.37	12.1	4-30-19 11:45	8.61	1175	8.48	19.8						7-31-19 5:45	20.28	1686	8.45	7.0					
4-30-19 12:45	8.43	1283	8.67	4.4	4-30-19 12:00	8.42	747	8.37	12.4	4-30-19 12:00	8.69	1176	8.48	17.7						7-31-19 6:00	20.27	1688	8.44	8.7					
4-30-19 13:00	8.46	1282	8.67	4.7	4-30-19 12:15	8.40	749	8.37	12.0	4-30-19 12:15	8.68	1175	8.48	21.0						7-31-19 6:15	20.22	1687	8.44	7.1					
4-30-19 13:15	8.44	1283	8.67	4.9	4-30-19 12:30	8.51	749	8.37	11.7	4-30-19 12:30	8.72	1175	8.48	35.4						7-31-19 6:30	20.20	1687	8.43	8.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
4-30-19 13:30	8.46	1282	8.66	5.1	4-30-19 12:45	8.58	748	8.37	13.4	4-30-19 12:45	8.80	1175	8.48	18.7						7-31-19 6:45	20.17	1686	8.44	7.0					
4-30-19 13:45	8.56	1281	8.66	4.5	4-30-19 13:00	8.63	745	8.38	16.3	4-30-19 13:00	8.87	1175	8.48	19.4						7-31-19 7:00	20.11	1688	8.44	8.6					
4-30-19 14:00	8.53	1281	8.67	5.1	4-30-19 13:15	8.65	749	8.37	32.2	4-30-19 13:15	8.88	1175	8.49	17.9						7-31-19 7:15	20.09	1686	8.44	7.0					
4-30-19 14:15	8.61	1283	8.67	5.1	4-30-19 13:30	8.70	750	8.37	256.5	4-30-19 13:30	8.90	1175	8.48	21.8						7-31-19 7:30	20.06	1687	8.43	8.6					
4-30-19 14:30	8.69	1278	8.67	5.5	4-30-19 13:45	8.75	749	8.38	68.6	4-30-19 13:45	8.86	1175	8.49	19.8						7-31-19 7:45	20.04	1687	8.44	7.0					
4-30-19 14:45	8.65	1282	8.68	5.5	4-30-19 14:00	8.84	749	8.38	12.8	4-30-19 14:00	8.93	1175	8.49	18.6						7-31-19 8:00	20.01	1688	8.44	8.6					
4-30-19 15:00	8.74	1281	8.68	5.9	4-30-19 14:15	8.84	748	8.38	12.0	4-30-19 14:15	8.92	1175	8.49	21.3						7-31-19 8:15	19.96	1688	8.44	7.0					
4-30-19 15:15	8.86	1281	8.68	6.4	4-30-19 14:30	8.96	748	8.38	11.8	4-30-19 14:30	9.07	1174	8.49	21.1						7-31-19 8:30	19.94	1689	8.44	8.4					
4-30-19 15:30	8.77	1282	8.68	4.6	4-30-19 14:45	9.02	747	8.37	13.7	4-30-19 14:45	9.10	1175	8.49	19.5						7-31-19 8:45	19.93	1688	8.44	6.9					
4-30-19 15:45	8.76	1283	8.68	4.8	4-30-19 15:00	9.03	746	8.37	12.5	4-30-19 15:00	9.08	1174	8.50	18.7						7-31-19 9:00	19.90	1690	8.44	8.7					
4-30-19 16:00	8.86	1281	8.69	5.9	4-30-19 15:15	9.05	744	8.38	12.6	4-30-19 15:15	9.11	1174	8.50	20.4						7-31-19 9:15	19.90	1688	8.44	6.9					
4-30-19 16:15	8.87	1282	8.69	6.1	4-30-19 15:30	9.02	742	8.37	14.1	4-30-19 15:30	9.14	1174	8.51	19.5						7-31-19 9:30	19.86	1689	8.43	8.6					
4-30-19 16:30	8.88	1281	8.69	5.6	4-30-19 15:45	9.11	740	8.37	14.0	4-30-19 15:45	9.18	1175	8.50	19.3						7-31-19 9:45	19.83	1688	8.44	6.9					
4-30-19 16:45	8.90	1281	8.69	5.5	4-30-19 16:00	9.09	719	8.37	14.4	4-30-19 16:00	9.25	1174	8.50	18.6						7-31-19 10:00	19.84	1689	8.44	8.6					
4-30-19 17:00	8.90	1400	8.70	8.9	4-30-19 16:15	9.13	714	8.38	14.3	4-30-19 16:15	9.31	1174	8.50	21.3						7-31-19 10:15	19.80	1689	8.43	7.0					
4-30-19 17:15	8.86	1268	8.70	6.1	4-30-19 16:30	9.30	731	8.39	14.0	4-30-19 16:30	9.35	1175	8.50	18.9						7-31-19 10:30	19.79	1690	8.43	8.6					
4-30-19 17:30	8.85	1280	8.70	6.2	4-30-19 16:45	9.39	702	8.38	14.9	4-30-19 16:45	9.49	1174	8.50	19.9						7-31-19 10:45	19.73	1688	8.43	6.8					
4-30-19 17:45	8.89	1282	8.70	5.7	4-30-19 17:00	9.25	690	8.38	14.9	4-30-19 17:00	9.52	1174	8.50	18.2						7-31-19 11:00	19.69	1689	8.43	8.7					
4-30-19 18:00	8.88	1282	8.70	7.2	4-30-19 17:15	9.19	683	8.38	30.6	4-30-19 17:15	9.53	1174	8.50	17.7						7-31-19 11:15	19.64	1688	8.43	6.9					
4-30-19 18:15	8.87	1282	8.70	5.4	4-30-19 17:30	9.19	677	8.39	15.7	4-30-19 17:30	9.47	1173	8.50	17.3						7-31-19 11:30	19.63	1690	8.43	8.7					
4-30-19 18:30	8.85	1283	8.71	5.8	4-30-19 17:45	9.22	700	8.38	17.4	4-30-19 17:45	9.42	1173	8.50	16.1						7-31-19 11:45	19.60	1689	8.43	6.9					
4-30-19 18:45	8.85	1282	8.71	5.1	4-30-19 18:00	9.23	714	8.38	15.5	4-30-19 18:00	9.39	1173	8.50	16.0						7-31-19 12:00	19.58	1690	8.43	8.5					
4-30-19 19:00	8.82	1282	8.71	5.3	4-30-19 18:15	9.18	721	8.38	26.1	4-30-19 18:15	9.39	1173	8.50	16.2						7-31-19 12:15	19.55	1690	8.43	6.9					
4-30-19 19:15	8.79	1284	8.71	5.4	4-30-19 18:30	9.18	731	8.38	30.3	4-30-19 18:30	9.38	1172	8.50	16.8						7-31-19 12:30	19.55	1692	8.43	8.8					
4-30-19 19:30	8.76	1281	8.72	5.1	4-30-19 18:45	9.12	736	8.38	31.4	4-30-19 18:45	9.38	1174	8.51	17.1						7-31-19 12:45	19.53	1689	8.43	7.0					
4-30-19 19:45	8.75	1281	8.72	5.7	4-30-19 19:00	9.08	737	8.38	41.2	4-30-19 19:00	9.32	1174	8.51	18.4						7-31-19 13:00	19.51	1692	8.43	8.6					
4-30-19 20:00	8.73	1284	8.72	5.0	4-30-19 19:15	9.06	713	8.38	37.8	4-30-19 19:15	9.27	1174	8.51	17.7						7-31-19 13:15	19.49	1690	8.44	6.9					
4-30-19 20:15	8.70	1283	8.72	5.3	4-30-19 19:30	9.05	743	8.38	31.9	4-30-19 19:30	9.27	1174	8.52	23.1						7-31-19 13:30	19.45	1690	8.43	8.7					
4-30-19 20:30	8.66	1283	8.72	5.5	4-30-19 19:45	9.03	744	8.38	31.8	4-30-19 19:45	9.27	1175	8.52	21.7						7-31-19 13:45	19.43	1690	8.44	6.9					
4-30-19 20:45	8.63	1282	8.72	4.8	4-30-19 20:00	8.96	746	8.38	31.8	4-30-19 20:00	9.24	1174	8.52	17.2						7-31-19 14:00	19.42	1691	8.43	8.4					
4-30-19 21:00	8.59	1284	8.72	5.5	4-30-19 20:15	8.93	747	8.38	27.4	4-30-19 20:15	9.22	1173	8.52	17.4						7-31-19 14:15	19.39	1690	8.43	7.0					
4-30-19 21:15	8.56	1282	8.73	4.8	4-30-19 20:30	8.92	748	8.38	27.2	4-30-19 20:30	9.18	1174	8.52	16.9						7-31-19 14:30	19.40	1691	8.43	8.5					
4-30-19 21:30	8.50	1278	8.72	4.6	4-30-19 20:45	8.93	748	8.39	26.3	4-30-19 20:45	9.14	1174	8.52	17.3						7-31-19 14:45	19.38	1690	8.44	6.9					
4-30-19 21:45	8.49	1284	8.72	4.7	4-30-19 21:00	8.85	751	8.40	13.5	4-30-19 21:00	9.08	1175	8.52	18.5						7-31-19 15:00	19.38	1691	8.43	8.5					
4-30-19 22:00	8.43	1281	8.72	5.0	4-30-19 21:15	8.81	754	8.40	11.6	4-30-19 21:15	9.03	1175	8.53	18.9						7-31-19 15:15	19.40	1690	8.45	6.7					
4-30-19 22:15	8.38	1285	8.72	5.8	4-30-19 21:30	8.88	755	8.39	21.3	4-30-19 21:30	8.96	1174	8.53	21.4						7-31-19 15:30	19.48	1693	8.44	8.5					
4-30-19 22:30	8.33	1282	8.72	4.4	4-30-19 21:45	8.86	753	8.36	21.6	4-30-19 21:45	8.96	1173	8.54	18.4						7-31-19 15:45	19.58	1690	8.45	6.8					
4-30-19 22:45	8.38	1285	8.71	5.3	4-30-19 22:00	8.71	754	8.37	21.7	4-30-19 22:00	8.92	1172	8.54	17.4						7-31-19 16:00	19.67	1691	8.44	8.6					
4-30-19 23:00	8.34	1284	8.71	6.4	4-30-19 22:15	8.67	753	8.38	22.2	4-30-19 22:15	8.83	1173	8.54	18.2						7-31-19 16:15	19.73	1691	8.44	6.8					
4-30-19 23:15	8.32	1286	8.71	5.5	4-30-19 22:30	8.62	755	8.38	23.1	4-30-19 22:30	8.80	1172	8.55	18.1						7-31-19 16:30	19.71	1692	8.45	8.5					
4-30-19 23:30	8.31	1284	8.71	4.3	4-30-19 22:45	8.58	755	8.38	27.0	4-30-19 22:45	8.82	1172	8.56	21.4						7-31-19 16:45	19.68	1691	8.45	6.8					
4-30-19 23:45	8.30	1287	8.72	5.2	4-30-19 23:00	8.49	755	8.40	135.1	4-30-19 23:00	8.84	1173	8.55	19.4						7-31-19 17:00	19.71	1692	8.45	8.6					
5-1-19 0:00	8.27	1284	8.72	4.7	4-30-19 23:15	8.53	756	8.40	256.5	4-30-19 23:15	8.82	1172	8.56	21.2						7-31-19 17:15	19.77	1691	8.46	6.7					
5-1-19 0:15	8.28	1287	8.71	4.8	4-30-19 23:30	8.53	753	8.40	29.5	4-30-19 23:30	8.79	1171	8.57	22.4						7-31-19 17:30	19.86	1693	8.44	8.5					
5-1-19 0:30	8.25	1285	8.71	4.5	4-30-19 23:45	8.51	754	8.40	17.8	4-30-19 23:45	8.75	1173	8.56	22.6						7-31-19 17:45	19.92	1692	8.45	6.7					
5-1-19 0:45	8.24	1284	8.71	5.7	5-1-19 0:00	8.44	751	8.40	18.1	5-1-19 0:00	8.71	1172	8.56	22.8						7-31-19 18:00	20.05	1696	8.44	8.4					
5-1-19 1:00	8.18	1285	8.72	4.3	5-1-19 0:15	8.47	751	8.39	17.9	5-1-19 0:15	8.71	1172	8.57	23.3						7-31-19 18:15	20.23	1696	8.43	7.0					
5-1-19 1:15	8.12	1285	8.71	4.4	5-1-19 0:30	8.48	751	8.38	17.3	5-1-19 0:30	8.70	1172	8.57	22.5						7-31-19 18:30	20.28	1700	8.42	8.4					
5-1-19 1:30	8.15	1284	8.72	4.5	5-1-19 0:45	8.46	750	8.39	17.9	5-1-19 0:45	8.68	1172	8.56	19.7						7-31-19 18:45	20.27	1703	8.43	6.9					
5-1-19 1:45	8.09	1284	8.72	4.6	5-1-19 1:00	8.42	749	8.38	18.2	5-1-19 1:00	8.66	1172	8.56	20.3						7-31-19 19:00	20.34	1702	8.42	8.5					
5-1-19 2:00	8.04	1285	8.71	4.1	5-1-19 1:15	8.30	738	8.39	18.3	5-1-19 1:15	8.61	1171	8.57	21.2						7-31-19 19:15	20.43	1703	8.44	7.0					
5-1-19 2:15	8.02	1286	8.71	4.0	5-1-19 1:30	8.41	729	8.39	18.3	5-1-19 1:30	8.59	1172	8.57	21.2						7-31-19 19:30	20.85	1706	8.43	8.5					
5-1-19 2:30	8.04	1283	8.71	4.1	5-1-19 1:45	8.36	749	8.39	16.9	5-1-19 1:45	8.58	1172	8.57	18.4						7-31-19 19:45	21.08	1704	8.43	7.0					
5-1-19 2:45	7.96	1284	8.71	4.0	5-1-19 2:00	8.33	729	8.39	18.4	5-1-19 2:00	8.53	1172	8.57	21.8						7-31-19 20:00	21.08	1703	8.42	8.5					
5-1-19 3:00	7.98	1286	8.71	6.2	5-1-19 2:15	8.33	709	8.39	19.6	5-1-19 2:15	8.48	1172	8.57	18.0						7-31-19 20:15	21.25	1703	8.42	6.8					
5-1-19 3:15	7.92	1287	8.71	4.3	5-1-19 2:30	8.33	704	8.39	20.3	5-1-19 2:30	8.44	1173	8.56	16.7						7-31-19 20:45	21.99	1707	8.43	8.5					
5-1-19 3:30	7.93	1285	8.71	4.2	5-1-19 2:45	8.35	697	8.38	18.6	5-1-19 2:45	8.45	1173	8.56	17.7						7-31-19 21:00	22.21	1706	8.43	6.9					
5-1-19 3:45	7.91	1286	8.71	4.1	5-1-19 3:00	8.30	698	8.39	20.9	5-1-19 3:00	8.44	1172	8.56	18.1						7-31-19 21:15	22.22	1708	8.42	8.5					
5-1-19 4:00	7.85	1285	8.71	4.2	5-1-19 3:15	8.30	722	8.38	19.3	5-1-19 3:15	8.39	1172	8.56	18.5						7-31-19 21:30	22.13	1707	8.43	6.9					
5-1-19 4:15	7.77	1286	8.71	7.4	5-1-19 3:30	8.25	734	8.39	21.0	5-1-19 3:30	8.39	1173	8.57	19.1						7-31-19 21:45	21.73	1693	8.41	8.3					
5-1-19 4:30	7.80	1285	8.70	4.0	5-1-19 3:45	8.26	739	8.38	21.8	5-1-19 3:45	8.34	1175	8.57	20.3						7-31-19 22:00	20.91	1704	8.41	6.8					
5-1-19 4:45	7.76	1285	8.70	4.1	5-1-19 4:00	8.29	751	8.38	20.7	5-1-19 4:00	8.33	1174	8.57	23.6						7-31-19 22:15	20.84	1710	8.40	7.7					
5-1-19 5:00	7.66	1288	8.70	4.3	5-1-19 4:15	8.30	754	8.39	23.0	5-1-19 4:15	8.30	1174	8.58	21.0						7-31-19 22:30	21.03	1709	8.44	6.6					
5-1-19 5:15	7.69	1288	8.70	4.0	5-1-19 4:30	8.25	754	8.38	22.4	5-1-19 4:30	8.31	1174	8.58	38.3						7-31-19 22:45	21.15	1714	8.42	7.5					
5-1-19 5:30	7.65	1288	8.70	4.3	5-1-19 4:45	8.27	755	8.38	24.6	5-1-19 4:45	8.26	1172	8.58	21.1						7-31-19 23:00	21.30	1715	8.43	6.7					
5-1-19 5:45	7.60	1289	8.70	3.9	5-1-19 5:00	8.27	756	8.38	22.5	5-1-19 5:00	8.24	1171	8.58	19.9						7-31-19 23:15	21.40	1717	8.41	8.1					
5-1-19 6:00	7.61	1290	8.69	3.9	5-1-19 5:15	8.25	757	8.38	20.8	5-1-19 5:15	8.21	1171	8.58	20.0						7-31-19 23:30	21.40	1715	8.42	6.7					
5-1-19 6:15	7.57	1287	8.69	4.0	5-1-19 5:30	8.21	759	8.38	35.5	5-1-19 5:30	8.19	1172	8.58	37.7						7-31-19 23:45	21.35	1718	8.41	8.3					
5-1-19 6:30	7.54	1290	8.69	3.9	5-1-19 5:45	8.23	759	8.38	49.8	5-1-19 5:45	8.18	1172	8.58	17.9						8-1-19 0:00	21.36	1727	8.40	6.9					
5-1-19 6:45	7.54	1287	8.68	4.0	5-1-19 6:00	8.25	760	8.38	23.5	5-1-19 6:00	8.16	1171	8.58	20.1						8-1-19 0:15	21.27	1726	8.39	8.2					
5-1-19 7:00	7.52	1290	8.69	5.4	5-1-19 6:15	8.20	760	8.38	23.3	5-1-19 6:15	8.15	1172	8.58	19.9						8-1-19 0:30	21.21	1742	8.38	6.8					
5-1-19 7:15	7.52	1290	8.69	6.7	5-1-19 6:30	8.17	761	8.38	24.7	5-1-19 6:30	8.11	1171	8.58	18.5						8-1-19 0:45	21.15	1769	8.34	7.9					
5-1-19 7:30	7.53	1288	8.69	4.8	5-1-19 6:45	8.17	761	8.38	24.7	5-1-19 6:45	8.12	1172	8.58	20.1						8-1-19 1:00	21.29	1774	8.34	6.8					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-1-19 7:45	7.51	1289	8.69	4.5	5-1-19 7:00	8.12	762	8.38	24.7	5-1-19 7:00	8.11	1172	8.58	20.2						8-1-19 1:15									
5-1-19 8:00	7.49	1289	8.69	5.3	5-1-19 7:15	8.15	763	8.36	25.0	5-1-19 7:15	8.10	1172	8.59	19.9						8-1-19 1:30									
5-1-19 8:15	7.44	1286	8.69	4.3	5-1-19 7:30	8.16	763	8.36	25.6	5-1-19 7:30	8.10	1172	8.59	19.5						8-1-19 1:45									
5-1-19 8:30	7.50	1289	8.69	4.8	5-1-19 7:45	8.13	763	8.37	25.6	5-1-19 7:45	8.10	1173	8.59	18.7						8-1-19 2:00									
5-1-19 8:45	7.49	1290	8.69	5.3	5-1-19 8:00	8.16	764	8.37	29.5	5-1-19 8:00	8.10	1172	8.59	20.0						8-1-19 2:15	21.34	1737	8.40	6.9					
5-1-19 9:00	7.51	1289	8.69	4.5	5-1-19 8:15	8.15	764	8.37	34.6	5-1-19 8:15	8.10	1173	8.59	19.3						8-1-19 2:30	21.34	1738	8.40	8.2					
5-1-19 9:15	7.54	1289	8.69	5.2	5-1-19 8:30	8.13	765	8.38	260.3	5-1-19 8:30	8.09	1172	8.59	18.9						8-1-19 2:45	21.30	1737	8.40	6.7					
5-1-19 9:30	7.59	1290	8.69	5.4	5-1-19 8:45	8.17	770	8.38	63.7	5-1-19 8:45	8.07	1172	8.59	20.0						8-1-19 3:00	21.26	1739	8.39	8.3					
5-1-19 9:45	7.60	1288	8.70	5.9	5-1-19 9:00	8.17	768	8.38	24.6	5-1-19 9:00	8.09	1172	8.60	20.7						8-1-19 3:15	21.22	1738	8.40	6.7					
5-1-19 10:00	7.63	1289	8.70	5.4	5-1-19 9:15	8.17	766	8.38	25.2	5-1-19 9:15	8.13	1172	8.60	21.6						8-1-19 3:30	21.18	1739	8.40	8.3					
5-1-19 10:15	7.68	1286	8.70	6.8	5-1-19 9:30	8.20	766	8.39	26.2	5-1-19 9:30	8.16	1172	8.59	20.8						8-1-19 3:45	21.16	1737	8.40	6.4					
5-1-19 10:30	7.68	1289	8.71	4.8	5-1-19 9:45	8.20	766	8.39	42.9	5-1-19 9:45	8.17	1173	8.60	21.5						8-1-19 4:00	21.11	1739	8.40	8.2					
5-1-19 10:45	7.77	1288	8.71	5.8	5-1-19 10:00	8.25	792	8.39	26.3	5-1-19 10:00	8.18	1173	8.59	19.7						8-1-19 4:15	21.09	1738	8.40	6.8					
5-1-19 11:00	7.75	1288	8.70	7.4	5-1-19 10:15	8.27	846	8.38	25.7	5-1-19 10:15	8.20	1173	8.60	21.2						8-1-19 4:30	21.06	1738	8.40	8.3					
5-1-19 11:15	7.75	1288	8.70	5.4	5-1-19 10:30	8.23	754	8.38	26.8	5-1-19 10:30	8.21	1173	8.59	17.6						8-1-19 4:45	21.03	1737	8.41	6.3					
5-1-19 11:30	7.85	1288	8.71	5.5	5-1-19 10:45	8.28	734	8.39	28.4	5-1-19 10:45	8.26	1172	8.59	18.1						8-1-19 5:00	20.98	1739	8.40	8.2					
5-1-19 11:45	7.89	1288	8.70	5.3	5-1-19 11:00	8.26	717	8.39	26.8	5-1-19 11:00	8.31	1172	8.60	19.1						8-1-19 5:15	20.89	1738	8.41	6.4					
5-1-19 12:00	7.94	1287	8.71	5.7	5-1-19 11:15	8.25	708	8.39	31.1	5-1-19 11:15	8.36	1173	8.60	19.2						8-1-19 5:30	20.83	1740	8.41	7.9					
5-1-19 12:15	8.04	1288	8.70	5.5	5-1-19 11:30	8.29	701	8.39	33.5	5-1-19 11:30	8.42	1172	8.60	17.8						8-1-19 5:45	20.82	1739	8.41	6.5					
5-1-19 12:30	8.09	1288	8.70	6.8	5-1-19 11:45	8.33	721	8.39	30.9	5-1-19 11:45	8.49	1171	8.60	18.1						8-1-19 6:00	20.79	1740	8.40	8.4					
5-1-19 12:45	8.23	1285	8.71	5.6	5-1-19 12:00	8.38	737	8.39	36.5	5-1-19 12:00	8.61	1170	8.61	18.1						8-1-19 6:15	20.69	1739	8.40	6.5					
5-1-19 13:00	8.29	1287	8.70	6.1	5-1-19 12:15	8.38	741	8.39	30.9	5-1-19 12:15	8.64	1170	8.60	18.4						8-1-19 6:30	20.71	1740	8.40	8.2					
5-1-19 13:15	8.34	1285	8.71	5.0	5-1-19 12:30	8.36	753	8.40	29.0	5-1-19 12:30	8.70	1170	8.60	19.1						8-1-19 6:45	20.67	1739	8.41	6.7					
5-1-19 13:30	8.44	1285	8.70	5.6	5-1-19 12:45	8.40	759	8.40	30.1	5-1-19 12:45	8.72	1171	8.60	18.3						8-1-19 7:00	20.65	1740	8.40	8.2					
5-1-19 13:45	8.60	1282	8.69	5.7	5-1-19 13:00	8.43	761	8.39	27.5	5-1-19 13:00	8.70	1171	8.59	18.2						8-1-19 7:15	20.58	1739	8.41	6.7					
5-1-19 14:00	8.53	1284	8.70	6.4	5-1-19 13:15	8.50	761	8.39	29.7	5-1-19 13:15	8.76	1171	8.60	19.8						8-1-19 7:30	20.49	1740	8.40	8.1					
5-1-19 14:15	8.59	1285	8.70	6.7	5-1-19 13:30	8.51	762	8.39	29.9	5-1-19 13:30	8.80	1173	8.60	30.6						8-1-19 7:45	20.46	1739	8.41	6.5					
5-1-19 14:30	8.66	1284	8.69	6.3	5-1-19 13:45	8.56	762	8.40	31.0	5-1-19 13:45	8.88	1172	8.60	18.4						8-1-19 8:00	20.43	1741	8.40	7.9					
5-1-19 14:45	8.76	1281	8.70	8.0	5-1-19 14:00	8.62	762	8.39	29.7	5-1-19 14:00	9.01	1172	8.60	18.2						8-1-19 8:15	20.35	1740	8.40	6.7					
5-1-19 15:00	8.81	1288	8.70	6.2	5-1-19 14:15	8.69	762	8.39	30.2	5-1-19 14:15	9.03	1172	8.60	17.5						8-1-19 8:30	20.32	1741	8.40	8.1					
5-1-19 15:15	8.93	1286	8.69	5.7	5-1-19 14:30	8.77	761	8.39	30.2	5-1-19 14:30	9.06	1172	8.60	17.8						8-1-19 8:45	20.27	1740	8.40	6.5					
5-1-19 15:30	8.99	1289	8.69	8.7	5-1-19 14:45	8.76	764	8.40	36.6	5-1-19 14:45	9.13	1172	8.60	17.2						8-1-19 9:00	20.20	1741	8.40	7.9					
5-1-19 15:45	9.03	1288	8.69	6.5	5-1-19 15:00	8.82	765	8.40	37.9	5-1-19 15:00	9.28	1171	8.60	17.5						8-1-19 9:15	20.13	1741	8.41	6.4					
5-1-19 16:00	9.08	1291	8.68	9.1	5-1-19 15:15					5-1-19 15:15	9.36	1171	8.60	16.7						8-1-19 9:30	20.10	1743	8.40	7.9					
5-1-19 16:15	9.08	1285	8.69	5.6	5-1-19 15:30	8.92	769	8.39	41.5	5-1-19 15:30	9.48	1171	8.59	16.6						8-1-19 9:45	20.06	1742	8.41	6.4					
5-1-19 16:30	9.11	1288	8.70	5.7	5-1-19 15:45	9.10	770	8.38	42.3	5-1-19 15:45	9.51	1171	8.59	15.7						8-1-19 10:00	20.06	1743	8.40	8.0					
5-1-19 16:45	9.09	1281	8.69	5.5	5-1-19 16:00	9.16	768	8.37	42.3	5-1-19 16:00	9.50	1171	8.59	15.9						8-1-19 10:15	20.01	1742	8.39	6.4					
5-1-19 17:00	8.96	1286	8.69	6.2	5-1-19 16:15	9.18	767	8.38	75.1	5-1-19 16:15	9.46	1171	8.59	15.2						8-1-19 10:30	19.97	1743	8.40	8.1					
5-1-19 17:15	8.92	1289	8.70	5.6	5-1-19 16:30	9.13	766	8.38	55.3	5-1-19 16:30	9.53	1172	8.59	15.9						8-1-19 10:45	19.94	1743	8.40	6.4					
5-1-19 17:30	8.85	1291	8.71	6.0	5-1-19 16:45	9.16	767	8.38	64.4	5-1-19 16:45	9.52	1169	8.59	18.0						8-1-19 11:00	19.89	1744	8.39	7.9					
5-1-19 17:45	8.87	1289	8.71	8.8	5-1-19 17:00	9.18	767	8.39	136.8	5-1-19 17:00	9.55	1170	8.59	16.5						8-1-19 11:15	19.83	1743	8.40	6.4					
5-1-19 18:00	8.82	1291	8.71	4.7	5-1-19 17:15	9.19	767	8.41	231.7	5-1-19 17:15	9.57	1171	8.59	15.3						8-1-19 11:30	19.78	1745	8.40	8.0					
5-1-19 18:15	8.83	1291	8.69	4.9	5-1-19 17:30	9.19	765	8.39	32.9	5-1-19 17:30	9.51	1171	8.59	16.4						8-1-19 11:45	19.71	1744	8.40	6.6					
5-1-19 18:30	8.85	1295	8.67	4.6	5-1-19 17:45	9.31	764	8.39	30.5	5-1-19 17:45	9.43	1171	8.59	15.9						8-1-19 12:00	19.66	1746	8.40	7.8					
5-1-19 18:45	8.94	1296	8.68	6.3	5-1-19 18:00	9.27	760	8.40	29.1	5-1-19 18:00	9.37	1171	8.60	15.8						8-1-19 12:15	19.61	1745	8.39	6.4					
5-1-19 19:00	8.95	1294	8.68	5.4	5-1-19 18:15	9.29	761	8.39	36.9	5-1-19 18:15	9.24	1171	8.60	15.8						8-1-19 12:30	19.59	1747	8.39	8.0					
5-1-19 19:15	8.91	1294	8.68	4.7	5-1-19 18:30	9.26	760	8.39	29.6	5-1-19 18:30	9.11	1171	8.60	15.4						8-1-19 12:45	19.51	1745	8.39	6.3					
5-1-19 19:30	8.81	1295	8.68	4.8	5-1-19 18:45	9.30	760	8.39	30.1	5-1-19 18:45	9.19	1170	8.60	16.0						8-1-19 13:00	19.52	1748	8.39	7.9					
5-1-19 19:45	8.74	1297	8.68	5.4	5-1-19 19:00	9.32	757	8.39	31.4	5-1-19 19:00	9.44	1171	8.60	20.3						8-1-19 13:15	19.49	1747	8.39	6.6					
5-1-19 20:00	8.73	1297	8.69	5.6	5-1-19 19:15	9.24	735	8.39	34.2	5-1-19 19:15	9.45	1170	8.60	18.2						8-1-19 13:30	19.45	1748	8.38	7.9					
5-1-19 20:15	8.69	1295	8.69	4.8	5-1-19 19:30	9.25	757	8.38	34.3	5-1-19 19:30	9.47	1170	8.60	16.5						8-1-19 13:45	19.43	1748	8.40	6.4					
5-1-19 20:30	8.69	1298	8.69	4.9	5-1-19 19:45	9.17	738	8.38	38.7	5-1-19 19:45	9.41	1173	8.60	15.5						8-1-19 14:00	19.42	1751	8.39	8.0					
5-1-19 20:45	8.68	1300	8.70	60.8	5-1-19 20:00	9.08	745	8.39	38.1	5-1-19 20:00	9.38	1173	8.60	15.3						8-1-19 14:15	19.37	1751	8.39	6.9					
5-1-19 21:00	8.65	1299	8.70	9.5	5-1-19 20:15	9.01	725	8.38	37.1	5-1-19 20:15	9.30	1173	8.60	15.5						8-1-19 14:30	19.37	1751	8.39	7.9					
5-1-19 21:15	8.65	1300	8.70	5.2	5-1-19 20:30	9.00	704	8.36	35.9	5-1-19 20:30	9.27	1174	8.60	14.8						8-1-19 14:45	19.36	1750	8.39	6.6					
5-1-19 21:30	8.58	1298	8.70	7.9	5-1-19 20:45	8.99	701	8.36	36.7	5-1-19 20:45	9.23	1170	8.60	15.4						8-1-19 15:00	19.37	1753	8.39	7.8					
5-1-19 21:45	8.53	1310	8.70	4.7	5-1-19 21:00	8.93	691	8.36	37.1	5-1-19 21:00	9.18	1170	8.60	15.5						8-1-19 15:15	19.39	1751	8.40	6.6					
5-1-19 22:00	8.46	1299	8.69	4.9	5-1-19 21:15	8.89	723	8.35	43.8	5-1-19 21:15	9.16	1171	8.60	14.9						8-1-19 15:30	19.39	1753	8.39	7.9					
5-1-19 22:15	8.43	1299	8.69	4.8	5-1-19 21:30	8.86	747	8.36	42.4	5-1-19 21:30	9.13	1171	8.60	16.8						8-1-19 15:45	19.39	1751	8.40	6.6					
5-1-19 22:30	8.39	1300	8.69	9.0	5-1-19 21:45	8.85	742	8.37	52.1	5-1-19 21:45	9.07	1171	8.60	15.7						8-1-19 16:00	19.40	1752	8.39	7.9					
5-1-19 22:45	8.31	1300	8.70	4.8	5-1-19 22:00	8.77	756	8.36	58.4	5-1-19 22:00	9.03	1171	8.60	14.7						8-1-19 16:15	19.42	1751	8.40	6.6					
5-1-19 23:00	8.33	1300	8.70	5.3	5-1-19 22:15	8.75	760	8.37	42.5	5-1-19 22:15	9.00	1171	8.60	15.4						8-1-19 16:30	19.48	1752	8.40	7.8					
5-1-19 23:15	8.25	1374	8.70	4.9	5-1-19 22:30	8.71	761	8.37	65.2	5-1-19 22:30	8.97	1172	8.60	15.0						8-1-19 16:45	19.57	1752	8.41	6.5					
5-1-19 23:30	8.20	1307	8.70	5.0	5-1-19 22:45	8.63	762	8.36	45.2	5-1-19 22:45	8.91	1172	8.60	13.8						8-1-19 17:00	19.63	1753	8.41	7.8					
5-1-19 23:45	8.20	1301	8.70	4.5	5-1-19 23:00	8.59	763	8.37	45.9	5-1-19 23:00	8.87	1171	8.60	14.1						8-1-19 17:15	19.74	1752	8.41	6.7					
5-2-19 0:00	8.13	1304	8.70	4.7	5-1-19 23:15	8.57	764	8.38	57.3	5-1-19 23:15	8.84	1171	8.60	16.1						8-1-19 17:30	19.86	1754	8.41	7.9					
5-2-19 0:15	8.10	1303	8.70	4.5	5-1-19 23:30	8.61	764	8.38	96.7	5-1-19 23:30	8.80	1171	8.60	14.8						8-1-19 17:45	19.94	1753	8.42	6.7					
5-2-19 0:30	8.06	1303	8.70	4.5	5-1-19 23:45	8.62	764	8.37	45.6	5-1-19 23:45	8.72	1171	8.61	14.7						8-1-19 18:00	20.04	1755	8.41	7.9					
5-2-19 0:45	8.07	1300	8.70	11.6	5-2-19 0:00	8.58	765	8.37	58.4	5-2-19 0:00	8.68	1171	8.61	14.4						8-1-19 18:15	20.05	1756	8.40	6.4					
5-2-19 1:00	8.02	1299	8.69	5.0	5-2-19 0:15	8.52	764	8.37	47.4	5-2-19 0:15	8.62	1171	8.60	15.0						8-1-19 18:30	20.24	1759	8.40	7.8					
5-2-19 1:15	7.93	1301	8.70	4.5	5-2-19 0:30	8.44	766	8.38	50.0	5-2-19 0:30	8.56	1172	8.61	16.5						8-1-19 18:45	20.38	1757	8.41	6.5					
5-2-19 1:30	7.91	1304	8.70	4.4	5-2-19 0:45	8.36	767	8.38	51.4	5-2-19 0:45	8.50	1171	8.61	16.1						8-1-19 19:00	20.38	1759	8.39	7.9					
5-2-19 1:45	7.83	1300	8.70	4.5	5-2-19 1:00	8.38	771	8.36	52.7	5-2-19 1:00	8.47	1171	8.61	16.6						8-1-19 19:15	20.40	1759	8.41	6.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-2-19 2:00	7.81	1304	8.69	4.4	5-2-19 1:15	8.41	771	8.32	52.2	5-2-19 1:15	8.42	1172	8.61	16.4						8-1-19 19:30	20.41	1762	8.39	7.9					
5-2-19 2:15	7.78	1304	8.70	4.4	5-2-19 1:30	8.36	772	8.33	81.0	5-2-19 1:30	8.41	1172	8.60	15.6						8-1-19 19:45	20.39	1759	8.40	6.5					
5-2-19 2:30	7.77	1304	8.70	4.3	5-2-19 1:45	8.08	770	8.40	134.4	5-2-19 1:45	8.38	1172	8.61	15.9						8-1-19 20:00	20.43	1763	8.39	7.9					
5-2-19 2:45	7.70	1304	8.70	4.2	5-2-19 2:00	8.08	776	8.39	153.5	5-2-19 2:00	8.33	1173	8.61	15.2						8-1-19 20:15	20.43	1764	8.38	6.5					
5-2-19 3:00	7.71	1304	8.70	4.2	5-2-19 2:15	8.05	773	8.39	228.5	5-2-19 2:15	8.32	1172	8.61	16.4						8-1-19 20:30	20.65	1767	8.39	7.8					
5-2-19 3:15	7.68	1304	8.70	4.3	5-2-19 2:30	8.03	773	8.39	54.5	5-2-19 2:30	8.23	1172	8.61	14.4						8-1-19 20:45	20.84	1768	8.39	6.6					
5-2-19 3:30	7.66	1306	8.69	4.8	5-2-19 2:45	8.05	772	8.39	53.9	5-2-19 2:45	8.21	1172	8.61	17.4						8-1-19 21:00	21.01	1770	8.38	7.8					
5-2-19 3:45	7.69	1309	8.68	4.0	5-2-19 3:00	8.06	771	8.39	55.6	5-2-19 3:00	8.26	1173	8.61	15.0						8-1-19 21:15	21.08	1767	8.39	6.4					
5-2-19 4:00	7.68	1309	8.68	5.0	5-2-19 3:15	8.04	769	8.39	57.8	5-2-19 3:15	8.22	1173	8.61	16.5						8-1-19 21:30	21.14	1771	8.39	7.7					
5-2-19 4:15	7.64	1309	8.67	4.3	5-2-19 3:30	8.02	752	8.39	70.3	5-2-19 3:30	8.19	1171	8.61	15.7						8-1-19 21:45	21.21	1770	8.39	6.5					
5-2-19 4:30	7.47	1306	8.68	4.8	5-2-19 3:45	7.97	770	8.39	78.9	5-2-19 3:45	8.10	1174	8.61	16.5						8-1-19 22:00	21.21	1771	8.38	7.7					
5-2-19 4:45	7.38	1309	8.68	4.7	5-2-19 4:00	7.85	754	8.39	75.9	5-2-19 4:00	8.08	1174	8.61	15.6						8-1-19 22:15	21.30	1771	8.39	6.5					
5-2-19 5:00	7.43	1307	8.67	4.3	5-2-19 4:15	7.81	752	8.38	72.7	5-2-19 4:15	8.06	1172	8.61	14.8						8-1-19 22:30	21.37	1772	8.37	7.6					
5-2-19 5:15	7.28	1308	8.67	4.2	5-2-19 4:30	7.95	730	8.38	57.8	5-2-19 4:30	7.97	1174	8.61	14.7						8-1-19 22:45	21.47	1772	8.40	6.5					
5-2-19 5:30	7.29	1312	8.66	4.5	5-2-19 4:45	7.88	714	8.38	56.9	5-2-19 4:45	7.96	1183	8.61	15.5						8-1-19 23:00	21.50	1772	8.38	7.9					
5-2-19 5:45	7.37	1317	8.65	5.0	5-2-19 5:00	7.67	707	8.40	58.6	5-2-19 5:00	8.01	1174	8.61	16.0						8-1-19 23:15	21.55	1771	8.40	6.5					
5-2-19 6:00	7.34	1316	8.66	4.8	5-2-19 5:15	7.66	716	8.39	61.3	5-2-19 5:15	7.88	1175	8.61	19.7						8-1-19 23:30	21.57	1772	8.39	8.0					
5-2-19 6:15	7.27	1313	8.65	5.2	5-2-19 5:30	7.54	749	8.39	58.0	5-2-19 5:30	7.91	1178	8.61	17.6						8-1-19 23:45	21.57	1772	8.39	6.3					
5-2-19 6:30	7.28	1317	8.65	5.4	5-2-19 5:45	7.59	753	8.39	60.0	5-2-19 5:45	7.89	1178	8.61	20.8						8-2-19 0:00	21.63	1773	8.38	7.6					
5-2-19 6:45	7.29	1319	8.64	5.1	5-2-19 6:00	7.48	760	8.39	97.5	5-2-19 6:00	7.85	1178	8.61	16.5						8-2-19 0:15	21.61	1772	8.40	6.1					
5-2-19 7:00	7.20	1323	8.64	5.0	5-2-19 6:15	7.48	769	8.39	95.9	5-2-19 6:15	7.88	1178	8.61	16.1						8-2-19 0:30	21.62	1774	8.39	8.0					
5-2-19 7:15	7.19	1320	8.64	5.1	5-2-19 6:30	7.47	771	8.39	100.9	5-2-19 6:30	7.80	1178	8.61	16.9						8-2-19 0:45	21.57	1773	8.40	6.6					
5-2-19 7:30	7.10	1322	8.64	4.9	5-2-19 6:45	7.51	772	8.39	69.4	5-2-19 6:45	7.80	1178	8.61	16.9						8-2-19 1:00	21.58	1775	8.39	8.1					
5-2-19 7:45	7.10	1321	8.64	5.0	5-2-19 7:00	7.54	773	8.39	73.0	5-2-19 7:00										8-2-19 1:15	21.50	1773	8.40	6.5					
5-2-19 8:00	7.11	1324	8.63	5.4	5-2-19 7:15	7.50	772	8.39	64.3	5-2-19 7:15	7.90	1182	8.60	18.4						8-2-19 1:30	21.47	1775	8.40	7.4					
5-2-19 8:15	7.10	1321	8.64	4.7	5-2-19 7:30	7.52	769	8.39	70.2	5-2-19 7:30	7.82	1182	8.60	18.8						8-2-19 1:45	21.47	1773	8.41	6.1					
5-2-19 8:30	7.20	1323	8.63	4.7	5-2-19 7:45	7.58	769	8.38	61.7	5-2-19 7:45	7.87	1182	8.60	18.6						8-2-19 2:00	21.43	1775	8.41	7.5					
5-2-19 8:45	7.27	1327	8.62	6.0	5-2-19 8:00	7.70	770	8.37	64.1	5-2-19 8:00	7.94	1182	8.59	18.0						8-2-19 2:15	21.40	1774	8.40	6.0					
5-2-19 9:00	7.33	1328	8.62	5.7	5-2-19 8:15	7.70	770	8.39	64.9	5-2-19 8:15	7.93	1182	8.59	17.0						8-2-19 2:30	21.38	1776	8.40	7.7					
5-2-19 9:15	7.43	1328	8.61	6.0	5-2-19 8:30	7.71	771	8.39	65.3	5-2-19 8:30	7.98	1182	8.59	18.6						8-2-19 2:45	21.35	1774	8.41	6.4					
5-2-19 9:30	7.54	1334	8.60	6.0	5-2-19 8:45	7.80	771	8.38	68.3	5-2-19 8:45	8.07	1182	8.59	19.0						8-2-19 3:00	21.32	1776	8.40	7.9					
5-2-19 9:45	7.89	1340	8.59	8.6	5-2-19 9:00	7.92	771	8.37	67.6	5-2-19 9:00	8.14	1182	8.59	19.9						8-2-19 3:15	21.33	1775	8.41	6.5					
5-2-19 10:00	8.16	1331	8.59	5.6	5-2-19 9:15	8.00	770	8.38	69.0	5-2-19 9:15	8.30	1182	8.59	18.8						8-2-19 3:30	21.31	1776	8.40	7.8					
5-2-19 10:15	8.07	1331	8.58	5.5	5-2-19 9:30	8.10	770	8.37	63.9	5-2-19 9:30	8.38	1183	8.59	18.0						8-2-19 3:45	21.25	1775	8.41	6.5					
5-2-19 10:30	8.19	1331	8.58	9.5	5-2-19 9:45	8.32	769	8.37	67.6	5-2-19 9:45	8.45	1182	8.59	18.2						8-2-19 4:00	21.17	1777	8.40	7.8					
5-2-19 10:45	8.36	1330	8.58	6.4	5-2-19 10:00	8.41	768	8.39	80.2	5-2-19 10:00	8.56	1181	8.59	19.4						8-2-19 4:15	21.16	1777	8.40	6.4					
5-2-19 11:00	8.46	1337	8.58	6.7	5-2-19 10:15	8.43	767	8.39	74.9	5-2-19 10:15	8.61	1182	8.59	23.1						8-2-19 4:30	21.13	1778	8.40	7.6					
5-2-19 11:15	8.85	1337	8.58	6.4	5-2-19 10:30	8.54	767	8.39	315.6	5-2-19 10:30	8.68	1183	8.59	20.0						8-2-19 4:45	21.05	1777	8.41	6.1					
5-2-19 11:30	9.08	1338	8.57	6.7	5-2-19 10:45	8.50	765	8.41	157.5	5-2-19 10:45	8.91	1184	8.58	19.8						8-2-19 5:00	20.99	1779	8.40	7.7					
5-2-19 11:45	9.04	1327	8.58	7.7	5-2-19 11:00	8.60	766	8.41	12.8	5-2-19 11:00	9.19	1186	8.58	18.7						8-2-19 5:15	20.94	1776	8.41	6.2					
5-2-19 12:00	8.80	1326	8.59	8.5	5-2-19 11:15	8.57	769	8.41	15.3	5-2-19 11:15	9.76	1182	8.57	17.8						8-2-19 5:30	20.91	1778	8.41	7.4					
5-2-19 12:15	9.39	1338	8.57	7.2	5-2-19 11:30	8.62	768	8.41	14.6	5-2-19 11:30	9.75	1180	8.58	17.2						8-2-19 5:45	20.86	1778	8.40	6.4					
5-2-19 12:30	9.41	1331	8.58	8.7	5-2-19 11:45	8.74	770	8.41	15.4	5-2-19 11:45	10.21	1182	8.57	18.5						8-2-19 6:00	20.79	1778	8.40	7.5					
5-2-19 12:45	9.49	1332	8.58	7.3	5-2-19 12:00	8.75	771	8.41	17.3	5-2-19 12:00	9.95	1177	8.58	16.9						8-2-19 6:15	20.70	1778	8.41	6.3					
5-2-19 13:00	9.49	1328	8.60	7.2	5-2-19 12:15	8.90	765	8.41	12.1	5-2-19 12:15	9.89	1183	8.58	17.2						8-2-19 6:30	20.67	1781	8.41	7.5					
5-2-19 13:15	9.51	1332	8.60	9.0	5-2-19 12:30	9.11	763	8.40	11.7	5-2-19 12:30	10.38	1187	8.57	15.7						8-2-19 6:45	20.65	1779	8.41	6.3					
5-2-19 13:30	9.55	1327	8.61	8.4	5-2-19 12:45	9.81	765	8.38	13.7	5-2-19 12:45	10.65	1184	8.57	16.0						8-2-19 7:00	20.63	1782	8.41	7.6					
5-2-19 13:45	9.45	1324	8.61	7.4	5-2-19 13:00	9.28	780	8.44	15.4	5-2-19 13:00	10.82	1182	8.57	16.4						8-2-19 7:15	20.57	1780	8.41	6.2					
5-2-19 14:00	9.50	1325	8.62	8.9	5-2-19 13:15	9.05	788	8.43	27.6	5-2-19 13:15	10.82	1176	8.57	16.2						8-2-19 7:30	20.51	1782	8.40	7.3					
5-2-19 14:15	9.55	1328	8.62	8.7	5-2-19 13:30	9.18	768	8.40	16.5	5-2-19 13:30	11.04	1181	8.57	16.6						8-2-19 7:45	20.50	1782	8.41	6.2					
5-2-19 14:30	9.27	1327	8.64	9.0	5-2-19 13:45	8.94	761	8.42	25.0	5-2-19 13:45	11.47	1183	8.56	17.1						8-2-19 8:00	20.45	1782	8.40	7.2					
5-2-19 14:45	9.30	1334	8.65	10.6	5-2-19 14:00	9.02	754	8.41	26.2	5-2-19 14:00	11.57	1180	8.57	15.9						8-2-19 8:15	20.37	1782	8.40	6.3					
5-2-19 15:00	9.30	1327	8.64	9.7	5-2-19 14:15	8.88	767	8.42	25.9	5-2-19 14:15	11.22	1177	8.57	16.4						8-2-19 8:30	20.38	1784	8.40	7.2					
5-2-19 15:15	9.21	1325	8.65	9.5	5-2-19 14:30	8.76	771	8.42	17.1	5-2-19 14:30	10.70	1180	8.58	16.9						8-2-19 8:45	20.32	1783	8.41	6.2					
5-2-19 15:30	9.19	1324	8.64	8.5	5-2-19 14:45	8.56	766	8.44	17.7	5-2-19 14:45	10.38	1180	8.58	15.3						8-2-19 9:00	20.28	1784	8.40	7.2					
5-2-19 15:45	9.19	1326	8.64	8.8	5-2-19 15:00	8.33	746	8.42	20.3	5-2-19 15:00	10.46	1175	8.58	24.4						8-2-19 9:15	20.21	1783	8.40	6.3					
5-2-19 16:00	9.22	1326	8.64	9.2	5-2-19 15:15	8.28	731	8.41	21.5	5-2-19 15:15	10.35	1176	8.58	17.9						8-2-19 9:30	20.15	1783	8.40	7.3					
5-2-19 16:15	9.21	1327	8.65	10.6	5-2-19 15:30	8.31	731	8.41	23.6	5-2-19 15:30	10.28	1180	8.58	21.3						8-2-19 9:45	20.10	1784	8.40	6.2					
5-2-19 16:30	9.23	1326	8.65	9.1	5-2-19 15:45	8.49	772	8.41	44.5	5-2-19 15:45	10.20	1179	8.59	16.7						8-2-19 10:00	20.05	1785	8.40	7.3					
5-2-19 16:45	9.23	1326	8.64	8.6	5-2-19 16:00	8.63	780	8.42	24.7	5-2-19 16:00	10.08	1181	8.59	16.7						8-2-19 10:15	20.00	1785	8.40	6.2					
5-2-19 17:00	9.21	1325	8.64	8.6	5-2-19 16:15	8.67	776	8.41	37.5	5-2-19 16:15	10.04	1182	8.59	16.5						8-2-19 10:30	19.97	1786	8.40	7.2					
5-2-19 17:15	9.21	1329	8.64	8.4	5-2-19 16:30	8.67	789	8.42	62.6	5-2-19 16:30	10.01	1178	8.59	15.8						8-2-19 10:45	19.91	1785	8.40	6.1					
5-2-19 17:30	9.18	1325	8.65	10.8	5-2-19 16:45	9.03	779	8.40	53.7	5-2-19 16:45	9.97	1177	8.59	18.7						8-2-19 11:00	19.83	1789	8.40	7.3					
5-2-19 17:45	9.23	1325	8.66	7.3	5-2-19 17:00	9.06	777	8.40	90.0	5-2-19 17:00	9.81	1172	8.59	18.0						8-2-19 11:15	19.77	1791	8.39	6.1					
5-2-19 18:00	9.21	1326	8.65	10.3	5-2-19 17:15	9.27	772	8.39	137.3	5-2-19 17:15	9.57	1177	8.59	18.5						8-2-19 11:30	19.70	1793	8.39	7.3					
5-2-19 18:15	9.20	1326	8.65	7.7	5-2-19 17:30	9.39	774	8.38	84.3	5-2-19 17:30	9.47	1175	8.59	17.4						8-2-19 11:45	19.67	1800	8.38	6.3					
5-2-19 18:30	9.19	1324	8.66	8.8	5-2-19 17:45	9.40	773	8.39	98.9	5-2-19 17:45	9.45	1179	8.60	18.9						8-2-19 12:00	19.69	1823	8.35	7.2					
5-2-19 18:45	9.14	1328	8.66	10.3	5-2-19 18:00	9.43	772	8.38	103.3	5-2-19 18:00	9.51	1179	8.59	16.0						8-2-19 12:15	19.58	1817	8.35	6.2					
5-2-19 19:00	9.02	1324	8.66	8.1	5-2-19 18:15	9.43	771	8.38	108.6	5-2-19 18:15	9.52	1179	8.59	16.0						8-2-19 12:30	19.50	1828	8.35	7.3					
5-2-19 19:15	9.02	1326	8.68	8.1	5-2-19 18:30	9.51	770	8.38	131.7	5-2-19 18:30	9.53	1178	8.59	16.0						8-2-19 12:45	19.42	1834	8.34	6.2					
5-2-19 19:30	9.02	1328	8.67	8.0	5-2-19 18:45	9.40	771	8.39	163.0	5-2-19 18:45	9.54	1178	8.59	16.0						8-2-19 13:00	19.51	1877	8.28	7.2					
5-2-19 19:45	8.96	1328	8.67	9.9	5-2-19 19:00	9.29	780	8.40	245.1	5-2-19 19:00	9.42	1180	8.59	17.6						8-2-19 13:15	19.51	1879	8.27	6.1					
5-2-19 20:00	8.90	1328	8.67	9.7	5-2-19 19:15	9.20	780	8.40	218.1	5-2-19 19:15	9.35	1179	8.59	20.2						8-2-19 13:30	19.68	1961	8.17	7.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-2-19 20:15	8.85	1327	8.67	9.9	5-2-19 19:30	9.10	782	8.41	281.2	5-2-19 19:30	9.37	1180	8.59	19.7						8-2-19 13:45	19.63	1940	8.19	6.2					
5-2-19 20:30	8.83	1328	8.67	10.5	5-2-19 19:45	8.99	784	8.40	290.0	5-2-19 19:45	9.34	1180	8.59	16.4						8-2-19 14:00	19.51	1924	8.22	7.1					
5-2-19 20:45	8.83	1326	8.67	8.5	5-2-19 20:00	8.91	788	8.40	313.3	5-2-19 20:00	9.31	1180	8.59	18.6						8-2-19 14:15	19.47	1925	8.22	6.0					
5-2-19 21:00	8.75	1326	8.67	7.7	5-2-19 20:15	8.82	788	8.38	230.3	5-2-19 20:15	9.27	1179	8.58	18.3						8-2-19 14:30	19.48	1920	8.23	7.0					
5-2-19 21:15	8.69	1330	8.67	8.5	5-2-19 20:30	8.78	786	8.40	306.5	5-2-19 20:30	9.21	1180	8.58	18.6						8-2-19 14:45	19.46	1916	8.25	6.0					
5-2-19 21:30	8.65	1330	8.67	8.5	5-2-19 20:45	8.70	786	8.40	64.1	5-2-19 20:45	9.20	1180	8.59	17.5						8-2-19 15:00	19.45	1918	8.24	7.1					
5-2-19 21:45	8.61	1328	8.68	9.8	5-2-19 21:00	8.72	780	8.41	61.2	5-2-19 21:00	9.13	1180	8.59	20.2						8-2-19 15:15	19.45	1916	8.25	6.1					
5-2-19 22:00	8.54	1330	8.67	8.1	5-2-19 21:15	8.74	778	8.41	279.0	5-2-19 21:15	9.09	1181	8.58	19.2						8-2-19 15:30	19.44	1921	8.25	7.0					
5-2-19 22:15	8.41	1334	8.66	8.8	5-2-19 21:30	8.70	775	8.41	231.4	5-2-19 21:30	9.06	1180	8.59	18.3						8-2-19 15:45	19.47	1920	8.26	6.0					
5-2-19 22:30	8.39	1332	8.66	7.4	5-2-19 21:45	8.77	735	8.41	34.5	5-2-19 21:45	8.98	1182	8.58	17.8						8-2-19 16:00	19.54	1926	8.27	6.3					
5-2-19 22:45	8.34	1332	8.66	8.4	5-2-19 22:00	8.69	718	8.41	19.9	5-2-19 22:00	8.91	1180	8.59	19.2						8-2-19 16:15	19.54	1924	8.25	5.4					
5-2-19 23:00	8.28	1329	8.66	8.7	5-2-19 22:15	8.72	708	8.40	17.3	5-2-19 22:15	8.88	1180	8.58	20.9						8-2-19 16:30	19.61	1935	8.25	6.4					
5-2-19 23:15	8.26	1334	8.66	7.7	5-2-19 22:30	8.75	706	8.40	15.4	5-2-19 22:30	8.84	1180	8.58	19.1						8-2-19 16:45	19.63	1939	8.25	5.2					
5-2-19 23:30	8.21	1335	8.66	7.9	5-2-19 22:45	8.67	705	8.39	16.9	5-2-19 22:45	8.85	1178	8.58	20.7						8-2-19 17:00	19.60	1934	8.26	6.4					
5-2-19 23:45	8.17	1335	8.65	8.0	5-2-19 23:00	8.63	704	8.39	16.4	5-2-19 23:00	8.83	1182	8.58	21.1						8-2-19 17:15	19.57	1928	8.28	5.1					
5-3-19 0:00	8.14	1337	8.65	7.8	5-2-19 23:15	8.60	703	8.39	16.5	5-2-19 23:15	8.81	1180	8.57	20.3						8-2-19 17:30	19.59	1928	8.28	6.5					
5-3-19 0:15	8.13	1335	8.65	7.1	5-2-19 23:30	8.54	701	8.39	15.3	5-2-19 23:30	8.79	1180	8.57	19.7						8-2-19 17:45	19.62	1937	8.26	5.2					
5-3-19 0:30	8.03	1336	8.65	7.7	5-2-19 23:45	8.58	711	8.39	15.3	5-2-19 23:45	8.77	1182	8.58	20.2						8-2-19 18:00	19.64	1941	8.25	6.4					
5-3-19 0:45	8.00	1335	8.65	7.6	5-3-19 0:00	8.55	699	8.40	14.7	5-3-19 0:00	8.75	1181	8.58	17.7						8-2-19 18:15	19.64	1944	8.26	5.2					
5-3-19 1:00	8.01	1335	8.65	8.1	5-3-19 0:15	8.57	677	8.39	16.6	5-3-19 0:15	8.71	1181	8.58	19.4						8-2-19 18:30	19.69	1951	8.26	6.3					
5-3-19 1:15	7.94	1336	8.65	6.8	5-3-19 0:30	8.56	625	8.39	18.8	5-3-19 0:30	8.62	1182	8.58	18.5						8-2-19 18:45	19.68	1954	8.26	5.2					
5-3-19 1:30	7.93	1338	8.65	7.5	5-3-19 0:45	8.51	590	8.39	19.5	5-3-19 0:45	8.59	1181	8.58	19.2						8-2-19 19:00	19.71	1960	8.25	6.3					
5-3-19 1:45	7.83	1336	8.65	6.3	5-3-19 1:00	8.52	664	8.39	19.8	5-3-19 1:00	8.57	1181	8.58	19.5						8-2-19 19:15	19.74	1963	8.25	5.0					
5-3-19 2:00	7.76	1338	8.65	7.2	5-3-19 1:15	8.47	672	8.39	19.4	5-3-19 1:15	8.53	1181	8.58	20.5						8-2-19 19:30	19.69	1965	8.24	6.2					
5-3-19 2:15	7.70	1339	8.64	7.3	5-3-19 1:30	8.37	701	8.40	12.8	5-3-19 1:30	8.46	1180	8.58	20.8						8-2-19 19:45	19.67	1964	8.25	5.1					
5-3-19 2:30	7.67	1339	8.64	7.2	5-3-19 1:45	8.34	737	8.39	12.5	5-3-19 1:45	8.45	1183	8.58	26.3						8-2-19 20:00	19.75	1960	8.26	6.2					
5-3-19 2:45	7.63	1339	8.64	7.3	5-3-19 2:00	8.25	755	8.39	12.3	5-3-19 2:00	8.38	1182	8.58	18.8						8-2-19 20:15	19.73	1947	8.27	5.0					
5-3-19 3:00	7.58	1339	8.64	7.4	5-3-19 2:15	8.22	764	8.39	13.3	5-3-19 2:15	8.39	1184	8.58	19.7						8-2-19 20:30	19.74	1946	8.28	6.2					
5-3-19 3:15	7.55	1339	8.64	7.7	5-3-19 2:30	8.19	779	8.39	11.2	5-3-19 2:30	8.35	1181	8.58	18.5						8-2-19 20:45	19.71	1941	8.28	5.1					
5-3-19 3:30	7.52	1338	8.64	7.1	5-3-19 2:45	8.27	783	8.38	11.3	5-3-19 2:45	8.30	1180	8.58	19.0						8-2-19 21:00	19.68	1938	8.29	6.3					
5-3-19 3:45	7.37	1338	8.64	8.0	5-3-19 3:00	8.24	782	8.38	11.1	5-3-19 3:00	8.27	1179	8.58	19.5						8-2-19 21:15	19.70	1937	8.30	5.0					
5-3-19 4:00	7.36	1340	8.64	7.7	5-3-19 3:15	8.17	783	8.38	11.3	5-3-19 3:15	8.28	1180	8.58	18.0						8-2-19 21:30	19.73	1936	8.31	6.1					
5-3-19 4:15	7.34	1341	8.63	8.4	5-3-19 3:30	8.10	783	8.38	10.4	5-3-19 3:30	8.27	1181	8.57	17.5						8-2-19 21:45	19.80	1943	8.29	5.0					
5-3-19 4:30	7.33	1343	8.63	7.9	5-3-19 3:45	8.10	784	8.38	10.5	5-3-19 3:45	8.24	1180	8.58	18.1						8-2-19 22:00	19.84	1951	8.28	6.0					
5-3-19 4:45	7.33	1339	8.63	7.5	5-3-19 4:00	8.07	784	8.37	10.8	5-3-19 4:00	8.18	1181	8.58	19.2						8-2-19 22:15	19.83	1948	8.27	5.1					
5-3-19 5:00	7.24	1341	8.63	7.7	5-3-19 4:15	8.03	784	8.38	10.6	5-3-19 4:15	8.11	1180	8.58	18.3						8-2-19 22:30	19.83	1948	8.28	6.1					
5-3-19 5:15	7.18	1342	8.63	7.8	5-3-19 4:30	8.00	785	8.38	16.0	5-3-19 4:30	8.05	1180	8.57	18.5						8-2-19 22:45	19.83	1947	8.29	5.0					
5-3-19 5:30	7.17	1343	8.63	8.1	5-3-19 4:45	8.01	785	8.38	22.6	5-3-19 4:45	8.00	1180	8.58	17.3						8-2-19 23:00	19.82	1949	8.28	6.1					
5-3-19 5:45	7.08	1342	8.63	8.0	5-3-19 5:00	8.01	786	8.38	20.1	5-3-19 5:00	7.99	1180	8.58	23.3						8-2-19 23:15	19.81	1946	8.29	5.0					
5-3-19 6:00	6.98	1337	8.63	8.6	5-3-19 5:15	7.96	786	8.37	23.5	5-3-19 5:15	7.98	1179	8.58	18.7						8-2-19 23:30	19.82	1951	8.28	6.1					
5-3-19 6:15	6.91	1338	8.63	7.3	5-3-19 5:30	7.95	786	8.37	25.4	5-3-19 5:30	7.96	1181	8.57	18.8						8-2-19 23:45	19.83	1954	8.28	5.1					
5-3-19 6:30	6.93	1342	8.63	8.5	5-3-19 5:45	7.91	787	8.36	22.3	5-3-19 5:45	7.95	1181	8.57	17.5						8-3-19 0:00	19.83	1962	8.26	6.3					
5-3-19 6:45	6.70	1339	8.63	7.5	5-3-19 6:00	7.91	787	8.36	24.7	5-3-19 6:00	7.87	1181	8.58	16.8						8-3-19 0:15	19.77	1960	8.27	5.1					
5-3-19 7:00	6.77	1341	8.63	8.4	5-3-19 6:15	7.88	787	8.37	27.3	5-3-19 6:15	7.82	1181	8.58	17.3						8-3-19 0:30	19.76	1958	8.27	6.6					
5-3-19 7:15	6.68	1341	8.63	9.2	5-3-19 6:30	7.88	787	8.36	12.8	5-3-19 6:30	7.77	1181	8.58	18.0						8-3-19 0:45	19.75	1955	8.28	5.1					
5-3-19 7:30	6.70	1344	8.62	8.1	5-3-19 6:45	7.81	787	8.38	25.9	5-3-19 6:45	7.74	1181	8.57	19.1						8-3-19 1:00	19.75	1957	8.29	6.2					
5-3-19 7:45	6.64	1343	8.62	8.9	5-3-19 7:00	7.77	787	8.38	299.4	5-3-19 7:00	7.72	1181	8.57	18.6						8-3-19 1:15	19.77	1956	8.30	5.0					
5-3-19 8:00	6.61	1343	8.62	8.1	5-3-19 7:15	7.75	787	8.38	45.3	5-3-19 7:15	7.71	1181	8.58	18.9						8-3-19 1:30	19.77	1957	8.29	6.1					
5-3-19 8:15	6.58	1343	8.62	8.1	5-3-19 7:30	7.67	787	8.38	12.5	5-3-19 7:30	7.68	1180	8.58	18.1						8-3-19 1:45	19.78	1956	8.29	4.9					
5-3-19 8:30	6.54	1344	8.62	8.3	5-3-19 7:45	7.62	785	8.38	10.0	5-3-19 7:45	7.63	1180	8.58	16.1						8-3-19 2:00	19.79	1959	8.28	6.2					
5-3-19 8:45	6.54	1343	8.62	8.4	5-3-19 8:00	7.59	784	8.38	10.5	5-3-19 8:00	7.62	1180	8.58	17.2						8-3-19 2:15	19.75	1959	8.28	5.1					
5-3-19 9:00	6.52	1345	8.62	8.0	5-3-19 8:15	7.55	783	8.38	32.5	5-3-19 8:15	7.57	1179	8.58	16.9						8-3-19 2:30	19.73	1957	8.29	6.1					
5-3-19 9:15	6.47	1339	8.62	7.5	5-3-19 8:30	7.49	788	8.38	10.4	5-3-19 8:30	7.50	1180	8.58	17.8						8-3-19 2:45	19.71	1956	8.29	4.9					
5-3-19 9:30	6.46	1354	8.62	7.5	5-3-19 8:45	7.60	787	8.38	11.3	5-3-19 8:45	7.53	1180	8.58	18.1						8-3-19 3:00	19.68	1958	8.29	6.1					
5-3-19 9:45	6.50	1342	8.63	8.3	5-3-19 9:00	7.60	785	8.38	12.8	5-3-19 9:00	7.53	1180	8.58	21.1						8-3-19 3:15	19.67	1960	8.30	5.0					
5-3-19 10:00	6.48	1342	8.63	10.5	5-3-19 9:15	7.54	779	8.38	12.9	5-3-19 9:15	7.45	1181	8.58	21.0						8-3-19 3:30	19.65	1962	8.28	6.1					
5-3-19 10:15	6.44	1341	8.63	8.1	5-3-19 9:30	7.60	768	8.38	11.4	5-3-19 9:30	7.46	1180	8.58	16.9						8-3-19 3:45	19.62	1960	8.29	4.9					
5-3-19 10:30	6.44	1344	8.63	8.5	5-3-19 9:45	7.66	758	8.38	11.3	5-3-19 9:45	7.50	1180	8.58	17.7						8-3-19 4:00	19.59	1962	8.29	6.1					
5-3-19 10:45	6.45	1345	8.62	8.3	5-3-19 10:00	7.70	772	8.38	10.9	5-3-19 10:00	7.52	1180	8.58	16.7						8-3-19 4:15	19.54	1960	8.29	4.9					
5-3-19 11:00	6.43	1346	8.62	8.5	5-3-19 10:15	7.71	762	8.39	11.0	5-3-19 10:15	7.45	1181	8.58	16.9						8-3-19 4:30	19.53	1964	8.29	6.1					
5-3-19 11:15	6.37	1343	8.63	7.8	5-3-19 10:30	7.69	741	8.38	10.4	5-3-19 10:30	7.47	1181	8.57	17.3						8-3-19 4:45	19.51	1965	8.29	4.9					
5-3-19 11:30	6.40	1346	8.63	7.7	5-3-19 10:45	7.69	725	8.38	10.2	5-3-19 10:45	7.50	1180	8.57	17.0						8-3-19 5:00	19.48	1967	8.29	6.0					
5-3-19 11:45	6.41	1343	8.62	9.2	5-3-19 11:00	7.63	722	8.38	10.3	5-3-19 11:00	7.51	1181	8.57	18.2						8-3-19 5:15	19.47	1968	8.29	4.9					
5-3-19 12:00	6.40	1344	8.63	8.4	5-3-19 11:15	7.54	727	8.39	10.0	5-3-19 11:15	7.52	1180	8.57	17.8						8-3-19 5:30	19.43	1969	8.28	5.9					
5-3-19 12:15	6.36	1345	8.63	7.3	5-3-19 11:30	7.48	763	8.39	8.7	5-3-19 11:30										8-3-19 5:45	19.40	1968	8.29	4.9					
5-3-19 12:30	6.32	1341	8.64	7.4	5-3-19 11:45	7.41	765	8.39	9.7	5-3-19 11:45	7.51	1181	8.57	17.0						8-3-19 6:00	19.36	1971	8.28	6.0					
5-3-19 12:45	6.34	1344	8.63	7.7	5-3-19 12:00	7.46	773	8.39	10.8	5-3-19 12:00	7.53	1181	8.57	16.1						8-3-19 6:15	19.31	1970	8.28	4.9					
5-3-19 13:00	6.36	1342	8.62	8.0	5-3-19 12:15	7.50	781	8.39	11.0	5-3-19 12:15	7.53	1181	8.57	17.0						8-3-19 6:30	19.30	1972	8.29	5.9					
5-3-19 13:15	6.34	1343	8.62	11.4	5-3-19 12:30	7.56	782	8.40	11.3	5-3-19 12:30	7.54	1181	8.57	17.3						8-3-19 6:45	19.27	1971	8.29	5.0					
5-3-19 13:30	6.39	1345	8.63	10.3	5-3-19 12:45	7.54	783	8.40	8.8	5-3-19 12:45	7.54	1180	8.58	18.0						8-3-19 7:00	19.25	1973	8.28	5.9					
5-3-19 13:45	6.38	1346	8.63	7.3	5-3-19 13:00	7.47	784	8.41	10.4	5-3-19 13:00	7.60	1181	8.57	16.9						8-3-19 7:15	19.22	1972	8.28	4.9					
5-3-19 14:00	6.35	1343	8.63	8.9	5-3-19 13:15	7.45	784	8.41	10.1	5-3-19 13:15	7.61	1179	8.57	17.3						8-3-19 7:30	19.18	1973	8.27	5.9					
5-3-19 14:15	6.40	1348	8.62	8.9	5-3-19 13:30	7.41	785	8.41	9.4	5-3-19 13:30	7.61	1181	8.57	17.2						8-3-19 7:45	19.14	1969	8.29	4.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-3-19 14:30	6.41	1349	8.62	8.6	5-3-19 13:45	7.37	785	8.41	11.3	5-3-19 13:45	7.62	1181	8.57	16.0						8-3-19 8:00	19.12	1974	8.29	6.0					
5-3-19 14:45	6.43	1349	8.63	8.7	5-3-19 14:00	7.43	786	8.41	10.3	5-3-19 14:00	7.67	1181	8.57	16.3						8-3-19 8:15	19.07	1971	8.28	4.9					
5-3-19 15:00	6.47	1348	8.62	10.6	5-3-19 14:15	7.54	786	8.40	10.2	5-3-19 14:15	7.69	1181	8.57	17.6						8-3-19 8:30	19.06	1972	8.29	6.0					
5-3-19 15:15	6.40	1347	8.62	8.0	5-3-19 14:30	7.57	786	8.40	13.2	5-3-19 14:30	7.70	1181	8.57	16.9						8-3-19 8:45	19.04	1971	8.29	4.9					
5-3-19 15:30	6.41	1352	8.61	7.7	5-3-19 14:45	7.55	786	8.40	13.7	5-3-19 14:45	7.67	1180	8.57	17.2						8-3-19 9:00	19.01	1973	8.28	5.8					
5-3-19 15:45	6.48	1357	8.59	7.5	5-3-19 15:00	7.54	786	8.38	15.6	5-3-19 15:00	7.70	1181	8.57	16.7						8-3-19 9:15	18.98	1971	8.29	5.0					
5-3-19 16:00	6.41	1358	8.59	8.1	5-3-19 15:15	7.52	787	8.37	12.9	5-3-19 15:15	7.67	1179	8.57	18.4						8-3-19 9:30	18.97	1975	8.29	5.9					
5-3-19 16:15	6.43	1365	8.59	9.6	5-3-19 15:30	7.55	786	8.38	12.7	5-3-19 15:30	7.68	1181	8.57	17.3						8-3-19 9:45	18.93	1972	8.29	4.7					
5-3-19 16:30	6.51	1378	8.58	10.9	5-3-19 15:45	7.58	786	8.39	17.6	5-3-19 15:45	7.64	1180	8.57	18.4						8-3-19 10:00	18.89	1974	8.28	5.9					
5-3-19 16:45	6.49	1381	8.56	11.2	5-3-19 16:00	7.59	788	8.40	22.1	5-3-19 16:00	7.73	1180	8.57	20.1						8-3-19 10:15	18.86	1974	8.28	4.7					
5-3-19 17:00	6.48	1392	8.57	10.1	5-3-19 16:15	7.60	788	8.41	28.3	5-3-19 16:15	7.70	1180	8.57	16.9						8-3-19 10:30	18.83	1975	8.28	5.8					
5-3-19 17:15	6.55	1398	8.56	10.2	5-3-19 16:30	7.59	787	8.41	269.1	5-3-19 16:30	7.73	1181	8.57	17.1						8-3-19 10:45	18.80	1973	8.29	4.8					
5-3-19 17:30	6.61	1398	8.58	11.8	5-3-19 16:45	7.60	787	8.41	97.7	5-3-19 16:45	7.72	1180	8.57	16.9						8-3-19 11:00	18.79	1976	8.29	5.8					
5-3-19 17:45	6.57	1402	8.60	10.6	5-3-19 17:00	7.61	787	8.41	24.3	5-3-19 17:00	7.72	1180	8.57	16.8						8-3-19 11:15	18.74	1973	8.29	4.8					
5-3-19 18:00	6.53	1402	8.57	10.7	5-3-19 17:15	7.60	786	8.41	21.8	5-3-19 17:15	7.62	1181	8.57	18.0						8-3-19 11:30	18.71	1976	8.28	5.8					
5-3-19 18:15	6.42	1405	8.58	13.5	5-3-19 17:30	7.56	785	8.42	45.1	5-3-19 17:30	7.68	1182	8.57	17.4						8-3-19 11:45	18.68	1975	8.29	4.7					
5-3-19 18:30	6.43	1406	8.57	10.8	5-3-19 17:45	7.56	785	8.41	174.2	5-3-19 17:45	7.72	1182	8.57	17.5						8-3-19 12:00	18.64	1977	8.28	5.7					
5-3-19 18:45	6.35	1403	8.56	11.4	5-3-19 18:00	7.56	785	8.41	29.6	5-3-19 18:00	7.68	1181	8.57	17.5						8-3-19 12:15	18.58	1976	8.28	4.7					
5-3-19 19:00	6.31	1398	8.57	11.6	5-3-19 18:15	7.41	787	8.41	52.5	5-3-19 18:15	7.61	1180	8.57	17.7						8-3-19 12:30	18.55	1976	8.28	5.7					
5-3-19 19:15	6.32	1403	8.57	11.4	5-3-19 18:30	7.38	787	8.40	62.9	5-3-19 18:30	7.58	1180	8.57	19.1						8-3-19 12:45	18.54	1976	8.29	4.6					
5-3-19 19:30	6.24	1404	8.57	10.8	5-3-19 18:45	7.35	770	8.40	31.9	5-3-19 18:45	7.56	1180	8.57	17.5						8-3-19 13:00	18.49	1977	8.29	5.8					
5-3-19 19:45	6.16	1404	8.58	12.0	5-3-19 19:00	7.19	774	8.41	28.0	5-3-19 19:00	7.51	1182	8.57	18.9						8-3-19 13:15	18.44	1976	8.29	4.7					
5-3-19 20:00	6.29	1411	8.59	19.3	5-3-19 19:15	7.23	743	8.41	23.6	5-3-19 19:15	7.47	1182	8.57	19.8						8-3-19 13:30	18.43	1979	8.29	5.8					
5-3-19 20:15	6.38	1411	8.60	21.0	5-3-19 19:30	7.13	733	8.41	19.2	5-3-19 19:30	7.50	1182	8.57	19.4						8-3-19 13:45	18.39	1977	8.29	4.7					
5-3-19 20:30	6.24	1411	8.61	17.7	5-3-19 19:45	7.02	725	8.41	20.5	5-3-19 19:45	7.41	1184	8.57	21.4						8-3-19 14:00	18.38	1980	8.29	5.7					
5-3-19 20:45	6.28	1410	8.61	17.0	5-3-19 20:00	6.94	716	8.41	26.0	5-3-19 20:00	7.40	1183	8.57	20.8						8-3-19 14:15	18.34	1979	8.29	4.7					
5-3-19 21:00	6.24	1412	8.60	14.9	5-3-19 20:15	6.77	751	8.42	17.7	5-3-19 20:15	7.36	1183	8.57	23.3						8-3-19 14:30	18.32	1981	8.29	5.7					
5-3-19 21:15	6.13	1412	8.60	13.6	5-3-19 20:30	6.72	768	8.41	15.9	5-3-19 20:30	7.38	1183	8.57	22.1						8-3-19 14:45	18.30	1981	8.30	4.7					
5-3-19 21:30	6.08	1410	8.59	13.9	5-3-19 20:45	6.57	766	8.41	16.2	5-3-19 20:45	7.40	1182	8.57	22.4						8-3-19 15:00	18.33	1985	8.29	5.7					
5-3-19 21:45	6.12	1412	8.58	14.1	5-3-19 21:00	6.48	778	8.41	16.1	5-3-19 21:00	7.38	1182	8.57	22.1						8-3-19 15:15	18.34	1987	8.29	4.7					
5-3-19 22:00	6.08	1411	8.59	13.3	5-3-19 21:15	6.58	782	8.41	16.9	5-3-19 21:15	7.37	1184	8.56	23.0						8-3-19 15:30	18.33	1987	8.29	5.9					
5-3-19 22:15	6.01	1410	8.59	16.0	5-3-19 21:30	6.59	782	8.41	18.3	5-3-19 21:30	7.35	1185	8.56	24.9						8-3-19 15:45	18.35	1987	8.30	4.7					
5-3-19 22:30	5.95	1409	8.59	12.6	5-3-19 21:45	6.55	784	8.41	16.2	5-3-19 21:45	7.32	1187	8.56	22.7						8-3-19 16:00	18.37	1990	8.29	5.8					
5-3-19 22:45	5.96	1410	8.59	13.3	5-3-19 22:00	6.53	784	8.41	15.7	5-3-19 22:00	7.27	1185	8.56	25.4						8-3-19 16:15	18.42	1991	8.30	4.5					
5-3-19 23:00	5.94	1410	8.59	13.3	5-3-19 22:15	6.50	786	8.40	15.8	5-3-19 22:15	7.30	1186	8.55	23.8						8-3-19 16:30	18.54	1998	8.29	6.0					
5-3-19 23:15	5.91	1408	8.58	11.6	5-3-19 22:30	6.48	786	8.40	15.3	5-3-19 22:30	7.27	1185	8.56	23.1						8-3-19 16:45	18.63	2000	8.29	4.6					
5-3-19 23:30	5.84	1409	8.59	13.6	5-3-19 22:45	6.55	787	8.40	14.7	5-3-19 22:45	7.15	1186	8.56	24.5						8-3-19 17:00	18.62	2000	8.28	5.6					
5-3-19 23:45	5.87	1410	8.59	13.1	5-3-19 23:00	6.54	788	8.40	14.6	5-3-19 23:00	7.24	1185	8.56	23.7						8-3-19 17:15	18.59	1989	8.31	4.5					
5-4-19 0:00	5.84	1411	8.58	12.9	5-3-19 23:15	6.45	788	8.39	14.2	5-3-19 23:15	7.24	1185	8.55	23.8						8-3-19 17:30	18.65	1989	8.31	5.7					
5-4-19 0:15	5.82	1412	8.58	12.2	5-3-19 23:30	6.41	789	8.39	15.4	5-3-19 23:30	7.22	1186	8.55	22.7						8-3-19 17:45	18.69	1987	8.31	4.6					
5-4-19 0:30	5.81	1411	8.58	13.1	5-3-19 23:45	6.38	790	8.36	12.1	5-3-19 23:45	7.21	1186	8.55	23.5						8-3-19 18:00	18.81	1993	8.31	5.9					
5-4-19 0:45	5.76	1413	8.58	12.8	5-4-19 0:00	6.42	789	8.35	14.7	5-4-19 0:00	7.21	1186	8.55	23.0						8-3-19 18:15	18.85	1993	8.30	4.6					
5-4-19 1:00	5.78	1413	8.58	12.5	5-4-19 0:15	6.30	791	8.38	13.3	5-4-19 0:15	7.18	1185	8.55	22.6						8-3-19 18:30	18.90	1986	8.32	5.8					
5-4-19 1:15	5.75	1412	8.58	12.4	5-4-19 0:30	6.34	792	8.38	15.4	5-4-19 0:30	7.14	1186	8.55	21.9						8-3-19 18:45	18.99	1986	8.32	4.6					
5-4-19 1:30	5.74	1413	8.58	12.9	5-4-19 0:45	6.33	790	8.40	25.3	5-4-19 0:45	7.13	1186	8.56	24.1						8-3-19 19:00	19.08	1993	8.31	5.7					
5-4-19 1:45	5.59	1410	8.58	12.3	5-4-19 1:00	6.31	791	8.40	20.5	5-4-19 1:00	7.12	1186	8.55	22.9						8-3-19 19:15	19.14	1998	8.30	4.6					
5-4-19 2:00	5.68	1416	8.58	12.5	5-4-19 1:15	6.34	791	8.40	153.2	5-4-19 1:15	7.10	1186	8.55	21.3						8-3-19 19:30	19.19	1998	8.30	5.7					
5-4-19 2:15	5.59	1414	8.58	12.2	5-4-19 1:30	6.34	790	8.40	146.0	5-4-19 1:30	7.06	1186	8.55	22.0						8-3-19 19:45	19.22	1990	8.32	4.6					
5-4-19 2:30	5.61	1417	8.57	12.9	5-4-19 1:45	6.34	791	8.40	17.3	5-4-19 1:45	7.10	1188	8.54	23.3						8-3-19 20:00	19.31	2011	8.29	5.6					
5-4-19 2:45	5.62	1414	8.57	12.6	5-4-19 2:00	6.32	791	8.39	12.0	5-4-19 2:00	7.08	1188	8.54	22.5						8-3-19 20:15	19.41	2013	8.28	4.7					
5-4-19 3:00	5.55	1413	8.57	10.9	5-4-19 2:15	6.32	792	8.39	14.6	5-4-19 2:15	7.05	1187	8.55	22.3						8-3-19 20:30	19.59	2033	8.27	5.7					
5-4-19 3:15	5.55	1417	8.57	11.5	5-4-19 2:30	6.19	791	8.39	13.4	5-4-19 2:30	7.04	1187	8.54	23.0						8-3-19 20:45	19.74	2031	8.27	4.5					
5-4-19 3:30	5.49	1419	8.57	12.7	5-4-19 2:45	6.19	790	8.39	13.8	5-4-19 2:45	7.05	1187	8.55	24.3						8-3-19 21:00	20.03	2022	8.27	5.7					
5-4-19 3:45	5.42	1417	8.57	13.0	5-4-19 3:00	6.21	789	8.39	14.4	5-4-19 3:00	7.06	1189	8.54	23.4						8-3-19 21:15	20.08	2022	8.27	4.5					
5-4-19 4:00	5.43	1419	8.57	11.8	5-4-19 3:15	6.17	787	8.39	14.3	5-4-19 3:15	7.06	1189	8.54	24.2						8-3-19 21:30	20.09	2032	8.26	5.9					
5-4-19 4:15	5.33	1419	8.56	11.8	5-4-19 3:30	6.12	766	8.39	14.3	5-4-19 3:30	7.00	1188	8.54	24.1						8-3-19 21:45	20.04	2030	8.27	4.6					
5-4-19 4:30	5.38	1418	8.56	10.8	5-4-19 3:45	6.06	763	8.39	14.2	5-4-19 3:45	7.05	1191	8.53	25.8						8-3-19 22:00	20.13	2429	8.06	5.4					
5-4-19 4:45	5.43	1420	8.56	12.6	5-4-19 4:00	6.03	777	8.40	13.7	5-4-19 4:00	7.05	1193	8.53	26.4						8-3-19 22:15	20.09	2105	8.17	4.6					
5-4-19 5:00	5.30	1420	8.56	12.1	5-4-19 4:15	6.04	762	8.39	13.8	5-4-19 4:15	7.02	1191	8.53	24.9						8-3-19 22:30	20.14	2109	8.20	5.4					
5-4-19 5:15	5.25	1423	8.56	12.3	5-4-19 4:30	6.08	745	8.39	15.0	5-4-19 4:30	6.99	1190	8.53	24.2						8-3-19 22:45	20.21	2163	8.16	4.4					
5-4-19 5:30	5.23	1427	8.56	10.7	5-4-19 4:45	6.14	735	8.38	12.8	5-4-19 4:45	7.01	1191	8.53	30.7						8-3-19 23:00	20.24	2174	8.15	5.8					
5-4-19 5:45	5.25	1427	8.55	14.1	5-4-19 5:00	6.01	726	8.39	13.9	5-4-19 5:00	7.01	1192	8.53	26.7						8-3-19 23:15	20.30	2135	8.18	4.5					
5-4-19 6:00	5.21	1427	8.55	12.1	5-4-19 5:15	5.93	740	8.39	14.7	5-4-19 5:15	6.97	1191	8.54	25.9						8-3-19 23:30	20.29	2135	8.18	5.7					
5-4-19 6:15	5.20	1430	8.55	12.5	5-4-19 5:30	5.88	768	8.39	21.2	5-4-19 5:30	6.95	1193	8.53	25.5						8-3-19 23:45	20.31	2135	8.19	4.5					
5-4-19 6:30	5.15	1432	8.55	13.0	5-4-19 5:45	5.89	772	8.39	14.7	5-4-19 5:45	6.91	1190	8.54	25.5						8-4-19 0:00	20.39	2130	8.19	5.7					
5-4-19 6:45	5.24	1431	8.54	12.9	5-4-19 6:00					5-4-19 6:00	6.85	1192	8.54	26.1						8-4-19 0:15	20.44	2127	8.19	4.6					
5-4-19 7:00	5.14	1434	8.54	11.9	5-4-19 6:15	5.95	785	8.39	14.4	5-4-19 6:15	6.90	1195	8.53	26.9						8-4-19 0:30	20.47	2128	8.20	5.7					
5-4-19 7:15	5.09	1435	8.54	11.6	5-4-19 6:30	5.89	786	8.40	15.9	5-4-19 6:30	6.86	1195	8.53	29.4						8-4-19 0:45	20.51	2129	8.19	4.5					
5-4-19 7:30	5.07	1436	8.54	12.0	5-4-19 6:45	5.92	788	8.39	17.2	5-4-19 6:45	6.84	1188	8.54	25.9						8-4-19 1:00	20.51	2121	8.21	5.4					
5-4-19 7:45	5.11	1436	8.54	12.9	5-4-19 7:00	5.89	788	8.40	14.5	5-4-19 7:00	6.83	1188	8.55	25.2						8-4-19 1:15	20.49	2114	8.22	4.5					
5-4-19 8:00	5.16	1434	8.54	11.4	5-4-19 7:15	6.02	788	8.35	20.9	5-4-19 7:15	6.75	1189	8.55	25.3						8-4-19 1:30	20.57	2127	8.21	5.6					
5-4-19 8:15	5.22	1435	8.54	11.5	5-4-19 7:30	5.95	789	8.40	16.5	5-4-19 7:30	6.72	1189	8.55	25.5						8-4-19 1:45	20.55	2119	8.22	4.5					
5-4-19 8:30	5.21	1437	8.54	11.7	5-4-19 7:45	6.05	789	8.40	14.8	5-4-19 7:45	6.76	1188	8.55	26.7						8-4-19 2:00	20.56	2121	8.21	5.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-4-19 8:45	5.22	1438	8.55	12.4	5-4-19 8:00	6.06	790	8.39	13.9	5-4-19 8:00	6.77	1188	8.55	26.8						8-4-19 2:15	20.53	2117	8.21	4.4					
5-4-19 9:00	5.22	1436	8.55	12.3	5-4-19 8:15	6.13	790	8.39	14.9	5-4-19 8:15	6.80	1186	8.56	29.5						8-4-19 2:30	20.54	2114	8.22	5.5					
5-4-19 9:15	5.22	1437	8.55	11.7	5-4-19 8:30	6.17	790	8.39	17.2	5-4-19 8:30	6.77	1185	8.56	25.5						8-4-19 2:45	20.55	2115	8.22	4.4					
5-4-19 9:30	5.23	1436	8.56	11.8	5-4-19 8:45	6.23	790	8.39	17.7	5-4-19 8:45	6.79	1185	8.56	27.7						8-4-19 3:00	20.54	2117	8.22	5.6					
5-4-19 9:45	5.26	1435	8.56	11.7	5-4-19 9:00	6.25	791	8.39	16.1	5-4-19 9:00	6.77	1182	8.57	29.1						8-4-19 3:15	20.53	2116	8.22	4.4					
5-4-19 10:00	5.32	1436	8.57	11.8	5-4-19 9:15	6.30	791	8.39	14.4	5-4-19 9:15	6.68	1180	8.58	29.4						8-4-19 3:30	20.44	2076	8.28	5.6					
5-4-19 10:15	5.40	1437	8.57	11.2	5-4-19 9:30	6.34	791	8.39	13.8	5-4-19 9:30	6.68	1180	8.58	28.6						8-4-19 3:45	20.41	2056	8.30	4.4					
5-4-19 10:30	5.42	1436	8.57	11.5	5-4-19 9:45	6.37	791	8.39	13.8	5-4-19 9:45	6.73	1180	8.58	28.1						8-4-19 4:00	20.40	2059	8.30	5.4					
5-4-19 10:45	5.53	1437	8.57	11.3	5-4-19 10:00	6.38	791	8.39	13.5	5-4-19 10:00	6.77	1179	8.58	28.9						8-4-19 4:15	20.34	2049	8.30	4.4					
5-4-19 11:00	5.57	1437	8.58	11.1	5-4-19 10:15	6.44	791	8.40	14.9	5-4-19 10:15	6.79	1179	8.58	27.3						8-4-19 4:30	20.30	2040	8.32	5.4					
5-4-19 11:15	5.61	1438	8.58	12.0	5-4-19 10:30	6.50	791	8.39	21.4	5-4-19 10:30	6.83	1178	8.58	28.6						8-4-19 4:45	20.28	2040	8.31	4.6					
5-4-19 13:30	6.16	1439	8.60	12.4	5-4-19 10:45	6.55	791	8.40	28.6	5-4-19 10:45	6.86	1178	8.58	29.5						8-4-19 5:00	20.25	2045	8.30	5.5					
5-4-19 13:45	6.17	1439	8.60	10.4	5-4-19 11:00	6.62	791	8.39	195.5	5-4-19 11:00	6.95	1178	8.58	31.9						8-4-19 5:15	20.19	2034	8.32	4.4					
5-4-19 14:00	6.20	1441	8.61	11.0	5-4-19 11:15	6.75	791	8.40	233.7	5-4-19 11:15	6.95	1178	8.58	29.5						8-4-19 5:30	20.20	2031	8.33	5.6					
5-4-19 14:15	6.19	1441	8.61	11.8	5-4-19 11:30	6.79	791	8.40	40.3	5-4-19 11:30	6.98	1179	8.58	29.7						8-4-19 5:45	20.19	2028	8.33	4.4					
5-4-19 14:30	6.23	1441	8.61	10.7	5-4-19 11:45	6.80	791	8.40	19.3	5-4-19 11:45	6.98	1178	8.58	30.6						8-4-19 6:00	20.18	2032	8.32	5.5					
5-4-19 14:45	6.29	1443	8.61	10.8	5-4-19 12:00	6.89	791	8.40	17.9	5-4-19 12:00	7.01	1177	8.58	29.3						8-4-19 6:15	20.12	2033	8.32	4.4					
5-4-19 15:00	6.36	1442	8.62	11.4	5-4-19 12:15	6.96	791	8.40	17.2	5-4-19 12:15	7.05	1176	8.58	28.3						8-4-19 6:30	20.10	2033	8.32	5.5					
5-4-19 15:15	6.39	1443	8.63	11.7	5-4-19 12:30	7.04	789	8.40	16.8	5-4-19 12:30	7.09	1176	8.58	31.3						8-4-19 6:45	20.09	2033	8.32	4.4					
5-4-19 15:30	6.49	1442	8.63	13.9	5-4-19 12:45	7.21	792	8.39	17.0	5-4-19 12:45	7.14	1176	8.58	29.3						8-4-19 7:00	20.07	2034	8.32	5.4					
5-4-19 15:45	6.62	1442	8.63	11.7	5-4-19 13:00	7.22	793	8.39	17.8	5-4-19 13:00	7.17	1177	8.58	27.9						8-4-19 7:15	20.02	2029	8.33	4.4					
5-4-19 16:00	6.71	1444	8.63	11.7	5-4-19 13:15	7.27	791	8.39	30.7	5-4-19 13:15	7.19	1176	8.58	32.2						8-4-19 7:30	20.00	2026	8.33	5.5					
5-4-19 16:15	6.73	1445	8.63	10.7	5-4-19 13:30	7.33	793	8.39	24.5	5-4-19 13:30	7.23	1174	8.58	29.7						8-4-19 7:45	20.00	2027	8.33	4.3					
5-4-19 16:30	6.73	1444	8.63	12.2	5-4-19 13:45	7.34	790	8.39	19.5	5-4-19 13:45	7.24	1173	8.59	30.2						8-4-19 8:00	19.98	2029	8.33	5.3					
5-4-19 16:45	6.75	1442	8.64	9.9	5-4-19 14:00	7.36	788	8.40	18.6	5-4-19 14:00	7.26	1174	8.59	29.5						8-4-19 8:15	19.96	2028	8.33	4.4					
5-4-19 17:00	6.73	1444	8.64	10.4	5-4-19 14:15	7.45	776	8.39	18.3	5-4-19 14:15	7.29	1174	8.59	28.5						8-4-19 8:30	19.95	2029	8.33	5.3					
5-4-19 17:15	6.72	1439	8.65	12.2	5-4-19 14:30	7.51	766	8.39	17.6	5-4-19 14:30	7.30	1174	8.59	30.3						8-4-19 8:45	19.92	2027	8.33	4.3					
5-4-19 17:30	6.74	1446	8.64	9.7	5-4-19 14:45	7.53	773	8.39	20.4	5-4-19 14:45	7.33	1173	8.58	29.5						8-4-19 9:00	19.90	2029	8.32	5.4					
5-4-19 17:45	6.75	1447	8.65	10.0	5-4-19 15:00	7.65	794	8.39	22.1	5-4-19 15:00	7.36	1172	8.59	30.1						8-4-19 9:15	19.89	2028	8.33	4.4					
5-4-19 18:00	6.68	1443	8.65	10.0	5-4-19 15:15	7.67	768	8.39	15.2	5-4-19 15:15	7.41	1172	8.59	31.2						8-4-19 9:30	19.88	2031	8.33	5.3					
5-4-19 18:15	6.72	1445	8.66	10.4	5-4-19 15:30	7.68	749	8.39	24.7	5-4-19 15:30	7.42	1171	8.59	28.5						8-4-19 9:45	19.87	2030	8.33	4.4					
5-4-19 18:30	6.72	1445	8.66	9.4	5-4-19 15:45	7.72	736	8.39	25.9	5-4-19 15:45	7.50	1172	8.59	29.6						8-4-19 10:00	19.85	2025	8.34	5.4					
5-4-19 18:45	6.66	1446	8.66	10.4	5-4-19 16:00	7.77	727	8.40	30.0	5-4-19 16:00	7.55	1171	8.59	28.6						8-4-19 10:15	19.81	2023	8.33	4.3					
5-4-19 19:00	6.66	1446	8.66	10.2	5-4-19 16:15	7.93	736	8.39	35.0	5-4-19 16:15	7.58	1171	8.59	28.5						8-4-19 10:30	19.80	2025	8.33	5.3					
5-4-19 19:15	6.61	1443	8.67	10.6	5-4-19 16:30	8.03	765	8.39	36.3	5-4-19 16:30	7.62	1171	8.59	27.2						8-4-19 10:45	19.77	2025	8.33	4.3					
5-4-19 19:30	6.59	1444	8.67	10.8	5-4-19 16:45	7.95	774	8.39	44.4	5-4-19 16:45	7.63	1171	8.59	31.5						8-4-19 11:00	19.75	2028	8.33	5.4					
5-4-19 19:45	6.63	1447	8.67	10.1	5-4-19 17:00	8.13	773	8.38	29.1	5-4-19 17:00	7.64	1171	8.59	27.9						8-4-19 11:15	19.73	2027	8.33	4.2					
5-4-19 20:00	6.62	1445	8.68	10.0	5-4-19 17:15	8.12	787	8.39	29.2	5-4-19 17:15	7.72	1170	8.59	28.4						8-4-19 11:30	19.71	2029	8.33	5.4					
5-4-19 20:15	6.56	1448	8.68	11.0	5-4-19 17:30	8.05	792	8.39	20.6	5-4-19 17:30	7.76	1170	8.58	31.0						8-4-19 11:45	19.70	2027	8.33	4.4					
5-4-19 20:30	6.75	1448	8.68	10.3	5-4-19 17:45	7.85	798	8.39	18.9	5-4-19 17:45	7.74	1170	8.59	29.0						8-4-19 12:00	19.67	2029	8.32	5.4					
5-4-19 20:45	6.73	1448	8.68	10.6	5-4-19 18:00	7.73	798	8.39	33.2	5-4-19 18:00	7.72	1170	8.59	27.3						8-4-19 12:15	19.62	2027	8.32	4.4					
5-4-19 21:00	6.65	1447	8.68	10.1	5-4-19 18:15	7.71	798	8.39	33.1	5-4-19 18:15	7.71	1170	8.59	28.0						8-4-19 12:30	19.61	2029	8.32	5.4					
5-4-19 21:15	6.65	1445	8.68	10.3	5-4-19 18:30	7.70	799	8.39	20.5	5-4-19 18:30	7.71	1170	8.59	27.6						8-4-19 12:45	19.59	2028	8.33	4.4					
5-4-19 21:30	6.64	1445	8.68	9.9	5-4-19 18:45	7.68	800	8.39	37.5	5-4-19 18:45	7.70	1170	8.59	46.3						8-4-19 13:00	19.57	2030	8.33	5.5					
5-4-19 21:45	6.56	1448	8.68	9.3	5-4-19 19:00	7.61	801	8.38	38.0	5-4-19 19:00	7.66	1170	8.59	28.6						8-4-19 13:15	19.55	2028	8.33	4.3					
5-4-19 22:00	6.57	1448	8.68	9.8	5-4-19 19:15	7.55	801	8.38	39.8	5-4-19 19:15	7.69	1171	8.59	30.4						8-4-19 13:30	19.54	2029	8.33	5.5					
5-4-19 22:15	6.50	1447	8.68	8.8	5-4-19 19:30	7.45	802	8.38	41.6	5-4-19 19:30	7.67	1170	8.58	28.5						8-4-19 13:45	19.55	2028	8.34	4.3					
5-4-19 22:30	6.52	1447	8.68	9.8	5-4-19 19:45	7.37	802	8.38	42.9	5-4-19 19:45	7.63	1171	8.59	27.2						8-4-19 14:00	19.54	2029	8.33	5.3					
5-4-19 22:45	6.56	1449	8.68	9.9	5-4-19 20:00	7.27	803	8.38	33.0	5-4-19 20:00	7.60	1171	8.59	29.3						8-4-19 14:15	19.51	2029	8.33	4.3					
5-4-19 23:00	6.52	1447	8.68	15.0	5-4-19 20:15	7.26	802	8.38	37.9	5-4-19 20:15	7.58	1170	8.59	28.3						8-4-19 14:30	19.53	2030	8.34	5.2					
5-4-19 23:15	6.51	1448	8.68	10.1	5-4-19 20:30	7.16	803	8.37	43.6	5-4-19 20:30	7.56	1170	8.59	29.8						8-4-19 14:45	19.53	2029	8.34	4.3					
5-4-19 23:30	6.46	1448	8.68	10.8	5-4-19 20:45	7.13	804	8.37	45.0	5-4-19 20:45	7.56	1169	8.59	27.9						8-4-19 15:00	19.52	2030	8.33	5.5					
5-4-19 23:45	6.46	1450	8.68	10.9	5-4-19 21:00	7.19	804	8.37	46.5	5-4-19 21:00	7.54	1169	8.59	26.1						8-4-19 15:15	19.56	2029	8.34	4.3					
5-5-19 0:00	6.45	1449	8.68	9.7	5-4-19 21:15	7.11	804	8.38	45.4	5-4-19 21:15	7.52	1170	8.59	27.2						8-4-19 15:30	19.60	2033	8.33	5.4					
5-5-19 0:15	6.40	1449	8.68	9.3	5-4-19 21:30	7.05	805	8.39	48.5	5-4-19 21:30	7.50	1170	8.59	28.0						8-4-19 15:45	19.69	2032	8.34	4.2					
5-5-19 0:30	6.35	1446	8.68	11.6	5-4-19 21:45	7.04	804	8.39	49.2	5-4-19 21:45	7.45	1168	8.59	26.9						8-4-19 16:00	19.77	2041	8.32	5.3					
5-5-19 0:45	6.34	1445	8.68	9.5	5-4-19 22:00	7.06	805	8.38	66.4	5-4-19 22:00	7.45	1169	8.59	26.8						8-4-19 16:15	19.80	2041	8.33	4.3					
5-5-19 1:00	6.30	1448	8.68	9.3	5-4-19 22:15	7.10	805	8.38	311.9	5-4-19 22:15	7.44	1169	8.59	26.0						8-4-19 16:30	19.87	2044	8.33	5.3					
5-5-19 1:15	6.26	1448	8.68	9.7	5-4-19 22:30	7.16	804	8.38	74.6	5-4-19 22:30	7.43	1169	8.59	26.8						8-4-19 16:45	19.88	2041	8.34	4.3					
5-5-19 1:30	6.24	1447	8.68	8.8	5-4-19 22:45	7.00	803	8.38	35.7	5-4-19 22:45	7.39	1170	8.59	27.2						8-4-19 17:00	19.95	2044	8.33	5.2					
5-5-19 1:45	6.23	1448	8.68	9.1	5-4-19 23:00	6.95	805	8.38	33.5	5-4-19 23:00	7.40	1170	8.59	26.8						8-4-19 17:15	19.96	2040	8.33	4.1					
5-5-19 2:00	6.23	1449	8.68	9.4	5-4-19 23:15	6.95	805	8.38	34.5	5-4-19 23:15	7.39	1170	8.59	27.6						8-4-19 17:30	20.05	2045	8.33	5.2					
5-5-19 2:15	6.21	1440	8.68	9.5	5-4-19 23:30	6.96	805	8.38	35.1	5-4-19 23:30	7.38	1170	8.58	25.5						8-4-19 17:45	20.12	2042	8.34	4.1					
5-5-19 2:30	6.14	1451	8.68	8.6	5-4-19 23:45	7.04	803	8.36	35.6	5-4-19 23:45	7.33	1170	8.58	27.9						8-4-19 18:00	20.15	2048	8.32	5.2					
5-5-19 2:45	6.13	1452	8.68	8.8	5-5-19 0:00	6.88	803	8.38	31.4	5-5-19 0:00	7.31	1172	8.59	26.3						8-4-19 18:15	20.17	2059	8.32	4.1					
5-5-19 3:00	6.19	1453	8.68	10.9	5-5-19 0:15	6.91	785	8.38	37.1	5-5-19 0:15	7.33	1171	8.59	26.2						8-4-19 18:30	20.27	2049	8.33	5.2					
5-5-19 3:15	6.11	1451	8.68	8.9	5-5-19 0:30	6.91	775	8.38	34.2	5-5-19 0:30	7.32	1171	8.59	28.7						8-4-19 18:45	20.49	2065	8.31	4.0					
5-5-19 3:30	6.08	1454	8.68	9.0	5-5-19 0:45	6.88	791	8.37	33.5	5-5-19 0:45	7.28	1170	8.59	27.0						8-4-19 19:00	20.56	2071	8.31	5.2					
5-5-19 3:45	5.98	1453	8.68	9.0	5-5-19 1:00	6.79	785	8.38	35.5	5-5-19 1:00	7.28	1170	8.59	25.4						8-4-19 19:15	20.62	2066	8.31	4.1					
5-5-19 4:00	5.98	1453	8.68	8.6	5-5-19 1:15	6.80	761	8.38	34.5	5-5-19 1:15	7.27	1171	8.58	26.6						8-4-19 19:30	20.65	2064	8.31	5.1					
5-5-19 4:15	5.98	1456	8.68	9.4	5-5-19 1:30	6.76	750	8.38	34.9	5-5-19 1:30	7.25	1171	8.59	25.2						8-4-19 19:45	20.62	2052	8.32	4.1					
5-5-19 4:30	6.05	1454	8.68	9.6	5-5-19 1:45	6.76	742	8.38	38.0	5-5-19 1:45	7.23	1171	8.59	25.9						8-4-19 20:00	20.70	2049	8.33	5.0					
5-5-19 4:45	6.02	1456	8.68	9.2	5-5-19 2:00	6.81	750	8.37	31.8	5-5-19 2:00	7.22	1171	8.58	26.6						8-4-19 20:15	20.78	2052	8.32	4.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-5-19 5:00	6.09	1460	8.67	9.2	5-5-19 2:15	6.75	786	8.38	33.1	5-5-19 2:15	7.19	1171	8.58	25.3						8-4-19 20:30	20.89	2061	8.32	4.8					
5-5-19 5:15	6.07	1460	8.67	12.1	5-5-19 2:30	6.77	785	8.37	33.2	5-5-19 2:30	7.13	1169	8.59	25.8						8-4-19 20:45	21.06	2075	8.31	4.1					
5-5-19 5:30	5.91	1457	8.67	9.9	5-5-19 2:45	6.63	799	8.37	35.6	5-5-19 2:45	7.06	1171	8.59	27.2						8-4-19 21:00	21.23	2072	8.31	5.1					
5-5-19 5:45	5.90	1459	8.67	9.8	5-5-19 3:00	6.62	803	8.37	37.4	5-5-19 3:00	7.03	1171	8.59	26.0						8-4-19 21:15	21.35	2075	8.31	4.2					
5-5-19 6:00	5.85	1459	8.67	8.8	5-5-19 3:15	6.62	805	8.37	37.2	5-5-19 3:15	7.12	1169	8.58	26.0						8-4-19 21:30	21.58	2090	8.29	5.1					
5-5-19 6:15	5.90	1461	8.67	8.8	5-5-19 3:30	6.53	806	8.37	36.7	5-5-19 3:30	7.06	1169	8.59	26.9						8-4-19 21:45	21.58	2075	8.31	4.0					
5-5-19 6:30	5.81	1461	8.67	7.9	5-5-19 3:45	6.49	807	8.37	31.0	5-5-19 3:45	7.01	1170	8.58	25.8						8-4-19 22:00	21.57	2100	8.28	5.0					
5-5-19 6:45	5.88	1465	8.67	9.2	5-5-19 4:00	6.51	808	8.37	37.4	5-5-19 4:00	6.98	1170	8.58	26.5						8-4-19 22:15	21.55	2097	8.27	4.1					
5-5-19 7:00	5.88	1465	8.66	8.5	5-5-19 4:15	6.54	808	8.37	37.0	5-5-19 4:15	6.98	1170	8.58	26.0						8-4-19 22:30	21.47	2090	8.28	4.8					
5-5-19 7:15	5.96	1468	8.65	9.5	5-5-19 4:30	6.50	808	8.37	34.2	5-5-19 4:30	7.00	1171	8.58	25.7						8-4-19 22:45	21.65	2097	8.28	4.1					
5-5-19 7:30	6.03	1474	8.65	9.9	5-5-19 4:45	6.50	808	8.37	32.1	5-5-19 4:45	6.96	1171	8.58	26.0						8-4-19 23:00	21.83	2087	8.29	5.1					
5-5-19 7:45	6.02	1478	8.65	10.4	5-5-19 5:00	6.54	809	8.37	31.3	5-5-19 5:00	6.98	1171	8.57	26.9						8-4-19 23:15	21.97	2083	8.31	4.1					
5-5-19 8:00	5.97	1480	8.65	9.4	5-5-19 5:15	6.43	809	8.37	29.2	5-5-19 5:15	6.93	1171	8.58	26.8						8-4-19 23:30	22.00	2083	8.30	5.2					
5-5-19 8:15	5.92	1479	8.65	9.2	5-5-19 5:30	6.38	810	8.36	25.4	5-5-19 5:30	6.97	1170	8.58	24.5						8-4-19 23:45	22.17	2085	8.31	4.1					
5-5-19 8:30	5.95	1481	8.65	9.1	5-5-19 5:45	6.39	813	8.35	28.1	5-5-19 5:45	6.96	1169	8.58	27.4						8-5-19 0:00	22.45	2088	8.31	5.2					
5-5-19 8:45	5.97	1478	8.65	9.9	5-5-19 6:00	6.36	813	8.36	28.5	5-5-19 6:00	6.99	1170	8.58	24.6						8-5-19 0:15	22.54	2085	8.32	4.0					
5-5-19 9:00	5.96	1479	8.65	8.5	5-5-19 6:15	6.41	812	8.37	26.2	5-5-19 6:15	6.95	1170	8.58	23.9						8-5-19 0:30	22.60	2069	8.34	5.0					
5-5-19 9:15	5.97	1482	8.65	9.6	5-5-19 6:30	6.44	812	8.37	30.9	5-5-19 6:30	6.92	1170	8.58	23.6						8-5-19 0:45	22.55	2063	8.35	4.1					
5-5-19 9:30	6.02	1485	8.64	9.1	5-5-19 6:45	6.51	811	8.36	30.2	5-5-19 6:45	6.92	1169	8.58	25.3						8-5-19 1:00	22.61	2060	8.34	5.1					
5-5-19 9:45	6.08	1487	8.64	11.1	5-5-19 7:00	6.55	811	8.37	74.5	5-5-19 7:00	6.95	1169	8.58	28.1						8-5-19 1:15	22.57	2057	8.35	4.0					
5-5-19 10:00	6.09	1487	8.65	9.1	5-5-19 7:15	6.52	810	8.37	33.7	5-5-19 7:15	6.90	1169	8.58	24.0						8-5-19 1:30	22.49	2064	8.34	4.7					
5-5-19 10:15	6.09	1484	8.66	9.5	5-5-19 7:30	6.45	791	8.37	31.5	5-5-19 7:30	6.92	1169	8.58	24.2						8-5-19 1:45	22.36	2063	8.36	4.0					
5-5-19 10:30	6.07	1484	8.66	9.2	5-5-19 7:45	6.38	797	8.37	33.5	5-5-19 7:45	6.97	1169	8.57	27.4						8-5-19 2:00	22.20	2081	8.34	4.8					
5-5-19 10:45	6.11	1487	8.67	9.7	5-5-19 8:00	6.43	818	8.37	47.7	5-5-19 8:00	6.97	1168	8.57	24.5						8-5-19 2:15	22.03	2003	8.32	3.9					
5-5-19 11:00	6.20	1487	8.67	9.2	5-5-19 8:15	6.49	792	8.36	29.7	5-5-19 8:15	6.94	1168	8.57	24.4						8-5-19 2:30	22.02	2082	8.32	4.9					
5-5-19 11:15	6.29	1491	8.66	9.0	5-5-19 8:30	6.51	757	8.37	30.9	5-5-19 8:30	6.93	1168	8.56	26.6						8-5-19 2:45	22.03	2083	8.32	4.0					
5-5-19 11:30	6.35	1492	8.66	9.8	5-5-19 8:45	6.40	752	8.37	34.7	5-5-19 8:45	6.94	1167	8.57	26.3						8-5-19 3:00	22.05	2085	8.32	5.0					
5-5-19 11:45	6.40	1488	8.67	9.8	5-5-19 9:00	6.46	745	8.37	33.4	5-5-19 9:00	6.93	1167	8.57	26.4						8-5-19 3:15	22.03	2085	8.32	3.9					
5-5-19 12:00	6.46	1487	8.67	9.5	5-5-19 9:15	6.50	763	8.37	33.8	5-5-19 9:15	6.90	1168	8.57	27.3						8-5-19 3:30	22.03	2079	8.32	5.0					
5-5-19 12:15	6.49	1488	8.67	11.0	5-5-19 9:30	6.57	787	8.37	26.0	5-5-19 9:30	6.95	1167	8.57	24.3						8-5-19 3:45	22.01	2074	8.34	4.0					
5-5-19 12:30	6.57	1487	8.68	10.4	5-5-19 9:45	6.69	805	8.37	31.0	5-5-19 9:45	6.97	1167	8.57	24.8						8-5-19 4:00	21.97	2076	8.34	4.8					
5-5-19 12:45	6.64	1486	8.68	14.6	5-5-19 10:00	6.74	807	8.37	39.9	5-5-19 10:00	6.99	1167	8.57	25.9						8-5-19 4:15	21.92	2075	8.33	3.9					
5-5-19 13:00	6.73	1483	8.68	9.2	5-5-19 10:15	6.71	805	8.37	38.9	5-5-19 10:15	7.00	1167	8.57	28.4						8-5-19 4:30	21.92	2074	8.34	4.8					
5-5-19 13:15	6.83	1486	8.69	9.3	5-5-19 10:30	6.72	806	8.38	35.8	5-5-19 10:30	7.03	1167	8.57	27.9						8-5-19 4:45	21.89	2071	8.35	4.0					
5-5-19 13:30	6.88	1488	8.69	9.6	5-5-19 10:45	6.76	806	8.38	34.4	5-5-19 10:45	7.08	1167	8.57	28.6						8-5-19 5:00	21.84	2072	8.34	5.0					
5-5-19 13:45	6.93	1486	8.68	9.2	5-5-19 11:00	6.80	807	8.38	63.0	5-5-19 11:00	7.09	1166	8.57	26.8						8-5-19 5:15	21.82	2071	8.35	3.9					
5-5-19 14:30	7.22	1488	8.69	10.4	5-5-19 11:15	6.81	808	8.38	29.7	5-5-19 11:15	7.14	1165	8.57	24.6						8-5-19 5:30	21.80	2074	8.34	4.9					
5-5-19 14:45	7.41	1486	8.68	9.2	5-5-19 11:30	6.85	808	8.37	80.2	5-5-19 11:30										8-5-19 5:45	21.82	2073	8.35	4.0					
5-5-19 15:00	7.66	1483	8.70	20.8	5-5-19 11:45	6.92	808	8.38	41.8	5-5-19 11:45	7.14	1162	8.56	26.1						8-5-19 6:00	21.79	2073	8.34	4.8					
5-5-19 15:15	7.85	1482	8.71	10.0	5-5-19 12:00	6.97	808	8.38	42.2	5-5-19 12:00	7.18	1162	8.55	26.4						8-5-19 6:15	21.75	2072	8.34	4.0					
5-5-19 15:30	8.28	1483	8.72	10.7	5-5-19 12:15	6.99	809	8.38	41.0	5-5-19 12:15	7.20	1161	8.55	29.2						8-5-19 6:30	21.73	2072	8.34	4.9					
5-5-19 15:45	8.00	1481	8.71	9.9	5-5-19 12:30	7.02	810	8.37	175.0	5-5-19 12:30	7.26	1161	8.55	27.2						8-5-19 6:45	21.72	2071	8.34	3.9					
5-5-19 16:00	7.92	1476	8.71	8.5	5-5-19 12:45	7.06	811	8.37	66.9	5-5-19 12:45	7.30	1160	8.55	27.3						8-5-19 7:00	21.69	2073	8.34	4.8					
5-5-19 16:15	7.93	1483	8.70	8.8	5-5-19 13:00	7.13	812	8.37	21.3	5-5-19 13:00	7.29	1161	8.55	26.8						8-5-19 7:15	21.67	2071	8.34	3.9					
5-5-19 16:30	8.15	1481	8.71	9.4	5-5-19 13:15	7.19	812	8.38	230.7	5-5-19 13:15	7.31	1161	8.56	26.6						8-5-19 7:30	21.65	2076	8.34	4.9					
5-5-19 16:45	7.92	1477	8.72	38.1	5-5-19 13:45	7.17	813	8.34	32.7	5-5-19 13:45	7.36	1162	8.47	28.3						8-5-19 7:45	21.58	2072	8.35	3.9					
5-5-19 17:00	8.09	1481	8.72	19.7	5-5-19 14:00	7.25	812	8.39	31.5	5-5-19 14:00	7.45	1161	8.56	26.4						8-5-19 8:00	21.58	2073	8.35	4.9					
5-5-19 17:15	8.37	1486	8.70	33.5	5-5-19 14:15	7.40	810	8.39	36.0	5-5-19 14:15	7.52	1161	8.56	26.9						8-5-19 8:15	21.54	2070	8.34	4.0					
5-5-19 17:30	8.42	1488	8.70	9.3	5-5-19 14:30	7.53	802	8.39	31.6	5-5-19 14:30	7.67	1161	8.55	26.8						8-5-19 8:30	21.54	2071	8.35	5.0					
5-5-19 17:45	8.50	1487	8.72	9.0	5-5-19 14:45	7.77	787	8.38	31.1	5-5-19 14:45	7.86	1161	8.55	27.8						8-5-19 8:45	21.50	2071	8.35	3.8					
5-5-19 18:00	8.53	1487	8.72	9.0	5-5-19 15:00	7.86	782	8.37	13.7	5-5-19 15:00	8.10	1160	8.55	26.6						8-5-19 9:00	21.43	2073	8.35	4.9					
5-5-19 18:15	8.53	1487	8.72	8.6	5-5-19 15:15	8.17	802	8.38	38.1	5-5-19 15:15	8.26	1160	8.54	25.0						8-5-19 9:15	21.43	2071	8.35	3.9					
5-5-19 18:30	8.48	1485	8.72	7.9	5-5-19 15:30	8.35	770	8.37	21.1	5-5-19 15:30	8.39	1160	8.54	27.2						8-5-19 9:30	21.41	2073	8.35	4.9					
5-5-19 18:45	8.43	1486	8.73	10.3	5-5-19 15:45	8.19	752	8.37	39.2	5-5-19 15:45	8.59	1162	8.53	24.4						8-5-19 9:45	21.37	2071	8.35	3.9					
5-5-19 19:00	8.39	1484	8.73	9.1	5-5-19 16:00	7.94	751	8.39	42.1	5-5-19 16:00	8.78	1159	8.54	23.9						8-5-19 10:00	21.32	2073	8.34	4.9					
5-5-19 19:15	8.36	1488	8.73	11.5	5-5-19 16:15	7.98	774	8.38	60.3	5-5-19 16:15	8.72	1158	8.53	23.8						8-5-19 10:15	21.25	2071	8.35	3.9					
5-5-19 19:30	8.33	1487	8.73	9.1	5-5-19 16:30	8.01	794	8.38	41.4	5-5-19 16:30	8.81	1157	8.54	25.3						8-5-19 10:30	21.23	2073	8.34	4.9					
5-5-19 19:45	8.32	1482	8.73	32.2	5-5-19 16:45	7.88	814	8.37	42.4	5-5-19 16:45	8.71	1157	8.53	27.0						8-5-19 10:45	21.22	2072	8.35	3.9					
5-5-19 20:00	8.31	1485	8.75	8.4	5-5-19 17:00	7.84	817	8.37	42.2	5-5-19 17:00	8.95	1160	8.52	25.5						8-5-19 11:00	21.19	2073	8.35	4.8					
5-5-19 20:15	8.28	1487	8.75	9.5	5-5-19 17:15	7.84	815	8.38	42.0	5-5-19 17:15	9.08	1156	8.53	24.3						8-5-19 11:15	21.15	2071	8.35	3.8					
5-5-19 20:30	8.22	1482	8.75	8.8	5-5-19 17:30	7.85	813	8.37	40.3	5-5-19 17:30	9.00	1157	8.53	25.8						8-5-19 11:30	21.12	2073	8.35	4.9					
5-5-19 20:45	8.19	1484	8.75	8.0	5-5-19 17:45	7.89	812	8.38	35.5	5-5-19 17:45	9.02	1158	8.53	23.4						8-5-19 11:45	21.07	2071	8.35	3.9					
5-5-19 21:00	8.17	1483	8.75	9.3	5-5-19 18:00	7.85	816	8.37	37.6	5-5-19 18:00	9.05	1156	8.53	23.0						8-5-19 12:00	21.04	2073	8.35	5.0					
5-5-19 21:15	8.15	1488	8.76	8.7	5-5-19 18:15	7.79	821	8.36	37.1	5-5-19 18:15	8.95	1157	8.53	23.8						8-5-19 12:15	21.00	2072	8.35	3.9					
5-5-19 21:30	8.08	1485	8.75	8.3	5-5-19 18:30	7.74	823	8.35	41.0	5-5-19 18:30	8.96	1157	8.52	23.4						8-5-19 12:30	20.98	2073	8.35	4.8					
5-5-19 21:45	8.06	1488	8.75	8.3	5-5-19 18:45	7.72	822	8.35	35.8	5-5-19 18:45	8.95	1157	8.52	24.2						8-5-19 12:45	20.94	2072	8.35	3.8					
5-5-19 22:00	8.03	1490	8.75	8.3	5-5-19 19:00	7.85	823	8.36	40.8	5-5-19 19:00	8.89	1158	8.53	24.5						8-5-19 13:00	20.92	2081	8.34	4.9					
5-5-19 22:15	8.00	1486	8.75	8.0	5-5-19 19:15	7.90	822	8.34	38.2	5-5-19 19:15	8.84	1156	8.52	23.3						8-5-19 13:15	20.90	2077	8.35	3.8					
5-5-19 22:30	7.98	1487	8.75	8.4	5-5-19 19:30	7.86	822	8.35	35.7	5-5-19 19:30	8.81	1158	8.53	24.5						8-5-19 13:30	20.85	2079	8.34	4.9					
5-5-19 22:45	7.97	1489	8.75	9.3	5-5-19 19:45	7.84	822	8.35	46.5	5-5-19 19:45	8.81	1157	8.53	24.2						8-5-19 13:45	20.84	2078	8.35	3.7					
5-5-19 23:00	7.93	1488	8.75	7.9	5-5-19 20:00	7.91	820	8.36	35.6	5-5-19 20:00	8.76	1157	8.53	23.9						8-5-19 14:00	20.85	2082	8.34	4.8					
5-5-19 23:15	7.87	1485	8.76	8.0	5-5-19 20:15	7.89	821	8.37	49.0	5-5-19 20:15	8.69	1157	8.53	23.4						8-5-19 14:15	20.82	2083	8.34	3.7					
5-5-19 23:30	7.84	1485	8.76	8.1	5-5-19 20:30	7.81	821	8.37	48.2	5-5-19 20:30	8.65	1157	8.53	23.8						8-5-19 14:30	20.81	2084	8.34	4.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-5-19 23:45	7.81	1486	8.76	8.3	5-5-19 20:45	7.78	822	8.37	85.0	5-5-19 20:45	8.61	1157	8.53	26.2						8-5-19 14:45	20.80	2082	8.34	3.8					
5-6-19 0:00	7.73	1487	8.76	7.7	5-5-19 21:00	7.76	822	8.37	35.1	5-5-19 21:00	8.54	1157	8.53	24.3						8-5-19 15:00	20.78	2084	8.34	4.9					
5-6-19 0:15	7.72	1488	8.76	7.8	5-5-19 21:15	7.70	824	8.37	42.1	5-5-19 21:15	8.51	1156	8.53	24.6						8-5-19 15:15	20.79	2083	8.35	3.8					
5-6-19 0:30	7.64	1488	8.75	8.1	5-5-19 21:30	7.59	826	8.37	46.2	5-5-19 21:30	8.51	1156	8.53	24.5						8-5-19 15:30	20.81	2087	8.35	4.8					
5-6-19 0:45	7.66	1488	8.76	7.7	5-5-19 21:45	7.51	834	8.36	51.8	5-5-19 21:45	8.44	1156	8.53	23.2						8-5-19 15:45	20.81	2090	8.35	3.8					
5-6-19 1:00	7.61	1490	8.76	7.9	5-5-19 22:00	7.41	837	8.36	45.0	5-5-19 22:00	8.38	1155	8.52	25.5						8-5-19 16:00	20.89	2095	8.34	4.6					
5-6-19 1:15	7.58	1487	8.75	7.8	5-5-19 22:15	7.34	825	8.35	42.7	5-5-19 22:15	8.34	1156	8.52	24.0						8-5-19 16:15	20.88	2095	8.33	3.5					
5-6-19 1:30	7.51	1488	8.76	7.8	5-5-19 22:30	7.36	812	8.35	58.7	5-5-19 22:30	8.26	1155	8.52	24.9						8-5-19 16:30	20.93	2099	8.34	4.5					
5-6-19 1:45	7.50	1487	8.75	7.5	5-5-19 22:45	7.34	836	8.35	23.6	5-5-19 22:45	8.23	1154	8.51	26.1						8-5-19 16:45	20.99	2103	8.34	3.7					
5-6-19 2:00	7.48	1488	8.76	7.2	5-5-19 23:00	7.29	814	8.35	44.1	5-5-19 23:00	8.20	1153	8.52	23.3						8-5-19 17:00	20.98	2099	8.33	4.6					
5-6-19 2:15	7.44	1489	8.75	7.3	5-5-19 23:15	7.33	790	8.35	42.8	5-5-19 23:15	8.17	1154	8.50	23.7						8-5-19 17:15	20.99	2095	8.35	3.7					
5-6-19 2:30	7.43	1489	8.75	7.4	5-5-19 23:30	7.30	781	8.35	49.0	5-5-19 23:30	8.14	1153	8.51	25.1						8-5-19 17:30	21.05	2100	8.35	4.6					
5-6-19 2:45	7.39	1489	8.75	7.5	5-5-19 23:45	7.32	765	8.35	38.3	5-5-19 23:45	8.09	1153	8.51	22.7						8-5-19 17:45	21.20	2103	8.34	3.6					
5-6-19 3:00	7.36	1490	8.75	7.4	5-6-19 0:00	7.39	813	8.36	45.4	5-6-19 0:00	8.03	1153	8.52	26.0						8-5-19 18:00	21.26	2110	8.34	4.6					
5-6-19 3:15	7.33	1490	8.75	7.5	5-6-19 0:15	7.38	812	8.36	49.9	5-6-19 0:15	7.98	1153	8.51	23.2						8-5-19 18:15	21.26	2110	8.34	3.7					
5-6-19 3:30	7.23	1490	8.76	8.0	5-6-19 0:30	7.34	833	8.36	49.0	5-6-19 0:30	7.94	1153	8.51	23.4						8-5-19 18:30	21.33	2112	8.34	4.6					
5-6-19 3:45	7.30	1489	8.75	7.4	5-6-19 0:45	7.32	835	8.36	50.9	5-6-19 0:45	7.89	1152	8.51	25.3						8-5-19 18:45	21.38	2110	8.34	3.6					
5-6-19 4:00	7.26	1489	8.75	7.4	5-6-19 1:00	7.29	834	8.36	46.1	5-6-19 1:00	7.81	1150	8.51	23.6						8-5-19 19:00	21.48	2118	8.32	4.5					
5-6-19 4:15	7.24	1490	8.75	7.6	5-6-19 1:15	7.24	837	8.36	22.1	5-6-19 1:15	7.77	1149	8.51	27.2						8-5-19 19:15	21.55	2121	8.32	3.5					
5-6-19 4:30	7.21	1489	8.75	7.3	5-6-19 1:30	7.28	838	8.35	50.6	5-6-19 1:30	7.76	1148	8.50	31.0						8-5-19 19:30	21.58	2114	8.33	4.7					
5-6-19 4:45	7.18	1490	8.75	7.2	5-6-19 1:45	7.25	837	8.35	16.8	5-6-19 1:45	7.72	1151	8.50	24.5						8-5-19 19:45	21.57	2108	8.34	3.6					
5-6-19 5:00	7.17	1488	8.75	7.3	5-6-19 2:00	7.19	840	8.36	50.3	5-6-19 2:00	7.73	1151	8.50	24.4						8-5-19 20:00	21.61	2110	8.33	4.6					
5-6-19 5:15	7.12	1491	8.75	7.3	5-6-19 2:15	7.19	840	8.35	53.9	5-6-19 2:15	7.68	1151	8.50	24.4						8-5-19 20:15	21.61	2105	8.33	3.6					
5-6-19 5:30	7.11	1489	8.75	8.2	5-6-19 2:30	7.18	845	8.35	158.0	5-6-19 2:30	7.67	1152	8.50	25.4						8-5-19 20:30	21.60	2106	8.33	4.6					
5-6-19 5:45	7.10	1490	8.75	7.1	5-6-19 2:45	7.27	851	8.32	48.7	5-6-19 2:45	7.62	1151	8.50	26.5						8-5-19 21:00	21.83	2098	8.35	3.5					
5-6-19 6:00	7.09	1489	8.75	7.3	5-6-19 3:00	7.27	847	8.31	49.7	5-6-19 3:00	7.63	1150	8.49	25.4						8-5-19 21:15	21.94	2103	8.34	4.6					
5-6-19 6:15	7.08	1493	8.75	7.1	5-6-19 3:15	7.29	844	8.34	49.4	5-6-19 3:15	7.63	1151	8.49	33.1						8-5-19 21:30	22.04	2101	8.35	3.7					
5-6-19 6:30	7.08	1490	8.74	7.2	5-6-19 3:30	7.24	843	8.35	229.9	5-6-19 3:30	7.62	1150	8.49	36.5						8-5-19 21:45	22.13	2102	8.34	4.6					
5-6-19 6:45	7.06	1490	8.75	8.0	5-6-19 3:45	7.20	841	8.35	66.6	5-6-19 3:45	7.58	1150	8.49	28.6						8-5-19 22:00	22.20	2104	8.34	3.5					
5-6-19 7:00	7.05	1491	8.75	7.5	5-6-19 4:00	7.12	842	8.35	80.6	5-6-19 4:00	7.54	1150	8.49	25.2						8-5-19 22:15	22.11	2108	8.34	4.3					
5-6-19 7:15	7.06	1490	8.75	7.4	5-6-19 4:15	7.12	840	8.35	72.2	5-6-19 4:15	7.49	1149	8.48	26.1						8-5-19 22:30	22.11	2108	8.34	3.5					
5-6-19 7:30	7.03	1490	8.75	7.9	5-6-19 4:30	7.11	838	8.35	71.9	5-6-19 4:30	7.47	1148	8.48	27.7						8-5-19 22:45	22.11	2103	8.34	4.7					
5-6-19 7:45	7.03	1492	8.75	7.0	5-6-19 4:45	7.14	827	8.35	77.5	5-6-19 4:45	7.48	1145	8.48	26.1						8-5-19 23:00	22.09	2101	8.35	3.6					
5-6-19 8:00	7.02	1491	8.75	7.1	5-6-19 5:00	7.11	818	8.35	79.3	5-6-19 5:00	7.45	1146	8.47	27.2						8-5-19 23:15	22.07	2110	8.34	4.7					
5-6-19 8:15	7.02	1490	8.75	7.0	5-6-19 5:15					5-6-19 5:15	7.44	1144	8.47	27.8						8-5-19 23:30	22.28	2156	8.31	3.5					
5-6-19 8:30	7.04	1491	8.76	7.3	5-6-19 5:30	7.05	808	8.35	91.1	5-6-19 5:30	7.42	1143	8.48	25.6						8-5-19 23:45	22.35	2152	8.32	4.5					
5-6-19 8:45	7.13	1490	8.76	7.7	5-6-19 5:45	7.08	790	8.34	92.9	5-6-19 5:45	7.43	1145	8.48	26.5						8-6-19 0:00	22.40	2146	8.32	3.6					
5-6-19 9:00	7.18	1489	8.75	8.4	5-6-19 6:00	7.09	784	8.33	91.2	5-6-19 6:00	7.42	1145	8.48	29.6						8-6-19 0:15	22.40	2149	8.31	4.8					
5-6-19 9:15	7.20	1490	8.75	7.3	5-6-19 6:15	7.09	773	8.33	91.2	5-6-19 6:15	7.42	1146	8.48	25.5						8-6-19 0:30	22.41	2141	8.32	3.5					
5-6-19 9:30	7.30	1488	8.75	9.7	5-6-19 6:30	7.05	811	8.33	95.4	5-6-19 6:30	7.42	1146	8.48	27.1						8-6-19 0:45	22.40	2138	8.33	4.6					
5-6-19 9:45	7.50	1488	8.75	8.1	5-6-19 6:45	7.07	834	8.35	97.8	5-6-19 6:45	7.41	1143	8.48	28.6						8-6-19 1:00	22.38	2139	8.33	3.5					
5-6-19 10:00	7.61	1487	8.75	9.5	5-6-19 7:00	7.08	835	8.35	100.3	5-6-19 7:00	7.40	1143	8.48	27.8						8-6-19 1:15	22.35	2139	8.32	4.6					
5-6-19 10:15	7.66	1490	8.75	8.3	5-6-19 7:15	7.08	835	8.34	102.2	5-6-19 7:15	7.41	1142	8.48	27.0						8-6-19 1:30	22.32	2138	8.34	3.5					
5-6-19 10:30	7.75	1492	8.75	8.8	5-6-19 7:30	7.11	835	8.35	102.3	5-6-19 7:30	7.38	1141	8.48	26.7						8-6-19 1:45	22.30	2136	8.34	4.7					
5-6-19 10:45	7.94	1490	8.75	8.2	5-6-19 7:45	7.10	834	8.34	103.5	5-6-19 7:45	7.37	1142	8.48	25.9						8-6-19 2:00	22.27	2133	8.35	3.6					
5-6-19 11:00	8.17	1499	8.75	31.7	5-6-19 8:00	7.13	834	8.34	108.3	5-6-19 8:00	7.38	1143	8.48	27.3						8-6-19 2:15	22.23	2133	8.34	4.4					
5-6-19 11:15	8.06	1510	8.75	7.2	5-6-19 8:15	7.16	834	8.35	106.2	5-6-19 8:15	7.38	1142	8.48	26.6						8-6-19 2:30	22.22	2130	8.35	3.5					
5-6-19 11:30	8.13	1488	8.75	7.9	5-6-19 8:30	7.20	835	8.34	111.7	5-6-19 8:30	7.43	1142	8.48	29.6						8-6-19 2:45	22.19	2131	8.34	4.6					
5-6-19 11:45	7.95	1498	8.75	7.2	5-6-19 8:45	7.25	835	8.31	111.7	5-6-19 8:45	7.45	1143	8.48	26.5						8-6-19 3:00	22.17	2127	8.36	3.5					
5-6-19 12:00	7.91	1500	8.76	8.2	5-6-19 9:00	7.30	834	8.31	110.6	5-6-19 9:00	7.57	1143	8.48	28.3						8-6-19 3:15	22.16	2129	8.35	4.5					
5-6-19 12:15	8.11	1505	8.77	7.4	5-6-19 9:15	7.37	835	8.32	115.1	5-6-19 9:15	7.64	1142	8.47	27.5						8-6-19 3:30	22.15	2129	8.36	3.5					
5-6-19 12:30	8.19	1504	8.77	7.4	5-6-19 9:30	7.44	835	8.34	127.4	5-6-19 9:30	7.72	1142	8.48	27.7						8-6-19 3:45	22.13	2129	8.35	4.5					
5-6-19 12:45	8.16	1505	8.77	10.5	5-6-19 9:45	7.55	835	8.36	47.8	5-6-19 9:45	7.84	1143	8.47	28.0						8-6-19 4:00	22.10	2127	8.35	3.6					
5-6-19 13:00	8.33	1507	8.78	7.8	5-6-19 10:00	7.61	833	8.37	52.0	5-6-19 10:00	7.96	1142	8.48	28.0						8-6-19 4:15	22.06	2130	8.34	4.5					
5-6-19 13:15	8.79	1509	8.79	15.4	5-6-19 10:15	7.60	832	8.37	64.6	5-6-19 10:15	8.20	1141	8.48	28.5						8-6-19 4:30	22.04	2129	8.34	3.5					
5-6-19 13:30	8.80	1505	8.78	8.6	5-6-19 10:30	7.63	831	8.36	54.1	5-6-19 10:30	8.37	1144	8.48	29.2						8-6-19 4:45	22.03	2131	8.35	4.5					
5-6-19 13:45	8.97	1493	8.79	8.7	5-6-19 10:45	7.67	842	8.36	52.8	5-6-19 10:45	8.38	1141	8.47	25.1						8-6-19 5:00	22.00	2130	8.35	3.5					
5-6-19 14:00	8.76	1502	8.78	7.7	5-6-19 11:00	7.81	826	8.35	65.9	5-6-19 11:00	8.39	1138	8.47	26.0						8-6-19 5:15	21.99	2131	8.35	4.6					
5-6-19 14:15	8.85	1503	8.78	8.5	5-6-19 11:15	7.96	824	8.35	55.6	5-6-19 11:15	8.36	1141	8.48	26.5						8-6-19 5:30	21.96	2130	8.36	3.4					
5-6-19 14:30	8.83	1505	8.77	8.1	5-6-19 11:30	8.17	803	8.34	67.2	5-6-19 11:30	8.24	1144	8.47	24.5						8-6-19 5:45	21.94	2131	8.35	4.6					
5-6-19 14:45	8.92	1529	8.78	7.4	5-6-19 11:45	8.39	785	8.34	69.0	5-6-19 11:45	8.05	1143	8.48	27.0						8-6-19 6:00	21.90	2129	8.35	3.5					
5-6-19 15:00	8.96	1504	8.78	8.1	5-6-19 12:00	8.56	778	8.34	49.7	5-6-19 12:00	7.98	1144	8.48	26.9						8-6-19 6:15	21.84	2131	8.35	4.6					
5-6-19 15:15	9.05	1511	8.78	11.1	5-6-19 12:15	8.38	773	8.34	53.5	5-6-19 12:15	7.95	1144	8.48	49.9						8-6-19 6:30	21.81	2129	8.35	3.4					
5-6-19 15:30	9.07	1507	8.79	9.9	5-6-19 12:30	8.60	832	8.34	65.4	5-6-19 12:30	8.01	1145	8.48	27.3						8-6-19 6:45	21.74	2130	8.35	4.6					
5-6-19 15:45	9.17	1505	8.80	12.8	5-6-19 12:45	8.98	831	8.34	42.0	5-6-19 12:45	8.44	1137	8.48	29.0						8-6-19 7:00	21.78	2130	8.36	3.6					
5-6-19 16:00	9.21	1503	8.80	10.1	5-6-19 13:00	8.93	831	8.34	54.5	5-6-19 13:00	8.63	1139	8.48	28.5						8-6-19 7:15	21.76	2131	8.36	4.7					
5-6-19 16:15	9.19	1509	8.79	8.2	5-6-19 13:15	8.87	833	8.35	51.1	5-6-19 13:15	8.66	1140	8.48	25.7						8-6-19 7:30	21.73	2128	8.36	3.4					
5-6-19 16:30	9.19	1509	8.79	9.0	5-6-19 13:30	8.84	834	8.35	55.7	5-6-19 13:30	8.97	1142	8.48	25.4						8-6-19 7:45	21.71	2131	8.36	4.6					
5-6-19 16:45	9.23	1511	8.81	15.6	5-6-19 13:45	8.81	834	8.34	51.6	5-6-19 13:45	8.95	1143	8.47	25.5						8-6-19 8:00	21.65	2128	8.36	3.4					
5-6-19 17:00	9.25	1514	8.82	9.0	5-6-19 14:00	8.70	836	8.35	53.9	5-6-19 14:00	9.20	1144	8.47	25.5						8-6-19 8:15	21.58	2130	8.35	4.5					
5-6-19 17:15	9.31	1507	8.81	8.4	5-6-19 14:15	8.76	838	8.35	15.8	5-6-19 14:15	9.17	1144	8.47	26.1						8-6-19 8:30	21.55	2129	8.36	3.4					
5-6-19 17:30	9.34	1511	8.81	11.7	5-6-19 14:30	9.01	837	8.33	23.4	5-6-19 14:30	9.23	1143	8.47	25.5						8-6-19 8:45	21.56	2132	8.36	4.5					
5-6-19 17:45	9.34	1508	8.82	10.0	5-6-19 14:45	9.22	837	8.33	19.3	5-6-19 14:45	9.35	1148	8.46	27.4						8-6-19 9:00	21.53	2130	8.36	3.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-6-19 18:00	9.40	1510	8.82	9.1	5-6-19 15:00	9.39	833	8.34	14.7	5-6-19 15:00	9.33	1143	8.46	25.0						8-6-19 9:15	21.50	2132	8.36	4.5					
5-6-19 18:15	9.42	1511	8.82	8.9	5-6-19 15:15	9.46	816	8.33	13.8	5-6-19 15:15	9.38	1147	8.46	24.9						8-6-19 9:30	21.46	2130	8.35	3.3					
5-6-19 18:30	9.51	1508	8.82	10.9	5-6-19 15:30	9.65	804	8.33	14.4	5-6-19 15:30	9.50	1143	8.47	24.2						8-6-19 9:45	21.42	2131	8.36	4.6					
5-6-19 18:45	9.54	1506	8.82	10.7	5-6-19 15:45	9.82	822	8.33	16.8	5-6-19 15:45	9.42	1142	8.47	25.0						8-6-19 10:00	21.37	2129	8.36	3.4					
5-6-19 19:00	9.54	1507	8.82	43.6	5-6-19 16:00	10.31	791	8.32	36.4	5-6-19 16:00	9.58	1141	8.47	24.3						8-6-19 10:15	21.32	2131	8.35	4.4					
5-6-19 19:15	9.52	1508	8.82	56.0	5-6-19 16:15	10.39	770	8.33	28.8	5-6-19 16:15	9.59	1141	8.47	24.9						8-6-19 10:30	21.30	2131	8.36	3.4					
5-6-19 19:30	9.51	1507	8.83	8.3	5-6-19 16:30	10.38	761	8.33	24.5	5-6-19 16:30	9.91	1164	8.47	23.8						8-6-19 10:45	21.24	2134	8.36	4.5					
5-6-19 19:45	9.50	1507	8.82	48.7	5-6-19 16:45	10.58	827	8.32	40.7	5-6-19 16:45	9.96	1137	8.47	24.7						8-6-19 11:00	21.25	2136	8.36	3.3					
5-6-19 20:00	9.46	1511	8.82	9.3	5-6-19 17:00	10.28	828	8.32	61.0	5-6-19 17:00	9.81	1139	8.46	24.7						8-6-19 11:15	21.24	2139	8.36	4.1					
5-6-19 20:15	9.43	1511	8.82	9.6	5-6-19 17:15	10.15	831	8.33	39.7	5-6-19 17:15	9.74	1140	8.47	26.7						8-6-19 11:30	21.20	2136	8.35	3.4					
5-6-19 20:30	9.42	1512	8.82	9.6	5-6-19 17:30	10.13	830	8.33	41.7	5-6-19 17:30	9.72	1141	8.47	26.0						8-6-19 11:45	21.15	2139	8.35	4.5					
5-6-19 20:45	9.37	1514	8.83	8.7	5-6-19 17:45	10.06	831	8.33	41.7	5-6-19 17:45	9.72	1143	8.47	24.3						8-6-19 12:00	21.11	2138	8.36	3.3					
5-6-19 21:00	9.33	1511	8.83	8.4	5-6-19 18:00	9.85	830	8.34	42.1	5-6-19 18:00	9.79	1144	8.46	23.9						8-6-19 12:15	21.03	2140	8.35	4.5					
5-6-19 21:15	9.31	1511	8.83	8.2	5-6-19 18:15	9.71	835	8.34	43.1	5-6-19 18:15	10.06	1144	8.46	25.6						8-6-19 12:30	21.04	2138	8.36	3.3					
5-6-19 21:30	9.28	1510	8.83	8.1	5-6-19 18:30	9.60	837	8.31	46.2	5-6-19 18:30	10.14	1142	8.46	25.4						8-6-19 12:45	21.01	2139	8.36	4.3					
5-6-19 21:45	9.25	1511	8.84	8.9	5-6-19 18:45	9.52	838	8.30	48.5	5-6-19 18:45	10.15	1135	8.46	26.0						8-6-19 13:00	20.99	2137	8.35	3.3					
5-6-19 22:00	9.20	1511	8.84	7.8	5-6-19 19:00	9.45	839	8.30	53.0	5-6-19 19:00	10.11	1136	8.46	28.0						8-6-19 13:15	20.96	2140	8.35	4.4					
5-6-19 22:15	9.15	1514	8.84	7.9	5-6-19 19:15	9.49	836	8.34	49.3	5-6-19 19:15	9.97	1136	8.46	24.3						8-6-19 13:30	20.94	2137	8.36	3.3					
5-6-19 22:30	9.13	1513	8.84	8.0	5-6-19 19:30	9.80	821	8.33	52.3	5-6-19 19:30	9.91	1136	8.46	26.4						8-6-19 13:45	20.89	2140	8.35	4.3					
5-6-19 22:45	9.10	1511	8.84	11.5	5-6-19 19:45	9.84	797	8.32	54.5	5-6-19 19:45	9.97	1138	8.46	23.5						8-6-19 14:00	20.86	2138	8.36	3.4					
5-6-19 23:00	9.09	1513	8.83	7.2	5-6-19 20:00	9.77	783	8.32	149.5	5-6-19 20:00	10.03	1139	8.46	22.3						8-6-19 14:15	20.81	2141	8.36	4.5					
5-6-19 23:15	9.05	1509	8.84	7.9	5-6-19 20:15	9.67	793	8.31	61.8	5-6-19 20:15	10.13	1140	8.46	23.7						8-6-19 14:30	20.79	2139	8.36	3.3					
5-6-19 23:30	9.01	1512	8.83	9.9	5-6-19 20:30	9.66	761	8.29	63.5	5-6-19 20:30	10.05	1141	8.45	24.0						8-6-19 14:45	20.78	2142	8.36	4.3					
5-6-19 23:45	9.00	1514	8.83	7.7	5-6-19 20:45	9.63	755	8.28	66.1	5-6-19 20:45	10.01	1153	8.46	25.4						8-6-19 15:00	20.76	2140	8.36	3.4					
5-7-19 0:00	8.98	1526	8.83	7.9	5-6-19 21:00	9.56	831	8.30	94.9	5-6-19 21:00	9.88	1134	8.46	23.7						8-6-19 15:15	20.76	2143	8.36	4.4					
5-7-19 0:15	8.97	1514	8.83	7.5	5-6-19 21:15	9.49	835	8.31	97.7	5-6-19 21:15	9.84	1140	8.46	23.9						8-6-19 15:30	20.72	2141	8.35	3.3					
5-7-19 0:30	8.98	1513	8.84	13.1	5-6-19 21:30	9.43	835	8.32	101.5	5-6-19 21:30	9.83	1135	8.47	23.8						8-6-19 15:45	20.66	2143	8.36	4.4					
5-7-19 0:45	8.96	1516	8.84	7.5	5-6-19 21:45	9.38	836	8.30	106.3	5-6-19 21:45	9.76	1137	8.46	22.6						8-6-19 16:00	20.63	2141	8.37	3.3					
5-7-19 1:00	8.91	1519	8.84	7.5	5-6-19 22:00	9.32	836	8.30	117.5	5-6-19 22:00	9.70	1138	8.47	22.4						8-6-19 16:15	20.58	2143	8.36	4.2					
5-7-19 1:15	8.88	1516	8.84	7.6	5-6-19 22:15	9.29	837	8.30	120.9	5-6-19 22:15	9.65	1135	8.47	21.9						8-6-19 16:30	20.63	2141	8.37	3.2					
5-7-19 1:30	8.86	1517	8.83	7.9	5-6-19 22:30	9.26	837	8.27	124.0	5-6-19 22:30	9.61	1137	8.47	23.1						8-6-19 16:45	20.61	2142	8.36	4.5					
5-7-19 1:45	8.87	1514	8.84	9.9	5-6-19 22:45	9.24	838	8.28	116.1	5-6-19 22:45	9.61	1136	8.45	24.5						8-6-19 17:00	20.59	2141	8.36	3.3					
5-7-19 2:00	8.80	1518	8.84	7.6	5-6-19 23:00	9.21	838	8.23	120.0	5-6-19 23:00	9.58	1135	8.46	24.5						8-6-19 17:15	20.57	2143	8.36	4.5					
5-7-19 2:15	8.76	1515	8.83	7.3	5-6-19 23:15	9.16	838	8.23	127.7	5-6-19 23:15	9.55	1135	8.46	23.6						8-6-19 17:30	20.56	2142	8.37	3.3					
5-7-19 2:30	8.73	1518	8.83	7.1	5-6-19 23:30	9.13	838	8.26	139.9	5-6-19 23:30	9.52	1136	8.47	26.8						8-6-19 17:45	20.59	2144	8.37	4.5					
5-7-19 2:45	8.69	1516	8.84	7.0	5-6-19 23:45	9.06	838	8.30	138.2	5-6-19 23:45	9.47	1136	8.47	24.0						8-6-19 18:00	20.57	2142	8.37	3.2					
5-7-19 3:00	8.65	1522	8.84	6.6	5-7-19 0:00	9.08	810	8.32	144.2	5-7-19 0:00	9.41	1138	8.47	22.7						8-6-19 18:15	20.53	2144	8.37	4.6					
5-7-19 3:15	8.66	1516	8.84	7.0	5-7-19 0:15	9.07	800	8.33	148.1	5-7-19 0:15	9.35	1137	8.46	22.6						8-6-19 18:30	20.55	2142	8.38	3.2					
5-7-19 3:30	8.61	1520	8.84	9.5	5-7-19 0:30	9.06	814	8.32	155.1	5-7-19 0:30	9.30	1138	8.47	23.6						8-6-19 18:45	20.57	2144	8.38	4.3					
5-7-19 3:45	8.57	1520	8.84	6.7	5-7-19 0:45	9.02	798	8.32	244.6	5-7-19 0:45	9.27	1140	8.47	24.9						8-6-19 19:00	20.61	2142	8.39	3.1					
5-7-19 4:00	8.50	1520	8.84	8.3	5-7-19 1:00	8.98	780	8.31	248.8	5-7-19 1:00	9.22	1136	8.47	24.8						8-6-19 19:15	20.69	2144	8.38	4.4					
5-7-19 4:15	8.43	1521	8.84	7.0	5-7-19 1:15	8.93	775	8.30	262.3	5-7-19 1:15	9.20	1135	8.47	24.4						8-6-19 19:30	20.72	2142	8.39	3.2					
5-7-19 4:30	8.37	1519	8.83	7.2	5-7-19 1:30	8.90	837	8.30	280.4	5-7-19 1:30	9.16	1136	8.47	26.9						8-6-19 19:45	20.70	2144	8.37	4.3					
5-7-19 4:45	8.42	1518	8.83	7.1	5-7-19 1:45	8.83	838	8.31	303.6	5-7-19 1:45	9.12	1137	8.47	25.8						8-6-19 20:00	20.68	2143	8.38	3.1					
5-7-19 5:00	8.33	1518	8.83	6.9	5-7-19 2:00	8.75	839	8.31	311.0	5-7-19 2:00	9.11	1137	8.47	24.9						8-6-19 20:15	20.65	2145	8.37	4.2					
5-7-19 5:15	8.32	1522	8.83	9.9	5-7-19 2:15	8.73	840	8.30	317.9	5-7-19 2:15	9.07	1138	8.47	24.7						8-6-19 20:30	20.66	2143	8.38	3.1					
5-7-19 5:30	8.27	1514	8.83	6.7	5-7-19 2:30	8.63	840	8.30	334.0	5-7-19 2:30	9.02	1138	8.48	25.9						8-6-19 20:45	20.67	2145	8.38	3.9					
5-7-19 5:45	8.24	1517	8.82	7.3	5-7-19 2:45	8.56	841	8.30	344.6	5-7-19 2:45	8.99	1136	8.47	22.4						8-6-19 21:00	20.68	2144	8.39	3.1					
5-7-19 6:00	8.17	1520	8.82	7.0	5-7-19 3:00	8.59	842	8.25	406.0	5-7-19 3:00	8.94	1142	8.47	22.1						8-6-19 21:15	20.71	2144	8.38	3.9					
5-7-19 6:15	8.21	1523	8.83	6.8	5-7-19 3:15	8.56	842	8.27	420.8	5-7-19 3:15	8.88	1136	8.47	22.1						8-6-19 21:30	20.74	2141	8.40	3.2					
5-7-19 6:30	8.19	1523	8.83	6.9	5-7-19 3:30	8.53	843	8.24	415.3	5-7-19 3:30	8.81	1135	8.46	21.6						8-6-19 21:45	20.76	2145	8.38	4.3					
5-7-19 6:45	8.17	1521	8.83	7.2	5-7-19 3:45	8.51	843	8.26	426.8	5-7-19 3:45	8.77	1136	8.47	21.2						8-6-19 22:00	20.82	2144	8.40	3.2					
5-7-19 7:00	8.18	1521	8.84	7.9	5-7-19 4:00	8.49	843	8.31	435.1	5-7-19 4:00	8.73	1136	8.47	20.8						8-6-19 22:15	20.84	2146	8.37	4.3					
5-7-19 7:15	8.20	1520	8.83	7.8	5-7-19 4:15	8.47	842	8.33	71.4	5-7-19 4:15	8.70	1137	8.48	21.8						8-6-19 22:30	20.88	2144	8.39	3.1					
5-7-19 7:30	8.16	1524	8.83	7.0	5-7-19 4:30	8.43	837	8.33	40.5	5-7-19 4:30	8.59	1136	8.48	25.4						8-6-19 22:45	20.89	2146	8.38	3.2					
5-7-19 7:45	8.18	1521	8.83	7.3	5-7-19 4:45	8.39	830	8.34	45.3	5-7-19 4:45	8.56	1137	8.48	25.5						8-6-19 23:00	20.94	2145	8.40	3.1					
5-7-19 8:00	8.21	1527	8.84	7.3	5-7-19 5:00	8.41	819	8.34	59.0	5-7-19 5:00	8.51	1138	8.48	22.3						8-6-19 23:15	20.97	2147	8.38	4.3					
5-7-19 8:15	8.27	1527	8.84	6.8	5-7-19 5:15	8.43	809	8.32	53.7	5-7-19 5:15	8.47	1137	8.48	22.8						8-6-19 23:30	20.98	2146	8.40	3.2					
5-7-19 8:30	8.31	1527	8.84	7.8	5-7-19 5:30	8.45	829	8.32	33.7	5-7-19 5:30	8.44	1138	8.48	24.0						8-6-19 23:45	20.96	2148	8.37	4.5					
5-7-19 8:45	8.35	1516	8.83	7.6	5-7-19 5:45	8.37	791	8.33	31.6	5-7-19 5:45	8.43	1134	8.48	21.7						8-7-19 0:00	20.94	2147	8.39	3.1					
5-7-19 9:00	8.38	1519	8.84	7.8	5-7-19 6:00	8.38	781	8.33	18.4	5-7-19 6:00	8.42	1126	8.46	25.4						8-7-19 0:15	20.91	2149	8.37	4.2					
5-7-19 9:15	8.45	1521	8.84	7.5	5-7-19 6:15	8.39	777	8.33	28.0	5-7-19 6:15	8.42	1123	8.45	27.3						8-7-19 0:30	20.89	2147	8.40	3.1					
5-7-19 9:30	8.56	1519	8.84	7.3	5-7-19 6:30	8.39	837	8.33	31.6	5-7-19 6:30	8.39	1113	8.43	30.5						8-7-19 0:45	20.90	2149	8.40	4.2					
5-7-19 9:45	8.71	1518	8.83	7.3	5-7-19 6:45	8.40	839	8.33	28.1	5-7-19 6:45	8.40	1114	8.43	28.0						8-7-19 1:00	20.90	2148	8.41	3.2					
5-7-19 10:00	8.77	1518	8.85	8.2	5-7-19 7:00	8.43	839	8.33	29.3	5-7-19 7:00	8.36	1107	8.40	30.4						8-7-19 1:15	20.91	2148	8.41	4.3					
5-7-19 10:15	8.96	1520	8.87	7.9	5-7-19 7:15	8.45	840	8.33	30.6	5-7-19 7:15	8.35	1113	8.42	31.6						8-7-19 1:30	20.89	2147	8.42	3.2					
5-7-19 10:30	9.46	1517	8.86	11.4	5-7-19 7:30	8.46	841	8.33	23.7	5-7-19 7:30	8.39	1119	8.43	28.1						8-7-19 1:45	20.86	2149	8.41	3.5					
5-7-19 10:45	9.48	1513	8.86	8.0	5-7-19 7:45	8.48	841	8.33	42.5	5-7-19 7:45	8.38	1114	8.42	28.5						8-7-19 2:00	20.81	2148	8.41	3.2					
5-7-19 11:00	9.68	1518	8.87	9.8	5-7-19 8:00	8.51	841	8.32	42.3	5-7-19 8:00	8.41	1114	8.42	28.4						8-7-19 2:15	20.75	2150	8.41	3.9					
5-7-19 11:15	10.20	1525	8.87	8.3	5-7-19 8:15	8.51	841	8.30	51.2	5-7-19 8:15	8.41	1108	8.40	29.9						8-7-19 2:30	20.70	2147	8.41	3.2					
5-7-19 11:30	10.35	1567	8.85	8.0	5-7-19 8:30	8.55	841	8.29	41.5	5-7-19 8:30	8.43	1107	8.40	28.1						8-7-19 2:45	20.71	2150	8.41	4.2					
5-7-19 11:45	10.42	1518	8.84	7.7	5-7-19 8:45	8.59	841	8.29	42.3	5-7-19 8:45	8.47	1106	8.40	32.2						8-7-19 3:00	20.72	2148	8.41	3.2					
5-7-19 12:00	10.37	1528	8.84	7.2	5-7-19 9:00	8.65	841	8.32	52.6	5-7-19 9:00	8.56	1109	8.40	33.0						8-7-19 3:15	20.68	2150	8.39	4.2					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-7-19 12:15	11.17	1528	8.86	9.2	5-7-19 9:15	8.69	840	8.33	5.4	5-7-19 9:15	8.65	1109	8.40	31.7						8-7-19 3:30	20.63	2148	8.39	3.1					
5-7-19 12:30	10.85	1519	8.87	6.1	5-7-19 9:30	8.78	837	8.33	7.6	5-7-19 9:30	8.74	1109	8.41	30.1						8-7-19 3:45	20.57	2150	8.40	4.4					
5-7-19 12:45	10.97	1519	8.84	8.5	5-7-19 9:45	8.86	835	8.34	8.0	5-7-19 9:45	8.87	1109	8.41	28.7						8-7-19 4:00	20.56	2151	8.42	3.2					
5-7-19 13:00	10.38	1519	8.84	40.6	5-7-19 10:00	8.95	826	8.34	5.2	5-7-19 10:00	9.12	1110	8.40	27.5						8-7-19 4:15	20.54	2152	8.40	4.3					
5-7-19 13:15	10.47	1523	8.85	13.1	5-7-19 10:15	8.95	817	8.34	5.9	5-7-19 10:15	9.13	1108	8.41	29.8						8-7-19 4:30	20.53	2150	8.41	3.1					
5-7-19 13:30	10.76	1523	8.90	9.7	5-7-19 10:30	9.33	2	8.14	0.0	5-7-19 10:30	9.21	1109	8.41	27.4						8-7-19 4:45	20.48	2152	8.41	4.4					
5-7-19 13:45	10.88	1529	8.86	13.6	5-7-19 10:45					5-7-19 10:45	9.40	1112	8.41	29.5						8-7-19 5:00	20.42	2150	8.41	3.1					
5-7-19 14:00	11.11	1531	8.86	10.2	5-7-19 11:00					5-7-19 11:00	9.73	1110	8.40	29.2						8-7-19 5:15	20.42	2153	8.41	4.4					
5-7-19 14:15	11.58	1531	8.85	8.7	5-7-19 11:15					5-7-19 11:15	9.72	1109	8.40	29.0						8-7-19 5:30	20.40	2152	8.41	3.1					
5-7-19 14:30	11.64	1531	8.85	9.0	5-7-19 11:30					5-7-19 11:30	10.04	1112	8.40	27.7						8-7-19 5:45	20.37	2152	8.40	4.4					
5-7-19 14:45	11.95	1532	8.85	9.3	5-7-19 11:45					5-7-19 11:45	10.53	1113	8.39	27.7						8-7-19 6:00	20.30	2151	8.41	3.1					
5-7-19 15:00	11.95	1525	8.85	8.5	5-7-19 12:00					5-7-19 12:00	11.19	1107	8.39	27.2						8-7-19 6:15	20.22	2154	8.40	4.4					
5-7-19 15:15	11.98	1523	8.85	37.8	5-7-19 12:15					5-7-19 12:15	11.87	1109	8.39	31.4						8-7-19 6:30	20.19	2152	8.41	3.0					
5-7-19 15:30	12.52	1562	8.86	26.9	5-7-19 12:30					5-7-19 12:30	11.03	1100	8.39	35.0						8-7-19 6:45	20.17	2154	8.41	4.2					
5-7-19 15:45	12.86	1529	8.84	10.2	5-7-19 12:45					5-7-19 12:45	10.69	1107	8.40	28.5						8-7-19 7:00	20.10	2151	8.41	3.1					
5-7-19 16:00	11.65	1525	8.86	38.0	5-7-19 13:00					5-7-19 13:00	10.57	1102	8.38	28.6						8-7-19 7:15	20.06	2153	8.41	4.3					
5-7-19 16:15	11.49	1528	8.86	9.6	5-7-19 13:15					5-7-19 13:15	10.36	1102	8.38	29.2						8-7-19 7:30	20.03	2153	8.41	3.2					
5-7-19 16:30	11.34	1545	8.87	10.3	5-7-19 13:30					5-7-19 13:30	11.33	1101	8.35	31.5						8-7-19 7:45	20.01	2155	8.41	4.3					
5-7-19 16:45	11.58	1527	8.87	13.4	5-7-19 13:45					5-7-19 13:45	11.85	1109	8.36	26.7						8-7-19 8:00	19.98	2154	8.41	3.0					
5-7-19 17:00	11.92	1533	8.87	10.1	5-7-19 14:00					5-7-19 14:00	12.55	1113	8.37	25.2						8-7-19 8:15	19.92	2156	8.40	4.2					
5-7-19 17:15	12.11	1536	8.89	9.9	5-7-19 14:15					5-7-19 14:15	12.76	1100	8.37	25.9						8-7-19 8:30	19.89	2154	8.41	3.1					
5-7-19 17:30	12.25	1518	8.87	15.3	5-7-19 14:30					5-7-19 14:30	12.69	1107	8.37	24.7						8-7-19 8:45	19.85	2155	8.41	4.3					
5-7-19 17:45	12.34	1534	8.87	10.6	5-7-19 14:15					5-7-19 14:15	12.76	1100	8.37	25.9						8-7-19 9:00	19.79	2154	8.41	3.1					
5-7-19 18:00	12.35	1527	8.87	12.2	5-7-19 14:30					5-7-19 14:30	12.69	1107	8.37	24.7						8-7-19 9:15	19.77	2158	8.42	4.3					
5-7-19 18:15	12.44	1537	8.87	8.8	5-7-19 14:45					5-7-19 14:45	12.45	1124	8.36	25.6						8-7-19 9:30	19.73	2157	8.41	3.1					
5-7-19 18:30	12.52	1540	8.89	9.8	5-7-19 15:00					5-7-19 15:00	12.86	1128	8.37	25.0						8-7-19 9:45	19.67	2160	8.41	4.2					
5-7-19 18:45	12.53	1532	8.87	8.4	5-7-19 15:15					5-7-19 15:15	13.35	1101	8.37	23.8						8-7-19 10:00	19.66	2158	8.41	3.0					
5-7-19 19:00	12.47	1538	8.89	8.5	5-7-19 15:30					5-7-19 15:30	12.98	1109	8.36	26.6						8-7-19 10:15	19.59	2162	8.41	4.2					
5-7-19 19:15	12.55	1542	8.86	9.2	5-7-19 15:45	14.66	733	8.77	0.0	5-7-19 15:45	12.03	1092	8.36	26.6						8-7-19 10:30	19.58	2160	8.41	3.0					
5-7-19 19:30	12.54	1532	8.88	20.1	5-7-19 16:00	14.55	758	8.90	768.7	5-7-19 16:00	12.44	1107	8.36	62.9						8-7-19 10:45	19.54	2161	8.41	4.2					
5-7-19 19:45	12.50	1534	8.88	9.7	5-7-19 16:15	14.50	738	8.87	167.5	5-7-19 16:15	12.15	1097	8.36	28.3						8-7-19 11:00	19.51	2162	8.41	3.0					
5-7-19 20:00	12.47	1537	8.90	7.2	5-7-19 16:30	14.27	680	8.82	1450.3	5-7-19 16:30	12.54	1165	8.36	28.1						8-7-19 11:15	19.48	2162	8.41	4.2					
5-7-19 20:15	12.39	1523	8.88	9.9	5-7-19 16:45	14.10	734	8.81	1418.3	5-7-19 16:45	13.52	1105	8.36	27.1						8-7-19 11:30	19.44	2162	8.41	3.0					
5-7-19 20:30	12.31	1541	8.89	8.9	5-7-19 17:00	14.35	704	8.77	434.1	5-7-19 17:00	13.91	1121	8.35	25.8						8-7-19 11:45	19.40	2163	8.41	4.2					
5-7-19 20:45	12.26	1540	8.88	7.9	5-7-19 17:15	14.40	692	8.74	776.6	5-7-19 17:15	13.88	1110	8.36	34.9						8-7-19 12:00	19.40	2162	8.40	3.1					
5-7-19 21:00	12.24	1538	8.87	13.0	5-7-19 17:30	14.00	761	8.72	517.4	5-7-19 17:30	14.20	1101	8.36	24.5						8-7-19 12:15	19.33	2165	8.40	4.2					
5-7-19 21:15	12.21	1534	8.89	8.0	5-7-19 17:45	14.05	716	8.71	751.8	5-7-19 17:45	14.14	1106	8.36	24.0						8-7-19 12:30	19.33	2163	8.40	3.0					
5-7-19 21:30	12.19	1538	8.89	8.3	5-7-19 18:00	14.18	740	8.70	2838.9	5-7-19 18:00	14.21	1105	8.36	27.3						8-7-19 12:45	19.26	2165	8.41	4.2					
5-7-19 21:45	12.17	1540	8.90	9.0	5-7-19 18:15	14.28	891	8.70	224.2	5-7-19 18:15	14.32	1103	8.37	24.7						8-7-19 13:00	19.26	2164	8.41	3.0					
5-7-19 22:00	12.16	1539	8.90	13.8	5-7-19 18:30	14.26	778	8.68	203.7	5-7-19 18:30	14.21	1102	8.37	21.8						8-7-19 13:15	19.23	2166	8.41	4.2					
5-7-19 22:15	12.33	1543	8.90	7.5	5-7-19 18:45	14.20	792	8.68	838.0	5-7-19 18:45	13.33	1110	8.37	24.3						8-7-19 13:30	19.21	2165	8.41	2.9					
5-7-19 22:30	12.41	1544	8.89	7.7	5-7-19 19:00	14.12	815	8.67	330.1	5-7-19 19:00	14.24	1108	8.36	52.8						8-7-19 13:45	19.15	2167	8.41	4.2					
5-7-19 22:45	12.42	1534	8.92	6.2	5-7-19 19:15	13.97	851	8.66	5283.0	5-7-19 19:15	13.34	1081	8.35	27.6						8-7-19 14:00	19.16	2167	8.41	3.0					
5-7-19 23:00	12.39	1546	8.89	7.1	5-7-19 19:30	13.91	743	8.66	9.8	5-7-19 19:30	13.14	1082	8.36	33.3						8-7-19 14:15	19.13	2169	8.39	4.0					
5-7-19 23:15	12.36	1546	8.89	14.0	5-7-19 19:45	13.90	879	8.65	0.0	5-7-19 19:45	11.75	1084	8.34	30.1						8-7-19 14:30	19.12	2166	8.40	2.9					
5-7-19 23:30	12.32	1545	8.89	5.7	5-7-19 20:00	13.68	789	8.64	817.2	5-7-19 20:00	13.03	1100	8.36	28.9						8-7-19 14:45	19.11	2168	8.41	4.2					
5-7-19 23:45	12.23	1545	8.89	7.9	5-7-19 20:15	13.56	797	8.65	622.3	5-7-19 20:15	13.03	1094	8.35	27.1						8-7-19 15:00	19.08	2166	8.40	2.9					
5-8-19 0:00	12.18	1543	8.89	10.3	5-7-19 20:30	13.46	803	8.65	0.0	5-7-19 20:30	13.02	1087	8.35	30.0						8-7-19 15:15	19.05	2168	8.40	4.0					
5-8-19 0:15	12.11	1542	8.91	6.6	5-7-19 20:45	13.40	773	8.65	254.4	5-7-19 20:45	12.88	1094	8.36	31.8						8-7-19 15:30	19.04	2167	8.41	3.0					
5-8-19 0:30	12.05	1543	8.89	7.4	5-7-19 21:00	13.35	766	8.64	30.2	5-7-19 21:00	12.52	1090	8.35	45.5						8-7-19 15:45	19.06	2169	8.41	4.1					
5-8-19 0:45	12.02	1544	8.89	8.8	5-7-19 21:15	13.28	755	8.64	318.7	5-7-19 21:15	12.79	1096	8.36	23.8						8-7-19 16:00	19.02	2166	8.41	2.9					
5-8-19 1:00	11.96	1544	8.90	8.1	5-7-19 21:30	13.22	801	8.63	0.0	5-7-19 21:30	12.77	1099	8.36	24.6						8-7-19 16:15	19.03	2172	8.41	3.0					
5-8-19 1:15	11.88	1540	8.90	8.1	5-7-19 21:45	13.18	769	8.64	523.8	5-7-19 21:45	12.73	1101	8.36	25.9						8-7-19 16:30	19.04	2169	8.41	2.9					
5-8-19 1:30	11.75	1545	8.91	7.2	5-7-19 22:00	13.14	807	8.63	196.1	5-7-19 22:00	12.82	1105	8.36	24.1						8-7-19 16:45	19.02	2169	8.42	3.0					
5-8-19 1:45	11.73	1546	8.90	12.2	5-7-19 22:15	13.11	771	8.63	62.8	5-7-19 22:15	12.49	1092	8.35	28.4						8-7-19 17:00	19.04	2169	8.42	2.9					
5-8-19 2:00	11.69	1548	8.90	10.2	5-7-19 22:30	13.07	786	8.63	0.0	5-7-19 22:30	12.70	1105	8.37	30.0						8-7-19 17:15	19.04	2170	8.42	2.9					
5-8-19 2:15	11.62	1548	8.90	7.9	5-7-19 22:45	13.04	771	8.63	130.7	5-7-19 22:45	12.68	1103	8.37	21.4						8-7-19 17:30	19.11	2168	8.43	2.8					
5-8-19 2:30	11.54	1546	8.90	6.7	5-7-19 23:00	13.00	789	8.63	28.3	5-7-19 23:00	12.61	1100	8.37	22.2						8-7-19 17:45	19.15	2171	8.43	3.0					
5-8-19 2:45	11.46	1546	8.90	8.4	5-7-19 23:15	12.94	775	8.62	131.7	5-7-19 23:15	12.52	1107	8.35	23.3						8-7-19 18:00	19.18	2168	8.43	2.9					
5-8-19 3:00	11.40	1546	8.90	7.3	5-7-19 23:30	12.88	771	8.62	65.9	5-7-19 23:30	12.31	1100	8.34	23.4						8-7-19 18:15	19.23	2172	8.41	2.9					
5-8-19 3:15	11.31	1548	8.90	7.1	5-7-19 23:45	12.80	727	8.63	440.0	5-7-19 23:45	12.24	1100	8.37	22.8						8-7-19 18:30	19.38	2171	8.44	2.9					
5-8-19 3:30	11.29	1546	8.90	7.0	5-8-19 0:00	12.73	738	8.62	0.0	5-8-19 0:00	12.27	1101	8.38	22.5						8-7-19 18:45	19.49	2174	8.41	3.6					
5-8-19 3:45	11.22	1547	8.90	7.0	5-8-19 0:15	12.55	780	8.63	0.4	5-8-19 0:15	12.19	1103	8.38	22.1						8-7-19 19:00	19.49	2171	8.42	2.9					
5-8-19 4:00	11.18	1547	8.90	8.1	5-8-19 0:30	12.41	815	8.62	24.6	5-8-19 0:30	12.14	1102	8.38	22.8						8-7-19 19:15	19.52	2176	8.41	3.5					
5-8-19 4:15	11.07	1547	8.90	8.1	5-8-19 0:45	12.26	785	8.62	37.8	5-8-19 0:45	12.08	1100	8.38	23.9						8-7-19 19:30	19.61	2174	8.42	2.8					
5-8-19 4:30	11.07	1548	8.89	6.6	5-8-19 1:00	12.08	780	8.62	6.5	5-8-19 1:00	11.99	1100	8.38	36.3						8-7-19 19:45	19.64	2176	8.40	3.6					
5-8-19 4:45	10.98	1546	8.89	6.9	5-8-19 1:15	11.79	744	8.64	0.0	5-8-19 1:15	11.92	1101	8.38	33.1						8-7-19 20:00	19.68	2175	8.42	2.8					
5-8-19 5:00	10.90	1550	8.90	7.1	5-8-19 1:30	11.31	775	8.67	71.3	5-8-19 1:30	11.78	1098	8.37	37.1						8-7-19 20:15	19.70	2177	8.39	3.6					
5-8-19 5:15	10.88	1549	8.90	12.2	5-8-19 1:45	10.88	760	8.72	77.8	5-8-19 1:45	11.72	1098	8.38	28.2						8-7-19 20:30	19.72	2175	8.42	2.9					
5-8-19 5:30	10.80	1549	8.89	6.8	5-8-19 2:00	10.67	799	8.72	45.2	5-8-19 2:00	11.61	1097	8.38	31.1						8-7-19 20:45	19.73	2176	8.41	3.7					
5-8-19 5:45	10.72	1551	8.89	7.3	5-8-19 2:15	10.47	730	8.72	70.7	5-8-19 2:15	11.54	1098	8.39	35.5						8-7-19 21:00	19.73	2176	8.42	2.8					
5-8-19 6:00	10.72	1564	8.89	7.1	5-8-19 2:30	10.47	787	8.72	0.0	5-8-19 2:30	11.47	1099	8.39	38.3						8-7-19 21:15	19.76	2179	8.41	3.6					
5-8-19 6:15	10.66	1548	8.89	7.2	5-8-19 2:45	10.49	786	8.71	62.9	5-8-19 2:45	11.35	1099	8.39	31.8						8-7-19 21:30	19.77	2178	8.41	2.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-8-19 6:30	10.63	1548	8.89	6.7	5-8-19 3:00	10.58	773	8.69	0.0	5-8-19 3:00	11.26	1100	8.38	22.5						8-7-19 21:45	19.80	2183	8.41	3.6					
5-8-19 6:45	10.56	1545	8.89	19.3	5-8-19 3:15	10.40	801	8.72	0.0	5-8-19 3:15	11.13	1098	8.39	54.9						8-7-19 22:00	19.80	2187	8.41	2.9					
5-8-19 7:00	10.57	1547	8.89	6.3	5-8-19 3:30	10.31	788	8.72	22.7	5-8-19 3:30	11.03	1095	8.38	21.7						8-7-19 22:15	19.82	2200	8.38	3.7					
5-8-19 7:15	10.59	1545	8.89	7.7	5-8-19 3:45	10.26	786	8.71	114.8	5-8-19 3:45	10.96	1096	8.38	22.2						8-7-19 22:30	19.84	2200	8.40	2.9					
5-8-19 7:30	10.56	1549	8.89	6.7	5-8-19 4:00	10.19	768	8.72	0.0	5-8-19 4:00	10.87	1097	8.38	22.0						8-7-19 22:45	19.89	2221	8.37	3.6					
5-8-19 7:45	10.58	1549	8.89	6.6	5-8-19 4:15	10.11	764	8.72	0.0	5-8-19 4:15	10.77	1095	8.38	23.1						8-7-19 23:00	19.97	2231	8.38	2.8					
5-8-19 8:00	10.61	1545	8.89	6.5	5-8-19 4:30	10.02	775	8.72	53.4	5-8-19 4:30	10.63	1094	8.38	23.6						8-7-19 23:15	20.06	2243	8.38	3.5					
5-8-19 8:15	10.63	1549	8.90	8.3	5-8-19 4:45	9.98	862	8.72	3876.3	5-8-19 4:45	10.58	1091	8.38	26.1						8-7-19 23:30	20.09	2248	8.37	2.8					
5-8-19 8:30	10.70	1548	8.90	8.7	5-8-19 5:00	9.94	786	8.73	0.0	5-8-19 5:00	10.49	1090	8.38	28.6						8-7-19 23:45	20.14	2254	8.37	3.6					
5-8-19 8:45	10.77	1550	8.90	9.2	5-8-19 5:15	9.92	759	8.73	42.7	5-8-19 5:15	10.44	1091	8.38	23.5						8-8-19 0:00	20.15	2250	8.39	2.9					
5-8-19 9:00	10.83	1545	8.91	7.7	5-8-19 5:30	9.91	786	8.73	0.0	5-8-19 5:30	10.34	1090	8.38	26.0						8-8-19 0:15	20.14	2245	8.37	3.5					
5-8-19 9:15	10.88	1548	8.91	7.2	5-8-19 5:45	9.88	796	8.72	538.2	5-8-19 5:45	10.21	1089	8.38	25.7						8-8-19 0:30	20.17	2240	8.38	2.8					
5-8-19 9:30	10.98	1548	8.91	8.2	5-8-19 6:00	9.84	813	8.72	95.4	5-8-19 6:00	10.15	1090	8.38	25.5						8-8-19 0:45	20.25	2247	8.36	3.6					
5-8-19 9:45	11.07	1546	8.92	6.8	5-8-19 6:15	9.80	786	8.71	1098.9	5-8-19 6:15	10.10	1089	8.38	26.7						8-8-19 1:00	20.27	2239	8.37	2.9					
5-8-19 10:00	11.23	1546	8.92	6.7	5-8-19 6:30	9.80	796	8.71	0.0	5-8-19 6:30	10.04	1088	8.38	28.0						8-8-19 1:15	20.29	2241	8.37	3.6					
5-8-19 10:15	11.34	1545	8.92	7.3	5-8-19 6:45	9.81	770	8.70	0.0	5-8-19 6:45	9.94	1084	8.38	29.2						8-8-19 1:30	20.28	2239	8.38	2.8					
5-8-19 10:30	11.52	1546	8.92	7.9	5-8-19 7:00	9.84	775	8.70	0.0	5-8-19 7:00	9.93	1084	8.38	28.3						8-8-19 1:45	20.26	2237	8.37	3.5					
5-8-19 10:45	11.64	1547	8.92	8.4	5-8-19 7:15	9.84	776	8.69	0.0	5-8-19 7:15										8-8-19 2:00	20.24	2235	8.39	2.9					
5-8-19 11:15	12.05	1546	8.94	6.5	5-8-19 7:30	9.88	800	8.69	0.0	5-8-19 7:30										8-8-19 2:15	20.21	2238	8.38	3.5					
5-8-19 11:30	12.24	1546	8.91	10.6	5-8-19 7:45	9.95	769	8.68	12.6	5-8-19 7:45										8-8-19 2:30	20.23	2233	8.39	2.8					
5-8-19 11:45	12.82	1546	8.91	7.3	5-8-19 8:00	9.98	778	8.68	8.0	5-8-19 8:00										8-8-19 2:45	20.21	2234	8.39	3.5					
5-8-19 12:00	12.72	1543	8.91	6.9	5-8-19 8:15	10.04	779	8.68	0.0	5-8-19 8:15										8-8-19 3:00	20.20	2236	8.40	2.8					
5-8-19 12:15	12.74	1541	8.92	9.0	5-8-19 8:30	10.09	756	8.68	0.0	5-8-19 8:30										8-8-19 3:15	20.19	2240	8.40	3.5					
5-8-19 12:30	12.82	1546	8.93	7.9	5-8-19 8:45	10.17	781	8.68	0.0	5-8-19 8:45										8-8-19 3:30	20.14	2260	8.39	2.9					
5-8-19 12:45	13.07	1544	8.92	8.0	5-8-19 9:00	10.22	811	8.67	0.0	5-8-19 9:00										8-8-19 3:45	20.41	2434	8.26	3.5					
5-8-19 13:00	13.03	1547	8.93	9.4	5-8-19 9:15	10.36	819	8.67	4.7	5-8-19 9:15										8-8-19 4:00	20.08	2313	8.36	2.9					
5-8-19 13:15	13.43	1547	8.91	14.1	5-8-19 9:30	10.42	775	8.67	0.8	5-8-19 9:30										8-8-19 4:15	20.07	2334	8.34	3.5					
5-8-19 13:30	13.26	1550	8.92	21.4	5-8-19 9:45	10.46	775	8.67	0.0	5-8-19 9:45										8-8-19 4:30	20.01	2314	8.36	2.8					
5-8-19 13:45	13.35	1545	8.93	22.7	5-8-19 10:00	10.48	760	8.67	34.3	5-8-19 10:00										8-8-19 4:45	19.99	2326	8.36	3.2					
5-8-19 14:00	13.38	1542	8.93	6.9	5-8-19 10:15	10.60	835	8.66	683.6	5-8-19 10:15										8-8-19 5:00	19.94	2321	8.36	2.9					
5-8-19 14:15	13.54	1539	8.94	8.7	5-8-19 10:30	10.66	770	8.66	37.0	5-8-19 10:30										8-8-19 5:15	19.97	2359	8.33	3.6					
5-8-19 14:30	13.68	1540	8.94	8.9	5-8-19 10:45	10.75	775	8.66	353.5	5-8-19 10:45										8-8-19 5:30	19.89	2354	8.34	2.9					
5-8-19 14:45	13.78	1547	8.94	11.2	5-8-19 11:00	10.83	775	8.66	0.0	5-8-19 11:00										8-8-19 5:45	19.90	2359	8.33	3.6					
5-8-19 15:00	13.96	1540	8.94	41.9	5-8-19 11:15	10.98	827	8.65	0.0	5-8-19 11:15										8-8-19 6:00	19.85	2351	8.33	2.9					
5-8-19 15:15	14.14	1547	8.93	9.6	5-8-19 11:30	11.04	770	8.65	9.2	5-8-19 11:30										8-8-19 6:15	19.77	2344	8.34	3.5					
5-8-19 15:30	13.87	1550	8.94	8.2	5-8-19 11:45	11.09	765	8.65	0.0	5-8-19 11:45										8-8-19 6:30	19.77	2345	8.34	2.9					
5-8-19 15:45	14.22	1550	8.96	5.6	5-8-19 12:00	11.13	785	8.65	0.0	5-8-19 12:00										8-8-19 6:45	19.72	2346	8.34	3.5					
5-8-19 16:00	14.29	1540	8.94	5.1	5-8-19 12:15	11.32	781	8.63	0.0	5-8-19 12:15										8-8-19 7:00	19.64	2330	8.36	2.9					
5-8-19 16:15	14.35	1552	8.95	14.2	5-8-19 12:30	11.43	789	8.64	0.0	5-8-19 12:30										8-8-19 7:15	19.54	2294	8.38	3.5					
5-8-19 16:30	14.46	1554	8.96	5.8	5-8-19 12:45	11.41	772	8.64	48.7	5-8-19 12:45										8-8-19 7:30	19.47	2288	8.38	2.9					
5-8-19 16:45	14.37	1551	8.96	15.0	5-8-19 13:00	11.40	787	8.64	4.5	5-8-19 13:00										8-8-19 7:45	19.46	2290	8.38	3.5					
5-8-19 17:00	14.32	1550	8.97	8.8	5-8-19 13:15	11.50	755	8.64	58.0	5-8-19 13:15										8-8-19 8:00	19.46	2292	8.39	2.9					
5-8-19 17:15	14.31	1550	8.97	5.9	5-8-19 13:30	11.65	788	8.64	0.0	5-8-19 13:30										8-8-19 8:15	19.44	2301	8.37	3.5					
5-8-19 17:30	14.33	1539	8.97	5.8	5-8-19 13:45	11.67	756	8.63	0.0	5-8-19 13:45										8-8-19 8:30	19.43	2302	8.38	2.7					
5-8-19 17:45	14.31	1549	8.97	8.2	5-8-19 14:00	11.81	794	8.63	0.0	5-8-19 14:00										8-8-19 8:45	19.44	2309	8.37	3.5					
5-8-19 18:00	14.39	1547	8.98	5.3	5-8-19 14:15	11.85	788	8.63	0.0	5-8-19 14:15										8-8-19 9:00	19.39	2306	8.37	2.9					
5-8-19 18:15	14.43	1544	8.98	5.8	5-8-19 14:30	12.12	783	8.63	0.0	5-8-19 14:30										8-8-19 9:15	19.36	2308	8.36	3.4					
5-8-19 18:30	14.44	1546	8.98	5.1	5-8-19 14:45	12.08	854	8.63	264.7	5-8-19 14:45										8-8-19 9:30	19.31	2303	8.37	2.8					
5-8-19 18:45	14.41	1546	8.97	6.0	5-8-19 15:00	12.19	770	8.64	5.2	5-8-19 15:00										8-8-19 9:45	19.28	2304	8.37	3.5					
5-8-19 19:00	14.36	1547	8.98	6.0	5-8-19 15:15	12.17	751	8.63	0.0	5-8-19 15:15										8-8-19 10:00	19.27	2304	8.37	2.8					
5-8-19 19:15	14.28	1550	8.98	7.4	5-8-19 15:30	12.31	753	8.63	17.6	5-8-19 15:30										8-8-19 10:15	19.23	2307	8.37	3.3					
5-8-19 19:30	14.19	1553	8.99	5.6	5-8-19 15:45	12.30	833	8.62	0.0	5-8-19 15:45										8-8-19 10:30	19.22	2304	8.38	2.7					
5-8-19 19:45	13.99	1549	8.99	7.3	5-8-19 16:00	12.35	749	8.62	0.0	5-8-19 16:00										8-8-19 10:45	19.18	2304	8.37	3.4					
5-8-19 20:00	13.80	1550	8.98	6.5	5-8-19 16:15	12.44	766	8.63	0.0	5-8-19 16:15										8-8-19 11:00	19.14	2303	8.38	2.8					
5-8-19 20:15	13.71	1575	8.98	8.7	5-8-19 16:30	12.33	807	8.63	12.8	5-8-19 16:30										8-8-19 11:15	19.10	2303	8.37	3.4					
5-8-19 20:30	13.64	1561	8.96	6.5	5-8-19 16:45	12.41	761	8.64	0.0	5-8-19 16:45										8-8-19 11:30	19.07	2301	8.37	2.7					
5-8-19 20:45	13.53	1551	8.88	7.1	5-8-19 17:00	12.44	781	8.64	0.0	5-8-19 17:00										8-8-19 11:45	19.04	2304	8.38	3.4					
5-8-19 21:00	13.46	1546	8.87	7.0	5-8-19 17:15	12.56	757	8.64	0.0	5-8-19 17:15										8-8-19 12:00	19.00	2298	8.38	2.7					
5-8-19 21:15	13.40	1551	8.86	7.4	5-8-19 17:30	12.54	795	8.64	0.0	5-8-19 17:30										8-8-19 12:15	18.98	2296	8.38	3.4					
5-8-19 21:30	13.35	1576	8.84	6.8	5-8-19 17:45	12.62	762	8.64	0.0	5-8-19 17:45										8-8-19 12:30	18.95	2297	8.38	3.2					
5-8-19 21:45	13.32	1550	8.78	7.3	5-8-19 18:00	12.70	769	8.63	0.0	5-8-19 18:00										8-8-19 12:45	18.95	2299	8.38	3.5					
5-8-19 22:00	13.29	1553	8.74	7.2	5-8-19 18:15	12.71	781	8.63	9.4	5-8-19 18:15										8-8-19 13:00	18.92	2296	8.39	2.9					
5-8-19 22:15	13.23	1552	8.62	9.7	5-8-19 18:30	12.77	789	8.63	0.0	5-8-19 18:30										8-8-19 13:15	18.89	2298	8.38	3.5					
5-8-19 22:30	13.23	1550	8.58	8.1	5-8-19 18:45	12.81	790	8.62	118.5	5-8-19 18:45										8-8-19 13:30	18.87	2296	8.39	2.8					
5-8-19 22:45	13.19	1547	8.32	6.7	5-8-19 19:00	12.84	785	8.62	11.0	5-8-19 19:00										8-8-19 13:45	18.84	2298	8.38	3.5					
5-8-19 23:00	13.16	1553	8.28	7.2	5-8-19 19:15	12.89	779	8.62	380.9	5-8-19 19:15										8-8-19 14:00	18.78	2295	8.39	3.0					
5-8-19 23:15	13.14	1551	8.04	7.3	5-8-19 19:30	12.97	801	8.61	0.7	5-8-19 19:30										8-8-19 14:15	18.76	2305	8.37	3.6					
5-8-19 23:30	13.11	1556	8.19	7.0	5-8-19 19:45	13.18	776	8.60	0.0	5-8-19 19:45										8-8-19 14:30	18.75	2304	8.38	3.0					
5-8-19 23:45	13.09	1551	8.67	8.2	5-8-19 20:00	13.25	801	8.60	0.0	5-8-19 20:00										8-8-19 14:45	18.74	2308	8.38	3.6					
5-9-19 0:00	13.09	1551	8.59	6.7	5-8-19 20:15	13.25	769	8.60	2.8	5-8-19 20:15										8-8-19 15:00	18.71	2304	8.38	3.1					
5-9-19 0:15	13.07	1549	8.52	6.9	5-8-19 20:30	13.24	802	8.60	0.0	5-8-19 20:30										8-8-19 15:15	18.69	2306	8.38	3.6					
5-9-19 0:30	13.03	1552	8.40	6.5	5-8-19 20:45	13.21	771	8.60	0.0	5-8-19 20:45										8-8-19 15:30	18.66	2305	8.38	2.9					
5-9-19 0:45	12.99	1553	8.16	6.1	5-8-19 21:00	13.20	785	8.60	0.0	5-8-19 21:00										8-8-19 15:45	18.65	2310	8.38	3.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-9-19 1:00	12.95	1546	8.43	6.8	5-8-19 21:15	13.28	783	8.61	0.0	5-8-19 21:15										8-8-19 16:00	18.62	2308	8.39	2.8					
5-9-19 1:15	12.91	1558	7.96	6.5	5-8-19 21:30	13.32	806	8.61	0.0	5-8-19 21:30										8-8-19 16:15	18.58	2310	8.38	3.5					
5-9-19 1:30	12.87	1552	7.92	8.2	5-8-19 21:45	13.35	771	8.61	0.0	5-8-19 21:45										8-8-19 16:30	18.57	2308	8.39	2.8					
5-9-19 1:45	12.87	1554	8.01	6.5	5-8-19 22:00	13.32	801	8.61	0.0	5-8-19 22:00										8-8-19 16:45	18.55	2312	8.40	3.2					
5-9-19 2:00	12.83	1553	7.90	8.2	5-8-19 22:15	13.28	774	8.61	12.8	5-8-19 22:15										8-8-19 17:00	18.55	2316	8.39	2.9					
5-9-19 2:15	12.79	1553	7.87	6.6	5-8-19 22:30	13.23	807	8.61	1125.2	5-8-19 22:30										8-8-19 17:15	18.54	2318	8.39	3.4					
5-9-19 2:30	12.75	1554	7.68	6.6	5-8-19 22:45	13.19	779	8.61	0.0	5-8-19 22:45										8-8-19 17:30	18.52	2318	8.39	2.9					
5-9-19 2:45	12.73	1553	7.74	5.8	5-8-19 23:00	13.13	805	8.61	0.0	5-8-19 23:00										8-8-19 17:45	18.51	2320	8.39	3.5					
5-9-19 3:00	12.66	1550	7.72	6.4	5-8-19 23:15	13.06	780	8.61	0.0	5-8-19 23:15										8-8-19 18:00	18.51	2320	8.40	2.8					
5-9-19 3:15	12.65	1552	7.72	5.7	5-8-19 23:30	13.01	824	8.61	0.0	5-8-19 23:30										8-8-19 18:15	18.51	2327	8.38	3.4					
5-9-19 3:30	12.61	1554	7.86	6.4	5-8-19 23:45	12.95	787	8.61	0.0	5-8-19 23:45										8-8-19 18:30	18.51	2322	8.39	2.9					
5-9-19 3:45	12.57	1554	7.86	6.0	5-9-19 0:00	12.91	804	8.61	0.0	5-9-19 0:00										8-8-19 18:45	18.54	2325	8.39	3.5					
5-9-19 4:00	12.51	1555	7.75	6.8	5-9-19 0:15	12.87	787	8.61	0.0	5-9-19 0:15										8-8-19 19:00	18.57	2327	8.39	2.8					
5-9-19 4:15	12.49	1552	7.75	5.7	5-9-19 0:30	12.81	810	8.61	0.0	5-9-19 0:30										8-8-19 19:15	18.57	2330	8.39	3.4					
5-9-19 4:30	12.42	1553	7.61	5.4	5-9-19 0:45	12.76	777	8.61	0.0	5-9-19 0:45										8-8-19 19:30	18.57	2330	8.39	2.7					
5-9-19 4:45	12.37	1558	7.78	6.5	5-9-19 1:00	12.70	806	8.61	0.0	5-9-19 1:00										8-8-19 19:45	18.58	2330	8.39	3.4					
5-9-19 5:00	12.29	1552	7.79	6.0	5-9-19 1:15	12.67	786	8.60	0.0	5-9-19 1:15										8-8-19 20:00	18.59	2330	8.39	2.7					
5-9-19 5:15	12.24	1549	7.67	6.4	5-9-19 1:30	12.60	821	8.61	157.9	5-9-19 1:30										8-8-19 20:15	18.57	2332	8.39	3.3					
5-9-19 5:30	12.22	1554	7.59	6.1	5-9-19 1:45	12.57	809	8.62	0.0	5-9-19 1:45										8-8-19 20:30	18.59	2327	8.40	2.8					
5-9-19 5:45	12.16	1555	7.58	5.7	5-9-19 2:00	12.51	818	8.61	0.0	5-9-19 2:00										8-8-19 20:45	18.61	2330	8.39	3.4					
5-9-19 6:00	12.11	1554	7.61	5.8	5-9-19 2:15	12.49	784	8.61	0.0	5-9-19 2:15										8-8-19 21:00	18.63	2331	8.39	2.7					
5-9-19 6:15	12.03	1552	7.63	5.5	5-9-19 2:30	12.47	785	8.61	0.0	5-9-19 2:30										8-8-19 21:15	18.62	2334	8.39	3.3					
5-9-19 6:30	12.06	1552	7.64	6.4	5-9-19 2:45	12.43	785	8.61	0.0	5-9-19 2:45										8-8-19 21:30	18.60	2331	8.40	2.7					
5-9-19 6:45	12.02	1555	7.66	6.3	5-9-19 3:00	12.38	804	8.61	0.0	5-9-19 3:00										8-8-19 21:45	18.61	2331	8.39	3.3					
5-9-19 7:00	12.00	1552	7.72	5.5	5-9-19 3:15	12.33	771	8.61	0.0	5-9-19 3:15										8-8-19 22:00	18.60	2328	8.41	2.7					
5-9-19 7:15	11.95	1552	7.67	6.4	5-9-19 3:30	12.30	813	8.62	0.0	5-9-19 3:30										8-8-19 22:15	18.61	2331	8.40	3.3					
5-9-19 7:30	11.95	1552	7.72	8.4	5-9-19 3:45	12.26	780	8.62	46.1	5-9-19 3:45										8-8-19 22:30	18.63	2327	8.41	2.7					
5-9-19 7:45	11.97	1554	7.76	5.4	5-9-19 4:00	12.17	785	8.61	0.0	5-9-19 4:00										8-8-19 22:45	18.62	2330	8.41	3.2					
5-9-19 8:00	11.99	1553	7.78	6.0	5-9-19 4:15	12.10	772	8.61	0.0	5-9-19 4:15										8-8-19 23:00	18.61	2328	8.41	2.6					
5-9-19 8:15	11.99	1553	7.84	5.9	5-9-19 4:30	11.96	784	8.65	5.7	5-9-19 4:30										8-8-19 23:15	18.61	2329	8.41	3.4					
5-9-19 8:30	12.00	1553	8.01	6.7	5-9-19 4:45	11.90	764	8.62	0.0	5-9-19 4:45										8-8-19 23:30	18.61	2327	8.42	2.7					
5-9-19 8:45	12.08	1553	8.19	5.4	5-9-19 5:00	11.88	791	8.63	0.0	5-9-19 5:00										8-8-19 23:45	18.61	2329	8.41	3.3					
5-9-19 9:00	12.13	1549	8.31	7.7	5-9-19 5:15	11.89	763	8.63	0.0	5-9-19 5:15										8-9-19 0:00	18.60	2328	8.42	2.7					
5-9-19 9:15	12.19	1550	8.37	6.3	5-9-19 5:30	11.85	787	8.62	0.0	5-9-19 5:30										8-9-19 0:15	18.58	2331	8.41	3.3					
5-9-19 9:30	12.30	1550	8.44	6.4	5-9-19 5:45	11.82	766	8.63	0.0	5-9-19 5:45										8-9-19 0:30	18.58	2329	8.42	2.7					
5-9-19 9:45	12.39	1543	8.39	5.2	5-9-19 6:00	11.82	794	8.62	0.0	5-9-19 6:00										8-9-19 0:45	18.55	2333	8.41	3.2					
5-9-19 10:00	12.60	1548	8.42	7.1	5-9-19 6:15	11.72	773	8.63	0.0	5-9-19 6:15										8-9-19 1:00	18.53	2329	8.42	2.7					
5-9-19 10:15	12.79	1544	8.43	6.4	5-9-19 6:30	11.70	794	8.63	0.0	5-9-19 6:30										8-9-19 1:15	17.75	2359	8.39	3.3					
5-9-19 10:30	12.97	1547	8.46	13.1	5-9-19 6:45	11.72	768	8.62	0.0	5-9-19 6:45										8-9-19 1:30	17.74	2357	8.40	2.6					
5-9-19 10:45	13.17	1546	8.46	9.1	5-9-19 7:00	11.72	794	8.62	0.0	5-9-19 7:00										8-9-19 1:45	17.71	2359	8.40	3.2					
5-9-19 11:00	13.42	1514	8.50	24.8	5-9-19 7:15	11.72	780	8.61	21.3	5-9-19 7:15										8-9-19 2:00	17.69	2358	8.40	2.7					
5-9-19 11:15	13.83	1552	8.50	9.2	5-9-19 7:30	11.73	802	8.62	0.0	5-9-19 7:30										8-9-19 2:15	17.67	2360	8.40	3.3					
5-9-19 11:30	14.04	1548	8.53	6.9	5-9-19 7:45	11.76	785	8.61	0.0	5-9-19 7:45										8-9-19 2:30	17.64	2359	8.40	2.7					
5-9-19 11:45	14.24	1550	8.43	5.6	5-9-19 8:00	11.80	794	8.62	0.0	5-9-19 8:00										8-9-19 2:45	17.62	2360	8.40	3.2					
5-9-19 12:00	14.50	1557	8.48	7.7	5-9-19 8:15	11.84	764	8.61	0.0	5-9-19 8:15										8-9-19 3:00	17.62	2359	8.40	2.7					
5-9-19 12:15	14.87	1546	8.53	5.7	5-9-19 8:30	11.88	802	8.61	174.5	5-9-19 8:30										8-9-19 3:30	17.57	2359	8.40	2.6					
5-9-19 12:30	14.64	1543	8.63	6.5	5-9-19 8:45	11.90	798	8.60	15.7	5-9-19 8:45										8-9-19 3:45	17.53	2361	8.40	3.2					
5-9-19 12:45	15.01	1543	8.61	6.1	5-9-19 9:00	12.01	788	8.61	22.7	5-9-19 9:00										8-9-19 4:00	17.48	2360	8.40	2.7					
5-9-19 13:00	14.87	1540	8.64	5.8	5-9-19 9:15	12.05	789	8.60	0.0	5-9-19 9:15										8-9-19 4:15	17.50	2363	8.40	3.2					
5-9-19 13:15	15.42	1575	8.55	5.6	5-9-19 9:30	12.15	807	8.60	13.4	5-9-19 9:30										8-9-19 4:30	17.45	2362	8.40	2.6					
5-9-19 13:30	15.63	1551	8.54	6.7	5-9-19 9:45	12.17	784	8.59	0.0	5-9-19 9:45										8-9-19 4:45	17.42	2365	8.40	3.3					
5-9-19 13:45	15.66	1542	8.50	6.0	5-9-19 10:00	12.19	792	8.59	0.0	5-9-19 10:00										8-9-19 5:00	17.39	2365	8.40	2.6					
5-9-19 14:00	15.88	1548	8.48	5.5	5-9-19 10:15	12.25	775	8.59	18.3	5-9-19 10:15										8-9-19 5:15	17.35	2368	8.39	3.2					
5-9-19 14:15	16.15	1544	8.49	8.2	5-9-19 10:30	12.32	793	8.59	0.0	5-9-19 10:30										8-9-19 5:30	17.33	2367	8.40	2.6					
5-9-19 14:30	16.36	1548	8.43	5.8	5-9-19 10:45	12.39	781	8.59	0.0	5-9-19 10:45										8-9-19 5:45	17.31	2370	8.40	3.2					
5-9-19 14:45	16.38	1545	8.46	6.2	5-9-19 11:00	12.45	784	8.59	0.0	5-9-19 11:00										8-9-19 6:00	17.31	2372	8.40	2.6					
5-9-19 15:00	16.44	1529	8.43	5.5	5-9-19 11:15	12.45	769	8.60	0.0	5-9-19 11:15										8-9-19 6:15	17.32	2376	8.40	3.1					
5-9-19 15:15	16.75	1570	8.44	5.3	5-9-19 11:30	12.56	795	8.59	0.0	5-9-19 11:30										8-9-19 6:30	17.30	2374	8.40	2.6					
5-9-19 15:30	16.53	1539	8.31	6.6	5-9-19 11:45	12.69	781	8.59	0.0	5-9-19 11:45										8-9-19 6:45	17.28	2377	8.39	3.1					
5-9-19 15:45	16.58	1547	8.45	5.3	5-9-19 12:00	12.76	796	8.60	21.0	5-9-19 12:00										8-9-19 7:00	17.25	2374	8.40	2.7					
5-9-19 16:00	17.09	1541	8.46	5.3	5-9-19 12:30	13.14	805	8.60	23.9	5-9-19 12:30	14.73	1026	7.94	37.4						8-9-19 7:15	17.23	2378	8.39	3.2					
5-9-19 16:15	16.93	1551	8.15	5.4	5-9-19 12:45	12.94	811	8.60	140.1	5-9-19 12:45	14.68	1055	7.89	177.0						8-9-19 7:30	17.24	2377	8.40	2.6					
5-9-19 16:30	16.89	1550	8.08	5.7	5-9-19 13:00	12.88	823	8.60	31.9	5-9-19 13:00	15.03	1083	7.89	537.9						8-9-19 7:45	17.25	2378	8.40	3.2					
5-9-19 16:45	16.75	1547	8.02	5.0	5-9-19 13:15	12.92	762	8.60	10.1	5-9-19 13:15	15.04	1030	7.90	788.3						8-9-19 8:00	17.24	2377	8.41	2.6					
5-9-19 17:00	16.65	1528	7.88	5.3	5-9-19 13:30	12.92	804	8.61	0.0	5-9-19 13:30	15.48	1035	7.92	2001.7						8-9-19 8:30	17.24	2378	8.41	2.6					
5-9-19 17:15	16.41	1549	7.75	14.7	5-9-19 13:45	13.03	760	8.61	0.0	5-9-19 13:45	15.49	984	7.93	2932.1						8-9-19 8:45	17.29	2379	8.41	3.1					
5-9-19 17:30	16.32	1544	7.72	5.1	5-9-19 14:00	13.20	793	8.61	0.0	5-9-19 14:00	15.36	950	7.94	1358.7						8-9-19 9:00	17.30	2378	8.42	2.5					
5-9-19 17:45	16.23	1551	7.70	5.6	5-9-19 14:15	13.58	763	8.59	0.0	5-9-19 14:15	15.83	915	7.95	2956.5						8-9-19 9:15	17.33	2382	8.41	3.0					
5-9-19 18:00	16.13	1547	7.78	7.9	5-9-19 14:30	13.58	797	8.60	0.0	5-9-19 14:30	16.35	924	7.97	35.6						8-9-19 9:30	17.36	2379	8.42	2.5					
5-9-19 18:15	16.09	1545	7.94	5.9	5-9-19 14:45	13.60	775	8.60	31.4	5-9-19 14:45	16.31	994	7.99	121.4						8-9-19 9:45	17.40	2382	8.41	3.1					
5-9-19 18:30	16.06	1550	8.00	7.3	5-9-19 15:00	13.62	766	8.60	165.4	5-9-19 15:00	16.19	1079	8.01	239.6						8-9-19 10:00	17.39	2380	8.41	2.5					
5-9-19 18:45	16.07	1550	8.00	4.9	5-9-19 15:15	13.73	761	8.59	420.5	5-9-19 15:15	16.01	1118	8.04	163.8						8-9-19 10:15	17.41	2383	8.42	3.1					
5-9-19 19:00	15.97	1542	8.03	5.4	5-9-19 15:30	14.17	806	8.59	0.0	5-9-19 15:30	15.82	1077	8.06	99.8						8-9-19 10:30	17.40	2380	8.43	2.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-9-19 19:15	15.88	1541	7.83	5.3	5-9-19 15:45	14.60	787	8.57	86.4	5-9-19 15:45	15.68	1079	8.08	124.1						8-9-19 10:45	17.41	2381	8.41	3.1					
5-9-19 19:30	15.76	1543	7.69	5.3	5-9-19 16:00	15.00	783	8.57	55.5	5-9-19 16:00	15.91	1032	8.08	1590.5						8-9-19 11:00	17.46	2381	8.43	2.6					
5-9-19 19:45	15.73	1551	7.90	8.9	5-9-19 16:15	15.42	758	8.55	15.9	5-9-19 16:15	15.92	993	8.11	591.9						8-9-19 11:15	17.51	2385	8.42	3.1					
5-9-19 20:00	15.74	1549	8.18	5.8	5-9-19 16:30	15.75	783	8.54	18.2	5-9-19 16:30	15.39	999	8.13	353.2						8-9-19 11:30	17.55	2386	8.43	2.6					
5-9-19 20:15	15.73	1548	8.27	5.1	5-9-19 16:45	15.96	756	8.53	0.0	5-9-19 16:45	15.03	1014	8.14	350.4						8-9-19 12:00	17.53	2372	8.42	3.2					
5-9-19 20:30	15.73	1544	8.20	6.2	5-9-19 17:00	16.39	778	8.52	81.9	5-9-19 17:00	15.84	1037	8.14	37.6						8-9-19 12:15	17.52	2368	8.42	2.5					
5-9-19 20:45	15.71	1547	8.20	10.0	5-9-19 17:15	16.42	756	8.53	86.5	5-9-19 17:15	15.98	1053	8.15	40.7						8-9-19 12:30	17.59	2375	8.43	3.1					
5-9-19 21:00	15.72	1547	8.37	8.3	5-9-19 17:30	15.70	782	8.56	0.0	5-9-19 17:30	16.13	1038	8.16	68.5						8-9-19 12:45	17.71	2372	8.43	2.5					
5-9-19 21:15	15.71	1547	8.27	6.3	5-9-19 17:45	15.33	805	8.56	198.2	5-9-19 17:45	15.86	1064	8.17	60.9						8-9-19 13:00	17.70	2375	8.43	3.1					
5-9-19 21:30	15.70	1552	8.18	5.3	5-9-19 18:00	15.58	784	8.55	0.6	5-9-19 18:00	15.80	1043	8.18	299.3						8-9-19 13:15	17.70	2376	8.43	2.5					
5-9-19 21:45	15.68	1549	8.13	5.4	5-9-19 18:15	15.57	772	8.55	217.6	5-9-19 18:15	15.46	1036	8.18	758.2						8-9-19 13:30	17.78	2377	8.43	3.1					
5-9-19 22:00	15.65	1543	8.09	5.5	5-9-19 18:30	15.80	797	8.55	10.1	5-9-19 18:30	15.60	1069	8.19	782.5						8-9-19 13:45	17.81	2373	8.43	2.6					
5-9-19 22:15	15.63	1547	8.06	4.9	5-9-19 18:45	15.87	770	8.54	35.8	5-9-19 18:45	15.53	1086	8.18	841.4						8-9-19 14:00	17.86	2377	8.42	3.1					
5-9-19 22:30	15.60	1548	8.01	22.6	5-9-19 19:00	15.87	795	8.54	14.4	5-9-19 19:00	15.50	1034	8.19	27.5						8-9-19 14:15	17.88	2376	8.43	2.6					
5-9-19 22:45	15.57	1543	7.93	5.4	5-9-19 19:15	15.68	765	8.55	44.9	5-9-19 19:15	15.61	1043	8.19	120.1						8-9-19 14:30	17.92	2378	8.42	3.1					
5-9-19 23:00	15.54	1550	7.90	4.7	5-9-19 19:30	15.43	771	8.56	7.1	5-9-19 19:30	15.63	1050	8.20	987.5						8-9-19 14:45	17.93	2376	8.43	2.5					
5-9-19 23:15	15.49	1549	7.89	4.9	5-9-19 19:45	15.19	739	8.57	0.0	5-9-19 19:45	15.75	1049	8.20	904.1						8-9-19 15:00	17.99	2378	8.42	3.1					
5-9-19 23:30	15.48	1546	7.92	5.4	5-9-19 20:00	13.99	777	8.62	112.8	5-9-19 20:00	15.79	1067	8.20	557.1						8-9-19 15:15	18.03	2376	8.41	2.6					
5-9-19 23:45	15.45	1549	7.91	5.0	5-9-19 20:15	14.04	832	8.61	49.2	5-9-19 20:15	15.73	1070	8.21	68.8						8-9-19 15:30	18.04	2378	8.43	3.1					
5-10-19 0:00	15.41	1549	7.80	5.2	5-9-19 20:30	13.94	805	8.62	4.0	5-9-19 20:30	15.68	1079	8.21	538.8						8-9-19 15:45	18.04	2377	8.43	2.6					
5-10-19 0:15	15.39	1556	7.70	4.6	5-9-19 20:45	14.06	744	8.61	57.2	5-9-19 20:45	15.67	1078	8.21	39.4						8-9-19 16:00	18.04	2375	8.42	2.9					
5-10-19 0:30	15.35	1560	7.62	11.5	5-9-19 21:00	14.57	793	8.58	16.8	5-9-19 21:00	15.58	1045	8.21	20.8						8-9-19 16:15	18.08	2375	8.43	2.5					
5-10-19 0:45	15.30	1550	7.60	4.7	5-9-19 21:15	14.59	809	8.58	95.4	5-9-19 21:15	15.49	1097	8.21	21.2						8-9-19 16:30	18.07	2375	8.42	3.1					
5-10-19 1:00	15.25	1550	7.69	24.1	5-9-19 21:30	14.64	774	8.58	29.4	5-9-19 21:30	15.41	1046	8.21	37.8						8-9-19 16:45	18.07	2374	8.44	2.5					
5-10-19 1:15	15.20	1548	7.67	5.9	5-9-19 21:45	14.76	761	8.58	13.1	5-9-19 21:45	15.35	1048	8.21	27.6						8-9-19 17:00	18.13	2375	8.42	3.1					
5-10-19 1:30	15.17	1548	7.58	5.3	5-9-19 22:00	14.76	780	8.58	17.1	5-9-19 22:00	15.29	1057	8.21	113.0						8-9-19 17:30	18.21	2375	8.43	3.1					
5-10-19 1:45	15.10	1548	7.56	4.9	5-9-19 22:15	14.77	773	8.57	0.0	5-9-19 22:15	15.25	1048	8.21	314.7						8-9-19 17:45	18.19	2374	8.43	2.5					
5-10-19 2:00	15.07	1549	7.54	6.6	5-9-19 22:30	14.76	795	8.57	0.0	5-9-19 22:30	15.23	1099	8.21	392.7						8-9-19 18:00	18.15	2375	8.43	3.2					
5-10-19 2:15	15.05	1550	7.52	4.7	5-9-19 22:45	14.78	780	8.57	317.4	5-9-19 22:45	15.16	1095	8.21	387.5						8-9-19 18:15	18.14	2372	8.44	2.5					
5-10-19 2:30	15.02	1550	7.53	5.0	5-9-19 23:00	14.80	833	8.57	0.0	5-9-19 23:00	15.12	1057	8.21	22.3						8-9-19 18:30	18.13	2376	8.44	3.1					
5-10-19 2:45	14.99	1552	7.51	4.9	5-9-19 23:15	14.80	770	8.57	1.4	5-9-19 23:15	15.08	1061	8.21	24.4						8-9-19 18:45	18.13	2373	8.44	2.6					
5-10-19 3:00	14.94	1549	7.58	5.1	5-9-19 23:30	14.76	784	8.57	81.5	5-9-19 23:30	15.05	1055	8.22	56.9						8-9-19 19:00	18.13	2375	8.43	3.1					
5-10-19 3:15	14.92	1547	7.58	4.7	5-9-19 23:45	14.72	751	8.57	0.0	5-9-19 23:45	14.99	1058	8.22	123.1						8-9-19 19:15	18.07	2373	8.44	2.6					
5-10-19 3:30	14.87	1546	7.56	6.5	5-10-19 0:00	14.69	791	8.57	0.0	5-10-19 0:00	14.91	1034	8.22	92.1						8-9-19 19:30	18.08	2374	8.45	3.2					
5-10-19 3:45	14.83	1549	7.48	4.6	5-10-19 0:15	14.65	771	8.57	0.0	5-10-19 0:15	14.88	1042	8.21	134.7						8-9-19 19:45	18.03	2373	8.45	2.5					
5-10-19 4:00	14.80	1549	7.53	5.1	5-10-19 0:30	14.59	823	8.57	0.0	5-10-19 0:30	14.87	1041	8.21	137.2						8-9-19 20:00	18.02	2376	8.44	3.1					
5-10-19 4:15	14.78	1551	7.55	4.5	5-10-19 0:45	14.54	781	8.57	228.6	5-10-19 0:45	14.84	1046	8.21	114.6						8-9-19 20:15	17.98	2373	8.44	2.6					
5-10-19 4:30	14.73	1549	7.44	4.0	5-10-19 1:00	14.48	784	8.58	13.7	5-10-19 1:00	14.76	1047	8.22	20.6						8-9-19 20:30	17.93	2376	8.45	3.2					
5-10-19 4:45	14.67	1555	7.38	5.1	5-10-19 1:15	14.39	775	8.58	0.0	5-10-19 1:15	14.72	1055	8.22	24.1						8-9-19 20:45	17.89	2376	8.45	2.5					
5-10-19 5:00	14.64	1550	7.52	5.0	5-10-19 1:30	14.35	806	8.57	0.0	5-10-19 1:30	14.70	1058	8.22	39.5						8-9-19 21:00	17.82	2376	8.45	3.2					
5-10-19 5:15	14.59	1550	7.53	5.7	5-10-19 1:45	14.31	775	8.58	0.0	5-10-19 1:45	14.68	1059	8.22	31.5						8-9-19 21:15	17.82	2376	8.45	2.5					
5-10-19 5:30	14.59	1550	7.53	4.6	5-10-19 2:00	14.28	789	8.58	0.0	5-10-19 2:00	14.61	1057	8.22	20.1						8-9-19 21:30	17.82	2376	8.45	3.1					
5-10-19 5:45	14.56	1553	7.53	4.3	5-10-19 2:15	14.27	773	8.58	0.0	5-10-19 2:15	14.55	1028	8.21	29.3						8-9-19 21:45	17.77	2373	8.46	2.5					
5-10-19 6:00	14.52	1552	7.49	4.8	5-10-19 2:30	14.25	789	8.58	0.0	5-10-19 2:30	14.47	1050	8.22	47.1						8-9-19 22:00	17.72	2377	8.45	3.0					
5-10-19 6:15	14.50	1551	7.46	4.8	5-10-19 2:45	14.21	767	8.58	0.0	5-10-19 2:45	14.40	1054	8.22	83.7						8-9-19 22:30	17.67	2379	8.46	3.1					
5-10-19 6:30	14.49	1548	7.45	5.0	5-10-19 3:00	14.16	774	8.58	0.0	5-10-19 3:00	14.33	1047	8.22	21.7						8-9-19 22:45	17.64	2376	8.45	2.5					
5-10-19 6:45	14.46	1551	7.39	4.8	5-10-19 3:15	14.11	747	8.58	1343.4	5-10-19 3:15	14.26	1046	8.22	21.0						8-9-19 23:00	17.57	2378	8.45	3.1					
5-10-19 7:00	14.47	1549	7.43	4.4	5-10-19 3:30	14.04	787	8.58	0.0	5-10-19 3:30	14.19	1049	8.22	20.0						8-9-19 23:15	17.49	2378	8.45	2.5					
5-10-19 7:15	14.47	1548	7.40	4.5	5-10-19 3:45	13.98	820	8.58	322.1	5-10-19 3:45	14.17	1050	8.22	22.0						8-9-19 23:30	17.49	2380	8.45	3.2					
5-10-19 7:30	14.47	1553	7.46	4.2	5-10-19 4:00	13.97	803	8.58	0.0	5-10-19 4:00	14.11	1047	8.22	22.9						8-9-19 23:45	17.47	2379	8.46	2.5					
5-10-19 7:45	14.49	1549	7.45	4.2	5-10-19 4:15	13.92	775	8.58	176.5	5-10-19 4:15	14.02	1052	8.22	21.7						8-10-19 0:00	17.42	2379	8.45	3.1					
5-10-19 8:00	14.51	1550	7.46	5.7	5-10-19 4:30	13.90	796	8.58	0.0	5-10-19 4:30	13.95	1045	8.23	29.9						8-10-19 0:15	17.35	2378	8.45	2.6					
5-10-19 8:15	14.51	1548	7.43	4.3	5-10-19 4:45	13.88	775	8.58	0.0	5-10-19 4:45	13.91	1052	8.23	54.5						8-10-19 0:30	17.30	2381	8.45	3.1					
5-10-19 8:30	14.56	1548	7.39	4.7	5-10-19 5:00	13.84	806	8.59	57.4	5-10-19 5:00	13.85	1091	8.23	22.9						8-10-19 0:45	17.26	2380	8.45	2.5					
5-10-19 8:45	14.63	1548	7.43	4.2	5-10-19 5:15	13.82	782	8.58	194.2	5-10-19 5:15	13.80	1086	8.23	22.2						8-10-19 1:00	17.23	2382	8.45	3.1					
5-10-19 9:00	14.78	1546	7.48	4.7	5-10-19 5:30	13.83	804	8.58	0.0	5-10-19 5:30	13.76	1081	8.23	56.3						8-10-19 1:15	17.14	2380	8.44	2.4					
5-10-19 9:15	14.95	1543	7.49	4.3	5-10-19 5:45	13.82	778	8.58	0.0	5-10-19 5:45	13.72	1037	8.23	23.9						8-10-19 1:30	17.10	2381	8.45	3.5					
5-10-19 9:30	15.05	1546	7.48	4.0	5-10-19 6:00	13.79	786	8.58	0.0	5-10-19 6:00	13.68	1046	8.23	36.5						8-10-19 1:45	17.05	2382	8.46	2.5					
5-10-19 9:45	15.18	1550	7.51	3.9	5-10-19 6:15	13.78	774	8.58	0.0	5-10-19 6:15	13.67	1047	8.24	31.9						8-10-19 2:00	17.08	2381	8.45	3.1					
5-10-19 10:00	15.31	1541	7.50	4.4	5-10-19 6:30	13.77	794	8.58	0.0	5-10-19 6:30	13.66	1044	8.24	34.3						8-10-19 2:30	16.99	2384	8.44	3.0					
5-10-19 10:15	15.71	1554	7.48	4.7	5-10-19 6:45	13.76	780	8.58	0.0	5-10-19 6:45	13.61	1048	8.24	37.9						8-10-19 2:45	16.94	2385	8.45	2.4					
5-10-19 10:30	15.71	1547	7.52	4.2	5-10-19 7:00	13.74	808	8.58	0.0	5-10-19 7:00	13.60	1092	8.24	26.7						8-10-19 3:00	16.90	2384	8.45	3.1					
5-10-19 10:45	15.69	1541	7.50	4.1	5-10-19 7:15	13.76	772	8.58	6.6	5-10-19 7:15	13.59	1038	8.24	27.8						8-10-19 3:15	16.86	2385	8.44	2.5					
5-10-19 11:00	15.82	1549	7.45	4.3	5-10-19 7:30	13.79	786	8.58	0.0	5-10-19 7:30	13.59	1044	8.24	27.6						8-10-19 3:30	16.88	2387	8.45	3.0					
5-10-19 11:15	16.09	1545	7.53	17.5	5-10-19 7:45	13.77	763	8.58	0.0	5-10-19 7:45	13.60	1042	8.23	28.9						8-10-19 3:45	16.83	2383	8.44	2.5					
5-10-19 11:30	16.46	1538	7.53	4.9	5-10-19 8:00	13.79	788	8.58	0.0	5-10-19 8:00	13.61	1046	8.23	31.0						8-10-19 4:00	16.79	2387	8.44	3.1					
5-10-19 11:45	16.45	1544	7.48	4.0	5-10-19 8:15	13.81	779	8.58	0.0	5-10-19 8:15	13.65	1037	8.24	32.1						8-10-19 4:15	16.76	2383	8.44	2.5					
5-10-19 12:00	16.81	1547	7.51	4.0	5-10-19 8:30	13.82	801	8.58	0.0	5-10-19 8:30	13.72	1039	8.24	34.2						8-10-19 4:30	16.75	2386	8.44	3.1					
5-10-19 12:15	16.57	1532	7.40	4.1	5-10-19 8:45	13.90	768	8.58	240.7	5-10-19 8:45	13.78	1034	8.24	36.7						8-10-19 4:45	16.69	2385	8.44	2.5					
5-10-19 12:30	17.21	1552	7.58	3.9	5-10-19 9:00	14.05	794	8.58	0.0	5-10-19 9:00	13.93	1037	8.23	28.0						8-10-19 5:00	16.63	2385	8.44	3.0					
5-10-19 12:45	17.47	1550	7.68	3.7	5-10-19 9:15	14.19	771	8.58	0.0	5-10-19 9:15	13.96	1043	8.24	37.6						8-10-19 5:15	16.64	2386	8.44	2.4					
5-10-19 13:00	17.61	1545	8.23	3.9	5-10-19 9:30	14.32	788	8.57	0.0	5-10-19 9:30	14.06	1023	8.26	40.4						8-10-19 5:30	16.60	2386	8.44	3.1					
5-10-19 13:15	18.11	1559	7.89	3.9	5-10-19 9:45	14.43	777	8.57	0.0	5-10-19 9:45	14.36	1040	8.25	26.6						8-10-19 5:45	16.60	2385	8.45	2.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-10-19 13:30	18.50	1545	7.97	6.2	5-10-19 10:00	14.44	790	8.57	0.0	5-10-19 10:00	14.54	1028	8.24	29.9						8-10-19 6:00	16.57	2386	8.44	3.1					
5-10-19 13:45	18.81	1548	7.84	13.6	5-10-19 10:15	14.60	762	8.57	83.5	5-10-19 10:15	14.79	1024	8.24	30.0						8-10-19 6:15	16.56	2385	8.44	2.5					
5-10-19 14:00	18.45	1522	7.80	6.9	5-10-19 10:30	14.65	782	8.56	102.9	5-10-19 10:30	14.84	1022	8.25	30.7						8-10-19 6:30	16.53	2386	8.44	3.1					
5-10-19 14:15	18.95	1548	7.74	4.1	5-10-19 10:45	14.74	771	8.57	0.0	5-10-19 10:45	14.99	1016	8.25	32.5						8-10-19 6:45	16.48	2384	8.44	2.4					
5-10-19 14:30	18.62	1677	7.74	15.2	5-10-19 11:00	14.80	781	8.56	342.3	5-10-19 11:00	15.53	1012	8.26	40.3						8-10-19 7:00	16.41	2386	8.45	2.9					
5-10-19 14:45	18.89	1547	7.79	3.7	5-10-19 11:15	14.82	830	8.56	0.0	5-10-19 11:15										8-10-19 7:15	16.44	2387	8.44	2.5					
5-10-19 15:00	18.25	1541	7.85	4.0	5-10-19 11:30	14.91	810	8.55	0.0	5-10-19 11:30										8-10-19 7:30	16.44	2388	8.45	3.0					
5-10-19 15:15	17.67	1542	8.33	4.2	5-10-19 11:45	15.00	817	8.55	91.8	5-10-19 11:45	16.31	1007	8.26	42.7						8-10-19 7:45	16.41	2386	8.45	2.5					
5-10-19 15:30	17.84	1545	8.18	4.0	5-10-19 12:00	15.22	790	8.55	23.9	5-10-19 12:00	16.47	996	8.25	36.1						8-10-19 8:00	16.40	2387	8.44	3.0					
5-10-19 15:45	17.76	1542	8.14	3.7	5-10-19 12:15	15.17	766	8.55	3.6	5-10-19 12:15	16.88	1010	8.25	145.7						8-10-19 8:15	16.42	2385	8.45	2.4					
5-10-19 16:00	17.84	1541	8.12	3.6	5-10-19 12:30	15.78	759	8.53	52.1	5-10-19 12:30	16.73	996	8.24	249.5						8-10-19 8:30	16.37	2386	8.45	3.1					
5-10-19 16:15	17.96	1546	8.50	3.9	5-10-19 12:45	16.89	790	8.50	416.9	5-10-19 12:45	16.72	989	8.25	96.1						8-10-19 8:45	16.40	2386	8.45	2.5					
5-10-19 16:30	18.00	1544	8.25	9.2	5-10-19 13:00	17.21	784	8.48	26.6	5-10-19 13:00	17.42	1016	8.25	30.1						8-10-19 9:00	16.38	2387	8.45	3.0					
5-10-19 16:45	18.37	1545	8.59	4.0	5-10-19 13:15	17.32	779	8.48	15.8	5-10-19 13:15	18.31	1015	8.24	34.7						8-10-19 9:15	16.35	2385	8.45	2.4					
5-10-19 17:00	18.52	1547	8.59	4.0	5-10-19 13:30					5-10-19 13:30	18.83	1017	8.24	38.5						8-10-19 9:30	16.39	2385	8.46	2.9					
5-10-19 17:15	18.66	1546	8.45	4.4	5-10-19 13:45					5-10-19 13:45	17.53	988	8.25	45.0						8-10-19 9:45	16.40	2382	8.46	2.5					
5-10-19 17:30	18.77	1550	8.51	3.7	5-10-19 14:00					5-10-19 14:00	18.05	1017	8.24	51.6						8-10-19 10:00	16.43	2386	8.46	3.1					
5-10-19 17:45	18.84	1545	8.60	4.6	5-10-19 14:15					5-10-19 14:15	18.43	990	8.22	57.0						8-10-19 10:15	16.46	2385	8.46	2.4					
5-10-19 18:00	18.78	1548	8.57	3.7	5-10-19 14:30					5-10-19 14:30	17.53	997	8.22	42.2						8-10-19 10:30	16.48	2386	8.45	3.1					
5-10-19 18:15	18.71	1546	8.57	3.8	5-10-19 14:45					5-10-19 14:45	18.43	1009	8.24	74.8						8-10-19 10:45	16.55	2386	8.47	2.4					
5-10-19 18:30	18.48	1546	8.54	3.9	5-10-19 15:00					5-10-19 15:00	19.51	1054	8.22	27.6						8-10-19 11:00	16.70	2387	8.45	3.1					
5-10-19 18:45	18.41	1542	8.53	3.6	5-10-19 15:15					5-10-19 15:15	19.99	1040	8.23	33.3						8-10-19 11:15	16.84	2387	8.46	2.4					
5-10-19 19:00	18.28	1550	8.47	3.7	5-10-19 15:30	18.55	862	8.61	14.4	5-10-19 15:30	19.98	1053	8.23	36.1						8-10-19 11:30	17.03	2389	8.45	3.0					
5-10-19 19:15	18.17	1551	8.28	3.8	5-10-19 15:45	17.42	852	8.66	11.9	5-10-19 15:45	19.27	1045	8.25	35.6						8-10-19 11:45	17.23	2387	8.46	2.4					
5-10-19 19:30	18.12	1546	8.67	3.4	5-10-19 16:00	17.25	847	8.66	9.6	5-10-19 16:00	20.26	999	8.21	231.5						8-10-19 12:00	17.49	2389	8.45	3.1					
5-10-19 19:45	18.01	1545	8.64	3.4	5-10-19 16:15	17.57	824	8.63	9.5	5-10-19 16:15	20.54	1008	8.23	41.2						8-10-19 12:15	17.62	2371	8.46	2.4					
5-10-19 20:00	17.87	1560	8.64	4.8	5-10-19 16:30	17.97	853	8.61	12.4	5-10-19 16:30	20.40	982	8.22	60.1						8-10-19 12:30	17.74	2362	8.44	3.1					
5-10-19 20:15	17.82	1548	8.59	3.3	5-10-19 16:45	18.34	864	8.59	27.3	5-10-19 16:45	20.67	1043	8.24	246.7						8-10-19 12:45	18.12	2370	8.46	2.4					
5-10-19 20:30	17.79	1570	8.58	3.2	5-10-19 17:00	18.35	854	8.59	15.5	5-10-19 17:00	19.99	1016	8.22	27.7						8-10-19 13:00	18.12	2363	8.45	2.8					
5-10-19 20:45	17.74	1544	8.61	3.2	5-10-19 17:15	18.59	844	8.59	12.8	5-10-19 17:15	19.25	1009	8.25	25.0						8-10-19 13:15	18.24	2363	8.45	2.7					
5-10-19 21:00	17.70	1546	8.63	3.9	5-10-19 17:30	18.67	851	8.58	6.0	5-10-19 17:30	19.13	1013	8.25	42.4						8-10-19 13:30	18.39	2359	8.45	2.6					
5-10-19 21:15	17.67	1561	8.64	3.8	5-10-19 17:45	18.74	851	8.58	7.0	5-10-19 17:45	20.78	1002	8.24	86.7						8-10-19 13:45	18.42	2365	8.46	2.5					
5-10-19 21:30	17.63	1533	8.63	3.6	5-10-19 18:00	18.76	854	8.58	7.8	5-10-19 18:00	20.66	952	8.23	113.4						8-10-19 14:00	18.40	2361	8.45	2.6					
5-10-19 21:45	17.60	1554	8.63	3.9	5-10-19 18:15	18.83	856	8.57	5.7	5-10-19 18:15	19.91	974	8.22	34.5						8-10-19 14:30	18.51	2366	8.46	2.5					
5-10-19 22:00	17.63	1555	8.66	3.0	5-10-19 18:30	18.86	854	8.58	7.7	5-10-19 18:30	17.60	1012	8.21	45.4						8-10-19 14:45	18.51	2359	8.46	2.5					
5-10-19 22:15	17.61	1547	8.67	3.8	5-10-19 18:45	18.91	853	8.58	3.4	5-10-19 18:45	18.19	1004	8.24	111.0						8-10-19 15:00	18.72	2368	8.47	2.6					
5-10-19 22:30	17.58	1546	8.67	3.9	5-10-19 19:00	18.90	856	8.58	3.2	5-10-19 19:00	17.82	1033	8.23	27.7						8-10-19 15:15	18.64	2358	8.45	2.5					
5-10-19 22:45	17.57	1552	8.71	3.3	5-10-19 19:15	18.88	848	8.58	2.5	5-10-19 19:15	18.09	1028	8.24	98.2						8-10-19 15:30	18.55	2358	8.44	2.6					
5-10-19 23:00	17.56	1546	8.72	3.6	5-10-19 19:30	18.80	864	8.57	1.0	5-10-19 19:30	17.77	1026	8.24	116.2						8-10-19 15:45	18.58	2359	8.46	2.4					
5-10-19 23:15	17.51	1554	8.72	3.3	5-10-19 19:45	18.70	857	8.58	1.2	5-10-19 19:45	17.66	1071	8.24	220.5						8-10-19 16:00	18.67	2362	8.46	2.6					
5-10-19 23:30	17.49	1550	8.74	5.1	5-10-19 20:00	18.66	859	8.58	2.0	5-10-19 20:00	17.56	1054	8.24	56.3						8-10-19 16:30	18.84	2362	8.46	2.6					
5-10-19 23:45	17.44	1553	8.75	5.5	5-10-19 20:15	18.55	856	8.58	23.8	5-10-19 20:15	18.02	1042	8.25	29.9						8-10-19 16:45	18.72	2356	8.47	2.4					
5-11-19 0:00	17.40	1557	8.75	3.2	5-10-19 20:30	18.58	860	8.58	5.8	5-10-19 20:30	18.06	1034	8.25	51.3						8-10-19 17:00	18.71	2359	8.47	2.5					
5-11-19 0:15	17.35	1554	8.74	6.5	5-10-19 20:45	18.58	861	8.57	1.1	5-10-19 20:45	17.80	1030	8.25	60.7						8-10-19 17:15	18.67	2359	8.47	2.5					
5-11-19 0:30	17.30	1555	8.74	3.1	5-10-19 21:00	18.55	861	8.57	1.8	5-10-19 21:00	18.04	989	8.27	32.6						8-10-19 17:30	18.66	2360	8.47	2.5					
5-11-19 0:45	17.24	1551	8.72	3.2	5-10-19 21:15	18.50	861	8.57	3.4	5-10-19 21:15	17.80	1016	8.27	38.0						8-10-19 17:45	18.62	2358	8.47	2.4					
5-11-19 1:00	17.18	1553	8.72	4.8	5-10-19 21:30	18.45	861	8.57	2.2	5-10-19 21:30	17.74	1008	8.25	68.9						8-10-19 18:00	18.60	2360	8.48	2.5					
5-11-19 1:15	17.11	1553	8.72	5.1	5-10-19 21:45	18.38	861	8.57	0.0	5-10-19 21:45	17.85	1001	8.27	68.3						8-10-19 18:15	18.61	2358	8.48	2.4					
5-11-19 1:30	17.08	1552	8.71	3.2	5-10-19 22:00	18.29	862	8.58	0.2	5-10-19 22:00	17.80	980	8.26	47.2						8-10-19 18:30	18.60	2360	8.47	2.6					
5-11-19 1:45	17.00	1553	8.72	3.5	5-10-19 22:15	18.21	862	8.58	1.7	5-10-19 22:15	17.68	993	8.26	45.5						8-10-19 18:45	18.56	2358	8.47	2.4					
5-11-19 2:00	16.94	1554	8.72	3.2	5-10-19 22:30	18.10	863	8.58	0.9	5-10-19 22:30	17.58	1008	8.26	60.3						8-10-19 19:00	18.52	2360	8.47	2.5					
5-11-19 2:15	16.89	1551	8.73	2.8	5-10-19 22:45	18.00	863	8.58	0.5	5-10-19 22:45	17.39	980	8.28	112.1						8-10-19 19:30	18.46	2359	8.47	2.5					
5-11-19 2:30	16.83	1534	8.76	15.1	5-10-19 23:00	17.91	862	8.58	0.0	5-10-19 23:00	17.32	1045	8.27	30.7						8-10-19 19:45	18.43	2358	8.47	2.4					
5-11-19 2:45	16.76	1554	8.72	3.0	5-10-19 23:15	17.87	861	8.58	1.0	5-10-19 23:15	17.22	991	8.28	39.3						8-10-19 20:00	18.39	2359	8.46	2.5					
5-11-19 3:00	16.69	1556	8.72	2.9	5-10-19 23:30	17.81	862	8.58	0.5	5-10-19 23:30	17.16	997	8.28	32.9						8-10-19 20:15	18.35	2356	8.47	2.4					
5-11-19 3:15	16.64	1555	8.71	2.9	5-10-19 23:45	17.73	862	8.58	3.1	5-10-19 23:45	17.04	998	8.28	35.1						8-10-19 20:30	18.29	2358	8.47	2.5					
5-11-19 3:30	16.59	1560	8.68	3.2	5-11-19 0:00	17.65	861	8.58	0.0	5-11-19 0:00	16.92	999	8.26	53.8						8-10-19 20:45	18.25	2356	8.48	2.4					
5-11-19 3:45	16.54	1553	8.68	2.9	5-11-19 0:15	17.56	864	8.58	0.0	5-11-19 0:15	16.83	984	8.27	31.6						8-10-19 21:00	18.25	2357	8.47	2.5					
5-11-19 4:00	16.49	1553	8.67	4.6	5-11-19 0:30	17.47	862	8.58	0.0	5-11-19 0:30	16.75	1000	8.27	33.6						8-10-19 21:15	18.18	2356	8.47	2.4					
5-11-19 4:15	16.45	1555	8.67	3.6	5-11-19 0:45	17.35	861	8.58	0.0	5-11-19 0:45	16.64	1002	8.26	37.8						8-10-19 21:30	18.18	2357	8.48	2.5					
5-11-19 4:30	16.40	1555	8.66	2.7	5-11-19 1:00	17.27	861	8.58	0.0	5-11-19 1:00	16.50	996	8.27	38.6						8-10-19 21:45	18.11	2354	8.47	2.4					
5-11-19 4:45	16.35	1546	8.67	3.0	5-11-19 1:15	17.20	861	8.58	0.0	5-11-19 1:15	16.41	995	8.28	37.1						8-10-19 22:00	18.07	2357	8.48	2.5					
5-11-19 5:00	16.30	1554	8.67	2.6	5-11-19 1:30	17.14	861	8.58	0.0	5-11-19 1:30	16.32	1004	8.27	32.7						8-10-19 22:15	18.02	2355	8.48	2.4					
5-11-19 5:15	16.27	1551	8.67	2.9	5-11-19 1:45	17.09	860	8.58	0.0	5-11-19 1:45	16.26	994	8.27	28.9						8-10-19 22:30	17.98	2358	8.48	2.4					
5-11-19 5:30	16.20	1553	8.67	2.9	5-11-19 2:00	17.01	860	8.58	0.0	5-11-19 2:00	16.20	996	8.27	39.6						8-10-19 22:45	17.90	2356	8.49	2.3					
5-11-19 5:45	16.18	1551	8.66	2.9	5-11-19 2:15	16.95	860	8.58	0.0	5-11-19 2:15	16.13	996	8.27	33.3						8-10-19 23:00	17.90	2358	8.48	2.5					
5-11-19 6:00	16.15	1551	8.66	2.7	5-11-19 2:30	16.88	859	8.58	0.0	5-11-19 2:30	16.06	984	8.28	41.9						8-10-19 23:15	17.85	2358	8.48	2.4					
5-11-19 6:15	16.10	1551	8.65	3.0	5-11-19 2:45	16.79	860	8.58	0.0	5-11-19 2:45	15.99	992	8.28	44.1						8-10-19 23:30	17.84	2358	8.47	2.5					
5-11-19 6:30	16.09	1555	8.66	3.1	5-11-19 3:00	16.69	860	8.58	0.0	5-11-19 3:00	15.90	992	8.28	49.4						8-10-19 23:45	17.78	2356	8.48	2.3					
5-11-19 6:45	16.04	1553	8.65	4.3	5-11-19 3:15	16.64	859	8.58	0.0	5-11-19 3:15	15.84	991	8.28	49.5						8-11-19 0:00	17.72	2359	8.48	2.5					
5-11-19 7:00	16.01	1550	8.65	26.1	5-11-19 3:30	16.55	861	8.59	0.0	5-11-19 3:30	15.79	985	8.28	54.0						8-11-19 0:30	17.67	2358	8.48	2.5					
5-11-19 7:15	15.99	1551	8.67	3.3	5-11-19 3:45	16.47	860	8.58	0.0	5-11-19 3:45	15.75	988	8.28	55.8						8-11-19 0:45	17.60	2357	8.48	2.4					
5-11-19 7:30	15.99	1557	8.68	3.3	5-11-19 4:00	16.42	861	8.58	0.0	5-11-19 4:00	15.68	1003	8.26	37.4						8-11-19 1:00	17.52	2359	8.48	2.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-11-19 7:45	15.96	1559	8.66	3.2	5-11-19 4:15	16.33	861	8.58	0.0	5-11-19 4:15	15.59	988	8.27	34.1						8-11-19 1:15	17.50	2360	8.47	2.3					
5-11-19 8:00	15.94	1550	8.67	3.2	5-11-19 4:30	16.28	863	8.58	0.0	5-11-19 4:30	15.55	989	8.27	33.9						8-11-19 1:30	17.44	2360	8.48	2.4					
5-11-19 8:15	15.91	1554	8.67	3.3	5-11-19 4:45	16.23	858	8.58	0.0	5-11-19 4:45	15.51	991	8.28	34.7						8-11-19 1:45	17.43	2358	8.48	2.3					
5-11-19 8:30	15.91	1556	8.65	3.1	5-11-19 5:00	16.18	860	8.59	0.0	5-11-19 5:00	15.43	990	8.27	33.4						8-11-19 2:00	17.37	2361	8.48	2.5					
5-11-19 8:45	15.90	1554	8.65	3.4	5-11-19 5:15	16.11	860	8.59	0.0	5-11-19 5:15	15.36	977	8.28	33.8						8-11-19 2:15	17.32	2359	8.48	2.3					
5-11-19 9:00	15.92	1544	8.65	3.8	5-11-19 5:30	16.06	860	8.59	0.0	5-11-19 5:30	15.34	990	8.28	34.1						8-11-19 2:30	17.24	2361	8.48	2.4					
5-11-19 9:15	15.89	1553	8.65	2.9	5-11-19 5:45	16.04	847	8.59	0.0	5-11-19 5:45	15.26	989	8.28	31.9						8-11-19 2:45	17.24	2361	8.48	2.3					
5-11-19 9:30	15.93	1555	8.66	3.4	5-11-19 6:00	16.01	860	8.59	0.0	5-11-19 6:00	15.22	991	8.27	43.5						8-11-19 3:00	17.20	2361	8.48	2.5					
5-11-19 9:45	15.98	1553	8.70	5.8	5-11-19 6:15	15.98	859	8.58	0.0	5-11-19 6:15	15.20	993	8.28	33.7						8-11-19 3:15	17.17	2361	8.47	2.3					
5-11-19 10:00	16.06	1559	8.70	5.6	5-11-19 6:30	15.97	859	8.59	0.0	5-11-19 6:30	15.19	994	8.27	33.6						8-11-19 3:30	17.14	2363	8.47	2.5					
5-11-19 10:15	16.09	1555	8.70	4.2	5-11-19 6:45					5-11-19 6:45	15.18	1002	8.27	32.4						8-11-19 3:45	17.09	2362	8.48	2.4					
5-11-19 10:30	16.23	1553	8.70	3.7	5-11-19 7:00					5-11-19 7:00	15.15	1011	8.27	31.8						8-11-19 4:00	17.07	2363	8.47	2.4					
5-11-19 10:45	16.40	1553	8.69	4.6	5-11-19 7:15	15.94	859	8.58	0.0	5-11-19 7:15	15.13	996	8.28	30.8						8-11-19 4:30	17.05	2363	8.47	2.5					
5-11-19 11:00	16.47	1551	8.71	3.7	5-11-19 7:30	15.90	859	8.59	0.0	5-11-19 7:30	15.12	998	8.27	32.7						8-11-19 4:45	17.01	2363	8.47	2.3					
5-11-19 11:15	16.59	1558	8.71	5.4	5-11-19 7:45	15.88	856	8.58	0.0	5-11-19 7:45	15.09	997	8.27	44.4						8-11-19 5:00	17.01	2365	8.47	2.5					
5-11-19 11:30	16.72	1558	8.72	3.4	5-11-19 8:00	15.87	860	8.59	0.0	5-11-19 8:00	15.11	995	8.26	34.3						8-11-19 5:15	16.97	2363	8.46	2.4					
5-11-19 11:45	16.85	1552	8.71	3.1	5-11-19 8:15	15.89	856	8.58	0.0	5-11-19 8:15	15.12	996	8.27	34.8						8-11-19 5:30	16.94	2364	8.47	2.5					
5-11-19 12:00	16.92	1568	8.73	3.9	5-11-19 8:30	15.88	853	8.59	0.7	5-11-19 8:30	15.11	997	8.27	34.3						8-11-19 5:45	16.88	2363	8.47	2.3					
5-11-19 12:15	17.13	1554	8.74	3.3	5-11-19 8:45	15.91	852	8.59	0.0	5-11-19 8:45	15.12	996	8.27	32.8						8-11-19 6:00	16.87	2364	8.46	2.4					
5-11-19 12:30	17.18	1549	8.74	3.8	5-11-19 9:00	15.94	851	8.58	0.0	5-11-19 9:00	15.13	997	8.27	31.8						8-11-19 6:15	16.83	2363	8.47	2.3					
5-11-19 12:45	17.26	1557	8.75	3.1	5-11-19 9:15	15.96	854	8.59	2.8	5-11-19 9:15	15.14	993	8.27	31.3						8-11-19 6:30	16.79	2365	8.46	2.5					
5-11-19 13:00	17.32	1568	8.74	3.3	5-11-19 9:30	15.98	852	8.58	0.7	5-11-19 9:30	15.15	996	8.27	29.2						8-11-19 6:45	16.76	2364	8.46	2.3					
5-11-19 13:15	17.30	1558	8.72	15.6	5-11-19 9:45	16.02	850	8.58	0.3	5-11-19 9:45	15.19	996	8.27	31.7						8-11-19 7:00	16.74	2365	8.46	2.5					
5-11-19 13:30	17.29	1551	8.75	16.9	5-11-19 10:00	16.06	854	8.58	0.0	5-11-19 10:00	15.34	995	8.27	36.7						8-11-19 7:15	16.69	2365	8.46	2.3					
5-11-19 13:45	17.29	1550	8.76	4.4	5-11-19 10:15	16.16	853	8.58	0.0	5-11-19 10:15	15.44	995	8.27	37.2						8-11-19 7:30	16.72	2368	8.47	2.4					
5-11-19 14:00	17.74	1567	8.81	3.3	5-11-19 10:30	16.21	850	8.58	0.0	5-11-19 10:30	15.50	995	8.27	38.8						8-11-19 7:45	16.73	2366	8.47	2.3					
5-11-19 14:15	18.03	1556	8.78	3.0	5-11-19 10:45	16.32	851	8.58	0.0	5-11-19 10:45	15.59	995	8.27	35.2						8-11-19 8:00	16.72	2367	8.47	2.5					
5-11-19 14:30	18.15	1557	8.79	3.2	5-11-19 11:00	16.33	857	8.58	0.0	5-11-19 11:00	15.67	992	8.26	30.6						8-11-19 8:15	16.69	2365	8.47	2.3					
5-11-19 14:45	18.52	1553	8.78	3.3	5-11-19 11:15	16.43	851	8.58	0.0	5-11-19 11:15	15.83	999	8.27	31.5						8-11-19 8:30	16.68	2366	8.47	2.4					
5-11-19 15:00	18.54	1550	8.82	6.1	5-11-19 11:30	16.47	850	8.57	1.6	5-11-19 11:30	16.06	988	8.26	32.0						8-11-19 8:45	16.68	2365	8.48	2.3					
5-11-19 15:15	18.55	1485	8.85	3.5	5-11-19 11:45	16.50	853	8.56	1.1	5-11-19 11:45	16.19	991	8.27	32.7						8-11-19 9:00	16.70	2370	8.48	2.4					
5-11-19 15:30	19.02	1558	8.85	15.0	5-11-19 12:00	16.57	847	8.57	8.4	5-11-19 12:00	16.32	990	8.26	40.2						8-11-19 9:15	16.68	2371	8.47	2.3					
5-11-19 15:45	19.09	1560	8.95	12.0	5-11-19 12:15	16.56	848	8.56	1.8	5-11-19 12:15	16.54	989	8.27	39.0						8-11-19 9:30	16.70	2372	8.47	2.4					
5-11-19 16:00	19.08	1558	8.94	4.2	5-11-19 12:30	16.50	847	8.57	3.2	5-11-19 12:30	16.84	985	8.27	45.5						8-11-19 9:45	16.72	2373	8.48	2.3					
5-11-19 16:15	19.03	1588	8.90	3.1	5-11-19 12:45	16.51	843	8.57	0.0	5-11-19 12:45	16.99	982	8.25	47.2						8-11-19 10:00	16.72	2375	8.47	2.4					
5-11-19 16:30	18.95	1557	8.90	3.4	5-11-19 13:00	16.55	843	8.57	9.6	5-11-19 13:00	16.82	965	8.27	37.7						8-11-19 10:15	16.72	2375	8.47	2.3					
5-11-19 16:45	18.83	1548	8.91	8.3	5-11-19 13:15	16.61	846	8.56	1.8	5-11-19 13:15	16.87	978	8.26	31.0						8-11-19 10:30	16.74	2375	8.47	2.5					
5-11-19 17:00	18.82	1564	8.92	3.8	5-11-19 13:30	16.62	848	8.56	1.8	5-11-19 13:30	17.03	979	8.26	32.3						8-11-19 10:45	16.77	2373	8.47	2.3					
5-11-19 17:15	18.76	1590	8.92	7.3	5-11-19 13:45	16.67	845	8.57	1.2	5-11-19 13:45	17.21	978	8.26	32.6						8-11-19 11:00	16.80	2377	8.47	2.4					
5-11-19 17:30	18.75	1576	8.91	3.2	5-11-19 14:00	16.82	843	8.56	0.0	5-11-19 14:00	17.32	981	8.26	33.0						8-11-19 11:30	16.93	2378	8.47	2.4					
5-11-19 17:45	18.74	1565	8.92	4.1	5-11-19 14:15	16.96	847	8.57	1.5	5-11-19 14:15	17.77	987	8.26	31.3						8-11-19 11:45	16.97	2373	8.48	2.3					
5-11-19 18:00	18.69	1549	8.93	3.2	5-11-19 14:30	17.12	844	8.56	0.0	5-11-19 14:30	17.72	980	8.25	33.6						8-11-19 12:00	17.04	2374	8.47	2.5					
5-11-19 18:15	18.64	1565	8.94	14.1	5-11-19 14:45	17.28	853	8.56	0.0	5-11-19 14:45	17.66	979	8.26	35.4						8-11-19 12:15	17.18	2375	8.48	2.3					
5-11-19 18:30	18.56	1560	8.95	5.5	5-11-19 15:00	17.51	845	8.55	110.5	5-11-19 15:00	17.47	983	8.27	96.9						8-11-19 12:30	17.60	2376	8.47	2.5					
5-11-19 18:45	18.46	1556	8.96	3.6	5-11-19 15:15	17.95	849	8.55	0.0	5-11-19 15:15	18.25	992	8.27	32.0						8-11-19 12:45	17.95	2376	8.47	2.3					
5-11-19 19:00	18.37	1553	8.97	3.5	5-11-19 15:30	18.19	830	8.54	0.0	5-11-19 15:30	18.83	991	8.26	47.5						8-11-19 13:00	18.02	2370	8.46	2.4					
5-11-19 19:15	18.33	1563	8.98	6.2	5-11-19 15:45	17.84	838	8.56	5.1	5-11-19 15:45	18.97	964	8.26	34.2						8-11-19 13:15	18.71	2379	8.46	2.3					
5-11-19 19:30	18.27	1565	8.98	3.7	5-11-19 16:00	17.77	838	8.57	143.1	5-11-19 16:00	18.91	976	8.25	51.5						8-11-19 13:30	18.67	2373	8.45	2.4					
5-11-19 19:45	18.19	1553	8.98	6.2	5-11-19 16:15	17.19	833	8.58	5.3	5-11-19 16:15	18.82	967	8.25	33.3						8-11-19 13:45	18.73	2371	8.46	2.3					
5-11-19 20:00	18.09	1562	8.99	3.6	5-11-19 16:30	16.83	841	8.59	5.6	5-11-19 16:30	18.63	960	8.26	32.8						8-11-19 14:00	18.99	2382	8.45	2.5					
5-11-19 20:15	18.01	1564	8.98	3.5	5-11-19 16:45	16.69	849	8.59	10.3	5-11-19 16:45	18.45	966	8.27	34.3						8-11-19 14:15	19.36	2375	8.46	2.3					
5-11-19 20:30	17.94	1564	8.98	3.9	5-11-19 17:00	16.68	825	8.58	173.5	5-11-19 17:00	18.40	969	8.27	40.8						8-11-19 14:30	19.36	2371	8.45	2.4					
5-11-19 20:45	17.88	1565	8.99	3.3	5-11-19 17:15	16.59	863	8.59	13.6	5-11-19 17:15	18.30	980	8.27	32.5						8-11-19 14:45	19.54	2350	8.45	2.3					
5-11-19 21:00	17.75	1567	8.99	4.3	5-11-19 17:30	16.57	840	8.58	246.5	5-11-19 17:30	18.18	977	8.27	31.9						8-11-19 15:00	19.69	2356	8.44	2.5					
5-11-19 21:15	17.72	1564	8.99	3.7	5-11-19 17:45	16.59	856	8.58	8.3	5-11-19 17:45	18.13	982	8.28	31.3						8-11-19 15:15	19.67	2349	8.44	2.4					
5-11-19 21:30	17.65	1568	8.99	4.7	5-11-19 18:00	16.55	829	8.58	35.6	5-11-19 18:00	18.06	988	8.28	32.2						8-11-19 15:30	20.10	2362	8.43	2.5					
5-11-19 21:45	17.58	1568	8.98	10.4	5-11-19 18:15	16.60	857	8.59	4.6	5-11-19 18:15	17.88	980	8.27	31.3						8-11-19 15:45	20.31	2371	8.45	2.3					
5-11-19 22:00	17.52	1565	8.98	3.9	5-11-19 18:30	16.58	812	8.58	2.9	5-11-19 18:30	17.86	985	8.28	31.7						8-11-19 16:00	20.25	2362	8.43	2.4					
5-11-19 22:15	17.45	1565	8.98	3.0	5-11-19 18:45	16.59	857	8.59	5.6	5-11-19 18:45	17.73	977	8.28	30.5						8-11-19 16:15	20.24	2358	8.44	2.3					
5-11-19 22:30	17.37	1571	8.98	3.1	5-11-19 19:00	16.57	847	8.58	3.0	5-11-19 19:00	17.68	985	8.28	45.0						8-11-19 16:30	20.53	2368	8.45	2.5					
5-11-19 22:45	17.32	1559	8.98	3.1	5-11-19 19:15	16.57	862	8.58	3.3	5-11-19 19:15	17.64	984	8.28	30.6						8-11-19 16:45	20.63	2365	8.46	2.4					
5-11-19 23:00	17.25	1568	8.98	5.3	5-11-19 19:30	16.54	846	8.58	3.3	5-11-19 19:30	17.44	982	8.29	29.5						8-11-19 17:00	20.59	2359	8.43	2.5					
5-11-19 23:15	17.18	1574	8.98	2.7	5-11-19 19:45	16.54	856	8.58	6.2	5-11-19 19:45	17.39	984	8.29	33.4						8-11-19 17:15	20.44	2358	8.43	2.3					
5-11-19 23:30	17.11	1563	8.98	3.7	5-11-19 20:00	16.56	844	8.58	3.7	5-11-19 20:00	17.25	984	8.28	30.8						8-11-19 17:30	20.30	2351	8.43	2.4					
5-11-19 23:45	17.04	1568	8.99	2.8	5-11-19 20:15	16.50	842	8.58	5.9	5-11-19 20:15	17.13	975	8.29	32.0						8-11-19 17:45	20.29	2353	8.45	2.3					
5-12-19 0:00	16.96	1568	9.00	3.3	5-11-19 20:30	16.50	849	8.58	1.9	5-11-19 20:30	16.99	978	8.28	31.1						8-11-19 18:00	20.32	2357	8.44	2.5					
5-12-19 0:15	16.91	1569	9.00	3.0	5-11-19 20:45	16.38	852	8.58	4.5	5-11-19 20:45	16.91	985	8.29	31.3						8-11-19 18:15	20.36	2356	8.45	2.3					
5-12-19 0:30	16.81	1569	9.00	3.3	5-11-19 21:00	16.44	831	8.58	4.1	5-11-19 21:00	16.75	985	8.29	34.4						8-11-19 18:30	20.34	2354	8.43	2.5					
5-12-19 0:45	16.72	1569	8.99	4.3	5-11-19 21:15	16.42	854	8.58	4.0	5-11-19 21:15	16.70	984	8.29	30.2						8-11-19 18:45	20.27	2355	8.46	2.3					
5-12-19 1:00	16.65	1567	8.99	2.7	5-11-19 21:30	16.41	856	8.57	2.5	5-11-19 21:30	16.60	986	8.29	30.5						8-11-19 19:00	20.22	2358	8.45	2.4					
5-12-19 1:15	16.59	1567	8.99	2.7	5-11-19 21:45	16.31	854	8.57	4.2	5-11-19 21:45	16.53	986	8.29	28.9						8-11-19 19:30	20.08	2357	8.44	2.4					
5-12-19 1:30	16.50	1570	8.98	3.2	5-11-19 22:00	16.29	847	8.57	149.1	5-11-19 22:00	16.41	987	8.28	33.3						8-11-19 19:45	20.00	2352	8.45	2.3					
5-12-19 1:45	16.45	1570	8.99	3.0	5-11-19 22:15	16.26	850	8.58	2.7	5-11-19 22:15	16.33	983	8.29	31.8						8-11-19 20:00	19.92	2353	8.44	2.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-12-19 2:00	16.38	1568	8.98	8.9	5-11-19 22:30	16.24	855	8.57	2.8	5-11-19 22:30	16.26	984	8.29	33.2						8-11-19 20:15	19.82	2351	8.46	2.3					
5-12-19 2:15	16.33	1566	8.99	2.6	5-11-19 22:45	16.25	853	8.57	2.3	5-11-19 22:45	16.19	985	8.29	34.3						8-11-19 20:30	19.70	2354	8.45	2.4					
5-12-19 2:30	16.30	1570	8.98	3.4	5-11-19 23:00	16.25	853	8.57	0.6	5-11-19 23:00	16.12	984	8.28	30.1						8-11-19 20:45	19.62	2350	8.47	2.3					
5-12-19 2:45	16.20	1568	8.99	2.7	5-11-19 23:15	16.18	853	8.58	2.2	5-11-19 23:15	16.05	982	8.29	27.9						8-11-19 21:00	19.54	2354	8.45	2.4					
5-12-19 3:00	16.16	1564	8.99	2.7	5-11-19 23:30	16.13	856	8.57	1.6	5-11-19 23:30	16.01	983	8.29	30.2						8-11-19 21:15	19.41	2350	8.46	2.3					
5-12-19 3:15	16.06	1569	8.99	7.0	5-11-19 23:45	16.09	856	8.57	1.9	5-11-19 23:45	15.92	984	8.29	43.3						8-11-19 21:30	19.27	2350	8.47	2.4					
5-12-19 3:30	15.96	1561	8.99	4.0	5-12-19 0:00	16.01	842	8.57	0.1	5-12-19 0:00	15.80	973	8.28	35.0						8-11-19 21:45	19.11	2346	8.47	2.2					
5-12-19 3:45	15.86	1569	8.98	3.2	5-12-19 0:15	16.04	854	8.57	2.9	5-12-19 0:15	15.73	982	8.28	33.9						8-11-19 22:00	18.98	2343	8.45	2.3					
5-12-19 4:00	15.81	1570	8.89	3.7	5-12-19 0:30	15.99	856	8.57	6.1	5-12-19 0:30	15.63	981	8.28	31.9						8-11-19 22:15	18.87	2342	8.47	2.3					
5-12-19 4:15	15.77	1570	8.63	3.6	5-12-19 0:45	15.93	853	8.57	1.3	5-12-19 0:45	15.58	978	8.28	33.4						8-11-19 22:30	18.80	2344	8.44	2.4					
5-12-19 4:30	15.73	1570	8.47	3.3	5-12-19 1:00	15.88	851	8.57	4.6	5-12-19 1:00	15.49	984	8.28	32.3						8-11-19 22:45	18.71	2342	8.47	2.2					
5-12-19 4:45	15.68	1570	8.71	3.1	5-12-19 1:15	15.79	856	8.58	0.2	5-12-19 1:15	15.35	985	8.28	34.0						8-11-19 23:00	18.63	2344	8.44	2.4					
5-12-19 5:00	15.64	1570	8.89	2.9	5-12-19 1:30	15.79	839	8.57	0.0	5-12-19 1:30	15.29	985	8.28	36.3						8-11-19 23:30	18.47	2345	8.44	2.3					
5-12-19 5:15	15.58	1569	8.91	3.3	5-12-19 1:45	15.78	856	8.57	0.4	5-12-19 1:45	15.22	989	8.28	41.9						8-11-19 23:45	18.40	2346	8.46	2.3					
5-12-19 5:30	15.54	1569	8.91	3.2	5-12-19 2:00	15.75	847	8.57	0.0	5-12-19 2:00	15.15	980	8.28	30.9						8-12-19 0:00	18.34	2348	8.45	2.3					
5-12-19 5:45	15.50	1570	8.87	10.3	5-12-19 2:15	15.75	855	8.58	1.1	5-12-19 2:15	15.08	986	8.28	30.6						8-12-19 0:15	18.29	2346	8.45	2.2					
5-12-19 6:00	15.44	1569	8.84	4.2	5-12-19 2:30	15.73	847	8.56	0.0	5-12-19 2:30	15.01	977	8.28	30.8						8-12-19 0:30	18.26	2356	8.45	2.4					
5-12-19 6:15	15.37	1568	8.88	3.7	5-12-19 2:45	15.67	854	8.57	0.0	5-12-19 2:45	14.95	978	8.28	27.5						8-12-19 0:45	18.23	2358	8.46	2.2					
5-12-19 6:30	15.36	1570	8.78	4.2	5-12-19 3:00	15.64	853	8.57	0.0	5-12-19 3:00	14.91	983	8.27	30.5						8-12-19 1:00	18.24	2374	8.44	2.4					
5-12-19 6:45	15.37	1570	8.65	2.6	5-12-19 3:15	15.62	859	8.57	1.8	5-12-19 3:15	14.78	970	8.28	33.0						8-12-19 1:30	18.12	2363	8.45	2.4					
5-12-19 7:00	15.30	1570	8.77	2.6	5-12-19 3:30	15.62	852	8.57	0.0	5-12-19 3:30	14.71	981	8.28	32.1						8-12-19 1:45	18.05	2363	8.45	2.2					
5-12-19 7:15	15.30	1571	8.72	2.8	5-12-19 3:45	15.57	850	8.57	0.8	5-12-19 3:45	14.65	981	8.27	28.1						8-12-19 2:00	18.02	2366	8.44	2.4					
5-12-19 7:30	15.25	1571	8.65	2.9	5-12-19 4:00	15.49	847	8.57	0.0	5-12-19 4:00	14.59	979	8.27	28.7						8-12-19 2:15	18.01	2364	8.46	2.2					
5-12-19 7:45	15.20	1563	8.68	3.0	5-12-19 4:15	15.40	885	8.57	1.0	5-12-19 4:15	14.53	983	8.27	31.2						8-12-19 2:30	17.97	2367	8.45	2.3					
5-12-19 8:00	15.20	1573	8.61	3.3	5-12-19 4:30	15.40	853	8.57	0.0	5-12-19 4:30	14.49	983	8.26	28.5						8-12-19 2:45	17.94	2363	8.46	2.2					
5-12-19 8:15	15.23	1571	8.57	3.4	5-12-19 4:45	15.39	856	8.57	57.5	5-12-19 4:45	14.47	983	8.26	30.9						8-12-19 3:00	17.88	2367	8.45	2.4					
5-12-19 8:30	15.26	1569	8.53	2.8	5-12-19 5:00	15.35	858	8.56	0.0	5-12-19 5:00	14.42	980	8.27	29.7						8-12-19 3:15	17.85	2367	8.45	2.3					
5-12-19 8:45	15.30	1569	8.50	4.6	5-12-19 5:15	15.30	855	8.56	1.1	5-12-19 5:15	14.38	978	8.27	27.7						8-12-19 3:30	17.84	2367	8.45	2.3					
5-12-19 9:00	15.38	1605	8.52	3.9	5-12-19 5:30	15.25	853	8.57	0.0	5-12-19 5:30	14.31	976	8.26	28.0						8-12-19 3:45	17.79	2365	8.45	2.2					
5-12-19 9:15	15.41	1570	8.51	3.5	5-12-19 5:45	15.27	854	8.57	0.8	5-12-19 5:45	14.26	974	8.26	31.0						8-12-19 4:00	17.72	2368	8.46	2.3					
5-12-19 9:30	15.50	1573	8.49	4.1	5-12-19 6:00	15.23	855	8.56	0.0	5-12-19 6:00	14.21	977	8.25	31.4						8-12-19 4:15	17.68	2364	8.46	2.4					
5-12-19 9:45	15.70	1577	8.53	4.0	5-12-19 6:15	15.20	857	8.56	0.0	5-12-19 6:15	14.18	972	8.26	27.4						8-12-19 4:30	17.63	2365	8.45	2.4					
5-12-19 10:00	15.72	1573	8.56	3.1	5-12-19 6:30	15.18	854	8.56	0.2	5-12-19 6:30	14.17	981	8.26	29.1						8-12-19 4:45	17.63	2366	8.46	2.3					
5-12-19 10:15	15.65	1570	8.54	3.9	5-12-19 6:45	15.17	857	8.56	0.0	5-12-19 6:45	14.18	980	8.26	28.0						8-12-19 5:00	17.59	2368	8.45	2.5					
5-12-19 10:30	15.79	1572	8.58	3.6	5-12-19 7:00	15.17	857	8.56	1.4	5-12-19 7:00	14.15	980	8.26	27.7						8-12-19 5:15	17.57	2366	8.45	2.3					
5-12-19 10:45	15.97	1576	8.57	3.1	5-12-19 7:15	15.14	860	8.56	0.9	5-12-19 7:15	14.11	980	8.27	29.3						8-12-19 5:30	17.54	2369	8.45	2.6					
5-12-19 11:00	16.08	1570	8.59	7.6	5-12-19 7:30	15.16	854	8.56	0.0	5-12-19 7:30	14.10	981	8.27	26.7						8-12-19 5:45	17.49	2366	8.46	2.3					
5-12-19 11:15	16.09	1566	8.58	4.2	5-12-19 7:45	15.18	850	8.56	0.0	5-12-19 7:45	14.07	979	8.27	27.9						8-12-19 6:00	17.48	2369	8.46	2.4					
5-12-19 11:30	16.31	1575	8.62	3.2	5-12-19 8:00	15.20	853	8.55	3.6	5-12-19 8:00	14.09	980	8.26	27.9						8-12-19 6:15	17.49	2366	8.46	2.3					
5-12-19 11:45	16.28	1576	8.61	3.1	5-12-19 8:15	15.25	862	8.55	3.1	5-12-19 8:15	14.09	980	8.26	28.3						8-12-19 6:30	17.45	2369	8.46	2.6					
5-12-19 12:00	16.51	1577	8.60	4.0	5-12-19 8:30	15.28	858	8.55	10.2	5-12-19 8:30	14.15	982	8.26	32.6						8-12-19 6:45	17.45	2366	8.46	2.3					
5-12-19 12:15	16.60	1574	8.55	3.0	5-12-19 8:45	15.32	866	8.55	12.4	5-12-19 8:45	14.17	980	8.26	31.2						8-12-19 7:00	17.41	2368	8.45	2.5					
5-12-19 12:30	16.71	1577	8.59	3.1	5-12-19 9:00	15.36	867	8.55	5.7	5-12-19 9:00	14.26	981	8.26	31.2						8-12-19 7:15	17.36	2367	8.45	2.3					
5-12-19 12:45	16.87	1577	8.53	3.3	5-12-19 9:15	15.39	872	8.54	1.9	5-12-19 9:15	14.32	984	8.26	29.1						8-12-19 7:30	17.34	2368	8.45	2.5					
5-12-19 13:00	16.96	1578	8.50	3.1	5-12-19 9:30	15.39	872	8.55	0.0	5-12-19 9:30	14.46	980	8.26	27.3						8-12-19 7:45	17.35	2367	8.46	2.4					
5-12-19 13:15	16.99	1580	8.59	3.7	5-12-19 9:45	15.43	875	8.55	3.4	5-12-19 9:45	14.55	980	8.26	26.6						8-12-19 8:00	17.39	2369	8.46	2.6					
5-12-19 13:30	17.02	1601	8.39	3.2	5-12-19 10:00	15.55	873	8.55	0.0	5-12-19 10:00	14.66	976	8.26	30.9						8-12-19 8:15	17.39	2368	8.46	2.3					
5-12-19 13:45	17.23	1578	8.34	3.2	5-12-19 10:15	15.47	885	8.53	5.4	5-12-19 10:15	14.80	974	8.26	29.4						8-12-19 8:30	17.43	2368	8.46	2.5					
5-12-19 14:00	17.47	1580	8.53	4.2	5-12-19 10:30	15.51	884	8.54	0.2	5-12-19 10:30	15.01	976	8.26	33.7						8-12-19 8:45	17.46	2367	8.47	2.3					
5-12-19 14:15	17.39	1583	8.45	3.7	5-12-19 10:45	15.59	886	8.55	1.7	5-12-19 10:45	14.78	976	8.26	27.3						8-12-19 9:00	17.52	2369	8.46	2.4					
5-12-19 14:30	17.65	1581	8.48	3.9	5-12-19 11:00	15.74	879	8.55	1.4	5-12-19 11:00	14.82	977	8.26	26.1						8-12-19 9:15	17.54	2369	8.46	2.3					
5-12-19 14:45	17.68	1577	8.44	4.1	5-12-19 11:15	15.82	883	8.55	9.5	5-12-19 11:15	14.90	980	8.26	27.2						8-12-19 9:30	17.62	2368	8.46	2.5					
5-12-19 15:00	17.68	1582	8.62	3.9	5-12-19 11:30	15.91	870	8.55	2.6	5-12-19 11:30	15.03	984	8.26	28.6						8-12-19 9:45	17.69	2368	8.47	2.3					
5-12-19 15:15	17.75	1583	8.40	3.9	5-12-19 11:45	16.03	879	8.55	1.0	5-12-19 11:45	15.19	981	8.26	28.3						8-12-19 10:00	17.75	2368	8.46	2.6					
5-12-19 15:30	17.78	1594	8.43	3.4	5-12-19 12:00	16.11	875	8.54	0.0	5-12-19 12:00	15.27	977	8.26	29.2						8-12-19 10:15	17.82	2369	8.47	2.4					
5-12-19 15:45	17.81	1577	8.36	4.2	5-12-19 12:15	16.21	874	8.55	0.7	5-12-19 12:15	15.39	978	8.27	27.8						8-12-19 10:30	17.89	2374	8.46	2.6					
5-12-19 16:00	17.91	1580	8.33	3.6	5-12-19 12:30	16.22	874	8.54	0.0	5-12-19 12:30	15.51	979	8.26	26.4						8-12-19 10:45	17.96	2375	8.46	2.3					
5-12-19 16:15	17.89	1579	8.27	5.1	5-12-19 12:45	16.33	867	8.54	0.4	5-12-19 12:45	15.58	980	8.26	28.8						8-12-19 11:00	18.05	2376	8.45	2.5					
5-12-19 16:30	17.93	1581	8.35	7.1	5-12-19 13:00	16.38	852	8.54	0.0	5-12-19 13:00	15.68	979	8.26	30.0						8-12-19 11:15	18.11	2377	8.45	2.3					
5-12-19 16:45	17.91	1580	8.43	4.7	5-12-19 13:15	16.59	875	8.54	0.8	5-12-19 13:15	15.72	979	8.26	27.1						8-12-19 11:30	18.58	2375	8.45	2.5					
5-12-19 17:00	17.89	1575	8.41	3.7	5-12-19 13:30					5-12-19 13:30	15.86	980	8.26	26.2						8-12-19 11:45	18.72	2370	8.45	2.4					
5-12-19 17:15	17.87	1576	8.37	4.5	5-12-19 13:45					5-12-19 13:45	16.00	980	8.26	26.0						8-12-19 12:00	18.84	2371	8.44	2.4					
5-12-19 17:30	17.84	1585	8.41	4.5	5-12-19 14:00					5-12-19 14:00	16.10	994	8.25	34.8						8-12-19 12:15	19.27	2373	8.45	2.4					
5-12-19 17:45	17.82	1581	8.39	6.5	5-12-19 14:15					5-12-19 14:15	16.08	981	8.26	26.7						8-12-19 12:30	19.56	2377	8.45	2.5					
5-12-19 18:00	17.79	1584	8.41	4.8	5-12-19 14:30					5-12-19 14:30	16.08	976	8.25	28.6						8-12-19 12:45	19.70	2369	8.45	2.4					
5-12-19 18:15	17.79	1584	8.40	3.8	5-12-19 14:45					5-12-19 14:45	16.17	981	8.25	28.4						8-12-19 13:00	19.73	2368	8.43	2.5					
5-12-19 18:30	17.72	1585	8.39	5.7	5-12-19 15:00					5-12-19 15:00	16.23	978	8.25	29.5						8-12-19 13:15	20.17	2377	8.44	2.4					
5-12-19 18:45	17.71	1588	8.40	4.0	5-12-19 15:15	16.88	887	8.54	1.7	5-12-19 15:15	16.21	975	8.25	26.3						8-12-19 13:30	20.18	2366	8.44	2.5					
5-12-19 19:00	17.64	1589	8.37	3.7	5-12-19 15:30	17.01	885	8.54	23.3	5-12-19 15:30	16.35	947	8.25	27.0						8-12-19 13:45	20.30	2366	8.45	2.3					
5-12-19 19:15	17.60	1590	8.34	5.4	5-12-19 15:45	17.07	886	8.53	10.7	5-12-19 15:45	16.41	977	8.25	26.2						8-12-19 14:00	20.45	2362	8.42	2.4					
5-12-19 19:30	17.52	1589	8.33	4.8	5-12-19 16:00	17.03	888	8.53	7.3	5-12-19 16:00	16.30	979	8.25	29.4						8-12-19 14:15	20.46	2358	8.44	2.4					
5-12-19 19:45	17.46	1589	8.33	4.1	5-12-19 16:15	17.03	887	8.53	4.6	5-12-19 16:15	16.24	972	8.25	27.0						8-12-19 14:30	20.52	2366	8.43	2.5					
5-12-19 20:00	17.43	1588	8.32	4.6	5-12-19 16:30	17.07	888	8.53	2.5	5-12-19 16:30	16.28	975	8.25	28.0						8-12-19 14:45	21.08	2368	8.44	2.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-12-19 20:15	17.36	1589	8.32	5.4	5-12-19 16:45	17.15	886	8.53	2.3	5-12-19 16:45	16.26	979	8.26	28.2						8-12-19 15:00	21.00	2367	8.42	2.5					
5-12-19 20:30	17.31	1589	8.29	4.4	5-12-19 17:00	17.13	879	8.53	0.6	5-12-19 17:00	16.39	984	8.26	36.0						8-12-19 15:30	21.34	2370	8.41	2.5					
5-12-19 20:45	17.24	1590	8.11	4.2	5-12-19 17:15	17.17	886	8.53	2.2	5-12-19 17:15	16.25	983	8.26	27.3						8-12-19 15:45	21.18	2364	8.44	2.4					
5-12-19 21:00	17.15	1591	8.13	4.0	5-12-19 17:30	17.13	885	8.53	2.3	5-12-19 17:30	16.24	984	8.26	30.7						8-12-19 16:00	21.16	2364	8.41	2.5					
5-12-19 21:15	17.05	1592	8.01	7.7	5-12-19 17:45	17.13	886	8.54	6.3	5-12-19 17:45	16.25	981	8.26	31.1						8-12-19 16:15	21.17	2369	8.43	2.4					
5-12-19 21:30	16.99	1590	7.98	6.5	5-12-19 18:00	17.20	886	8.53	2.3	5-12-19 18:00	16.18	1028	8.25	42.2						8-12-19 16:30	21.33	2369	8.43	2.5					
5-12-19 21:45	16.92	1593	8.00	4.2	5-12-19 18:15	17.19	888	8.54	8.3	5-12-19 18:15	16.19	1024	8.26	34.0						8-12-19 16:45	21.42	2366	8.45	2.4					
5-12-19 22:00	16.84	1589	7.96	4.5	5-12-19 18:30	17.14	888	8.53	4.8	5-12-19 18:30	16.14	1016	8.26	35.9						8-12-19 17:00	21.53	2371	8.44	2.6					
5-12-19 22:15	16.78	1590	7.89	3.7	5-12-19 18:45	17.06	886	8.54	7.7	5-12-19 18:45	16.05	1018	8.25	36.5						8-12-19 17:15	21.47	2369	8.44	2.4					
5-12-19 22:30	16.70	1592	7.91	3.9	5-12-19 19:00	16.94	888	8.54	4.6	5-12-19 19:00	16.01	983	8.26	31.0						8-12-19 17:30	21.42	2371	8.42	2.6					
5-12-19 22:45	16.66	1592	7.67	6.3	5-12-19 19:15	16.87	888	8.54	3.3	5-12-19 19:15	15.95	985	8.26	25.5						8-12-19 17:45	21.37	2383	8.45	2.3					
5-12-19 23:00	16.60	1599	7.65	3.8	5-12-19 19:30	16.80	888	8.55	4.2	5-12-19 19:30	15.91	981	8.26	26.9						8-12-19 18:00	21.25	2366	8.43	2.6					
5-12-19 23:15	16.57	1593	7.63	3.6	5-12-19 19:45	16.72	890	8.54	4.3	5-12-19 19:45	15.82	981	8.26	27.6						8-12-19 18:15	21.10	2366	8.47	2.4					
5-12-19 23:30	16.49	1594	7.54	4.0	5-12-19 20:00	16.79	890	8.55	2.1	5-12-19 20:00	15.79	984	8.26	30.6						8-12-19 18:30	21.10	2369	8.44	2.6					
5-12-19 23:45	16.45	1595	7.48	3.1	5-12-19 20:15	16.75	890	8.54	3.8	5-12-19 20:15	15.72	983	8.25	30.3						8-12-19 18:45	21.04	2368	8.46	2.4					
5-13-19 0:00	16.42	1593	7.50	4.8	5-12-19 20:30	16.70	892	8.54	6.2	5-12-19 20:30	15.66	984	8.26	33.5						8-12-19 19:00	20.97	2366	8.47	2.5					
5-13-19 0:15	16.37	1592	7.46	6.2	5-12-19 20:45	16.63	888	8.54	5.9	5-12-19 20:45	15.61	980	8.25	38.0						8-12-19 19:15	20.94	2365	8.46	2.4					
5-13-19 0:30	16.31	1594	7.30	3.6	5-12-19 21:00	16.65	893	8.55	4.8	5-12-19 21:00	15.54	1000	8.25	30.8						8-12-19 19:30	20.91	2370	8.44	2.5					
5-13-19 0:45	16.26	1592	7.29	3.9	5-12-19 21:15	16.58	891	8.54	9.1	5-12-19 21:15	15.52	991	8.25	34.2						8-12-19 19:45	20.88	2367	8.45	2.4					
5-13-19 1:00	16.21	1594	7.36	3.7	5-12-19 21:30	16.62	888	8.55	2.0	5-12-19 21:30	15.46	985	8.25	43.2						8-12-19 20:00	20.82	2367	8.43	2.7					
5-13-19 1:15	16.14	1593	7.35	3.5	5-12-19 21:45	16.52	891	8.54	3.3	5-12-19 21:45	15.43	1002	8.26	24.4						8-12-19 20:15	20.75	2361	8.44	2.3					
5-13-19 1:30	16.06	1593	7.50	3.3	5-12-19 22:00	16.50	891	8.54	3.4	5-12-19 22:00	15.34	979	8.25	26.8						8-12-19 20:30	20.66	2361	8.43	2.5					
5-13-19 1:45	16.02	1594	7.26	3.3	5-12-19 22:15	16.47	891	8.54	2.0	5-12-19 22:15	15.29	972	8.25	26.3						8-12-19 20:45	20.55	2358	8.45	2.3					
5-13-19 2:00	15.95	1593	7.44	3.1	5-12-19 22:30	16.42	891	8.54	2.1	5-12-19 22:30	15.24	981	8.25	27.1						8-12-19 21:00	20.45	2363	8.43	2.5					
5-13-19 2:15	15.88	1592	7.54	3.4	5-12-19 22:45	16.37	892	8.54	4.1	5-12-19 22:45	15.20	980	8.25	24.5						8-12-19 21:15	20.32	2360	8.44	2.3					
5-13-19 2:30	15.77	1592	7.50	11.1	5-12-19 23:00	16.30	891	8.54	2.4	5-12-19 23:00	15.12	984	8.25	31.2						8-12-19 21:30	20.25	2358	8.43	2.6					
5-13-19 2:45	15.71	1594	7.40	3.0	5-12-19 23:15	16.30	892	8.53	2.7	5-12-19 23:15	15.11	982	8.24	31.5						8-12-19 21:45	20.16	2356	8.45	2.3					
5-13-19 3:00	15.68	1594	7.40	3.2	5-12-19 23:30	16.26	891	8.53	1.3	5-12-19 23:30	15.08	1003	8.23	31.8						8-12-19 22:00	20.05	2361	8.44	2.5					
5-13-19 3:15	15.60	1594	7.32	3.7	5-12-19 23:45	16.21	892	8.53	2.5	5-12-19 23:45	15.06	981	8.22	32.9						8-12-19 22:15	19.95	2360	8.45	2.3					
5-13-19 3:30	15.54	1596	7.30	3.2	5-13-19 0:00	16.18	892	8.53	2.4	5-13-19 0:00	15.03	981	8.22	40.8						8-12-19 22:30	19.85	2361	8.43	2.4					
5-13-19 3:45	15.51	1594	7.27	3.2	5-13-19 0:15	16.16	891	8.53	0.7	5-13-19 0:15	15.00	979	8.22	30.6						8-12-19 22:45	19.73	2356	8.45	2.3					
5-13-19 4:00	15.46	1596	7.23	3.8	5-13-19 0:30	16.11	891	8.53	1.5	5-13-19 0:30	14.98	983	8.23	28.4						8-12-19 23:00	19.64	2358	8.42	2.4					
5-13-19 4:15	15.39	1594	7.23	3.4	5-13-19 0:45	16.00	892	8.53	1.4	5-13-19 0:45	14.94	978	8.22	29.7						8-12-19 23:30	19.45	2362	8.43	2.4					
5-13-19 4:30	15.31	1595	7.25	3.6	5-13-19 1:00	15.98	891	8.53	4.3	5-13-19 1:00	14.86	978	8.22	29.8						8-12-19 23:45	19.40	2361	8.44	2.3					
5-13-19 4:45	15.25	1595	7.36	3.2	5-13-19 1:15	15.92	892	8.53	6.9	5-13-19 1:15	14.80	977	8.21	31.0						8-13-19 0:00	19.37	2367	8.43	2.5					
5-13-19 5:00	15.20	1594	7.36	3.2	5-13-19 1:30	15.95	891	8.53	3.8	5-13-19 1:30	14.74	975	8.22	28.7						8-13-19 0:15	19.32	2363	8.43	2.3					
5-13-19 5:15	15.16	1598	7.27	4.2	5-13-19 1:45	15.89	892	8.53	2.7	5-13-19 1:45	14.71	976	8.22	31.3						8-13-19 0:30	19.27	2369	8.42	2.5					
5-13-19 5:30	15.10	1599	7.36	3.5	5-13-19 2:00	15.79	892	8.53	0.6	5-13-19 2:00	14.65	976	8.22	41.2						8-13-19 0:45	19.23	2363	8.44	2.3					
5-13-19 5:45	15.04	1599	7.23	3.4	5-13-19 2:15	15.76	892	8.53	0.8	5-13-19 2:15	14.61	977	8.23	27.8						8-13-19 1:00	19.20	2368	8.43	2.5					
5-13-19 6:00	14.98	1602	7.20	4.3	5-13-19 2:30	15.74	892	8.53	5.2	5-13-19 2:30	14.52	976	8.23	30.1						8-13-19 1:15	19.16	2367	8.42	2.3					
5-13-19 6:15	14.91	1604	7.12	3.8	5-13-19 2:45	15.68	892	8.53	1.1	5-13-19 2:45	14.47	975	8.23	29.3						8-13-19 1:30	19.17	2367	8.43	2.4					
5-13-19 6:30	14.93	1599	7.20	3.5	5-13-19 3:00	15.63	892	8.53	3.5	5-13-19 3:00	14.41	977	8.22	28.3						8-13-19 1:45	19.11	2367	8.43	2.3					
5-13-19 6:45	14.95	1602	7.13	3.7	5-13-19 3:15	15.67	892	8.53	2.2	5-13-19 3:15	14.39	978	8.22	28.4						8-13-19 2:00	19.08	2370	8.42	2.6					
5-13-19 7:00	14.91	1601	7.18	4.5	5-13-19 3:30	15.58	892	8.53	0.7	5-13-19 3:30	14.32	979	8.22	29.1						8-13-19 2:15	19.04	2366	8.43	2.3					
5-13-19 7:15	14.85	1595	7.32	3.7	5-13-19 3:45	15.52	892	8.53	0.7	5-13-19 3:45	14.29	980	8.22	61.0						8-13-19 2:30	19.02	2368	8.43	2.5					
5-13-19 7:30	14.82	1597	7.34	3.9	5-13-19 4:00	15.48	892	8.53	0.6	5-13-19 4:00	14.25	978	8.22	30.3						8-13-19 2:45	18.99	2366	8.44	2.3					
5-13-19 7:45	14.79	1598	7.39	3.5	5-13-19 4:15	15.41	892	8.53	1.1	5-13-19 4:15	14.22	979	8.22	27.8						8-13-19 3:00	18.93	2369	8.43	2.5					
5-13-19 8:00	14.79	1600	7.38	3.7	5-13-19 4:30	15.37	892	8.53	0.8	5-13-19 4:30	14.16	983	8.22	27.7						8-13-19 3:15	18.88	2366	8.43	2.3					
5-13-19 8:15	14.81	1600	7.38	3.5	5-13-19 4:45	15.35	892	8.53	4.1	5-13-19 4:45	14.12	986	8.22	26.8						8-13-19 3:30	18.85	2369	8.43	2.4					
5-13-19 8:30	14.85	1601	7.37	4.0	5-13-19 5:00	15.31	892	8.53	0.6	5-13-19 5:00	14.09	978	8.22	23.4						8-13-19 3:45	18.80	2365	8.42	2.3					
5-13-19 8:45	14.93	1604	7.40	3.2	5-13-19 5:15	15.29	893	8.52	1.7	5-13-19 5:15	14.07	979	8.22	24.8						8-13-19 4:00	18.76	2369	8.43	2.5					
5-13-19 9:00	14.91	1601	7.38	3.8	5-13-19 5:30	15.27	892	8.52	1.2	5-13-19 5:30	14.04	979	8.22	23.8						8-13-19 4:15	18.74	2366	8.44	2.3					
5-13-19 9:15	14.99	1602	7.43	3.7	5-13-19 5:45	15.19	892	8.52	0.1	5-13-19 5:45	14.00	979	8.22	25.3						8-13-19 4:30	18.68	2368	8.43	2.4					
5-13-19 9:30	15.04	1600	7.55	3.6	5-13-19 6:00	15.19	893	8.52	0.1	5-13-19 6:00	13.98	978	8.22	32.2						8-13-19 4:45	18.66	2368	8.44	2.3					
5-13-19 9:45	15.15	1604	7.76	4.7	5-13-19 6:15	15.08	893	8.52	0.9	5-13-19 6:15	13.92	978	8.22	30.5						8-13-19 5:00	18.60	2369	8.43	2.4					
5-13-19 10:00	15.30	1603	8.05	4.0	5-13-19 6:30	15.10	893	8.52	1.1	5-13-19 6:30	13.87	976	8.22	33.6						8-13-19 5:15	18.54	2367	8.43	2.2					
5-13-19 10:15	15.25	1603	8.26	6.4	5-13-19 6:45	15.05	894	8.52	1.3	5-13-19 6:45	13.85	975	8.21	38.9						8-13-19 5:30	18.51	2369	8.44	2.3					
5-13-19 10:30	15.34	1602	8.34	3.7	5-13-19 7:00	15.03	894	8.52	0.9	5-13-19 7:00	13.85	977	8.19	29.1						8-13-19 5:45	18.49	2369	8.44	2.3					
5-13-19 10:45	15.50	1602	8.38	3.6	5-13-19 7:15	14.98	898	8.52	1.8	5-13-19 7:15	13.84	980	8.20	26.9						8-13-19 6:00	18.47	2370	8.44	2.4					
5-13-19 11:00	15.62	1603	8.32	4.3	5-13-19 7:30	15.02	900	8.53	1.2	5-13-19 7:30	13.85	981	8.20	27.0						8-13-19 6:15	18.43	2369	8.43	2.3					
5-13-19 11:15	15.79	1603	8.35	3.1	5-13-19 7:45	15.01	901	8.53	1.1	5-13-19 7:45	13.86	982	8.21	27.5						8-13-19 6:30	18.42	2373	8.44	2.3					
5-13-19 11:30	15.76	1606	8.32	3.2	5-13-19 8:00	14.96	905	8.53	2.2	5-13-19 8:00	13.88	976	8.20	29.4						8-13-19 6:45	18.43	2371	8.45	2.2					
5-13-19 11:45	15.87	1605	8.38	3.0	5-13-19 8:15	14.94	908	8.54	6.1	5-13-19 8:15	13.91	975	8.19	28.3						8-13-19 7:00	18.41	2379	8.44	2.3					
5-13-19 12:00	15.92	1606	8.35	3.2	5-13-19 8:30	14.98	906	8.54	3.2	5-13-19 8:30	13.95	975	8.19	30.1						8-13-19 7:15	18.37	2370	8.44	2.3					
5-13-19 12:15	15.99	1607	8.36	3.3	5-13-19 8:45	14.97	905	8.54	3.2	5-13-19 8:45	14.02	971	8.19	30.4						8-13-19 7:30	18.37	2374	8.44	2.3					
5-13-19 12:30	16.08	1606	8.37	3.9	5-13-19 9:00	14.96	906	8.54	4.2	5-13-19 9:00	13.98	975	8.20	28.9						8-13-19 7:45	18.35	2371	8.45	2.2					
5-13-19 12:45	16.17	1607	8.41	3.8	5-13-19 9:15	15.00	907	8.54	8.5	5-13-19 9:15	14.04	974	8.20	27.5						8-13-19 8:00	18.35	2373	8.44	2.3					
5-13-19 13:00	16.23	1604	8.42	3.1	5-13-19 9:30	15.00	916	8.53	5.6	5-13-19 9:30	14.20	973	8.20	29.9						8-13-19 8:15	18.36	2372	8.45	2.2					
5-13-19 13:15	16.27	1608	8.49	3.6	5-13-19 9:45	15.10	922	8.53	7.2	5-13-19 9:45	14.26	983	8.20	29.1						8-13-19 8:30	18.36	2373	8.44	2.3					
5-13-19 13:30	16.20	1606	8.50	5.3	5-13-19 10:00	15.12	925	8.53	6.5	5-13-19 10:00	14.28	978	8.20	26.1						8-13-19 8:45	18.39	2371	8.46	2.3					
5-13-19 13:45	16.21	1609	8.59	4.8	5-13-19 10:15	15.20	925	8.53	6.8	5-13-19 10:15	14.29	973	8.20	27.6						8-13-19 9:00	18.42	2376	8.44	2.5					
5-13-19 14:00	16.16	1609	8.60	3.9	5-13-19 10:30	15.26	924	8.53	8.9	5-13-19 10:30	14.36	977	8.21	28.4						8-13-19 9:15	18.43	2378	8.46	2.3					
5-13-19 14:15	16.12	1611	8.62	4.4	5-13-19 10:45	15.33	924	8.52	8.4	5-13-19 10:45	14.44	977	8.20	26.5						8-13-19 9:30	18.52	2384	8.45	2.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-13-19 14:30	16.17	1608	8.63	3.8	5-13-19 11:00	15.42	922	8.53	7.3	5-13-19 11:00	14.66	972	8.20	28.8						8-13-19 9:45	18.57	2391	8.45	2.3					
5-13-19 14:45	16.26	1609	8.64	5.5	5-13-19 11:15					5-13-19 11:15	14.84	980	8.20	25.0						8-13-19 10:00	18.62	2392	8.44	2.6					
5-13-19 15:00	16.31	1609	8.65	4.6	5-13-19 11:30	15.60	923	8.52	5.2	5-13-19 11:30	14.90	981	8.20	26.8						8-13-19 10:30	18.67	2387	8.46	2.3					
5-13-19 15:15	16.39	1608	8.67	4.8	5-13-19 11:45	15.59	920	8.52	3.1	5-13-19 11:45	15.22	986	8.21	27.6						8-13-19 10:45	18.74	2390	8.46	2.2					
5-13-19 15:30	16.46	1609	8.68	4.2	5-13-19 12:00	15.64	921	8.52	4.9	5-13-19 12:00	15.14	979	8.20	37.4						8-13-19 11:00	18.79	2393	8.44	2.3					
5-13-19 15:45	16.50	1608	8.70	4.8	5-13-19 12:15	15.86	917	8.52	2.8	5-13-19 12:15	15.21	981	8.21	41.1						8-13-19 11:15	18.84	2393	8.45	2.3					
5-13-19 16:00	16.57	1611	8.71	4.9	5-13-19 12:30	15.76	916	8.52	4.3	5-13-19 12:30	15.34	975	8.21	31.5						8-13-19 11:30	18.95	2398	8.43	2.3					
5-13-19 16:15	16.56	1612	8.73	4.5	5-13-19 12:45	15.77	916	8.52	5.0	5-13-19 12:45	15.58	976	8.20	31.1						8-13-19 11:45	19.01	2399	8.46	2.3					
5-13-19 16:30	16.67	1610	8.74	5.4	5-13-19 13:00	15.82	918	8.52	2.6	5-13-19 13:00	15.62	967	8.20	81.2						8-13-19 12:00	19.07	2404	8.44	2.3					
5-13-19 16:45	16.67	1613	8.75	4.8	5-13-19 13:15	15.93	925	8.52	4.1	5-13-19 13:15	15.60	977	8.21	29.4						8-13-19 12:30	19.23	2399	8.44	2.4					
5-13-19 17:00	16.68	1613	8.78	4.4	5-13-19 13:30	15.92	925	8.52	4.1	5-13-19 13:30	15.68	975	8.21	24.9						8-13-19 12:45	19.34	2402	8.44	2.2					
5-13-19 17:15	16.68	1609	8.80	5.5	5-13-19 13:45	15.96	923	8.52	4.5	5-13-19 13:45	15.63	976	8.21	23.0						8-13-19 13:00	19.40	2404	8.43	2.3					
5-13-19 17:30	16.69	1613	8.79	4.0	5-13-19 14:00	15.84	924	8.52	4.8	5-13-19 14:00	15.53	976	8.21	24.6						8-13-19 13:15	19.49	2406	8.42	2.3					
5-13-19 17:45	16.69	1597	8.79	5.2	5-13-19 14:15	15.77	929	8.53	5.2	5-13-19 14:15	15.48	987	8.22	25.1						8-13-19 13:30	19.64	2406	8.43	2.3					
5-13-19 18:00	16.71	1613	8.78	4.6	5-13-19 14:30	15.84	937	8.53	6.0	5-13-19 14:30	15.45	995	8.21	24.0						8-13-19 13:45	19.78	2400	8.43	2.3					
5-13-19 18:15	16.71	1615	8.77	4.2	5-13-19 14:45	16.06	944	8.53	8.9	5-13-19 14:45	15.51	975	8.21	24.7						8-13-19 14:00	19.85	2402	8.42	2.3					
5-13-19 18:30	16.70	1614	8.78	4.1	5-13-19 15:00	16.20	938	8.53	7.1	5-13-19 15:00	15.60	975	8.21	24.1						8-13-19 14:15	20.07	2403	8.44	2.3					
5-13-19 18:45	16.66	1614	8.76	4.6	5-13-19 15:15	16.26	936	8.52	6.3	5-13-19 15:15	15.64	972	8.21	23.8						8-13-19 14:30	20.55	2400	8.44	2.4					
5-13-19 19:00	16.62	1615	8.76	5.2	5-13-19 15:30	16.31	939	8.52	7.0	5-13-19 15:30	15.71	989	8.21	26.1						8-13-19 14:45	20.89	2400	8.44	2.3					
5-13-19 19:15	16.55	1614	8.74	4.6	5-13-19 15:45	16.39	930	8.52	5.3	5-13-19 15:45	15.75	973	8.21	24.7						8-13-19 15:00	21.03	2384	8.44	2.4					
5-13-19 19:30	16.56	1615	8.75	4.9	5-13-19 16:00	16.42	928	8.51	7.8	5-13-19 16:00	15.80	975	8.21	28.9						8-13-19 15:15	21.11	2368	8.45	2.3					
5-13-19 19:45	16.51	1616	8.77	4.6	5-13-19 16:15	16.33	929	8.51	5.2	5-13-19 16:15	15.81	986	8.21	31.6						8-13-19 15:30	21.23	2368	8.44	2.3					
5-13-19 20:00	16.50	1616	8.40	5.9	5-13-19 16:30	16.49	930	8.51	5.7	5-13-19 16:30	15.82	985	8.21	26.1						8-13-19 15:45	21.26	2368	8.44	2.3					
5-13-19 20:15	16.46	1615	8.68	4.0	5-13-19 16:45	16.45	929	8.51	4.7	5-13-19 16:45	15.85	974	8.22	27.7						8-13-19 16:00	21.50	2374	8.43	2.4					
5-13-19 20:30	16.40	1615	8.69	4.0	5-13-19 17:00	16.50	925	8.51	5.1	5-13-19 17:00	15.85	973	8.22	26.8						8-13-19 16:15	21.54	2391	8.44	2.3					
5-13-19 20:45	16.34	1617	7.96	5.2	5-13-19 17:15	16.47	924	8.51	6.1	5-13-19 17:15	15.89	976	8.22	24.0						8-13-19 16:30	21.74	2407	8.43	2.4					
5-13-19 21:00	16.29	1618	7.80	4.2	5-13-19 17:30	16.55	926	8.51	5.0	5-13-19 17:30	15.89	975	8.21	23.3						8-13-19 16:45	21.88	2375	8.45	2.3					
5-13-19 21:15	16.26	1617	8.10	4.9	5-13-19 17:45	16.45	927	8.51	6.1	5-13-19 17:45	15.90	971	8.21	26.5						8-13-19 17:00	22.02	2369	8.43	2.4					
5-13-19 21:30	16.20	1618	7.75	4.0	5-13-19 18:00	16.54	926	8.51	4.3	5-13-19 18:00	15.91	984	8.21	33.5						8-13-19 17:15	21.98	2370	8.42	2.3					
5-13-19 21:45	16.15	1616	7.97	4.3	5-13-19 18:15	16.54	926	8.51	6.5	5-13-19 18:15	15.91	972	8.21	27.2						8-13-19 17:30	21.98	2370	8.40	2.4					
5-13-19 22:00	16.10	1617	8.28	4.2	5-13-19 18:30	16.60	925	8.50	5.2	5-13-19 18:30	15.90	976	8.21	27.1						8-13-19 17:45	21.94	2374	8.44	2.3					
5-13-19 22:15	16.04	1617	7.95	4.4	5-13-19 18:45	16.55	926	8.51	3.6	5-13-19 18:45	15.87	977	8.21	28.0						8-13-19 18:00	21.97	2372	8.39	2.4					
5-13-19 22:30	15.97	1617	8.09	3.9	5-13-19 19:00	16.58	928	8.51	4.4	5-13-19 19:00	15.84	972	8.21	23.4						8-13-19 18:30	21.41	2363	8.41	2.4					
5-13-19 22:45	15.90	1616	7.94	4.6	5-13-19 19:15	16.44	927	8.51	3.3	5-13-19 19:15	15.82	972	8.22	23.0						8-13-19 18:45	21.33	2363	8.41	2.3					
5-13-19 23:00	15.86	1615	8.17	4.0	5-13-19 19:30	16.38	928	8.52	4.0	5-13-19 19:30	15.78	972	8.22	22.9						8-13-19 19:00	21.03	2362	8.42	2.3					
5-13-19 23:15	15.82	1617	8.07	4.2	5-13-19 19:45	16.39	928	8.51	3.8	5-13-19 19:45	15.67	972	8.22	23.2						8-13-19 19:15	21.05	2372	8.45	2.3					
5-13-19 23:30	15.76	1618	8.02	4.3	5-13-19 20:00	16.34	928	8.51	3.2	5-13-19 20:00	15.68	974	8.21	27.4						8-13-19 19:30	21.11	2377	8.46	2.3					
5-13-19 23:45	15.71	1616	7.49	4.3	5-13-19 20:15	16.25	929	8.51	22.5	5-13-19 20:15	15.61	976	8.22	25.8						8-13-19 19:45	21.12	2371	8.46	2.3					
5-14-19 0:00	15.67	1618	7.83	4.7	5-13-19 20:30	16.12	930	8.51	3.4	5-13-19 20:30	15.63	971	8.22	25.5						8-13-19 20:00	21.11	2374	8.44	2.3					
5-14-19 0:15	15.60	1617	7.81	4.1	5-13-19 20:45	16.07	931	8.51	3.4	5-13-19 20:45	15.58	972	8.22	24.9						8-13-19 20:15	21.07	2366	8.46	2.3					
5-14-19 0:30	15.52	1617	7.75	3.7	5-13-19 21:00	16.07	932	8.51	4.0	5-13-19 21:00	15.56	983	8.21	27.6						8-13-19 20:30	21.05	2365	8.46	2.3					
5-14-19 0:45	15.44	1618	7.56	5.0	5-13-19 21:15	16.02	931	8.51	5.6	5-13-19 21:15	15.51	984	8.21	27.2						8-13-19 20:45	21.05	2363	8.46	2.2					
5-14-19 1:00	15.33	1617	7.74	3.6	5-13-19 21:30	15.99	930	8.51	2.4	5-13-19 21:30	15.47	972	8.21	25.5						8-13-19 21:00	21.00	2368	8.46	2.3					
5-14-19 1:15	15.26	1618	7.75	3.9	5-13-19 21:45	15.92	929	8.52	1.5	5-13-19 21:45	15.43	974	8.21	25.7						8-13-19 21:15	20.94	2370	8.45	2.3					
5-14-19 1:30	15.20	1619	7.51	4.1	5-13-19 22:00	15.77	928	8.52	2.4	5-13-19 22:00	15.38	973	8.20	30.7						8-13-19 21:30	20.93	2373	8.46	2.3					
5-14-19 1:45	15.15	1618	7.38	3.9	5-13-19 22:15	15.75	928	8.52	3.0	5-13-19 22:15	15.33	973	8.21	29.2						8-13-19 21:45	20.90	2371	8.46	2.3					
5-14-19 2:00	15.08	1619	7.52	3.4	5-13-19 22:30	15.64	929	8.52	1.5	5-13-19 22:30	15.28	973	8.21	29.8						8-13-19 22:00	20.86	2372	8.45	2.3					
5-14-19 2:15	15.01	1620	7.47	4.2	5-13-19 22:45	15.60	930	8.52	2.8	5-13-19 22:45	15.25	971	8.20	29.7						8-13-19 22:15	20.80	2370	8.46	2.2					
5-14-19 2:30	14.94	1619	7.28	3.7	5-13-19 23:00	15.52	927	8.52	2.6	5-13-19 23:00	15.19	976	8.21	25.5						8-13-19 22:30	20.74	2372	8.45	2.3					
5-14-19 2:45	14.89	1619	7.41	4.3	5-13-19 23:15	15.59	924	8.52	3.4	5-13-19 23:15	15.14	976	8.20	25.5						8-13-19 22:45	20.69	2370	8.45	2.2					
5-14-19 3:00	14.85	1627	7.36	3.7	5-13-19 23:30	15.58	924	8.52	1.8	5-13-19 23:30	15.07	978	8.20	27.7						8-13-19 23:00	20.59	2369	8.44	2.3					
5-14-19 3:15	14.78	1619	7.31	3.5	5-13-19 23:45	15.51	923	8.52	1.6	5-13-19 23:45	15.01	978	8.20	25.6						8-13-19 23:30	20.47	2371	8.44	2.2					
5-14-19 3:30	14.72	1617	7.40	4.5	5-14-19 0:00	15.40	924	8.52	2.0	5-14-19 0:00	14.93	968	8.20	38.2						8-13-19 23:45	20.39	2368	8.45	2.2					
5-14-19 3:45	14.64	1617	7.35	3.2	5-14-19 0:15	15.43	924	8.52	1.8	5-14-19 0:15	14.88	957	8.21	22.9						8-14-19 0:00	20.33	2374	8.42	2.2					
5-14-19 4:00	14.56	1616	7.37	3.5	5-14-19 0:30	15.37	927	8.52	3.1	5-14-19 0:30	14.78	971	8.21	30.1						8-14-19 0:15	20.26	2384	8.45	2.2					
5-14-19 4:15	14.49	1617	7.34	3.2	5-14-19 0:45	15.29	925	8.52	1.3	5-14-19 0:45	14.72	972	8.20	23.5						8-14-19 0:30	20.24	2389	8.44	2.3					
5-14-19 4:30	14.42	1618	7.32	3.8	5-14-19 1:00	15.31	926	8.52	1.4	5-14-19 1:00	14.59	972	8.22	24.8						8-14-19 0:45	20.20	2389	8.44	2.2					
5-14-19 4:45	14.36	1618	7.28	3.8	5-14-19 1:15	15.27	925	8.52	3.5	5-14-19 1:15	14.54	971	8.21	23.9						8-14-19 1:00	20.20	2395	8.44	2.3					
5-14-19 5:00	14.30	1619	7.29	3.7	5-14-19 1:30	15.22	926	8.52	0.6	5-14-19 1:30	14.47	970	8.21	27.2						8-14-19 1:15	20.17	2397	8.44	2.2					
5-14-19 5:15	14.23	1618	7.22	4.0	5-14-19 1:45	15.19	925	8.51	0.6	5-14-19 1:45	14.43	970	8.21	26.3						8-14-19 1:30	20.17	2396	8.45	2.3					
5-14-19 5:30	14.19	1618	7.19	3.6	5-14-19 2:00	15.13	926	8.51	2.1	5-14-19 2:00	14.40	967	8.21	28.3						8-14-19 1:45	20.16	2392	8.45	2.3					
5-14-19 5:45	14.16	1618	7.23	3.5	5-14-19 2:15	15.07	926	8.51	1.6	5-14-19 2:15	14.33	968	8.21	22.8						8-14-19 2:00	20.13	2395	8.45	2.3					
5-14-19 6:00	14.09	1617	7.22	3.8	5-14-19 2:30	14.96	925	8.51	1.1	5-14-19 2:30	14.28	969	8.21	26.2						8-14-19 2:15	20.08	2393	8.44	2.2					
5-14-19 6:15	14.05	1619	7.18	3.5	5-14-19 2:45	14.89	925	8.51	0.1	5-14-19 2:45	14.23	969	8.21	26.0						8-14-19 2:30	20.04	2395	8.45	2.3					
5-14-19 6:30	14.01	1621	7.14	3.3	5-14-19 3:00	14.88	926	8.52	1.7	5-14-19 3:00	14.16	971	8.20	26.0						8-14-19 2:45	20.02	2393	8.44	2.2					
5-14-19 6:45	13.96	1621	7.14	3.5	5-14-19 3:15	14.83	926	8.52	0.0	5-14-19 3:15	14.09	970	8.21	26.7						8-14-19 3:00	19.97	2393	8.42	2.3					
5-14-19 7:00	13.97	1620	7.14	3.9	5-14-19 3:30	14.83	926	8.51	1.8	5-14-19 3:30	14.01	969	8.21	25.1						8-14-19 3:15	19.92	2395	8.44	2.2					
5-14-19 7:15	13.88	1620	7.23	4.0	5-14-19 3:45	14.80	926	8.52	1.1	5-14-19 3:45	13.96	969	8.21	24.7						8-14-19 3:30	19.91	2395	8.44	2.3					
5-14-19 7:30	13.88	1622	7.21	4.0	5-14-19 4:00	14.74	926	8.51	1.5	5-14-19 4:00	13.91	969	8.21	27.4						8-14-19 3:45	19.89	2393	8.43	2.2					
5-14-19 7:45	13.90	1622	7.27	3.4	5-14-19 4:15	14.69	927	8.51	1.5	5-14-19 4:15	13.89	967	8.20	27.3						8-14-19 4:00	19.86	2396	8.43	2.3					
5-14-19 8:00	13.91	1620	7.27	4.7	5-14-19 4:30	14.65	926	8.51	1.9	5-14-19 4:30	13.83	966	8.20	29.3						8-14-19 4:15	19.82	2393	8.44	2.2					
5-14-19 8:15	13.95	1620	7.27	3.9	5-14-19 4:45	14.62	927	8.51	1.3	5-14-19 4:45	13.75	961	8.19	33.3						8-14-19 4:30	19.79	2398	8.45	2.4					
5-14-19 8:30	13.98	1621	7.28	3.8	5-14-19 5:00	14.54	927	8.51	5.1	5-14-19 5:00	13.65	968	8.19	31.4						8-14-19 4:45	19.80	2397	8.45	2.2					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-14-19 8:45	14.06	1619	7.29	3.3	5-14-19 5:15	14.51	927	8.51	2.0	5-14-19 5:15	13.63	964	8.19	28.5						8-14-19 5:00	19.75	2396	8.45	2.2					
5-14-19 9:00	14.10	1617	7.29	3.9	5-14-19 5:30	14.40	927	8.51	0.9	5-14-19 5:30	13.59	962	8.19	36.4						8-14-19 5:15	19.72	2395	8.44	2.2					
5-14-19 9:15	14.18	1619	7.30	3.2	5-14-19 5:45	14.45	927	8.51	8.2	5-14-19 5:45	13.57	965	8.19	35.8						8-14-19 5:30	19.71	2397	8.45	2.3					
5-14-19 9:30	14.30	1619	7.33	3.8	5-14-19 6:00	14.47	928	8.50	2.0	5-14-19 6:00	13.55	962	8.19	35.4						8-14-19 5:45	19.68	2393	8.44	2.2					
5-14-19 9:45	14.31	1621	7.35	3.5	5-14-19 6:15	14.39	927	8.50	0.6	5-14-19 6:15	13.49	960	8.19	32.4						8-14-19 6:00	19.65	2396	8.45	2.3					
5-14-19 10:00	14.42	1621	7.32	5.1	5-14-19 6:30	14.38	928	8.50	3.2	5-14-19 6:30	13.43	961	8.20	30.6						8-14-19 6:15	19.61	2393	8.43	2.1					
5-14-19 10:15	14.51	1621	7.31	4.1	5-14-19 6:45	14.38	928	8.50	0.8	5-14-19 6:45	13.39	957	8.20	32.0						8-14-19 6:30	19.57	2395	8.43	2.3					
5-14-19 10:30	14.61	1621	7.33	3.6	5-14-19 7:00	14.32	929	8.50	1.1	5-14-19 7:00	13.36	965	8.19	31.9						8-14-19 6:45	19.53	2393	8.45	2.2					
5-14-19 10:45	14.60	1621	7.33	3.3	5-14-19 7:15	14.29	923	8.49	1.5	5-14-19 7:15	13.36	961	8.19	30.7						8-14-19 7:00	19.51	2394	8.44	2.2					
5-14-19 11:00	14.41	1622	8.42	3.5	5-14-19 7:30	14.31	923	8.50	2.6	5-14-19 7:30	13.36	960	8.19	33.3						8-14-19 7:15	19.46	2395	8.43	2.2					
5-14-19 11:15	14.45	1628	7.86	3.5	5-14-19 7:45	14.28	932	8.49	15.5	5-14-19 7:45	13.35	962	8.19	34.6						8-14-19 7:30	19.46	2397	8.43	2.3					
5-14-19 11:30	14.40	1631	8.41	3.4	5-14-19 8:00	14.32	932	8.49	15.1	5-14-19 8:00	13.36	955	8.19	32.7						8-14-19 7:45	19.51	2396	8.45	2.2					
5-14-19 11:45	14.63	1640	8.66	3.6	5-14-19 8:15	14.36	928	8.49	11.5	5-14-19 8:15	13.40	956	8.19	39.0						8-14-19 8:00	19.51	2399	8.44	2.3					
5-14-19 12:00	14.66	1642	8.79	3.8	5-14-19 8:30	14.39	928	8.49	7.1	5-14-19 8:30	13.45	961	8.19	36.6						8-14-19 8:15	19.54	2395	8.44	2.2					
5-14-19 12:15	14.74	1638	8.53	3.6	5-14-19 8:45	14.38	945	8.49	11.6	5-14-19 8:45	13.54	954	8.19	40.6						8-14-19 8:30	19.54	2398	8.43	2.3					
5-14-19 12:30	14.73	1639	8.39	3.6	5-14-19 9:00	14.46	945	8.49	4.1	5-14-19 9:00	13.65	960	8.19	35.2						8-14-19 8:45	19.57	2396	8.44	2.2					
5-14-19 12:45	14.84	1640	8.40	3.3	5-14-19 9:15	14.43	948	8.49	3.3	5-14-19 9:15	13.74	959	8.19	36.7						8-14-19 9:00	19.63	2401	8.44	2.3					
5-14-19 13:00	14.92	1639	8.48	4.6	5-14-19 9:30	14.38	949	8.49	3.5	5-14-19 9:30	13.97	949	8.19	43.7						8-14-19 9:15	19.67	2398	8.45	2.2					
5-14-19 13:15	14.93	1639	8.54	3.0	5-14-19 9:45	14.46	949	8.49	2.1	5-14-19 9:45	14.08	960	8.19	35.4						8-14-19 9:30	19.74	2400	8.44	2.3					
5-14-19 13:30	15.00	1641	8.52	3.1	5-14-19 10:00	14.71	948	8.49	3.1	5-14-19 10:00	14.23	955	8.18	39.6						8-14-19 9:45	19.79	2398	8.44	2.2					
5-14-19 13:45	15.04	1642	8.57	3.6	5-14-19 10:15	14.78	943	8.49	2.3	5-14-19 10:15	14.50	958	8.19	37.7						8-14-19 10:00	19.81	2402	8.44	2.3					
5-14-19 14:00	15.13	1644	8.58	3.9	5-14-19 10:30	14.64	943	8.49	7.5	5-14-19 10:30	14.92	953	8.19	42.7						8-14-19 10:15	19.88	2404	8.44	2.2					
5-14-19 14:15	15.11	1645	8.53	4.7	5-14-19 10:45	14.75	943	8.49	7.1	5-14-19 10:45	14.95	953	8.18	37.9						8-14-19 10:30	19.98	2411	8.44	2.3					
5-14-19 14:30	15.11	1650	8.43	3.6	5-14-19 11:00	15.23	952	8.48	5.2	5-14-19 11:00	15.37	953	8.19	49.5						8-14-19 10:45	20.00	2416	8.45	2.1					
5-14-19 14:45	15.12	1645	8.49	4.1	5-14-19 11:15	15.30	946	8.48	5.5	5-14-19 11:15	15.26	950	8.18	49.1						8-14-19 11:00	20.08	2430	8.43	2.2					
5-14-19 15:00	15.11	1653	8.34	4.3	5-14-19 11:30	15.40	946	8.48	2.8	5-14-19 11:30	14.47	958	8.19	46.1						8-14-19 11:15	20.16	2433	8.43	2.2					
5-14-19 15:15	15.11	1646	8.29	5.0	5-14-19 11:45	15.60	946	8.48	2.6	5-14-19 11:45	14.59	956	8.20	61.5						8-14-19 11:30	20.28	2433	8.41	2.2					
5-14-19 15:30	15.11	1654	8.34	4.2	5-14-19 12:00	15.75	946	8.46	2.8	5-14-19 12:00	14.64	956	8.19	38.2						8-14-19 11:45	20.36	2441	8.43	2.2					
5-14-19 15:45	15.13	1646	8.42	4.1	5-14-19 12:15	15.75	945	8.47	3.8	5-14-19 12:15	14.74	955	8.19	36.6						8-14-19 12:00	20.36	2427	8.42	2.2					
5-14-19 16:00	15.17	1650	8.48	4.2	5-14-19 12:30	15.71	946	8.46	3.9	5-14-19 12:30	14.51	958	8.19	34.9						8-14-19 12:15	20.42	2422	8.44	2.2					
5-14-19 16:15	15.14	1646	8.36	5.4	5-14-19 12:45	15.61	944	8.47	3.5	5-14-19 12:45	14.62	953	8.19	37.9						8-14-19 12:30	20.50	2436	8.43	2.2					
5-14-19 16:30	15.16	1647	8.47	4.3	5-14-19 13:00	15.67	945	8.47	3.6	5-14-19 13:00	14.77	952	8.20	45.3						8-14-19 12:45	20.55	2431	8.43	2.2					
5-14-19 16:45	15.16	1645	8.39	4.0	5-14-19 13:15	15.83	944	8.47	19.3	5-14-19 13:15	14.70	953	8.20	41.9						8-14-19 13:00	20.60	2429	8.42	2.4					
5-14-19 17:00	15.12	1655	8.26	3.6	5-14-19 13:30	15.92	945	8.47	20.7	5-14-19 13:30	14.70	952	8.20	37.0						8-14-19 13:15	20.58	2427	8.42	2.2					
5-14-19 17:15	15.12	1646	8.07	4.6	5-14-19 13:45	16.03	946	8.48	17.3	5-14-19 13:45	15.01	952	8.20	40.2						8-14-19 13:30	20.65	2428	8.42	2.3					
5-14-19 17:30	15.12	1645	8.43	4.8	5-14-19 14:00	16.02	945	8.47	15.0	5-14-19 14:00	15.10	961	8.19	39.1						8-14-19 13:45	20.75	2430	8.43	2.2					
5-14-19 17:45	15.12	1647	8.35	4.3	5-14-19 14:15	16.12	946	8.48	11.8	5-14-19 14:15	15.15	954	8.20	33.9						8-14-19 14:00	20.88	2432	8.42	2.2					
5-14-19 18:00	15.09	1645	8.14	4.7	5-14-19 14:30	16.01	945	8.47	8.1	5-14-19 14:30	15.20	955	8.20	35.1						8-14-19 14:15	20.92	2430	8.42	2.2					
5-14-19 18:15	15.06	1649	7.94	5.1	5-14-19 14:45	16.09	945	8.47	13.2	5-14-19 14:45	15.35	957	8.20	35.3						8-14-19 14:30	20.95	2433	8.41	2.2					
5-14-19 18:30	15.06	1656	8.28	4.4	5-14-19 15:00	16.13	945	8.48	12.6	5-14-19 15:00	15.42	957	8.20	36.7						8-14-19 14:45	20.97	2426	8.44	2.2					
5-14-19 18:45	15.03	1648	8.02	4.2	5-14-19 15:15	15.89	943	8.47	6.6	5-14-19 15:15	15.22	959	8.21	37.4						8-14-19 15:00	20.98	2423	8.42	2.3					
5-14-19 19:00	14.97	1648	8.06	4.0	5-14-19 15:30	15.98	943	8.48	6.9	5-14-19 15:30	15.21	963	8.21	35.3						8-14-19 15:15	21.04	2418	8.44	2.2					
5-14-19 19:15	14.91	1648	7.91	4.5	5-14-19 15:45	15.97	943	8.48	6.4	5-14-19 15:45	15.30	964	8.21	35.6						8-14-19 15:30	21.12	2422	8.40	2.2					
5-14-19 19:30	14.92	1657	7.76	4.5	5-14-19 16:00	16.01	943	8.48	9.0	5-14-19 16:00	15.44	954	8.20	37.6						8-14-19 15:45	21.17	2420	8.42	2.2					
5-14-19 19:45	14.93	1647	8.39	4.6	5-14-19 16:15	15.99	942	8.48	6.3	5-14-19 16:15	15.52	956	8.19	35.9						8-14-19 16:00	21.19	2420	8.41	2.3					
5-14-19 20:00	14.89	1648	8.27	3.7	5-14-19 16:30	15.97	944	8.48	8.0	5-14-19 16:30	15.54	953	8.20	34.0						8-14-19 16:15	21.21	2418	8.42	2.2					
5-14-19 20:15	14.87	1647	8.21	4.2	5-14-19 16:45	15.96	944	8.48	8.1	5-14-19 16:45	15.52	950	8.20	37.6						8-14-19 16:30	21.25	2424	8.40	2.2					
5-14-19 20:30	14.82	1650	8.33	4.0	5-14-19 17:00	16.00	944	8.49	4.7	5-14-19 17:00	15.47	944	8.21	36.5						8-14-19 16:45	21.35	2419	8.42	2.2					
5-14-19 20:45	14.81	1657	8.17	3.5	5-14-19 17:15	15.85	939	8.49	5.0	5-14-19 17:15	15.39	963	8.21	34.9						8-14-19 17:00	21.44	2422	8.42	2.3					
5-14-19 21:00	14.78	1648	7.96	3.9	5-14-19 17:30	15.81	944	8.49	6.8	5-14-19 17:30	15.28	957	8.21	45.2						8-14-19 17:30	21.67	2417	8.45	2.3					
5-14-19 21:15	14.77	1658	7.98	3.7	5-14-19 17:45	15.73	938	8.49	4.9	5-14-19 17:45	15.26	949	8.22	40.4						8-14-19 17:45	21.75	2413	8.44	2.2					
5-14-19 21:30	14.72	1649	7.90	4.0	5-14-19 18:00	15.73	937	8.49	9.7	5-14-19 18:00	15.21	945	8.22	36.7						8-14-19 18:00	21.76	2411	8.43	2.3					
5-14-19 21:45	14.70	1650	7.76	4.5	5-14-19 18:15	15.59	939	8.50	18.2	5-14-19 18:15	15.22	945	8.22	34.0						8-14-19 18:15	21.72	2406	8.45	2.2					
5-14-19 22:00	14.67	1651	7.59	5.3	5-14-19 18:30	15.54	938	8.49	6.5	5-14-19 18:30	15.06	942	8.24	38.8						8-14-19 18:30									
5-14-19 22:15	14.67	1650	7.50	3.4	5-14-19 18:45	15.52	939	8.49	24.9	5-14-19 18:45	14.77	941	8.24	44.3						8-14-19 18:45									
5-14-19 22:30	14.62	1651	7.59	3.9	5-14-19 19:00	15.50	938	8.49	7.2	5-14-19 19:00	15.02	952	8.23	40.8						8-14-19 19:00									
5-14-19 22:45	14.61	1651	7.55	4.0	5-14-19 19:15	15.44	939	8.49	4.8	5-14-19 19:15	14.95	955	8.22	36.6						8-14-19 19:15	21.48	2417	8.43	2.2					
5-14-19 23:00	14.60	1658	7.48	3.4	5-14-19 19:30	15.33	938	8.50	5.8	5-14-19 19:30	14.80	951	8.22	33.9						8-14-19 19:30	21.45	2419	8.41	2.3					
5-14-19 23:15	14.59	1650	7.62	3.4	5-14-19 19:45	15.29	940	8.50	7.4	5-14-19 19:45	14.63	942	8.22	34.6						8-14-19 19:45	21.41	2426	8.44	2.2					
5-14-19 23:30	14.56	1651	7.57	3.5	5-14-19 20:00	15.24	938	8.50	4.2	5-14-19 20:00	14.63	948	8.23	34.4						8-14-19 20:00	21.39	2410	8.44	2.3					
5-14-19 23:45	14.54	1648	7.59	3.5	5-14-19 20:15	15.19	939	8.50	4.7	5-14-19 20:15	14.58	948	8.22	37.7						8-14-19 20:30	21.33	2418	8.43	2.2					
5-15-19 0:00	14.55	1650	8.38	3.4	5-14-19 20:30	15.18	939	8.50	3.3	5-14-19 20:30	14.54	950	8.22	39.4						8-14-19 20:45	21.29	2416	8.44	2.2					
5-15-19 0:15	14.54	1648	7.91	4.2	5-14-19 20:45	15.13	939	8.50	3.9	5-14-19 20:45	14.40	949	8.23	37.8						8-14-19 21:00	21.26	2416	8.45	2.3					
5-15-19 0:30	14.52	1658	7.99	3.4	5-14-19 21:00	15.13	937	8.50	3.6	5-14-19 21:00	14.36	946	8.23	38.5						8-14-19 21:15	21.22	2415	8.45	2.2					
5-15-19 0:45	14.48	1647	7.92	3.4	5-14-19 21:15	15.16	939	8.50	3.2	5-14-19 21:15	14.32	949	8.23	36.6						8-14-19 21:30	21.21	2415	8.44	2.3					
5-15-19 1:00	14.46	1656	7.54	3.4	5-14-19 21:30	15.18	937	8.49	2.7	5-14-19 21:30	14.30	953	8.23	38.6						8-14-19 21:45	21.20	2411	8.46	2.2					
5-15-19 1:15	14.44	1652	7.40	3.9	5-14-19 21:45	15.13	937	8.49	3.4	5-14-19 21:45	14.31	953	8.22	42.7						8-14-19 22:00	21.16	2419	8.45	2.3					
5-15-19 1:30	14.44	1658	7.36	3.9	5-14-19 22:00	15.08	937	8.49	2.4	5-14-19 22:00	14.28	946	8.22	38.8						8-14-19 22:15	21.15	2416	8.46	2.2					
5-15-19 1:45	14.40	1653	7.51	3.6	5-14-19 22:15	15.09	938	8.49	4.0	5-14-19 22:15	14.29	938	8.22	36.6						8-14-19 22:30	21.12	2419	8.45	2.3					
5-15-19 2:00	14.38	1656	7.40	3.7	5-14-19 22:30	14.98	935	8.49	1.2	5-14-19 22:30	14.27	941	8.23	39.9						8-14-19 22:45	21.09	2415	8.46	2.2					
5-15-19 2:15	14.35	1653	7.51	3.2	5-14-19 22:45	14.92	937	8.50	2.9	5-14-19 22:45	14.23	936	8.24	41.5						8-14-19 23:00	21.07	2420	8.45	2.3					
5-15-19 2:30	14.31	1653	7.57	3.6	5-14-19 23:00	14.91	935	8.49	1.7	5-14-19 23:00	14.20	942	8.23	40.3						8-14-19 23:15	21.03	2418	8.46	2.2					
5-15-19 2:45	14.28	1651	7.63	3.3	5-14-19 23:15	14.91	938	8.49	2.0	5-14-19 23:15	14.18	941	8.24	43.6						8-14-19 23:30	21.00	2418	8.45	2.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-15-19 3:00	14.26	1649	7.68	3.8	5-14-19 23:30	14.90	936	8.48	0.6	5-14-19 23:30	14.14	940	8.23	44.5						8-14-19 23:45	20.95	2416	8.46	2.2					
5-15-19 3:15	14.22	1650	7.76	3.4	5-14-19 23:45	14.87	938	8.49	1.5	5-14-19 23:45	14.10	939	8.24	40.4						8-15-19 0:00	20.95	2418	8.45	2.3					
5-15-19 3:30	14.18	1649	7.71	3.5	5-15-19 0:00	14.84	936	8.48	0.4	5-15-19 0:00	14.08	937	8.24	45.6						8-15-19 0:15	20.90	2419	8.45	2.2					
5-15-19 3:45	14.15	1648	7.73	3.7	5-15-19 0:15	14.82	938	8.49	1.9	5-15-19 0:15	14.06	942	8.24	41.5						8-15-19 0:30	20.87	2422	8.45	2.3					
5-15-19 4:00	14.14	1654	7.49	3.5	5-15-19 0:30	14.75	936	8.48	0.0	5-15-19 0:30	14.05	934	8.23	41.0						8-15-19 0:45	20.85	2419	8.46	2.2					
5-15-19 4:15	14.09	1652	7.59	3.8	5-15-19 0:45	14.70	937	8.49	2.6	5-15-19 0:45	14.03	936	8.24	42.9						8-15-19 1:00	20.86	2420	8.45	2.2					
5-15-19 4:30	14.08	1646	7.46	3.9	5-15-19 1:00	14.67	934	8.49	2.5	5-15-19 1:00	13.99	935	8.24	40.0						8-15-19 1:15	20.82	2418	8.45	2.1					
5-15-19 4:45	14.05	1652	7.47	3.8	5-15-19 1:15	14.63	936	8.49	3.3	5-15-19 1:15	13.97	933	8.24	40.4						8-15-19 1:30	20.80	2420	8.45	2.3					
5-15-19 5:00	14.02	1655	7.32	3.7	5-15-19 1:30	14.62	932	8.48	1.1	5-15-19 1:30	13.94	932	8.24	41.8						8-15-19 1:45	20.77	2417	8.45	2.2					
5-15-19 5:15	13.99	1653	7.42	3.6	5-15-19 1:45	14.65	936	8.48	2.6	5-15-19 1:45	13.93	933	8.24	42.5						8-15-19 2:00	20.73	2419	8.45	2.2					
5-15-19 5:30	13.95	1652	7.52	3.7	5-15-19 2:00	14.69	934	8.48	1.7	5-15-19 2:00	13.89	936	8.23	40.2						8-15-19 2:15	20.68	2414	8.44	2.2					
5-15-19 5:45	13.92	1653	7.54	3.8	5-15-19 2:15	14.67	936	8.48	1.8	5-15-19 2:15	13.87	932	8.23	41.6						8-15-19 2:30	20.67	2419	8.44	2.3					
5-15-19 6:00	13.90	1654	7.37	4.0	5-15-19 2:30	14.63	934	8.48	0.9	5-15-19 2:30	13.84	933	8.23	48.3						8-15-19 2:45	20.63	2408	8.45	2.1					
5-15-19 6:15	13.88	1652	7.36	3.3	5-15-19 2:45	14.56	936	8.48	4.0	5-15-19 2:45	13.80	931	8.24	55.1						8-15-19 3:00	20.62	2435	8.44	2.2					
5-15-19 6:30	13.88	1654	7.40	3.6	5-15-19 3:00	14.53	932	8.48	1.7	5-15-19 3:00	13.77	938	8.24	54.8						8-15-19 3:15	20.57	2418	8.44	2.2					
5-15-19 6:45	13.87	1655	7.42	3.5	5-15-19 3:15	14.51	930	8.48	5.7	5-15-19 3:15	13.74	938	8.23	56.4						8-15-19 3:30	20.58	2420	8.45	2.3					
5-15-19 7:00	13.87	1654	7.41	3.6	5-15-19 3:30	14.52	931	8.48	1.8	5-15-19 3:30	13.72	938	8.24	56.1						8-15-19 3:45	20.57	2417	8.45	2.1					
5-15-19 7:15	13.86	1654	7.39	3.5	5-15-19 3:45	14.51	932	8.47	2.9	5-15-19 3:45	13.69	938	8.24	60.8						8-15-19 4:00	20.55	2421	8.45	2.2					
5-15-19 7:30	13.84	1653	7.38	3.9	5-15-19 4:00	14.49	933	8.47	3.6	5-15-19 4:00	13.66	933	8.23	39.1						8-15-19 4:15	20.53	2416	8.45	2.1					
5-15-19 7:45	13.84	1655	7.41	6.5	5-15-19 4:15	14.43	954	8.46	2.9	5-15-19 4:15	13.63	934	8.24	38.7						8-15-19 4:30	20.50	2419	8.45	2.3					
5-15-19 8:00	13.91	1654	7.46	3.4	5-15-19 4:30	14.45	956	8.46	3.9	5-15-19 4:30	13.58	935	8.24	41.9						8-15-19 4:45	20.47	2416	8.45	2.2					
5-15-19 8:15	13.91	1652	7.49	3.8	5-15-19 4:45	14.44	957	8.46	2.6	5-15-19 4:45	13.53	935	8.24	38.4						8-15-19 5:00	20.44	2418	8.45	2.3					
5-15-19 8:30	13.91	1662	7.57	3.4	5-15-19 5:00	14.41	959	8.45	5.8	5-15-19 5:00	13.51	940	8.23	38.5						8-15-19 5:15	20.39	2418	8.44	2.2					
5-15-19 8:45	13.90	1652	7.60	3.6	5-15-19 5:15	14.39	958	8.46	2.1	5-15-19 5:15	13.49	939	8.23	37.0						8-15-19 5:30	20.37	2419	8.44	2.2					
5-15-19 9:00	13.88	1656	7.59	4.3	5-15-19 5:30	14.37	958	8.45	3.1	5-15-19 5:30	13.46	941	8.23	36.6						8-15-19 5:45	20.37	2417	8.46	2.2					
5-15-19 9:15	13.90	1654	7.58	4.1	5-15-19 5:45	14.33	959	8.45	12.7	5-15-19 5:45	13.45	935	8.23	38.7						8-15-19 6:00	20.37	2418	8.45	2.3					
5-15-19 9:30	13.97	1663	7.59	4.2	5-15-19 6:00	14.34	959	8.44	8.9	5-15-19 6:00	13.42	936	8.23	38.9						8-15-19 6:15	20.36	2419	8.45	2.1					
5-15-19 9:45	13.99	1656	7.59	3.9	5-15-19 6:15	14.33	959	8.44	9.4	5-15-19 6:15	13.40	939	8.23	37.7						8-15-19 6:30	20.34	2420	8.44	2.4					
5-15-19 10:00	14.06	1657	7.60	5.2	5-15-19 6:30	14.30	959	8.44	3.7	5-15-19 6:30	13.38	935	8.23	37.5						8-15-19 6:45	20.30	2418	8.45	2.1					
5-15-19 10:15	14.15	1658	7.65	4.1	5-15-19 6:45	14.29	959	8.44	6.0	5-15-19 6:45	13.35	933	8.23	73.7						8-15-19 7:00	20.27	2420	8.43	2.2					
5-15-19 10:30	14.16	1675	7.81	5.1	5-15-19 7:00	14.30	959	8.44	4.3	5-15-19 7:00	13.37	938	8.23	39.1						8-15-19 7:15	20.24	2416	8.44	2.1					
5-15-19 10:45	14.20	1668	7.90	4.8	5-15-19 7:15	14.30	958	8.44	4.7	5-15-19 7:15	13.38	938	8.23	34.2						8-15-19 7:30	20.25	2420	8.43	2.2					
5-15-19 11:00	14.20	1679	8.13	4.7	5-15-19 7:30	14.33	958	8.45	4.6	5-15-19 7:30	13.39	932	8.22	40.0						8-15-19 7:45	20.23	2417	8.44	2.1					
5-15-19 11:15	14.20	1676	8.31	4.4	5-15-19 7:45	14.32	958	8.45	4.2	5-15-19 7:45	13.36	937	8.22	33.7						8-15-19 8:00	20.23	2415	8.44	2.2					
5-15-19 11:30	14.26	1675	8.31	4.5	5-15-19 8:00	14.34	959	8.45	4.4	5-15-19 8:00	13.39	938	8.22	38.5						8-15-19 8:30	20.18	2419	8.45	2.2					
5-15-19 11:45	14.24	1688	8.35	4.7	5-15-19 8:15	14.41	959	8.44	4.8	5-15-19 8:15	13.46	937	8.23	37.4						8-15-19 8:45	20.18	2415	8.45	2.2					
5-15-19 12:00	14.24	1680	8.37	4.5	5-15-19 8:30	14.46	959	8.44	4.1	5-15-19 8:30	13.48	937	8.22	34.4						8-15-19 9:00	20.16	2418	8.44	2.3					
5-15-19 12:15	14.23	1682	8.43	4.9	5-15-19 8:45	14.44	958	8.44	3.6	5-15-19 8:45	13.47	937	8.23	35.3						8-15-19 9:15	20.11	2414	8.44	2.2					
5-15-19 12:30	14.26	1685	8.51	5.0	5-15-19 9:00	14.39	958	8.45	4.0	5-15-19 9:00	13.45	939	8.23	37.8						8-15-19 9:30	20.12	2415	8.44	2.2					
5-15-19 12:45	14.28	1682	8.48	5.1	5-15-19 9:15	14.40	958	8.45	3.0	5-15-19 9:15	13.46	936	8.23	36.0						8-15-19 9:45	20.10	2414	8.46	2.1					
5-15-19 13:00	14.35	1682	8.51	4.2	5-15-19 9:30	14.46	959	8.46	13.8	5-15-19 9:30	13.46	940	8.23	38.9						8-15-19 10:00	20.11	2415	8.44	2.1					
5-15-19 13:15	14.39	1683	8.57	6.5	5-15-19 9:45	14.57	952	8.45	4.4	5-15-19 9:45	13.55	940	8.23	37.4						8-15-19 10:15	20.12	2413	8.45	2.1					
5-15-19 13:30	14.40	1679	8.57	4.2	5-15-19 10:00	14.62	951	8.45	7.7	5-15-19 10:00	13.64	936	8.23	35.3						8-15-19 10:30	20.14	2413	8.45	2.2					
5-15-19 13:45	14.40	1683	8.58	5.8	5-15-19 10:15	14.61	958	8.45	6.3	5-15-19 10:15	13.70	937	8.22	37.8						8-15-19 10:45	20.18	2412	8.43	2.1					
5-15-19 14:00	14.41	1682	8.57	6.1	5-15-19 10:30	14.69	958	8.45	5.4	5-15-19 10:30	13.79	936	8.23	35.7						8-15-19 11:00	20.23	2414	8.44	2.4					
5-15-19 14:15	14.38	1682	8.63	5.1	5-15-19 10:45	14.78	958	8.45	3.9	5-15-19 10:45	13.82	936	8.23	71.9						8-15-19 11:15	20.28	2414	8.44	2.1					
5-15-19 14:30	14.40	1684	8.66	4.5	5-15-19 11:00	14.78	958	8.45	3.9	5-15-19 11:00	13.80	937	8.23	36.8						8-15-19 11:30	20.35	2416	8.42	2.2					
5-15-19 14:45	14.41	1692	8.67	4.8	5-15-19 11:15	14.72	958	8.46	34.0	5-15-19 11:15	13.65	933	8.23	32.9						8-15-19 11:45	20.38	2414	8.45	2.1					
5-15-19 15:00	14.41	1683	8.68	4.6	5-15-19 11:30	14.71	959	8.47	11.8	5-15-19 11:30	13.68	936	8.23	38.1						8-15-19 12:00	20.41	2418	8.43	2.2					
5-15-19 15:15	14.45	1684	8.69	5.1	5-15-19 11:45	14.88	958	8.47	6.7	5-15-19 11:45	13.64	932	8.23	33.4						8-15-19 12:15	20.37	2417	8.46	2.1					
5-15-19 15:30	14.42	1692	8.71	5.1	5-15-19 12:00	14.76	958	8.48	19.2	5-15-19 12:00	13.65	929	8.23	40.2						8-15-19 12:30	20.33	2419	8.44	2.2					
5-15-19 15:45	14.43	1682	8.70	4.8	5-15-19 12:15	14.59	958	8.47	7.7	5-15-19 12:15	13.66	931	8.23	46.3						8-15-19 12:45	20.32	2412	8.45	2.1					
5-15-19 16:00	14.40	1685	8.73	5.7	5-15-19 12:30	14.64	959	8.47	4.5	5-15-19 12:30	13.71	935	8.23	41.9						8-15-19 13:00	20.32	2422	8.43	2.3					
5-15-19 16:15	14.41	1686	8.73	4.4	5-15-19 12:45	14.63	958	8.48	10.5	5-15-19 12:45	13.74	935	8.23	42.7						8-15-19 13:15	20.31	2418	8.44	2.1					
5-15-19 16:30	14.38	1684	8.75	4.8	5-15-19 13:00	14.65	958	8.47	4.7	5-15-19 13:00	13.67	934	8.24	44.5						8-15-19 13:30	20.33	2420	8.43	2.2					
5-15-19 16:45	14.40	1685	8.74	5.5	5-15-19 13:15	14.75	959	8.47	7.4	5-15-19 13:15	13.68	931	8.24	48.1						8-15-19 13:45	20.30	2418	8.45	2.1					
5-15-19 17:00	14.38	1686	8.75	4.7	5-15-19 13:30	14.82	959	8.46	3.5	5-15-19 13:30	13.72	932	8.23	46.2						8-15-19 14:00	20.27	2420	8.43	2.2					
5-15-19 17:15	14.39	1687	8.76	4.8	5-15-19 13:45	14.73	958	8.47	7.5	5-15-19 13:45	13.69	931	8.24	64.4						8-15-19 14:15	20.24	2416	8.44	2.1					
5-15-19 17:30	14.41	1693	8.75	180.2	5-15-19 14:00	14.62	959	8.48	5.6	5-15-19 14:00	13.65	931	8.23	46.2						8-15-19 14:30	20.25	2420	8.43	2.2					
5-15-19 17:45	14.41	1686	8.70	5.8	5-15-19 14:15	14.58	952	8.48	41.3	5-15-19 14:15	13.61	931	8.23	44.7						8-15-19 14:45	20.23	2417	8.44	2.1					
5-15-19 18:00	14.39	1693	8.76	4.6	5-15-19 14:30	14.54	951	8.47	3.3	5-15-19 14:30	13.57	931	8.23	44.6						8-15-19 15:00	20.23	2415	8.44	2.2					
5-15-19 18:15	14.37	1686	8.80	5.3	5-15-19 14:45	14.58	947	8.47	43.8	5-15-19 14:45	13.56	933	8.23	46.6						8-15-19 15:15	20.18	2417	8.46	2.1					
5-15-19 18:30	14.38	1689	8.81	5.5	5-15-19 15:00	14.62	945	8.47	11.7	5-15-19 15:00	13.62	931	8.23	46.6						8-15-19 15:30	20.18	2419	8.45	2.2					
5-15-19 18:45	14.37	1689	8.80	5.9	5-15-19 15:15	14.72	960	8.47	9.7	5-15-19 15:15	13.64	930	8.24	41.5						8-15-19 15:45	20.18	2415	8.45	2.2					
5-15-19 19:00	14.33	1687	8.79	5.0	5-15-19 15:30	14.78	959	8.47	12.0	5-15-19 15:30	13.65	932	8.24	49.1						8-15-19 16:00	20.16	2418	8.44	2.3					
5-15-19 19:15	14.32	1688	8.77	5.1	5-15-19 15:45	14.73	951	8.47	10.6	5-15-19 15:45	13.63	932	8.24	44.0						8-15-19 16:15	20.11	2414	8.44	2.2					
5-15-19 19:30	14.31	1687	8.60	5.2	5-15-19 16:00	14.69	949	8.48	27.9	5-15-19 16:00	13.59	928	8.23	43.7						8-15-19 16:30	20.12	2415	8.44	2.2					
5-15-19 19:45	14.31	1688	8.57	11.4	5-15-19 16:15	14.59	957	8.48	22.5	5-15-19 16:15	13.60	929	8.23	48.3						8-15-19 16:45	20.10	2414	8.46	2.1					
5-15-19 20:00	14.29	1688	8.39	5.5	5-15-19 16:30	14.56	959	8.48	12.2	5-15-19 16:30	13.59	929	8.23	41.9						8-15-19 17:00	20.11	2415	8.44	2.1					
5-15-19 20:15	14.21	1689	8.60	5.2	5-15-19 16:45	14.49	958	8.49	8.5	5-15-19 16:45	13.58	930	8.23	45.4						8-15-19 17:15	20.12	2413	8.45	2.1					
5-15-19 20:30	14.20	1689	8.60	5.4	5-15-19 17:00	14.49	960	8.48	15.3	5-15-19 17:00	13.62	931	8.24	42.5						8-15-19 17:30	20.14	2413	8.45	2.2					
5-15-19 20:45	14.17	1697	8.60	5.5	5-15-19 17:15	14.54	959	8.48	6.8	5-15-19 17:15	13.59	931	8.24	47.0						8-15-19 17:45	20.18	2412	8.43	2.1					
5-15-19 21:00	14.18	1691	8.59	4.4	5-15-19 17:30	14.59	955	8.48	7.7	5-15-19 17:30	13.63	931	8.24	46.3						8-15-19 18:00	20.23	2414	8.44	2.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-15-19 21:15	14.14	1690	8.49	4.5	5-15-19 17:45	14.52	956	8.48	5.5	5-15-19 17:45	13.62	930	8.24	47.2						8-15-19 18:15	20.28	2414	8.44	2.1					
5-15-19 21:30	14.14	1698	8.41	4.6	5-15-19 18:00	14.48	960	8.48	4.9	5-15-19 18:00	13.59	929	8.23	48.9						8-15-19 18:30	20.35	2416	8.42	2.2					
5-15-19 21:45	14.11	1689	8.46	4.6	5-15-19 18:15	14.42	895	8.48	4.9	5-15-19 18:15	13.60	927	8.23	54.5						8-15-19 18:45	20.38	2414	8.45	2.1					
5-15-19 22:00	14.11	1688	8.31	4.9	5-15-19 18:30	14.37	959	8.48	12.7	5-15-19 18:30	13.57	932	8.23	48.3						8-15-19 19:00	20.41	2418	8.43	2.2					
5-15-19 22:15	14.09	1689	8.34	4.8	5-15-19 18:45	14.40	959	8.48	2.6	5-15-19 18:45	13.55	922	8.24	53.1						8-15-19 19:15	20.37	2417	8.46	2.1					
5-15-19 22:30	14.07	1689	8.24	4.6	5-15-19 19:00	14.39	930	8.47	6.1	5-15-19 19:00	13.54	924	8.23	50.2						8-15-19 19:30	20.33	2419	8.44	2.2					
5-15-19 22:45	14.04	1690	8.19	4.4	5-15-19 19:15	14.33	960	8.48	6.5	5-15-19 19:15	13.54	926	8.23	50.8						8-15-19 19:45	20.32	2412	8.45	2.1					
5-15-19 23:00	14.01	1691	8.35	5.1	5-15-19 19:30	14.29	952	8.47	5.2	5-15-19 19:30	13.53	926	8.23	49.8						8-15-19 20:00	20.32	2422	8.43	2.3					
5-15-19 23:15	13.98	1690	8.43	4.1	5-15-19 19:45	14.25	959	8.48	5.1	5-15-19 19:45	13.49	929	8.23	46.7						8-15-19 20:15	20.31	2418	8.44	2.1					
5-15-19 23:30	13.93	1690	8.35	4.8	5-15-19 20:00	14.21	960	8.47	7.5	5-15-19 20:00	13.46	928	8.23	56.6						8-15-19 20:30	20.33	2420	8.43	2.2					
5-15-19 23:45	13.88	1690	8.37	4.5	5-15-19 20:15	14.17	943	8.48	7.2	5-15-19 20:15	13.46	926	8.22	52.0						8-15-19 20:45	20.35	2413	8.43	2.1					
5-16-19 0:00	13.87	1690	8.38	4.3	5-15-19 20:30	14.14	959	8.48	6.4	5-15-19 20:30	13.45	929	8.22	52.9						8-15-19 21:00	20.35	2422	8.42	2.2					
5-16-19 0:15	13.84	1692	8.36	5.7	5-15-19 20:45	14.10	959	8.48	3.8	5-15-19 20:45	13.43	930	8.22	46.8						8-15-19 21:15	20.36	2420	8.42	2.1					
5-16-19 0:30	13.83	1690	8.36	4.5	5-15-19 21:00	14.08	898	8.48	9.6	5-15-19 21:00	13.42	922	8.22	46.6						8-15-19 21:30	20.38	2425	8.43	2.2					
5-16-19 0:45	13.78	1698	8.35	3.7	5-15-19 21:15	14.11	960	8.48	10.5	5-15-19 21:15	13.38	925	8.23	46.0						8-15-19 21:45	20.37	2423	8.44	2.1					
5-16-19 1:00	13.78	1693	8.29	4.8	5-15-19 21:30	14.07	945	8.47	7.8	5-15-19 21:30	13.36	926	8.23	47.6						8-15-19 22:00	20.36	2426	8.43	2.1					
5-16-19 1:15	13.74	1693	8.20	4.1	5-15-19 21:45	14.07	961	8.48	2.7	5-15-19 21:45	13.34	922	8.23	67.1						8-15-19 22:15	20.34	2425	8.45	2.1					
5-16-19 1:30	13.71	1706	8.23	4.1	5-15-19 22:00	14.06	960	8.47	4.8	5-15-19 22:00	13.35	922	8.22	69.9						8-15-19 22:30	20.36	2423	8.44	2.3					
5-16-19 1:45	13.67	1699	8.01	3.8	5-15-19 22:15	14.03	926	8.47	2.1	5-15-19 22:15	13.33	921	8.23	62.5						8-15-19 22:45	20.24	2403	8.47	2.2					
5-16-19 2:00	13.64	1700	7.86	4.4	5-15-19 22:30	14.00	901	8.47	4.5	5-15-19 22:30	13.32	922	8.21	68.4						8-15-19 23:00	20.25	2394	8.46	2.9					
5-16-19 2:15	13.59	1703	7.80	3.8	5-15-19 22:45	14.01	961	8.47	8.2	5-15-19 22:45	13.31	925	8.21	62.8						8-15-19 23:15	20.24	2401	8.46	2.6					
5-16-19 2:30	13.57	1709	7.50	3.9	5-15-19 23:00	13.97	932	8.46	2.9	5-15-19 23:00	13.29	922	8.21	56.6						8-15-19 23:30	20.27	2413	8.46	2.5					
5-16-19 2:45	13.51	1703	8.10	3.8	5-15-19 23:15	13.94	960	8.46	2.3	5-15-19 23:15	13.27	922	8.22	56.9						8-15-19 23:45	20.24	2405	8.47	2.4					
5-16-19 3:00	13.51	1711	7.61	3.8	5-15-19 23:30	13.89	961	8.46	3.4	5-15-19 23:30	13.25	921	8.22	58.0						8-16-19 0:00	20.19	2401	8.47	2.4					
5-16-19 3:15	13.48	1712	7.43	3.9	5-15-19 23:45	13.88	900	8.47	2.7	5-15-19 23:45	13.24	922	8.22	57.7						8-16-19 0:15	20.18	2399	8.47	2.5					
5-16-19 3:30	13.44	1708	7.92	3.8	5-16-19 0:00	13.87	954	8.46	7.4	5-16-19 0:00	13.22	923	8.21	61.5						8-16-19 0:30	20.19	2398	8.48	2.6					
5-16-19 3:45	13.40	1713	7.76	4.0	5-16-19 0:15	13.87	961	8.47	8.5	5-16-19 0:15	13.21	927	8.22	44.9						8-16-19 0:45	20.14	2377	8.47	2.9					
5-16-19 4:00	13.35	1713	8.09	4.4	5-16-19 0:30	13.87	961	8.46	4.4	5-16-19 0:30	13.19	930	8.22	47.4						8-16-19 1:00	20.13	2376	8.46	2.9					
5-16-19 4:15	13.30	1711	7.93	4.0	5-16-19 0:45	13.85	948	8.47	13.7	5-16-19 0:45	13.16	930	8.22	48.7						8-16-19 1:15	20.02	2309	8.42	3.4					
5-16-19 4:30	13.28	1714	7.84	3.9	5-16-19 1:00	13.79	905	8.47	7.9	5-16-19 1:00	13.15	928	8.21	43.3						8-16-19 1:30	19.70	2200	8.36	5.3					
5-16-19 4:45	13.22	1709	8.15	4.1	5-16-19 1:15	13.79	961	8.46	1.3	5-16-19 1:15	13.13	928	8.21	45.2						8-16-19 1:45	19.73	2227	8.38	3.7					
5-16-19 5:00	13.18	1710	8.10	3.9	5-16-19 1:30	13.65	959	8.46	4.0	5-16-19 1:30	13.10	928	8.21	45.9						8-16-19 2:00	19.71	2214	8.38	3.7					
5-16-19 5:15	13.15	1709	8.26	4.1	5-16-19 1:45	13.65	960	8.47	2.6	5-16-19 1:45	13.07	928	8.21	44.8						8-16-19 2:15	19.63	2192	8.36	3.6					
5-16-19 5:30	13.12	1713	8.18	4.2	5-16-19 2:00	13.59	902	8.46	7.6	5-16-19 2:00	13.06	928	8.21	61.9						8-16-19 2:30	19.48	2120	8.31	3.7					
5-16-19 5:45	13.11	1716	8.13	4.2	5-16-19 2:15	13.67	962	8.46	8.3	5-16-19 2:15	13.04	928	8.21	50.4						8-16-19 2:45	19.38	2085	8.30	3.7					
5-16-19 6:00	13.08	1716	8.06	4.6	5-16-19 2:30	13.65	961	8.45	3.6	5-16-19 2:30	13.02	928	8.20	45.7						8-16-19 3:00	19.50	2173	8.36	3.5					
5-16-19 6:15	13.05	1717	8.20	4.3	5-16-19 2:45	13.70	959	8.46	3.2	5-16-19 2:45	13.01	926	8.20	48.1						8-16-19 3:15	19.51	2175	8.36	3.6					
5-16-19 6:30	13.02	1716	8.21	4.2	5-16-19 3:00	13.56	900	8.45	4.6	5-16-19 3:00	12.98	928	8.20	49.7						8-16-19 3:30	19.50	2182	8.36	3.5					
5-16-19 6:45	13.00	1719	8.20	4.5	5-16-19 3:15	13.61	961	8.45	13.4	5-16-19 3:15	12.96	927	8.20	48.2						8-16-19 3:45	19.47	2180	8.37	3.3					
5-16-19 7:00	12.98	1720	8.19	4.3	5-16-19 3:30	13.55	927	8.44	2.0	5-16-19 3:30	12.94	928	8.20	54.9						8-16-19 4:00	19.43	2174	8.36	3.5					
5-16-19 7:15	12.96	1720	8.11	4.4	5-16-19 3:45	13.48	961	8.45	1.1	5-16-19 3:45	12.92	928	8.19	50.8						8-16-19 4:15	19.34	2140	8.33	3.9					
5-16-19 7:30	12.95	1720	8.17	4.0	5-16-19 4:00	13.50	960	8.45	2.7	5-16-19 4:00	12.90	927	8.20	49.9						8-16-19 4:30	19.30	2142	8.34	4.1					
5-16-19 7:45	12.85	1723	8.32	4.6	5-16-19 4:15	13.42	959	8.46	1.1	5-16-19 4:15	12.89	927	8.20	47.3						8-16-19 4:45	19.30	2162	8.35	3.6					
5-16-19 8:00	12.83	1724	8.37	4.3	5-16-19 4:30	13.46	899	8.45	6.3	5-16-19 4:30	12.87	927	8.20	46.6						8-16-19 5:00	19.28	2169	8.36	3.6					
5-16-19 8:15	12.80	1726	8.31	5.0	5-16-19 4:45	13.39	962	8.46	6.9	5-16-19 4:45	12.85	927	8.20	49.6						8-16-19 5:15	19.22	2163	8.36	3.6					
5-16-19 8:30	12.74	1727	8.47	4.2	5-16-19 5:00	13.37	960	8.45	2.6	5-16-19 5:00	12.83	927	8.19	45.0						8-16-19 5:30	19.23	2167	8.36	3.6					
5-16-19 8:45	12.69	1731	8.56	4.7	5-16-19 5:15	13.37	958	8.46	2.0	5-16-19 5:15	12.82	928	8.20	45.7						8-16-19 5:45	19.19	2164	8.36	3.3					
5-16-19 9:00	12.71	1725	8.45	5.4	5-16-19 5:30	13.34	901	8.45	12.0	5-16-19 5:30	12.77	928	8.20	46.8						8-16-19 6:00	19.16	2169	8.36	3.5					
5-16-19 9:15	12.71	1723	8.33	5.4	5-16-19 5:45	13.31	962	8.45	0.0	5-16-19 5:45	12.75	929	8.19	48.7						8-16-19 6:15	19.12	2169	8.36	3.4					
5-16-19 9:30	12.68	1733	8.53	5.9	5-16-19 6:00	13.29	955	8.45	11.3	5-16-19 6:00	12.75	929	8.19	64.2						8-16-19 6:30	19.09	2172	8.37	3.6					
5-16-19 9:45	12.70	1725	8.42	5.7	5-16-19 6:15	13.32	962	8.45	14.2	5-16-19 6:15	12.72	931	8.19	50.4						8-16-19 6:45	19.03	2172	8.37	3.3					
5-16-19 10:00	12.69	1728	8.47	4.8	5-16-19 6:30	13.35	962	8.44	3.8	5-16-19 6:30	12.72	932	8.19	51.7						8-16-19 7:00	19.00	2174	8.37	3.3					
5-16-19 10:15	12.68	1727	8.50	5.4	5-16-19 6:45	13.33	893	8.45	3.1	5-16-19 6:45	12.71	932	8.19	47.1						8-16-19 7:15	18.98	2173	8.37	3.4					
5-16-19 10:30	12.66	1724	8.51	5.9	5-16-19 7:00	13.28	959	8.44	3.8	5-16-19 7:00	12.70	933	8.19	53.6						8-16-19 7:30	18.95	2175	8.37	3.1					
5-16-19 10:45	12.63	1723	8.55	4.4	5-16-19 7:15	13.29	960	8.44	2.4	5-16-19 7:15	12.68	933	8.19	52.7						8-16-19 7:45	18.93	2173	8.37	3.2					
5-16-19 11:00	12.64	1723	8.55	8.1	5-16-19 7:30	13.32	900	8.44	17.7	5-16-19 7:30	12.62	933	8.19	53.3						8-16-19 8:00	18.88	2176	8.37	3.3					
5-16-19 11:15	12.64	1721	8.58	6.9	5-16-19 7:45	13.26	962	8.44	10.2	5-16-19 7:45	12.60	931	8.19	52.6						8-16-19 8:15	18.83	2176	8.37	3.2					
5-16-19 11:30	12.63	1724	8.61	6.4	5-16-19 8:00	13.21	956	8.44	12.8	5-16-19 8:00	12.58	948	8.19	48.1						8-16-19 8:30	18.81	2173	8.37	3.5					
5-16-19 11:45	12.66	1721	8.62	6.0	5-16-19 8:15	13.21	900	8.45	7.7	5-16-19 8:15	12.57	930	8.19	47.5						8-16-19 8:45	18.78	2173	8.37	3.0					
5-16-19 12:00	12.71	1721	8.61	5.3	5-16-19 8:30	13.18	963	8.45	6.0	5-16-19 8:30	12.55	931	8.19	51.8						8-16-19 9:00	18.74	2174	8.37	3.2					
5-16-19 12:15	12.72	1720	8.64	5.6	5-16-19 8:45	13.20	944	8.45	3.0	5-16-19 8:45	12.53	933	8.17	52.0						8-16-19 9:15	18.71	2173	8.37	3.0					
5-16-19 12:30	12.76	1719	8.64	5.1	5-16-19 9:00	13.17	901	8.45	5.7	5-16-19 9:00	12.52	934	8.17	55.8						8-16-19 9:30	18.69	2176	8.37	3.1					
5-16-19 12:45	12.86	1719	8.67	4.8	5-16-19 9:15	13.18	963	8.45	11.0	5-16-19 9:15	12.51	936	8.18	50.1						8-16-19 9:45	18.65	2171	8.37	3.0					
5-16-19 13:00	12.89	1723	8.65	4.8	5-16-19 9:30	13.31	959	8.45	13.7	5-16-19 9:30	12.52	936	8.18	50.5						8-16-19 10:00	18.60	2174	8.37	3.0					
5-16-19 13:15	12.91	1721	8.65	7.7	5-16-19 9:45	13.41	965	8.45	13.0	5-16-19 9:45	12.53	930	8.18	52.1						8-16-19 10:15	18.55	2177	8.37	2.9					
5-16-19 13:30	12.90	1725	8.65	7.4	5-16-19 10:00	13.42	958	8.45	11.0	5-16-19 10:00	12.50	932	8.18	52.4						8-16-19 10:30	18.52	2178	8.38	3.1					
5-16-19 13:45	12.87	1722	8.63	8.2	5-16-19 10:15	13.33	963	8.46	27.5	5-16-19 10:15	12.42	933	8.17	56.2						8-16-19 10:45	18.46	2175	8.38	2.9					
5-16-19 14:00	12.85	1726	8.66	7.1	5-16-19 10:30	13.32	958	8.45	12.5	5-16-19 10:30	12.44	935	8.18	59.4						8-16-19 11:00	18.44	2177	8.38	2.9					
5-16-19 14:15	12.83	1725	8.69	6.1	5-16-19 10:45	13.29	964	8.46	29.8	5-16-19 10:45	12.45	935	8.18	53.5						8-16-19 11:15	18.39	2175	8.37	2.8					
5-16-19 14:30	12.81	1723	8.68	6.5	5-16-19 11:00	13.30	958	8.45	13.5	5-16-19 11:00	12.43	933	8.18	55.3						8-16-19 11:30	18.35	2176	8.37	2.9					
5-16-19 14:45	12.80	1726	8.68	5.5	5-16-19 11:15	13.41	963	8.45	18.4	5-16-19 11:15	12.43	933	8.18	56.0						8-16-19 11:45	18.31	2176	8.37	2.8					
5-16-19 15:00	12.79	1723	8.67	7.1	5-16-19 11:30					5-16-19 11:30	12.46	932	8.18	57.7						8-16-19 12:00	18.26	2177	8.37	2.9					
5-16-19 15:15	12.79	1724	8.68	6.4	5-16-19 11:45					5-16-19 11:45	12.46	933	8.18	52.5						8-16-19 12:15	18.21	2178	8.37	2.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-16-19 15:30	12.79	1723	8.68	6.3	5-16-19 12:00					5-16-19 12:00	12.48	933	8.18	59.1						8-16-19 12:30	18.17	2178	8.38	2.7					
5-16-19 15:45	12.78	1728	8.70	6.9	5-16-19 12:15					5-16-19 12:15	12.55	933	8.17	55.3						8-16-19 12:45	18.14	2176	8.37	2.8					
5-16-19 16:00	12.79	1728	8.70	6.6	5-16-19 12:30					5-16-19 12:30	12.57	933	8.18	54.7						8-16-19 13:00	18.11	2178	8.37	2.8					
5-16-19 16:15	12.76	1728	8.70	8.4	5-16-19 12:45					5-16-19 12:45	12.63	934	8.17	52.4						8-16-19 13:15	18.06	2176	8.38	2.8					
5-16-19 16:30	12.75	1729	8.67	7.2	5-16-19 13:00					5-16-19 13:00	12.65	933	8.18	52.7						8-16-19 13:30	18.03	2179	8.38	2.9					
5-16-19 16:45	12.74	1724	8.69	6.1	5-16-19 13:15					5-16-19 13:15	12.66	934	8.18	49.5						8-16-19 13:45	17.99	2176	8.38	2.7					
5-16-19 17:00	12.71	1728	8.70	6.6	5-16-19 13:30					5-16-19 13:30	12.65	934	8.18	56.5						8-16-19 14:00	17.97	2178	8.38	2.8					
5-16-19 17:15	12.70	1728	8.67	6.6	5-16-19 13:45					5-16-19 13:45	12.62	934	8.18	57.6						8-16-19 14:15	17.93	2178	8.37	2.7					
5-16-19 17:30	12.68	1729	8.69	7.2	5-16-19 14:00					5-16-19 14:00	12.61	934	8.17	56.3						8-16-19 14:30	17.91	2179	8.38	2.7					
5-16-19 17:45	12.66	1729	8.67	8.2	5-16-19 14:15					5-16-19 14:15	12.62	937	8.18	56.6						8-16-19 14:45	17.88	2177	8.38	2.6					
5-16-19 18:00	12.68	1728	8.22	6.2	5-16-19 14:30					5-16-19 14:30	12.64	935	8.18	58.8						8-16-19 15:00	17.88	2179	8.38	2.8					
5-16-19 18:15	12.67	1729	8.45	7.2	5-16-19 14:45					5-16-19 14:45	12.63	939	8.18	51.4						8-16-19 15:15	17.87	2177	8.39	2.7					
5-16-19 18:30	12.65	1728	8.49	8.4	5-16-19 15:00					5-16-19 15:00	12.59	938	8.18	59.0						8-16-19 15:30	17.86	2179	8.40	2.7					
5-16-19 18:45	12.63	1726	8.57	6.6	5-16-19 15:15					5-16-19 15:15	12.59	938	8.18	54.7						8-16-19 15:45	17.85	2177	8.40	2.6					
5-16-19 19:00	12.63	1724	8.57	6.7	5-16-19 15:30					5-16-19 15:30	12.58	939	8.18	56.4						8-16-19 16:00	17.87	2176	8.40	2.7					
5-16-19 19:15	12.62	1726	8.50	6.8	5-16-19 15:45					5-16-19 15:45	12.55	940	8.18	57.0						8-16-19 16:15	17.88	2174	8.40	2.6					
5-16-19 19:30	12.59	1729	8.52	5.9	5-16-19 16:00					5-16-19 16:00	12.55	937	8.18	55.1						8-16-19 16:30	17.85	2174	8.42	2.6					
5-16-19 19:45	12.59	1730	8.52	6.5	5-16-19 16:15					5-16-19 16:15	12.53	935	8.18	57.3						8-16-19 16:45	17.76	2170	8.42	2.7					
5-16-19 20:00	12.59	1729	8.31	5.6	5-16-19 16:30					5-16-19 16:30	12.52	935	8.17	50.9						8-16-19 17:00	17.84	2174	8.41	3.0					
5-16-19 20:15	12.56	1729	8.51	6.2	5-16-19 16:45	17.78	826	8.37	79.7	5-16-19 16:45	12.52	934	8.17	56.6						8-16-19 17:15	17.83	2173	8.42	2.6					
5-16-19 20:30	12.59	1729	8.35	6.3	5-16-19 17:00	13.68	913	8.69	10.4	5-16-19 17:00	12.51	935	8.18	55.4						8-16-19 17:30	17.86	2173	8.42	2.6					
5-16-19 20:45	12.58	1732	8.21	6.2	5-16-19 17:15	13.38	954	8.77	62.3	5-16-19 17:15	12.49	935	8.18	53.6						8-16-19 17:45	17.93	2172	8.43	2.5					
5-16-19 21:00	12.54	1728	8.29	6.8	5-16-19 17:30	13.29	961	8.75	84.8	5-16-19 17:30	12.48	935	8.18	56.8						8-16-19 18:00	17.94	2171	8.43	2.6					
5-16-19 21:15	12.55	1728	8.34	6.9	5-16-19 17:45	13.23	957	8.73	17.1	5-16-19 17:45	12.47	934	8.18	54.7						8-16-19 18:15	17.91	2172	8.43	2.5					
5-16-19 21:30	12.54	1732	8.30	5.6	5-16-19 18:00	13.24	964	8.71	12.8	5-16-19 18:00	12.47	937	8.17	58.1						8-16-19 18:30	17.96	2172	8.43	2.6					
5-16-19 21:45	12.50	1730	8.38	5.8	5-16-19 18:15	13.20	957	8.69	23.2	5-16-19 18:15	12.48	938	8.17	50.5						8-16-19 18:45	17.99	2165	8.44	2.5					
5-16-19 22:00	12.49	1728	8.34	6.5	5-16-19 18:30	13.20	964	8.67	5.0	5-16-19 18:30	12.47	933	8.18	54.0						8-16-19 19:00									
5-16-19 22:15	12.50	1731	8.35	6.0	5-16-19 18:45	13.17	958	8.65	16.3	5-16-19 18:45	12.46	935	8.17	48.5						8-16-19 19:15									
5-16-19 22:30	12.49	1728	8.28	5.7	5-16-19 19:00	13.14	964	8.64	15.1	5-16-19 19:00	12.45	938	8.18	52.8						8-16-19 19:30									
5-16-19 22:45	12.48	1730	8.33	5.3	5-16-19 19:15	13.15	958	8.62	15.1	5-16-19 19:15	12.44	932	8.18	54.0						8-16-19 19:45									
5-16-19 23:00	12.49	1730	8.31	5.6	5-16-19 19:30	13.14	964	8.61	12.9	5-16-19 19:30	12.44	931	8.18	50.3						8-16-19 20:00									
5-16-19 23:15	12.45	1731	8.31	6.0	5-16-19 19:45	13.11	959	8.59	14.3	5-16-19 19:45	12.44	931	8.18	53.5						8-16-19 20:15									
5-16-19 23:30	12.43	1732	8.28	5.5	5-16-19 20:00	13.11	964	8.58	12.4	5-16-19 20:00	12.43	934	8.17	53.1						8-16-19 20:30									
5-16-19 23:45	12.42	1732	8.31	5.5	5-16-19 20:15	13.10	958	8.57	12.8	5-16-19 20:15	12.39	933	8.18	54.4						8-16-19 20:45									
5-17-19 0:00	12.40	1731	8.28	6.0	5-16-19 20:30	13.09	964	8.57	15.6	5-16-19 20:30	12.41	934	8.17	55.7						8-16-19 21:00									
5-17-19 0:15	12.37	1734	8.18	5.6	5-16-19 20:45	13.07	958	8.55	16.7	5-16-19 20:45	12.42	931	8.17	51.6						8-16-19 21:15									
5-17-19 0:30	12.37	1734	8.24	5.6	5-16-19 21:00	13.06	965	8.54	11.7	5-16-19 21:00	12.41	933	8.17	55.0						8-16-19 21:30									
5-17-19 0:45	12.33	1737	8.18	7.6	5-16-19 21:15	13.08	958	8.54	17.2	5-16-19 21:15	12.40	936	8.17	52.4						8-16-19 21:45									
5-17-19 1:00	12.30	1735	8.15	5.9	5-16-19 21:30	13.06	965	8.53	5.4	5-16-19 21:30	12.36	937	8.18	49.6						8-16-19 22:00									
5-17-19 1:15	12.29	1735	8.27	5.7	5-16-19 21:45	13.03	961	8.53	13.8	5-16-19 21:45	12.34	937	8.17	52.3						8-16-19 22:15									
5-17-19 1:30	12.25	1737	8.26	5.9	5-16-19 22:00	13.03	966	8.53	11.9	5-16-19 22:00	12.30	931	8.17	63.2						8-16-19 22:30									
5-17-19 1:45	12.27	1736	8.27	6.2	5-16-19 22:15	13.05	959	8.52	12.5	5-16-19 22:15	12.34	931	8.18	50.4						8-16-19 22:45									
5-17-19 2:00	12.27	1737	8.40	6.0	5-16-19 22:30	13.01	965	8.51	17.5	5-16-19 22:30	12.34	935	8.17	52.4						8-16-19 23:00									
5-17-19 2:15	12.24	1737	8.38	5.7	5-16-19 22:45	13.03	960	8.50	12.0	5-16-19 22:45	12.35	938	8.17	45.7						8-16-19 23:15									
5-17-19 2:30	12.17	1741	8.28	5.8	5-16-19 23:00	13.04	965	8.50	15.5	5-16-19 23:00	12.35	931	8.16	48.7						8-16-19 23:30									
5-17-19 2:45	12.19	1740	8.18	6.1	5-16-19 23:15	13.01	959	8.49	13.9	5-16-19 23:15	12.32	930	8.17	47.0						8-16-19 23:45									
5-17-19 3:00	12.16	1741	8.22	5.9	5-16-19 23:30	13.01	965	8.49	9.0	5-16-19 23:30	12.29	931	8.17	48.3						8-17-19 0:00									
5-17-19 3:15	12.15	1742	8.23	6.2	5-16-19 23:45	13.00	963	8.49	3.5	5-16-19 23:45	12.28	930	8.17	50.2						8-17-19 0:15									
5-17-19 3:30	12.15	1744	7.99	6.1	5-17-19 0:00	13.00	969	8.49	2.6	5-17-19 0:00	12.29	933	8.16	58.2						8-17-19 0:30									
5-17-19 3:45	12.12	1744	8.18	5.5	5-17-19 0:15	12.97	933	8.48	2.0	5-17-19 0:15	12.26	933	8.17	50.6						8-17-19 0:45									
5-17-19 4:00	12.11	1744	8.20	6.3	5-17-19 0:30	12.96	964	8.48	1.5	5-17-19 0:30	12.25	932	8.16	52.8						8-17-19 1:00									
5-17-19 4:15	12.10	1742	8.15	5.3	5-17-19 0:45	12.93	965	8.47	2.1	5-17-19 0:45	12.21	932	8.16	54.5						8-17-19 1:15									
5-17-19 4:30	12.09	1744	8.19	5.8	5-17-19 1:00	12.92	962	8.48	7.1	5-17-19 1:00	12.22	932	8.17	50.9						8-17-19 1:30									
5-17-19 4:45	12.06	1745	8.10	6.1	5-17-19 1:15	12.90	965	8.47	2.2	5-17-19 1:15	12.22	931	8.16	47.4						8-17-19 1:45									
5-17-19 5:00	12.02	1743	8.14	6.5	5-17-19 1:30	12.89	952	8.47	2.5	5-17-19 1:30	12.21	931	8.16	47.0						8-17-19 2:00									
5-17-19 5:15	11.97	1750	8.22	6.6	5-17-19 1:45	12.88	902	8.47	1.3	5-17-19 1:45	12.19	929	8.16	46.9						8-17-19 2:15									
5-17-19 5:30	11.97	1747	8.27	5.5	5-17-19 2:00	12.84	966	8.47	5.3	5-17-19 2:00	12.19	933	8.16	53.1						8-17-19 2:30									
5-17-19 5:45	11.96	1750	8.24	6.0	5-17-19 2:15	12.84	962	8.46	2.0	5-17-19 2:15	12.20	934	8.16	49.6						8-17-19 2:45									
5-17-19 6:00	11.92	1753	8.35	6.4	5-17-19 2:30	12.82	965	8.47	2.3	5-17-19 2:30	12.19	931	8.16	51.7						8-17-19 3:00									
5-17-19 6:15	11.92	1752	8.33	5.8	5-17-19 2:45	12.81	931	8.46	4.1	5-17-19 2:45	12.16	931	8.16	52.1						8-17-19 3:15									
5-17-19 6:30	11.91	1752	8.36	6.2	5-17-19 3:00	12.79	955	8.46	2.5	5-17-19 3:00	12.13	934	8.16	49.3						8-17-19 3:30									
5-17-19 6:45	11.90	1752	8.37	6.4	5-17-19 3:15	12.79	963	8.46	2.0	5-17-19 3:15	12.11	934	8.16	51.6						8-17-19 3:45									
5-17-19 7:00	11.87	1753	8.28	5.7	5-17-19 3:30	12.79	964	8.46	1.9	5-17-19 3:30	12.11	934	8.15	50.3						8-17-19 4:00									
5-17-19 7:15	11.88	1754	8.38	6.6	5-17-19 3:45	12.76	907	8.45	5.2	5-17-19 3:45	12.13	933	8.16	46.6						8-17-19 4:15									
5-17-19 7:30	11.87	1748	8.28	6.0	5-17-19 4:00	12.77	966	8.45	0.0	5-17-19 4:00	12.15	929	8.15	52.8						8-17-19 4:30									
5-17-19 7:45	11.89	1747	8.00	6.1	5-17-19 4:15	12.74	965	8.43	9.0	5-17-19 4:15	12.15	929	8.16	47.8						8-17-19 4:45									
5-17-19 8:00	11.98	1747	8.32	7.1	5-17-19 4:30	12.77	965	8.44	0.0	5-17-19 4:30	12.11	929	8.15	52.3						8-17-19 5:00									
5-17-19 8:15	11.96	1745	8.26	6.9	5-17-19 4:45	12.75	906	8.44	3.1	5-17-19 4:45	12.10	929	8.15	52.4						8-17-19 5:15									
5-17-19 8:30	12.01	1739	8.31	7.3	5-17-19 5:00	12.72	965	8.44	0.4	5-17-19 5:00	12.02	929	8.15	48.0						8-17-19 5:30									
5-17-19 8:45	12.07	1742	8.29	6.6	5-17-19 5:15	12.66	962	8.44	11.8	5-17-19 5:15	12.02	928	8.15	50.0						8-17-19 5:45									
5-17-19 9:00	12.13	1741	8.21	7.3	5-17-19 5:30	12.66	966	8.45	5.5	5-17-19 5:30	12.02	927	8.15	53.4						8-17-19 6:00									
5-17-19 9:15	12.19	1740	8.36	6.9	5-17-19 5:45	12.61	961	8.44	2.0	5-17-19 5:45	11.98	928	8.14	52.6						8-17-19 6:15									
5-17-19 9:30	12.18	1742	8.23	7.0	5-17-19 6:00	12.60	965	8.45	0.9	5-17-19 6:00	11.97	930	8.14	55.8						8-17-19 6:30									

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-17-19 9:45	12.19	1742	8.34	7.1	5-17-19 6:15	12.59	965	8.44	2.6	5-17-19 6:15	11.97	931	8.14	51.0						8-17-19 6:45									
5-17-19 10:00	12.23	1744	8.33	7.4	5-17-19 6:30	12.58	964	8.45	2.8	5-17-19 6:30	11.97	931	8.14	51.2						8-17-19 7:00									
5-17-19 10:15	12.30	1741	8.40	7.0	5-17-19 6:45	12.56	965	8.44	2.1	5-17-19 6:45	11.98	930	8.15	52.9						8-17-19 7:15									
5-17-19 10:30	12.29	1743	8.35	8.0	5-17-19 7:00	12.57	966	8.44	1.7	5-17-19 7:00	11.97	930	8.15	48.4						8-17-19 7:30									
5-17-19 10:45	12.33	1743	8.31	7.0	5-17-19 7:15	12.57	965	8.44	2.5	5-17-19 7:15	11.95	931	8.15	48.0						8-17-19 7:45									
5-17-19 11:00	12.35	1740	8.30	6.9	5-17-19 7:30	12.59	967	8.44	2.3	5-17-19 7:30	11.96	931	8.15	49.0						8-17-19 8:00									
5-17-19 11:15	12.37	1739	8.36	7.5	5-17-19 7:45	12.63	956	8.44	2.7	5-17-19 7:45	12.00	932	8.15	48.4						8-17-19 8:15									
5-17-19 11:30	12.38	1739	8.33	7.9	5-17-19 8:00	12.80	956	8.44	2.2	5-17-19 8:00	12.12	932	8.15	55.9						8-17-19 8:30									
5-17-19 11:45	12.41	1739	8.36	7.9	5-17-19 8:15	12.95	968	8.43	4.5	5-17-19 8:15	12.15	934	8.15	51.9						8-17-19 8:45									
5-17-19 12:00	12.40	1739	8.32	7.5	5-17-19 8:30	13.11	966	8.43	3.5	5-17-19 8:30	12.18	937	8.15	47.5						8-17-19 9:00									
5-17-19 12:15	12.43	1743	8.21	9.8	5-17-19 8:45	13.22	941	8.43	5.0	5-17-19 8:45	12.24	941	8.15	49.3						8-17-19 9:15									
5-17-19 12:30	12.45	1739	8.27	7.4	5-17-19 9:00	13.13	955	8.44	3.4	5-17-19 9:00	12.20	938	8.15	49.8						8-17-19 9:30									
5-17-19 12:45	12.45	1742	8.26	7.5	5-17-19 9:15	13.28	967	8.43	3.9	5-17-19 9:15	12.21	941	8.16	49.5						8-17-19 9:45									
5-17-19 13:00	12.48	1742	8.28	8.4	5-17-19 9:30	13.30	966	8.43	6.2	5-17-19 9:30	12.14	940	8.15	53.8						8-17-19 10:00									
5-17-19 13:15	12.51	1741	8.34	8.3	5-17-19 9:45	13.32	951	8.43	3.4	5-17-19 9:45	12.16	938	8.15	52.1						8-17-19 10:15									
5-17-19 13:30	12.55	1742	8.30	7.6	5-17-19 10:00	13.26	938	8.44	5.1	5-17-19 10:00	12.20	937	8.15	52.0						8-17-19 10:30									
5-17-19 13:45	12.58	1741	8.28	7.6	5-17-19 10:15	13.35	905	8.43	4.1	5-17-19 10:15	12.26	934	8.16	48.5						8-17-19 10:45									
5-17-19 14:00	12.61	1742	8.26	7.6	5-17-19 10:30	13.46	967	8.43	3.2	5-17-19 10:30	12.31	938	8.16	52.3						8-17-19 11:00									
5-17-19 14:15	12.57	1739	8.06	9.3	5-17-19 10:45	13.56	966	8.43	6.5	5-17-19 10:45	12.33	938	8.16	56.0						8-17-19 11:15									
5-17-19 14:30	12.56	1739	8.26	8.1	5-17-19 11:00	13.54	966	8.43	4.0	5-17-19 11:00	12.34	936	8.16	53.0						8-17-19 11:30									
5-17-19 14:45	12.61	1740	8.33	7.8	5-17-19 11:15	13.46	939	8.43	3.7	5-17-19 11:15	12.33	937	8.16	53.1						8-17-19 11:45									
5-17-19 15:00	12.60	1744	8.33	8.4	5-17-19 11:30	13.45	965	8.43	3.5	5-17-19 11:30	12.34	937	8.16	48.7						8-17-19 12:00									
5-17-19 15:15	12.59	1741	8.34	9.1	5-17-19 11:45	13.42	965	8.42	6.4	5-17-19 11:45	12.38	937	8.16	53.4						8-17-19 12:15									
5-17-19 15:30	12.60	1741	8.41	8.5	5-17-19 12:00	13.46	966	8.43	6.1	5-17-19 12:00	12.41	937	8.16	49.7						8-17-19 12:30									
5-17-19 15:45	12.58	1742	8.35	8.0	5-17-19 12:15	13.41	951	8.43	4.9	5-17-19 12:15	12.39	937	8.16	48.0						8-17-19 12:45									
5-17-19 16:00	12.57	1742	8.37	7.7	5-17-19 12:30	13.44	936	8.44	6.1	5-17-19 12:30	12.42	938	8.16	54.7						8-17-19 13:00									
5-17-19 16:15	12.58	1739	8.46	7.5	5-17-19 12:45	13.44	905	8.43	13.5	5-17-19 12:45	12.45	938	8.15	52.2						8-17-19 13:15									
5-17-19 16:30	12.56	1738	8.35	8.4	5-17-19 13:00	13.47	966	8.44	3.5	5-17-19 13:00	12.46	938	8.16	48.9						8-17-19 13:30									
5-17-19 16:45	12.52	1739	8.29	7.5	5-17-19 13:15	13.46	965	8.43	6.0	5-17-19 13:15	12.45	938	8.16	50.2						8-17-19 13:45									
5-17-19 17:00	12.52	1737	8.34	8.7	5-17-19 13:30	13.52	966	8.43	5.3	5-17-19 13:30	12.46	938	8.16	51.8						8-17-19 14:00									
5-17-19 17:15	12.54	1736	8.28	7.3	5-17-19 13:45	13.48	933	8.42	6.5	5-17-19 13:45	12.44	939	8.16	49.8						8-17-19 14:15									
5-17-19 17:30	12.55	1738	8.35	8.3	5-17-19 14:00	13.47	967	8.42	3.0	5-17-19 14:00	12.45	938	8.16	52.0						8-17-19 14:30									
5-17-19 17:45	12.57	1739	8.36	8.6	5-17-19 14:15	13.52	967	8.43	15.7	5-17-19 14:15	12.49	936	8.16	47.3						8-17-19 14:45									
5-17-19 18:00	12.57	1737	8.32	7.5	5-17-19 14:30	13.47	966	8.44	9.8	5-17-19 14:30	12.50	938	8.16	52.7						8-17-19 15:00									
5-17-19 18:15	12.57	1739	8.34	7.6	5-17-19 14:45	13.44	932	8.44	20.8	5-17-19 14:45	12.43	939	8.16	47.2						8-17-19 15:15									
5-17-19 18:30	12.56	1738	8.33	10.5	5-17-19 15:00	13.48	967	8.44	5.4	5-17-19 15:00	12.41	939	8.16	54.3						8-17-19 15:30									
5-17-19 18:45	12.55	1739	8.34	8.3	5-17-19 15:15	13.34	963	8.44	49.1	5-17-19 15:15	12.34	941	8.16	54.7						8-17-19 15:45									
5-17-19 19:00	12.56	1738	8.36	7.4	5-17-19 15:30	13.28	967	8.45	22.9	5-17-19 15:30	12.39	941	8.17	49.2						8-17-19 16:00									
5-17-19 19:15	12.53	1738	8.32	7.6	5-17-19 15:45	13.29	961	8.44	20.4	5-17-19 15:45	12.47	940	8.17	52.8						8-17-19 16:15									
5-17-19 19:30	12.54	1739	8.28	7.2	5-17-19 16:00	13.28	967	8.45	23.8	5-17-19 16:00	12.44	939	8.17	58.5						8-17-19 16:30									
5-17-19 19:45	12.52	1737	8.18	6.6	5-17-19 16:15	13.16	960	8.45	21.8	5-17-19 16:15	12.39	937	8.17	49.7						8-17-19 16:45									
5-17-19 20:00	12.52	1738	8.25	7.0	5-17-19 16:30	13.16	966	8.45	64.3	5-17-19 16:30	12.35	938	8.17	54.9						8-17-19 17:00									
5-17-19 20:15	12.47	1738	8.16	7.1	5-17-19 16:45	13.10	958	8.45	21.1	5-17-19 16:45	12.35	939	8.17	52.7						8-17-19 17:15									
5-17-19 20:30	12.48	1739	8.21	7.2	5-17-19 17:00	13.07	962	8.45	27.6	5-17-19 17:00	12.36	939	8.17	54.1						8-17-19 17:30									
5-17-19 20:45	12.46	1737	8.06	7.2	5-17-19 17:15	13.12	959	8.44	19.4	5-17-19 17:15	12.36	939	8.17	50.1						8-17-19 17:45									
5-17-19 21:00	12.45	1738	8.23	7.0	5-17-19 17:30	13.15	964	8.44	30.2	5-17-19 17:30	12.36	939	8.17	49.1						8-17-19 18:00									
5-17-19 21:15	12.41	1740	8.17	6.9	5-17-19 17:45	13.09	959	8.43	17.2	5-17-19 17:45	12.35	939	8.17	50.4						8-17-19 18:15									
5-17-19 21:30	12.41	1741	8.20	7.5	5-17-19 18:00	13.13	965	8.44	21.3	5-17-19 18:00	12.36	939	8.16	55.4						8-17-19 18:30									
5-17-19 21:45	12.38	1739	8.18	7.5	5-17-19 18:15	13.15	961	8.43	14.3	5-17-19 18:15	12.35	939	8.17	47.3						8-17-19 18:45									
5-17-19 22:00	12.36	1740	8.12	7.4	5-17-19 18:30	13.18	967	8.43	13.4	5-17-19 18:30	12.34	939	8.17	51.9						8-17-19 19:00									
5-17-19 22:15	12.34	1739	8.18	6.6	5-17-19 18:45	13.19	963	8.42	6.0	5-17-19 18:45	12.33	939	8.17	55.2						8-17-19 19:15									
5-17-19 22:30	12.32	1738	8.21	7.3	5-17-19 19:00	13.20	966	8.43	3.9	5-17-19 19:00	12.33	938	8.17	53.2						8-17-19 19:30									
5-17-19 22:45	12.30	1739	8.00	7.4	5-17-19 19:15	13.15	914	8.42	10.1	5-17-19 19:15	12.32	938	8.17	49.1						8-17-19 19:45									
5-17-19 23:00	12.28	1740	7.37	7.2	5-17-19 19:30	13.13	967	8.42	6.9	5-17-19 19:30	12.30	938	8.17	53.3						8-17-19 20:00									
5-17-19 23:15	12.26	1741	7.27	6.8	5-17-19 19:45	13.13	962	8.42	6.6	5-17-19 19:45	12.29	940	8.17	52.6						8-17-19 20:15									
5-17-19 23:30	12.25	1739	7.97	7.4	5-17-19 20:00	13.13	966	8.42	4.1	5-17-19 20:00	12.29	939	8.17	78.3						8-17-19 20:30									
5-17-19 23:45	12.23	1739	8.02	7.2	5-17-19 20:15	13.11	910	8.41	16.6	5-17-19 20:15	12.27	939	8.17	49.1						8-17-19 20:45									
5-18-19 0:00	12.20	1742	7.43	7.3	5-17-19 20:30	13.11	967	8.42	17.8	5-17-19 20:30	12.26	938	8.17	47.5						8-17-19 21:00									
5-18-19 0:15	12.19	1742	7.49	7.2	5-17-19 20:45	13.09	961	8.42	16.0	5-17-19 20:45	12.24	937	8.17	51.6						8-17-19 21:15									
5-18-19 0:30	12.17	1738	7.35	7.1	5-17-19 21:00	13.10	967	8.42	18.4	5-17-19 21:00	12.23	936	8.18	57.0						8-17-19 21:30									
5-18-19 0:45	12.15	1738	7.41	6.9	5-17-19 21:15	13.07	965	8.41	7.1	5-17-19 21:15	12.22	936	8.18	52.4						8-17-19 21:45	16.82	2060	8.03	74431.0					
5-18-19 1:00	12.15	1743	7.38	6.5	5-17-19 21:30	13.06	966	8.41	5.4	5-17-19 21:30	12.20	936	8.18	49.8						8-17-19 22:00	16.73	2067	8.17	74321.0					
5-18-19 1:15	12.13	1742	7.27	6.4	5-17-19 21:45	13.03	965	8.41	5.6	5-17-19 21:45	12.20	940	8.18	52.8						8-17-19 22:15	16.72	2056	8.22	74287.0					
5-18-19 1:30	12.11	1740	7.51	6.8	5-17-19 22:00	13.01	965	8.41	3.9	5-17-19 22:00	12.19	933	8.18	53.5						8-17-19 22:30	16.74	2068	8.31	74262.0					
5-18-19 1:45	12.09	1741	7.20	6.5	5-17-19 22:15	13.01	967	8.40	5.1	5-17-19 22:15	12.18	933	8.18	53.6						8-17-19 22:45	16.71	2061	8.30	74334.0					
5-18-19 2:00	12.07	1740	7.10	6.4	5-17-19 22:30	13.00	952	8.41	4.0	5-17-19 22:30	12.16	934	8.17	51.0						8-17-19 23:00	16.69	2059	8.31	71829.0					
5-18-19 2:15	12.07	1740	7.15	7.8	5-17-19 22:45	12.98	937	8.40	5.0	5-17-19 22:45	12.14	935	8.17	52.4						8-17-19 23:15	16.62	2057	8.30	73534.0					
5-18-19 2:30	12.04	1742	7.09	6.8	5-17-19 23:00	12.96	955	8.41	3.8	5-17-19 23:00	12.13	936	8.17	50.2						8-17-19 23:30	16.59	2062	8.31	74087.0					
5-18-19 2:45	12.02	1741	7.08	7.6	5-17-19 23:15	12.97	966	8.41	6.5	5-17-19 23:15	12.13	937	8.17	47.8						8-17-19 23:45	16.56	2058	8.32	74091.0					
5-18-19 3:00	12.01	1740	7.15	7.9	5-17-19 23:30	12.95	965	8.41	4.0	5-17-19 23:30	12.11	937	8.17	48.6						8-18-19 0:00	16.54	2057	8.31	74190.0					
5-18-19 3:15	11.99	1742	7.07	9.9	5-17-19 23:45	12.95	966	8.40	3.7	5-17-19 23:45	12.10	937	8.17	62.5						8-18-19 0:15	16.51	2058	8.31	74207.0					
5-18-19 3:30	11.97	1742	7.38	7.2	5-18-19 0:00	12.91	966	8.41	13.2	5-18-19 0:00	12.09	937	8.17	53.3						8-18-19 0:30	16.49	2057	8.30	74532.0					
5-18-19 3:45	11.95	1742	7.27	8.8	5-18-19 0:15	12.91	965	8.40	4.1	5-18-19 0:15	12.07	936	8.17	49.2						8-18-19 0:45	16.47	2052	8.30	74590.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-18-19 4:00	11.91	1738	7.36	7.2	5-18-19 0:30	12.89	965	8.41	2.9	5-18-19 0:30	12.06	937	8.17	48.4						8-18-19 1:00	16.45	2054	8.30	74623.0					
5-18-19 4:15	11.91	1740	7.14	9.6	5-18-19 0:45	12.90	967	8.39	6.5	5-18-19 0:45	12.05	937	8.17	48.1						8-18-19 1:15	16.44	2052	8.30	74591.0					
5-18-19 4:30	11.89	1740	7.21	8.7	5-18-19 1:00	12.86	958	8.40	2.6	5-18-19 1:00	12.03	938	8.17	50.0						8-18-19 1:30	16.41	2178	8.30	74631.0					
5-18-19 4:45	11.87	1740	7.26	7.2	5-18-19 1:15	12.87	966	8.40	3.1	5-18-19 1:15	12.01	938	8.17	50.2						8-18-19 1:45	16.42	2044	8.30	74599.0					
5-18-19 5:00	11.85	1742	7.29	7.3	5-18-19 1:30	12.86	964	8.40	3.3	5-18-19 1:30	12.00	938	8.17	53.6						8-18-19 2:00	16.33	2037	8.30	74593.0					
5-18-19 5:15	11.83	1741	7.18	7.8	5-18-19 1:45	12.84	967	8.39	4.4	5-18-19 1:45	12.00	938	8.17	48.7						8-18-19 2:15	16.32	2018	8.30	74203.0					
5-18-19 5:30	11.80	1741	7.05	8.2	5-18-19 2:00	12.83	959	8.40	2.8	5-18-19 2:00	11.96	938	8.17	52.3						8-18-19 2:30	16.24	2029	8.30	73970.0					
5-18-19 5:45	11.79	1742	7.04	7.8	5-18-19 2:15	12.79	966	8.39	3.0	5-18-19 2:15	11.95	938	8.17	50.8						8-18-19 2:45	16.20	1998	8.30	71039.0					
5-18-19 6:00	11.79	1742	7.02	7.7	5-18-19 2:30	12.79	966	8.40	2.1	5-18-19 2:30	11.95	939	8.16	48.2						8-18-19 3:00	16.16	2002	8.30	71559.0					
5-18-19 6:15	11.79	1739	7.11	8.1	5-18-19 2:45	12.76	966	8.39	3.5	5-18-19 2:45	11.94	938	8.16	47.9						8-18-19 3:15	16.18	2006	8.30	72155.0					
5-18-19 6:30	11.77	1739	7.08	8.2	5-18-19 3:00	12.74	966	8.40	1.9	5-18-19 3:00	11.93	936	8.16	48.7						8-18-19 3:30	16.12	1998	8.30	72055.0					
5-18-19 6:45	11.77	1740	7.00	9.3	5-18-19 3:15	12.74	967	8.39	3.9	5-18-19 3:15	11.91	935	8.17	51.4						8-18-19 3:45	16.16	2012	8.30	73130.0					
5-18-19 7:00	11.77	1739	7.11	8.6	5-18-19 3:30	12.73	964	8.40	1.5	5-18-19 3:30	11.91	936	8.16	51.2						8-18-19 4:00	16.17	2013	8.31	73209.0					
5-18-19 7:15	11.76	1739	7.12	8.7	5-18-19 3:45	12.70	966	8.39	2.5	5-18-19 3:45	11.88	937	8.16	48.3						8-18-19 4:15	16.20	2023	8.31	74026.0					
5-18-19 7:30	11.76	1736	7.12	8.6	5-18-19 4:00	12.71	966	8.40	5.6	5-18-19 4:00	11.88	937	8.16	49.1						8-18-19 4:30	16.15	2019	8.31	74161.0					
5-18-19 7:45	11.75	1740	7.11	9.0	5-18-19 4:15	12.69	953	8.39	3.0	5-18-19 4:15	11.86	937	8.16	46.4						8-18-19 4:45	16.18	2024	8.32	74467.0					
5-18-19 8:00	11.76	1740	7.10	8.6	5-18-19 4:30	12.70	942	8.39	2.0	5-18-19 4:30	11.86	937	8.16	47.0						8-18-19 5:00	16.12	2028	8.32	74558.0					
5-18-19 8:15	11.77	1739	7.12	8.9	5-18-19 4:45	12.69	929	8.39	2.5	5-18-19 4:45	11.85	936	8.16	46.3						8-18-19 5:15	16.09	2030	8.33	74568.0					
5-18-19 8:30	11.79	1739	7.12	8.6	5-18-19 5:00	12.66	956	8.39	1.8	5-18-19 5:00	11.82	936	8.16	44.5						8-18-19 5:30	16.10	2025	8.33	74515.0					
5-18-19 8:45	11.81	1740	7.13	8.6	5-18-19 5:15	12.63	967	8.38	4.4	5-18-19 5:15	11.82	936	8.17	45.1						8-18-19 5:45	16.06	2011	8.33	74218.0					
5-18-19 9:00	11.84	1740	7.12	7.9	5-18-19 5:30	12.61	966	8.39	5.0	5-18-19 5:30	11.83	936	8.16	43.9						8-18-19 6:00	16.07	2020	8.34	74287.0					
5-18-19 9:15	11.88	1738	7.12	9.8	5-18-19 5:45	12.61	966	8.38	5.8	5-18-19 5:45	11.84	936	8.16	45.5						8-18-19 6:15	16.05	2016	8.33	74164.0					
5-18-19 9:30	11.92	1737	7.12	8.1	5-18-19 6:00	12.62	968	8.38	5.7	5-18-19 6:00	11.84	936	8.16	45.7						8-18-19 6:30	15.94	1979	8.34	71714.0					
5-18-19 9:45	11.96	1735	7.12	8.5	5-18-19 6:15	12.60	963	8.38	13.1	5-18-19 6:15	11.83	936	8.16	45.5						8-18-19 6:45	15.92	1994	8.33	73433.0					
5-18-19 10:00	12.00	1732	7.23	8.8	5-18-19 6:30	12.61	969	8.38	3.3	5-18-19 6:30	11.81	936	8.16	42.8						8-18-19 7:00	15.92	1993	8.31	73215.0					
5-18-19 10:15	12.05	1732	7.21	8.6	5-18-19 6:45	12.61	966	8.38	7.0	5-18-19 6:45	11.79	936	8.16	44.5						8-18-19 7:15	15.90	1994	8.31	73079.0					
5-18-19 10:30	12.08	1735	7.19	8.7	5-18-19 7:00	12.57	967	8.38	4.6	5-18-19 7:00	11.79	935	8.16	43.7						8-18-19 7:30	15.83	1984	8.30	72735.0					
5-18-19 10:45	12.04	1733	7.15	8.7	5-18-19 7:15	12.58	968	8.36	5.4	5-18-19 7:15	11.79	935	8.17	44.1						8-18-19 7:45	15.67	1958	8.28	72216.0					
5-18-19 11:00	12.11	1732	7.19	8.6	5-18-19 7:30	12.57	967	8.37	2.7	5-18-19 7:30	11.81	935	8.16	42.4						8-18-19 8:00	15.56	1951	8.27	71778.0					
5-18-19 11:15	12.13	1733	7.17	8.6	5-18-19 7:45	12.56	968	8.36	3.2	5-18-19 7:45	11.82	936	8.16	39.4						8-18-19 8:15	15.41	1908	8.22	71014.0					
5-18-19 11:30	12.12	1733	7.15	9.4	5-18-19 8:00	12.56	967	8.38	2.5	5-18-19 8:00	11.83	936	8.16	43.6						8-18-19 8:30	15.31	1898	8.20	70863.0					
5-18-19 11:45	12.15	1732	7.15	9.2	5-18-19 8:15	12.56	954	8.37	3.8	5-18-19 8:15	11.84	935	8.16	42.1						8-18-19 8:45	15.25	1889	8.18	71253.0					
5-18-19 12:00	12.15	1730	7.16	9.6	5-18-19 8:30	12.59	956	8.38	1.1	5-18-19 8:30	11.87	935	8.16	43.0						8-18-19 9:00	15.22	1887	8.17	71017.0					
5-18-19 12:15	12.17	1730	7.18	12.1	5-18-19 8:45	12.61	967	8.37	2.2	5-18-19 8:45	11.90	935	8.17	42.4						8-18-19 9:15	15.17	1877	8.16	70608.0					
5-18-19 12:30	12.18	1723	7.20	12.1	5-18-19 9:00	12.63	968	8.37	0.4	5-18-19 9:00	11.93	934	8.17	40.3						8-18-19 9:30	15.14	1873	8.15	70851.0					
5-18-19 12:45	12.23	1721	7.22	12.6	5-18-19 9:15	12.65	968	8.36	4.6	5-18-19 9:15	11.97	934	8.17	41.6						8-18-19 9:45	15.14	1875	8.15	70531.0					
5-18-19 13:00	12.22	1719	7.25	14.4	5-18-19 9:30	12.66	968	8.37	2.4	5-18-19 9:30	12.00	934	8.17	40.8						8-18-19 10:00	15.10	1868	8.14	70832.0					
5-18-19 13:15	12.19	1713	7.31	13.6	5-18-19 9:45	12.67	967	8.36	2.8	5-18-19 9:45	12.07	933	8.17	40.4						8-18-19 10:15	15.13	1870	8.14	70494.0					
5-18-19 13:30	12.17	1710	7.35	14.0	5-18-19 10:00	12.69	970	8.36	0.3	5-18-19 10:00	12.13	933	8.17	42.0						8-18-19 10:30	15.09	1865	8.14	71296.0					
5-18-19 13:45	12.19	1703	7.37	14.3	5-18-19 10:15	12.69	969	8.35	4.3	5-18-19 10:15	12.17	932	8.17	42.6						8-18-19 10:45	15.04	1853	8.13	69710.0					
5-18-19 14:00	12.18	1704	7.46	16.1	5-18-19 10:30	12.69	970	8.37	2.0	5-18-19 10:30	12.21	932	8.17	40.9						8-18-19 11:00	15.02	1851	8.14	70861.0					
5-18-19 14:15	12.28	1702	7.42	16.1	5-18-19 10:45	12.70	969	8.36	5.5	5-18-19 10:45	12.25	931	8.17	42.8						8-18-19 11:15	14.99	1852	8.14	71910.0					
5-18-19 14:30	12.32	1701	7.47	16.6	5-18-19 11:00	12.74	969	8.37	2.8	5-18-19 11:00	12.24	931	8.17	36.5						8-18-19 11:30	14.98	1851	8.14	71204.0					
5-18-19 14:45	12.34	1699	7.41	16.0	5-18-19 11:15	12.80	968	8.36	9.1	5-18-19 11:15	12.28	931	8.17	38.0						8-18-19 11:45	14.96	1848	8.14	71363.0					
5-18-19 15:00	12.38	1694	7.35	17.9	5-18-19 11:30	12.84	969	8.36	0.6	5-18-19 11:30	12.29	931	8.17	36.4						8-18-19 12:00	14.94	1843	8.14	70864.0					
5-18-19 15:15	12.42	1694	7.36	15.0	5-18-19 11:45	12.85	967	8.36	4.3	5-18-19 11:45	12.31	932	8.17	36.5						8-18-19 12:15	14.93	1844	8.14	71671.0					
5-18-19 15:30	12.47	1693	7.38	16.4	5-18-19 12:00	12.85	968	8.39	0.7	5-18-19 12:00	12.38	932	8.16	36.8						8-18-19 12:30	14.92	1844	8.14	71848.0					
5-18-19 15:45	12.50	1691	7.43	15.2	5-18-19 12:15	12.92	967	8.38	1.7	5-18-19 12:15	12.45	930	8.17	37.1						8-18-19 12:45	14.90	1840	8.14	71892.0					
5-18-19 16:00	12.59	1698	7.63	15.7	5-18-19 12:30	12.98	967	8.37	0.0	5-18-19 12:30	12.49	931	8.17	36.2						8-18-19 13:00	14.88	1839	8.14	72057.0					
5-18-19 16:15	12.63	1695	7.64	17.9	5-18-19 12:45	13.00	966	8.36	1.2	5-18-19 12:45	12.53	931	8.17	37.1						8-18-19 13:15	14.86	1837	8.14	72243.0					
5-18-19 16:30	12.72	1695	7.76	15.5	5-18-19 13:00	13.03	966	8.37	0.4	5-18-19 13:00	12.58	929	8.18	35.4						8-18-19 13:30	14.83	1836	8.15	72167.0					
5-18-19 16:45	12.84	1688	8.00	16.2	5-18-19 13:15	13.01	965	8.37	0.8	5-18-19 13:15	12.62	928	8.18	35.9						8-18-19 13:45	14.81	1836	8.15	72146.0					
5-18-19 17:00	12.90	1680	8.09	16.3	5-18-19 13:30	13.06	963	8.38	1.8	5-18-19 13:30	12.53	929	8.18	35.1						8-18-19 14:00	14.79	1836	8.15	72496.0					
5-18-19 17:15	12.88	1692	7.87	16.2	5-18-19 13:45	13.09	963	8.38	2.1	5-18-19 13:45	12.50	929	8.18	33.6						8-18-19 14:15	14.75	1833	8.15	71894.0					
5-18-19 17:30	12.88	1679	7.89	16.4	5-18-19 14:00	13.12	963	8.39	1.0	5-18-19 14:00	12.42	931	8.18	36.0						8-18-19 14:30	14.74	1833	8.15	72502.0					
5-18-19 17:45	12.90	1679	7.86	16.7	5-18-19 14:15	13.17	959	8.39	1.6	5-18-19 14:15	12.49	931	8.17	35.9						8-18-19 14:45	14.73	1831	8.15	72621.0					
5-18-19 18:00	12.91	1678	8.01	18.4	5-18-19 14:30	13.26	957	8.41	1.5	5-18-19 14:30	12.58	931	8.18	37.8						8-18-19 15:00	14.70	1830	8.15	72922.0					
5-18-19 18:15	12.93	1681	8.20	16.5	5-18-19 14:45	13.30	960	8.38	2.3	5-18-19 14:45	12.61	930	8.18	38.6						8-18-19 15:15	14.69	1830	8.15	72840.0					
5-18-19 18:30	12.93	1682	8.10	16.6	5-18-19 15:00	13.34	962	8.39	1.2	5-18-19 15:00	12.70	931	8.18	36.2						8-18-19 15:30	14.67	1828	8.15	72872.0					
5-18-19 18:45	12.92	1683	7.96	16.0	5-18-19 15:15	13.40	959	8.38	1.9	5-18-19 15:15	12.81	929	8.18	33.9						8-18-19 15:45	14.67	1832	8.15	73238.0					
5-18-19 19:00	12.89	1681	7.83	15.5	5-18-19 15:30	13.40	959	8.40	1.3	5-18-19 15:30	12.90	928	8.19	32.6						8-18-19 16:00	14.67	1831	8.15	73244.0					
5-18-19 19:15	12.89	1680	7.82	19.5	5-18-19 15:45	13.42	958	8.39	2.6	5-18-19 15:45	12.98	927	8.18	35.7						8-18-19 16:15	14.66	1831	8.15	73325.0					
5-18-19 19:30	12.90	1678	7.81	16.4	5-18-19 16:00	13.46	959	8.39	0.5	5-18-19 16:00	13.07	927	8.18	38.7						8-18-19 16:30	14.68	1831	8.15	73303.0					
5-18-19 19:45	12.88	1678	7.75	15.1	5-18-19 16:15	13.51	958	8.38	1.3	5-18-19 16:15	13.07	927	8.18	35.0						8-18-19 16:45	14.69	1829	8.16	73177.0					
5-18-19 20:00	12.88	1679	7.65	16.8	5-18-19 16:30	13.51	960	8.39	0.9	5-18-19 16:30										8-18-19 17:00	14.72	1829	8.16	73374.0					
5-18-19 20:15	12.86	1679	7.63	15.6	5-18-19 16:45	13.52	958	8.37	1.7	5-18-19 16:45	13.22	925	8.19	31.1						8-18-19 17:15	14.75	1829	8.16	73302.0					
5-18-19 20:30	12.85	1680	7.61	15.3	5-18-19 17:00	13.59	961	8.38	0.0	5-18-19 17:00	13.33	925	8.19	30.7						8-18-19 17:30	14.78	1829	8.16	73181.0					
5-18-19 20:45	12.84	1678	7.71	15.9	5-18-19 17:15	13.56	959	8.38	1.3	5-18-19 17:15	13.38	925	8.18	30.7						8-18-19 17:45	14.77	1830	8.17	73548.0					
5-18-19 21:00	12.83	1679	7.70	16.0	5-18-19 17:30	13.52	961	8.40	0.6	5-18-19 17:30	13.43	925	8.19	31.3						8-18-19 18:00	14.75	1828	8.18	73356.0					
5-18-19 21:15	12.82	1678	7.71	15.8	5-18-19 17:45	13.43	959	8.38	3.7	5-18-19 17:45	13.46	924	8.19	30.1						8-18-19 18:15	14.71	1826	8.18	73641.0					
5-18-19 21:30	12.81	1676	7.68	15.4	5-18-19 18:00	13.40	961	8.39	0.2	5-18-19 18:00	13.44	924	8.18	31.6						8-18-19 18:30	14.70	1827	8.18	73481.0					
5-18-19 21:45	12.79	1680	7.64	15.4	5-18-19 18:15	13.29	961	8.38	8.2	5-18-19 18:15	13.44	924	8.18	30.0						8-18-19 18:45	14.72	1826	8.18	73275.0					
5-18-19 22:00	12.77	1679	7.62	15.0	5-18-19 18:30	13.23	964	8.39	4.0	5-18-19 18:30	13.43	924	8.18	29.2						8-18-19 19:00	14.71	1820	8.17	73271.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-18-19 22:15	12.76	1679	7.56	15.0	5-18-19 18:45	13.16	960	8.38	4.5	5-18-19 18:45	13.40	923	8.18	31.1						8-18-19 19:15	14.72	1816	8.18	73521.0					
5-18-19 22:30	12.75	1680	7.55	14.9	5-18-19 19:00	13.12	963	8.39	3.6	5-18-19 19:00	13.37	923	8.19	28.5						8-18-19 19:30	14.74	1819	8.18	73573.0					
5-18-19 22:45	12.74	1680	7.50	15.3	5-18-19 19:15	13.10	963	8.38	6.1	5-18-19 19:15	13.39	922	8.19	29.5						8-18-19 19:45	14.77	1817	8.18	73592.0					
5-18-19 23:00	12.71	1679	7.44	14.5	5-18-19 19:30	13.07	965	8.39	5.6	5-18-19 19:30	13.37	922	8.19	29.0						8-18-19 20:00	14.76	1813	8.18	73870.0					
5-18-19 23:15	12.70	1681	7.59	13.4	5-18-19 19:45	13.05	961	8.38	12.1	5-18-19 19:45	13.35	923	8.19	29.0						8-18-19 20:15	14.79	1808	8.18	73511.0					
5-18-19 23:30	12.69	1680	7.59	14.1	5-18-19 20:00	13.02	967	8.38	1.7	5-18-19 20:00	13.29	922	8.19	30.4						8-18-19 20:30	14.76	1809	8.18	73734.0					
5-18-19 23:45	12.68	1680	7.58	15.8	5-18-19 20:15	12.98	965	8.37	4.8	5-18-19 20:15	13.27	922	8.19	30.6						8-18-19 20:45	14.76	1811	8.18	73470.0					
5-19-19 0:00	12.67	1679	7.56	14.3	5-18-19 20:30	12.96	967	8.38	3.0	5-18-19 20:30	13.25	923	8.20	30.0						8-18-19 21:00	14.75	1807	8.18	73356.0					
5-19-19 0:15	12.65	1678	7.55	14.2	5-18-19 20:45	12.93	966	8.37	4.6	5-18-19 20:45	13.20	923	8.20	30.4						8-18-19 21:15	14.76	1808	8.18	73303.0					
5-19-19 0:30	12.63	1680	7.51	13.4	5-18-19 21:00	12.90	967	8.37	6.2	5-18-19 21:00	13.16	925	8.20	28.6						8-18-19 21:30	14.78	1805	8.18	73727.0					
5-19-19 0:45	12.62	1679	7.48	14.5	5-18-19 21:15	12.91	967	8.37	7.6	5-18-19 21:15	13.12	923	8.20	29.6						8-18-19 21:45	14.86	1806	8.19	73747.0					
5-19-19 1:00	12.59	1679	7.46	14.0	5-18-19 21:30	12.89	966	8.37	5.5	5-18-19 21:30	13.09	923	8.20	28.3						8-18-19 22:00	14.83	1803	8.18	73902.0					
5-19-19 1:15	12.58	1678	7.44	14.5	5-18-19 21:45	12.88	965	8.37	5.2	5-18-19 21:45	13.06	923	8.20	27.9						8-18-19 22:15	14.83	1800	8.17	73503.0					
5-19-19 1:30	12.55	1678	7.44	14.6	5-18-19 22:00	12.87	966	8.37	2.3	5-18-19 22:00	13.02	924	8.19	29.7						8-18-19 22:30	14.91	1796	8.18	73751.0					
5-19-19 1:45	12.52	1681	7.43	13.5	5-18-19 22:15	12.86	964	8.36	2.5	5-18-19 22:15	13.00	925	8.20	29.7						8-18-19 22:45	14.93	1794	8.19	73541.0					
5-19-19 2:00	12.50	1680	7.41	14.2	5-18-19 22:30	12.91	965	8.37	1.3	5-18-19 22:30	12.97	924	8.20	28.8						8-18-19 23:00	14.93	1799	8.19	74003.0					
5-19-19 2:15	12.48	1678	7.37	15.4	5-18-19 22:45	12.93	964	8.36	1.1	5-18-19 22:45	12.94	924	8.20	212.9						8-18-19 23:15	14.93	1798	8.19	74022.0					
5-19-19 2:30	12.46	1680	7.35	13.9	5-18-19 23:00	12.93	965	8.37	0.9	5-18-19 23:00	12.90	924	8.20	27.6						8-18-19 23:30	14.93	1800	8.20	74006.0					
5-19-19 2:45	12.43	1679	7.42	15.0	5-18-19 23:15	12.96	964	8.37	1.6	5-18-19 23:15	12.85	924	8.20	28.2						8-18-19 23:45	14.93	1800	8.20	74052.0					
5-19-19 3:00	12.40	1680	7.43	14.4	5-18-19 23:30	13.00	964	8.37	0.3	5-18-19 23:30	12.82	924	8.20	29.0						8-19-19 0:00	14.90	1800	8.21	74000.0					
5-19-19 3:15	12.37	1679	7.47	15.0	5-18-19 23:45	13.01	963	8.37	0.6	5-18-19 23:45	12.78	924	8.21	29.9						8-19-19 0:15	14.89	1803	8.21	74181.0					
5-19-19 3:30	12.34	1680	7.47	13.9	5-19-19 0:00	13.01	965	8.37	0.0	5-19-19 0:00	12.74	923	8.20	31.1						8-19-19 0:30	14.90	1800	8.21	73909.0					
5-19-19 3:45	12.31	1678	7.42	14.7	5-19-19 0:15	12.99	963	8.36	0.2	5-19-19 0:15	12.71	920	8.21	40.4						8-19-19 0:45	14.89	1798	8.21	73988.0					
5-19-19 4:00	12.29	1679	7.48	14.6	5-19-19 0:30	12.98	965	8.37	0.0	5-19-19 0:30	12.70	923	8.21	40.8						8-19-19 1:00	14.85	1796	8.21	73946.0					
5-19-19 4:15	12.24	1679	7.49	14.3	5-19-19 0:45	12.97	963	8.37	0.6	5-19-19 0:45	12.67	922	8.21	42.8						8-19-19 1:15	14.80	1793	8.21	74236.0					
5-19-19 4:30	12.22	1678	7.45	13.5	5-19-19 1:00	12.92	964	8.37	0.0	5-19-19 1:00	12.65	917	8.21	41.3						8-19-19 1:30	14.76	1789	8.20	74140.0					
5-19-19 4:45	12.20	1677	7.40	15.2	5-19-19 1:15	12.88	960	8.36	3.5	5-19-19 1:15	12.63	920	8.21	42.5						8-19-19 1:45	14.77	1788	8.20	74145.0					
5-19-19 5:00	12.18	1678	7.36	14.4	5-19-19 1:30	12.89	966	8.37	0.0	5-19-19 1:30	12.60	920	8.22	45.6						8-19-19 2:00	14.77	1788	8.19	74252.0					
5-19-19 5:15	12.15	1678	7.29	14.4	5-19-19 1:45	12.87	961	8.35	0.0	5-19-19 1:45	12.57	918	8.23	47.7						8-19-19 2:15	14.76	1789	8.19	74192.0					
5-19-19 5:30	12.13	1677	7.30	16.7	5-19-19 2:00	12.83	964	8.36	0.0	5-19-19 2:00	12.55	919	8.22	52.2						8-19-19 2:30	14.78	1790	8.19	74154.0					
5-19-19 5:45	12.11	1678	7.18	13.1	5-19-19 2:15	12.81	960	8.36	0.0	5-19-19 2:15	12.52	919	8.22	52.0						8-19-19 2:45	14.78	1790	8.19	74062.0					
5-19-19 6:00	12.08	1677	7.18	14.7	5-19-19 2:30	12.81	965	8.36	0.0	5-19-19 2:30	12.49	919	8.22	51.9						8-19-19 3:00	14.75	1792	8.19	74240.0					
5-19-19 6:15	12.06	1676	7.18	14.8	5-19-19 2:45	12.78	949	8.35	0.0	5-19-19 2:45	12.46	915	8.24	54.0						8-19-19 3:15	14.75	1790	8.19	74247.0					
5-19-19 6:30	12.05	1676	7.18	14.9	5-19-19 3:00	12.73	939	8.37	0.2	5-19-19 3:00	12.43	918	8.24	51.3						8-19-19 3:30	14.72	1792	8.19	74316.0					
5-19-19 6:45	12.02	1677	7.21	14.3	5-19-19 3:15	12.64	964	8.36	0.7	5-19-19 3:15	12.40	920	8.24	51.0						8-19-19 3:45	14.72	1791	8.19	74324.0					
5-19-19 7:00	12.03	1677	7.18	15.5	5-19-19 3:30	12.66	958	8.36	0.0	5-19-19 3:30	12.35	921	8.23	52.2						8-19-19 4:00	14.71	1791	8.19	74188.0					
5-19-19 7:15	12.13	1677	7.14	14.7	5-19-19 3:45	12.63	964	8.36	0.1	5-19-19 3:45	12.32	923	8.23	55.8						8-19-19 4:15	14.71	1790	8.19	74244.0					
5-19-19 7:30	12.15	1678	7.12	14.7	5-19-19 4:00	12.65	964	8.36	0.0	5-19-19 4:00	12.29	922	8.22	38.6						8-19-19 4:30	14.69	1790	8.19	74251.0					
5-19-19 7:45	12.14	1675	7.14	14.1	5-19-19 4:15	12.59	963	8.36	0.0	5-19-19 4:15	12.25	922	8.22	33.8						8-19-19 4:45	14.68	1790	8.19	74368.0					
5-19-19 8:00	12.14	1675	7.28	14.5	5-19-19 4:30	12.52	964	8.36	0.0	5-19-19 4:30	12.22	919	8.22	32.3						8-19-19 5:00	14.66	1789	8.19	74376.0					
5-19-19 8:15	12.25	1676	7.38	14.4	5-19-19 4:45	12.53	962	8.35	0.3	5-19-19 4:45	12.17	923	8.22	34.0						8-19-19 5:15	14.66	1790	8.19	74427.0					
5-19-19 8:30	12.30	1676	7.36	14.8	5-19-19 5:00	12.47	965	8.36	0.0	5-19-19 5:00	12.13	918	8.22	33.1						8-19-19 5:30	14.63	1792	8.18	74460.0					
5-19-19 8:45	12.34	1677	7.39	15.0	5-19-19 5:15	12.40	962	8.35	0.0	5-19-19 5:15	12.11	919	8.22	32.7						8-19-19 5:45	14.61	1788	8.19	74474.0					
5-19-19 9:00	12.40	1673	7.38	14.9	5-19-19 5:30	12.39	965	8.36	0.3	5-19-19 5:30	12.07	918	8.22	36.9						8-19-19 6:00	14.56	1792	8.19	74470.0					
5-19-19 9:15	12.46	1675	7.37	15.6	5-19-19 5:45	12.38	963	8.35	0.9	5-19-19 5:45	12.05	917	8.23	37.8						8-19-19 6:15	14.48	1788	8.19	74415.0					
5-19-19 9:30	12.50	1676	7.33	16.7	5-19-19 6:00	12.34	966	8.36	0.7	5-19-19 6:00	12.01	921	8.23	42.5						8-19-19 6:30	14.51	1789	8.18	74527.0					
5-19-19 9:45	12.69	1689	7.33	14.8	5-19-19 6:15	12.27	965	8.35	1.4	5-19-19 6:15	11.97	918	8.24	36.7						8-19-19 6:45	14.52	1785	8.18	74525.0					
5-19-19 10:00	12.74	1665	7.34	15.0	5-19-19 6:30	12.24	967	8.36	0.2	5-19-19 6:30	11.95	918	8.24	40.3						8-19-19 7:00	14.51	1786	8.18	74546.0					
5-19-19 10:15	12.78	1679	7.33	13.8	5-19-19 6:45	12.34	966	8.35	3.0	5-19-19 6:45	11.93	917	8.24	39.2						8-19-19 7:15	14.50	1788	8.18	74483.0					
5-19-19 10:30	13.16	1669	7.39	14.4	5-19-19 7:00	12.36	968	8.36	1.3	5-19-19 7:00	11.92	915	8.24	38.3						8-19-19 7:30	14.48	1785	8.17	74424.0					
5-19-19 10:45	13.27	1663	7.46	14.0	5-19-19 7:15	12.37	967	8.35	2.2	5-19-19 7:15	11.96	916	8.24	39.0						8-19-19 7:45	14.47	1782	8.17	74516.0					
5-19-19 11:00	13.27	1667	7.50	15.5	5-19-19 7:30	12.41	969	8.35	1.6	5-19-19 7:30	12.01	914	8.24	41.2						8-19-19 8:00	14.47	1785	8.17	74507.0					
5-19-19 11:15	13.13	1684	7.64	13.8	5-19-19 7:45	12.45	968	8.35	2.0	5-19-19 7:45	12.01	914	8.25	39.9						8-19-19 8:15	14.46	1783	8.17	74462.0					
5-19-19 11:30	13.27	1687	7.73	15.2	5-19-19 8:00	12.48	969	8.35	0.5	5-19-19 8:00	12.05	913	8.24	44.8						8-19-19 8:30	14.45	1783	8.17	74473.0					
5-19-19 11:45	13.43	1661	7.80	15.2	5-19-19 8:15	12.52	967	8.34	1.7	5-19-19 8:15	12.12	912	8.25	42.8						8-19-19 8:45	14.43	1784	8.17	74590.0					
5-19-19 12:00	13.32	1654	7.87	14.8	5-19-19 8:30	12.59	967	8.36	0.3	5-19-19 8:30	12.25	913	8.24	40.7						8-19-19 9:00	14.41	1782	8.17	74528.0					
5-19-19 12:15	13.53	1644	7.83	14.6	5-19-19 8:45	12.64	966	8.35	2.0	5-19-19 8:45	12.32	913	8.24	41.7						8-19-19 9:15	14.40	1780	8.17	74531.0					
5-19-19 12:30	13.78	1654	7.81	13.6	5-19-19 9:00	12.69	968	8.36	1.0	5-19-19 9:00	12.44	913	8.24	39.1						8-19-19 9:30	14.38	1778	8.16	74505.0					
5-19-19 12:45	13.94	1633	7.81	16.1	5-19-19 9:15	12.78	967	8.34	3.0	5-19-19 9:15	12.50	915	8.24	40.1						8-19-19 9:45	14.36	1779	8.16	74564.0					
5-19-19 13:00	14.09	1652	7.85	16.3	5-19-19 9:30	12.91	968	8.35	0.7	5-19-19 9:30	12.61	916	8.24	37.4						8-19-19 10:00	14.33	1777	8.16	74510.0					
5-19-19 13:15	14.19	1650	7.83	15.5	5-19-19 9:45	13.05	966	8.35	1.8	5-19-19 9:45	12.67	915	8.24	37.9						8-19-19 10:15	14.29	1777	8.16	74435.0					
5-19-19 13:30	14.47	1656	7.90	15.2	5-19-19 10:00	13.06	968	8.35	1.1	5-19-19 10:00	12.85	913	8.24	40.8						8-19-19 10:30	14.26	1773	8.15	74690.0					
5-19-19 13:45	14.39	1643	7.93	15.0	5-19-19 10:15	13.20	967	8.34	1.8	5-19-19 10:15	12.65	911	8.25	38.7						8-19-19 10:45	14.20	1770	8.15	74654.0					
5-19-19 14:00	14.86	1655	7.99	16.6	5-19-19 10:30	13.34	970	8.34	1.2	5-19-19 10:30	12.68	910	8.27	41.1						8-19-19 11:00	14.16	1768	8.14	74586.0					
5-19-19 14:15	14.81	1650	8.01	14.0	5-19-19 10:45	13.48	968	8.34	2.1	5-19-19 10:45	12.99	912	8.27	40.7						8-19-19 11:15	14.10	1765	8.14	74644.0					
5-19-19 14:30	15.12	1647	8.09	15.1	5-19-19 11:00	13.55	969	8.34	1.6	5-19-19 11:00	13.28	907	8.28	41.8						8-19-19 11:30	14.10	1767	8.14	74476.0					
5-19-19 14:45	15.31	1652	8.02	14.9	5-19-19 11:15	13.89	969	8.34	2.6	5-19-19 11:15	13.46	910	8.28	43.5						8-19-19 11:45	14.08	1765	8.14	74596.0					
5-19-19 15:00	15.44	1653	8.04	14.5	5-19-19 11:30	14.30	971	8.35	1.8	5-19-19 11:30	13.29	900	8.30	46.6						8-19-19 12:00	14.05	1761	8.14	74587.0					
5-19-19 15:15	15.63	1641	8.02	20.0	5-19-19 11:45	14.44	970	8.33	2.2	5-19-19 11:45	13.06	905	8.32	47.5						8-19-19 12:15	14.03	1764	8.14	74539.0					
5-19-19 15:30	15.89	1659	8.04	14.8	5-19-19 12:00	14.97	971	8.33	0.9	5-19-19 12:00	13.80	898	8.31	56.5						8-19-19 12:30	13.98	1764	8.14	74637.0					
5-19-19 15:45	15.88	1635	8.09	22.0	5-19-19 12:15	14.67	969	8.32	1.1	5-19-19 12:15	14.07	902	8.30	53.1						8-19-19 12:45	13.99	1765	8.14	74681.0					
5-19-19 16:00	16.20	1643	8.16	16.8	5-19-19 12:30	14.73	971	8.33	0.3	5-19-19 12:30	14.23	895	8.29	50.2						8-19-19 13:00	13.96	1761	8.14	74715.0					
5-19-19 16:15	16.40	1649	8.19	14.4	5-19-19 12:45	15.74	971	8.31	1.4	5-19-19 12:45	14.28	898	8.29	49.3						8-19-19 13:15	13.98	1764	8.13	74642.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-19-19 16:30	16.47	1651	8.28	15.0	5-19-19 13:00	15.74	970	8.32	1.6	5-19-19 13:00	14.24	890	8.29	43.2						8-19-19 13:30	13.93	1762	8.13	74726.0					
5-19-19 16:45	16.55	1654	8.19	13.9	5-19-19 13:15	15.66	971	8.31	2.3	5-19-19 13:15	14.55	899	8.28	44.5						8-19-19 13:45	13.92	1762	8.13	74646.0					
5-19-19 17:00	16.59	1654	8.17	14.3	5-19-19 13:30	15.75	972	8.32	1.4	5-19-19 13:30	15.28	898	8.28	45.9						8-19-19 14:00	13.91	1761	8.13	74700.0					
5-19-19 17:15	16.54	1671	8.19	41.1	5-19-19 13:45	16.87	975	8.33	6.5	5-19-19 13:45	15.35	901	8.28	48.4						8-19-19 14:15	13.86	1761	8.12	74693.0					
5-19-19 17:30	16.66	1650	8.22	14.4	5-19-19 14:00	20.73	4	7.19	0.0	5-19-19 14:00	15.73	900	8.26	45.6						8-19-19 14:30	13.77	1758	8.10	74598.0					
5-19-19 17:45	16.86	1646	8.23	15.4	5-19-19 14:15	26.22	5	6.53	0.0	5-19-19 14:15	16.14	903	8.27	78.3						8-19-19 14:45	13.73	1755	8.09	74690.0					
5-19-19 18:00	17.02	1648	7.97	14.2	5-19-19 14:30	28.04	1662	8.65	0.0	5-19-19 14:30	16.03	908	8.27	77.8						8-19-19 15:00	13.65	1746	8.06	74464.0					
5-19-19 18:15	17.19	1652	8.06	13.8	5-19-19 14:45	30.23	0	6.51	0.0	5-19-19 14:45	16.02	913	8.25	76.7						8-19-19 15:15	13.61	1746	8.06	74579.0					
5-19-19 18:30	17.38	1668	8.27	14.6	5-19-19 15:00	32.93	0	3.99	0.0	5-19-19 15:00	15.07	871	8.28	49.1						8-19-19 15:30	13.57	1749	8.06	74553.0					
5-19-19 18:45	17.52	1642	8.29	14.1	5-19-19 15:15	35.16	0	0.00	0.0	5-19-19 15:15	16.86	916	8.28	46.0						8-19-19 15:45	13.55	1742	8.05	74589.0					
5-19-19 19:00	17.72	1653	8.26	14.9	5-19-19 15:30	36.25	0	6.51	0.0	5-19-19 15:30										8-19-19 16:00	13.55	1746	8.05	74546.0					
5-19-19 19:15	17.74	1647	8.38	29.3	5-19-19 15:45	36.41	0	0.00	0.0	5-19-19 15:45										8-19-19 16:15	13.53	1745	8.05	74595.0					
5-19-19 19:30	17.74	1650	8.26	13.0	5-19-19 16:00	36.74	0	2.24	0.0	5-19-19 16:00	16.97	889	8.27	50.4						8-19-19 16:30	13.52	1747	8.05	74604.0					
5-19-19 19:45	17.75	1639	8.38	15.3	5-19-19 16:15	36.07	0	0.00	0.0	5-19-19 16:15	17.67	916	8.25	43.4						8-19-19 16:45	13.54	1744	8.05	74567.0					
5-19-19 20:00	17.72	1650	8.32	13.1	5-19-19 16:30	37.64	0	1.52	0.0	5-19-19 16:30	17.78	915	8.26	42.1						8-19-19 17:00	13.55	1745	8.05	74593.0					
5-19-19 20:15	17.61	1667	8.35	14.8	5-19-19 16:45	36.11	0	0.00	0.0	5-19-19 16:45	17.91	919	8.26	57.7						8-19-19 17:15	13.55	1745	8.05	74660.0					
5-19-19 20:30	17.58	1650	8.28	13.0	5-19-19 17:00	33.71	0	1.58	0.0	5-19-19 17:00	17.32	848	8.39	61.3						8-19-19 17:30	13.56	1745	8.05	74617.0					
5-19-19 20:45	17.49	1651	8.27	13.3	5-19-19 17:15	30.79	0	0.00	0.0	5-19-19 17:15	18.42	897	8.26	38.7						8-19-19 17:45	13.58	1742	8.03	74636.0					
5-19-19 21:00	17.50	1654	8.29	13.1	5-19-19 17:30	28.42	0	3.13	0.0	5-19-19 17:30	18.49	896	8.26	36.3						8-19-19 18:00	13.61	1740	8.01	74636.0					
5-19-19 21:15	17.44	1664	8.23	12.6	5-19-19 17:45	29.56	0	0.00	0.0	5-19-19 17:45	18.42	863	8.25	49.4						8-19-19 18:15	13.62	1736	7.99	74507.0					
5-19-19 21:30	17.37	1655	8.13	12.7	5-19-19 18:00	30.71	0	2.32	0.0	5-19-19 18:00	18.36	881	8.24	81.4						8-19-19 18:30	13.63	1738	8.03	74623.0					
5-19-19 21:45	17.31	1654	8.15	12.6	5-19-19 18:15	29.68	0	0.00	0.0	5-19-19 18:15	18.54	904	8.24	50.9						8-19-19 18:45	13.62	1738	8.03	74673.0					
5-19-19 22:00	17.24	1656	8.18	13.0	5-19-19 18:30	19.37	864	8.71	90.9	5-19-19 18:30	18.78	902	8.26	63.4						8-19-19 19:00	13.55	1734	8.00	74698.0					
5-19-19 22:15	17.16	1655	8.17	13.0	5-19-19 18:45	17.94	978	8.19	153.2	5-19-19 18:45	18.85	902	8.26	61.5						8-19-19 19:15	13.52	1734	7.97	74732.0					
5-19-19 22:30	17.10	1655	8.16	12.2	5-19-19 19:00	17.20	979	8.09	45.8	5-19-19 19:00	18.84	889	8.26	37.5						8-19-19 19:30	13.54	1732	7.98	74760.0					
5-19-19 22:45	17.03	1645	8.15	12.4	5-19-19 19:15	16.71	954	8.02	42.1	5-19-19 19:15	18.82	903	8.26	42.7						8-19-19 19:45	13.59	1735	7.97	74658.0					
5-19-19 23:00	16.94	1655	8.14	12.6	5-19-19 19:30	16.68	980	7.99	22.3	5-19-19 19:30	18.77	901	8.26	83.6						8-19-19 20:00	13.59	1734	7.96	74714.0					
5-19-19 23:15	16.87	1642	8.13	12.5	5-19-19 19:45	16.50	903	8.01	29.3	5-19-19 19:45	18.72	905	8.26	94.5						8-19-19 20:15	13.65	1731	7.90	74461.0					
5-19-19 23:30	16.80	1649	8.09	13.0	5-19-19 20:00	16.37	968	8.06	27.9	5-19-19 20:00	18.61	912	8.25	51.2						8-19-19 20:30	13.66	1734	7.94	74509.0					
5-19-19 23:45	16.70	1655	8.12	12.3	5-19-19 20:15	16.30	943	8.17	20.4	5-19-19 20:15	18.42	904	8.26	41.2						8-19-19 20:45	13.71	1732	7.94	74519.0					
5-20-19 0:00	16.61	1651	8.03	13.4	5-19-19 20:30	16.42	977	8.27	14.7	5-19-19 20:30	18.25	957	8.26	108.6						8-19-19 21:00	13.89	1733	7.96	74458.0					
5-20-19 0:15	16.53	1656	7.97	12.9	5-19-19 20:45	16.47	983	8.38	19.8	5-19-19 20:45	18.11	951	8.28	118.7						8-19-19 21:15	13.90	1735	7.91	74466.0					
5-20-19 0:30	16.45	1656	7.47	13.0	5-19-19 21:00	16.38	968	8.46	24.2	5-19-19 21:00	17.99	911	8.28	33.8						8-19-19 21:30	13.92	1730	7.97	74661.0					
5-20-19 0:45	16.37	1657	7.42	12.7	5-19-19 21:15	16.42	977	8.51	33.4	5-19-19 21:15	17.91	882	8.28	34.1						8-19-19 21:45	13.97	1734	7.99	74676.0					
5-20-19 1:00	16.28	1652	8.00	12.7	5-19-19 21:30	16.46	940	8.54	35.6	5-19-19 21:30	17.77	899	8.29	35.5						8-19-19 22:00	13.95	1729	7.99	74793.0					
5-20-19 1:15	16.18	1658	7.57	11.9	5-19-19 21:45	16.36	982	8.57	44.1	5-19-19 21:45	17.68	898	8.29	31.8						8-19-19 22:15	13.98	1728	8.02	74754.0					
5-20-19 1:30	16.12	1657	7.35	12.7	5-19-19 22:00	16.32	966	8.57	49.5	5-19-19 22:00	17.52	901	8.28	30.6						8-19-19 22:30	13.98	1724	7.98	74754.0					
5-20-19 1:45	16.02	1657	7.26	12.5	5-19-19 22:15	16.29	993	8.58	46.0	5-19-19 22:15	17.10	852	8.35	78.1						8-19-19 22:45	14.12	1729	7.96	74688.0					
5-20-19 2:00	15.95	1657	7.29	13.7	5-19-19 22:30	16.36	995	8.56	47.9	5-19-19 22:30	16.95	911	8.30	38.1						8-19-19 23:00	14.14	1725	7.98	74680.0					
5-20-19 2:15	15.89	1657	7.31	12.3	5-19-19 22:45	16.41	1003	8.55	54.4	5-19-19 22:45	16.92	891	8.31	41.5						8-19-19 23:15	14.14	1718	7.99	74799.0					
5-20-19 2:30	15.82	1648	7.36	12.2	5-19-19 23:00	16.40	966	8.53	66.1	5-19-19 23:00	16.79	888	8.31	35.0						8-19-19 23:30	14.17	1722	7.99	74761.0					
5-20-19 2:45	15.76	1658	7.35	12.1	5-19-19 23:15	16.33	1012	8.52	78.7	5-19-19 23:15	16.67	881	8.31	37.0						8-19-19 23:45	14.22	1716	8.00	74750.0					
5-20-19 3:00	15.68	1657	7.32	17.8	5-19-19 23:30	16.27	985	8.50	85.1	5-19-19 23:30	16.51	876	8.34	42.1						8-20-19 0:00	14.23	1712	8.00	74709.0					
5-20-19 3:15	15.62	1654	7.28	12.7	5-19-19 23:45	16.14	1015	8.49	95.3	5-19-19 23:45	16.43	875	8.32	44.7						8-20-19 0:15	14.29	1717	7.99	74759.0					
5-20-19 3:30	15.55	1654	7.29	11.8	5-20-19 0:00	16.14	1002	8.48	125.2	5-20-19 0:00	16.27	879	8.32	39.7						8-20-19 0:30	14.34	1722	8.00	74803.0					
5-20-19 3:45	15.48	1653	7.34	11.8	5-20-19 0:15	16.19	1022	8.47	142.2	5-20-19 0:15	16.13	877	8.33	41.7						8-20-19 0:45	14.37	1719	8.00	74818.0					
5-20-19 4:00	15.40	1656	7.29	12.4	5-20-19 0:30	16.22	1013	8.45	231.7	5-20-19 0:30	15.93	870	8.36	51.2						8-20-19 1:00	14.38	1717	8.01	74832.0					
5-20-19 4:15	15.34	1656	7.24	12.3	5-20-19 0:45	16.16	1029	8.44	138.2	5-20-19 0:45	15.84	865	8.36	49.4						8-20-19 1:15	14.40	1717	8.02	74859.0					
5-20-19 4:30	15.29	1655	7.52	11.9	5-20-19 1:00	16.06	1023	8.43	140.1	5-20-19 1:00	15.69	861	8.37	45.7						8-20-19 1:30	14.41	1716	8.02	74783.0					
5-20-19 4:45	15.22	1652	7.48	12.7	5-20-19 1:15	16.02	1031	8.42	146.5	5-20-19 1:15	15.61	862	8.37	49.6						8-20-19 1:45	14.42	1715	8.02	74811.0					
5-20-19 5:00	15.15	1646	7.44	14.7	5-20-19 1:30	16.01	1000	8.41	149.4	5-20-19 1:30	15.54	856	8.38	52.0						8-20-19 2:00	14.39	1717	8.04	74899.0					
5-20-19 5:15	15.10	1655	7.23	12.0	5-20-19 1:45	15.95	1037	8.41	176.3	5-20-19 1:45	15.45	861	8.39	58.4						8-20-19 2:15	14.38	1712	8.04	74829.0					
5-20-19 5:30	15.00	1654	7.32	12.1	5-20-19 2:00	15.86	1010	8.40	104.2	5-20-19 2:00	15.38	861	8.38	58.7						8-20-19 2:30	14.37	1715	8.05	74883.0					
5-20-19 5:45	14.92	1657	7.38	12.6	5-20-19 2:15	15.78	1041	8.41	193.2	5-20-19 2:15	15.33	860	8.37	61.5						8-20-19 2:45	14.36	1711	8.05	74904.0					
5-20-19 6:00	14.86	1655	7.38	12.3	5-20-19 2:30	15.72	1031	8.40	194.5	5-20-19 2:30	15.21	902	8.37	56.9						8-20-19 3:00	14.32	1712	8.04	74790.0					
5-20-19 6:15	14.82	1672	7.42	10.1	5-20-19 2:45	15.63	1042	8.40	134.9	5-20-19 2:45	15.09	892	8.38	58.6						8-20-19 3:15	14.30	1714	8.04	74865.0					
5-20-19 6:30	14.81	1653	7.44	12.6	5-20-19 3:00	15.53	1038	8.41	147.8	5-20-19 3:00	15.00	872	8.36	44.1						8-20-19 3:30	14.25	1712	8.04	74892.0					
5-20-19 6:45	14.79	1655	7.51	21.1	5-20-19 3:15	15.41	1042	8.41	120.6	5-20-19 3:15	14.79	856	8.37	61.6						8-20-19 3:45	14.23	1713	8.04	74914.0					
5-20-19 7:00	14.79	1654	7.55	12.1	5-20-19 3:30	15.34	1046	8.41	284.8	5-20-19 3:30	14.78	866	8.38	52.5						8-20-19 4:00	14.19	1707	8.04	74849.0					
5-20-19 7:15	14.79	1653	7.53	10.3	5-20-19 3:45	15.26	1049	8.40	810.9	5-20-19 3:45	14.43	823	8.44	78.5						8-20-19 4:30	14.18	1709	8.04	74890.0					
5-20-19 7:30	14.76	1650	7.55	12.1	5-20-19 4:00	15.22	1051	8.40	1040.7	5-20-19 4:00	14.37	836	8.42	72.8						8-20-19 4:45	14.15	1708	8.04	74955.0					
5-20-19 7:45	14.74	1655	7.62	11.7	5-20-19 4:15	15.16	1047	8.40	840.4	5-20-19 4:15	14.30	846	8.42	73.9						8-20-19 5:00	14.12	1711	8.04	74916.0					
5-20-19 8:00	14.83	1646	7.66	12.7	5-20-19 4:30	15.08	999	8.40	1258.6	5-20-19 4:30	14.20	847	8.42	75.0						8-20-19 5:15	14.11	1710	8.04	74902.0					
5-20-19 8:15	14.90	1653	7.72	12.0	5-20-19 4:45	15.09	1043	8.39	563.5	5-20-19 4:45	14.16	831	8.43	110.3						8-20-19 5:30	14.11	1707	8.03	74898.0					
5-20-19 8:30	14.96	1654	7.69	11.4	5-20-19 5:00	15.06	1050	8.39	588.6	5-20-19 5:00	14.09	825	8.44	68.0						8-20-19 5:45	14.12	1712	8.03	74956.0					
5-20-19 8:45	15.02	1653	7.76	12.8	5-20-19 5:15	14.99	937	8.39	540.7	5-20-19 5:15	14.00	821	8.46	72.6						8-20-19 6:00	14.11	1710	8.03	74835.0					
5-20-19 9:00	15.13	1650	7.77	10.4	5-20-19 5:30	14.93	972	8.38	511.7	5-20-19 5:30	13.92	814	8.46	80.8						8-20-19 6:15	14.07	1710	8.03	74938.0					
5-20-19 9:15	15.09	1654	7.71	12.2	5-20-19 5:45	14.89	932	8.39	330.2	5-20-19 5:45	13.86	819	8.46	76.6						8-20-19 6:30	14.07	1708	8.03	74990.0					
5-20-19 9:30	15.23	1651	7.74	10.7	5-20-19 6:00	14.86	972	8.39	343.5	5-20-19 6:00	13.81	816	8.45	92.9						8-20-19 6:45	14.04	1709	8.03	74959.0					
5-20-19 9:45	15.30	1652	7.80	14.1	5-20-19 6:15	14.79	946	8.38	354.8	5-20-19 6:15	13.73	820	8.46	82.2						8-20-19 7:00	14.03	1708	8.03	74945.0					
5-20-19 10:00	15.39	1649	7.85	12.8	5-20-19 6:30	14.70	970	8.38	351.3	5-20-19 6:30	13.70	823	8.45	80.6						8-20-19 7:15	13.99	1709	8.03	74964.0					
5-20-19 10:15	15.46	1655	7.88	17.3	5-20-19 6:45	14.63	952	8.38	297.6	5-20-19 6:45	13.70	824	8.45	74.3						8-20-19 7:30	13.97	1707	8.03	74984.0					
5-20-19 10:30	15.37	1647	8.03	13.2	5-20-19 7:00	14.62	973	8.38	288.2	5-20-19 7:00	13.67	831	8.44	73.1						8-20-19 7:45	14.00	1709	8.03	74938.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-20-19 10:45	15.49	1646	8.12	14.5	5-20-19 7:15	14.62	963	8.38	251.6	5-20-19 7:15	13.69	831	8.45	72.1						8-20-19 8:00	13.98	1710	8.03	75029.0					
5-20-19 11:00	15.54	1639	8.26	14.1	5-20-19 7:30	14.66	976	8.37	223.3	5-20-19 7:30	13.70	835	8.44	106.1						8-20-19 8:15	13.97	1707	8.03	75018.0					
5-20-19 11:45	15.77	1644	8.44	14.4	5-20-19 7:45	14.70	969	8.37	222.0	5-20-19 7:45	13.74	852	8.44	77.6						8-20-19 8:30	13.96	1709	8.03	74947.0					
5-20-19 12:00	15.90	1640	8.44	13.4	5-20-19 8:00	14.77	964	8.37	2.4	5-20-19 8:00	13.74	830	8.44	78.6						8-20-19 8:45	13.94	1707	8.03	74969.0					
5-20-19 12:15	15.98	1647	8.45	16.4	5-20-19 8:15	14.81	950	8.37	3.0	5-20-19 8:15	13.84	830	8.44	74.5						8-20-19 9:00	13.94	1707	8.03	74992.0					
5-20-19 12:30	16.10	1647	8.45	14.0	5-20-19 8:30	14.84	975	8.37	1.6	5-20-19 8:30	13.89	832	8.44	64.0						8-20-19 9:15	13.94	1710	8.03	74996.0					
5-20-19 12:45	16.33	1643	8.49	14.2	5-20-19 8:45	14.92	981	8.37	3.5	5-20-19 8:45	14.05	839	8.44	70.6						8-20-19 9:30	13.92	1708	8.03	75062.0					
5-20-19 13:00	16.35	1662	8.48	13.6	5-20-19 9:00	15.00	950	8.37	2.1	5-20-19 9:00	14.22	839	8.44	62.2						8-20-19 9:45	13.92	1709	8.03	74995.0					
5-20-19 13:15	16.45	1638	8.50	14.2	5-20-19 9:15	15.05	980	8.37	4.5	5-20-19 9:15	14.37	838	8.43	59.9						8-20-19 10:00	13.90	1711	8.03	75025.0					
5-20-19 13:30	16.61	1642	8.52	13.7	5-20-19 9:30	15.15	947	8.38	2.6	5-20-19 9:30	14.58	828	8.43	59.5						8-20-19 10:15	13.89	1708	8.03	75035.0					
5-20-19 13:45	16.77	1646	8.56	28.2	5-20-19 9:45	15.35	983	8.37	4.4	5-20-19 9:45	14.55	827	8.43	58.8						8-20-19 10:30	13.89	1710	8.03	75010.0					
5-20-19 14:00	17.00	1655	8.56	30.3	5-20-19 10:00	15.59	975	8.37	2.2	5-20-19 10:00	14.75	830	8.42	63.8						8-20-19 10:45	13.82	1711	8.03	75048.0					
5-20-19 14:15	16.94	1646	8.56	13.1	5-20-19 10:15	15.69	954	8.37	4.6	5-20-19 10:15	14.82	841	8.43	64.1						8-20-19 11:00	13.80	1708	8.03	74965.0					
5-20-19 14:30	17.03	1641	8.57	13.3	5-20-19 10:30	15.71	981	8.36	1.6	5-20-19 10:30	14.80	830	8.44	63.6						8-20-19 11:30	13.80	1709	8.03	74974.0					
5-20-19 14:45	17.17	1655	8.60	17.7	5-20-19 10:45	15.84	946	8.37	9.8	5-20-19 10:45	14.76	837	8.45	72.7						8-20-19 11:45	13.74	1709	8.03	75000.0					
5-20-19 15:00	17.23	1649	8.63	15.3	5-20-19 11:00	15.98	984	8.37	6.9	5-20-19 11:00	14.76	824	8.46	69.7						8-20-19 12:00	13.72	1708	8.04	75028.0					
5-20-19 15:15	17.27	1638	8.61	14.9	5-20-19 11:15	16.02	950	8.36	6.3	5-20-19 11:15	14.89	820	8.46	67.1						8-20-19 12:15	13.71	1708	8.03	75062.0					
5-20-19 15:30	17.33	1688	8.64	19.1	5-20-19 11:30	16.12	985	8.37	6.9	5-20-19 11:30	14.89	809	8.50	86.0						8-20-19 12:30	13.69	1711	8.03	75037.0					
5-20-19 15:45	17.39	1633	8.66	14.4	5-20-19 11:45	16.26	953	8.37	9.5	5-20-19 11:45	15.24	804	8.48	82.0						8-20-19 12:45	13.65	1705	8.03	75060.0					
5-20-19 16:00	17.48	1644	8.66	12.7	5-20-19 12:45	17.23	968	8.37	45.9	5-20-19 12:45	16.01	823	8.45	73.8						8-20-19 13:00	13.65	1708	8.03	74920.0					
5-20-19 16:15	17.43	1643	8.67	13.2	5-20-19 13:00	17.10	967	8.35	261.3	5-20-19 13:00	15.93	814	8.47	87.8						8-20-19 13:15	13.64	1706	8.03	75053.0					
5-20-19 16:30	17.52	1623	8.69	13.4	5-20-19 13:15	17.38	954	8.35	175.1	5-20-19 13:15	16.06	812	8.46	91.5						8-20-19 13:30	13.65	1708	8.03	75008.0					
5-20-19 16:45	17.51	1644	8.69	13.0	5-20-19 13:30	17.57	972	8.35	310.5	5-20-19 13:30	16.59	812	8.45	105.2						8-20-19 13:45	13.62	1705	8.03	75107.0					
5-20-19 17:00	17.55	1682	8.72	17.0	5-20-19 13:45	17.44	970	8.36	333.9	5-20-19 13:45	16.74	823	8.45	89.3						8-20-19 14:00	13.65	1707	8.03	75040.0					
5-20-19 17:15	17.44	1633	8.73	13.3	5-20-19 14:00	17.69	976	8.35	360.2	5-20-19 14:00	16.76	815	8.45	72.7						8-20-19 14:15	13.65	1707	8.04	75070.0					
5-20-19 17:30	17.44	1645	8.75	39.2	5-20-19 14:15	17.89	1013	8.36	376.7	5-20-19 14:15	16.60	811	8.44	79.2						8-20-19 14:30	13.63	1707	8.04	75041.0					
5-20-19 17:45	17.38	1653	8.76	13.7	5-20-19 14:30	17.85	978	8.35	256.8	5-20-19 14:30	17.01	825	8.44	76.1						8-20-19 14:45	13.62	1704	8.04	75124.0					
5-20-19 18:00	17.36	1649	8.75	12.0	5-20-19 14:45	17.88	1022	8.34	611.7	5-20-19 14:45	17.13	822	8.44	68.1						8-20-19 15:00	13.63	1707	8.04	74862.0					
5-20-19 18:15	17.31	1646	8.75	11.8	5-20-19 15:00	18.08	944	8.35	31.7	5-20-19 15:00	17.33	818	8.45	66.2						8-20-19 15:15	13.66	1709	8.04	74912.0					
5-20-19 18:30	17.27	1646	8.75	17.3	5-20-19 15:15	17.93	1011	8.36	771.9	5-20-19 15:15	16.21	801	8.49	100.8						8-20-19 15:30	13.72	1707	8.05	74980.0					
5-20-19 18:45	17.28	1627	8.76	11.7	5-20-19 15:30	18.04	972	8.36	311.7	5-20-19 15:30	16.85	809	8.47	71.5						8-20-19 15:45	13.73	1705	8.05	74690.0					
5-20-19 19:00	17.12	1640	8.77	10.8	5-20-19 15:45	18.00	1022	8.36	313.5	5-20-19 15:45	17.41	819	8.45	73.8						8-20-19 16:00	13.78	1704	8.05	74917.0					
5-20-19 19:15	17.14	1639	8.76	12.5	5-20-19 16:00	18.01	1008	8.36	449.5	5-20-19 16:00	17.21	813	8.46	74.7						8-20-19 16:15	13.84	1705	8.05	74953.0					
5-20-19 19:30	17.08	1635	8.73	11.7	5-20-19 16:15	18.08	977	8.36	539.3	5-20-19 16:15	17.27	816	8.46	70.1						8-20-19 16:30	14.02	1704	8.07	74950.0					
5-20-19 19:45	17.03	1647	8.73	14.0	5-20-19 16:30	18.16	962	8.37	821.5	5-20-19 16:30	17.60	814	8.44	71.3						8-20-19 16:45	14.03	1703	8.07	75024.0					
5-20-19 20:00	16.97	1646	8.70	11.5	5-20-19 16:45	18.08	966	8.37	897.2	5-20-19 16:45										8-20-19 17:00	14.07	1701	8.07	75048.0					
5-20-19 20:15	16.92	1643	8.73	11.9	5-20-19 17:00	18.16	960	8.37	1883.1	5-20-19 17:00	17.01	815	8.47	73.8						8-20-19 17:15	14.09	1703	8.06	75053.0					
5-20-19 20:30	16.87	1647	8.63	11.4	5-20-19 17:15	17.96	964	8.37	73.9	5-20-19 17:15	17.07	815	8.46	68.8						8-20-19 17:30	14.26	1701	8.07	75104.0					
5-20-19 20:45	16.82	1651	8.52	32.7	5-20-19 17:30	17.88	966	8.38	92.4	5-20-19 17:30										8-20-19 17:45	14.39	1698	8.08	75051.0					
5-20-19 21:00	16.82	1640	8.71	12.0	5-20-19 17:45	17.84	956	8.38	292.3	5-20-19 17:45	17.16	845	8.46	77.1						8-20-19 18:00	14.50	1703	8.08	75040.0					
5-20-19 21:15	16.78	1634	8.72	11.6	5-20-19 18:00	17.72	983	8.38	221.2	5-20-19 18:00	17.07	830	8.46	82.0						8-20-19 18:15	14.64	1701	8.10	75035.0					
5-20-19 21:30	16.72	1642	8.51	12.0	5-20-19 18:15	17.80	956	8.39	11.2	5-20-19 18:15	17.02	811	8.47	76.6						8-20-19 18:30	14.63	1697	8.08	75054.0					
5-20-19 21:45	16.68	1647	8.65	12.1	5-20-19 18:30	17.70	1098	8.38	6.7	5-20-19 18:30										8-20-19 18:45	14.53	1701	8.08	74894.0					
5-20-19 22:00	16.70	1645	8.68	11.2	5-20-19 18:45	17.66	1058	8.39	5.6	5-20-19 18:45										8-20-19 19:00	14.59	1699	8.08	75074.0					
5-20-19 22:15	16.66	1648	8.58	11.1	5-20-19 19:00	17.67	1018	8.39	5.5	5-20-19 19:00	16.79	811	8.48	72.0						8-20-19 19:15	14.71	1701	8.10	75072.0					
5-20-19 22:30	16.61	1647	8.53	11.4	5-20-19 19:15	17.54	1006	8.39	6.7	5-20-19 19:15	16.64	797	8.48	73.7						8-20-19 19:30	14.64	1701	8.09	75058.0					
5-20-19 22:45	16.61	1647	8.51	11.4	5-20-19 19:30	17.56	1024	8.39	3.9	5-20-19 19:30										8-20-19 19:45	15.07	1703	8.10	75096.0					
5-20-19 23:00	16.58	1648	8.59	10.5	5-20-19 19:45	17.52	1017	8.39	4.4	5-20-19 19:45	16.44	806	8.49	82.2						8-20-19 20:00	15.14	1701	8.10	75061.0					
5-20-19 23:15	16.57	1648	8.65	11.3	5-20-19 20:00	17.48	1026	8.39	6.2	5-20-19 20:00										8-20-19 20:15	15.33	1701	8.11	75036.0					
5-20-19 23:30	16.60	1647	8.74	11.0	5-20-19 20:15	17.40	1019	8.40	6.9	5-20-19 20:15	16.33	797	8.49	104.2						8-20-19 20:30	15.42	1701	8.11	75025.0					
5-20-19 23:45	16.66	1653	8.83	10.7	5-20-19 20:30	17.37	1032	8.40	6.6	5-20-19 20:30	16.29	810	8.49	97.3						8-20-19 20:45	15.47	1701	8.11	75052.0					
5-21-19 0:00	16.66	1645	8.83	10.8	5-20-19 20:45	17.30	1028	8.39	5.8	5-20-19 20:45	16.22	815	8.49	102.9						8-20-19 21:00	15.43	1701	8.11	75082.0					
5-21-19 0:15	16.63	1654	8.83	11.1	5-20-19 21:00	17.26	946	8.39	5.1	5-20-19 21:00	16.15	821	8.49	106.9						8-20-19 21:30	15.39	1700	8.09	75107.0					
5-21-19 0:30	16.58	1652	8.79	10.6	5-20-19 21:15	17.17	995	8.40	3.2	5-20-19 21:15	16.12	798	8.49	92.4						8-20-19 21:45	15.52	1702	8.10	75081.0					
5-21-19 0:45	16.53	1651	8.64	10.9	5-20-19 21:30	17.16	920	8.40	4.1	5-20-19 21:30										8-20-19 22:00	15.48	1698	8.10	75067.0					
5-21-19 1:00	16.50	1650	8.49	10.7	5-20-19 21:45	17.07	997	8.39	4.2	5-20-19 21:45	16.00	803	8.49	79.1						8-20-19 22:15	15.59	1699	8.10	75093.0					
5-21-19 1:15	16.45	1649	8.57	10.7	5-20-19 22:00	17.03	967	8.40	2.4	5-20-19 22:00										8-20-19 22:30	15.59	1699	8.11	75117.0					
5-21-19 1:30	16.40	1652	8.54	10.6	5-20-19 22:15	16.99	997	8.40	3.0	5-20-19 22:15	15.88	795	8.49	81.9						8-20-19 22:45	15.51	1697	8.11	75024.0					
5-21-19 1:45	16.37	1646	8.54	10.1	5-20-19 22:30	16.95	991	8.40	2.9	5-20-19 22:30										8-20-19 23:00	15.39	1699	8.09	75052.0					
5-21-19 2:00	16.29	1654	8.63	10.6	5-20-19 22:45	16.88	975	8.40	24.1	5-20-19 22:45	15.82	797	8.49	73.2						8-20-19 23:15	15.40	1698	8.10	75047.0					
5-21-19 2:15	16.23	1653	8.59	10.4	5-20-19 23:00	16.86	990	8.40	26.0	5-20-19 23:00	15.79	800	8.49	70.4						8-20-19 23:30	15.35	1698	8.10	75043.0					
5-21-19 2:30	16.19	1667	8.43	11.6	5-20-19 23:15	16.82	959	8.40	30.6	5-20-19 23:15	15.73	797	8.50	67.2						8-20-19 23:45	15.29	1698	8.11	74981.0					
5-21-19 2:45	16.14	1653	8.17	10.6	5-20-19 23:30	16.79	1073	8.40	33.2	5-20-19 23:30	15.68	796	8.49	66.9						8-21-19 0:00	15.26	1699	8.12	74994.0					
5-21-19 3:00	16.08	1653	8.31	10.4	5-20-19 23:45	16.78	1057	8.40	43.4	5-20-19 23:45	15.64	796	8.50	69.6						8-21-19 0:15	15.25	1698	8.11	75022.0					
5-21-19 3:15	16.04	1653	8.30	10.4	5-21-19 0:00	16.71	1075	8.40	53.2	5-21-19 0:00										8-21-19 0:30	15.29	1699	8.09	75023.0					
5-21-19 3:30	15.97	1653	8.31	10.6	5-21-19 0:15	16.66	1065	8.40	43.9	5-21-19 0:15										8-21-19 0:45	15.26	1698	8.10	74955.0					
5-21-19 3:45	15.93	1653	8.20	10.4	5-21-19 0:30	16.66	1075	8.40	45.2	5-21-19 0:30										8-21-19 1:00	15.22	1700	8.09	74947.0					
5-21-19 4:00	15.89	1652	7.88	10.0	5-21-19 0:45	16.58	1069	8.39	55.5	5-21-19 0:45	15.42	801	8.49	77.2						8-21-19 1:15	15.32	1700	8.10	75028.0					
5-21-19 4:15	15.83	1654	8.17	10.1	5-21-19 1:00	16.54	1074	8.40	60.2	5-21-19 1:00	15.39	797	8.48	71.5						8-21-19 1:30	15.39	1697	8.10	75098.0					
5-21-19 4:30	15.75	1652	8.37	9.8	5-21-19 1:15	16.52	1077	8.39	69.8	5-21-19 1:15	15.35	800	8.49	66.8						8-21-19 1:45	15.41	1697	8.10	75115.0					
5-21-19 4:45	15.73	1653	7.84	10.3	5-21-19 1:30	16.50	1082	8.39	70.6	5-21-19 1:30	15.31	795	8.49	65.8						8-21-19 2:00	15.43	1698	8.11	75126.0					
5-21-19 5:00	15.66	1651	8.33	10.3	5-21-19 1:45	16.42	1078	8.39	78.9	5-21-19 1:45	15.24	807	8.50	67.1						8-21-19 2:15	15.46	1699	8.13	75149.0					
5-21-19 5:15	15.62	1655	8.02	10.3	5-21-19 2:00	16.39	1082	8.39	74.3	5-21-19 2:00	15.20	790	8.49	67.5						8-21-19 2:30	15.44	1697	8.12	75132.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-21-19 5:30	15.58	1657	8.00	9.5	5-21-19 2:15	16.37	1072	8.39	87.1	5-21-19 2:15	15.18	799	8.49	68.9						8-21-19 2:45	15.41	1698	8.13	75159.0					
5-21-19 5:45	15.54	1655	8.06	10.6	5-21-19 2:30	16.31	1070	8.39	87.1	5-21-19 2:30	15.13	797	8.49	69.8						8-21-19 3:00	15.37	1698	8.12	75153.0					
5-21-19 6:00	15.50	1654	8.14	9.7	5-21-19 2:45	16.25	1076	8.39	94.4	5-21-19 2:45	15.09	795	8.49	66.0						8-21-19 3:30	15.32	1698	8.12	75156.0					
5-21-19 6:15	15.47	1654	7.92	10.2	5-21-19 3:00	16.22	1075	8.39	88.7	5-21-19 3:00	15.06	797	8.49	72.4						8-21-19 3:45	15.29	1698	8.13	75157.0					
5-21-19 6:30	15.46	1658	7.96	9.9	5-21-19 3:15	16.16	1069	8.38	103.5	5-21-19 3:15	15.01	791	8.49	65.7						8-21-19 4:00	15.27	1699	8.13	75160.0					
5-21-19 6:45	15.48	1656	8.15	10.8	5-21-19 3:30	16.15	1076	8.39	158.3	5-21-19 3:30	14.97	797	8.49	66.3						8-21-19 4:15	15.25	1697	8.12	75161.0					
5-21-19 7:00	15.45	1655	8.17	10.5	5-21-19 3:45	16.13	1060	8.38	48.7	5-21-19 3:45	14.92	792	8.49	59.0						8-21-19 4:30	15.24	1698	8.13	75166.0					
5-21-19 7:15	15.41	1657	8.08	11.0	5-21-19 4:00	16.10	998	8.38	24.9	5-21-19 4:00	14.87	792	8.50	62.2						8-21-19 4:45	15.23	1698	8.13	75187.0					
5-21-19 7:30	15.51	1656	7.99	9.3	5-21-19 4:15	16.02	1078	8.38	53.4	5-21-19 4:15	14.84	794	8.49	64.2						8-21-19 5:00	15.22	1698	8.12	75148.0					
5-21-19 7:45	15.51	1656	8.18	8.4	5-21-19 4:30	15.95	1020	8.38	59.8	5-21-19 4:30	14.80	795	8.49	58.1						8-21-19 5:15	15.21	1697	8.13	75167.0					
5-21-19 8:00	15.48	1654	8.16	10.5	5-21-19 4:45	15.91	1079	8.38	61.8	5-21-19 4:45	14.73	795	8.49	67.2						8-21-19 5:30	15.19	1697	8.13	75187.0					
5-21-19 8:15	15.49	1655	8.33	9.0	5-21-19 5:00	15.86	1060	8.38	64.2	5-21-19 5:00	14.69	797	8.49	60.0						8-21-19 5:45	15.19	1697	8.13	75181.0					
5-21-19 8:30	15.53	1653	8.37	10.0	5-21-19 5:15	15.85	1086	8.38	67.7	5-21-19 5:15	14.64	792	8.49	63.2						8-21-19 6:00	15.18	1698	8.12	75180.0					
5-21-19 8:45	15.68	1652	8.39	14.9	5-21-19 5:30	15.79	1084	8.38	81.9	5-21-19 5:30	14.60	793	8.48	62.0						8-21-19 6:15	15.18	1698	8.12	75172.0					
5-21-19 9:00	15.77	1648	8.40	10.4	5-21-19 5:45	15.75	1078	8.37	78.4	5-21-19 5:45	14.56	797	8.49	57.0						8-21-19 6:30	15.18	1697	8.11	75190.0					
5-21-19 9:15	15.86	1653	8.41	9.9	5-21-19 6:00	15.75	1085	8.38	88.1	5-21-19 6:00	14.53	797	8.49	59.8						8-21-19 6:45	15.13	1697	8.11	75195.0					
5-21-19 9:30	15.89	1651	8.37	10.2	5-21-19 6:15	15.67	1102	8.37	78.6	5-21-19 6:15	14.51	799	8.49	60.0						8-21-19 7:00	15.13	1698	8.10	75192.0					
5-21-19 9:45	16.03	1649	8.30	10.1	5-21-19 6:30	15.72	1087	8.37	78.0	5-21-19 6:30	14.48	799	8.49	58.9						8-21-19 7:15	15.12	1696	8.10	75172.0					
5-21-19 10:00	16.05	1654	8.20	10.6	5-21-19 6:45	15.71	1085	8.37	84.1	5-21-19 6:45	14.46	798	8.49	65.9						8-21-19 7:30	15.13	1697	8.10	75203.0					
5-21-19 10:15	16.08	1653	8.32	10.0	5-21-19 7:00	15.73	1054	8.37	88.3	5-21-19 7:00	14.48	797	8.49	58.5						8-21-19 7:45	15.12	1698	8.09	75236.0					
5-21-19 10:30	16.11	1654	8.53	10.5	5-21-19 7:15	15.76	1017	8.36	91.4	5-21-19 7:15	14.48	798	8.49	57.5						8-21-19 8:00	15.12	1697	8.10	75215.0					
5-21-19 10:45	16.07	1655	8.58	11.0	5-21-19 7:30	15.75	1085	8.36	98.4	5-21-19 7:30	14.51	794	8.48	59.3						8-21-19 8:15	15.12	1698	8.10	75217.0					
5-21-19 11:00	16.15	1658	8.62	9.9	5-21-19 7:45	15.81	975	8.36	87.3	5-21-19 7:45	14.55	799	8.49	54.9						8-21-19 8:30	15.11	1697	8.10	75205.0					
5-21-19 11:15	16.23	1657	8.60	10.0	5-21-19 8:00	15.83	1001	8.36	95.6	5-21-19 8:00	14.58	797	8.49	57.8						8-21-19 8:45	15.11	1698	8.10	75031.0					
5-21-19 11:30	16.27	1665	8.59	10.2	5-21-19 8:15	15.83	973	8.36	83.6	5-21-19 8:15	14.69	798	8.49	59.9						8-21-19 9:00	15.09	1696	8.10	75217.0					
5-21-19 11:45	16.36	1659	8.63	10.7	5-21-19 8:30	15.86	1001	8.36	88.6	5-21-19 8:30	14.80	797	8.48	60.3						8-21-19 9:15	15.07	1697	8.11	75216.0					
5-21-19 12:00	16.51	1652	8.69	10.3	5-21-19 8:45	15.89	981	8.36	14.3	5-21-19 8:45	14.84	796	8.48	63.9						8-21-19 9:30	15.05	1699	8.10	75245.0					
5-21-19 12:15	16.59	1663	8.68	10.0	5-21-19 9:00	15.95	1002	8.36	14.2	5-21-19 9:00	14.99	797	8.49	55.9						8-21-19 9:45	15.04	1697	8.10	75216.0					
5-21-19 12:30	16.60	1665	8.67	9.2	5-21-19 9:15	16.08	990	8.35	18.8	5-21-19 9:15	15.11	797	8.49	58.0						8-21-19 10:00	15.05	1696	8.10	75219.0					
5-21-19 12:45	16.74	1674	8.72	9.4	5-21-19 9:30	16.16	1005	8.36	18.3	5-21-19 9:30	15.19	796	8.49	57.3						8-21-19 10:15	15.03	1697	8.10	75237.0					
5-21-19 13:00	16.86	1665	8.73	10.5	5-21-19 9:45	16.44	997	8.35	21.4	5-21-19 9:45	15.19	795	8.49	61.0						8-21-19 10:30	15.03	1697	8.11	75246.0					
5-21-19 13:15	16.99	1669	8.72	10.4	5-21-19 10:00	16.64	1005	8.35	24.3	5-21-19 10:00	15.24	794	8.49	59.3						8-21-19 10:45	15.01	1698	8.11	75225.0					
5-21-19 13:30	17.06	1665	8.71	9.8	5-21-19 10:15	16.71	1030	8.36	24.1	5-21-19 10:15	15.20	797	8.49	62.8						8-21-19 11:00	15.00	1698	8.11	75236.0					
5-21-19 13:45	17.15	1668	8.75	10.2	5-21-19 10:30	16.92	1034	8.36	34.0	5-21-19 10:30	15.25	790	8.49	62.9						8-21-19 11:15	15.00	1697	8.11	75233.0					
5-21-19 14:00	17.17	1670	8.73	8.1	5-21-19 10:45	16.96	1043	8.35	30.5	5-21-19 10:45	15.28	806	8.49	56.5						8-21-19 11:30	15.00	1696	8.11	75242.0					
5-21-19 14:15	17.36	1667	8.76	8.1	5-21-19 11:00	16.97	998	8.36	40.2	5-21-19 11:00	15.38	790	8.48	61.0						8-21-19 11:45	14.96	1696	8.11	75259.0					
5-21-19 14:30	17.42	1665	8.73	8.2	5-21-19 11:15	17.22	1047	8.36	40.0	5-21-19 11:15	15.55	791	8.48	59.2						8-21-19 12:00	14.96	1698	8.10	75240.0					
5-21-19 14:45	17.47	1666	8.78	7.9	5-21-19 11:30	17.30	1030	8.36	47.5	5-21-19 11:30	15.58	786	8.48	57.4						8-21-19 12:15	14.97	1698	8.11	75264.0					
5-21-19 15:00	17.59	1668	8.78	8.9	5-21-19 11:45	17.17	1056	8.35	11.7	5-21-19 11:45	15.58	787	8.47	63.6						8-21-19 12:30	14.97	1699	8.10	75256.0					
5-21-19 15:15	17.71	1667	8.79	8.9	5-21-19 12:00	17.33	1046	8.35	9.1	5-21-19 12:00	15.90	786	8.48	64.4						8-21-19 12:45	14.94	1698	8.10	75257.0					
5-21-19 15:30	17.98	1669	8.79	10.9	5-21-19 12:15	17.34	1053	8.36	12.7	5-21-19 12:15	16.01	789	8.48	71.2						8-21-19 13:00	14.94	1698	8.10	75275.0					
5-21-19 15:45	17.90	1665	8.74	10.2	5-21-19 12:30	17.26	1017	8.35	24.9	5-21-19 12:30	15.97	789	8.48	59.7						8-21-19 13:15	14.94	1697	8.10	75258.0					
5-21-19 16:00	17.97	1668	8.75	11.6	5-21-19 12:45	17.39	1053	8.36	25.3	5-21-19 12:45	15.95	788	8.48	62.9						8-21-19 13:30	14.94	1697	8.10	75276.0					
5-21-19 16:15	18.02	1670	8.70	9.7	5-21-19 13:00	17.52	1043	8.36	27.4	5-21-19 13:00	16.26	785	8.47	61.3						8-21-19 13:45	14.93	1699	8.10	75248.0					
5-21-19 16:30	18.09	1666	8.75	14.4	5-21-19 13:15	17.50	1001	8.36	20.2	5-21-19 13:15	16.39	789	8.46	60.4						8-21-19 14:00	14.93	1698	8.10	75265.0					
5-21-19 16:45	18.02	1667	8.75	10.9	5-21-19 13:30	17.71	964	8.36	25.0	5-21-19 13:30	16.38	789	8.46	60.5						8-21-19 14:30	14.93	1699	8.10	75180.0					
5-21-19 17:00	18.04	1669	8.75	10.8	5-21-19 13:45	17.69	999	8.36	60.0	5-21-19 13:45	16.48	789	8.47	60.0						8-21-19 14:45	14.95	1697	8.10	75265.0					
5-21-19 17:15	17.99	1670	8.74	10.8	5-21-19 14:00	17.85	969	8.36	110.1	5-21-19 14:00	16.59	788	8.47	65.5						8-21-19 15:00	14.97	1697	8.10	75261.0					
5-21-19 17:30	18.05	1671	8.71	9.7	5-21-19 14:15	18.09	999	8.35	181.5	5-21-19 14:15	16.71	788	8.46	66.1						8-21-19 15:15	14.98	1698	8.11	75285.0					
5-21-19 17:45	18.08	1670	8.66	9.7	5-21-19 14:30	18.12	975	8.36	298.5	5-21-19 14:30	16.83	788	8.46	74.2						8-21-19 15:30	15.03	1698	8.11	75290.0					
5-21-19 18:00	18.05	1671	8.56	9.7	5-21-19 14:45	18.10	997	8.36	244.9	5-21-19 14:45	16.89	787	8.46	65.1						8-21-19 15:45	15.07	1697	8.12	75293.0					
5-21-19 18:15	18.06	1670	8.57	10.3	5-21-19 15:00	18.37	982	8.36	319.6	5-21-19 15:00	17.05	790	8.46	65.7						8-21-19 16:00	15.09	1695	8.11	75282.0					
5-21-19 18:30	18.08	1665	8.56	10.1	5-21-19 15:15	18.43	972	8.36	445.8	5-21-19 15:15	17.14	792	8.45	66.3						8-21-19 16:15	15.27	1697	8.13	75281.0					
5-21-19 18:45	18.09	1669	8.50	10.1	5-21-19 15:30	18.61	1026	8.36	403.2	5-21-19 15:30	17.23	794	8.45	66.8						8-21-19 16:30	15.21	1696	8.11	75286.0					
5-21-19 19:00	18.09	1669	8.52	9.7	5-21-19 15:45	18.71	1016	8.36	461.9	5-21-19 15:45	17.42	793	8.45	84.9						8-21-19 16:45	15.23	1695	8.12	75288.0					
5-21-19 19:15	18.09	1671	8.43	9.8	5-21-19 16:00	18.72	1033	8.36	542.1	5-21-19 16:00	17.48	792	8.45	74.5						8-21-19 17:00	15.28	1698	8.11	75277.0					
5-21-19 19:30	18.07	1672	8.53	11.5	5-21-19 16:15	18.73	1025	8.36	416.8	5-21-19 16:15	17.58	791	8.45	68.8						8-21-19 17:15	15.34	1696	8.12	75276.0					
5-21-19 19:45	18.05	1671	8.58	9.8	5-21-19 16:30	18.60	1042	8.37	463.3	5-21-19 16:30	17.73	790	8.45	61.3						8-21-19 17:30	15.68	1701	8.13	75287.0					
5-21-19 20:00	18.05	1672	8.43	9.4	5-21-19 16:45	18.64	1043	8.37	536.4	5-21-19 16:45	17.75	789	8.45	57.6						8-21-19 17:45	15.68	1693	8.12	75284.0					
5-21-19 20:15	18.03	1669	8.26	9.1	5-21-19 17:00	18.70	1062	8.37	678.5	5-21-19 17:00	17.80	791	8.45	62.1						8-21-19 18:00	15.77	1693	8.12	75093.0					
5-21-19 20:30	18.01	1672	7.94	8.8	5-21-19 17:15	18.64	1062	8.37	753.6	5-21-19 17:15	17.86	793	8.45	58.5						8-21-19 18:15	15.97	1698	8.12	74978.0					
5-21-19 20:45	17.98	1670	8.01	9.2	5-21-19 17:30	18.58	1088	8.38	445.0	5-21-19 17:30	17.82	790	8.45	63.4						8-21-19 18:30	16.17	1691	8.12	75006.0					
5-21-19 21:00	17.92	1673	8.11	9.6	5-21-19 17:45	18.61	1098	8.38	371.2	5-21-19 17:45	17.82	777	8.45	123.4						8-21-19 18:45	16.15	1694	8.11	75005.0					
5-21-19 21:15	17.91	1672	8.11	8.7	5-21-19 18:00	18.65	1057	8.38	427.8	5-21-19 18:00	17.85	785	8.45	137.4						8-21-19 19:00	16.12	1694	8.11	74916.0					
5-21-19 21:30	17.89	1671	8.20	9.0	5-21-19 18:15	18.69	1052	8.38	1057.1	5-21-19 18:15	17.81	783	8.45	305.9						8-21-19 19:15	16.45	1695	8.14	74752.0					
5-21-19 21:45	18.16	1682	8.79	9.7	5-21-19 18:30	18.70	1097	8.38	1046.6	5-21-19 18:30	17.79	786	8.45	309.1						8-21-19 19:30	16.37	1696	8.13	74908.0					
5-21-19 22:00	18.27	1684	8.82	10.2	5-21-19 18:45	18.55	1055	8.39	890.3	5-21-19 18:45	17.68	814	8.45	88.9						8-21-19 19:45	16.20	1697	8.13	74996.0					
5-21-19 22:15	18.28	1683	8.85	9.9	5-21-19 19:00	18.69	1093	8.39	840.9	5-21-19 19:00	17.74	783	8.45	93.8						8-21-19 20:00	16.51	1696	8.15	74623.0					
5-21-19 22:30	18.28	1686	8.90	9.8	5-21-19 19:15	18.65	1117	8.38	560.5	5-21-19 19:15	17.76	795	8.45	100.9						8-21-19 20:15	16.75	1695	8.15	74763.0					
5-21-19 22:45	18.27	1685	8.93	10.2	5-21-19 19:30	18.57	1178	8.39	632.6	5-21-19 19:30	17.72	796	8.44	100.1						8-21-19 20:30	17.00	1695	8.15	74724.0					
5-21-19 23:00	18.25	1687	8.94	10.8	5-21-19 19:45	18.59	1142	8.38	793.2	5-21-19 19:45	17.66	788	8.45	51.0						8-21-19 20:45	17.10	1699	8.16	74579.0					
5-21-19 23:15	18.20	1686	8.27	9.9	5-21-19 20:00	18.56	1188	8.39	772.2	5-21-19 20:00	17.67	776	8.45	52.3						8-21-19 21:00	17.10	1695	8.15	74666.0					
5-21-19 23:30	18.15	1686	8.25	9.8	5-21-19 20:15	18.54	1170	8.38	903.1	5-21-19 20:15	17.68	788	8.45	49.8						8-21-19 21:30	17.22	1698	8.15	74878.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-21-19 23:45	18.11	1686	8.57	9.7	5-21-19 20:30	18.52	1202	8.38	957.4	5-21-19 20:30	17.67	788	8.45	49.1						8-21-19 21:45	17.25	1698	8.16	74926.0					
5-22-19 0:00	18.07	1683	8.51	9.2	5-21-19 20:45	18.45	1185	8.38	350.9	5-21-19 20:45	17.64	787	8.44	53.0						8-21-19 22:00	17.21	1698	8.16	74806.0					
5-22-19 0:15	18.03	1686	8.41	8.9	5-21-19 21:00	18.38	1209	8.39	382.1	5-21-19 21:00	17.62	787	8.45	49.3						8-21-19 22:15	17.18	1698	8.15	75222.0					
5-22-19 0:30	17.99	1684	8.45	9.4	5-21-19 21:15	18.30	1196	8.38	395.4	5-21-19 21:15	17.60	789	8.45	50.7						8-21-19 22:30	17.42	1703	8.17	74909.0					
5-22-19 0:45	17.94	1684	8.59	9.2	5-21-19 21:30	18.26	1211	8.38	389.7	5-21-19 21:30	17.56	792	8.44	49.0						8-21-19 22:45	17.49	1708	8.17	74714.0					
5-22-19 1:00	17.90	1682	8.23	9.8	5-21-19 21:45	18.23	1200	8.38	395.5	5-21-19 21:45	17.52	790	8.44	43.2						8-21-19 23:00	17.59	1713	8.18	74862.0					
5-22-19 1:15	17.86	1682	8.56	9.0	5-21-19 22:00	18.20	1215	8.38	402.9	5-21-19 22:00	17.50	793	8.45	46.9						8-21-19 23:15	17.70	1707	8.18	74713.0					
5-22-19 1:30	17.79	1682	8.60	9.4	5-21-19 22:15	18.17	1217	8.38	397.1	5-21-19 22:15	17.47	789	8.45	46.4						8-21-19 23:30	17.72	1701	8.18	74844.0					
5-22-19 1:45	17.75	1682	8.60	9.7	5-21-19 22:30	18.13	1162	8.38	401.2	5-21-19 22:30	17.43	788	8.45	45.7						8-21-19 23:45	17.79	1706	8.19	74628.0					
5-22-19 2:00	17.71	1683	8.59	9.1	5-21-19 22:45	18.11	1218	8.39	395.1	5-21-19 22:45	17.39	788	8.44	53.6						8-22-19 0:00	17.82	1698	8.19	74724.0					
5-22-19 2:15	17.66	1682	8.47	9.5	5-21-19 23:00	18.11	1164	8.38	375.3	5-21-19 23:00	17.36	788	8.44	47.3						8-22-19 0:15	17.78	1699	8.19	74708.0					
5-22-19 2:30	17.58	1679	8.46	9.1	5-21-19 23:15	18.04	1216	8.39	396.7	5-21-19 23:15	17.35	789	8.44	46.9						8-22-19 0:30	17.91	1699	8.19	74667.0					
5-22-19 2:45	17.53	1681	8.50	8.7	5-21-19 23:30	18.01	1184	8.39	390.9	5-21-19 23:30	17.32	790	8.45	47.1						8-22-19 0:45	17.73	1703	8.20	74765.0					
5-22-19 3:00	17.52	1682	8.46	9.5	5-21-19 23:45	18.00	1224	8.39	394.3	5-21-19 23:45	17.28	794	8.45	44.3						8-22-19 1:00	17.91	1702	8.21	74626.0					
5-22-19 3:15	17.48	1683	8.41	9.2	5-22-19 0:00	17.95	1225	8.39	382.5	5-22-19 0:00	17.24	793	8.44	44.3						8-22-19 1:15	17.79	1697	8.19	74597.0					
5-22-19 3:30	17.43	1680	8.56	9.0	5-22-19 0:15	17.89	1227	8.38	383.2	5-22-19 0:15	17.20	793	8.44	48.4						8-22-19 1:30	17.69	1703	8.19	73644.0					
5-22-19 3:45	17.38	1681	8.45	9.2	5-22-19 0:30	17.87	1144	8.39	372.5	5-22-19 0:30	17.15	793	8.45	44.5						8-22-19 1:45	17.51	1715	8.18	73526.0					
5-22-19 4:00	17.31	1681	8.56	9.1	5-22-19 0:45	17.84	1242	8.39	411.8	5-22-19 0:45	17.10	793	8.44	44.5						8-22-19 2:00	17.29	1727	8.14	73422.0					
5-22-19 4:15	17.27	1680	8.55	9.7	5-22-19 1:00	17.85	1165	8.39	406.1	5-22-19 1:00	17.06	786	8.45	44.3						8-22-19 2:15	17.17	1736	8.13	75150.0					
5-22-19 4:30	17.23	1680	8.57	8.9	5-22-19 1:15	17.81	1200	8.38	446.6	5-22-19 1:15	17.02	784	8.44	41.6						8-22-19 2:30	17.17	1733	8.14	75147.0					
5-22-19 4:45	17.17	1680	8.48	9.2	5-22-19 1:30	17.78	1177	8.39	406.6	5-22-19 1:30	16.97	787	8.44	43.3						8-22-19 2:45	17.16	1728	8.14	75228.0					
5-22-19 5:00	17.13	1680	8.33	8.8	5-22-19 1:45	17.76	1188	8.38	405.6	5-22-19 1:45	16.94	787	8.45	43.1						8-22-19 3:00	17.14	1730	8.14	75234.0					
5-22-19 5:15	17.08	1681	8.30	9.4	5-22-19 2:00	17.74	1189	8.39	401.7	5-22-19 2:00	16.90	788	8.44	41.5						8-22-19 3:15	17.11	1730	8.15	75214.0					
5-22-19 5:30	17.04	1679	8.25	9.4	5-22-19 2:15	17.71	1196	8.38	411.2	5-22-19 2:15										8-22-19 3:30	17.05	1741	8.16	75217.0					
5-22-19 5:45	17.01	1681	8.22	9.3	5-22-19 2:30	17.67	1197	8.38	414.9	5-22-19 2:30										8-22-19 3:45	17.00	1748	8.16	75184.0					
5-22-19 6:00	16.97	1683	8.33	9.2	5-22-19 2:45	17.62	1189	8.38	417.4	5-22-19 2:45										8-22-19 4:00	16.97	1730	8.16	75222.0					
5-22-19 6:15	16.94	1680	7.93	9.6	5-22-19 3:00	17.60	1187	8.38	410.1	5-22-19 3:00										8-22-19 4:15	16.95	1760	8.16	75242.0					
5-22-19 6:30	16.91	1682	7.86	9.3	5-22-19 3:15	17.57	1197	8.38	422.0	5-22-19 3:15										8-22-19 4:30	16.90	1740	8.16	75217.0					
5-22-19 6:45	16.88	1681	7.74	9.5	5-22-19 3:30	17.52	1196	8.38	418.4	5-22-19 3:30										8-22-19 4:45	16.90	1736	8.16	75247.0					
5-22-19 7:00	16.87	1683	7.64	9.5	5-22-19 3:45	17.50	1189	8.38	442.5	5-22-19 3:45	16.55	774	8.45	52.7						8-22-19 5:00	16.78	1737	8.17	75260.0					
5-22-19 7:15	16.82	1683	7.64	9.5	5-22-19 4:00	17.48	1187	8.38	420.9	5-22-19 4:00	16.50	775	8.46	49.7						8-22-19 5:15	16.78	1736	8.16	75248.0					
5-22-19 7:30	16.76	1683	7.82	9.6	5-22-19 4:15	17.43	1177	8.37	424.2	5-22-19 4:15	16.47	769	8.46	48.0						8-22-19 5:30	16.76	1735	8.17	75231.0					
5-22-19 7:45	16.81	1685	7.71	9.6	5-22-19 4:30	17.39	1174	8.37	422.6	5-22-19 4:30	16.43	775	8.45	48.1						8-22-19 5:45	16.76	1741	8.17	75236.0					
5-22-19 8:00	16.75	1683	7.83	10.1	5-22-19 4:45	17.33	1141	8.38	415.4	5-22-19 4:45	16.38	777	8.45	59.7						8-22-19 6:00	16.71	1735	8.17	75258.0					
5-22-19 8:15	16.77	1682	7.68	9.9	5-22-19 5:00	17.29	1159	8.38	429.8	5-22-19 5:00	16.32	774	8.45	67.4						8-22-19 6:15	16.71	1733	8.17	75255.0					
5-22-19 8:30	16.83	1682	8.19	10.3	5-22-19 5:15	17.25	1121	8.38	417.4	5-22-19 5:15	16.29	778	8.46	52.9						8-22-19 6:30	16.66	1731	8.17	75263.0					
5-22-19 8:45	17.01	1685	8.13	7.6	5-22-19 5:30	17.22	1108	8.37	426.0	5-22-19 5:30	16.24	769	8.47	61.2						8-22-19 6:45	16.62	1731	8.17	75266.0					
5-22-19 9:00	17.00	1683	8.28	9.8	5-22-19 5:45	17.22	1206	8.37	430.3	5-22-19 5:45	16.19	763	8.48	60.5						8-22-19 7:00	16.65	1737	8.17	75271.0					
5-22-19 9:15	17.16	1682	8.26	9.6	5-22-19 6:00	17.19	1206	8.37	419.3	5-22-19 6:00	16.14	767	8.49	55.6						8-22-19 7:15	16.57	1740	8.17	75264.0					
5-22-19 9:30	17.13	1681	8.40	9.8	5-22-19 6:15	17.17	1102	8.37	428.3	5-22-19 6:15	16.14	772	8.48	54.2						8-22-19 7:30	16.55	1740	8.17	75269.0					
5-22-19 9:45	17.17	1683	8.29	9.6	5-22-19 6:30	17.15	1102	8.37	420.6	5-22-19 6:30	16.13	769	8.48	53.3						8-22-19 7:45	16.51	1745	8.17	75279.0					
5-22-19 10:00	17.35	1682	8.15	9.8	5-22-19 6:45	17.17	1094	8.37	431.4	5-22-19 6:45	16.11	769	8.48	48.8						8-22-19 8:00	16.51	1748	8.17	75265.0					
5-22-19 10:15	17.33	1682	8.16	10.2	5-22-19 7:00	17.15	1094	8.36	426.2	5-22-19 7:00	16.08	769	8.47	50.5						8-22-19 8:15	16.47	1749	8.17	75291.0					
5-22-19 10:30	17.43	1683	7.98	9.4	5-22-19 7:15	17.12	1160	8.37	429.3	5-22-19 7:15	16.07	771	8.47	48.1						8-22-19 8:30	16.46	1752	8.17	75278.0					
5-22-19 10:45	17.46	1684	7.82	9.4	5-22-19 7:30	17.13	1160	8.37	424.8	5-22-19 7:30	16.09	766	8.47	49.3						8-22-19 8:45	16.41	1750	8.17	75270.0					
5-22-19 11:00	17.37	1685	7.53	7.2	5-22-19 7:45	17.12	1191	8.37	428.3	5-22-19 7:45	16.09	771	8.47	53.4						8-22-19 9:00	16.44	1748	8.17	75271.0					
5-22-19 11:15	17.45	1679	7.43	9.6	5-22-19 8:00	17.15	1193	8.36	438.0	5-22-19 8:00	16.11	766	8.47	50.2						8-22-19 9:15	16.42	1752	8.17	75293.0					
5-22-19 11:30	17.51	1682	7.85	9.5	5-22-19 8:15	17.16	1195	8.37	423.4	5-22-19 8:15	16.12	767	8.47	53.6						8-22-19 9:30	16.40	1749	8.16	75285.0					
5-22-19 11:45	17.58	1682	8.05	9.2	5-22-19 8:30	17.21	1196	8.37	408.7	5-22-19 8:30	16.15	763	8.47	52.6						8-22-19 9:45	16.38	1755	8.16	75263.0					
5-22-19 12:00	17.58	1683	8.11	9.2	5-22-19 8:45	17.34	1198	8.36	395.9	5-22-19 8:45	16.35	772	8.46	66.0						8-22-19 10:00	16.33	1753	8.16	75286.0					
5-22-19 12:15	17.65	1683	8.37	9.2	5-22-19 9:00	17.43	1198	8.35	398.6	5-22-19 9:00	16.38	774	8.46	64.6						8-22-19 10:15	16.29	1757	8.16	75286.0					
5-22-19 12:30	17.71	1682	8.32	10.0	5-22-19 9:15	17.55	1200	8.35	400.8	5-22-19 9:15	16.54	776	8.47	67.6						8-22-19 10:30	16.27	1779	8.16	75287.0					
5-22-19 12:45	17.75	1681	8.08	9.6	5-22-19 9:30	17.56	1199	8.35	421.8	5-22-19 9:30	16.77	778	8.46	71.5						8-22-19 10:45	16.26	1761	8.15	75265.0					
5-22-19 13:00	17.96	1685	8.00	9.2	5-22-19 9:45	17.62	1201	8.36	416.5	5-22-19 9:45	16.94	770	8.46	51.1						8-22-19 11:00	16.21	1774	8.16	75262.0					
5-22-19 13:15	18.02	1684	8.15	8.9	5-22-19 10:00	17.74	1202	8.35	421.1	5-22-19 10:00	16.99	767	8.46	48.9						8-22-19 11:15	16.16	1779	8.16	75255.0					
5-22-19 13:30	18.00	1684	8.22	9.3	5-22-19 10:15	17.86	1204	8.35	422.3	5-22-19 10:15	16.70	772	8.46	47.4						8-22-19 11:30	16.13	1782	8.16	75268.0					
5-22-19 13:45	17.93	1684	7.84	8.7	5-22-19 10:30	17.98	1203	8.36	426.1	5-22-19 10:30	16.71	773	8.47	48.9						8-22-19 11:45	16.07	1778	8.16	75255.0					
5-22-19 14:00	17.93	1685	7.85	8.1	5-22-19 10:45	18.17	1204	8.35	420.5	5-22-19 10:45	16.75	767	8.47	48.2						8-22-19 12:00	16.04	1786	8.16	75258.0					
5-22-19 14:15	17.87	1683	7.95	9.6	5-22-19 11:00	18.34	1204	8.35	418.6	5-22-19 11:00	17.07	769	8.47	52.0						8-22-19 12:15	16.00	1785	8.16	75269.0					
5-22-19 14:30	17.83	1684	7.83	9.7	5-22-19 11:15	18.33	1205	8.34	424.2	5-22-19 11:15	17.34	768	8.46	52.9						8-22-19 12:30	15.99	1781	8.16	75272.0					
5-22-19 14:45	17.80	1683	8.21	9.5	5-22-19 11:30	18.46	1204	8.35	422.9	5-22-19 11:30	17.36	773	8.46	52.8						8-22-19 12:45	15.95	1781	8.17	75274.0					
5-22-19 15:00	17.79	1683	7.70	9.2	5-22-19 11:45	18.53	1203	8.35	427.1	5-22-19 11:45	17.36	765	8.46	56.2						8-22-19 13:00	15.91	1784	8.17	75279.0					
5-22-19 15:15	17.78	1683	8.13	9.1	5-22-19 12:00	18.51	1203	8.35	430.1	5-22-19 12:00	17.23	779	8.47	53.3						8-22-19 13:15	15.89	1784	8.16	75271.0					
5-22-19 15:30	17.78	1684	8.41	9.3	5-22-19 12:15	18.56	1203	8.35	430.8	5-22-19 12:15	17.43	782	8.45	60.0						8-22-19 13:30	15.85	1776	8.17	75287.0					
5-22-19 15:45	17.77	1684	8.42	9.0	5-22-19 12:30	18.59	1201	8.35	431.5	5-22-19 12:30	17.77	784	8.46	59.7						8-22-19 13:45	15.83	1778	8.17	75240.0					
5-22-19 16:00	17.75	1681	8.53	9.4	5-22-19 12:45	18.66	1200	8.35	435.4	5-22-19 12:45	18.18	778	8.45	48.8						8-22-19 14:00	15.82	1777	8.17	75243.0					
5-22-19 16:15	17.76	1683	8.27	9.5	5-22-19 13:00	18.71	1201	8.35	448.0	5-22-19 13:00	18.36	705	8.45	51.4						8-22-19 14:15	15.75	1777	8.17	75241.0					
5-22-19 16:30	17.76	1682	8.45	8.9	5-22-19 13:15	18.77	1201	8.34	443.4	5-22-19 13:15	18.54	774	8.44	89.1						8-22-19 14:30	15.73	1774	8.17	75220.0					
5-22-19 16:45	17.71	1683	8.41	9.1	5-22-19 13:30	18.74	1201	8.35	450.2	5-22-19 13:30	18.59	773	8.44	105.8						8-22-19 14:45	15.71	1777	8.17	75232.0					
5-22-19 17:00	17.70	1680	8.19	11.6	5-22-19 13:45	18.70	1203	8.36	453.4	5-22-19 13:45	18.43	765	8.44	54.8						8-22-19 15:00	15.76	1772	8.16	75238.0					
5-22-19 17:15	17.68	1684	8.17	8.2	5-22-19 14:00	18.68	1201	8.36	465.5	5-22-19 14:00	18.39	770	8.44	50.5						8-22-19 15:15	15.72	1767	8.18	75273.0					
5-22-19 17:30	17.69	1681	7.98	9.5	5-22-19 14:15	18.52	1203	8.36	5681.7	5-22-19 14:15	18.12	767	8.45	47.2						8-22-19 15:30	15.84	1769	8.18	75268.0					
5-22-19 17:45	17.68	1682	7.73	10.3	5-22-19 14:30	18.43	1202	8.37	35.9	5-22-19 14:30	17.58	746	8.50	46.3						8-22-19 15:45	15.84	1770	8.19	75250.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-22-19 18:00	17.68	1681	8.05	8.6	5-22-19 14:45	18.49	1201	8.37	43.6	5-22-19 14:45	17.32	767	8.46	48.9						8-22-19 16:00	15.85	1771	8.20	75259.0					
5-22-19 18:15	17.68	1681	7.91	8.9	5-22-19 15:00	18.50	1199	8.36	47.5	5-22-19 15:00	17.73	765	8.46	48.2						8-22-19 16:15	15.88	1769	8.21	75262.0					
5-22-19 18:30	17.68	1681	7.89	9.3	5-22-19 15:15	18.51	1198	8.36	2.4	5-22-19 15:15	17.68	766	8.46	45.7						8-22-19 16:30	15.89	1770	8.22	75266.0					
5-22-19 18:45	17.69	1677	8.30	9.2	5-22-19 15:30	18.47	1197	8.37	3.5	5-22-19 15:30	17.70	767	8.45	46.1						8-22-19 16:45	15.92	1769	8.22	75220.0					
5-22-19 19:00	17.72	1681	8.37	8.6	5-22-19 15:45	18.41	1194	8.37	4.7	5-22-19 15:45	17.74	768	8.45	80.8						8-22-19 17:00	15.95	1767	8.21	75252.0					
5-22-19 19:15	17.75	1683	8.42	8.5	5-22-19 16:00	18.41	1193	8.37	6.2	5-22-19 16:00	17.75	768	8.45	84.6						8-22-19 17:15	15.98	1767	8.21	75261.0					
5-22-19 19:30	17.77	1683	8.34	8.6	5-22-19 16:15	18.35	1191	8.37	12.5	5-22-19 16:15	17.71	767	8.45	91.0						8-22-19 17:30									
5-22-19 19:45	17.78	1683	8.25	8.0	5-22-19 16:30	18.29	1190	8.38	4.1	5-22-19 16:30	17.70	769	8.45	95.6						8-22-19 17:45									
5-22-19 20:00	17.76	1683	8.26	8.1	5-22-19 16:45	18.20	1189	8.37	4.8	5-22-19 16:45	17.69	774	8.45	149.8						8-22-19 18:00									
5-22-19 20:15	17.75	1682	7.96	8.1	5-22-19 17:00	18.11	1189	8.37	6.2	5-22-19 17:00	17.66	777	8.45	147.8						8-22-19 18:15									
5-22-19 20:30	17.73	1681	7.88	8.5	5-22-19 17:15	17.99	1188	8.37	6.2	5-22-19 17:15	17.63	777	8.45	155.4						8-22-19 18:30									
5-22-19 20:45	17.69	1682	8.11	8.1	5-22-19 17:30	17.91	1186	8.37	4.6	5-22-19 17:30	17.59	764	8.45	121.5						8-22-19 18:45									
5-22-19 21:00	17.67	1684	7.72	7.9	5-22-19 17:45	17.86	1184	8.37	4.5	5-22-19 17:45	17.56	764	8.45	117.3						8-22-19 19:00									
5-22-19 21:15	17.66	1683	7.45	8.0	5-22-19 18:00	17.94	1183	8.37	4.6	5-22-19 18:00	17.57	766	8.45	113.3						8-22-19 19:15									
5-22-19 21:30	17.63	1683	7.40	8.2	5-22-19 18:15	17.94	1120	8.37	5.8	5-22-19 18:15										8-22-19 19:30									
5-22-19 21:45	17.60	1684	7.39	8.0	5-22-19 18:30	17.95	1093	8.37	215.5	5-22-19 18:30	17.55	764	8.43	101.3						8-22-19 19:45									
5-22-19 22:00	17.60	1683	7.36	8.0	5-22-19 18:45	18.00	1081	8.37	62.5	5-22-19 18:45	17.53	765	8.44	54.6						8-22-19 20:00									
5-22-19 22:15	17.57	1682	7.47	8.2	5-22-19 19:00	18.10	1110	8.37	3.5	5-22-19 19:00	17.56	761	8.44	52.7						8-22-19 20:30									
5-22-19 22:30	17.55	1682	7.32	8.1	5-22-19 19:15	18.15	1105	8.36	4.4	5-22-19 19:15	17.60	761	8.45	55.6						8-22-19 20:45									
5-22-19 22:45	17.53	1682	7.39	8.0	5-22-19 19:30	18.21	1097	8.36	4.3	5-22-19 19:30	17.65	760	8.44	49.7						8-22-19 21:00									
5-22-19 23:00	17.50	1683	7.55	8.3	5-22-19 19:45	18.15	1071	8.21	4.5	5-22-19 19:45	17.64	772	8.44	45.1						8-22-19 21:15									
5-22-19 23:15	17.47	1683	7.31	8.1	5-22-19 20:00	18.11	1070	8.36	4.8	5-22-19 20:00	17.64	762	8.43	43.6						8-22-19 21:30									
5-22-19 23:30	17.43	1682	7.43	8.1	5-22-19 20:15	18.07	1029	8.36	4.1	5-22-19 20:15	17.61	763	8.43	41.9						8-22-19 21:45									
5-22-19 23:45	17.40	1685	7.44	5.4	5-22-19 20:30	18.03	1031	8.36	5.0	5-22-19 20:30	17.57	764	8.44	43.4						8-22-19 22:00									
5-23-19 0:00	17.37	1681	7.34	7.8	5-22-19 20:45	18.02	1091	8.35	1.8	5-22-19 20:45	17.54	765	8.44	39.5						8-22-19 22:15									
5-23-19 0:15	17.35	1685	7.23	8.1	5-22-19 21:00	18.01	1119	8.35	1.7	5-22-19 21:00	17.51	765	8.44	39.6						8-22-19 22:30									
5-23-19 0:30	17.29	1685	7.52	6.0	5-22-19 21:15	17.98	1148	8.35	1.1	5-22-19 21:15	17.45	765	8.43	38.3						8-22-19 22:45									
5-23-19 0:45	17.24	1681	7.53	6.0	5-22-19 21:30	17.94	1140	8.37	1.3	5-22-19 21:30	17.41	764	8.43	40.2						8-22-19 23:00									
5-23-19 1:00	17.16	1682	7.54	5.6	5-22-19 21:45	17.94	1128	8.36	0.9	5-22-19 21:45	17.37	765	8.42	39.7						8-22-19 23:30									
5-23-19 1:15	17.12	1680	7.56	7.7	5-22-19 22:00	17.90	1132	8.37	3.0	5-22-19 22:00	17.34	765	8.43	39.0						8-22-19 23:45									
5-23-19 1:30	17.06	1682	7.54	8.9	5-22-19 22:15	17.88	1168	8.37	1.4	5-22-19 22:15	17.30	764	8.43	38.4						8-23-19 0:00									
5-23-19 1:45	16.99	1683	7.58	8.0	5-22-19 22:30	17.87	1178	8.37	2.0	5-22-19 22:30	17.26	763	8.42	40.2						8-23-19 0:15									
5-23-19 2:00	16.96	1682	7.44	7.8	5-22-19 22:45	17.85	1184	8.36	145.6	5-22-19 22:45	17.22	762	8.43	42.9						8-23-19 0:30									
5-23-19 2:15	16.92	1684	7.48	5.5	5-22-19 23:00	17.83	1184	8.36	1.6	5-22-19 23:00	17.17	762	8.43	40.9						8-23-19 0:45									
5-23-19 2:30	16.90	1685	7.46	7.5	5-22-19 23:15	17.77	1186	8.36	1.4	5-22-19 23:15	17.12	762	8.41	37.6						8-23-19 1:00									
5-23-19 2:45	16.86	1684	7.41	7.6	5-22-19 23:30	17.76	1188	8.36	1.8	5-22-19 23:30	17.08	761	8.41	40.8						8-23-19 1:15									
5-23-19 3:00	16.79	1686	7.41	7.9	5-22-19 23:45	17.72	1190	8.35	3.3	5-22-19 23:45	17.02	757	8.40	42.4						8-23-19 1:30									
5-23-19 3:15	16.78	1685	7.37	7.5	5-23-19 0:00	17.68	1190	8.35	2.2	5-23-19 0:00	16.96	765	8.39	41.9						8-23-19 1:45									
5-23-19 3:30	16.74	1684	7.39	7.5	5-23-19 0:15	17.58	1192	8.35	2.8	5-23-19 0:15	16.90	768	8.40	42.4						8-23-19 2:00									
5-23-19 3:45	16.66	1681	7.40	5.6	5-23-19 0:30	17.53	1191	8.36	2.6	5-23-19 0:30	16.85	761	8.38	55.2						8-23-19 2:15									
5-23-19 4:00	16.63	1684	7.40	7.7	5-23-19 0:45	17.49	1192	8.35	26.9	5-23-19 0:45	16.79	751	8.38	39.7						8-23-19 2:30									
5-23-19 4:15	16.56	1684	7.39	7.6	5-23-19 1:00	17.44	1192	8.35	86.2	5-23-19 1:00	16.71	754	8.39	41.2						8-23-19 2:45									
5-23-19 4:30	16.53	1686	7.38	7.2	5-23-19 1:15	17.37	1193	8.35	124.7	5-23-19 1:15	16.60	754	8.40	43.7						8-23-19 3:00									
5-23-19 4:45	16.50	1686	7.42	7.1	5-23-19 1:30	17.33	1193	8.34	134.6	5-23-19 1:30	16.54	750	8.39	46.5						8-23-19 3:30									
5-23-19 5:00	16.45	1685	7.41	7.4	5-23-19 1:45	17.29	1192	8.34	4.0	5-23-19 1:45	16.46	754	8.38	48.9						8-23-19 3:45									
5-23-19 5:15	16.41	1685	7.40	7.4	5-23-19 2:00	17.26	1192	8.34	4.8	5-23-19 2:00	16.40	753	8.38	48.9						8-23-19 4:00									
5-23-19 5:30	16.37	1684	7.37	7.4	5-23-19 2:15	17.22	1162	8.33	8.4	5-23-19 2:15	16.34	755	8.38	47.5						8-23-19 4:15									
5-23-19 5:45	16.34	1685	7.38	7.3	5-23-19 2:30	17.23	1158	8.33	3.9	5-23-19 2:30	16.32	757	8.38	53.1						8-23-19 4:30									
5-23-19 6:00	16.30	1684	7.38	7.2	5-23-19 2:45	17.16	1140	8.33	4.8	5-23-19 2:45	16.28	753	8.38	56.4						8-23-19 4:45									
5-23-19 6:15	16.26	1683	7.38	7.4	5-23-19 3:00	17.15	1147	8.33	5.9	5-23-19 3:00	16.24	753	8.38	63.6						8-23-19 5:00									
5-23-19 6:30	16.23	1685	7.29	6.9	5-23-19 3:15	17.14	1003	8.32	5.8	5-23-19 3:15	16.19	756	8.38	62.6						8-23-19 5:30									
5-23-19 6:45	16.21	1691	7.35	7.1	5-23-19 3:30	17.08	998	8.32	6.5	5-23-19 3:30	16.13	755	8.38	46.6						8-23-19 5:45									
5-23-19 7:00	16.18	1684	7.35	7.2	5-23-19 3:45	17.05	983	8.32	5.7	5-23-19 3:45	16.07	756	8.37	71.2						8-23-19 6:00									
5-23-19 7:15	16.15	1691	7.31	7.1	5-23-19 4:00	17.03	982	8.32	5.1	5-23-19 4:00	16.01	752	8.37	48.1						8-23-19 6:15									
5-23-19 7:30	16.10	1684	7.36	7.9	5-23-19 4:15	17.01	963	8.32	7.0	5-23-19 4:15	15.97	751	8.37	48.5						8-23-19 6:30									
5-23-19 7:45	16.14	1686	7.33	7.2	5-23-19 4:30	16.97	961	8.31	9.1	5-23-19 4:30	15.91	752	8.37	49.5						8-23-19 6:45									
5-23-19 8:00	16.11	1686	7.34	7.5	5-23-19 4:45	16.90	955	8.31	6.8	5-23-19 4:45	15.86	752	8.36	48.7						8-23-19 7:00									
5-23-19 8:15	16.10	1690	7.36	7.2	5-23-19 5:00	16.85	956	8.31	6.6	5-23-19 5:00	15.81	750	8.35	49.0						8-23-19 7:15									
5-23-19 8:30	16.08	1684	7.39	7.6	5-23-19 5:15	16.83	974	8.31	6.5	5-23-19 5:15	15.77	749	8.35	50.6						8-23-19 7:30									
5-23-19 8:45	16.13	1685	7.39	5.1	5-23-19 5:30	16.79	979	8.31	6.0	5-23-19 5:30	15.69	742	8.34	50.1						8-23-19 7:45									
5-23-19 9:00	16.10	1685	7.39	7.5	5-23-19 5:45	16.80	1005	8.31	6.5	5-23-19 5:45	15.61	744	8.33	63.7						8-23-19 8:00									
5-23-19 9:15	16.19	1683	7.42	8.0	5-23-19 6:00	16.80	1014	8.30	6.3	5-23-19 6:00	15.60	748	8.32	65.7						8-23-19 8:15									
5-23-19 9:30	16.29	1689	7.43	6.9	5-23-19 6:15	16.76	1058	8.30	8.0	5-23-19 6:15	15.55	747	8.32	68.1						8-23-19 8:30									
5-23-19 9:45	16.32	1682	7.47	8.0	5-23-19 6:30	16.74	1067	8.30	11.3	5-23-19 6:30	15.51	748	8.32	75.3						8-23-19 8:45									
5-23-19 10:00	16.50	1681	7.53	7.9	5-23-19 6:45	16.68	1046	8.29	10.2	5-23-19 6:45	15.47	745	8.31	61.4						8-23-19 9:00									
5-23-19 10:15	16.58	1683	7.49	9.2	5-23-19 7:00	16.69	1048	8.29	10.0	5-23-19 7:00	15.44	752	8.31	64.1						8-23-19 9:15									
5-23-19 10:30	16.71	1683	7.51	7.7	5-23-19 7:15	16.69	1071	8.28	9.8	5-23-19 7:15	15.39	763	8.31	64.4						8-23-19 9:30									
5-23-19 10:45	16.92	1678	7.65	7.0	5-23-19 7:30	16.67	1079	8.28	12.7	5-23-19 7:30	15.37	763	8.30	86.8						8-23-19 9:45									
5-23-19 11:00	17.03	1682	8.29	6.3	5-23-19 7:45	16.69	1086	8.28	9.9	5-23-19 7:45	15.31	764	8.30	87.9						8-23-19 10:00									
5-23-19 11:15	17.16	1684	8.29	7.9	5-23-19 8:00	16.70	1087	8.28	9.7	5-23-19 8:00	15.35	745	8.29	66.8						8-23-19 10:15									
5-23-19 11:30	17.24	1682	7.71	7.5	5-23-19 8:15	16.75	1089	8.27	11.9	5-23-19 8:15	15.40	747	8.28	65.5						8-23-19 10:30									
5-23-19 11:45	17.33	1679	7.53	9.5	5-23-19 8:30	16.78	1088	8.28	14.3	5-23-19 8:30	15.39	747	8.29	66.4						8-23-19 10:45									
5-23-19 12:00	17.31	1682	7.55	5.2	5-23-19 8:45	16.77	1091	8.29	10.0	5-23-19 8:45										8-23-19 11:00									

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-23-19 12:15	17.37	1676	7.50	5.7	5-23-19 9:00	16.71	1091	8.31	9.0	5-23-19 9:00										8-23-19 11:15									
5-23-19 12:30	17.37	1680	7.37	8.8	5-23-19 9:15	16.82	1093	8.31	9.7	5-23-19 9:15										8-23-19 11:30									
5-23-19 12:45	17.44	1684	7.19	5.3	5-23-19 9:30	16.85	1093	8.30	6.5	5-23-19 9:30	15.65	756	8.29	64.2						8-23-19 11:45									
5-23-19 13:00	17.51	1684	7.31	8.1	5-23-19 9:45	16.89	1093	8.30	7.3	5-23-19 9:45	15.92	757	8.30	65.7						8-23-19 12:00									
5-23-19 13:15	17.58	1681	7.31	7.4	5-23-19 10:00	16.89	1093	8.32	4.2	5-23-19 10:00	16.28	753	8.27	72.3						8-23-19 12:15									
5-23-19 13:30	18.27	1689	7.51	6.0	5-23-19 10:15	16.90	1093	8.32	4.7	5-23-19 10:15	16.60	752	8.27	70.6						8-23-19 12:30									
5-23-19 13:45	18.18	1678	7.96	8.2	5-23-19 10:30	16.93	1093	8.32	3.7	5-23-19 10:30	16.62	750	8.29	64.1						8-23-19 12:45									
5-23-19 14:00	18.09	1680	8.72	8.9	5-23-19 10:45	16.99	1093	8.33	5.6	5-23-19 10:45	16.70	741	8.28	58.7						8-23-19 13:00									
5-23-19 14:15	18.26	1683	8.73	6.9	5-23-19 11:00	17.08	1093	8.32	6.4	5-23-19 11:00	16.94	745	8.28	63.4						8-23-19 13:15									
5-23-19 14:30	18.59	1686	7.95	6.9	5-23-19 11:15	17.10	1093	8.32	7.4	5-23-19 11:15	17.17	745	8.27	62.9						8-23-19 13:30									
5-23-19 14:45	18.76	1682	7.92	7.2	5-23-19 11:30	17.55	1096	8.31	5.6	5-23-19 11:30	17.24	754	8.25	63.5						8-23-19 13:45									
5-23-19 15:00	18.84	1682	7.99	6.5	5-23-19 11:45	18.16	1091	8.31	7.0	5-23-19 11:45	17.63	743	8.26	67.8						8-23-19 14:00									
5-23-19 15:15	19.03	1687	8.15	6.6	5-23-19 12:00	18.29	1095	8.30	6.5	5-23-19 12:00	17.41	742	8.27	68.3						8-23-19 14:30									
5-23-19 15:30	19.15	1681	8.12	7.1	5-23-19 12:15	18.73	1096	8.29	6.5	5-23-19 12:15	17.65	736	8.26	71.8						8-23-19 14:45									
5-23-19 15:45	19.29	1683	8.30	7.4	5-23-19 12:30	18.87	1098	8.28	5.3	5-23-19 12:30	17.98	741	8.27	70.3						8-23-19 15:00									
5-23-19 16:00	19.48	1683	8.32	6.6	5-23-19 12:45	19.35	1101	8.28	6.7	5-23-19 12:45	18.25	749	8.25	75.8						8-23-19 15:15									
5-23-19 16:15	19.27	1684	8.48	7.0	5-23-19 13:00	19.65	1098	8.27	6.1	5-23-19 13:00	18.91	751	8.25	85.2						8-23-19 15:30									
5-23-19 16:30	18.96	1685	7.97	7.3	5-23-19 13:15	19.95	1096	8.28	10.0	5-23-19 13:15	19.65	750	8.25	63.0						8-23-19 15:45									
5-23-19 16:45	18.93	1682	8.01	8.6	5-23-19 13:30	20.69	1101	8.27	8.8	5-23-19 13:30	18.62	739	8.23	59.8						8-23-19 16:00									
5-23-19 17:00	18.96	1686	8.34	7.8	5-23-19 13:45	21.02	1104	8.27	12.6	5-23-19 13:45	17.96	731	8.19	68.6						8-23-19 16:15									
5-23-19 17:15	19.00	1684	8.41	7.9	5-23-19 14:00	20.97	1103	8.27	8.3	5-23-19 14:00	18.07	750	8.26	52.4						8-23-19 16:30									
5-23-19 17:30	19.10	1683	8.01	9.6	5-23-19 14:15	20.74	1102	8.28	8.4	5-23-19 14:15	19.43	756	8.25	59.8						8-23-19 16:45									
5-23-19 17:45	19.02	1683	8.34	10.4	5-23-19 14:30	20.97	1102	8.29	7.7	5-23-19 14:30	20.28	750	8.25	60.5						8-23-19 17:00									
5-23-19 18:00	19.04	1682	8.02	11.0	5-23-19 14:45	21.18	1104	8.29	9.5	5-23-19 14:45	21.05	750	8.21	60.5						8-23-19 17:15									
5-23-19 18:15	19.05	1680	8.32	10.1	5-23-19 15:00	20.56	1095	8.28	9.9	5-23-19 15:00	21.55	753	8.23	55.3						8-23-19 17:30									
5-23-19 18:30	19.07	1681	8.29	10.4	5-23-19 15:15	20.21	1096	8.30	41.9	5-23-19 15:15	21.90	754	8.23	64.1						8-23-19 17:45									
5-23-19 18:45	19.01	1679	8.56	7.9	5-23-19 15:30	19.91	1089	8.33	48.1	5-23-19 15:30	22.17	753	8.22	179.5						8-23-19 18:00									
5-23-19 19:00	18.96	1680	8.57	7.5	5-23-19 15:45	20.02	1092	8.37	57.4	5-23-19 15:45	22.51	740	8.22	62.1						8-23-19 18:15									
5-23-19 19:15	18.79	1678	8.38	7.2	5-23-19 16:00	20.72	1098	8.32	64.2	5-23-19 16:00	18.88	721	8.23	126.9						8-23-19 18:30									
5-23-19 19:30	18.78	1696	8.55	7.5	5-23-19 16:15	20.82	1099	8.32	152.6	5-23-19 16:15	18.81	773	8.26	85.1						8-23-19 18:45									
5-23-19 19:45	18.79	1680	8.64	7.3	5-23-19 16:30	21.09	1102	8.31	123.8	5-23-19 16:30	20.22	780	8.26	86.1						8-23-19 19:00									
5-23-19 20:00	18.77	1681	8.66	7.2	5-23-19 16:45	21.13	1101	8.31	45.0	5-23-19 16:45	20.88	750	8.24	150.1						8-23-19 19:30									
5-23-19 20:15	18.71	1682	8.56	7.2	5-23-19 17:00	19.59	1084	8.33	57.4	5-23-19 17:00	20.85	750	8.25	89.9						8-23-19 19:45									
5-23-19 20:30	18.67	1683	8.51	7.3	5-23-19 17:15	19.58	1100	8.36	17.4	5-23-19 17:15	18.37	731	8.28	202.7						8-23-19 20:00									
5-23-19 20:45	18.64	1682	8.39	7.4	5-23-19 17:30	19.61	1096	8.35	11.8	5-23-19 17:30	17.88	747	8.28	145.9						8-23-19 20:15									
5-23-19 21:00	18.60	1682	8.37	7.3	5-23-19 17:45	19.73	1088	8.35	4.4	5-23-19 17:45	19.60	750	8.26	104.0						8-23-19 20:30									
5-23-19 21:15	18.57	1682	8.55	7.2	5-23-19 18:00	19.77	1087	8.35	4.3	5-23-19 18:00	19.64	754	8.26	132.3						8-23-19 20:45									
5-23-19 21:30	18.55	1680	8.33	7.7	5-23-19 18:15	19.98	1092	8.35	5.2	5-23-19 18:15	19.60	746	8.26	134.4						8-23-19 21:00									
5-23-19 21:45	18.52	1685	8.32	6.7	5-23-19 18:30	20.05	1083	8.35	7.3	5-23-19 18:30	19.74	750	8.26	78.1						8-23-19 21:15									
5-23-19 22:00	18.48	1681	8.54	7.1	5-23-19 18:45	20.05	1083	8.35	6.1	5-23-19 18:45	19.53	755	8.26	70.8						8-23-19 21:30									
5-23-19 22:15	18.46	1681	8.64	7.8	5-23-19 19:00	19.98	1081	8.35	3.4	5-23-19 19:00	18.58	734	8.28	91.3						8-23-19 21:45									
5-23-19 22:30	18.44	1681	8.24	6.6	5-23-19 19:15	19.93	1081	8.35	4.3	5-23-19 19:15	19.12	750	8.27	87.4						8-23-19 22:00									
5-23-19 22:45	18.41	1680	8.36	6.4	5-23-19 19:30	19.93	1081	8.35	3.1	5-23-19 19:30	19.24	754	8.26	72.0						8-23-19 22:15									
5-23-19 23:00	18.38	1679	8.50	6.8	5-23-19 19:45	19.86	1079	8.35	2.8	5-23-19 19:45	19.13	755	8.26	200.1						8-23-19 22:30									
5-23-19 23:15	18.34	1681	8.31	6.5	5-23-19 20:00	19.82	1079	8.35	1.0	5-23-19 20:00	19.18	750	8.26	147.9						8-23-19 22:45									
5-23-19 23:30	18.30	1679	8.46	6.7	5-23-19 20:15	19.80	1077	8.35	1.3	5-23-19 20:15	19.17	752	8.25	163.0						8-23-19 23:00									
5-23-19 23:45	18.27	1684	8.18	6.3	5-23-19 20:30	19.77	1076	8.35	1.4	5-23-19 20:30	19.19	753	8.25	172.5						8-23-19 23:15									
5-24-19 0:00	18.23	1683	8.20	6.7	5-23-19 20:45	19.72	1075	8.34	0.9	5-23-19 20:45	19.11	749	8.26	93.5						8-23-19 23:30									
5-24-19 0:15	18.20	1678	8.15	6.7	5-23-19 21:00	19.68	1075	8.34	88.2	5-23-19 21:00	19.04	747	8.26	49.2						8-23-19 23:45									
5-24-19 0:30	18.16	1682	7.92	6.6	5-23-19 21:15	19.60	1074	8.35	196.9	5-23-19 21:15	18.96	748	8.26	51.1						8-24-19 0:00									
5-24-19 0:45	18.12	1682	7.88	6.5	5-23-19 21:30	19.49	1073	8.35	212.9	5-23-19 21:30	18.81	749	8.25	47.0						8-24-19 0:30									
5-24-19 1:00	18.07	1681	7.84	6.9	5-23-19 21:45	19.36	1072	8.35	153.0	5-23-19 21:45	18.70	756	8.26	45.6						8-24-19 0:45									
5-24-19 1:15	18.04	1680	7.76	6.6	5-23-19 22:00	19.29	1072	8.35	177.7	5-23-19 22:00	18.64	746	8.25	46.3						8-24-19 1:00									
5-24-19 1:30	17.97	1685	7.79	6.1	5-23-19 22:15	19.20	1072	8.35	150.9	5-23-19 22:15	18.57	745	8.25	51.8						8-24-19 1:15									
5-24-19 1:45	17.91	1682	7.70	6.0	5-23-19 22:30	19.07	1071	8.35	212.1	5-23-19 22:30	18.49	747	8.26	43.9						8-24-19 1:30									
5-24-19 2:00	17.87	1682	7.36	6.5	5-23-19 22:45	18.99	1069	8.35	197.5	5-23-19 22:45	18.41	749	8.26	45.6						8-24-19 1:45									
5-24-19 2:15	17.84	1682	7.35	6.4	5-23-19 23:00	18.90	1067	8.36	213.1	5-23-19 23:00	18.33	748	8.27	46.6						8-24-19 2:00									
5-24-19 2:30	17.78	1683	7.39	6.2	5-23-19 23:15	18.76	1066	8.36	159.7	5-23-19 23:15	18.22	748	8.27	47.7						8-24-19 2:15									
5-24-19 2:45	17.74	1684	7.33	6.3	5-23-19 23:30	18.64	1065	8.35	151.8	5-23-19 23:30	18.15	750	8.27	48.3						8-24-19 2:30									
5-24-19 3:00	17.70	1682	7.34	5.7	5-23-19 23:45	18.57	1061	8.35	181.0	5-23-19 23:45	18.07	749	8.26	49.8						8-24-19 2:45									
5-24-19 3:15	17.65	1683	7.39	6.2	5-24-19 0:00	18.45	1060	8.36	147.2	5-24-19 0:00	17.97	746	8.26	51.3						8-24-19 3:00									
5-24-19 3:30	17.59	1683	7.45	6.4	5-24-19 0:15	18.48	1059	8.37	145.5	5-24-19 0:15	17.87	750	8.25	55.0						8-24-19 3:15									
5-24-19 3:45	17.51	1684	7.65	5.8	5-24-19 0:30	18.51	1058	8.37	176.2	5-24-19 0:30	17.80	752	8.25	55.8						8-24-19 3:30									
5-24-19 4:00	17.45	1685	7.73	6.1	5-24-19 0:45	18.53	1054	8.37	177.6	5-24-19 0:45	17.68	749	8.25	54.3						8-24-19 3:45									
5-24-19 4:15	17.40	1682	7.74	6.2	5-24-19 1:00	18.50	1051	8.37	192.0	5-24-19 1:00	17.55	747	8.26	65.5						8-24-19 4:00									
5-24-19 4:30	17.35	1683	7.81	6.2	5-24-19 1:15	18.43	1047	8.37	251.6	5-24-19 1:15	17.47	759	8.24	52.3						8-24-19 4:15									
5-24-19 4:45	17.29	1680	7.86	5.7	5-24-19 1:30	18.35	1044	8.37	241.8	5-24-19 1:30	17.37	743	8.22	59.0						8-24-19 4:30									
5-24-19 5:00	17.23	1683	7.84	6.1	5-24-19 1:45	18.29	1036	8.37	146.8	5-24-19 1:45	17.22	743	8.06	82.0						8-24-19 4:45									
5-24-19 5:15	17.18	1685	7.83	5.8	5-24-19 2:00	18.27	1032	8.37	149.0	5-24-19 2:00	17.17	738	8.16	61.9						8-24-19 5:00									
5-24-19 5:30	17.14	1683	7.75	5.9	5-24-19 2:15	18.20	1019	8.37	138.8	5-24-19 2:15	17.08	737	8.11	65.2						8-24-19 5:15									
5-24-19 5:45	17.07	1683	7.81	5.9	5-24-19 2:30	18.16	1013	8.37	160.7	5-24-19 2:30	16.96	740	8.18	65.2						8-24-19 5:30									
5-24-19 6:00	17.01	1682	7.81	4.1	5-24-19 2:45	18.10	1001	8.37	146.6	5-24-19 2:45	16.83	747	8.13	62.9						8-24-19 5:45									
5-24-19 6:15	16.95	1683	7.78	4.2	5-24-19 3:00	18.05	991	8.37	151.2	5-24-19 3:00	16.74	748	8.13	68.5						8-24-19 6:00									

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-24-19 6:30	16.91	1684	7.77	4.3	5-24-19 3:15	18.01	976	8.37	130.6	5-24-19 3:15	16.68	746	8.11	74.4						8-24-19 6:30									
5-24-19 6:45	16.82	1683	7.75	6.0	5-24-19 3:30	17.94	972	8.37	140.7	5-24-19 3:30	16.60	747	8.10	78.5						8-24-19 6:45									
5-24-19 7:00	16.80	1682	7.80	5.9	5-24-19 3:45	17.90	957	8.37	126.1	5-24-19 3:45	16.54	737	8.08	96.3						8-24-19 7:00									
5-24-19 7:15	16.76	1684	7.81	4.3	5-24-19 4:00	17.87	955	8.36	143.2	5-24-19 4:00	16.46	736	8.09	94.3						8-24-19 7:15									
5-24-19 7:30	16.74	1682	7.81	4.0	5-24-19 4:15	17.82	911	8.36	149.0	5-24-19 4:15	16.37	729	8.03	114.2						8-24-19 7:30									
5-24-19 7:45	16.75	1681	7.81	4.7	5-24-19 4:30	17.76	893	8.36	162.1	5-24-19 4:30	16.25	731	7.99	125.3						8-24-19 7:45									
5-24-19 8:00	16.75	1684	7.82	5.9	5-24-19 4:45	17.66	853	8.37	166.4	5-24-19 4:45	16.17	734	7.98	126.1						8-24-19 8:00									
5-24-19 8:15	16.74	1680	7.86	5.1	5-24-19 5:00	17.58	890	8.36	151.2	5-24-19 5:00	16.09	734	7.98	128.0						8-24-19 8:15									
5-24-19 8:30	16.74	1682	7.89	5.9	5-24-19 5:15	17.49	872	8.37	178.6	5-24-19 5:15	16.01	734	7.97	136.0						8-24-19 8:30									
5-24-19 8:45	16.76	1683	7.98	3.9	5-24-19 5:30	17.44	872	8.36	126.1	5-24-19 5:30	15.94	734	7.98	79.4						8-24-19 8:45									
5-24-19 9:00	16.78	1682	8.00	4.1	5-24-19 5:45	17.33	875	8.36	182.5	5-24-19 5:45	15.91	739	8.01	80.2						8-24-19 9:00									
5-24-19 9:15	16.83	1679	8.07	6.1	5-24-19 6:00	17.29	877	8.36	166.7	5-24-19 6:00	15.86	736	8.00	78.8						8-24-19 9:30									
5-24-19 9:30	16.85	1679	8.07	4.1	5-24-19 6:15	17.24	965	8.36	4.2	5-24-19 6:15	15.81	735	7.99	79.5						8-24-19 9:45									
5-24-19 9:45	16.87	1680	8.20	4.2	5-24-19 6:30	17.23	958	8.36	4.1	5-24-19 6:30	15.75	734	7.99	81.9						8-24-19 10:00									
5-24-19 10:00	16.97	1680	8.30	4.2	5-24-19 6:45	17.20	943	8.35	6.2	5-24-19 6:45	15.71	741	7.98	72.7						8-24-19 10:15									
5-24-19 10:15	17.08	1679	8.40	6.4	5-24-19 7:00	17.16	939	8.35	5.4	5-24-19 7:00	15.66	734	7.97	78.1						8-24-19 10:30									
5-24-19 10:30	17.23	1680	8.51	5.3	5-24-19 7:15	17.13	927	8.35	5.9	5-24-19 7:15	15.62	733	7.96	78.2						8-24-19 10:45									
5-24-19 10:45	17.23	1703	8.46	6.4	5-24-19 7:30	17.10	923	8.34	11.8	5-24-19 7:30	15.60	732	7.95	80.7						8-24-19 11:00									
5-24-19 11:00	17.45	1678	8.49	6.8	5-24-19 7:45	17.09	925	8.33	6.6	5-24-19 7:45	15.57	738	7.95	90.3						8-24-19 11:15									
5-24-19 11:15	17.47	1675	8.60	4.1	5-24-19 8:00	17.13	925	8.33	8.6	5-24-19 8:00	15.58	732	7.94	87.3						8-24-19 11:30									
5-24-19 11:30	17.78	1673	8.63	4.1	5-24-19 8:15	17.17	924	8.33	13.2	5-24-19 8:15	15.58	730	7.93	90.1						8-24-19 11:45									
5-24-19 11:45	17.74	1677	8.52	6.6	5-24-19 8:30	17.20	923	8.33	13.1	5-24-19 8:30	15.60	730	7.92	88.0						8-24-19 12:00									
5-24-19 12:00	17.67	1677	8.08	5.9	5-24-19 8:45	17.23	916	8.31	8.7	5-24-19 8:45	15.60	732	7.91	90.8						8-24-19 12:15									
5-24-19 12:15	17.80	1679	8.30	6.1	5-24-19 9:00	17.31	915	8.32	8.0	5-24-19 9:00	15.62	731	7.91	90.1						8-24-19 12:30									
5-24-19 12:30	17.82	1676	8.61	6.1	5-24-19 9:15	17.34	905	8.30	14.2	5-24-19 9:15	15.67	731	7.90	115.1						8-24-19 12:45									
5-24-19 12:45	17.87	1676	8.62	6.3	5-24-19 9:30	17.38	909	8.30	11.8	5-24-19 9:30	15.76	733	7.90	93.7						8-24-19 13:00									
5-24-19 13:00	17.92	1677	8.51	5.9	5-24-19 9:45	17.43	928	8.32	8.3	5-24-19 9:45	15.85	738	7.89	116.7						8-24-19 13:15									
5-24-19 13:15	18.04	1679	8.57	5.9	5-24-19 10:00	17.45	933	8.31	13.5	5-24-19 10:00	15.97	727	7.88	107.9						8-24-19 13:30									
5-24-19 13:30	18.23	1680	8.58	7.5	5-24-19 10:15	17.47	945	8.31	11.1	5-24-19 10:15	16.03	728	7.89	109.0						8-24-19 13:45									
5-24-19 13:45	18.50	1674	8.82	5.8	5-24-19 10:30	17.50	944	8.33	3.5	5-24-19 10:30	16.10	729	7.91	111.7						8-24-19 14:00									
5-24-19 14:00	18.83	1676	8.81	5.6	5-24-19 10:45	17.59	929	8.31	14.5	5-24-19 10:45	16.38	730	7.90	111.1						8-24-19 14:15									
5-24-19 14:15	19.21	1676	8.61	5.8	5-24-19 11:00	17.61	923	8.30	8.6	5-24-19 11:00	16.53	729	7.90	121.9						8-24-19 14:30									
5-24-19 14:30	19.55	1676	8.70	6.5	5-24-19 11:15	17.61	971	8.33	6.6	5-24-19 11:15	16.84	729	7.90	121.3						8-24-19 14:45									
5-24-19 14:45	19.76	1673	8.73	5.8	5-24-19 11:30	17.67	974	8.35	3.6	5-24-19 11:30	16.89	731	7.91	123.0						8-24-19 15:00									
5-24-19 15:00	19.60	1675	8.66	5.8	5-24-19 11:45	17.78	985	8.34	3.2	5-24-19 11:45	17.33	726	7.90	91.6						8-24-19 15:15									
5-24-19 15:15	19.45	1674	8.67	5.6	5-24-19 12:00	17.89	989	8.33	3.3	5-24-19 12:00	17.42	727	7.90	83.6						8-24-19 15:30									
5-24-19 15:30	19.36	1668	8.82	6.6	5-24-19 12:15	17.98	987	8.34	4.2	5-24-19 12:15	17.86	730	7.89	86.2						8-24-19 15:45									
5-24-19 15:45	19.57	1667	8.84	6.6	5-24-19 12:30	18.20	962	8.34	3.2	5-24-19 12:30	18.16	728	7.90	87.4						8-24-19 16:00									
5-24-19 16:00	19.92	1678	8.80	5.8	5-24-19 12:45	18.64	995	8.32	5.6	5-24-19 12:45	18.01	730	7.88	78.5						8-24-19 16:15									
5-24-19 16:15	19.24	1669	8.90	7.5	5-24-19 13:00	18.55	995	8.33	7.0	5-24-19 13:00	18.57	736	7.90	84.6						8-24-19 16:30									
5-24-19 16:30	19.03	1671	8.91	6.4	5-24-19 13:15	18.70	998	8.34	8.4	5-24-19 13:15	19.33	734	7.89	87.4						8-24-19 16:45									
5-24-19 16:45	19.29	1673	8.87	6.7	5-24-19 13:30	18.90	997	8.33	9.1	5-24-19 13:30	19.75	733	7.88	82.9						8-24-19 17:00									
5-24-19 17:00	19.44	1672	8.93	6.5	5-24-19 13:45	18.98	998	8.33	6.4	5-24-19 13:45	20.07	734	7.88	85.0						8-24-19 17:15									
5-24-19 17:15	19.74	1670	8.97	7.5	5-24-19 14:00	19.10	997	8.34	5.7	5-24-19 14:00	20.79	732	7.91	95.9						8-24-19 17:30									
5-24-19 17:30	19.70	1671	8.97	7.6	5-24-19 14:15	19.13	998	8.35	5.5	5-24-19 14:15	19.88	724	7.87	99.3						8-24-19 17:45									
5-24-19 17:45	19.72	1669	8.97	6.9	5-24-19 14:30	19.65	1000	8.33	5.6	5-24-19 14:30	18.38	724	7.88	122.4						8-24-19 18:00									
5-24-19 18:00	19.68	1670	8.98	7.9	5-24-19 14:45	19.90	1002	8.32	6.3	5-24-19 14:45	19.65	723	7.87	83.4						8-24-19 18:15									
5-24-19 18:15	19.66	1670	8.99	7.9	5-24-19 15:00	20.42	1002	8.31	6.1	5-24-19 15:00	21.21	738	7.92	81.4						8-24-19 18:30									
5-24-19 18:30	19.58	1673	9.01	6.9	5-24-19 15:15	19.90	1001	8.31	4.1	5-24-19 15:15	21.84	743	7.91	84.8						8-24-19 18:45									
5-24-19 18:45	19.51	1671	9.02	7.0	5-24-19 15:30	19.79	999	8.31	5.6	5-24-19 15:30	22.33	738	7.92	70.1						8-24-19 19:00									
5-24-19 19:00	19.42	1670	9.04	7.1	5-24-19 15:45	20.09	1004	8.31	5.8	5-24-19 15:45	21.03	694	7.86	83.8						8-24-19 19:15									
5-24-19 19:15	19.33	1672	9.02	7.4	5-24-19 16:00	20.69	1006	8.32	6.6	5-24-19 16:00	18.91	728	7.86	95.2						8-24-19 19:30									
5-24-19 19:30	19.29	1673	9.01	9.2	5-24-19 16:15	21.03	1007	8.30	5.3	5-24-19 16:15	18.42	743	7.88	83.0						8-24-19 19:45									
5-24-19 19:45	19.23	1668	9.02	6.5	5-24-19 16:30	21.13	1007	8.27	3.8	5-24-19 16:30	19.77	750	7.89	87.9						8-24-19 20:00									
5-24-19 20:00	19.18	1670	9.03	6.8	5-24-19 16:45	21.09	1006	8.29	3.8	5-24-19 16:45	19.18	733	7.87	90.2						8-24-19 20:30									
5-24-19 20:15	19.11	1673	9.03	6.8	5-24-19 17:00	21.08	1006	8.32	15.6	5-24-19 17:00	19.55	734	7.91	90.7						8-24-19 20:45									
5-24-19 20:30	19.07	1672	9.03	6.2	5-24-19 17:15	20.71	993	8.33	8.2	5-24-19 17:15	20.54	759	7.90	103.7						8-24-19 21:00									
5-24-19 20:45	19.02	1671	9.03	6.3	5-24-19 17:30	19.01	998	8.34	10.5	5-24-19 17:30	20.69	725	7.91	112.8						8-24-19 21:15									
5-24-19 21:00	18.99	1670	9.02	6.4	5-24-19 17:45	18.51	997	8.38	14.6	5-24-19 17:45	20.71	736	7.92	64.6						8-24-19 21:30									
5-24-19 21:15	18.93	1670	9.03	6.1	5-24-19 18:00	18.47	1001	8.39	3.8	5-24-19 18:00	20.78	747	7.93	64.8						8-24-19 21:45									
5-24-19 21:30	18.90	1672	9.02	6.0	5-24-19 18:15	19.71	1003	8.38	4.6	5-24-19 18:15	20.58	745	7.94	68.3						8-24-19 22:00									
5-24-19 21:45	18.85	1672	9.03	6.3	5-24-19 18:30	19.98	1003	8.36	8.8	5-24-19 18:30	18.72	720	7.89	113.6						8-24-19 22:15									
5-24-19 22:00	18.81	1671	9.03	6.1	5-24-19 18:45	20.00	1003	8.36	5.9	5-24-19 18:45	18.03	725	7.89	81.7						8-24-19 22:30									
5-24-19 22:15	18.76	1671	9.02	5.9	5-24-19 19:00	19.97	1002	8.36	3.7	5-24-19 19:00	17.66	718	7.79	107.6						8-24-19 22:45									
5-24-19 22:30	18.70	1670	9.01	5.8	5-24-19 19:15	19.93	1001	8.36	4.0	5-24-19 19:15	18.04	724	7.88	95.4						8-24-19 23:00									
5-24-19 22:45	18.67	1672	9.03	6.1	5-24-19 19:30	19.93	1000	8.37	4.7	5-24-19 19:30	17.69	716	7.86	99.8						8-24-19 23:15									
5-24-19 23:00	18.62	1671	9.02	5.8	5-24-19 19:45	19.87	999	8.37	6.2	5-24-19 19:45	17.56	720	7.85	79.4						8-24-19 23:30									
5-24-19 23:15	18.57	1673	9.02	6.2	5-24-19 20:00	19.84	998	8.37	6.5	5-24-19 20:00	18.05	723	7.74	96.6						8-24-19 23:45									
5-24-19 23:30	18.54	1672	9.02	5.9	5-24-19 20:15	19.77	1005	8.37	2.2	5-24-19 20:15	18.42	728	7.81	91.9						8-25-19 0:00									
5-24-19 23:45	18.51	1673	9.02	5.8	5-24-19 20:30	19.76	1006	8.36	0.0	5-24-19 20:30	18.57	728	7.82	87.5						8-25-19 0:15									
5-25-19 0:00	18.47	1672	9.02	5.9	5-24-19 20:45	19.69	1006	8.36	0.3	5-24-19 20:45	18.54	732	7.82	73.3						8-25-19 0:30									
5-25-19 0:15	18.43	1670	9.02	5.8	5-24-19 21:00	19.57	1006	8.37	0.0	5-24-19 21:00	18.60	734	7.85	69.8						8-25-19 0:45									
5-25-19 0:30	18.39	1671	9.01	5.5	5-24-19 21:15	19.47	1006	8.37	0.0	5-24-19 21:15	18.50	730	7.83	71.7						8-25-19 1:00									

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-25-19 0:45	18.36	1669	9.02	5.6	5-24-19 21:30	19.33	1006	8.37	0.6	5-24-19 21:30	18.45	729	7.82	71.4						8-25-19 1:15									
5-25-19 1:00	18.32	1673	9.02	5.6	5-24-19 21:45	19.18	1006	8.38	0.7	5-24-19 21:45	18.37	732	7.85	77.1						8-25-19 1:30									
5-25-19 1:15	18.28	1669	9.01	6.0	5-24-19 22:00	19.00	1005	8.37	1.0	5-24-19 22:00	18.30	731	7.87	75.4						8-25-19 1:45									
5-25-19 1:30	18.24	1672	9.01	7.1	5-24-19 22:15	18.93	1004	8.38	2.1	5-24-19 22:15	18.27	731	7.85	72.3						8-25-19 2:00									
5-25-19 1:45	18.18	1671	9.01	5.5	5-24-19 22:30	18.92	1004	8.39	2.1	5-24-19 22:30	18.18	729	7.86	72.3						8-25-19 2:15									
5-25-19 2:00	18.13	1671	9.01	6.4	5-24-19 22:45	18.93	1004	8.39	1.6	5-24-19 22:45	18.07	726	7.84	64.6						8-25-19 2:30									
5-25-19 2:15	18.09	1675	9.01	5.3	5-24-19 23:00	18.92	1004	8.39	2.0	5-24-19 23:00	17.95	727	7.86	63.5						8-25-19 2:45									
5-25-19 2:30	18.05	1671	9.01	6.2	5-24-19 23:15	18.88	1003	8.40	1.2	5-24-19 23:15	17.85	724	7.83	64.1						8-25-19 3:00									
5-25-19 2:45	18.01	1673	9.00	5.9	5-24-19 23:30	18.85	1003	8.39	1.1	5-24-19 23:30	17.74	723	7.79	70.7						8-25-19 3:15									
5-25-19 3:00	17.96	1671	9.00	5.5	5-24-19 23:45	18.79	1004	8.32	2.5	5-24-19 23:45	17.68	723	7.82	76.1						8-25-19 3:30									
5-25-19 3:15	17.92	1674	9.00	5.7	5-25-19 0:00	18.78	1004	8.32	3.5	5-25-19 0:00	17.62	726	7.81	75.0						8-25-19 3:45									
5-25-19 3:30	17.88	1673	9.00	5.5	5-25-19 0:15	18.71	1004	8.24	8.9	5-25-19 0:15	17.54	722	7.73	80.1						8-25-19 4:00									
5-25-19 3:45	17.83	1670	9.00	5.2	5-25-19 0:30	18.67	1004	8.27	10.9	5-25-19 0:30	17.45	726	7.79	76.3						8-25-19 4:30									
5-25-19 4:00	17.77	1668	8.99	5.5	5-25-19 0:45	18.62	1004	8.28	47.6	5-25-19 0:45	17.36	727	7.78	76.4						8-25-19 4:45									
5-25-19 4:15	17.70	1669	9.00	6.8	5-25-19 1:00	18.55	1003	8.20	49.3	5-25-19 1:00	17.28	726	7.77	88.7						8-25-19 5:00									
5-25-19 4:30	17.66	1673	8.99	5.1	5-25-19 1:15	18.51	1003	8.36	63.8	5-25-19 1:15	17.20	724	7.75	93.5						8-25-19 5:15									
5-25-19 4:45	17.59	1669	8.99	5.2	5-25-19 1:30	18.45	1003	8.38	67.4	5-25-19 1:30	17.14	723	7.74	93.0						8-25-19 5:30									
5-25-19 5:00	17.53	1672	8.98	5.4	5-25-19 1:45	18.40	1003	8.38	50.4	5-25-19 1:45	17.06	725	7.74	97.5						8-25-19 5:45									
5-25-19 5:15	17.49	1673	8.98	5.2	5-25-19 2:00	18.35	1003	8.38	46.5	5-25-19 2:00	16.99	726	7.72	105.5						8-25-19 6:00									
5-25-19 5:30	17.44	1672	8.98	5.2	5-25-19 2:15	18.33	1003	8.38	28.2	5-25-19 2:15	16.91	733	7.74	107.4						8-25-19 6:15									
5-25-19 5:45	17.39	1671	8.98	5.3	5-25-19 2:30	18.26	1003	8.39	26.4	5-25-19 2:30	16.88	734	7.72	178.0						8-25-19 6:30									
5-25-19 6:00	17.36	1674	8.97	4.8	5-25-19 2:45	18.22	1003	8.39	1.6	5-25-19 2:45	16.81	727	7.74	182.3						8-25-19 6:45									
5-25-19 6:15	17.32	1673	8.98	5.0	5-25-19 3:00	18.18	1003	8.39	0.5	5-25-19 3:00	16.77	724	7.72	197.1						8-25-19 7:00									
5-25-19 6:30	17.31	1672	8.98	5.0	5-25-19 3:15	18.20	1003	8.38	0.2	5-25-19 3:15	16.74	724	7.72	202.6						8-25-19 7:15									
5-25-19 6:45	17.30	1674	8.97	5.0	5-25-19 3:30	18.16	1003	8.38	19.7	5-25-19 3:30	16.67	723	7.71	212.8						8-25-19 7:30									
5-25-19 7:00	17.27	1674	8.97	4.9	5-25-19 3:45	18.14	1003	8.38	0.0	5-25-19 3:45	16.58	719	7.71	214.3						8-25-19 7:45									
5-25-19 7:15	17.22	1674	8.98	5.2	5-25-19 4:00	18.10	1003	8.38	2.0	5-25-19 4:00	16.50	725	7.74	245.7						8-25-19 8:00									
5-25-19 7:30	17.19	1673	8.98	5.0	5-25-19 4:15	18.05	1003	8.37	0.1	5-25-19 4:15	16.43	725	7.74	77.3						8-25-19 8:15									
5-25-19 7:45	17.16	1664	8.98	5.2	5-25-19 4:30	18.01	1003	8.37	0.1	5-25-19 4:30	16.33	726	7.75	79.7						8-25-19 8:30									
5-25-19 8:00	17.13	1657	8.98	5.3	5-25-19 4:45	17.85	1004	8.37	1.3	5-25-19 4:45	16.27	723	7.75	81.3						8-25-19 8:45									
5-25-19 8:15	17.07	1669	8.98	5.7	5-25-19 5:00	17.79	1004	8.38	1.4	5-25-19 5:00	16.20	724	7.75	75.2						8-25-19 9:00									
5-25-19 8:30	17.06	1670	8.99	5.4	5-25-19 5:15	17.80	1005	8.37	1.8	5-25-19 5:15	16.11	724	7.76	75.7						8-25-19 9:15									
5-25-19 8:45	17.04	1668	8.99	4.7	5-25-19 5:30	17.74	1004	8.36	2.5	5-25-19 5:30	16.08	723	7.75	70.5						8-25-19 9:30									
5-25-19 9:00	17.04	1670	8.99	4.9	5-25-19 5:45	17.72	1004	8.36	2.2	5-25-19 5:45	16.02	725	7.74	72.2						8-25-19 9:45									
5-25-19 9:15	17.03	1669	9.01	5.0	5-25-19 6:00	17.68	1004	8.36	1.7	5-25-19 6:00	16.00	725	7.73	73.8						8-25-19 10:00									
5-25-19 9:30	17.06	1668	9.01	8.4	5-25-19 6:15	17.71	1004	8.36	2.1	5-25-19 6:15	15.96	726	7.73	72.7						8-25-19 10:15									
5-25-19 9:45	17.14	1667	8.95	5.5	5-25-19 6:30	17.71	948	8.36	2.0	5-25-19 6:30	15.96	727	7.72	75.0						8-25-19 10:30									
5-25-19 10:00	17.16	1668	8.85	6.8	5-25-19 6:45	17.71	959	8.35	2.7	5-25-19 6:45	15.94	717	7.72	71.9						8-25-19 10:45									
5-25-19 10:15	17.24	1666	8.88	5.2	5-25-19 7:00	17.69	961	8.35	2.8	5-25-19 7:00	15.92	718	7.72	75.8						8-25-19 11:00									
5-25-19 10:30	17.27	1656	8.86	5.6	5-25-19 7:15	17.68	980	8.35	2.8	5-25-19 7:15	15.90	717	7.71	77.7						8-25-19 11:15									
5-25-19 10:45	17.40	1665	8.85	5.6	5-25-19 7:30	17.59	980	8.35	4.0	5-25-19 7:30	15.86	718	7.71	79.3						8-25-19 11:30									
5-25-19 11:00	17.59	1682	8.88	5.4	5-25-19 7:45	17.57	980	8.35	3.5	5-25-19 7:45	15.84	724	7.71	76.4						8-25-19 11:45									
5-25-19 11:15	17.76	1668	8.91	4.9	5-25-19 8:00	17.56	980	8.35	6.0	5-25-19 8:00	15.81	724	7.72	77.9						8-25-19 12:00									
5-25-19 11:30	17.99	1667	8.93	5.2	5-25-19 8:15	17.54	980	8.34	4.8	5-25-19 8:15	15.76	725	7.72	78.5						8-25-19 12:15									
5-25-19 11:45	18.11	1666	8.92	5.4	5-25-19 8:30	17.50	962	8.35	4.7	5-25-19 8:30	15.72	726	7.72	79.8						8-25-19 12:30									
5-25-19 12:00	18.26	1667	8.93	5.3	5-25-19 8:45	17.50	981	8.33	5.1	5-25-19 8:45	15.71	717	7.71	81.7						8-25-19 12:45									
5-25-19 12:15	18.13	1660	8.82	4.8	5-25-19 9:00	17.57	981	8.33	5.6	5-25-19 9:00	15.74	717	7.70	88.3						8-25-19 13:00									
5-25-19 12:30	18.26	1664	8.85	5.1	5-25-19 9:15	17.64	981	8.32	6.3	5-25-19 9:15	15.81	718	7.71	93.1						8-25-19 13:15									
5-25-19 12:45	18.33	1667	8.91	4.8	5-25-19 9:30	17.65	981	8.33	4.8	5-25-19 9:30	15.83	716	7.69	88.6						8-25-19 13:30									
5-25-19 13:00	18.55	1665	8.88	5.1	5-25-19 9:45	17.68	981	8.33	14.6	5-25-19 9:45	15.89	714	7.66	97.8						8-25-19 13:45									
5-25-19 13:15	18.49	1664	8.82	6.1	5-25-19 10:00	17.71	1002	8.32	10.1	5-25-19 10:00	15.97	714	7.65	91.1						8-25-19 14:00									
5-25-19 13:30	18.60	1662	8.87	4.7	5-25-19 10:15	17.75	1001	8.34	6.4	5-25-19 10:15										8-25-19 14:15									
5-25-19 13:45	18.54	1654	8.83	4.8	5-25-19 10:30	17.79	999	8.34	8.9	5-25-19 10:30										8-25-19 14:30									
5-25-19 14:00	18.51	1673	8.82	4.9	5-25-19 10:45	17.81	999	8.35	9.4	5-25-19 10:45										8-25-19 14:45									
5-25-19 14:15	18.46	1664	8.67	4.9	5-25-19 11:00	17.86	998	8.35	8.1	5-25-19 11:00										8-25-19 15:00									
5-25-19 14:30	18.48	1649	8.79	5.1	5-25-19 11:15	17.92	998	8.35	10.7	5-25-19 11:15										8-25-19 15:30									
5-25-19 14:45	18.48	1661	8.78	6.3	5-25-19 11:30	18.03	1000	8.36	6.0	5-25-19 11:30										8-25-19 15:45									
5-25-19 15:00	18.58	1660	8.84	4.6	5-25-19 11:45	18.12	999	8.37	6.7	5-25-19 11:45	16.94	716	7.66	107.8						8-25-19 16:00									
5-25-19 15:15	18.71	1660	8.87	4.8	5-25-19 12:00	18.21	999	8.36	6.4	5-25-19 12:00	17.11	714	7.66	103.5						8-25-19 16:15									
5-25-19 15:30	18.82	1667	8.77	5.4	5-25-19 12:15	18.19	1000	8.36	5.5	5-25-19 12:15	17.20	717	7.67	108.6						8-25-19 16:30									
5-25-19 15:45	18.96	1667	8.80	4.9	5-25-19 12:30	18.14	998	8.37	9.3	5-25-19 12:30	17.23	717	7.66	97.5						8-25-19 16:45									
5-25-19 16:00	18.97	1662	8.80	6.2	5-25-19 12:45	18.24	997	8.31	6.6	5-25-19 12:45	17.57	723	7.73	103.3						8-25-19 17:00									
5-25-19 16:15	18.95	1665	8.82	5.0	5-25-19 13:00	18.29	996	8.37	7.3	5-25-19 13:00	17.59	714	7.68	106.3						8-25-19 17:15									
5-25-19 16:30	19.02	1659	8.79	4.7	5-25-19 13:15	18.40	997	8.37	6.7	5-25-19 13:15	17.79	716	7.69	100.0						8-25-19 17:30									
5-25-19 16:45	19.13	1642	8.92	4.7	5-25-19 13:30	18.35	995	8.37	8.2	5-25-19 13:30	17.62	714	7.68	106.8						8-25-19 17:45									
5-25-19 17:00	19.23	1660	8.89	5.9	5-25-19 13:45	18.48	994	8.38	6.0	5-25-19 13:45	17.63	716	7.67	100.3						8-25-19 18:00									
5-25-19 17:15	19.15	1665	8.84	4.8	5-25-19 14:00	18.44	994	8.37	5.7	5-25-19 14:00	17.59	716	7.68	103.2						8-25-19 18:15									
5-25-19 17:30	19.17	1660	8.76	5.0	5-25-19 14:15	18.49	992	8.37	5.1	5-25-19 14:15	17.52	716	7.67	102.7						8-25-19 18:30									
5-25-19 17:45	19.10	1669	8.72	4.8	5-25-19 14:30	18.53	995	8.37	3.8	5-25-19 14:30	17.45	714	7.66	114.2						8-25-19 18:45									
5-25-19 18:00	19.06	1663	8.93	4.7	5-25-19 14:45	18.59	994	8.38	6.1	5-25-19 14:45	17.58	715	7.68	91.0						8-25-19 19:00									
5-25-19 18:15	19.08	1668	8.70	4.9	5-25-19 15:00	18.67	994	8.37	4.2	5-25-19 15:00	17.63	712	7.68	94.9						8-25-19 19:15									
5-25-19 18:30	19.09	1659	8.70	4.7	5-25-19 15:15	18.88	992	8.37	4.7	5-25-19 15:15	17.81	714	7.68	95.4						8-25-19 19:30									
5-25-19 18:45	19.09	1662	8.74	5.9	5-25-19 15:30	19.09	991	8.36	5.4	5-25-19 15:30	17.98	713	7.68	98.3						8-25-19 19:45									

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-25-19 19:00	19.09	1666	8.78	4.5	5-25-19 15:45	19.25	990	8.36	4.5	5-25-19 15:45	18.26	717	7.69	86.5						8-25-19 20:00									
5-25-19 19:15	19.03	1657	8.76	4.9	5-25-19 16:00	19.66	989	8.35	4.6	5-25-19 16:00	18.26	718	7.68	73.6						8-25-19 20:15									
5-25-19 19:30	19.03	1667	8.62	4.8	5-25-19 16:15	19.31	980	8.35	12.8	5-25-19 16:15	18.60	716	7.69	75.9						8-25-19 20:30									
5-25-19 19:45	19.02	1658	8.36	4.8	5-25-19 16:30	19.46	983	8.37	5.1	5-25-19 16:30	18.80	716	7.70	79.1						8-25-19 20:45									
5-25-19 20:00	18.99	1663	8.61	4.7	5-25-19 16:45	19.20	980	8.38	7.1	5-25-19 16:45	18.82	713	7.71	125.6						8-25-19 21:00									
5-25-19 20:15	18.96	1666	8.46	5.6	5-25-19 17:00	19.17	980	8.38	7.8	5-25-19 17:00	19.22	716	7.74	121.2						8-25-19 21:15									
5-25-19 20:30	18.95	1669	8.48	4.9	5-25-19 17:15	19.04	976	8.39	10.9	5-25-19 17:15	19.16	718	7.73	137.4						8-25-19 21:30									
5-25-19 20:45	18.93	1657	8.35	4.6	5-25-19 17:30	18.93	974	8.38	6.9	5-25-19 17:30	19.10	721	7.72	156.3						8-25-19 21:45									
5-25-19 21:00	18.88	1661	8.40	4.6	5-25-19 17:45	18.77	972	8.38	6.1	5-25-19 17:45	19.02	718	7.71	146.5						8-25-19 22:00									
5-25-19 21:15	18.84	1655	8.42	5.6	5-25-19 18:00	18.74	971	8.38	5.4	5-25-19 18:00	18.90	716	7.72	129.8						8-25-19 22:15									
5-25-19 21:30	18.81	1675	8.35	4.5	5-25-19 18:15	18.80	966	8.38	3.9	5-25-19 18:15	18.93	715	7.72	136.7						8-25-19 22:30									
5-25-19 21:45	18.78	1664	8.28	4.6	5-25-19 18:30	18.81	965	8.38	4.9	5-25-19 18:30	18.88	715	7.73	135.8						8-25-19 22:45									
5-25-19 22:00	18.75	1698	8.01	4.7	5-25-19 18:45	18.79	958	8.39	4.6	5-25-19 18:45	18.83	718	7.73	73.7						8-25-19 23:00									
5-25-19 22:15	18.71	1665	8.35	5.9	5-25-19 19:00	18.75	957	8.39	9.4	5-25-19 19:00	18.76	731	7.74	75.3						8-25-19 23:15									
5-25-19 22:30	18.65	1659	8.35	4.4	5-25-19 19:15	18.74	954	8.39	2.3	5-25-19 19:15	18.72	731	7.74	77.3						8-25-19 23:30									
5-25-19 22:45	18.61	1661	8.26	4.7	5-25-19 19:30	18.69	954	8.39	16.9	5-25-19 19:30	18.61	721	7.74	78.2						8-25-19 23:45									
5-25-19 23:00	18.55	1663	8.31	4.5	5-25-19 19:45	18.66	958	8.39	4.1	5-25-19 19:45	18.56	711	7.74	78.6						8-26-19 0:00									
5-25-19 23:15	18.48	1667	8.53	4.5	5-25-19 20:00	18.62	960	8.39	2.8	5-25-19 20:00	18.51	716	7.74	77.2						8-26-19 0:15									
5-25-19 23:30	18.40	1665	8.30	4.5	5-25-19 20:15	18.63	966	8.39	2.1	5-25-19 20:15	18.45	715	7.74	79.1						8-26-19 0:30									
5-25-19 23:45	18.35	1665	8.22	4.5	5-25-19 20:30	18.59	969	8.39	1.2	5-25-19 20:30	18.39	715	7.74	85.2						8-26-19 0:45									
5-26-19 0:00	18.28	1675	8.22	4.5	5-25-19 20:45	18.69	978	8.39	1.0	5-25-19 20:45	18.31	714	7.75	167.2						8-26-19 1:00									
5-26-19 0:15	18.22	1668	8.12	5.0	5-25-19 21:00	18.73	979	8.40	0.4	5-25-19 21:00	18.23	716	7.75	173.1						8-26-19 1:15									
5-26-19 0:30	18.16	1665	8.00	4.2	5-25-19 21:15	18.71	971	8.39	0.6	5-25-19 21:15	18.14	713	7.75	181.4						8-26-19 1:30									
5-26-19 0:45	18.12	1670	7.99	4.3	5-25-19 21:30	18.66	966	8.39	0.0	5-25-19 21:30	18.07	713	7.75	67.9						8-26-19 1:45									
5-26-19 1:00	18.04	1664	8.00	4.4	5-25-19 21:45	18.61	951	8.39	0.6	5-25-19 21:45	18.03	714	7.75	62.2						8-26-19 2:00									
5-26-19 1:15	17.95	1658	7.93	4.1	5-25-19 22:00	18.58	947	8.39	0.7	5-25-19 22:00	17.95	719	7.76	64.4						8-26-19 2:15									
5-26-19 1:30	17.92	1664	7.92	4.5	5-25-19 22:15	18.53	935	8.39	1.2	5-25-19 22:15	17.88	711	7.76	62.5						8-26-19 2:30									
5-26-19 1:45	17.84	1665	7.93	4.2	5-25-19 22:30	18.56	932	8.39	0.0	5-25-19 22:30	17.80	716	7.76	62.6						8-26-19 2:45									
5-26-19 2:00	17.76	1665	7.93	4.2	5-25-19 22:45	18.56	925	8.39	7.1	5-25-19 22:45	17.71	715	7.76	66.4						8-26-19 3:00									
5-26-19 2:15	17.69	1662	7.88	4.3	5-25-19 23:00	18.54	922	8.39	2.4	5-25-19 23:00	17.63	718	7.76	63.8						8-26-19 3:30									
5-26-19 2:30	17.63	1666	7.77	4.2	5-25-19 23:15	18.50	920	8.39	9.6	5-25-19 23:15	17.52	710	7.76	63.1						8-26-19 3:45									
5-26-19 2:45	17.57	1662	7.64	4.2	5-25-19 23:30	18.42	919	8.39	0.5	5-25-19 23:30	17.42	712	7.76	64.1						8-26-19 4:00									
5-26-19 3:00	17.51	1666	7.74	4.0	5-25-19 23:45	18.40	918	8.38	0.1	5-25-19 23:45	17.29	719	7.76	70.1						8-26-19 4:15									
5-26-19 3:15	17.42	1665	7.73	4.1	5-26-19 0:00	18.30	917	8.38	2.3	5-26-19 0:00	17.20	717	7.76	69.4						8-26-19 4:30									
5-26-19 3:30	17.37	1666	7.71	4.0	5-26-19 0:15	18.21	915	8.38	0.5	5-26-19 0:15	17.14	716	7.76	73.1						8-26-19 4:45									
5-26-19 3:45	17.27	1667	7.69	4.3	5-26-19 0:30	18.17	913	8.38	4.2	5-26-19 0:30	17.04	713	7.76	68.8						8-26-19 5:00									
5-26-19 4:00	17.24	1667	7.68	4.1	5-26-19 0:45	18.11	907	8.39	2.0	5-26-19 0:45	16.96	714	7.76	70.7						8-26-19 5:15									
5-26-19 4:15	17.16	1666	7.65	4.1	5-26-19 1:00	18.08	905	8.39	136.5	5-26-19 1:00	16.89	715	7.76	57.4						8-26-19 5:30									
5-26-19 4:30	17.09	1668	7.60	4.3	5-26-19 1:15	18.03	907	8.38	47.6	5-26-19 1:15	16.80	715	7.76	56.1						8-26-19 5:45									
5-26-19 4:45	17.05	1666	7.59	4.1	5-26-19 1:30	17.95	910	8.38	3.4	5-26-19 1:30	16.72	713	7.75	57.9						8-26-19 6:00									
5-26-19 5:00	16.99	1665	7.54	4.0	5-26-19 1:45	17.92	924	8.38	1.5	5-26-19 1:45	16.60	714	7.75	66.3						8-26-19 6:15									
5-26-19 5:15	16.94	1666	7.54	4.1	5-26-19 2:00	17.88	931	8.37	3.1	5-26-19 2:00	16.50	714	7.74	63.4						8-26-19 6:30									
5-26-19 5:30	16.89	1666	7.49	4.1	5-26-19 2:15	17.84	950	8.38	2.5	5-26-19 2:15	16.44	714	7.73	69.8						8-26-19 6:45									
5-26-19 5:45	16.86	1665	7.59	4.0	5-26-19 2:30	17.80	954	8.37	2.3	5-26-19 2:30	16.36	713	7.73	67.8						8-26-19 7:00									
5-26-19 6:00	16.83	1665	7.50	4.0	5-26-19 2:45	17.75	954	8.37	2.4	5-26-19 2:45	16.28	720	7.73	54.5						8-26-19 7:15									
5-26-19 6:15	16.78	1666	7.49	3.9	5-26-19 3:00	17.68	954	8.37	1.7	5-26-19 3:00	16.21	714	7.72	53.1						8-26-19 7:30									
5-26-19 6:30	16.74	1665	7.49	4.1	5-26-19 3:15	17.65	955	8.37	1.3	5-26-19 3:15	16.13	713	7.72	54.9						8-26-19 7:45									
5-26-19 6:45	16.71	1664	7.52	4.1	5-26-19 3:30	17.63	959	8.37	3.0	5-26-19 3:30	16.03	713	7.71	56.5						8-26-19 8:00									
5-26-19 7:00	16.71	1664	7.49	3.9	5-26-19 3:45	17.57	967	8.37	1.7	5-26-19 3:45	15.94	715	7.70	54.3						8-26-19 8:15									
5-26-19 7:15	16.65	1665	7.36	5.0	5-26-19 4:00	17.53	971	8.37	1.1	5-26-19 4:00	15.87	711	7.70	55.6						8-26-19 8:30									
5-26-19 7:30	16.68	1662	7.32	4.1	5-26-19 4:15	17.51	979	8.36	1.7	5-26-19 4:15	15.82	710	7.70	58.0						8-26-19 8:45									
5-26-19 7:45	16.69	1666	7.27	3.8	5-26-19 4:30	17.50	982	8.36	1.2	5-26-19 4:30	15.74	711	7.69	56.9						8-26-19 9:00									
5-26-19 8:00	16.73	1665	7.32	4.4	5-26-19 4:45	17.46	988	8.36	3.7	5-26-19 4:45	15.71	710	7.69	62.2						8-26-19 9:15									
5-26-19 8:15	16.71	1664	7.32	3.9	5-26-19 5:00	17.40	989	8.36	1.9	5-26-19 5:00	15.65	709	7.68	56.0						8-26-19 9:30									
5-26-19 8:30	16.78	1664	7.38	3.7	5-26-19 5:15	17.38	993	8.35	1.9	5-26-19 5:15	15.60	707	7.68	56.3						8-26-19 9:45									
5-26-19 8:45	16.84	1666	7.48	3.8	5-26-19 5:30	17.31	993	8.36	4.5	5-26-19 5:30	15.52	709	7.67	57.0						8-26-19 10:00									
5-26-19 9:00	16.92	1665	7.53	3.9	5-26-19 5:45	17.28	995	8.34	2.4	5-26-19 5:45	15.46	709	7.66	55.9						8-26-19 10:15									
5-26-19 9:15	17.01	1665	7.54	3.8	5-26-19 6:00	17.25	995	8.36	2.4	5-26-19 6:00	15.44	708	7.64	55.6						8-26-19 10:30									
5-26-19 9:30	17.12	1665	7.56	4.1	5-26-19 6:15	17.19	996	8.36	2.0	5-26-19 6:15	15.38	708	7.63	57.7						8-26-19 10:45									
5-26-19 9:45	17.25	1663	7.52	4.5	5-26-19 6:30	17.20	997	8.35	1.7	5-26-19 6:30	15.33	708	7.64	56.8						8-26-19 11:00									
5-26-19 10:00	17.35	1662	7.58	4.0	5-26-19 6:45	17.24	997	8.36	2.0	5-26-19 6:45	15.32	708	7.64	66.1						8-26-19 11:15									
5-26-19 10:15	17.46	1659	7.68	4.2	5-26-19 7:00	17.22	998	8.36	0.7	5-26-19 7:00	15.31	709	7.65	65.8						8-26-19 11:30									
5-26-19 10:30	17.41	1656	7.38	4.9	5-26-19 7:15	17.22	998	8.36	2.6	5-26-19 7:15	15.32	708	7.65	67.8						8-26-19 11:45									
5-26-19 10:45	17.39	1656	7.25	4.3	5-26-19 7:30	17.22	997	8.36	4.1	5-26-19 7:30	15.33	708	7.63	67.6						8-26-19 12:00									
5-26-19 11:00	17.66	1657	7.70	4.7	5-26-19 7:45	17.25	998	8.36	2.9	5-26-19 7:45	15.34	708	7.62	77.2						8-26-19 12:15									
5-26-19 11:15	17.45	1651	7.29	4.1	5-26-19 8:00	17.31	998	8.36	3.2	5-26-19 8:00	15.39	708	7.60	77.5						8-26-19 12:30									
5-26-19 11:30	17.49	1650	7.28	4.4	5-26-19 8:15	17.33	998	8.36	3.4	5-26-19 8:15	15.46	709	7.60	78.1						8-26-19 12:45									
5-26-19 11:45	17.53	1653	7.23	4.2	5-26-19 8:30	17.34	998	8.36	2.4	5-26-19 8:30	15.52	708	7.61	79.3						8-26-19 13:00									
5-26-19 12:00	17.70	1653	7.86	4.6	5-26-19 8:45	17.38	998	8.36	2.6	5-26-19 8:45	15.63	709	7.63	78.4						8-26-19 13:15									
5-26-19 12:15	17.85	1652	8.34	7.5	5-26-19 9:00	17.43	998	8.36	2.2	5-26-19 9:00	15.76	736	7.62	79.9						8-26-19 13:30									
5-26-19 12:30	18.14	1653	8.31	4.5	5-26-19 9:15	17.48	999	8.36	4.0	5-26-19 9:15	15.78	736	7.60	79.5						8-26-19 13:45									
5-26-19 12:45	18.31	1649	8.76	4.4	5-26-19 9:30	17.57	998	8.35	4.7	5-26-19 9:30	15.85	737	7.61	78.3						8-26-19 14:00									
5-26-19 13:00	18.44	1661	8.71	5.3	5-26-19 9:45	17.70	1000	8.35	3.3	5-26-19 9:45	15.99	709	7.62	65.0						8-26-19 14:15									

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-26-19 13:15	18.50	1650	8.72	4.8
5-26-19 13:30	18.55	1643	8.80	4.4
5-26-19 13:45	18.66	1643	8.65	4.5
5-26-19 14:00	18.85	1653	8.69	6.4
5-26-19 14:15	18.87	1650	8.33	4.0
5-26-19 14:30	19.16	1642	8.79	4.3
5-26-19 14:45	19.19	1648	8.67	4.4
5-26-19 15:00	19.34	1645	8.14	4.3
5-26-19 15:15	19.51	1646	8.66	4.6
5-26-19 15:30	19.70	1654	7.62	4.2
5-26-19 15:45	19.98	1665	7.74	4.0
5-26-19 16:00	20.17	1649	8.90	25.7
5-26-19 16:15	20.38	1635	9.02	4.3
5-26-19 16:30	20.73	1638	9.05	4.4
5-26-19 16:45	20.96	1636	8.63	19.6
5-26-19 17:00	20.96	1637	9.05	4.2
5-26-19 17:15	20.96	1645	8.91	4.1
5-26-19 17:30	21.04	1647	8.83	5.2
5-26-19 17:45	21.21	1631	9.05	4.4
5-26-19 18:00	21.11	1635	8.92	4.1
5-26-19 18:15	21.09	1638	8.90	4.0
5-26-19 18:30	20.95	1648	8.63	6.1
5-26-19 18:45	20.96	1725	8.93	5.6
5-26-19 19:00	20.89	1651	8.91	4.0
5-26-19 19:15	20.85	1664	8.64	6.0
5-26-19 19:30	20.78	1670	7.95	4.0
5-26-19 19:45	20.72	1676	8.04	4.0
5-26-19 20:00	20.68	1649	8.24	3.9
5-26-19 20:15	20.64	1646	8.23	4.1
5-26-19 20:30	20.56	1650	8.35	4.0
5-26-19 20:45	20.51	1650	8.04	3.8
5-26-19 21:00	20.45	1649	7.75	4.4
5-26-19 21:15	20.40	1654	7.96	6.3
5-26-19 21:30	20.35	1636	8.18	4.1
5-26-19 21:45	20.32	1652	8.14	3.9
5-26-19 22:00	20.27	1674	7.50	4.1
5-26-19 22:15	20.21	1651	7.39	3.8
5-26-19 22:30	20.17	1648	7.45	3.7
5-26-19 22:45	20.13	1650	7.36	15.8
5-26-19 23:00	20.07	1651	7.37	3.7
5-26-19 23:15	20.01	1649	7.52	3.5
5-26-19 23:30	19.95	1650	7.51	3.6
5-26-19 23:45	19.92	1652	7.44	4.0
5-27-19 0:00	19.86	1648	7.34	3.4
5-27-19 0:15	19.82	1644	7.39	3.5
5-27-19 0:30	19.77	1652	7.39	3.5
5-27-19 0:45	19.71	1650	7.35	3.6
5-27-19 1:00	19.65	1651	7.44	3.4
5-27-19 1:15	19.61	1644	7.54	3.4
5-27-19 1:30	19.55	1648	7.52	3.8
5-27-19 1:45	19.45	1650	7.63	3.6
5-27-19 2:00	19.36	1652	7.80	3.7
5-27-19 2:15	19.28	1650	7.85	5.3
5-27-19 2:30	19.24	1650	8.44	3.7
5-27-19 2:45	19.13	1647	7.66	3.6
5-27-19 3:00	19.06	1650	7.59	3.8
5-27-19 3:15	18.98	1650	7.56	3.8
5-27-19 3:30	18.94	1647	7.64	3.7
5-27-19 3:45	18.85	1650	7.60	3.8
5-27-19 4:00	18.76	1651	7.57	4.2
5-27-19 4:15	18.70	1649	7.60	3.7
5-27-19 4:30	18.64	1649	7.60	3.8
5-27-19 4:45	18.54	1650	7.57	4.0
5-27-19 5:00	18.43	1649	7.52	3.7
5-27-19 5:15	18.35	1650	7.52	5.7
5-27-19 5:30	18.24	1654	7.55	3.6
5-27-19 5:45	18.19	1650	7.57	3.9
5-27-19 6:00	18.14	1652	7.62	3.8
5-27-19 6:15	18.10	1651	7.53	5.2
5-27-19 6:30	18.05	1650	7.52	3.8
5-27-19 6:45	18.01	1651	7.44	5.7
5-27-19 7:00	17.97	1649	7.48	4.2
5-27-19 7:15	17.96	1645	7.55	4.4

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-26-19 10:00	17.92	999	8.34	4.7
5-26-19 10:15	18.18	999	8.35	4.5
5-26-19 10:30	18.32	999	8.34	8.9
5-26-19 10:45	18.52	1001	8.33	4.6
5-26-19 11:00	18.59	1001	8.33	6.0
5-26-19 11:15	18.79	1001	8.32	4.5
5-26-19 11:30	19.08	1003	8.32	3.7
5-26-19 11:45	19.31	1003	8.32	5.4
5-26-19 12:00	19.56	1004	8.32	3.7
5-26-19 12:15	19.79	1004	8.31	4.4
5-26-19 12:30	20.22	1005	8.32	5.1
5-26-19 12:45	20.68	1004	8.32	4.9
5-26-19 13:00	20.90	1004	8.33	9.3
5-26-19 13:15	20.81	1004	8.33	3.3
5-26-19 13:30	20.63	997	8.33	6.5
5-26-19 13:45	20.96	1005	8.34	2.4
5-26-19 14:00	21.26	1006	8.33	3.4
5-26-19 14:15	21.08	1006	8.33	3.8
5-26-19 14:30	20.30	998	8.37	9.0
5-26-19 14:45	20.51	996	8.39	7.8
5-26-19 15:00	20.68	995	8.36	6.3
5-26-19 15:15	20.25	1001	8.35	2.9
5-26-19 15:30	21.16	1008	8.36	5.0
5-26-19 15:45	21.50	1005	8.35	4.4
5-26-19 16:00	21.70	1006	8.33	4.7
5-26-19 16:15	21.49	1003	8.36	5.8
5-26-19 16:30	21.99	1007	8.34	5.0
5-26-19 16:45	22.12	1007	8.34	7.0
5-26-19 17:00	21.87	1002	8.34	9.8
5-26-19 17:15	22.18	1007	8.35	13.2
5-26-19 17:30	22.28	1007	8.34	12.0
5-26-19 17:45	22.11	1006	8.34	14.9
5-26-19 18:00	22.23	1009	8.35	16.9
5-26-19 18:15	22.29	1009	8.35	18.1
5-26-19 18:30	22.33	1007	8.34	21.1
5-26-19 18:45	22.32	1007	8.34	22.5
5-26-19 19:00	22.31	1006	8.34	23.9
5-26-19 19:15	22.25	1006	8.34	22.3
5-26-19 19:30	22.13	1005	8.35	28.6
5-26-19 19:45	22.11	1006	8.35	27.0
5-26-19 20:00	22.01	1008	8.35	26.7
5-26-19 20:15	21.99	1007	8.36	29.5
5-26-19 20:30	21.94	1007	8.36	30.5
5-26-19 20:45	21.85	1006	8.36	32.1
5-26-19 21:00	21.78	1004	8.35	35.5
5-26-19 21:15	21.68	1005	8.36	38.5
5-26-19 21:30	21.60	1005	8.37	41.0
5-26-19 21:45	21.52	1004	8.36	43.8
5-26-19 22:00	21.41	1005	8.37	44.6
5-26-19 22:15	21.33	1004	8.38	46.0
5-26-19 22:30	21.20	1003	8.37	47.7
5-26-19 22:45	21.10	1003	8.38	140.8
5-26-19 23:00	20.98	1002	8.37	52.4
5-26-19 23:15	20.85	1001	8.39	55.1
5-26-19 23:30	20.78	1001	8.39	57.5
5-26-19 23:45	20.68	1001	8.40	59.2
5-27-19 0:00	20.50	1000	8.40	60.5
5-27-19 0:15	20.24	998	8.40	63.1
5-27-19 0:30	19.98	994	8.40	72.9
5-27-19 0:45	19.82	996	8.40	79.2
5-27-19 1:00	19.74	996	8.42	69.8
5-27-19 1:15	19.73	996	8.43	65.1
5-27-19 1:30	19.67	995	8.42	68.3
5-27-19 1:45	19.53	993	8.42	114.7
5-27-19 2:00	19.31	991	8.42	120.2
5-27-19 2:15	19.10	990	8.41	260.9
5-27-19 2:30	18.85	987	8.41	356.7
5-27-19 2:45	18.70	988	8.41	598.6
5-27-19 3:00	18.61	985	8.42	1299.5
5-27-19 3:15	18.63	983	8.48	1220.2
5-27-19 3:30	18.61	985	8.47	509.6
5-27-19 3:45	18.53	984	8.46	23.4
5-27-19 4:00	18.43	982	8.44	6.9

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-26-19 10:00	16.39	712	7.62	60.7
5-26-19 10:15	16.33	703	7.61	56.2
5-26-19 10:30	16.43	708	7.62	55.8
5-26-19 10:45	16.55	707	7.62	48.6
5-26-19 11:00	16.78	710	7.61	50.8
5-26-19 11:15	17.08	709	7.60	48.9
5-26-19 11:30	17.00	708	7.61	48.2
5-26-19 11:45	16.90	706	7.60	46.3
5-26-19 12:00	16.68	707	7.61	46.6
5-26-19 12:15	16.96	710	7.61	48.5
5-26-19 12:30	18.10	713	7.62	57.0
5-26-19 12:45	18.83	717	7.62	56.8
5-26-19 13:00	19.00	716	7.63	51.5
5-26-19 13:15	19.23	713	7.62	50.4
5-26-19 13:30	20.31	723	7.65	55.3
5-26-19 13:45	20.37	712	7.65	63.4
5-26-19 14:00	20.76	712	7.67	60.3
5-26-19 14:15	21.20	714	7.66	62.0
5-26-19 14:30	21.30	720	7.65	64.5
5-26-19 14:45	21.34	728	7.63	62.5
5-26-19 15:00	21.63	727	7.66	65.3
5-26-19 15:15	21.90	729	7.65	61.8
5-26-19 15:30	21.20	728	7.66	74.8
5-26-19 15:45	20.13	700	7.59	97.6
5-26-19 16:00	21.31	710	7.62	55.8
5-26-19 16:15	22.21	725	7.69	51.4
5-26-19 16:30	22.60	724	7.68	45.5
5-26-19 16:45	22.87	720	7.69	51.4
5-26-19 17:00	23.06	722	7.70	58.0
5-26-19 17:15	23.16	726	7.72	46.1
5-26-19 17:30	23.17	726	7.70	49.3
5-26-19 17:45	22.80	725	7.69	150.1
5-26-19 18:00	20.07	704	7.52	371.3
5-26-19 18:15	20.97	723	7.57	250.5
5-26-19 18:30	21.80	736	7.63	239.2
5-26-19 18:45	22.24	724	7.69	89.9
5-26-19 19:00	22.27	707	7.69	84.7
5-26-19 19:15	22.10	717	7.69	73.6
5-26-19 19:30	21.48	710	7.56	106.9
5-26-19 19:45	20.70	712	7.53	47.7
5-26-19 20:00	20.89	708	7.61	51.6
5-26-19 20:15	20.87	712	7.58	59.6
5-26-19 20:30	21.13	718	7.69	80.9
5-26-19 20:45	21.14	731	7.61	40.7
5-26-19 21:00	21.12	709	7.73	40.2
5-26-19 21:15	21.10	743	7.72	46.9
5-26-19 21:30	20.92	736	7.62	108.8
5-26-19 21:45	20.69	721	7.67	32.2
5-26-19 22:00	20.65	716	7.70	34.3
5-26-19 22:15	20.43	716	7.71	33.8
5-26-19 22:30	20.28	716	7.71	33.8
5-26-19 22:45	20.17	715	7.72	37.9
5-26-19 23:00	20.07	715	7.71	33.5
5-26-19 23:15	19.94	717	7.71	34.2
5-26-19 23:30	19.74	714	7.72	33.1
5-26-19 23:45	19.56	716	7.69	32.7
5-27-19 0:00	19.42	716	7.68	32.1
5-27-19 0:15	19.29	711	7.66	33.4
5-27-19 0:30	19.20	713	7.65	34.6
5-27-19 0:45	19.05	713	7.67	40.0
5-27-19 1:00	-99999.00	-99999	7.69	43.9
5-27-19 1:15	18.82	711	7.67	34.6
5-27-19 1:30	18.66	712	7.69	36.2
5-27-19 1:45	18.48	711	7.70	35.9
5-27-19 2:00	18.32	713	7.70	34.8
5-27-19 2:15	18.17	712	7.70	33.8
5-27-19 2:30	17.94	712	7.67	31.3
5-27-19 2:45	17.82	712	0.00	31.8
5-27-19 3:00	17.72	713	0.00	32.1
5-27-19 3:15	17.63	713	0.00	36.1
5-27-19 3:30	17.54	711	0.00	34.9
5-27-19 3:45	17.39	710	7.65	35.7
5-27-19 4:00	17.25	710	7.65	34.2

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-26-19 14:30				
8-26-19 14:45				
8-26-19 15:00				
8-26-19 15:15				
8-26-19 15:30				
8-26-19 15:45				
8-26-19 16:00				
8-26-19 16:15				
8-26-19 16:30				
8-26-19 16:45				
8-26-19 17:00				
8-26-19 17:30				
8-26-19 17:45				
8-26-19 18:00				
8-26-19 18:15				
8-26-19 18:30				
8-26-19 18:45				
8-26-19 19:00				
8-26-19 19:15				
8-26-19 19:30				
8-26-19 19:45				
8-26-19 20:00				
8-26-19 20:15				
8-26-19 20:30				
8-26-19 20:45				
8-26-19 21:00				
8-26-19 21:15				
8-26-19 21:30				
8-26-19 21:45				
8-26-19 22:00				
8-26-19 22:15				
8-26-19 22:30				
8-26-19 22:45				
8-26-19 23:00				
8-26-19 23:15				
8-26-19 23:30				
8-26-19 23:45				
8-27-19 0:00				
8-27-19 0:15				
8-27-19 0:30				
8-27-19 0:45				
8-27-19 1:00				
8-27-19 1:30				
8-27-19 1:45				
8-27-19 2:00				
8-27-19 2:15				
8-27-19 2:30				
8-27-19 2:45				
8-27-19 3:00				
8-27-19 3:15				
8-27-19 3:30				
8-27-19 3:45				
8-27-19 4:00				
8-27-19 4:30				
8-27-19 4:45				
8-27-19 5:00				
8-27-19 5:15				
8-27-19 5:30				
8-27-19 5:45				
8-27-19 6:00				
8-27-19 6:15				
8-27-19 6:30				
8-27-19 6:45				
8-27-19 7:00				
8-27-19 7:15				
8-27-19 7:30				
8-27-19 7:45				
8-27-19 8:00				
8-27-19 8:15				
8-27-19 8:30				
8-27-19 8:45				
8-27-19 9:00				
8-27-19 9:15				

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-27-19 7:30	17.94	1648	7.54	3.7	5-27-19 4:15	18.34	982	8.44	0.9	5-27-19 4:15	17.12	710	0.00	35.2						8-27-19 9:30									
5-27-19 7:45	17.94	1648	7.56	3.8	5-27-19 4:30	18.25	981	8.44	0.4	5-27-19 4:30	17.04	710	7.63	35.0						8-27-19 9:45									
5-27-19 8:00	17.93	1648	7.55	3.6	5-27-19 4:45	18.16	983	8.44	0.4	5-27-19 4:45	16.92	707	7.61	36.3						8-27-19 10:00									
5-27-19 8:15	17.94	1649	7.59	3.7	5-27-19 5:00	18.18	982	8.43	0.0	5-27-19 5:00	16.79	709	7.62	37.0						8-27-19 10:15									
5-27-19 8:30	18.01	1650	7.58	3.7	5-27-19 5:15	18.13	982	8.42	0.7	5-27-19 5:15	16.68	710	0.00	39.2						8-27-19 10:30									
5-27-19 8:45	17.99	1648	7.67	3.6	5-27-19 5:30	18.00	981	8.42	2.6	5-27-19 5:30	16.63	710	0.00	37.9						8-27-19 10:45									
5-27-19 9:00	18.01	1648	7.72	4.1	5-27-19 5:45	17.96	982	8.41	3.0	5-27-19 5:45	16.49	709	7.59	39.2						8-27-19 11:00									
5-27-19 9:15	18.05	1643	7.71	5.7	5-27-19 6:00	17.87	982	8.41	1.5	5-27-19 6:00	16.40	709	0.00	36.7						8-27-19 11:30									
5-27-19 9:30	18.15	1650	7.94	4.2	5-27-19 6:15	17.88	984	8.42	1.0	5-27-19 6:15	16.31	709	0.00	38.4						8-27-19 11:45									
5-27-19 9:45	18.26	1649	7.92	3.8	5-27-19 6:30	17.80	983	8.42	1.2	5-27-19 6:30	16.24	709	0.00	43.1						8-27-19 12:00									
5-27-19 10:00	18.45	1644	8.01	3.8	5-27-19 6:45	17.83	986	8.41	2.8	5-27-19 6:45	16.20	710	0.00	42.2						8-27-19 12:15									
5-27-19 10:15	18.46	1647	8.02	5.1	5-27-19 7:00	17.81	986	8.42	0.7	5-27-19 7:00	16.14	709	0.00	45.9						8-27-19 12:30									
5-27-19 10:30	18.62	1648	8.09	4.9	5-27-19 7:15	17.80	986	8.41	3.5	5-27-19 7:15	16.10	709	0.00	40.4						8-27-19 12:45									
5-27-19 10:45	18.72	1643	8.18	4.5	5-27-19 7:30	17.80	986	8.41	1.5	5-27-19 7:30	16.08	708	0.00	38.3						8-27-19 13:00									
5-27-19 11:00	18.87	1650	8.28	5.2	5-27-19 7:45	17.84	986	8.41	2.7	5-27-19 7:45	16.07	708	0.00	39.8						8-27-19 13:15									
5-27-19 11:15	19.00	1649	8.30	4.9	5-27-19 8:00	17.85	986	8.40	1.8	5-27-19 8:00	16.05	708	-99999.00	39.9						8-27-19 13:30									
5-27-19 11:30	19.16	1645	8.13	4.3	5-27-19 8:15	17.90	986	8.40	2.7	5-27-19 8:15	16.05	717	0.00	41.0						8-27-19 13:45									
5-27-19 11:45	19.27	1642	7.61	4.2	5-27-19 8:30	17.96	985	8.40	3.4	5-27-19 8:30	16.14	729	0.00	39.5						8-27-19 14:00									
5-27-19 12:00	19.38	1676	7.25	4.3	5-27-19 8:45	17.99	985	8.40	4.3	5-27-19 8:45	16.24	730	0.00	38.5						8-27-19 14:15									
5-27-19 12:15	19.46	1643	7.18	3.9	5-27-19 9:00	18.04	985	8.39	6.3	5-27-19 9:00	16.28	730	0.00	38.8						8-27-19 14:30									
5-27-19 12:30	19.54	1642	7.08	4.9	5-27-19 9:15	18.06	984	8.39	5.6	5-27-19 9:15	16.37	730	0.00	38.3						8-27-19 14:45									
5-27-19 12:45	19.70	1641	7.45	4.0	5-27-19 9:30	18.16	984	8.39	7.6	5-27-19 9:30	16.45	707	0.00	40.8						8-27-19 15:00									
5-27-19 13:00	19.72	1645	7.82	4.4	5-27-19 9:45	18.18	984	8.38	9.9	5-27-19 9:45	16.57	706	0.00	41.5						8-27-19 15:15									
5-27-19 13:15	19.73	1650	7.43	4.4	5-27-19 10:00	18.27	983	8.39	10.1	5-27-19 10:00	16.65	706	0.00	42.3						8-27-19 15:30									
5-27-19 13:30	19.84	1672	7.08	4.3	5-27-19 10:15	18.35	982	8.39	6.8	5-27-19 10:15	16.78	701	0.00	42.9						8-27-19 15:45									
5-27-19 13:45	20.07	1652	7.05	4.3	5-27-19 10:30	18.40	982	8.39	8.7	5-27-19 10:30	16.90	703	0.00	44.7						8-27-19 16:00									
5-27-19 14:00	20.26	1638	7.21	4.2	5-27-19 10:45	18.47	981	8.39	8.6	5-27-19 10:45	17.08	705	0.00	48.1						8-27-19 16:30									
5-27-19 14:15	20.85	1595	8.31	5.0	5-27-19 11:00	18.51	980	8.39	9.1	5-27-19 11:00	17.24	707	0.00	45.4						8-27-19 16:45									
5-27-19 14:30	21.03	1636	8.23	4.3	5-27-19 11:15	18.61	979	8.40	6.7	5-27-19 11:15	17.44	709	0.00	46.1						8-27-19 17:00									
5-27-19 14:45	20.96	1627	8.50	4.0	5-27-19 11:30	18.68	977	8.40	3.6	5-27-19 11:30	17.65	711	0.00	44.1						8-27-19 17:15									
5-27-19 15:00	20.81	1641	8.31	4.1	5-27-19 11:45	18.78	976	8.40	2.1	5-27-19 11:45	17.78	705	0.00	43.9						8-27-19 17:30									
5-27-19 15:15	20.75	1644	7.40	3.9	5-27-19 12:00	18.91	975	8.40	1.4	5-27-19 12:00	18.18	707	0.00	46.0						8-27-19 17:45									
5-27-19 15:30	20.69	1641	7.54	5.3	5-27-19 12:15	19.03	974	8.38	1.1	5-27-19 12:15	18.61	721	0.00	86.0						8-27-19 18:00									
5-27-19 15:45	20.79	1616	8.74	9.8	5-27-19 12:30	19.17	972	8.39	2.5	5-27-19 12:30	19.04	714	0.00	60.3						8-27-19 18:15									
5-27-19 16:00	20.84	1639	7.05	4.0	5-27-19 12:45	19.33	969	8.39	1.5	5-27-19 12:45	19.33	738	0.00	68.7						8-27-19 18:30									
5-27-19 16:15	21.08	1642	7.10	3.9	5-27-19 13:00	19.47	967	8.40	2.5	5-27-19 13:00	19.85	740	0.00	67.0						8-27-19 18:45									
5-27-19 16:30	21.51	1691	8.16	4.3	5-27-19 13:15	19.60	965	8.39	3.5	5-27-19 13:15	19.60	737	0.00	39.4						8-27-19 19:00									
5-27-19 16:45	21.80	1616	8.82	6.4	5-27-19 13:30	19.80	964	8.39	3.0	5-27-19 13:30	19.02	707	0.00	40.1						8-27-19 19:15									
5-27-19 17:00	21.91	1642	8.63	4.5	5-27-19 13:45	20.27	961	8.37	3.5	5-27-19 13:45	19.19	708	7.46	41.2						8-27-19 19:30									
5-27-19 17:15	21.93	1622	8.71	4.5	5-27-19 14:00	20.46	958	8.36	2.8	5-27-19 14:00	19.59	707	7.47	49.2						8-27-19 19:45									
5-27-19 17:30	21.91	1633	8.89	5.6	5-27-19 14:15	20.56	952	8.37	4.3	5-27-19 14:15	19.67	732	7.47	37.5						8-27-19 20:00									
5-27-19 17:45	21.92	1648	8.82	4.7	5-27-19 14:30	20.33	946	8.37	3.8	5-27-19 14:30	21.28	725	7.51	40.9						8-27-19 20:15									
5-27-19 18:00	21.93	1627	8.76	4.8	5-27-19 14:45	20.34	937	8.38	4.2	5-27-19 14:45	21.56	727	7.53	39.0						8-27-19 20:30									
5-27-19 18:15	21.91	1643	8.61	8.7	5-27-19 15:00	20.23	933	8.39	2.9	5-27-19 15:00	21.60	725	7.50	39.2						8-27-19 20:45									
5-27-19 18:30	21.94	1635	8.79	6.3	5-27-19 15:15	20.21	926	8.40	4.9	5-27-19 15:15	21.97	726	7.50	45.2						8-27-19 21:00									
5-27-19 18:45	21.94	1640	8.84	4.8	5-27-19 15:30	20.77	919	8.43	7.3	5-27-19 15:30	21.40	706	7.48	175.6						8-27-19 21:30									
5-27-19 19:00	21.92	1632	8.88	4.4	5-27-19 15:45	21.61	925	8.38	6.4	5-27-19 15:45	20.86	729	7.45	141.7						8-27-19 21:45									
5-27-19 19:15	21.87	1642	8.89	4.4	5-27-19 16:00	22.00	919	8.37	3.1	5-27-19 16:00	22.50	721	7.56	179.0						8-27-19 22:00									
5-27-19 19:30	21.79	1639	8.83	4.4	5-27-19 16:15	22.13	910	8.36	3.4	5-27-19 16:15	22.91	718	7.56	48.6						8-27-19 22:15									
5-27-19 19:45	21.73	1645	8.79	4.2	5-27-19 16:30	21.22	895	8.39	5.4	5-27-19 16:30	22.85	716	7.55	55.0						8-27-19 22:30									
5-27-19 20:00	21.61	1635	8.32	4.5	5-27-19 16:45	20.44	916	8.39	3.5	5-27-19 16:45	23.09	722	7.58	57.6						8-27-19 22:45									
5-27-19 20:15	21.43	1642	8.55	5.2	5-27-19 17:00	20.08	917	8.41	7.1	5-27-19 17:00	22.92	724	7.58	70.0						8-27-19 23:00									
5-27-19 20:30	21.43	1631	8.54	5.0	5-27-19 17:15	19.92	912	8.43	2.5	5-27-19 17:15	23.03	714	7.58	74.9						8-27-19 23:15									
5-27-19 20:45	21.38	1624	8.38	4.6	5-27-19 17:30	19.92	921	8.43	4.5	5-27-19 17:30	22.85	729	7.57	99.1						8-27-19 23:30									
5-27-19 21:00	21.32	1640	8.40	5.3	5-27-19 17:45	21.06	919	8.46	7.1	5-27-19 17:45	22.74	727	7.60	117.2						8-27-19 23:45									
5-27-19 21:15	21.27	1635	8.49	5.2	5-27-19 18:00	21.29	947	8.42	2.0	5-27-19 18:00	22.62	725	7.60	113.8						8-28-19 0:00									
5-27-19 21:30	21.22	1630	8.29	4.6	5-27-19 18:15	21.50	940	8.40	1.3	5-27-19 18:15	22.60	717	7.60	35.7						8-28-19 0:15									
5-27-19 21:45	21.13	1624	7.68	4.6	5-27-19 18:30	21.60	933	8.38	0.6	5-27-19 18:30	22.57	715	0.00	37.4						8-28-19 0:30									
5-27-19 22:00	21.08	1635	7.47	4.9	5-27-19 18:45	21.58	916	8.39	1.2	5-27-19 18:45	22.56	723	0.00	36.1						8-28-19 0:45									
5-27-19 22:15	21.03	1624	7.42	4.8	5-27-19 19:00	21.55	908	8.39	1.0	5-27-19 19:00	21.94	723	0.00	38.0						8-28-19 1:00									
5-27-19 22:30	20.97	1635	7.25	4.7	5-27-19 19:15	21.56	899	8.39	0.3	5-27-19 19:15	22.28	730	-99999.00	41.4						8-28-19 1:30									
5-27-19 22:45	20.92	1636	7.25	4.5	5-27-19 19:30	21.52	896	8.39	0.0	5-27-19 19:30	21.55	732	7.54	47.2						8-28-19 1:45									
5-27-19 23:00	20.85	1636	7.25	4.7	5-27-19 19:45	21.57	891	8.33	0.0	5-27-19 19:45	21.07	723	0.00	41.3						8-28-19 2:00									
5-27-19 23:15	20.80	1628	7.27	4.8	5-27-19 20:00	21.61	894	8.39	0.0	5-27-19 20:00	21.58	726	0.00	44.7						8-28-19 2:15									
5-27-19 23:30	20.74	1638	7.38	5.6	5-27-19 20:15	21.73	887	8.39	0.0	5-27-19 20:15	21.26	737	0.00	47.2						8-28-19 2:30									
5-27-19 23:45	20.68	1638	7.27	4.2	5-27-19 20:30	21.73	885	8.39	0.0	5-27-19 20:30	21.09	706	0.00	30.9						8-28-19 2:45									
5-28-19 0:00	20.63	1639	7.15	4.6	5-27-19 20:45	21.70	876	8.39	0.0	5-27-19 20:45	21.34	713	0.00	36.9						8-28-19 3:00									
5-28-19 0:15	20.55	1637	7.25	4.4	5-27-19 21:00	21.66	873	8.39	0.4	5-27-19 21:00	21.18	720	0.00	37.9						8-28-19 3:15									
5-28-19 0:30	20.49	1632	7.24	4.2	5-27-19 21:15	21.60	865	8.39	0.0	5-27-19 21:15	21.06	722	0.00	39.9						8-28-19 3:30									
5-28-19 0:45	20.44	1637	7.18	4.2	5-27-19 21:30	21.51	864	8.40	0.0	5-27-19 21:30	21.02	731	7.62	37.2						8-28-19 3:45									
5-28-19 1:00	20.39	1637	7.27	4.1	5-27-19 21:45	21.42	896	8.39	0.0	5-27-19 21:45	20.92	741	7.62	39.2						8-28-19 4:00									
5-28-19 1:15	20.34	1638	7.28	4.2	5-27-19 22:00	21.32	908	8.39	0.0	5-27-19 22:00	20.86	743	7.60	41.1						8-28-19 4:15									
5-28-19 1:30	20.29	1638	7.33	91.7	5-27-19 22:15	21.23	924	8.39	0.0	5-27-19 22:15	20.75	740	7.61	44.8						8-28-19 4:30									

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-28-19 1:45	20.24	1632	7.40	17.8	5-27-19 22:30	21.13	927	8.39	0.0	5-27-19 22:30	20.50	713	7.63	33.7						8-28-19 4:45									
5-28-19 2:00	20.18	1636	7.36	4.0	5-27-19 22:45	21.01	931	8.40	0.0	5-27-19 22:45	20.39	712	7.63	30.0						8-28-19 5:00									
5-28-19 2:15	20.12	1636	7.33	4.0	5-27-19 23:00	20.91	933	8.40	200.6	5-27-19 23:00	20.21	712	7.64	30.1						8-28-19 5:15									
5-28-19 2:30	20.05	1637	7.57	4.5	5-27-19 23:15	20.83	952	8.41	6.3	5-27-19 23:15	20.05	711	7.63	28.4						8-28-19 5:30									
5-28-19 2:45	19.97	1639	7.61	3.7	5-27-19 23:30	20.76	956	8.41	0.0	5-27-19 23:30	19.92	712	7.61	30.4						8-28-19 5:45									
5-28-19 3:00	19.91	1638	7.84	3.9	5-27-19 23:45	20.69	966	8.42	0.0	5-27-19 23:45	19.76	710	7.60	31.1						8-28-19 6:00									
5-28-19 3:15	19.84	1638	7.84	4.1	5-28-19 0:00	20.58	968	8.42	0.0	5-28-19 0:00	19.66	739	7.59	33.3						8-28-19 6:15									
5-28-19 3:30	19.77	1637	7.82	4.0	5-28-19 0:15	20.49	972	8.43	0.0	5-28-19 0:15	19.53	743	7.59	76.3						8-28-19 6:30									
5-28-19 3:45	19.69	1638	7.84	3.7	5-28-19 0:30	20.40	972	8.43	0.0	5-28-19 0:30	19.34	709	7.60	29.9						8-28-19 6:45									
5-28-19 4:00	19.62	1637	7.81	3.6	5-28-19 0:45	20.31	974	8.44	0.0	5-28-19 0:45	19.26	707	7.58	33.9						8-28-19 7:00									
5-28-19 4:15	19.56	1637	7.77	5.6	5-28-19 1:00	20.24	974	8.43	0.0	5-28-19 1:00	19.17	708	7.59	33.9						8-28-19 7:15									
5-28-19 4:30	19.48	1638	7.73	4.7	5-28-19 1:15	20.16	976	8.43	0.0	5-28-19 1:15	19.10	707	7.57	36.8						8-28-19 7:30									
5-28-19 4:45	19.40	1635	7.72	3.8	5-28-19 1:30	20.10	975	8.44	0.0	5-28-19 1:30	18.97	717	7.57	49.3						8-28-19 7:45									
5-28-19 5:00	19.29	1638	7.71	3.9	5-28-19 1:45	20.02	975	8.44	0.0	5-28-19 1:45	18.88	706	7.57	53.6						8-28-19 8:00									
5-28-19 5:15	19.23	1641	7.68	4.0	5-28-19 2:00	19.95	975	8.44	0.0	5-28-19 2:00	18.81	709	7.56	53.1						8-28-19 8:30									
5-28-19 5:30	19.17	1641	7.67	3.7	5-28-19 2:15	19.88	976	8.45	0.0	5-28-19 2:15	18.68	707	7.57	58.6						8-28-19 8:45									
5-28-19 5:45	19.10	1640	7.68	3.7	5-28-19 2:30	19.80	975	8.45	0.0	5-28-19 2:30	18.57	706	7.56	41.1						8-28-19 9:00									
5-28-19 6:00	19.03	1640	7.61	4.4	5-28-19 2:45	19.72	976	8.45	0.0	5-28-19 2:45	18.48	707	7.56	42.4						8-28-19 9:15									
5-28-19 6:15	18.99	1641	7.58	3.8	5-28-19 3:00	19.60	975	8.45	0.0	5-28-19 3:00	18.37	707	7.55	46.0						8-28-19 9:30									
5-28-19 6:30	18.91	1640	7.61	3.9	5-28-19 3:15	19.54	976	8.44	0.0	5-28-19 3:15	18.24	707	7.56	44.5						8-28-19 9:45									
5-28-19 6:45	18.90	1641	7.65	4.8	5-28-19 3:30	19.41	976	8.44	0.0	5-28-19 3:30	18.12	707	7.56	39.3						8-28-19 10:00									
5-28-19 7:00	18.86	1640	7.66	3.6	5-28-19 3:45	19.31	976	8.44	0.0	5-28-19 3:45	18.04	707	7.55	37.5						8-28-19 10:15									
5-28-19 7:15	18.84	1640	7.67	4.8	5-28-19 4:00	19.21	976	8.43	0.0	5-28-19 4:00	17.90	706	7.54	70.3						8-28-19 10:30									
5-28-19 7:30	18.82	1639	7.68	3.6	5-28-19 4:15	19.20	976	8.44	0.0	5-28-19 4:15	17.78	706	7.53	74.1						8-28-19 10:45									
5-28-19 7:45	18.82	1640	7.69	3.7	5-28-19 4:30	19.09	975	8.44	0.0	5-28-19 4:30										8-28-19 11:00									
5-28-19 8:00	18.83	1640	7.68	3.6	5-28-19 4:45	19.08	974	8.45	0.0	5-28-19 4:45										8-28-19 11:30									
5-28-19 8:15	18.88	1641	7.72	4.3	5-28-19 5:00	18.99	974	8.44	1.9	5-28-19 5:00										8-28-19 11:45									
5-28-19 8:30	18.87	1667	7.77	4.7	5-28-19 5:15					5-28-19 5:15										8-28-19 12:00									
5-28-19 8:45	18.89	1637	7.77	3.5	5-28-19 5:30					5-28-19 5:30										8-28-19 12:15									
5-28-19 9:00	18.93	1638	7.77	3.9	5-28-19 5:45					5-28-19 5:45	17.19	702	7.53	41.6						8-28-19 12:30									
5-28-19 9:15	18.98	1639	8.13	4.7	5-28-19 6:00					5-28-19 6:00	17.14	705	7.52	38.8						8-28-19 12:45									
5-28-19 9:30	19.05	1639	8.16	3.7	5-28-19 6:15					5-28-19 6:15	17.08	708	7.52	40.8						8-28-19 13:00									
5-28-19 9:45	19.15	1637	7.89	3.6	5-28-19 6:30					5-28-19 6:30	17.03	707	7.52	39.4						8-28-19 13:15									
5-28-19 10:00	19.26	1633	8.11	3.8	5-28-19 6:45					5-28-19 6:45	16.97	716	7.52	37.2						8-28-19 13:30									
5-28-19 10:15	19.39	1638	8.11	3.8	5-28-19 7:00	18.69	980	8.40	4.9	5-28-19 7:00	16.93	723	7.52	38.2						8-28-19 13:45									
5-28-19 23:15					5-28-19 7:15	18.68	980	8.38	4.3	5-28-19 7:15	16.90	714	7.52	38.5						8-28-19 14:00									
5-28-19 23:30	22.72	1624	8.75	5.7	5-28-19 7:30	18.69	980	8.37	5.8	5-28-19 7:30	16.89	715	7.51	38.6						8-28-19 14:15									
5-28-19 23:45	22.78	1630	8.72	4.7	5-28-19 7:45	18.70	980	8.38	7.0	5-28-19 7:45	16.88	720	7.52	40.8						8-28-19 14:30									
5-29-19 0:00	22.90	1643	8.73	4.7	5-28-19 8:00	18.75	980	8.38	3.6	5-28-19 8:00	16.91	718	7.52	39.1						8-28-19 14:45									
5-29-19 0:15	22.92	1642	8.63	4.5	5-28-19 8:15	18.80	980	8.39	3.8	5-28-19 8:15	16.94	719	7.52	38.4						8-28-19 15:00									
5-29-19 0:30	22.85	1637	8.29	4.5	5-28-19 8:30	18.87	980	8.38	4.8	5-28-19 8:30	16.98	718	7.52	39.5						8-28-19 15:15									
5-29-19 0:45	22.93	1621	8.48	5.8	5-28-19 8:45	18.91	981	8.37	2.4	5-28-19 8:45	17.05	718	7.52	40.1						8-28-19 15:30									
5-29-19 1:00	22.92	1634	8.25	4.7	5-28-19 9:00	18.96	980	8.38	2.5	5-28-19 9:00	-99999.00	-99999	7.44	90.0						8-28-19 15:45									
5-29-19 1:15	22.91	1632	8.38	4.5	5-28-19 9:15	19.05	981	8.37	1.4	5-28-19 9:15	0.00	0	7.45	84.9						8-28-19 16:00									
5-29-19 1:30	22.88	1635	8.08	4.9	5-28-19 9:30	19.13	980	8.38	4.6	5-28-19 9:30	17.27	703	7.45	54.1						8-28-19 16:15									
5-29-19 1:45	22.88	1656	8.44	4.4	5-28-19 9:45	19.11	979	8.38	5.1	5-28-19 9:45	17.42	701	7.53	56.5						8-28-19 16:30									
5-29-19 2:00	22.87	1640	8.31	4.2	5-28-19 10:00	19.16	979	8.38	5.5	5-28-19 10:00	-99999.00	-99999	7.44	63.9						8-28-19 16:45									
5-29-19 2:15	22.86	1643	8.64	4.3	5-28-19 10:15	19.21	979	8.39	3.3	5-28-19 10:15	0.00	0	7.44	37.9						8-28-19 17:00									
5-29-19 2:30	22.83	1641	8.61	4.2	5-28-19 10:30	19.23	978	8.40	3.5	5-28-19 10:30	17.84	702	7.55	38.9						8-28-19 17:15									
5-29-19 2:45	22.81	1638	8.40	4.2	5-28-19 10:45	19.29	978	8.41	7.0	5-28-19 10:45	17.98	702	7.55	39.4						8-28-19 17:30									
5-29-19 3:00	22.75	1609	8.07	4.3	5-28-19 11:00	19.42	977	8.41	6.3	5-28-19 11:00	18.23	703	7.55	38.8						8-28-19 17:45									
5-29-19 3:15	22.69	1637	7.84	4.3	5-28-19 22:45	21.51	962	8.41	2.6	5-28-19 22:45	22.50	714	7.64	39.5						8-28-19 18:00									
5-29-19 3:30	22.63	1643	7.96	4.1	5-28-19 23:00	21.55	960	8.41	0.6	5-28-19 23:00	22.46	718	7.64	38.0						8-28-19 18:15									
5-29-19 3:45	22.55	1630	8.39	6.7	5-28-19 23:15	21.75	958	8.41	1.4	5-28-19 23:15	22.62	715	7.65	37.9						8-28-19 18:30									
5-29-19 4:00	22.51	1634	7.61	4.3	5-28-19 23:30	21.37	953	8.43	0.1	5-28-19 23:30	22.83	707	7.68	37.7						8-28-19 18:45									
5-29-19 4:15	22.46	1632	7.52	4.4	5-28-19 23:45	21.46	953	8.43	0.1	5-28-19 23:45	22.87	707	7.70	42.1						8-28-19 19:00									
5-29-19 4:30	22.40	1629	7.39	4.6	5-29-19 0:00	21.39	956	8.43	0.0	5-29-19 0:00	22.78	706	7.66	37.3						8-28-19 19:15									
5-29-19 4:45	22.34	1632	7.98	4.2	5-29-19 0:15	21.47	955	8.43	0.0	5-29-19 0:15	22.73	712	7.69	38.6						8-28-19 19:30									
5-29-19 5:00	22.29	1611	7.87	4.6	5-29-19 0:30	21.60	955	8.43	0.0	5-29-19 0:30	22.82	713	7.70	50.5						8-28-19 19:45									
5-29-19 5:15	22.22	1621	7.70	4.2	5-29-19 0:45	21.65	956	8.43	0.0	5-29-19 0:45	22.83	717	7.68	83.5						8-28-19 20:00									
5-29-19 5:30	22.19	1634	7.79	4.0	5-29-19 1:00	21.73	955	8.42	0.0	5-29-19 1:00	0.00	0	7.65	30.7						8-28-19 20:15									
5-29-19 5:45	22.12	1631	7.51	4.2	5-29-19 1:15	21.76	947	8.42	0.0	5-29-19 1:15	-99999.00	-99999	7.66	39.3						8-28-19 20:30									
5-29-19 6:00	22.05	1632	7.60	4.0	5-29-19 1:30	21.70	944	8.43	0.0	5-29-19 1:30	22.63	711	7.66	49.2						8-28-19 20:45									
5-29-19 6:15	21.99	1632	7.43	4.2	5-29-19 1:45	21.72	942	8.43	0.0	5-29-19 1:45	22.60	716	7.70	46.8						8-28-19 21:00									
5-29-19 6:30	21.95	1637	7.20	3.9	5-29-19 2:00	21.66	940	8.43	0.0	5-29-19 2:00										8-28-19 21:15									
5-29-19 6:45	21.89	1636	7.28	4.0	5-29-19 2:15	21.61	939	8.43	0.0	5-29-19 2:15										8-28-19 21:30									
5-29-19 7:00	21.80	1667	7.29	14.7	5-29-19 2:30	21.54	938	8.43	0.0	5-29-19 2:30										8-28-19 21:45									
5-29-19 7:15	21.76	1633	7.75	4.4	5-29-19 2:45	21.46	938	8.43	0.0	5-29-19 2:45	-99999.00	-99999	7.69	125.3						8-28-19 22:15									
5-29-19 7:30	21.66	1620	7.72	4.0	5-29-19 3:00	21.46	937	8.43	0.0	5-29-19 3:00	22.14	706	7.69	32.8						8-28-19 22:30									
5-29-19 7:45	21.57	1634	7.44	4.0	5-29-19 3:15	21.43	938	8.43	0.0	5-29-19 3:15	-99999.00	-99999	7.68	34.2						8-28-19 22:45									
5-29-19 8:00	21.49	1629	7.65	4.0	5-29-19 3:30	21.59	937	8.44	0.0	5-29-19 3:30	22.02	707	7.71	35.7						8-28-19 23:00									
5-29-19 8:15	21.43	1629	7.46	3.9	5-29-19 3:45	21.62	935	8.44	0.0	5-29-19 3:45	-99999.00	-99999	7.70	33.0						8-28-19 23:15									
5-29-19 8:30	21.34	1650	7.38	3.7	5-29-19 4:00	21.67	935	8.44	0.0	5-29-19 4:00	0.00	0	7.71	35.4						8-28-19 23:30									

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-29-19 8:45	21.26	1624	7.34	3.8	5-29-19 4:15	21.63	933	8.44	0.0	5-29-19 4:15	21.68	702	7.71	37.5						8-28-19 23:45									
5-29-19 9:00	21.17	1633	7.35	3.9	5-29-19 4:30	21.63	931	8.44	0.0	5-29-19 4:30	21.54	701	7.72	45.7						8-29-19 0:00									
5-29-19 9:15	21.06	1625	7.42	3.9	5-29-19 4:45	21.57	930	8.44	0.0	5-29-19 4:45	21.45	701	7.71	49.0						8-29-19 0:15									
5-29-19 9:30	20.96	1635	7.40	7.0	5-29-19 5:00	21.52	931	8.44	0.0	5-29-19 5:00	21.34	702	7.69	26.3						8-29-19 0:30									
5-29-19 9:45	20.87	1631	7.40	3.9	5-29-19 5:15	21.51	935	8.44	0.0	5-29-19 5:15	21.27	705	7.74	26.5						8-29-19 0:45									
5-29-19 10:00	20.75	1638	7.39	4.0	5-29-19 5:30	21.52	934	8.44	0.0	5-29-19 5:30	-99999.00	-99999	7.73	74.6						8-29-19 1:00									
5-29-19 10:15	20.65	1633	7.37	4.0	5-29-19 5:45	21.46	937	8.44	0.0	5-29-19 5:45	0.00	0	7.74	28.4						8-29-19 1:15									
5-29-19 10:30	20.56	1636	7.35	3.8	5-29-19 6:00	21.41	933	8.44	1.0	5-29-19 6:00	-99999.00	-99999	7.73	28.8						8-29-19 1:30									
5-29-19 10:45	20.46	1635	7.33	3.9	5-29-19 6:15	21.37	933	8.44	0.1	5-29-19 6:15	-99999.00	-99999	7.72	29.3						8-29-19 1:45									
5-29-19 11:00	20.34	1636	7.33	3.9	5-29-19 6:30	21.33	931	8.44	0.0	5-29-19 6:30	-99999.00	-99999	7.71	29.0						8-29-19 2:00									
5-29-19 11:15	20.27	1637	7.32	4.0	5-29-19 6:45	21.25	930	8.44	0.0	5-29-19 6:45	-99999.00	-99999	7.70	28.6						8-29-19 2:15									
5-29-19 11:30	20.17	1637	7.33	3.9	5-29-19 7:00	21.16	926	8.44	0.0	5-29-19 7:00	-99999.00	-99999	7.68	110.7						8-29-19 2:30	17.94	2096	8.62	0.0					
5-29-19 11:45	20.05	1637	7.35	3.9	5-29-19 7:15	21.07	924	8.44	0.0	5-29-19 7:15	-99999.00	-99999	7.67	177.5						8-29-19 2:45	17.92	2108	8.61	0.0					
5-29-19 12:00	19.94	1638	7.34	4.0	5-29-19 7:30	20.98	921	8.44	0.0	5-29-19 7:30	-99999.00	-99999	7.68	173.2						8-29-19 3:00	17.89	2092	8.61	0.0					
5-29-19 12:15	19.82	1636	7.36	4.0	5-29-19 7:45	20.77	919	8.45	0.0	5-29-19 7:45	-99999.00	-99999	7.69	158.9						8-29-19 3:15	17.87	2029	8.61	0.0					
5-29-19 12:30	19.71	1635	7.39	4.0	5-29-19 8:00	20.67	916	8.45	0.0	5-29-19 8:00	-99999.00	-99999	7.69	30.7						8-29-19 3:30	17.82	2025	8.61	0.0					
5-29-19 12:45	19.64	1637	7.37	4.9	5-29-19 8:15	20.51	914	8.45	0.0	5-29-19 8:15	-99999.00	-99999	7.68	30.8						8-29-19 3:45	17.80	2120	8.61	0.0					
5-29-19 13:00	19.54	1636	7.34	5.5	5-29-19 8:30	20.43	909	8.46	0.0	5-29-19 8:30	-99999.00	-99999	7.68	31.7						8-29-19 4:00	17.79	2133	8.61	0.0					
5-29-19 13:15	19.44	1637	7.36	3.9	5-29-19 8:45	20.34	907	8.46	0.0	5-29-19 8:45	-99999.00	-99999	7.68	31.3						8-29-19 4:15	17.76	2124	8.62	0.0					
5-29-19 13:30	19.39	1635	7.36	4.1	5-29-19 9:00	20.29	902	8.45	0.0	5-29-19 9:00	-99999.00	-99999	7.67	30.7						8-29-19 4:30	17.71	2124	8.61	0.0					
5-29-19 13:45	19.34	1635	7.38	6.5	5-29-19 9:15	20.20	898	8.45	0.0	5-29-19 9:15	-99999.00	-99999	7.68	34.7						8-29-19 4:45	17.71	2120	8.61	0.0					
5-29-19 14:00	19.31	1638	7.29	3.9	5-29-19 9:30	20.14	895	8.45	0.0	5-29-19 9:30	-99999.00	-99999	7.68	35.0						8-29-19 5:00	17.67	2125	8.61	0.0					
5-29-19 14:15	19.30	1638	7.36	4.0	5-29-19 9:45	20.10	891	8.45	0.8	5-29-19 9:45	-99999.00	-99999	7.68	47.7						8-29-19 5:15	17.61	2127	8.61	0.2					
5-29-19 14:30	19.26	1637	7.26	4.1	5-29-19 10:00	20.04	883	8.45	1.7	5-29-19 10:00	-99999.00	-99999	7.67	34.3						8-29-19 5:30	17.58	2134	8.61	0.0					
5-29-19 14:45	19.27	1636	7.38	4.1	5-29-19 10:15	19.98	879	8.45	1.0	5-29-19 10:15	-99999.00	-99999	7.67	32.7						8-29-19 5:45	17.55	2130	8.61	0.0					
5-29-19 15:00	19.27	1636	7.37	4.0	5-29-19 10:30	19.95	872	8.44	2.6	5-29-19 10:30	18.55	694	7.64	31.7						8-29-19 6:00	17.50	2132	8.61	0.0					
5-29-19 15:15	19.23	1635	7.43	3.9	5-29-19 10:45	19.80	934	8.44	3.2	5-29-19 10:45	18.40	694	7.64	33.6						8-29-19 6:15	17.51	2127	8.61	0.0					
5-29-19 15:30	19.26	1636	7.44	3.9	5-29-19 11:00	19.71	926	8.44	1.0	5-29-19 11:00	18.28	694	7.63	34.5						8-29-19 6:30	17.43	2121	8.61	0.1					
5-29-19 15:45	19.29	1635	7.47	3.9	5-29-19 11:15	19.66	921	8.45	0.0	5-29-19 11:15	18.17	694	7.63	35.4						8-29-19 6:45	17.41	2123	8.61	0.0					
5-29-19 16:00	19.32	1634	7.48	4.0	5-29-19 11:30	19.65	915	8.44	0.4	5-29-19 11:30	17.99	690	7.61	40.2						8-29-19 7:00	17.39	2126	8.61	0.0					
5-29-19 16:15	19.36	1633	7.60	6.3	5-29-19 11:45	19.61	910	8.43	2.4	5-29-19 11:45	17.92	692	7.61	33.8						8-29-19 7:15	17.37	2130	8.61	0.0					
5-29-19 16:30	19.39	1634	7.65	4.4	5-29-19 12:00	19.59	910	8.43	2.1	5-29-19 12:00	17.78	691	7.60	33.2						8-29-19 7:30	17.34	2130	8.61	0.2					
5-29-19 16:45	19.43	1634	7.61	4.3	5-29-19 12:15	19.49	927	8.43	12.7	5-29-19 12:15	17.65	691	7.60	33.9						8-29-19 7:45	17.29	2128	8.60	0.0					
5-29-19 17:00	19.49	1635	7.63	4.4	5-29-19 12:30	19.44	929	8.43	15.4	5-29-19 12:30	17.56	690	7.60	36.8						8-29-19 8:00	17.20	2127	8.60	0.0					
5-29-19 17:15	19.67	1635	7.96	4.8	5-29-19 12:45	19.42	930	8.42	12.4	5-29-19 12:45	17.51	692	7.59	36.9						8-29-19 8:15	17.13	2126	8.60	0.0					
5-29-19 17:30	19.76	1635	8.12	5.1	5-29-19 13:00	19.39	921	8.42	18.2	5-29-19 13:00	17.42	693	7.58	35.9						8-29-19 8:30	17.11	2123	8.60	0.0					
5-29-19 17:45	19.99	1634	8.27	5.4	5-29-19 13:15	19.32	915	8.42	17.8	5-29-19 13:15	17.33	689	7.58	36.5						8-29-19 8:45	17.07	2131	8.60	0.0					
5-29-19 18:00	20.10	1635	8.29	5.2	5-29-19 13:30	19.28	898	8.43	19.0	5-29-19 13:30	17.29	690	7.58	35.0						8-29-19 9:00	17.06	2122	8.60	0.0					
5-29-19 18:15	20.19	1632	8.31	5.6	5-29-19 13:45	19.25	891	8.43	18.5	5-29-19 13:45	17.27	679	7.58	34.3						8-29-19 9:15	17.06	2121	8.60	0.0					
5-29-19 18:30	20.35	1636	8.23	5.3	5-29-19 14:00	19.26	875	8.43	20.0	5-29-19 14:00	17.23	689	7.57	32.9						8-29-19 9:30	17.00	2129	8.58	0.0					
5-29-19 18:45	20.40	1634	8.27	5.2	5-29-19 14:15	19.31	873	8.42	22.7	5-29-19 14:15	17.21	688	7.57	34.7						8-29-19 9:45	16.90	2130	8.56	0.0					
5-29-19 19:00	20.56	1639	7.29	5.6	5-29-19 14:30	19.31	863	8.42	19.9	5-29-19 14:30	17.20	691	7.57	37.2						8-29-19 10:00	16.87	2129	8.53	0.0					
5-29-19 19:15	20.69	1635	7.67	5.4	5-29-19 14:45	19.32	871	8.43	21.4	5-29-19 14:45	17.23	697	7.58	34.4						8-29-19 10:15	16.86	2129	8.51	0.0					
5-29-19 19:30	20.98	1637	8.63	14.0	5-29-19 15:00	19.33	863	8.43	23.9	5-29-19 15:00	17.22	689	7.58	34.8						8-29-19 10:30	16.82	2106	8.50	0.0					
5-29-19 19:45	21.17	1636	7.98	6.7	5-29-19 15:15	19.37	860	8.43	23.9	5-29-19 15:15	17.19	689	7.59	35.7						8-29-19 10:45	16.77	2125	8.49	0.0					
5-29-19 20:00	21.19	1630	7.20	6.6	5-29-19 15:30	19.37	845	8.44	21.5	5-29-19 15:30	17.25	689	7.59	37.6						8-29-19 11:00	16.72	2123	8.49	0.0					
5-29-19 20:15	21.33	1633	7.55	7.5	5-29-19 15:45	19.39	844	8.44	22.9	5-29-19 15:45	17.25	689	7.58	36.0						8-29-19 11:15	16.72	2122	8.49	0.0					
5-29-19 20:30	21.46	1638	7.14	9.0	5-29-19 16:00	19.42	858	8.44	21.4	5-29-19 16:00	17.32	689	7.58	35.6						8-29-19 11:30	16.70	2130	8.48	0.0					
5-29-19 20:45	21.78	1633	8.39	6.4	5-29-19 16:15	19.45	862	8.43	28.2	5-29-19 16:15	17.38	689	7.58	35.8						8-29-19 11:45	16.66	2131	8.48	0.0					
5-29-19 21:00	21.81	1640	7.20	27.7	5-29-19 16:30	19.46	884	8.44	23.6	5-29-19 16:30	17.51	688	7.59	36.3						8-29-19 12:00	16.64	2131	8.49	0.0					
5-29-19 21:15	22.07	1642	7.36	6.4	5-29-19 16:45	19.48	889	8.44	29.5	5-29-19 16:45	17.58	688	7.59	35.9						8-29-19 12:15	16.58	2126	8.49	0.0					
5-29-19 21:30	22.39	1644	8.72	7.4	5-29-19 17:00	19.50	917	8.45	29.4	5-29-19 17:00	17.81	688	7.60	36.4						8-29-19 12:30	16.52	2125	8.50	0.0					
5-29-19 21:45	22.86	1633	8.71	6.6	5-29-19 17:15	19.56	922	8.45	24.7	5-29-19 17:15	17.86	689	7.60	37.4						8-29-19 12:45	16.51	2129	8.50	0.0					
5-29-19 22:00	22.88	1638	8.64	7.5	5-29-19 17:30	19.63	929	8.45	26.6	5-29-19 17:30	18.04	692	7.62	36.9						8-29-19 13:00	16.50	2122	8.51	0.0					
5-29-19 22:15	23.06	1637	8.64	7.6	5-29-19 17:45	19.67	930	8.46	28.2	5-29-19 17:45	18.13	690	7.61	37.5						8-29-19 13:15	16.45	2119	8.51	0.0					
5-29-19 22:30	23.12	1643	8.35	8.3	5-29-19 18:00	19.73	936	8.46	26.9	5-29-19 18:00	18.32	690	7.61	33.6						8-29-19 13:30	16.39	2124	8.52	0.0					
5-29-19 22:45	23.11	1648	8.73	8.4	5-29-19 18:15	19.81	940	8.45	28.7	5-29-19 18:15	18.54	691	7.62	38.3						8-29-19 13:45	16.38	2129	8.52	0.1					
5-29-19 23:00	23.34	1628	8.77	7.7	5-29-19 18:30	19.90	956	8.45	28.7	5-29-19 18:30	18.78	691	7.62	60.3						8-29-19 14:00	16.34	2128	8.52	0.0					
5-29-19 23:15	23.24	1639	8.33	7.8	5-29-19 18:45	19.96	961	8.45	31.1	5-29-19 18:45	19.12	691	7.62	35.1						8-29-19 14:15	16.31	2122	8.53	0.0					
5-29-19 23:30	23.40	1643	8.58	7.9	5-29-19 19:00	20.04	972	8.45	31.2	5-29-19 19:00	19.25	690	7.62	35.2						8-29-19 14:30	16.29	2115	8.53	0.0					
5-29-19 23:45	23.42	1653	8.45	30.6	5-29-19 19:15	20.18	974	8.43	37.6	5-29-19 19:15	19.56	692	7.62	33.6						8-29-19 14:45	16.28	2121	8.53	0.0					
5-30-19 0:00	23.43	1650	8.12	7.9	5-29-19 19:30	20.65	981	8.42	36.3	5-29-19 19:30	20.19	695	7.63	34.8						8-29-19 15:00	16.23	2121	8.53	0.0					
5-30-19 0:15	23.48	1651	8.18	7.5	5-29-19 19:45	20.80	984	8.41	37.3	5-29-19 19:45	20.45	690	7.63	32.2						8-29-19 15:15	16.24	2124	8.54	0.0					
5-30-19 0:30	23.52	1645	7.92	7.7	5-29-19 20:00	20.88	983	8.42	39.3	5-29-19 20:00	20.83	689	7.64	33.4						8-29-19 15:30	16.22	2122	8.53	0.0					
5-30-19 0:45	23.46	1647	7.59	8.3	5-29-19 20:15	20.74	987	8.44	42.4	5-29-19 20:15	21.15	694	7.65	34.1						8-29-19 15:45	16.22	2127	8.54	0.0					
5-30-19 1:00	23.50	1667	8.23	7.4	5-29-19 20:30	20.79	986	8.44	45.7	5-29-19 20:30	21.17	695	7.66	34.7						8-29-19 16:00	16.21	2128	8.54	0.0					
5-30-19 1:15	23.44	1648	8.37	7.5	5-29-19 20:45	20.80	985	8.45	50.4	5-29-19 20:45	21.47	689	7.65	37.4						8-29-19 16:15	16.21	2123	8.54	0.0					
5-30-19 1:30	23.31	1692	7.68	8.4	5-29-19 21:00	20.64	987	8.46	57.2	5-29-19 21:00	21.53	693	7.65	37.8						8-29-19 16:30	16.20	2121	8.55	0.0					
5-30-19 1:45	23.27	1654	7.96	7.6	5-29-19 21:15	20.81	981	8.48	59.4	5-29-19 21:15	21.54	690	7.66	37.6						8-29-19 16:45	16.22	2123	8.55	0.0					
5-30-19 2:00	23.23	1656	7.60	7.4	5-29-19 21:30	20.80	990	8.48	68.3	5-29-19 21:30	21.74	694	0.00	32.6						8-29-19 17:00	16.22	2122	8.56	0.0					
5-30-19 2:15	23.17	1648	7.64	8.8	5-29-19 21:45	20.90	993	8.47	72.7	5-29-19 21:45	21.93	702	0.00	34.1						8-29-19 17:15	16.23	2125	8.56	0.0					
5-30-19 2:30	23.10	1645	7.52	7.5	5-29-19 22:00	20.99	993	8.47	81.5	5-29-19 22:00										8-29-19 17:30	16.25	2127	8.56	0.0					
5-30-19 2:45	23.09	1653	7.49	6.8	5-29-19 22:15	21.10	995	8.45	82.0	5-29-19 22:15										8-29-19 17:45	16.29	2129	8.57	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-30-19 3:00	23.07	1648	7.50	13.9
5-30-19 3:15	23.02	1668	7.41	7.1
5-30-19 3:30	22.96	1655	7.39	6.9
5-30-19 3:45	22.88	1654	7.39	6.7
5-30-19 4:00	22.77	1652	7.52	8.1
5-30-19 4:15	22.69	1656	7.32	7.1
5-30-19 4:30	22.57	1656	7.25	6.7
5-30-19 4:45	22.52	1655	7.41	6.1
5-30-19 5:00	22.41	1653	7.52	6.4
5-30-19 5:15	22.32	1655	7.45	6.8
5-30-19 5:30	22.25	1655	7.40	6.4
5-30-19 5:45	22.18	1656	7.41	6.0
5-30-19 6:00	22.11	1655	7.45	6.4
5-30-19 6:15	22.07	1650	7.45	5.8
5-30-19 6:30	22.00	1655	7.48	6.1
5-30-19 6:45	21.91	1656	7.61	21.4
5-30-19 7:00	21.85	1648	7.71	5.5
5-30-19 7:15	21.78	1655	7.59	5.7
5-30-19 7:30	21.71	1654	7.58	5.8
5-30-19 7:45	21.63	1654	7.53	5.5
5-30-19 8:00	21.58	1654	7.55	5.3
5-30-19 8:15	21.50	1654	7.56	6.2
5-30-19 8:30	21.41	1652	7.62	5.3
5-30-19 8:45	21.33	1656	7.70	4.5
5-30-19 9:00	21.27	1657	7.52	4.3
5-30-19 9:15	21.23	1655	7.53	4.2
5-30-19 9:30	21.17	1655	7.46	4.2
5-30-19 9:45	21.09	1661	7.05	4.3
5-30-19 10:00	21.02	1658	7.29	4.3
5-30-19 10:15	20.96	1660	7.29	4.4
5-30-19 10:30	20.89	1658	7.47	3.9
5-30-19 10:45	20.78	1658	7.46	3.8
5-30-19 11:00	20.73	1658	7.37	4.4
5-30-19 11:15	20.70	1658	7.29	4.5
5-30-19 11:30	20.65	1660	7.40	3.9
5-30-19 11:45	20.56	1659	7.25	4.0
5-30-19 12:00	20.50	1659	7.28	4.3
5-30-19 12:15	20.39	1659	7.34	4.2
5-30-19 12:30	20.31	1659	7.30	4.0
5-30-19 12:45	20.17	1661	7.32	3.8
5-30-19 13:00	20.13	1660	7.28	3.8
5-30-19 13:15	20.07	1659	7.26	3.8
5-30-19 13:30	20.01	1659	7.32	4.5
5-30-19 13:45	19.94	1660	7.30	3.7
5-30-19 14:00	19.88	1659	7.24	3.8
5-30-19 14:15	19.88	1659	7.23	3.6
5-30-19 14:30	19.83	1659	7.16	3.8
5-30-19 14:45	19.82	1659	7.07	3.6
5-30-19 15:00	19.81	1660	7.26	3.6
5-30-19 15:15	19.80	1659	7.24	3.6
5-30-19 15:30	19.81	1658	7.22	3.8
5-30-19 15:45	19.80	1658	7.21	3.5
5-30-19 16:00	19.90	1657	7.12	3.6
5-30-19 16:15	19.84	1658	7.12	3.5
5-30-19 16:30	19.90	1659	7.25	3.4
5-30-19 16:45	20.03	1657	7.34	3.5
5-30-19 17:00	20.10	1657	7.35	3.3
5-30-19 17:15	20.18	1659	7.43	3.9
5-30-19 17:30	20.29	1661	7.32	3.5
5-30-19 17:45	20.38	1654	7.29	3.7
5-30-19 18:00	20.55	1655	7.34	3.5
5-30-19 18:15	20.64	1655	7.24	4.6
5-30-19 18:30	20.83	1656	7.42	3.5
5-30-19 18:45	20.89	1651	7.47	4.5
5-30-19 19:00	20.90	1650	7.64	3.9
5-30-19 19:15	20.89	1651	7.52	3.7
5-30-19 19:30	21.12	1655	7.25	3.7
5-30-19 19:45	21.35	1646	7.45	4.7
5-30-19 20:00	21.37	1641	7.46	4.8
5-30-19 20:15	21.32	1642	7.31	5.4
5-30-19 20:30	21.29	1644	7.31	4.8
5-30-19 20:45	21.29	1644	7.31	4.9
5-30-19 21:00	21.28	1636	7.83	5.6

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-29-19 22:30	21.20	998	8.44	89.6
5-29-19 22:45	21.42	999	8.44	99.7
5-29-19 23:00	21.58	1000	8.45	93.5
5-29-19 23:15	21.60	1001	8.44	99.8
5-29-19 23:30	21.53	1013	8.46	103.6
5-29-19 23:45	21.41	1020	8.45	115.8
5-30-19 0:00	21.46	1021	8.47	135.5
5-30-19 0:15	21.49	1026	8.46	138.1
5-30-19 0:30	21.58	1029	8.46	150.8
5-30-19 0:45	21.66	1030	8.46	169.6
5-30-19 1:00	21.63	1033	8.46	164.1
5-30-19 1:15	21.56	1036	8.47	186.2
5-30-19 1:30	21.54	1040	8.47	210.1
5-30-19 1:45	21.44	1042	8.47	240.4
5-30-19 2:00	21.42	1045	8.48	250.2
5-30-19 2:15	21.33	1028	8.49	273.2
5-30-19 2:30	21.26	1029	8.48	302.6
5-30-19 2:45	21.23	1029	8.48	329.4
5-30-19 3:00	21.10	1030	8.49	397.2
5-30-19 3:15	21.12	1031	8.50	504.3
5-30-19 3:30	21.05	1031	8.50	498.6
5-30-19 3:45	21.00	1031	8.50	569.3
5-30-19 4:00	21.04	1033	8.49	564.4
5-30-19 4:15	21.17	1035	8.49	612.3
5-30-19 4:30	21.13	1035	8.49	176.3
5-30-19 4:45	21.04	959	8.49	183.7
5-30-19 5:00	20.99	959	8.49	203.0
5-30-19 5:15	20.94	957	8.49	209.6
5-30-19 5:30	20.88	956	8.49	231.0
5-30-19 5:45	20.82	955	8.49	241.5
5-30-19 6:00	20.73	955	8.49	327.8
5-30-19 6:15	20.69	954	8.49	360.3
5-30-19 6:30	20.66	953	8.49	392.5
5-30-19 6:45	20.61	953	8.50	403.0
5-30-19 7:00	20.60	953	8.50	251.8
5-30-19 7:15	20.58	952	8.49	218.1
5-30-19 7:30	20.49	951	8.50	90.1
5-30-19 7:45	20.52	953	8.49	68.4
5-30-19 8:00	20.58	951	8.49	1.9
5-30-19 8:15	20.58	950	8.49	4.4
5-30-19 8:30	20.59	949	8.49	0.7
5-30-19 8:45	20.58	948	8.48	0.4
5-30-19 9:00	20.53	948	8.48	0.4
5-30-19 9:15	20.47	948	8.48	0.0
5-30-19 9:30	20.42	947	8.48	1.3
5-30-19 9:45	20.38	947	8.48	0.0
5-30-19 10:00	20.35	947	8.47	0.0
5-30-19 10:15	20.28	946	8.47	0.0
5-30-19 10:30	20.15	948	8.49	0.0
5-30-19 10:45	20.11	948	8.49	0.5
5-30-19 11:00	20.07	948	8.49	122.3
5-30-19 11:15	20.06	948	8.49	0.0
5-30-19 11:30	20.02	949	8.48	0.0
5-30-19 11:45	20.01	949	8.49	0.0
5-30-19 12:00	19.95	948	8.48	0.0
5-30-19 12:15	19.91	949	8.48	0.0
5-30-19 12:30	19.87	949	8.48	0.2
5-30-19 12:45	19.82	954	8.47	2.5
5-30-19 13:00	19.81	954	8.47	3.2
5-30-19 13:15	19.77	954	8.48	0.6
5-30-19 13:30	19.75	954	8.47	1.1
5-30-19 13:45	19.71	954	8.47	1.6
5-30-19 14:00	19.70	955	8.47	2.5
5-30-19 14:15	19.72	955	8.47	2.8
5-30-19 14:30	19.68	954	8.47	2.2
5-30-19 14:45	19.71	954	8.47	1.3
5-30-19 15:00	19.70	953	8.47	1.9
5-30-19 15:15	19.74	954	8.46	3.0
5-30-19 15:30	19.73	953	8.46	1.4
5-30-19 15:45	19.69	952	8.47	2.9
5-30-19 16:00	19.77	953	8.47	2.4
5-30-19 16:15	19.82	953	8.45	0.4
5-30-19 16:30	19.81	952	8.46	4.2

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-29-19 22:30				
5-29-19 22:45	22.22	700	0.00	33.5
5-29-19 23:00	22.48	693	0.00	39.6
5-29-19 23:15	22.30	683	0.00	35.9
5-29-19 23:30	-99999.00	-99999	0.00	39.6
5-29-19 23:45	-99999.00	-99999	0.00	42.7
5-30-19 0:00	-99999.00	-99999	0.00	49.6
5-30-19 0:15	22.18	700	0.00	37.1
5-30-19 0:30	-99999.00	-99999	0.00	33.8
5-30-19 0:45	-99999.00	-99999	0.00	32.0
5-30-19 1:00	-99999.00	-99999	0.00	34.4
5-30-19 1:15	0.00	0	0.00	40.0
5-30-19 1:30	0.00	0	0.00	31.1
5-30-19 1:45	21.94	689	0.00	30.9
5-30-19 2:00	-99999.00	-99999	0.00	0.0
5-30-19 2:15	-99999.00	-99999	0.00	29.4
5-30-19 2:30	21.76	695	0.00	30.0
5-30-19 2:45	-99999.00	-99999	0.00	33.7
5-30-19 3:00	-99999.00	-99999	0.00	32.8
5-30-19 3:15	-99999.00	-99999	0.00	27.8
5-30-19 3:30	-99999.00	-99999	0.00	0.0
5-30-19 3:45	-99999.00	-99999	0.00	62.2
5-30-19 4:00	0.00	0	0.00	28.6
5-30-19 4:15	-99999.00	-99999	0.00	27.3
5-30-19 4:30	-99999.00	-99999	0.00	27.5
5-30-19 4:45	-99999.00	-99999	0.00	28.2
5-30-19 5:00	0.00	0	0.00	27.2
5-30-19 5:15	-99999.00	-99999	0.00	29.2
5-30-19 5:30	21.41	0	0.00	29.9
5-30-19 5:45	20.33	693	0.00	26.2
5-30-19 6:00	20.17	693	0.00	28.1
5-30-19 6:15	20.07	693	0.00	28.3
5-30-19 6:30	19.98	692	0.00	32.4
5-30-19 6:45	19.92	692	0.00	27.4
5-30-19 7:00	19.82	692	0.00	27.5
5-30-19 7:15	19.74	692	0.00	27.2
5-30-19 7:30	19.64	690	0.00	26.8
5-30-19 7:45	19.58	686	0.00	31.7
5-30-19 8:00	19.53	686	0.00	28.4
5-30-19 8:15	19.46	686	7.78	29.7
5-30-19 8:30	19.37	689	7.76	27.8
5-30-19 8:45	19.30	686	7.69	31.7
5-30-19 9:00	19.25	686	7.71	29.4
5-30-19 9:15	19.18	685	7.70	31.2
5-30-19 9:30	19.12	685	7.70	34.5
5-30-19 9:45	19.05	684	7.69	33.4
5-30-19 10:00	18.94	683	7.69	34.1
5-30-19 10:15	18.86	684	7.70	33.7
5-30-19 10:30	18.80	684	7.70	32.5
5-30-19 10:45	18.72	684	7.70	36.6
5-30-19 11:00	18.65	684	7.72	38.9
5-30-19 11:15	18.58	685	7.74	33.7
5-30-19 11:30	18.49	686	7.75	34.3
5-30-19 11:45	-99999.00	-99999	0.00	31.5
5-30-19 12:00	0.00	0	0.00	32.4
5-30-19 12:15	18.29	686	7.74	35.0
5-30-19 12:30	18.23	686	7.74	33.9
5-30-19 12:45	18.17	684	7.74	35.1
5-30-19 13:00	18.13	684	7.75	32.0
5-30-19 13:15	-99999.00	-99999	7.74	35.6
5-30-19 13:30	18.03	685	7.73	35.6
5-30-19 13:45	17.97	685	7.73	37.9
5-30-19 14:00	17.92	681	7.72	36.6
5-30-19 14:15	17.93	682	7.73	36.3
5-30-19 14:30	17.87	682	7.73	34.3
5-30-19 14:45	17.85	681	7.74	34.8
5-30-19 15:00	17.84	682	7.73	34.1
5-30-19 15:15	17.86	681	7.72	34.5
5-30-19 15:30	17.85	681	7.73	40.1
5-30-19 15:45	17.87	682	7.73	35.3
5-30-19 16:00	17.92	682	7.73	34.6
5-30-19 16:15	17.96	683	7.74	36.7
5-30-19 16:30	18.02	683	7.74	35.5

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-29-19 18:00	16.34	2128	8.57	0.0
8-29-19 18:15	16.40	2123	8.57	0.0
8-29-19 18:30	16.50	2121	8.57	0.0
8-29-19 18:45	16.58	2118	8.58	0.0
8-29-19 19:00	16.65	2118	8.59	0.0
8-29-19 19:15	16.72	2125	8.59	0.0
8-29-19 19:30	16.81	2124	8.59	0.0
8-29-19 19:45	16.98	2127	8.59	0.0
8-29-19 20:00	17.34	2129	8.57	0.0
8-29-19 20:15	17.48	2119	8.56	0.0
8-29-19 20:30	17.61	2112	8.56	0.0
8-29-19 20:45	17.87	2113	8.57	0.0
8-29-19 21:00	17.96	2116	8.56	0.2
8-29-19 21:15	18.06	2120	8.56	0.1
8-29-19 21:30	18.30	2117	8.54	0.0
8-29-19 21:45	18.37	2115	8.54	0.0
8-29-19 22:00	18.47	2130	8.54	0.3
8-29-19 22:15	18.71	2228	8.55	0.1
8-29-19 22:30	18.92	2063	8.55	0.0
8-29-19 22:45	19.03	2098	8.55	0.0
8-29-19 23:00	19.09	2131	8.55	0.0
8-29-19 23:15	19.15	2115	8.55	0.0
8-29-19 23:30	19.18	2123	8.55	0.3
8-29-19 23:45	19.15	2126	8.55	0.1
8-30-19 0:00	19.18	2123	8.56	0.4
8-30-19 0:15	19.13	2126	8.56	0.7
8-30-19 0:30	19.07	2121	8.56	0.7
8-30-19 0:45	19.06	2121	8.56	0.3
8-30-19 1:00	18.99	2114	8.57	0.1
8-30-19 1:15	18.94	2119	8.57	0.2
8-30-19 1:30	18.92	2124	8.57	0.0
8-30-19 1:45	18.88	2124	8.57	0.0
8-30-19 2:00	18.83	2126	8.57	0.0
8-30-19 2:15	18.76	2116	8.58	0.1
8-30-19 2:30	18.66	2086	8.59	0.1
8-30-19 2:45	18.59	2128	8.59	0.1
8-30-19 3:00	18.51	2112	8.59	0.2
8-30-19 3:15	18.45	2128	8.60	0.1
8-30-19 3:30	18.38	2119	8.59	0.0
8-30-19 3:45	18.30	2117	8.59	0.0
8-30-19 4:00	18.21	2118	8.60	0.1
8-30-19 4:15	18.10	2110	8.64	0.0
8-30-19 4:30	18.03	2105	8.65	0.0
8-30-19 4:45	17.97	2111	8.67	0.0
8-30-19 5:00	17.92	2112	8.67	0.0
8-30-19 5:15	17.88	2117	8.67	0.0
8-30-19 5:30	17.80	2122	8.66	0.0
8-30-19 5:45	17.78	2121	8.66	0.0
8-30-19 6:00	17.69	2122	8.66	0.0
8-30-19 6:15	17.65	2116	8.64	0.0
8-30-19 6:30	17.60	2113	8.65	0.0
8-30-19 6:45	17.58	2112	8.64	0.0
8-30-19 7:00	17.55	2112	8.64	0.0
8-30-19 7:15	17.46	2120	8.64	0.0
8-30-19 7:30	17.43	2119	8.64	0.0
8-30-19 7:45	17.37	2128	8.64	0.0
8-30-19 8:00	17.33	2122	8.63	0.0
8-30-19 8:15	17.30	2119	8.63	0.0
8-30-19 8:30	17.23	2113	8.63	2.0
8-30-19 8:45	17.19	2110	8.63	0.1
8-30-19 9:00	17.14	2116	8.63	3.6
8-30-19 9:15	17.12	2120	8.63	0.0
8-30-19 9:30	17.07	2112	8.63	0.0
8-30-19 9:45	17.03	2121	8.63	0.0
8-30-19 10:00	17.02	2122	8.63	0.0
8-30-19 10:15	16.96	2119	8.62	1.8
8-30-19 10:30	16.87	2111	8.62	0.0
8-30-19 10:45	16.81	2115	8.62	0.0
8-30-19 11:00	16.82	2117	8.62	0.0
8-30-19 11:15	16.82	2119	8.62	0.0
8-30-19 11:30	16.79	2123	8.62	0.0
8-30-19 11:45	16.72	2129	8.62	0.0
8-30-19 12:00	16.68	2121	8.62	0.1

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-30-19 21:15	21.34	1639	7.65	5.0	5-30-19 16:45	19.87	952	8.46	4.8	5-30-19 16:45	18.14	681	7.75	33.2						8-30-19 12:15	16.61	2120	8.62	0.0					
5-30-19 21:30	21.41	1639	7.81	6.6	5-30-19 17:00	19.94	958	8.46	1.2	5-30-19 17:00	18.22	680	7.73	32.4						8-30-19 12:30	16.56	2116	8.61	0.0					
5-30-19 21:45	21.42	1637	7.43	5.3	5-30-19 17:15	19.99	958	8.45	1.9	5-30-19 17:15	18.48	682	7.76	35.1						8-30-19 12:45	16.52	2114	8.61	0.0					
5-30-19 22:00	21.63	1632	7.55	5.6	5-30-19 17:30	20.09	956	8.46	3.0	5-30-19 17:30	18.63	683	7.76	33.5						8-30-19 13:00	16.46	2113	8.61	0.0					
5-30-19 22:15	21.75	1629	7.81	5.3	5-30-19 17:45	20.09	956	8.46	0.9	5-30-19 17:45	18.89	683	7.77	32.9						8-30-19 13:15	16.53	2120	8.61	0.0					
5-30-19 22:30	21.85	1690	8.08	5.9	5-30-19 18:00	20.12	954	8.47	1.2	5-30-19 18:00	19.17	683	7.78	33.2						8-30-19 13:30	16.52	2122	8.61	0.0					
5-30-19 22:45	21.95	1628	8.07	5.2	5-30-19 18:15	20.34	954	8.48	1.9	5-30-19 18:15	19.11	683	7.76	33.3						8-30-19 13:45	16.47	2122	8.61	0.0					
5-30-19 23:00	21.97	1625	8.19	4.8	5-30-19 18:30	20.75	954	8.46	2.3	5-30-19 18:30	19.18	681	7.73	31.4						8-30-19 14:00	16.39	2121	8.61	0.0					
5-30-19 23:15	21.92	1635	7.87	5.1	5-30-19 18:45	20.89	955	8.44	2.6	5-30-19 18:45	0.00	0	7.67	31.8						8-30-19 14:15	16.36	2097	8.61	0.0					
5-30-19 23:30	21.98	1635	7.86	5.2	5-30-19 19:00	21.10	953	8.44	2.5	5-30-19 19:00	19.19	681	7.73	30.6						8-30-19 14:30	16.26	2119	8.61	0.0					
5-30-19 23:45	22.01	1633	7.70	5.2	5-30-19 19:15	21.36	950	8.44	2.9	5-30-19 19:15	19.27	682	7.73	31.9						8-30-19 14:45	16.24	2117	8.61	0.0					
5-31-19 0:00	21.99	1624	7.70	7.2	5-30-19 19:30	21.27	948	8.43	2.6	5-30-19 19:30	19.44	681	7.64	32.5						8-30-19 15:00	16.25	2119	8.61	0.0					
5-31-19 0:15	21.98	1629	7.73	4.6	5-30-19 19:45	21.36	949	8.43	2.6	5-30-19 19:45	19.73	682	7.74	31.1						8-30-19 15:15	16.16	2124	8.61	0.0					
5-31-19 0:30	21.98	1629	7.59	5.0	5-30-19 20:00	21.49	946	8.42	4.7	5-30-19 20:00	19.88	681	7.77	30.2						8-30-19 15:30	16.22	2126	8.61	0.0					
5-31-19 0:45	21.98	1635	7.67	5.0	5-30-19 20:15	21.77	946	8.42	8.8	5-30-19 20:15	19.90	680	7.73	33.7						8-30-19 15:45	16.19	2127	8.61	0.0					
5-31-19 1:00	21.96	1632	7.57	5.0	5-30-19 20:30	22.09	943	8.42	2.9	5-30-19 20:30	19.88	682	7.64	29.2						8-30-19 16:00	16.19	2126	8.61	0.0					
5-31-19 1:15	21.94	1638	7.56	4.7	5-30-19 20:45	22.23	940	8.43	2.9	5-30-19 20:45	20.06	685	7.74	30.9						8-30-19 16:15	16.18	2123	8.61	0.0					
5-31-19 1:30	21.93	1633	7.60	10.8	5-30-19 21:00	22.10	936	8.43	2.7	5-30-19 21:00	20.32	684	7.73	29.6						8-30-19 16:30	16.25	2122	8.62	0.0					
5-31-19 1:45	21.91	1636	7.51	4.6	5-30-19 21:15	22.10	930	8.43	1.7	5-30-19 21:15	20.86	685	7.77	28.4						8-30-19 16:45	16.33	2121	8.62	0.0					
5-31-19 2:00	21.89	1635	7.49	5.4	5-30-19 21:30	22.13	926	8.43	1.7	5-30-19 21:30	21.08	687	7.75	30.9						8-30-19 17:00	16.41	2120	8.62	0.0					
5-31-19 2:15	21.86	1623	7.49	4.3	5-30-19 21:45	22.34	927	8.43	1.3	5-30-19 21:45	21.04	684	7.78	30.4						8-30-19 17:15	16.48	2124	8.63	0.0					
5-31-19 2:30	21.83	1620	7.46	13.7	5-30-19 22:00	22.95	937	8.43	4.3	5-30-19 22:00	21.29	681	7.77	32.7						8-30-19 17:30	16.53	2126	8.63	0.0					
5-31-19 2:45	21.77	1630	7.37	4.2	5-30-19 22:15	23.25	940	8.43	9.9	5-30-19 22:15	21.42	685	7.78	31.2						8-30-19 17:45	16.59	2125	8.63	0.0					
5-31-19 3:00	21.74	1634	7.33	4.0	5-30-19 22:30	23.42	942	8.43	9.0	5-30-19 22:30	21.70	684	7.78	32.0						8-30-19 18:00	16.65	2126	8.63	0.0					
5-31-19 3:15	21.68	1635	7.34	4.1	5-30-19 22:45	23.31	939	8.43	4.7	5-30-19 22:45	21.50	681	7.77	29.9						8-30-19 18:15	16.69	2125	8.63	0.0					
5-31-19 3:30	21.64	1633	7.37	4.1	5-30-19 23:00	23.21	940	8.42	8.9	5-30-19 23:00	21.41	678	7.76	30.4						8-30-19 18:30	16.75	2121	8.63	0.0					
5-31-19 3:45	21.59	1633	7.25	3.9	5-30-19 23:15	23.26	942	8.43	5.4	5-30-19 23:15	21.18	682	7.76	28.7						8-30-19 18:45	16.79	2120	8.63	0.0					
5-31-19 4:00	21.56	1618	7.15	5.1	5-30-19 23:30	23.24	944	8.43	6.0	5-30-19 23:30	21.04	679	7.78	25.9						8-30-19 19:00	16.83	2120	8.63	0.0					
5-31-19 4:15	21.52	1627	7.12	3.8	5-30-19 23:45	23.26	945	8.43	3.6	5-30-19 23:45	20.84	678	7.74	26.6						8-30-19 19:15	16.88	2121	8.63	0.0					
5-31-19 4:30	21.47	1634	7.09	3.6	5-31-19 0:00	23.26	953	8.44	7.9	5-31-19 0:00	21.34	677	7.81	30.3						8-30-19 19:30	16.93	2125	8.63	0.0					
5-31-19 4:45	21.41	1638	7.09	3.8	5-31-19 0:15	23.22	954	8.44	3.8	5-31-19 0:15	21.58	684	7.82	31.3						8-30-19 19:45	16.99	2125	8.63	0.0					
5-31-19 5:00	21.38	1633	7.05	3.9	5-31-19 0:30	23.13	957	8.44	11.7	5-31-19 0:30	21.42	683	7.83	26.7						8-30-19 20:00	17.07	2125	8.64	0.0					
5-31-19 5:15	21.32	1634	7.08	4.0	5-31-19 0:45	23.16	957	8.44	12.0	5-31-19 0:45	21.74	685	7.85	29.0						8-30-19 20:15	17.12	2121	8.64	0.0					
5-31-19 5:30	21.24	1620	7.16	4.0	5-31-19 1:00	22.99	949	8.45	5.6	5-31-19 1:00	21.63	685	7.84	27.5						8-30-19 20:30	17.20	2116	8.64	0.0					
5-31-19 5:45	21.17	1632	7.17	3.7	5-31-19 1:15	22.93	943	8.45	3.9	5-31-19 1:15	21.26	679	7.85	28.6						8-30-19 20:45	17.27	2113	8.64	0.0					
5-31-19 6:00	21.12	1623	7.20	3.6	5-31-19 1:30	22.89	932	8.46	4.7	5-31-19 1:30	21.60	684	7.86	29.4						8-30-19 21:00	17.85	2119	8.62	0.0					
5-31-19 6:15	21.09	1635	7.11	3.4	5-31-19 1:45	22.78	928	8.46	4.2	5-31-19 1:45	21.80	683	7.87	29.1						8-30-19 21:15	18.42	2116	8.60	0.0					
5-31-19 6:30	20.95	1634	7.13	3.5	5-31-19 2:00	22.80	908	8.45	4.2	5-31-19 2:00	21.72	680	7.88	28.5						8-30-19 21:30	18.59	2123	8.59	0.0					
5-31-19 6:45	20.91	1633	7.11	4.0	5-31-19 2:15	22.63	905	8.47	5.4	5-31-19 2:15	21.55	682	7.86	26.6						8-30-19 21:45	18.86	2128	8.58	0.0					
5-31-19 7:00	20.83	1637	7.12	3.7	5-31-19 2:30	22.59	896	8.47	15.5	5-31-19 2:30	21.34	686	7.87	27.1						8-30-19 22:00	19.09	2130	8.58	0.0					
5-31-19 7:15	20.70	1641	7.16	6.6	5-31-19 2:45	22.49	890	8.47	15.2	5-31-19 2:45	21.34	682	7.88	26.9						8-30-19 22:15	19.32	2127	8.57	0.0					
5-31-19 7:30	20.56	1633	7.26	3.4	5-31-19 3:00	22.43	885	8.48	16.8	5-31-19 3:00	21.29	681	7.87	28.1						8-30-19 22:30	19.42	2120	8.57	0.0					
5-31-19 7:45	20.58	1632	7.18	3.3	5-31-19 3:15	22.39	885	8.48	17.8	5-31-19 3:15	21.19	680	7.87	29.3						8-30-19 22:45	19.53	2121	8.57	0.1					
5-31-19 8:00	20.50	1632	7.28	3.6	5-31-19 3:30	22.36	881	8.48	15.9	5-31-19 3:30	21.12	682	7.87	29.1						8-30-19 23:00	19.65	2119	8.57	0.1					
5-31-19 8:15	20.40	1634	7.20	3.4	5-31-19 3:45	22.27	879	8.48	20.3	5-31-19 3:45	21.06	708	7.88	30.9						8-30-19 23:15	19.67	2120	8.57	0.1					
5-31-19 8:30	20.34	1635	7.30	3.1	5-31-19 4:00	22.19	873	8.48	21.5	5-31-19 4:00	21.07	710	7.89	29.0						8-30-19 23:30	19.74	2134	8.57	0.0					
5-31-19 8:45	20.27	1634	7.35	3.2	5-31-19 4:15	22.14	872	8.48	22.7	5-31-19 4:15	20.97	680	7.89	29.3						8-30-19 23:45	19.79	2123	8.57	0.0					
5-31-19 9:00	20.20	1639	7.14	3.0	5-31-19 4:30	22.06	877	8.49	24.2	5-31-19 4:30	20.82	683	7.88	29.5						8-31-19 0:00	19.78	2117	8.57	0.0					
5-31-19 9:15	20.13	1633	7.10	3.3	5-31-19 4:45	22.03	880	8.49	26.3	5-31-19 4:45	20.72	681	7.88	26.4						8-31-19 0:15	19.79	2122	8.58	0.2					
5-31-19 9:30	20.06	1636	7.19	2.9	5-31-19 5:00	21.97	907	8.49	26.4	5-31-19 5:00	20.59	684	7.88	27.1						8-31-19 0:30	19.77	2118	8.58	0.2					
5-31-19 9:45	19.99	1634	7.21	2.9	5-31-19 5:15	21.84	915	8.49	26.7	5-31-19 5:15	20.48	684	7.88	26.3						8-31-19 0:45	19.75	2119	8.58	0.2					
5-31-19 10:00	19.93	1636	7.09	3.4	5-31-19 5:30	21.79	927	8.49	29.5	5-31-19 5:30	20.30	680	7.81	30.6						8-31-19 1:00	19.71	2110	8.58	1.3					
5-31-19 10:15	19.87	1636	7.15	3.5	5-31-19 5:45	21.71	931	8.49	33.2	5-31-19 5:45	20.11	679	7.84	30.6						8-31-19 1:15	19.66	2123	8.59	0.2					
5-31-19 10:30	19.81	1636	7.22	2.9	5-31-19 6:00	21.65	936	8.50	33.7	5-31-19 6:00	20.09	681	7.85	34.0						8-31-19 1:30	19.57	2123	8.58	0.1					
5-31-19 10:45	19.74	1637	7.14	2.5	5-31-19 6:15	21.55	937	8.50	31.3	5-31-19 6:15	19.97	681	7.80	28.9						8-31-19 1:45	19.47	2124	8.58	0.2					
5-31-19 11:00	19.70	1635	7.11	2.9	5-31-19 6:30	21.50	956	8.50	32.6	5-31-19 6:30	19.78	676	7.81	28.3						8-31-19 2:00	19.32	2131	8.59	0.2					
5-31-19 11:15	19.64	1636	7.08	2.8	5-31-19 6:45	21.42	962	8.50	32.4	5-31-19 6:45	19.64	675	7.81	37.3						8-31-19 2:15	19.02	2116	8.61	0.1					
5-31-19 11:30	19.49	1634	7.13	2.6	5-31-19 7:00	21.34	974	8.51	34.3	5-31-19 7:00	19.65	680	7.86	31.0						8-31-19 2:30	18.84	2116	8.62	0.1					
5-31-19 11:45	19.46	1636	7.08	2.5	5-31-19 7:15	21.22	976	8.51	38.7	5-31-19 7:15	19.61	677	7.86	28.3						8-31-19 2:45	18.77	2120	8.61	0.1					
5-31-19 12:00	19.37	1634	7.11	3.3	5-31-19 7:30	21.17	983	8.51	48.8	5-31-19 7:30	19.51	675	7.82	39.3						8-31-19 3:00	18.65	2119	8.61	0.1					
5-31-19 12:15	19.39	1636	7.14	2.8	5-31-19 7:45	21.05	974	8.51	51.3	5-31-19 7:45	19.41	675	7.83	36.2						8-31-19 3:15	18.43	2122	8.62	0.8					
5-31-19 12:30	19.34	1632	7.21	2.6	5-31-19 8:00	20.96	978	8.51	69.2	5-31-19 8:00	19.25	674	7.84	38.6						8-31-19 3:30	18.35	2127	8.63	0.0					
5-31-19 12:45	19.22	1632	7.37	2.7	5-31-19 8:15	20.81	976	8.52	41.8	5-31-19 8:15	19.11	673	7.80	38.1						8-31-19 3:45	18.30	2127	8.63	0.0					
5-31-19 13:00	19.14	1629	7.56	3.3	5-31-19 8:30	20.75	981	8.52	3.5	5-31-19 8:30	18.83	668	7.74	47.9						8-31-19 4:00	18.21	2127	8.63	0.1					
5-31-19 13:15	19.08	1630	7.52	2.9	5-31-19 8:45	20.60	973	8.52	1.5	5-31-19 8:45	18.70	636	7.74	44.6						8-31-19 4:15	18.15	2123	8.63	0.1					
5-31-19 13:30	19.05	1630	7.64	3.1	5-31-19 9:00	20.54	975	8.52	4.0	5-31-19 9:00	18.57	672	7.73	41.4						8-31-19 4:30	18.08	2120	8.63	0.1					
5-31-19 13:45	18.98	1630	7.53	2.7	5-31-19 9:15	20.47	975	8.52	1.5	5-31-19 9:15	18.62	675	7.79	37.0						8-31-19 4:45	17.96	2117	8.63	0.0					
5-31-19 14:00	18.96	1632	7.36	2.6	5-31-19 9:30	20.38	975	8.52	0.9	5-31-19 9:30	18.48	672	7.75	37.8						8-31-19 5:00	17.88	2117	8.63	0.0					
5-31-19 14:15	18.89	1629	7.66	3.6	5-31-19 9:45	20.29	976	8.52	2.1	5-31-19 9:45	18.42	672	7.73	37.7						8-31-19 5:15	17.81	2118	8.64	0.0					
5-31-19 14:30	18.84	1629	7.59	2.7	5-31-19 10:00	20.22	977	8.52	1.1	5-31-19 10:00	18.35	671	7.72	40.4						8-31-19 5:30	17.74	2123	8.64	0.0					
5-31-19 14:45	18.79	1631	7.51	2.6	5-31-19 10:15	20.17	978	8.52	1.2	5-31-19 10:15	18.25	668	7.70	41.5						8-31-19 5:45	17.69	2123	8.65	0.0					
5-31-19 15:00	18.85	1631	7.47	2.7	5-31-19 10:30	20.07	978	8.52	0.4	5-31-19 10:30	18.20	669	7.70	38.5						8-31-19 6:00	17.66	2122	8.64	0.0					
5-31-19 15:15	18.85	1630	7.48	3.1	5-31-19 10:45	20.01	978	8.52	0.3	5-31-19 10:45	18.14	669	7.71	40.7						8-31-19 6:15	17.62	2116	8.65	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
5-31-19 15:30	18.86	1632	7.51	2.6	5-31-19 11:00	19.95	978	8.52	1.4	5-31-19 11:00	18.04	669	7.71	44.3						8-31-19 6:30	17.57	2114	8.65	0.0					
5-31-19 15:45	18.85	1630	7.58	3.1	5-31-19 11:15	19.88	979	8.51	1.0	5-31-19 11:15	18.01	671	7.74	39.4						8-31-19 6:45	17.51	2063	8.65	0.0					
5-31-19 16:00	18.85	1629	7.68	3.1	5-31-19 11:30	19.86	980	8.51	1.5	5-31-19 11:30	17.94	668	7.73	43.1						8-31-19 7:00	17.45	2118	8.65	0.0					
5-31-19 16:15	18.85	1629	7.75	3.7	5-31-19 11:45	19.80	978	8.50	3.2	5-31-19 11:45	17.89	671	7.74	43.5						8-31-19 7:15	17.41	2124	8.65	0.0					
5-31-19 16:30	18.80	1629	7.81	3.3	5-31-19 12:00	19.73	983	8.50	4.7	5-31-19 12:00	17.84	670	7.75	40.1						8-31-19 7:30	17.38	2117	8.64	0.0					
5-31-19 16:45	18.82	1628	7.86	3.8	5-31-19 12:15	19.69	983	8.49	0.7	5-31-19 12:15	17.79	669	7.73	43.1						8-31-19 7:45	17.35	2200	8.64	0.0					
5-31-19 17:00	18.87	1627	7.95	3.1	5-31-19 12:30	19.63	983	8.49	1.0	5-31-19 12:30	17.76	670	7.73	37.4						8-31-19 8:00	17.34	2140	8.64	0.0					
5-31-19 17:15	18.95	1625	8.09	3.2	5-31-19 12:45	19.57	983	8.49	0.8	5-31-19 12:45	17.71	671	7.73	34.9						8-31-19 8:15	17.29	2122	8.64	0.6					
5-31-19 17:30	18.91	1625	8.16	3.9	5-31-19 13:00	19.54	983	8.49	1.3	5-31-19 13:00	17.67	671	7.74	36.8						8-31-19 8:30	17.21	2117	8.64	0.0					
5-31-19 17:45	18.92	1623	8.32	7.6	5-31-19 13:15	19.52	983	8.49	1.7	5-31-19 13:15	17.63	671	7.73	35.8						8-31-19 8:45	17.14	2121	8.64	0.0					
5-31-19 18:00	18.95	1623	8.45	3.9	5-31-19 13:30	19.46	983	8.49	2.6	5-31-19 13:30	17.60	670	7.73	38.3						8-31-19 9:00	17.10	2118	8.64	0.0					
5-31-19 18:15	18.98	1622	8.40	4.1	5-31-19 13:45	19.41	982	8.49	2.5	5-31-19 13:45	17.56	671	7.74	38.5						8-31-19 9:15	17.07	2124	8.64	0.0					
5-31-19 18:30	19.03	1621	8.39	3.9	5-31-19 14:00	19.40	983	8.49	5.4	5-31-19 14:00	17.46	671	7.74	37.0						8-31-19 9:30	17.02	2128	8.64	0.0					
5-31-19 18:45	19.11	1621	8.43	3.9	5-31-19 14:15	19.35	983	8.49	5.6	5-31-19 14:15	17.47	670	7.74	40.0						8-31-19 9:45	17.03	2118	8.64	0.0					
5-31-19 19:00	19.29	1622	8.49	4.1	5-31-19 14:30	19.34	983	8.49	6.9	5-31-19 14:30	17.45	671	7.72	36.1						8-31-19 10:00	16.95	2126	8.64	0.5					
5-31-19 19:15	19.40	1618	8.71	3.8	5-31-19 14:45	19.32	983	8.49	6.5	5-31-19 14:45	17.43	670	7.72	37.6						8-31-19 10:15	16.93	2122	8.64	0.0					
5-31-19 19:30	19.35	1622	8.55	3.8	5-31-19 15:00	19.34	983	8.49	7.8	5-31-19 15:00	17.45	670	7.72	39.0						8-31-19 10:30	16.89	2121	8.64	0.0					
5-31-19 19:45	19.46	1621	8.54	6.1	5-31-19 15:15	19.34	983	8.48	7.9	5-31-19 15:15	17.40	670	7.72	35.7						8-31-19 10:45	16.93	2114	8.64	0.0					
5-31-19 20:00	19.60	1621	8.56	4.1	5-31-19 15:30	19.38	983	8.48	8.7	5-31-19 15:30	17.43	670	7.73	37.6						8-31-19 11:00	16.88	2112	8.63	0.0					
5-31-19 20:15	19.74	1621	8.73	4.2	5-31-19 15:45	19.38	983	8.48	10.4	5-31-19 15:45	17.43	670	7.73	36.6						8-31-19 11:15	16.80	2273	8.64	0.0					
5-31-19 20:30					5-31-19 16:00	19.44	983	8.48	24.4	5-31-19 16:00	17.46	670	7.73	37.6						8-31-19 11:30	16.76	2120	8.63	0.0					
5-31-19 20:45	20.74	1456	8.83	0.5	5-31-19 16:15	19.48	983	8.47	27.8	5-31-19 16:15	17.48	670	7.73	39.1						8-31-19 11:45	16.73	2118	8.63	0.0					
5-31-19 21:00	20.63	1468	8.82	0.3	5-31-19 16:30	19.44	983	8.47	151.5	5-31-19 16:30	17.42	670	7.73	41.0						8-31-19 12:00	16.70	2117	8.63	0.0					
5-31-19 21:15	20.55	1533	8.67	0.0	5-31-19 16:45	19.43	983	8.48	210.9	5-31-19 16:45	17.47	670	7.73	38.6						8-31-19 12:15	16.71	2121	8.63	0.0					
5-31-19 21:30	20.62	1503	8.70	0.0	5-31-19 17:00	19.52	983	8.48	528.6	5-31-19 17:00	17.61	671	7.74	35.2						8-31-19 12:30	16.65	2092	8.63	0.0					
5-31-19 21:45	20.28	1543	8.59	0.4	5-31-19 17:15	19.53	982	8.50	501.8	5-31-19 17:15	17.72	671	7.74	35.9						8-31-19 12:45	16.67	2116	8.63	0.0					
5-31-19 22:00	20.35	1547	8.59	0.0	5-31-19 17:30	19.64	983	8.49	392.5	5-31-19 17:30	17.78	670	7.75	41.5						8-31-19 13:00	16.61	2121	8.63	0.0					
5-31-19 22:15	20.97	1534	8.73	0.0	5-31-19 17:45	19.76	982	8.49	355.9	5-31-19 17:45	17.85	670	7.75	41.4						8-31-19 13:15	16.60	2127	8.63	0.0					
5-31-19 22:30	20.93	1540	8.75	0.0	5-31-19 18:00	19.77	983	8.48	140.4	5-31-19 18:00	17.83	669	7.75	38.4						8-31-19 13:30	16.54	2128	8.63	0.0					
5-31-19 22:45	20.89	1523	8.78	0.0	5-31-19 18:15	19.84	982	8.48	73.3	5-31-19 18:15	17.90	666	7.75	37.9						8-31-19 13:45	16.51	2129	8.63	0.0					
5-31-19 23:00	21.30	1548	8.83	0.0	5-31-19 18:30	19.89	983	8.48	3.0	5-31-19 18:30	18.69	639	8.03	14.6						8-31-19 14:00	16.52	2070	8.62	9.5					
5-31-19 23:15	21.49	1543	8.97	0.0	5-31-19 18:45	20.60	795	8.67	8.7	5-31-19 18:45	18.16	652	7.62	13.6						8-31-19 14:15	16.48	2124	8.63	0.0					
5-31-19 23:30	21.85	1553	9.04	0.0	5-31-19 19:00	20.24	793	8.51	8.6	5-31-19 19:00	18.26	652	7.76	12.9						8-31-19 14:30	16.48	2122	8.63	0.0					
5-31-19 23:45	22.23	1537	9.14	0.2	5-31-19 19:15	20.25	796	8.31	9.3	5-31-19 19:15	18.48	659	7.77	12.7						8-31-19 14:45	16.38	2122	8.62	0.0					
6-1-19 0:00	22.32	1536	9.14	0.1	5-31-19 19:30	20.36	798	8.29	8.6	5-31-19 19:30	18.53	654	7.77	14.0						8-31-19 15:00	16.39	2120	8.62	0.0					
6-1-19 0:15	22.51	1544	9.21	0.2	5-31-19 19:45	20.50	797	8.28	9.5	5-31-19 19:45	18.64	661	7.74	13.9						8-31-19 15:15	16.39	2128	8.62	0.0					
6-1-19 0:30	22.64	1542	9.28	0.4	5-31-19 20:00	20.69	797	8.29	10.5	5-31-19 20:00	18.64	659	7.72	12.9						8-31-19 15:30	16.40	2130	8.62	0.0					
6-1-19 0:45	22.75	1540	9.17	0.8	5-31-19 20:15	20.75	798	8.33	9.6	5-31-19 20:15	18.85	660	7.74	12.4						8-31-19 15:45	16.39	2129	8.62	0.0					
6-1-19 1:00	22.78	1537	9.19	0.1	5-31-19 20:30	20.89	798	8.46	7.1	5-31-19 20:30	18.97	660	7.75	12.3						8-31-19 16:00	16.38	2129	8.62	0.0					
6-1-19 1:15	22.74	1536	9.19	0.2	5-31-19 20:45	20.99	797	8.59	7.8	5-31-19 20:45	19.18	658	7.80	13.8						8-31-19 16:15	16.39	2125	8.62	0.0					
6-1-19 1:30	22.63	1530	9.15	0.0	5-31-19 21:00	21.18	798	8.67	8.0	5-31-19 21:00	19.19	658	7.88	13.1						8-31-19 16:30	16.40	2121	8.63	0.0					
6-1-19 1:45	22.47	1531	9.13	0.0	5-31-19 21:15	21.47	797	8.68	8.6	5-31-19 21:15	19.52	661	7.99	13.1						8-31-19 16:45	16.44	2122	8.63	0.0					
6-1-19 2:00	22.31	1531	9.12	0.0	5-31-19 21:30	21.78	796	8.65	7.5	5-31-19 21:30	19.73	660	8.10	13.9						8-31-19 17:00	16.48	2120	8.63	0.0					
6-1-19 2:15	22.17	1528	9.10	0.0	5-31-19 21:45	21.76	797	8.66	7.7	5-31-19 21:45	19.88	662	8.14	12.7						8-31-19 17:15	16.56	2125	8.64	0.0					
6-1-19 2:30	22.06	1528	9.10	0.0	5-31-19 22:00	21.74	839	8.66	6.8	5-31-19 22:00	20.16	664	8.16	13.8						8-31-19 17:30	16.60	2126	8.64	0.0					
6-1-19 2:45	21.96	1544	9.12	0.1	5-31-19 22:15	21.79	794	8.65	8.3	5-31-19 22:15	20.64	649	8.15	13.2						8-31-19 17:45	16.67	2123	8.64	0.0					
6-1-19 3:00	21.84	1543	9.15	0.0	5-31-19 22:30	21.81	808	8.65	7.3	5-31-19 22:30	20.62	645	8.14	14.2						8-31-19 18:00	16.73	2126	8.65	0.0					
6-1-19 3:15	21.75	1539	9.19	0.0	5-31-19 22:45	21.94	800	8.65	7.5	5-31-19 22:45	20.50	630	8.11	13.6						8-31-19 18:15	16.78	2125	8.65	0.0					
6-1-19 3:30	21.64	1520	9.16	0.0	5-31-19 23:00	22.36	826	8.65	7.2	5-31-19 23:00	21.00	631	8.11	13.8						8-31-19 18:30	16.83	2123	8.65	0.0					
6-1-19 3:45	21.54	1517	9.16	0.0	5-31-19 23:15	22.52	816	8.64	7.8	5-31-19 23:15	21.29	637	8.11	14.1						8-31-19 18:45	16.89	2121	8.65	0.0					
6-1-19 4:00	21.49	1521	9.15	0.0	5-31-19 23:30	22.26	789	8.66	10.6	5-31-19 23:30	21.40	639	8.11	13.7						8-31-19 19:00	16.97	2121	8.64	0.0					
6-1-19 4:15	21.45	1518	9.15	0.0	5-31-19 23:45	22.32	792	8.65	9.1	5-31-19 23:45	21.47	639	8.10	13.5						8-31-19 19:15	17.02	2125	8.65	0.0					
6-1-19 4:30	21.42	1519	9.14	0.0	6-1-19 0:00	22.35	793	8.66	8.1	6-1-19 0:00	21.78	641	8.10	14.3						8-31-19 19:30	17.09	2127	8.64	0.0					
6-1-19 4:45	21.38	1516	9.14	0.0	6-1-19 0:15	22.46	794	8.64	7.1	6-1-19 0:15	22.02	503	8.10	13.5						8-31-19 19:45	17.18	2130	8.64	0.0					
6-1-19 5:00	21.30	1544	9.13	0.1	6-1-19 0:30	22.32	786	8.69	11.5	6-1-19 0:30	22.06	497	8.11	14.6						8-31-19 20:00	17.54	2133	8.64	0.0					
6-1-19 5:15	21.25	1544	9.14	0.0	6-1-19 0:45	22.57	792	8.64	8.1	6-1-19 0:45	22.27	517	8.12	14.2						8-31-19 20:15	17.60	2124	8.63	0.0					
6-1-19 5:30	21.20	1535	9.13	0.0	6-1-19 1:00	22.57	796	8.66	8.7	6-1-19 1:00	22.56	511	8.14	12.7						8-31-19 20:30	17.78	2158	8.62	0.0					
6-1-19 5:45	21.16	1533	9.13	0.0	6-1-19 1:15	22.47	792	8.66	9.2	6-1-19 1:15	22.53	635	8.14	13.4						8-31-19 20:45	18.40	2124	8.61	0.0					
6-1-19 6:00	21.10	1532	9.14	0.9	6-1-19 1:30	22.36	792	8.67	9.1	6-1-19 1:30	22.40	705	8.14	15.4						8-31-19 21:00	18.62	2123	8.60	0.0					
6-1-19 6:15	21.06	1528	9.14	0.0	6-1-19 1:45	22.27	791	8.67	7.9	6-1-19 1:45	22.25	724	8.14	13.8						8-31-19 21:15	19.01	2131	8.60	0.0					
6-1-19 6:30	21.00	1536	9.13	0.0	6-1-19 2:00	22.12	793	8.67	7.5	6-1-19 2:00	22.11	605	8.16	13.6						8-31-19 21:30	18.77	2125	8.60	0.0					
6-1-19 6:45	20.94	1533	9.13	0.0	6-1-19 2:15	22.09	791	8.66	6.6	6-1-19 2:15	22.12	613	8.16	13.1						8-31-19 21:45	19.11	2131	8.59	0.3					
6-1-19 7:00	20.90	1522	9.13	0.0	6-1-19 2:30	22.05	796	8.67	6.2	6-1-19 2:30	22.01	595	8.16	13.9						8-31-19 22:00	19.05	2124	8.60	0.0					
6-1-19 7:15	20.84	1517	9.12	0.6	6-1-19 2:45	22.01	796	8.67	8.3	6-1-19 2:45	21.91	599	8.16	15.5						8-31-19 22:15	19.20	2125	8.60	0.1					
6-1-19 7:30	20.81	1530	9.12	2.4	6-1-19 3:00	21.98	801	8.67	6.5	6-1-19 3:00	21.92	585	8.16	14.8						8-31-19 22:30	19.39	2118	8.60	0.8					
6-1-19 7:45	20.77	1521	9.12	0.0	6-1-19 3:15	21.98	794	8.66	5.3	6-1-19 3:15	21.73	602	8.17	12.1						8-31-19 22:45	19.45	2119	8.59	0.3					
6-1-19 8:00	20.73	1519	9.12	0.0	6-1-19 3:30	22.01	798	8.66	4.2	6-1-19 3:30	21.47	581	8.17	13.3						8-31-19 23:00	19.50	2121	8.60	0.4					
6-1-19 8:15	20.68	1515	9.12	0.0	6-1-19 3:45	21.98	794	8.66	4.9	6-1-19 3:45	21.63	610	8.19	11.6						8-31-19 23:15	19.56	2175	8.60	0.4					
6-1-19 8:30	20.63	1523	9.12	0.0	6-1-19 4:00	21.95	794	8.65	5.1	6-1-19 4:00	21.28	604	8.17	12.5						8-31-19 23:30	19.51	2173	8.59	0.3					
6-1-19 8:45	20.60	1527	9.12	0.0	6-1-19 4:15	21.91	792	8.65	4.8	6-1-19 4:15	21.14	621	8.18	12.2						8-31-19 23:45	19.52	2172	8.60	0.5					
6-1-19 9:00	20.55	1532	9.11	0.0	6-1-19 4:30	21.86	794	8.65	4.7	6-1-19 4:30	21.04	626	8.18	12.2						9-1-19 0:00	19.60	2179	8.60	0.5					
6-1-19 9:15	20.48	1525	9.12	0.0	6-1-19 4:45	21.83	793	8.66	5.1	6-1-19 4:45	20.91	630	8.16	11.4						9-1-19 0:15	19.54	2122	8.60	0.4					
6-1-19 9:30	20.46	1526	9.11	0.0	6-1-19 5:00	21.76	789	8.66	4.4	6-1-19 5:00	20.79	635	8.12	12.3						9-1-19 0:30	19.48	2114	8.60	0.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-1-19 9:45	20.42	1524	9.11	0.0	6-1-19 5:15	21.70	794	8.66	5.7	6-1-19 5:15	20.62	618	8.13	12.9						9-1-19 0:45	19.37	2114	8.61	0.7					
6-1-19 10:00	20.38	1533	9.09	0.0	6-1-19 5:30	21.66	798	8.66	4.5	6-1-19 5:30	20.35	628	8.08	15.4						9-1-19 1:00	19.30	2118	8.61	0.9					
6-1-19 10:15	20.34	1529	9.09	0.0	6-1-19 5:45	21.62	800	8.66	4.5	6-1-19 5:45	20.44	615	8.15	12.1						9-1-19 1:15	19.23	2113	8.61	0.7					
6-1-19 10:30	20.30	1532	9.08	0.0	6-1-19 6:00	21.56	796	8.66	4.7	6-1-19 6:00	20.33	635	8.15	11.3						9-1-19 1:30	19.15	2116	8.61	0.3					
6-1-19 10:45	20.26	1528	9.08	0.0	6-1-19 6:15	21.50	794	8.65	5.3	6-1-19 6:15	20.26	637	8.15	13.1						9-1-19 1:45	19.06	2119	8.62	0.1					
6-1-19 11:00	20.23	1531	9.08	5.3	6-1-19 6:30	21.46	793	8.66	4.1	6-1-19 6:30	20.17	638	8.14	12.7						9-1-19 2:00	18.89	2116	8.64	0.0					
6-1-19 11:15	20.19	1527	9.07	0.0	6-1-19 6:45	21.39	792	8.66	4.2	6-1-19 6:45	20.09	637	8.13	12.4						9-1-19 2:15	18.74	2124	8.64	0.2					
6-1-19 11:30	20.14	1525	9.07	0.0	6-1-19 7:00	21.35	794	8.66	3.4	6-1-19 7:00	20.00	642	8.13	15.8						9-1-19 2:30	18.66	2122	8.64	0.2					
6-1-19 11:45	20.10	1519	9.07	0.4	6-1-19 7:15	21.27	795	8.65	4.6	6-1-19 7:15	19.95	633	8.12	15.4						9-1-19 2:45	18.60	2119	8.65	0.1					
6-1-19 12:00	20.07	1522	9.06	0.0	6-1-19 7:30	21.21	796	8.65	3.5	6-1-19 7:30	19.85	637	8.13	11.7						9-1-19 3:00	18.54	2125	8.65	0.1					
6-1-19 12:15	20.02	1511	9.06	0.0	6-1-19 7:45	21.15	796	8.66	5.0	6-1-19 7:45	19.79	629	8.12	10.4						9-1-19 3:15	18.46	1969	8.65	2.6					
6-1-19 12:30	19.99	1519	9.06	0.0	6-1-19 8:00	21.11	802	8.66	3.8	6-1-19 8:00	19.70	638	8.11	11.8						9-1-19 3:30	18.37	1998	8.65	0.0					
6-1-19 12:45	19.97	1511	9.06	0.0	6-1-19 8:15	21.05	796	8.65	4.3	6-1-19 8:15	19.64	629	8.12	10.3						9-1-19 3:45	18.33	2125	8.66	0.0					
6-1-19 13:00	19.94	1523	9.06	0.0	6-1-19 8:30	20.98	796	8.66	3.6	6-1-19 8:30	19.54	627	8.11	11.1						9-1-19 4:00	18.30	2121	8.66	0.0					
6-1-19 13:15	19.91	1525	9.05	0.0	6-1-19 8:45	20.96	795	8.66	4.2	6-1-19 8:45	19.48	628	8.11	9.6						9-1-19 4:15	18.26	2117	8.66	0.0					
6-1-19 13:30	19.87	1546	9.04	0.0	6-1-19 9:00	20.91	795	8.66	3.8	6-1-19 9:00	19.42	626	8.09	10.6						9-1-19 4:30	18.23	2115	8.66	0.0					
6-1-19 13:45	19.85	1546	9.04	0.0	6-1-19 9:15	20.88	794	8.66	3.6	6-1-19 9:15	19.36	626	8.09	12.5						9-1-19 4:45	18.18	2115	8.67	0.0					
6-1-19 14:00	19.80	1548	9.03	0.0	6-1-19 9:30	20.83	795	8.66	3.5	6-1-19 9:30	19.31	626	8.09	10.9						9-1-19 5:00	18.15	2117	8.66	0.0					
6-1-19 14:15	19.80	1544	9.04	0.0	6-1-19 9:45	20.76	796	8.66	4.0	6-1-19 9:45	19.24	627	8.07	21.5						9-1-19 5:15	18.09	2118	8.67	0.0					
6-1-19 14:30	19.77	1547	9.04	0.0	6-1-19 10:00	20.72	797	8.66	4.1	6-1-19 10:00	19.17	626	8.07	12.7						9-1-19 5:30	18.07	2132	8.66	0.0					
6-1-19 14:45	19.79	1552	9.04	0.0	6-1-19 10:15	20.68	795	8.65	4.2	6-1-19 10:15	19.11	634	8.07	15.6						9-1-19 5:45	18.03	2125	8.66	0.0					
6-1-19 15:00	19.72	1239	8.96	0.0	6-1-19 10:30	20.63	795	8.66	4.0	6-1-19 10:30	19.05	629	8.06	13.4						9-1-19 6:00	17.99	2121	8.66	0.0					
6-1-19 15:15	19.80	1530	8.98	0.0	6-1-19 10:45	20.59	795	8.66	4.2	6-1-19 10:45	18.98	631	8.05	13.9						9-1-19 6:15	17.92	2124	8.66	0.2					
6-1-19 15:30	19.82	1524	8.96	0.0	6-1-19 11:00	20.56	796	8.66	3.5	6-1-19 11:00	18.91	626	8.04	13.1						9-1-19 6:30	17.87	2118	8.66	0.0					
6-1-19 15:45	19.82	1507	9.04	0.0	6-1-19 11:15	20.52	795	8.66	4.3	6-1-19 11:15	18.86	640	8.06	13.0						9-1-19 6:45	17.85	2102	8.66	0.2					
6-1-19 16:00	19.83	1532	9.01	0.0	6-1-19 11:30	20.47	796	8.66	5.0	6-1-19 11:30	18.81	637	8.06	14.3						9-1-19 7:00	17.84	2113	8.66	0.0					
6-1-19 16:15	19.86	1528	8.99	0.0	6-1-19 11:45	20.45	795	8.66	4.2	6-1-19 11:45	18.76	641	8.06	12.0						9-1-19 7:15	17.77	2139	8.65	0.0					
6-1-19 16:30	19.92	1537	9.04	0.0	6-1-19 12:00	20.41	795	8.66	3.8	6-1-19 12:00	18.72	635	8.06	13.4						9-1-19 7:30	17.75	2128	8.65	0.0					
6-1-19 16:45	19.94	1533	9.08	0.0	6-1-19 12:15	20.37	796	8.65	3.7	6-1-19 12:15	18.68	591	8.05	13.3						9-1-19 7:45	17.72	2138	8.65	0.0					
6-1-19 17:00	20.06	1532	8.39	0.0	6-1-19 12:30	20.34	796	8.66	4.1	6-1-19 12:30	18.64	577	8.05	13.9						9-1-19 8:00	17.67	2123	8.65	0.0					
6-1-19 17:15	20.20	1521	8.63	0.0	6-1-19 12:45	20.33	859	8.65	4.5	6-1-19 12:45	18.61	598	8.05	12.7						9-1-19 8:15	17.60	2131	8.65	0.0					
6-1-19 17:30	20.40	1527	8.66	0.0	6-1-19 13:00	20.30	796	8.65	3.6	6-1-19 13:00	18.58	595	8.06	11.6						9-1-19 8:30	17.56	2119	8.65	0.0					
6-1-19 17:45	20.63	1516	8.86	0.0	6-1-19 13:15	20.28	796	8.65	3.9	6-1-19 13:15	18.55	592	8.07	10.7						9-1-19 8:45	17.53	2120	8.65	0.0					
6-1-19 18:00	20.69	1568	8.84	0.0	6-1-19 13:30	20.25	804	8.65	4.6	6-1-19 13:30	18.52	598	8.07	9.9						9-1-19 9:00	17.52	2115	8.65	0.0					
6-1-19 18:15	20.86	1558	9.05	0.0	6-1-19 13:45	20.25	795	8.65	4.1	6-1-19 13:45	18.49	570	8.07	10.4						9-1-19 9:15	17.47	2122	8.65	0.0					
6-1-19 18:30	20.92	1558	9.07	0.0	6-1-19 14:00	20.23	769	8.65	3.6	6-1-19 14:00	18.47	546	8.08	9.4						9-1-19 9:30	17.41	2124	8.65	0.0					
6-1-19 18:45	21.14	1552	8.93	0.0	6-1-19 14:15	20.20	792	8.64	5.2	6-1-19 14:15	18.46	573	8.08	8.0						9-1-19 9:45	17.39	2125	8.65	0.0					
6-1-19 19:00	20.91	1549	8.78	0.0	6-1-19 14:30	20.19	795	8.64	4.0	6-1-19 14:30	18.45	554	8.08	9.2						9-1-19 10:00	17.31	2125	8.64	0.0					
6-1-19 19:15	20.95	1553	8.82	0.0	6-1-19 14:45	20.24	795	8.65	23.3	6-1-19 14:45	18.45	564	8.09	8.0						9-1-19 10:15	17.31	2123	8.65	2.5					
6-1-19 19:30	20.98	1547	8.93	0.0	6-1-19 15:00	20.26	795	8.64	3.7	6-1-19 15:00	18.46	546	8.08	8.8						9-1-19 10:30	17.26	2119	8.65	0.0					
6-1-19 19:45	21.08	1545	8.89	0.0	6-1-19 15:15	20.26	796	8.65	4.6	6-1-19 15:15	18.51	564	8.08	8.2						9-1-19 10:45	17.23	2117	8.64	0.0					
6-1-19 20:00	21.25	1540	8.91	0.0	6-1-19 15:30	20.34	796	8.65	4.1	6-1-19 15:30	18.55	548	8.08	9.4						9-1-19 11:00	17.19	2117	8.64	0.0					
6-1-19 20:15	21.32	1556	8.78	0.0	6-1-19 15:45	20.30	796	8.67	4.0	6-1-19 15:45	18.56	572	8.08	8.4						9-1-19 11:15	17.16	2122	8.64	0.0					
6-1-19 20:30	21.26	1532	8.68	0.0	6-1-19 16:00	20.34	782	8.67	3.7	6-1-19 16:00	18.57	560	8.09	9.1						9-1-19 11:30	17.09	2122	8.64	0.0					
6-1-19 20:45	21.24	1521	8.65	0.0	6-1-19 16:15	20.31	793	8.67	4.5	6-1-19 16:15	18.58	564	8.09	9.2						9-1-19 11:45	17.06	2122	8.64	0.0					
6-1-19 21:00	21.23	1507	8.65	0.0	6-1-19 16:30	20.34	799	8.67	4.1	6-1-19 16:30	18.66	547	8.10	9.4						9-1-19 12:00	17.00	2124	8.64	0.0					
6-1-19 21:15	21.25	1507	8.54	0.0	6-1-19 16:45	20.35	794	8.67	4.4	6-1-19 16:45	18.68	521	8.09	11.4						9-1-19 12:15	16.95	2119	8.64	0.0					
6-1-19 21:30	21.46	1504	8.74	0.0	6-1-19 17:00	20.41	796	8.65	4.6	6-1-19 17:00	18.73	497	8.10	9.8						9-1-19 12:30	16.89	2117	8.64	0.0					
6-1-19 21:45	21.49	1497	8.61	0.0	6-1-19 17:15	20.52	795	8.63	4.5	6-1-19 17:15	18.87	494	8.09	10.1						9-1-19 12:45	16.86	2116	8.64	0.0					
6-1-19 22:00	21.49	1491	8.57	0.0	6-1-19 17:30	20.75	795	8.65	5.4	6-1-19 17:30	19.12	478	8.10	10.7						9-1-19 13:00	16.82	2117	8.64	0.0					
6-1-19 22:15	21.52	1484	8.56	0.0	6-1-19 17:45	20.91	796	8.64	6.2	6-1-19 17:45	19.43	492	8.10	9.9						9-1-19 13:15	16.77	2202	8.63	0.0					
6-1-19 22:30	21.64	1489	8.74	0.0	6-1-19 18:00	21.01	830	8.63	13.6	6-1-19 18:00	19.54	492	8.08	10.6						9-1-19 13:30	16.76	2202	8.63	0.0					
6-1-19 22:45	21.75	1480	8.86	0.4	6-1-19 18:15	21.18	833	8.64	12.9	6-1-19 18:15	19.64	530	8.10	9.1						9-1-19 13:45	16.72	2202	8.63	0.0					
6-1-19 23:00	21.82	1478	8.75	0.0	6-1-19 18:30	21.05	827	8.63	6.7	6-1-19 18:30	19.66	508	8.10	16.5						9-1-19 14:00	16.68	2177	8.63	0.0					
6-1-19 23:15	21.79	1480	8.96	0.0	6-1-19 18:45	20.89	822	8.64	6.1	6-1-19 18:45	19.69	594	8.10	12.1						9-1-19 14:15	16.67	2184	8.63	0.6					
6-1-19 23:30	21.76	1470	9.00	0.0	6-1-19 19:00	20.73	798	8.65	6.7	6-1-19 19:00	19.73	575	8.11	9.9						9-1-19 14:30	16.64	2112	8.63	0.0					
6-1-19 23:45	21.74	1451	8.82	0.0	6-1-19 19:15	20.72	794	8.66	6.9	6-1-19 19:15	19.60	515	8.10	10.4						9-1-19 14:45	16.62	2116	8.63	0.0					
6-2-19 0:00	21.72	1431	8.74	0.3	6-1-19 19:30	20.73	787	8.67	6.4	6-1-19 19:30	19.60	491	8.11	11.1						9-1-19 15:00	16.62	2116	8.63	0.0					
6-2-19 0:15	21.80	1361	8.71	0.0	6-1-19 19:45	20.99	778	8.67	9.0	6-1-19 19:45	19.84	550	8.12	10.5						9-1-19 15:15	16.58	2121	8.63	0.0					
6-2-19 0:30	21.78	1520	8.76	0.0	6-1-19 20:00	21.03	787	8.67	7.6	6-1-19 20:00	20.05	567	8.12	13.3						9-1-19 15:30	16.56	2125	8.63	0.0					
6-2-19 0:45	21.76	1492	8.65	0.0	6-1-19 20:15	21.19	787	8.67	73.0	6-1-19 20:15	19.94	597	8.12	12.6						9-1-19 15:45	16.55	2125	8.63	0.0					
6-2-19 1:00	21.72	1502	8.75	0.0	6-1-19 20:30	21.35	787	8.66	14.9	6-1-19 20:30	19.99	570	8.13	11.8						9-1-19 16:00	16.57	2124	8.63	0.0					
6-2-19 2:15	21.64	1496	8.02	0.7	6-1-19 20:45	21.48	789	8.66	12.8	6-1-19 20:45	20.15	586	8.14	12.9						9-1-19 16:15	16.63	2122	8.63	0.0					
6-2-19 2:30	21.61	1508	7.88	0.0	6-1-19 21:00	21.81	792	8.66	14.6	6-1-19 21:00	20.17	550	8.13	17.6						9-1-19 16:30	16.65	2117	8.63	0.0					
6-2-19 2:45	21.56	1457	7.84	0.0	6-1-19 21:15	22.02	790	8.66	26.6	6-1-19 21:15	20.43	532	8.14	28.2						9-1-19 16:45	16.66	2118	8.63	0.0					
6-2-19 3:00	21.49	1501	7.90	0.0	6-1-19 21:30	21.84	786	8.67	13.9	6-1-19 21:30	20.52	607	8.14	10.7						9-1-19 17:00	16.70	2118	8.63	0.0					
6-2-19 3:15	21.47	1503	7.79	0.0	6-1-19 21:45	21.72	783	8.69	12.1	6-1-19 21:45	20.54	632	8.15	11.4						9-1-19 17:15	16.69	2122	8.64	0.0					
6-2-19 3:30	21.40	1488	7.71	0.0	6-1-19 22:00	21.73	776	8.70	16.7	6-1-19 22:00	20.55	634	8.16	11.7						9-1-19 17:30	16.73	2123	8.64	0.0					
6-2-19 3:45	21.36	1470	7.66	0.0	6-1-19 22:15	21.60	780	8.69	11.6	6-1-19 22:15	20.57	605	8.16	11.6						9-1-19 17:45	16.77	2122	8.64	0.0					
6-2-19 4:00	21.27	1518	7.58	0.0	6-1-19 22:30	21.62	784	8.70	15.1	6-1-19 22:30	20.52	623	8.15	10.2						9-1-19 18:00	16.86	2122	8.64	0.0					
6-2-19 4:15	21.25	1520	7.55	0.0	6-1-19 22:45	21.74	788	8.71	21.4	6-1-19 22:45	20.57	633	8.16	9.9						9-1-19 18:15	16.92	2120	8.65	0.0					
6-2-19 4:30	21.16	1516	7.49	0.0	6-1-19 23:00	21.79	798	8.71	12.5	6-1-19 23:00	20.59	629	8.16	14.5						9-1-19 18:30	16.98	2112	8.64	0.0					
6-2-19 4:45	21.12	1511	7.93	0.0	6-1-19 23:15	21.77	792	8.71	37.8	6-1-19 23:15	20.63	633	8.16	20.4						9-1-19 18:45	17.07	2115	8.65	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-2-19 5:00	21.07	1513	8.13	0.0	6-1-19 23:30	21.66	796	8.72	10.1	6-1-19 23:30	20.57	644	8.17	17.2						9-1-19 19:00	17.27	2116	8.65	0.0					
6-2-19 5:15	20.98	1479	7.76	0.0	6-1-19 23:45	21.61	776	8.72	11.7	6-1-19 23:45	20.53	620	8.18	32.7						9-1-19 19:15	17.25	2153	8.65	0.0					
6-2-19 5:30	20.88	1468	7.69	0.0	6-2-19 0:00	21.57	774	8.72	7.4	6-2-19 0:00	20.44	620	8.18	15.5						9-1-19 19:30	17.49	2119	8.64	0.0					
6-2-19 5:45	20.85	1415	7.80	0.0	6-2-19 0:15	21.70	789	8.71	10.0	6-2-19 0:15	20.45	633	8.18	17.5						9-1-19 19:45	17.61	2119	8.64	0.0					
6-2-19 6:00	20.70	1459	7.84	0.0	6-2-19 0:30	21.78	784	8.71	6.3	6-2-19 0:30	20.42	632	8.17	12.8						9-1-19 20:00	17.63	2116	8.65	0.0					
6-2-19 6:15	20.57	1433	7.64	0.0	6-2-19 0:45	21.71	760	8.72	7.4	6-2-19 0:45	20.40	603	8.18	12.3						9-1-19 20:15	17.77	2116	8.64	0.0					
6-2-19 6:30	20.39	1481	7.61	0.0	6-2-19 1:00	21.48	781	8.72	10.7	6-2-19 1:00	20.39	595	8.19	11.5						9-1-19 20:30	17.79	2111	8.64	0.0					
6-2-19 6:45	20.31	1481	7.67	0.0	6-2-19 1:15	21.50	778	8.73	9.5	6-2-19 1:15	20.29	604	8.19	14.3						9-1-19 20:45	18.04	2108	8.64	0.0					
6-2-19 7:00	20.22	1548	7.65	0.0	6-2-19 1:30	21.52	793	8.72	8.3	6-2-19 1:30	20.23	537	8.19	14.0						9-1-19 21:00	18.01	2112	8.63	0.0					
6-2-19 7:15	20.15	1542	7.54	0.0	6-2-19 1:45	21.47	789	8.72	8.8	6-2-19 1:45	20.21	630	8.19	17.0						9-1-19 21:15	17.99	2118	8.64	0.0					
6-2-19 7:30	20.10	1541	7.55	0.0	6-2-19 2:00	21.48	818	8.73	6.8	6-2-19 2:00	20.18	628	8.20	14.1						9-1-19 21:30	18.09	2120	8.63	0.0					
6-2-19 7:45	20.00	1532	7.41	0.0	6-2-19 2:15	21.38	786	8.72	9.1	6-2-19 2:15	20.15	628	8.20	12.6						9-1-19 21:45	18.11	2119	8.63	0.0					
6-2-19 8:00	19.95	1529	7.37	0.0	6-2-19 2:30	21.28	790	8.73	7.7	6-2-19 2:30	20.08	626	8.21	12.0						9-1-19 22:00	18.11	2149	8.62	0.0					
6-2-19 8:15	19.91	1526	7.30	0.0	6-2-19 2:45	21.19	779	8.74	6.9	6-2-19 2:45	20.00	634	8.21	12.0						9-1-19 22:15	18.11	2113	8.64	0.0					
6-2-19 8:30	19.85	1544	7.34	0.0	6-2-19 3:00	21.18	780	8.73	6.8	6-2-19 3:00	19.94	623	8.22	12.2						9-1-19 22:30	18.28	2087	8.63	0.0					
6-2-19 8:45	19.83	1543	7.35	0.0	6-2-19 3:15	21.16	789	8.73	7.4	6-2-19 3:15	19.87	637	8.22	13.4						9-1-19 22:45	18.59	2113	8.63	0.0					
6-2-19 9:00	19.77	1544	7.36	0.0	6-2-19 3:30	21.07	792	8.73	7.1	6-2-19 3:30	19.79	640	8.22	10.4						9-1-19 23:00	18.83	2122	8.63	0.0					
6-2-19 9:15	19.71	1543	7.33	0.0	6-2-19 3:45	21.01	786	8.73	9.9	6-2-19 3:45	19.66	581	8.23	11.5						9-1-19 23:15	18.91	2123	8.62	0.0					
6-2-19 9:30	19.64	1532	7.28	0.0	6-2-19 4:00	20.94	791	8.73	7.7	6-2-19 4:00	19.60	567	8.23	10.4						9-1-19 23:30	18.87	2128	8.63	0.0					
6-2-19 9:45	19.60	1542	7.20	57.9	6-2-19 4:15	20.85	793	8.73	11.0	6-2-19 4:15	19.53	588	8.22	11.0						9-1-19 23:45	18.86	2126	8.63	0.2					
6-2-19 10:00	19.53	1549	7.20	0.0	6-2-19 4:30	20.86	792	8.73	9.2	6-2-19 4:30	19.43	582	8.22	10.8						9-2-19 0:00	18.72	2124	8.63	0.2					
6-2-19 10:15	19.45	1551	7.36	0.0	6-2-19 4:45	20.76	786	8.73	8.4	6-2-19 4:45	19.35	535	8.23	10.9						9-2-19 0:15	18.60	2108	8.64	1.8					
6-2-19 10:30	19.35	1540	7.41	0.0	6-2-19 5:00	20.74	792	8.73	6.8	6-2-19 5:00	19.29	597	8.22	10.8						9-2-19 0:30	18.53	2123	8.64	0.0					
6-2-19 10:45	19.28	1551	7.30	0.0	6-2-19 5:15	20.74	791	8.72	9.4	6-2-19 5:15	19.19	591	8.22	12.0						9-2-19 0:45	18.46	2109	8.65	0.2					
6-2-19 11:00	19.23	1547	7.17	0.0	6-2-19 5:30	20.71	793	8.72	7.3	6-2-19 5:30	19.09	560	8.21	11.2						9-2-19 1:00	18.40	2096	8.62	0.0					
6-2-19 11:15	19.14	1545	7.23	0.0	6-2-19 5:45	20.61	787	8.72	8.4	6-2-19 5:45	19.02	570	8.21	11.0						9-2-19 1:15	18.33	2091	8.65	0.1					
6-2-19 11:30	19.09	1547	7.25	0.0	6-2-19 6:00	20.49	794	8.73	9.9	6-2-19 6:00	18.88	485	8.21	10.2						9-2-19 1:30	18.32	2067	8.65	0.1					
6-2-19 11:45	18.98	1549	7.20	0.4	6-2-19 6:15	20.53	795	8.72	8.0	6-2-19 6:15	18.69	595	8.18	12.3						9-2-19 1:45	18.30	2269	8.63	236.1					
6-2-19 12:00	18.88	1441	7.26	0.0	6-2-19 6:30	20.45	809	8.72	10.0	6-2-19 6:30	18.63	579	8.16	11.5						9-2-19 2:00	18.27	2141	8.64	72.1					
6-2-19 12:15	18.78	1551	7.25	0.0	6-2-19 6:45	20.38	792	8.72	10.6	6-2-19 6:45	18.54	593	8.14	11.2						9-2-19 2:15	18.25	2110	8.65	0.4					
6-2-19 12:30	18.75	1553	7.12	0.0	6-2-19 7:00	20.26	787	8.72	8.9	6-2-19 7:00	18.49	591	8.13	10.2						9-2-19 2:30	18.22	2099	8.60	0.5					
6-2-19 12:45	18.67	1554	7.21	0.0	6-2-19 7:15	20.26	792	8.72	10.8	6-2-19 7:15	18.40	577	8.11	11.4						9-2-19 2:45	18.12	2107	8.66	0.6					
6-2-19 13:00	18.59	1556	7.22	0.0	6-2-19 7:30	20.19	790	8.72	7.9	6-2-19 7:30	18.37	577	8.11	10.8						9-2-19 3:00	17.90	2079	8.67	4.5					
6-2-19 13:15	18.52	1555	7.25	0.0	6-2-19 7:45	20.11	789	8.72	14.2	6-2-19 7:45	18.33	584	8.11	10.6						9-2-19 3:15	17.75	2078	8.68	2.5					
6-2-19 13:30	18.44	1556	7.25	0.0	6-2-19 8:00	20.05	791	8.72	8.5	6-2-19 8:00	18.26	551	8.11	11.2						9-2-19 3:30	17.66	2222	8.68	13.9					
6-2-19 13:45	18.43	1556	7.24	0.0	6-2-19 8:15	19.99	793	8.71	11.5	6-2-19 8:15	18.25	616	8.10	10.3						9-2-19 3:45	17.58	2209	8.69	6.3					
6-2-19 14:00	18.41	1556	7.22	0.0	6-2-19 8:30	19.85	791	8.72	7.1	6-2-19 8:30	18.13	617	8.10	10.7						9-2-19 4:00	17.51	2089	8.69	0.5					
6-2-19 14:15	18.39	1556	7.21	0.0	6-2-19 8:45	19.83	791	8.72	8.4	6-2-19 8:45	18.14	619	8.09	10.6						9-2-19 4:15	17.50	2082	8.68	23.2					
6-2-19 14:30	18.40	1555	7.19	0.0	6-2-19 9:00	19.76	787	8.72	6.8	6-2-19 9:00	18.06	621	8.09	11.5						9-2-19 4:30	17.46	2103	8.68	5.0					
6-2-19 14:45	18.41	1554	7.29	0.0	6-2-19 9:15	19.75	791	8.72	7.8	6-2-19 9:15	18.06	602	8.08	11.1						9-2-19 4:45	17.44	2103	8.70	6.1					
6-2-19 15:00	18.48	1553	7.30	0.0	6-2-19 9:30	19.75	791	8.71	6.7	6-2-19 9:30	18.02	611	8.08	12.3						9-2-19 5:00	17.40	2091	8.70	8.0					
6-2-19 15:15	18.47	1554	7.24	0.0	6-2-19 9:45	19.59	790	8.71	7.2	6-2-19 9:45	17.95	612	8.08	10.6						9-2-19 5:15	17.42	2245	8.67	4.4					
6-2-19 15:30	18.47	1555	7.29	0.0	6-2-19 10:00	19.51	792	8.71	7.4	6-2-19 10:00	17.89	611	8.08	11.5						9-2-19 5:30	17.40	2137	8.69	0.1					
6-2-19 15:45	18.48	1553	7.38	0.0	6-2-19 10:15	19.48	790	8.71	7.1	6-2-19 10:15	17.82	611	8.10	11.0						9-2-19 5:45	17.38	2095	8.68	0.1					
6-2-19 16:00	18.53	1554	7.30	0.0	6-2-19 10:30	19.50	789	8.71	6.7	6-2-19 10:30	17.76	612	8.10	10.6						9-2-19 6:00	17.36	2102	8.68	7.4					
6-2-19 16:15	18.64	1552	7.41	0.0	6-2-19 10:45	19.35	791	8.71	6.8	6-2-19 10:45	17.69	613	8.11	12.2						9-2-19 6:15	17.30	2098	8.68	6.3					
6-2-19 16:30	18.67	1546	7.51	0.0	6-2-19 11:00	19.29	791	8.71	7.2	6-2-19 11:00	17.66	613	8.10	10.8						9-2-19 6:30	17.31	2103	8.69	5.0					
6-2-19 16:45	18.74	1550	7.58	0.0	6-2-19 11:15	19.14	790	8.71	8.4	6-2-19 11:15	17.64	546	8.09	12.2						9-2-19 6:45	17.28	2100	8.69	4.0					
6-2-19 17:00	18.89	1552	7.51	0.0	6-2-19 11:30	19.13	791	8.71	6.5	6-2-19 11:30	17.58	533	8.09	10.9						9-2-19 7:00	17.26	2101	8.69	16.3					
6-2-19 17:15	18.93	1544	8.11	0.0	6-2-19 11:45	19.06	790	8.71	6.7	6-2-19 11:45	17.52	543	8.08	11.5						9-2-19 7:15	17.25	2108	8.64	527.7					
6-2-19 17:30	19.05	1552	7.54	0.0	6-2-19 12:00	19.04	791	8.70	6.1	6-2-19 12:00	17.46	534	8.08	12.3						9-2-19 7:30	17.22	2115	8.68	1.5					
6-2-19 17:45	19.13	1531	7.57	0.0	6-2-19 12:15	19.09	791	8.69	7.4	6-2-19 12:15	17.40	590	8.08	12.5						9-2-19 7:45	17.19	2120	8.68	72.8					
6-2-19 18:00	19.32	1543	7.58	0.0	6-2-19 12:30	18.95	791	8.70	6.5	6-2-19 12:30	17.37	594	8.08	12.1						9-2-19 8:00	17.17	2112	8.68	1.4					
6-2-19 18:15	19.28	1537	7.83	0.0	6-2-19 12:45	18.91	791	8.70	7.6	6-2-19 12:45	17.31	596	8.08	10.3						9-2-19 8:15	17.14	2107	8.67	6.3					
6-2-19 18:30	19.50	1546	7.67	0.0	6-2-19 13:00	18.81	791	8.70	7.3	6-2-19 13:00	17.24	599	8.09	11.3						9-2-19 8:30	17.11	2108	8.67	3.1					
6-2-19 18:45	19.55	1540	7.94	0.0	6-2-19 13:15	18.86	792	8.70	7.8	6-2-19 13:15	17.18	600	8.09	11.7						9-2-19 8:45	17.06	2109	8.68	6.0					
6-2-19 19:00	19.71	1540	8.14	0.0	6-2-19 13:30	18.89	793	8.69	7.2	6-2-19 13:30	17.14	651	8.09	11.0						9-2-19 9:00	17.04	2106	8.67	1.8					
6-2-19 19:15	19.77	1537	7.75	0.0	6-2-19 13:45	18.80	794	8.69	7.0	6-2-19 13:45	17.11	652	8.08	12.7						9-2-19 9:15	17.01	2107	8.67	2.0					
6-2-19 19:30	19.80	1526	8.26	0.0	6-2-19 14:00	18.74	791	8.69	7.1	6-2-19 14:00	17.13	652	8.07	12.7						9-2-19 9:30	16.98	2110	8.67	2.1					
6-2-19 19:45	19.95	1501	8.56	0.0	6-2-19 14:15	18.70	791	8.69	8.0	6-2-19 14:15	17.11	652	8.07	12.5						9-2-19 9:45	16.95	2109	8.67	0.0					
6-2-19 20:00	20.14	1517	8.19	0.0	6-2-19 14:30	18.69	790	8.70	9.1	6-2-19 14:30	17.13	657	8.06	13.4						9-2-19 10:00	16.94	2099	8.67	1.6					
6-2-19 20:15	20.36	1516	7.91	0.0	6-2-19 14:45	18.63	789	8.71	9.3	6-2-19 14:45	17.13	653	8.06	13.2						9-2-19 10:15	16.90	2103	8.67	10.7					
6-2-19 20:30	20.48	1510	7.89	0.0	6-2-19 15:00	18.70	790	8.71	10.3	6-2-19 15:00	17.17	654	8.06	13.1						9-2-19 10:30	16.91	2099	8.67	19.5					
6-2-19 20:45	20.64	1501	7.92	0.0	6-2-19 15:15	18.68	789	8.71	7.7	6-2-19 15:15	17.22	656	8.06	12.3						9-2-19 10:45	16.91	2098	8.67	1.8					
6-2-19 21:00	20.69	1469	8.18	3.4	6-2-19 15:30	18.63	789	8.72	8.6	6-2-19 15:30	17.24	656	8.07	13.3						9-2-19 11:00	16.86	2105	8.67	1.6					
6-2-19 21:15	20.75	1470	8.22	0.0	6-2-19 15:45	18.63	789	8.72	7.8	6-2-19 15:45	17.35	655	8.08	12.4						9-2-19 11:15	16.82	2105	8.66	9.9					
6-2-19 21:30	20.75	1443	8.06	0.0	6-2-19 16:00	18.65	789	8.72	9.1	6-2-19 16:00	17.42	655	8.10	12.2						9-2-19 11:30	16.81	2109	8.66	0.2					
6-2-19 21:45	20.78	1421	7.95	0.0	6-2-19 16:15	18.69	788	8.72	8.0	6-2-19 16:15	17.42	653	8.11	12.6						9-2-19 11:45	16.78	2105	8.66	0.0					
6-2-19 22:00	20.87	1532	8.05	0.0	6-2-19 16:30	18.70	791	8.72	9.8	6-2-19 16:30	17.48	652	8.12	12.2						9-2-19 12:00	16.74	2102	8.66	0.0					
6-2-19 22:15	20.81	1500	7.98	0.0	6-2-19 16:45	18.71	788	8.72	9.3	6-2-19 16:45	17.65	653	8.11	12.0						9-2-19 12:15	16.68	2109	8.66	18.6					
6-2-19 22:30	20.89	1524	7.81	0.0	6-2-19 17:00	18.69	788	8.72	8.0	6-2-19 17:00	17.76	654	8.12	12.7						9-2-19 12:30	16.65	2109	8.66	4.6					
6-2-19 22:45	20.97	1523	8.02	0.0	6-2-19 17:15	18.93	788	8.72	8.6	6-2-19 17:15	17.75	653	8.11	12.1						9-2-19 12:45	16.62	2106	8.66	4.5					
6-2-19 23:00	20.92	1522	7.84	0.0	6-2-19 17:30	19.01	788	8.72	8.7	6-2-19 17:30	17.79	653	8.11	12.8						9-2-19 13:00	16.59	2107	8.66	5.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-2-19 23:15	20.89	1503	7.72	0.0	6-2-19 17:45	19.01	784	8.75	8.3	6-2-19 17:45	17.86	653	8.11	13.7						9-2-19 13:15	16.52	2108	8.65	11.7					
6-2-19 23:30	20.90	1556	7.76	0.0	6-2-19 18:00	19.10	788	8.74	7.6	6-2-19 18:00	17.96	652	8.11	14.0						9-2-19 13:30	16.51	2110	8.66	0.0					
6-2-19 23:45	20.84	1543	7.77	0.0	6-2-19 18:15	19.20	787	8.74	9.9	6-2-19 18:15	18.10	652	8.12	12.0						9-2-19 13:45	16.48	2111	8.65	0.0					
6-3-19 0:00	20.81	1545	7.81	0.0	6-2-19 18:30	19.21	788	8.73	9.5	6-2-19 18:30	18.18	652	8.12	13.6						9-2-19 14:00	16.48	2112	8.66	0.0					
6-3-19 0:15	20.80	1477	7.91	0.0	6-2-19 18:45	19.32	787	8.73	11.5	6-2-19 18:45	18.33	653	8.12	14.0						9-2-19 14:15	16.49	2113	8.66	3.9					
6-3-19 0:30	20.76	1533	7.92	0.0	6-2-19 19:00	19.45	787	8.73	8.4	6-2-19 19:00	18.37	651	8.12	12.9						9-2-19 14:30	16.47	2109	8.66	1.6					
6-3-19 0:45	20.75	1507	7.89	7.6	6-2-19 19:15	19.39	786	8.75	8.5	6-2-19 19:15	18.58	651	8.12	12.3						9-2-19 14:45	16.47	2109	8.65	1.3					
6-3-19 1:00	20.72	1529	7.71	0.0	6-2-19 19:30	19.48	786	8.76	8.1	6-2-19 19:30	18.50	650	8.12	13.8						9-2-19 15:00	16.46	2084	8.65	0.8					
6-3-19 1:15	20.68	1559	7.73	0.0	6-2-19 19:45	19.66	787	8.75	8.2	6-2-19 19:45	18.75	650	8.13	12.9						9-2-19 15:15	16.42	2111	8.63	23.3					
6-3-19 1:30	20.66	1559	7.47	0.0	6-2-19 20:00	19.65	788	8.73	9.0	6-2-19 20:00	18.78	650	8.13	13.7						9-2-19 15:30	16.42	2107	8.65	0.3					
6-3-19 1:45	20.66	1563	7.55	0.0	6-2-19 20:15	19.86	787	8.73	8.4	6-2-19 20:15	18.86	651	8.13	14.6						9-2-19 15:45	16.39	2116	8.65	0.0					
6-3-19 2:00	20.61	1547	7.57	0.0	6-2-19 20:30	19.95	787	8.74	7.2	6-2-19 20:30	19.13	653	8.13	13.2						9-2-19 16:00	16.39	2109	8.65	0.0					
6-3-19 2:15	20.59	1548	7.69	0.0	6-2-19 20:45	20.24	781	8.73	11.4	6-2-19 20:45	19.21	649	8.13	12.5						9-2-19 16:15	16.43	2109	8.66	12.3					
6-3-19 2:30	20.48	1520	7.55	0.0	6-2-19 21:00	20.08	787	8.73	8.1	6-2-19 21:00	19.32	648	8.14	14.2						9-2-19 16:30	16.47	2106	8.66	3.1					
6-3-19 2:45	20.53	1519	7.49	0.0	6-2-19 21:15	19.98	787	8.74	8.6	6-2-19 21:15	19.47	648	8.14	16.4						9-2-19 16:45	16.53	2106	8.66	0.7					
6-3-19 3:00	20.47	1541	7.51	0.0	6-2-19 21:30	20.01	788	8.75	9.2	6-2-19 21:30	19.48	649	8.15	13.0						9-2-19 17:00	16.59	2105	8.66	1.7					
6-3-19 3:15	20.45	1527	7.55	0.0	6-2-19 21:45	20.07	788	8.75	11.9	6-2-19 21:45	19.46	648	8.15	12.8						9-2-19 17:15	16.64	2106	8.64	3.9					
6-3-19 3:30	20.42	1505	7.52	0.2	6-2-19 22:00	20.05	782	8.75	21.8	6-2-19 22:00	19.55	647	8.16	11.8						9-2-19 17:30	16.68	2109	8.66	0.0					
6-3-19 3:45	20.36	1493	7.59	0.0	6-2-19 22:15	20.15	789	8.75	18.9	6-2-19 22:15	19.51	644	8.16	11.9						9-2-19 17:45	16.74	2106	8.66	0.0					
6-3-19 4:00	20.34	1492	7.51	0.0	6-2-19 22:30	20.10	787	8.78	6.2	6-2-19 22:30	19.57	645	8.16	12.1						9-2-19 18:00	16.86	2106	8.66	0.0					
6-3-19 4:15	20.30	1491	7.56	0.0	6-2-19 22:45	20.12	786	8.79	7.9	6-2-19 22:45	19.63	642	8.15	16.2						9-2-19 18:15	17.02	2103	8.66	11.6					
6-3-19 4:30	20.25	1449	7.58	0.0	6-2-19 23:00	20.09	787	8.78	9.7	6-2-19 23:00	19.75	644	8.17	12.6						9-2-19 18:30	17.12	2103	8.66	4.9					
6-3-19 4:45	20.23	1367	7.55	0.0	6-2-19 23:15	20.06	787	8.77	13.1	6-2-19 23:15	19.60	647	8.17	13.2						9-2-19 18:45	17.23	2109	8.66	3.8					
6-3-19 5:00	20.17	1545	7.50	0.0	6-2-19 23:30	19.92	787	8.77	8.4	6-2-19 23:30	19.57	645	8.18	13.8						9-2-19 19:00	17.38	2101	8.66	2.6					
6-3-19 5:15	20.14	1544	7.51	0.0	6-2-19 23:45	19.84	786	8.78	8.7	6-2-19 23:45	19.57	642	8.18	12.8						9-2-19 19:15	17.58	2106	8.63	3.4					
6-3-19 5:30	20.11	1542	7.50	0.0	6-3-19 0:00	19.79	787	8.78	7.1	6-3-19 0:00	19.55	640	8.19	13.0						9-2-19 19:30	17.82	2109	8.63	0.1					
6-3-19 5:45	20.06	1541	7.58	0.0	6-3-19 0:15	19.81	785	8.78	7.8	6-3-19 0:15	19.46	638	8.19	14.5						9-2-19 19:45	18.07	2110	8.63	0.4					
6-3-19 6:00	20.02	1543	7.49	0.0	6-3-19 0:30	19.73	786	8.79	7.4	6-3-19 0:30	19.40	635	8.19	14.0						9-2-19 20:00	18.32	2108	8.62	0.0					
6-3-19 6:15	19.99	1525	7.45	0.0	6-3-19 0:45	19.66	787	8.79	6.6	6-3-19 0:45	19.37	635	8.19	12.2						9-2-19 20:15	18.34	2111	8.63	10.9					
6-3-19 6:30	19.95	1509	7.37	0.0	6-3-19 1:00	19.66	781	8.79	6.4	6-3-19 1:00	19.30	636	8.20	13.1						9-2-19 20:30	18.34	2107	8.62	3.4					
6-3-19 6:45	19.91	1513	7.42	0.0	6-3-19 1:15	19.62	785	8.79	5.8	6-3-19 1:15	19.27	631	8.20	33.3						9-2-19 20:45	18.52	2105	8.63	2.8					
6-3-19 7:00	19.87	1546	7.37	0.0	6-3-19 1:30	19.62	787	8.79	5.8	6-3-19 1:30	19.17	632	8.20	12.3						9-2-19 21:00	18.67	2103	8.62	2.4					
6-3-19 7:15	19.84	1537	7.41	0.0	6-3-19 1:45	19.58	786	8.79	6.0	6-3-19 1:45	19.17	628	8.20	11.9						9-2-19 21:15	18.46	2101	8.63	57.7					
6-3-19 7:30	19.79	1541	7.44	0.0	6-3-19 2:00	19.47	786	8.79	9.0	6-3-19 2:00	19.05	626	8.21	13.0						9-2-19 21:30	18.09	2091	8.71	0.0					
6-3-19 7:45	19.74	1539	7.45	0.0	6-3-19 2:15	19.51	784	8.79	8.2	6-3-19 2:15	18.98	625	8.21	16.8						9-2-19 21:45	17.85	2094	8.74	0.2					
6-3-19 8:00	19.68	1541	7.40	0.0	6-3-19 2:30	19.40	785	8.80	18.2	6-3-19 2:30	18.84	621	8.21	12.5						9-2-19 22:00	17.81	2104	8.74	0.0					
6-3-19 8:15	19.63	1541	7.43	0.0	6-3-19 2:45	19.50	784	8.80	9.8	6-3-19 2:45	18.79	621	8.21	16.9						9-2-19 22:15	17.80	2101	8.74	1.5					
6-3-19 8:30	19.56	1537	7.44	0.0	6-3-19 3:00	19.39	782	8.80	8.1	6-3-19 3:00	18.73	618	8.20	10.8						9-2-19 22:30	17.79	2071	8.73	1.0					
6-3-19 8:45	19.51	1540	7.44	0.0	6-3-19 3:15	19.36	774	8.80	7.0	6-3-19 3:15	18.67	617	8.20	11.0						9-2-19 22:45	17.80	2103	8.72	1.3					
6-3-19 9:00	19.43	1539	7.45	1.1	6-3-19 3:30	19.28	784	8.80	6.4	6-3-19 3:30	18.66	626	8.21	10.7						9-2-19 23:00	17.82	2104	8.72	2.2					
6-3-19 9:15	19.36	1534	7.45	0.0	6-3-19 3:45	19.30	786	8.80	7.7	6-3-19 3:45	18.66	624	8.21	11.1						9-2-19 23:15	17.88	2108	8.72	10.5					
6-3-19 9:30	19.32	1533	7.44	0.0	6-3-19 4:00	19.33	785	8.80	6.6	6-3-19 4:00	18.60	617	8.20	10.6						9-2-19 23:30	17.91	2106	8.73	0.7					
6-3-19 9:45	19.25	1527	7.44	0.0	6-3-19 4:15	19.19	788	8.79	6.4	6-3-19 4:15	18.58	627	8.21	11.0						9-2-19 23:45	17.93	2128	8.73	1.1					
6-3-19 10:00	19.20	1516	7.45	0.0	6-3-19 4:30	19.20	786	8.79	11.9	6-3-19 4:30	18.54	615	8.21	11.0						9-3-19 0:00	17.94	2107	8.73	1.1					
6-3-19 10:15	19.14	1520	7.43	0.0	6-3-19 4:45	19.10	786	8.80	6.7	6-3-19 4:45	18.50	627	8.21	11.1						9-3-19 0:15	17.96	2093	8.74	245.1					
6-3-19 10:30	19.06	1527	7.42	0.0	6-3-19 5:00	19.05	788	8.79	6.6	6-3-19 5:00	18.45	614	8.20	10.7						9-3-19 0:30	17.97	2106	8.74	88.8					
6-3-19 10:45	19.02	1529	7.42	0.0	6-3-19 5:15	19.02	786	8.80	8.5	6-3-19 5:15	18.40	646	8.20	10.2						9-3-19 0:45	17.99	2097	8.74	38.5					
6-3-19 11:00	18.96	1489	7.42	0.0	6-3-19 5:30	19.03	788	8.79	6.4	6-3-19 5:30	18.38	642	8.20	10.1						9-3-19 1:00	17.99	2102	8.74	14.6					
6-3-19 11:15	18.90	1543	7.42	0.0	6-3-19 5:45	18.99	787	8.79	6.3	6-3-19 5:45	18.35	623	8.20	9.6						9-3-19 1:15	17.98	2213	8.73	2.8					
6-3-19 11:30	18.82	1566	7.42	0.0	6-3-19 6:00	19.03	788	8.78	5.4	6-3-19 6:00	18.31	623	8.20	10.7						9-3-19 1:30	17.98	2092	8.73	0.0					
6-3-19 11:45	18.77	1565	7.41	0.0	6-3-19 6:15	18.94	787	8.78	5.2	6-3-19 6:15	18.26	624	8.19	10.0						9-3-19 1:45	17.97	2095	8.73	0.0					
6-3-19 12:00	18.68	1552	7.41	0.0	6-3-19 6:30	18.88	789	8.79	4.8	6-3-19 6:30	18.21	624	8.19	10.5						9-3-19 2:00	17.96	2103	8.74	0.0					
6-3-19 12:15	18.63	1566	7.42	0.0	6-3-19 6:45	18.81	789	8.79	5.3	6-3-19 6:45	18.17	622	8.19	10.7						9-3-19 2:15	17.94	2103	8.74	3.6					
6-3-19 12:30	18.57	1557	7.42	0.0	6-3-19 7:00	18.82	786	8.78	5.7	6-3-19 7:00	18.10	626	8.18	10.8						9-3-19 2:30	17.93	2103	8.74	2.8					
6-3-19 12:45	18.51	1564	7.42	0.0	6-3-19 7:15	18.67	786	8.79	5.2	6-3-19 7:15	18.05	624	8.18	10.6						9-3-19 2:45	17.90	2101	8.74	4.2					
6-3-19 13:00	18.45	1561	7.43	0.0	6-3-19 7:30	18.62	788	8.79	5.3	6-3-19 7:30	18.01	622	8.18	11.1						9-3-19 3:00	17.89	2099	8.74	4.5					
6-3-19 13:15	18.37	1562	7.43	0.0	6-3-19 7:45	18.63	787	8.78	6.3	6-3-19 7:45	17.96	579	8.17	10.6						9-3-19 3:15	17.86	2100	8.72	0.7					
6-3-19 13:30	18.29	1561	7.44	0.0	6-3-19 8:00	18.63	788	8.78	4.7	6-3-19 8:00	17.92	673	8.18	10.3						9-3-19 3:30	17.82	2104	8.73	0.0					
6-3-19 13:45	18.26	1559	7.44	0.0	6-3-19 8:15	18.55	786	8.78	6.1	6-3-19 8:15	17.87	673	8.18	10.8						9-3-19 3:45	17.78	2110	8.74	0.0					
6-3-19 14:00	18.28	1559	7.44	0.0	6-3-19 8:30	18.48	787	8.78	5.5	6-3-19 8:30	17.78	672	8.18	10.9						9-3-19 4:00	17.76	2104	8.73	0.0					
6-3-19 14:15	18.26	1559	7.45	0.0	6-3-19 8:45	18.41	786	8.78	5.3	6-3-19 8:45	17.72	673	8.18	10.4						9-3-19 4:15	17.70	2095	8.73	8.9					
6-3-19 14:30	18.23	1560	7.46	0.0	6-3-19 9:00	18.39	787	8.77	4.7	6-3-19 9:00	17.68	673	8.18	10.4						9-3-19 4:30	17.66	2101	8.73	3.7					
6-3-19 14:45	18.24	1557	7.46	0.0	6-3-19 9:15	18.36	787	8.78	5.4	6-3-19 9:15	17.64	673	8.18	10.1						9-3-19 4:45	17.64	2091	8.73	4.8					
6-3-19 15:00	18.24	1561	7.48	0.0	6-3-19 9:30	18.21	787	8.78	4.9	6-3-19 9:30	17.57	672	8.18	10.7						9-3-19 5:00	17.64	2099	8.73	2.8					
6-3-19 15:15	18.30	1559	7.50	0.0	6-3-19 9:45	18.27	788	8.78	4.5	6-3-19 9:45	17.53	676	8.18	11.2						9-3-19 5:15	17.64	2105	8.72	2.1					
6-3-19 15:30	18.35	1559	7.52	0.0	6-3-19 10:00	18.23	788	8.77	4.8	6-3-19 10:00	17.49	673	8.17	10.9						9-3-19 5:30	17.59	2108	8.72	0.0					
6-3-19 15:45	18.38	1559	7.56	0.0	6-3-19 10:15	18.21	788	8.76	5.1	6-3-19 10:15	17.46	673	8.17	11.2						9-3-19 5:45	17.54	2110	8.72	0.0					
6-3-19 16:00	18.32	1555	7.63	0.0	6-3-19 10:30	18.12	788	8.77	4.7	6-3-19 10:30	17.43	667	8.16	13.1						9-3-19 6:00	17.50	2203	8.72	0.0					
6-3-19 16:15	18.42	1552	7.71	0.0	6-3-19 10:45	18.03	788	8.77	5.0	6-3-19 10:45	17.38	667	8.15	10.9						9-3-19 6:15	17.48	2104	8.72	4.7					
6-3-19 16:30	18.45	1555	7.74	0.0	6-3-19 11:00	18.08	788	8.77	4.1	6-3-19 11:00	17.34	673	8.14	11.0						9-3-19 6:30	17.43	2101	8.72	2.9					
6-3-19 16:45	18.59	1557	7.73	0.0	6-3-19 11:15	18.00	787	8.76	5.3	6-3-19 11:15	17.30	674	8.14	11.4						9-3-19 6:45	17.43	2096	8.72	2.2					
6-3-19 17:00	18.64	1556	7.80	0.0	6-3-19 11:30	17.95	788	8.76	4.5	6-3-19 11:30	17.24	672	8.14	11.7						9-3-19 7:00	17.38	2096	8.72	2.3					
6-3-19 17:15	18.63	1557	7.90	0.0	6-3-19 11:45	17.89	788	8.77	4.7	6-3-19 11:45	17.18	671	8.13	11.4						9-3-19 7:15	17.39	2099	8.71	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-3-19 17:30	18.69	1560	7.94	0.0	6-3-19 12:00	17.81	787	8.77	4.5	6-3-19 12:00	17.11	669	8.15	12.0						9-3-19 7:30	17.32	2095	8.71	0.4					
6-3-19 17:45	18.70	1558	8.08	0.0	6-3-19 12:15	17.74	787	8.76	4.9	6-3-19 12:15	17.01	670	8.14	11.6						9-3-19 7:45	17.34	2105	8.71	0.0					
6-3-19 18:00	18.68	1547	8.76	0.0	6-3-19 12:30	17.82	789	8.76	4.3	6-3-19 12:30	16.95	670	8.15	11.8						9-3-19 8:00	17.29	2104	8.71	0.0					
6-3-19 18:15	18.76	1547	8.35	0.0	6-3-19 12:45	17.77	788	8.76	4.5	6-3-19 12:45	16.90	670	8.15	16.4						9-3-19 8:15	17.27	2105	8.71	6.2					
6-3-19 18:30	18.77	1553	8.06	0.0	6-3-19 13:00	17.70	788	8.76	4.2	6-3-19 13:00	16.88	671	8.14	11.9						9-3-19 8:30	17.21	2102	8.71	2.0					
6-3-19 18:45	18.73	1548	8.48	0.0	6-3-19 13:45	17.73	789	8.75	4.8	6-3-19 13:45	16.82	672	8.11	14.2						9-3-19 8:45	17.19	2104	8.71	3.2					
6-3-19 19:00	18.70	1538	8.54	0.0	6-3-19 14:00	17.72	789	8.75	4.6	6-3-19 14:00	16.81	673	8.11	13.7						9-3-19 9:00	17.14	2102	8.70	4.7					
6-3-19 19:15	18.76	1545	8.40	0.0	6-3-19 14:15	17.71	788	8.75	5.2	6-3-19 14:15	16.79	673	8.11	13.1						9-3-19 9:15	17.10	2104	8.70	0.1					
6-3-19 19:30	18.74	1549	8.47	0.0	6-3-19 14:30	17.76	789	8.76	5.0	6-3-19 14:30	16.80	674	8.10	14.3						9-3-19 9:30	17.07	2103	8.70	0.0					
6-3-19 19:45	18.80	1541	8.51	0.0	6-3-19 14:45	17.77	788	8.76	4.5	6-3-19 14:45	16.84	675	8.10	15.3						9-3-19 9:45	17.02	2106	8.70	0.3					
6-3-19 20:00	18.83	1545	8.55	0.0	6-3-19 15:00	17.83	788	8.76	4.5	6-3-19 15:00	16.85	674	8.10	13.5						9-3-19 10:00	17.01	2100	8.70	0.0					
6-3-19 20:15	18.89	1533	8.58	0.0	6-3-19 15:15	17.85	788	8.76	4.3	6-3-19 15:15	16.87	675	8.10	14.2						9-3-19 10:15	17.00	2104	8.70	23.2					
6-3-19 20:30	18.96	1534	8.58	0.0	6-3-19 15:30	17.85	787	8.76	5.9	6-3-19 15:30	16.94	676	8.10	14.8						9-3-19 10:30	16.95	2101	8.70	1.3					
6-3-19 20:45	19.09	1536	8.61	0.0	6-3-19 15:45	17.87	786	8.77	7.6	6-3-19 15:45	16.97	674	8.11	14.4						9-3-19 10:45	16.95	2099	8.70	1.4					
6-3-19 21:00	19.17	1543	8.73	0.0	6-3-19 16:00	17.85	785	8.76	8.3	6-3-19 16:00	17.00	675	8.11	13.7						9-3-19 11:00	16.90	2098	8.70	7.1					
6-3-19 21:15	19.31	1548	8.79	0.0	6-3-19 16:15	17.85	784	8.76	8.0	6-3-19 16:15	17.09	675	8.12	16.4						9-3-19 11:15	16.87	2104	8.69	0.5					
6-3-19 21:30	19.20	1540	8.88	0.0	6-3-19 16:30	17.89	784	8.76	8.0	6-3-19 16:30	17.10	674	8.13	13.3						9-3-19 11:30	16.84	2101	8.69	5.7					
6-3-19 21:45	19.17	1541	8.84	0.0	6-3-19 16:45	17.90	784	8.77	8.3	6-3-19 16:45	17.20	676	8.13	15.4						9-3-19 11:45	16.80	2098	8.69	0.0					
6-3-19 22:00	19.23	1552	8.80	0.0	6-3-19 17:00	18.02	784	8.77	8.5	6-3-19 17:00	17.30	676	8.12	14.0						9-3-19 12:00	16.77	2095	8.69	0.0					
6-3-19 22:15	19.29	1541	8.83	0.0	6-3-19 17:15	18.19	783	8.76	6.8	6-3-19 17:15	17.31	675	8.12	15.5						9-3-19 12:15	16.75	2104	8.69	13.8					
6-3-19 22:30	19.22	1538	8.83	1.3	6-3-19 17:30	18.17	783	8.78	7.6	6-3-19 17:30	17.42	674	8.12	14.8						9-3-19 12:30	16.69	2099	8.69	5.5					
6-3-19 22:45	19.19	1535	8.85	0.0	6-3-19 17:45	18.17	783	8.77	7.5	6-3-19 17:45	17.48	674	8.13	18.3						9-3-19 12:45	16.66	2100	8.69	7.2					
6-3-19 23:00	19.16	1532	8.86	0.0	6-3-19 18:00	18.06	783	8.78	7.3	6-3-19 18:00	17.44	676	8.13	14.7						9-3-19 13:00	16.63	2103	8.69	3.7					
6-3-19 23:15	19.10	1522	8.90	0.0	6-3-19 18:15	18.07	783	8.77	7.8	6-3-19 18:15	17.44	674	8.13	16.3						9-3-19 13:15	16.60	2104	8.65	14.3					
6-3-19 23:30	19.09	1523	8.95	0.0	6-3-19 18:30	17.97	783	8.78	9.9	6-3-19 18:30	17.41	675	8.14	15.6						9-3-19 13:30	16.57	2097	8.68	0.0					
6-3-19 23:45	18.97	1525	8.96	0.0	6-3-19 18:45	17.95	783	8.78	7.4	6-3-19 18:45	17.37	675	8.15	16.6						9-3-19 13:45	16.58	2102	8.68	0.0					
6-4-19 0:00	18.97	1464	8.95	0.0	6-3-19 19:00	17.92	783	8.78	6.0	6-3-19 19:00	17.37	674	8.14	16.1						9-3-19 14:00	16.54	2128	8.68	3.5					
6-4-19 0:15	18.94	1484	8.96	0.0	6-3-19 19:15	18.07	784	8.79	6.2	6-3-19 19:15	17.43	673	8.14	15.3						9-3-19 14:15	16.50	2099	8.68	61.7					
6-4-19 0:30	18.89	1537	8.96	0.6	6-3-19 19:30	17.94	783	8.79	13.1	6-3-19 19:30	17.42	674	8.15	14.8						9-3-19 14:30	16.47	2102	8.68	246.8					
6-4-19 0:45	18.79	1531	8.96	0.5	6-3-19 19:45	18.04	784	8.79	8.7	6-3-19 19:45	17.43	674	8.16	17.0						9-3-19 14:45	16.47	2100	8.68	543.3					
6-4-19 1:00	18.68	1519	8.95	9.0	6-3-19 20:00	18.07	783	8.79	8.4	6-3-19 20:00	17.41	674	8.16	16.4						9-3-19 15:00	16.48	2101	8.68	414.9					
6-4-19 1:15	18.69	1518	8.95	10.0	6-3-19 20:15	18.09	786	8.79	7.0	6-3-19 20:15	17.41	675	8.17	16.5						9-3-19 15:15	16.50	2104	8.67	0.8					
6-4-19 1:30	18.69	1522	8.93	5.3	6-3-19 20:30	18.15	783	8.79	6.3	6-3-19 20:30	17.46	673	8.17	16.0						9-3-19 15:30	16.49	2106	8.67	0.0					
6-4-19 1:45	18.65	1522	9.11	0.3	6-3-19 20:45	18.32	783	8.79	8.4	6-3-19 20:45	17.55	675	8.17	15.4						9-3-19 15:45	16.51	2106	8.68	0.0					
6-4-19 2:00	18.66	1517	9.03	0.4	6-3-19 21:00	18.50	783	8.79	7.4	6-3-19 21:00	17.51	674	8.16	18.4						9-3-19 16:00	16.51	2105	8.68	0.0					
6-4-19 2:15	18.66	1507	9.05	0.4	6-3-19 21:15	18.45	782	8.79	8.5	6-3-19 21:15	17.62	674	8.16	17.4						9-3-19 16:15	16.51	2104	8.68	5.7					
6-4-19 2:30	18.65	1513	9.03	1.6	6-3-19 21:30	18.23	781	8.80	7.1	6-3-19 21:30	17.66	676	8.16	17.9						9-3-19 16:30	16.54	2103	8.68	1.4					
6-4-19 2:45	18.61	1508	8.98	2.2	6-3-19 21:45	18.13	782	8.81	7.3	6-3-19 21:45	17.58	672	8.17	15.9						9-3-19 16:45	16.58	2101	8.68	0.0					
6-4-19 3:00	18.61	1507	8.78	3.3	6-3-19 22:00	18.26	716	8.81	7.9	6-3-19 22:00	17.62	674	8.18	16.3						9-3-19 17:00	16.74	2099	8.68	0.5					
6-4-19 3:15	18.58	1508	8.78	3.1	6-3-19 22:15	18.31	783	8.80	7.0	6-3-19 22:15	17.63	674	8.18	17.1						9-3-19 17:15	16.90	2103	8.68	0.0					
6-4-19 3:30	18.53	1499	8.60	5.4	6-3-19 22:30	18.32	782	8.82	7.4	6-3-19 22:30	17.64	682	8.18	16.7						9-3-19 17:30	16.92	2104	8.68	0.0					
6-4-19 3:45	18.50	1502	8.40	4.4	6-3-19 22:45	18.34	796	8.82	8.4	6-3-19 22:45	17.55	681	8.18	18.2						9-3-19 17:45	16.93	2104	8.68	0.0					
6-4-19 4:00	18.46	1504	8.60	4.5	6-3-19 23:00	18.29	796	8.82	6.9	6-3-19 23:00	17.54	675	8.18	16.0						9-3-19 18:00	17.01	2103	8.68	0.0					
6-4-19 4:15	18.45	1499	8.64	5.2	6-3-19 23:15	18.23	782	8.82	6.7	6-3-19 23:15	17.52	682	8.18	16.2						9-3-19 18:15	17.14	2099	8.68	0.9					
6-4-19 4:30	18.42	1500	8.50	5.0	6-3-19 23:30	18.22	782	8.82	9.4	6-3-19 23:30	17.52	680	8.18	16.3						9-3-19 18:30	17.15	2098	8.68	0.1					
6-4-19 4:45	18.36	1495	8.27	4.4	6-3-19 23:45	18.12	779	8.82	13.1	6-3-19 23:45	17.47	661	8.19	18.4						9-3-19 18:45	17.18	2098	8.67	0.0					
6-4-19 5:00	18.34	1514	8.04	3.8	6-4-19 0:00	18.07	780	8.82	10.4	6-4-19 0:00	17.39	664	8.19	20.6						9-3-19 19:00	17.25	2099	8.68	0.3					
6-4-19 5:15	18.31	1508	8.34	4.0	6-4-19 0:15	18.06	780	8.82	7.3	6-4-19 0:15	17.39	663	8.19	18.2						9-3-19 19:15	17.32	2101	8.68	8.5					
6-4-19 5:30	18.26	1508	8.36	3.3	6-4-19 0:30	18.00	780	8.84	9.0	6-4-19 0:30	17.37	663	8.20	16.4						9-3-19 19:30	17.40	2103	8.68	0.0					
6-4-19 5:45	18.24	1509	8.06	4.0	6-4-19 0:45	17.85	778	8.84	10.7	6-4-19 0:45	17.22	660	8.21	19.3						9-3-19 19:45	17.54	2099	8.68	0.0					
6-4-19 6:00	18.21	1505	8.07	2.9	6-4-19 1:00	17.91	779	8.83	10.3	6-4-19 1:00	17.20	661	8.19	19.7						9-3-19 20:00	17.74	2104	8.68	0.0					
6-4-19 6:15	18.17	1504	8.06	2.9	6-4-19 1:15	18.04	781	8.83	7.4	6-4-19 1:15	17.17	664	8.19	20.6						9-3-19 20:15	18.16	2101	8.66	1.4					
6-4-19 6:30	18.13	1510	8.21	3.1	6-4-19 1:30	18.24	780	8.82	8.8	6-4-19 1:30	17.30	664	8.19	19.7						9-3-19 20:30	18.23	2098	8.65	0.0					
6-4-19 6:45	18.08	1511	7.78	3.0	6-4-19 1:45	18.24	779	8.82	12.1	6-4-19 1:45	17.40	663	8.19	18.8						9-3-19 20:45	18.37	2101	8.65	0.0					
6-4-19 7:00	18.06	1512	7.55	2.6	6-4-19 2:00	18.16	779	8.81	10.2	6-4-19 2:00	17.41	663	8.19	17.6						9-3-19 21:00	18.39	2096	8.65	0.1					
6-4-19 7:15	18.01	1511	7.72	4.4	6-4-19 2:15	18.06	792	8.81	7.7	6-4-19 2:15	17.40	663	8.19	18.3						9-3-19 21:15	18.42	2102	8.64	1.6					
6-4-19 7:30	17.98	1513	7.73	2.6	6-4-19 2:30	18.07	777	8.82	7.6	6-4-19 2:30	17.34	663	8.19	15.6						9-3-19 21:30	19.13	2101	8.63	0.0					
6-4-19 7:45	17.94	1509	7.65	2.6	6-4-19 2:45	18.04	778	8.82	8.8	6-4-19 2:45	17.27	663	8.19	16.2						9-3-19 21:45	18.78	2094	8.64	0.0					
6-4-19 8:00	17.90	1512	7.77	2.3	6-4-19 3:00	18.01	779	8.83	7.8	6-4-19 3:00	17.19	660	8.18	17.7						9-3-19 22:00	18.64	2107	8.65	0.1					
6-4-19 8:15	17.84	1509	7.70	2.2	6-4-19 3:15	17.88	781	8.83	8.5	6-4-19 3:15	17.22	662	8.18	17.6						9-3-19 22:15	18.53	2094	8.66	2.2					
6-4-19 8:30	17.82	1516	7.66	3.3	6-4-19 3:30	17.92	779	8.83	7.8	6-4-19 3:30	17.20	662	8.17	17.9						9-3-19 22:30	18.54	2094	8.66	0.1					
6-4-19 8:45	17.77	1520	7.62	2.3	6-4-19 3:45	17.89	779	8.83	6.7	6-4-19 3:45	17.18	668	8.17	20.4						9-3-19 22:45	18.24	2087	8.68	0.2					
6-4-19 9:00	17.69	1520	7.56	1.8	6-4-19 4:00	17.78	772	8.83	7.3	6-4-19 4:00	17.15	663	8.16	17.9						9-3-19 23:00	18.36	2088	8.69	0.2					
6-4-19 9:15	17.67	1518	7.57	1.8	6-4-19 4:15	17.77	779	8.83	6.3	6-4-19 4:15	17.14	664	8.16	21.5						9-3-19 23:15	18.27	2087	8.72	0.3					
6-4-19 9:30	17.62	1524	7.63	3.3	6-4-19 4:30	17.77	779	8.83	7.9	6-4-19 4:30	17.10	664	8.15	19.4						9-3-19 23:30	18.23	2091	8.75	0.0					
6-4-19 9:45	17.55	1519	7.68	2.0	6-4-19 4:45	17.76	779	8.83	6.6	6-4-19 4:45	17.07	665	8.16	22.0						9-3-19 23:45	18.12	2123	8.76	0.0					
6-4-19 10:00	17.49	1520	7.67	1.7	6-4-19 5:00	17.73	774	8.83	8.8	6-4-19 5:00	17.04	667	8.16	21.0						9-4-19 0:00	18.08	2093	8.76	0.0					
6-4-19 10:15	17.42	1520	7.67	1.7	6-4-19 5:15	17.67	779	8.83	6.4	6-4-19 5:15	17.02	664	8.15	21.7						9-4-19 0:15	18.06	2089	8.77	0.5					
6-4-19 10:30	17.32	1524	7.63	1.1	6-4-19 5:30	17.64	778	8.83	8.1	6-4-19 5:30	17.00	667	8.13	25.2						9-4-19 0:30	18.05	2085	8.77	0.2					
6-4-19 10:45	17.25	1521	7.65	3.7	6-4-19 5:45	17.60	781	8.83	7.6	6-4-19 5:45	16.98	665	8.14	24.1						9-4-19 0:45	18.04	2087	8.77	0.2					
6-4-19 11:00	17.20	1523	7.63	1.1	6-4-19 6:00	17.55	781	8.83	7.8	6-4-19 6:00	16.97	669	8.13	25.4						9-4-19 1:00	18.04	2084	8.76	0.2					
6-4-19 11:15	17.10	1524	7.63	1.2	6-4-19 6:15	17.54	781	8.82	6.2	6-4-19 6:15	16.92	669	8.13	26.9						9-4-19 1:15	18.04	2090	8.75	0.2					
6-4-19 11:30	17.05	1524	7.63	1.1	6-4-19 6:30	17.46	781	8.83	6.7	6-4-19 6:30	16.87	669	8.13	26.7						9-4-19 1:30	18.04	2092	8.75	0.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-4-19 11:45	16.94	1523	7.61	1.1	6-4-19 6:45	17.41	782	8.83	7.2	6-4-19 6:45	16.84	669	8.13	25.9						9-4-19 1:45	18.03	2095	8.76	0.0					
6-4-19 12:00	16.87	1523	7.63	0.9	6-4-19 7:00	17.39	783	8.83	7.2	6-4-19 7:00	16.82	671	8.12	27.9						9-4-19 2:00	18.04	2090	8.76	0.0					
6-4-19 12:15	16.77	1522	7.63	0.8	6-4-19 7:15	17.37	783	8.82	7.4	6-4-19 7:15	16.77	673	8.12	28.6						9-4-19 2:15	18.05	2091	8.74	0.2					
6-4-19 12:30	16.69	1522	7.65	0.7	6-4-19 7:30	17.33	782	8.82	7.8	6-4-19 7:30	16.75	673	8.11	26.6						9-4-19 2:30	18.16	2070	8.71	1.8					
6-4-19 12:45	16.63	1523	7.63	0.9	6-4-19 7:45	17.30	784	8.82	6.2	6-4-19 7:45	16.69	675	8.12	28.1						9-4-19 2:45	18.47	2075	8.68	0.3					
6-4-19 13:00	16.58	1524	7.63	0.4	6-4-19 8:00	17.26	784	8.82	7.1	6-4-19 8:00	16.69	674	8.12	29.4						9-4-19 3:00	18.67	2071	8.66	0.2					
6-4-19 13:15	16.46	1523	7.65	0.7	6-4-19 8:15	17.26	785	8.81	6.0	6-4-19 8:15	16.66	675	8.11	27.5						9-4-19 3:15	18.75	2029	8.64	5.4					
6-4-19 13:30	16.41	1522	7.67	0.6	6-4-19 8:30	17.21	786	8.81	7.4	6-4-19 8:30	16.62	675	8.10	28.9						9-4-19 3:30	18.81	2068	8.64	0.3					
6-4-19 13:45	16.35	1519	7.63	1.3	6-4-19 8:45	17.14	786	8.81	6.2	6-4-19 8:45	16.58	676	8.10	27.3						9-4-19 3:45	18.86	2067	8.64	0.0					
6-4-19 14:00	16.38	1519	7.67	0.3	6-4-19 9:00	17.11	786	8.81	6.8	6-4-19 9:00	16.54	678	8.09	26.7						9-4-19 4:00	18.89	2064	8.64	0.0					
6-4-19 14:15	16.35	1519	7.73	0.5	6-4-19 9:15	17.09	787	8.81	6.1	6-4-19 9:15	16.48	677	8.10	26.2						9-4-19 4:15	18.88	2070	8.63	0.6					
6-4-19 14:30	16.36	1522	7.73	0.4	6-4-19 9:30	17.04	787	8.81	6.5	6-4-19 9:30	16.47	671	8.08	30.5						9-4-19 4:30	18.88	2066	8.63	0.6					
6-4-19 14:45	16.38	1520	7.76	0.5	6-4-19 9:45	16.87	788	8.81	6.3	6-4-19 9:45	16.36	677	8.11	26.6						9-4-19 4:45	18.84	2067	8.63	0.7					
6-4-19 15:00	16.48	1519	7.78	0.9	6-4-19 10:00	16.79	790	8.81	6.5	6-4-19 10:00	16.32	678	8.08	27.8						9-4-19 5:00	18.81	2067	8.63	0.1					
6-4-19 15:15	16.51	1518	7.79	0.6	6-4-19 10:15	16.73	792	8.80	6.0	6-4-19 10:15	16.27	678	8.10	33.9						9-4-19 5:15	18.77	2070	8.61	1.7					
6-4-19 15:30	16.50	1518	7.81	0.2	6-4-19 10:30	16.75	796	8.80	7.3	6-4-19 10:30	16.20	674	8.11	28.4						9-4-19 5:30	18.74	2074	8.63	0.0					
6-4-19 15:45	16.51	1518	7.84	0.4	6-4-19 10:45	16.66	803	8.80	6.1	6-4-19 10:45	16.16	676	8.11	29.1						9-4-19 5:45	18.68	2073	8.62	0.0					
6-4-19 16:00	16.57	1518	7.94	0.1	6-4-19 11:00	16.65	804	8.79	7.1	6-4-19 11:00	16.13	679	8.11	30.6						9-4-19 6:00	18.61	2073	8.62	0.0					
6-4-19 16:15	16.60	1510	8.03	0.3	6-4-19 11:15	16.66	810	8.78	6.9	6-4-19 11:15	16.06	680	8.11	28.5						9-4-19 6:15	18.52	2071	8.63	2.4					
6-4-19 16:30	16.66	1514	7.96	0.1	6-4-19 11:30	16.55	801	8.78	7.0	6-4-19 11:30	15.97	680	8.11	26.9						9-4-19 6:30	18.43	2052	8.63	0.2					
6-4-19 16:45	16.72	1513	8.02	0.1	6-4-19 11:45	16.51	814	8.78	8.8	6-4-19 11:45	15.92	680	8.11	30.5						9-4-19 6:45	18.29	2084	8.65	0.1					
6-4-19 17:00	16.79	1513	8.04	0.0	6-4-19 12:00	16.38	810	8.78	7.5	6-4-19 12:00	15.89	680	8.11	30.8						9-4-19 7:00	18.21	2088	8.70	0.0					
6-4-19 17:15	16.88	1510	8.06	0.0	6-4-19 12:15	16.34	812	8.77	6.7	6-4-19 12:15	15.83	682	8.11	28.4						9-4-19 7:15	18.13	2087	8.69	7.7					
6-4-19 17:30	17.02	1511	8.11	0.0	6-4-19 12:30	16.32	812	8.78	6.8	6-4-19 12:30	15.79	679	8.11	28.5						9-4-19 7:30	18.09	2089	8.69	0.0					
6-4-19 17:45	17.16	1512	8.15	0.0	6-4-19 12:45	16.28	818	8.78	6.1	6-4-19 12:45	15.75	681	8.11	27.8						9-4-19 7:45	18.08	2090	8.69	0.3					
6-4-19 18:00	17.29	1513	8.25	0.0	6-4-19 13:00	16.19	820	8.78	6.4	6-4-19 13:00	15.67	684	8.11	26.9						9-4-19 8:00	18.06	2090	8.69	0.0					
6-4-19 18:15	17.33	1507	8.28	0.0	6-4-19 13:15	16.20	823	8.77	6.2	6-4-19 13:15	15.64	680	8.11	26.1						9-4-19 8:15	18.04	2083	8.68	0.7					
6-4-19 18:30	17.31	1491	8.33	0.6	6-4-19 13:30	16.22	818	8.77	6.3	6-4-19 13:30	15.67	677	8.11	27.5						9-4-19 8:30	18.02	2084	8.68	0.1					
6-4-19 18:45	17.48	1490	8.69	0.2	6-4-19 13:45	16.17	826	8.77	6.7	6-4-19 13:45	15.67	681	8.11	27.0						9-4-19 8:45	18.00	2082	8.68	0.0					
6-4-19 19:00	17.65	1494	8.33	1.7	6-4-19 14:00	16.19	825	8.77	6.6	6-4-19 14:00	15.68	681	8.11	25.5						9-4-19 9:00	17.99	2083	8.68	0.0					
6-4-19 19:15	17.87	1493	8.37	1.2	6-4-19 14:15	16.20	828	8.76	7.5	6-4-19 14:15	15.68	683	8.11	24.6						9-4-19 9:15	17.97	2087	8.68	3.8					
6-4-19 19:30	18.03	1498	8.46	0.7	6-4-19 14:30	16.17	825	8.77	5.7	6-4-19 14:30	15.68	682	8.11	23.2						9-4-19 9:30	17.96	2059	8.69	0.0					
6-4-19 19:45	18.30	1503	8.57	0.8	6-4-19 14:45	16.17	833	8.76	8.3	6-4-19 14:45	15.69	682	8.11	26.4						9-4-19 9:45	17.95	2071	8.70	0.0					
6-4-19 20:00	18.16	1490	8.38	0.8	6-4-19 15:00	16.13	830	8.76	5.3	6-4-19 15:00	15.72	682	8.12	23.7						9-4-19 10:00	17.94	2070	8.70	0.0					
6-4-19 20:15	18.25	1484	8.46	1.2	6-4-19 15:15	16.22	832	8.77	5.9	6-4-19 15:15	15.77	683	8.13	26.8						9-4-19 10:15	17.93	2091	8.70	1.0					
6-4-19 20:30	18.36	1484	8.47	0.8	6-4-19 15:30	16.24	847	8.75	8.1	6-4-19 15:30	15.76	682	8.12	24.0						9-4-19 10:30	17.92	2087	8.71	0.0					
6-4-19 20:45	18.30	1480	8.09	2.7	6-4-19 15:45	16.21	846	8.75	8.3	6-4-19 15:45	15.78	683	8.13	25.8						9-4-19 10:45	17.91	2086	8.70	2.0					
6-4-19 21:00	18.30	1480	8.48	0.5	6-4-19 16:00	16.08	834	8.76	6.3	6-4-19 16:00	15.82	683	8.12	24.8						9-4-19 11:00	17.88	2044	8.70	0.0					
6-4-19 21:15	18.07	1434	8.19	7.3	6-4-19 16:15	16.11	823	8.77	6.8	6-4-19 16:15	15.85	684	8.13	24.8						9-4-19 11:15	17.88	2070	8.69	0.3					
6-4-19 21:30	17.99	1456	8.26	4.9	6-4-19 16:30	16.13	824	8.78	9.8	6-4-19 16:30	15.92	684	8.13	21.1						9-4-19 11:30	17.87	2084	8.70	0.0					
6-4-19 21:45	17.89	1450	8.61	3.9	6-4-19 16:45	16.32	825	8.77	9.2	6-4-19 16:45	15.96	685	8.13	25.2						9-4-19 11:45	17.86	2084	8.71	1.5					
6-4-19 22:00	17.88	1450	8.53	4.8	6-4-19 17:00	16.32	829	8.76	6.1	6-4-19 17:00	16.00	685	8.14	24.5						9-4-19 12:00	17.86	2085	8.70	0.0					
6-4-19 22:15	17.82	1447	8.50	3.3	6-4-19 17:15	16.37	835	8.76	7.7	6-4-19 17:15	16.12	685	8.14	26.5						9-4-19 12:15	17.84	2089	8.70	2.0					
6-4-19 22:30	17.82	1456	8.52	2.6	6-4-19 17:30	16.46	841	8.75	5.3	6-4-19 17:30	16.17	686	8.14	21.9						9-4-19 12:30	17.82	2098	8.70	0.0					
6-4-19 22:45	17.76	1454	8.53	3.9	6-4-19 17:45	16.66	845	8.75	5.9	6-4-19 17:45	16.29	686	8.14	25.6						9-4-19 12:45	17.82	2086	8.70	0.0					
6-4-19 23:00	17.77	1453	8.52	3.4	6-4-19 18:00	16.78	843	8.75	5.2	6-4-19 18:00	16.37	684	8.14	24.7						9-4-19 13:00	17.80	2085	8.70	0.0					
6-4-19 23:15	17.70	1426	8.47	4.7	6-4-19 18:15	16.92	845	8.73	7.6	6-4-19 18:15	16.49	686	8.15	24.2						9-4-19 13:15	17.78	2086	8.69	2.5					
6-4-19 23:30	17.66	1444	8.40	2.5	6-4-19 18:30	17.01	842	8.75	12.2	6-4-19 18:30	16.63	686	8.14	24.0						9-4-19 13:30	17.76	2086	8.69	0.0					
6-4-19 23:45	17.61	1402	8.37	5.6	6-4-19 18:45	17.06	838	8.75	7.6	6-4-19 18:45	16.82	688	8.14	26.3						9-4-19 13:45	17.75	2086	8.69	0.0					
6-5-19 0:00	17.63	1417	8.48	3.1	6-4-19 19:00	17.12	829	8.76	9.2	6-4-19 19:00	16.85	687	8.15	25.6						9-4-19 14:00	17.72	2086	8.69	0.0					
6-5-19 0:15	17.63	1406	8.44	4.1	6-4-19 19:15	17.03	828	8.76	7.4	6-4-19 19:15	16.99	687	8.15	24.9						9-4-19 14:15	17.72	2089	8.69	7.7					
6-5-19 0:30	17.64	1415	8.44	4.3	6-4-19 19:30	17.53	828	8.76	9.1	6-4-19 19:30	17.07	687	8.15	24.2						9-4-19 14:30	17.72	2110	8.69	0.0					
6-5-19 0:45	17.71	1441	8.42	1.9	6-4-19 19:45	17.25	829	8.76	5.7	6-4-19 19:45	17.18	687	8.15	25.5						9-4-19 14:45	17.70	2084	8.69	0.0					
6-5-19 1:00	17.68	1432	8.39	2.3	6-4-19 20:00	17.52	830	8.77	6.2	6-4-19 20:00	17.37	687	8.16	25.6						9-4-19 15:00	17.68	2085	8.68	0.0					
6-5-19 1:15	17.68	1407	8.43	2.7	6-4-19 20:15	17.24	830	8.76	12.2	6-4-19 20:15	17.26	687	8.16	24.0						9-4-19 15:15	17.65	2085	8.68	0.3					
6-5-19 1:30	17.72	1413	8.43	2.4	6-4-19 20:30	17.29	829	8.77	6.9	6-4-19 20:30	17.40	687	8.16	24.6						9-4-19 15:30	17.65	2085	8.68	0.0					
6-5-19 1:45	17.76	1416	8.48	2.0	6-4-19 20:45	17.51	833	8.77	6.3	6-4-19 20:45	17.45	688	8.17	24.4						9-4-19 15:45	17.65	2087	8.68	0.0					
6-5-19 2:00	17.80	1412	8.55	1.0	6-4-19 21:00	17.44	831	8.77	8.8	6-4-19 21:00	17.39	701	8.16	23.8						9-4-19 16:00	17.64	2087	8.68	0.0					
6-5-19 2:15	17.78	1413	8.48	1.5	6-4-19 21:15	17.32	834	8.78	6.3	6-4-19 21:15	17.36	698	8.18	22.0						9-4-19 16:15	17.65	2087	8.68	4.8					
6-5-19 2:30	17.76	1432	8.31	1.0	6-4-19 21:30	17.16	840	8.78	4.4	6-4-19 21:30	17.16	697	8.19	27.1						9-4-19 16:30	17.65	2070	8.68	0.0					
6-5-19 2:45	17.73	1432	8.00	1.2	6-4-19 21:45	17.14	841	8.78	5.2	6-4-19 21:45	17.03	696	8.20	25.0						9-4-19 16:45	17.65	2084	8.68	0.0					
6-5-19 3:00	17.71	1438	7.71	0.8	6-4-19 22:00	17.18	837	8.78	6.3	6-4-19 22:00	17.01	696	8.20	24.4						9-4-19 17:00	17.65	2084	8.69	0.0					
6-5-19 3:15	17.71	1440	7.68	0.9	6-4-19 22:15	17.21	845	8.78	6.0	6-4-19 22:15	16.97	696	8.21	23.7						9-4-19 17:15	17.65	2081	8.68	2.3					
6-5-19 3:30	17.66	1437	7.70	0.7	6-4-19 22:30	17.21	844	8.78	6.6	6-4-19 22:30	16.88	697	8.21	21.2						9-4-19 17:30	17.63	2085	8.69	0.0					
6-5-19 3:45	17.64	1437	7.67	0.9	6-4-19 22:45	17.20	841	8.78	6.5	6-4-19 22:45	16.81	697	8.21	25.1						9-4-19 17:45	17.63	2081	8.69	0.0					
6-5-19 4:00	17.60	1437	7.70	0.6	6-4-19 23:00	17.19	841	8.78	6.8	6-4-19 23:00	16.79	697	8.21	21.3						9-4-19 18:00	17.61	2084	8.69	0.0					
6-5-19 4:15	17.55	1434	7.64	1.2	6-4-19 23:15	17.13	833	8.78	6.2	6-4-19 23:15	16.74	693	8.21	22.4						9-4-19 18:15	17.61	2071	8.69	2.5					
6-5-19 4:30	17.51	1439	7.66	0.5	6-4-19 23:30	17.18	828	8.79	7.1	6-4-19 23:30	16.74	696	8.21	22.1						9-4-19 18:30	17.62	2078	8.69	0.0					
6-5-19 4:45	17.49	1438	7.67	0.4	6-4-19 23:45	17.09	829	8.80	7.0	6-4-19 23:45	16.70	697	8.20	22.2						9-4-19 18:45	17.63	2078	8.69	0.0					
6-5-19 5:00	17.47	1439	7.58	0.3	6-5-19 0:00	17.09	827	8.81	8.8	6-5-19 0:00	16.79	704	8.20	24.2						9-4-19 19:00	17.64	2078	8.69	0.0					
6-5-19 5:15	17.43	1436	7.53	0.5	6-5-19 0:15	17.19	830	8.81	6.7	6-5-19 0:15	16.76	697	8.21	22.1						9-4-19 19:15	17.65	2077	8.69	1.6					
6-5-19 5:30	17.39	1438	7.42	0.3	6-5-19 0:30	17.22	828	8.81	8.3	6-5-19 0:30	16.75	698	8.20	21.1						9-4-19 19:30	17.65	2077	8.70	1.6					
6-5-19 5:45	17.38	1448	7.58	0.2	6-5-19 0:45	17.16	829	8.81	8.1	6-5-19 0:45	16.71	697	8.19	20.3						9-4-19 19:45	17.67	2078	8.70	2.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-5-19 6:00	17.31	1444	7.44	0.2	6-5-19 1:00	17.19	831	8.81	7.4	6-5-19 1:00	16.71	698	8.19	20.3						9-4-19 20:00	17.70	2077	8.70	0.0					
6-5-19 6:15	17.29	1443	7.59	3.2	6-5-19 1:15	17.34	831	8.81	7.0	6-5-19 1:15	16.82	697	8.20	23.7						9-4-19 20:15	17.71	2076	8.71	0.9					
6-5-19 6:30	17.24	1442	7.59	0.0	6-5-19 1:30	17.30	833	8.81	7.0	6-5-19 1:30	16.84	697	8.20	20.7						9-4-19 20:30	17.72	2056	8.71	0.0					
6-5-19 6:45	17.20	1444	7.58	0.0	6-5-19 1:45	17.40	835	8.80	8.6	6-5-19 1:45	16.90	698	8.20	22.4						9-4-19 20:45	17.74	2078	8.71	0.0					
6-5-19 7:00	17.15	1443	7.58	0.0	6-5-19 2:00	17.40	835	8.80	6.7	6-5-19 2:00	16.97	697	8.20	21.8						9-4-19 21:00	17.76	2075	8.72	0.0					
6-5-19 7:15	17.13	1443	7.57	0.0	6-5-19 2:15	17.39	835	8.79	5.9	6-5-19 2:15	16.95	698	8.20	21.6						9-4-19 21:15	17.78	2077	8.71	0.0					
6-5-19 7:30	17.09	1444	7.56	1.2	6-5-19 2:30	17.36	835	8.79	5.9	6-5-19 2:30	16.94	698	8.20	19.8						9-4-19 21:30	17.81	2076	8.72	0.0					
6-5-19 7:45	17.02	1440	7.49	0.0	6-5-19 2:45	17.32	836	8.79	5.1	6-5-19 2:45	16.96	698	8.20	20.7						9-4-19 21:45	17.83	2077	8.72	3.1					
6-5-19 8:00	17.00	1454	7.48	0.0	6-5-19 3:00	17.28	836	8.79	5.4	6-5-19 3:00	16.92	697	8.20	19.9						9-4-19 22:00	17.88	2082	7.64	3.2					
6-5-19 8:15	16.95	1436	7.37	0.0	6-5-19 3:15	17.15	836	8.79	5.1	6-5-19 3:15	16.87	698	8.21	20.4						9-4-19 22:15	17.95	2083	7.55	2.0					
6-5-19 8:30	16.91	1443	7.33	0.0	6-5-19 3:30	16.99	835	8.79	7.0	6-5-19 3:30	16.77	697	8.22	20.0						9-4-19 22:30	18.03	2079	7.95	0.1					
6-5-19 8:45	16.86	1443	7.32	0.0	6-5-19 3:45	16.98	836	8.80	4.7	6-5-19 3:45	16.77	697	8.21	19.7						9-4-19 22:45	18.02	2075	7.98	0.0					
6-5-19 9:00	16.80	1442	7.30	0.0	6-5-19 4:00	16.93	836	8.80	5.7	6-5-19 4:00	16.63	697	8.22	18.8						9-4-19 23:00	18.03	2075	7.96	0.0					
6-5-19 9:15	16.79	1431	7.31	0.0	6-5-19 4:15	16.88	835	8.80	5.0	6-5-19 4:15	16.66	697	8.21	20.4						9-4-19 23:15	18.10	2068	7.87	0.0					
6-5-19 9:30	16.74	1437	7.35	0.0	6-5-19 4:30	16.88	834	8.80	5.3	6-5-19 4:30	16.62	699	8.21	21.5						9-4-19 23:30	18.09	2085	7.88	0.0					
6-5-19 9:45	16.71	1434	7.31	0.0	6-5-19 4:45	16.91	835	8.80	5.0	6-5-19 4:45	16.61	675	8.21	19.5						9-4-19 23:45	18.10	2082	7.75	0.0					
6-5-19 10:00	16.67	1440	7.34	0.0	6-5-19 5:00	16.88	835	8.80	4.8	6-5-19 5:00	16.56	688	8.21	19.2						9-5-19 0:00	18.09	2082	7.62	0.0					
6-5-19 10:15	16.64	1442	7.35	0.4	6-5-19 5:15	16.85	835	8.80	6.4	6-5-19 5:15	16.56	693	8.20	20.6						9-5-19 0:15	18.12	2075	7.68	0.0					
6-5-19 10:30	16.56	1443	7.37	0.0	6-5-19 5:30	16.81	834	8.80	5.4	6-5-19 5:30	16.52	695	8.20	19.0						9-5-19 0:30	18.15	2076	7.67	0.0					
6-5-19 10:45	16.50	1443	7.35	0.2	6-5-19 5:45	16.76	836	8.80	6.1	6-5-19 5:45	16.48	685	8.20	20.2						9-5-19 0:45	18.17	2076	7.47	0.0					
6-5-19 11:00	16.43	1442	7.31	0.0	6-5-19 6:00	16.73	836	8.80	4.8	6-5-19 6:00	16.44	696	8.18	19.9						9-5-19 1:00	18.18	2075	7.49	0.0					
6-5-19 11:15	16.38	1442	7.26	0.0	6-5-19 6:15	16.69	836	8.80	4.3	6-5-19 6:15	16.38	696	8.18	19.5						9-5-19 1:15	18.17	2077	7.58	0.0					
6-5-19 11:30	16.32	1442	7.30	0.0	6-5-19 6:30	16.70	836	8.80	5.4	6-5-19 6:30	16.31	697	8.19	18.7						9-5-19 1:30	18.18	2084	7.53	0.0					
6-5-19 11:45	16.28	1439	7.33	0.0	6-5-19 6:45	16.67	836	8.80	4.1	6-5-19 6:45	16.29	697	8.19	18.8						9-5-19 1:45	18.16	2077	7.42	0.0					
6-5-19 12:00	16.25	1447	7.33	0.0	6-5-19 7:00	16.61	836	8.79	4.3	6-5-19 7:00	16.28	695	8.19	19.1						9-5-19 2:00	18.15	2078	7.44	0.0					
6-5-19 12:15	16.16	1446	7.30	0.0	6-5-19 7:15	16.63	836	8.79	3.9	6-5-19 7:15	16.25	696	8.19	18.9						9-5-19 2:15	18.13	2075	7.46	2.3					
6-5-19 12:30	16.08	1446	7.27	0.0	6-5-19 7:30	16.60	836	8.79	4.8	6-5-19 7:30	16.22	696	8.19	17.4						9-5-19 2:30	18.07	2074	7.47	1.4					
6-5-19 12:45	16.07	1447	7.29	0.1	6-5-19 7:45	16.55	836	8.79	4.6	6-5-19 7:45	16.21	696	8.19	18.2						9-5-19 2:45	18.03	2069	7.76	0.7					
6-5-19 13:00	16.04	1447	7.27	0.0	6-5-19 8:00	16.52	836	8.79	5.1	6-5-19 8:00	16.16	697	8.19	17.8						9-5-19 3:00	18.03	2071	7.71	0.5					
6-5-19 13:15	16.00	1447	7.27	0.0	6-5-19 8:15	16.50	835	8.79	4.0	6-5-19 8:15	16.14	697	8.19	18.6						9-5-19 3:15	18.01	2066	7.87	6.2					
6-5-19 13:30	15.95	1446	7.27	0.0	6-5-19 8:30	16.49	835	8.79	4.3	6-5-19 8:30	16.11	697	8.18	17.8						9-5-19 3:30	17.99	2075	7.68	0.0					
6-5-19 13:45	15.92	1446	7.29	0.0	6-5-19 8:45	16.51	836	8.79	4.1	6-5-19 8:45	16.08	697	8.19	18.6						9-5-19 3:45	17.98	2075	8.17	0.0					
6-5-19 14:00	15.89	1446	7.29	0.0	6-5-19 9:00	16.47	836	8.78	5.5	6-5-19 9:00	16.04	697	8.18	17.0						9-5-19 4:00	17.95	2071	7.86	0.0					
6-5-19 14:15	15.84	1446	7.27	0.0	6-5-19 9:15	16.42	836	8.78	4.0	6-5-19 9:15	16.03	698	8.18	18.0						9-5-19 4:15	17.93	2071	7.74	1.4					
6-5-19 14:30	15.84	1445	7.29	0.0	6-5-19 9:30	16.44	836	8.78	4.5	6-5-19 9:30	15.98	698	8.18	17.2						9-5-19 4:30	17.88	2065	8.09	0.3					
6-5-19 14:45	15.81	1445	7.25	0.0	6-5-19 9:45	16.42	836	8.78	5.0	6-5-19 9:45	15.96	698	8.18	17.5						9-5-19 4:45	17.86	2022	8.34	0.1					
6-5-19 15:00	15.82	1446	7.27	0.0	6-5-19 10:00	16.36	835	8.78	4.6	6-5-19 10:00	15.93	697	8.18	17.5						9-5-19 5:00	17.83	2072	8.34	0.3					
6-5-19 15:15	15.80	1446	7.28	0.0	6-5-19 10:15	16.31	836	8.78	4.2	6-5-19 10:15	15.89	698	8.18	17.2						9-5-19 5:15	17.81	2076	7.58	0.5					
6-5-19 15:30	15.79	1445	7.28	0.0	6-5-19 10:30	16.31	835	8.78	4.2	6-5-19 10:30	15.84	699	8.18	17.1						9-5-19 5:30	17.78	2080	7.79	0.0					
6-5-19 15:45	15.80	1445	7.29	0.0	6-5-19 10:45	16.17	835	8.78	4.9	6-5-19 10:45	15.82	699	8.18	16.8						9-5-19 5:45	17.76	2073	7.72	0.0					
6-5-19 16:00	15.83	1445	7.30	0.0	6-5-19 11:00	16.21	835	8.78	4.5	6-5-19 11:00	15.77	700	8.18	17.5						9-5-19 6:00	17.70	2081	7.77	0.0					
6-5-19 16:15	15.90	1445	7.32	0.0	6-5-19 11:15	16.19	835	8.78	3.8	6-5-19 11:15	15.73	700	8.18	16.7						9-5-19 6:15	17.71	2086	7.66	7.4					
6-5-19 16:30	15.91	1444	7.31	0.0	6-5-19 11:30	16.17	835	8.78	5.3	6-5-19 11:30	15.69	700	8.18	17.8						9-5-19 6:30	17.69	2078	7.52	0.6					
6-5-19 16:45	15.95	1443	7.37	0.0	6-5-19 11:45	16.09	835	8.78	4.6	6-5-19 11:45	15.66	701	8.18	17.3						9-5-19 6:45	17.65	2078	7.28	0.7					
6-5-19 17:00	15.99	1439	7.45	0.0	6-5-19 12:00	16.07	834	8.77	4.1	6-5-19 12:00	15.62	701	8.17	23.5						9-5-19 7:00	17.59	2079	7.38	0.7					
6-5-19 17:15	16.01	1439	7.47	0.0	6-5-19 12:15	16.09	834	8.77	4.2	6-5-19 12:15	15.61	701	8.18	16.4						9-5-19 7:15	17.57	2075	7.57	0.3					
6-5-19 17:30	16.08	1432	7.54	0.0	6-5-19 12:30	16.04	834	8.77	4.4	6-5-19 12:30	15.58	700	8.17	15.9						9-5-19 7:30	17.55	2078	7.66	0.0					
6-5-19 17:45	16.25	1427	7.64	0.0	6-5-19 12:45	16.00	834	8.77	4.4	6-5-19 12:45	15.53	702	8.17	16.7						9-5-19 7:45	17.54	2078	7.66	0.0					
6-5-19 18:00	16.62	1423	7.75	0.0	6-5-19 13:00	15.99	834	8.77	7.7	6-5-19 13:00	15.52	699	8.17	16.4						9-5-19 8:00	17.53	2079	7.79	0.0					
6-5-19 18:15	16.53	1419	7.74	1.6	6-5-19 13:15	15.93	834	8.77	4.8	6-5-19 13:15	15.53	703	8.16	18.9						9-5-19 8:15	17.49	2080	7.81	2.2					
6-5-19 18:30	16.62	1429	7.49	0.1	6-5-19 13:30	15.89	835	8.77	4.4	6-5-19 13:30	15.51	702	8.17	15.1						9-5-19 8:30	17.46	2079	7.46	0.0					
6-5-19 18:45	16.75	1417	7.86	0.2	6-5-19 13:45	15.88	835	8.77	4.4	6-5-19 13:45	15.45	684	8.18	18.1						9-5-19 8:45	17.41	2076	7.52	0.0					
6-5-19 19:00	16.78	1417	7.86	0.0	6-5-19 14:00	15.95	835	8.77	4.4	6-5-19 14:00	15.46	702	8.17	15.9						9-5-19 9:00	17.41	2076	7.53	0.0					
6-5-19 19:15	16.80	1418	7.78	0.0	6-5-19 14:15	15.93	835	8.76	3.9	6-5-19 14:15	15.45	703	8.18	18.5						9-5-19 9:15	17.40	2079	7.60	0.3					
6-5-19 19:30	16.78	1411	7.97	0.0	6-5-19 14:30	15.97	835	8.76	4.9	6-5-19 14:30	15.48	703	8.16	16.4						9-5-19 9:30	17.36	2081	7.58	0.0					
6-5-19 19:45	16.88	1412	8.02	0.0	6-5-19 14:45	15.97	835	8.76	4.1	6-5-19 14:45	15.46	703	8.16	16.6						9-5-19 9:45	17.32	2081	7.59	0.0					
6-5-19 20:00	16.98	1411	7.99	0.0	6-5-19 15:00	15.95	834	8.76	5.2	6-5-19 15:00	15.47	704	8.16	18.6						9-5-19 10:00	17.31	2082	7.52	0.0					
6-5-19 20:15	17.12	1411	7.94	0.0	6-5-19 15:15	15.91	833	8.76	7.4	6-5-19 15:15	15.46	705	8.16	16.7						9-5-19 10:15	17.28	2075	7.48	0.0					
6-5-19 20:30	17.35	1407	8.11	0.0	6-5-19 15:30	15.91	833	8.76	7.3	6-5-19 15:30	15.47	706	8.15	16.4						9-5-19 10:30	17.25	2093	7.48	0.2					
6-5-19 20:45	17.47	1406	8.04	0.0	6-5-19 15:45	15.91	833	8.75	5.2	6-5-19 15:45	15.48	706	8.15	17.0						9-5-19 10:45	17.21	2078	7.35	0.0					
6-5-19 21:00	17.73	1409	8.14	0.0	6-5-19 16:00	15.93	832	8.75	5.9	6-5-19 16:00	15.52	707	8.15	16.9						9-5-19 11:00	17.18	2079	7.34	0.0					
6-5-19 21:15	17.73	1407	8.22	0.0	6-5-19 16:15	15.94	833	8.76	5.4	6-5-19 16:15	15.57	707	8.16	18.3						9-5-19 11:15	17.15	2077	7.32	0.0					
6-5-19 21:30	17.64	1408	8.13	0.1	6-5-19 16:30	15.99	833	8.76	5.7	6-5-19 16:30	15.68	707	8.15	18.0						9-5-19 11:30	17.13	2081	7.31	0.0					
6-5-19 21:45	17.60	1406	8.12	0.0	6-5-19 16:45	15.97	833	8.77	5.6	6-5-19 16:45	15.73	707	8.17	18.0						9-5-19 11:45	17.12	2084	7.25	0.0					
6-5-19 22:00	17.70	1401	8.13	0.0	6-5-19 17:00	15.97	833	8.77	6.1	6-5-19 17:00	15.75	708	8.15	17.7						9-5-19 12:00	17.11	2081	7.23	0.0					
6-5-19 22:15	17.82	1400	8.14	0.0	6-5-19 17:15	16.04	833	8.77	5.5	6-5-19 17:15	15.77	708	8.15	18.8						9-5-19 12:15	17.10	2083	7.26	0.9					
6-5-19 22:30	18.02	1398	8.20	0.0	6-5-19 17:30	16.05	832	8.77	5.4	6-5-19 17:30	15.86	708	8.15	18.7						9-5-19 12:30	17.06	2078	7.23	0.0					
6-5-19 22:45	18.07	1399	8.27	0.0	6-5-19 17:45	16.10	832	8.77	5.3	6-5-19 17:45	16.00	709	8.16	17.5						9-5-19 12:45	17.04	2081	7.21	0.0					
6-5-19 23:00	18.16	1391	8.30	5.8	6-5-19 18:00	16.21	832	8.78	6.3	6-5-19 18:00	16.50	710	8.15	17.5						9-5-19 13:00	17.01	2079	7.25	0.0					
6-5-19 23:15	18.14	1392	8.31	0.0	6-5-19 18:15	16.34	832	8.78	10.5	6-5-19 18:15	16.92	710	8.15	19.5						9-5-19 13:15	17.00	2081	7.34	0.3					
6-5-19 23:30	18.09	1396	8.27	0.0	6-5-19 18:30	16.33	830	8.78	6.0	6-5-19 18:30	16.79	714	8.15	16.5						9-5-19 13:30	16.96	2083	7.39	0.0					
6-5-19 23:45	18.12	1404	8.36	0.0	6-5-19 18:45	16.29	831	8.78	5.9	6-5-19 18:45	16.70	713	8.15	17.7						9-5-19 13:45	16.94	2082	7.40	0.0					
6-6-19 0:00	18.09	1402	8.40	0.0	6-5-19 19:00	16.35	831	8.79	6.2	6-5-19 19:00	16.96	713	8.17	17.0						9-5-19 14:00	16.94	2082	7.37	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-6-19 0:15	18.05	1400	8.39	0.0	6-5-19 19:15	16.51	831	8.79	6.0	6-5-19 19:15	17.30	713	8.17	19.6						9-5-19 14:15	16.92	2081	7.34	0.8					
6-6-19 0:30	17.99	1396	8.28	0.0	6-5-19 19:30	16.59	831	8.78	6.4	6-5-19 19:30	17.70	713	8.18	18.5						9-5-19 14:30	16.91	2078	7.29	0.0					
6-6-19 0:45	17.95	1387	8.28	0.0	6-5-19 19:45	16.62	831	8.78	6.0	6-5-19 19:45	17.61	713	8.17	18.1						9-5-19 14:45	16.87	2071	7.25	2.4					
6-6-19 1:00	17.86	1380	8.15	0.0	6-5-19 20:00	16.68	831	8.78	6.3	6-5-19 20:00	17.88	713	8.16	16.8						9-5-19 15:00	16.84	2078	7.23	0.0					
6-6-19 1:15	17.79	1363	8.18	0.0	6-5-19 20:15	16.98	832	8.77	4.9	6-5-19 20:15	18.35	715	8.18	17.3						9-5-19 15:15	16.86	2080	7.24	0.2					
6-6-19 1:30	17.76	1373	8.00	0.0	6-5-19 20:30	16.98	830	8.78	8.0	6-5-19 20:30	18.43	713	8.18	17.9						9-5-19 15:30	16.89	2083	7.21	0.0					
6-6-19 1:45	17.73	1386	8.06	0.1	6-5-19 20:45	16.96	830	8.78	5.7	6-5-19 20:45	17.91	712	8.18	17.0						9-5-19 15:45	16.91	2082	7.20	0.0					
6-6-19 2:00	17.73	1393	8.13	0.0	6-5-19 21:00	17.04	831	8.79	6.4	6-5-19 21:00	18.11	713	8.20	19.3						9-5-19 16:00	16.93	2082	7.23	0.0					
6-6-19 2:15	17.71	1390	8.11	0.0	6-5-19 21:15	17.14	830	8.80	6.3	6-5-19 21:15	18.29	714	8.19	17.0						9-5-19 16:15	16.98	2082	7.27	1.2					
6-6-19 2:30	17.70	1396	8.07	0.0	6-5-19 21:30	17.12	830	8.80	6.4	6-5-19 21:30	18.34	715	8.19	18.2						9-5-19 16:30	17.06	2078	7.24	0.0					
6-6-19 2:45	17.68	1396	8.10	0.0	6-5-19 21:45	17.16	831	8.80	5.7	6-5-19 21:45	18.34	713	8.21	16.1						9-5-19 16:45	17.10	2079	7.24	0.0					
6-6-19 3:00	17.63	1390	7.96	0.0	6-5-19 22:00	17.24	830	8.80	5.6	6-5-19 22:00	18.35	714	8.21	16.6						9-5-19 17:00	17.14	2077	7.22	0.0					
6-6-19 3:15	17.60	1391	7.90	0.0	6-5-19 22:15	17.37	830	8.79	5.5	6-5-19 22:15	18.50	714	8.21	16.5						9-5-19 17:15	17.14	2082	7.29	2.2					
6-6-19 3:30	17.57	1389	7.89	0.0	6-5-19 22:30	17.43	829	8.79	6.8	6-5-19 22:30	18.49	714	8.20	16.1						9-5-19 17:30	17.22	2082	7.52	0.7					
6-6-19 3:45	17.57	1387	7.87	0.0	6-5-19 22:45	17.50	830	8.79	5.0	6-5-19 22:45	18.69	709	8.21	17.2						9-5-19 17:45	17.29	2079	7.76	0.0					
6-6-19 4:00	17.51	1383	7.90	8.8	6-5-19 23:00	17.61	829	8.79	6.9	6-5-19 23:00	18.76	716	8.21	16.6						9-5-19 18:00	17.35	2079	7.81	0.0					
6-6-19 4:15	17.50	1386	7.92	0.0	6-5-19 23:15	17.69	830	8.78	6.0	6-5-19 23:15	18.88	713	8.22	15.4						9-5-19 18:15	17.38	2075	7.99	0.9					
6-6-19 4:30	17.48	1395	7.98	0.0	6-5-19 23:30	17.59	829	8.78	5.1	6-5-19 23:30	18.76	714	8.22	15.0						9-5-19 18:30	17.41	2072	8.24	0.2					
6-6-19 4:45	17.44	1394	7.92	0.0	6-5-19 23:45	17.57	829	8.78	5.1	6-5-19 23:45	18.66	714	8.22	15.4						9-5-19 18:45	17.47	2069	8.45	0.1					
6-6-19 5:00	17.39	1390	7.94	0.0	6-6-19 0:00	17.57	827	8.79	6.4	6-6-19 0:00	18.67	713	8.22	15.2						9-5-19 19:00	17.54	2067	8.49	0.0					
6-6-19 5:15	17.33	1393	7.82	0.0	6-6-19 0:15	17.56	829	8.79	5.0	6-6-19 0:15	18.54	714	8.23	15.7						9-5-19 19:15	17.58	2073	8.38	6.9					
6-6-19 5:30	17.30	1392	7.81	0.0	6-6-19 0:30	17.51	828	8.80	6.4	6-6-19 0:30	18.52	716	8.24	14.0						9-5-19 19:30	17.65	2073	8.44	0.0					
6-6-19 5:45	17.24	1391	7.65	0.0	6-6-19 0:45	17.42	830	8.80	9.0	6-6-19 0:45	18.39	712	8.25	13.3						9-5-19 19:45	17.71	2071	8.43	0.0					
6-6-19 6:00	17.21	1389	7.79	0.0	6-6-19 1:00	17.34	826	8.80	8.2	6-6-19 1:00	18.32	713	8.26	12.6						9-5-19 20:00	17.76	2072	8.42	0.0					
6-6-19 6:15	17.19	1389	7.66	0.0	6-6-19 1:15	17.33	818	8.81	6.3	6-6-19 1:15	18.19	712	8.26	14.2						9-5-19 20:15	17.82	2070	8.42	1.8					
6-6-19 6:30	17.19	1390	7.65	0.0	6-6-19 1:30	17.32	825	8.81	8.8	6-6-19 1:30	18.10	712	8.26	13.3						9-5-19 20:30	17.90	2063	8.45	3.5					
6-6-19 6:45	17.16	1390	7.68	0.0	6-6-19 1:45	17.31	828	8.82	7.1	6-6-19 1:45	18.06	712	8.25	14.1						9-5-19 20:45	18.02	2064	8.45	3.0					
6-6-19 7:00	17.09	1391	7.58	1.8	6-6-19 2:00	17.27	828	8.83	7.0	6-6-19 2:00	18.00	712	8.25	13.5						9-5-19 21:00	18.61	2067	8.45	4.9					
6-6-19 7:15	17.04	1374	7.56	0.0	6-6-19 2:15	17.28	829	8.83	5.9	6-6-19 2:15	17.94	712	8.25	14.1						9-5-19 21:15	18.81	2070	8.47	7.2					
6-6-19 7:30	17.04	1363	7.75	0.0	6-6-19 2:30	17.24	829	8.82	6.6	6-6-19 2:30	17.89	712	8.26	13.4						9-5-19 21:30	19.08	2071	8.49	0.0					
6-6-19 7:45	16.99	1354	7.67	0.0	6-6-19 2:45	17.22	828	8.82	5.0	6-6-19 2:45	17.86	713	8.26	13.2						9-5-19 21:45	19.22	2066	8.54	0.0					
6-6-19 8:00	16.93	1387	7.68	0.0	6-6-19 3:00	17.21	832	8.81	5.3	6-6-19 3:00	17.82	712	8.25	12.9						9-5-19 22:00	19.29	2043	8.57	0.3					
6-6-19 8:15	16.88	1391	7.69	0.0	6-6-19 3:15	17.18	828	8.81	5.2	6-6-19 3:15	17.79	711	8.25	13.2						9-5-19 22:15	19.35	2034	8.58	2.0					
6-6-19 8:30	16.87	1389	7.66	0.0	6-6-19 3:30	17.13	832	8.81	5.2	6-6-19 3:30	17.75	711	8.25	13.3						9-5-19 22:30	19.41	2018	8.58	1.7					
6-6-19 8:45	16.83	1389	7.62	0.0	6-6-19 3:45	17.10	830	8.80	5.0	6-6-19 3:45	17.70	712	8.26	12.6						9-5-19 22:45	19.46	2015	8.58	1.8					
6-6-19 9:00	16.79	1389	7.66	0.0	6-6-19 4:00	17.07	829	8.80	10.0	6-6-19 4:00	17.64	711	8.26	14.7						9-5-19 23:00	19.53	2013	8.57	2.1					
6-6-19 9:15	16.75	1388	7.56	0.0	6-6-19 4:15	17.04	828	8.80	7.1	6-6-19 4:15	17.60	710	8.26	13.2						9-5-19 23:15	19.68	2004	8.55	2.5					
6-6-19 9:30	16.71	1388	7.51	0.0	6-6-19 4:30	17.06	828	8.81	7.3	6-6-19 4:30	17.57	712	8.26	11.9						9-5-19 23:30	19.75	2008	8.56	1.6					
6-6-19 9:45	16.66	1389	7.49	0.0	6-6-19 4:45	17.06	828	8.82	7.0	6-6-19 4:45	17.52	710	8.27	12.8						9-5-19 23:45	19.78	2015	8.56	1.1					
6-6-19 10:00	16.63	1388	7.49	0.0	6-6-19 5:00	17.06	828	8.82	7.2	6-6-19 5:00	17.47	712	8.25	11.7						9-6-19 0:00	19.88	2023	8.55	0.7					
6-6-19 10:15	16.59	1388	7.53	0.0	6-6-19 5:15	17.07	828	8.83	7.4	6-6-19 5:15	17.40	712	8.24	12.5						9-6-19 0:15	19.89	2020	8.55	9.8					
6-6-19 10:30	16.52	1388	7.49	0.0	6-6-19 5:30	17.03	827	8.82	8.0	6-6-19 5:30	17.35	711	8.24	12.2						9-6-19 0:30	19.89	2017	8.56	8.8					
6-6-19 10:45	16.48	1387	7.49	0.0	6-6-19 5:45	17.01	829	8.82	6.1	6-6-19 5:45	17.32	712	8.25	12.4						9-6-19 0:45	19.85	2018	8.56	9.6					
6-6-19 11:00	16.42	1388	7.50	0.0	6-6-19 6:00	16.96	827	8.81	6.4	6-6-19 6:00	17.26	711	8.25	12.7						9-6-19 1:00	19.83	2015	8.57	9.8					
6-6-19 11:15	16.38	1388	7.42	0.0	6-6-19 6:15	16.95	828	8.81	5.8	6-6-19 6:15	17.21	710	8.26	12.5						9-6-19 1:15	19.79	2020	8.56	5.8					
6-6-19 11:30	16.31	1387	7.46	0.0	6-6-19 6:30	16.88	826	8.81	5.4	6-6-19 6:30	17.13	710	8.26	11.8						9-6-19 1:30	19.74	2022	8.57	0.8					
6-6-19 11:45	16.30	1389	7.47	0.0	6-6-19 6:45	16.84	828	8.80	5.2	6-6-19 6:45	17.09	711	8.26	11.9						9-6-19 1:45	19.70	2021	8.57	0.9					
6-6-19 12:00	16.26	1388	7.46	0.0	6-6-19 7:00	16.78	828	8.80	7.5	6-6-19 7:00	17.03	710	8.27	11.5						9-6-19 2:00	19.65	2024	8.57	0.5					
6-6-19 12:15	16.24	1388	7.44	0.0	6-6-19 7:15	16.72	828	8.80	7.3	6-6-19 7:15	16.95	710	8.27	12.2						9-6-19 2:15	19.53	2019	8.57	8.2					
6-6-19 12:30	16.18	1389	7.43	0.0	6-6-19 7:30	16.70	828	8.80	6.5	6-6-19 7:30	16.93	710	8.26	11.8						9-6-19 2:30	19.48	1994	8.58	11.5					
6-6-19 12:45	16.14	1387	7.41	0.0	6-6-19 7:45	16.72	828	8.80	5.3	6-6-19 7:45	16.82	711	8.27	12.8						9-6-19 2:45	19.43	2018	8.58	10.7					
6-6-19 13:00	16.11	1387	7.39	0.0	6-6-19 8:00	16.74	826	8.80	5.8	6-6-19 8:00	16.82	713	8.27	11.6						9-6-19 3:00	19.35	2023	8.58	8.5					
6-6-19 13:15	16.09	1388	7.39	0.0	6-6-19 8:15	16.74	829	8.79	5.9	6-6-19 8:15	16.82	713	8.26	11.7						9-6-19 3:15	19.28	1976	8.58	2.7					
6-6-19 13:30	16.07	1388	7.42	0.0	6-6-19 8:30	16.71	829	8.79	6.3	6-6-19 8:30	16.77	713	8.26	11.3						9-6-19 3:30	19.21	2021	8.58	0.3					
6-6-19 13:45	16.04	1388	7.40	0.0	6-6-19 8:45	16.66	829	8.79	5.2	6-6-19 8:45	16.74	713	8.26	11.1						9-6-19 3:45	19.13	2021	8.58	0.2					
6-6-19 14:00	16.02	1385	7.39	0.0	6-6-19 9:00	16.65	831	8.79	4.7	6-6-19 9:00	16.67	713	8.26	11.1						9-6-19 4:00	19.06	2025	8.58	0.2					
6-6-19 14:15	15.99	1383	7.39	0.0	6-6-19 9:15	16.59	824	8.79	4.4	6-6-19 9:15	16.62	714	8.26	11.4						9-6-19 4:15	19.00	2029	8.59	4.5					
6-6-19 14:30	15.96	1390	7.39	0.0	6-6-19 9:30	16.61	830	8.79	6.8	6-6-19 9:30	16.60	715	8.26	10.7						9-6-19 4:30	18.94	2026	8.58	2.4					
6-6-19 14:45	15.97	1390	7.39	0.0	6-6-19 9:45	16.61	829	8.79	3.9	6-6-19 9:45	16.57	716	8.25	11.0						9-6-19 4:45	18.86	2028	8.59	3.0					
6-6-19 15:00	15.95	1389	7.40	0.0	6-6-19 10:00	16.47	829	8.78	4.7	6-6-19 10:00	16.53	716	8.25	11.1						9-6-19 5:00	18.81	2024	8.58	2.9					
6-6-19 15:15	15.96	1390	7.41	0.0	6-6-19 10:15	16.47	829	8.78	4.3	6-6-19 10:15	16.52	719	8.24	11.9						9-6-19 5:15	18.74	2179	8.57	1.9					
6-6-19 15:30	15.94	1389	7.42	0.0	6-6-19 10:30	16.42	829	8.78	4.3	6-6-19 10:30	16.48	722	8.24	11.7						9-6-19 5:30	18.67	2027	8.58	0.1					
6-6-19 15:45	15.98	1389	7.42	0.0	6-6-19 10:45	16.45	829	8.78	4.3	6-6-19 10:45	16.47	731	8.23	12.2						9-6-19 5:45	18.60	2030	8.58	0.0					
6-6-19 16:00	15.99	1389	7.42	0.0	6-6-19 11:00	16.43	829	8.78	5.9	6-6-19 11:00	16.45	733	8.23	12.3						9-6-19 6:00	18.53	2029	8.59	0.2					
6-6-19 16:15	15.99	1385	7.43	0.0	6-6-19 11:15	16.38	829	8.78	3.9	6-6-19 11:15	16.43	736	8.23	11.9						9-6-19 6:15	18.48	2026	8.59	12.5					
6-6-19 16:30	15.98	1385	7.43	0.0	6-6-19 11:30	16.31	829	8.78	4.4	6-6-19 11:30	16.42	734	8.22	11.7						9-6-19 6:30	18.44	2026	8.59	4.1					
6-6-19 16:45	15.97	1385	7.41	0.0	6-6-19 11:45	16.36	829	8.78	4.7	6-6-19 11:45	16.37	736	8.22	11.4						9-6-19 6:45	18.39	2024	8.59	10.7					
6-6-19 17:00	15.99	1385	7.43	6.6	6-6-19 12:00	16.32	829	8.78	4.9	6-6-19 12:00	16.35	735	8.22	11.2						9-6-19 7:00	18.35	2027	8.60	10.2					
6-6-19 17:15	15.99	1384	7.44	0.0	6-6-19 12:15	16.31	829	8.78	5.0	6-6-19 12:15	16.31	734	8.23	11.2						9-6-19 7:15	18.35	2032	8.60	4.9					
6-6-19 17:30	16.03	1383	7.45	0.0	6-6-19 12:30	16.29	828	8.78	4.8	6-6-19 12:30	16.27	732	8.22	11.1						9-6-19 7:30	18.32	2039	8.62	0.0					
6-6-19 17:45	16.04	1383	7.45	0.0	6-6-19 12:45	16.24	829	8.77	4.6	6-6-19 12:45	16.21	730	8.22	11.6						9-6-19 7:45	18.31	2043	8.63	0.0					
6-6-19 18:00	16.02	1383	7.47	0.0	6-6-19 13:00	16.23	829	8.77	5.7	6-6-19 13:00	16.15	729	8.22	10.4						9-6-19 8:00	18.27	2042	8.63	0.0					
6-6-19 18:15	15.99	1383	7.48	0.0	6-6-19 13:15	16.22	829	8.77	4.3	6-6-19 13:15	16.13	730	8.22	11.0						9-6-19 8:15	18.24	2053	8.63	1.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-6-19 18:30	15.99	1372	7.48	0.2	6-6-19 13:30	16.19	829	8.77	4.7	6-6-19 13:30	16.09	730	8.22	10.2						9-6-19 8:30	18.20	2041	8.63	0.3					
6-6-19 18:45	16.02	1380	7.50	0.0	6-6-19 13:45	16.21	829	8.77	4.2	6-6-19 13:45	16.08	731	8.23	12.6						9-6-19 8:45	18.17	2037	8.63	1.2					
6-6-19 19:00	15.99	1382	7.52	0.0	6-6-19 14:00	16.20	829	8.77	4.7	6-6-19 14:00	16.07	730	8.22	10.7						9-6-19 9:00	18.15	2041	8.63	0.6					
6-6-19 19:15	15.99	1383	7.53	0.0	6-6-19 14:15	16.19	830	8.76	4.0	6-6-19 14:15	16.03	729	8.23	11.3						9-6-19 9:15	18.11	2042	8.62	12.2					
6-6-19 19:30	15.97	1382	7.53	0.0	6-6-19 14:30	16.18	830	8.76	4.9	6-6-19 14:30	16.02	729	8.23	11.2						9-6-19 9:30	18.06	2043	8.62	0.3					
6-6-19 19:45	15.94	1375	7.60	0.0	6-6-19 14:45	16.18	830	8.76	4.3	6-6-19 14:45	16.00	729	8.24	12.4						9-6-19 9:45	18.06	2044	8.62	0.0					
6-6-19 20:00	15.92	1374	7.58	0.2	6-6-19 15:00	16.13	829	8.76	5.2	6-6-19 15:00	16.01	729	8.23	12.0						9-6-19 10:00	18.02	2041	8.62	0.0					
6-6-19 20:15	15.88	1368	7.62	0.0	6-6-19 15:15	16.17	829	8.77	4.3	6-6-19 15:15	15.99	732	8.24	13.4						9-6-19 10:15	17.98	2041	8.62	1.2					
6-6-19 20:30	15.91	1376	7.58	0.0	6-6-19 15:30	16.22	829	8.78	6.0	6-6-19 15:30	16.03	732	8.23	12.3						9-6-19 10:30	17.95	2041	8.62	0.4					
6-6-19 20:45	15.93	1376	7.57	0.0	6-6-19 15:45	16.23	830	8.78	4.6	6-6-19 15:45	16.04	732	8.23	11.8						9-6-19 10:45	17.89	2041	8.62	0.3					
6-6-19 21:00	15.93	1358	7.59	0.0	6-6-19 16:00	16.29	829	8.78	5.9	6-6-19 16:00	16.05	732	8.22	11.0						9-6-19 11:00	17.88	2039	8.61	0.3					
6-6-19 21:15	15.93	1357	7.62	0.0	6-6-19 16:15	16.34	829	8.78	3.8	6-6-19 16:15	16.04	731	8.23	11.9						9-6-19 11:15	17.87	2039	8.60	3.0					
6-6-19 21:30	15.94	1361	7.65	0.0	6-6-19 16:30	16.29	829	8.78	4.7	6-6-19 16:30	16.07	731	8.23	11.6						9-6-19 11:30	17.81	2042	8.61	0.0					
6-6-19 21:45	15.96	1358	7.68	0.0	6-6-19 16:45	16.33	829	8.78	3.8	6-6-19 16:45	16.06	731	8.23	11.6						9-6-19 11:45	17.79	2040	8.61	0.0					
6-6-19 22:00	15.93	1357	7.71	0.0	6-6-19 17:00	16.38	829	8.78	4.3	6-6-19 17:00	16.07	731	8.23	11.8						9-6-19 12:00	17.76	2042	8.61	0.0					
6-6-19 22:15	15.86	1351	7.79	0.0	6-6-19 17:15	16.40	830	8.79	4.0	6-6-19 17:15	16.09	731	8.23	11.4						9-6-19 12:15	17.76	2044	8.61	2.5					
6-6-19 22:30	15.79	1336	7.93	0.0	6-6-19 17:30	16.42	828	8.79	5.7	6-6-19 17:30	16.11	731	8.23	11.1						9-6-19 12:30	17.74	2040	8.60	0.3					
6-6-19 22:45	15.75	1335	7.87	0.0	6-6-19 17:45	16.45	828	8.79	3.8	6-6-19 17:45	16.12	731	8.23	11.5						9-6-19 12:45	17.67	2037	8.60	0.1					
6-6-19 23:00	15.72	1329	7.82	0.0	6-6-19 18:00	16.40	828	8.79	4.2	6-6-19 18:00	16.11	731	8.23	11.2						9-6-19 13:00	17.62	2040	8.60	0.2					
6-6-19 23:15	15.68	1325	7.80	0.0	6-6-19 18:15	16.42	828	8.78	3.8	6-6-19 18:15	16.11	731	8.24	11.3						9-6-19 13:15	17.58	2041	8.60	6.9					
6-6-19 23:30	15.68	1322	7.88	3.9	6-6-19 18:30	16.41	828	8.79	3.9	6-6-19 18:30	16.12	730	8.24	11.3						9-6-19 13:30	17.55	2044	8.60	0.0					
6-6-19 23:45	15.67	1330	8.05	0.0	6-6-19 18:45	16.45	828	8.79	4.0	6-6-19 18:45	16.13	731	8.24	11.7						9-6-19 13:45	17.58	2042	8.60	0.0					
6-7-19 0:00	15.65	1332	8.19	0.8	6-6-19 19:00	16.44	827	8.79	5.3	6-6-19 19:00	16.11	731	8.23	11.8						9-6-19 14:00	17.58	2040	8.60	0.0					
6-7-19 0:15	15.60	1330	8.09	0.0	6-6-19 19:15	16.38	827	8.79	6.2	6-6-19 19:15	16.07	731	8.24	11.7						9-6-19 14:15	17.56	2045	8.60	0.2					
6-7-19 0:30	15.56	1326	8.02	0.0	6-6-19 19:30	16.22	827	8.78	6.6	6-6-19 19:30	16.05	731	8.23	10.7						9-6-19 14:30	17.51	2042	8.59	0.0					
6-7-19 0:45	15.57	1330	8.15	0.0	6-6-19 19:45	16.15	827	8.78	8.2	6-6-19 19:45	16.07	731	8.23	11.8						9-6-19 14:45	17.49	2043	8.60	0.1					
6-7-19 1:00	15.56	1315	7.97	0.0	6-6-19 20:00	16.16	828	8.78	5.9	6-6-19 20:00	16.06	731	8.23	11.4						9-6-19 15:00	17.46	2042	8.60	0.1					
6-7-19 1:15	15.57	1316	7.98	0.0	6-6-19 20:15	16.19	828	8.77	5.1	6-6-19 20:15	16.06	731	8.23	11.2						9-6-19 15:15	17.47	2044	8.59	5.7					
6-7-19 1:30	15.52	1319	7.95	0.0	6-6-19 20:30	16.20	828	8.77	5.4	6-6-19 20:30	16.08	726	8.23	11.1						9-6-19 15:30	17.52	2044	8.59	0.0					
6-7-19 1:45	15.49	1314	7.98	0.0	6-6-19 20:45	16.22	828	8.77	5.5	6-6-19 20:45	16.09	731	8.23	11.9						9-6-19 15:45	17.51	2045	8.59	0.0					
6-7-19 2:00	15.47	1309	7.90	0.0	6-6-19 21:00	16.26	828	8.78	4.8	6-6-19 21:00	16.14	733	8.23	11.3						9-6-19 16:00	17.53	2045	8.60	0.0					
6-7-19 2:15	15.46	1313	7.88	0.6	6-6-19 21:15	16.31	828	8.78	5.1	6-6-19 21:15	16.16	732	8.23	11.5						9-6-19 16:15	17.53	2045	8.60	5.5					
6-7-19 2:30	15.45	1315	7.87	0.0	6-6-19 21:30	16.36	828	8.79	5.8	6-6-19 21:30	16.20	732	8.23	11.1						9-6-19 16:30	17.53	2041	8.61	1.2					
6-7-19 2:45	15.45	1319	7.88	0.0	6-6-19 21:45	16.46	827	8.80	4.8	6-6-19 21:45	16.23	732	8.24	11.7						9-6-19 16:45	17.54	2042	8.61	2.6					
6-7-19 3:00	15.42	1315	7.90	0.0	6-6-19 22:00	16.41	826	8.80	5.8	6-6-19 22:00	16.22	732	8.24	11.3						9-6-19 17:00	17.58	2039	8.62	0.7					
6-7-19 3:15	15.40	1316	7.92	0.0	6-6-19 22:15	16.34	827	8.80	5.0	6-6-19 22:15	16.18	733	8.24	10.9						9-6-19 17:15	17.59	2036	8.61	5.0					
6-7-19 3:30	15.36	1316	7.94	0.0	6-6-19 22:30	16.30	827	8.80	4.9	6-6-19 22:30	16.14	732	8.24	10.3						9-6-19 17:30	17.59	2043	8.62	0.0					
6-7-19 3:45	15.34	1320	7.93	0.0	6-6-19 22:45	16.17	827	8.80	6.2	6-6-19 22:45	16.10	732	8.26	11.4						9-6-19 17:45	17.60	2044	8.62	0.0					
6-7-19 4:00	15.35	1322	7.97	0.0	6-6-19 23:00	16.09	826	8.80	6.6	6-6-19 23:00	16.08	732	8.26	12.5						9-6-19 18:00	17.62	2043	8.63	0.0					
6-7-19 4:15	15.32	1319	7.97	0.0	6-6-19 23:15	15.93	826	8.81	7.9	6-6-19 23:15	16.04	732	8.26	12.3						9-6-19 18:15	17.65	2042	8.62	2.4					
6-7-19 4:30	15.29	1321	7.98	0.0	6-6-19 23:30	16.00	827	8.81	9.6	6-6-19 23:30	16.02	732	8.26	10.2						9-6-19 18:30	17.68	2039	8.63	1.5					
6-7-19 4:45	15.27	1320	7.93	0.0	6-6-19 23:45	16.01	827	8.82	5.8	6-6-19 23:45	16.00	733	8.26	12.1						9-6-19 18:45	17.72	2037	8.64	1.7					
6-7-19 5:00	15.23	1318	7.89	0.0	6-7-19 0:00	16.02	827	8.82	6.8	6-7-19 0:00	15.99	733	8.26	10.8						9-6-19 19:00	17.77	2037	8.64	1.2					
6-7-19 5:15	15.20	1321	7.82	0.2	6-7-19 0:15	15.98	827	8.81	5.8	6-7-19 0:15	15.96	733	8.26	10.8						9-6-19 19:15	17.83	2038	8.64	5.1					
6-7-19 5:30	15.16	1319	7.88	0.0	6-7-19 0:30	16.02	827	8.81	5.9	6-7-19 0:30	15.95	733	8.25	10.8						9-6-19 19:30	17.94	2040	8.64	0.0					
6-7-19 5:45	15.15	1323	7.79	0.0	6-7-19 0:45	16.00	827	8.81	5.7	6-7-19 0:45	15.95	735	8.24	11.9						9-6-19 19:45	18.00	2040	8.64	0.0					
6-7-19 6:00	15.12	1323	7.71	0.0	6-7-19 1:00	16.02	827	8.81	6.9	6-7-19 1:00	15.97	736	8.24	12.7						9-6-19 20:00	18.18	2040	8.64	0.0					
6-7-19 6:15	15.08	1322	7.72	0.0	6-7-19 1:15	16.05	827	8.81	6.3	6-7-19 1:15	15.97	738	8.23	13.5						9-6-19 20:15	18.21	2035	8.64	2.8					
6-7-19 6:30	15.06	1322	7.73	0.0	6-7-19 1:30	16.02	826	8.81	6.3	6-7-19 1:30	15.96	738	8.23	12.3						9-6-19 20:30	18.25	2034	8.66	1.7					
6-7-19 6:45	15.02	1321	7.74	0.0	6-7-19 1:45	15.95	827	8.81	6.5	6-7-19 1:45	15.95	738	8.24	19.1						9-6-19 20:45	18.55	2035	8.64	7.5					
6-7-19 7:00	14.99	1322	7.72	0.0	6-7-19 2:00	15.96	826	8.81	5.8	6-7-19 2:00	15.93	738	8.23	12.9						9-6-19 21:00	18.59	2032	8.65	1.4					
6-7-19 7:15	14.95	1322	7.68	0.0	6-7-19 2:15	15.90	826	8.81	5.2	6-7-19 2:15	15.89	737	8.24	12.3						9-6-19 21:15	18.58	2032	8.65	4.4					
6-7-19 7:30	14.92	1322	7.66	0.0	6-7-19 2:30	15.89	826	8.81	6.6	6-7-19 2:30	15.88	737	8.24	11.7						9-6-19 21:30	18.83	2030	8.65	0.0					
6-7-19 7:45	14.90	1322	7.68	0.0	6-7-19 2:45	15.87	826	8.81	5.3	6-7-19 2:45	15.86	740	8.23	15.1						9-6-19 21:45	18.79	2035	8.65	0.0					
6-7-19 8:00	14.86	1324	7.59	0.0	6-7-19 3:00	15.87	826	8.81	5.8	6-7-19 3:00	15.81	738	8.23	13.7						9-6-19 22:00	18.71	2027	8.66	0.0					
6-7-19 8:15	14.83	1324	7.61	0.0	6-7-19 3:15	15.85	826	8.81	6.2	6-7-19 3:15	15.76	737	8.24	14.4						9-6-19 22:15	18.79	2033	8.67	2.1					
6-7-19 8:30	14.79	1323	7.62	0.0	6-7-19 3:30	15.83	826	8.81	5.3	6-7-19 3:30	15.72	737	8.24	12.1						9-6-19 22:30	18.89	2036	8.66	0.2					
6-7-19 8:45	14.75	1323	7.63	1.1	6-7-19 3:45	15.83	826	8.81	5.0	6-7-19 3:45	15.69	737	8.24	12.7						9-6-19 22:45	19.04	2031	8.66	0.3					
6-7-19 9:00	14.75	1324	7.55	0.0	6-7-19 4:00	15.79	826	8.81	5.3	6-7-19 4:00	15.69	737	8.24	12.4						9-6-19 23:00	19.00	2035	8.66	0.2					
6-7-19 9:15	14.71	1325	7.57	0.0	6-7-19 4:15	15.76	826	8.81	4.9	6-7-19 4:15	15.63	737	8.25	12.4						9-6-19 23:15	18.96	2038	8.66	0.4					
6-7-19 9:30	14.67	1325	7.55	0.0	6-7-19 4:30	15.78	826	8.81	5.3	6-7-19 4:30	15.62	737	8.24	12.8						9-6-19 23:30	19.05	2035	8.68	0.0					
6-7-19 9:45	14.62	1325	7.52	0.0	6-7-19 4:45	15.75	826	8.81	5.8	6-7-19 4:45	15.59	737	8.25	12.1						9-6-19 23:45	19.23	2041	8.68	0.0					
6-7-19 10:00	14.60	1326	7.47	0.0	6-7-19 5:00	15.75	826	8.80	7.9	6-7-19 5:00	15.57	738	8.24	12.7						9-7-19 0:00	19.17	2034	8.68	0.0					
6-7-19 10:15	14.58	1327	7.48	0.0	6-7-19 5:15	15.71	826	8.80	5.0	6-7-19 5:15	15.54	738	8.25	12.9						9-7-19 0:15	19.11	2038	8.68	2.3					
6-7-19 10:30	14.52	1326	7.43	0.0	6-7-19 5:30	15.68	826	8.80	6.9	6-7-19 5:30	15.53	739	8.24	13.1						9-7-19 0:30	19.08	2032	8.69	0.2					
6-7-19 10:45	14.52	1326	7.36	0.0	6-7-19 5:45	15.65	826	8.80	6.0	6-7-19 5:45	15.48	739	8.25	12.4						9-7-19 0:45	19.04	2033	8.70	0.4					
6-7-19 11:00	14.49	1325	7.35	0.0	6-7-19 6:00	15.59	826	8.80	5.5	6-7-19 6:00	15.42	740	8.25	13.9						9-7-19 1:00	18.97	2030	8.72	0.2					
6-7-19 11:15	14.48	1328	7.34	0.0	6-7-19 6:15	15.58	826	8.80	5.0	6-7-19 6:15	15.38	740	8.25	13.1						9-7-19 1:15	18.91	2027	8.74	3.3					
6-7-19 11:30	14.44	1327	7.34	0.0	6-7-19 6:30	15.60	826	8.80	5.8	6-7-19 6:30	15.36	740	8.25	14.5						9-7-19 1:30	18.88	2040	8.76	0.0					
6-7-19 11:45	14.44	1327	7.32	0.0	6-7-19 6:45	15.58	826	8.80	5.5	6-7-19 6:45	15.35	741	8.25	15.0						9-7-19 1:45	18.84	2030	8.77	0.0					
6-7-19 12:00	14.40	1326	7.32	0.0	6-7-19 7:00	15.55	826	8.80	6.4	6-7-19 7:00	15.31	741	8.24	13.3						9-7-19 2:00	18.81	2029	8.77	0.0					
6-7-19 12:15	14.36	1325	7.26	0.0	6-7-19 7:15	15.55	826	8.80	5.1	6-7-19 7:15	15.29	742	8.25	12.8						9-7-19 2:15	18.79	2028	8.76	7.7					
6-7-19 12:30	14.33	1325	7.33	0.0	6-7-19 7:30	15.49	826	8.79	5.0	6-7-19 7:30	15.27	742	8.24	12.9						9-7-19 2:30	18.76	2024	8.77	0.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-7-19 12:45	14.29	1324	7.28	0.0	6-7-19 7:45	15.46	826	8.79	5.1	6-7-19 7:45	15.24	742	8.25	12.9						9-7-19 2:45	18.73	2021	8.77	1.8					
6-7-19 13:00	14.28	1324	7.24	0.0	6-7-19 8:00	15.46	826	8.79	5.4	6-7-19 8:00	15.22	742	8.24	13.0						9-7-19 3:00	18.70	2022	8.77	0.5					
6-7-19 13:15	14.24	1323	7.28	0.0	6-7-19 8:15	15.43	826	8.79	4.8	6-7-19 8:15	15.21	743	8.24	13.3						9-7-19 3:15	18.66	2025	8.76	0.0					
6-7-19 13:30	14.22	1321	7.26	0.0	6-7-19 8:30	15.40	826	8.79	5.2	6-7-19 8:30	15.19	742	8.24	12.6						9-7-19 3:30	18.66	2021	8.76	0.0					
6-7-19 13:45	14.20	1321	7.35	0.0	6-7-19 8:45	15.39	826	8.79	5.0	6-7-19 8:45	15.15	742	8.24	14.3						9-7-19 3:45	18.64	2019	8.77	0.0					
6-7-19 14:00	14.19	1320	7.32	0.0	6-7-19 9:00	15.34	826	8.79	6.0	6-7-19 9:00	15.12	742	8.24	12.3						9-7-19 4:00	18.62	2026	8.77	0.0					
6-7-19 14:15	14.19	1323	7.31	0.0	6-7-19 9:15	15.34	826	8.79	5.5	6-7-19 9:15	15.08	742	8.24	13.1						9-7-19 4:15	18.61	2029	8.76	1.6					
6-7-19 14:30	14.18	1321	7.33	0.0	6-7-19 9:30	15.32	827	8.79	5.1	6-7-19 9:30	15.04	743	8.24	12.3						9-7-19 4:30	18.58	2027	8.77	1.0					
6-7-19 14:45	14.20	1320	7.35	0.0	6-7-19 9:45	15.29	826	8.79	5.4	6-7-19 9:45	15.02	743	8.24	12.1						9-7-19 4:45	18.57	2137	8.77	0.1					
6-7-19 15:00	14.26	1319	7.39	0.0	6-7-19 10:00	15.27	826	8.78	5.0	6-7-19 10:00	14.98	743	8.24	11.6						9-7-19 5:00	18.53	2023	8.76	0.1					
6-7-19 15:15	14.29	1319	7.38	8.9	6-7-19 10:15	15.28	827	8.78	5.2	6-7-19 10:15	14.97	745	8.25	12.3						9-7-19 5:15	18.53	2029	8.76	0.7					
6-7-19 15:30	14.28	1315	7.37	0.0	6-7-19 10:30	15.26	826	8.78	4.7	6-7-19 10:30	14.97	746	8.24	13.2						9-7-19 5:30	18.49	2032	8.76	0.0					
6-7-19 15:45	14.31	1315	7.37	0.0	6-7-19 10:45	15.22	827	8.78	5.1	6-7-19 10:45	14.93	746	8.24	13.1						9-7-19 5:45	18.48	2033	8.76	0.0					
6-7-19 16:00	14.32	1316	7.35	0.0	6-7-19 11:00	15.20	826	8.78	5.3	6-7-19 11:00	14.92	745	8.24	12.5						9-7-19 6:00	18.46	2035	8.76	0.0					
6-7-19 16:15	14.36	1317	7.33	0.0	6-7-19 11:15	15.17	826	8.78	4.7	6-7-19 11:15	14.88	746	8.25	12.6						9-7-19 6:15	18.45	2025	8.76	4.1					
6-7-19 16:30	14.41	1317	7.34	0.0	6-7-19 11:30	15.13	826	8.78	5.3	6-7-19 11:30	14.89	745	8.24	12.2						9-7-19 6:30	18.42	2016	8.75	3.2					
6-7-19 16:45	14.54	1321	7.38	0.0	6-7-19 11:45	15.10	826	8.78	4.9	6-7-19 11:45	14.88	746	8.24	13.2						9-7-19 6:45	18.39	2023	8.75	0.8					
6-7-19 17:00	14.50	1309	7.44	0.0	6-7-19 12:00	15.08	825	8.78	5.0	6-7-19 12:00	14.85	746	8.24	11.8						9-7-19 7:00	18.37	2018	8.75	0.5					
6-7-19 17:15	14.52	1309	7.52	0.0	6-7-19 12:15	15.04	826	8.78	5.0	6-7-19 12:15	14.82	748	8.24	13.3						9-7-19 7:15	18.37	2027	8.74	0.2					
6-7-19 17:30	14.48	1319	7.55	0.0	6-7-19 12:30	14.95	825	8.77	5.5	6-7-19 12:30	14.78	747	8.24	12.4						9-7-19 7:30	18.35	2027	8.73	0.0					
6-7-19 17:45	14.46	1319	7.58	0.0	6-7-19 12:45	14.91	825	8.77	5.5	6-7-19 12:45	14.78	748	8.24	13.1						9-7-19 7:45	18.37	2128	8.73	0.0					
6-7-19 18:00	14.46	1319	7.63	0.0	6-7-19 13:00	14.87	824	8.77	6.0	6-7-19 13:00	14.75	747	8.24	12.4						9-7-19 8:00	18.34	2128	8.72	0.0					
6-7-19 18:15	14.45	1319	7.63	0.0	6-7-19 13:15	14.86	825	8.77	5.5	6-7-19 13:15	14.74	749	8.24	12.9						9-7-19 8:15	18.32	2031	8.73	0.3					
6-7-19 18:30	14.44	1319	7.61	0.0	6-7-19 13:30	14.84	824	8.77	6.1	6-7-19 13:30	14.73	749	8.24	12.8						9-7-19 8:30	18.30	2038	8.73	0.2					
6-7-19 18:45	14.43	1319	7.58	0.0	6-7-19 13:45	14.85	824	8.77	5.6	6-7-19 13:45	14.72	750	8.24	13.7						9-7-19 8:45	18.28	2027	8.73	0.2					
6-7-19 19:00	14.44	1320	7.64	0.0	6-7-19 14:00	14.83	824	8.77	5.7	6-7-19 14:00	14.71	749	8.24	12.6						9-7-19 9:00	18.26	2028	8.73	0.2					
6-7-19 19:15	14.44	1319	7.68	0.0	6-7-19 14:15	14.82	824	8.77	5.5	6-7-19 14:15	14.70	749	8.25	13.4						9-7-19 9:15	18.24	2029	8.73	3.4					
6-7-19 19:30	14.56	1319	7.66	0.0	6-7-19 14:30	14.80	824	8.77	5.5	6-7-19 14:30	14.72	750	8.24	12.6						9-7-19 9:30	18.21	2032	8.73	0.0					
6-7-19 19:45	14.61	1319	7.66	0.0	6-7-19 14:45	14.83	824	8.77	4.9	6-7-19 14:45	14.76	750	8.24	13.7						9-7-19 9:45	18.19	2032	8.73	0.0					
6-7-19 20:00	14.67	1320	7.68	0.0	6-7-19 15:00	14.88	824	8.78	5.4	6-7-19 15:00	14.83	751	8.24	12.9						9-7-19 10:00	18.17	2020	8.72	0.0					
6-7-19 20:15	14.75	1320	7.71	0.0	6-7-19 15:15	14.93	824	8.78	5.5	6-7-19 15:15	14.94	752	8.24	13.2						9-7-19 10:15	18.16	2017	8.73	0.6					
6-7-19 20:30	14.86	1318	7.72	0.0	6-7-19 15:30	14.94	823	8.79	6.3	6-7-19 15:30	15.00	752	8.24	12.9						9-7-19 10:30	18.14	2019	8.73	0.0					
6-7-19 20:45	14.90	1317	7.76	0.0	6-7-19 15:45	14.93	823	8.79	6.2	6-7-19 15:45	14.98	753	8.24	13.2						9-7-19 10:45	18.12	2019	8.73	0.1					
6-7-19 21:00	15.09	1317	7.80	0.0	6-7-19 16:00	14.90	823	8.80	6.8	6-7-19 16:00	15.01	756	8.25	12.8						9-7-19 11:00	18.10	2017	8.73	0.0					
6-7-19 21:15	15.28	1317	7.83	0.0	6-7-19 16:15	14.84	823	8.80	5.7	6-7-19 16:15	15.05	757	8.25	15.0						9-7-19 11:15	18.08	2027	8.73	1.2					
6-7-19 21:30	15.46	1315	7.84	0.0	6-7-19 16:30	14.83	822	8.81	5.7	6-7-19 16:30	15.09	756	8.26	12.4						9-7-19 11:30	18.05	2026	8.72	0.0					
6-7-19 21:45	15.75	1314	7.89	0.0	6-7-19 16:45	14.89	823	8.81	5.4	6-7-19 16:45	15.19	757	8.26	12.8						9-7-19 11:45	17.99	2026	8.72	0.0					
6-7-19 22:00	15.69	1310	7.98	0.0	6-7-19 17:00	14.88	823	8.81	5.3	6-7-19 17:00	15.17	756	8.27	12.4						9-7-19 12:00	17.99	2018	8.72	0.0					
6-7-19 22:15	15.70	1309	7.96	0.0	6-7-19 17:15	14.90	823	8.82	4.9	6-7-19 17:15	15.17	757	8.26	13.4						9-7-19 12:15	17.98	2032	8.72	1.0					
6-7-19 22:30	15.73	1313	7.91	0.0	6-7-19 17:30	14.83	822	8.82	5.1	6-7-19 17:30	15.12	757	8.27	12.5						9-7-19 12:30	17.95	2026	8.72	0.0					
6-7-19 22:45	15.90	1313	8.04	0.0	6-7-19 17:45	14.86	822	8.82	5.1	6-7-19 17:45	15.08	756	8.26	15.6						9-7-19 12:45	17.94	2027	8.72	0.0					
6-7-19 23:00	16.03	1308	8.08	0.0	6-7-19 18:00	14.87	822	8.82	5.3	6-7-19 18:00	15.06	755	8.27	12.3						9-7-19 13:00	17.93	2027	8.71	0.1					
6-7-19 23:15	16.08	1310	8.09	0.0	6-7-19 18:15	14.84	823	8.82	5.3	6-7-19 18:15	15.03	756	8.27	12.8						9-7-19 13:15	17.92	2029	8.71	0.0					
6-7-19 23:30	16.07	1308	8.09	0.0	6-7-19 18:30	14.85	822	8.83	5.6	6-7-19 18:30	15.05	756	8.27	12.1						9-7-19 13:30	17.90	2032	8.71	0.0					
6-7-19 23:45	16.15	1307	8.00	0.0	6-7-19 18:45	14.79	823	8.83	7.6	6-7-19 18:45	15.03	756	8.27	12.6						9-7-19 13:45	17.89	2033	8.71	0.0					
6-8-19 0:00	16.34	1308	8.17	0.0	6-7-19 19:00	14.81	822	8.83	5.3	6-7-19 19:00	14.99	756	8.28	12.8						9-7-19 14:00	17.83	2028	8.71	0.0					
6-8-19 0:15	16.32	1308	8.18	0.0	6-7-19 19:15	14.82	822	8.84	5.3	6-7-19 19:15	14.98	756	8.28	13.3						9-7-19 14:15	17.83	2027	8.71	4.4					
6-8-19 0:30	16.40	1305	8.14	0.0	6-7-19 19:30	14.97	822	8.85	5.9	6-7-19 19:30	15.11	756	8.28	12.1						9-7-19 14:30	17.83	2026	8.70	0.0					
6-8-19 0:45	16.19	1305	8.23	0.0	6-7-19 19:45	15.17	822	8.85	5.7	6-7-19 19:45	15.31	756	8.28	13.6						9-7-19 14:45	17.83	2026	8.70	0.0					
6-8-19 1:00	16.17	1301	8.18	0.0	6-7-19 20:00	15.20	822	8.84	6.1	6-7-19 20:00	15.64	757	8.27	12.6						9-7-19 15:00	17.82	2025	8.70	0.0					
6-8-19 1:15	16.16	1301	8.21	0.0	6-7-19 20:15	15.20	822	8.83	5.5	6-7-19 20:15	15.57	757	8.27	12.6						9-7-19 15:15	17.81	2028	8.69	0.4					
6-8-19 1:30	16.14	1313	8.17	0.0	6-7-19 20:30	15.27	821	8.82	7.5	6-7-19 20:30	15.73	757	8.28	13.1						9-7-19 15:30	17.78	2030	8.69	0.0					
6-8-19 1:45	16.07	1313	8.16	0.0	6-7-19 20:45	15.26	821	8.82	5.8	6-7-19 20:45	15.84	757	8.28	11.9						9-7-19 15:45	17.77	2029	8.69	0.0					
6-8-19 2:00	16.03	1312	8.12	0.0	6-7-19 21:00	15.29	822	8.82	5.8	6-7-19 21:00	15.84	757	8.28	12.9						9-7-19 16:00	17.76	2029	8.69	0.0					
6-8-19 2:15	15.98	1312	8.03	0.0	6-7-19 21:15	15.40	821	8.82	5.5	6-7-19 21:15	15.83	757	8.28	12.0						9-7-19 16:15	17.74	2026	8.70	0.4					
6-8-19 2:30	15.98	1311	8.00	0.0	6-7-19 21:30	15.44	821	8.82	8.3	6-7-19 21:30	15.98	758	8.28	11.5						9-7-19 16:30	17.73	2024	8.70	0.0					
6-8-19 2:45	15.97	1310	8.00	0.0	6-7-19 21:45	15.65	821	8.83	6.6	6-7-19 21:45	16.11	757	8.27	12.1						9-7-19 16:45	17.71	2021	8.70	0.0					
6-8-19 3:00	15.93	1311	8.01	0.0	6-7-19 22:00	15.75	820	8.83	6.4	6-7-19 22:00	16.10	758	8.27	12.3						9-7-19 17:00	17.70	2021	8.70	0.1					
6-8-19 3:15	15.91	1310	7.90	0.0	6-7-19 22:15	16.00	819	8.83	6.0	6-7-19 22:15	16.37	758	8.28	12.1						9-7-19 17:15	17.70	2097	8.70	0.5					
6-8-19 3:30	15.88	1306	7.93	0.0	6-7-19 22:30	15.84	820	8.82	6.6	6-7-19 22:30	16.31	758	8.28	11.6						9-7-19 17:30	17.69	2019	8.70	0.0					
6-8-19 3:45	15.84	1304	7.93	0.0	6-7-19 22:45	15.91	818	8.82	6.7	6-7-19 22:45	16.70	759	8.29	18.3						9-7-19 17:45	17.68	2025	8.69	0.0					
6-8-19 4:00	15.81	1308	7.94	0.2	6-7-19 23:00	15.70	817	8.83	6.4	6-7-19 23:00	16.59	759	8.29	11.8						9-7-19 18:00	17.67	2027	8.70	0.0					
6-8-19 4:15	15.78	1308	7.90	0.0	6-7-19 23:15	15.83	820	8.84	6.8	6-7-19 23:15	16.58	759	8.29	12.0						9-7-19 18:15	17.68	2024	8.70	1.8					
6-8-19 4:30	15.75	1308	7.79	0.0	6-7-19 23:30	15.84	818	8.85	7.3	6-7-19 23:30	16.76	759	8.31	11.8						9-7-19 18:30	17.68	2023	8.70	0.5					
6-8-19 4:45	15.72	1305	7.85	0.0	6-7-19 23:45	15.78	818	8.86	5.5	6-7-19 23:45	16.77	759	8.30	11.6						9-7-19 18:45	17.68	2022	8.70	2.5					
6-8-19 5:00	15.65	1307	7.86	0.0	6-8-19 0:00	15.76	818	8.86	6.7	6-8-19 0:00	16.78	766	8.31	11.8						9-7-19 19:00	17.68	2022	8.70	0.1					
6-8-19 5:15	15.62	1305	7.89	0.0	6-8-19 0:15	15.82	819	8.86	5.5	6-8-19 0:15	16.79	759	8.31	11.4						9-7-19 19:15	17.68	2023	8.71	0.2					
6-8-19 5:30	15.61	1306	7.90	0.0	6-8-19 0:30	15.88	819	8.87	7.3	6-8-19 0:30	16.84	759	8.30	11.1						9-7-19 19:30	17.69	2026	8.71	0.0					
6-8-19 5:45	15.58	1309	7.88	0.0	6-8-19 0:45	15.83	818	8.87	6.2	6-8-19 0:45	16.77	758	8.31	11.4						9-7-19 19:45	17.71	2027	8.71	0.0					
6-8-19 6:00	15.55	1309	7.95	0.0	6-8-19 1:00	15.81	819	8.87	7.2	6-8-19 1:00	16.80	758	8.31	11.2						9-7-19 20:00	17.71	2016	8.72	0.0					
6-8-19 6:15	15.51	1306	7.88	0.0	6-8-19 1:15	15.79	820	8.87	8.2	6-8-19 1:15	16.75	755	8.32	10.7						9-7-19 20:15	17.71	2020	8.73	0.6					
6-8-19 6:30	15.40	1307	7.82	0.0	6-8-19 1:30	15.80	820	8.88	7.1	6-8-19 1:30	16.70	759	8.32	11.6						9-7-19 20:30	17.71	2016	8.73	0.0					
6-8-19 6:45	15.42	1307	7.88	0.0	6-8-19 1:45	15.73	818	8.88	7.1	6-8-19 1:45	16.71	758	8.33	11.2						9-7-19 20:45	17.72	2019	8.74	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-8-19 7:00	15.37	1306	7.83	0.0	6-8-19 2:00	15.72	817	8.89	7.0	6-8-19 2:00	16.64	759	8.33	11.0						9-7-19 21:00	17.72	2018	8.74	0.0					
6-8-19 7:15	15.32	1304	7.81	0.0	6-8-19 2:15	15.69	818	8.89	6.0	6-8-19 2:15	16.58	759	8.34	11.2						9-7-19 21:15	17.73	2018	8.74	0.5					
6-8-19 7:30	15.26	1306	7.81	0.0	6-8-19 2:30	15.67	818	8.90	6.8	6-8-19 2:30	16.50	757	8.34	10.3						9-7-19 21:30	17.74	2021	8.75	0.0					
6-8-19 7:45	15.22	1310	7.81	0.0	6-8-19 2:45	15.67	819	8.90	6.1	6-8-19 2:45	16.48	758	8.34	11.4						9-7-19 21:45	17.73	2016	8.75	0.0					
6-8-19 8:00	15.19	1307	7.76	0.0	6-8-19 3:00	15.65	819	8.89	6.7	6-8-19 3:00	16.44	758	8.34	10.0						9-7-19 22:00	17.72	2016	8.76	0.0					
6-8-19 8:15	15.15	1303	7.73	0.0	6-8-19 3:15	15.63	820	8.89	7.4	6-8-19 3:15	16.36	758	8.35	10.6						9-7-19 22:15	17.71	2020	8.76	2.5					
6-8-19 8:30	15.09	1306	7.71	0.0	6-8-19 3:30	15.57	820	8.89	7.0	6-8-19 3:30	16.30	759	8.35	10.1						9-7-19 22:30	17.70	2014	8.76	0.0					
6-8-19 8:45	15.05	1306	7.72	1.1	6-8-19 3:45	15.56	819	8.88	6.1	6-8-19 3:45	16.24	759	8.35	10.2						9-7-19 22:45	17.69	2013	8.76	0.0					
6-8-19 9:00	15.03	1307	7.70	0.0	6-8-19 4:00	15.57	820	8.88	30.8	6-8-19 4:00	16.16	759	8.35	9.7						9-7-19 23:00	17.68	2014	8.76	0.0					
6-8-19 9:15	14.97	1302	7.67	0.0	6-8-19 4:15	15.53	820	8.87	7.1	6-8-19 4:15	16.10	759	8.36	9.8						9-7-19 23:15	17.68	2020	8.76	11.4					
6-8-19 9:30	14.90	1304	7.66	0.0	6-8-19 4:30	15.48	819	8.87	7.1	6-8-19 4:30	16.04	759	8.36	9.9						9-7-19 23:30	17.68	2020	8.76	0.0					
6-8-19 9:45	14.86	1308	7.65	0.0	6-8-19 4:45	15.45	820	8.87	7.2	6-8-19 4:45	15.95	759	8.36	10.1						9-7-19 23:45	17.68	2019	8.77	0.0					
6-8-19 10:00	14.82	1307	7.64	0.0	6-8-19 5:00	15.44	820	8.87	7.4	6-8-19 5:00	15.88	759	8.36	10.6						9-8-19 0:00	17.68	2017	8.77	0.4					
6-8-19 10:15	14.76	1308	7.63	0.0	6-8-19 5:15	15.42	821	8.87	7.1	6-8-19 5:15	15.83	758	8.37	10.1						9-8-19 0:15	17.69	2015	8.78	0.4					
6-8-19 10:30	14.71	1307	7.63	0.0	6-8-19 5:30	15.40	820	8.87	7.1	6-8-19 5:30	15.79	759	8.36	10.9						9-8-19 0:30	17.68	2014	8.78	0.1					
6-8-19 10:45	14.68	1305	7.64	0.0	6-8-19 5:45	15.40	821	8.87	7.0	6-8-19 5:45	15.73	759	8.36	9.7						9-8-19 0:45	17.68	2015	8.78	0.0					
6-8-19 11:00	14.63	1307	7.62	0.0	6-8-19 6:00	15.38	821	8.87	6.8	6-8-19 6:00	15.67	759	8.36	9.6						9-8-19 1:00	17.68	2011	8.78	0.0					
6-8-19 11:15	14.59	1307	7.60	0.0	6-8-19 6:15	15.34	817	8.87	6.4	6-8-19 6:15	15.60	759	8.36	10.4						9-8-19 1:15	17.67	2012	8.78	0.6					
6-8-19 11:30	14.54	1307	7.57	0.0	6-8-19 6:30	15.33	820	8.87	6.6	6-8-19 6:30	15.53	759	8.36	9.8						9-8-19 1:30	17.66	2015	8.78	0.0					
6-8-19 11:45	14.51	1308	7.56	0.0	6-8-19 6:45	15.27	818	8.87	5.8	6-8-19 6:45	15.47	760	8.36	9.7						9-8-19 1:45	17.64	2017	8.78	0.0					
6-8-19 12:00	14.49	1310	7.58	0.0	6-8-19 7:00	15.28	821	8.86	5.7	6-8-19 7:00	15.40	760	8.36	10.3						9-8-19 2:00	17.61	2017	8.78	0.0					
6-8-19 12:15	14.45	1307	7.60	0.0	6-8-19 7:15	15.27	820	8.86	5.9	6-8-19 7:15	15.39	760	8.36	10.8						9-8-19 2:15	17.59	2013	8.78	71.8					
6-8-19 12:30	14.43	1308	7.60	0.0	6-8-19 7:30	15.25	821	8.86	6.7	6-8-19 7:30	15.35	760	8.35	9.9						9-8-19 2:30	17.57	2009	8.78	1.5					
6-8-19 12:45	14.39	1307	7.56	0.0	6-8-19 7:45	15.24	821	8.86	5.5	6-8-19 7:45	15.29	760	8.36	10.1						9-8-19 2:45	17.55	2007	8.78	0.0					
6-8-19 13:00	14.35	1304	7.57	0.0	6-8-19 8:00	15.19	821	8.86	8.7	6-8-19 8:00	15.21	760	8.35	10.1						9-8-19 3:00	17.51	2006	8.77	0.0					
6-8-19 13:15	14.35	1307	7.58	0.0	6-8-19 8:15	15.18	821	8.86	5.3	6-8-19 8:15	15.18	760	8.36	10.2						9-8-19 3:15	17.49	2007	8.77	1.6					
6-8-19 13:30	14.30	1306	7.53	0.0	6-8-19 8:30	15.13	820	8.86	10.4	6-8-19 8:30	15.13	760	8.35	10.1						9-8-19 3:30	17.46	2011	8.76	0.0					
6-8-19 13:45	14.28	1307	7.54	0.0	6-8-19 8:45	15.09	821	8.86	5.5	6-8-19 8:45	15.09	761	8.35	10.3						9-8-19 3:45	17.41	2011	8.76	0.0					
6-8-19 14:00	14.26	1309	7.56	0.0	6-8-19 9:00	15.10	821	8.86	5.9	6-8-19 9:00	15.05	761	8.35	9.8						9-8-19 4:00	17.42	2009	8.76	0.0					
6-8-19 14:15	14.27	1309	7.57	0.0	6-8-19 9:15	15.08	821	8.86	5.1	6-8-19 9:15	15.01	761	8.35	9.9						9-8-19 4:15	17.41	2007	8.77	9.0					
6-8-19 14:30	14.24	1309	7.56	0.0	6-8-19 9:30	15.03	821	8.86	7.5	6-8-19 9:30	14.96	761	8.34	10.0						9-8-19 4:30	17.40	2009	8.77	0.0					
6-8-19 14:45	14.22	1309	7.57	0.0	6-8-19 9:45	14.97	821	8.85	5.9	6-8-19 9:45	14.91	762	8.34	12.4						9-8-19 4:45	17.38	2009	8.76	0.0					
6-8-19 15:00	14.23	1308	7.55	0.0	6-8-19 10:00	14.97	821	8.85	6.2	6-8-19 10:00	14.88	762	8.34	10.3						9-8-19 5:00	17.38	2003	8.76	0.0					
6-8-19 15:15	14.22	1308	7.55	0.0	6-8-19 10:15	14.96	821	8.85	6.0	6-8-19 10:15	14.83	762	8.34	10.7						9-8-19 5:15	17.36	2009	8.76	1.6					
6-8-19 15:30	14.23	1309	7.56	0.0	6-8-19 10:30	14.91	821	8.85	5.8	6-8-19 10:30	14.79	762	8.34	10.1						9-8-19 5:30	17.33	2010	8.75	0.4					
6-8-19 15:45	14.34	1309	7.57	0.0	6-8-19 10:45	14.88	821	8.85	5.4	6-8-19 10:45	14.75	762	8.34	11.0						9-8-19 5:45	17.31	2009	8.75	0.0					
6-8-19 16:00	14.42	1307	7.58	0.0	6-8-19 11:00	14.80	821	8.85	5.5	6-8-19 11:00	14.71	762	8.33	11.4						9-8-19 6:00	17.29	2008	8.75	0.0					
6-8-19 16:15	14.45	1308	7.59	0.0	6-8-19 11:15	14.82	821	8.85	5.8	6-8-19 11:15	14.70	762	8.33	11.0						9-8-19 6:15	17.28	2004	8.75	4.1					
6-8-19 16:30	14.56	1307	7.61	0.0	6-8-19 11:30	14.82	821	8.85	5.7	6-8-19 11:30	14.66	762	8.33	11.1						9-8-19 6:30	17.26	2003	8.75	1.1					
6-8-19 16:45	14.62	1307	7.64	0.0	6-8-19 11:45	14.78	818	8.85	5.8	6-8-19 11:45	14.64	763	8.33	11.7						9-8-19 6:45	17.24	2001	8.75	0.0					
6-8-19 17:00	14.74	1306	7.68	0.0	6-8-19 12:00	14.78	821	8.85	5.7	6-8-19 12:00	14.61	763	8.32	11.4						9-8-19 7:00	17.22	1998	8.75	2.6					
6-8-19 17:15	14.81	1305	7.74	0.0	6-8-19 12:15	14.75	821	8.85	6.0	6-8-19 12:15	14.58	764	8.32	11.4						9-8-19 7:15	17.22	2002	8.75	1.5					
6-8-19 17:30	14.91	1301	7.70	0.0	6-8-19 12:30	14.74	821	8.84	5.9	6-8-19 12:30	14.55	764	8.32	11.9						9-8-19 7:30	17.19	2003	8.75	0.0					
6-8-19 17:45	14.97	1303	7.78	0.0	6-8-19 12:45	14.70	821	8.84	8.0	6-8-19 12:45	14.55	765	8.32	11.7						9-8-19 7:45	17.19	2005	8.75	0.0					
6-8-19 18:00	15.26	1303	7.69	0.0	6-8-19 13:00	14.68	821	8.84	6.6	6-8-19 13:00	14.52	764	8.31	11.0						9-8-19 8:00	17.18	2001	8.74	0.0					
6-8-19 18:15	15.30	1297	8.00	0.0	6-8-19 13:15	14.66	821	8.84	6.0	6-8-19 13:15	14.50	765	8.31	11.6						9-8-19 8:15	17.16	2005	8.74	2.9					
6-8-19 18:30	15.48	1299	8.01	0.0	6-8-19 13:30	14.65	820	8.84	6.1	6-8-19 13:30	14.47	767	8.31	11.8						9-8-19 8:30	17.16	2002	8.74	0.5					
6-8-19 18:45	15.49	1305	8.01	0.0	6-8-19 13:45	14.62	820	8.84	5.5	6-8-19 13:45	14.45	767	8.31	12.0						9-8-19 8:45	17.12	2001	8.74	7.0					
6-8-19 19:00	15.60	1275	8.28	0.0	6-8-19 14:00	14.64	821	8.84	6.3	6-8-19 14:00	14.43	767	8.31	12.5						9-8-19 9:00	17.11	2000	8.74	17.7					
6-8-19 19:15	15.50	1284	8.72	0.0	6-8-19 14:15	14.63	821	8.84	5.8	6-8-19 14:15	14.42	767	8.31	12.5						9-8-19 9:15	17.11	2003	8.73	4.2					
6-8-19 19:30	15.71	1299	8.59	0.0	6-8-19 14:30	14.63	820	8.84	6.4	6-8-19 14:30	14.42	767	8.30	12.5						9-8-19 9:30	17.08	2005	8.73	0.4					
6-8-19 19:45	15.71	1305	8.30	0.0	6-8-19 14:45	14.64	820	8.84	5.8	6-8-19 14:45	14.41	768	8.31	12.4						9-8-19 9:45	17.05	2006	8.73	0.0					
6-8-19 20:00	15.79	1305	8.02	0.0	6-8-19 15:00	14.64	820	8.84	6.8	6-8-19 15:00	14.41	768	8.30	12.6						9-8-19 10:00	17.05	2004	8.73	0.0					
6-8-19 20:15	15.93	1306	8.00	0.0	6-8-19 15:15	14.68	820	8.84	7.3	6-8-19 15:15	14.42	768	8.30	12.9						9-8-19 10:15	17.04	2001	8.73	1.2					
6-8-19 20:30	15.92	1303	8.38	0.0	6-8-19 15:30	14.65	819	8.84	6.8	6-8-19 15:30	14.45	768	8.30	13.2						9-8-19 10:30	17.02	2000	8.73	0.3					
6-8-19 20:45	15.93	1310	8.71	0.0	6-8-19 15:45	14.68	820	8.85	6.2	6-8-19 15:45	14.49	768	8.31	13.8						9-8-19 10:45	17.01	1999	8.73	0.0					
6-8-19 21:00	16.11	1298	8.76	0.0	6-8-19 16:00	14.72	819	8.85	6.5	6-8-19 16:00	14.57	768	8.31	12.9						9-8-19 11:00	16.98	1999	8.72	3.4					
6-8-19 21:15	16.45	1301	8.23	0.0	6-8-19 16:15	14.69	818	8.85	7.1	6-8-19 16:15	14.64	768	8.31	13.8						9-8-19 11:15	16.97	2006	8.71	0.0					
6-8-19 21:30	16.55	1298	8.19	0.0	6-8-19 16:30	14.66	817	8.85	7.5	6-8-19 16:30	14.67	768	8.30	12.5						9-8-19 11:30	16.95	2005	8.72	0.0					
6-8-19 21:45	16.68	1299	8.18	0.0	6-8-19 16:45	14.68	817	8.85	6.8	6-8-19 16:45	14.77	768	8.31	12.0						9-8-19 11:45	16.93	2004	8.72	0.0					
6-8-19 22:00	16.90	1299	8.21	0.0	6-8-19 17:00	14.74	817	8.86	8.4	6-8-19 17:00	15.04	768	8.30	12.6						9-8-19 12:00	16.92	2005	8.72	0.0					
6-8-19 22:15	16.91	1295	8.36	0.0	6-8-19 17:15	14.85	817	8.87	8.4	6-8-19 17:15	15.20	768	8.31	13.1						9-8-19 12:15	16.88	2001	8.72	0.7					
6-8-19 22:30	16.86	1304	8.29	0.0	6-8-19 17:30	14.85	816	8.88	7.0	6-8-19 17:30	15.24	768	8.30	12.4						9-8-19 12:30	16.83	1999	8.72	0.4					
6-8-19 22:45	17.00	1304	8.72	0.4	6-8-19 17:45	14.86	817	8.88	6.7	6-8-19 17:45	15.26	769	8.30	12.4						9-8-19 12:45	16.81	1999	8.71	0.0					
6-8-19 23:00	16.99	1287	8.70	53.4	6-8-19 18:00	14.98	818	8.88	7.3	6-8-19 18:00	15.30	768	8.30	12.0						9-8-19 13:00	16.77	1999	8.71	0.0					
6-8-19 23:15	17.06	1301	8.57	0.0	6-8-19 18:15	15.15	819	8.88	6.5	6-8-19 18:15	15.63	769	8.30	14.1						9-8-19 13:15	16.76	1999	8.71	10.1					
6-8-19 23:30	17.40	1292	8.95	0.0	6-8-19 18:30	15.23	816	8.87	6.5	6-8-19 18:30	15.74	768	8.31	11.6						9-8-19 13:30	16.76	2003	8.71	0.0					
6-8-19 23:45	17.47	1302	8.96	0.0	6-8-19 18:45	15.20	816	8.87	6.7	6-8-19 18:45	15.85	769	8.32	12.5						9-8-19 13:45	16.69	2002	8.71	0.0					
6-9-19 0:00	17.76	1293	8.74	0.0	6-8-19 19:00	15.27	816	8.87	7.4	6-8-19 19:00	16.09	768	8.33	11.4						9-8-19 14:00	16.68	2007	8.71	0.0					
6-9-19 0:15	17.80	1291	8.55	1.1	6-8-19 19:15	15.15	816	8.88	6.7	6-8-19 19:15	15.91	769	8.32	12.9						9-8-19 14:15	16.66	1997	8.71	19.2					
6-9-19 0:30	17.76	1293	8.65	0.0	6-8-19 19:30	15.16	816	8.88	7.4	6-8-19 19:30	15.99	768	8.32	12.1						9-8-19 14:30	16.61	1989	8.71	0.4					
6-9-19 0:45	17.68	1282	8.67	0.0	6-8-19 19:45	15.18	817	8.88	7.5	6-8-19 19:45	16.15	769	8.33	12.6						9-8-19 14:45	16.60	1997	8.71	0.6					
6-9-19 1:00	17.76	1299	8.73	0.0	6-8-19 20:00	15.34	816	8.88	7.2	6-8-19 20:00	16.12	768	8.32	11.7						9-8-19 15:00	16.59	1995	8.71	0.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-9-19 1:15	17.72	1312	8.63	0.0	6-8-19 20:15	15.50	816	8.88	7.0	6-8-19 20:15	16.27	769	8.33	12.0						9-8-19 15:15	16.57	1998	8.70	0.0					
6-9-19 1:30	17.77	1299	8.57	0.0	6-8-19 20:30	15.54	817	8.87	8.1	6-8-19 20:30	16.32	769	8.33	11.6						9-8-19 15:30	16.53	2001	8.71	0.0					
6-9-19 1:45	17.74	1296	8.51	0.0	6-8-19 20:45	15.70	816	8.88	8.5	6-8-19 20:45	16.27	769	8.33	12.3						9-8-19 15:45	16.49	1999	8.71	0.0					
6-9-19 2:00	17.73	1302	8.52	0.0	6-8-19 21:00	15.90	815	8.88	8.4	6-8-19 21:00	16.62	769	8.33	11.5						9-8-19 16:00	16.44	2001	8.71	0.0					
6-9-19 2:15	17.67	1301	8.54	0.0	6-8-19 21:15	16.16	814	8.88	6.9	6-8-19 21:15	16.83	770	8.32	12.6						9-8-19 16:15	16.47	2001	8.71	0.6					
6-9-19 2:30	17.63	1299	8.45	0.0	6-8-19 21:30	16.45	816	8.88	7.9	6-8-19 21:30	16.92	769	8.32	12.9						9-8-19 16:30	16.50	1976	8.71	0.0					
6-9-19 2:45	17.55	1300	8.44	0.0	6-8-19 21:45	16.57	816	8.88	7.3	6-8-19 21:45	17.30	769	8.33	11.8						9-8-19 16:45	16.48	2001	8.71	0.0					
6-9-19 3:00	17.52	1300	8.46	0.0	6-8-19 22:00	16.46	813	8.88	7.7	6-8-19 22:00	17.35	769	8.32	11.9						9-8-19 17:00	16.46	2000	8.71	0.0					
6-9-19 3:15	17.45	1302	8.30	0.0	6-8-19 22:15	16.61	814	8.88	7.0	6-8-19 22:15	17.69	770	8.33	12.1						9-8-19 17:15	16.47	2004	8.71	0.0					
6-9-19 3:30	17.40	1310	8.05	0.0	6-8-19 22:30	16.73	814	8.87	7.8	6-8-19 22:30	17.74	770	8.33	11.2						9-8-19 17:30	16.46	2005	8.72	0.0					
6-9-19 3:45	17.37	1306	7.89	0.0	6-8-19 22:45	16.69	815	8.87	8.6	6-8-19 22:45	17.81	770	8.33	11.9						9-8-19 17:45	16.43	2004	8.72	0.0					
6-9-19 4:00	17.30	1302	7.90	0.0	6-8-19 23:00	16.56	816	8.87	8.8	6-8-19 23:00	17.73	770	8.33	11.6						9-8-19 18:00	16.44	2004	8.72	0.0					
6-9-19 4:15	17.25	1303	7.86	0.0	6-8-19 23:15	16.76	816	8.87	17.0	6-8-19 23:15	17.69	769	8.33	11.5						9-8-19 18:15	16.43	2002	8.73	152.7					
6-9-19 4:30	17.20	1309	7.84	0.0	6-8-19 23:30	16.59	815	8.88	8.9	6-8-19 23:30	17.94	771	8.34	12.1						9-8-19 18:30	16.43	1999	8.73	190.2					
6-9-19 4:45	17.15	1304	7.81	0.0	6-8-19 23:45	16.72	817	8.88	8.2	6-8-19 23:45	18.11	770	8.35	11.7						9-8-19 18:45	16.44	1999	8.73	191.5					
6-9-19 5:00	17.09	1302	7.70	0.0	6-9-19 0:00	17.02	818	8.89	9.6	6-9-19 0:00	18.29	770	8.35	11.7						9-8-19 19:00	16.45	1999	8.73	57.8					
6-9-19 5:15	17.03	1302	7.54	0.0	6-9-19 0:15	16.94	827	8.89	8.7	6-9-19 0:15	18.38	770	8.35	11.7						9-8-19 19:15	16.43	2002	8.73	2.5					
6-9-19 5:30	16.98	1306	7.48	0.0	6-9-19 0:30	17.00	813	8.89	8.7	6-9-19 0:30	18.24	770	8.36	11.9						9-8-19 19:30	16.42	2003	8.74	0.0					
6-9-19 5:45	16.93	1301	7.49	0.0	6-9-19 0:45	17.09	812	8.89	8.9	6-9-19 0:45	18.26	770	8.35	11.7						9-8-19 19:45	16.41	2005	8.74	0.0					
6-9-19 6:00	16.86	1302	7.45	0.0	6-9-19 1:00	17.10	812	8.89	9.3	6-9-19 1:00	18.31	770	8.35	10.9						9-8-19 20:00	16.36	2004	8.74	0.0					
6-9-19 6:15	16.81	1308	7.39	0.0	6-9-19 1:15	17.04	813	8.90	8.2	6-9-19 1:15	18.21	770	8.35	11.5						9-8-19 20:15	16.35	2001	8.75	25.6					
6-9-19 6:30	16.77	1302	7.39	0.0	6-9-19 1:30	17.10	812	8.90	9.8	6-9-19 1:30	18.18	769	8.36	11.1						9-8-19 20:30	16.34	1998	8.75	14.3					
6-9-19 6:45	16.75	1297	7.39	0.0	6-9-19 1:45	17.08	814	8.90	8.4	6-9-19 1:45	18.14	769	8.36	11.8						9-8-19 20:45	16.36	1998	8.75	31.3					
6-9-19 7:00	16.71	1300	7.31	0.0	6-9-19 2:00	16.85	813	8.90	8.8	6-9-19 2:00	18.08	769	8.35	10.5						9-8-19 21:00	16.35	1995	8.75	49.6					
6-9-19 7:15	16.67	1299	7.31	0.0	6-9-19 2:15	16.79	813	8.89	7.7	6-9-19 2:15	18.04	769	8.37	10.8						9-8-19 21:15	16.34	2002	8.75	1.5					
6-9-19 7:30	16.65	1298	7.31	0.0	6-9-19 2:30	16.71	813	8.89	8.3	6-9-19 2:30	17.97	769	8.37	10.8						9-8-19 21:30	16.33	2002	8.75	0.0					
6-9-19 7:45	16.59	1302	7.31	0.0	6-9-19 2:45	16.67	814	8.89	7.8	6-9-19 2:45	17.89	769	8.37	10.9						9-8-19 21:45	16.33	2003	8.75	0.0					
6-9-19 8:00	16.54	1308	7.33	0.0	6-9-19 3:00	16.65	813	8.90	8.5	6-9-19 3:00	17.85	768	8.37	10.3						9-8-19 22:00	16.36	2003	8.75	0.0					
6-9-19 8:15	16.46	1308	7.47	0.0	6-9-19 3:15	16.64	813	8.90	7.6	6-9-19 3:15	17.82	768	8.38	12.0						9-8-19 22:15	16.40	2003	8.75	0.0					
6-9-19 8:30	16.45	1307	7.49	0.0	6-9-19 3:30	16.64	813	8.90	12.8	6-9-19 3:30	17.77	766	8.38	9.9						9-8-19 22:30	16.47	1999	8.76	7.7					
6-9-19 8:45	16.38	1310	7.41	0.0	6-9-19 3:45	16.56	814	8.90	7.8	6-9-19 3:45	17.71	767	8.38	10.3						9-8-19 22:45	16.52	1998	8.76	0.1					
6-9-19 9:00	16.30	1308	7.44	0.0	6-9-19 4:00	16.51	814	8.90	7.5	6-9-19 4:00	17.65	768	8.38	10.0						9-8-19 23:00	16.57	1999	8.77	0.1					
6-9-19 9:15	16.26	1305	7.44	0.0	6-9-19 4:15	16.48	797	8.90	7.5	6-9-19 4:15	17.58	767	8.39	10.6						9-8-19 23:15	16.60	1999	8.77	1.6					
6-9-19 9:30	16.20	1309	7.45	0.0	6-9-19 4:30	16.45	812	8.90	7.9	6-9-19 4:30	17.51	768	8.39	9.5						9-8-19 23:30	16.61	2001	8.78	0.0					
6-9-19 9:45	16.15	1307	7.46	6.2	6-9-19 4:45	16.42	811	8.90	7.7	6-9-19 4:45	17.47	767	8.39	9.4						9-8-19 23:45	16.62	2000	8.79	0.0					
6-9-19 10:00	16.12	1309	7.43	0.0	6-9-19 5:00	16.36	817	8.90	8.4	6-9-19 5:00	17.40	767	8.39	9.7						9-9-19 0:00	16.62	2000	8.79	0.0					
6-9-19 10:15	16.08	1309	7.43	0.0	6-9-19 5:15	16.34	810	8.90	7.4	6-9-19 5:15	17.26	768	8.40	9.4						9-9-19 0:15	16.62	1998	8.80	2.1					
6-9-19 10:30	16.02	1308	7.39	0.0	6-9-19 5:30	16.29	811	8.90	8.1	6-9-19 5:30	17.17	767	8.40	9.5						9-9-19 0:30	16.61	1997	8.80	1.5					
6-9-19 10:45	16.00	1309	7.40	0.0	6-9-19 5:45	16.34	812	8.90	8.9	6-9-19 5:45	17.09	767	8.40	9.5						9-9-19 0:45	16.57	1996	8.81	2.3					
6-9-19 11:00	15.96	1308	7.42	0.0	6-9-19 6:00	16.37	812	8.91	8.2	6-9-19 6:00	17.03	767	8.40	9.3						9-9-19 1:00	16.53	1994	8.82	2.6					
6-9-19 11:15	15.92	1307	7.40	0.0	6-9-19 6:15	16.31	812	8.90	8.3	6-9-19 6:15	16.99	767	8.40	9.7						9-9-19 1:15	16.48	1998	8.82	4.1					
6-9-19 11:30	15.88	1306	7.40	0.0	6-9-19 6:30	16.32	813	8.90	10.9	6-9-19 6:30	16.92	767	8.40	10.0						9-9-19 1:30	16.41	1999	8.83	1.3					
6-9-19 11:45	15.84	1309	7.40	0.0	6-9-19 6:45	16.30	813	8.90	8.8	6-9-19 6:45	16.86	766	8.40	8.7						9-9-19 1:45	16.35	1999	8.83	1.1					
6-9-19 12:00	15.80	1307	7.41	0.0	6-9-19 7:00	16.25	812	8.89	8.1	6-9-19 7:00	16.78	766	8.40	8.4						9-9-19 2:00	16.30	1997	8.83	1.0					
6-9-19 12:15	15.74	1309	7.41	0.0	6-9-19 7:15	16.14	813	8.89	7.2	6-9-19 7:15	16.69	766	8.41	9.0						9-9-19 2:15	16.27	1997	8.84	1.7					
6-9-19 12:30	15.69	1312	7.39	0.0	6-9-19 7:30	16.04	811	8.89	7.9	6-9-19 7:30	16.62	766	8.41	8.7						9-9-19 2:30	16.22	1991	8.84	0.0					
6-9-19 12:45	15.65	1308	7.40	0.0	6-9-19 7:45	16.00	812	8.89	8.3	6-9-19 7:45	16.55	766	8.41	9.2						9-9-19 2:45	16.21	1995	8.84	0.3					
6-9-19 13:00	15.65	1307	7.40	0.0	6-9-19 8:00	15.96	812	8.90	7.0	6-9-19 8:00	16.45	766	8.42	8.8						9-9-19 3:00	16.23	1994	8.84	0.0					
6-9-19 13:15	15.60	1312	7.41	0.0	6-9-19 8:15	15.94	816	8.89	6.9	6-9-19 8:15	16.38	766	8.42	9.1						9-9-19 3:15	16.20	1997	8.84	0.3					
6-9-19 13:30	15.56	1311	7.40	0.0	6-9-19 8:30	15.94	812	8.89	7.7	6-9-19 8:30	16.29	765	8.42	8.8						9-9-19 3:30	16.15	1998	8.84	0.0					
6-9-19 13:45	15.52	1316	7.40	0.0	6-9-19 8:45	15.91	814	8.89	7.5	6-9-19 8:45	16.18	764	8.41	9.1						9-9-19 3:45	16.15	1999	8.84	0.0					
6-9-19 14:00	15.51	1312	7.40	0.0	6-9-19 9:00	15.88	812	8.88	7.7	6-9-19 9:00	16.13	764	8.41	9.5						9-9-19 4:00	16.12	1998	8.84	0.0					
6-9-19 14:15	15.51	1312	7.39	0.0	6-9-19 9:15	15.84	813	8.88	6.5	6-9-19 9:15	16.07	764	8.40	8.8						9-9-19 4:15	16.09	1999	8.84	0.3					
6-9-19 14:30	15.56	1312	7.39	0.0	6-9-19 9:30	15.83	812	8.88	7.5	6-9-19 9:30	16.01	767	8.40	9.1						9-9-19 4:30	16.02	1962	8.83	0.3					
6-9-19 14:45	15.56	1311	7.41	0.0	6-9-19 9:45	15.78	813	8.88	7.2	6-9-19 9:45	15.95	764	8.41	8.7						9-9-19 4:45	16.01	1997	8.83	0.0					
6-9-19 15:00	15.60	1312	7.43	0.0	6-9-19 10:00	15.78	819	8.87	7.8	6-9-19 10:00	15.90	763	8.40	8.9						9-9-19 5:00	16.00	1995	8.83	0.0					
6-9-19 15:15	15.64	1311	7.44	0.0	6-9-19 10:15	15.74	813	8.87	6.4	6-9-19 10:15	15.85	763	8.40	8.9						9-9-19 5:15	15.93	1996	8.83	0.0					
6-9-19 15:30	15.68	1311	7.44	0.0	6-9-19 10:30	15.73	813	8.87	7.0	6-9-19 10:30	15.80	762	8.40	9.4						9-9-19 5:30	15.94	1996	8.82	0.0					
6-9-19 15:45	15.74	1310	7.46	0.0	6-9-19 10:45	15.69	813	8.87	6.9	6-9-19 10:45	15.73	762	8.40	9.4						9-9-19 5:45	15.90	1997	8.82	0.0					
6-9-19 16:00	15.90	1309	7.47	0.0	6-9-19 11:00	15.71	813	8.87	7.1	6-9-19 11:00	15.67	762	8.39	9.0						9-9-19 6:00	15.86	1998	8.82	0.0					
6-9-19 16:15	15.95	1310	7.47	0.0	6-9-19 11:15	15.70	813	8.87	6.8	6-9-19 11:15	15.64	761	8.40	8.8						9-9-19 6:15	15.84	1996	8.82	0.0					
6-9-19 16:30	16.13	1311	7.50	0.0	6-9-19 11:30	15.66	813	8.86	6.7	6-9-19 11:30	15.60	761	8.39	8.7						9-9-19 6:30	15.83	1995	8.82	0.7					
6-9-19 16:45	16.15	1309	7.51	0.0	6-9-19 11:45	15.62	813	8.86	6.6	6-9-19 11:45	15.52	761	8.40	9.1						9-9-19 6:45	15.81	1992	8.82	0.9					
6-9-19 17:00	16.31	1311	7.56	0.0	6-9-19 12:00	15.62	813	8.86	15.1	6-9-19 12:00	15.46	761	8.39	9.7						9-9-19 7:00	15.75	1992	8.81	0.5					
6-9-19 17:15	16.50	1311	7.72	0.0	6-9-19 12:15	15.58	814	8.86	16.1	6-9-19 12:15	15.40	760	8.39	8.9						9-9-19 7:15	15.75	1995	8.81	0.0					
6-9-19 17:30	16.71	1313	7.72	0.0	6-9-19 12:30	15.56	813	8.85	6.7	6-9-19 12:30	15.34	759	8.38	8.8						9-9-19 7:30	15.72	1998	8.81	0.0					
6-9-19 17:45	16.81	1313	7.81	0.5	6-9-19 12:45	15.59	813	8.85	9.0	6-9-19 12:45	15.30	759	8.38	9.2						9-9-19 7:45	15.68	1997	8.81	0.0					
6-9-19 18:00	17.13	1310	8.08	0.0	6-9-19 13:00	15.54	813	8.85	7.0	6-9-19 13:00	15.28	759	8.38	9.4						9-9-19 8:00	15.67	1997	8.81	0.0					
6-9-19 18:15	17.29	1311	7.97	0.0	6-9-19 13:15	15.54	812	8.85	12.3	6-9-19 13:15	15.27	759	8.38	9.2						9-9-19 8:15	15.64	1994	8.80	0.0					
6-9-19 18:30	17.41	1322	8.05	0.0	6-9-19 13:30	15.51	813	8.85	7.2	6-9-19 13:30	15.22	758	8.38	8.9						9-9-19 8:30	15.62	1993	8.80	0.0					
6-9-19 18:45	17.61	1318	8.06	0.0	6-9-19 13:45	15.47	814	8.85	7.1	6-9-19 13:45	15.20	759	8.38	9.0						9-9-19 8:45	15.59	1991	8.80	0.0					
6-9-19 19:00	17.96	1315	8.40	0.0	6-9-19 14:00	15.44	812	8.85	7.7	6-9-19 14:00	15.20	758	8.37	9.2						9-9-19 9:00	15.53	1990	8.80	0.0					
6-9-19 19:15	18.13	1305	8.29	0.0	6-9-19 14:15	15.46	813	8.85	8.3	6-9-19 14:15	15.19	758	8.37	9.3						9-9-19 9:15	15.51	1991	8.80	2.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-9-19 19:30	18.29	1307	8.39	0.0	6-9-19 14:30	15.49	812	8.85	8.0	6-9-19 14:30	15.21	758	8.37	8.8						9-9-19 9:30	15.48	1994	8.80	0.0					
6-9-19 19:45	18.40	1300	8.41	0.0	6-9-19 14:45	15.54	813	8.85	7.8	6-9-19 14:45	15.24	758	8.37	9.1						9-9-19 9:45	15.42	1993	8.79	0.0					
6-9-19 20:00	19.05	1201	8.46	0.0	6-9-19 15:00	15.59	812	8.85	8.2	6-9-19 15:00	15.26	758	8.37	9.1						9-9-19 10:00	15.42	1993	8.79	0.0					
6-9-19 20:15	18.53	1315	8.33	0.0	6-9-19 15:15	15.62	813	8.85	7.8	6-9-19 15:15	15.37	759	8.38	9.4						9-9-19 10:15	15.40	1992	8.79	1.4					
6-9-19 20:30	18.75	1290	8.34	0.0	6-9-19 15:30	15.64	811	8.85	8.1	6-9-19 15:30	15.48	758	8.37	8.4						9-9-19 10:30	15.39	1992	8.79	0.0					
6-9-19 20:45	19.29	1298	8.70	0.0	6-9-19 15:45	15.74	811	8.85	7.2	6-9-19 15:45	15.55	758	8.36	9.0						9-9-19 10:45	15.37	1991	8.79	0.0					
6-9-19 21:00	19.81	1307	8.66	0.0	6-9-19 16:00	15.74	810	8.85	8.3	6-9-19 16:00	15.72	759	8.36	8.9						9-9-19 11:00	15.32	1988	8.78	2.5					
6-9-19 21:15	19.46	1306	8.54	0.0	6-9-19 16:15	15.78	809	8.85	8.9	6-9-19 16:15	15.86	759	8.35	9.1						9-9-19 11:15	15.31	1992	8.78	1.0					
6-9-19 21:30	19.22	1268	8.52	0.0	6-9-19 16:30	15.84	808	8.84	9.0	6-9-19 16:30	16.11	760	8.35	8.5						9-9-19 11:30	15.32	1993	8.78	1.4					
6-9-19 21:45	19.25	1320	8.53	0.0	6-9-19 16:45	15.90	809	8.84	21.4	6-9-19 16:45	16.29	759	8.35	8.8						9-9-19 11:45	15.26	1976	8.78	0.0					
6-9-19 22:00	19.15	1315	8.45	0.0	6-9-19 17:00	15.99	808	8.84	12.6	6-9-19 17:00	16.74	759	8.36	9.0						9-9-19 12:00	15.24	1993	8.78	0.0					
6-9-19 22:15	19.64	1318	8.59	0.0	6-9-19 17:15	16.00	806	8.85	9.8	6-9-19 17:15	16.78	759	8.35	8.8						9-9-19 12:15	15.21	1990	8.78	2.4					
6-9-19 22:30	19.59	1321	8.58	0.0	6-9-19 17:30	16.07	807	8.85	9.9	6-9-19 17:30	16.85	760	8.35	8.2						9-9-19 12:30	15.23	1989	8.78	0.0					
6-9-19 22:45	19.31	1325	8.56	0.0	6-9-19 17:45	16.13	807	8.85	9.3	6-9-19 17:45	17.03	760	8.35	9.0						9-9-19 12:45	15.24	1988	8.77	0.1					
6-9-19 23:00	19.25	1324	8.45	0.0	6-9-19 18:00	16.25	807	8.85	10.2	6-9-19 18:00	17.88	762	8.36	8.8						9-9-19 13:00	15.21	1988	8.77	0.0					
6-9-19 23:15	19.28	1315	8.47	0.0	6-9-19 18:15	16.29	806	8.85	9.0	6-9-19 18:15	17.92	760	8.36	8.7						9-9-19 13:15	15.16	1989	8.76	1.7					
6-9-19 23:30	19.39	1317	8.54	0.0	6-9-19 18:30	16.34	806	8.85	10.3	6-9-19 18:30	17.95	760	8.35	8.9						9-9-19 13:30	15.13	1991	8.77	0.0					
6-9-19 23:45					6-9-19 18:45	16.42	806	8.85	9.6	6-9-19 18:45	17.95	760	8.35	8.3						9-9-19 13:45	15.08	1990	8.77	0.0					
6-10-19 0:00	19.61	1312	8.55	0.0	6-9-19 19:00	16.96	808	8.86	9.4	6-9-19 19:00	18.19	761	8.34	9.2						9-9-19 14:00	15.02	1991	8.76	0.0					
6-10-19 0:15	19.58	1316	8.63	0.0	6-9-19 19:15	16.94	806	8.86	8.9	6-9-19 19:15	18.64	761	8.36	8.9						9-9-19 14:15	15.03	1992	8.76	5.9					
6-10-19 0:30	19.62	1297	8.66	0.0	6-9-19 19:30	16.98	805	8.86	10.6	6-9-19 19:30	18.86	760	8.35	9.1						9-9-19 14:30	15.01	1988	8.76	2.0					
6-10-19 0:45	19.55	1312	8.65	0.0	6-9-19 19:45	16.99	807	8.86	8.5	6-9-19 19:45	18.84	758	8.35	8.6						9-9-19 14:45	15.04	1988	8.76	2.1					
6-10-19 1:00	19.66	1317	8.75	0.0	6-9-19 20:00	17.47	808	8.86	9.3	6-9-19 20:00	18.60	759	8.35	8.7						9-9-19 15:00	15.04	1984	8.76	2.6					
6-10-19 1:15	19.62	1316	8.67	0.0	6-9-19 20:15	17.44	809	8.85	8.9	6-9-19 20:15	18.78	760	8.36	9.3						9-9-19 15:15	14.98	1990	8.75	2.8					
6-10-19 1:30	19.55	1315	8.60	0.0	6-9-19 20:30	17.74	811	8.84	9.0	6-9-19 20:30	19.26	761	8.37	8.5						9-9-19 15:30	14.96	1990	8.75	0.0					
6-10-19 1:45	19.55	1169	8.67	0.0	6-9-19 20:45	17.94	810	8.82	8.8	6-9-19 20:45	19.26	761	8.37	8.6						9-9-19 15:45	14.96	1991	8.75	0.0					
6-10-19 2:00	19.55	1321	8.89	0.0	6-9-19 21:00	18.37	812	8.81	8.8	6-9-19 21:00	19.60	761	8.37	9.7						9-9-19 16:00	14.88	1993	8.76	0.0					
6-10-19 2:15	19.55	1325	8.90	0.0	6-9-19 21:15	18.65	810	8.81	8.8	6-9-19 21:15	19.76	759	8.37	9.0						9-9-19 16:15	14.90	1993	8.76	1.2					
6-10-19 2:30	19.53	1317	8.89	0.0	6-9-19 21:30	18.64	809	8.81	18.9	6-9-19 21:30	19.81	759	8.37	9.2						9-9-19 16:30	14.92	1991	8.76	0.1					
6-10-19 2:45	19.50	1319	8.83	0.0	6-9-19 21:45	18.76	810	8.81	16.0	6-9-19 21:45	19.73	758	8.37	9.0						9-9-19 16:45	14.93	1990	8.76	0.0					
6-10-19 3:00	19.44	1315	8.77	0.0	6-9-19 22:00	18.79	809	8.81	9.9	6-9-19 22:00	19.87	760	8.37	8.9						9-9-19 17:00	14.95	1988	8.76	0.0					
6-10-19 3:15	19.43	1315	8.76	4.3	6-9-19 22:15	18.44	809	8.81	9.6	6-9-19 22:15	19.92	758	8.39	9.9						9-9-19 17:15	14.97	1987	8.75	0.0					
6-10-19 3:30	19.36	1316	8.56	0.0	6-9-19 22:30	18.26	808	8.82	9.4	6-9-19 22:30	19.74	759	8.38	9.9						9-9-19 17:30	15.00	1990	8.76	0.0					
6-10-19 3:45	19.30	1320	7.82	0.0	6-9-19 22:45	18.22	809	8.82	10.0	6-9-19 22:45	19.55	761	8.39	12.6						9-9-19 17:45	15.02	1990	8.76	0.0					
6-10-19 4:00	19.27	1322	7.72	0.0	6-9-19 23:00	17.99	807	8.83	10.6	6-9-19 23:00	19.43	753	8.39	13.1						9-9-19 18:00	15.04	1990	8.77	0.0					
6-10-19 4:15	19.23	1334	7.67	0.0	6-9-19 23:15	17.21	776	8.86	7.2	6-9-19 23:15	19.18	745	8.41	8.7						9-9-19 18:15	15.06	1989	8.77	1.1					
6-10-19 4:30	19.20	1333	7.86	0.0	6-9-19 23:30	17.82	806	8.87	10.6	6-9-19 23:30	19.11	750	8.41	9.4						9-9-19 18:30	15.06	1986	8.77	0.3					
6-10-19 4:45	19.14	1325	7.68	0.0	6-9-19 23:45	18.04	808	8.88	14.8	6-9-19 23:45	19.04	745	8.41	8.2						9-9-19 18:45	15.08	1986	8.76	0.2					
6-10-19 5:00	19.08	1318	7.53	0.0	6-10-19 0:00	18.34	809	8.88	11.7	6-10-19 0:00	19.21	753	8.40	8.4						9-9-19 19:00	15.10	1984	8.77	0.5					
6-10-19 5:15	19.01	1320	7.79	0.0	6-10-19 0:15	18.95	807	8.86	9.7	6-10-19 0:15	19.22	749	8.40	8.1						9-9-19 19:15	15.11	1989	8.77	0.5					
6-10-19 5:30	18.96	1324	7.71	1.7	6-10-19 0:30	19.21	804	8.85	9.6	6-10-19 0:30	19.16	753	8.40	8.9						9-9-19 19:30	15.12	1990	8.78	0.0					
6-10-19 5:45	18.94	1329	7.60	0.0	6-10-19 0:45	19.42	808	8.85	10.2	6-10-19 0:45	19.25	754	8.41	7.7						9-9-19 19:45	15.13	1989	8.78	0.0					
6-10-19 6:00	18.89	1324	7.64	0.0	6-10-19 1:00	19.54	802	8.86	11.0	6-10-19 1:00	19.34	747	8.40	8.0						9-9-19 20:00	15.15	1989	8.78	0.0					
6-10-19 6:15	18.82	1325	7.61	0.0	6-10-19 1:15	19.61	803	8.86	11.0	6-10-19 1:15	19.32	751	8.40	8.1						9-9-19 20:15	15.16	1986	8.79	37.0					
6-10-19 6:30	18.74	1327	7.63	0.0	6-10-19 1:30	19.68	802	8.86	10.8	6-10-19 1:30	19.49	751	8.40	7.6						9-9-19 20:30	15.17	1982	8.80	31.7					
6-10-19 6:45	18.70	1327	7.66	0.2	6-10-19 1:45	19.61	798	8.86	10.1	6-10-19 1:45	19.57	752	8.40	8.4						9-9-19 20:45	15.18	1981	8.80	14.5					
6-10-19 7:00	18.64	1324	7.69	0.0	6-10-19 2:00	19.58	799	8.86	12.1	6-10-19 2:00	19.65	751	8.41	16.1						9-9-19 21:00	15.20	1980	8.80	8.9					
6-10-19 7:15	18.61	1326	7.59	0.0	6-10-19 2:15	19.45	800	8.86	10.3	6-10-19 2:15	19.67	747	8.41	8.4						9-9-19 21:15	15.22	1980	8.81	0.3					
6-10-19 7:30	18.57	1327	7.65	0.0	6-10-19 2:30	19.25	802	8.86	11.0	6-10-19 2:30	19.66	751	8.42	7.9						9-9-19 21:30	15.22	1981	8.81	0.0					
6-10-19 7:45	18.50	1333	7.65	0.0	6-10-19 2:45	18.87	798	8.87	10.1	6-10-19 2:45	19.57	733	8.42	7.3						9-9-19 21:45	15.21	1980	8.81	0.0					
6-10-19 8:00	18.43	1325	7.69	0.0	6-10-19 3:00	18.52	802	8.88	11.0	6-10-19 3:00	19.52	736	8.42	7.1						9-9-19 22:00	15.20	1980	8.81	0.0					
6-10-19 8:15	18.37	1325	7.65	0.0	6-10-19 3:15	18.26	807	8.89	14.0	6-10-19 3:15	19.41	737	8.43	7.8						9-9-19 22:15	15.20	1975	8.83	7.4					
6-10-19 8:30	18.32	1324	7.62	0.0	6-10-19 3:30	18.21	805	8.89	11.2	6-10-19 3:30	19.30	747	8.44	7.9						9-9-19 22:30	15.21	1975	8.83	12.0					
6-10-19 8:45	18.25	1330	7.61	0.0	6-10-19 3:45	18.12	800	8.89	9.5	6-10-19 3:45	19.19	741	8.44	7.1						9-9-19 22:45	15.21	1975	8.83	16.9					
6-10-19 9:00	18.18	1334	7.59	0.0	6-10-19 4:00	18.06	802	8.89	9.0	6-10-19 4:00	19.13	750	8.44	7.1						9-9-19 23:00	15.20	1975	8.84	18.2					
6-10-19 9:15	18.13	1323	7.58	0.0	6-10-19 4:15	17.96	800	8.89	9.3	6-10-19 4:15	19.02	747	8.45	7.1						9-9-19 23:15	15.19	1976	8.84	0.0					
6-10-19 9:30	18.07	1329	7.57	0.0	6-10-19 4:30	17.92	803	8.89	8.6	6-10-19 4:30	18.93	747	8.45	10.4						9-9-19 23:30	15.18	1977	8.83	0.0					
6-10-19 9:45	18.03	1335	7.53	0.0	6-10-19 4:45	17.91	796	8.89	10.0	6-10-19 4:45	18.82	743	8.46	7.0						9-9-19 23:45	15.17	1977	8.84	0.0					
6-10-19 10:00	17.96	1335	7.54	0.0	6-10-19 5:00	17.86	791	8.89	8.1	6-10-19 5:00	18.72	745	8.45	8.9						9-10-19 0:00	15.17	1977	8.84	0.0					
6-10-19 10:15	17.90	1333	7.52	0.0	6-10-19 5:15	17.82	803	8.89	7.5	6-10-19 5:15	18.66	745	8.46	7.1						9-10-19 0:15	15.17	1973	8.85	6.9					
6-10-19 10:30	17.83	1335	7.50	0.0	6-10-19 5:30	17.71	804	8.89	8.6	6-10-19 5:30	18.58	743	8.45	6.4						9-10-19 0:30	15.19	1972	8.85	6.1					
6-10-19 10:45	17.79	1327	7.50	0.0	6-10-19 5:45	17.77	804	8.89	8.1	6-10-19 5:45	18.47	743	8.46	6.7						9-10-19 0:45	15.19	1971	8.85	4.0					
6-10-19 11:00	17.71	1335	7.48	4.7	6-10-19 6:00	17.79	804	8.89	8.6	6-10-19 6:00	18.36	742	8.45	6.7						9-10-19 1:00	15.19	1970	8.85	9.4					
6-10-19 11:15	17.64	1335	7.47	0.0	6-10-19 6:15	17.77	803	8.88	8.1	6-10-19 6:15	18.25	742	8.46	6.9						9-10-19 1:15	15.18	1970	8.84	0.0					
6-10-19 11:30	17.58	1335	7.46	0.0	6-10-19 6:30	17.74	803	8.88	8.9	6-10-19 6:30	18.15	741	8.46	6.8						9-10-19 1:30	15.18	1973	8.85	0.0					
6-10-19 11:45	17.53	1336	7.46	0.0	6-10-19 6:45	17.70	803	8.88	9.6	6-10-19 6:45	18.04	744	8.46	6.4						9-10-19 1:45	15.16	1973	8.85	0.0					
6-10-19 12:00	17.46	1336	7.45	0.0	6-10-19 7:00	17.61	802	8.87	8.7	6-10-19 7:00	17.90	739	8.46	6.1						9-10-19 2:00	15.16	1973	8.85	0.0					
6-10-19 12:15	17.42	1333	7.45	0.0	6-10-19 7:15	17.51	801	8.88	7.9	6-10-19 7:15	17.81	737	8.47	7.2						9-10-19 2:15	15.13	1971	8.85	5.3					
6-10-19 12:30	17.38	1336	7.45	0.0	6-10-19 7:30	17.43	801	8.88	9.1	6-10-19 7:30	17.71	737	8.46	18.5						9-10-19 2:30	15.11	1970	8.86	3.3					
6-10-19 12:45	17.33	1336	7.44	0.0	6-10-19 7:45	17.35	801	8.88	8.3	6-10-19 7:45	17.59	734	8.47	6.7						9-10-19 2:45	15.10	1968	8.86	18.2					
6-10-19 13:00	17.28	1336	7.43	0.0	6-10-19 8:00	17.21	801	8.89	9.3	6-10-19 8:00	17.50	735	8.46	5.8						9-10-19 3:00	15.06	1969	8.86	7.4					
6-10-19 13:15	17.23	1334	7.44	0.0	6-10-19 8:15	17.15	800	8.90	9.6	6-10-19 8:15	17.41	735	8.47	11.0						9-10-19 3:15	15.05	1970	8.85	0.0					
6-10-19 13:30	17.20	1335	7.44	0.0	6-10-19 8:30	17.09	801	8.90	10.4	6-10-19 8:30	17.32	739	8.47	6.0						9-10-19 3:30	15.03	1971	8.85	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-10-19 13:45	17.16	1334	7.44	0.0	6-10-19 8:45	16.96	802	8.90	9.3	6-10-19 8:45	17.22	732	8.46	7.0						9-10-19 3:45	14.98	1971	8.84	0.0					
6-10-19 14:00	17.14	1335	7.44	0.0	6-10-19 9:00	16.94	800	8.90	9.7	6-10-19 9:00	17.15	732	8.46	8.9						9-10-19 4:00	14.98	1973	8.84	0.0					
6-10-19 14:15	17.12	1334	7.43	0.0	6-10-19 9:15	16.89	804	8.90	9.1	6-10-19 9:15	17.04	732	8.46	6.8						9-10-19 4:15	14.97	1970	8.86	9.6					
6-10-19 14:30	17.11	1335	7.44	0.0	6-10-19 9:30	16.81	800	8.90	10.1	6-10-19 9:30	16.99	731	8.46	6.9						9-10-19 4:30	14.94	1968	8.86	2.0					
6-10-19 14:45	17.07	1334	7.43	0.0	6-10-19 9:45	16.80	800	8.90	8.4	6-10-19 9:45	16.92	729	8.45	6.6						9-10-19 4:45	14.94	1968	8.85	1.8					
6-10-19 15:00	17.05	1335	7.44	0.0	6-10-19 10:00	16.80	800	8.90	8.8	6-10-19 10:00	16.84	739	8.45	6.3						9-10-19 5:00	14.94	1967	8.85	1.2					
6-10-19 15:15	17.06	1337	7.41	0.0	6-10-19 10:15	16.75	800	8.89	7.8	6-10-19 10:15	16.75	728	8.45	6.8						9-10-19 5:15	14.92	1969	8.84	0.0					
6-10-19 15:30	17.04	1335	7.41	0.0	6-10-19 10:30	16.69	800	8.89	9.1	6-10-19 10:30	16.69	729	8.44	6.8						9-10-19 5:30	14.89	1969	8.84	0.0					
6-10-19 15:45	17.02	1335	7.43	0.0	6-10-19 10:45	16.65	800	8.89	9.1	6-10-19 10:45	16.63	728	8.44	6.8						9-10-19 5:45	14.89	1969	8.84	0.0					
6-10-19 16:00	17.07	1331	7.45	0.0	6-10-19 11:00	16.64	802	8.89	9.3	6-10-19 11:00	16.57	729	8.44	6.4						9-10-19 6:00	14.87	1969	8.84	0.0					
6-10-19 16:15	17.08	1331	7.46	0.0	6-10-19 11:15	16.62	802	8.89	8.5	6-10-19 11:15	16.49	729	8.44	7.0						9-10-19 6:15	14.87	1965	8.84	1.2					
6-10-19 16:30	17.13	1331	7.48	1.1	6-10-19 11:30	16.59	801	8.88	8.9	6-10-19 11:30	16.42	728	8.44	6.5						9-10-19 6:30	14.83	1965	8.84	0.5					
6-10-19 16:45	17.16	1336	7.51	0.0	6-10-19 11:45	16.55	802	8.87	8.4	6-10-19 11:45	16.38	727	8.44	6.7						9-10-19 6:45	14.84	1964	8.84	1.3					
6-10-19 17:00	17.21	1335	7.56	0.0	6-10-19 12:00	16.52	801	8.87	9.5	6-10-19 12:00	16.29	728	8.44	6.8						9-10-19 7:00	14.84	1964	8.84	0.6					
6-10-19 17:15	17.30	1336	7.62	0.0	6-10-19 12:15	16.49	804	8.87	7.9	6-10-19 12:15	16.25	725	8.44	6.5						9-10-19 7:15	14.82	1962	8.82	0.0					
6-10-19 17:30	17.39	1337	7.68	0.0	6-10-19 12:30	16.51	802	8.86	7.3	6-10-19 12:30	16.22	727	8.44	6.7						9-10-19 7:30	14.81	1966	8.83	0.0					
6-10-19 17:45	17.51	1337	7.73	0.0	6-10-19 12:45	16.51	800	8.86	7.9	6-10-19 12:45	16.19	727	8.44	6.8						9-10-19 7:45	14.81	1967	8.83	0.0					
6-10-19 18:00	17.75	1336	7.86	0.0	6-10-19 13:00	16.50	802	8.86	8.6	6-10-19 13:00	16.12	727	8.44	8.1						9-10-19 8:00	14.79	1968	8.83	0.0					
6-10-19 18:15	17.94	1339	7.91	0.0	6-10-19 13:15	16.45	797	8.86	8.2	6-10-19 13:15	16.07	723	8.44	7.2						9-10-19 8:15	14.76	1964	8.82	7.1					
6-10-19 18:30	18.20	1334	8.09	0.0	6-10-19 13:30	16.46	802	8.85	7.8	6-10-19 13:30	16.04	725	8.44	7.1						9-10-19 8:30	14.75	1962	8.82	4.0					
6-10-19 18:45	18.36	1330	8.55	0.3	6-10-19 13:45	16.48	802	8.85	7.0	6-10-19 13:45	16.01	726	8.44	7.1						9-10-19 8:45	14.75	1961	8.82	9.5					
6-10-19 19:00	18.58	1331	8.68	0.0	6-10-19 14:00	16.46	801	8.85	7.9	6-10-19 14:00	15.97	724	8.44	7.2						9-10-19 9:00	14.74	1961	8.82	7.1					
6-10-19 19:15	18.62	1330	8.58	0.0	6-10-19 14:15	16.45	803	8.85	8.5	6-10-19 14:15	15.94	721	8.44	7.3						9-10-19 9:15	14.72	1964	8.80	0.0					
6-10-19 19:30	18.87	1331	8.69	0.0	6-10-19 14:30	16.45	801	8.85	7.4	6-10-19 14:30	15.91	721	8.43	7.7						9-10-19 9:30	14.72	1964	8.81	0.0					
6-10-19 19:45	19.11	1327	8.78	0.0	6-10-19 14:45	16.42	800	8.85	8.4	6-10-19 14:45	15.90	718	8.44	7.9						9-10-19 9:45	14.71	1964	8.81	0.0					
6-10-19 20:00	19.27	1339	8.78	0.0	6-10-19 15:00	16.47	803	8.85	10.4	6-10-19 15:00	15.91	718	8.44	6.9						9-10-19 10:00	14.69	1967	8.81	0.0					
6-10-19 20:15	19.38	1329	8.82	0.0	6-10-19 15:15	16.45	802	8.85	8.2	6-10-19 15:15	15.86	727	8.44	7.5						9-10-19 10:15	14.67	1962	8.81	1.6					
6-10-19 20:30	19.46	1328	8.80	0.0	6-10-19 15:30	16.47	802	8.85	9.1	6-10-19 15:30	15.83	717	8.43	8.3						9-10-19 10:30	14.67	1961	8.81	1.1					
6-10-19 20:45	19.61	1326	8.86	0.0	6-10-19 15:45	16.46	800	8.85	9.8	6-10-19 15:45	15.82	718	8.42	8.3						9-10-19 10:45	14.65	1959	8.80	0.5					
6-10-19 21:00	19.73	1323	9.05	2.9	6-10-19 16:00	16.52	801	8.85	9.9	6-10-19 16:00	15.84	709	8.43	7.7						9-10-19 11:00	14.63	1959	8.80	0.5					
6-10-19 21:15	19.89	1331	9.09	0.0	6-10-19 16:15	16.54	867	8.85	8.1	6-10-19 16:15	15.87	721	8.42	8.5						9-10-19 11:15	14.61	1964	8.80	0.6					
6-10-19 21:30	20.12	1333	9.13	0.0	6-10-19 16:30	16.62	799	8.86	8.9	6-10-19 16:30	15.95	719	8.42	8.5						9-10-19 11:30	14.58	1964	8.79	0.0					
6-10-19 21:45	20.19	1327	9.15	0.0	6-10-19 16:45	16.75	798	8.86	9.5	6-10-19 16:45	16.04	717	8.42	8.9						9-10-19 11:45	14.54	1962	8.79	0.0					
6-10-19 22:00	20.20	1322	9.13	0.0	6-10-19 17:00	16.64	796	8.86	10.0	6-10-19 17:00	16.13	718	8.42	10.1						9-10-19 12:00	14.49	1961	8.78	0.1					
6-10-19 22:15	20.12	1319	9.10	0.1	6-10-19 17:15	16.68	796	8.87	9.2	6-10-19 17:15	16.13	720	8.42	9.1						9-10-19 12:15	14.49	1957	8.78	5.7					
6-10-19 22:30	20.14	1306	9.07	0.3	6-10-19 17:30	16.81	795	8.87	9.8	6-10-19 17:30	16.34	714	8.42	8.5						9-10-19 12:30	14.45	1958	8.78	6.6					
6-10-19 22:45	20.21	1342	9.07	0.0	6-10-19 17:45	16.81	793	8.88	9.1	6-10-19 17:45	16.50	718	8.41	9.8						9-10-19 12:45	14.40	1958	8.78	16.8					
6-10-19 23:00	20.39	1340	8.95	7.3	6-10-19 18:00	16.98	795	8.88	9.9	6-10-19 18:00	16.79	720	8.41	9.4						9-10-19 13:00	14.40	1956	8.77	8.7					
6-10-19 23:15	20.44	1337	8.93	0.0	6-10-19 18:15	17.08	796	8.89	9.6	6-10-19 18:15	16.75	710	8.41	8.5						9-10-19 13:15	14.40	1952	8.77	8.1					
6-10-19 23:30	20.29	1335	9.02	0.0	6-10-19 18:30	17.26	794	8.89	9.0	6-10-19 18:30	17.11	718	8.41	8.4						9-10-19 13:30	14.36	1956	8.77	4.0					
6-10-19 23:45	20.33	1336	8.80	0.0	6-10-19 18:45	17.60	796	8.89	9.2	6-10-19 18:45	17.32	718	8.40	8.1						9-10-19 13:45	14.34	1957	8.77	0.9					
6-11-19 0:00	20.41	1338	8.84	17.2	6-10-19 19:00	17.60	794	8.89	11.9	6-10-19 19:00	17.52	717	8.40	7.5						9-10-19 14:00	14.32	1955	8.76	0.9					
6-11-19 0:15	20.42	1333	8.82	0.0	6-10-19 19:15	17.59	791	8.90	9.4	6-10-19 19:15	17.72	717	8.41	8.7						9-10-19 14:15	14.30	1951	8.76	2.6					
6-11-19 0:30	20.43	1334	8.79	0.0	6-10-19 19:30	17.79	789	8.90	11.0	6-10-19 19:30	17.86	711	8.41	9.7						9-10-19 14:30	14.30	1948	8.76	1.8					
6-11-19 0:45	20.39	1339	8.82	5.5	6-10-19 19:45	17.74	793	8.91	9.7	6-10-19 19:45	17.95	710	8.40	9.1						9-10-19 14:45	14.31	1950	8.76	1.6					
6-11-19 1:00	20.35	1339	8.78	0.6	6-10-19 20:00	17.70	792	8.93	9.6	6-10-19 20:00	18.29	706	8.40	49.6						9-10-19 15:00	14.28	1950	8.76	1.1					
6-11-19 1:15	20.37	1337	8.77	0.0	6-10-19 20:15	17.69	792	8.94	10.4	6-10-19 20:15	18.53	707	8.41	8.4						9-10-19 15:15	14.29	1950	8.75	1.1					
6-11-19 1:30	20.40	1337	8.82	3.2	6-10-19 20:30	17.62	793	8.94	13.8	6-10-19 20:30	18.38	715	8.41	8.5						9-10-19 15:30	14.27	1953	8.76	0.1					
6-11-19 1:45	20.33	1332	8.72	0.0	6-10-19 20:45	17.85	795	8.94	10.6	6-10-19 20:45	18.43	712	8.42	9.0						9-10-19 15:45	14.25	1953	8.76	0.1					
6-11-19 2:00	20.28	1337	8.42	0.0	6-10-19 21:00	18.21	793	8.93	11.5	6-10-19 21:00	18.58	705	8.42	10.9						9-10-19 16:00	14.24	1954	8.76	0.3					
6-11-19 2:15	20.29	1342	8.50	0.0	6-10-19 21:15	18.07	794	8.92	12.0	6-10-19 21:15	18.64	711	8.42	22.3						9-10-19 16:15	14.23	1950	8.76	1.7					
6-11-19 2:30	20.25	1345	8.49	0.0	6-10-19 21:30	17.94	792	8.92	11.3	6-10-19 21:30	18.53	710	8.42	14.0						9-10-19 16:30	14.24	1949	8.76	1.1					
6-11-19 2:45	20.22	1350	8.43	0.0	6-10-19 21:45	18.20	795	8.93	12.2	6-10-19 21:45	18.67	706	8.42	10.5						9-10-19 16:45	14.22	1948	8.76	1.0					
6-11-19 3:00	20.19	1340	8.31	0.0	6-10-19 22:00	18.12	793	8.93	11.5	6-10-19 22:00	18.73	696	8.43	10.4						9-10-19 17:00	14.23	1947	8.76	1.0					
6-11-19 3:15	20.16	1344	8.30	1.1	6-10-19 22:15	18.14	794	8.93	10.6	6-10-19 22:15	18.68	687	8.43	9.1						9-10-19 17:15	14.23	1948	8.75	0.1					
6-11-19 3:30	20.10	1345	8.26	0.0	6-10-19 22:30	18.21	798	8.93	10.5	6-10-19 22:30	18.76	693	8.43	17.5						9-10-19 17:30	14.23	1949	8.76	0.0					
6-11-19 3:45	20.03	1343	8.21	11.5	6-10-19 22:45	18.38	794	8.93	17.0	6-10-19 22:45	18.87	715	8.43	7.3						9-10-19 17:45	14.23	1950	8.76	0.0					
6-11-19 4:00	19.96	1339	8.38	0.0	6-10-19 23:00	18.46	789	8.93	11.5	6-10-19 23:00	18.82	715	8.44	9.7						9-10-19 18:00	14.24	1949	8.76	0.0					
6-11-19 4:15	19.88	1334	8.53	1.8	6-10-19 23:15	18.47	791	8.93	10.2	6-10-19 23:15	18.78	716	8.43	7.2						9-10-19 18:15	14.27	1948	8.76	2.3					
6-11-19 4:30	19.79	1335	8.18	0.0	6-10-19 23:30	18.38	796	8.93	11.6	6-10-19 23:30	18.75	714	8.43	8.1						9-10-19 18:30	14.27	1946	8.77	1.0					
6-11-19 4:45	19.72	1343	7.98	1.0	6-10-19 23:45	18.35	789	8.93	10.7	6-10-19 23:45	18.81	672	8.44	8.2						9-10-19 18:45	14.30	1943	8.77	1.0					
6-11-19 5:00	19.67	1342	7.95	0.0	6-11-19 0:00	18.35	793	8.93	11.1	6-11-19 0:00	18.85	727	8.44	8.5						9-10-19 19:00	14.32	1944	8.77	0.9					
6-11-19 5:15	19.62	1339	7.86	0.0	6-11-19 0:15	18.40	791	8.93	10.4	6-11-19 0:15	18.90	726	8.44	9.0						9-10-19 19:15	14.34	1947	8.77	0.5					
6-11-19 5:30	19.56	1338	7.76	0.0	6-11-19 0:30	18.38	788	8.93	12.0	6-11-19 0:30	18.87	722	8.45	9.5						9-10-19 19:30	14.34	1948	8.77	0.0					
6-11-19 5:45	19.51	1340	7.68	0.0	6-11-19 0:45	18.35	792	8.93	10.5	6-11-19 0:45	18.83	725	8.45	6.8						9-10-19 19:45	14.34	1948	8.77	0.0					
6-11-19 6:00	19.45	1341	7.59	0.0	6-11-19 1:00	18.44	792	8.94	11.0	6-11-19 1:00	18.79	725	8.45	6.9						9-10-19 20:00	14.34	1948	8.77	0.0					
6-11-19 6:15	19.41	1336	7.68	0.0	6-11-19 1:15	18.52	792	8.94	10.8	6-11-19 1:15	18.79	725	8.45	9.9						9-10-19 20:15	14.37	1947	8.77	2.0					
6-11-19 6:30	19.37	1340	7.72	0.0	6-11-19 1:30	18.53	792	8.94	11.0	6-11-19 1:30	18.84	722	8.45	10.6						9-10-19 20:30	14.40	1943	8.77	2.0					
6-11-19 6:45	19.31	1338	7.73	0.0	6-11-19 1:45	18.45	793	8.94	11.2	6-11-19 1:45	18.72	721	8.45	11.7						9-10-19 20:45	14.39	1943	8.77	1.2					
6-11-19 7:00	19.27	1338	7.67	0.0	6-11-19 2:00	18.43	792	8.94	10.8	6-11-19 2:00	18.72	722	8.45	14.0						9-10-19 21:00	14.41	1943	8.78	0.9					
6-11-19 7:15	19.23	1330	7.67	0.0	6-11-19 2:15	18.39	791	8.93	9.3	6-11-19 2:15	18.68	720	8.46	11.9						9-10-19 21:15	14.35	1945	8.76	6.0					
6-11-19 7:30	19.18	1336	7.73	0.0	6-11-19 2:30	18.34	791	8.94	9.4	6-11-19 2:30	18.64	720	8.46	18.8						9-10-19 21:30	14.41	1946	8.77	0.0					
6-11-19 7:45	19.12	1341	7.69	0.0	6-11-19 2:45	18.27	791	8.94	8.9	6-11-19 2:45	18.61	720	8.46	13.4						9-10-19 21:45	14.41	1945	8.77	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-11-19 8:00	19.10	1339	7.71	0.0	6-11-19 3:00	18.28	792	8.94	9.5	6-11-19 3:00	18.58	723	8.46	38.3						9-10-19 22:00	14.40	1944	8.77	0.0					
6-11-19 8:15	19.04	1336	7.68	0.0	6-11-19 3:15	18.27	793	8.94	9.1	6-11-19 3:15	18.55	721	8.46	18.7						9-10-19 22:15	14.40	1943	8.78	2.0					
6-11-19 8:30	18.99	1337	7.67	0.0	6-11-19 3:30	18.18	793	8.94	9.8	6-11-19 3:30	18.49	720	8.47	15.0						9-10-19 22:30	14.37	1935	8.78	1.4					
6-11-19 8:45	18.93	1340	7.68	0.0	6-11-19 3:45	18.20	792	8.94	9.9	6-11-19 3:45	18.43	715	8.48	5.7						9-10-19 22:45	14.37	1941	8.78	1.6					
6-11-19 9:00	18.89	1340	7.69	0.0	6-11-19 4:00	18.14	793	8.94	9.2	6-11-19 4:00	18.32	712	8.48	5.9						9-10-19 23:00	14.35	1938	8.79	1.3					
6-11-19 9:15	18.85	1343	7.68	0.0	6-11-19 4:15	18.12	792	8.94	9.9	6-11-19 4:15	18.27	718	8.48	5.9						9-10-19 23:15	14.34	1940	8.78	0.0					
6-11-19 9:30	18.77	1338	7.65	0.0	6-11-19 4:30	18.07	792	8.94	8.8	6-11-19 4:30	18.22	721	8.48	5.3						9-10-19 23:30	14.29	1940	8.79	0.0					
6-11-19 9:45	18.73	1343	7.64	0.0	6-11-19 4:45	18.00	791	8.94	8.3	6-11-19 4:45	18.14	721	8.49	5.4						9-10-19 23:45	14.28	1941	8.79	0.0					
6-11-19 10:00	18.69	1343	7.62	0.0	6-11-19 5:00	17.99	793	8.94	8.9	6-11-19 5:00	18.12	716	8.48	6.5						9-11-19 0:00	14.28	1939	8.80	0.0					
6-11-19 10:15	18.63	1343	7.65	0.0	6-11-19 5:15	17.95	791	8.94	9.6	6-11-19 5:15	18.06	715	8.48	5.9						9-11-19 0:15	14.29	1936	8.80	6.2					
6-11-19 10:30	18.56	1345	7.67	0.0	6-11-19 5:30	17.95	790	8.94	11.0	6-11-19 5:30	17.99	703	8.48	6.0						9-11-19 0:30	14.32	1935	8.80	3.0					
6-11-19 10:45	18.51	1345	7.60	0.0	6-11-19 5:45	17.94	792	8.94	9.6	6-11-19 5:45	17.95	744	8.48	5.7						9-11-19 0:45	14.31	1932	8.79	5.1					
6-11-19 11:00	18.44	1344	7.61	0.0	6-11-19 6:00	17.92	791	8.94	8.9	6-11-19 6:00	17.91	740	8.48	5.5						9-11-19 1:00	14.31	1932	8.80	8.2					
6-11-19 11:15	18.38	1345	7.60	0.0	6-11-19 6:15	17.90	793	8.93	8.8	6-11-19 6:15	17.86	737	8.48	5.6						9-11-19 1:15	14.30	1936	8.79	0.1					
6-11-19 11:30	18.32	1345	7.59	0.0	6-11-19 6:30	17.86	791	8.93	9.5	6-11-19 6:30	17.81	742	8.48	5.6						9-11-19 1:30	14.28	1936	8.80	0.0					
6-11-19 11:45	18.24	1345	7.54	0.0	6-11-19 6:45	17.84	791	8.93	8.9	6-11-19 6:45	17.77	743	8.48	5.5						9-11-19 1:45	14.23	1936	8.80	0.0					
6-11-19 12:00	18.18	1344	7.52	0.0	6-11-19 7:00	17.81	794	8.93	10.3	6-11-19 7:00	17.72	741	8.48	5.2						9-11-19 2:00	14.21	1936	8.80	0.2					
6-11-19 12:15	18.15	1345	7.53	0.0	6-11-19 7:15	17.78	799	8.93	9.7	6-11-19 7:15	17.67	739	8.48	5.5						9-11-19 2:15	14.21	1930	8.80	1.7					
6-11-19 12:30	18.07	1345	7.54	0.0	6-11-19 7:30	17.73	790	8.93	8.8	6-11-19 7:30	17.62	741	8.48	5.2						9-11-19 2:30	14.20	1925	8.81	0.8					
6-11-19 12:45	18.03	1346	7.54	0.0	6-11-19 7:45	17.72	792	8.93	7.9	6-11-19 7:45	17.55	740	8.49	5.6						9-11-19 2:45	14.19	1924	8.81	3.8					
6-11-19 13:00	18.00	1344	7.53	0.0	6-11-19 8:00	17.70	792	8.93	9.4	6-11-19 8:00	17.46	741	8.48	6.1						9-11-19 3:00	14.11	1924	8.81	0.5					
6-11-19 13:15	17.94	1347	7.55	0.0	6-11-19 8:15	17.66	792	8.92	8.7	6-11-19 8:15	17.40	741	8.49	6.1						9-11-19 3:15	14.13	1928	8.81	0.9					
6-11-19 13:30	17.89	1346	7.56	0.0	6-11-19 8:30	17.61	791	8.92	8.4	6-11-19 8:30	17.33	740	8.49	5.7						9-11-19 3:30	14.13	1929	8.81	0.0					
6-11-19 13:45	17.86	1346	7.56	0.0	6-11-19 8:45	17.57	791	8.91	7.1	6-11-19 8:45	17.28	739	8.48	7.9						9-11-19 3:45	14.14	1929	8.81	0.0					
6-11-19 14:00	17.89	1345	7.58	0.0	6-11-19 9:00	17.49	799	8.91	7.7	6-11-19 9:00	17.23	739	8.49	6.5						9-11-19 4:00	14.13	1929	8.80	0.0					
6-11-19 14:15	17.87	1346	7.58	0.0	6-11-19 9:15	17.50	793	8.91	8.2	6-11-19 9:15	17.18	738	8.49	5.9						9-11-19 4:15	14.12	1928	8.80	0.8					
6-11-19 14:30	17.88	1345	7.57	0.0	6-11-19 9:30	17.48	792	8.91	7.8	6-11-19 9:30	17.11	735	8.48	7.1						9-11-19 4:30	14.12	1925	8.80	0.9					
6-11-19 14:45	17.93	1346	7.57	0.0	6-11-19 9:45	17.44	792	8.91	11.2	6-11-19 9:45	17.06	737	8.48	6.7						9-11-19 4:45	14.11	1926	8.79	1.8					
6-11-19 15:00	17.95	1343	7.59	0.0	6-11-19 10:00	17.34	792	8.91	7.9	6-11-19 10:00	17.04	738	8.48	6.4						9-11-19 5:00	14.08	1926	8.79	2.9					
6-11-19 15:15	17.96	1344	7.60	0.0	6-11-19 10:15	17.37	793	8.91	7.8	6-11-19 10:15	16.96	733	8.48	6.4						9-11-19 5:15	14.09	1927	8.79	0.3					
6-11-19 15:30	18.06	1344	7.62	0.0	6-11-19 10:30	17.29	795	8.90	7.7	6-11-19 10:30	16.88	735	8.48	5.9						9-11-19 5:30	14.09	1927	8.79	0.0					
6-11-19 15:45	18.11	1343	7.65	0.0	6-11-19 10:45	17.29	793	8.90	7.1	6-11-19 10:45	16.81	736	8.48	6.5						9-11-19 5:45	14.09	1928	8.79	0.0					
6-11-19 16:00	18.13	1338	7.72	0.0	6-11-19 11:00	17.22	792	8.90	7.5	6-11-19 11:00	16.77	738	8.48	5.9						9-11-19 6:00	14.07	1928	8.79	0.0					
6-11-19 16:15	18.19	1346	7.91	0.0	6-11-19 11:15	17.22	793	8.90	8.1	6-11-19 11:15	16.68	737	8.48	6.5						9-11-19 6:15	14.07	1927	8.79	8.6					
6-11-19 16:30	18.24	1343	7.79	0.0	6-11-19 11:30	17.12	792	8.90	7.1	6-11-19 11:30	16.64	736	8.47	6.4						9-11-19 6:30	14.07	1924	8.79	2.1					
6-11-19 16:45	18.26	1344	8.12	0.0	6-11-19 11:45	17.12	793	8.90	7.9	6-11-19 11:45	16.59	736	8.48	6.3						9-11-19 6:45	14.07	1924	8.79	4.5					
6-11-19 17:00	18.27	1344	8.42	0.0	6-11-19 12:00	17.06	793	8.90	8.8	6-11-19 12:00	16.54	736	8.47	5.9						9-11-19 7:00	14.07	1925	8.79	1.3					
6-11-19 17:15	18.30	1344	8.38	0.0	6-11-19 12:15	17.05	793	8.90	8.6	6-11-19 12:15	16.52	733	8.47	7.0						9-11-19 7:15	14.07	1925	8.78	0.5					
6-11-19 17:30	18.44	1343	7.99	0.0	6-11-19 12:30	17.02	791	8.90	8.0	6-11-19 12:30	16.46	734	8.47	6.2						9-11-19 7:30	14.06	1928	8.78	0.0					
6-11-19 17:45	18.46	1341	8.51	0.0	6-11-19 12:45	16.94	792	8.89	7.9	6-11-19 12:45	16.40	734	8.47	6.9						9-11-19 7:45	14.01	1927	8.78	0.1					
6-11-19 18:00	18.52	1342	8.63	0.0	6-11-19 13:00	16.90	793	8.89	8.0	6-11-19 13:00	16.38	733	8.46	6.8						9-11-19 8:00	13.98	1926	8.77	0.0					
6-11-19 18:15	18.68	1341	8.61	0.0	6-11-19 13:15	16.91	792	8.89	7.7	6-11-19 13:15	16.36	731	8.46	6.4						9-11-19 8:15	13.96	1925	8.77	3.7					
6-11-19 18:30	18.69	1338	8.71	0.0	6-11-19 13:30	16.87	792	8.89	8.6	6-11-19 13:30	16.34	732	8.46	6.5						9-11-19 8:30	13.95	1922	8.77	1.1					
6-11-19 18:45	18.84	1344	8.84	0.0	6-11-19 13:45	16.86	793	8.90	8.0	6-11-19 13:45	16.34	732	8.46	7.3						9-11-19 8:45	13.92	1922	8.77	0.8					
6-11-19 19:00	18.90	1342	8.91	0.0	6-11-19 14:00	16.90	793	8.90	8.0	6-11-19 14:00	16.34	731	8.45	11.4						9-11-19 9:00	13.92	1924	8.77	3.2					
6-11-19 19:15	19.00	1335	8.90	0.0	6-11-19 14:15	16.94	793	8.90	7.4	6-11-19 14:15	16.34	733	8.46	7.0						9-11-19 9:15	13.93	1923	8.77	0.4					
6-11-19 19:30	19.02	1335	8.90	0.0	6-11-19 14:30	16.92	792	8.90	9.0	6-11-19 14:30	16.32	735	8.45	6.9						9-11-19 9:30	13.93	1926	8.77	0.0					
6-11-19 19:45	19.14	1343	8.90	0.0	6-11-19 14:45	16.97	792	8.90	8.4	6-11-19 14:45	16.36	737	8.45	7.8						9-11-19 9:45	13.86	1926	8.77	0.0					
6-11-19 20:00	19.17	1345	8.93	1.1	6-11-19 15:00	17.01	792	8.90	8.8	6-11-19 15:00	16.40	737	8.45	6.7						9-11-19 10:00	13.84	1926	8.76	0.4					
6-11-19 20:15	19.32	1341	8.99	0.0	6-11-19 15:15	17.05	791	8.90	8.7	6-11-19 15:15	16.47	737	8.45	7.2						9-11-19 10:15	13.80	1922	8.76	13.9					
6-11-19 20:30	19.49	1345	8.93	0.0	6-11-19 15:30	17.06	790	8.90	9.2	6-11-19 15:30	16.49	736	8.45	6.7						9-11-19 10:30	13.78	1917	8.76	2.1					
6-11-19 20:45	19.60	1343	9.04	0.0	6-11-19 15:45	17.18	788	8.91	9.4	6-11-19 15:45	16.59	737	8.45	7.1						9-11-19 10:45	13.80	1917	8.76	0.6					
6-11-19 21:00	19.73	1334	9.02	1.7	6-11-19 16:00	17.26	786	8.91	9.6	6-11-19 16:00	16.71	736	8.46	6.5						9-11-19 11:00	13.80	1916	8.76	1.8					
6-11-19 21:15	19.90	1250	9.07	0.0	6-11-19 16:15	17.24	785	8.92	10.0	6-11-19 16:15	16.77	736	8.46	9.3						9-11-19 11:15	13.76	1920	8.75	0.4					
6-11-19 21:30	20.05	1316	9.10	0.1	6-11-19 16:30	17.37	785	8.92	10.4	6-11-19 16:30	16.79	739	8.46	7.8						9-11-19 11:30	13.76	1921	8.75	0.0					
6-11-19 21:45	20.18	1349	9.16	0.3	6-11-19 16:45	17.41	784	8.93	10.3	6-11-19 16:45	16.89	736	8.46	7.5						9-11-19 11:45	13.75	1920	8.75	0.0					
6-11-19 22:00	20.36	1350	9.20	0.0	6-11-19 17:00	17.38	783	8.93	10.8	6-11-19 17:00	16.98	734	8.45	7.0						9-11-19 12:00	13.71	1921	8.75	0.0					
6-11-19 22:15	20.33	1346	9.17	0.2	6-11-19 17:15	17.36	784	8.93	11.1	6-11-19 17:15	17.03	737	8.46	6.9						9-11-19 12:15	13.73	1918	8.75	3.5					
6-11-19 22:30	20.41	1346	9.14	0.7	6-11-19 17:30	17.34	783	8.94	10.6	6-11-19 17:30	17.05	731	8.45	7.5						9-11-19 12:30	13.74	1918	8.76	0.6					
6-11-19 22:45	20.37	1342	9.04	0.0	6-11-19 17:45	17.59	784	8.95	12.1	6-11-19 17:45	17.23	734	8.46	7.5						9-11-19 12:45	13.75	1916	8.75	0.8					
6-11-19 23:00	20.50	1342	9.06	0.0	6-11-19 18:00	17.68	784	8.95	11.2	6-11-19 18:00	17.16	730	8.45	7.0						9-11-19 13:00	13.73	1918	8.76	0.6					
6-11-19 23:15	20.47	1343	9.08	3.0	6-11-19 18:15	17.62	783	8.95	10.8	6-11-19 18:15	17.32	729	8.46	6.9						9-11-19 13:15	13.72	1920	8.75	0.9					
6-11-19 23:30	20.48	1338	9.13	0.0	6-11-19 18:30	17.67	784	8.95	11.6	6-11-19 18:30	17.42	728	8.46	20.3						9-11-19 13:30	13.70	1921	8.75	0.0					
6-11-19 23:45	20.52	1332	9.07	0.0	6-11-19 18:45	17.82	784	8.95	11.4	6-11-19 18:45	17.51	728	8.46	9.1						9-11-19 13:45	13.65	1922	8.75	0.0					
6-12-19 0:00	20.54	1331	9.08	0.0	6-11-19 19:00	17.73	784	8.95	12.2	6-11-19 19:00	17.57	728	8.46	8.0						9-11-19 14:00	13.65	1922	8.75	0.0					
6-12-19 0:15	20.53	1365	8.97	0.0	6-11-19 19:15	17.87	786	8.96	11.2	6-11-19 19:15	17.46	728	8.46	8.0						9-11-19 14:15	13.65	1920	8.75	2.7					
6-12-19 0:30	20.53	1363	8.90	0.0	6-11-19 19:30	17.86	784	8.96	11.1	6-11-19 19:30	17.52	718	8.46	8.5						9-11-19 14:30	13.60	1916	8.74	1.2					
6-12-19 0:45	20.54	1364	8.84	0.0	6-11-19 19:45	18.01	784	8.96	12.2	6-11-19 19:45	17.62	717	8.47	8.4						9-11-19 14:45	13.58	1916	8.74	0.7					
6-12-19 1:00	20.52	1357	8.77	0.0	6-11-19 20:00	18.19	785	8.96	12.7	6-11-19 20:00	17.88	718	8.47	9.1						9-11-19 15:00	13.60	1915	8.74	0.7					
6-12-19 1:15	20.53	1366	8.79	0.0	6-11-19 20:15	18.41	782	8.96	12.2	6-11-19 20:15	17.83	716	8.46	10.1						9-11-19 15:15	13.60	1917	8.74	1.8					
6-12-19 1:30	20.53	1369	8.90	0.0	6-11-19 20:30	18.38	785	8.97	12.8	6-11-19 20:30	18.00	693	8.47	10.3						9-11-19 15:30	13.58	1917	8.74	0.0					
6-12-19 1:45	20.53	1363	8.93	0.0	6-11-19 20:45	18.48	784	8.97	11.7	6-11-19 20:45	18.21	692	8.46	9.9						9-11-19 15:45	13.60	1918	8.74	0.0					
6-12-19 2:00	20.52	1363	8.88	0.0	6-11-19 21:00	18.63	783	8.98	12.3	6-11-19 21:00	18.27	672	8.46	10.2						9-11-19 16:00	13.60	1918	8.74	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-12-19 2:15	20.52	1354	8.93	0.0	6-11-19 21:15	18.61	783	8.98	11.5	6-11-19 21:15	18.49	718	8.47	15.8						9-11-19 16:15	13.59	1917	8.74	2.6					
6-12-19 2:30	20.50	1362	8.87	0.0	6-11-19 21:30	18.79	784	8.99	12.2	6-11-19 21:30	18.23	733	8.46	9.5						9-11-19 16:30	13.60	1916	8.74	1.6					
6-12-19 2:45	20.49	1362	8.85	0.0	6-11-19 21:45	18.86	783	8.99	16.5	6-11-19 21:45	18.53	717	8.47	11.1						9-11-19 16:45	13.62	1915	8.74	1.3					
6-12-19 3:00	20.48	1361	8.73	0.0	6-11-19 22:00	18.86	784	8.99	12.3	6-11-19 22:00	18.61	713	8.46	14.8						9-11-19 17:00	13.63	1915	8.74	1.8					
6-12-19 3:15	20.47	1361	8.65	0.0	6-11-19 22:15	18.83	782	8.99	13.3	6-11-19 22:15	18.40	692	8.47	10.4						9-11-19 17:15	13.67	1916	8.74	3.6					
6-12-19 3:30	20.45	1360	8.55	0.0	6-11-19 22:30	18.74	782	9.01	13.2	6-11-19 22:30	18.52	708	8.47	11.0						9-11-19 17:30	13.73	1917	8.74	0.0					
6-12-19 3:45	20.44	1364	8.37	0.0	6-11-19 22:45	18.87	782	9.01	11.9	6-11-19 22:45	18.47	714	8.48	10.0						9-11-19 17:45	13.82	1918	8.74	0.1					
6-12-19 4:00	20.42	1366	8.17	0.0	6-11-19 23:00	18.96	783	9.01	11.6	6-11-19 23:00	18.63	709	8.47	9.7						9-11-19 18:00	13.89	1918	8.74	0.0					
6-12-19 4:15	20.40	1358	8.28	0.0	6-11-19 23:15	18.99	782	9.01	11.6	6-11-19 23:15	18.60	691	8.47	10.6						9-11-19 18:15	14.01	1915	8.74	7.1					
6-12-19 4:30	20.38	1364	8.30	0.0	6-11-19 23:30	19.05	781	9.02	13.3	6-11-19 23:30	18.67	704	8.48	10.4						9-11-19 18:30	14.15	1912	8.75	2.0					
6-12-19 4:45	20.36	1361	8.34	0.0	6-11-19 23:45	18.93	782	9.02	12.6	6-11-19 23:45	18.58	717	8.48	12.3						9-11-19 18:45	14.21	1912	8.75	2.1					
6-12-19 5:00	20.35	1361	8.34	0.0	6-12-19 0:00	18.97	782	9.03	11.9	6-12-19 0:00	18.59	710	8.48	14.4						9-11-19 19:00	14.31	1913	8.75	2.7					
6-12-19 5:15	20.31	1359	8.31	0.0	6-12-19 0:15	18.98	781	9.02	12.1	6-12-19 0:15	18.66	706	8.49	12.8						9-11-19 19:15	14.10	1910	8.76	3.0					
6-12-19 5:30	20.28	1358	8.17	0.0	6-12-19 0:30	18.96	781	9.04	12.8	6-12-19 0:30	18.59	711	8.49	12.9						9-11-19 19:30	14.12	1911	8.76	0.0					
6-12-19 5:45	20.24	1357	8.37	0.0	6-12-19 0:45	18.94	780	9.04	12.5	6-12-19 0:45	18.56	707	8.49	12.0						9-11-19 19:45	14.27	1908	8.76	0.0					
6-12-19 6:00	20.20	1361	8.37	0.0	6-12-19 1:00	18.96	780	9.04	12.7	6-12-19 1:00	18.56	708	8.50	12.1						9-11-19 20:00	14.41	1911	8.76	0.0					
6-12-19 6:15	20.19	1363	8.38	0.0	6-12-19 1:15	18.99	780	9.05	12.3	6-12-19 1:15	18.53	706	8.49	10.4						9-11-19 20:15	14.61	1909	8.76	4.5					
6-12-19 6:30	20.13	1364	8.37	0.0	6-12-19 1:30	19.00	780	9.04	16.7	6-12-19 1:30	18.51	705	8.49	10.0						9-11-19 20:30	14.64	1898	8.77	2.1					
6-12-19 6:45	20.10	1362	8.18	0.0	6-12-19 1:45	19.02	780	9.04	11.4	6-12-19 1:45	18.50	703	8.49	9.6						9-11-19 20:45	14.76	1897	8.77	2.2					
6-12-19 7:00	20.07	1362	8.20	0.0	6-12-19 2:00	19.02	780	9.05	11.3	6-12-19 2:00	18.52	708	8.49	10.3						9-11-19 21:00	14.79	1898	8.77	2.0					
6-12-19 7:15	20.02	1362	8.34	0.0	6-12-19 2:15	19.02	780	9.04	12.8	6-12-19 2:15	18.50	704	8.49	10.4						9-11-19 21:15	14.85	1903	8.77	3.3					
6-12-19 7:30	19.99	1359	8.29	0.0	6-12-19 2:30	19.04	780	9.05	12.9	6-12-19 2:30	18.48	706	8.49	9.5						9-11-19 21:30	14.94	1904	8.77	0.5					
6-12-19 7:45	19.94	1359	8.24	0.0	6-12-19 2:45	19.00	780	9.05	12.6	6-12-19 2:45	18.47	703	8.49	10.7						9-11-19 21:45	15.14	1901	8.77	0.5					
6-12-19 8:00	19.91	1357	8.25	0.0	6-12-19 3:00	19.01	780	9.05	11.3	6-12-19 3:00	18.46	701	8.49	9.6						9-11-19 22:00	15.13	1900	8.77	0.3					
6-12-19 8:15	19.86	1371	8.17	0.0	6-12-19 3:15	19.00	782	9.04	10.2	6-12-19 3:15	18.44	698	8.49	10.4						9-11-19 22:15	15.17	1895	8.78	5.0					
6-12-19 8:30	19.82	1360	8.15	0.0	6-12-19 3:30	18.96	780	9.04	10.5	6-12-19 3:30	18.44	700	8.49	10.3						9-11-19 22:30	15.31	1895	8.78	2.8					
6-12-19 8:45	19.78	1356	8.16	0.0	6-12-19 3:45	18.94	780	9.04	10.2	6-12-19 3:45	18.43	701	8.49	10.8						9-11-19 22:45	15.25	1890	8.79	2.0					
6-12-19 9:00	19.75	1357	8.09	0.0	6-12-19 4:00	18.90	779	9.04	11.4	6-12-19 4:00	18.43	709	8.49	11.0						9-11-19 23:00	15.32	1892	8.79	2.9					
6-12-19 9:15	19.72	1363	8.07	0.0	6-12-19 4:15	18.90	780	9.03	10.0	6-12-19 4:15	18.41	748	8.49	9.3						9-11-19 23:15	15.27	1893	8.79	0.6					
6-12-19 9:30	19.67	1360	8.04	0.0	6-12-19 4:30	18.93	780	9.04	12.2	6-12-19 4:30	18.39	736	8.49	8.5						9-11-19 23:30	15.33	1897	8.79	0.2					
6-12-19 9:45	19.63	1362	7.95	0.0	6-12-19 4:45	18.90	779	9.04	10.8	6-12-19 4:45	18.37	734	8.49	9.3						9-11-19 23:45	15.44	1900	8.79	0.5					
6-12-19 10:00	19.58	1363	7.89	0.0	6-12-19 5:00	18.85	779	9.04	11.0	6-12-19 5:00	18.35	738	8.49	9.2						9-12-19 0:00	15.31	1894	8.79	0.4					
6-12-19 10:15	19.55	1363	7.80	0.0	6-12-19 5:15	18.86	776	9.03	9.7	6-12-19 5:15	18.33	738	8.49	8.8						9-12-19 0:15	15.28	1893	8.80	4.6					
6-12-19 10:30	19.50	1363	7.78	0.0	6-12-19 5:30	18.87	777	9.04	12.1	6-12-19 5:30	18.31	738	8.49	8.8						9-12-19 0:30	15.30	1889	8.81	2.5					
6-12-19 10:45	19.44	1364	7.84	0.0	6-12-19 5:45	18.90	777	9.05	12.1	6-12-19 5:45	18.29	737	8.49	8.1						9-12-19 0:45	15.13	1887	8.83	1.8					
6-12-19 11:00	19.37	1364	7.79	0.0	6-12-19 6:00	18.88	777	9.05	12.5	6-12-19 6:00	18.26	737	8.48	7.9						9-12-19 1:00	15.08	1888	8.83	2.0					
6-12-19 11:15	19.34	1364	7.80	0.0	6-12-19 6:15	18.85	778	9.03	12.3	6-12-19 6:15	18.23	736	8.49	8.3						9-12-19 1:15	15.06	1890	8.83	6.8					
6-12-19 11:30	19.26	1364	7.80	0.0	6-12-19 6:30	18.81	777	9.04	16.6	6-12-19 6:30	18.20	734	8.49	7.7						9-12-19 1:30	15.01	1890	8.84	0.2					
6-12-19 11:45	19.18	1364	7.78	0.0	6-12-19 6:45	18.79	779	9.03	10.8	6-12-19 6:45	18.19	733	8.49	7.8						9-12-19 1:45	14.95	1891	8.84	0.2					
6-12-19 12:00	19.14	1364	7.73	0.0	6-12-19 7:00	18.76	777	9.03	11.3	6-12-19 7:00	18.16	735	8.49	7.5						9-12-19 2:00	14.91	1891	8.85	0.0					
6-12-19 12:15	19.08	1363	7.59	0.0	6-12-19 7:15	18.70	778	9.03	10.5	6-12-19 7:15	18.13	736	8.49	10.2						9-12-19 2:15	14.86	1887	8.86	6.3					
6-12-19 12:30	19.04	1364	7.63	0.0	6-12-19 7:30	18.64	778	9.03	11.5	6-12-19 7:30	18.09	736	8.48	7.6						9-12-19 2:30	14.82	1884	8.87	1.1					
6-12-19 12:45	19.01	1363	7.67	0.0	6-12-19 7:45	18.63	778	9.03	10.8	6-12-19 7:45	18.05	735	8.49	7.6						9-12-19 2:45	14.84	1884	8.87	1.2					
6-12-19 13:00	18.99	1363	7.63	0.0	6-12-19 8:00	18.59	778	9.02	12.1	6-12-19 8:00	18.05	738	8.49	7.9						9-12-19 3:00	14.85	1883	8.88	1.1					
6-12-19 13:15	18.95	1364	7.53	0.0	6-12-19 8:15	18.55	778	9.01	9.8	6-12-19 8:15	18.02	736	8.48	7.7						9-12-19 3:15	14.81	1885	8.87	0.3					
6-12-19 13:30	18.93	1365	7.62	0.0	6-12-19 8:30	18.55	777	9.02	10.8	6-12-19 8:30	17.99	738	8.49	8.3						9-12-19 3:30	14.80	1896	8.88	0.0					
6-12-19 13:45	18.91	1364	7.63	0.0	6-12-19 8:45	18.53	778	9.02	10.1	6-12-19 8:45	17.97	737	8.49	7.4						9-12-19 3:45	14.73	1889	8.87	0.0					
6-12-19 14:00	18.87	1365	7.64	0.0	6-12-19 9:00	18.51	777	9.02	9.9	6-12-19 9:00	17.92	736	8.48	7.3						9-12-19 4:00	14.74	1888	8.87	0.0					
6-12-19 14:15	18.83	1365	7.63	0.0	6-12-19 9:15	18.50	777	9.01	9.5	6-12-19 9:15	17.90	735	8.49	7.7						9-12-19 4:15	14.75	1886	8.88	2.5					
6-12-19 14:30	18.86	1365	7.63	0.0	6-12-19 9:30	18.49	779	9.01	10.2	6-12-19 9:30	17.90	736	8.48	7.5						9-12-19 4:30	14.67	1884	8.87	1.2					
6-12-19 14:45	18.94	1363	7.64	0.0	6-12-19 9:45	18.46	779	9.01	9.5	6-12-19 9:45	17.85	736	8.48	7.7						9-12-19 4:45	14.69	1882	8.87	1.0					
6-12-19 15:00	18.94	1363	7.62	0.0	6-12-19 10:00	18.42	779	9.01	10.0	6-12-19 10:00	17.84	736	8.48	7.3						9-12-19 5:00	14.68	1881	8.87	3.6					
6-12-19 15:15	18.95	1364	7.66	0.0	6-12-19 10:15	18.37	779	9.00	8.8	6-12-19 10:15	17.82	736	8.48	7.3						9-12-19 5:15	14.64	1883	8.87	1.1					
6-12-19 15:30	18.97	1363	7.65	0.0	6-12-19 10:30	18.34	780	9.00	9.4	6-12-19 10:30	17.77	736	8.48	7.4						9-12-19 5:30	14.60	1885	8.86	0.9					
6-12-19 15:45	18.99	1363	7.66	0.0	6-12-19 10:45	18.27	778	9.00	9.3	6-12-19 10:45	17.74	739	8.48	7.4						9-12-19 5:45	14.59	1885	8.86	0.0					
6-12-19 16:00	19.01	1361	8.17	0.0	6-12-19 11:00	18.18	778	9.00	10.2	6-12-19 11:00	17.71	735	8.48	7.4						9-12-19 6:00	14.58	1883	8.86	0.0					
6-12-19 16:15	19.09	1361	8.11	0.0	6-12-19 11:15	18.12	778	9.00	9.0	6-12-19 11:15	17.66	735	8.48	7.7						9-12-19 6:15	14.52	1885	8.86	5.7					
6-12-19 16:30	19.21	1362	7.88	0.0	6-12-19 11:30	18.11	779	9.00	8.8	6-12-19 11:30	17.57	734	8.48	8.1						9-12-19 6:30	14.52	1883	8.86	1.7					
6-12-19 16:45	19.28	1360	8.25	0.0	6-12-19 11:45	18.11	779	9.00	8.5	6-12-19 11:45	17.55	734	8.49	8.5						9-12-19 6:45	14.52	1884	8.86	4.7					
6-12-19 17:00	19.36	1360	8.39	0.0	6-12-19 12:00	18.08	780	9.00	9.0	6-12-19 12:00	17.53	734	8.48	8.3						9-12-19 7:00	14.48	1883	8.86	1.4					
6-12-19 17:15	19.42	1357	8.79	0.0	6-12-19 12:15	18.04	779	8.99	9.0	6-12-19 12:15	17.50	734	8.49	8.2						9-12-19 7:15	14.40	1885	8.85	0.5					
6-12-19 17:30	19.53	1357	8.79	0.0	6-12-19 12:30	18.01	777	9.00	10.6	6-12-19 12:30	17.49	732	8.48	8.8						9-12-19 7:30	14.41	1886	8.85	0.0					
6-12-19 17:45	19.71	1358	8.90	0.0	6-12-19 12:45	18.08	778	9.00	10.4	6-12-19 12:45	17.47	730	8.49	10.1						9-12-19 7:45	14.40	1888	8.85	0.0					
6-12-19 18:00	19.76	1358	8.88	0.0	6-12-19 13:00	18.08	778	9.00	10.7	6-12-19 13:00	17.46	731	8.48	9.6						9-12-19 8:00	14.38	1888	8.85	0.0					
6-12-19 18:15	19.91	1356	8.96	0.0	6-12-19 13:15	18.09	778	8.99	10.0	6-12-19 13:15	17.44	731	8.50	9.9						9-12-19 8:15	14.21	1887	8.85	2.8					
6-12-19 18:30	20.08	1357	8.93	0.0	6-12-19 13:30	18.03	777	8.99	10.4	6-12-19 13:30	17.43	732	8.49	8.6						9-12-19 8:30	14.24	1886	8.85	1.1					
6-12-19 18:45	20.25	1358	8.77	0.0	6-12-19 13:45	18.01	778	8.99	10.6	6-12-19 13:45	17.42	732	8.49	9.6						9-12-19 8:45	14.23	1883	8.85	2.0					
6-12-19 19:00	20.33	1351	9.09	0.0	6-12-19 14:00	17.97	778	8.98	11.1	6-12-19 14:00	17.41	731	8.50	10.1						9-12-19 9:00	14.17	1882	8.84	1.0					
6-12-19 19:15	20.45	1359	9.09	0.0	6-12-19 14:15	18.00	778	8.97	9.7	6-12-19 14:15	17.41	731	8.50	10.0						9-12-19 9:15	14.25	1886	8.84	0.4					
6-12-19 19:30	20.56	1362	9.06	1.9	6-12-19 14:30	17.99	778	8.98	10.4	6-12-19 14:30	17.42	729	8.51	10.4						9-12-19 9:30	14.24	1887	8.84	0.1					
6-12-19 19:45	20.72	1353	9.16	0.0	6-12-19 14:45	18.02	778	8.98	11.1	6-12-19 14:45	17.41	727	8.52	12.4						9-12-19 9:45	14.20	1886	8.84	0.0					
6-12-19 20:00	20.80	1350	9.11	0.0	6-12-19 15:00	18.06	779	8.98	10.2	6-12-19 15:00	17.45	725	8.53	12.1						9-12-19 10:00	14.20	1888	8.84	0.0					
6-12-19 20:15	21.00	1347	9.16	0.0	6-12-19 15:15	18.17	779	8.98	9.4	6-12-19 15:15	17.50	725	8.52	12.7						9-12-19 10:15	14.17	1884	8.84	1.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-12-19 20:30	20.98	1350	9.10	0.0	6-12-19 15:30	18.26	778	8.98	9.5	6-12-19 15:30	17.53	728	8.52	12.3						9-12-19 10:30	14.16	1882	8.84	0.6					
6-12-19 20:45	21.12	1350	9.07	0.1	6-12-19 15:45	18.34	779	8.98	10.6	6-12-19 15:45	17.62	726	8.54	14.2						9-12-19 10:45	14.10	1880	8.83	0.7					
6-12-19 21:00	21.32	1347	8.91	0.0	6-12-19 16:00	18.44	778	8.98	9.7	6-12-19 16:00	17.76	725	8.54	14.0						9-12-19 11:00	14.11	1883	8.83	1.3					
6-12-19 21:15	21.52	1288	9.17	0.0	6-12-19 16:15	18.48	779	8.96	10.9	6-12-19 16:15	17.82	726	8.53	12.7						9-12-19 11:15	14.09	1882	8.83	2.4					
6-12-19 21:30	21.65	1342	9.14	0.0	6-12-19 16:30	18.56	778	8.97	11.6	6-12-19 16:30	17.91	727	8.53	12.7						9-12-19 11:30	14.09	1886	8.83	0.0					
6-12-19 21:45	21.92	1283	8.99	0.0	6-12-19 16:45	18.67	778	8.98	10.6	6-12-19 16:45	18.06	725	8.54	14.0						9-12-19 11:45	14.05	1886	8.82	0.0					
6-12-19 22:00	22.00	1344	8.98	0.0	6-12-19 17:00	18.65	777	8.97	11.7	6-12-19 17:00	18.03	726	8.53	13.0						9-12-19 12:00	14.01	1887	8.82	0.0					
6-12-19 22:15	22.00	1344	8.98	0.0	6-12-19 17:15	18.77	777	8.98	11.8	6-12-19 17:15	18.16	727	8.54	12.9						9-12-19 12:15	14.04	1885	8.82	2.1					
6-12-19 22:30	22.22	1343	8.81	0.0	6-12-19 17:30	18.79	777	8.98	12.5	6-12-19 17:30	18.26	726	8.53	13.3						9-12-19 12:30	14.00	1884	8.82	0.9					
6-12-19 22:45	22.31	1351	9.04	0.0	6-12-19 17:45	19.03	777	8.98	13.3	6-12-19 17:45	18.52	723	8.55	13.9						9-12-19 12:45	14.02	1884	8.82	0.6					
6-12-19 23:00	22.27	1337	8.80	21.0	6-12-19 18:00	19.10	776	8.99	12.4	6-12-19 18:00	18.44	721	8.55	17.9						9-12-19 13:00	14.01	1884	8.82	0.8					
6-12-19 23:15	22.40	1343	9.05	0.0	6-12-19 18:15	19.08	774	8.99	12.4	6-12-19 18:15	18.69	720	8.56	15.4						9-12-19 13:15	13.96	1884	8.82	0.0					
6-12-19 23:30	22.26	1338	9.11	0.0	6-12-19 18:30	19.24	773	9.00	12.9	6-12-19 18:30	19.08	714	8.56	14.2						9-12-19 13:30	13.93	1888	8.82	0.0					
6-12-19 23:45	22.35	1354	9.08	0.0	6-12-19 18:45	19.29	773	9.01	12.5	6-12-19 18:45	18.92	711	8.56	14.5						9-12-19 13:45	13.90	1887	8.81	0.0					
6-13-19 0:00	22.32	1354	8.98	0.0	6-12-19 19:00	19.32	772	9.01	12.9	6-12-19 19:00	18.95	720	8.55	14.5						9-12-19 14:00	13.89	1888	8.81	74.6					
6-13-19 0:15	22.35	1351	8.96	0.0	6-12-19 19:15	19.39	772	9.02	13.1	6-12-19 19:15	19.00	716	8.55	15.4						9-12-19 14:15	13.89	1885	8.81	1.8					
6-13-19 0:30	22.34	1339	8.92	0.0	6-12-19 19:30	19.54	771	9.03	13.8	6-12-19 19:30	19.22	714	8.56	14.0						9-12-19 14:30	13.89	1882	8.81	0.4					
6-13-19 0:45	22.38	1366	8.90	0.0	6-12-19 19:45	19.73	770	9.03	12.6	6-12-19 19:45	19.34	711	8.55	13.9						9-12-19 14:45	13.91	1882	8.81	0.5					
6-13-19 1:00	22.44	1334	8.96	0.0	6-12-19 20:00	19.82	772	9.04	13.7	6-12-19 20:00	19.71	711	8.56	13.8						9-12-19 15:00	13.89	1882	8.81	0.4					
6-13-19 1:15	22.31	1349	8.72	0.0	6-12-19 20:15	19.92	770	9.03	13.7	6-12-19 20:15	19.56	714	8.55	15.5						9-12-19 15:15	13.88	1882	8.80	1.2					
6-13-19 1:30	22.38	1336	8.97	0.0	6-12-19 20:30	20.05	771	9.04	13.8	6-12-19 20:30	19.62	715	8.55	17.0						9-12-19 15:30	13.89	1887	8.80	0.0					
6-13-19 1:45	22.38	1348	8.76	0.0	6-12-19 20:45	20.17	774	9.05	14.2	6-12-19 20:45	20.05	715	8.55	14.2						9-12-19 15:45	13.90	1886	8.80	0.0					
6-13-19 2:00	22.35	1328	8.93	1.4	6-12-19 21:00	20.32	769	9.06	13.0	6-12-19 21:00	20.15	721	8.54	13.9						9-12-19 16:00	13.89	1887	8.81	0.0					
6-13-19 2:15	22.30	1352	8.81	0.0	6-12-19 21:15	20.62	770	9.05	13.1	6-12-19 21:15	20.53	720	8.55	14.5						9-12-19 16:15	13.90	1885	8.81	1003.6					
6-13-19 2:30	22.26	1326	8.73	0.0	6-12-19 21:30	20.52	772	9.05	14.4	6-12-19 21:30	20.42	722	8.54	13.5						9-12-19 16:30	13.91	1883	8.82	1527.0					
6-13-19 2:45	22.23	1327	8.74	0.0	6-12-19 21:45	20.43	767	9.05	13.8	6-12-19 21:45	20.73	725	8.55	16.9						9-12-19 16:45	13.95	1882	8.82	1015.6					
6-13-19 3:00	22.19	1285	8.65	0.0	6-12-19 22:00	20.66	769	9.05	13.9	6-12-19 22:00	20.79	714	8.55	14.8						9-12-19 17:00	14.01	1882	8.81	948.6					
6-13-19 3:15	22.14	1344	8.68	0.0	6-12-19 22:15	20.56	771	9.05	13.6	6-12-19 22:15	21.07	705	8.55	16.1						9-12-19 17:15	14.06	1885	8.80	0.8					
6-13-19 3:30	22.08	1318	8.66	0.0	6-12-19 22:30	20.52	768	9.07	14.5	6-12-19 22:30	21.05	712	8.56	15.4						9-12-19 17:30	14.12	1885	8.81	0.0					
6-13-19 3:45	22.04	1331	8.67	0.0	6-12-19 22:45	20.55	769	9.08	13.4	6-12-19 22:45	21.03	708	8.56	17.2						9-12-19 17:45	14.12	1885	8.82	0.0					
6-13-19 4:00	21.97	1250	8.50	0.0	6-12-19 23:00	20.49	769	9.08	13.0	6-12-19 23:00	20.97	705	8.56	21.8						9-12-19 18:00	14.17	1885	8.82	0.0					
6-13-19 4:15	21.93	1341	8.41	0.0	6-12-19 23:15	20.35	775	9.08	14.9	6-12-19 23:15	20.69	701	8.57	33.6						9-12-19 18:15	14.24	1880	8.84	185.2					
6-13-19 4:30	21.88	1251	8.39	0.0	6-12-19 23:30	20.30	767	9.09	14.2	6-12-19 23:30	20.63	694	8.58	15.8						9-12-19 18:30	14.34	1877	8.84	168.0					
6-13-19 4:45	21.84	1348	8.38	0.0	6-12-19 23:45	20.38	772	9.09	14.6	6-12-19 23:45	20.66	691	8.58	13.1						9-12-19 18:45	14.53	1871	8.83	0.7					
6-13-19 5:00	21.81	1326	8.35	0.0	6-13-19 0:00	20.30	768	9.10	14.4	6-13-19 0:00	20.52	690	8.57	13.7						9-12-19 19:00	14.62	1871	8.83	0.9					
6-13-19 5:15	21.77	1343	8.33	0.0	6-13-19 0:15	20.33	765	9.10	19.4	6-13-19 0:15	20.61	703	8.58	13.3						9-12-19 19:15	14.67	1867	8.82	0.0					
6-13-19 5:30	21.74	1261	8.21	0.0	6-13-19 0:30	20.36	768	9.11	15.4	6-13-19 0:30	20.57	697	8.57	21.5						9-12-19 19:30	14.74	1866	8.81	0.0					
6-13-19 5:45	21.70	1356	8.05	0.0	6-13-19 0:45	20.47	768	9.11	14.5	6-13-19 0:45	20.66	694	8.58	13.6						9-12-19 19:45	15.36	1871	8.80	0.0					
6-13-19 6:00	21.67	1333	8.07	0.0	6-13-19 1:00	20.54	764	9.11	14.2	6-13-19 1:00	20.74	695	8.57	11.9						9-12-19 20:00	15.20	1860	7.79	0.2					
6-13-19 6:15	21.62	1360	7.92	0.0	6-13-19 1:15	20.57	767	9.11	14.5	6-13-19 1:15	20.74	690	8.58	12.9						9-12-19 20:15	15.31	1852	7.58	47.4					
6-13-19 6:30	21.58	1249	7.86	0.0	6-13-19 1:30	20.60	770	9.11	15.7	6-13-19 1:30	20.76	691	8.58	11.8						9-12-19 20:30	15.28	1844	7.44	217.7					
6-13-19 6:45	21.54	1343	7.72	0.0	6-13-19 1:45	20.59	768	9.11	15.1	6-13-19 1:45	20.75	683	8.58	12.1						9-12-19 20:45	15.27	1845	7.47	189.1					
6-13-19 7:00	21.50	1259	7.63	0.0	6-13-19 2:00	20.48	767	9.11	14.3	6-13-19 2:00	20.67	670	8.58	12.5						9-12-19 21:00	15.21	1840	7.49	152.3					
6-13-19 7:15	21.45	1346	7.84	0.0	6-13-19 2:15	20.41	766	9.10	13.5	6-13-19 2:15	20.65	701	8.58	12.5						9-12-19 21:15	15.18	1838	7.52	1.0					
6-13-19 7:30	21.41	1319	7.74	0.0	6-13-19 2:30	20.49	766	9.12	14.8	6-13-19 2:30	20.61	701	8.58	12.2						9-12-19 21:30	15.15	1846	7.49	0.2					
6-13-19 7:45	21.38	1360	7.57	0.0	6-13-19 2:45	20.49	767	9.11	14.4	6-13-19 2:45	20.56	694	8.59	13.0						9-12-19 21:45	15.14	1850	7.45	0.3					
6-13-19 8:00	21.34	1304	7.75	0.0	6-13-19 3:00	20.40	764	9.11	12.4	6-13-19 3:00	20.49	702	8.59	13.4						9-12-19 22:00	15.13	1850	7.42	0.1					
6-13-19 8:15	21.27	1350	7.82	0.0	6-13-19 3:15	20.30	770	9.11	12.9	6-13-19 3:15	20.39	704	8.60	11.1						9-12-19 22:15	15.12	1849	7.33	97.8					
6-13-19 8:30	21.22	1315	7.79	0.0	6-13-19 3:30	20.24	766	9.11	12.7	6-13-19 3:30	20.33	698	8.60	11.6						9-12-19 22:30	15.11	1850	7.32	17.8					
6-13-19 8:45	21.18	1349	7.73	0.0	6-13-19 3:45	20.15	767	9.10	11.5	6-13-19 3:45	20.28	697	8.60	10.6						9-12-19 22:45	15.17	1850	7.30	164.7					
6-13-19 9:00	21.09	1317	7.72	0.0	6-13-19 4:00	20.15	767	9.10	13.7	6-13-19 4:00	20.21	670	8.60	11.3						9-12-19 23:00	15.31	1845	7.35	35.6					
6-13-19 9:15	21.05	1351	7.70	0.0	6-13-19 4:15	20.10	767	9.10	12.9	6-13-19 4:15	20.15	688	8.60	11.0						9-12-19 23:15	15.47	1850	7.40	4.9					
6-13-19 9:30	20.99	1302	7.67	0.0	6-13-19 4:30	20.09	766	9.10	13.7	6-13-19 4:30	20.11	686	8.60	37.2						9-12-19 23:30	15.43	1853	7.23	0.0					
6-13-19 9:45	20.91	1353	7.64	0.0	6-13-19 4:45	20.02	766	9.10	12.5	6-13-19 4:45	20.08	685	8.61	11.4						9-12-19 23:45	15.44	1849	7.15	0.1					
6-13-19 10:00	20.86	1249	7.36	0.0	6-13-19 5:00	19.98	766	9.10	13.1	6-13-19 5:00	20.04	684	8.59	10.7						9-13-19 0:00	15.36	1847	7.11	0.2					
6-13-19 10:15	20.80	1355	7.54	0.0	6-13-19 5:15	19.98	767	9.10	12.3	6-13-19 5:15	20.00	678	8.60	11.7						9-13-19 0:15	15.32	1849	7.11	1.7					
6-13-19 10:30	20.70	1260	7.39	0.0	6-13-19 5:30	20.08	766	9.10	13.9	6-13-19 5:30	19.96	684	8.59	11.0						9-13-19 0:30	15.36	1846	7.10	2.0					
6-13-19 10:45	20.62	1358	7.49	0.0	6-13-19 5:45	20.10	766	9.10	13.0	6-13-19 5:45	19.92	678	8.60	10.8						9-13-19 0:45	15.36	1844	7.10	27.0					
6-13-19 11:00	20.61	1342	7.48	0.0	6-13-19 6:00	20.09	763	9.10	14.4	6-13-19 6:00	19.86	684	8.60	9.2						9-13-19 1:00	15.32	1843	7.07	9.2					
6-13-19 11:15	20.52	1362	7.43	0.0	6-13-19 6:15	20.08	766	9.09	13.9	6-13-19 6:15	19.83	684	8.60	10.2						9-13-19 1:15	15.25	1840	7.10	0.2					
6-13-19 11:30	20.47	1345	7.53	0.0	6-13-19 6:30	20.06	766	9.10	13.9	6-13-19 6:30	19.80	684	8.59	9.1						9-13-19 1:30	15.21	1846	7.12	0.1					
6-13-19 11:45	20.40	1367	7.50	0.0	6-13-19 6:45	20.04	764	9.09	13.4	6-13-19 6:45	19.76	715	8.60	9.7						9-13-19 1:45	15.15	1846	7.19	0.1					
6-13-19 12:00	20.34	1353	7.47	0.0	6-13-19 7:00	20.03	764	9.10	16.1	6-13-19 7:00	19.71	715	8.60	10.8						9-13-19 2:00	15.11	1841	7.16	0.2					
6-13-19 12:15	20.24	1368	7.42	0.0	6-13-19 7:15	20.00	763	9.10	14.1	6-13-19 7:15	19.69	716	8.60	9.0						9-13-19 2:15	15.10	1848	7.19	1.8					
6-13-19 12:30	20.18	1356	7.41	0.0	6-13-19 7:30	19.95	762	9.10	13.3	6-13-19 7:30	19.65	715	8.60	9.5						9-13-19 2:30	15.08	1830	7.17	5.8					
6-13-19 12:45	20.09	1369	7.40	0.0	6-13-19 7:45	19.92	762	9.11	13.4	6-13-19 7:45	19.61	715	8.60	11.0						9-13-19 2:45	15.07	1845	7.21	1.7					
6-13-19 13:00	20.06	1359	7.39	0.0	6-13-19 8:00	19.90	763	9.10	14.0	6-13-19 8:00	19.55	713	8.59	9.4						9-13-19 3:00	15.05	1837	7.26	1.6					
6-13-19 13:15	19.96	1370	7.38	0.0	6-13-19 8:15	19.83	762	9.10	11.7	6-13-19 8:15	19.53	714	8.61	9.6						9-13-19 3:15	15.04	1832	7.12	0.8					
6-13-19 13:30	19.93	1359	7.37	0.0	6-13-19 8:30	19.82	761	9.11	13.3	6-13-19 8:30	19.47	713	8.60	8.1						9-13-19 3:30	15.04	1888	7.06	0.2					
6-13-19 13:45	19.87	1369	7.37	0.0	6-13-19 8:45	19.82	763	9.09	12.2	6-13-19 8:45	19.40	712	8.60	8.5						9-13-19 3:45	15.03	1825	7.00	0.0					
6-13-19 14:00	19.81	1362	7.37	0.0	6-13-19 9:00	19.76	763	9.09	12.5	6-13-19 9:00	19.32	714	8.61	8.6						9-13-19 4:00	15.02	1844	6.94	0.0					
6-13-19 14:15	19.80	1369	7.37	0.0	6-13-19 9:15	19.63	763	9.09	11.9	6-13-19 9:15	19.25	713	8.61	9.4						9-13-19 4:15	15.02	1863	6.91	411.0					
6-13-19 14:30	19.76	1363	7.39	0.0	6-13-19 9:30	19.60	762	9.09	12.2	6-13-19 9:30	19.21	714	8.61	8.2						9-13-19 4:30	15.01	1845	6.90	241.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-13-19 14:45	19.75	1368	7.37	0.0	6-13-19 9:45	19.55	763	9.08	11.1	6-13-19 9:45	19.15	715	8.62	9.5						9-13-19 4:45	15.00	1847	6.88	62.5					
6-13-19 15:00	19.76	1363	7.36	0.0	6-13-19 10:00	19.52	764	9.08	13.9	6-13-19 10:00	19.10	713	8.62	8.4						9-13-19 5:00	14.98	1836	6.87	114.8					
6-13-19 15:15	19.73	1368	7.35	0.0	6-13-19 10:15	19.49	764	9.06	10.8	6-13-19 10:15	19.05	710	8.61	7.9						9-13-19 5:15	14.96	1851	6.82	0.4					
6-13-19 15:30	19.80	1364	7.35	0.0	6-13-19 10:30	19.43	763	9.07	11.3	6-13-19 10:30	18.99	711	8.61	8.0						9-13-19 5:30	14.94	1785	6.83	0.0					
6-13-19 15:45	19.72	1368	7.36	0.0	6-13-19 10:45	19.40	763	9.06	11.7	6-13-19 10:45	18.93	710	8.62	8.4						9-13-19 5:45	14.93	1848	6.85	0.0					
6-13-19 16:00	19.73	1366	7.38	0.0	6-13-19 11:00	19.36	761	9.07	10.5	6-13-19 11:00	18.87	713	8.61	8.2						9-13-19 6:00	14.91	1849	6.89	0.0					
6-13-19 16:15	19.73	1368	7.39	0.0	6-13-19 11:15	19.34	764	9.06	11.7	6-13-19 11:15	18.81	709	8.62	8.3						9-13-19 6:15	14.89	1851	6.82	2.5					
6-13-19 16:30	19.80	1367	7.34	0.0	6-13-19 11:30	19.30	764	9.06	11.7	6-13-19 11:30	18.78	708	8.62	9.1						9-13-19 6:30	14.87	1853	6.83	175.2					
6-13-19 16:45	19.79	1369	7.34	1.6	6-13-19 11:45	19.27	764	9.05	11.3	6-13-19 11:45	18.72	708	8.62	7.7						9-13-19 6:45	14.84	1853	6.82	3.6					
6-13-19 17:00	19.92	1366	7.37	0.0	6-13-19 12:00	19.26	764	9.05	11.1	6-13-19 12:00	18.66	708	8.62	8.2						9-13-19 7:00	14.83	1851	6.84	6.0					
6-13-19 17:15	19.88	1369	7.33	1.6	6-13-19 12:15	19.20	766	9.03	12.4	6-13-19 12:15	18.63	706	8.63	7.9						9-13-19 7:15	14.82	1853	6.87	1.6					
6-13-19 17:30	20.02	1367	7.34	0.0	6-13-19 12:30	19.19	765	9.04	11.2	6-13-19 12:30	18.57	707	8.62	9.6						9-13-19 7:30	14.79	1856	6.87	0.0					
6-13-19 17:45	20.20	1365	7.32	0.6	6-13-19 12:45	19.16	764	9.04	10.6	6-13-19 12:45	18.50	706	8.63	8.5						9-13-19 7:45	14.77	1857	6.88	0.2					
6-13-19 18:00	20.27	1366	7.29	0.0	6-13-19 13:00	19.12	764	9.04	10.9	6-13-19 13:00	18.47	704	8.63	8.1						9-13-19 8:00	14.74	1842	6.83	0.0					
6-13-19 18:15	20.43	1366	7.29	0.0	6-13-19 13:15	19.10	766	9.04	10.7	6-13-19 13:15	18.45	703	8.63	8.8						9-13-19 8:15	14.71	1853	6.82	116.2					
6-13-19 18:30	20.66	1368	7.48	0.0	6-13-19 13:30	19.10	764	9.04	11.2	6-13-19 13:30	18.41	703	8.63	8.4						9-13-19 8:30	14.68	1850	6.85	749.1					
6-13-19 18:45	20.78	1366	7.70	0.0	6-13-19 13:45	19.06	764	9.04	11.0	6-13-19 13:45	18.37	706	8.63	8.6						9-13-19 8:45	14.66	1847	6.85	612.6					
6-13-19 19:00	20.80	1369	7.45	0.0	6-13-19 14:00	19.08	764	9.03	13.1	6-13-19 14:00	18.37	703	8.62	10.5						9-13-19 9:00	14.65	1849	6.96	710.5					
6-13-19 19:15	20.93	1362	7.69	0.0	6-13-19 14:15	19.05	764	9.03	11.3	6-13-19 14:15	18.34	701	8.62	9.1						9-13-19 9:15	14.62	1851	6.99	0.1					
6-13-19 19:30	21.01	1369	7.78	0.0	6-13-19 14:30	19.06	764	9.04	13.3	6-13-19 14:30	18.33	700	8.62	8.1						9-13-19 9:30	14.59	1852	6.90	0.0					
6-13-19 19:45	21.04	1361	8.11	0.0	6-13-19 14:45	19.06	764	9.04	11.3	6-13-19 14:45	18.34	700	8.61	8.7						9-13-19 9:45	14.57	1853	6.91	13.7					
6-13-19 20:00	21.20	1365	8.22	0.0	6-13-19 15:00	19.05	763	9.04	12.8	6-13-19 15:00	18.34	704	8.62	8.5						9-13-19 10:00	14.55	1853	6.86	0.0					
6-13-19 20:15	21.14	1363	8.22	0.0	6-13-19 15:15	19.07	763	9.04	11.6	6-13-19 15:15	18.34	703	8.61	8.4						9-13-19 10:15	14.52	1849	6.91	0.2					
6-13-19 20:30	21.21	1363	8.51	0.0	6-13-19 15:30	19.10	762	9.04	12.5	6-13-19 15:30	18.38	701	8.61	7.8						9-13-19 10:30	14.50	1851	6.97	2.8					
6-13-19 20:45	21.24	1363	8.42	0.0	6-13-19 15:45	19.11	764	9.04	11.3	6-13-19 15:45	18.40	702	8.61	8.1						9-13-19 10:45	14.48	1846	6.92	0.4					
6-13-19 21:00	21.27	1231	8.38	0.0	6-13-19 16:00	19.14	763	9.05	11.9	6-13-19 16:00	18.42	702	8.61	8.4						9-13-19 11:00	14.44	1852	6.83	0.1					
6-13-19 21:15	21.41	1340	8.30	0.0	6-13-19 16:15	19.12	763	9.04	12.5	6-13-19 16:15	18.44	702	8.62	9.0						9-13-19 11:15	14.43	1853	6.88	0.0					
6-13-19 21:30	21.42	1223	7.99	0.0	6-13-19 16:30	19.15	760	9.05	12.9	6-13-19 16:30	18.45	702	8.62	7.6						9-13-19 11:30	14.41	1853	6.90	0.0					
6-13-19 21:45	21.47	1328	8.52	0.0	6-13-19 16:45	19.22	761	9.04	12.3	6-13-19 16:45	18.54	699	8.62	10.8						9-13-19 11:45	14.38	1856	6.92	0.0					
6-13-19 22:00	21.71	1228	8.62	0.0	6-13-19 17:00	19.22	762	9.05	13.8	6-13-19 17:00	18.57	700	8.61	8.5						9-13-19 12:00	14.36	1845	6.90	0.0					
6-13-19 22:15	21.66	1319	8.55	0.0	6-13-19 17:15	19.31	761	9.05	13.6	6-13-19 17:15	18.73	701	8.61	8.9						9-13-19 12:15	14.32	1857	6.92	5.9					
6-13-19 22:30	21.66	1215	8.60	0.0	6-13-19 17:30	19.30	760	9.06	14.1	6-13-19 17:30	18.91	700	8.62	8.9						9-13-19 12:30	14.30	1896	6.91	1.0					
6-13-19 22:45	21.58	1311	8.54	0.0	6-13-19 17:45	19.37	759	9.05	13.7	6-13-19 17:45	18.91	706	8.60	9.2						9-13-19 12:45	14.27	1850	6.88	1.5					
6-13-19 23:00	21.57	1216	8.65	0.0	6-13-19 18:00	19.56	759	9.06	13.8	6-13-19 18:00	19.14	701	8.60	9.1						9-13-19 13:00	14.25	1847	6.85	3.9					
6-13-19 23:15	21.72	1299	8.72	0.0	6-13-19 18:15	19.63	756	9.05	16.4	6-13-19 18:15	19.61	701	8.58	8.7						9-13-19 13:15	14.22	1819	6.85	30.6					
6-13-19 23:30	21.71	1211	8.61	0.0	6-13-19 18:30	19.69	755	9.07	15.1	6-13-19 18:30	19.79	704	8.58	8.4						9-13-19 13:30	14.20	1846	6.87	0.1					
6-13-19 23:45	21.81	1301	8.60	0.0	6-13-19 18:45	19.77	756	9.08	14.2	6-13-19 18:45	20.11	702	8.58	8.6						9-13-19 13:45	14.17	1839	6.87	0.6					
6-14-19 0:00	21.77	1250	8.56	0.0	6-13-19 19:00	19.75	755	9.10	14.9	6-13-19 19:00	20.50	702	8.58	8.3						9-13-19 14:00	14.15	1837	6.81	0.0					
6-14-19 0:15	21.85	1302	8.62	0.0	6-13-19 19:15	19.90	755	9.09	13.8	6-13-19 19:15	20.48	702	8.58	8.0						9-13-19 14:15	14.11	1859	7.00	1.2					
6-14-19 0:30	21.95	1259	8.63	0.0	6-13-19 19:30	19.59	754	9.12	14.7	6-13-19 19:30	20.44	699	8.59	8.7						9-13-19 14:30	14.04	1833	7.23	0.5					
6-14-19 0:45	22.07	1305	8.83	0.0	6-13-19 19:45	19.51	752	9.14	14.2	6-13-19 19:45	20.13	695	8.60	8.8						9-13-19 14:45	14.03	1845	7.62	2.0					
6-14-19 1:00	22.22	1269	8.73	0.0	6-13-19 20:00	19.62	754	9.16	14.1	6-13-19 20:00	19.88	692	8.60	9.8						9-13-19 15:00	14.02	1849	7.70	1.0					
6-14-19 1:15	22.27	1283	8.75	0.0	6-13-19 20:15	19.85	753	9.16	15.1	6-13-19 20:15	20.07	690	8.60	25.6						9-13-19 15:15	14.01	1843	7.70	0.4					
6-14-19 1:30	22.28	1307	8.82	0.0	6-13-19 20:30	19.90	751	9.17	15.4	6-13-19 20:30	20.33	690	8.61	24.6						9-13-19 15:30	14.03	1844	7.62	0.3					
6-14-19 1:45	22.26	1288	8.77	0.0	6-13-19 20:45	19.98	751	9.18	15.1	6-13-19 20:45	20.38	690	8.62	9.7						9-13-19 15:45	14.08	1844	7.50	0.9					
6-14-19 2:00	22.29	1206	8.78	0.0	6-13-19 21:00	19.86	751	9.19	15.8	6-13-19 21:00	20.26	689	8.60	10.7						9-13-19 16:00	14.13	1848	7.48	0.3					
6-14-19 2:15	22.29	1290	8.80	0.0	6-13-19 21:15	19.91	754	9.15	14.5	6-13-19 21:15	20.19	690	8.60	8.9						9-13-19 16:15	14.16	1847	7.46	399.6					
6-14-19 2:30	22.30	1198	8.82	0.0	6-13-19 21:30	20.21	755	9.14	16.1	6-13-19 21:30	20.47	691	8.59	8.3						9-13-19 16:30	14.20	1839	7.45	70.3					
6-14-19 2:45	22.27	1293	8.82	0.0	6-13-19 21:45	20.36	755	9.13	14.6	6-13-19 21:45	21.02	687	8.60	8.6						9-13-19 16:45	14.26	1853	7.46	12.8					
6-14-19 3:00	22.25	1202	8.81	0.0	6-13-19 22:00	20.22	754	9.13	14.7	6-13-19 22:00	20.89	693	8.60	8.7						9-13-19 17:00	14.32	1849	7.44	2.3					
6-14-19 3:15	22.23	1281	8.80	0.0	6-13-19 22:15	20.07	751	9.12	13.9	6-13-19 22:15	20.66	693	8.60	11.2						9-13-19 17:15	14.37	1852	7.43	2.4					
6-14-19 3:30	22.19	1248	8.74	0.0	6-13-19 22:30	19.98	753	9.17	15.4	6-13-19 22:30	20.51	683	8.61	8.0						9-13-19 17:30	14.42	1851	7.44	0.9					
6-14-19 3:45	22.15	1283	8.67	0.0	6-13-19 22:45	19.99	753	9.17	14.3	6-13-19 22:45	20.53	666	8.62	9.1						9-13-19 17:45	14.48	1847	7.46	1.0					
6-14-19 4:00	22.10	1217	8.63	0.0	6-13-19 23:00	19.95	755	9.16	17.7	6-13-19 23:00	20.43	679	8.61	7.0						9-13-19 18:00	14.54	1845	7.48	1.2					
6-14-19 4:15	22.06	1285	8.51	0.0	6-13-19 23:15	20.12	751	9.19	15.4	6-13-19 23:15	20.45	678	8.61	7.5						9-13-19 18:15	14.63	1846	7.50	175.5					
6-14-19 4:30	21.99	1222	8.62	0.0	6-13-19 23:30	20.38	752	9.18	15.9	6-13-19 23:30	20.61	675	8.60	7.7						9-13-19 18:30	14.83	1833	7.58	350.1					
6-14-19 4:45	21.95	1294	8.70	0.0	6-13-19 23:45	20.50	754	9.16	14.8	6-13-19 23:45	20.80	673	8.60	8.2						9-13-19 18:45	15.07	1838	7.66	426.1					
6-14-19 5:00	21.87	1167	8.57	0.0	6-14-19 0:00	20.63	758	9.17	15.9	6-14-19 0:00	20.96	674	8.59	7.2						9-13-19 19:00	15.20	1834	7.69	480.6					
6-14-19 5:15	21.80	1268	8.46	0.0	6-14-19 0:15	20.93	752	9.18	14.2	6-14-19 0:15	21.05	709	8.59	7.5						9-13-19 19:15	15.33	1798	7.70	1730.4					
6-14-19 5:30	21.76	1282	8.33	0.0	6-14-19 0:30	21.11	751	9.20	14.7	6-14-19 0:30	21.29	703	8.59	7.3						9-13-19 19:30	15.36	1839	7.81	131.6					
6-14-19 5:45	21.69	1270	8.43	0.0	6-14-19 0:45	21.24	749	9.19	15.0	6-14-19 0:45	21.52	704	8.61	8.3						9-13-19 19:45	15.27	1825	7.79	0.6					
6-14-19 6:00	21.63	1294	8.30	0.0	6-14-19 1:00	21.17	748	9.20	15.4	6-14-19 1:00	21.29	704	8.59	7.5						9-13-19 20:00	15.09	1807	7.78	0.4					
6-14-19 6:15	21.58	1266	8.31	0.0	6-14-19 1:15	21.15	747	9.21	14.2	6-14-19 1:15	21.45	711	8.60	9.3						9-13-19 20:15	15.24	1831	7.81	339.0					
6-14-19 6:30	21.52	1245	8.21	0.0	6-14-19 1:30	21.10	748	9.21	15.0	6-14-19 1:30	21.44	707	8.61	8.1						9-13-19 20:30	15.43	1853	7.93	1027.4					
6-14-19 6:45	21.45	1222	8.21	0.0	6-14-19 1:45	21.11	745	9.21	13.8	6-14-19 1:45	21.30	707	8.60	8.5						9-13-19 20:45	15.56	1826	7.98	43.2					
6-14-19 7:00	21.36	1267	8.26	0.0	6-14-19 2:00	21.02	749	9.20	12.9	6-14-19 2:00	21.31	708	8.60	8.7						9-13-19 21:00	15.50	1847	8.02	677.9					
6-14-19 7:15	21.31	1223	8.36	0.0	6-14-19 2:15	20.97	749	9.20	12.2	6-14-19 2:15	21.27	707	8.61	8.6						9-13-19 21:15	15.51	1806	8.07	3.2					
6-14-19 7:30	21.24	1239	8.27	0.0	6-14-19 2:30	20.95	749	9.20	12.2	6-14-19 2:30	21.23	706	8.61	9.1						9-13-19 21:30	15.52	1857	8.14	7.6					
6-14-19 7:45	21.15	1183	8.16	0.0	6-14-19 2:45	20.89	750	9.20	15.1	6-14-19 2:45	21.16	706	8.61	6.9						9-13-19 21:45	15.49	1871	8.24	4.1					
6-14-19 8:00	21.08	1043	8.19	0.0	6-14-19 3:00	20.99	750	9.20	13.1	6-14-19 3:00	21.14	706	8.60	9.5						9-13-19 22:00	15.55	1805	8.28	2.1					
6-14-19 8:15	20.97	1155	8.16	0.0	6-14-19 3:15	20.96	749	9.20	13.0	6-14-19 3:15	21.09	712	8.61	6.9						9-13-19 22:15	15.62	1882	8.37	503.8					
6-14-19 8:30	20.92	1413	8.13	0.0	6-14-19 3:30	20.93	748	9.21	15.7	6-14-19 3:30	21.04	709	8.61	6.2						9-13-19 22:30	15.68	1865	8.40	15.9					
6-14-19 8:45	20.85	1202	8.11	0.0	6-14-19 3:45	20.90	748	9.21	13.7	6-14-19 3:45	20.99	705	8.61	5.7						9-13-19 22:45	15.67	1767	8.41	13.8					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-14-19 9:00	20.77	1029	8.05	0.0	6-14-19 4:00	20.87	748	9.21	13.8	6-14-19 4:00	20.95	699	8.61	5.8						9-13-19 23:00	15.70	1770	8.43	3.7					
6-14-19 9:15	20.73	1282	8.07	0.0	6-14-19 4:15	20.81	749	9.20	12.2	6-14-19 4:15	20.88	703	8.62	6.4						9-13-19 23:15	15.67	1886	8.44	22.5					
6-14-19 9:30	20.67	1257	8.05	0.0	6-14-19 4:30	20.73	747	9.21	12.7	6-14-19 4:30	20.80	709	8.62	6.4						9-13-19 23:30	15.69	1826	8.46	1.1					
6-14-19 9:45	20.62	1299	8.04	0.0	6-14-19 4:45	20.62	747	9.21	11.9	6-14-19 4:45	20.68	698	8.63	6.6						9-13-19 23:45	15.70	1847	8.50	1.0					
6-14-19 10:00	20.57	1250	7.99	0.0	6-14-19 5:00	20.56	748	9.20	11.8	6-14-19 5:00	20.56	706	8.64	6.1						9-14-19 0:00	15.90	1803	8.52	3.3					
6-14-19 10:15	20.48	1298	7.98	0.0	6-14-19 5:15	20.43	749	9.20	10.5	6-14-19 5:15	20.50	711	8.64	7.7						9-14-19 0:15	15.79	1793	8.55	6.1					
6-14-19 10:30	20.40	1217	7.96	0.0	6-14-19 5:30	20.30	749	9.18	11.8	6-14-19 5:30	20.32	712	8.65	11.3						9-14-19 0:30	15.78	1845	8.56	5.1					
6-14-19 10:45	20.33	1309	7.94	0.0	6-14-19 5:45	20.29	762	9.19	12.8	6-14-19 5:45	20.22	712	8.64	6.9						9-14-19 0:45	15.74	1808	8.57	5.5					
6-14-19 11:00	20.25	1220	7.89	0.0	6-14-19 6:00	20.20	750	9.19	13.7	6-14-19 6:00	20.17	713	8.65	7.3						9-14-19 1:00	15.70	1802	8.58	4.0					
6-14-19 11:15	20.19	1324	7.90	0.0	6-14-19 6:15	20.24	749	9.21	12.4	6-14-19 6:15	20.05	711	8.64	7.4						9-14-19 1:15	15.67	1820	8.59	1.1					
6-14-19 11:30	20.13	1246	7.86	0.0	6-14-19 6:30	20.21	748	9.22	14.8	6-14-19 6:30	19.98	713	8.63	7.1						9-14-19 1:30	15.66	1812	8.63	1.4					
6-14-19 11:45	20.08	1334	7.83	0.0	6-14-19 6:45	20.17	748	9.22	14.1	6-14-19 6:45	19.90	707	8.64	6.6						9-14-19 1:45	15.64	1862	8.63	2.2					
6-14-19 12:00	20.03	1260	7.79	0.0	6-14-19 7:00	20.14	748	9.22	14.1	6-14-19 7:00	19.86	701	8.63	7.2						9-14-19 2:00	15.64	1828	8.64	3.7					
6-14-19 12:15	19.95	1343	7.82	0.0	6-14-19 7:15	20.07	745	9.21	14.0	6-14-19 7:15	19.78	704	8.63	7.8						9-14-19 2:15	15.62	1831	8.63	5.3					
6-14-19 12:30	19.92	1246	7.79	0.0	6-14-19 7:30	19.90	749	9.21	14.0	6-14-19 7:30	19.70	705	8.63	6.3						9-14-19 2:30	15.58	1823	8.65	11.5					
6-14-19 12:45	19.86	1345	7.77	0.0	6-14-19 7:45	19.88	748	9.21	13.4	6-14-19 7:45	19.63	700	8.64	5.7						9-14-19 2:45	15.55	1815	8.65	6.6					
6-14-19 13:00	19.80	1265	7.75	0.0	6-14-19 8:00	19.87	749	9.20	12.8	6-14-19 8:00	19.58	698	8.63	6.3						9-14-19 3:00	15.54	1831	8.67	5.5					
6-14-19 13:15	19.77	1351	7.73	0.0	6-14-19 8:15	19.82	751	9.19	12.6	6-14-19 8:15	19.50	700	8.64	6.3						9-14-19 3:15	15.52	1833	8.64	17.7					
6-14-19 13:30	19.73	1328	7.72	0.0	6-14-19 8:30	19.77	749	9.19	14.0	6-14-19 8:30	19.46	709	8.63	5.5						9-14-19 3:30	15.51	1815	8.65	1.4					
6-14-19 13:45	19.70	1357	7.74	0.0	6-14-19 8:45	19.73	750	9.19	11.8	6-14-19 8:45	19.40	709	8.63	6.2						9-14-19 3:45	15.49	1818	8.65	1.5					
6-14-19 14:00	19.78	1322	7.76	0.0	6-14-19 9:00	19.72	751	9.18	14.1	6-14-19 9:00	19.35	709	8.63	6.7						9-14-19 4:00	15.47	1826	8.65	1.8					
6-14-19 14:15	19.67	1358	7.72	0.0	6-14-19 9:15	19.66	750	9.18	13.8	6-14-19 9:15	19.29	708	8.63	6.5						9-14-19 4:15	15.44	1818	8.65	9.4					
6-14-19 14:30	19.62	1223	7.72	0.0	6-14-19 9:30	19.67	751	9.17	13.2	6-14-19 9:30	19.22	709	8.63	5.4						9-14-19 4:30	15.41	1818	8.66	41.4					
6-14-19 14:45	19.61	1361	7.73	0.0	6-14-19 9:45	19.60	750	9.17	12.7	6-14-19 9:45	19.18	709	8.63	5.6						9-14-19 4:45	15.40	1837	8.66	5.4					
6-14-19 15:00	19.60	1293	7.74	0.0	6-14-19 10:00	19.57	750	9.17	12.8	6-14-19 10:00	19.14	706	8.63	6.6						9-14-19 5:00	15.39	1811	8.66	39.8					
6-14-19 15:15	19.57	1365	7.75	0.0	6-14-19 10:15	19.52	750	9.16	12.1	6-14-19 10:15	19.04	708	8.63	6.0						9-14-19 5:15	15.39	1820	8.59	3.8					
6-14-19 15:30	19.56	1315	7.77	0.0	6-14-19 10:30	19.50	751	9.16	16.1	6-14-19 10:30	19.00	708	8.63	5.4						9-14-19 5:30	15.38	1817	8.64	1.7					
6-14-19 15:45	19.57	1365	7.76	0.0	6-14-19 10:45	19.45	750	9.15	15.4	6-14-19 10:45	18.94	708	8.62	7.2						9-14-19 5:45	15.37	1820	8.64	5.7					
6-14-19 16:00	19.62	1328	7.80	0.0	6-14-19 11:00	19.43	751	9.15	12.9	6-14-19 11:00	18.87	707	8.62	5.7						9-14-19 6:00	15.36	1818	8.62	1.1					
6-14-19 16:15	19.56	1365	7.75	0.0	6-14-19 11:15	19.43	753	9.14	11.7	6-14-19 11:15	18.84	706	8.61	6.1						9-14-19 6:15	15.36	1822	8.62	42.3					
6-14-19 16:30	19.57	1335	7.73	0.0	6-14-19 11:30	19.40	751	9.14	11.8	6-14-19 11:30	18.78	706	8.61	6.0						9-14-19 6:30	15.34	1824	8.64	12.8					
6-14-19 16:45	19.59	1364	7.97	0.0	6-14-19 11:45	19.36	753	9.14	15.8	6-14-19 11:45	18.75	707	8.61	6.0						9-14-19 6:45	15.32	1813	8.65	7.4					
6-14-19 17:00	19.61	1347	7.93	0.0	6-14-19 12:00	19.33	751	9.14	12.8	6-14-19 12:00	18.72	707	8.61	5.4						9-14-19 7:00	15.27	1834	8.65	4.4					
6-14-19 17:15	19.61	1365	7.85	0.0	6-14-19 12:15	19.30	751	9.13	11.4	6-14-19 12:15	18.65	706	8.61	5.8						9-14-19 7:15	15.26	1847	8.63	1.4					
6-14-19 17:30	19.73	1351	7.86	0.0	6-14-19 12:30	19.30	751	9.14	13.1	6-14-19 12:30	18.63	707	8.60	6.2						9-14-19 7:30	15.22	1827	8.61	2.3					
6-14-19 17:45	19.80	1365	7.91	0.0	6-14-19 12:45	19.27	750	9.13	11.1	6-14-19 12:45	18.60	707	8.61	5.8						9-14-19 7:45	15.22	1824	8.62	1.4					
6-14-19 18:00	19.90	1299	7.88	0.0	6-14-19 13:00	19.23	751	9.13	12.5	6-14-19 13:00	18.56	707	8.61	5.4						9-14-19 8:00	15.22	1827	8.61	1.8					
6-14-19 18:15	20.11	1368	7.94	0.0	6-14-19 13:15	19.24	751	9.13	11.0	6-14-19 13:15	18.55	706	8.60	5.7						9-14-19 8:15	15.17	1828	8.63	42.0					
6-14-19 18:30	20.28	1354	8.11	0.0	6-14-19 13:30	19.22	751	9.13	12.5	6-14-19 13:30	18.52	706	8.60	5.0						9-14-19 8:30	15.15	1840	8.64	10.6					
6-14-19 18:45	20.34	1366	8.54	0.0	6-14-19 13:45	19.20	751	9.13	11.3	6-14-19 13:45	18.49	706	8.60	5.5						9-14-19 8:45	15.13	1870	8.64	3.6					
6-14-19 19:00	20.56	1359	8.63	0.0	6-14-19 14:00	19.21	750	9.13	11.6	6-14-19 14:00	18.51	706	8.59	5.3						9-14-19 9:00	15.11	1895	8.63	34.3					
6-14-19 19:15	20.71	1372	8.71	0.0	6-14-19 14:15	19.24	751	9.12	11.0	6-14-19 14:15	18.49	706	8.60	5.9						9-14-19 9:15	15.08	1821	8.60	4.1					
6-14-19 19:30	20.71	1356	8.70	0.0	6-14-19 14:30	19.21	750	9.14	12.1	6-14-19 14:30	18.47	706	8.60	5.5						9-14-19 9:30	15.06	1857	8.62	2.3					
6-14-19 19:45	20.99	1372	8.66	0.0	6-14-19 14:45	19.18	750	9.15	11.4	6-14-19 14:45	18.47	706	8.60	6.1						9-14-19 9:45	15.06	1824	8.62	0.7					
6-14-19 20:00	20.99	1330	8.43	0.0	6-14-19 15:00	19.20	750	9.15	13.7	6-14-19 15:00	18.46	707	8.60	5.4						9-14-19 10:00	15.02	1837	8.62	1.0					
6-14-19 20:15	21.10	1370	8.71	0.0	6-14-19 15:15	19.21	750	9.14	12.0	6-14-19 15:15	18.45	706	8.59	5.4						9-14-19 10:15	15.01	1813	8.63	8.8					
6-14-19 20:30	21.19	1323	8.83	0.0	6-14-19 15:30	19.20	750	9.15	12.7	6-14-19 15:30	18.45	706	8.59	5.1						9-14-19 10:30	15.02	1817	8.62	23.4					
6-14-19 20:45	21.29	1369	8.88	0.0	6-14-19 15:45	19.26	752	9.14	11.4	6-14-19 15:45	18.49	706	8.59	5.6						9-14-19 10:45	15.02	1818	8.62	26.3					
6-14-19 21:00	21.55	1305	8.82	0.0	6-14-19 16:00	19.33	749	9.14	13.1	6-14-19 16:00	18.67	707	8.58	5.2						9-14-19 11:00	14.99	1802	8.63	11.8					
6-14-19 21:15	21.60	1372	9.00	0.0	6-14-19 16:15	19.33	749	9.13	12.0	6-14-19 16:15	18.67	706	8.59	8.9						9-14-19 11:15	14.95	1817	8.57	2.5					
6-14-19 21:30	21.70	1373	8.87	0.0	6-14-19 16:30	19.26	749	9.14	13.1	6-14-19 16:30	18.62	705	8.58	9.4						9-14-19 11:30	14.93	1819	8.59	5.7					
6-14-19 21:45	21.70	1373	9.05	0.0	6-14-19 16:45	19.29	749	9.15	12.4	6-14-19 16:45	18.60	705	8.59	9.9						9-14-19 11:45	14.90	1823	8.60	12.9					
6-14-19 22:00	21.70	1353	9.07	0.0	6-14-19 17:00	19.29	748	9.15	12.8	6-14-19 17:00	18.59	705	8.59	8.9						9-14-19 12:00	14.88	1827	8.61	2.9					
6-14-19 22:15	21.64	1365	9.08	0.0	6-14-19 17:15	19.31	748	9.15	11.9	6-14-19 17:15	18.64	704	8.59	10.7						9-14-19 12:15	14.84	1770	8.61	13.8					
6-14-19 22:30	21.60	1365	9.08	0.0	6-14-19 17:30	19.36	746	9.16	14.2	6-14-19 17:30	18.76	704	8.59	9.2						9-14-19 12:30	14.80	1824	8.61	19.7					
6-14-19 22:45	21.56	1358	9.06	0.0	6-14-19 17:45	19.45	743	9.18	12.8	6-14-19 17:45	18.90	703	8.59	10.8						9-14-19 12:45	14.76	1828	8.61	7.4					
6-14-19 23:00	21.57	1375	8.96	0.0	6-14-19 18:00	19.54	741	9.20	13.2	6-14-19 18:00	19.29	704	8.59	9.4						9-14-19 13:00	14.75	1828	8.61	15.6					
6-14-19 23:15	21.66	1354	8.93	0.0	6-14-19 18:15	19.59	739	9.21	11.9	6-14-19 18:15	19.63	705	8.59	12.8						9-14-19 13:15	14.73	1831	8.41	1.3					
6-14-19 23:30	21.75	1351	8.94	0.0	6-14-19 18:30	19.60	739	9.22	12.7	6-14-19 18:30	19.52	702	8.58	9.6						9-14-19 13:30	14.72	1829	8.59	15.2					
6-14-19 23:45	21.88	1345	8.86	0.0	6-14-19 18:45	19.66	738	9.24	12.4	6-14-19 18:45	19.64	704	8.58	8.7						9-14-19 13:45	14.73	1829	8.60	4.9					
6-15-19 0:00	21.83	1358	8.80	0.0	6-14-19 19:00	19.86	740	9.24	13.2	6-14-19 19:00	19.57	704	8.57	7.8						9-14-19 14:00	14.71	1828	8.59	387.8					
6-15-19 0:15	21.82	1351	8.63	0.0	6-14-19 19:15	19.90	738	9.24	11.3	6-14-19 19:15	19.82	702	8.57	9.8						9-14-19 14:15	14.68	1793	8.60	80.6					
6-15-19 0:30	21.86	1351	8.76	3.1	6-14-19 19:30	20.01	738	9.25	13.1	6-14-19 19:30	20.02	705	8.57	9.3						9-14-19 14:30	14.68	1814	8.61	6.6					
6-15-19 0:45	21.89	1350	8.75	0.0	6-14-19 19:45	20.20	738	9.26	11.1	6-14-19 19:45	20.45	705	8.58	10.3						9-14-19 14:45	14.66	1824	8.61	20.0					
6-15-19 1:00	21.87	1335	8.78	0.0	6-14-19 20:00	20.20	739	9.28	11.5	6-14-19 20:00	20.28	705	8.57	9.6						9-14-19 15:00	14.65	1825	8.61	12.9					
6-15-19 1:15	21.92	1352	8.77	0.0	6-14-19 20:15	20.13	738	9.29	13.1	6-14-19 20:15	20.30	703	8.59	10.5						9-14-19 15:15	14.63	1833	8.55	7.6					
6-15-19 1:30	21.99	1351	8.91	4.6	6-14-19 20:30	20.34	742	9.25	15.8	6-14-19 20:30	20.34	702	8.58	10.0						9-14-19 15:30	14.61	1830	8.59	1.5					
6-15-19 1:45	22.00	1335	8.98	0.0	6-14-19 20:45	20.42	738	9.28	13.0	6-14-19 20:45	20.58	709	8.58	12.0						9-14-19 15:45	14.62	1834	8.60	2.8					
6-15-19 2:00	22.01	1349	8.96	0.0	6-14-19 21:00	20.38	737	9.32	12.4	6-14-19 21:00	20.76	704	8.58	12.4						9-14-19 16:00	14.63	1829	8.53	1.5					
6-15-19 2:15	21.98	1340	9.07	0.0	6-14-19 21:15	20.53	740	9.29	13.0	6-14-19 21:15	21.09	699	8.60	8.8						9-14-19 16:15	14.68	1826	8.58	17.0					
6-15-19 2:30	21.91	1349	9.05	0.0	6-14-19 21:30	20.58	739	9.30	14.0	6-14-19 21:30	20.75	702	8.58	6.5						9-14-19 16:30	14.69	1830	8.60	38.8					
6-15-19 2:45	21.88	1343	8.95	0.0	6-14-19 21:45	20.34	738	9.30	14.5	6-14-19 21:45	20.72	708	8.58	9.0						9-14-19 16:45	14.71	1829	8.60	53.3					
6-15-19 3:00	21.86	1343	9.02	1.9	6-14-19 22:00	20.31	739	9.32	20.7	6-14-19 22:00	20.56	702	8.58	9.1						9-14-19 17:00	14.74	1827	8.62	19.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-15-19 3:15	21.84	1336	8.97	0.0	6-14-19 22:15	20.45	739	9.34	13.0	6-14-19 22:15	20.46	705	8.60	5.7						9-14-19 17:15	14.79	1833	8.55	96.3					
6-15-19 3:30	21.80	1346	8.90	22.7	6-14-19 22:30	20.48	739	9.33	13.8	6-14-19 22:30	20.31	703	8.59	5.2						9-14-19 17:30	14.85	1827	8.59	0.6					
6-15-19 3:45	21.78	1317	8.92	0.0	6-14-19 22:45	20.45	739	9.32	12.6	6-14-19 22:45	20.26	704	8.60	5.7						9-14-19 17:45	14.93	1825	8.62	0.8					
6-15-19 4:00	21.78	1344	8.55	5.2	6-14-19 23:00	20.46	739	9.31	13.6	6-14-19 23:00	20.28	703	8.60	4.9						9-14-19 18:00	15.00	1832	8.62	1.9					
6-15-19 4:15	21.75	1344	8.45	0.0	6-14-19 23:15	20.64	740	9.30	12.4	6-14-19 23:15	20.42	701	8.59	5.7						9-14-19 18:15	15.18	1821	8.64	15.8					
6-15-19 4:30	21.71	1342	8.50	9.7	6-14-19 23:30	20.78	740	9.28	13.2	6-14-19 23:30	20.58	703	8.59	4.8						9-14-19 18:30	15.27	1825	8.67	8.5					
6-15-19 4:45	21.68	1329	8.39	0.0	6-14-19 23:45	20.91	739	9.27	12.3	6-14-19 23:45	20.65	703	8.59	7.4						9-14-19 18:45	15.53	1822	8.68	6.1					
6-15-19 5:00	21.65	1338	8.28	0.0	6-15-19 0:00	21.03	740	9.27	12.7	6-15-19 0:00	20.74	702	8.58	5.0						9-14-19 19:00	15.56	1825	8.69	6.3					
6-15-19 5:15	21.60	1334	8.30	0.0	6-15-19 0:15	21.16	741	9.26	12.0	6-15-19 0:15	20.94	696	8.58	5.8						9-14-19 19:15	15.59	1822	8.63	6.3					
6-15-19 5:30	21.57	1300	8.16	0.0	6-15-19 0:30	21.18	740	9.27	12.4	6-15-19 0:30	21.03	703	8.58	5.3						9-14-19 19:30	15.70	1826	8.67	2.7					
6-15-19 5:45	21.51	1306	8.30	0.0	6-15-19 0:45	21.14	740	9.28	12.1	6-15-19 0:45	21.10	699	8.59	5.4						9-14-19 19:45	15.69	1824	8.68	55.5					
6-15-19 6:00	21.47	1315	8.54	0.0	6-15-19 1:00	21.05	740	9.28	12.5	6-15-19 1:00	21.00	701	8.59	5.8						9-14-19 20:00	15.84	1825	8.69	1.0					
6-15-19 6:15	21.42	1308	8.23	0.0	6-15-19 1:15	21.09	742	9.28	11.5	6-15-19 1:15	20.99	700	8.59	6.5						9-14-19 20:15	15.94	1792	8.69	33.7					
6-15-19 6:30	21.37	1283	8.30	0.0	6-15-19 1:30	21.05	740	9.29	11.9	6-15-19 1:30	21.02	699	8.59	5.3						9-14-19 20:30	16.05	1811	8.14	4.3					
6-15-19 6:45	21.33	1313	8.55	0.0	6-15-19 1:45	20.97	740	9.29	11.0	6-15-19 1:45	21.02	698	8.60	6.9						9-14-19 20:45	16.13	1821	8.19	3.4					
6-15-19 7:00	21.27	1317	8.26	0.0	6-15-19 2:00	20.89	740	9.29	12.0	6-15-19 2:00	20.97	700	8.60	5.9						9-14-19 21:00	16.18	1822	7.77	35.8					
6-15-19 7:15	21.21	1316	8.16	0.0	6-15-19 2:15	20.83	740	9.28	10.8	6-15-19 2:15	20.91	695	8.59	6.2						9-14-19 21:15	16.18	1822	7.65	2.8					
6-15-19 7:30	21.15	1312	7.95	0.0	6-15-19 2:30	20.76	740	9.29	11.4	6-15-19 2:30	20.86	699	8.60	5.2						9-14-19 21:30	16.25	1820	7.49	1.2					
6-15-19 7:45	21.04	1318	7.74	0.0	6-15-19 2:45	20.81	741	9.28	11.1	6-15-19 2:45	20.82	694	8.60	6.5						9-14-19 21:45	16.29	1819	7.43	1.8					
6-15-19 8:00	21.00	1342	8.09	0.9	6-15-19 3:00	20.80	740	9.28	11.7	6-15-19 3:00	20.79	699	8.60	5.5						9-14-19 22:00	16.32	1817	7.45	1.1					
6-15-19 8:15	20.94	1333	8.23	0.0	6-15-19 3:15	20.77	739	9.28	11.4	6-15-19 3:15	20.75	697	8.61	8.4						9-14-19 22:15	16.30	1813	7.40	47.5					
6-15-19 8:30	20.82	1324	8.24	0.0	6-15-19 3:30	20.71	740	9.28	10.8	6-15-19 3:30	20.71	697	8.60	9.1						9-14-19 22:30	16.28	1812	7.42	9.1					
6-15-19 8:45	20.77	1318	8.26	0.0	6-15-19 3:45	20.70	740	9.28	10.3	6-15-19 3:45	20.65	693	8.61	6.2						9-14-19 22:45	16.30	1816	7.30	3.5					
6-15-19 9:00	20.70	1305	8.06	0.0	6-15-19 4:00	20.67	740	9.28	11.0	6-15-19 4:00	20.61	690	8.61	5.5						9-14-19 23:00	16.32	1796	7.28	5.3					
6-15-19 9:15	20.60	1312	7.82	0.0	6-15-19 4:15	20.62	740	9.28	12.9	6-15-19 4:15	20.56	691	8.61	4.9						9-14-19 23:15	16.32	1827	7.27	11.7					
6-15-19 9:30	20.53	1311	7.61	0.0	6-15-19 4:30	20.60	740	9.29	11.0	6-15-19 4:30	20.53	685	8.61	8.2						9-14-19 23:30	16.31	1828	7.23	1.1					
6-15-19 9:45	20.47	1312	7.65	0.0	6-15-19 4:45	20.55	740	9.29	10.8	6-15-19 4:45	20.45	689	8.62	7.0						9-14-19 23:45	16.32	1821	7.17	1.0					
6-15-19 10:00	20.41	1309	7.77	0.0	6-15-19 5:00	20.50	743	9.29	11.1	6-15-19 5:00	20.38	692	8.62	4.7						9-15-19 0:00	16.36	1812	7.23	2.9					
6-15-19 10:15	20.35	1313	7.80	0.0	6-15-19 5:15	20.47	739	9.29	10.2	6-15-19 5:15	20.34	691	8.62	5.9						9-15-19 0:15	16.35	1816	7.21	12.2					
6-15-19 10:30	20.30	1310	7.76	0.0	6-15-19 5:30	20.42	737	9.29	11.6	6-15-19 5:30	20.26	693	8.61	4.7						9-15-19 0:30	16.32	1821	7.23	5.4					
6-15-19 10:45	20.23	1307	7.76	0.0	6-15-19 5:45	20.40	740	9.28	9.7	6-15-19 5:45	20.17	691	8.62	5.2						9-15-19 0:45	16.30	1815	7.24	3.1					
6-15-19 11:00	20.17	1311	7.84	0.0	6-15-19 6:00	20.37	740	9.29	10.3	6-15-19 6:00	20.14	693	8.61	5.3						9-15-19 1:00	16.27	1816	7.21	7.0					
6-15-19 11:15	20.12	1314	7.69	0.0	6-15-19 6:15	20.33	739	9.29	9.6	6-15-19 6:15	20.05	690	8.62	7.0						9-15-19 1:15	16.21	1815	7.28	5.7					
6-15-19 11:30	20.03	1318	7.77	0.0	6-15-19 6:30	20.29	739	9.29	18.8	6-15-19 6:30	19.95	685	8.62	6.1						9-15-19 1:30	16.16	1904	7.47	1.7					
6-15-19 11:45	19.97	1319	7.84	0.0	6-15-19 6:45	20.22	740	9.29	9.9	6-15-19 6:45	19.89	685	8.63	4.4						9-15-19 1:45	16.12	1797	7.44	0.9					
6-15-19 12:00	19.88	1322	7.73	0.0	6-15-19 7:00	20.18	739	9.29	10.8	6-15-19 7:00	19.81	685	8.62	4.7						9-15-19 2:00	16.09	1794	7.40	0.6					
6-15-19 12:15	19.79	1317	7.58	0.0	6-15-19 7:15	20.16	741	9.28	12.3	6-15-19 7:15	19.73	690	8.63	5.7						9-15-19 2:15	16.06	1815	7.38	10.1					
6-15-19 12:30	19.74	1324	7.56	0.0	6-15-19 7:30	20.10	740	9.28	11.8	6-15-19 7:30	19.66	691	8.62	5.2						9-15-19 2:30	16.06	1819	7.50	9.6					
6-15-19 12:45	19.71	1315	7.63	0.0	6-15-19 7:45	19.97	740	9.29	11.2	6-15-19 7:45	19.58	688	8.63	7.0						9-15-19 2:45	16.04	1814	7.45	4.4					
6-15-19 13:00	19.64	1320	7.65	0.0	6-15-19 8:00	19.94	739	9.28	11.3	6-15-19 8:00	19.50	690	8.62	5.4						9-15-19 3:00	16.00	1810	7.36	209.1					
6-15-19 13:15	19.61	1315	7.71	0.0	6-15-19 8:15	19.83	740	9.28	11.2	6-15-19 8:15	19.41	690	8.63	6.5						9-15-19 3:15	15.97	1890	7.37	7.2					
6-15-19 13:30	19.54	1321	7.67	0.0	6-15-19 8:30	19.82	740	9.28	11.0	6-15-19 8:30	19.35	690	8.61	6.4						9-15-19 3:30	15.94	1814	7.55	0.9					
6-15-19 13:45	19.50	1315	7.61	0.0	6-15-19 8:45	19.80	739	9.28	10.7	6-15-19 8:45	19.28	691	8.61	6.4						9-15-19 3:45	15.93	1804	7.91	1.4					
6-15-19 14:00	19.52	1322	7.62	0.0	6-15-19 9:00	19.77	740	9.28	11.9	6-15-19 9:00	19.23	690	8.61	5.8						9-15-19 4:00	15.91	1814	7.91	1.2					
6-15-19 14:15	19.50	1314	7.65	0.0	6-15-19 9:15	19.74	740	9.27	11.5	6-15-19 9:15	19.18	687	8.60	7.9						9-15-19 4:15	15.89	1816	7.88	19.3					
6-15-19 14:30	19.52	1321	7.56	0.0	6-15-19 9:30	19.67	740	9.26	10.7	6-15-19 9:30	19.13	690	8.60	8.6						9-15-19 4:30	15.86	1811	7.90	144.7					
6-15-19 14:45	19.52	1314	7.64	0.0	6-15-19 9:45	19.65	741	9.26	10.5	6-15-19 9:45	19.06	690	8.58	8.2						9-15-19 4:45	15.82	1809	7.77	326.2					
6-15-19 15:00	19.57	1320	7.61	0.0	6-15-19 10:00	19.58	741	9.26	11.3	6-15-19 10:00	19.03	690	8.58	6.8						9-15-19 5:00	15.78	1807	7.59	17.6					
6-15-19 15:15	19.62	1305	7.68	0.0	6-15-19 10:15	19.51	740	9.25	10.3	6-15-19 10:15	18.95	688	8.56	11.0						9-15-19 5:15	15.74	1817	7.56	3.7					
6-15-19 15:30	19.68	1316	7.65	0.0	6-15-19 10:30	19.47	740	9.26	11.4	6-15-19 10:30	18.91	690	8.55	8.0						9-15-19 5:30	15.72	1816	7.54	2.8					
6-15-19 15:45	19.69	1306	7.52	0.0	6-15-19 10:45	19.46	741	9.25	10.8	6-15-19 10:45	18.86	693	8.55	9.4						9-15-19 5:45	15.68	1805	7.53	1.5					
6-15-19 16:00	19.81	1320	7.57	0.0	6-15-19 11:00	19.39	741	9.25	11.8	6-15-19 11:00	18.81	690	8.54	8.6						9-15-19 6:00	15.65	1812	7.50	0.7					
6-15-19 16:15	19.74	1316	7.40	0.0	6-15-19 11:15	19.38	741	9.24	10.4	6-15-19 11:15	18.74	691	8.53	6.5						9-15-19 6:15	15.62	1812	7.63	32.9					
6-15-19 16:30	20.00	1320	7.40	0.0	6-15-19 11:30	19.33	742	9.24	10.3	6-15-19 11:30	18.68	687	8.51	14.6						9-15-19 6:30	15.60	1803	7.63	25.7					
6-15-19 16:45	20.07	1316	7.44	0.0	6-15-19 11:45	19.32	741	9.24	11.1	6-15-19 11:45	18.65	692	8.50	7.6						9-15-19 6:45	15.56	1810	7.70	10.0					
6-15-19 17:00	20.17	1319	7.83	0.0	6-15-19 12:00	19.28	741	9.24	10.8	6-15-19 12:00	18.60	690	8.50	9.0						9-15-19 7:00	15.51	1816	7.66	19.5					
6-15-19 17:15	20.29	1320	7.77	0.0	6-15-19 12:15	19.24	741	9.23	10.9	6-15-19 12:15	18.58	685	8.50	7.0						9-15-19 7:15	15.48	1816	7.84	6.0					
6-15-19 17:30	20.32	1321	7.70	0.0	6-15-19 12:30	19.22	741	9.24	11.7	6-15-19 12:30	18.51	691	8.49	6.3						9-15-19 7:30	15.43	1803	7.63	0.6					
6-15-19 17:45	20.34	1320	7.68	0.0	6-15-19 12:45	19.18	741	9.23	10.9	6-15-19 12:45	18.47	692	8.49	7.0						9-15-19 7:45	15.41	1938	8.09	0.5					
6-15-19 18:00	20.43	1083	7.47	0.0	6-15-19 13:00	19.13	742	9.23	11.1	6-15-19 13:00	18.42	691	8.49	6.0						9-15-19 8:00	15.39	1814	7.84	1.3					
6-15-19 18:15	20.44	1330	7.55	0.0	6-15-19 13:15	19.10	741	9.24	10.5	6-15-19 13:15	18.40	689	8.50	6.6						9-15-19 8:15	15.33	1802	7.85	18.7					
6-15-19 18:30	20.49	1145	7.37	0.0	6-15-19 13:30	19.15	741	9.24	11.5	6-15-19 13:30	18.38	686	8.49	6.5						9-15-19 8:30	15.28	1778	7.87	5.2					
6-15-19 18:45	20.50	1335	7.34	0.0	6-15-19 13:45	19.11	741	9.24	10.6	6-15-19 13:45	18.35	691	8.50	7.1						9-15-19 8:45	15.27	1816	7.88	5.7					
6-15-19 19:00	20.51	1289	7.33	0.0	6-15-19 14:00	19.07	724	9.24	11.3	6-15-19 14:00	18.34	690	8.49	6.9						9-15-19 9:00	15.23	1813	7.80	5.9					
6-15-19 19:15	20.64	1331	7.37	0.1	6-15-19 14:15	19.08	740	9.23	11.1	6-15-19 14:15	18.35	689	8.48	7.8						9-15-19 9:15	15.18	1820	7.72	2.4					
6-15-19 19:30	20.73	1347	7.44	0.0	6-15-19 14:30	19.09	740	9.24	11.6	6-15-19 14:30	18.34	690	8.48	6.8						9-15-19 9:30	15.15	1820	7.94	2.1					
6-15-19 19:45	20.81	1367	7.72	0.0	6-15-19 14:45	19.09	740	9.24	10.6	6-15-19 14:45	18.35	690	8.48	8.0						9-15-19 9:45	15.10	1934	7.73	1.1					
6-15-19 20:00	20.87	1370	7.54	0.0	6-15-19 15:00	19.10	740	9.25	12.0	6-15-19 15:00	18.39	700	8.47	7.0						9-15-19 10:00	15.03	1897	7.73	1.6					
6-15-19 20:15	21.09	1370	7.54	0.0	6-15-19 15:15	19.13	740	9.25	10.8	6-15-19 15:15	18.42	700	8.48	7.5						9-15-19 10:15	15.01	1804	7.70	36.8					
6-15-19 20:30	21.30	1370	8.23	0.0	6-15-19 15:30	19.14	740	9.25	11.4	6-15-19 15:30	18.49	699	8.47	6.9						9-15-19 10:30	14.94	1805	7.73	6.8					
6-15-19 20:45	21.43	1370	7.64	0.0	6-15-19 15:45	19.19	740	9.25	11.5	6-15-19 15:45	18.55	700	8.48	8.1						9-15-19 10:45	14.90	1818	7.67	8.4					
6-15-19 21:00	21.57	1369	7.45	0.0	6-15-19 16:00	19.26	740	9.26	12.2	6-15-19 16:00	18.69	700	8.47	7.9						9-15-19 11:00	14.88	1819	7.66	5.0					
6-15-19 21:15	21.71	1370	7.75	0.0	6-15-19 16:15	19.33	739	9.25	10.8	6-15-19 16:15	18.79	700	8.47	7.1						9-15-19 11:15	14.86	1818	7.91	4.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-15-19 21:30	21.96	1365	7.82	0.0
6-15-19 21:45	22.23	1366	8.10	0.0
6-15-19 22:00	22.38	1375	7.74	0.0
6-15-19 22:15	22.48	1361	8.33	0.0
6-15-19 22:30	22.60	1365	7.85	0.0
6-15-19 22:45	22.90	1357	7.90	0.0
6-15-19 23:00	22.93	1333	7.84	0.0
6-15-19 23:15	23.11	1372	7.88	0.0
6-15-19 23:30	23.26	1358	8.01	0.0
6-15-19 23:45	23.54	1365	8.10	0.1
6-16-19 0:00				
6-16-19 0:15	23.57	1365	7.63	0.0
6-16-19 0:30	23.51	1335	7.74	0.0
6-16-19 0:45	23.51	1222	7.74	0.0
6-16-19 1:00	23.38	1326	7.77	0.0
6-16-19 1:15	23.32	1213	8.15	0.0
6-16-19 1:30	23.27	1332	8.75	0.0
6-16-19 1:45	23.40	1196	9.01	0.0
6-16-19 2:00	23.49	1326	9.16	0.0
6-16-19 2:15	23.67	1219	9.22	0.2
6-16-19 2:30	23.69	1338	8.48	4.6
6-16-19 2:45	23.63	1226	8.27	0.0
6-16-19 3:00	23.56	1338	8.52	0.0
6-16-19 3:15	23.46	1208	8.47	0.0
6-16-19 3:30	23.41	1316	8.80	1.1
6-16-19 3:45	23.37	1217	8.84	0.0
6-16-19 4:00	23.31	1307	8.66	4.5
6-16-19 4:15	23.23	1222	8.51	1.2
6-16-19 4:30	23.17	1305	8.47	0.0
6-16-19 4:45	23.11	1224	8.27	0.0
6-16-19 5:00	23.03	1326	7.85	0.0
6-16-19 5:15	22.96	1216	7.75	0.0
6-16-19 5:30	22.91	1340	7.82	0.0
6-16-19 5:45	22.86	1235	8.06	0.0
6-16-19 6:00	22.81	1322	7.88	0.0
6-16-19 6:15	22.76	1230	7.72	0.0
6-16-19 6:30	22.71	1317	7.69	0.0
6-16-19 6:45	22.65	1231	8.00	0.0
6-16-19 7:00	22.60	1192	7.75	0.0
6-16-19 7:15	22.54	1220	7.95	0.0
6-16-19 7:30	22.50	1201	7.90	1.7
6-16-19 7:45	22.45	1121	7.90	0.0
6-16-19 8:00	22.40	1324	7.81	0.0
6-16-19 8:15	22.34	1228	7.75	0.0
6-16-19 8:30	22.31	1326	7.54	0.0
6-16-19 8:45	22.24	1241	7.66	0.0
6-16-19 9:00	22.22	1255	7.60	0.0
6-16-19 9:15	22.16	1252	7.63	0.0
6-16-19 9:30	22.13	1317	7.54	0.2
6-16-19 9:45	22.07	1261	7.64	0.0
6-16-19 10:00	22.03	1352	7.61	0.0
6-16-19 10:15	21.98	1256	7.56	0.0
6-16-19 10:30	21.92	1353	7.51	0.0
6-16-19 10:45	21.88	1258	7.48	0.0
6-16-19 11:00	21.82	1350	7.39	0.0
6-16-19 11:15	21.76	1367	7.41	0.0
6-16-19 11:30	21.72	1373	7.32	0.7
6-16-19 11:45	21.67	1378	7.36	0.0
6-16-19 12:00	21.63	1242	7.36	0.0
6-16-19 12:15	21.59	1318	7.30	0.0
6-16-19 12:30	21.55	1242	7.28	0.0
6-16-19 12:45	21.52	1315	7.25	0.0
6-16-19 13:00	21.48	1105	7.27	0.0
6-16-19 13:15	21.43	1324	7.27	0.0
6-16-19 13:30	21.38	1234	7.26	0.3
6-16-19 13:45	21.37	1333	7.23	0.0
6-16-19 14:00	21.39	1244	7.21	0.0
6-16-19 14:15	21.39	1338	7.22	0.0
6-16-19 14:30	21.41	1245	7.21	0.0
6-16-19 14:45	21.43	1339	7.24	0.0
6-16-19 15:00				
6-16-19 15:15	21.53	1368	7.14	27.0
6-16-19 15:30	21.53	1363	7.16	0.0

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-15-19 16:30	19.41	739	9.27	11.5
6-15-19 16:45	19.55	738	9.26	11.8
6-15-19 17:00	19.53	736	9.26	14.5
6-15-19 17:15	19.69	736	9.28	10.9
6-15-19 17:30	19.94	738	9.26	12.4
6-15-19 17:45	20.09	732	9.29	12.2
6-15-19 18:00	20.16	731	9.31	12.0
6-15-19 18:15	20.16	730	9.32	12.1
6-15-19 18:30	20.52	737	9.28	12.1
6-15-19 18:45	20.78	737	9.26	11.7
6-15-19 19:00	21.19	740	9.24	12.8
6-15-19 19:15	21.59	743	9.21	11.1
6-15-19 19:30	21.64	739	9.24	12.2
6-15-19 19:45	21.92	742	9.21	10.9
6-15-19 20:00	21.98	743	9.22	14.6
6-15-19 20:15	22.50	742	9.20	10.8
6-15-19 20:30	22.77	740	9.21	12.6
6-15-19 20:45	22.80	742	9.21	11.3
6-15-19 21:00	23.59	744	9.20	11.1
6-15-19 21:15	23.93	744	9.18	11.0
6-15-19 21:30	23.89	744	9.18	11.6
6-15-19 21:45	23.77	744	9.18	11.3
6-15-19 22:00	23.83	743	9.18	11.6
6-15-19 22:15	24.11	746	9.18	10.3
6-15-19 22:30	24.46	745	9.18	11.1
6-15-19 22:45	24.77	745	9.17	10.0
6-15-19 23:00	24.56	741	9.18	10.9
6-15-19 23:15	24.87	744	9.18	11.1
6-15-19 23:30	24.91	746	9.18	11.7
6-15-19 23:45	24.13	739	9.23	10.9
6-16-19 0:00	24.46	742	9.19	11.4
6-16-19 0:15	24.29	740	9.20	10.9
6-16-19 0:30	24.48	741	9.20	11.1
6-16-19 0:45	24.77	745	9.20	10.8
6-16-19 1:00	24.89	745	9.19	11.0
6-16-19 1:15	24.97	747	9.18	10.2
6-16-19 1:30	25.12	748	9.19	11.5
6-16-19 1:45	25.13	747	9.18	9.9
6-16-19 2:00	25.08	747	9.18	10.0
6-16-19 2:15	25.03	747	9.18	9.1
6-16-19 2:30	24.94	746	9.19	9.3
6-16-19 2:45	24.84	747	9.19	9.2
6-16-19 3:00	24.75	747	9.19	9.2
6-16-19 3:15	24.65	751	9.19	9.1
6-16-19 3:30	24.56	746	9.20	9.0
6-16-19 3:45	24.47	756	9.20	8.3
6-16-19 4:00	24.36	746	9.20	8.6
6-16-19 4:15	24.25	747	9.19	7.6
6-16-19 4:30	24.15	746	9.20	7.7
6-16-19 4:45	24.06	747	9.20	7.4
6-16-19 5:00	23.98	746	9.21	7.5
6-16-19 5:15	23.88	746	9.20	7.5
6-16-19 5:30	23.80	745	9.20	7.6
6-16-19 5:45	23.70	746	9.19	7.1
6-16-19 6:00	23.56	745	9.20	7.1
6-16-19 6:15	23.45	746	9.19	6.7
6-16-19 6:30	23.36	745	9.20	7.2
6-16-19 6:45	23.25	745	9.20	6.7
6-16-19 7:00	23.16	745	9.21	7.6
6-16-19 7:15	23.08	745	9.21	6.7
6-16-19 7:30	22.97	744	9.21	7.3
6-16-19 7:45	22.85	744	9.22	6.5
6-16-19 8:00	22.74	743	9.23	7.0
6-16-19 8:15	22.65	743	9.22	6.9
6-16-19 8:30	22.53	742	9.22	7.0
6-16-19 8:45	22.43	743	9.23	6.8
6-16-19 9:00	22.33	723	9.23	6.9
6-16-19 9:15	22.24	743	9.23	6.5
6-16-19 9:30	22.14	742	9.22	7.0
6-16-19 9:45	22.05	742	9.22	6.4
6-16-19 10:00	21.99	742	9.23	7.6
6-16-19 10:15	21.90	742	9.23	6.6
6-16-19 10:30	21.82	742	9.23	7.4

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-15-19 16:30	19.00	700	8.46	6.9
6-15-19 16:45	19.13	699	8.47	7.1
6-15-19 17:00	19.33	699	8.46	8.9
6-15-19 17:15	19.51	698	8.46	7.5
6-15-19 17:30	19.75	700	8.44	6.9
6-15-19 17:45	19.91	697	8.44	10.2
6-15-19 18:00	20.20	701	8.44	8.6
6-15-19 18:15	20.35	700	8.44	9.5
6-15-19 18:30	20.11	698	8.44	11.4
6-15-19 18:45	19.80	682	8.46	6.9
6-15-19 19:00	19.77	699	8.44	8.1
6-15-19 19:15	20.16	699	8.47	8.5
6-15-19 19:30	20.43	699	8.47	8.0
6-15-19 19:45	20.71	698	8.45	9.0
6-15-19 20:00	20.96	700	8.45	7.6
6-15-19 20:15	21.33	708	8.44	8.1
6-15-19 20:30	21.53	700	8.44	7.6
6-15-19 20:45	21.80	695	8.45	8.1
6-15-19 21:00	22.14	697	8.44	7.0
6-15-19 21:15	22.25	687	8.45	8.1
6-15-19 21:30	22.09	680	8.44	20.4
6-15-19 21:45	22.56	680	8.44	8.9
6-15-19 22:00	22.96	660	8.44	8.0
6-15-19 22:15	23.13	717	8.44	8.3
6-15-19 22:30	23.34	715	8.44	7.7
6-15-19 22:45	23.46	711	8.44	8.4
6-15-19 23:00	23.65	704	8.45	14.5
6-15-19 23:15	23.92	703	8.45	9.3
6-15-19 23:30	24.10	706	8.45	8.3
6-15-19 23:45	24.26	700	8.45	10.0
6-16-19 0:00	24.35	689	8.45	14.3
6-16-19 0:15	24.45	703	8.46	7.9
6-16-19 0:30	24.40	682	8.46	6.8
6-16-19 0:45	23.64	696	8.45	8.3
6-16-19 1:00	23.46	676	8.45	6.7
6-16-19 1:15	23.64	678	8.46	9.2
6-16-19 1:30	23.62	673	8.45	9.8
6-16-19 1:45	23.71	674	8.45	9.7
6-16-19 2:00	23.90	676	8.53	9.6
6-16-19 2:15	23.75	687	8.50	8.2
6-16-19 2:30	23.34	695	8.42	9.0
6-16-19 2:45	23.75	667	8.49	7.9
6-16-19 3:00	23.48	675	8.44	15.6
6-16-19 3:15	23.29	668	8.45	8.1
6-16-19 3:30	23.61	667	8.50	9.1
6-16-19 3:45	23.17	694	8.47	6.9
6-16-19 4:00	23.04	688	8.47	7.7
6-16-19 4:15	22.94	690	8.50	8.7
6-16-19 4:30	22.93	674	8.52	8.6
6-16-19 4:45	22.85	693	8.51	6.9
6-16-19 5:00	22.78	688	8.52	7.1
6-16-19 5:15	22.72	684	8.53	5.9
6-16-19 5:30	22.65	688	8.52	7.4
6-16-19 5:45	22.56	690	8.52	6.7
6-16-19 6:00	22.43	680	8.52	6.4
6-16-19 6:15	22.34	682	8.47	7.7
6-16-19 6:30	22.21	685	8.51	8.8
6-16-19 6:45	22.10	672	8.51	5.7
6-16-19 7:00	21.98	683	8.51	5.9
6-16-19 7:15	21.87	678	8.51	6.9
6-16-19 7:30	21.78	683	8.50	5.7
6-16-19 7:45	21.69	682	8.51	6.0
6-16-19 8:00	21.62	686	8.46	6.0
6-16-19 8:15	21.55	710	8.49	6.3
6-16-19 8:30	21.46	716	8.51	7.6
6-16-19 8:45	21.39	716	8.51	9.5
6-16-19 9:00	21.30	720	8.50	10.6
6-16-19 9:15	21.22	711	8.49	36.7
6-16-19 9:30	21.11	713	8.49	10.0
6-16-19 9:45	20.99	710	8.49	9.3
6-16-19 10:00	20.90	713	8.50	7.7
6-16-19 10:15	20.83	709	8.50	7.7
6-16-19 10:30	20.76	707	8.49	7.5

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-15-19 11:30	14.82	1822	7.82	3.4
9-15-19 11:45	14.78	1830	7.89	0.9
9-15-19 12:00	14.76	1816	7.72	0.9
9-15-19 12:15	14.71	1814	7.73	7.9
9-15-19 12:30	14.71	1814	7.56	36.0
9-15-19 12:45	14.67	1815	7.68	10.1
9-15-19 13:00	14.64	1813	7.52	21.1
9-15-19 13:15	14.60	1816	7.40	3.1
9-15-19 13:30	14.56	1815	7.46	1.5
9-15-19 13:45	14.56	1816	7.55	1.3
9-15-19 14:00	14.54	1815	7.52	1.6
9-15-19 14:15	14.52	1813	7.50	42.1
9-15-19 14:30	14.54	1816	7.54	12.8
9-15-19 14:45	14.53	1816	7.75	2.8
9-15-19 15:00	14.53	1817	7.86	2.5
9-15-19 15:15	14.52	1820	7.83	2.1
9-15-19 15:30	14.49	1819	7.82	2.0
9-15-19 15:45	14.48	1821	7.83	0.7
9-15-19 16:00	14.46	1815	7.81	1.0
9-15-19 16:15	14.46	1816	7.83	18.4
9-15-19 16:30	14.52	1815	7.83	5.1
9-15-19 16:45	14.54	1816	7.84	32.0
9-15-19 17:00	14.57	1814	7.86	39.9
9-15-19 17:15	14.61	1811	7.89	1.7
9-15-19 17:30	14.65	1811	7.99	2.0
9-15-19 17:45	14.68	1810	7.97	1.0
9-15-19 18:00	14.73	1809	8.09	1.3
9-15-19 18:15	14.77	1812	8.14	25.0
9-15-19 18:30	14.79	1805	8.16	2.8
9-15-19 18:45	14.84	1803	8.17	1.7
9-15-19 19:00	14.90	1815	8.24	2.3
9-15-19 19:15	14.95	1821	8.31	2.3
9-15-19 19:30	14.96	1812	8.50	1.0
9-15-19 19:45	15.03	1809	8.50	1.4
9-15-19 20:15	15.11	1807	8.36	6.6
9-15-19 20:30	15.16	1853	7.98	3.7
9-15-19 20:45	15.19	1819	7.73	5.0
9-15-19 21:00	15.22	1803	7.68	4.5
9-15-19 21:15	15.23	1816	7.65	8.0
9-15-19 21:30	15.23	1815	7.63	1.3
9-15-19 21:45	15.24	1818	7.63	0.9
9-15-19 22:00	15.23	1800	7.62	1.0
9-15-19 22:15	15.25	1822	7.59	7.3
9-15-19 22:30	15.26	1805	7.59	1.2
9-15-19 22:45	15.25	1808	7.63	1.8
9-15-19 23:00	15.22	1809	7.69	5.3
9-15-19 23:15	15.23	1807	7.62	26.7
9-15-19 23:30	15.26	1811	7.59	11.5
9-15-19 23:45	15.28	1894	7.54	1.0
9-16-19 0:00	15.29	1934	7.50	5.8
9-16-19 0:15	15.29	1911	7.56	12.5
9-16-19 0:30	15.28	1803	7.82	3.8
9-16-19 0:45	15.22	1777	7.92	6.6
9-16-19 1:00	15.19	1793	8.26	2.4
9-16-19 1:15	15.12	1804	8.26	2.2
9-16-19 1:30	15.09	1899	8.10	2.6
9-16-19 1:45	15.02	1786	8.04	1.4
9-16-19 2:00	14.98	1787	8.67	1.4
9-16-19 2:15	14.94	1772	8.78	7.8
9-16-19 2:30	14.91	1777	8.80	4.8
9-16-19 2:45	14.86	1800	8.80	5.7
9-16-19 3:00	14.80	1766	8.80	12.1
9-16-19 3:15	14.84	1791	8.80	9.4
9-16-19 3:30	14.83	1787	8.81	5.5
9-16-19 3:45	14.80	1810	8.79	5.2
9-16-19 4:00	14.77	1778	8.80	7.3
9-16-19 4:15	14.58	1731	7.53	144.3
9-16-19 4:30	14.22	1675	7.75	307.1
9-16-19 4:45	14.19	1677	8.14	290.3
9-16-19 5:00	14.10	1673	8.26	300.1
9-16-19 5:15	14.12	1676	8.36	193.3
9-16-19 5:30	13.99	1665	8.13	232.2
9-16-19 5:45	13.93	1659	8.52	274.1

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-16-19 15:45	21.65	1369	7.21	8.2	6-16-19 10:45	21.73	742	9.23	7.1	6-16-19 10:45	20.68	711	8.49	6.0						9-16-19 6:00	13.92	1668	8.24	181.7					
6-16-19 16:00	21.69	1361	7.38	0.0	6-16-19 11:00	21.65	741	9.24	7.0	6-16-19 11:00	20.60	713	8.48	5.4						9-16-19 6:15	13.81	1656	8.22	199.2					
6-16-19 16:15	21.74	1364	7.68	79.5	6-16-19 11:15	21.57	741	9.24	6.3	6-16-19 11:15	20.53	712	8.49	6.7						9-16-19 6:30	13.67	1625	8.37	281.8					
6-16-19 16:30	21.83	1361	7.79	0.0	6-16-19 11:30	21.51	741	9.24	6.6	6-16-19 11:30	20.46	714	8.48	20.4						9-16-19 6:45	13.60	1622	7.96	186.9					
6-16-19 16:45	21.90	1365	7.90	0.0	6-16-19 11:45	21.42	741	9.25	6.4	6-16-19 11:45	20.40	708	8.49	15.6						9-16-19 7:00	13.48	1598	7.79	190.5					
6-16-19 17:00	21.92	1362	8.65	0.6	6-16-19 12:00	21.34	740	9.26	6.8	6-16-19 12:00	20.35	709	8.48	7.1						9-16-19 7:15	13.39	1595	8.16	224.7					
6-16-19 17:15	21.95	1361	7.52	0.0	6-16-19 12:15	21.25	740	9.25	6.8	6-16-19 12:15	20.27	709	8.48	7.5						9-16-19 7:30	13.22	1577	8.01	193.8					
6-16-19 17:30	22.07	1362	7.32	0.6	6-16-19 12:30	21.17	740	9.26	7.2	6-16-19 12:30	20.22	706	8.48	6.0						9-16-19 7:45	13.05	1558	7.55	190.0					
6-16-19 17:45	22.13	1363	7.45	0.0	6-16-19 12:45	21.09	740	9.26	6.4	6-16-19 12:45	20.17	709	8.49	6.9						9-16-19 8:00	13.02	1567	7.83	167.1					
6-16-19 18:00	22.21	1327	7.42	5.0	6-16-19 13:00	21.06	740	9.26	6.4	6-16-19 13:00	20.12	707	8.48	7.9						9-16-19 8:15	13.09	1578	8.26	206.1					
6-16-19 18:15	22.41	1325	7.37	1.3	6-16-19 13:15	21.03	740	9.26	6.2	6-16-19 13:15	20.11	708	8.49	7.2						9-16-19 8:30	12.92	1553	7.89	181.4					
6-16-19 18:30	22.52	1362	7.60	191.2	6-16-19 13:30	21.01	740	9.26	6.5	6-16-19 13:30	20.08	709	8.48	6.3						9-16-19 8:45	13.07	1601	8.34	144.5					
6-16-19 18:45	22.65	1360	7.93	0.9	6-16-19 13:45	20.97	740	9.26	6.1	6-16-19 13:45	20.06	709	8.49	7.5						9-16-19 9:00	12.86	1547	7.80	162.6					
6-16-19 19:00	22.60	1362	8.22	19.1	6-16-19 14:00	20.97	742	9.26	6.7	6-16-19 14:00	20.05	708	8.49	6.4						9-16-19 9:15	12.82	1555	8.11	157.1					
6-16-19 19:15	22.87	1357	8.78	0.0	6-16-19 14:15	20.97	740	9.25	6.2	6-16-19 14:15	20.05	704	8.49	6.9						9-16-19 9:30	12.68	1525	7.47	126.0					
6-16-19 19:30	22.92	1352	9.16	27.8	6-16-19 14:30	21.00	740	9.25	6.4	6-16-19 14:30	20.08	705	8.48	6.6						9-16-19 9:45	12.62	1517	7.58	105.0					
6-16-19 19:45	22.98	1351	9.32	3.8	6-16-19 14:45	21.04	740	9.25	6.7	6-16-19 14:45	20.08	703	8.49	5.5						9-16-19 10:00	12.69	1536	7.60	116.3					
6-16-19 20:00					6-16-19 15:00	21.07	740	9.25	6.7	6-16-19 15:00	20.11	707	8.49	6.4						9-16-19 10:15	12.70	1534	7.60	150.6					
6-16-19 20:15	23.29	1279	9.18	0.0	6-16-19 15:15	21.11	740	9.26	6.1	6-16-19 15:15	20.16	709	8.49	6.5						9-16-19 10:30	12.68	1537	7.71	144.2					
6-16-19 20:30	23.58	1305	9.09	0.0	6-16-19 15:30	21.15	740	9.26	6.4	6-16-19 15:30	20.24	719	8.48	5.8						9-16-19 10:45	12.66	1539	7.56	110.2					
6-16-19 20:45	23.80	1264	9.07	0.0	6-16-19 15:45	21.20	740	9.25	6.2	6-16-19 15:45	20.30	701	8.49	6.2						9-16-19 11:00	12.65	1543	7.58	99.7					
6-16-19 21:00	24.01	1304	9.04	0.0	6-16-19 16:00	21.24	740	9.27	6.4	6-16-19 16:00	20.40	705	8.48	6.1						9-16-19 11:15	12.69	1552	7.66	100.1					
6-16-19 21:15	24.17	1292	9.03	0.2	6-16-19 16:15	21.28	740	9.27	5.8	6-16-19 16:15	20.54	705	8.49	6.3						9-16-19 11:30	12.64	1546	7.59	105.2					
6-16-19 21:30	24.43	1299	9.00	0.7	6-16-19 16:30	21.40	740	9.27	6.2	6-16-19 16:30	20.67	706	8.48	25.0						9-16-19 11:45	12.64	1549	7.70	91.7					
6-16-19 21:45	24.58	1228	9.00	0.0	6-16-19 16:45	21.56	740	9.27	6.2	6-16-19 16:45	20.75	701	8.48	26.9						9-16-19 12:00	12.66	1556	7.66	89.0					
6-16-19 22:00	24.54	1319	8.97	9.0	6-16-19 17:00	21.66	740	9.28	6.3	6-16-19 17:00	20.87	707	8.47	26.3						9-16-19 12:15	12.67	1561	7.59	111.3					
6-16-19 22:15	24.60	1237	8.96	0.0	6-16-19 17:15	21.72	740	9.28	5.8	6-16-19 17:15	21.17	705	8.48	29.1						9-16-19 12:30	12.70	1569	7.56	120.8					
6-16-19 22:30	24.66	1314	8.99	9.9	6-16-19 17:30	21.83	741	9.26	6.5	6-16-19 17:30	21.16	703	8.47	16.2						9-16-19 12:45	12.69	1566	7.75	94.3					
6-16-19 22:45	24.67	1358	8.98	0.1	6-16-19 17:45	22.19	743	9.25	6.2	6-16-19 17:45	21.23	704	8.47	33.7						9-16-19 13:00	12.67	1570	7.65	100.6					
6-16-19 23:00	24.81	1359	8.93	0.1	6-16-19 18:00	22.51	738	9.29	6.7	6-16-19 18:00	21.50	705	8.47	5.8						9-16-19 13:15	12.66	1572	7.71	87.0					
6-16-19 23:15	24.85	1359	8.95	0.0	6-16-19 18:15	22.89	742	9.24	6.0	6-16-19 18:15	21.32	705	8.47	5.8						9-16-19 13:30	12.63	1577	7.56	75.9					
6-16-19 23:30	24.89	1304	8.96	0.0	6-16-19 18:30	22.98	740	9.26	7.3	6-16-19 18:30	21.43	706	8.47	5.7						9-16-19 13:45	12.62	1576	7.91	81.8					
6-16-19 23:45	24.83	1275	8.92	0.0	6-16-19 18:45	22.98	741	9.25	6.7	6-16-19 18:45	21.64	706	8.47	13.7						9-16-19 14:00	12.59	1577	7.88	77.5					
6-17-19 0:00	24.73	1273	8.92	0.5	6-16-19 19:00	23.34	762	9.27	22.3	6-16-19 19:00	22.17	696	8.46	5.1						9-16-19 14:15	12.57	1577	7.94	135.2					
6-17-19 0:15	24.72	1279	8.95	0.0	6-16-19 19:15	23.39	754	9.27	7.1	6-16-19 19:15	22.53	692	8.47	6.3						9-16-19 14:30	12.57	1575	7.55	83.6					
6-17-19 0:30	24.37	1258	9.00	0.0	6-16-19 19:30	23.56	737	9.29	7.2	6-16-19 19:30	22.74	704	8.47	19.7						9-16-19 14:45	12.55	1575	7.54	73.5					
6-17-19 0:45	24.06	1275	9.12	0.0	6-16-19 19:45	23.69	737	9.32	8.2	6-16-19 19:45	23.15	700	8.47	6.8						9-16-19 15:00	12.55	1574	7.58	92.7					
6-17-19 1:00	23.98	1224	9.55	2.6	6-16-19 20:00	24.46	742	9.35	7.2	6-16-19 20:00	23.12	703	8.46	7.9						9-16-19 15:15	12.53	1574	7.66	79.5					
6-17-19 1:15	24.28	1202	9.56	0.0	6-16-19 20:15	24.81	740	9.30	7.1	6-16-19 20:15	23.47	703	8.47	6.9						9-16-19 15:30	12.53	1577	7.76	68.3					
6-17-19 1:30	24.21	1384	9.60	7.8	6-16-19 20:30	24.72	739	9.28	8.7	6-16-19 20:30	23.90	691	8.48	6.4						9-16-19 15:45	12.51	1578	7.66	65.5					
6-17-19 1:45	24.30	1324	9.51	13.8	6-16-19 20:45	24.93	738	9.36	6.9	6-16-19 20:45	24.11	691	8.47	6.9						9-16-19 16:00	12.51	1578	7.62	67.1					
6-17-19 2:00	24.38	1219	9.55	9.7	6-16-19 21:00	24.55	731	9.30	8.9	6-16-19 21:00	24.17	698	8.47	10.3						9-16-19 16:15	12.51	1577	7.63	81.2					
6-17-19 2:15	24.52	1347	9.31	0.0	6-16-19 21:15	23.05	730	9.31	19.6	6-16-19 21:15	24.23	697	8.48	5.1						9-16-19 16:30	12.50	1578	7.70	85.1					
6-17-19 2:30	24.59	1368	9.31	0.0	6-16-19 21:30	22.60	730	9.36	20.1	6-16-19 21:30	24.16	705	8.48	5.7						9-16-19 16:45	12.50	1579	7.63	75.4					
6-17-19 2:45	24.62	1368	9.30	93.5	6-16-19 21:45	22.57	731	9.41	8.7	6-16-19 21:45	24.19	698	8.49	6.6						9-16-19 17:00	12.51	1578	7.69	80.8					
6-17-19 3:00	24.60	1360	9.30	2.5	6-16-19 22:00	22.96	735	9.39	12.8	6-16-19 22:00	24.25	708	8.49	7.4						9-16-19 17:15	12.52	1578	7.59	74.4					
6-17-19 3:15	24.56	1366	9.33	131.2	6-16-19 22:15	23.32	735	9.38	10.9	6-16-19 22:15	24.29	706	8.49	7.7						9-16-19 17:30	12.55	1580	7.52	65.3					
6-17-19 3:30	24.52	1373	9.34	6.8	6-16-19 22:30	23.62	734	9.37	10.3	6-16-19 22:30	24.43	711	8.49	7.2						9-16-19 17:45	12.56	1580	7.66	57.5					
6-17-19 3:45	24.48	1376	9.34	2.3	6-16-19 22:45	23.68	736	9.34	8.5	6-16-19 22:45	24.41	695	8.50	8.2						9-16-19 18:00	12.59	1581	7.69	62.9					
6-17-19 4:00	24.41	1328	9.33	0.0	6-16-19 23:00	23.80	736	9.34	9.0	6-16-19 23:00	24.40	691	8.50	9.9						9-16-19 18:15	12.60	1582	7.52	77.9					
6-17-19 4:15	24.36	1311	9.34	0.0	6-16-19 23:15	23.88	734	9.35	7.7	6-16-19 23:15	24.42	688	8.52	8.8						9-16-19 18:30	12.61	1581	7.69	62.6					
6-17-19 4:30	24.31	1307	9.33	0.6	6-16-19 23:30	23.88	736	9.35	8.6	6-16-19 23:30	24.35	687	8.51	4.6						9-16-19 18:45	12.59	1582	7.59	67.3					
6-17-19 4:45	24.27	1354	9.32	0.0	6-16-19 23:45	23.81	736	9.33	7.9	6-16-19 23:45	24.28	713	8.51	6.0						9-16-19 19:00	12.60	1581	7.58	71.0					
6-17-19 5:00	24.19	1318	9.33	0.0	6-17-19 0:00	23.85	735	9.34	8.2	6-17-19 0:00	24.29	706	8.51	6.1						9-16-19 19:15	12.57	1580	7.56	70.6					
6-17-19 5:15	24.14	1321	9.32	0.0	6-17-19 0:15	24.07	737	9.32	12.2	6-17-19 0:15	24.22	686	8.52	7.8						9-16-19 19:30	12.75	1584	7.27	59.1					
6-17-19 5:30	24.09	1315	9.32	4.6	6-17-19 0:30	24.09	734	9.33	8.2	6-17-19 0:30	24.26	701	8.52	8.3						9-16-19 19:45	12.99	1583	7.27	52.2					
6-17-19 5:45	24.03	1306	9.32	0.0	6-17-19 0:45	24.38	734	9.35	9.5	6-17-19 0:45	24.31	689	8.52	6.7						9-16-19 20:00	13.36	1584	7.36	47.4					
6-17-19 6:00	23.96	1286	9.31	0.0	6-17-19 1:00	24.55	736	9.36	8.7	6-17-19 1:00	24.27	690	8.52	5.1						9-16-19 20:15	13.53	1583	7.32	55.3					
6-17-19 6:15	23.88	1315	9.31	0.0	6-17-19 1:15	24.69	729	9.40	9.3	6-17-19 1:15	24.22	683	8.53	5.1						9-16-19 20:30	13.76	1581	7.32	47.7					
6-17-19 6:30	23.81	1294	9.31	0.0	6-17-19 1:30	24.83	732	9.43	9.3	6-17-19 1:30	24.10	688	8.52	19.6						9-16-19 20:45	14.14	1579	7.70	47.5					
6-17-19 6:45	23.77	1293	9.29	0.0	6-17-19 1:45	24.81	734	9.42	7.7	6-17-19 1:45	23.97	684	8.54	11.2						9-16-19 21:00	14.27	1575	7.79	43.1					
6-17-19 7:00	23.70	1273	9.28	0.0	6-17-19 2:00	24.73	732	9.41	8.4	6-17-19 2:00	23.82	693	8.53	4.5						9-16-19 21:15	14.37	1574	7.69	40.3					
6-17-19 7:15	23.64	1325	9.28	0.0	6-17-19 2:15	24.69	731	9.43	8.0	6-17-19 2:15	23.66	698	8.54	5.3						9-16-19 21:30	14.62	1577	7.74	37.2					
6-17-19 7:30	23.58	1303	9.26	0.0	6-17-19 2:30	24.64	730	9.43	7.8	6-17-19 2:30	23.53	687	8.55	5.9						9-16-19 21:45	14.82	1577	8.04	36.9					
6-17-19 7:45	23.53	1303	9.26	0.0	6-17-19 2:45	24.56	731	9.46	7.6	6-17-19 2:45	23.49	666	8.55	6.8						9-16-19 22:00	14.70	1575	7.74	37.8					
6-17-19 8:00					6-17-19 3:00	24.49	731	9.44	8.1	6-17-19 3:00	23.47	680	8.54	3.9						9-16-19 22:15	14.70	1574	7.53	42.6					
6-17-19 8:15	23.40	1359	9.22	0.0	6-17-19 3:15	24.41	730	9.44	7.3	6-17-19 3:15	23.41	680	8.55	6.0						9-16-19 22:30	14.74	1572	7.59	42.3					
6-17-19 8:30	23.33	1354	9.20	0.0	6-17-19 3:30	24.34	730	9.45	7.4	6-17-19 3:30	23.36	668	8.54	4.3						9-16-19 22:45	14.79	1572	7.55	36.1					
6-17-19 8:45	23.28	1348	9.21	0.0	6-17-19 3:45	24.26	729	9.45	7.4	6-17-19 3:45	23.30	673	8.54	6.1						9-16-19 23:00	15.00	1574	7.77	38.6					
6-17-19 9:00	23.22	1357	9.18	0.0	6-17-19 4:00	24.19	729	9.44	7.5	6-17-19 4:00	23.23	676	8.54	9.2						9-16-19 23:15	15.00	1572	7.86	41.0					
6-17-19 9:15	23.16	1359	9.17	0.0	6-17-19 4:15	24.11	730	9.43	7.0	6-17-19 4:15	23.16	700	8.54	7.9						9-16-19 23:30	14.92	1577	7.57	36.6					
6-17-19 9:30	23.11	1348	9.16	0.0	6-17-19 4:30	24.03	730	9.43	7.0	6-17-19 4:30	23.08	700	8.54	6.6						9-16-19 23:45	14.91	1577	7.58	35.4					
6-17-19 9:45	23.06	1356	9.15	0.0	6-17-19 4:45	23.94	728	9.43	6.6	6-17-19 4:45	22.97	672	8.53	6.0						9-17-19 0:00	14.89	1577	7.50	34.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-17-19 10:00	23.02	1342	9.15	0.0	6-17-19 5:00	23.84	730	9.43	7.2	6-17-19 5:00	22.85	715	8.53	4.2						9-17-19 0:15	14.90	1578	7.56	39.5					
6-17-19 10:15	22.98	1349	9.15	0.0	6-17-19 5:15	23.75	727	9.44	6.9	6-17-19 5:15	22.78	707	8.55	6.4						9-17-19 0:30	14.87	1575	7.50	39.5					
6-17-19 10:30	22.92	1370	9.14	2.5	6-17-19 5:30	23.65	729	9.43	7.5	6-17-19 5:30	22.69	703	8.55	8.5						9-17-19 0:45	14.84	1575	7.45	37.3					
6-17-19 10:45	22.87	1361	9.14	0.0	6-17-19 5:45	23.56	729	9.44	6.7	6-17-19 5:45	22.66	699	8.56	7.3						9-17-19 1:00	14.81	1574	7.46	35.9					
6-17-19 11:00	22.82	1366	9.14	0.0	6-17-19 6:00	23.49	728	9.44	8.2	6-17-19 6:00	22.56	705	8.55	5.3						9-17-19 1:15	14.77	1573	7.48	36.9					
6-17-19 11:15	22.77	1361	9.13	0.0	6-17-19 6:15	23.41	728	9.45	6.5	6-17-19 6:15	22.48	703	8.55	4.2						9-17-19 1:30	14.73	1577	7.45	32.1					
6-17-19 11:30	22.71	1364	9.12	0.1	6-17-19 6:30	23.34	728	9.45	7.4	6-17-19 6:30	22.41	703	8.55	6.3						9-17-19 1:45	14.66	1577	7.46	32.1					
6-17-19 11:45	22.68	1361	9.13	0.0	6-17-19 6:45	23.27	728	9.45	6.7	6-17-19 6:45	22.33	696	8.56	4.5						9-17-19 2:00	14.64	1576	7.47	32.2					
6-17-19 12:00	22.63	1365	9.12	1.7	6-17-19 7:00	23.21	726	9.45	8.9	6-17-19 7:00	22.26	701	8.55	15.2						9-17-19 2:15	14.61	1576	7.48	35.0					
6-17-19 12:15	22.59	1361	9.12	0.0	6-17-19 7:15	23.14	727	9.45	6.6	6-17-19 7:15	22.19	695	8.55	6.6						9-17-19 2:30	14.55	1573	7.42	36.1					
6-17-19 12:30	22.53	1362	9.10	0.0	6-17-19 7:30	23.05	728	9.45	7.8	6-17-19 7:30	22.12	701	8.54	6.0						9-17-19 2:45	14.51	1574	7.42	35.5					
6-17-19 12:45	22.48	1356	9.10	0.0	6-17-19 7:45	23.00	726	9.45	7.1	6-17-19 7:45	22.05	698	8.54	5.1						9-17-19 3:00	14.45	1574	7.44	35.8					
6-17-19 13:00	22.45	1367	9.08	0.0	6-17-19 8:00	22.95	727	9.45	7.3	6-17-19 8:00	21.98	721	8.54	8.6						9-17-19 3:15	14.40	1572	7.41	35.2					
6-17-19 13:15	22.42	1369	9.08	0.0	6-17-19 8:15	22.88	728	9.44	6.2	6-17-19 8:15	21.90	688	8.54	5.5						9-17-19 3:30	14.33	1576	7.41	30.9					
6-17-19 13:30	22.37	1368	9.05	0.0	6-17-19 8:30	22.77	727	9.45	6.6	6-17-19 8:30	21.83	690	8.53	7.7						9-17-19 3:45	14.22	1575	7.42	30.3					
6-17-19 13:45	22.32	1369	9.02	0.0	6-17-19 8:45	22.68	727	9.45	6.3	6-17-19 8:45	21.72	685	8.54	4.4						9-17-19 4:00	14.12	1575	7.43	32.6					
6-17-19 14:00	22.32	1369	9.01	0.0	6-17-19 9:00	22.59	726	9.44	6.6	6-17-19 9:00	21.66	694	8.53	7.6						9-17-19 4:15	14.03	1574	7.56	33.1					
6-17-19 14:15	22.34	1368	9.06	0.0	6-17-19 9:15	22.49	726	9.45	6.2	6-17-19 9:15	21.60	692	8.54	5.6						9-17-19 4:30	13.98	1572	7.47	33.9					
6-17-19 14:30	22.34	1368	9.08	0.0	6-17-19 9:30	22.41	726	9.46	6.5	6-17-19 9:30	21.55	698	8.53	9.7						9-17-19 4:45	13.88	1571	7.42	33.8					
6-17-19 14:45	22.35	1369	8.99	0.0	6-17-19 9:45	22.34	725	9.47	6.4	6-17-19 9:45	21.49	691	8.54	5.7						9-17-19 5:00	13.86	1571	7.46	32.3					
6-17-19 15:00	22.37	1368	8.99	0.0	6-17-19 10:00	22.29	724	9.47	6.6	6-17-19 10:00	21.43	688	8.53	6.6						9-17-19 5:15	13.81	1571	7.43	29.1					
6-17-19 15:15	22.24	1385	9.06	0.0	6-17-19 10:15	22.23	725	9.46	6.5	6-17-19 10:15	21.36	692	8.53	4.6						9-17-19 5:30	13.79	1574	7.52	26.9					
6-17-19 15:30	22.38	1377	9.07	0.0	6-17-19 10:30	22.16	726	9.47	6.9	6-17-19 10:30	21.30	689	8.52	3.1						9-17-19 5:45	13.71	1574	7.42	27.2					
6-17-19 15:45	22.45	1384	9.07	0.0	6-17-19 10:45	22.10	725	9.47	6.1	6-17-19 10:45	21.25	691	8.51	4.8						9-17-19 6:00	13.66	1574	7.39	28.3					
6-17-19 16:00	22.49	1381	8.94	0.0	6-17-19 11:00	22.01	724	9.47	6.8	6-17-19 11:00	21.21	700	8.51	10.0						9-17-19 6:15	13.63	1574	7.39	120.6					
6-17-19 16:15	22.52	1386	8.75	0.0	6-17-19 11:15	22.00	724	9.48	6.7	6-17-19 11:15	21.13	699	8.51	4.2						9-17-19 6:30	13.55	1571	7.44	32.6					
6-17-19 16:30					6-17-19 11:30	21.93	724	9.48	7.1	6-17-19 11:30	21.09	707	8.51	4.7						9-17-19 6:45	13.52	1571	7.50	32.3					
6-17-19 16:45	22.62	1349	9.07	0.0	6-17-19 11:45	21.90	724	9.49	6.6	6-17-19 11:45	21.04	696	8.50	9.0						9-17-19 7:00	13.43	1571	7.40	30.1					
6-17-19 17:00	22.71	1382	9.04	0.0	6-17-19 12:00	21.81	729	9.49	7.5	6-17-19 12:00	20.98	700	8.50	5.4						9-17-19 7:15	13.39	1571	7.48	31.2					
6-17-19 17:15	22.75	1347	8.93	0.0	6-17-19 12:15	21.80	717	9.49	6.9	6-17-19 12:15	20.94	701	8.50	8.7						9-17-19 7:30	13.36	1575	7.38	25.5					
6-17-19 17:30	22.85	1382	8.98	0.0	6-17-19 12:30	21.77	723	9.49	7.8	6-17-19 12:30	20.89	699	8.49	8.0						9-17-19 7:45	13.31	1575	7.36	26.6					
6-17-19 17:45	22.94	1345	8.66	0.0	6-17-19 12:45	21.75	723	9.48	6.6	6-17-19 12:45	20.83	699	8.50	9.1						9-17-19 8:00	13.25	1575	7.42	24.9					
6-17-19 18:00	23.01	1386	8.24	0.0	6-17-19 13:00	21.71	723	9.47	7.3	6-17-19 13:00	20.79	698	8.49	7.1						9-17-19 8:15	13.21	1576	7.33	30.4					
6-17-19 18:15	23.21	1343	8.74	0.0	6-17-19 13:15	21.67	723	9.47	6.6	6-17-19 13:15	20.73	706	8.50	4.8						9-17-19 8:30	13.13	1573	7.43	27.9					
6-17-19 18:30					6-17-19 13:30	21.64	723	9.47	6.9	6-17-19 13:30	20.73	697	8.49	3.9						9-17-19 8:45	13.10	1571	7.59	27.7					
6-17-19 18:45					6-17-19 13:45	21.62	724	9.47	7.2	6-17-19 13:45	20.71	697	8.49	5.2						9-17-19 9:00	13.07	1572	7.62	27.6					
6-17-19 19:00					6-17-19 14:00	21.63	724	9.46	8.1	6-17-19 14:00	20.69	701	8.48	6.3						9-17-19 9:15	13.03	1572	7.62	32.3					
6-17-19 19:15					6-17-19 14:15	21.64	725	9.45	8.0	6-17-19 14:15	20.70	697	8.48	4.9						9-17-19 9:30	13.01	1572	7.34	24.2					
6-17-19 19:30					6-17-19 14:30	21.67	725	9.46	8.7	6-17-19 14:30	20.73	693	8.47	4.0						9-17-19 9:45	12.99	1573	7.57	23.2					
6-17-19 19:45					6-17-19 14:45	21.70	724	9.45	7.9	6-17-19 14:45	20.76	692	8.47	5.0						9-17-19 10:00	12.94	1572	7.63	21.7					
6-17-19 20:00					6-17-19 15:00	21.74	724	9.45	7.7	6-17-19 15:00	20.78	695	8.47	3.4						9-17-19 10:15	12.92	1573	7.51	28.8					
6-17-19 20:15					6-17-19 15:15	21.80	722	9.44	7.6	6-17-19 15:15	20.78	694	8.47	5.6						9-17-19 10:30	12.92	1570	7.64	27.5					
6-17-19 20:30					6-17-19 15:30	21.81	724	9.44	7.7	6-17-19 15:30	20.83	692	8.46	3.6						9-17-19 10:45	12.89	1570	7.57	26.2					
6-17-19 20:45					6-17-19 15:45	21.87	729	9.45	7.1	6-17-19 15:45	20.94	695	8.47	4.8						9-17-19 11:00	12.85	1570	7.37	27.8					
6-17-19 21:00					6-17-19 16:00	21.93	724	9.44	8.4	6-17-19 16:00	21.06	688	8.47	4.1						9-17-19 11:15	12.85	1569	7.66	22.8					
6-17-19 21:15					6-17-19 16:15	21.99	727	9.43	7.6	6-17-19 16:15	21.15	690	8.47	4.0						9-17-19 11:30	12.80	1572	7.45	22.0					
6-17-19 21:30					6-17-19 16:30	22.05	724	9.45	8.0	6-17-19 16:30	21.25	563	8.45	6.5						9-17-19 11:45	12.79	1573	7.41	21.0					
6-17-19 21:45					6-17-19 16:45	22.14	725	9.44	7.7	6-17-19 16:45	21.24	693	8.46	6.0						9-17-19 12:00	12.76	1573	7.24	22.0					
6-17-19 22:00					6-17-19 17:00	22.28	725	9.44	8.1	6-17-19 17:00	21.28	701	8.46	3.8						9-17-19 12:15	12.73	1573	7.23	25.0					
6-17-19 22:15					6-17-19 17:15	22.49	725	9.44	7.5	6-17-19 17:15	21.45	698	8.46	7.2						9-17-19 12:30	12.69	1570	7.35	24.9					
6-17-19 22:30					6-17-19 17:30	22.70	726	9.44	8.2	6-17-19 17:30	21.60	696	8.47	4.7						9-17-19 12:45	12.63	1571	7.33	24.0					
6-17-19 22:45					6-17-19 17:45	22.82	726	9.46	9.0	6-17-19 17:45	21.86	698	8.47	5.9						9-17-19 13:00	12.59	1569	7.40	24.9					
6-17-19 23:00					6-17-19 18:00					6-17-19 18:00	21.96	694	8.46	6.0						9-17-19 13:15	12.56	1569	7.39	20.4					
6-17-19 23:15					6-17-19 18:15					6-17-19 18:15	22.15	693	8.47	9.0						9-17-19 13:30	12.55	1575	7.44	19.4					
6-17-19 23:30					6-17-19 18:30					6-17-19 18:30	22.26	692	8.46	13.3						9-17-19 13:45	12.53	1572	7.42	19.3					
6-17-19 23:45	23.55	1313	8.77	3.5	6-17-19 18:45					6-17-19 18:45	22.32	684	8.46	14.3						9-17-19 14:00	12.50	1572	7.55	17.7					
6-18-19 0:00	24.51	1301	8.85	2.5	6-17-19 19:00					6-17-19 19:00	22.32	676	8.47	8.4						9-17-19 14:15	12.48	1572	7.59	21.2					
6-18-19 0:15	24.62	1295	8.97	2.9	6-17-19 19:15					6-17-19 19:15	22.29	673	8.47	10.7						9-17-19 14:30	12.46	1569	7.59	23.5					
6-18-19 0:30	24.62	1293	9.01	3.3	6-17-19 19:30					6-17-19 19:30	22.25	690	8.47	8.4						9-17-19 14:45	12.48	1569	7.54	20.2					
6-18-19 0:45	24.60	1290	8.97	2.2	6-17-19 19:45					6-17-19 19:45	22.14	686	8.47	14.0						9-17-19 15:00	12.49	1569	7.50	20.0					
6-18-19 1:00	24.54	1294	8.86	3.0	6-17-19 20:00					6-17-19 20:00	22.15	686	8.48	6.2						9-17-19 15:15	12.46	1568	7.37	20.1					
6-18-19 1:15	24.49	1276	8.78	10.2	6-17-19 20:15					6-17-19 20:15	22.20	690	8.48	13.7						9-17-19 15:30	12.44	1571	7.36	17.8					
6-18-19 1:30	24.49	1288	8.81	2.2	6-17-19 20:30					6-17-19 20:30	22.38	689	8.48	18.9						9-17-19 15:45	12.43	1570	7.45	17.5					
6-18-19 1:45	24.48	1285	8.81	17.0	6-17-19 20:45					6-17-19 20:45	22.37	687	8.47	14.6						9-17-19 16:00	12.42	1571	7.39	16.7					
6-18-19 2:00	24.45	1283	8.76	2.0	6-17-19 21:00					6-17-19 21:00	22.33	688	8.48	12.6						9-17-19 16:15	12.44	1571	7.32	21.3					
6-18-19 2:15	24.42	1280	8.70	3.5	6-17-19 21:15					6-17-19 21:15	22.30	683	8.48	17.6						9-17-19 16:30	12.46	1568	7.34	21.9					
6-18-19 2:30	24.40	1290	8.69	2.0	6-17-19 21:30					6-17-19 21:30	22.32	675	8.49	10.5						9-17-19 16:45	12.48	1568	7.28	20.8					
6-18-19 2:45	24.38	1285	8.70	2.2	6-17-19 21:45					6-17-19 21:45	22.37	679	8.48	11.5						9-17-19 17:00	12.49	1569	7.27	19.8					
6-18-19 3:00	24.35	1287	8.75	2.0	6-17-19 22:00					6-17-19 22:00	22.55	675	8.49	8.4						9-17-19 17:15	12.49	1569	7.21	17.0					
6-18-19 3:15	24.30	1284	8.68	2.5	6-17-19 22:15					6-17-19 22:15	22.57	671	8.48	25.9						9-17-19 17:30	12.51	1571	7.38	17.2					
6-18-19 3:30	24.22	1287	8.73	2.0	6-17-19 22:30					6-17-19 22:30	22.62	656	8.50	6.5						9-17-19 17:45	12.54	1571	7.26	17.0					
6-18-19 3:45	24.17	1262	8.73	2.1	6-17-19 22:45					6-17-19 22:45	22.65	667	8.49	9.3						9-17-19 18:00	12.55	1571	7.23	17.8					
6-18-19 4:00	24.12	1287	8.73	1.9	6-17-19 23:00					6-17-19 23:00	22.64	689	8.51	9.4						9-17-19 18:15	12.61	1570	7.25	21.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-18-19 4:15	24.08	1298	8.74	1.9	6-17-19 23:15					6-17-19 23:15	22.60	699	8.50	8.2						9-17-19 18:30	12.71	1568	7.21	20.6					
6-18-19 4:30	24.03	1293	8.75	1.8	6-17-19 23:30					6-17-19 23:30	22.63	706	8.50	13.9						9-17-19 18:45	12.73	1567	7.27	22.8					
6-18-19 4:45	23.97	1279	8.61	2.0	6-17-19 23:45					6-17-19 23:45	22.66	700	8.50	11.8						9-17-19 19:00	12.88	1569	7.28	19.7					
6-18-19 5:00	23.92	1281	8.67	1.8	6-18-19 0:00					6-18-19 0:00	22.64	700	8.50	7.6						9-17-19 19:15	12.99	1567	7.49	16.4					
6-18-19 5:15	23.87	1283	8.19	55.2	6-18-19 0:15					6-18-19 0:15	22.61	703	8.50	4.7						9-17-19 19:30	13.16	1570	7.34	21.0					
6-18-19 5:30	23.82	1284	8.63	1.8	6-18-19 0:30					6-18-19 0:30	22.59	706	8.51	7.7						9-17-19 19:45	13.33	1570	7.38	19.6					
6-18-19 5:45	23.77	1275	8.57	1.9	6-18-19 0:45					6-18-19 0:45	22.53	700	8.51	4.3						9-17-19 20:00	13.46	1567	8.00	16.2					
6-18-19 6:00	23.70	1274	7.93	3.3	6-18-19 1:00					6-18-19 1:00	22.51	699	8.51	8.6						9-17-19 20:15	13.55	1566	7.79	19.5					
6-18-19 6:15	23.66	1256	8.03	4.1	6-18-19 1:15					6-18-19 1:15	22.48	700	8.50	7.5						9-17-19 20:30	13.62	1562	7.60	16.4					
6-18-19 6:30	23.59	1286	8.15	1.9	6-18-19 1:30					6-18-19 1:30	22.44	696	8.51	8.9						9-17-19 20:45	13.75	1564	7.72	16.6					
6-18-19 6:45	23.52	1342	8.43	1.9	6-18-19 1:45					6-18-19 1:45	22.43	698	8.51	3.7						9-17-19 21:00	13.90	1562	7.85	18.0					
6-18-19 7:00	23.47	1263	8.46	1.8	6-18-19 2:00					6-18-19 2:00	22.41	697	8.52	8.9						9-17-19 21:15	13.96	1562	7.60	16.4					
6-18-19 7:15	23.42	1268	7.96	1.8	6-18-19 2:15					6-18-19 2:15	22.38	698	8.51	3.5						9-17-19 21:30	14.15	1565	7.72	15.8					
6-18-19 7:30	23.36	1287	8.19	2.9	6-18-19 2:30					6-18-19 2:30	22.35	699	8.52	7.0						9-17-19 21:45	14.21	1563	7.69	15.6					
6-18-19 7:45	23.30	1282	8.25	1.5	6-18-19 2:45					6-18-19 2:45	22.34	697	8.52	5.2						9-17-19 22:00	14.32	1562	7.65	14.5					
6-18-19 8:00	23.24	1277	8.26	1.5	6-18-19 3:00					6-18-19 3:00	22.30	692	8.52	9.2						9-17-19 22:15	14.42	1564	7.58	15.8					
6-18-19 8:15	23.17	1276	8.22	1.5	6-18-19 3:15					6-18-19 3:15	22.29	684	8.52	3.3						9-17-19 22:30	14.45	1560	7.68	25.1					
6-18-19 8:30	23.09	1291	8.19	1.5	6-18-19 3:30					6-18-19 3:30	22.28	704	8.53	6.5						9-17-19 22:45	14.59	1559	7.41	17.1					
6-18-19 8:45	23.01	1280	8.31	1.5	6-18-19 3:45					6-18-19 3:45	22.26	693	8.52	2.7						9-17-19 23:00	14.69	1561	7.51	16.8					
6-18-19 9:00	22.89	1284	8.33	1.5	6-18-19 4:00					6-18-19 4:00	22.23	691	8.53	7.4						9-17-19 23:15	14.68	1559	7.61	18.6					
6-18-19 9:15	22.79	1303	8.05	2.1	6-18-19 4:15					6-18-19 4:15	22.18	696	8.52	3.8						9-17-19 23:30	14.69	1563	7.38	11.8					
6-18-19 9:30	22.74	1286	7.77	1.6	6-18-19 4:30					6-18-19 4:30	22.12	696	8.52	12.2						9-17-19 23:45	14.68	1562	7.37	11.7					
6-18-19 9:45	22.68	1288	7.81	1.6	6-18-19 4:45					6-18-19 4:45	22.07	678	8.52	10.3						9-18-19 0:00	14.65	1559	7.34	11.0					
6-18-19 10:00	22.64	1322	7.81	1.4	6-18-19 5:00					6-18-19 5:00	22.01	675	8.53	9.7						9-18-19 0:15	14.65	1560	7.37	15.1					
6-18-19 10:15	22.58	1288	7.54	1.5	6-18-19 5:15					6-18-19 5:15	21.97	685	8.52	14.4						9-18-19 0:30	14.60	1553	7.39	16.2					
6-18-19 10:30	22.53	1292	7.45	1.7	6-18-19 5:30					6-18-19 5:30	21.90	686	8.52	10.4						9-18-19 0:45	14.49	1551	7.42	15.6					
6-18-19 10:45	22.47	1270	7.50	2.4	6-18-19 5:45					6-18-19 5:45	21.79	677	8.53	9.3						9-18-19 1:00	14.36	1546	7.41	16.4					
6-18-19 11:00	22.41	1291	7.51	1.3	6-18-19 6:00					6-18-19 6:00	21.74	677	8.53	9.3						9-18-19 1:15	14.15	1543	7.40	13.8					
6-18-19 11:15	22.31	1297	7.65	1.4	6-18-19 6:15					6-18-19 6:15	21.64	686	8.52	13.1						9-18-19 1:30	14.05	1543	7.45	12.3					
6-18-19 11:30	22.25	1293	7.52	1.7	6-18-19 6:30					6-18-19 6:30	21.62	676	8.52	11.7						9-18-19 1:45	13.98	1542	7.48	12.7					
6-18-19 11:45	22.17	1292	7.61	1.4	6-18-19 6:45					6-18-19 6:45	21.56	679	8.52	8.4						9-18-19 2:00	13.91	1547	7.47	11.9					
6-18-19 12:00	22.12	1296	7.63	1.4	6-18-19 7:00					6-18-19 7:00	21.47	672	8.53	13.5						9-18-19 2:15	13.85	1547	7.54	14.9					
6-18-19 12:15	22.08	1289	7.66	1.3	6-18-19 7:15					6-18-19 7:15	21.42	686	8.52	15.9						9-18-19 2:30	13.78	1547	7.38	19.7					
6-18-19 12:30	22.01	1296	7.61	1.3	6-18-19 7:30					6-18-19 7:30	21.37	685	8.53	14.3						9-18-19 2:45	13.70	1547	7.31	13.3					
6-18-19 12:45	21.95	1292	7.50	1.3	6-18-19 7:45					6-18-19 7:45	21.30	698	8.52	7.8						9-18-19 3:00	13.62	1546	7.30	13.4					
6-18-19 13:00	21.90	1296	7.40	1.3	6-18-19 8:00					6-18-19 8:00	21.21	714	8.52	12.6						9-18-19 3:15	13.53	1545	7.37	11.6					
6-18-19 13:15	21.84	1293	7.57	2.3	6-18-19 8:15					6-18-19 8:15	21.12	708	8.52	10.4						9-18-19 3:30	13.49	1545	7.33	10.9					
6-18-19 13:30	21.79	1298	7.45	1.3	6-18-19 8:30					6-18-19 8:30	21.06	705	8.52	13.6						9-18-19 3:45	13.46	1545	7.38	11.7					
6-18-19 13:45	21.74	1293	7.48	1.3	6-18-19 8:45					6-18-19 8:45	20.98	708	8.52	9.8						9-18-19 4:00	13.44	1545	7.32	11.1					
6-18-19 14:00	21.70	1294	7.39	1.3	6-18-19 9:00					6-18-19 9:00	20.91	708	8.52	15.6						9-18-19 4:15	13.40	1545	7.32	13.2					
6-18-19 14:15	21.65	1294	7.41	1.3	6-18-19 9:15					6-18-19 9:15	20.86	707	8.51	9.3						9-18-19 4:30	13.37	1543	7.47	13.5					
6-18-19 14:30	21.66	1296	7.29	1.2	6-18-19 9:30					6-18-19 9:30	20.83	705	8.51	13.0						9-18-19 4:45	13.36	1543	7.40	12.7					
6-18-19 14:45	21.63	1303	7.24	1.3	6-18-19 9:45					6-18-19 9:45	20.75	703	8.50	7.6						9-18-19 5:00	13.38	1542	7.37	12.0					
6-18-19 15:00	21.63	1297	7.24	1.2	6-18-19 10:00					6-18-19 10:00	20.68	711	8.51	12.1						9-18-19 5:15	13.38	1543	7.41	10.9					
6-18-19 15:15	21.63	1299	7.22	1.2	6-18-19 10:15					6-18-19 10:15	20.60	704	8.51	22.2						9-18-19 5:30	13.38	1544	7.36	9.4					
6-18-19 15:30	21.64	1296	7.19	1.2	6-18-19 10:30					6-18-19 10:30	20.54	705	8.51	14.3						9-18-19 5:45	13.37	1544	7.32	10.5					
6-18-19 15:45	21.66	1285	7.21	1.6	6-18-19 10:45					6-18-19 10:45	20.47	731	8.50	13.5						9-18-19 6:00	13.36	1544	7.26	9.1					
6-18-19 16:00	21.71	1297	7.13	1.3	6-18-19 11:00					6-18-19 11:00	20.40	703	8.50	27.9						9-18-19 6:15	13.34	1544	7.22	12.4					
6-18-19 16:15	21.73	1297	7.14	1.2	6-18-19 11:15					6-18-19 11:15	20.36	710	8.49	16.2						9-18-19 6:30	13.32	1543	7.20	12.5					
6-18-19 16:30	21.76	1291	7.25	1.3	6-18-19 11:30					6-18-19 11:30	20.32	703	8.50	6.4						9-18-19 6:45	13.30	1544	7.19	10.9					
6-18-19 16:45	21.77	1284	7.21	1.6	6-18-19 11:45					6-18-19 11:45	20.23	703	8.49	4.3						9-18-19 7:00	13.28	1543	7.15	11.1					
6-18-19 17:00	21.88	1299	7.44	1.5	6-18-19 12:00					6-18-19 12:00	20.19	692	8.48	7.4						9-18-19 7:15	13.25	1543	7.12	10.8					
6-18-19 17:15	21.89	1301	7.29	1.5	6-18-19 12:15					6-18-19 12:15	20.16	710	8.48	6.3						9-18-19 7:30	13.22	1545	7.11	8.8					
6-18-19 17:30	21.94	1297	7.28	1.4	6-18-19 12:30					6-18-19 12:30	20.14	707	8.48	8.8						9-18-19 7:45	13.21	1546	7.17	9.4					
6-18-19 17:45	22.09	1298	7.34	1.6	6-18-19 12:45					6-18-19 12:45	20.08	705	8.47	4.3						9-18-19 8:00	13.17	1545	7.15	8.4					
6-18-19 18:00	22.13	1299	7.45	1.5	6-18-19 13:00					6-18-19 13:00	20.04	702	8.47	7.8						9-18-19 8:15	13.12	1546	7.10	10.5					
6-18-19 18:15	22.14	1299	7.66	1.6	6-18-19 13:15					6-18-19 13:15	20.01	701	8.46	4.6						9-18-19 8:30	13.10	1542	7.10	11.0					
6-18-19 18:30	22.28	1231	7.48	3.1	6-18-19 13:30					6-18-19 13:30	19.97	703	8.46	7.7						9-18-19 8:45	13.09	1543	7.18	11.4					
6-18-19 18:45	22.31	1235	8.00	1.5	6-18-19 13:45					6-18-19 13:45	19.91	703	8.46	5.3						9-18-19 9:00	13.06	1542	7.15	26.2					
6-18-19 19:00					6-18-19 14:00					6-18-19 14:00	19.94	699	8.46	5.6						9-18-19 9:15	13.02	1542	7.10	9.1					
6-18-19 19:15					6-18-19 14:15					6-18-19 14:15	19.88	694	8.46	9.0						9-18-19 9:30	12.98	1546	7.11	8.1					
6-18-19 19:30					6-18-19 14:30					6-18-19 14:30	19.86	698	8.47	10.1						9-18-19 9:45	12.97	1546	7.15	8.5					
6-18-19 19:45					6-18-19 14:45					6-18-19 14:45	19.82	697	8.46	12.6						9-18-19 10:00	12.95	1546	7.13	8.1					
6-18-19 20:00					6-18-19 15:00					6-18-19 15:00	19.82	698	8.47	8.4						9-18-19 10:15	12.87	1546	7.12	11.2					
6-18-19 20:15					6-18-19 15:15					6-18-19 15:15	19.80	706	8.47	5.5						9-18-19 10:30	12.84	1542	7.17	12.4					
6-18-19 20:30	22.81	1250	8.86	1.8	6-18-19 15:30					6-18-19 15:30	19.81	707	8.49	4.8						9-18-19 10:45	12.81	1543	7.08	12.5					
6-18-19 20:45	22.85	1243	8.69	1.8	6-18-19 15:45					6-18-19 15:45	19.84	695	8.48	4.8						9-18-19 11:00	12.78	1544	7.08	13.0					
6-18-19 21:00	22.97	1249	8.70	1.8	6-18-19 16:00					6-18-19 16:00	19.87	697	8.49	5.8						9-18-19 11:15	12.77	1544	7.22	7.8					
6-18-19 21:15	22.98	1248	8.81	1.7	6-18-19 16:15					6-18-19 16:15	19.90	709	8.48	5.1						9-18-19 11:30	12.75	1545	7.29	7.3					
6-18-19 21:30	23.03	1248	8.88	2.3	6-18-19 16:30					6-18-19 16:30	19.92	710	8.48	7.7						9-18-19 11:45	12.72	1546	7.26	7.3					
6-18-19 21:45	23.09	1255	8.88	1.8	6-18-19 16:45					6-18-19 16:45	19.93	709	8.48	5.8						9-18-19 12:00	12.71	1545	7.23	7.4					
6-18-19 22:00	23.15	1250	8.93	4.6	6-18-19 17:00					6-18-19 17:00	19.95	709	8.48	6.0						9-18-19 12:15	12.66	1545	7.15	12.1					
6-18-19 22:15	23.27	1257	8.87	1.8	6-18-19 17:15					6-18-19 17:15	19.99	709	8.49	8.5						9-18-19 12:30	12.62	1543	7.10	9.8					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-18-19 22:30	23.31	1256	8.92	1.8
6-18-19 22:45	23.36	1261	8.96	1.8
6-18-19 23:00	23.33	1254	8.94	2.2
6-18-19 23:15	23.30	1258	8.96	1.8
6-18-19 23:30	23.30	1256	8.92	2.8
6-18-19 23:45	23.33	1247	8.88	1.8
6-19-19 0:00	23.34	1261	8.89	1.8
6-19-19 0:15	23.30	1258	8.95	1.8
6-19-19 0:30	23.29	1244	8.90	1.7
6-19-19 0:45	23.29	1259	8.89	2.0
6-19-19 1:00	23.28	1248	8.85	1.7
6-19-19 1:15	23.24	1267	8.84	1.7
6-19-19 1:30	23.20	1250	8.86	1.7
6-19-19 1:45	23.16	1256	8.84	1.7
6-19-19 2:00	23.11	1251	8.90	1.8
6-19-19 2:15	23.08	1255	8.72	1.6
6-19-19 2:30	23.02	1251	8.67	1.7
6-19-19 2:45	22.97	1251	8.48	1.7
6-19-19 3:00	22.93	1241	8.38	1.8
6-19-19 3:15	22.86	1250	8.45	1.6
6-19-19 3:30				
6-19-19 3:45				
6-19-19 4:00				
6-19-19 4:15				
6-19-19 4:30	22.58	1244	8.13	1.8
6-19-19 4:45	22.52	1244	8.10	1.6
6-19-19 5:00	22.46	1248	8.03	1.7
6-19-19 5:15	22.40	1239	7.75	1.8
6-19-19 5:30	22.31	1240	7.66	1.8
6-19-19 5:45	22.26	1237	7.30	1.6
6-19-19 6:00	22.19	1236	7.57	1.5
6-19-19 6:15	22.11	1234	7.45	1.6
6-19-19 6:30	22.02	1233	7.47	1.6
6-19-19 6:45	21.91	1216	7.23	1.5
6-19-19 7:00	21.85	1228	7.29	1.5
6-19-19 7:15	21.79	1226	7.42	1.6
6-19-19 7:30	21.73	1216	7.44	1.5
6-19-19 7:45	21.68	1223	7.52	1.6
6-19-19 8:00	21.58	1221	7.81	1.4
6-19-19 8:15	21.49	1216	7.18	1.7
6-19-19 8:30	21.40	1214	7.44	1.4
6-19-19 8:45	21.32	1213	7.23	1.4
6-19-19 9:00	21.23	1210	7.39	1.3
6-19-19 9:15	21.15	1208	7.27	1.4
6-19-19 9:30	21.07	1210	7.20	1.3
6-19-19 9:45	21.03	1208	7.18	1.2
6-19-19 10:00	20.96	1207	7.24	1.4
6-19-19 10:15	20.88	1205	7.28	1.4
6-19-19 10:30	20.79	1201	7.34	1.3
6-19-19 10:45	20.71	1201	7.27	1.4
6-19-19 11:00	20.61	1198	7.12	1.2
6-19-19 11:15	20.55	1197	7.07	1.3
6-19-19 11:30	20.47	1195	7.11	1.2
6-19-19 11:45	20.40	1193	7.03	1.4
6-19-19 12:00	20.32	1194	7.00	1.1
6-19-19 12:15	20.27	1190	7.04	1.1
6-19-19 12:30	20.21	1189	7.07	1.2
6-19-19 12:45	20.13	1184	7.02	1.1
6-19-19 13:00	20.09	1186	7.02	1.1
6-19-19 13:15	20.03	1184	7.08	1.1
6-19-19 13:30	19.97	1184	7.06	1.1
6-19-19 13:45	19.89	1181	7.01	1.1
6-19-19 14:00	19.84	1180	7.05	1.1
6-19-19 14:15	19.82	1179	7.05	1.1
6-19-19 14:30	19.80	1180	7.06	1.1
6-19-19 14:45	19.76	1178	7.08	1.2
6-19-19 15:00	19.73	1178	7.07	1.1
6-19-19 15:15	19.71	1177	7.07	1.1
6-19-19 15:30	19.74	1178	7.08	1.1
6-19-19 15:45	19.71	1177	7.12	1.1
6-19-19 16:00	19.72	1178	7.15	1.1
6-19-19 16:15	19.68	1176	7.19	1.1
6-19-19 16:30	19.67	1177	7.22	1.1

RSEM-R6E				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-18-19 17:30				
6-18-19 17:45				
6-18-19 18:00				
6-18-19 18:15				
6-18-19 18:30				
6-18-19 18:45				
6-18-19 19:00				
6-18-19 19:15				
6-18-19 19:30				
6-18-19 19:45				
6-18-19 20:00				
6-18-19 20:15				
6-18-19 20:30				
6-18-19 20:45				
6-18-19 21:00				
6-18-19 21:15				
6-18-19 21:30				
6-18-19 21:45				
6-18-19 22:00				
6-18-19 22:15				
6-18-19 22:30				
6-18-19 22:45				
6-18-19 23:00				
6-18-19 23:15				
6-18-19 23:30				
6-18-19 23:45				
6-19-19 0:00				
6-19-19 0:15				
6-19-19 0:30				
6-19-19 0:45				
6-19-19 1:00				
6-19-19 1:15				
6-19-19 1:30				
6-19-19 1:45				
6-19-19 2:00				
6-19-19 2:15				
6-19-19 2:30				
6-19-19 2:45				
6-19-19 3:00				
6-19-19 3:15				
6-19-19 3:30				
6-19-19 3:45				
6-19-19 4:00				
6-19-19 4:15				
6-19-19 4:30				
6-19-19 4:45				
6-19-19 5:00				
6-19-19 5:15				
6-19-19 5:30				
6-19-19 5:45				
6-19-19 6:00				
6-19-19 6:15				
6-19-19 6:30				
6-19-19 6:45				
6-19-19 7:00				
6-19-19 7:15				
6-19-19 7:30				
6-19-19 7:45				
6-19-19 8:00				
6-19-19 8:15				
6-19-19 8:30				
6-19-19 8:45				
6-19-19 9:00				
6-19-19 9:15				
6-19-19 9:30				
6-19-19 9:45				
6-19-19 10:00				
6-19-19 10:15				
6-19-19 10:30				
6-19-19 10:45				
6-19-19 11:00				
6-19-19 11:15				
6-19-19 11:30				

RSEM-R6W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-18-19 17:30	20.05	708	8.48	5.8
6-18-19 17:45	20.11	708	8.49	8.1
6-18-19 18:00	20.14	709	8.48	6.4
6-18-19 18:15	20.17	708	8.48	7.5
6-18-19 18:30	20.25	709	8.48	7.2
6-18-19 18:45	20.33	710	8.48	7.3
6-18-19 19:00	20.30	710	8.47	9.6
6-18-19 19:15	20.53	710	8.48	8.2
6-18-19 19:30	20.57	710	8.48	7.2
6-18-19 19:45	20.59	710	8.47	10.1
6-18-19 20:00	20.62	713	8.48	10.9
6-18-19 20:15	20.67	708	8.48	7.9
6-18-19 20:30	20.67	709	8.49	10.4
6-18-19 20:45	20.80	709	8.49	11.6
6-18-19 21:00	20.87	709	8.49	8.7
6-18-19 21:15	20.90	711	8.49	8.6
6-18-19 21:30	20.94	701	8.49	8.8
6-18-19 21:45	20.98	709	8.50	8.8
6-18-19 22:00	20.97	715	8.50	8.1
6-18-19 22:15	21.03	714	8.50	9.0
6-18-19 22:30	21.03	713	8.51	8.2
6-18-19 22:45	20.95	709	8.51	8.6
6-18-19 23:00	20.89	712	8.51	9.2
6-18-19 23:15	20.81	712	8.51	9.6
6-18-19 23:30	20.79	712	8.52	8.5
6-18-19 23:45	20.83	712	8.52	9.1
6-19-19 0:00	20.87	711	8.52	8.9
6-19-19 0:15	20.86	711	8.52	8.0
6-19-19 0:30	20.76	712	8.53	8.6
6-19-19 0:45	20.69	713	8.52	14.0
6-19-19 1:00	20.66	713	8.53	8.7
6-19-19 1:15	20.63	714	8.52	10.6
6-19-19 1:30	20.61	714	8.52	10.9
6-19-19 1:45	20.57	714	8.52	9.1
6-19-19 2:00	20.57	715	8.52	9.6
6-19-19 2:15	20.55	715	8.51	8.0
6-19-19 2:30	20.45	712	8.52	12.7
6-19-19 2:45	20.45	715	8.52	9.0
6-19-19 3:00	20.44	716	8.52	14.7
6-19-19 3:15	20.42	716	8.51	9.9
6-19-19 3:30	20.37	715	8.52	13.1
6-19-19 3:45	20.34	716	8.51	14.9
6-19-19 4:00	20.28	716	8.52	13.4
6-19-19 4:15	20.24	716	8.52	9.6
6-19-19 4:30	20.18	716	8.52	12.0
6-19-19 4:45	20.14	716	8.52	8.2
6-19-19 5:00	20.08	713	8.52	9.6
6-19-19 5:15	20.02	716	8.52	9.2
6-19-19 5:30	19.96	716	8.53	14.8
6-19-19 5:45	19.92	717	8.52	10.0
6-19-19 6:00	19.84	716	8.53	14.2
6-19-19 6:15	19.78	716	8.52	8.7
6-19-19 6:30	19.75	717	8.53	13.4
6-19-19 6:45	19.70	717	8.52	8.5
6-19-19 7:00	19.63	716	8.53	8.2
6-19-19 7:15	19.57	717	8.52	8.1
6-19-19 7:30	19.58	718	8.52	13.4
6-19-19 7:45	19.49	718	8.51	7.5
6-19-19 8:00	19.46	718	8.52	10.9
6-19-19 8:15	19.39	718	8.52	12.3
6-19-19 8:30	19.32	718	8.52	10.4
6-19-19 8:45	19.25	717	8.52	17.3
6-19-19 9:00	19.15	717	8.52	10.4
6-19-19 9:15	19.06	714	8.52	8.1
6-19-19 9:30	19.00	715	8.52	10.0
6-19-19 9:45	18.95	715	8.52	19.5
6-19-19 10:00	18.91	715	8.52	13.4
6-19-19 10:15	18.87	715	8.51	6.9
6-19-19 10:30	18.86	715	8.52	15.8
6-19-19 10:45	18.77	716	8.51	6.5
6-19-19 11:00	18.73	715	8.51	13.7
6-19-19 11:15	18.65	722	8.52	7.1
6-19-19 11:30	18.59	722	8.51	11.3

RSEM-L6				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-18-19 12:45	12.61	1544	7.15	10.7
9-18-19 13:00	12.58	1542	7.19	10.9
9-18-19 13:15	12.57	1543	7.17	8.1
9-18-19 13:30	12.54	1547	7.16	7.7
9-18-19 13:45	12.53	1546	7.18	7.6
9-18-19 14:00	12.52	1545	7.13	8.7
9-18-19 14:15	12.50	1547	7.14	11.5
9-18-19 14:30	12.47	1536	7.09	13.0
9-18-19 14:45	12.47	1541	7.07	9.3
9-18-19 15:00	12.43	1542	7.06	9.9
9-18-19 15:15	12.43	1538	7.10	10.6
9-18-19 15:30	12.42	1546	7.11	6.4
9-18-19 15:45	12.41	1546	7.12	6.6
9-18-19 16:00	12.41	1546	7.10	6.9
9-18-19 16:15	12.41	1546	7.16	16.4
9-18-19 16:30	12.43	1529	7.30	1716.5
9-18-19 16:45	12.45	1529	7.31	3171.0
9-18-19 17:00	12.45	1529	7.27	3011.9
9-18-19 17:15	12.47	1529	7.39	6.3
9-18-19 17:45	12.54	1545	7.64	7.1
9-18-19 18:00	12.58	1545	7.62	5.3
9-18-19 18:15	12.63	1545	7.76	32.4
9-18-19 18:30	12.70	1542	7.91	936.1
9-18-19 18:45	12.87	1542	7.93	206.0
9-18-19 19:00	12.95	1542	7.93	79.5
9-18-19 19:15	13.13	1542	7.97	6.2
9-18-19 19:30	13.16	1544	7.99	5.5
9-18-19 19:45	13.17	1545	8.00	5.1
9-18-19 20:00	13.48	1539	8.04	4.6
9-18-19 20:15	13.79	1544	8.02	9.2
9-18-19 20:30	13.77	1540	8.04	7.8
9-18-19 20:45	13.79	1539	8.11	7.2
9-18-19 21:00	13.82	1533	8.25	9.5
9-18-19 21:15	14.07	1528	8.24	13.3
9-18-19 21:30	14.25	1527	8.25	8.1
9-18-19 21:45	14.31	1523	8.26	9.1
9-18-19 22:00	14.37	1528	8.25	8.0
9-18-19 22:15	14.20	1525	8.25	10.8
9-18-19 22:30	14.16	1524	8.24	10.1
9-18-19 22:45	14.19	1530	8.23	8.3
9-18-19 23:00	14.11	1530	8.26	9.2
9-18-19 23:15	14.02	1527	8.22	7.8
9-18-19 23:30	13.96	1537	8.21	6.4
9-18-19 23:45	13.82	1534	8.33	7.0
9-19-19 0:00	13.70	1533	8.76	4.6
9-19-19 0:15	13.62	1533	8.76	5.9
9-19-19 0:30	13.61	1532	8.75	6.0
9-19-19 0:45	13.71	1532	8.67	10.2
9-19-19 1:00	13.79	1533	8.59	7.0
9-19-19 1:15	13.84	1530	8.38	6.1
9-19-19 1:30	13.90	1536	8.44	5.7
9-19-19 1:45	13.93	1529	8.34	6.5
9-19-19 2:00	14.10	1522	8.33	7.2
9-19-19 2:15	14.16	1522	8.34	8.2
9-19-19 2:30	14.17	1515	8.35	9.2
9-19-19 2:45	14.14	1515	8.35	8.0
9-19-19 3:00	14.13	1515	8.36	8.8
9-19-19 3:15	14.10	1515	8.36	9.0
9-19-19 3:30	14.06	1518	8.35	6.6
9-19-19 3:45	14.01	1516	8.36	6.7
9-19-19 4:00	13.97	1517	8.36	7.1
9-19-19 4:15	13.92	1516	8.36	7.5
9-19-19 4:30	13.87	1515	8.37	8.3
9-19-19 4:45	13.81	1514	8.37	7.9
9-19-19 5:00	13.76	1513	8.37	7.8
9-19-19 5:15	13.71	1514	8.37	5.8
9-19-19 5:30	13.66	1518	8.37	5.4
9-19-19 5:45	13.63	1519	8.37	5.0
9-19-19 6:00	13.59	1519	8.37	5.2
9-19-19 6:15	13.54	1518	8.38	7.4
9-19-19 6:30	13.48	1515	8.38	7.2
9-19-19 6:45	13.45	1515	8.37	6.4
9-19-19 7:00	13.40	1515	8.39	7.2

RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-19-19 16:45	19.71	1178	7.23	1.5	6-19-19 11:45					6-19-19 11:45	18.56	723	8.51	8.6						9-19-19 7:15	13.34	1516	8.40	5.3					
6-19-19 17:00	19.72	1178	7.25	2.5	6-19-19 12:00					6-19-19 12:00	18.52	723	8.51	10.3						9-19-19 7:30	13.30	1519	8.41	5.0					
6-19-19 17:15	19.71	1177	7.28	2.1	6-19-19 12:15					6-19-19 12:15	18.45	724	8.51	7.2						9-19-19 7:45	13.25	1520	8.42	4.6					
6-19-19 17:30	19.69	1177	7.37	1.7	6-19-19 12:30					6-19-19 12:30	18.41	724	8.51	10.3						9-19-19 8:00	13.20	1519	8.42	5.4					
6-19-19 17:45	19.68	1176	7.45	2.6	6-19-19 12:45					6-19-19 12:45	18.40	724	8.50	7.5						9-19-19 8:15	13.17	1519	8.43	7.9					
6-19-19 18:00	19.66	1176	7.46	1.2	6-19-19 13:00					6-19-19 13:00	18.37	724	8.51	11.8						9-19-19 8:30	13.15	1520	8.45	6.3					
6-19-19 18:15	19.64	1175	7.49	1.4	6-19-19 13:15					6-19-19 13:15	18.33	724	8.51	11.8						9-19-19 8:45	13.12	1517	8.44	6.3					
6-19-19 18:30	19.63	1175	7.52	1.4	6-19-19 13:30					6-19-19 13:30	18.29	725	8.51	9.7						9-19-19 9:00	13.09	1515	8.46	7.1					
6-19-19 18:45	19.65	1176	7.54	1.5	6-19-19 13:45					6-19-19 13:45	18.29	725	8.51	9.5						9-19-19 9:15	13.08	1517	8.46	4.7					
6-19-19 19:00	19.66	1176	7.58	1.2	6-19-19 14:00					6-19-19 14:00	18.25	724	8.51	15.7						9-19-19 9:30	13.06	1519	8.46	5.0					
6-19-19 19:15	19.67	1176	7.62	1.5	6-19-19 14:15					6-19-19 14:15	18.29	725	8.51	7.9						9-19-19 9:45	13.02	1517	8.47	4.6					
6-19-19 19:30	19.76	1181	7.67	1.4	6-19-19 14:30					6-19-19 14:30	18.28	725	8.51	12.0						9-19-19 10:00	13.00	1518	8.47	4.6					
6-19-19 19:45	19.86	1182	7.70	1.5	6-19-19 14:45					6-19-19 14:45	18.29	725	8.51	8.3						9-19-19 10:15	12.99	1518	8.48	6.6					
6-19-19 20:00	19.87	1182	7.75	1.5	6-19-19 15:00					6-19-19 15:00	18.28	725	8.52	11.3						9-19-19 10:30	12.98	1516	8.46	6.6					
6-19-19 20:15	19.87	1182	7.84	1.5	6-19-19 15:15					6-19-19 15:15	18.24	725	8.52	8.3						9-19-19 10:45	12.97	1516	8.47	6.0					
6-19-19 20:30	19.94	1185	7.91	1.4	6-19-19 15:30					6-19-19 15:30	18.23	725	8.52	14.6						9-19-19 11:00	12.95	1516	8.46	5.5					
6-19-19 20:45	20.00	1186	7.94	1.4	6-19-19 15:45					6-19-19 15:45	18.23	726	8.52	10.4						9-19-19 11:15	12.93	1516	8.46	7.1					
6-19-19 21:00	20.11	1189	7.95	1.4	6-19-19 16:00					6-19-19 16:00	18.20	726	8.52	10.1						9-19-19 11:30	12.87	1520	8.46	4.2					
6-19-19 21:15	20.17	1190	7.91	1.6	6-19-19 16:15					6-19-19 16:15	18.19	727	8.52	7.8						9-19-19 11:45	12.85	1520	8.45	4.0					
6-19-19 21:30	20.27	1192	7.99	1.5	6-19-19 16:30					6-19-19 16:30	18.19	727	8.52	13.4						9-19-19 12:00	12.83	1520	8.45	4.0					
6-19-19 21:45	20.35	1193	8.47	1.4	6-19-19 16:45					6-19-19 16:45	18.21	727	8.52	8.8						9-19-19 12:15	12.80	1519	8.46	5.3					
6-19-19 22:00	20.59	1201	8.17	1.4	6-19-19 17:00	18.97	746	6.96	5.8	6-19-19 17:00	18.22	729	8.53	10.8						9-19-19 12:30	12.79	1516	8.45	5.1					
6-19-19 22:15	20.66	1201	8.63	1.4	6-19-19 17:15	18.94	742	8.79	5.1	6-19-19 17:15	18.24	729	8.53	8.0						9-19-19 12:45	12.79	1517	8.45	5.6					
6-19-19 22:30	20.79	1204	8.73	1.6	6-19-19 17:30	18.92	744	7.80	5.0	6-19-19 17:30	18.24	730	8.53	12.8						9-19-19 13:00	12.77	1516	8.44	5.0					
6-19-19 22:45	20.88	1206	8.77	1.3	6-19-19 17:45	18.91	744	8.27	4.9	6-19-19 17:45	18.22	730	8.53	11.5						9-19-19 13:15	12.72	1516	8.44	3.3					
6-19-19 23:00	20.89	1206	8.79	1.3	6-19-19 18:00	18.85	787	8.57	6.8	6-19-19 18:00	18.21	730	8.52	14.2						9-19-19 13:30	12.70	1521	8.44	2.8					
6-19-19 23:15	20.76	1204	8.65	1.4	6-19-19 18:15	18.82	789	7.86	5.6	6-19-19 18:15	18.19	730	8.53	8.4						9-19-19 13:45	12.71	1521	8.43	3.5					
6-19-19 23:30	20.73	1204	8.56	1.4	6-19-19 18:30	18.80	789	7.22	5.2	6-19-19 18:30	18.22	731	8.54	17.8						9-19-19 14:00	12.70	1521	8.43	3.5					
6-19-19 23:45	20.68	1202	8.66	2.1	6-19-19 18:45	18.81	789	7.10	5.0	6-19-19 18:45	18.22	731	8.54	8.5						9-19-19 14:15	12.69	1520	8.43	5.0					
6-20-19 0:00	20.70	1203	8.69	2.2	6-19-19 19:00	18.76	789	6.87	5.7	6-19-19 19:00	18.20	731	8.54	10.4						9-19-19 14:30	12.69	1516	8.43	5.9					
6-20-19 0:15	20.72	1202	8.69	1.9	6-19-19 19:15	18.68	784	7.88	5.8	6-19-19 19:15	18.21	731	8.55	8.7						9-19-19 14:45	12.69	1517	8.43	4.5					
6-20-19 0:30	20.70	1202	8.70	1.4	6-19-19 19:30	18.70	789	6.83	4.3	6-19-19 19:30	18.26	732	8.54	8.2						9-19-19 15:00	12.69	1515	8.43	4.5					
6-20-19 0:45	20.68	1202	8.70	1.7	6-19-19 19:45	18.61	785	7.84	5.1	6-19-19 19:45	18.29	732	8.54	9.8						9-19-19 15:15	12.70	1517	8.43	3.8					
6-20-19 1:00	20.62	1201	8.72	1.4	6-19-19 20:00	18.64	783	8.65	6.7	6-19-19 20:00	18.36	735	8.55	10.2						9-19-19 15:30	12.71	1517	8.43	3.6					
6-20-19 1:15	20.58	1200	8.73	1.2	6-19-19 20:15	18.59	783	8.90	7.8	6-19-19 20:15	18.38	734	8.54	7.4						9-19-19 15:45	12.72	1517	8.45	3.6					
6-20-19 1:30	20.53	1197	8.75	1.2	6-19-19 20:30	18.62	784	8.77	6.1	6-19-19 20:30	18.41	734	8.55	8.0						9-19-19 16:00	12.73	1517	8.46	3.1					
6-20-19 1:45	20.51	1197	8.74	2.5	6-19-19 20:45	18.63	783	8.91	6.0	6-19-19 20:45	18.44	734	8.55	19.6						9-19-19 16:15	12.77	1516	8.48	4.8					
6-20-19 2:00	20.48	1197	8.66	1.2	6-19-19 21:00	18.56	779	8.95	6.7	6-19-19 21:00	18.51	734	8.56	29.2						9-19-19 16:30	12.80	1517	8.48	5.4					
6-20-19 2:15	20.45	1196	8.57	13.2	6-19-19 21:15	18.59	780	8.84	5.8	6-19-19 21:15	18.56	735	8.55	10.9						9-19-19 16:45	12.85	1514	8.50	4.2					
6-20-19 2:30	20.41	1197	8.51	1.3	6-19-19 21:30	18.48	785	7.35	5.5	6-19-19 21:30	18.60	735	8.55	7.6						9-19-19 17:00	12.87	1514	8.53	4.2					
6-20-19 2:45	20.37	1194	8.57	1.3	6-19-19 21:45	18.46	784	7.40	5.3	6-19-19 21:45	18.69	739	8.55	13.0						9-19-19 17:15	12.89	1513	8.55	3.1					
6-20-19 3:00	20.35	1194	8.49	1.3	6-19-19 22:00	18.39	788	6.99	5.8	6-19-19 22:00	18.90	737	8.55	18.8						9-19-19 17:30	12.93	1515	8.55	2.9					
6-20-19 3:15	20.32	1193	8.40	1.3	6-19-19 22:15	18.35	788	6.96	5.0	6-19-19 22:15	18.94	741	8.55	9.7						9-19-19 17:45	12.98	1514	8.55	3.0					
6-20-19 3:30	20.28	1192	8.36	1.2	6-19-19 22:30	18.29	804	6.82	5.0	6-19-19 22:30	19.07	737	8.55	8.9						9-19-19 18:00	13.05	1508	8.58	3.0					
6-20-19 3:45	20.25	1191	8.36	1.3	6-19-19 22:45	18.27	803	6.83	5.4	6-19-19 22:45	19.03	738	8.55	16.9						9-19-19 18:15	13.12	1514	8.63	8.3					
6-20-19 4:00	20.23	1192	8.02	1.2	6-19-19 23:00	18.21	803	6.86	5.4	6-19-19 23:00	18.93	739	8.55	9.4						9-19-19 18:30	13.21	1511	8.64	4.8					
6-20-19 4:15	20.20	1191	8.04	1.2	6-19-19 23:15	18.18	803	6.79	5.2	6-19-19 23:15	18.87	739	8.56	21.1						9-19-19 18:45	13.36	1512	8.64	4.3					
6-20-19 4:30	20.17	1191	7.85	1.1	6-19-19 23:30	18.14	803	6.84	5.3	6-19-19 23:30	18.78	740	8.56	41.4						9-19-19 19:00	13.33	1511	8.63	4.2					
6-20-19 4:45	20.13	1189	8.19	1.1	6-19-19 23:45	18.12	803	6.77	5.2	6-19-19 23:45	18.75	740	8.57	15.7						9-19-19 19:15	13.32	1513	8.69	3.9					
6-20-19 5:00	20.04	1186	8.55	1.1	6-20-19 0:00	18.08	804	6.66	7.1	6-20-19 0:00	18.72	741	8.57	8.2						9-19-19 19:30	13.28	1508	8.77	2.6					
6-20-19 5:15	19.92	1184	8.43	1.2	6-20-19 0:15	18.08	804	6.77	6.0	6-20-19 0:15	18.74	742	8.56	8.4						9-19-19 19:45	13.31	1525	8.79	2.6					
6-20-19 5:30	19.85	1182	8.20	1.3	6-20-19 0:30	18.06	803	6.96	5.7	6-20-19 0:30	18.74	742	8.57	19.2						9-19-19 20:00	13.37	1507	8.79	3.5					
6-20-19 5:45	19.80	1182	8.00	1.1	6-20-19 0:45	18.02	803	6.91	5.9	6-20-19 0:45	18.71	742	8.57	8.3						9-19-19 20:15	13.39	1503	8.80	5.0					
6-20-19 6:00	19.74	1180	8.03	1.2	6-20-19 1:00	17.99	802	6.93	5.5	6-20-19 1:00	18.70	742	8.57	36.9						9-19-19 20:30	13.51	1499	8.79	4.9					
6-20-19 6:15	19.64	1176	7.87	1.2	6-20-19 1:15	17.94	803	6.89	5.5	6-20-19 1:15	18.64	742	8.58	12.1						9-19-19 20:45	13.60	1500	8.79	5.1					
6-20-19 6:30	19.60	1177	7.92	1.2	6-20-19 1:30	17.88	803	6.80	5.4	6-20-19 1:30	18.61	743	8.57	27.0						9-19-19 21:00	13.64	1501	8.76	4.8					
6-20-19 6:45	19.51	1170	7.94	1.1	6-20-19 1:45	17.87	803	6.85	6.1	6-20-19 1:45	18.60	743	8.57	8.5						9-19-19 21:15	13.71	1497	8.76	3.7					
6-20-19 7:00	19.38	1171	7.90	1.2	6-20-19 2:00	17.79	750	6.89	5.7	6-20-19 2:00	18.59	744	8.57	36.8						9-19-19 21:30	13.68	1496	8.76	5.3					
6-20-19 7:15	19.33	1169	7.84	1.4	6-20-19 2:15	17.77	750	6.85	5.5	6-20-19 2:15	18.49	742	8.58	19.2						9-19-19 21:45	13.69	1494	8.41	3.5					
6-20-19 7:30	19.23	1168	7.83	1.1	6-20-19 2:30	17.71	750	6.96	5.4	6-20-19 2:30	18.53	744	8.58	30.2						9-19-19 22:00	13.72	1583	8.21	3.6					
6-20-19 7:45	19.14	1165	7.78	1.2	6-20-19 2:45	17.67	750	7.10	5.1	6-20-19 2:45	18.51	744	8.57	44.7						9-19-19 22:15	13.74	1498	8.20	5.2					
6-20-19 8:00	19.01	1162	7.76	1.1	6-20-19 3:00	17.60	802	6.99	6.1	6-20-19 3:00	18.47	744	8.58	41.1						9-19-19 22:30	13.78	1498	8.50	5.1					
6-20-19 8:15	18.93	1160	7.73	1.2	6-20-19 3:15	17.58	801	7.22	5.6	6-20-19 3:15	18.45	744	8.57	15.3						9-19-19 22:45	13.74	1502	8.06	4.8					
6-20-19 8:30	18.87	1159	7.71	1.1	6-20-19 3:30	17.53	801	7.20	6.3	6-20-19 3:30	18.44	745	8.58	29.1						9-19-19 23:00	13.77	1512	8.10	5.0					
6-20-19 8:45	18.77	1156	7.69	1.2	6-20-19 3:45	17.47	802	7.11	6.3	6-20-19 3:45	18.43	748	8.57	9.5						9-19-19 23:15	13.83	1511	8.15	4.6					
6-20-19 9:00	18.69	1154	7.68	1.1	6-20-19 4:00	17.43	801	7.12	6.3	6-20-19 4:00	18.41	748	8.57	42.6						9-19-19 23:30	13.89	1483	7.93	4.2					
6-20-19 9:15	18.56	1150	7.67	1.1	6-20-19 4:15	17.38	801	7.15	5.9	6-20-19 4:15	18.39	749	8.57	9.4						9-19-19 23:45	13.93	1489	7.83	6.7					
6-20-19 9:30	18.42	1147	7.65	2.2	6-20-19 4:30	17.31	801	7.29	10.0	6-20-19 4:30	18.36	751	8.57	10.3						9-20-19 0:00	13.93	1490	7.64	4.6					
6-20-19 9:45	18.32	1145	7.64	1.1	6-20-19 4:45	17.23	790	7.28	6.7	6-20-19 4:45	18.35	754	8.57	7.6						9-20-19 0:15	13.93	1504	7.61	7.2					
6-20-19 10:00	18.27	1144	7.62	1.0	6-20-19 5:00	17.18	771	7.24	7.3	6-20-19 5:00	18.25	754	8.58	11.5						9-20-19 0:30	13.93	1502	7.74	7.1					
6-20-19 10:15	18.18	1141	7.62	1.1	6-20-19 5:15	17.15	771	7.22	5.6	6-20-19 5:15	18.15	751	8.57	6.6						9-20-19 0:45	13.93	1508	7.62	6.6					
6-20-19 10:30	18.11	1141	7.62	1.2	6-20-19 5:30	17.09	771	7.14	5.7	6-20-19 5:30	18.14	751	8.58	19.9						9-20-19 1:00	13.93	1506	7.40	6.7					
6-20-19 10:45	18.01	1137	7.62	1.1	6-20-19 5:45	17.03	771	7.03	5.3	6-20-19 5:45	18.07	751	8.57	7.3						9-20-19 1:15	13.91	1506	7.46	4.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-20-19 11:00	17.90	1135	7.62	1.1	6-20-19 6:00	16.97	770	7.06	8.2	6-20-19 6:00	18.05	752	8.58	16.6						9-20-19 1:30	13.91	1549	7.60	3.8					
6-20-19 11:15	17.81	1133	7.62	1.1	6-20-19 6:15	16.93	772	7.11	5.5	6-20-19 6:15	18.00	752	8.57	7.4						9-20-19 1:45	13.89	1501	7.80	3.9					
6-20-19 11:30	17.74	1131	7.61	1.1	6-20-19 6:30	16.89	772	7.02	6.2	6-20-19 6:30	17.98	753	8.58	29.9						9-20-19 2:00	13.89	1501	7.66	4.3					
6-20-19 11:45	17.66	1129	7.61	1.3	6-20-19 6:45	16.87	771	7.99	6.2	6-20-19 6:45	17.92	753	8.57	12.7						9-20-19 2:15	13.87	1503	7.54	6.3					
6-20-19 12:00	17.56	1126	7.61	1.2	6-20-19 7:00	16.78	787	8.37	8.6	6-20-19 7:00	17.84	754	8.58	6.6						9-20-19 2:30	13.84	1500	7.35	6.8					
6-20-19 12:15	17.38	1116	7.62	3.7	6-20-19 7:15	16.76	785	8.77	6.0	6-20-19 7:15	17.80	755	8.57	8.7						9-20-19 2:45	13.83	1504	7.32	5.1					
6-20-19 12:30	17.24	1112	7.64	2.3	6-20-19 7:30	16.74	784	8.83	6.8	6-20-19 7:30	17.77	757	8.57	13.1						9-20-19 3:00	13.82	1502	7.40	5.7					
6-20-19 12:45	17.17	1111	7.64	5.6	6-20-19 7:45	16.68	785	8.83	6.8	6-20-19 7:45	17.72	755	8.57	7.0						9-20-19 3:15	13.83	1503	7.66	3.9					
6-20-19 13:00	17.09	1109	7.65	3.2	6-20-19 8:00	16.58	797	8.83	6.8	6-20-19 8:00	17.69	757	8.57	46.8						9-20-19 3:30	13.78	1505	7.44	3.9					
6-20-19 13:15	17.00	1103	7.65	6.1	6-20-19 8:15	16.54	797	8.84	6.8	6-20-19 8:15	17.60	756	8.57	7.2						9-20-19 3:45	13.76	1505	7.38	4.3					
6-20-19 13:30	16.94	1098	7.65	4.9	6-20-19 8:30	16.46	797	8.84	7.9	6-20-19 8:30	17.60	756	8.57	12.6						9-20-19 4:00	13.76	1505	7.41	4.8					
6-20-19 13:45	16.86	1095	7.66	5.3	6-20-19 8:45	16.44	797	8.84	6.9	6-20-19 8:45	17.53	759	8.57	7.5						9-20-19 4:15	13.74	1503	7.36	6.3					
6-20-19 14:00	16.80	1094	7.69	4.3	6-20-19 9:00	16.39	797	8.84	7.3	6-20-19 9:00	17.48	758	8.57	7.1						9-20-19 4:30	13.72	1499	7.32	5.7					
6-20-19 14:15	16.72	1092	7.71	4.1	6-20-19 9:15	16.40	797	8.85	8.2	6-20-19 9:15	17.42	760	8.57	7.4						9-20-19 4:45	13.71	1505	7.31	5.7					
6-20-19 14:30	16.67	1091	7.73	4.1	6-20-19 9:30	16.30	796	8.86	7.8	6-20-19 9:30	17.38	760	8.56	8.7						9-20-19 5:00	13.70	1497	7.28	5.4					
6-20-19 14:45	16.56	1088	7.76	4.7	6-20-19 9:45	16.30	797	8.86	7.7	6-20-19 9:45	17.37	767	8.56	8.3						9-20-19 5:15	13.67	1507	7.23	6.6					
6-20-19 15:00	16.52	1090	7.85	3.5	6-20-19 10:00	16.24	797	8.86	8.2	6-20-19 10:00	17.33	766	8.56	7.1						9-20-19 5:30	13.63	1503	7.23	2.7					
6-20-19 15:15	16.46	1088	7.82	4.1	6-20-19 10:15	16.20	797	8.87	7.2	6-20-19 10:15	17.29	767	8.55	7.6						9-20-19 5:45	13.58	1504	7.36	3.3					
6-20-19 15:30	16.36	1086	7.87	3.2	6-20-19 10:30	16.21	797	8.87	7.2	6-20-19 10:30	17.28	769	8.55	7.2						9-20-19 6:00	13.56	1501	7.40	2.8					
6-20-19 15:45	16.30	1086	7.98	3.4	6-20-19 10:45	16.15	796	8.88	7.3	6-20-19 10:45	17.23	769	8.55	7.0						9-20-19 6:15	13.54	1500	7.43	5.6					
6-20-19 16:00	16.24	1084	8.00	3.0	6-20-19 11:00	16.07	796	8.89	8.2	6-20-19 11:00	17.18	770	8.55	8.4						9-20-19 6:30	13.54	1501	7.48	8.3					
6-20-19 16:15	16.18	1083	8.05	3.2	6-20-19 11:15	16.04	796	8.89	7.6	6-20-19 11:15	17.15	771	8.55	7.5						9-20-19 6:45	13.53	1501	7.44	5.8					
6-20-19 16:30	16.16	1083	8.10	2.5	6-20-19 11:30	15.98	796	8.89	7.4	6-20-19 11:30	17.12	771	8.55	7.7						9-20-19 7:00	13.51	1501	7.41	4.8					
6-20-19 16:45	16.09	1081	8.11	2.6	6-20-19 11:45	16.01	796	8.89	7.8	6-20-19 11:45	17.06	772	8.55	7.6						9-20-19 7:15	13.48	1503	7.45	4.1					
6-20-19 17:00	16.03	1079	8.09	2.6	6-20-19 12:00	15.99	797	8.88	6.9	6-20-19 12:00	16.99	774	8.55	10.5						9-20-19 7:30	13.45	1503	7.47	3.3					
6-20-19 17:15	16.00	1079	8.17	2.4	6-20-19 12:15	15.93	800	8.02	9.2	6-20-19 12:15	16.98	773	8.54	8.8						9-20-19 7:45	13.45	1503	7.30	4.1					
6-20-19 17:30	15.95	1078	8.21	2.3	6-20-19 12:30	15.94	802	7.32	7.4	6-20-19 12:30	16.93	773	8.55	10.5						9-20-19 8:00	13.46	1503	7.38	4.0					
6-20-19 17:45	15.92	1077	8.21	2.4	6-20-19 12:45	15.92	802	7.16	8.4	6-20-19 12:45	16.90	773	8.54	7.8						9-20-19 8:15	13.46	1499	7.47	5.7					
6-20-19 18:00	15.88	1076	8.24	4.5	6-20-19 13:00	15.91	802	7.19	6.5	6-20-19 13:00	16.85	773	8.54	8.4						9-20-19 8:30	13.44	1496	7.42	5.2					
6-20-19 18:15	15.84	1074	8.24	2.3	6-20-19 13:15	15.87	801	7.25	7.5	6-20-19 13:15	16.81	773	8.54	9.0						9-20-19 8:45	13.42	1496	7.32	9.3					
6-20-19 18:30	15.80	1073	8.36	2.2	6-20-19 13:30	15.86	802	6.99	6.7	6-20-19 13:30	16.78	773	8.54	7.5						9-20-19 9:00	13.42	1496	7.34	5.0					
6-20-19 18:45	15.75	1072	8.36	2.0	6-20-19 13:45	15.84	802	7.08	7.2	6-20-19 13:45	16.72	773	8.54	8.2						9-20-19 9:15	13.41	1494	7.29	3.2					
6-20-19 19:00	15.72	1071	8.32	2.0	6-20-19 14:00	15.83	802	7.08	7.1	6-20-19 14:00	16.67	773	8.55	8.0						9-20-19 9:30	13.39	1497	7.21	2.8					
6-20-19 19:15	15.68	1070	8.34	2.3	6-20-19 14:15	15.82	801	7.11	6.7	6-20-19 14:15	16.63	773	8.55	8.2						9-20-19 9:45	13.34	1500	7.36	2.8					
6-20-19 19:30	15.65	1069	8.37	2.7	6-20-19 14:30	15.79	801	7.07	8.3	6-20-19 14:30	16.59	773	8.54	8.0						9-20-19 10:00	13.32	1497	7.27	2.9					
6-20-19 19:45	15.62	1069	8.38	2.7	6-20-19 14:45	15.74	801	7.19	7.8	6-20-19 14:45	16.56	773	8.54	8.0						9-20-19 10:15	13.32	1499	7.23	4.9					
6-20-19 20:00	15.61	1068	8.40	4.0	6-20-19 15:00	15.74	802	6.98	8.0	6-20-19 15:00	16.52	774	8.55	8.5						9-20-19 10:30	13.34	1498	7.33	5.1					
6-20-19 20:15	15.60	1068	8.41	3.4	6-20-19 15:15	15.74	801	7.01	8.6	6-20-19 15:15	16.47	774	8.55	9.8						9-20-19 10:45	13.32	1500	7.35	4.6					
6-20-19 20:30	15.56	1067	8.45	2.6	6-20-19 15:30	15.69	802	7.01	6.9	6-20-19 15:30	16.45	774	8.55	8.9						9-20-19 11:00	13.31	1500	7.36	4.8					
6-20-19 20:45	15.53	1066	8.49	2.1	6-20-19 15:45	15.67	801	7.08	7.2	6-20-19 15:45	16.40	774	8.55	8.6						9-20-19 11:15	13.30	1511	7.35	3.2					
6-20-19 21:00	15.51	1065	8.51	2.1	6-20-19 16:00	15.65	801	7.08	6.9	6-20-19 16:00	16.39	774	8.55	7.5						9-20-19 11:30	13.28	1493	7.29	2.3					
6-20-19 21:15	15.52	1065	8.55	2.3	6-20-19 16:15	15.65	801	6.96	7.9	6-20-19 16:15	16.36	774	8.55	8.1						9-20-19 11:45	13.27	1496	7.23	4.4					
6-20-19 21:30	15.52	1065	8.57	4.0	6-20-19 16:30	15.65	802	7.06	7.4	6-20-19 16:30	16.33	774	8.55	18.3						9-20-19 12:00	13.25	1492	7.25	2.5					
6-20-19 21:45	15.52	1065	8.59	2.2	6-20-19 16:45	15.63	801	7.18	8.6	6-20-19 16:45	16.29	774	8.55	8.5						9-20-19 12:15	13.24	1502	7.25	4.7					
6-20-19 22:00	15.51	1065	8.62	2.0	6-20-19 17:00	15.60	800	7.20	7.1	6-20-19 17:00	16.26	774	8.55	8.3						9-20-19 12:30	13.21	1528	7.24	4.9					
6-20-19 22:15	15.49	1064	8.66	2.0	6-20-19 17:15	15.57	801	7.13	7.4	6-20-19 17:15	16.22	774	8.55	7.7						9-20-19 12:45	13.19	1502	7.20	4.5					
6-20-19 22:30	15.49	1063	8.69	2.0	6-20-19 17:30	15.57	801	7.10	7.2	6-20-19 17:30	16.21	774	8.55	10.2						9-20-19 13:00	13.19	1495	7.17	4.3					
6-20-19 22:45	15.48	1062	8.72	1.9	6-20-19 17:45	15.57	801	7.07	6.7	6-20-19 17:45	16.18	774	8.55	8.7						9-20-19 13:15	13.15	1504	7.12	3.1					
6-20-19 23:00	15.47	1062	8.74	2.0	6-20-19 18:00	15.54	797	8.58	7.3	6-20-19 18:00	16.15	773	8.55	8.7						9-20-19 13:30	13.13	1504	7.10	2.6					
6-20-19 23:15	15.45	1060	8.77	2.2	6-20-19 18:15	15.55	798	8.41	7.8	6-20-19 18:15	16.11	774	8.55	9.1						9-20-19 13:45	13.11	1503	7.16	2.7					
6-20-19 23:30	15.47	1061	8.79	4.1	6-20-19 18:30	15.52	797	8.77	9.3	6-20-19 18:30	16.07	774	8.55	8.2						9-20-19 14:00	13.09	1506	7.17	2.3					
6-20-19 23:45	15.49	1060	8.80	2.8	6-20-19 18:45	15.52	797	8.85	7.6	6-20-19 18:45	16.09	774	8.55	8.9						9-20-19 14:15	13.08	1493	7.20	4.6					
6-21-19 0:00	15.54	1061	8.83	3.1	6-20-19 19:00	15.50	796	8.88	7.2	6-20-19 19:00	16.08	774	8.55	9.2						9-20-19 14:30	13.06	1502	7.20	4.5					
6-21-19 0:15	15.53	1060	8.86	2.4	6-20-19 19:15	15.47	796	8.87	7.3	6-20-19 19:15	16.07	775	8.55	8.6						9-20-19 14:45	13.04	1502	7.16	5.6					
6-21-19 0:30	15.50	1059	8.87	2.2	6-20-19 19:30	15.44	796	8.87	7.4	6-20-19 19:30	16.03	775	8.55	7.9						9-20-19 15:00	13.04	1501	7.12	4.8					
6-21-19 0:45	15.51	1058	8.89	2.4	6-20-19 19:45	15.43	796	8.88	7.7	6-20-19 19:45	16.04	775	8.55	8.6						9-20-19 15:15	13.03	1503	7.15	2.2					
6-21-19 1:00	15.51	1058	8.90	2.0	6-20-19 20:00	15.41	796	8.90	2.7	6-20-19 20:00	16.01	775	8.55	9.0						9-20-19 15:30	13.03	1575	7.16	2.2					
6-21-19 1:15	15.51	1058	8.91	3.2	6-20-19 20:15	15.39	794	8.90	8.2	6-20-19 20:15	16.01	774	8.55	8.5						9-20-19 15:45	13.04	1501	7.22	2.1					
6-21-19 1:30	15.49	1057	8.91	2.7	6-20-19 20:30	15.39	794	8.90	11.8	6-20-19 20:30	15.99	775	8.56	9.1						9-20-19 16:00	13.03	1501	7.18	2.1					
6-21-19 1:45	15.48	1057	8.88	2.9	6-20-19 20:45	15.34	795	8.90	6.6	6-20-19 20:45	15.96	775	8.56	7.7						9-20-19 16:15	13.06	1502	7.18	3.2					
6-21-19 2:00	15.46	1056	8.87	2.8	6-20-19 21:00	15.32	796	8.89	7.6	6-20-19 21:00	15.96	775	8.56	8.8						9-20-19 16:30	13.10	1500	7.19	3.5					
6-21-19 2:15	15.43	1055	8.85	2.5	6-20-19 21:15	15.29	796	8.89	7.4	6-20-19 21:15	15.98	776	8.56	8.9						9-20-19 16:45	13.14	1499	7.24	4.3					
6-21-19 2:30	15.40	1055	8.85	2.5	6-20-19 21:30	15.29	796	8.89	7.0	6-20-19 21:30	15.96	776	8.56	8.4						9-20-19 17:00	13.19	1500	7.29	4.2					
6-21-19 2:45	15.36	1053	8.84	2.1	6-20-19 21:45	15.25	796	8.89	21.8	6-20-19 21:45	15.95	777	8.56	7.2						9-20-19 17:15	13.22	1498	7.36	2.4					
6-21-19 3:00	15.34	1052	8.83	2.2	6-20-19 22:00	15.23	796	8.88	8.9	6-20-19 22:00	15.92	777	8.56	9.3						9-20-19 17:30	13.28	1497	7.37	1.9					
6-21-19 3:15	15.29	1051	8.81	2.0	6-20-19 22:15	15.18	796	8.88	10.0	6-20-19 22:15	15.91	777	8.56	7.6						9-20-19 18:00	13.38	1496	7.47	2.3					
6-21-19 3:30	15.25	1051	8.79	2.5	6-20-19 22:30	15.17	797	8.87	8.2	6-20-19 22:30	15.88	778	8.56	11.5						9-20-19 18:15	13.44	1495	7.58	4.5					
6-21-19 3:45	15.23	1050	8.75	1.9	6-20-19 22:45	15.13	796	8.88	7.5	6-20-19 22:45	15.85	779	8.55	10.1						9-20-19 18:30	13.50	1471	7.56	3.4					
6-21-19 4:00	15.19	1049	8.71	1.7	6-20-19 23:00	15.10	796	8.87	8.0	6-20-19 23:00	15.85	780	8.55	9.9						9-20-19 18:45	13.55	1499	7.61	3.4					
6-21-19 4:15	15.19	1049	8.70	1.9	6-20-19 23:15	15.09	796	8.87	9.1	6-20-19 23:15	15.81	780	8.55	9.8						9-20-19 19:00	13.63	1499	7.62	3.0					
6-21-19 4:30	15.18	1049	8.67	1.8	6-20-19 23:30	15.08	796	8.87	7.3	6-20-19 23:30	15.82	780	8.55	24.1						9-20-19 19:15	13.69	1516	7.60	2.6					
6-21-19 4:45	15.16	1050	8.42	2.1	6-20-19 23:45	15.05	797	8.86	7.5	6-20-19 23:45	15.84	781	8.55	9.4						9-20-19 19:30	13.76	1502	7.63	1.8					
6-21-19 5:00	15.16	1049	8.56	1.6	6-21-19 0:00	15.04	797	8.86	11.0	6-21-19 0:00	15.85	781	8.55	21.9						9-20-19 19:45	13.82	1499	7.62	2.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-21-19 5:15	15.15	1049	8.35	1.7	6-21-19 0:15	15.02	797	8.86	7.2	6-21-19 0:15	15.83	781	8.55	10.6						9-20-19 20:00	13.87	1498	7.58	2.0					
6-21-19 5:30	15.13	1049	8.29	2.1	6-21-19 0:30	14.97	797	8.85	7.0	6-21-19 0:30	15.83	781	8.55	20.7						9-20-19 20:15	13.92	1501	7.53	4.1					
6-21-19 5:45	15.12	1050	7.94	1.5	6-21-19 0:45	14.93	796	8.87	10.7	6-21-19 0:45	15.82	781	8.55	10.3						9-20-19 20:30	13.97	1498	7.54	3.8					
6-21-19 6:00	15.11	1050	7.78	1.8	6-21-19 1:00	14.91	797	8.86	9.1	6-21-19 1:00	15.83	781	8.55	30.6						9-20-19 20:45	14.02	1497	7.57	3.5					
6-21-19 6:15	15.09	1049	7.71	2.0	6-21-19 1:15	14.93	797	8.86	7.5	6-21-19 1:15	15.84	781	8.55	8.5						9-20-19 21:00	14.08	1496	7.55	3.9					
6-21-19 6:30	15.07	1050	7.70	2.6	6-21-19 1:30	14.92	797	8.86	7.1	6-21-19 1:30	15.82	781	8.56	46.2						9-20-19 21:15	14.25	1498	7.67	3.1					
6-21-19 6:45					6-21-19 1:45	14.91	797	8.86	7.3	6-21-19 1:45	15.77	782	8.56	35.4						9-20-19 21:30	14.37	1516	7.43	2.3					
6-21-19 7:00					6-21-19 2:00	14.90	797	8.86	7.2	6-21-19 2:00	15.75	782	8.56	8.7						9-20-19 21:45	14.49	1496	7.60	2.6					
6-21-19 7:15					6-21-19 2:15	14.90	797	8.86	9.4	6-21-19 2:15	15.76	782	8.56	13.4						9-20-19 22:00	14.57	1491	8.00	2.4					
6-21-19 7:30					6-21-19 2:30	14.85	797	8.85	7.5	6-21-19 2:30	15.75	782	8.56	7.4						9-20-19 22:15	14.73	1497	8.22	5.0					
6-21-19 7:45					6-21-19 2:45	14.82	797	8.86	7.9	6-21-19 2:45	15.71	782	8.55	9.9						9-20-19 22:30	14.74	1501	7.79	4.4					
6-21-19 8:00					6-21-19 3:00	14.78	797	8.85	8.0	6-21-19 3:00	15.69	782	8.55	10.0						9-20-19 22:45	14.83	1492	8.06	5.7					
6-21-19 8:15					6-21-19 3:15	14.75	797	8.85	7.5	6-21-19 3:15	15.65	783	8.55	10.5						9-20-19 23:00	14.83	1487	7.88	4.8					
6-21-19 8:30	14.82	1042	8.25	1.3	6-21-19 3:30	14.71	797	8.85	8.3	6-21-19 3:30	15.64	783	8.55	31.5						9-20-19 23:15	14.82	1501	7.60	3.2					
6-21-19 8:45	14.75	1040	8.20	1.7	6-21-19 3:45	14.67	797	8.84	7.3	6-21-19 3:45	15.62	783	8.55	11.8						9-20-19 23:30	14.83	1488	7.54	2.4					
6-21-19 9:00	14.67	1039	8.03	1.5	6-21-19 4:00	14.62	797	8.84	6.8	6-21-19 4:00	15.62	784	8.55	26.2						9-20-19 23:45	14.87	1478	7.52	3.1					
6-21-19 9:15	14.66	1038	7.98	2.6	6-21-19 4:15	14.61	797	8.84	8.8	6-21-19 4:15	15.58	784	8.54	7.5						9-21-19 0:00	14.87	1488	7.55	2.8					
6-21-19 9:30	14.60	1035	7.62	1.9	6-21-19 4:30	14.56	797	8.84	7.0	6-21-19 4:30	15.56	784	8.55	27.6						9-21-19 0:15	14.87	1499	7.42	18.4					
6-21-19 9:45	14.49	1020	7.56	5.5	6-21-19 4:45	14.54	797	8.84	6.7	6-21-19 4:45	15.55	784	8.54	21.1						9-21-19 0:30	14.88	1495	7.43	8.2					
6-21-19 10:00	14.36	1001	7.62	6.0	6-21-19 5:00	14.47	798	8.83	48.1	6-21-19 5:00	15.55	785	8.54	33.7						9-21-19 0:45	14.85	1493	7.48	4.3					
6-21-19 10:15	14.29	996	7.65	6.1	6-21-19 5:15	14.48	732	8.83	6.3	6-21-19 5:15	15.54	786	8.53	11.2						9-21-19 1:00	14.85	1496	7.42	4.2					
6-21-19 10:30	14.27	1000	7.64	4.6	6-21-19 5:30	14.46	797	8.83	6.9	6-21-19 5:30	15.54	786	8.53	26.5						9-21-19 1:15	14.82	1494	7.46	2.7					
6-21-19 10:45	14.31	1016	7.64	3.4	6-21-19 5:45	14.44	797	8.83	7.3	6-21-19 5:45	15.52	786	8.53	9.7						9-21-19 1:30	14.81	1497	7.47	1.9					
6-21-19 11:00	14.26	1011	7.65	3.6	6-21-19 6:00	14.41	797	8.83	11.7	6-21-19 6:00	15.50	786	8.53	19.6						9-21-19 1:45	14.78	1492	7.48	2.3					
6-21-19 11:15	14.22	1011	7.65	3.4	6-21-19 6:15	14.39	797	8.83	9.7	6-21-19 6:15	15.50	786	8.53	8.7						9-21-19 2:00	14.75	1502	7.69	2.4					
6-21-19 11:30	14.20	1012	7.64	2.9	6-21-19 6:30	14.40	797	8.83	6.1	6-21-19 6:30	15.47	786	8.53	60.8						9-21-19 2:15	14.74	1495	7.50	4.3					
6-21-19 11:45	14.13	1005	7.65	4.5	6-21-19 6:45	14.38	797	8.83	6.7	6-21-19 6:45	15.45	786	8.52	13.7						9-21-19 2:30	14.72	1491	7.48	4.3					
6-21-19 12:00	14.12	1010	7.60	3.0	6-21-19 7:00	14.38	801	7.66	7.8	6-21-19 7:00	15.44	786	8.53	62.1						9-21-19 2:45	14.70	1492	7.44	4.4					
6-21-19 12:15	14.05	1006	7.62	4.2	6-21-19 7:15	14.42	801	7.21	7.3	6-21-19 7:15	15.41	787	8.52	7.9						9-21-19 3:00	14.67	1495	7.54	3.1					
6-21-19 12:30	14.00	1007	7.62	3.5	6-21-19 7:30	14.42	801	7.20	6.6	6-21-19 7:30	15.39	787	8.53	9.2						9-21-19 3:15	14.65	1494	7.30	1.8					
6-21-19 12:45	14.00	1008	7.56	2.8	6-21-19 7:45	14.40	800	7.56	6.9	6-21-19 7:45	15.34	787	8.52	7.9						9-21-19 3:30	14.62	1492	7.36	2.0					
6-21-19 13:00	13.98	1010	7.49	3.0	6-21-19 8:00	14.41	801	7.56	7.1	6-21-19 8:00	15.26	787	8.53	7.7						9-21-19 3:45	14.61	1614	7.72	1.4					
6-21-19 13:15	13.94	1007	7.55	2.9	6-21-19 8:15	14.45	801	7.55	6.9	6-21-19 8:15	15.24	788	8.53	9.3						9-21-19 4:00	14.61	1489	7.61	1.6					
6-21-19 13:30	13.92	1006	7.57	2.6	6-21-19 8:30	14.48	802	7.45	6.4	6-21-19 8:30	15.24	787	8.53	8.4						9-21-19 4:15	14.59	1487	7.61	4.0					
6-21-19 13:45	13.90	1007	7.54	3.9	6-21-19 8:45	14.50	802	7.34	6.4	6-21-19 8:45	15.20	788	8.53	8.4						9-21-19 4:30	14.56	1491	7.51	3.9					
6-21-19 14:00	13.86	1006	7.58	2.5	6-21-19 9:00	14.51	800	7.47	7.4	6-21-19 9:00	15.17	788	8.53	9.3						9-21-19 4:45	14.53	1493	7.44	6.9					
6-21-19 14:15	13.85	1007	7.60	2.4	6-21-19 9:15	14.59	799	7.34	6.5	6-21-19 9:15	15.11	788	8.52	7.7						9-21-19 5:00	14.53	1492	7.39	3.1					
6-21-19 14:30	13.85	1009	7.63	2.2	6-21-19 9:30	14.70	800	7.24	6.5	6-21-19 9:30	15.11	789	8.52	7.9						9-21-19 5:15	14.52	1479	7.39	1.3					
6-21-19 14:45	13.85	1010	7.68	2.0	6-21-19 9:45	14.83	796	8.35	7.0	6-21-19 9:45	15.08	789	8.52	7.8						9-21-19 5:30	14.51	1494	7.40	1.2					
6-21-19 15:00	13.91	1011	7.74	2.1	6-21-19 10:00	14.76	797	8.74	10.0	6-21-19 10:00	15.04	789	8.52	8.4						9-21-19 5:45	14.49	1494	7.37	1.1					
6-21-19 15:15	13.98	1012	7.79	2.1	6-21-19 10:15	14.92	796	8.81	6.8	6-21-19 10:15	15.01	789	8.52	8.4						9-21-19 6:00	14.48	1492	7.33	1.4					
6-21-19 15:30	14.04	1014	7.90	2.0	6-21-19 10:30	15.02	797	8.72	7.1	6-21-19 10:30	14.97	789	8.52	8.3						9-21-19 6:15	14.47	1494	7.36	15.3					
6-21-19 15:45	14.12	1015	7.97	2.0	6-21-19 10:45	15.07	796	8.75	6.7	6-21-19 10:45	14.96	789	8.52	8.8						9-21-19 6:30	14.45	1491	7.38	2.8					
6-21-19 16:00	14.24	1018	8.03	2.0	6-21-19 11:00	14.96	799	8.07	7.3	6-21-19 11:00	14.92	789	8.52	11.3						9-21-19 6:45	14.45	1488	7.37	2.7					
6-21-19 16:15	14.39	1021	8.07	1.9	6-21-19 11:15					6-21-19 11:15	14.90	789	8.52	8.7						9-21-19 7:00	14.44	1491	7.33	2.8					
6-21-19 16:30	14.50	1023	8.14	1.7	6-21-19 11:30	15.29	795	7.56	9.0	6-21-19 11:30	14.86	789	8.52	7.2						9-21-19 7:15	14.42	1487	7.32	1.6					
6-21-19 16:45	14.62	1025	8.15	1.8	6-21-19 11:45	15.30	795	7.52	8.7	6-21-19 11:45	14.84	789	8.52	8.7						9-21-19 7:30	14.40	1486	7.32	1.0					
6-21-19 17:00	14.85	1030	8.20	2.8	6-21-19 12:00	15.29	794	7.96	7.9	6-21-19 12:00	14.79	789	8.52	8.1						9-21-19 7:45	14.38	1482	7.29	1.0					
6-21-19 17:15	15.01	1033	8.21	1.9	6-21-19 12:15	15.42	800	8.12	8.6	6-21-19 12:15	14.75	789	8.52	9.1						9-21-19 8:00	14.37	1476	7.20	1.1					
6-21-19 17:30	15.31	1042	8.28	1.6	6-21-19 12:30	15.67	801	7.62	7.2	6-21-19 12:30	14.74	789	8.52	9.3						9-21-19 8:15	14.35	1497	7.27	3.0					
6-21-19 17:45	15.47	1046	8.20	1.7	6-21-19 12:45	15.69	800	7.69	6.9	6-21-19 12:45	14.73	789	8.51	7.6						9-21-19 8:30	14.33	1493	7.30	2.8					
6-21-19 18:00	15.72	1051	8.30	1.6	6-21-19 13:00	15.55	799	8.51	7.9	6-21-19 13:00	14.74	790	8.52	9.7						9-21-19 8:45	14.32	1495	7.31	2.7					
6-21-19 18:15	16.02	1059	8.36	1.9	6-21-19 13:15	15.77	802	7.45	7.7	6-21-19 13:15	14.67	789	8.52	7.4						9-21-19 9:00	14.31	1498	7.31	2.5					
6-21-19 18:30	16.14	1055	8.36	1.7	6-21-19 13:30	15.48	799	8.76	7.3	6-21-19 13:30	14.67	789	8.52	8.0						9-21-19 9:15	14.28	1496	7.30	0.7					
6-21-19 18:45	16.21	1060	8.33	1.7	6-21-19 13:45	15.62	802	7.52	7.3	6-21-19 13:45	14.64	790	8.51	8.2						9-21-19 9:30	14.27	1487	7.30	1.3					
6-21-19 19:00	16.34	1062	8.40	1.7	6-21-19 14:00	15.79	802	7.47	8.0	6-21-19 14:00	14.62	790	8.51	8.2						9-21-19 9:45	14.23	1581	7.28	0.9					
6-21-19 19:15	16.42	1064	8.36	1.9	6-21-19 14:15	16.17	803	7.41	8.1	6-21-19 14:15	14.63	791	8.51	8.6						9-21-19 10:00	14.21	1489	7.22	0.9					
6-21-19 19:30	16.78	1070	8.45	1.8	6-21-19 14:30	16.30	803	7.28	7.0	6-21-19 14:30	14.64	791	8.51	9.3						9-21-19 10:15	14.19	1492	7.22	5.6					
6-21-19 19:45	16.76	1070	8.42	2.1	6-21-19 14:45	16.32	803	7.58	6.7	6-21-19 14:45	14.67	792	8.51	8.0						9-21-19 10:30	14.16	1491	7.17	2.7					
6-21-19 20:00	16.74	1069	8.36	20.8	6-21-19 15:00	16.34	803	7.58	6.5	6-21-19 15:00	14.71	793	8.51	9.1						9-21-19 10:45	14.13	1494	7.14	2.5					
6-21-19 20:15	16.92	1073	8.35	1.9	6-21-19 15:15	16.44	800	7.53	8.6	6-21-19 15:15	14.76	794	8.50	8.2						9-21-19 11:00	14.11	1492	7.14	2.4					
6-21-19 20:30	17.09	1080	8.46	3.1	6-21-19 15:30	16.56	800	7.61	6.5	6-21-19 15:30	14.80	794	8.51	9.9						9-21-19 11:15	14.08	1570	7.18	0.9					
6-21-19 20:45	17.11	1077	8.28	2.2	6-21-19 15:45	16.79	800	7.39	5.5	6-21-19 15:45	14.82	794	8.50	7.9						9-21-19 11:30	14.07	1559	7.15	0.6					
6-21-19 21:00	17.22	1079	8.35	3.4	6-21-19 16:00	16.90	800	7.34	5.6	6-21-19 16:00	14.95	795	8.51	9.2						9-21-19 11:45	14.04	1480	7.23	0.8					
6-21-19 21:30	17.35	1080	8.32	2.2	6-21-19 16:15	16.88	804	7.16	6.3	6-21-19 16:15	15.01	796	8.50	8.6						9-21-19 12:00	14.02	1461	7.24	0.7					
6-21-19 21:45	17.40	1080	8.31	2.0	6-21-19 16:30	16.91	804	7.07	6.6	6-21-19 16:30	15.10	796	8.50	9.7						9-21-19 12:15	14.00	1495	7.23	2.9					
6-21-19 22:00	17.49	1083	8.29	1.9	6-21-19 16:45	17.10	804	7.23	5.4	6-21-19 16:45	15.18	795	8.50	8.5						9-21-19 12:30	13.98	1491	7.22	2.7					
6-21-19 22:15	17.75	1080	8.62	2.0	6-21-19 17:00	17.37	802	8.29	6.3	6-21-19 17:00	15.40	796	8.50	9.1						9-21-19 12:45	13.95	1494	7.20	2.5					
6-21-19 22:30	17.75	1082	8.51	2.0	6-21-19 17:15	17.47	795	8.52	7.5	6-21-19 17:15	15.54	796	8.50	7.6						9-21-19 13:00	13.91	1495	7.22	2.6					
6-21-19 22:45	17.85	1082	8.47	1.9	6-21-19 17:30	17.76	792	8.73	6.6	6-21-19 17:30	15.97	797	8.50	8.8						9-21-19 13:15	13.88	1503	7.29	1.0					
6-21-19 23:00	18.07	1096	8.42	2.1	6-21-19 17:45	18.00	794	8.54	6.1	6-21-19 17:45	16.15	798	8.50	8.2						9-21-19 13:30	13.85	1496	7.28	0.6					
6-21-19 23:15	18.09	1094	8.28	1.6	6-21-19 18:00	18.28	797	7.66	6.6	6-21-19 18:00	16.45	798	8.51	8.4						9-21-19 13:45	13.83	1499	7.37	0.7					
6-21-19 23:30	18.32	1106	8.44	2.6	6-21-19 18:15	18.33	807	7.26	7.0	6-21-19 18:15	16.13	797	8.50	7.6						9-21-19 14:00	13.82	1493	7.46	0.8					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-21-19 23:45	18.26	1092	8.52	1.8
6-22-19 0:00	18.31	1097	8.54	1.5
6-22-19 0:15	18.29	1092	8.51	1.7
6-22-19 0:30	18.28	1094	8.27	1.4
6-22-19 0:45	18.34	1090	8.13	1.6
6-22-19 1:00	18.40	1096	8.21	1.6
6-22-19 1:15	18.49	1109	8.36	1.8
6-22-19 1:30	18.46	1101	8.37	2.2
6-22-19 1:45	18.47	1099	8.23	1.6
6-22-19 2:00	18.40	1096	8.04	1.6
6-22-19 2:15	18.33	1095	7.74	1.6
6-22-19 2:30	18.38	1103	8.01	1.5
6-22-19 2:45	18.30	1098	7.53	1.5
6-22-19 3:00	18.26	1104	7.40	1.4
6-22-19 3:15	18.22	1098	7.37	1.5
6-22-19 3:30	18.10	1093	7.57	1.5
6-22-19 3:45	18.01	1085	7.97	1.7
6-22-19 4:00	17.93	1087	8.23	1.5
6-22-19 4:15	17.86	1085	8.21	1.8
6-22-19 4:30	17.80	1085	8.14	1.5
6-22-19 4:45	17.78	1088	8.06	1.6
6-22-19 5:00	17.69	1085	7.70	1.7
6-22-19 5:15	17.62	1087	7.61	1.4
6-22-19 5:30	17.56	1081	7.56	1.4
6-22-19 5:45	17.48	1080	7.48	1.7
6-22-19 6:00	17.40	1080	7.49	2.6
6-22-19 6:15	17.38	1075	7.41	1.4
6-22-19 6:30	17.35	1076	7.43	1.6
6-22-19 6:45	17.29	1074	7.40	1.4
6-22-19 7:00	17.24	1072	7.35	1.3
6-22-19 7:15	17.19	1069	7.36	1.4
6-22-19 7:30	17.17	1072	7.43	1.3
6-22-19 7:45	17.13	1070	7.43	1.6
6-22-19 8:00	17.09	1068	7.45	1.2
6-22-19 8:15	17.04	1067	7.38	1.2
6-22-19 8:30	17.00	1082	7.42	1.2
6-22-19 8:45	16.96	1068	7.42	1.2
6-22-19 9:00	16.91	1064	7.41	1.2
6-22-19 9:15	16.86	1063	7.28	1.2
6-22-19 9:30	16.81	1062	7.25	1.4
6-22-19 9:45	16.73	1059	7.27	2.3
6-22-19 10:00	16.72	1058	7.25	1.5
6-22-19 10:15	16.69	1059	7.27	1.3
6-22-19 10:30	16.64	1059	7.27	1.1
6-22-19 10:45	16.61	1057	7.29	1.3
6-22-19 11:00	16.56	1057	7.30	1.2
6-22-19 11:15	16.52	1057	7.30	1.1
6-22-19 11:30	16.47	1055	7.29	1.3
6-22-19 11:45	16.44	1055	7.28	1.2
6-22-19 12:00	16.40	1053	7.30	1.1
6-22-19 12:15	16.37	1053	7.31	1.1
6-22-19 12:30	16.34	1053	7.35	1.1
6-22-19 12:45	16.31	1050	7.38	1.1
6-22-19 13:00	16.29	1050	7.32	1.1
6-22-19 13:15	16.26	1050	7.32	1.1
6-22-19 13:30	16.22	1051	7.33	1.2
6-22-19 13:45	16.19	1048	7.35	1.1
6-22-19 14:00	16.17	1048	7.36	1.0
6-22-19 14:15	16.17	1049	7.43	1.2
6-22-19 14:30	16.19	1048	7.45	1.1
6-22-19 14:45	16.23	1048	7.32	1.2
6-22-19 15:00	16.23	1046	7.75	1.2
6-22-19 15:15	16.24	1043	8.53	1.0
6-22-19 15:30	16.30	1046	8.48	1.0
6-22-19 15:45	16.40	1050	8.48	1.0
6-22-19 16:00	16.50	1055	7.49	1.3
6-22-19 16:15	16.65	1061	7.41	1.6
6-22-19 16:30	16.80	1063	7.41	1.7
6-22-19 16:45	16.98	1068	7.50	1.3
6-22-19 17:00	17.05	1066	7.56	1.2
6-22-19 17:15	17.17	1070	7.51	1.2
6-22-19 17:30	17.33	1074	7.47	1.3
6-22-19 17:45	17.32	1071	7.68	1.3

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-21-19 18:30	18.46	806	7.22	6.0
6-21-19 18:45	18.54	806	7.13	7.1
6-21-19 19:00	18.66	806	7.28	9.1
6-21-19 19:15	18.66	796	7.40	6.7
6-21-19 19:30	18.69	794	8.38	5.7
6-21-19 19:45	18.58	797	7.13	5.2
6-21-19 20:00	18.21	793	7.39	5.1
6-21-19 20:15	18.14	805	7.75	6.9
6-21-19 20:30	18.09	806	7.06	5.2
6-21-19 20:45	17.95	805	7.28	6.1
6-21-19 21:00	17.91	806	7.05	4.2
6-21-19 21:15	17.81	793	6.96	5.0
6-21-19 21:30	17.82	789	8.37	5.1
6-21-19 21:45	17.76	790	8.40	5.0
6-21-19 22:00	17.69	790	8.46	4.9
6-21-19 22:15	17.66	803	8.40	4.9
6-21-19 22:30	17.62	799	8.41	4.7
6-21-19 22:45	17.56	799	8.42	4.9
6-21-19 23:00	17.49	800	8.41	4.6
6-21-19 23:15	17.40	788	8.37	5.4
6-21-19 23:30	17.34	785	8.38	4.2
6-21-19 23:45	17.29	787	8.43	4.7
6-22-19 0:00	17.27	788	8.56	4.6
6-22-19 0:15	17.19	799	8.56	5.8
6-22-19 0:30	17.13	800	8.62	4.3
6-22-19 0:45	17.08	800	8.65	4.3
6-22-19 1:00	17.02	800	8.65	4.5
6-22-19 1:15	16.96	782	8.62	5.0
6-22-19 1:30	16.94	782	8.56	4.0
6-22-19 1:45	16.87	782	8.53	4.1
6-22-19 2:00	16.81	782	8.50	4.2
6-22-19 2:15	16.77	801	8.45	4.5
6-22-19 2:30	16.73	801	8.42	4.0
6-22-19 2:45	16.67	801	8.37	4.3
6-22-19 3:00	16.62	802	8.38	3.9
6-22-19 3:15	16.50	779	8.35	4.5
6-22-19 3:30	16.44	780	8.22	3.6
6-22-19 3:45	16.41	780	8.07	3.7
6-22-19 4:00	16.33	780	7.96	3.5
6-22-19 4:15	16.24	802	7.86	4.1
6-22-19 4:30	16.05	803	7.03	3.6
6-22-19 4:45	16.11	804	7.38	3.8
6-22-19 5:00	16.00	804	7.88	3.6
6-22-19 5:15	16.02	780	8.07	4.9
6-22-19 5:30	16.00	778	8.50	3.4
6-22-19 5:45	15.94	777	8.52	3.8
6-22-19 6:00	15.86	775	8.66	4.0
6-22-19 6:15	15.75	797	8.72	4.2
6-22-19 6:30	15.87	798	8.78	3.5
6-22-19 6:45	15.81	797	8.81	3.9
6-22-19 7:00	15.88	798	8.78	3.6
6-22-19 7:15	15.88	775	8.80	21.3
6-22-19 7:30	15.82	780	7.00	3.3
6-22-19 7:45	15.94	781	6.60	3.3
6-22-19 8:00	16.01	781	6.63	3.2
6-22-19 8:15	16.11	805	6.66	3.4
6-22-19 8:30	16.16	805	6.66	3.1
6-22-19 8:45	16.23	804	6.68	3.0
6-22-19 9:00	16.34	803	6.67	3.2
6-22-19 9:15	16.45	773	6.73	4.3
6-22-19 9:30	16.56	772	6.76	3.3
6-22-19 9:45	16.66	772	6.72	3.4
6-22-19 10:00	16.92	773	6.74	3.6
6-22-19 10:15	17.08	803	6.96	3.8
6-22-19 10:30	17.19	804	6.98	3.4
6-22-19 10:45	17.35	804	6.93	3.2
6-22-19 11:00	17.49	805	6.88	3.0
6-22-19 11:15	17.67	804	6.76	8.5
6-22-19 11:30				
6-22-19 11:45				
6-22-19 12:00				
6-22-19 12:15				
6-22-19 12:30				

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-21-19 18:30	16.37	798	8.50	7.9
6-21-19 18:45	16.39	797	8.50	8.7
6-21-19 19:00	16.44	797	8.50	7.7
6-21-19 19:15	16.65	797	8.50	8.4
6-21-19 19:30	16.90	797	8.50	7.9
6-21-19 19:45	17.13	799	8.51	8.1
6-21-19 20:00	17.21	798	8.50	7.7
6-21-19 20:15	17.36	799	8.52	9.5
6-21-19 20:30	17.37	798	8.51	7.9
6-21-19 20:45	17.34	797	8.51	8.9
6-21-19 21:00	17.39	799	8.51	7.4
6-21-19 21:15	17.44	797	8.53	8.8
6-21-19 21:30	17.88	798	8.53	7.5
6-21-19 21:45	17.87	798	8.52	8.4
6-21-19 22:00	17.79	798	8.51	7.6
6-21-19 22:15	17.85	799	8.51	8.3
6-21-19 22:30	18.18	800	8.52	7.4
6-21-19 22:45	18.37	800	8.52	8.5
6-21-19 23:00	18.46	799	8.52	7.2
6-21-19 23:15	18.64	798	8.51	8.3
6-21-19 23:30	18.63	800	8.52	7.4
6-21-19 23:45	18.62	800	8.53	7.6
6-22-19 0:00	18.72	799	8.53	7.1
6-22-19 0:15	18.70	800	8.53	8.5
6-22-19 0:30	18.65	800	8.53	7.1
6-22-19 0:45	18.68	800	8.54	7.8
6-22-19 1:00	18.78	800	8.53	6.9
6-22-19 1:15	18.85	800	8.54	7.9
6-22-19 1:30	18.78	800	8.54	6.5
6-22-19 1:45	18.86	800	8.54	7.9
6-22-19 2:00	18.89	799	8.55	6.8
6-22-19 2:15	18.87	799	8.56	7.8
6-22-19 2:30	18.88	799	8.55	6.2
6-22-19 2:45	18.76	799	8.55	7.5
6-22-19 3:00	18.68	799	8.56	7.5
6-22-19 3:15	18.61	800	8.55	7.4
6-22-19 3:30	18.56	800	8.56	6.2
6-22-19 3:45	18.57	799	8.57	6.8
6-22-19 4:00	18.50	799	8.57	5.4
6-22-19 4:15	18.41	799	8.57	6.0
6-22-19 4:30	18.36	799	8.56	5.5
6-22-19 4:45	18.29	799	8.57	6.3
6-22-19 5:00	18.19	799	8.57	5.6
6-22-19 5:15	18.11	799	8.57	5.7
6-22-19 5:30	18.03	798	8.57	5.4
6-22-19 5:45	17.92	798	8.57	5.6
6-22-19 6:00	17.80	798	8.57	4.8
6-22-19 6:15	17.73	798	8.58	5.2
6-22-19 6:30	17.61	798	8.58	4.3
6-22-19 6:45	17.53	798	8.58	4.6
6-22-19 7:00	17.46	798	8.59	4.5
6-22-19 7:15	17.38	798	8.59	5.4
6-22-19 7:30	17.32	798	8.58	4.1
6-22-19 7:45	17.26	798	8.58	6.1
6-22-19 8:00	17.17	797	8.58	4.3
6-22-19 8:15	17.10	797	8.59	5.1
6-22-19 8:30	17.05	798	8.58	4.2
6-22-19 8:45	16.97	797	8.58	5.6
6-22-19 9:00	16.91	798	8.57	4.5
6-22-19 9:15	16.86	798	8.58	5.3
6-22-19 9:30	16.82	798	8.57	4.6
6-22-19 9:45	16.76	798	8.57	4.8
6-22-19 10:00	16.70	798	8.57	4.5
6-22-19 10:15	16.64	798	8.57	5.4
6-22-19 10:30	16.57	797	8.57	4.4
6-22-19 10:45	16.49	797	8.58	5.3
6-22-19 11:00	16.44	798	8.57	4.5
6-22-19 11:15	16.39	798	8.58	5.3
6-22-19 11:30	16.33	797	8.57	4.4
6-22-19 11:45	16.29	797	8.58	4.9
6-22-19 12:00	16.23	797	8.57	9.0
6-22-19 12:15	16.16	797	8.57	5.0
6-22-19 12:30	16.09	797	8.57	4.8

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-21-19 14:15	13.82	1493	7.46	6.2
9-21-19 14:30	13.80	1495	7.41	3.1
9-21-19 14:45	13.78	1492	7.37	2.7
9-21-19 15:00	13.78	1491	7.33	4.2
9-21-19 15:15	13.78	1495	7.29	0.8
9-21-19 15:30	13.81	1495	7.33	0.6
9-21-19 15:45	13.84	1494	7.47	13.5
9-21-19 16:00	13.85	1492	7.41	0.5
9-21-19 16:15	13.87	1492	7.35	2.1
9-21-19 16:30	13.91	1495	7.36	2.1
9-21-19 16:45	13.99	1492	7.36	2.1
9-21-19 17:00	14.00	1490	7.36	2.1
9-21-19 17:15	13.99	1491	7.43	0.9
9-21-19 17:30	14.00	1474	7.44	0.5
9-21-19 17:45	14.03	1490	7.40	0.5
9-21-19 18:00	14.07	1490	7.37	0.6
9-21-19 18:15	14.24	1495	7.48	26.2
9-21-19 18:30	14.33	1494	7.63	14.9
9-21-19 18:45	14.36	1488	7.52	11.4
9-21-19 19:00	14.40	1491	7.50	16.4
9-21-19 19:15	14.33	1492	7.38	6.8
9-21-19 19:30	14.37	1491	7.51	5.0
9-21-19 19:45	14.35	1491	7.36	6.4
9-21-19 20:00	14.35	1487	7.34	4.0
9-21-19 20:15	14.37	1491	7.37	5.4
9-21-19 20:30	14.42	1489	7.36	5.5
9-21-19 20:45	14.43	1486	7.37	4.0
9-21-19 21:00	14.45	1506	7.31	5.1
9-21-19 21:15	14.49	1492	7.30	3.8
9-21-19 21:30	14.48	1490	7.25	2.1
9-21-19 21:45	14.50	1490	7.27	1.8
9-21-19 22:00	14.52	1493	7.26	1.9
9-21-19 22:15	14.52	1489	7.28	3.7
9-21-19 22:30	14.53	1488	7.23	2.9
9-21-19 22:45	14.51	1488	7.28	2.7
9-21-19 23:00	14.50	1486	7.32	3.2
9-21-19 23:15	14.47	1603	7.40	2.9
9-21-19 23:30	14.48	1477	7.32	1.1
9-21-19 23:45	14.49	1582	7.31	1.5
9-22-19 0:00	14.49	1463	7.37	1.9
9-22-19 0:15	14.50	1475	7.44	3.6
9-22-19 0:30	14.53	1481	7.52	2.9
9-22-19 0:45	14.52	1480	7.46	3.8
9-22-19 1:00	14.50	1490	7.49	5.1
9-22-19 1:15	14.48	1492	7.73	3.8
9-22-19 1:30	14.46	1489	7.43	2.4
9-22-19 1:45	14.43	1491	7.46	3.0
9-22-19 2:00	14.41	1498	7.35	2.0
9-22-19 2:15	14.39	1485	7.37	4.4
9-22-19 2:30	14.37	1499	7.30	3.0
9-22-19 2:45	14.34	1516	7.33	3.3
9-22-19 3:00	14.32	1488	7.27	2.9
9-22-19 3:15	14.31	1508	7.30	1.4
9-22-19 3:30	14.29	1485	7.27	1.4
9-22-19 3:45	14.28	1486	7.40	1.5
9-22-19 4:00	14.27	1472	7.42	1.4
9-22-19 4:15	14.25	1489	7.35	2.5
9-22-19 4:30	14.24	1486	7.32	2.3
9-22-19 4:45	14.24	1488	7.32	2.3
9-22-19 5:00	14.22	1488	7.29	2.1
9-22-19 5:15	14.20	1491	7.21	0.9
9-22-19 5:30	14.17	1493	7.17	0.8
9-22-19 5:45	14.14	1492	7.24	0.5
9-22-19 6:00	14.12	1490	7.22	3.3
9-22-19 6:15	14.09	1482	7.55	2.8
9-22-19 6:30	14.09	1483	8.02	2.3
9-22-19 6:45	14.08	1482	7.98	2.3
9-22-19 7:00	14.08	1480	8.00	2.4
9-22-19 7:15	14.06	1488	7.46	1.4
9-22-19 7:30	14.06	1483	7.45	1.4
9-22-19 7:45	14.04	1483	7.33	2.5
9-22-19 8:00	14.03	1484	7.43	2.3
9-22-19 8:15	14.01	1481	7.39	3.7

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-22-19 18:00	17.34	1072	7.68	1.2	6-22-19 12:45					6-22-19 12:45	16.06	797	8.57	5.3						9-22-19 8:30	14.00	1488	7.34	2.2					
6-22-19 18:15	17.36	1065	8.26	1.2	6-22-19 13:00					6-22-19 13:00	16.03	797	8.57	3.9						9-22-19 8:45	13.97	1482	7.32	2.1					
6-22-19 18:30	17.48	1065	8.62	1.1	6-22-19 13:15					6-22-19 13:15	15.98	797	8.57	4.5						9-22-19 9:00	13.95	1486	7.25	2.6					
6-22-19 18:45	17.64	1070	8.59	1.5	6-22-19 13:30					6-22-19 13:30	15.93	797	8.57	4.4						9-22-19 9:15	13.95	1485	7.33	1.4					
6-22-19 19:00	17.74	1074	8.58	1.3	6-22-19 13:45					6-22-19 13:45	15.91	797	8.57	4.8						9-22-19 9:30	13.94	1491	7.33	0.9					
6-22-19 19:15	17.96	1074	8.21	1.2	6-22-19 14:00					6-22-19 14:00	15.95	797	8.57	4.5						9-22-19 9:45	13.92	1490	7.29	1.3					
6-22-19 19:30	18.38	1091	8.02	1.3	6-22-19 14:15					6-22-19 14:15	15.95	798	8.56	4.7						9-22-19 10:00	13.90	1491	7.25	1.3					
6-22-19 19:45	18.44	1086	7.91	1.5	6-22-19 14:30					6-22-19 14:30	15.99	798	8.56	4.5						9-22-19 10:15	13.90	1483	7.28	1.8					
6-22-19 20:00	18.66	1093	8.44	1.2	6-22-19 14:45					6-22-19 14:45	15.97	798	8.57	4.8						9-22-19 10:30	13.87	1489	7.31	4.1					
6-22-19 20:15	19.05	1101	8.65	3.7	6-22-19 15:00					6-22-19 15:00	16.01	799	8.56	4.6						9-22-19 10:45	13.85	1489	7.31	1.7					
6-22-19 20:30	19.20	1099	8.65	2.9	6-22-19 15:15					6-22-19 15:15	16.07	800	8.56	6.0						9-22-19 11:00	13.83	1493	7.30	1.9					
6-22-19 20:45	19.51	1108	8.56	1.4	6-22-19 15:30					6-22-19 15:30	16.15	800	8.55	5.0						9-22-19 11:15	13.80	1491	7.29	0.8					
6-22-19 21:00	19.50	1110	8.07	1.3	6-22-19 15:45					6-22-19 15:45	16.24	802	8.55	6.2						9-22-19 11:30	13.76	1491	7.23	0.5					
6-22-19 21:15	19.81	1104	8.05	1.3	6-22-19 16:00					6-22-19 16:00	16.43	801	8.55	4.6						9-22-19 11:45	13.72	1490	7.17	0.5					
6-22-19 21:30	19.92	1114	8.37	1.4	6-22-19 16:15					6-22-19 16:15	16.46	802	8.54	6.4						9-22-19 12:00	13.68	1489	7.13	0.7					
6-22-19 21:45	20.02	1120	8.21	1.5	6-22-19 16:30					6-22-19 16:30	16.56	804	8.53	5.5						9-22-19 12:15	13.66	1487	7.14	2.9					
6-22-19 22:00	19.43	1108	7.23	1.2	6-22-19 16:45					6-22-19 16:45	16.64	803	8.54	7.3						9-22-19 12:30	13.65	1474	7.19	2.0					
6-22-19 22:15	19.58	1117	7.65	1.9	6-22-19 17:00					6-22-19 17:00	16.53	802	8.53	4.7						9-22-19 12:45	13.62	1487	7.19	1.9					
6-22-19 22:30	20.00	1128	7.93	1.3	6-22-19 17:15					6-22-19 17:15	16.70	801	8.54	5.3						9-22-19 13:00	13.62	1485	7.27	2.3					
6-22-19 22:45	20.76	1143	8.39	1.4	6-22-19 17:30					6-22-19 17:30	16.75	803	8.54	5.8						9-22-19 13:15	13.59	1490	7.20	0.7					
6-22-19 23:00	20.57	1152	8.29	1.5	6-22-19 17:45					6-22-19 17:45	16.85	803	8.54	5.1						9-22-19 13:30	13.58	1488	7.21	1.2					
6-22-19 23:15	20.16	1125	7.78	1.7	6-22-19 18:00					6-22-19 18:00	17.09	804	8.54	4.8						9-22-19 13:45	13.55	1503	7.22	0.5					
6-22-19 23:30	20.12	1125	7.81	1.4	6-22-19 18:15					6-22-19 18:15	17.32	803	8.54	5.6						9-22-19 14:00	13.55	1487	7.22	0.5					
6-22-19 23:45	20.22	1123	8.46	1.3	6-22-19 18:30					6-22-19 18:30	17.46	803	8.53	6.0						9-22-19 14:15	13.54	1489	7.20	2.5					
6-23-19 0:00	20.54	1129	8.25	1.3	6-22-19 18:45					6-22-19 18:45	17.66	803	8.53	6.4						9-22-19 14:30	13.52	1484	7.14	2.2					
6-23-19 0:15	20.67	1139	8.75	1.6	6-22-19 19:00					6-22-19 19:00	17.80	806	8.53	6.7						9-22-19 14:45	13.52	1493	7.11	2.6					
6-23-19 0:30	20.69	1140	8.83	1.3	6-22-19 19:15					6-22-19 19:15	17.98	805	8.53	5.5						9-22-19 15:00	13.49	1489	7.12	2.8					
6-23-19 0:45	20.73	1139	8.85	1.4	6-22-19 19:30					6-22-19 19:30	18.34	805	8.53	5.5						9-22-19 15:15	13.49	1486	7.10	2.1					
6-23-19 1:00	20.83	1143	8.88	1.3	6-22-19 19:45					6-22-19 19:45	18.92	807	8.52	5.4						9-22-19 15:30	13.48	1485	7.15	0.9					
6-23-19 1:15	20.91	1142	8.88	1.4	6-22-19 20:00					6-22-19 20:00	19.18	810	8.53	5.5						9-22-19 15:45	13.48	1484	7.14	1.1					
6-23-19 1:30	21.04	1149	8.91	22.9	6-22-19 20:15					6-22-19 20:15	19.38	806	8.52	5.6						9-22-19 16:00	13.49	1484	7.12	0.6					
6-23-19 1:45	21.18	1155	8.94	1.7	6-22-19 20:30					6-22-19 20:30	19.26	801	8.53	5.7						9-22-19 16:15	13.52	1487	7.16	3.0					
6-23-19 2:00	21.27	1159	8.94	11.2	6-22-19 20:45					6-22-19 20:45	19.33	804	8.54	6.3						9-22-19 16:30	13.55	1483	7.17	2.4					
6-23-19 2:15	21.25	1163	8.91	1.4	6-22-19 21:00					6-22-19 21:00	19.55	805	8.52	5.5						9-22-19 16:45	13.58	1487	7.14	2.5					
6-23-19 2:30	21.25	1155	8.92	1.5	6-22-19 21:15					6-22-19 21:15	18.93	806	8.52	6.3						9-22-19 17:00	13.61	1487	7.12	2.6					
6-23-19 2:45	21.24	1153	8.91	4.2	6-22-19 21:30					6-22-19 21:30	19.92	807	8.53	6.2						9-22-19 17:15	13.64	1488	7.11	0.8					
6-23-19 3:00	21.21	1154	8.89	1.2	6-22-19 21:45					6-22-19 21:45	20.04	805	8.52	5.6						9-22-19 17:30	13.68	1486	7.11	0.5					
6-23-19 3:15	21.20	1153	8.92	1.4	6-22-19 22:00					6-22-19 22:00	20.04	807	8.53	5.5						9-22-19 17:45	13.74	1484	7.10	0.6					
6-23-19 3:30	21.14	1151	8.92	1.7	6-22-19 22:15					6-22-19 22:15	20.09	808	8.53	6.5						9-22-19 18:00	13.81	1486	7.13	0.7					
6-23-19 3:45	21.11	1148	8.91	2.3	6-22-19 22:30					6-22-19 22:30	20.27	807	8.53	5.6						9-22-19 18:15	13.87	1489	7.11	2.9					
6-23-19 4:00	21.05	1145	8.97	1.3	6-22-19 22:45					6-22-19 22:45	20.54	803	8.53	5.3						9-22-19 18:30	13.99	1486	7.21	3.3					
6-23-19 4:15	20.94	1148	8.89	6.7	6-22-19 23:00					6-22-19 23:00	20.72	809	8.52	5.4						9-22-19 18:45	14.07	1485	7.37	2.9					
6-23-19 4:30	20.84	1145	8.96	1.3	6-22-19 23:15					6-22-19 23:15	20.73	807	8.53	6.6						9-22-19 19:00	14.19	1484	7.46	3.5					
6-23-19 4:45	20.76	1139	8.91	4.1	6-22-19 23:30					6-22-19 23:30	20.74	808	8.52	5.9						9-22-19 19:15	14.18	1482	7.67	2.9					
6-23-19 5:00	20.61	1142	8.86	1.2	6-22-19 23:45					6-22-19 23:45	20.75	804	8.53	6.3						9-22-19 19:30	14.20	1482	7.80	1.1					
6-23-19 5:15	20.50	1138	8.70	1.3	6-23-19 0:00					6-23-19 0:00	20.81	807	8.54	5.4						9-22-19 19:45	14.22	1481	7.93	1.3					
6-23-19 5:30	20.42	1138	8.60	1.1	6-23-19 0:15					6-23-19 0:15	20.88	807	8.54	7.2						9-22-19 20:00	14.21	1480	7.98	2.3					
6-23-19 5:45	20.33	1134	8.36	1.2	6-23-19 0:30					6-23-19 0:30	20.95	807	8.54	6.5						9-22-19 20:15	14.21	1485	8.05	8.7					
6-23-19 6:00	20.27	1133	8.50	1.1	6-23-19 0:45					6-23-19 0:45	20.98	805	8.55	6.2						9-22-19 20:30	14.20	1482	8.18	3.2					
6-23-19 6:15	20.21	1132	8.47	1.3	6-23-19 1:00					6-23-19 1:00	20.95	807	8.55	5.1						9-22-19 20:45	14.22	1482	8.13	3.6					
6-23-19 6:30	20.11	1132	8.27	1.2	6-23-19 1:15					6-23-19 1:15	21.00	807	8.55	6.4						9-22-19 21:00	14.21	1478	8.19	4.6					
6-23-19 6:45	20.04	1131	8.13	3.3	6-23-19 1:30					6-23-19 1:30	21.05	807	8.55	6.1						9-22-19 21:15	14.20	1476	8.26	2.4					
6-23-19 7:00	19.98	1129	8.07	1.1	6-23-19 1:45					6-23-19 1:45	21.10	805	8.57	7.6						9-22-19 21:30	14.19	1475	8.33	1.9					
6-23-19 7:15	19.91	1110	8.08	1.5	6-23-19 2:00					6-23-19 2:00	21.05	803	8.56	5.1						9-22-19 21:45	14.18	1474	8.35	1.3					
6-23-19 7:30	19.85	1115	8.04	1.1	6-23-19 2:15					6-23-19 2:15	21.02	803	8.57	6.0						9-22-19 22:00	14.19	1473	8.41	1.2					
6-23-19 7:45	19.76	1125	7.95	1.2	6-23-19 2:30					6-23-19 2:30	20.96	803	8.56	5.2						9-22-19 22:15	14.20	1481	8.47	5.3					
6-23-19 8:00	19.69	1122	7.86	4.3	6-23-19 2:45					6-23-19 2:45	20.91	805	8.56	5.8						9-22-19 22:30	14.20	1504	8.50	4.1					
6-23-19 8:15	19.63	1120	7.85	1.1	6-23-19 3:00					6-23-19 3:00	20.83	804	8.57	18.9						9-22-19 22:45	14.21	1482	8.49	4.8					
6-23-19 8:30	19.56	1118	7.85	1.1	6-23-19 3:15					6-23-19 3:15	20.75	806	8.57	5.0						9-22-19 23:00	14.20	1478	8.50	4.5					
6-23-19 8:45	19.50	1117	7.86	1.3	6-23-19 3:30					6-23-19 3:30	20.66	799	8.57	4.9						9-22-19 23:15	14.19	1479	8.53	1.3					
6-23-19 9:00	19.43	1111	7.87	1.0	6-23-19 3:45					6-23-19 3:45	20.62	803	8.57	5.3						9-22-19 23:30	14.21	1552	8.54	0.9					
6-23-19 9:15	19.36	1110	7.90	2.1	6-23-19 4:00					6-23-19 4:00	20.52	803	8.57	4.9						9-22-19 23:45	14.22	1469	8.55	1.1					
6-23-19 9:30	19.31	1113	7.87	1.1	6-23-19 4:15					6-23-19 4:15	20.42	791	8.59	4.5						9-23-19 0:00	14.26	1473	8.57	1.0					
6-23-19 9:45	19.27	1109	7.83	1.1	6-23-19 4:30					6-23-19 4:30	20.20	802	8.60	3.6						9-23-19 0:15	14.26	1482	8.58	3.1					
6-23-19 10:00	19.22	1110	7.77	1.2	6-23-19 4:45					6-23-19 4:45	20.03	798	8.60	3.7						9-23-19 0:30	14.26	1480	8.60	3.2					
6-23-19 10:15	19.14	1108	7.92	1.5	6-23-19 5:00					6-23-19 5:00	19.90	799	8.61	3.8						9-23-19 0:45	14.23	1481	8.59	2.6					
6-23-19 10:30	19.04	1105	7.56	1.4	6-23-19 5:15					6-23-19 5:15	19.82	799	8.61	4.1						9-23-19 1:00	14.22	1478	8.61	3.1					
6-23-19 10:45	18.96	1105	7.58	1.1	6-23-19 5:30					6-23-19 5:30	19.73	822	8.61	3.9						9-23-19 1:15	14.19	1477	8.62	1.2					
6-23-19 11:00	18.87	1102	7.56	1.0	6-23-19 5:45					6-23-19 5:45	19.67	797	8.61	4.7						9-23-19 1:30	14.17	1477	8.62	0.9					
6-23-19 11:15	18.81	1104	7.44	1.1	6-23-19 6:00					6-23-19 6:00	19.57	799	8.61	4.2						9-23-19 1:45	14.14	1501	8.63	0.9					
6-23-19 11:30	18.73	1098	7.46	1.0	6-23-19 6:15					6-23-19 6:15	19.46	804	8.62	4.6						9-23-19 2:00	14.11	1471	8.63	0.7					
6-23-19 11:45	18.68	1091	7.44	1.1	6-23-19 6:30					6-23-19 6:30	19.31	801	8.61	4.5						9-23-19 2:15	14.09	1476	8.65	3.4					
6-23-19 12:00	18.64	1096	7.47	1.1	6-23-19 6:45					6-23-19 6:45	19.24	804	8.62	5.7						9-23-19 2:30	14.05	1468	8.65	3.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-23-19 12:15	18.57	1094	7.54	1.0	6-23-19 7:00					6-23-19 7:00	19.14	804	8.61	6.6						9-23-19 2:45	14.00	1473	8.66	3.1					
6-23-19 12:30	18.49	1091	7.46	1.0	6-23-19 7:15					6-23-19 7:15	19.06	805	8.61	5.0						9-23-19 3:00	13.98	1478	8.67	3.0					
6-23-19 12:45	18.46	1089	7.39	1.1	6-23-19 7:30					6-23-19 7:30	19.01	806	8.61	4.9						9-23-19 3:15	13.94	1482	8.67	0.7					
6-23-19 13:00	18.42	1091	7.35	1.2	6-23-19 7:45					6-23-19 7:45	18.95	801	8.61	4.3						9-23-19 3:30	13.90	1482	8.67	0.8					
6-23-19 13:15	18.37	1086	7.30	1.0	6-23-19 8:00					6-23-19 8:00	18.87	804	8.61	3.6						9-23-19 3:45	13.84	1466	8.67	0.6					
6-23-19 13:30	18.32	1088	7.29	1.1	6-23-19 8:15					6-23-19 8:15	18.81	806	8.61	4.2						9-23-19 4:00	13.77	1493	8.67	0.6					
6-23-19 13:45	18.35	1088	7.26	5.1	6-23-19 8:30					6-23-19 8:30	18.75	805	8.61	6.7						9-23-19 4:15	13.77	1488	8.69	4.2					
6-23-19 14:00	18.38	1090	7.36	1.1	6-23-19 8:45					6-23-19 8:45	18.66	803	8.61	5.2						9-23-19 4:30	13.74	1476	8.69	3.8					
6-23-19 14:15	18.39	1088	7.42	1.0	6-23-19 9:00					6-23-19 9:00	18.58	807	8.60	7.4						9-23-19 4:45	13.69	1476	8.68	3.3					
6-23-19 14:30	18.38	1090	7.50	0.9	6-23-19 9:15					6-23-19 9:15	18.56	807	8.61	5.1						9-23-19 5:00	13.68	1467	8.71	3.6					
6-23-19 14:45	18.37	1089	7.57	1.1	6-23-19 9:30					6-23-19 9:30	18.52	804	8.60	5.1						9-23-19 5:15	13.64	1482	8.71	1.8					
6-23-19 15:00	18.35	1090	7.57	1.2	6-23-19 9:45					6-23-19 9:45	18.47	805	8.61	5.2						9-23-19 5:30	13.63	1476	8.71	0.5					
6-23-19 15:15	18.32	1095	7.58	1.1	6-23-19 10:00					6-23-19 10:00	18.47	805	8.60	4.1						9-23-19 5:45	13.62	1474	8.71	0.6					
6-23-19 15:30	18.31	1088	7.56	1.1	6-23-19 10:15					6-23-19 10:15	18.42	805	8.60	4.5						9-23-19 6:00	13.61	1474	8.71	0.5					
6-23-19 15:45	18.31	1087	7.60	1.0	6-23-19 10:30					6-23-19 10:30	18.37	804	8.60	4.1						9-23-19 6:15	13.58	1479	8.72	3.6					
6-23-19 16:00	18.33	1089	7.68	1.0	6-23-19 10:45					6-23-19 10:45	18.32	818	8.60	4.4						9-23-19 6:30	13.54	1474	8.71	6.3					
6-23-19 16:15	18.37	1087	7.70	1.1	6-23-19 11:00					6-23-19 11:00	18.25	804	8.60	4.3						9-23-19 6:45	13.52	1477	8.71	4.1					
6-23-19 16:30	18.44	1090	7.75	1.1	6-23-19 11:15					6-23-19 11:15	18.23	803	8.60	4.1						9-23-19 7:00	13.50	1480	8.70	3.5					
6-23-19 16:45	18.47	1093	7.77	1.3	6-23-19 11:30					6-23-19 11:30	18.18	804	8.60	3.6						9-23-19 7:15	13.47	1480	8.69	0.9					
6-23-19 17:00	18.55	1094	7.75	1.0	6-23-19 11:45					6-23-19 11:45	18.08	804	8.61	4.4						9-23-19 7:30	13.42	1479	8.68	0.4					
6-23-19 17:15	18.63	1094	7.91	1.1	6-23-19 12:00	18.45	804	8.23	5.1	6-23-19 12:00	18.03	806	8.60	4.1						9-23-19 7:45	13.43	1478	8.67	0.8					
6-23-19 17:30	18.61	1083	7.95	1.3	6-23-19 12:15	18.36	809	7.29	5.5	6-23-19 12:15	17.97	806	8.60	4.2						9-23-19 8:00	13.40	1477	8.67	0.2					
6-23-19 17:45	18.68	1101	8.17	1.0	6-23-19 12:30	18.32	806	7.07	4.6	6-23-19 12:30	17.91	806	8.60	3.8						9-23-19 8:15	13.36	1475	8.67	2.4					
6-23-19 18:00	18.86	1101	8.07	1.2	6-23-19 12:45	18.54	809	7.21	8.2	6-23-19 12:45	17.87	805	8.60	3.2						9-23-19 8:30	13.33	1477	8.66	2.7					
6-23-19 18:15	18.90	1099	8.33	1.2	6-23-19 13:00	18.63	806	7.89	12.4	6-23-19 13:00	17.83	806	8.60	3.7						9-23-19 8:45	13.30	1520	8.67	2.8					
6-23-19 18:30	18.93	1098	8.42	1.1	6-23-19 13:15	18.50	778	8.67	140.2	6-23-19 13:15	17.80	806	8.60	4.5						9-23-19 9:00	13.27	1477	8.67	5.2					
6-23-19 18:45	19.12	1103	8.25	1.7	6-23-19 13:30	18.53	791	8.63	34.0	6-23-19 13:30	17.80	807	8.60	5.2						9-23-19 9:15	13.26	1479	8.67	0.9					
6-23-19 19:00	19.07	1100	8.60	22.2	6-23-19 13:45	18.51	789	7.40	81.8	6-23-19 13:45	17.82	807	8.60	4.4						9-23-19 9:30	13.24	1480	8.66	0.4					
6-23-19 19:15	19.09	1086	8.46	2.1	6-23-19 14:00	18.38	943	7.91	85.8	6-23-19 14:00	17.85	807	8.60	7.2						9-23-19 9:45	13.19	1510	8.66	0.4					
6-23-19 19:30	19.18	1096	8.54	1.2	6-23-19 14:15	18.12	1072	7.45	95.4	6-23-19 14:15	17.82	807	8.60	4.5						9-23-19 10:00	13.13	1476	8.65	0.3					
6-23-19 19:45	19.18	1091	8.60	1.6	6-23-19 14:30	18.26	990	7.42	79.7	6-23-19 14:30	17.80	807	8.60	3.9						9-23-19 10:15	13.08	1480	8.66	3.8					
6-23-19 20:00	19.15	1097	8.53	1.5	6-23-19 14:45	18.50	970	7.30	112.2	6-23-19 14:45	17.80	807	8.60	4.7						9-23-19 10:30	13.07	1478	8.66	2.3					
6-23-19 20:15	19.03	1091	8.52	1.8	6-23-19 15:00	18.71	928	7.20	58.8	6-23-19 15:00	17.77	807	8.60	3.7						9-23-19 10:45	13.04	1474	8.66	2.5					
6-23-19 20:30	18.98	1092	8.50	1.6	6-23-19 15:15	18.44	922	8.31	62.3	6-23-19 15:15	17.74	807	8.60	5.1						9-23-19 11:00	13.00	1477	8.66	2.0					
6-23-19 20:45	18.90	1090	8.49	3.1	6-23-19 15:30	18.53	921	8.06	57.4	6-23-19 15:30	17.73	808	8.60	3.8						9-23-19 11:15	12.96	1479	8.66	2.0					
6-23-19 21:00	18.77	1089	8.32	2.0	6-23-19 15:45	18.61	911	7.64	50.5	6-23-19 15:45	17.73	807	8.60	4.9						9-23-19 11:30	12.94	1478	8.66	1.0					
6-23-19 21:15	18.73	1087	8.26	2.0	6-23-19 16:00	18.69	927	7.16	44.9	6-23-19 16:00	17.73	809	8.60	4.1						9-23-19 11:45	12.94	1479	8.66	1.2					
6-23-19 21:30	18.77	1090	8.23	1.7	6-23-19 16:15	18.93	894	7.25	41.8	6-23-19 16:15	17.79	809	8.59	5.5						9-23-19 12:00	12.91	1481	8.66	1.7					
6-23-19 21:45	18.95	1094	8.24	1.9	6-23-19 16:30	18.69	943	7.54	28.4	6-23-19 16:30	17.85	808	8.60	4.3						9-23-19 12:15	12.84	1480	8.65	1.8					
6-23-19 22:00	19.04	1096	8.27	1.6	6-23-19 16:45	18.53	1028	8.30	44.6	6-23-19 16:45	17.94	809	8.60	5.1						9-23-19 12:30	12.76	1479	8.65	1.7					
6-23-19 22:15	19.05	1093	8.22	1.8	6-23-19 17:00	18.56	1027	8.37	38.9	6-23-19 17:00	18.12	809	8.59	4.4						9-23-19 12:45	12.71	1480	8.65	1.8					
6-23-19 22:30	19.15	1098	8.26	1.4	6-23-19 17:15	18.62	1044	8.37	28.5	6-23-19 17:15	18.14	809	8.59	4.2						9-23-19 13:00	12.69	1479	8.65	1.8					
6-23-19 22:45	19.29	1097	8.35	1.7	6-23-19 17:30	18.97	951	7.95	21.1	6-23-19 17:30	18.15	809	8.59	4.9						9-23-19 13:15	12.66	1478	8.65	2.7					
6-23-19 23:00	19.42	1101	8.49	1.3	6-23-19 17:45	18.91	1029	7.68	46.0	6-23-19 17:45	18.28	810	8.60	5.0						9-23-19 13:30	12.61	1478	8.65	0.8					
6-23-19 23:15	19.58	1106	8.52	6.0	6-23-19 18:00	18.88	1034	7.33	37.2	6-23-19 18:00	18.24	810	8.58	3.9						9-23-19 13:45	12.55	1478	8.64	1.5					
6-23-19 23:30	19.46	1111	8.77	1.4	6-23-19 18:15	18.82	1067	8.18	41.1	6-23-19 18:15	18.39	808	8.59	5.6						9-23-19 14:00	12.50	1479	8.64	1.2					
6-23-19 23:45	19.42	1109	8.75	1.6	6-23-19 18:30	19.02	977	8.16	35.3	6-23-19 18:30	18.81	809	8.58	4.3						9-23-19 14:15	12.54	1475	8.65	2.7					
6-24-19 0:00	19.43	1104	8.51	1.4	6-23-19 18:45	19.04	971	8.01	52.0	6-23-19 18:45	19.07	810	8.58	5.1						9-23-19 14:30	12.52	1489	8.64	2.5					
6-24-19 0:15	19.47	1100	8.50	1.5	6-23-19 19:00	19.05	965	7.64	36.9	6-23-19 19:00	19.12	807	8.60	5.3						9-23-19 14:45	12.46	1479	8.64	2.2					
6-24-19 0:30	19.50	1102	8.51	1.2	6-23-19 19:15	19.11	940	8.25	27.1	6-23-19 19:15	18.78	806	8.58	5.0						9-23-19 15:00	12.43	1478	8.64	2.2					
6-24-19 0:45	19.57	1101	8.55	1.5	6-23-19 19:30	19.03	967	7.12	39.4	6-23-19 19:30	18.65	807	8.58	5.0						9-23-19 15:15	12.39	1479	8.65	2.0					
6-24-19 1:00	19.48	1103	8.50	1.4	6-23-19 19:45	19.05	968	7.14	38.2	6-23-19 19:45	18.61	808	8.58	4.9						9-23-19 15:30	12.37	1477	8.65	1.3					
6-24-19 1:15	19.48	1103	8.51	1.4	6-23-19 20:00	19.04	978	6.95	30.3	6-23-19 20:00	18.60	808	8.58	5.0						9-23-19 15:45	12.39	1478	8.66	1.2					
6-24-19 1:30	19.45	1100	8.47	1.5	6-23-19 20:15	19.00	981	6.99	31.5	6-23-19 20:15	18.20	802	8.59	7.8						9-23-19 16:00	12.42	1477	8.66	1.4					
6-24-19 1:45	19.46	1102	8.46	2.2	6-23-19 20:30	18.98	973	7.01	32.1	6-23-19 20:30	18.37	791	8.59	12.3						9-23-19 16:15	12.45	1480	8.67	1.6					
6-24-19 2:00	19.43	1102	8.25	1.3	6-23-19 20:45	18.98	970	7.05	41.7	6-23-19 20:45	18.27	795	8.60	19.7						9-23-19 16:30	12.49	1478	8.69	1.6					
6-24-19 2:15	19.42	1100	8.32	1.4	6-23-19 21:00	18.96	977	7.04	49.9	6-23-19 21:00	18.14	798	8.60	19.4						9-23-19 16:45	12.55	1477	8.69	1.5					
6-24-19 2:30	19.41	1102	8.20	1.2	6-23-19 21:15	18.92	955	7.26	55.4	6-23-19 21:15	18.16	799	8.60	11.2						9-23-19 17:00	12.59	1475	8.71	1.5					
6-24-19 2:45	19.39	1100	8.13	1.3	6-23-19 21:30	18.89	953	7.04	67.0	6-23-19 21:30	18.26	797	8.60	20.6						9-23-19 17:15	12.62	1481	8.75	5.3					
6-24-19 3:00	19.40	1100	8.09	1.5	6-23-19 21:45	18.87	949	6.98	313.2	6-23-19 21:45	18.49	794	8.60	21.3						9-23-19 17:30	12.67	1464	8.76	2.2					
6-24-19 3:15	19.38	1074	8.09	1.5	6-23-19 22:00	18.83	944	6.97	30.2	6-23-19 22:00	18.75	800	8.59	23.1						9-23-19 18:00	12.67	1464	8.19	3.3					
6-24-19 3:30	19.37	1097	8.24	3.1	6-23-19 22:15	18.81	945	6.99	29.0	6-23-19 22:15	18.81	804	8.59	22.2						9-23-19 18:15	12.67	1484	7.61	2.3					
6-24-19 3:45	19.37	1097	8.31	1.6	6-23-19 22:30	18.79	948	6.91	32.6	6-23-19 22:30	18.93	805	8.58	21.2						9-23-19 18:30	12.67	1482	7.57	2.2					
6-24-19 4:00	19.38	1101	8.30	12.0	6-23-19 22:45	18.76	950	6.96	32.6	6-23-19 22:45	18.98	806	8.58	26.5						9-23-19 18:45	12.74	1485	7.90	9.4					
6-24-19 4:15	19.38	1102	8.29	1.2	6-23-19 23:00	18.73	948	6.89	34.6	6-23-19 23:00	19.13	805	8.58	23.6						9-23-19 19:00	12.74	1482	7.62	3.2					
6-24-19 4:30	19.38	1092	8.26	1.4	6-23-19 23:15	18.71	957	6.88	21.9	6-23-19 23:15	19.23	809	8.57	23.9						9-23-19 19:15	12.76	1486	7.37	10.2					
6-24-19 4:45	19.35	1099	8.29	2.7	6-23-19 23:30	18.69	959	6.88	21.6	6-23-19 23:30	19.16	806	8.58	21.1						9-23-19 19:30	12.79	1494	7.39	7.1					
6-24-19 5:00	19.32	1099	8.08	18.5	6-23-19 23:45	18.66	973	6.89	36.1	6-23-19 23:45	19.12	806	8.58	21.7						9-23-19 19:45	12.82	1485	7.37	5.3					
6-24-19 5:15	19.34	1102	8.08	2.4	6-24-19 0:00	18.63	983	6.88	35.6	6-24-19 0:00	19.10	805	8.59	20.5						9-23-19 20:00	12.85	1481	7.57	12.3					
6-24-19 5:30	19.31	1102	7.93	1.3	6-24-19 0:15	18.61	998	6.91	39.4	6-24-19 0:15	19.14	806	8.59	22.6						9-23-19 20:15	12.88	1483	7.55	4.4					
6-24-19 5:45	19.27	1097	7.87	4.1	6-24-19 0:30	18.59	1020	6.91	40.1	6-24-19 0:30	19.05	804	8.59	20.4						9-23-19 20:30	12.89	1480	7.60	3.2					
6-24-19 6:00	19.23	1097	7.91	1.3	6-24-19 0:45	18.52	1013	6.93	22.3	6-24-19 0:45	19.18	788	8.59	20.5						9-23-19 20:45	12.94	1479	7.72	3.6					
6-24-19 6:15	19.20	1096	7.91	2.4	6-24-19 1:00	18.42	1005	6.97	16.4	6-24-19 1:00	19.15	806	8.59	20.4						9-23-19 21:00	12.99	1477	7.55	3.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-24-19 6:30	19.17	1097	7.82	1.2	6-24-19 1:15	18.38	1002	6.92	24.4	6-24-19 1:15	19.18	802	8.59	22.8						9-23-19 21:15	13.07	1485	7.54	4.6					
6-24-19 6:45	19.13	1111	7.73	2.8	6-24-19 1:30	18.40	1033	6.92	12.5	6-24-19 1:30	19.18	804	8.59	19.9						9-23-19 21:30	13.25	1477	7.53	4.1					
6-24-19 7:00	19.10	1104	7.62	1.2	6-24-19 1:45	18.39	1029	6.96	52.8	6-24-19 1:45	19.16	804	8.59	21.6						9-23-19 21:45	13.31	1478	7.43	4.5					
6-24-19 7:15	19.07	1092	7.64	1.4	6-24-19 2:00	18.34	1021	6.95	44.2	6-24-19 2:00	19.08	804	8.59	19.9						9-23-19 22:00	13.28	1476	7.39	4.7					
6-24-19 7:30	19.02	1093	7.70	1.3	6-24-19 2:15	18.33	1022	6.91	36.4	6-24-19 2:15	19.08	804	8.59	22.6						9-23-19 22:15	13.26	1473	7.34	4.3					
6-24-19 7:45	18.99	1089	7.74	6.8	6-24-19 2:30	18.29	1036	6.95	35.1	6-24-19 2:30	19.06	803	8.60	18.3						9-23-19 22:30	13.26	1478	7.24	4.1					
6-24-19 8:00	18.92	1088	7.75	12.7	6-24-19 2:45	18.23	1032	7.00	12.0	6-24-19 2:45	19.04	804	8.60	21.0						9-23-19 22:45	13.27	1484	7.24	4.4					
6-24-19 8:15	18.93	1085	7.77	3.3	6-24-19 3:00	18.14	1021	7.22	10.1	6-24-19 3:00	19.02	804	8.59	23.6						9-23-19 23:00	13.30	1475	7.25	3.2					
6-24-19 8:30	18.91	1086	7.76	5.6	6-24-19 3:15	18.17	1074	6.96	11.2	6-24-19 3:15	19.00	804	8.60	18.6						9-23-19 23:15	13.31	1480	7.44	9.9					
6-24-19 8:45	18.90	1086	7.76	1.3	6-24-19 3:30	18.13	1056	7.14	11.3	6-24-19 3:30	18.97	802	8.60	17.4						9-23-19 23:30	13.26	1482	7.46	6.7					
6-24-19 9:00	18.87	1085	7.88	2.2	6-24-19 3:45	18.06	1033	7.18	68.6	6-24-19 3:45	18.95	799	8.59	18.7						9-23-19 23:45	13.21	1479	7.33	4.2					
6-24-19 9:15	18.83	1085	7.71	1.2	6-24-19 4:00	18.04	1064	6.95	57.3	6-24-19 4:00	18.93	805	8.60	15.8						9-24-19 0:00	13.19	1479	7.43	5.4					
6-24-19 9:30	18.80	1082	7.79	1.7	6-24-19 4:15	18.03	1044	7.04	53.3	6-24-19 4:15	18.91	799	8.60	18.3						9-24-19 0:15	13.18	1476	7.33	5.1					
6-24-19 9:45	18.77	1082	7.77	1.5	6-24-19 4:30	18.03	1098	6.89	58.8	6-24-19 4:30	18.86	802	8.60	14.3						9-24-19 0:30	13.17	1473	7.50	3.2					
6-24-19 10:00	18.73	1080	7.93	1.2	6-24-19 4:45	18.04	1156	6.96	26.3	6-24-19 4:45	18.83	813	8.60	17.4						9-24-19 0:45	13.12	1471	7.70	2.5					
6-24-19 10:15	18.70	1080	7.97	1.5	6-24-19 5:00	17.98	1141	6.99	24.3	6-24-19 5:00	18.81	796	8.60	14.8						9-24-19 1:00	13.08	1475	7.34	2.9					
6-24-19 10:30	18.65	1079	8.10	1.7	6-24-19 5:15	17.93	1147	7.05	25.4	6-24-19 5:15	18.78	795	8.60	16.7						9-24-19 1:15	13.04	1474	8.10	4.5					
6-24-19 10:45	18.62	1077	8.20	1.6	6-24-19 5:30	17.89	1142	6.99	22.3	6-24-19 5:30	18.73	804	8.60	14.7						9-24-19 1:30	13.02	1473	8.00	9.5					
6-24-19 11:00	18.59	1076	8.30	1.1	6-24-19 5:45	17.84	1144	6.98	58.6	6-24-19 5:45	18.70	804	8.60	14.6						9-24-19 1:45	12.94	1471	8.05	5.8					
6-24-19 11:15	18.55	1075	8.19	2.1	6-24-19 6:00	17.80	1099	7.09	45.7	6-24-19 6:00	18.66	809	8.60	14.1						9-24-19 2:00	12.92	1470	7.43	12.1					
6-24-19 11:30	18.54	1078	8.13	1.1	6-24-19 6:15	17.81	1129	6.98	45.7	6-24-19 6:15	18.65	773	8.60	15.2						9-24-19 2:15	12.88	1476	7.62	6.1					
6-24-19 11:45	18.52	1075	8.00	1.3	6-24-19 6:30	17.82	1153	7.00	45.5	6-24-19 6:30	18.61	804	8.60	14.9						9-24-19 2:30	12.87	1473	7.83	3.6					
6-24-19 12:00	18.50	1075	8.00	2.7	6-24-19 6:45	17.80	1157	6.94	26.2	6-24-19 6:45	18.58	792	8.59	15.9						9-24-19 2:45	12.83	1469	8.32	3.0					
6-24-19 12:15	18.45	1074	7.98	1.1	6-24-19 7:00	17.71	1108	7.44	21.5	6-24-19 7:00	18.54	802	8.59	13.5						9-24-19 3:00	12.80	1472	7.67	2.6					
6-24-19 12:30	18.42	1074	7.86	1.3	6-24-19 7:15	17.67	1095	7.47	18.3	6-24-19 7:15	18.49	802	8.60	16.1						9-24-19 3:15	12.75	1485	7.24	50.4					
6-24-19 12:45	18.40	1074	7.85	1.3	6-24-19 7:30	17.65	1109	7.53	31.2	6-24-19 7:30	18.45	801	8.60	15.2						9-24-19 3:30	12.72	1476	7.27	7.3					
6-24-19 13:00	18.36	1072	7.86	1.1	6-24-19 7:45	17.65	1117	7.49	52.6	6-24-19 7:45	18.42	803	8.60	17.6						9-24-19 3:45	12.69	1473	7.46	5.6					
6-24-19 13:15	18.33	1070	7.79	1.2	6-24-19 8:00	17.58	1100	7.70	33.3	6-24-19 8:00	18.37	806	8.60	13.9						9-24-19 4:00	12.65	1473	7.54	11.5					
6-24-19 13:30	18.30	1060	7.77	1.5	6-24-19 8:15	17.59	1100	7.76	34.6	6-24-19 8:15	18.30	802	8.60	18.1						9-24-19 4:15	12.64	1476	7.35	3.2					
6-24-19 13:45	18.26	1067	7.67	1.1	6-24-19 8:30	17.60	1109	7.84	38.2	6-24-19 8:30	18.28	802	8.60	14.6						9-24-19 4:30	12.63	1470	7.40	3.3					
6-24-19 14:00	18.23	1067	7.75	1.6	6-24-19 8:45	17.61	1117	7.84	33.8	6-24-19 8:45	18.25	801	8.60	16.4						9-24-19 4:45	12.63	1473	7.36	2.2					
6-24-19 14:15	18.20	1065	7.74	1.9	6-24-19 9:00	17.69	1166	7.90	24.8	6-24-19 9:00	18.23	801	8.60	18.6						9-24-19 5:00	12.59	1472	7.31	3.5					
6-24-19 14:30	18.21	1064	7.84	1.4	6-24-19 9:15	17.63	1153	7.90	27.3	6-24-19 9:15	18.21	801	8.60	16.5						9-24-19 5:15	12.58	1477	7.30	31.2					
6-24-19 14:45	18.19	1063	7.92	2.3	6-24-19 9:30	17.75	1213	7.89	29.6	6-24-19 9:30	18.17	804	8.60	23.4						9-24-19 5:30	12.54	1476	7.31	4.6					
6-24-19 15:00	18.18	1064	8.00	1.4	6-24-19 9:45	17.71	1270	7.92	37.8	6-24-19 9:45	18.13	801	8.60	16.0						9-24-19 5:45	12.51	1475	7.18	13.4					
6-24-19 15:15	18.14	1064	7.96	1.4	6-24-19 10:00	17.54	1215	8.03	32.2	6-24-19 10:00	18.09	802	8.60	16.3						9-24-19 6:00	12.48	1474	7.15	15.2					
6-24-19 15:30	18.12	1057	8.01	1.3	6-24-19 10:15	17.36	1133	8.06	36.5	6-24-19 10:15	18.07	801	8.60	15.4						9-24-19 6:15	12.44	1478	7.13	3.1					
6-24-19 15:45	18.08	1061	8.19	1.3	6-24-19 10:30	17.19	1055	8.13	30.5	6-24-19 10:30	18.04	801	8.59	14.5						9-24-19 6:30	12.41	1472	7.16	2.8					
6-24-19 16:00	18.04	1061	8.23	1.5	6-24-19 10:45	17.24	1060	8.14	25.8	6-24-19 10:45	18.01	801	8.60	15.1						9-24-19 6:45	12.35	1475	7.09	2.7					
6-24-19 16:15	18.02	1058	8.51	1.3	6-24-19 11:00	17.37	1107	8.07	20.6	6-24-19 11:00	17.97	802	8.60	16.4						9-24-19 7:00	12.33	1474	7.18	2.8					
6-24-19 16:30	17.99	1058	8.35	1.2	6-24-19 11:15	17.42	1093	8.09	20.3	6-24-19 11:15	17.93	795	8.60	16.6						9-24-19 7:15	12.33	1483	7.24	14.2					
6-24-19 16:45	17.98	1057	8.37	1.3	6-24-19 11:30	17.50	1169	8.01	23.4	6-24-19 11:30	17.90	803	8.59	16.7						9-24-19 7:30	12.30	1474	7.25	3.6					
6-24-19 17:00	17.95	1055	8.42	1.1	6-24-19 11:45	17.50	1254	8.01	30.7	6-24-19 11:45	17.86	803	8.60	18.1						9-24-19 7:45	12.28	1472	7.28	7.7					
6-24-19 17:15	17.85	1046	8.43	6.7	6-24-19 12:00	17.18	1232	8.05	41.9	6-24-19 12:00	17.84	803	8.59	17.6						9-24-19 8:00	12.25	1475	7.28	8.9					
6-24-19 17:30	17.86	1051	8.44	3.0	6-24-19 12:15	17.28	1265	8.01	39.2	6-24-19 12:15	17.81	805	8.59	20.2						9-24-19 8:15	12.20	1476	7.22	3.3					
6-24-19 17:45	17.85	1049	8.47	2.8	6-24-19 12:30	17.28	1245	8.02	63.3	6-24-19 12:30	17.78	800	8.59	17.5						9-24-19 8:30	12.17	1475	7.23	3.5					
6-24-19 18:00	17.84	1049	8.51	2.4	6-24-19 12:45	17.27	1208	8.06	55.5	6-24-19 12:45	17.75	805	8.59	21.6						9-24-19 8:45	12.15	1476	7.21	3.1					
6-24-19 18:15	17.83	1047	8.55	3.2	6-24-19 13:00	17.24	1174	8.10	43.2	6-24-19 13:00	17.74	805	8.59	17.8						9-24-19 9:00	12.11	1491	7.17	4.1					
6-24-19 18:30	17.83	1047	8.52	1.6	6-24-19 13:15	17.26	1155	8.10	54.5	6-24-19 13:15	17.70	805	8.59	22.6						9-24-19 9:15	12.07	1475	7.12	9.2					
6-24-19 18:45	17.83	1047	8.54	2.3	6-24-19 13:30	17.21	1190	8.09	53.6	6-24-19 13:30	17.68	804	8.58	21.1						9-24-19 9:30	12.05	1477	7.11	4.5					
6-24-19 19:00	17.83	1046	8.53	1.7	6-24-19 13:45	17.10	1225	8.06	73.4	6-24-19 13:45	17.66	805	8.59	23.8						9-24-19 9:45	12.01	1476	7.05	5.9					
6-24-19 19:15	17.81	1042	8.54	2.1	6-24-19 14:00	16.98	1213	8.08	76.2	6-24-19 14:00	17.63	803	8.59	22.4						9-24-19 10:00	11.98	1475	7.02	9.2					
6-24-19 19:30	17.81	1042	8.56	1.9	6-24-19 14:15	16.94	1212	8.08	78.8	6-24-19 14:15	17.62	812	8.58	31.2						9-24-19 10:15	11.95	1480	6.99	2.9					
6-24-19 19:45	17.81	1041	8.58	2.1	6-24-19 14:30	16.89	1230	8.07	75.9	6-24-19 14:30	17.59	804	8.58	20.2						9-24-19 10:30	11.92	1478	6.97	2.4					
6-24-19 20:00	17.81	1041	8.58	1.9	6-24-19 14:45	16.98	1217	8.06	69.4	6-24-19 14:45	17.58	818	8.59	22.8						9-24-19 10:45	11.88	1478	6.97	2.6					
6-24-19 20:15	17.81	1039	8.58	3.3	6-24-19 15:00	17.03	1200	8.05	52.3	6-24-19 15:00	17.56	803	8.58	20.1						9-24-19 11:00	11.87	1478	7.01	2.2					
6-24-19 20:30	17.82	1039	8.60	3.3	6-24-19 15:15	17.01	1217	8.04	57.4	6-24-19 15:15	17.55	795	8.59	20.9						9-24-19 11:15	11.84	1478	7.04	30.7					
6-24-19 20:45	17.79	1034	8.63	4.1	6-24-19 15:30	17.13	1191	8.06	48.0	6-24-19 15:30	17.54	799	8.58	20.7						9-24-19 11:30	11.81	1480	7.04	8.4					
6-24-19 21:00	17.77	1031	8.67	5.5	6-24-19 15:45	17.13	1210	8.06	71.1	6-24-19 15:45	17.50	798	8.59	25.0						9-24-19 11:45	11.77	1481	7.04	4.2					
6-24-19 21:15	17.73	1028	8.68	6.9	6-24-19 16:00	17.11	1215	8.06	61.4	6-24-19 16:00	17.48	797	8.58	22.2						9-24-19 12:00	11.75	1480	7.05	19.8					
6-24-19 21:30	17.72	1026	8.68	6.2	6-24-19 16:15	17.08	1224	8.04	60.2	6-24-19 16:15	17.47	797	8.59	24.0						9-24-19 12:15	11.73	1478	7.06	3.2					
6-24-19 21:45	17.69	1023	8.69	9.8	6-24-19 16:30	17.04	1225	8.03	87.8	6-24-19 16:30	17.41	796	8.59	19.3						9-24-19 12:30	11.70	1477	7.06	2.9					
6-24-19 22:00	17.69	1030	8.71	8.0	6-24-19 16:45	17.05	1238	8.03	67.4	6-24-19 16:45	17.40	796	8.58	25.0						9-24-19 12:45	11.66	1478	7.04	2.5					
6-24-19 22:15	17.69	1018	8.71	7.8	6-24-19 17:00	17.06	1221	8.04	45.8	6-24-19 17:00	17.37	792	8.58	19.9						9-24-19 13:00	11.63	1478	7.03	2.4					
6-24-19 22:30	17.70	1019	8.73	7.2	6-24-19 17:15	17.11	1216	8.01	40.3	6-24-19 17:15	17.38	796	8.59	23.4						9-24-19 13:15	11.57	1482	6.98	47.0					
6-24-19 22:45	17.70	1018	8.73	7.4	6-24-19 17:30	17.09	1225	8.04	48.6	6-24-19 17:30	17.36	797	8.58	21.6						9-24-19 13:30	11.52	1482	6.95	11.9					
6-24-19 23:00	17.70	1018	8.73	7.2	6-24-19 17:45	17.05	1237	8.03	63.2	6-24-19 17:45	17.35	797	8.58	22.8						9-24-19 13:45	11.50	1551	6.98	12.7					
6-24-19 23:15	17.71	1016	8.73	8.0	6-24-19 18:00	17.06	1237	8.03	63.5	6-24-19 18:00	17.36	794	8.58	17.2						9-24-19 14:00	11.45	1477	7.01	10.0					
6-24-19 23:30	17.74	1016	8.74	10.0	6-24-19 18:15	17.04	1250	8.02	65.0	6-24-19 18:15	17.34	797	8.59	21.2						9-24-19 14:15	11.42	1480	7.08	2.3					
6-24-19 23:45	17.81	1016	8.74	10.2	6-24-19 18:30	17.10	1250	8.03	60.7	6-24-19 18:30	17.34	795	8.58	18.5						9-24-19 14:30	11.40	1478	7.14	2.4					
6-25-19 0:00	17.79	1013	8.74	12.1	6-24-19 18:45	17.10	1258	8.02	59.9	6-24-19 18:45	17.33	794	8.59	20.6						9-24-19 14:45	11.35	1478	7.13	2.5					
6-25-19 0:15	17.83	1012	8.74	14.4	6-24-19 18:15	17.04	1250	8.02	65.0	6-24-19 19:00	17.34	795	8.58	21.9						9-24-19 15:00	11.34	1477	7.17	2.1					
6-25-19 0:30	17.86	1014	8.76	10.3	6-24-19 18:30	17.10	1250	8.03	60.7	6-24-19 19:15	17.34	794	8.59	25.6						9-24-19 15:15	11.34	1479	7.20	16.8					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-25-19 0:45	17.88	1012	8.77	11.3	6-24-19 18:45	17.10	1258	8.02	59.9	6-24-19 19:30	17.37	798	8.58	24.7						9-24-19 15:30	11.37	1480	7.18	9.1					
6-25-19 1:00	17.90	1010	8.78	11.4	6-24-19 19:00	17.24	1218	8.06	47.1	6-24-19 19:45	17.38	786	8.58	26.6						9-24-19 15:45	11.37	1480	7.12	5.5					
6-25-19 1:15	17.89	1009	8.78	11.6	6-24-19 19:15	17.30	1199	8.08	38.9	6-24-19 20:00	17.39	791	8.58	21.8						9-24-19 16:00	11.39	1481	7.05	3.1					
6-25-19 1:30	17.89	1006	8.79	11.0	6-24-19 19:30	17.23	1226	7.44	40.8	6-24-19 20:15	17.42	800	8.58	25.3						9-24-19 16:15	11.42	1479	7.03	2.0					
6-25-19 1:45	17.85	1004	8.79	13.0	6-24-19 19:45	17.17	1268	7.95	50.2	6-24-19 20:30	17.41	798	8.58	23.7						9-24-19 16:30	11.43	1476	7.02	2.1					
6-25-19 2:00	17.83	1002	8.78	12.1	6-24-19 20:00	17.09	1275	7.84	54.3	6-24-19 20:45	17.44	799	8.59	26.4						9-24-19 16:45	11.45	1477	7.02	1.9					
6-25-19 2:15	17.80	999	8.78	14.2	6-24-19 20:15	17.17	1254	7.22	38.9	6-24-19 21:00	17.45	800	8.58	21.2						9-24-19 17:00	11.47	1476	7.05	1.8					
6-25-19 2:30	17.79	1001	8.78	13.2	6-24-19 20:30	17.23	1238	7.25	40.2	6-24-19 21:15	17.43	798	8.59	26.6						9-24-19 17:15	11.51	1478	7.04	15.2					
6-25-19 2:45	17.78	995	8.77	18.0	6-24-19 20:45	17.18	1243	7.16	38.6	6-24-19 21:30	17.42	798	8.59	25.9						9-24-19 17:30	11.54	1480	7.07	6.4					
6-25-19 3:00	17.76	992	8.76	17.0	6-24-19 21:00	17.18	1233	7.24	39.0	6-24-19 21:45	17.41	799	8.59	27.8						9-24-19 17:45	11.55	1479	7.12	9.1					
6-25-19 3:15	17.75	994	8.74	19.1	6-24-19 21:15	17.15	1250	7.23	39.1	6-24-19 22:00	17.42	800	8.58	24.5						9-24-19 18:00	11.56	1478	7.22	6.9					
6-25-19 3:30	17.73	993	8.70	16.1	6-24-19 21:30	17.14	1235	7.28	37.1	6-24-19 22:15	17.42	800	8.59	29.2						9-24-19 18:15	11.58	1478	7.30	2.0					
6-25-19 3:45	17.72	992	8.66	18.3	6-24-19 21:45	17.13	1232	7.23	36.5	6-24-19 22:30	17.42	801	8.59	26.5						9-24-19 18:30	11.63	1473	7.26	1.8					
6-25-19 4:00	17.70	992	8.62	15.1	6-24-19 22:00	17.11	1234	7.24	38.1	6-24-19 22:45	17.42	802	8.59	31.5						9-24-19 18:45	11.64	1474	7.29	1.9					
6-25-19 4:15	17.69	991	8.57	18.2	6-24-19 22:15	17.10	1229	7.26	35.0	6-24-19 23:00	17.44	802	8.59	27.2						9-24-19 19:00	11.68	1473	7.27	2.2					
6-25-19 4:30	17.67	991	8.53	15.2	6-24-19 22:30	17.11	1222	7.21	33.8	6-24-19 23:15	17.47	802	8.59	30.5						9-24-19 19:15	11.71	1477	7.25	11.4					
6-25-19 4:45	17.64	990	8.40	19.4	6-24-19 22:45	17.11	1217	7.24	31.5	6-24-19 23:30	17.53	802	8.59	27.8						9-24-19 19:30	11.74	1477	7.18	5.2					
6-25-19 5:00	17.61	988	8.29	17.1	6-24-19 23:00	17.10	1220	7.24	34.3	6-24-19 23:45	17.62	802	8.59	33.5						9-24-19 19:45	11.94	1479	7.27	3.8					
6-25-19 5:15	17.58	988	8.29	20.1	6-24-19 23:15	17.09	1222	7.19	33.6	6-25-19 0:00	17.67	803	8.58	31.9						9-24-19 20:00	12.22	1475	7.58	6.9					
6-25-19 5:30	17.56	987	8.33	16.3	6-24-19 23:30	17.06	1218	7.16	31.7	6-25-19 0:15	17.70	803	8.59	34.2						9-24-19 20:15	12.14	1472	7.36	6.8					
6-25-19 5:45	17.53	984	8.12	21.6	6-24-19 23:45	17.05	1220	7.09	32.1	6-25-19 0:30	17.74	803	8.58	31.0						9-24-19 20:30	12.13	1471	7.27	3.8					
6-25-19 6:00	17.51	984	8.09	17.8	6-25-19 0:00	17.02	1222	7.15	29.9	6-25-19 0:45	17.80	805	8.59	35.5						9-24-19 20:45	12.08	1469	7.22	3.0					
6-25-19 6:15	17.48	980	7.96	24.0	6-25-19 0:15	16.99	1226	7.13	31.0	6-25-19 1:00	17.86	805	8.59	30.6						9-24-19 21:00	12.10	1468	7.27	3.5					
6-25-19 6:30	17.46	978	7.89	18.4	6-25-19 0:30	16.93	1238	7.01	30.4	6-25-19 1:15	17.79	805	8.58	33.7						9-24-19 21:15	12.11	1472	7.29	5.3					
6-25-19 6:45	17.43	978	7.94	21.5	6-25-19 0:45	16.91	1252	6.97	33.5	6-25-19 1:30	17.77	805	8.59	30.1						9-24-19 21:30	12.10	1473	7.21	3.8					
6-25-19 7:00	17.40	974	7.87	26.3	6-25-19 1:00	16.91	1272	6.98	34.0	6-25-19 1:45	17.75	805	8.59	32.9						9-24-19 21:45	12.08	1470	7.24	2.7					
6-25-19 7:15	17.36	972	7.75	24.0	6-25-19 1:15	16.89	1269	7.08	34.9	6-25-19 2:00	17.72	803	8.59	26.8						9-24-19 22:00	12.09	1471	7.23	2.7					
6-25-19 7:30	17.34	971	7.70	24.9	6-25-19 1:30	16.90	1257	7.21	29.9	6-25-19 2:15	17.71	803	8.59	31.8						9-24-19 22:15	12.10	1477	7.18	3.5					
6-25-19 7:45	17.31	971	7.74	21.7	6-25-19 1:45	16.86	1245	7.20	31.3	6-25-19 2:30	17.71	804	8.59	27.0						9-24-19 22:30	12.12	1470	7.22	3.5					
6-25-19 8:00	17.28	969	7.74	17.2	6-25-19 2:00	16.84	1240	7.12	33.9	6-25-19 2:45	17.69	805	8.60	30.5						9-24-19 22:45	12.12	1471	7.22	3.4					
6-25-19 8:15	17.26	968	7.73	21.1	6-25-19 2:15	16.83	1254	7.09	32.9	6-25-19 3:00	17.69	805	8.59	28.6						9-24-19 23:00	12.13	1471	7.19	2.8					
6-25-19 8:30	17.23	967	7.68	18.7	6-25-19 2:30	16.81	1263	7.10	29.3	6-25-19 3:15	17.66	805	8.60	34.9						9-24-19 23:15	12.14	1473	7.16	3.7					
6-25-19 8:45	17.21	964	7.65	23.0	6-25-19 2:45	16.80	1276	7.11	30.7	6-25-19 3:30	17.64	806	8.59	29.3						9-24-19 23:30	12.15	1472	7.13	3.0					
6-25-19 9:00	17.18	963	7.64	21.1	6-25-19 3:00	16.75	1273	7.08	29.6	6-25-19 3:45	17.61	807	8.60	33.3						9-24-19 23:45	12.15	1467	7.07	2.6					
6-25-19 9:15	17.14	959	7.67	25.6	6-25-19 3:15	16.72	1259	7.20	29.5	6-25-19 4:00	17.56	808	8.60	29.5						9-25-19 0:00	12.15	1467	7.07	2.8					
6-25-19 9:30	17.10	957	7.66	22.5	6-25-19 3:30	16.69	1238	7.27	27.7	6-25-19 4:15	17.54	808	8.60	36.1						9-25-19 0:15	12.16	1472	7.07	2.6					
6-25-19 9:45	17.04	955	7.63	26.3	6-25-19 3:45	16.68	1234	7.13	26.5	6-25-19 4:30	17.51	809	8.60	29.3						9-25-19 0:30	12.15	1468	7.09	3.2					
6-25-19 10:00	17.02	954	7.59	25.2	6-25-19 4:00	16.67	1230	7.11	26.4	6-25-19 4:45	17.47	809	8.60	34.3						9-25-19 0:45	12.14	1467	7.06	2.6					
6-25-19 10:15	16.99	952	7.61	26.8	6-25-19 4:15	16.66	1227	7.06	24.7	6-25-19 5:00	17.44	809	8.60	30.2						9-25-19 1:00	12.13	1466	7.10	2.3					
6-25-19 10:30	16.97	953	7.46	21.3	6-25-19 4:30	16.66	1238	7.00	23.0	6-25-19 5:15	17.41	810	8.60	39.5						9-25-19 1:15	12.12	1468	7.08	3.9					
6-25-19 10:45	16.93	951	7.46	23.1	6-25-19 4:45	16.66	1246	6.99	26.1	6-25-19 5:30	17.38	810	8.60	31.8						9-25-19 1:30	12.11	1471	7.12	2.9					
6-25-19 11:00	16.93	952	7.46	22.4	6-25-19 5:00	16.65	1257	6.96	26.5	6-25-19 5:45	17.36	810	8.61	34.1						9-25-19 1:45	12.09	1469	7.17	3.0					
6-25-19 11:15	16.90	950	7.46	24.1	6-25-19 5:15	16.65	1265	6.98	26.4	6-25-19 6:00	17.34	810	8.60	30.8						9-25-19 2:00	12.08	1470	7.20	4.0					
6-25-19 11:30	16.88	949	7.49	21.0	6-25-19 5:30	16.64	1271	6.97	26.4	6-25-19 6:15	17.33	810	8.61	36.3						9-25-19 2:15	12.05	1466	7.18	3.3					
6-25-19 11:45	16.85	947	7.39	23.3	6-25-19 5:45	16.66	1296	6.97	25.9	6-25-19 6:30	17.31	810	8.60	34.6						9-25-19 2:30	12.03	1464	7.16	2.3					
6-25-19 12:00	16.84	947	7.42	21.2	6-25-19 6:00	16.64	1283	6.96	30.8	6-25-19 6:45	17.28	811	8.61	38.3						9-25-19 2:45	12.00	1461	7.14	2.6					
6-25-19 12:15	16.82	947	7.41	20.7	6-25-19 6:15	16.61	1288	7.02	26.6	6-25-19 7:00	17.24	811	8.60	32.4						9-25-19 3:00	11.98	1475	7.09	2.7					
6-25-19 12:30	16.81	947	7.39	19.8	6-25-19 6:30	16.58	1276	6.98	28.0	6-25-19 7:15	17.23	812	8.61	39.5						9-25-19 3:15	11.98	1477	7.08	3.2					
6-25-19 12:45	16.77	946	7.39	20.3	6-25-19 6:45	16.57	1269	6.99	26.9	6-25-19 7:30	17.19	813	8.60	36.5						9-25-19 3:30	11.96	1470	7.02	2.6					
6-25-19 13:00	16.75	945	7.37	20.0	6-25-19 7:00	16.58	1287	6.98	25.4	6-25-19 7:45	17.16	813	8.60	39.0						9-25-19 3:45	11.94	1470	7.01	2.6					
6-25-19 13:15	16.73	944	7.36	20.1	6-25-19 7:15	16.56	1281	6.97	25.8	6-25-19 8:00	17.14	813	8.60	34.3						9-25-19 4:00	11.90	1468	6.99	3.1					
6-25-19 13:30	16.72	945	7.32	17.2	6-25-19 7:30	16.55	1283	6.97	26.3	6-25-19 8:15	17.11	813	8.61	37.6						9-25-19 4:15	11.87	1462	7.03	3.1					
6-25-19 13:45	16.71	946	7.33	21.6	6-25-19 7:45	16.52	1260	7.25	21.8	6-25-19 8:30	17.06	812	8.60	37.8						9-25-19 4:30	11.85	1463	7.03	3.1					
6-25-19 14:00	16.68	945	7.33	13.7	6-25-19 8:00	16.54	1247	7.37	24.5	6-25-19 8:45	17.06	812	8.61	41.5						9-25-19 4:45	11.83	1460	7.08	2.0					
6-25-19 14:15	16.67	944	7.31	16.8	6-25-19 8:15	16.56	1246	7.44	21.2	6-25-19 9:00	17.02	812	8.61	34.3						9-25-19 5:00	11.82	1465	7.13	3.2					
6-25-19 14:30	16.69	945	7.29	16.5	6-25-19 8:30	16.56	1246	7.49	21.5	6-25-19 9:15	16.98	812	8.61	43.5						9-25-19 5:15	11.81	1474	7.14	3.6					
6-25-19 14:45	16.68	945	7.30	15.6	6-25-19 8:45	16.59	1247	7.41	18.1	6-25-19 9:30	16.97	813	8.61	35.1						9-25-19 5:30	11.77	1469	7.10	3.1					
6-25-19 15:00	16.67	944	7.29	14.8	6-25-19 9:00	16.60	1253	7.50	22.9	6-25-19 9:45	16.95	813	8.61	39.9						9-25-19 5:45	11.75	1473	7.13	2.5					
6-25-19 15:15	16.66	943	7.29	16.8	6-25-19 9:15	16.63	1258	7.58	19.3	6-25-19 10:00	16.92	814	8.61	41.7						9-25-19 6:00	11.72	1469	7.06	2.9					
6-25-19 15:30	16.66	942	7.23	15.4	6-25-19 9:30	16.68	1268	7.52	18.6	6-25-19 10:15	16.89	814	8.61	47.4						9-25-19 6:15	11.69	1469	7.01	2.4					
6-25-19 15:45	16.68	943	7.28	19.8	6-25-19 9:45	16.66	1254	7.57	20.7	6-25-19 10:30	16.84	815	8.60	42.2						9-25-19 6:30	11.68	1466	7.03	2.3					
6-25-19 16:00	16.70	944	7.29	12.0	6-25-19 10:00	16.64	1245	7.75	22.9	6-25-19 10:45	16.82	816	8.61	48.5						9-25-19 6:45	11.65	1465	6.99	2.0					
6-25-19 16:15	16.73	944	7.28	13.9	6-25-19 10:15	16.68	1245	7.87	21.4	6-25-19 11:00	16.81	817	8.61	42.9						9-25-19 7:00	11.64	1466	7.00	1.8					
6-25-19 16:30	16.76	945	7.28	12.6	6-25-19 10:30	16.64	1232	7.94	25.2	6-25-19 11:15	16.78	816	8.61	51.6						9-25-19 7:15	11.60	1467	6.98	3.6					
6-25-19 16:45	16.79	945	7.26	14.9	6-25-19 10:45	16.68	1229	7.94	25.2	6-25-19 11:30	16.75	816	8.61	42.0						9-25-19 7:30	11.58	1467	6.97	3.5					
6-25-19 17:00	16.87	946	7.27	12.2	6-25-19 11:00	16.77	1243	7.96	26.8	6-25-19 11:45	16.72	816	8.61	49.7						9-25-19 7:45	11.55	1469	6.97	3.0					
6-25-19 17:15	16.96	948	7.27	13.8	6-25-19 11:15	16.76	1242	7.96	23.5	6-25-19 12:00	16.71	816	8.61	47.2						9-25-19 8:00	11.52	1466	6.95	3.1					
6-25-19 17:30	17.10	951	7.27	12.6	6-25-19 11:30	16.81	1243	7.97	23.4	6-25-19 12:15	16.68	817	8.61	49.9						9-25-19 8:15	11.49	1470	6.92	2.5					
6-25-19 17:45	17.25	952	7.31	14.7	6-25-19 11:45	16.93	1239	7.98	23.7	6-25-19 12:30	16.66	817	8.61	42.9						9-25-19 8:30	11.48	1467	6.95	1.9					
6-25-19 18:00	17.44	953	7.43	15.8	6-25-19 12:00	17.03	1226	7.98	22.3	6-25-19 12:45	16.64	818	8.61	46.7						9-25-19 8:45	11.47	1469	6.96	1.8					
6-25-19 18:15	17.70	961	7.44	16.1	6-25-19 12:15	17.11	1228	7.98	22.4	6-25-19 13:00	16.62	818	8.61	45.0						9-25-19 9:00	11.46	1465	6.96	1.7					
6-25-19 18:30	17.81	960	7.62	20.0	6-25-19 12:30	17.30	1224	7.99	21.4	6-25-19 13:15	16.59	820	8.61	54.3						9-25-19 9:15	11.43	1472	7.00	4.2					
6-25-19 18:45	17.91	1109	7.66	23.2	6-25-19 12:45	17.55	1221	8.00	19.9	6-25-19 13:30	16.58	820	8.61	47.0						9-25-19 9:30	11.40	1467	6.97	2.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-25-19 19:00	17.97	1110	7.73	20.1	6-25-19 13:00	17.82	1232	7.98	19.9	6-25-19 13:45	16.56	820	8.62	59.4						9-25-19 9:45	11.37	1467	6.97	3.1					
6-25-19 19:15	18.17	1110	7.60	23.1	6-25-19 13:15	18.14	1225	7.99	20.2	6-25-19 14:00	16.54	821	8.61	49.3						9-25-19 10:00	11.35	1459	6.97	2.6					
6-25-19 19:30	18.70	1110	7.60	21.4	6-25-19 13:30	18.21	1232	7.98	18.3	6-25-19 14:15	16.53	822	8.62	62.2						9-25-19 10:15	11.30	1471	6.99	1.6					
6-25-19 19:45	18.95	1109	7.62	23.3	6-25-19 13:45	18.16	1234	7.99	16.4	6-25-19 14:30	16.53	823	8.61	55.7						9-25-19 10:30	11.24	1469	7.00	1.7					
6-25-19 20:00	18.80	1110	7.18	21.2	6-25-19 14:00	18.04	1222	7.99	17.4	6-25-19 14:45	16.53	823	8.61	58.8						9-25-19 10:45	11.20	1469	7.28	1.6					
6-25-19 20:15	19.24	1111	7.63	24.9	6-25-19 14:15	17.75	1237	7.99	19.9	6-25-19 15:00	16.54	825	8.61	58.2						9-25-19 11:00	11.17	1469	7.18	1.6					
6-25-19 20:30	19.77	1116	7.60	23.6	6-25-19 14:30	17.87	1234	7.99	19.5	6-25-19 15:15	16.55	826	8.62	68.4						9-25-19 11:15	11.13	1469	7.17	3.5					
6-25-19 20:45	20.21	1116	7.65	23.6	6-25-19 14:45	18.33	1234	8.00	18.8	6-25-19 15:30	16.57	827	8.62	62.4						9-25-19 11:30	11.11	1470	7.38	2.6					
6-25-19 21:00	20.59	1117	7.69	29.0	6-25-19 15:00	18.71	1240	7.99	19.0	6-25-19 15:45	16.59	828	8.62	75.5						9-25-19 11:45	11.09	1472	7.20	2.2					
6-25-19 21:15	20.99	1118	7.56	23.7	6-25-19 15:15	18.64	1239	7.99	16.7	6-25-19 16:00	16.61	827	8.62	63.1						9-25-19 12:00	11.08	1472	7.24	2.3					
6-25-19 21:30	21.20	1123	7.62	24.6	6-25-19 15:30	18.55	1240	7.99	16.2	6-25-19 16:15	16.64	827	8.61	72.8						9-25-19 12:15	11.06	1469	7.09	1.9					
6-25-19 21:45	21.19	1124	7.85	24.8	6-25-19 15:45	18.44	1239	7.99	15.2	6-25-19 16:30	16.69	827	8.61	58.2						9-25-19 12:30	11.03	1462	7.02	1.8					
6-25-19 22:00	21.17	1128	7.84	24.1	6-25-19 16:00	18.66	1231	7.98	18.9	6-25-19 16:45	16.78	828	8.61	70.2						9-25-19 12:45	10.98	1467	7.02	1.7					
6-25-19 22:15	21.32	1129	8.00	24.4	6-25-19 16:15	18.13	1240	7.99	16.8	6-25-19 17:00	16.89	827	8.61	67.4						9-25-19 13:00	10.94	1468	7.27	2.9					
6-25-19 22:30	21.32	1128	7.62	24.0	6-25-19 16:30	17.48	1259	7.98	19.3	6-25-19 17:15	17.01	826	8.60	70.9						9-25-19 13:15	10.93	1471	7.34	3.5					
6-25-19 22:45	21.40	1130	7.83	24.1	6-25-19 16:45	17.64	1257	7.98	19.3	6-25-19 17:30	17.29	827	8.59	68.9						9-25-19 13:30	10.90	1472	7.19	2.4					
6-25-19 23:00	21.43	1131	7.82	33.5	6-25-19 17:00	18.64	1260	8.01	22.8	6-25-19 17:45	17.53	828	8.59	71.3						9-25-19 13:45	10.86	1472	7.24	2.6					
6-25-19 23:15	21.25	1131	7.63	21.0	6-25-19 17:15	19.54	1245	7.99	18.7	6-25-19 18:00	17.96	826	8.58	57.5						9-25-19 14:00	10.85	1471	7.12	2.5					
6-25-19 23:30	21.32	1134	7.69	20.5	6-25-19 17:30	19.71	1246	8.02	18.3	6-25-19 18:15	18.22	829	8.58	74.5						9-25-19 14:15	10.81	1469	7.10	0.7					
6-25-19 23:45	21.30	1131	7.44	20.6	6-25-19 17:45	19.75	1242	8.03	17.1	6-25-19 18:30	18.43	829	8.57	60.4						9-25-19 14:30	10.80	1468	7.06	0.8					
6-26-19 0:00	21.44	1137	7.70	20.6	6-25-19 18:00	20.05	1229	8.01	18.4	6-25-19 18:45	18.34	829	8.58	71.2						9-25-19 14:45	10.77	1467	7.17	0.6					
6-26-19 0:15	21.36	1134	7.73	19.7	6-25-19 18:15	20.03	1230	8.02	14.8	6-25-19 19:00	18.60	830	8.57	56.0						9-25-19 15:00	10.77	1469	7.45	0.5					
6-26-19 0:30	21.24	1133	7.66	19.6	6-25-19 18:30	20.04	1229	8.02	16.3	6-25-19 19:15	18.90	830	8.58	72.8						9-25-19 15:15	10.76	1470	7.22	1.6					
6-26-19 0:45	21.14	1133	7.51	20.3	6-25-19 18:45	20.06	1229	8.03	16.3	6-25-19 19:30	19.00	830	8.57	56.5						9-25-19 15:30	10.73	1472	7.10	1.1					
6-26-19 1:00	21.07	1132	7.51	18.9	6-25-19 19:30	18.61	1254	8.00	14.8	6-25-19 19:45	19.50	830	8.57	70.4						9-25-19 15:45	10.71	1472	7.11	1.2					
6-26-19 1:15	21.02	1135	7.52	20.9	6-25-19 19:45	18.85	1249	8.00	13.4	6-25-19 20:00	19.92	832	8.56	58.8						9-25-19 16:00	10.74	1472	7.15	1.5					
6-26-19 1:30	20.96	1133	7.61	19.4	6-25-19 20:00	19.09	1246	8.00	14.9	6-25-19 20:15	20.38	830	8.55	69.7						9-25-19 16:15	10.75	1471	7.08	1.2					
6-26-19 1:45	20.84	1132	7.59	19.5	6-25-19 20:15	19.50	1180	8.02	13.9	6-25-19 20:30	21.99	841	8.54	54.6						9-25-19 16:30	10.74	1469	6.99	1.3					
6-26-19 2:00	20.75	1130	7.61	17.3	6-25-19 20:30	19.71	1177	8.04	12.7	6-25-19 20:45	22.13	833	8.55	69.0						9-25-19 16:45	10.77	1469	7.03	1.4					
6-26-19 2:15	20.59	1137	7.43	14.5	6-25-19 20:45	19.70	1177	8.03	14.3	6-25-19 21:00	22.02	837	8.56	50.5						9-25-19 17:00	10.78	1469	7.00	1.3					
6-26-19 2:30	20.55	1136	7.35	15.9	6-25-19 21:00	19.68	1176	8.04	16.2	6-25-19 21:15	22.05	834	8.56	69.5						9-25-19 17:15	10.81	1470	7.01	2.3					
6-26-19 2:45	20.53	1139	7.33	16.1	6-25-19 21:15	19.63	1239	8.04	13.8	6-25-19 21:30	22.35	838	8.56	55.3						9-25-19 17:30	10.83	1473	6.96	1.2					
6-26-19 3:00	20.49	1135	7.33	15.1	6-25-19 21:30	19.58	1239	8.05	13.1	6-25-19 21:45	22.69	826	8.56	72.9						9-25-19 17:45	10.85	1473	6.92	1.1					
6-26-19 3:15	20.45	1137	7.35	16.0	6-25-19 21:45	19.55	1237	8.04	13.8	6-25-19 22:00	23.08	835	8.57	69.2						9-25-19 18:00	10.87	1473	6.91	1.4					
6-26-19 3:30	20.40	1136	7.39	14.5	6-25-19 22:00	19.47	1238	8.04	11.7	6-25-19 22:15	22.97	839	8.57	69.6						9-25-19 18:15	10.90	1471	6.90	1.6					
6-26-19 3:45	20.37	1137	7.38	13.2	6-25-19 22:15	19.42	1208	6.88	11.7	6-25-19 22:30	22.75	838	8.56	58.9						9-25-19 18:30	10.92	1469	6.91	1.5					
6-26-19 4:00	20.33	1136	7.32	10.8	6-25-19 22:30	19.39	1206	6.86	10.6	6-25-19 22:45	22.80	845	8.57	70.8						9-25-19 18:45	10.96	1469	6.92	1.3					
6-26-19 4:15	20.30	1137	7.29	15.7	6-25-19 22:45	19.35	1206	6.82	10.3	6-25-19 23:00	22.80	840	8.58	67.8						9-25-19 19:00	11.00	1468	6.92	1.2					
6-26-19 4:30	20.24	1138	7.26	10.2	6-25-19 23:00	19.32	1207	6.75	9.7	6-25-19 23:15	22.51	834	8.58	68.2						9-25-19 19:15	11.04	1471	6.91	2.6					
6-26-19 4:45	20.19	1136	7.21	12.9	6-25-19 23:15	19.29	1244	6.78	10.8	6-25-19 23:30	22.07	832	8.60	81.1						9-25-19 19:30	11.08	1472	6.90	2.1					
6-26-19 5:00	20.11	1137	7.19	10.2	6-25-19 23:30	19.24	1243	6.72	9.8	6-25-19 23:45	22.16	836	8.61	78.2						9-25-19 19:45	11.12	1472	6.93	1.3					
6-26-19 5:15	20.06	1137	7.23	12.2	6-25-19 23:45	19.12	1245	6.72	11.2	6-26-19 0:00	22.18	836	8.60	54.2						9-25-19 20:00	11.18	1470	7.05	2.6					
6-26-19 5:30	19.99	1137	7.29	10.2	6-26-19 0:00	18.23	1265	7.00	13.3	6-26-19 0:15	21.93	836	8.61	95.3						9-25-19 20:15	11.25	1469	6.99	1.1					
6-26-19 5:45	19.92	1137	7.35	10.2	6-26-19 0:15	18.40	1208	6.86	23.9	6-26-19 0:30	21.77	835	8.61	71.5						9-25-19 20:30	11.29	1466	7.09	1.3					
6-26-19 6:00	19.87	1139	7.30	12.4	6-26-19 0:30	18.61	1202	6.86	11.1	6-26-19 0:45	20.32	835	8.64	64.9						9-25-19 20:45	11.26	1455	8.16	2.3					
6-26-19 6:15	19.73	1127	7.25	20.4	6-26-19 0:45	18.53	1203	6.83	12.8	6-26-19 1:00	21.16	833	8.64	69.3						9-25-19 21:00	11.35	1457	8.39	2.7					
6-26-19 6:30	19.68	1129	7.36	16.5	6-26-19 1:00	18.61	1198	6.84	12.6	6-26-19 1:15	21.21	836	8.63	71.6						9-25-19 21:15	11.41	1455	8.44	3.8					
6-26-19 6:45	19.64	1130	7.34	12.6	6-26-19 1:15	18.64	1248	6.86	11.7	6-26-19 1:30	21.04	837	8.63	47.2						9-25-19 21:30	11.48	1457	8.22	2.7					
6-26-19 7:00	19.62	1130	7.32	11.2	6-26-19 1:30	18.60	1249	6.81	11.6	6-26-19 1:45	21.09	836	8.63	73.0						9-25-19 21:45	11.54	1459	7.96	2.4					
6-26-19 7:15	19.55	1126	7.40	13.3	6-26-19 1:45	18.51	1252	6.80	11.8	6-26-19 2:00	21.00	837	8.63	46.7						9-25-19 22:00	11.55	1460	7.89	2.6					
6-26-19 7:30	19.49	1129	7.42	11.3	6-26-19 2:00	18.38	1254	6.81	11.2	6-26-19 2:15	20.91	837	8.64	74.8						9-25-19 22:15	11.53	1457	8.04	1.7					
6-26-19 7:45	19.44	1127	7.41	11.4	6-26-19 2:15	18.33	1184	6.78	21.5	6-26-19 2:30	20.83	838	8.63	69.8						9-25-19 22:30	11.54	1455	8.24	2.3					
6-26-19 8:00	19.40	1129	7.42	11.0	6-26-19 2:30	18.30	1180	6.86	11.4	6-26-19 2:45	20.83	838	8.63	69.3						9-25-19 22:45	11.59	1451	8.06	1.7					
6-26-19 8:15	19.33	1129	7.45	10.2	6-26-19 2:45	18.25	1181	6.74	11.7	6-26-19 3:00	20.80	832	8.62	63.0						9-25-19 23:00	11.60	1453	8.12	1.9					
6-26-19 8:30	19.28	1130	7.45	9.0	6-26-19 3:00	18.21	1181	6.72	10.3	6-26-19 3:15	20.75	837	8.63	71.4						9-25-19 23:15	11.59	1452	8.21	3.8					
6-26-19 8:45	19.24	1129	7.45	9.2	6-26-19 3:15	18.17	1256	6.74	10.3	6-26-19 3:30	20.73	839	8.63	64.6						9-25-19 23:30	11.58	1443	8.24	2.6					
6-26-19 9:00	19.16	1129	7.44	8.6	6-26-19 3:30	18.11	1255	6.76	10.9	6-26-19 3:45	20.64	838	8.63	76.6						9-25-19 23:45	11.56	1452	8.25	2.1					
6-26-19 9:15	19.09	1128	7.44	8.4	6-26-19 3:45	18.06	1255	6.71	11.0	6-26-19 4:00	20.55	838	8.63	45.6						9-26-19 0:00	11.54	1452	8.28	2.6					
6-26-19 9:30	19.03	1130	7.44	8.1	6-26-19 4:00	17.97	1260	6.74	11.2	6-26-19 4:15	20.24	837	8.64	75.3						9-26-19 0:15	11.51	1458	8.35	1.9					
6-26-19 9:45	18.97	1129	7.44	8.7	6-26-19 4:15	17.81	1196	6.81	16.5	6-26-19 4:30	20.13	836	8.64	54.8						9-26-19 0:30	11.50	1456	8.37	1.8					
6-26-19 10:00	18.88	1129	7.45	8.1	6-26-19 4:30	17.78	1192	6.82	12.0	6-26-19 4:45	20.16	838	8.65	82.4						9-26-19 0:45	11.47	1458	8.37	2.3					
6-26-19 10:15	18.82	1129	7.45	8.3	6-26-19 4:45	17.80	1185	6.81	11.8	6-26-19 5:00	20.05	837	8.65	63.9						9-26-19 1:00	11.46	1455	8.39	1.5					
6-26-19 10:30	18.71	1130	7.42	7.3	6-26-19 5:00	17.81	1183	6.75	11.0	6-26-19 5:15	19.95	837	8.65	64.4						9-26-19 1:15	11.45	1453	8.43	3.9					
6-26-19 10:45	18.58	1132	7.37	8.3	6-26-19 5:15	17.82	1261	6.75	11.1	6-26-19 5:30	19.83	837	8.64	59.2						9-26-19 1:30	11.44	1453	8.43	1.9					
6-26-19 11:00	18.55	1131	7.36	10.0	6-26-19 5:30	17.80	1261	6.73	11.0	6-26-19 5:45	19.73	837	8.65	84.9						9-26-19 1:45	11.42	1454	8.46	2.5					
6-26-19 11:15	18.47	1131	7.38	9.9	6-26-19 5:45	17.78	1261	6.72	9.6	6-26-19 6:00	19.65	837	8.65	63.7						9-26-19 2:00	11.41	1456	8.46	1.9					
6-26-19 11:30	18.44	1131	7.40	9.6	6-26-19 6:00	17.76	1263	6.71	9.9	6-26-19 6:15	19.51	833	8.66	57.7						9-26-19 2:15	11.38	1457	8.46	1.5					
6-26-19 11:45	18.35	1131	7.40	9.8	6-26-19 6:15	17.75	1227	6.71	9.6	6-26-19 6:30	19.45	832	8.64	53.3						9-26-19 2:30	11.36	1455	8.46	1.5					
6-26-19 12:00	18.32	1132	7.40	9.3	6-26-19 6:30	17.76	1225	6.77	9.3	6-26-19 6:45	19.36	831	8.65	66.0						9-26-19 2:45	11.33	1455	8.46	1.4					
6-26-19 12:15	18.26	1129	7.39	11.8	6-26-19 6:45	17.78	1223	7.55	9.7	6-26-19 7:00	19.25	831	8.64	53.3						9-26-19 3:00	11.28	1454	8.47	2.5					
6-26-19 12:30	18.21	1133	7.45	12.3	6-26-19 7:00	17.78	1222	7.74	13.7	6-26-19 7:15	19.15	829	8.65	70.5						9-26-19 3:15	11.28	1451	8.49	2.6					
6-26-19 12:45	18.20	1133	7.44	12.3	6-26-19 7:15	17.78	1252	7.75	12.0	6-26-19 7:30	19.07	830	8.64	50.7						9-26-19 3:30	11.25	1458	8.48	1.9					
6-26-19 13:00	18.14	1134	7.46	13.6	6-26-19 7:30	17.83	1253	7.73	8.5	6-26-19 7:45	19.04	831	8.64	79.6						9-26-19 3:45	11.23	1456	8.49	2.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-26-19 13:15	18.10	1134	7.35	12.8	6-26-19 7:45	17.81	1257	7.68	9.5	6-26-19 8:00	18.97	831	8.64	51.1						9-26-19 4:00	11.21	1455	8.49	1.7					
6-26-19 13:30	18.08	1134	7.32	42.2	6-26-19 8:00	17.80	1263	7.52	9.7	6-26-19 8:15	18.87	832	8.64	71.7						9-26-19 4:15	11.20	1451	8.49	1.5					
6-26-19 13:45	18.06	1134	7.37	13.7	6-26-19 8:15	17.84	1255	7.64	11.6	6-26-19 8:30	18.76	832	8.65	48.9						9-26-19 4:30	11.17	1447	8.50	1.4					
6-26-19 14:00	18.03	1135	7.40	14.5	6-26-19 8:30	17.82	1262	7.65	7.6	6-26-19 8:45	18.71	832	8.64	86.2						9-26-19 4:45	11.16	1448	8.50	1.3					
6-26-19 14:15	18.02	1135	7.36	15.3	6-26-19 8:45	17.86	1265	7.74	8.0	6-26-19 9:00	18.61	831	8.64	50.5						9-26-19 5:00	11.11	1448	8.50	1.5					
6-26-19 14:30	18.05	1135	7.34	14.4	6-26-19 9:00	17.91	1270	7.76	7.3	6-26-19 9:15	18.50	831	8.64	82.1						9-26-19 5:15	11.10	1454	8.51	4.5					
6-26-19 14:45	18.06	1134	7.37	14.2	6-26-19 9:15	17.96	1291	7.85	9.7	6-26-19 9:30	18.47	831	8.63	48.4						9-26-19 5:30	11.09	1449	8.51	3.2					
6-26-19 15:00	18.04	1135	7.35	11.7	6-26-19 9:30	18.01	1281	7.87	10.0	6-26-19 9:45	18.40	831	8.63	79.8						9-26-19 5:45	11.09	1456	8.51	1.3					
6-26-19 15:15	18.10	1135	7.33	12.4	6-26-19 9:45	18.06	1270	7.90	9.9	6-26-19 10:00	18.31	831	8.63	49.0						9-26-19 6:00	11.07	1455	8.51	1.9					
6-26-19 15:30	18.15	1135	7.38	12.2	6-26-19 10:00	18.15	1270	7.91	10.1	6-26-19 10:15	18.22	831	8.64	73.3						9-26-19 6:15	11.04	1451	8.51	1.5					
6-26-19 15:45	18.16	1135	7.45	12.9	6-26-19 10:15	18.30	1231	7.91	10.3	6-26-19 10:30	18.13	831	8.63	68.5						9-26-19 6:30	11.01	1456	8.51	1.4					
6-26-19 16:00	18.23	1137	7.51	11.8	6-26-19 10:30	18.38	1226	7.93	10.7	6-26-19 10:45	18.02	831	8.64	71.7						9-26-19 6:45	11.00	1456	8.51	1.5					
6-26-19 16:15	18.28	1137	7.56	12.1	6-26-19 10:45	18.44	1223	7.96	11.7	6-26-19 11:00	17.96	831	8.63	54.9						9-26-19 7:00	10.98	1456	8.52	1.3					
6-26-19 16:30	18.37	1139	7.64	11.1	6-26-19 11:00	18.62	1220	7.97	9.8	6-26-19 11:15	17.91	832	8.63	82.3						9-26-19 7:15	10.97	1457	8.52	3.2					
6-26-19 16:45	18.44	1139	7.70	12.8	6-26-19 11:15	18.67	1279	7.97	11.4	6-26-19 11:30	17.85	832	8.63	48.9						9-26-19 7:30	10.90	1457	8.51	3.0					
6-26-19 17:00	18.56	1141	7.75	12.4	6-26-19 11:30	18.71	1274	7.97	9.2	6-26-19 11:45	17.79	832	8.63	50.6						9-26-19 7:45	10.88	1458	8.51	3.7					
6-26-19 17:15	18.69	1141	7.82	12.4	6-26-19 11:45	18.81	1275	7.96	9.9	6-26-19 12:00	17.73	832	8.63	47.7						9-26-19 8:00	10.90	1458	8.53	2.4					
6-26-19 17:30	18.81	1142	7.88	12.3	6-26-19 12:00	18.89	1269	7.94	11.5	6-26-19 12:15	17.65	833	8.63	51.6						9-26-19 8:15	10.92	1455	8.54	1.5					
6-26-19 17:45	18.94	1143	7.90	18.1	6-26-19 12:15	19.06	1172	7.95	10.4	6-26-19 12:30	17.65	832	8.63	50.0						9-26-19 8:30	10.92	1453	8.53	1.2					
6-26-19 18:00	19.15	1144	7.94	13.6	6-26-19 12:30	19.21	1170	7.95	9.4	6-26-19 12:45	17.61	832	8.63	54.4						9-26-19 8:45	10.92	1454	8.53	1.2					
6-26-19 18:15	19.36	1144	7.96	19.7	6-26-19 12:45	19.49	1170	7.94	9.1	6-26-19 13:00	17.58	833	8.62	44.0						9-26-19 9:00	10.92	1452	8.53	1.3					
6-26-19 18:30	19.53	1146	7.98	13.4	6-26-19 13:00	19.53	1169	7.94	8.5	6-26-19 13:15	17.55	833	8.63	49.1						9-26-19 9:15	10.91	1456	8.53	9.7					
6-26-19 18:45	19.71	1148	8.04	15.6	6-26-19 13:15	19.46	1256	7.96	9.7	6-26-19 13:30	17.53	832	8.63	47.1						9-26-19 9:30	10.90	1455	8.52	3.2					
6-26-19 19:00	20.12	1147	8.02	13.4	6-26-19 13:30	19.53	1254	7.96	6.7	6-26-19 13:45	17.51	833	8.63	51.3						9-26-19 9:45	10.89	1457	8.51	1.6					
6-26-19 19:15	20.32	1150	7.96	14.4	6-26-19 13:45	19.61	1252	7.97	9.3	6-26-19 14:00	17.50	833	8.62	49.4						9-26-19 10:00	10.88	1457	8.50	2.4					
6-26-19 19:30	20.31	1147	7.48	14.4	6-26-19 14:00	19.99	1251	8.00	9.1	6-26-19 14:15	17.51	833	8.63	51.4						9-26-19 10:15	10.86	1452	8.50	1.2					
6-26-19 19:45	20.41	1149	7.17	14.3	6-26-19 14:15	20.20	1152	8.00	10.1	6-26-19 14:30	17.54	833	8.63	47.5						9-26-19 10:30	10.85	1449	8.50	1.2					
6-26-19 20:00	20.50	1148	7.32	13.5	6-26-19 14:30	20.31	1149	8.01	8.9	6-26-19 14:45	17.60	833	8.63	51.8						9-26-19 10:45	10.85	1453	8.50	1.3					
6-26-19 20:15	20.46	1147	7.36	15.6	6-26-19 14:45	20.51	1149	7.99	9.4	6-26-19 15:00	17.63	833	8.63	46.1						9-26-19 11:00	10.84	1453	8.49	1.3					
6-26-19 20:30	20.88	1150	8.03	13.4	6-26-19 15:00	20.65	1149	8.01	8.9	6-26-19 15:15	17.68	834	8.63	54.6						9-26-19 11:15	10.83	1447	8.49	2.7					
6-26-19 20:45	20.37	1148	7.56	15.1	6-26-19 15:15	20.58	1257	7.98	7.8	6-26-19 15:30	17.72	834	8.62	46.2						9-26-19 11:30	10.82	1456	8.50	1.5					
6-26-19 21:00	20.50	1150	7.94	12.8	6-26-19 15:30	21.09	1259	7.98	8.5	6-26-19 15:45	17.84	834	8.63	46.9						9-26-19 11:45	10.81	1457	8.50	1.6					
6-26-19 21:15	20.44	1147	7.72	13.9	6-26-19 15:45	21.15	1258	8.00	27.5	6-26-19 16:00	17.88	834	8.62	47.8						9-26-19 12:00	10.80	1455	8.51	3.7					
6-26-19 21:30	20.27	1150	7.90	12.7	6-26-19 16:00	21.10	1259	8.00	6.3	6-26-19 16:15	17.93	835	8.62	49.4						9-26-19 12:15	10.79	1458	8.55	1.8					
6-26-19 21:45	20.18	1153	7.55	13.3	6-26-19 16:15	20.88	1148	7.99	6.3	6-26-19 16:30	18.00	836	8.62	52.4						9-26-19 12:30	10.78	1451	8.53	1.4					
6-26-19 22:00	20.51	1163	8.05	18.3	6-26-19 16:30	21.36	1138	7.98	6.4	6-26-19 16:45	18.20	836	8.62	56.1						9-26-19 12:45	10.75	1453	8.56	1.3					
6-26-19 22:15	20.68	1160	7.92	15.5	6-26-19 16:45	21.56	1140	8.00	8.1	6-26-19 17:00	18.26	837	8.61	55.4						9-26-19 13:00	10.73	1453	8.60	1.6					
6-26-19 22:30	20.81	1159	7.96	15.1	6-26-19 17:00	21.62	1161	8.02	5.5	6-26-19 17:15	18.40	837	8.61	61.2						9-26-19 13:15	10.68	1451	8.65	9.3					
6-26-19 22:45	21.04	1150	8.21	18.1	6-26-19 17:15	21.56	1277	8.00	7.1	6-26-19 17:30	18.52	838	8.61	50.8						9-26-19 13:30	10.64	1451	8.67	2.0					
6-26-19 23:00	21.26	1160	8.18	13.1	6-26-19 17:30	22.43	1268	7.99	9.4	6-26-19 17:45	18.62	838	8.60	60.1						9-26-19 13:45	10.59	1449	8.66	1.8					
6-26-19 23:15	21.54	1157	8.17	17.5	6-26-19 17:45	22.84	1265	8.00	7.1	6-26-19 18:00	18.88	839	8.60	51.4						9-26-19 14:00	10.57	1448	8.69	1.7					
6-26-19 23:30	21.82	1160	8.19	13.5	6-26-19 18:00	23.07	1266	8.01	5.9	6-26-19 18:15	19.17	840	8.60	57.3						9-26-19 14:15	10.54	1450	8.70	1.5					
6-26-19 23:45	22.02	1157	8.28	12.4	6-26-19 18:15	23.06	1154	8.01	8.5	6-26-19 18:30	19.37	840	8.59	54.1						9-26-19 14:30	10.52	1448	8.70	1.7					
6-27-19 0:00	22.20	1167	7.92	9.7	6-26-19 18:30	22.94	1154	8.02	7.3	6-26-19 18:45	19.46	840	8.59	56.0						9-26-19 14:45	10.48	1445	8.72	2.2					
6-27-19 0:15	22.31	1157	8.06	11.2	6-26-19 18:45	22.18	1270	8.06	10.3	6-26-19 19:00	19.83	840	8.58	50.7						9-26-19 15:00	10.41	1442	8.73	2.1					
6-27-19 0:30	22.17	1159	8.15	16.4	6-26-19 19:00	21.49	1276	7.99	8.2	6-26-19 19:15	20.37	840	8.57	54.0						9-26-19 15:15	10.40	1443	8.74	5.0					
6-27-19 0:45	22.10	1160	7.83	13.5	6-26-19 19:15	22.07	1274	7.55	10.0	6-26-19 19:30	20.62	841	8.57	48.5						9-26-19 15:30	10.36	1443	8.75	6.8					
6-27-19 1:00	22.22	1158	7.86	12.0	6-26-19 19:30	22.07	1275	7.30	8.7	6-26-19 19:45										9-26-19 15:45	10.33	1439	8.75	7.1					
6-27-19 1:15	22.20	1154	7.87	12.3	6-26-19 19:45	22.11	1274	7.32	7.4	6-26-19 20:00										9-26-19 16:00	10.31	1442	8.76	3.7					
6-27-19 1:30	22.01	1161	8.07	11.0	6-26-19 20:00	22.02	1276	7.04	6.6	6-26-19 22:15	21.10	839	8.58	47.4						9-26-19 16:15	10.29	1441	8.78	3.0					
6-27-19 1:45	21.90	1170	8.61	14.2	6-26-19 20:15	21.82	1266	7.11	6.6	6-26-19 22:30	21.34	839	8.57	48.1						9-26-19 16:30	10.24	1437	8.78	2.6					
6-27-19 2:00	22.02	1171	8.60	14.7	6-26-19 20:30	20.18	1253	7.91	5.1	6-26-19 22:45	21.53	841	8.57	50.1						9-26-19 16:45	10.22	1436	8.79	2.5					
6-27-19 2:15	21.96	1167	8.53	14.7	6-26-19 20:45	20.06	1257	7.90	4.0	6-26-19 23:00	21.90	841	8.56	47.8						9-26-19 17:00	10.24	1436	8.78	2.7					
6-27-19 2:30	21.74	1161	8.45	11.2	6-26-19 21:00	20.09	1261	7.88	4.8	6-26-19 23:15	21.81	841	8.56	44.2						9-26-19 17:15	10.21	1445	8.79	4.5					
6-27-19 2:45	21.56	1162	8.45	11.7	6-26-19 21:15	20.77	1250	7.46	4.5	6-26-19 23:30	22.56	841	8.55	45.6						9-26-19 17:30	10.21	1437	8.80	5.5					
6-27-19 3:00	21.48	1164	7.81	10.3	6-26-19 21:30	20.95	1278	7.45	5.6	6-26-19 23:45	23.31	845	8.55	49.0						9-26-19 17:45	10.20	1437	8.81	4.0					
6-27-19 3:15	21.44	1161	8.40	11.5	6-26-19 21:45	20.93	1275	7.56	4.5	6-27-19 0:00	22.21	839	8.55	46.8						9-26-19 18:00	10.22	1437	8.83	8.1					
6-27-19 3:30	21.44	1147	8.51	11.1	6-26-19 22:00	20.90	1277	7.51	5.1	6-27-19 0:15	22.33	840	8.56	47.2						9-26-19 18:15	10.24	1435	8.84	2.4					
6-27-19 3:45	21.40	1165	8.50	10.4	6-26-19 22:15	20.85	1276	7.73	5.6	6-27-19 0:30	22.59	840	8.55	43.6						9-26-19 18:30	10.25	1437	8.85	2.7					
6-27-19 4:00	21.34	1167	8.47	10.3	6-26-19 22:30	20.73	1251	7.26	5.5	6-27-19 0:45	22.12	836	8.56	51.1						9-26-19 18:45	10.28	1437	8.86	2.5					
6-27-19 4:15	21.30	1165	8.48	9.9	6-26-19 22:45	20.61	1252	7.00	5.1	6-27-19 1:00	22.25	838	8.57	43.5						9-26-19 19:00	10.29	1437	8.88	2.5					
6-27-19 4:30	21.30	1172	8.55	10.1	6-26-19 23:00	20.01	1252	7.79	3.8	6-27-19 1:15	21.54	838	8.58	44.6						9-26-19 19:15	10.29	1439	8.90	6.5					
6-27-19 4:45	21.30	1174	8.56	9.4	6-26-19 23:15	19.66	1248	7.91	4.7	6-27-19 1:30	22.38	841	8.59	43.8						9-26-19 19:30	10.29	1440	8.91	7.6					
6-27-19 5:00	21.25	1171	8.52	8.2	6-26-19 23:30	19.69	1281	7.58	4.6	6-27-19 1:45	22.66	841	8.58	46.9						9-26-19 19:45	10.00	1	8.39	51.3					
6-27-19 5:15	21.21	1170	8.49	11.1	6-26-19 23:45	20.14	1277	7.90	5.0	6-27-19 2:00	22.49	840	8.59	42.0						9-26-19 20:00	10.30	1423	8.94	0.5					
6-27-19 5:30	21.17	1171	8.44	8.8	6-27-19 0:00	20.03	1278	7.87	3.7	6-27-19 2:15	19.01	824	8.60	42.0						9-26-19 20:15	10.29	1444	8.95	0.8					
6-27-19 5:45	21.13	1167	8.49	8.9	6-27-19 0:15	20.04	1277	7.80	5.3	6-27-19 2:30	21.72	839	8.62	39.6						9-26-19 20:30	10.27	1437	8.96	0.4					
6-27-19 6:00	21.05	1173	8.51	8.1	6-27-19 0:30	19.94	1263	7.34	5.7	6-27-19 2:45	21.61	839	8.62	39.5						9-26-19 20:45	10.26	1436	8.97	0.4					
6-27-19 6:15	21.00	1171	8.45	8.5	6-27-19 0:45	19.90	1264	7.04	4.7	6-27-19 3:00	21.41	838	8.61	37.8						9-26-19 21:00	10.25	1434	8.98	10.0					
6-27-19 6:30	20.96	1179	8.55	8.8	6-27-19 1:00	19.84	1265	7.01	4.2	6-27-19 3:15	21.59	839	8.62	37.4						9-26-19 21:15	10.24	1436	8.99	0.3					
6-27-19 6:45	20.90	1205	8.49	8.9	6-27-19 1:15	19.78	1265	7.03	3.5	6-27-19 3:30	21.54	836	8.61	36.8						9-26-19 21:30	10.23	1436	8.99	0.5					
6-27-19 7:00	20.83	1172	8.40	8.2	6-27-19 1:30	19.74	1282	7.08	4.9	6-27-19 3:45	21.50	837	8.61	38.6						9-26-19 21:45	10.22	1437	9.00	0.3					
6-27-19 7:15	20.80	1169	8.38	8.5	6-27-19 1:45	19.66	1282	7.04	4.2	6-27-19 4:00	21.39	837	8.61	35.5						9-26-19 22:00	10.21	1433	9.00	0.2					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-27-19 7:30	20.73	1170	8.34	7.8	6-27-19 2:00	19.63	1283	7.05	4.3	6-27-19 4:15	21.28	837	8.62	38.8						9-26-19 22:15	10.20	1437	9.01	0.2					
6-27-19 7:45	20.69	1172	8.34	8.0	6-27-19 2:15	19.57	1282	6.92	4.5	6-27-19 4:30	21.22	838	8.62	34.3						9-26-19 22:30	10.19	1436	9.02	0.2					
6-27-19 8:00	20.66	1173	8.35	7.6	6-27-19 2:30	19.52	1283	7.02	10.4	6-27-19 4:45	21.11	837	8.62	35.7						9-26-19 22:45	10.19	1434	9.02	0.0					
6-27-19 8:15	20.61	1172	8.32	8.5	6-27-19 2:45	19.49	1279	7.63	5.0	6-27-19 5:00	21.04	840	8.62	33.7						9-26-19 23:00	10.18	1435	9.02	0.5					
6-27-19 8:30	20.55	1173	8.30	7.8	6-27-19 3:00	19.53	1275	7.93	4.1	6-27-19 5:15	20.96	838	8.63	35.7						9-26-19 23:15	10.16	1437	9.03	0.3					
6-27-19 8:45	20.50	1172	8.29	8.8	6-27-19 3:15	19.53	1275	7.96	6.1	6-27-19 5:30	20.86	840	8.62	34.3						9-26-19 23:30	10.16	1437	9.03	0.1					
6-27-19 9:00	20.44	1173	8.27	7.6	6-27-19 3:30	19.55	1257	7.98	5.4	6-27-19 5:45	20.77	840	8.63	34.0						9-26-19 23:45	10.16	1430	9.04	0.1					
6-27-19 9:15	20.37	1174	8.28	7.9	6-27-19 3:45	19.53	1275	7.98	5.2	6-27-19 6:00	20.65	840	8.63	34.9						9-27-19 0:00	10.15	1437	9.04	0.1					
6-27-19 9:30	20.33	1176	8.31	6.6	6-27-19 4:00	19.48	1279	7.99	7.6	6-27-19 6:15	20.50	839	8.63	38.6						9-27-19 0:15	10.13	1435	9.05	0.2					
6-27-19 9:45	20.30	1177	8.38	7.0	6-27-19 4:15	19.46	1278	7.98	4.3	6-27-19 6:30	20.38	839	8.63	34.6						9-27-19 0:30	10.12	1432	9.05	0.1					
6-27-19 10:00	20.25	1176	8.34	5.3	6-27-19 4:30	19.43	1278	7.98	4.4	6-27-19 6:45	20.29	839	8.62	35.9						9-27-19 0:45	10.10	1444	9.05	0.1					
6-27-19 10:15	20.21	1176	8.25	6.5	6-27-19 4:45	19.35	1279	7.94	4.9	6-27-19 7:00	20.16	834	8.63	34.5						9-27-19 1:00	10.08	1433	9.05	0.3					
6-27-19 10:30	20.17	1176	8.22	6.4	6-27-19 5:00	19.30	1280	7.89	4.6	6-27-19 7:15	20.02	834	8.63	35.6						9-27-19 1:15	10.08	1434	9.05	0.3					
6-27-19 10:45	20.11	1175	8.30	6.7	6-27-19 5:15	19.29	1280	7.87	4.3	6-27-19 7:30	19.88	838	8.62	33.2						9-27-19 1:30	10.08	1435	9.05	0.0					
6-27-19 11:00	20.05	1175	8.28	6.2	6-27-19 5:30	19.27	1279	7.87	4.8	6-27-19 7:45	19.81	838	8.62	38.1						9-27-19 1:45	10.06	1436	9.05	0.1					
6-27-19 11:15	19.99	1175	8.20	6.9	6-27-19 5:45	19.26	1279	7.86	3.9	6-27-19 8:00	19.76	838	8.62	34.2						9-27-19 2:00	10.00	1436	9.05	1.1					
6-27-19 11:30	19.92	1175	8.26	6.0	6-27-19 6:00	19.24	1279	7.86	4.1	6-27-19 8:15	19.68	838	8.62	39.5						9-27-19 2:15	10.00	1433	9.05	0.3					
6-27-19 11:45	19.88	1173	8.20	6.1	6-27-19 6:15	19.19	1280	7.72	4.6	6-27-19 8:30	19.61	838	8.62	33.1						9-27-19 2:30	9.97	1433	9.05	0.4					
6-27-19 12:00	19.79	1177	8.18	5.9	6-27-19 6:30	19.17	1282	7.31	4.2	6-27-19 8:45	19.55	838	8.62	35.4						9-27-19 2:45	9.97	1432	9.05	0.4					
6-27-19 12:15	19.74	1178	8.15	6.1	6-27-19 6:45	19.14	1282	7.19	4.0	6-27-19 9:00	19.48	839	8.61	32.7						9-27-19 3:00	9.94	1433	9.05	0.1					
6-27-19 12:30	19.70	1177	8.14	5.6	6-27-19 7:00	19.14	1283	6.94	3.8	6-27-19 9:15	19.40	840	8.61	35.4						9-27-19 3:15	9.94	1433	9.05	0.3					
6-27-19 12:45	19.64	1182	8.21	5.7	6-27-19 7:15	19.12	1285	6.98	3.6	6-27-19 9:30	19.30	837	8.61	32.1						9-27-19 3:30	9.93	1434	9.04	0.1					
6-27-19 13:00	19.60	1188	8.14	5.7	6-27-19 7:30	19.09	1287	7.06	3.8	6-27-19 9:45	19.22	838	8.61	35.9						9-27-19 3:45	9.94	1435	9.04	0.0					
6-27-19 13:15	19.56	1191	8.02	6.5	6-27-19 7:45	19.04	1297	7.17	3.2	6-27-19 10:00	19.15	837	8.61	31.5						9-27-19 4:00	9.94	1433	9.04	0.0					
6-27-19 13:30	19.53	1190	8.05	5.8	6-27-19 8:00	19.00	1294	7.21	5.6	6-27-19 10:15	19.12	837	8.61	33.6						9-27-19 4:15	9.94	1433	9.03	0.1					
6-27-19 13:45	19.50	1192	8.05	6.5	6-27-19 8:15	19.03	1282	7.52	4.4	6-27-19 10:30	19.07	838	8.60	30.4						9-27-19 4:30	9.92	1434	9.03	0.1					
6-27-19 14:00	19.47	1193	8.03	6.7	6-27-19 8:30	19.01	1285	7.59	4.2	6-27-19 10:45	18.97	838	8.61	32.1						9-27-19 4:45	9.89	1433	9.03	0.2					
6-27-19 14:15	19.42	1192	7.96	7.2	6-27-19 8:45	18.99	1291	7.56	5.1	6-27-19 11:00	18.99	837	8.61	29.0						9-27-19 5:00	9.87	1431	9.02	0.3					
6-27-19 14:30	19.40	1191	7.94	6.2	6-27-19 9:00	18.99	1298	7.42	4.6	6-27-19 11:15	18.95	838	8.61	34.9						9-27-19 5:15	9.86	1431	9.02	0.0					
6-27-19 14:45	19.38	1190	7.97	7.0	6-27-19 9:15	18.99	1296	7.44	4.3	6-27-19 11:30	18.87	832	8.60	27.4						9-27-19 5:30	9.84	1433	9.02	0.0					
6-27-19 15:00	19.35	1190	8.01	6.3	6-27-19 9:30	18.96	1302	7.28	4.5	6-27-19 11:45	18.81	839	8.60	34.2						9-27-19 5:45	9.83	1432	9.02	0.0					
6-27-19 15:15	19.34	1191	8.06	6.6	6-27-19 9:45	18.98	1293	7.56	4.2	6-27-19 12:00	18.77	841	8.59	31.3						9-27-19 6:00	9.81	1433	9.02	0.0					
6-27-19 15:30	19.33	1193	8.11	6.4	6-27-19 10:00	18.98	1299	7.25	4.5	6-27-19 12:15	18.70	842	8.59	31.6						9-27-19 6:15	9.79	1434	9.01	0.0					
6-27-19 15:45	19.32	1194	8.15	7.0	6-27-19 10:15	19.05	1295	7.37	4.8	6-27-19 12:30	18.69	840	8.59	30.3						9-27-19 6:30	9.77	1432	9.01	0.1					
6-27-19 16:00	19.31	1192	8.18	5.7	6-27-19 10:30	19.07	1297	7.67	4.8	6-27-19 12:45	18.67	843	8.58	32.8						9-27-19 6:45	9.74	1432	9.01	0.2					
6-27-19 16:15	19.30	1191	8.24	6.3	6-27-19 10:45	19.12	1304	7.90	3.7	6-27-19 13:00	18.63	842	8.58	30.6						9-27-19 7:00	9.72	1432	9.01	0.1					
6-27-19 16:30	19.30	1192	8.25	6.2	6-27-19 11:00	19.18	1304	7.92	3.7	6-27-19 13:15	18.59	841	8.59	32.4						9-27-19 7:15	9.69	1435	9.01	0.1					
6-27-19 16:45	19.29	1192	8.32	5.9	6-27-19 11:15	19.32	1298	7.89	4.2	6-27-19 13:30	18.55	842	8.59	29.2						9-27-19 7:30	9.67	1435	9.00	0.0					
6-27-19 17:00	19.29	1194	8.35	6.1	6-27-19 11:30	19.31	1294	7.98	5.2	6-27-19 13:45	18.51	840	8.60	28.1						9-27-19 7:45	9.66	1435	9.00	0.0					
6-27-19 17:15	19.30	1193	8.30	5.3	6-27-19 11:45	19.46	1291	7.91	4.7	6-27-19 14:00	18.48	843	8.59	27.6						9-27-19 8:00	9.66	1434	9.00	0.0					
6-27-19 17:30	19.34	1193	8.37	5.0	6-27-19 12:00	19.35	1296	7.79	5.4	6-27-19 14:15	18.45	841	8.59	31.5						9-27-19 8:15	9.65	1435	9.00	0.0					
6-27-19 17:45	19.36	1192	8.40	5.6	6-27-19 12:15	19.35	1294	7.44	6.3	6-27-19 14:30	18.40	844	8.59	28.2						9-27-19 8:30	9.64	1433	9.00	0.0					
6-27-19 18:00	19.40	1193	8.38	5.0	6-27-19 12:30	19.34	1312	7.92	8.0	6-27-19 14:45	18.38	844	8.59	28.8						9-27-19 8:45	9.62	1434	9.00	0.3					
6-27-19 18:15	19.51	1192	8.46	5.1	6-27-19 12:45	19.47	1305	7.93	7.8	6-27-19 15:00	18.36	845	8.59	30.0						9-27-19 9:00	9.62	1433	8.99	0.0					
6-27-19 18:30	19.67	1193	8.51	4.4	6-27-19 13:00	19.44	1300	7.98	7.6	6-27-19 15:15	18.32	829	8.60	34.8						9-27-19 9:15	9.60	1432	8.99	0.1					
6-27-19 18:45	19.76	1193	8.56	4.8	6-27-19 13:15	19.50	1299	8.01	6.1	6-27-19 15:30	18.34	845	8.60	27.9						9-27-19 9:30	9.58	1437	8.99	0.0					
6-27-19 19:00	19.75	1194	8.60	4.8	6-27-19 13:30	19.62	1295	8.02	5.6	6-27-19 15:45	18.33	845	8.60	31.1						9-27-19 9:45	9.56	1436	8.98	0.2					
6-27-19 19:15	19.81	1195	8.66	4.6	6-27-19 13:45	19.66	1302	8.01	6.4	6-27-19 16:00	18.33	845	8.59	27.3						9-27-19 10:00	9.54	1437	8.98	0.0					
6-27-19 19:30	19.84	1196	8.70	4.6	6-27-19 14:00	19.74	1305	8.01	5.6	6-27-19 16:15	18.32	846	8.59	29.5						9-27-19 10:15	9.53	1434	8.99	0.0					
6-27-19 19:45	19.95	1197	8.73	5.4	6-27-19 14:15	19.72	1294	8.02	5.6	6-27-19 16:30	18.30	847	8.59	28.5						9-27-19 10:30	9.51	1433	8.98	0.0					
6-27-19 20:00	19.95	1197	8.75	5.8	6-27-19 14:30	19.67	1291	8.03	5.4	6-27-19 16:45	18.29	847	8.59	30.2						9-27-19 10:45	9.48	1433	8.98	0.0					
6-27-19 20:15	20.03	1195	8.74	5.5	6-27-19 14:45	19.63	1296	8.02	4.5	6-27-19 17:00	18.28	848	8.59	28.8						9-27-19 11:00	9.46	1434	8.98	0.0					
6-27-19 20:30	20.08	1197	8.78	14.4	6-27-19 15:00	19.61	1290	8.03	4.4	6-27-19 17:15	18.33	847	8.59	31.2						9-27-19 11:15	9.45	1434	8.98	0.0					
6-27-19 20:45	20.19	1199	8.80	7.3	6-27-19 15:15	19.53	1290	8.04	6.1	6-27-19 17:30	18.36	848	8.59	27.3						9-27-19 11:30	9.41	1435	8.97	0.0					
6-27-19 21:00	20.25	1196	8.82	4.3	6-27-19 15:30	19.51	1289	8.05	6.3	6-27-19 17:45	18.47	849	8.59	33.8						9-27-19 11:45	9.39	1436	8.97	0.0					
6-27-19 21:15	20.21	1199	8.82	9.0	6-27-19 18:00					6-27-19 18:00	18.63	849	8.58	31.1						9-27-19 12:00	9.37	1436	8.97	0.0					
6-27-19 21:30	20.21	1199	8.83	4.0	6-27-19 18:15					6-27-19 18:15	18.94	850	8.58	33.2						9-27-19 12:15	9.32	1435	8.97	0.0					
6-27-19 21:45	20.19	1199	8.83	4.4	6-27-19 18:30					6-27-19 18:30	19.31	853	8.58	29.1						9-27-19 12:30	9.30	1434	8.97	0.0					
6-27-19 22:00	20.15	1198	8.86	5.7	6-27-19 18:45					6-27-19 18:45	19.22	851	8.57	34.9						9-27-19 12:45	9.29	1432	8.97	0.0					
6-27-19 22:15	20.14	1200	8.84	3.9	6-27-19 19:00					6-27-19 19:00	19.28	852	8.57	32.7						9-27-19 13:00	9.30	1432	8.97	0.0					
6-27-19 22:30	20.10	1199	8.84	20.3	6-27-19 19:15					6-27-19 19:15	19.29	853	8.58	30.2						9-27-19 13:15	9.31	1435	8.97	0.0					
6-27-19 22:45	20.10	1199	8.84	3.5	6-27-19 19:30					6-27-19 19:30	19.22	852	8.58	37.4						9-27-19 13:30	9.29	1436	8.96	0.0					
6-27-19 23:00	20.10	1197	8.85	3.8	6-27-19 19:45					6-27-19 19:45	19.16	852	8.58	32.6						9-27-19 13:45	9.26	1436	8.96	0.0					
6-27-19 23:15	20.13	1197	8.82	3.7	6-27-19 20:00					6-27-19 20:00	19.25	853	8.58	31.8						9-27-19 14:00	9.24	1436	8.96	0.0					
6-27-19 23:30	20.26	1199	8.86	3.4	6-27-19 20:15					6-27-19 20:15	19.21	852	8.58	34.3						9-27-19 14:15	9.20	1435	8.96	0.0					
6-27-19 23:45	20.25	1198	8.85	3.7	6-27-19 20:30					6-27-19 20:30	19.39	851	8.58	30.7						9-27-19 14:30	9.18	1434	8.95	0.5					
6-28-19 0:00	20.29	1197	8.89	3.0	6-27-19 20:45					6-27-19 20:45	19.64	852	8.58	32.5						9-27-19 14:45	9.14	1434	8.95	0.0					
6-28-19 0:15	20.27	1195	8.92	3.2	6-27-19 21:00					6-27-19 21:00	19.46	851	8.57	27.4						9-27-19 15:00	9.11	1434	8.95	1.2					
6-28-19 0:30	20.26	1200	8.91	4.5	6-27-19 21:15					6-27-19 21:15	19.63	852	8.58	35.0						9-27-19 15:15	9.07	1433	8.95	0.1					
6-28-19 0:45	20.20	1196	8.91	3.2	6-27-19 21:30					6-27-19 21:30	19.56	851	8.58	29.5						9-27-19 15:30	9.05	1438	8.95	0.0					
6-28-19 1:00	20.18	1204	8.90	2.9	6-27-19 21:45	720.88				6-27-19 21:45	19.49	854	8.58	26.1						9-27-19 15:45	9.03	1438	8.94	0.0					
6-28-19 1:15	20.16	1200	8.90	3.3	6-27-19 22:00	720.88				6-27-19 22:00	19.40	858	8.58	28.4						9-27-19 16:00	9.01	1437	8.94	0.0					
6-28-19 1:30	20.14	1202	8.91	3.7	6-27-19 22:15	720.88				6-27-19 22:15	19.30	854	8.59	28.8						9-27-19 16:15	9.00	1434	8.95	3.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-28-19 1:45	20.13	1194	8.91	3.5	6-27-19 22:30	720.88				6-27-19 22:30	19.29	853	8.59	28.9						9-27-19 16:30	8.99	1435	8.95	0.4					
6-28-19 2:00	20.12	1199	8.91	358.7	6-27-19 22:45	720.88				6-27-19 22:45	19.31	853	8.59	26.7						9-27-19 16:45	8.97	1435	8.95	0.5					
6-28-19 2:15	20.10	1204	8.90	3.7	6-27-19 23:00					6-27-19 23:00	19.33	853	8.59	27.8						9-27-19 17:00	8.95	1435	8.96	0.0					
6-28-19 2:30	20.08	1202	8.92	2.8	6-27-19 23:15					6-27-19 23:15	19.39	856	8.59	28.2						9-27-19 17:15	8.89	1431	8.96	0.0					
6-28-19 2:45	20.03	1200	8.90	2.8	6-27-19 23:30					6-27-19 23:30	19.52	854	8.59	27.0						9-27-19 17:30	8.93	1436	8.97	0.0					
6-28-19 3:00	20.01	1203	8.83	3.0	6-27-19 23:45					6-27-19 23:45	19.67	854	8.59	28.0						9-27-19 17:45	8.91	1437	8.98	0.0					
6-28-19 3:15	19.93	1202	8.91	2.7	6-28-19 0:00					6-28-19 0:00	19.68	854	8.58	27.1						9-27-19 18:00	8.89	1437	8.98	0.1					
6-28-19 3:30	19.92	1198	8.92	2.6	6-28-19 0:15	19.83	1293	8.07	3.6	6-28-19 0:15	19.57	855	8.58	28.2						9-27-19 18:15	8.88	1436	8.99	0.2					
6-28-19 3:45	19.87	1197	8.90	2.6	6-28-19 0:30	19.79	1295	8.04	3.8	6-28-19 0:30	19.55	856	8.59	27.0						9-27-19 18:30	8.89	1434	8.99	0.0					
6-28-19 4:00	19.82	1202	8.89	3.1	6-28-19 0:45	19.75	1293	8.03	10.4	6-28-19 0:45	19.47	855	8.59	27.2						9-27-19 18:45	8.88	1435	9.01	0.1					
6-28-19 4:15	19.78	1195	8.89	3.1	6-28-19 1:00	19.70	1293	8.03	3.5	6-28-19 1:00	19.45	855	8.58	26.3						9-27-19 19:00	8.88	1434	9.01	0.4					
6-28-19 4:30	19.75	1207	8.87	2.8	6-28-19 1:15	19.68	1254	8.04	3.4	6-28-19 1:15	19.44	855	8.58	25.8						9-27-19 19:15	8.87	1437	9.02	0.3					
6-28-19 4:45	19.72	1199	8.82	2.8	6-28-19 1:30	19.70	1253	8.05	3.0	6-28-19 1:30	19.41	855	8.58	24.8						9-27-19 19:30	8.84	1445	7.49	0.3					
6-28-19 5:00	19.67	1202	8.63	2.5	6-28-19 1:45	19.70	1252	8.06	2.3	6-28-19 1:45	19.40	855	8.59	24.0						9-27-19 20:00	8.81	1445	7.63	0.1					
6-28-19 5:15	19.62	1203	8.51	2.9	6-28-19 2:00	19.70	1251	8.06	3.5	6-28-19 2:00	19.36	855	8.59	24.4						9-27-19 20:15	8.79	1442	7.95	0.4					
6-28-19 5:30	19.60	1200	8.70	2.9	6-28-19 2:15	19.67	1291	8.07	3.6	6-28-19 2:15	19.32	854	8.59	23.4						9-27-19 20:30	8.77	1440	8.46	0.4					
6-28-19 5:45	19.57	1195	8.67	3.7	6-28-19 2:30					6-28-19 2:30	19.29	855	8.59	25.0						9-27-19 20:45	8.75	1442	7.82	0.3					
6-28-19 6:00	19.51	1199	8.59	3.6	6-28-19 2:45					6-28-19 2:45	19.24	852	8.59	24.9						9-27-19 21:00	8.76	1439	7.67	0.5					
6-28-19 6:15	19.46	1199	8.59	4.1	6-28-19 3:00	19.60	1295	8.06	3.4	6-28-19 3:00	19.20	850	8.60	24.7						9-27-19 21:15	8.75	1444	7.57	1.2					
6-28-19 6:30	19.41	1198	8.68	3.7	6-28-19 3:15	19.50	1294	8.06	3.0	6-28-19 3:15	19.10	855	8.60	23.8						9-27-19 21:30	8.74	1444	7.55	0.2					
6-28-19 6:45	19.39	1198	8.57	5.8	6-28-19 3:30	19.38	1290	8.07	2.6	6-28-19 3:30	19.11	853	8.59	24.4						9-27-19 21:45	8.75	1444	7.54	0.2					
6-28-19 7:00	19.37	1195	8.46	4.3	6-28-19 3:45	19.42	1293	8.06	2.9	6-28-19 3:45	19.08	854	8.59	23.1						9-27-19 22:00	8.74	1445	7.66	0.1					
6-28-19 7:15	19.31	1192	8.45	5.5	6-28-19 4:00	19.39	1294	8.06	6.9	6-28-19 4:00	19.04	854	8.59	23.9						9-27-19 22:15	8.73	1443	7.71	0.0					
6-28-19 7:30	19.28	1195	8.39	4.6	6-28-19 4:15	19.33	1295	8.06	2.9	6-28-19 4:15	19.00	854	8.59	25.7						9-27-19 22:30	8.72	1442	7.59	0.0					
6-28-19 7:45	19.25	1194	8.30	7.1	6-28-19 4:30	19.32	1295	8.06	3.0	6-28-19 4:30	18.94	854	8.58	24.0						9-27-19 22:45	8.72	1442	7.59	0.5					
6-28-19 8:00	19.19	1191	8.25	6.4	6-28-19 4:45	19.29	1296	8.06	4.4	6-28-19 4:45	18.92	854	8.58	22.2						9-27-19 23:00	8.71	1442	7.52	0.3					
6-28-19 8:15	19.16	1188	8.21	7.9	6-28-19 5:00	19.29	1296	8.06	2.9	6-28-19 5:00	18.89	854	8.58	23.0						9-27-19 23:15	8.73	1440	7.52	0.1					
6-28-19 8:30	19.12	1189	8.14	6.7	6-28-19 5:15	19.27	1297	8.05	2.3	6-28-19 5:15	18.85	854	8.57	22.8						9-27-19 23:30	8.72	1443	7.52	0.2					
6-28-19 8:45	19.09	1191	7.99	5.7	6-28-19 5:30	19.26	1297	8.05	2.0	6-28-19 5:30	18.81	854	8.58	23.0						9-27-19 23:45	8.72	1444	7.49	0.1					
6-28-19 9:00	19.07	1189	8.02	5.5	6-28-19 5:45	19.23	1296	8.05	2.6	6-28-19 5:45	18.77	854	8.57	23.2						9-28-19 0:00	8.67	1444	7.52	0.2					
6-28-19 9:15	19.02	1194	7.87	8.4	6-28-19 6:00	19.21	1297	8.05	2.3	6-28-19 6:00	18.73	854	8.57	25.5						9-28-19 0:15	8.66	1443	7.52	0.6					
6-28-19 9:30	18.98	1195	7.73	8.2	6-28-19 6:15	19.17	1299	8.05	2.8	6-28-19 6:15	18.70	854	8.57	20.2						9-28-19 0:30	8.66	1442	7.37	0.2					
6-28-19 9:45	18.97	1195	7.61	5.3	6-28-19 6:30	19.13	1300	8.05	2.3	6-28-19 6:30	18.66	854	8.57	22.7						9-28-19 0:45	8.65	1441	7.50	0.2					
6-28-19 10:00	18.95	1195	7.59	6.2	6-28-19 6:45	19.12	1301	8.05	3.1	6-28-19 6:45	18.63	854	8.56	22.7						9-28-19 1:00	8.61	1441	7.54	0.3					
6-28-19 10:15	18.92	1194	7.68	5.3	6-28-19 7:00	19.10	1303	8.04	3.1	6-28-19 7:00	18.58	855	8.56	22.3						9-28-19 1:15	8.60	1443	7.51	0.1					
6-28-19 10:30	18.88	1198	7.85	4.2	6-28-19 7:15	19.04	1305	8.04	1.7	6-28-19 7:15	18.55	855	8.56	22.9						9-28-19 1:30	8.57	1444	7.52	0.5					
6-28-19 10:45	18.84	1194	7.95	4.7	6-28-19 7:30	19.04	1305	8.04	1.6	6-28-19 7:30	18.51	854	8.56	22.4						9-28-19 1:45	8.55	1444	7.56	0.3					
6-28-19 11:00	18.82	1195	7.78	4.7	6-28-19 7:45	19.02	1304	8.04	1.9	6-28-19 7:45	18.49	855	8.56	22.0						9-28-19 2:00	8.52	1443	7.55	0.3					
6-28-19 11:15	18.78	1196	7.63	5.1	6-28-19 8:00	18.98	1306	8.04	1.7	6-28-19 8:00	18.46	855	8.56	22.0						9-28-19 2:15	8.49	1443	7.45	0.0					
6-28-19 11:30	18.75	1195	7.64	4.8	6-28-19 8:15	18.91	1299	8.05	2.8	6-28-19 8:15	18.41	854	8.55	23.1						9-28-19 2:30	8.47	1442	7.40	0.0					
6-28-19 11:45	18.73	1201	7.60	4.8	6-28-19 8:30	18.93	1304	8.04	1.4	6-28-19 8:30	18.39	854	8.55	22.5						9-28-19 2:45	8.46	1442	7.50	0.3					
6-28-19 12:00	18.70	1201	7.60	3.7	6-28-19 8:45	18.93	1308	8.04	1.7	6-28-19 8:45	18.35	854	8.55	21.3						9-28-19 3:00	8.43	1442	7.45	0.7					
6-28-19 12:15	18.66	1205	7.71	4.0	6-28-19 9:00	18.92	1308	8.03	1.7	6-28-19 9:00	18.33	854	8.55	21.6						9-28-19 3:15	8.42	1442	7.40	0.0					
6-28-19 12:30	18.64	1208	7.61	3.7	6-28-19 9:15	18.89	1308	8.04	1.5	6-28-19 9:15	18.30	854	8.54	21.1						9-28-19 3:30	8.39	1445	7.32	0.0					
6-28-19 12:45	18.62	1208	7.55	3.9	6-28-19 9:30	18.87	1309	8.03	1.6	6-28-19 9:30	18.29	854	8.54	20.4						9-28-19 3:45	8.37	1445	7.38	0.0					
6-28-19 13:00	18.59	1210	7.51	3.3	6-28-19 9:45	18.84	1310	8.03	1.4	6-28-19 9:45	18.26	854	8.54	20.1						9-28-19 4:00	8.34	1445	7.34	0.0					
6-28-19 13:15	18.56	1208	7.56	4.4	6-28-19 10:00	18.84	1312	8.03	1.5	6-28-19 10:00	18.24	854	8.54	21.0						9-28-19 4:15	8.29	1445	7.19	0.0					
6-28-19 13:30	18.54	1209	7.45	3.6	6-28-19 10:15	18.81	1312	8.03	1.4	6-28-19 10:15	18.22	855	8.54	20.2						9-28-19 4:30	8.27	1443	7.39	0.0					
6-28-19 13:45	18.49	1210	7.36	3.7	6-28-19 10:30	18.78	1313	8.03	1.7	6-28-19 10:30	18.19	855	8.54	19.8						9-28-19 4:45	8.25	1443	7.41	0.0					
6-28-19 14:00	18.48	1210	7.34	3.3	6-28-19 10:45	18.76	1316	8.02	1.8	6-28-19 10:45	18.17	855	8.54	19.4						9-28-19 5:00	8.25	1443	7.50	0.2					
6-28-19 14:15	18.47	1210	7.37	3.5	6-28-19 11:00	18.71	1316	8.02	1.4	6-28-19 11:00	18.12	855	8.54	18.7						9-28-19 5:15	8.23	1444	7.44	0.1					
6-28-19 14:30	18.46	1210	7.39	3.3	6-28-19 11:15	18.71	1311	8.02	1.0	6-28-19 11:15	18.12	855	8.54	18.8						9-28-19 5:30	8.21	1446	7.44	0.0					
6-28-19 14:45	18.43	1211	7.28	3.4	6-28-19 11:30	18.73	1314	8.01	1.2	6-28-19 11:30	18.09	855	8.53	18.0						9-28-19 5:45	8.19	1445	7.48	0.0					
6-28-19 15:00	18.42	1211	7.26	3.2	6-28-19 11:45	18.69	1289	8.00	0.9	6-28-19 11:45	18.07	855	8.54	17.5						9-28-19 6:00	8.17	1445	7.54	0.0					
6-28-19 15:15	18.42	1211	7.31	3.4	6-28-19 12:00	18.68	1319	8.00	212.8	6-28-19 12:00	18.04	855	8.53	18.5						9-28-19 6:15	8.14	1444	7.47	0.0					
6-28-19 15:30	18.42	1211	7.34	3.1	6-28-19 12:15	18.69	1244	8.00	1.2	6-28-19 12:15	18.02	855	8.53	18.8						9-28-19 6:30	8.12	1444	7.40	0.0					
6-28-19 15:45	18.45	1212	7.37	3.2	6-28-19 12:30	18.66	1244	8.00	1.4	6-28-19 12:30	18.00	855	8.53	18.4						9-28-19 6:45	8.08	1444	7.36	0.1					
6-28-19 16:00	18.46	1213	7.39	3.2	6-28-19 12:45	18.63	1235	8.00	0.9	6-28-19 12:45	17.97	855	8.53	18.6						9-28-19 7:00	8.07	1443	7.33	0.0					
6-28-19 16:15	18.51	1215	7.32	3.4	6-28-19 13:00	18.60	1239	8.00	1.0	6-28-19 13:00	17.95	855	8.52	19.8						9-28-19 7:15	8.05	1443	7.29	0.0					
6-28-19 16:30	18.67	1216	7.42	6.0	6-28-19 13:15	18.58	1265	8.00	0.9	6-28-19 13:15	17.91	854	8.52	18.6						9-28-19 7:30	8.02	1446	7.24	0.0					
6-28-19 16:45	18.69	1214	7.33	3.0	6-28-19 13:30	18.57	1267	7.99	0.8	6-28-19 13:30	17.88	854	8.53	17.3						9-28-19 7:45	7.99	1445	7.24	0.0					
6-28-19 17:00	18.73	1216	7.27	2.9	6-28-19 13:45	18.58	1268	7.99	0.9	6-28-19 13:45	17.86	854	8.52	18.4						9-28-19 8:00	7.93	1447	7.27	0.0					
6-28-19 17:15	18.83	1217	7.15	3.1	6-28-19 14:00	18.56	1269	7.99	1.1	6-28-19 14:00	17.85	854	8.52	17.2						9-28-19 8:15	7.93	1446	7.08	0.0					
6-28-19 17:30	18.93	1218	7.43	2.5	6-28-19 14:15	18.53	1200	7.99	0.8	6-28-19 14:15	17.83	853	8.51	17.6						9-28-19 8:30	7.92	1445	7.03	0.0					
6-28-19 17:45	19.15	1219	7.34	2.9	6-28-19 14:30	18.54	1198	8.00	0.9	6-28-19 14:30	17.81	853	8.52	17.9						9-28-19 8:45	7.92	1445	7.02	0.0					
6-28-19 18:00	19.19	1220	7.41	2.7	6-28-19 14:45	18.54	1196	8.00	1.0	6-28-19 14:45	17.81	853	8.52	17.0						9-28-19 9:00	7.89	1445	7.03	0.0					
6-28-19 18:15	19.29	1220	7.48	3.0	6-28-19 15:00	18.54	1191	7.99	4.4	6-28-19 15:00	17.80	854	8.52	16.6						9-28-19 9:15	7.85	1444	7.00	0.8					
6-28-19 18:30	19.33	1221	7.60	3.7	6-28-19 15:15	18.51	1314	8.00	2.7	6-28-19 15:15	17.80	854	8.52	17.5						9-28-19 9:30	7.84	1446	6.95	0.0					
6-28-19 18:45	19.37	1220	7.91	3.1	6-28-19 15:30	18.55	1313	8.00	2.8	6-28-19 15:30	17.81	854	8.52	18.6						9-28-19 9:45	7.82	1448	6.96	0.0					
6-28-19 19:00	19.43	1218	8.24	7.5	6-28-19 15:45	18.55	1307	7.99	3.6	6-28-19 15:45	17.84	854	8.52	18.5						9-28-19 10:00	7.79	1448	6.95	0.0					
6-28-19 19:15	19.36	1218	8.13	3.1	6-28-19 16:00	18.59	1303	7.99	2.8	6-28-19 16:00	17.87	854	8.52	19.4						9-28-19 10:15	7.78	1446	7.01	0.0					
6-28-19 19:30	19.38	1218	8.08	2.7	6-28-19 16:15	18.65	1302	7.99	2.4	6-28-19 16:15	17.94	857	8.49	20.6						9-28-19 10:30	7.76	1445	7.08	0.0					
6-28-19 19:45	19.70	1219	8.02	3.6	6-28-19 16:30	18.76	1301	7.96	2.2	6-28-19 16:30	18.00	856	8.50	19.7						9-28-19 10:45	7.69	1445	7.62	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-28-19 20:00	19.65	1218	7.95	2.6	6-28-19 16:45	18.70	1305	7.92	3.3	6-28-19 16:45	18.07	857	8.49	20.0						9-28-19 11:00	7.68	1445	7.33	0.0					
6-28-19 20:15	19.55	1223	7.70	3.5	6-28-19 17:00	18.64	1281	7.95	3.9	6-28-19 17:00	18.22	857	8.50	22.3						9-28-19 11:15	7.66	1446	7.10	0.0					
6-28-19 20:30	19.60	1220	7.84	3.2	6-28-19 17:15	18.66	1294	7.98	5.1	6-28-19 17:15	18.34	855	8.51	18.7						9-28-19 11:30	7.65	1448	7.05	0.0					
6-28-19 20:45	19.71	1223	8.35	3.5	6-28-19 17:30	18.77	1287	7.97	5.8	6-28-19 17:30	18.51	856	8.52	19.3						9-28-19 11:45	7.65	1448	7.04	0.1					
6-28-19 21:00	19.90	1225	8.33	2.7	6-28-19 17:45	18.82	1290	7.95	4.5	6-28-19 17:45	18.56	857	8.50	18.5						9-28-19 12:00	7.62	1449	6.99	0.0					
6-28-19 21:15	20.10	1222	8.29	3.0	6-28-19 18:00	18.79	1285	7.94	5.0	6-28-19 18:00	18.66	857	8.50	20.3						9-28-19 12:15	7.59	1446	7.10	0.1					
6-28-19 21:30	20.25	1226	8.40	2.9	6-28-19 18:15	18.78	1282	7.96	4.3	6-28-19 18:15	18.62	857	8.50	18.9						9-28-19 12:30	7.57	1445	7.20	0.0					
6-28-19 21:45	20.54	1227	8.03	2.7	6-28-19 18:30	18.85	1282	8.00	3.6	6-28-19 18:30	18.69	857	8.50	19.9						9-28-19 12:45	7.55	1446	7.14	0.0					
6-28-19 22:00	20.63	1228	8.47	3.4	6-28-19 18:45	18.85	1284	8.00	3.7	6-28-19 18:45	18.74	857	8.49	19.5						9-28-19 13:00	7.52	1446	7.03	0.1					
6-28-19 22:15	20.92	1226	8.81	3.9	6-28-19 19:00	18.85	1282	8.02	3.8	6-28-19 19:00	18.85	854	8.51	19.3						9-28-19 13:15	7.51	1446	7.02	0.0					
6-28-19 22:30	20.96	1236	8.70	3.0	6-28-19 19:15	18.86	1274	8.04	3.4	6-28-19 19:15	18.84	856	8.50	19.9						9-28-19 13:30	7.49	1449	6.97	0.3					
6-28-19 22:45	21.20	1224	8.43	3.8	6-28-19 19:30	19.07	1273	8.02	3.8	6-28-19 19:30	19.09	856	8.50	19.5						9-28-19 13:45	7.44	1448	7.03	0.0					
6-28-19 23:00	21.24	1226	8.67	3.1	6-28-19 19:45	19.35	1274	8.05	3.1	6-28-19 19:45	19.28	857	8.49	19.6						9-28-19 14:00	7.44	1449	7.03	0.0					
6-28-19 23:15	21.45	1227	8.70	20.1	6-28-19 20:00	19.57	1273	8.02	4.4	6-28-19 20:00	19.10	857	8.48	19.3						9-28-19 14:15	7.44	1447	7.17	0.0					
6-28-19 23:30	21.56	1233	8.76	3.2	6-28-19 20:15	19.33	1283	8.05	4.4	6-28-19 20:15	19.20	858	8.48	20.1						9-28-19 14:30	7.43	1446	7.02	0.0					
6-28-19 23:45	21.52	1227	8.81	3.6	6-28-19 20:30	19.44	1282	8.06	3.0	6-28-19 20:30	19.66	857	8.49	19.5						9-28-19 14:45	7.40	1446	7.04	0.0					
6-29-19 0:00	21.56	1239	8.81	3.1	6-28-19 20:45	19.39	1209	8.03	3.7	6-28-19 20:45	19.88	857	8.49	19.3						9-28-19 15:00	7.40	1446	7.03	0.0					
6-29-19 0:15	21.65	1225	8.79	18.6	6-28-19 21:00	19.50	1227	8.06	3.4	6-28-19 21:00	20.06	856	8.49	19.2						9-28-19 15:15	7.39	1447	6.99	0.0					
6-29-19 0:30	21.59	1232	8.83	3.1	6-28-19 21:15	19.48	1274	8.05	3.2	6-28-19 21:15	20.40	856	8.49	19.3						9-28-19 15:30	7.38	1449	6.94	0.0					
6-29-19 0:45	21.60	1227	8.85	3.2	6-28-19 21:30	19.37	1274	8.04	4.2	6-28-19 21:30	20.43	856	8.49	19.1						9-28-19 15:45	7.37	1450	6.96	0.0					
6-29-19 1:00	21.57	1226	8.86	3.2	6-28-19 21:45	19.30	1273	8.04	7.2	6-28-19 21:45	20.63	856	8.49	22.5						9-28-19 16:00	7.37	1449	6.95	0.0					
6-29-19 1:15	21.45	1225	8.68	3.7	6-28-19 22:00	19.62	1274	8.02	3.8	6-28-19 22:00	20.83	856	8.49	18.6						9-28-19 16:15	7.38	1447	6.98	0.0					
6-29-19 1:30	21.36	1236	8.67	3.5	6-28-19 22:15	19.65	1283	8.05	5.0	6-28-19 22:15	21.21	855	8.50	20.2						9-28-19 16:30	7.37	1448	6.98	0.0					
6-29-19 1:45	21.31	1235	8.48	4.0	6-28-19 22:30	19.97	1282	8.05	5.5	6-28-19 22:30	21.40	856	8.49	19.7						9-28-19 16:45	7.39	1446	6.95	0.0					
6-29-19 2:00	21.28	1246	8.23	35.6	6-28-19 22:45	20.00	1282	8.07	5.3	6-28-19 22:45	21.60	857	8.49	18.9						9-28-19 17:00	7.40	1447	6.96	0.0					
6-29-19 2:15	21.26	1233	8.38	3.7	6-28-19 23:00	20.03	1281	8.07	5.3	6-28-19 23:00	21.87	858	8.51	20.5						9-28-19 17:15	7.43	1445	6.99	0.0					
6-29-19 2:30	21.27	1244	8.57	30.5	6-28-19 23:15	19.75	1276	8.10	5.5	6-28-19 23:15	21.71	857	8.50	19.7						9-28-19 17:30	7.44	1449	6.97	0.0					
6-29-19 2:45	21.26	1234	8.57	3.3	6-28-19 23:30	19.79	1276	8.13	5.8	6-28-19 23:30	21.61	857	8.51	18.7						9-28-19 17:45	7.46	1447	6.99	0.0					
6-29-19 3:00	21.22	1234	8.48	3.0	6-28-19 23:45	20.02	1276	8.15	5.4	6-28-19 23:45	21.85	859	8.52	18.7						9-28-19 18:00	7.47	1449	7.00	0.0					
6-29-19 3:15	21.17	1232	8.41	3.6	6-29-19 0:00	19.99	1274	8.14	5.8	6-29-19 0:00	21.85	858	8.51	19.0						9-28-19 18:15	7.48	1448	7.02	0.0					
6-29-19 3:30	21.13	1247	8.42	4.6	6-29-19 0:15	20.31	1281	8.15	5.8	6-29-19 0:15	21.95	858	8.51	18.9						9-28-19 18:30	7.49	1446	7.02	0.0					
6-29-19 3:45	21.08	1235	8.21	4.0	6-29-19 0:30	20.22	1280	8.15	6.2	6-29-19 0:30	21.90	858	8.52	19.0						9-28-19 18:45	7.50	1446	7.03	0.0					
6-29-19 4:00	21.03	1234	8.14	5.0	6-29-19 0:45	20.17	1279	8.18	6.2	6-29-19 0:45	21.72	858	8.52	20.9						9-28-19 19:00	7.52	1446	6.97	0.0					
6-29-19 4:15	20.98	1233	8.16	3.5	6-29-19 1:00	20.19	1284	8.16	5.4	6-29-19 1:00	21.64	857	8.53	19.8						9-28-19 19:15	7.55	1449	6.97	0.0					
6-29-19 4:30	20.92	1236	8.08	3.8	6-29-19 1:15	20.14	1281	8.15	4.3	6-29-19 1:15	21.54	858	8.54	18.8						9-28-19 19:30	7.57	1450	6.94	0.0					
6-29-19 4:45	20.87	1234	8.02	3.4	6-29-19 1:30	20.12	1281	8.15	4.6	6-29-19 1:30	21.32	857	8.54	18.1						9-28-19 19:45	7.60	1449	7.00	0.0					
6-29-19 5:00	20.82	1234	8.10	4.2	6-29-19 1:45	20.16	1278	8.15	3.5	6-29-19 1:45	21.24	857	8.54	18.4						9-28-19 20:00	7.65	1448	7.02	0.0					
6-29-19 5:15	20.76	1232	8.05	3.4	6-29-19 2:00	20.10	1282	8.14	4.3	6-29-19 2:00	21.20	858	8.54	19.6						9-28-19 20:15	7.71	1448	7.05	0.0					
6-29-19 5:30	20.70	1233	8.03	3.4	6-29-19 2:15	20.08	1285	8.16	4.8	6-29-19 2:15	21.09	857	8.54	18.3						9-28-19 20:30	7.82	1446	7.10	0.0					
6-29-19 5:45	20.65	1228	8.01	3.7	6-29-19 2:30	20.11	1285	8.15	4.6	6-29-19 2:30	21.07	857	8.55	18.3						9-28-19 20:45	7.90	1446	7.10	0.4					
6-29-19 6:00	20.62	1232	7.76	3.1	6-29-19 2:45	20.10	1285	8.15	4.4	6-29-19 2:45	20.99	857	8.54	17.8						9-28-19 21:00	7.93	1445	7.11	0.0					
6-29-19 6:15	20.60	1231	7.96	3.7	6-29-19 3:00	20.08	1285	8.14	4.7	6-29-19 3:00	20.90	857	8.55	18.1						9-28-19 21:15	7.94	1448	7.13	0.0					
6-29-19 6:30	20.56	1237	7.90	3.3	6-29-19 3:15	20.09	1279	8.14	3.1	6-29-19 3:15	20.81	856	8.55	18.4						9-28-19 21:30	7.96	1448	7.16	0.0					
6-29-19 6:45	20.47	1232	7.67	3.3	6-29-19 3:30	20.08	1280	8.13	2.9	6-29-19 3:30	20.74	857	8.56	18.9						9-28-19 21:45	7.98	1448	7.16	0.0					
6-29-19 7:00	20.44	1235	7.45	2.7	6-29-19 3:45	20.06	1280	8.14	3.0	6-29-19 3:45	20.67	857	8.56	20.2						9-28-19 22:00	8.00	1448	7.17	0.0					
6-29-19 7:15	20.38	1231	7.49	2.8	6-29-19 4:00	20.01	1280	8.14	2.6	6-29-19 4:00	20.56	857	8.56	18.3						9-28-19 22:15	8.02	1444	7.13	0.0					
6-29-19 7:30	20.34	1233	7.60	2.6	6-29-19 4:15	19.98	1280	8.14	2.8	6-29-19 4:15	20.51	857	8.56	17.8						9-28-19 22:30	8.04	1443	7.13	0.0					
6-29-19 7:45	20.28	1232	7.87	3.1	6-29-19 4:30	19.95	1280	8.13	2.5	6-29-19 4:30	20.43	857	8.56	17.7						9-28-19 22:45	8.01	1444	7.16	0.0					
6-29-19 8:00	20.18	1232	7.56	2.7	6-29-19 4:45	19.94	1277	8.12	2.0	6-29-19 4:45	20.35	857	8.56	17.8						9-28-19 23:00	8.00	1444	7.18	0.0					
6-29-19 8:15	20.13	1232	7.58	2.5	6-29-19 5:00	19.92	1280	8.14	1.8	6-29-19 5:00	20.29	857	8.56	18.1						9-28-19 23:15	8.00	1443	7.19	0.0					
6-29-19 8:30	20.06	1235	7.69	2.4	6-29-19 5:15	19.89	1283	8.14	2.5	6-29-19 5:15	20.24	857	8.55	17.5						9-28-19 23:30	8.01	1447	7.17	0.0					
6-29-19 8:45	19.98	1229	7.82	3.2	6-29-19 5:30	19.87	1285	8.13	2.3	6-29-19 5:30	20.20	856	8.56	17.2						9-28-19 23:45	8.01	1446	7.15	0.0					
6-29-19 9:00	19.90	1238	7.81	2.7	6-29-19 5:45	19.85	1284	8.13	2.4	6-29-19 5:45	20.10	855	8.56	17.3						9-29-19 0:00	8.01	1447	7.12	0.0					
6-29-19 9:15	19.85	1223	8.14	4.0	6-29-19 6:00	19.77	1283	8.13	2.5	6-29-19 6:00	20.04	855	8.56	17.6						9-29-19 0:15	7.99	1446	7.10	0.0					
6-29-19 9:30	19.77	1226	8.11	3.2	6-29-19 6:15	19.72	1211	8.13	2.0	6-29-19 6:15	20.00	856	8.55	16.2						9-29-19 0:30	7.98	1447	7.08	0.0					
6-29-19 9:45	19.72	1225	7.80	4.2	6-29-19 6:30	19.73	1211	8.13	2.3	6-29-19 6:30	19.97	856	8.55	16.2						9-29-19 0:45	7.96	1445	7.07	0.0					
6-29-19 10:00	19.65	1223	7.41	3.3	6-29-19 6:45	19.72	1211	8.13	1.9	6-29-19 6:45	19.89	856	8.56	24.2						9-29-19 1:00	7.95	1444	7.03	0.0					
6-29-19 10:15	19.62	1220	7.45	4.3	6-29-19 7:00	19.68	1212	8.13	2.1	6-29-19 7:00	19.80	855	8.56	17.6						9-29-19 1:15	7.94	1444	7.00	0.0					
6-29-19 10:30	19.57	1224	7.68	5.9	6-29-19 7:15	19.64	1284	8.12	3.6	6-29-19 7:15	19.74	856	8.56	17.5						9-29-19 1:30	7.91	1447	7.00	0.0					
6-29-19 10:45	19.51	1221	7.69	3.8	6-29-19 7:30	19.56	1284	8.12	3.4	6-29-19 7:30	19.65	855	8.57	17.7						9-29-19 1:45	7.90	1446	6.98	0.0					
6-29-19 11:00	19.44	1224	7.67	5.7	6-29-19 7:45	19.50	1284	8.12	3.4	6-29-19 7:45	19.57	856	8.56	18.2						9-29-19 2:00	7.90	1447	6.99	0.0					
6-29-19 11:15	19.39	1213	7.50	4.5	6-29-19 8:00	19.43	1284	8.10	3.4	6-29-19 8:00	19.50	857	8.56	17.7						9-29-19 2:15	7.89	1446	6.98	0.0					
6-29-19 11:30	19.42	1218	7.28	8.8	6-29-19 8:15	19.39	1286	8.12	3.4	6-29-19 8:15	19.43	857	8.56	17.6						9-29-19 2:30	7.86	1445	6.99	0.0					
6-29-19 11:45	19.39	1218	7.29	3.9	6-29-19 8:30	19.35	1287	8.11	3.4	6-29-19 8:30	19.36	857	8.55	18.4						9-29-19 2:45	7.82	1445	7.07	0.0					
6-29-19 12:00	19.33	1220	7.36	3.8	6-29-19 8:45	19.34	1286	8.10	3.1	6-29-19 8:45	19.33	857	8.55	18.0						9-29-19 3:00	7.78	1446	7.00	0.0					
6-29-19 12:15	19.31	1219	7.34	5.8	6-29-19 9:00	19.27	1286	8.11	3.7	6-29-19 9:00	19.28	857	8.56	17.2						9-29-19 3:15	7.76	1456	7.01	0.0					
6-29-19 12:30	19.29	1219	7.37	4.0	6-29-19 9:15	19.29	1246	8.12	3.1	6-29-19 9:15	19.22	857	8.55	17.5						9-29-19 3:30	7.75	1448	7.01	0.0					
6-29-19 12:45	19.25	1216	7.44	4.8	6-29-19 9:30	19.33	1246	8.11	3.2	6-29-19 9:30	19.13	857	8.56	17.7						9-29-19 3:45	7.73	1448	7.00	0.0					
6-29-19 13:00	19.21	1216	7.47	3.5	6-29-19 9:45	19.30	1246	8.11	2.5	6-29-19 9:45	19.08	858	8.55	17.1						9-29-19 4:00	7.69	1447	7.01	0.0					
6-29-19 13:15	19.17	1215	7.47	4.3	6-29-19 10:00	19.27	1246	8.11	2.9	6-29-19 10:00	19.03	859	8.55	18.7						9-29-19 4:15	7.64	1446	7.16	0.0					
6-29-19 13:30	19.15	1216	7.46	4.3	6-29-19 10:15	19.23	1165	8.12	3.6	6-29-19 10:15	18.98	859	8.55	18.1						9-29-19 4:30	7.63	1445	7.14	0.0					
6-29-19 13:45	19.12	1215	7.43	4.9	6-29-19 10:30	19.18	1166	8.11	3.7	6-29-19 10:30	18.94	859	8.55	18.6						9-29-19 4:45	7.61	1445	7.12	0.0					
6-29-19 14:00	19.11	1218	7.45	3.9	6-29-19 10:45	19.15	1155	8.10	3.0	6-29-19 10:45	18.88	860	8.54	17.7						9-29-19 5:00	7.56	1445	7.51	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-29-19 14:15	19.08	1215	7.44	4.2	6-29-19 11:00	19.12	1166	8.09	2.2	6-29-19 11:00	18.83	861	8.54	19.0						9-29-19 5:15	7.53	1448	7.15	0.0					
6-29-19 14:30	19.05	1214	7.46	3.6	6-29-19 11:15	19.09	1285	8.09	3.5	6-29-19 11:15	18.78	861	8.54	19.1						9-29-19 5:30	7.49	1448	7.51	0.0					
6-29-19 14:45	18.99	1209	7.54	5.0	6-29-19 11:30	19.06	1285	8.09	3.6	6-29-19 11:30	18.73	862	8.54	20.1						9-29-19 5:45	7.47	1448	7.36	0.0					
6-29-19 15:00	18.98	1210	7.52	4.1	6-29-19 11:45	19.05	1287	8.08	2.4	6-29-19 11:45	18.70	862	8.53	19.0						9-29-19 6:00	7.43	1448	7.52	0.0					
6-29-19 15:15	18.95	1211	7.47	4.9	6-29-19 12:00	19.04	1287	8.08	3.0	6-29-19 12:00	18.65	862	8.54	18.7						9-29-19 6:15	7.37	1446	7.48	0.0					
6-29-19 15:30	18.90	1212	7.47	3.8	6-29-19 12:15	19.06	1290	8.08	10.9	6-29-19 12:15	18.62	863	8.53	19.2						9-29-19 6:30	7.34	1446	7.27	0.0					
6-29-19 15:45	18.87	1211	7.47	5.0	6-29-19 12:30	19.05	1291	8.08	11.1	6-29-19 12:30	18.58	864	8.53	19.2						9-29-19 6:45	7.32	1446	7.04	0.0					
6-29-19 16:00	18.86	1210	7.50	4.0	6-29-19 12:45	18.96	1290	8.09	16.6	6-29-19 12:45	18.53	865	8.53	20.0						9-29-19 7:00	7.28	1446	7.02	0.0					
6-29-19 16:15	18.81	1211	7.49	4.6	6-29-19 13:00	18.95	1291	8.09	15.4	6-29-19 13:00	18.48	864	8.53	19.8						9-29-19 7:15	7.24	1447	7.24	0.0					
6-29-19 16:30	18.82	1206	7.50	4.4	6-29-19 13:15	18.89	1291	8.09	1.3	6-29-19 13:15	18.44	867	8.52	20.6						9-29-19 7:30	7.18	1449	7.24	0.0					
6-29-19 16:45	18.81	1208	7.50	4.7	6-29-19 13:30	18.89	1291	8.09	1.2	6-29-19 13:30	18.43	865	8.52	20.1						9-29-19 7:45	7.14	1449	7.48	0.0					
6-29-19 17:00	18.80	1208	7.51	4.3	6-29-19 13:45	18.89	1290	8.09	1.0	6-29-19 13:45	18.41	867	8.51	20.8						9-29-19 8:00	7.12	1448	7.40	0.0					
6-29-19 17:15	18.82	1206	7.51	4.3	6-29-19 14:00	18.89	1291	8.09	2.0	6-29-19 14:00	18.39	867	8.51	20.0						9-29-19 8:15	7.08	1448	7.39	0.0					
6-29-19 17:30	18.87	1208	7.52	4.5	6-29-19 14:15	18.90	1291	8.09	4.4	6-29-19 14:15	18.40	868	8.51	19.6						9-29-19 8:30	7.04	1447	7.19	0.0					
6-29-19 17:45	18.97	1208	7.54	4.4	6-29-19 14:30	18.88	1291	8.08	2.6	6-29-19 14:30	18.37	868	8.51	19.6						9-29-19 8:45	6.99	1446	7.55	0.0					
6-29-19 18:00	18.99	1212	7.54	4.5	6-29-19 14:45	18.85	1290	8.09	2.3	6-29-19 14:45	18.36	868	8.51	19.6						9-29-19 9:00	6.97	1447	7.58	0.0					
6-29-19 18:15	19.11	1212	7.58	3.9	6-29-19 15:00	18.85	1288	8.09	2.0	6-29-19 15:00	18.34	866	8.51	19.5						9-29-19 9:15	6.93	1447	7.56	0.0					
6-29-19 18:30	19.19	1208	7.54	4.4	6-29-19 15:15	18.84	1291	8.09	2.9	6-29-19 15:15	18.30	868	8.51	19.9						9-29-19 9:30	6.89	1448	7.45	0.0					
6-29-19 18:45	19.27	1208	7.60	4.0	6-29-19 15:30	18.85	1291	8.10	4.8	6-29-19 15:30	18.24	869	8.51	20.1						9-29-19 9:45	6.83	1449	7.55	0.0					
6-29-19 19:00	19.35	1208	7.80	4.4	6-29-19 15:45	18.86	1294	8.09	4.7	6-29-19 15:45	18.22	870	8.51	19.9						9-29-19 10:00	6.81	1448	7.56	0.0					
6-29-19 19:15	19.40	1208	7.81	4.5	6-29-19 16:00	18.86	1295	8.10	5.0	6-29-19 16:00	18.20	871	8.50	22.6						9-29-19 10:15	6.80	1449	7.55	0.0					
6-29-19 19:30	19.37	1208	7.81	4.6	6-29-19 16:15	18.85	1295	8.10	4.3	6-29-19 16:15	18.19	870	8.50	20.2						9-29-19 10:30	6.75	1448	7.25	0.0					
6-29-19 19:45	19.28	1207	7.90	5.7	6-29-19 16:30	18.83	1295	8.10	5.1	6-29-19 16:30	18.17	871	8.49	21.5						9-29-19 10:45	6.71	1447	7.40	0.0					
6-29-19 20:00	19.30	1205	8.17	5.1	6-29-19 16:45	18.85	1295	8.10	6.6	6-29-19 16:45	18.17	871	8.50	20.4						9-29-19 11:00	6.68	1448	7.46	0.0					
6-29-19 20:15	19.68	1204	7.89	4.6	6-29-19 17:00	18.88	1299	8.10	4.1	6-29-19 17:00	18.15	872	8.50	21.2						9-29-19 11:15	6.64	1448	7.35	0.0					
6-29-19 20:30	19.65	1207	8.29	4.2	6-29-19 17:15	18.90	1302	8.11	5.2	6-29-19 17:15	18.16	872	8.49	21.3						9-29-19 11:30	6.62	1450	7.42	0.0					
6-29-19 20:45	19.75	1199	7.95	5.5	6-29-19 17:30	18.91	1298	8.11	4.4	6-29-19 17:30	18.24	872	8.50	20.7						9-29-19 11:45	6.59	1450	7.41	0.0					
6-29-19 21:00	19.74	1207	8.10	4.3	6-29-19 17:45	18.97	1250	8.12	3.7	6-29-19 17:45	18.37	872	8.49	20.5						9-29-19 12:00	6.54	1451	7.26	0.0					
6-29-19 21:15	19.58	1196	7.93	8.0	6-29-19 18:00	18.99	1249	8.11	3.9	6-29-19 18:00	18.44	871	8.49	22.2						9-29-19 12:15	6.53	1450	7.11	0.2					
6-29-19 21:30	19.65	1186	7.96	5.9	6-29-19 18:15	19.15	1193	8.12	3.9	6-29-19 18:15	18.69	872	8.48	20.7						9-29-19 12:30	6.48	1447	7.13	0.0					
6-29-19 21:45	19.80	1184	8.23	12.0	6-29-19 18:30	19.12	1192	8.12	3.7	6-29-19 18:30	18.75	872	8.49	21.0						9-29-19 12:45	6.43	1449	7.03	0.0					
6-29-19 22:00	19.72	1187	7.68	8.8	6-29-19 18:45	19.11	1192	8.13	3.9	6-29-19 18:45	18.86	873	8.48	20.5						9-29-19 13:00	6.37	1449	7.01	0.0					
6-29-19 22:15	19.94	1183	8.20	15.0	6-29-19 19:00	19.08	1193	8.13	2.7	6-29-19 19:00	18.90	873	8.48	19.8						9-29-19 13:15	6.40	1448	7.23	0.0					
6-29-19 22:30	19.71	1179	8.41	25.4	6-29-19 19:15	19.09	1264	8.14	9.4	6-29-19 19:15	18.94	872	8.48	22.0						9-29-19 13:30	6.39	1451	7.30	0.0					
6-29-19 22:45	19.60	1123	7.84	189.9	6-29-19 19:30	19.10	1265	8.14	3.8	6-29-19 19:30	19.07	872	8.50	20.0						9-29-19 13:45	6.38	1452	7.11	0.0					
6-29-19 23:00	19.67	1146	8.51	120.6	6-29-19 19:45	19.06	1262	8.15	4.5	6-29-19 19:45	18.90	871	8.49	20.7						9-29-19 14:00	6.35	1451	7.04	0.0					
6-29-19 23:15	20.67	1181	8.26	38.2	6-29-19 20:00	19.19	1262	8.15	4.6	6-29-19 20:00	19.03	870	8.51	22.2						9-29-19 14:15	6.35	1450	7.04	0.0					
6-29-19 23:30	20.78	1178	8.17	41.2	6-29-19 20:15	19.36	1240	8.18	4.7	6-29-19 20:15	19.26	871	8.49	20.9						9-29-19 14:30	6.33	1449	7.18	0.0					
6-29-19 23:45	21.29	1176	8.48	39.7	6-29-19 20:30	19.41	1239	8.18	4.4	6-29-19 20:30	19.21	872	8.48	21.1						9-29-19 14:45	6.31	1449	7.15	0.0					
6-30-19 0:00	21.55	1159	8.52	52.9	6-29-19 20:45	19.34	1238	8.19	4.2	6-29-19 20:45	19.25	871	8.48	20.2						9-29-19 15:00	6.31	1448	7.19	0.0					
6-30-19 0:15	21.79	1152	8.60	56.3	6-29-19 21:00	19.40	1239	8.17	3.9	6-29-19 21:00	19.36	868	8.49	20.4						9-29-19 15:15	6.31	1447	7.27	1.4					
6-30-19 0:30	21.95	1138	8.61	67.8	6-29-19 21:15	19.24	1257	8.17	128.4	6-29-19 21:15	18.82	850	8.50	27.4						9-29-19 15:30	6.27	1449	7.30	0.0					
6-30-19 0:45	21.98	1108	8.62	97.2	6-29-19 21:30	19.55	1282	8.17	19.5	6-29-19 21:30	18.85	859	8.50	24.8						9-29-19 15:45	6.27	1452	7.25	0.0					
6-30-19 1:00	22.03	1103	8.63	81.4	6-29-19 21:45	19.18	1418	8.11	394.6	6-29-19 21:45	19.34	861	8.49	23.0						9-29-19 16:00	6.29	1450	7.12	0.0					
6-30-19 1:15	22.19	1109	8.64	79.5	6-29-19 22:00	19.25	1376	8.02	206.9	6-29-19 22:00	19.39	863	8.49	21.1						9-29-19 16:15	6.30	1449	7.07	0.0					
6-30-19 1:30	22.12	1103	8.63	67.3	6-29-19 22:15	19.27	1399	7.99	147.1	6-29-19 22:15	19.76	852	8.48	43.4						9-29-19 16:30	6.31	1449	7.07	0.0					
6-30-19 1:45	22.13	1108	8.64	66.4	6-29-19 22:30	19.25	1389	7.97	149.6	6-29-19 22:30	20.34	855	8.48	31.2						9-29-19 16:45	6.33	1449	7.04	0.0					
6-30-19 2:00	22.24	1119	8.64	54.8	6-29-19 22:45	19.32	1386	7.98	107.1	6-29-19 22:45	20.66	854	8.46	29.8						9-29-19 17:00	6.37	1449	7.03	0.0					
6-30-19 2:15	22.26	1115	8.64	61.4	6-29-19 23:00	19.40	1374	8.00	106.5	6-29-19 23:00	21.21	858	8.47	51.4						9-29-19 17:15	6.41	1449	7.07	0.0					
6-30-19 2:30	22.02	1121	8.40	68.6	6-29-19 23:15	19.61	1349	8.06	87.1	6-29-19 23:15	22.06	860	8.48	49.4						9-29-19 17:30	6.47	1451	7.11	0.0					
6-30-19 2:45	21.74	1123	8.19	54.6	6-29-19 23:30	19.71	1365	8.02	69.2	6-29-19 23:30	22.46	851	8.51	80.1						9-29-19 17:45	6.54	1452	7.12	0.0					
6-30-19 3:00	21.69	1120	8.28	59.0	6-29-19 23:45	19.73	1359	8.04	72.1	6-29-19 23:45	22.27	856	8.47	62.4						9-29-19 18:00	6.85	1452	7.25	0.1					
6-30-19 3:15	21.45	1136	8.11	68.6	6-30-19 0:00	20.09	1323	8.13	36.4	6-30-19 0:00	22.19	853	8.47	52.8						9-29-19 18:15	6.83	1448	7.24	0.0					
6-30-19 3:30	21.17	1124	8.01	65.3	6-30-19 0:15	20.00	1332	8.11	40.3	6-30-19 0:15	22.22	855	8.46	47.6						9-29-19 18:30	7.06	1448	7.32	0.2					
6-30-19 3:45	20.94	1114	7.96	69.5	6-30-19 0:30	20.04	1331	8.11	40.8	6-30-19 0:30	23.09	846	8.49	79.4						9-29-19 18:45	7.01	1447	7.24	0.0					
6-30-19 4:00	20.76	1114	8.19	57.8	6-30-19 0:45	19.97	1331	8.09	42.2	6-30-19 0:45	23.49	832	8.49	77.3						9-29-19 19:00	7.02	1447	7.08	0.0					
6-30-19 4:15	20.56	1101	7.95	79.1	6-30-19 1:00					6-30-19 1:00	23.09	835	8.47	45.3						9-29-19 19:15	7.07	1448	7.11	0.0					
6-30-19 4:30	20.49	1118	8.18	68.9	6-30-19 1:15					6-30-19 1:15	23.59	844	8.51	69.8						9-29-19 19:30	7.21	1449	7.14	0.0					
6-30-19 4:45	20.40	1108	8.04	90.0	6-30-19 1:30					6-30-19 1:30	23.26	845	8.49	62.4						9-29-19 19:45	7.25	1449	7.17	0.0					
6-30-19 5:00	20.30	1109	7.95	61.8	6-30-19 1:45					6-30-19 1:45	23.63	838	8.50	73.0						9-29-19 20:00	7.36	1449	7.20	0.0					
6-30-19 5:15	20.16	1102	7.91	71.5	6-30-19 2:00					6-30-19 2:00	23.44	840	8.50	66.8						9-29-19 20:15	7.39	1447	7.23	0.0					
6-30-19 5:30	20.07	1097	8.12	70.8	6-30-19 2:15					6-30-19 2:15	23.53	838	8.51	74.1						9-29-19 20:30	7.50	1443	7.35	0.0					
6-30-19 5:45	20.00	1092	8.31	79.1	6-30-19 2:30					6-30-19 2:30	22.71	838	8.53	56.6						9-29-19 20:45	7.63	1444	7.29	0.0					
6-30-19 6:00	19.94	1098	8.15	71.8	6-30-19 2:45					6-30-19 2:45	22.51	816	8.53	59.5						9-29-19 21:00	7.88	1446	7.34	1.5					
6-30-19 6:15	19.85	1085	8.11	89.6	6-30-19 3:00	19.90	1334	8.08	41.5	6-30-19 3:00	22.29	813	8.55	53.1						9-29-19 21:15	7.73	1446	7.28	0.0					
6-30-19 6:30	19.79	1088	8.09	80.2	6-30-19 3:15	20.69	1310	8.13	25.7	6-30-19 3:15	19.89	832	8.53	50.4						9-29-19 21:30	7.90	1447	7.28	0.4					
6-30-19 6:45	19.72	1087	7.98	78.1	6-30-19 3:30	20.63	1310	8.13	33.5	6-30-19 3:30	20.20	835	8.54	49.2						9-29-19 21:45	7.98	1448	7.26	0.0					
6-30-19 7:00	19.67	1090	7.92	82.0	6-30-19 3:45	20.79	1307	8.13	28.4	6-30-19 3:45	20.39	834	8.45	39.7						9-29-19 22:00	8.12	1555	7.31	0.2					
6-30-19 7:15	19.61	1082	7.78	82.0	6-30-19 4:00	20.78	1307	8.13	24.3	6-30-19 4:00	20.30	834	8.43	33.8						9-29-19 22:15	8.19	1446	7.37	2.8					
6-30-19 7:30	19.56	1087	7.70	73.1	6-30-19 4:15	20.76	1307	8.13	23.6	6-30-19 4:15	20.25	833	8.42	36.7						9-29-19 22:30	8.09	1442	7.35	2.4					
6-30-19 7:45	19.49	1082	7.67	81.9	6-30-19 4:30	20.72	1307	8.13	23.7	6-30-19 4:30	20.12	835	8.42	36.1						9-29-19 22:45	8.07	1436	7.43	6.2					
6-30-19 8:00	19.45	1092	7.67	74.7	6-30-19 4:45	20.65	1307	8.13	23.0	6-30-19 4:45	20.18	834	8.44	38.9						9-29-19 23:00	8.04	1445	7.51	5.7					
6-30-19 8:15	19.40	1081	7.68	81.4	6-30-19 5:00	20.60	1308	8.13	23.1	6-30-19 5:00	20.15	833	8.45	38.5						9-29-19 23:15	7.98	1445	7.59	3.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
6-30-19 8:30	19.34	1079	7.67	71.7	6-30-19 5:15	20.50	1308	8.13	23.1	6-30-19 5:15	20.04	832	8.46	36.5						9-29-19 23:30	7.91	1442	7.71	10.2					
6-30-19 8:45	19.27	1080	7.68	72.8	6-30-19 5:30	20.43	1309	8.13	23.2	6-30-19 5:30	19.94	833	8.47	37.2						9-29-19 23:45	7.84	1442	7.75	5.6					
6-30-19 9:00	19.25	1080	7.66	73.1	6-30-19 5:45	20.38	1309	8.13	22.4	6-30-19 5:45	19.80	832	8.49	41.0						9-30-19 0:00	7.76	1443	7.75	3.2					
6-30-19 9:15	19.17	1077	7.71	76.2	6-30-19 6:00					6-30-19 6:00	19.76	829	8.49	41.4						9-30-19 0:15	7.71	1448	7.48	4.6					
6-30-19 9:30	19.14	1080	7.66	70.0	6-30-19 6:15					6-30-19 6:15	19.71	833	8.49	43.9						9-30-19 0:30	7.65	1440	7.67	1.7					
6-30-19 9:45	19.10	1079	7.60	73.7	6-30-19 6:30					6-30-19 6:30	19.62	835	8.49	43.2						9-30-19 0:45	7.57	1440	7.78	3.0					
6-30-19 10:00	19.07	1079	7.58	66.8	6-30-19 6:45					6-30-19 6:45	19.55	834	8.49	37.8						9-30-19 1:00	7.55	1442	7.87	2.2					
6-30-19 10:15	19.01	1079	7.59	70.6	6-30-19 7:00	19.77	1366	7.99	26.3	6-30-19 7:00	19.48	835	8.50	40.1						9-30-19 1:15	7.51	1443	7.67	2.5					
6-30-19 10:30	18.98	1080	7.75	65.0	6-30-19 7:15	19.67	1377	7.97	26.3	6-30-19 7:15	19.35	835	8.50	36.6						9-30-19 1:30	7.49	1449	7.55	2.5					
6-30-19 10:45	18.93	1080	7.60	68.0	6-30-19 7:30	19.59	1386	7.95	28.1	6-30-19 7:30	19.27	829	8.50	36.3						9-30-19 1:45	7.50	1448	7.52	0.9					
6-30-19 11:00	18.90	1081	7.58	62.7	6-30-19 7:45	19.57	1389	7.95	27.2	6-30-19 7:45	19.24	835	8.50	35.9						9-30-19 2:00	7.46	1446	7.77	0.4					
6-30-19 11:15	18.85	1081	7.50	68.0	6-30-19 8:00	19.56	1372	7.96	24.7	6-30-19 8:00	19.20	840	8.50	34.7						9-30-19 2:15	7.44	1445	7.67	0.3					
6-30-19 11:30	18.81	1081	7.50	55.9	6-30-19 8:15	19.54	1346	8.05	19.8	6-30-19 8:15	19.13	835	8.50	34.9						9-30-19 2:30	7.41	1443	7.53	0.3					
6-30-19 11:45	18.75	1081	7.56	60.9	6-30-19 8:30	19.49	1335	8.07	18.8	6-30-19 8:30	19.09	836	8.51	33.6						9-30-19 2:45	7.34	1445	7.82	0.5					
6-30-19 12:00	18.71	1082	7.49	60.2	6-30-19 8:45	19.43	1338	8.07	18.2	6-30-19 8:45	19.00	835	8.51	32.8						9-30-19 3:00	7.32	1441	7.36	0.5					
6-30-19 12:15	18.66	1083	7.42	61.1	6-30-19 9:00	19.36	1331	8.08	16.9	6-30-19 9:00	18.94	836	8.52	31.6						9-30-19 3:15	7.30	1448	7.45	0.4					
6-30-19 12:30	18.63	1083	7.47	58.8	6-30-19 9:15	19.38	1386	7.97	23.0	6-30-19 9:15	18.90	835	8.51	30.8						9-30-19 3:30	7.24	1450	7.35	0.2					
6-30-19 12:45	18.58	1083	7.51	62.6	6-30-19 9:30	19.34	1335	8.00	15.1	6-30-19 9:30	18.83	836	8.52	29.9						9-30-19 3:45	7.21	1456	7.32	0.1					
6-30-19 13:00	18.53	1083	7.43	56.1	6-30-19 9:45	19.24	1329	8.02	20.0	6-30-19 9:45	18.79	836	8.51	30.3						9-30-19 4:00	7.17	1445	7.20	0.1					
6-30-19 13:15	18.50	1082	7.42	56.2	6-30-19 10:00	19.24	1271	7.97	21.2	6-30-19 10:00	18.71	837	8.52	30.5						9-30-19 4:15	7.14	1448	7.07	0.7					
6-30-19 13:30	18.45	1084	7.42	51.8	6-30-19 10:15	19.25	1295	7.93	21.3	6-30-19 10:15	18.67	834	8.51	31.7						9-30-19 4:30	7.11	1446	7.09	0.4					
6-30-19 13:45	18.41	1083	7.37	55.2	6-30-19 10:30	19.14	1286	7.97	19.3	6-30-19 10:30	18.60	838	8.51	35.5						9-30-19 4:45	7.05	1446	7.31	0.2					
6-30-19 14:00	18.40	1084	7.36	50.0	6-30-19 10:45	19.04	1272	7.99	20.6	6-30-19 10:45	18.55	838	8.51	33.5						9-30-19 5:00	7.08	1447	7.37	0.5					
6-30-19 14:15	18.36	1083	7.36	49.3	6-30-19 11:00	19.11	1336	7.98	27.6	6-30-19 11:00	18.50	840	8.51	35.5						9-30-19 5:15	7.01	1448	7.31	0.2					
6-30-19 14:30	18.37	1083	7.32	46.2	6-30-19 11:15	19.15	1365	7.92	37.0	6-30-19 11:15	18.43	839	8.51	41.1						9-30-19 5:30	6.97	1449	7.37	0.1					
6-30-19 14:45	18.35	1083	7.31	50.1	6-30-19 11:30	19.07	1362	7.92	22.3	6-30-19 11:30	18.37	840	8.51	41.2						9-30-19 5:45	6.94	1450	7.54	0.1					
6-30-19 15:00	18.37	1083	7.31	44.9	6-30-19 11:45	19.01	1385	7.89	29.1	6-30-19 11:45	18.30	839	8.51	42.9						9-30-19 6:00	6.89	1450	7.49	0.1					
6-30-19 15:15	18.44	1083	7.29	46.5	6-30-19 12:00	18.97	1442	7.88	35.9	6-30-19 12:00	18.26	842	8.51	50.7						9-30-19 6:15	6.89	1448	7.39	0.1					
6-30-19 15:30	18.55	1084	7.29	41.4	6-30-19 12:15	18.93	1444	7.87	38.7	6-30-19 12:15	18.18	842	8.50	51.7						9-30-19 6:30	6.86	1447	7.39	0.2					
6-30-19 15:45	18.64	1083	7.29	46.9	6-30-19 12:30	18.90	1450	7.87	33.6	6-30-19 12:30	18.16	845	8.50	63.7						9-30-19 6:45	6.81	1448	7.19	0.0					
6-30-19 16:00	18.67	1083	7.26	39.9	6-30-19 12:45	18.86	1449	7.87	34.0	6-30-19 12:45	18.13	844	8.50	59.7						9-30-19 7:00	6.77	1446	7.09	0.0					
6-30-19 16:15	18.67	1083	7.31	41.9	6-30-19 13:00	18.74	1418	7.94	19.2	6-30-19 13:00	18.07	845	8.50	60.7						9-30-19 7:15	6.75	1449	7.05	0.0					
6-30-19 16:30	18.72	1083	7.25	44.3	6-30-19 13:15	18.67	1388	7.98	19.2	6-30-19 13:15	18.03	846	8.49	64.3						9-30-19 7:30	6.70	1450	7.14	0.0					
6-30-19 16:45	18.75	1084	7.19	58.3	6-30-19 13:30	18.66	1393	7.96	12.7	6-30-19 13:30	17.98	847	8.49	66.3						9-30-19 7:45	6.67	1449	7.13	0.0					
6-30-19 17:00	18.93	1084	7.19	41.7	6-30-19 13:45	18.68	1400	7.95	19.9	6-30-19 13:45	17.96	847	8.49	74.1						9-30-19 8:00	6.65	1447	7.07	0.0					
6-30-19 17:15	19.06	1084	7.19	46.6	6-30-19 14:00	18.64	1405	7.95	18.1	6-30-19 14:00	17.93	849	8.49	73.7						9-30-19 8:15	6.61	1449	7.04	0.2					
6-30-19 17:30	19.36	1084	7.18	42.1	6-30-19 14:15	18.64	1408	7.94	21.5	6-30-19 14:15	17.92	849	8.48	73.6						9-30-19 8:30	6.57	1449	7.35	0.1					
6-30-19 17:45	19.24	1085	6.98	44.3	6-30-19 14:30	18.65	1409	7.94	19.7	6-30-19 14:30	17.92	849	8.48	72.5						9-30-19 8:45	6.54	1449	7.06	0.3					
6-30-19 18:00	19.25	1086	6.92	37.2	6-30-19 14:45	18.65	1409	7.94	21.2	6-30-19 14:45	17.93	847	8.48	60.2						9-30-19 9:00	6.50	1448	7.13	0.5					
6-30-19 18:15	19.21	1088	6.89	41.6	6-30-19 15:00	18.63	1406	7.94	15.1	6-30-19 15:00	17.96	848	8.48	61.5						9-30-19 9:15	6.47	1451	7.08	0.1					
6-30-19 18:30	19.27	1088	6.90	34.8	6-30-19 15:15	18.67	1403	7.94	13.1	6-30-19 15:15	17.99	849	8.48	66.4						9-30-19 9:30	6.42	1453	7.06	0.2					
6-30-19 18:45	19.52	1087	6.91	40.9	6-30-19 15:30	18.71	1404	7.95	14.7	6-30-19 15:30	18.13	850	8.47	63.5						9-30-19 9:45	6.40	1441	7.07	0.0					
6-30-19 19:00	19.64	1091	6.92	35.4	6-30-19 15:45	18.84	1408	7.94	13.8	6-30-19 15:45	18.34	850	8.47	61.5						9-30-19 10:00	6.37	1441	7.14	0.4					
6-30-19 19:15	19.77	1088	7.49	42.5	6-30-19 16:00	18.89	1434	7.93	16.7	6-30-19 16:00	18.38	852	8.47	69.3						9-30-19 10:15	6.27	1446	7.61	0.4					
6-30-19 19:30	20.10	1091	7.86	41.3	6-30-19 16:15	18.90	1441	7.91	13.7	6-30-19 16:15	18.32	851	8.46	65.7						9-30-19 10:30	6.34	1444	7.51	0.0					
6-30-19 19:45	20.41	1085	7.80	45.9	6-30-19 16:30	18.90	1439	7.91	19.6	6-30-19 16:30	18.40	852	8.46	64.6						9-30-19 10:45	6.28	1453	7.48	0.0					
6-30-19 20:00	20.72	1092	7.64	41.2	6-30-19 16:45	18.90	1433	7.91	18.3	6-30-19 16:45	18.47	851	8.46	58.7						9-30-19 11:00	6.26	1448	7.61	0.1					
6-30-19 20:15	21.07	1090	7.58	40.5	6-30-19 17:00	18.86	1381	7.99	15.4	6-30-19 17:00	18.60	850	8.46	60.6						9-30-19 11:15	6.21	1448	7.18	0.1					
6-30-19 20:30	21.29	1086	7.45	37.4	6-30-19 17:15	18.92	1385	7.97	15.4	6-30-19 17:15	18.58	850	8.44	60.2						9-30-19 11:30	6.16	1450	7.23	0.0					
6-30-19 20:45	21.33	1092	7.13	41.9	6-30-19 17:30	18.93	1372	7.99	17.6	6-30-19 17:30	18.54	850	8.45	64.5						9-30-19 11:45	6.11	1453	7.10	0.0					
6-30-19 21:00	21.50	1094	7.62	43.2	6-30-19 17:45	19.34	1398	7.97	16.4	6-30-19 17:45	18.52	850	8.44	63.8						9-30-19 12:00	6.09	1454	7.12	0.0					
6-30-19 21:15	21.60	1090	6.85	36.8	6-30-19 18:00	19.57	1402	7.96	17.3	6-30-19 18:00	18.64	852	8.45	65.7						9-30-19 12:15	6.00	1452	7.27	0.0					
6-30-19 21:30	21.62	1102	7.44	35.2	6-30-19 18:15	19.82	1405	7.94	14.5	6-30-19 18:15	18.92	852	8.45	59.7						9-30-19 12:30	5.98	1451	7.33	0.0					
6-30-19 21:45	21.96	1102	7.10	34.3	6-30-19 18:30	20.05	1405	7.93	13.4	6-30-19 18:30	19.46	853	8.44	62.2						9-30-19 12:45	5.95	1451	7.09	0.0					
6-30-19 22:00	22.67	1101	7.29	28.5	6-30-19 18:45	20.22	1399	7.95	12.0	6-30-19 18:45	19.82	853	8.43	61.6						9-30-19 13:00	5.92	1451	7.12	0.0					
6-30-19 22:15	23.72	1094	8.00	32.4	6-30-19 19:00	20.40	1396	7.96	18.4	6-30-19 19:00	20.05	854	8.42	61.5						9-30-19 13:15	5.90	1449	7.28	0.0					
6-30-19 22:30	24.22	1098	7.94	27.6	6-30-19 19:15	20.24	1389	8.03	22.1	6-30-19 19:15	20.67	854	8.42	60.7						9-30-19 13:30	5.85	1454	7.30	0.0					
6-30-19 22:45	24.29	1086	7.86	26.3	6-30-19 19:30	20.09	1385	8.07	19.6	6-30-19 19:30	20.89	853	8.41	60.6						9-30-19 13:45	5.79	1453	7.50	0.0					
6-30-19 23:00	24.32	1096	7.87	27.7	6-30-19 19:45	19.92	1395	8.10	19.6	6-30-19 19:45	21.29	853	8.41	60.4						9-30-19 14:00	5.80	1455	7.56	0.0					
6-30-19 23:15	24.73	1099	8.03	27.3	6-30-19 20:00	20.32	1393	8.04	13.8	6-30-19 20:00	21.00	853	8.41	59.6						9-30-19 14:15	5.77	1453	7.57	0.0					
6-30-19 23:30	24.33	1101	7.47	27.7	6-30-19 20:15	20.47	1392	8.07	13.9	6-30-19 20:15	21.25	852	8.41	55.7						9-30-19 14:30	5.69	1452	7.30	0.0					
6-30-19 23:45	24.54	1097	7.89	33.3	6-30-19 20:30	21.48	1385	8.06	14.4	6-30-19 20:30	21.70	853	8.41	58.8						9-30-19 14:45	5.69	1452	7.54	0.0					
7-1-19 0:00	24.59	1098	7.80	24.8	6-30-19 20:45	21.33	1387	8.09	13.8	6-30-19 20:45	22.28	854	8.40	62.5						9-30-19 15:00	5.61	1452	7.30	0.0					
7-1-19 0:15	24.29	1103	7.33	23.2	6-30-19 21:00	20.76	1380	8.20	15.0	6-30-19 21:00	22.04	853	8.40	57.5						9-30-19 15:15	5.59	1451	7.17	0.0					
7-1-19 0:30	24.75	1101	7.63	24.9	6-30-19 21:15	21.11	1385	8.21	15.7	6-30-19 21:15	22.39	857	8.41	57.9						9-30-19 15:30	5.54	1454	7.17	0.0					
7-1-19 0:45	24.05	1109	6.93	21.2	6-30-19 21:30	21.05	1381	8.18	17.4	6-30-19 21:30	22.96	855	8.39	57.4						9-30-19 15:45	5.55	1455	7.49	0.4					
7-1-19 1:00	24.02	1101	6.82	21.1	6-30-19 21:45	20.75	1378	8.19	14.1	6-30-19 21:45	24.28	856	8.39	54.4						9-30-19 16:00	5.57	1456	7.51	0.0					
7-1-19 1:15	24.42	1101	7.44	26.0	6-30-19 22:00	20.53	1375	8.14	12.4	6-30-19 22:00	25.14	794	8.40	53.9						9-30-19 16:15	5.64	1454	7.54	0.0					
7-1-19 1:30	24.13	1106	7.30	18.9	6-30-19 22:15	20.81	1374	8.14	12.8	6-30-19 22:15	25.86	883	8.39	53.1						9-30-19 16:30	5.69	1452	7.53	0.0					
7-1-19 1:45	24.16	1109	7.20	24.0	6-30-19 22:30	21.00	1379	8.12	13.0	6-30-19 22:30	26.35	876	8.40	55.9						9-30-19 16:45	5.75	1452	7.60	0.1					
7-1-19 2:00	24.23	1105	7.15	23.8	6-30-19 22:45	21.11	1372	8.15	12.6	6-30-19 22:45	26.75	866	8.41	53.7						9-30-19 17:00	5.81	1452	7.60	0.0					
7-1-19 2:15	24.07	1106	6.99	23.5	6-30-19 23:00	22.71	1392	7.98	11.2	6-30-19 23:00	26.98	864	8.43	54.7						9-30-19 17:30	6.04	1449	7.75	0.2					
7-1-19 2:30	23.72	1105	7.26	25.0	6-30-19 23:15	22.98	1391	7.99	11.3	6-30-19 23:15	27.05	858	8.42	54.9						9-30-19 17:45	5.99	1453	7.33	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-1-19 2:45	23.25	1102	7.53	24.9	6-30-19 23:30	21.76	1394	8.06	10.8	6-30-19 23:30	27.09	840	8.43	53.8						9-30-19 18:00	6.17	1452	7.50	0.1					
7-1-19 3:00	23.10	1107	7.66	30.0	6-30-19 23:45	22.77	1374	8.00	11.0	6-30-19 23:45	27.07	858	8.43	52.3						9-30-19 18:15	6.19	1451	7.44	0.0					
7-1-19 3:15	22.82	1098	7.75	23.6	7-1-19 0:00	23.24	1385	8.01	11.3	7-1-19 0:00	27.00	855	8.44	53.9						9-30-19 18:30	6.28	1452	7.31	0.0					
7-1-19 3:30	22.65	1096	7.31	25.2	7-1-19 0:15	21.46	1363	8.09	11.8	7-1-19 0:15	27.02	843	8.44	54.3						9-30-19 18:45	6.34	1449	7.22	0.3					
7-1-19 3:45	22.48	1093	7.59	23.5	7-1-19 0:30	22.70	1386	8.03	10.4	7-1-19 0:30	26.92	844	8.45	53.8						9-30-19 19:00	6.42	1448	7.18	0.3					
7-1-19 4:00	22.33	1096	7.58	21.1	7-1-19 0:45	21.80	1395	7.99	9.4	7-1-19 0:45	26.71	885	8.45	54.4						9-30-19 19:15	6.71	1449	7.31	0.2					
7-1-19 4:15	22.20	1101	7.54	24.0	7-1-19 1:00	22.35	1391	8.02	9.1	7-1-19 1:00	26.35	876	8.46	53.6						9-30-19 19:30	6.72	1447	7.24	0.1					
7-1-19 4:30	22.16	1098	7.57	21.5	7-1-19 1:15	23.32	1398	8.05	9.2	7-1-19 1:15	26.26	883	8.47	55.5						9-30-19 19:45	6.74	1451	7.21	0.4					
7-1-19 4:45	22.11	1096	7.47	23.4	7-1-19 1:30	23.32	1383	8.05	9.7	7-1-19 1:30	25.59	865	8.47	54.6						9-30-19 20:00	6.84	1449	7.19	0.0					
7-1-19 5:00	22.04	1101	7.49	24.6	7-1-19 1:45	22.49	1377	8.02	7.8	7-1-19 1:45	25.37	880	8.47	55.3						9-30-19 20:15	7.18	1447	7.31	0.0					
7-1-19 5:15	21.97	1098	7.54	24.6	7-1-19 2:00	22.74	1387	8.02	8.1	7-1-19 2:00	25.66	877	8.49	51.5						9-30-19 20:30	7.04	1445	7.30	0.2					
7-1-19 5:30	21.91	1096	7.57	24.9	7-1-19 2:15	22.30	1369	8.01	9.5	7-1-19 2:15	25.41	885	8.48	56.7						9-30-19 20:45	7.10	1446	7.25	0.0					
7-1-19 5:45	21.83	1096	7.38	24.0	7-1-19 2:30	20.23	1301	8.10	10.6	7-1-19 2:30	25.02	882	8.51	52.6						9-30-19 21:00	7.12	1446	7.30	0.1					
7-1-19 6:00	21.73	1097	7.50	24.2	7-1-19 2:45	19.70	1387	8.10	11.1	7-1-19 2:45	24.20	874	8.53	51.4						9-30-19 21:15	7.18	1448	7.31	0.1					
7-1-19 6:15	21.66	1097	7.34	24.6	7-1-19 3:00	19.99	1393	7.99	13.1	7-1-19 3:00	23.96	872	8.54	53.4						9-30-19 21:30	7.21	1444	7.34	0.0					
7-1-19 6:30	21.62	1097	7.36	22.7	7-1-19 3:15	20.08	1376	7.96	61.9	7-1-19 3:15	23.14	862	8.54	56.1						9-30-19 21:45	7.34	1446	7.31	0.0					
7-1-19 6:45	21.51	1096	7.48	24.7	7-1-19 3:30	20.53	1384	7.94	14.7	7-1-19 3:30	21.65	857	8.50	59.6						9-30-19 22:00	7.32	1425	7.31	0.0					
7-1-19 7:00	21.43	1098	7.47	23.7	7-1-19 3:45	21.53	1376	8.00	24.2	7-1-19 3:45	20.82	856	8.34	55.3						9-30-19 22:15	7.43	1433	7.26	0.0					
7-1-19 7:15	21.25	1097	7.47	26.4	7-1-19 4:00	22.22	1375	8.08	32.3	7-1-19 4:00	20.81	863	8.22	71.0						9-30-19 22:30	7.46	1456	7.29	0.0					
7-1-19 7:30	21.19	1097	7.63	27.0	7-1-19 4:15	22.17	1373	8.09	39.7	7-1-19 4:15	20.81	863	8.17	73.3						9-30-19 22:45	7.50	1443	7.30	0.2					
7-1-19 7:45	21.08	1097	7.54	30.7	7-1-19 4:30	22.10	1373	8.08	33.9	7-1-19 4:30	20.90	862	8.18	68.1						9-30-19 23:00	7.51	1445	7.34	0.0					
7-1-19 8:00	20.98	1100	7.45	25.2	7-1-19 4:45	22.05	1372	8.08	33.8	7-1-19 4:45	20.97	860	8.18	65.1						9-30-19 23:15	7.50	1443	7.33	0.0					
7-1-19 8:15	20.87	1099	7.50	28.5	7-1-19 5:00	21.84	1375	8.05	15.5	7-1-19 5:00	21.00	860	8.20	65.6						9-30-19 23:30	7.49	1444	7.29	0.5					
7-1-19 8:30	20.78	1100	7.59	28.3	7-1-19 5:15	21.81	1369	8.05	10.5	7-1-19 5:15	20.95	860	8.24	63.5						9-30-19 23:45	7.51	1448	7.29	0.0					
7-1-19 8:45	20.72	1101	7.59	30.5	7-1-19 5:30	21.78	1305	8.05	13.2	7-1-19 5:30	20.96	863	8.29	65.7						10-1-19 0:00	7.45	1449	7.23	0.1					
7-1-19 9:00	20.64	1100	7.60	27.9	7-1-19 5:45	21.13	1380	8.04	20.2	7-1-19 5:45	21.01	859	8.37	81.5						10-1-19 0:15	7.46	1431	7.21	0.0					
7-1-19 9:15	20.55	1100	7.66	34.8	7-1-19 6:00	20.40	1396	8.04	18.9	7-1-19 6:00	21.00	859	8.42	75.8						10-1-19 0:30	7.45	1446	7.23	0.4					
7-1-19 9:30	20.49	1100	7.82	35.3	7-1-19 6:15	20.45	1395	8.02	23.5	7-1-19 6:15	20.95	859	8.45	85.4						10-1-19 0:45	7.45	1441	7.21	0.0					
7-1-19 9:45	20.41	1099	7.53	34.6	7-1-19 6:30	20.45	1393	8.01	22.7	7-1-19 6:30	20.90	860	8.46	77.6						10-1-19 1:00	7.40	1445	7.16	0.0					
7-1-19 10:00	20.30	1099	7.43	29.8	7-1-19 6:45	20.51	1396	8.01	35.3	7-1-19 6:45	20.80	859	8.47	76.3						10-1-19 1:15	7.38	1450	7.17	0.0					
7-1-19 10:15	20.19	1096	7.43	34.7	7-1-19 7:00					7-1-19 7:00	20.62	859	8.47	78.2						10-1-19 1:30	7.36	1447	7.13	0.0					
7-1-19 10:30	20.13	1096	7.84	35.0	7-1-19 7:15					7-1-19 7:15	20.49	859	8.47	79.1						10-1-19 1:45	7.33	1432	7.09	0.0					
7-1-19 10:45	20.05	1094	7.52	26.8	7-1-19 7:30					7-1-19 7:30	20.25	859	8.46	86.8						10-1-19 2:00	7.31	1430	7.05	0.0					
7-1-19 11:00	19.98	1093	7.50	26.0	7-1-19 7:45					7-1-19 7:45	20.19	859	8.44	87.9						10-1-19 2:15	7.27	1431	7.05	0.0					
7-1-19 11:15	19.89	1091	7.53	31.2	7-1-19 8:00					7-1-19 8:00	20.09	859	8.44	88.1						10-1-19 2:30	7.25	1447	7.05	0.0					
7-1-19 11:30	19.84	1092	7.47	33.8	7-1-19 8:15					7-1-19 8:15	20.00	859	8.44	79.7						10-1-19 2:45	7.19	1446	7.39	0.0					
7-1-19 11:45	19.74	1089	7.50	28.2	7-1-19 8:30					7-1-19 8:30	19.95	860	8.44	87.9						10-1-19 3:00	7.17	1446	7.56	0.0					
7-1-19 12:00	19.66	1089	7.53	32.6	7-1-19 8:45					7-1-19 8:45	19.85	859	8.44	77.4						10-1-19 3:15	7.13	1445	7.61	0.0					
7-1-19 12:15	19.60	1086	7.53	33.7	7-1-19 9:00					7-1-19 9:00	19.73	861	8.44	85.1						10-1-19 3:30	7.12	1444	7.55	0.0					
7-1-19 12:30	19.50	1085	7.55	31.8	7-1-19 9:15					7-1-19 9:15	19.64	861	8.44	92.1						10-1-19 3:45	7.08	1444	7.59	0.0					
7-1-19 12:45	19.45	1085	7.56	32.8	7-1-19 9:30					7-1-19 9:30	19.54	860	8.44	83.9						10-1-19 4:00	7.05	1443	7.70	0.0					
7-1-19 13:00	19.37	1084	7.65	32.4	7-1-19 9:45					7-1-19 9:45	19.40	859	8.43	94.1						10-1-19 4:15	7.02	1444	7.62	0.0					
7-1-19 13:15	19.28	1077	7.96	45.9	7-1-19 10:00					7-1-19 10:00	19.29	858	8.42	85.7						10-1-19 4:30	7.00	1447	7.46	0.0					
7-1-19 13:30	19.17	1073	8.21	52.3	7-1-19 10:15					7-1-19 10:15	19.20	857	8.42	87.4						10-1-19 4:45	6.98	1442	7.25	0.0					
7-1-19 13:45	19.09	1073	8.32	51.8	7-1-19 10:30					7-1-19 10:30	19.15	857	8.42	92.1						10-1-19 5:00	6.97	1446	7.18	0.0					
7-1-19 14:00	19.01	1071	8.37	52.6	7-1-19 10:45					7-1-19 10:45	19.09	856	8.42	99.6						10-1-19 5:15	6.95	1446	7.10	0.0					
7-1-19 14:15	18.91	1075	8.27	56.1	7-1-19 11:00					7-1-19 11:00	19.02	855	8.42	88.1						10-1-19 5:30	6.92	1447	7.06	0.0					
7-1-19 14:30	18.77	1068	8.39	66.8	7-1-19 11:15					7-1-19 11:15	18.90	854	8.43	88.6						10-1-19 5:45	6.88	1447	7.41	0.0					
7-1-19 14:45	18.70	1069	7.85	70.0	7-1-19 11:30					7-1-19 11:30	18.82	854	8.44	97.3						10-1-19 6:00	6.88	1443	7.60	0.0					
7-1-19 15:00	18.61	1069	7.80	56.0	7-1-19 11:45					7-1-19 11:45	18.75	854	8.43	98.2						10-1-19 6:15	6.87	1439	7.57	0.0					
7-1-19 15:15	18.49	1061	7.91	81.9	7-1-19 12:00					7-1-19 12:00	18.66	852	8.43	91.8						10-1-19 6:30	6.86	1445	7.34	0.1					
7-1-19 15:30	18.37	1059	7.97	72.6	7-1-19 12:15					7-1-19 12:15	18.59	852	8.42	84.8						10-1-19 6:45	6.86	1445	7.21	0.0					
7-1-19 15:45	18.29	1053	8.01	83.8	7-1-19 12:30					7-1-19 12:30	18.54	850	8.43	80.3						10-1-19 7:00	6.86	1446	7.15	0.0					
7-1-19 16:00	18.29	1053	8.00	78.2	7-1-19 12:45					7-1-19 12:45	18.50	850	8.43	84.1						10-1-19 7:15	6.85	1447	7.16	0.0					
7-1-19 16:15	18.28	1049	8.02	83.7	7-1-19 13:00					7-1-19 13:00	18.47	851	8.44	87.0						10-1-19 7:30	6.83	1454	7.13	0.0					
7-1-19 16:30	18.35	1045	8.01	76.8	7-1-19 13:15					7-1-19 13:15	18.41	851	8.44	91.7						10-1-19 7:45	6.82	1448	7.09	0.0					
7-1-19 16:45	18.37	1044	7.96	88.7	7-1-19 13:30					7-1-19 13:30	18.38	852	8.45	88.5						10-1-19 8:00	6.80	1447	7.26	0.0					
7-1-19 17:00	18.42	1046	7.97	75.9	7-1-19 13:45					7-1-19 13:45	18.33	853	8.44	85.0						10-1-19 8:15	6.79	1446	7.49	0.0					
7-1-19 17:15	18.57	1043	8.12	89.9	7-1-19 14:00					7-1-19 14:00	18.29	855	8.46	86.9						10-1-19 8:30	6.77	1449	7.60	0.0					
7-1-19 17:30	18.70	1030	8.26	91.6	7-1-19 14:15					7-1-19 14:15	18.23	855	8.46	88.9						10-1-19 8:45	6.76	1448	7.39	0.0					
7-1-19 17:45	18.89	1029	7.92	93.5	7-1-19 14:30					7-1-19 14:30	18.18	856	8.47	88.8						10-1-19 9:00	6.73	1448	7.24	0.0					
7-1-19 18:00	19.02	1031	8.03	69.7	7-1-19 14:45					7-1-19 14:45	18.13	857	8.47	94.2						10-1-19 9:15	6.71	1447	7.48	0.0					
7-1-19 18:15	19.28	1034	8.10	68.5	7-1-19 15:00					7-1-19 15:00	18.05	857	8.47	99.0						10-1-19 9:30	6.69	1449	7.17	0.0					
7-1-19 18:30	19.34	1025	8.07	88.4	7-1-19 15:15					7-1-19 15:15	17.97	858	8.47	105.5						10-1-19 9:45	6.67	1450	7.13	0.0					
7-1-19 18:45	19.36	1003	8.16	93.7	7-1-19 15:30					7-1-19 15:30	17.97	858	8.47	122.1						10-1-19 10:00	6.68	1450	7.32	0.0					
7-1-19 19:00	19.67	1000	8.16	99.3	7-1-19 15:45					7-1-19 15:45	17.92	859	8.46	123.8						10-1-19 10:15	6.67	1450	7.17	0.0					
7-1-19 19:15	19.76	982	8.16	97.3	7-1-19 16:00					7-1-19 16:00	17.89	858	8.47	116.0						10-1-19 10:30	6.66	1450	7.26	0.0					
7-1-19 19:30	19.79	945	8.16	101.6	7-1-19 16:15					7-1-19 16:15	17.92	859	8.47	105.8						10-1-19 10:45	6.64	1448	7.17	0.0					
7-1-19 19:45	19.64	947	8.05	98.5	7-1-19 16:30					7-1-19 16:30	18.10	861	8.48	107.2						10-1-19 11:00	6.62	1447	7.37	0.0					
7-1-19 20:00	20.01	970	7.64	83.1	7-1-19 16:45					7-1-19 16:45	18.11	859	8.49	104.7						10-1-19 11:15	6.61	1449	7.10	0.0					
7-1-19 20:15	19.96	957	7.57	94.7	7-1-19 17:00					7-1-19 17:00	18.09	861	8.50	122.6						10-1-19 11:30	6.61	1449	7.10	0.0					
7-1-19 20:30	19.90	950	8.01	99.8	7-1-19 17:15					7-1-19 17:15	18.16	862	8.50	118.9						10-1-19 11:45	6.60	1453	7.05	0.0					
7-1-19 20:45	20.03	957	7.96	95.0	7-1-19 17:30					7-1-19 17:30	18.51	866	8.50	140.0						10-1-19 12:00	6.60	1451	7.04	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-1-19 21:00	20.08	951	8.00	87.0	7-1-19 17:45					7-1-19 17:45	18.75	864	8.50	122.1						10-1-19 12:15	6.59	1452	7.06	0.0					
7-1-19 21:15	20.15	962	7.95	82.2	7-1-19 18:00					7-1-19 18:00	18.70	864	8.50	121.2						10-1-19 12:30	6.58	1449	7.04	0.0					
7-1-19 21:30	20.00	927	8.12	86.4	7-1-19 18:15					7-1-19 18:15	19.02	865	8.50	128.4						10-1-19 12:45	6.57	1450	7.02	0.0					
7-1-19 21:45	20.16	931	8.06	81.5	7-1-19 18:30					7-1-19 18:30	19.44	866	8.50	137.2						10-1-19 13:00	6.56	1449	7.07	0.0					
7-1-19 22:00	20.16	918	8.17	81.5	7-1-19 18:45					7-1-19 18:45	19.57	868	8.48	127.1						10-1-19 13:15	6.54	1393	7.13	0.0					
7-1-19 22:15	20.33	947	7.61	78.3	7-1-19 19:00	18.36	1305	8.02	24.7	7-1-19 19:00	19.45	868	8.49	137.2						10-1-19 13:30	6.54	1337	7.16	0.0					
7-1-19 22:30	20.31	928	8.02	76.8	7-1-19 19:15	18.94	1327	8.00	19.7	7-1-19 19:15	19.54	868	8.44	125.2						10-1-19 13:45	6.52	1328	7.15	0.0					
7-1-19 22:45	20.37	929	7.99	75.7	7-1-19 19:30	18.54	1285	8.03	26.1	7-1-19 19:30	19.85	870	8.49	121.5						10-1-19 14:00	6.51	1330	7.06	0.0					
7-1-19 23:00	20.34	929	7.97	71.7	7-1-19 19:45	18.85	1321	8.00	20.8	7-1-19 19:45	19.73	869	8.49	124.6						10-1-19 14:15	6.50	1330	7.06	0.0					
7-1-19 23:15	20.44	938	7.22	76.3	7-1-19 20:00	19.09	1322	7.98	18.0	7-1-19 20:00	19.89	870	8.48	128.9						10-1-19 14:30	6.50	1451	7.07	0.0					
7-1-19 23:30	20.67	937	7.34	72.4	7-1-19 20:15	19.21	1305	7.98	16.0	7-1-19 20:15	19.69	870	8.49	119.8						10-1-19 14:45	6.49	1446	7.02	0.0					
7-1-19 23:45	20.55	932	7.47	64.4	7-1-19 20:30	19.33	1307	7.98	14.8	7-1-19 20:30	20.01	870	8.49	116.8						10-1-19 15:00	6.50	1444	7.01	0.0					
7-2-19 0:00	20.69	937	7.50	61.4	7-1-19 20:45	19.30	1302	7.98	13.3	7-1-19 20:45	20.09	869	8.49	123.6						10-1-19 15:15	6.50	1447	7.06	0.0					
7-2-19 0:15	20.89	932	7.79	63.7	7-1-19 21:00	19.29	1207	7.98	14.6	7-1-19 21:00	20.25	870	8.48	115.6						10-1-19 15:30	6.49	1446	7.05	0.0					
7-2-19 0:30	20.84	931	7.84	60.3	7-1-19 21:15	19.43	1210	7.98	15.1	7-1-19 21:15	20.30	873	8.49	122.0						10-1-19 15:45	6.50	1450	7.05	0.0					
7-2-19 0:45	20.89	933	7.85	59.9	7-1-19 21:30	19.33	1197	7.99	13.3	7-1-19 21:30	20.39	871	8.48	118.4						10-1-19 16:00	6.51	1449	7.04	0.0					
7-2-19 1:00	20.95	933	7.78	61.5	7-1-19 21:45	19.45	1204	7.97	12.7	7-1-19 21:45	20.31	870	8.48	112.0						10-1-19 16:15	6.52	1451	7.03	0.0					
7-2-19 1:15	20.99	932	7.95	56.7	7-1-19 22:00	19.36	1293	7.99	13.2	7-1-19 22:00	20.37	870	8.48	108.3						10-1-19 16:30	6.53	1451	7.03	0.0					
7-2-19 1:30	21.01	937	7.80	54.0	7-1-19 22:15	19.36	1298	7.99	15.3	7-1-19 22:15	20.53	871	8.48	108.8						10-1-19 16:45	6.55	1449	7.01	0.0					
7-2-19 1:45	20.95	937	7.24	58.6	7-1-19 22:30	19.58	1309	7.99	9.5	7-1-19 22:30	20.62	871	8.48	110.5						10-1-19 17:00	6.58	1449	7.05	0.0					
7-2-19 2:00	20.97	930	7.94	52.8	7-1-19 22:45	19.69	1314	7.99	13.2	7-1-19 22:45	20.73	872	8.49	119.1						10-1-19 17:15	6.61	1449	7.06	0.0					
7-2-19 2:15	20.90	935	7.63	55.9	7-1-19 23:00	19.77	1195	8.00	10.9	7-1-19 23:00	20.63	871	8.48	112.1						10-1-19 17:30	6.65	1449	7.04	0.0					
7-2-19 2:30	20.84	938	7.27	52.1	7-1-19 23:15	19.81	1185	7.99	10.1	7-1-19 23:15	20.64	871	8.48	107.5						10-1-19 17:45	6.69	1449	7.13	0.0					
7-2-19 2:45	20.78	935	7.23	50.3	7-1-19 23:30	20.01	1193	8.00	12.0	7-1-19 23:30	20.92	872	8.49	107.5						10-1-19 18:00	6.72	1448	7.20	0.0					
7-2-19 3:00	20.74	935	7.23	47.2	7-1-19 23:45	20.04	1191	7.99	13.4	7-1-19 23:45	21.08	872	8.49	111.4						10-1-19 18:15	6.78	1448	7.22	0.0					
7-2-19 3:15	20.64	934	7.23	47.2	7-2-19 0:00	20.07	1318	8.00	13.3	7-2-19 0:00	21.26	874	8.48	100.5						10-1-19 18:30	6.85	1450	7.21	0.0					
7-2-19 3:30	20.52	934	7.27	49.8	7-2-19 0:15	20.12	1290	8.00	9.9	7-2-19 0:15	21.33	873	8.48	109.1						10-1-19 18:45	6.91	1449	7.16	0.0					
7-2-19 3:45	20.39	935	7.30	48.0	7-2-19 0:30	20.06	1291	8.00	12.9	7-2-19 0:30	21.32	873	8.48	101.4						10-1-19 19:00	6.96	1452	7.17	0.0					
7-2-19 4:00	20.30	934	7.69	45.8	7-2-19 0:45	20.00	1288	8.00	11.3	7-2-19 0:45	21.39	873	8.49	105.9						10-1-19 19:15	7.03	1447	7.18	0.0					
7-2-19 4:15	20.09	938	7.61	45.8	7-2-19 1:00	19.92	1166	8.00	10.4	7-2-19 1:00	21.37	873	8.48	99.8						10-1-19 19:30	7.11	1439	7.23	0.0					
7-2-19 4:30	19.93	939	7.21	44.4	7-2-19 1:15	19.99	1168	8.01	9.6	7-2-19 1:15	21.33	872	8.49	111.7						10-1-19 19:45	7.17	1443	7.57	0.0					
7-2-19 4:45	19.79	940	7.16	44.7	7-2-19 1:30	20.06	1170	8.01	11.2	7-2-19 1:30	21.23	874	8.49	114.8						10-1-19 20:00	7.24	1442	7.49	0.0					
7-2-19 5:00	19.60	941	7.20	45.0	7-2-19 1:45	20.14	1171	8.02	10.9	7-2-19 1:45	21.28	873	8.49	105.8						10-1-19 20:15	7.33	1441	7.48	0.0					
7-2-19 5:15	19.42	942	7.25	48.3	7-2-19 2:00	20.18	1285	8.03	8.2	7-2-19 2:00	21.19	873	8.48	105.9						10-1-19 20:30	7.42	1446	7.71	0.0					
7-2-19 5:30	19.26	944	7.23	44.9	7-2-19 2:15	20.16	1287	8.03	9.2	7-2-19 2:15	21.14	873	8.50	107.5						10-1-19 20:45	7.49	1437	7.88	0.0					
7-2-19 5:45	19.10	945	7.31	46.2	7-2-19 2:30	20.09	1287	8.03	8.7	7-2-19 2:30	21.13	873	8.50	108.8						10-1-19 21:00	7.57	1445	7.86	0.0					
7-2-19 6:00	18.95	943	7.24	39.5	7-2-19 2:45	20.08	1286	8.02	5.9	7-2-19 2:45	21.11	872	8.49	104.8						10-1-19 21:15	7.64	1471	7.87	0.5					
7-2-19 6:15	18.83	946	7.34	45.1	7-2-19 3:00	20.02	1319	8.03	10.2	7-2-19 3:00	21.04	873	8.49	104.4						10-1-19 21:30	7.70	1442	7.72	0.0					
7-2-19 6:30	18.66	951	7.25	41.3	7-2-19 3:15	19.99	1320	8.03	10.5	7-2-19 3:15	20.99	872	8.50	105.1						10-1-19 21:45	7.77	1442	7.55	0.0					
7-2-19 6:45	18.57	954	7.27	40.1	7-2-19 3:30	19.98	1321	8.03	10.1	7-2-19 3:30	20.92	873	8.50	111.0						10-1-19 22:00	7.87	1441	7.48	0.0					
7-2-19 7:00	18.42	960	7.32	40.6	7-2-19 3:45	19.93	1320	8.03	11.4	7-2-19 3:45	20.80	873	8.51	102.7						10-1-19 22:15	7.87	1441	7.44	0.0					
7-2-19 7:15	18.34	960	7.33	41.4	7-2-19 4:00	19.87	1313	8.03	6.4	7-2-19 4:00	20.71	872	8.50	99.3						10-1-19 22:30	8.20	1440	7.70	0.1					
7-2-19 7:30	18.22	958	7.31	38.7	7-2-19 4:15	19.79	1312	8.03	7.7	7-2-19 4:15	20.61	872	8.52	105.4						10-1-19 22:45	8.21	1437	7.62	0.0					
7-2-19 7:45	18.12	959	7.24	40.9	7-2-19 4:30	19.72	1310	8.03	7.1	7-2-19 4:30	20.53	872	8.50	105.5						10-1-19 23:00	8.21	1436	7.58	0.0					
7-2-19 8:00	18.02	959	7.25	41.5	7-2-19 4:45	19.64	1304	8.05	9.4	7-2-19 4:45	20.31	872	8.53	103.7						10-1-19 23:30	8.20	1435	7.40	1.5					
7-2-19 8:15	17.89	962	7.26	42.4	7-2-19 5:00	19.50	1308	8.06	12.8	7-2-19 5:00	20.19	872	8.53	101.9						10-1-19 23:45	8.26	1434	7.30	0.0					
7-2-19 8:30	17.82	960	7.28	39.6	7-2-19 5:15	19.39	1305	8.05	9.5	7-2-19 5:15	20.07	872	8.53	105.1						10-2-19 0:00	8.27	1430	7.25	0.0					
7-2-19 8:45	17.72	961	7.31	40.5	7-2-19 5:30	19.30	1304	8.05	9.8	7-2-19 5:30	19.92	871	8.53	99.2						10-2-19 0:15	8.28	1434	7.27	0.0					
7-2-19 9:00	17.62	962	7.30	42.3	7-2-19 5:45	19.21	1306	8.05	12.6	7-2-19 5:45	19.83	871	8.53	104.8						10-2-19 0:30	8.25	1444	7.19	0.7					
7-2-19 9:15	17.52	961	7.33	41.8	7-2-19 6:00	19.21	1305	8.03	5.7	7-2-19 6:00	19.70	871	8.53	105.3						10-2-19 0:45	8.18	1449	7.20	0.0					
7-2-19 9:30	17.42	961	7.34	40.4	7-2-19 6:15	19.14	1303	8.04	6.1	7-2-19 6:15	19.58	871	8.53	104.1						10-2-19 1:00	8.17	1452	7.22	2.3					
7-2-19 9:45	17.32	961	7.39	40.5	7-2-19 6:30	19.09	1302	8.04	5.6	7-2-19 6:30	19.45	871	8.53	106.3						10-2-19 1:15	8.15	1445	7.13	0.0					
7-2-19 10:00	17.26	960	7.39	37.1	7-2-19 6:45	19.04	1300	8.03	6.2	7-2-19 6:45	19.28	871	8.53	106.7						10-2-19 1:30	8.13	1432	7.14	0.0					
7-2-19 10:15	17.18	959	7.33	38.2	7-2-19 7:00	18.99	1305	8.03	5.5	7-2-19 7:00	19.18	871	8.52	99.4						10-2-19 1:45	8.10	1429	7.04	0.0					
7-2-19 10:30	17.13	958	7.33	37.7	7-2-19 7:15	18.91	1305	8.03	4.8	7-2-19 7:15	19.04	871	8.53	106.7						10-2-19 2:00	8.09	1428	7.01	0.0					
7-2-19 10:45	17.03	959	7.31	38.5	7-2-19 7:30	18.86	1303	8.03	7.1	7-2-19 7:30	18.87	869	8.52	105.4						10-2-19 2:15	8.06	1431	6.98	0.0					
7-2-19 11:00	16.98	959	7.28	34.8	7-2-19 7:45	18.78	1299	8.04	6.8	7-2-19 7:45	18.79	870	8.52	107.1						10-2-19 2:30	8.05	1445	6.99	0.0					
7-2-19 11:15	16.87	958	7.30	36.4	7-2-19 8:00	18.70	1289	8.05	6.0	7-2-19 8:00	18.66	871	8.52	105.4						10-2-19 2:45	8.03	1442	6.98	0.0					
7-2-19 11:30	16.82	958	7.33	36.0	7-2-19 8:15	18.63	1291	8.06	6.5	7-2-19 8:15	18.56	871	8.52	108.8						10-2-19 3:00	8.01	1445	6.97	0.0					
7-2-19 11:45	16.72	957	7.31	33.1	7-2-19 8:30	18.52	1279	8.10	9.0	7-2-19 8:30	18.42	872	8.52	118.5						10-2-19 3:15	7.99	1446	6.97	0.0					
7-2-19 12:00	16.67	957	7.31	33.0	7-2-19 8:45	18.39	1279	8.09	8.0	7-2-19 8:45	18.30	872	8.52	124.0						10-2-19 3:30	7.96	1344	6.95	0.0					
7-2-19 12:15	16.59	955	7.31	32.4	7-2-19 9:00	18.33	1285	8.11	10.5	7-2-19 9:00	18.19	871	8.52	123.9						10-2-19 3:45	7.93	1344	6.93	0.0					
7-2-19 12:30	16.55	959	7.28	30.6	7-2-19 9:15	18.28	1284	8.12	8.9	7-2-19 9:15	18.09	876	8.52	138.4						10-2-19 4:00	7.88	1345	6.97	0.0					
7-2-19 12:45	16.51	960	7.25	32.4	7-2-19 9:30	18.24	1284	8.12	7.1	7-2-19 9:30	18.02	874	8.52	145.0						10-2-19 4:15	7.79	1409	7.62	0.0					
7-2-19 13:00	16.45	959	7.25	33.1	7-2-19 9:45	18.20	1286	8.12	9.1	7-2-19 9:45	17.97	874	8.52	155.2						10-2-19 4:30	7.77	1446	7.79	0.0					
7-2-19 13:15	16.43	959	7.24	31.4	7-2-19 10:00	18.25	1289	8.08	8.5	7-2-19 10:00	17.89	875	8.52	154.3						10-2-19 4:45	7.75	1443	7.77	0.0					
7-2-19 13:30	16.39	960	7.23	30.1	7-2-19 10:15	18.22	1292	8.08	12.7	7-2-19 10:15	17.79	875	8.52	160.5						10-2-19 5:00	7.72	1441	7.75	0.0					
7-2-19 13:45	16.32	960	7.22	33.0	7-2-19 10:30	18.18	1292	8.07	8.9	7-2-19 10:30	17.69	876	8.52	170.6						10-2-19 5:15	7.68	1442	7.69	0.0					
7-2-19 14:00	16.30	961	7.22	30.9	7-2-19 10:45	18.14	1291	8.07	10.9	7-2-19 10:45	17.65	876	8.53	171.3						10-2-19 5:30	7.66	1440	7.29	0.0					
7-2-19 14:15	16.29	962	7.24	32.0	7-2-19 11:00	18.07	1296	8.09	11.8	7-2-19 11:00	17.61	872	8.53	189.0						10-2-19 5:45	7.64	1444	7.42	0.0					
7-2-19 14:30	16.27	964	7.27	28.8	7-2-19 11:15	18.07	1296	8.08	11.0	7-2-19 11:15	17.55	877	8.54	185.1						10-2-19 6:00	7.62	1444	7.59	0.0					
7-2-19 14:45	16.26	964	7.28	30.2	7-2-19 11:30	18.01	1296	8.08	10.9	7-2-19 11:30	17.49	877	8.54	193.3						10-2-19 6:15	7.59	1445	7.69	0.0					
7-2-19 15:00	16.28	966	7.31	27.4	7-2-19 11:45	17.99	1297	8.07	11.0	7-2-19 11:45	17.45	878	8.54	193.8						10-2-19 6:30	7.57	1447	7.54	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-2-19 15:15	16.32	967	7.34	32.7	7-2-19 12:00	17.97	1292	8.06	7.8	7-2-19 12:00	17.40	878	8.54	199.9						10-2-19 6:45	7.56	1446	7.56	0.0					
7-2-19 15:30	16.39	969	7.40	30.8	7-2-19 12:15	17.94	1222	8.06	10.5	7-2-19 12:15	17.34	878	8.55	206.0						10-2-19 7:00	7.52	1445	7.54	0.0					
7-2-19 15:45	16.42	969	7.41	29.3	7-2-19 12:30	17.92	1225	8.06	8.0	7-2-19 12:30	17.30	878	8.55	214.4						10-2-19 7:15	7.49	1445	7.42	0.0					
7-2-19 16:00	16.48	972	7.45	27.8	7-2-19 12:45	17.88	1274	8.06	8.2	7-2-19 12:45	17.24	879	8.56	200.0						10-2-19 7:30	7.49	1443	7.28	0.0					
7-2-19 16:15	16.62	973	7.46	29.1	7-2-19 13:00	17.84	1300	8.06	6.2	7-2-19 13:00	17.21	879	8.56	219.3						10-2-19 7:45	7.46	1447	7.30	0.0					
7-2-19 16:30	16.77	975	7.49	26.2	7-2-19 13:15	17.81	1301	8.06	6.4	7-2-19 13:15	17.18	879	8.56	211.6						10-2-19 8:00	7.44	1446	7.52	0.0					
7-2-19 16:45	16.91	975	7.49	28.8	7-2-19 13:30	17.81	1302	8.07	9.0	7-2-19 13:30	17.17	880	8.56	228.1						10-2-19 8:15	7.42	1447	7.40	0.0					
7-2-19 17:00	17.03	976	7.36	27.9	7-2-19 13:45	17.81	1302	8.07	6.4	7-2-19 13:45	17.13	880	8.57	214.2						10-2-19 8:30	7.37	1449	7.45	0.0					
7-2-19 17:15	17.41	976	7.43	27.3	7-2-19 14:00	17.82	1296	8.07	7.4	7-2-19 14:00	17.12	880	8.57	243.5						10-2-19 8:45	7.35	1448	7.37	0.0					
7-2-19 17:30	17.48	979	7.36	26.0	7-2-19 14:15	17.79	1296	8.08	7.2	7-2-19 14:15	17.12	881	8.57	232.9						10-2-19 9:00	7.32	1448	7.30	0.0					
7-2-19 17:45	17.61	981	7.42	26.8	7-2-19 14:30	17.79	1296	8.09	7.4	7-2-19 14:30	17.12	881	8.57	231.0						10-2-19 9:15	7.30	1446	7.35	0.0					
7-2-19 18:00	17.73	982	7.38	27.5	7-2-19 14:45	17.76	1297	8.10	5.8	7-2-19 14:45	17.11	882	8.58	241.4						10-2-19 9:30	7.27	1483	7.56	0.0					
7-2-19 18:15	17.90	983	7.41	25.7	7-2-19 15:00	17.79	1303	8.12	6.7	7-2-19 15:00	17.12	882	8.58	238.4						10-2-19 9:45	7.24	1448	7.28	0.0					
7-2-19 18:30	18.20	984	7.43	24.9	7-2-19 15:15	17.77	1303	8.13	5.3	7-2-19 15:15	17.14	883	8.59	235.6						10-2-19 10:00	7.21	1450	7.36	0.0					
7-2-19 18:45	18.37	984	7.39	25.5	7-2-19 15:30	17.78	1303	8.15	5.9	7-2-19 15:30	17.18	884	8.58	237.5						10-2-19 10:15	7.18	1450	7.55	0.0					
7-2-19 19:00	18.31	986	7.27	25.0	7-2-19 15:45	17.79	1304	8.15	5.7	7-2-19 15:45	17.25	884	8.58	236.3						10-2-19 10:30	7.15	1448	7.37	0.0					
7-2-19 19:15	18.77	988	7.40	25.2	7-2-19 16:00	17.83	1297	8.17	6.4	7-2-19 16:00	17.28	884	8.58	224.6						10-2-19 10:45	7.11	1449	7.26	0.0					
7-2-19 19:30	18.89	990	7.29	23.6	7-2-19 16:15	17.84	1297	8.18	5.2	7-2-19 16:15	17.51	886	8.58	236.9						10-2-19 11:00	7.11	1447	7.08	0.0					
7-2-19 19:45	19.01	995	7.34	24.6	7-2-19 16:30	17.85	1296	8.19	6.0	7-2-19 16:30	17.44	884	8.58	243.1						10-2-19 11:15	7.08	1447	7.08	0.0					
7-2-19 20:00	19.33	996	7.36	21.2	7-2-19 16:45	17.91	1297	8.21	5.2	7-2-19 16:45	17.92	885	8.57	228.0						10-2-19 11:30	7.04	1447	7.06	0.0					
7-2-19 20:15	19.36	998	7.16	23.2	7-2-19 17:00	17.99	1303	8.22	6.2	7-2-19 17:00	17.83	885	8.56	243.3						10-2-19 11:45	7.01	1453	7.10	0.0					
7-2-19 20:30	19.58	998	7.25	23.3	7-2-19 17:15	18.05	1302	8.23	6.5	7-2-19 17:15	18.18	887	8.56	229.1						10-2-19 12:00	6.99	1443	7.11	0.0					
7-2-19 20:45	19.71	1002	6.99	24.3	7-2-19 17:30	18.05	1301	8.27	8.0	7-2-19 17:30	18.61	886	8.54	221.4						10-2-19 12:15	6.96	1449	7.36	0.0					
7-2-19 21:00	20.06	1004	7.44	21.0	7-2-19 17:45	18.05	1300	8.34	6.8	7-2-19 17:45	18.99	887	8.54	224.0						10-2-19 12:30	6.96	1447	7.39	0.0					
7-2-19 21:15	20.22	1008	7.41	22.7	7-2-19 18:00	18.03	1294	8.33	6.5	7-2-19 18:00	18.98	887	8.54	217.4						10-2-19 12:45	6.94	1447	7.51	0.0					
7-2-19 21:30	20.20	1009	7.46	20.1	7-2-19 18:15	18.18	1294	8.34	5.2	7-2-19 18:15	18.83	888	8.55	216.4						10-2-19 13:00	6.88	1447	7.52	0.0					
7-2-19 21:45	20.18	1013	7.37	22.5	7-2-19 18:30	18.30	1292	8.39	6.1	7-2-19 18:30	19.24	888	8.54	209.4						10-2-19 13:15	6.83	1447	7.30	0.0					
7-2-19 22:00	20.38	1014	7.36	19.8	7-2-19 18:45	18.41	1292	8.40	5.7	7-2-19 18:45	19.43	890	8.54	201.1						10-2-19 13:30	6.82	1451	7.42	0.0					
7-2-19 22:15	20.19	1018	6.96	20.9	7-2-19 19:00	18.47	1296	8.42	13.3	7-2-19 19:00	20.19	892	8.52	184.5						10-2-19 13:45	6.80	1436	7.35	0.0					
7-2-19 22:30	20.41	1018	7.12	19.5	7-2-19 19:15	18.48	1296	8.38	18.2	7-2-19 19:15	20.34	891	8.52	209.3						10-2-19 14:00	6.74	1438	7.23	0.0					
7-2-19 22:45	20.72	1015	7.38	19.7	7-2-19 19:30	18.56	1294	8.42	16.3	7-2-19 19:30	20.06	890	8.52	205.6						10-2-19 14:15	6.74	1446	7.07	0.0					
7-2-19 23:00	20.76	1020	6.93	19.0	7-2-19 19:45	18.67	1294	8.43	18.1	7-2-19 19:45	20.45	892	8.53	202.0						10-2-19 14:30	6.70	1432	7.09	0.0					
7-2-19 23:15	21.05	1019	7.26	18.6	7-2-19 20:00	18.88	1285	8.42	16.2	7-2-19 20:00	20.91	893	8.52	209.6						10-2-19 14:45	6.69	1449	7.12	0.0					
7-2-19 23:30	21.08	1019	7.31	17.7	7-2-19 20:15	18.99	1285	8.40	10.8	7-2-19 20:15	21.40	891	8.51	197.0						10-2-19 15:00	6.66	1449	7.07	0.0					
7-2-19 23:45	21.13	1019	7.29	18.4	7-2-19 20:30	19.11	1285	8.37	14.7	7-2-19 20:30	21.08	893	8.51	197.4						10-2-19 15:15	6.64	1449	7.28	0.0					
7-3-19 0:00	21.29	1020	7.41	17.3	7-2-19 20:45	19.17	1280	8.47	16.6	7-2-19 20:45	22.08	895	8.51	186.2						10-2-19 15:30	6.63	1452	7.28	0.0					
7-3-19 0:15	21.32	1019	7.19	29.4	7-2-19 21:00	19.28	1291	8.45	7.5	7-2-19 21:00	22.40	896	8.50	191.3						10-2-19 15:45	6.62	1452	7.50	0.0					
7-3-19 0:30	21.63	1023	7.45	17.0	7-2-19 21:15	19.37	1291	8.38	7.3	7-2-19 21:15	22.16	895	8.51	194.6						10-2-19 16:00	6.66	1450	7.43	0.0					
7-3-19 0:45	21.23	1034	6.90	16.7	7-2-19 21:30	19.45	1291	8.43	7.8	7-2-19 21:30	21.33	892	8.51	193.6						10-2-19 16:15	6.71	1451	7.45	0.0					
7-3-19 1:00	21.23	1039	6.78	16.8	7-2-19 21:45	19.52	1289	8.41	10.1	7-2-19 21:45	21.29	889	8.52	191.6						10-2-19 16:30	6.78	1451	7.55	0.0					
7-3-19 1:15	21.41	1033	7.11	16.9	7-2-19 22:00	19.82	1258	8.40	27.6	7-2-19 22:00	22.28	896	8.52	186.7						10-2-19 16:45	6.84	1448	7.53	0.0					
7-3-19 1:30	21.39	1056	7.30	16.0	7-2-19 22:15	20.01	1258	8.41	32.5	7-2-19 22:15	21.04	890	8.52	202.8						10-2-19 17:00	6.91	1449	7.50	0.0					
7-3-19 1:45	21.34	1057	7.32	15.7	7-2-19 22:30	20.13	1262	8.35	40.9	7-2-19 22:30	21.95	895	8.52	185.3						10-2-19 17:15	7.05	1450	7.52	0.0					
7-3-19 2:00	21.29	1051	7.21	15.7	7-2-19 22:45	20.31	1278	8.32	44.9	7-2-19 22:45	22.75	894	8.51	178.8						10-2-19 17:30	7.18	1446	7.43	0.0					
7-3-19 2:15	21.18	1043	7.16	16.2	7-2-19 23:00	20.55	1297	8.32	22.0	7-2-19 23:00	22.27	897	8.50	178.4						10-2-19 17:45	7.27	1451	7.36	0.0					
7-3-19 2:30	21.14	1046	7.16	16.7	7-2-19 23:15	20.62	1297	8.33	27.2	7-2-19 23:15	23.30	898	8.49	176.7						10-2-19 18:00	7.27	1449	7.22	0.0					
7-3-19 2:45	21.10	1051	7.14	15.5	7-2-19 23:30	20.77	1299	8.32	30.3	7-2-19 23:30	23.07	899	8.50	167.7						10-2-19 18:15	7.38	1448	7.29	0.0					
7-3-19 3:00	21.02	1045	7.03	14.9	7-2-19 23:45	20.93	1299	8.29	31.7	7-2-19 23:45	23.58	900	8.50	171.8						10-2-19 18:30	7.38	1449	7.08	0.0					
7-3-19 3:15	20.97	1053	7.04	15.5	7-3-19 0:00	21.26	1257	8.28	7.3	7-3-19 0:00	23.53	894	8.49	165.1						10-2-19 18:45	7.43	1444	7.13	0.0					
7-3-19 3:30	20.94	1048	7.07	15.2	7-3-19 0:15	21.42	1257	8.27	8.3	7-3-19 0:15	23.63	897	8.50	168.4						10-2-19 19:00	7.50	1446	7.31	0.0					
7-3-19 3:45	20.90	1057	7.07	15.1	7-3-19 0:30	21.38	1256	8.31	6.9	7-3-19 0:30	23.02	891	8.49	171.0						10-2-19 19:15	7.63	1476	7.37	0.0					
7-3-19 4:00	20.86	1059	7.40	14.6	7-3-19 0:45	21.48	1258	8.27	10.5	7-3-19 0:45	22.92	891	8.49	168.1						10-2-19 19:30	7.79	1433	7.79	0.0					
7-3-19 4:15	20.82	1057	7.44	14.3	7-3-19 1:00	21.55	1302	8.27	9.2	7-3-19 1:00	23.85	898	8.49	168.0						10-2-19 19:45	7.99	1420	8.04	0.0					
7-3-19 4:30	20.80	1086	7.48	13.9	7-3-19 1:15	21.62	1305	8.27	9.3	7-3-19 1:15	23.72	892	8.48	165.7						10-2-19 20:00	8.32	1281	8.18	0.0					
7-3-19 4:45	20.73	1068	7.47	13.9	7-3-19 1:30	21.55	1302	8.28	9.7	7-3-19 1:30	23.29	888	8.49	167.2						10-2-19 20:15	8.36	1241	8.11	0.0					
7-3-19 5:00	20.57	1050	7.28	15.2	7-3-19 1:45	21.46	1291	8.29	11.4	7-3-19 1:45	23.59	894	8.50	161.5						10-2-19 20:30	8.38	1444	8.13	0.0					
7-3-19 5:15	20.45	1046	7.20	15.2	7-3-19 2:00	21.46	1249	8.28	5.1	7-3-19 2:00	23.05	890	8.50	167.9						10-2-19 20:45	8.43	1445	7.62	0.0					
7-3-19 5:30	20.35	1049	7.24	14.4	7-3-19 2:15	21.47	1247	8.27	5.3	7-3-19 2:15	23.28	894	8.50	162.8						10-2-19 21:00	8.51	1443	7.59	0.0					
7-3-19 5:45	20.27	1051	7.21	12.5	7-3-19 2:30	21.60	1238	8.25	7.8	7-3-19 2:30	23.27	897	8.51	151.7						10-2-19 21:15	8.70	1446	7.46	0.0					
7-3-19 6:00	20.18	1053	7.13	15.1	7-3-19 2:45	21.56	1236	8.25	5.9	7-3-19 2:45	23.09	893	8.51	159.5						10-2-19 21:30	8.82	1444	7.33	0.0					
7-3-19 6:15	20.11	1074	7.07	13.5	7-3-19 3:00	21.45	1290	8.26	10.7	7-3-19 3:00	22.96	895	8.50	149.4						10-2-19 21:45	8.87	1447	7.30	1.2					
7-3-19 6:30	20.02	1075	7.24	13.2	7-3-19 3:15	21.41	1291	8.26	6.4	7-3-19 3:15	23.18	895	8.52	153.1						10-2-19 22:00	9.00	1445	7.45	0.0					
7-3-19 6:45	19.84	1065	7.39	13.9	7-3-19 3:30	21.39	1291	8.26	9.4	7-3-19 3:30	22.82	892	8.50	150.2						10-2-19 22:15	8.97	1446	7.28	0.0					
7-3-19 7:00	19.82	1084	7.48	12.4	7-3-19 3:45	21.32	1291	8.25	8.1	7-3-19 3:45	22.98	897	8.53	144.9						10-2-19 22:45	8.95	1433	7.23	0.0					
7-3-19 7:15	19.77	1089	7.36	11.6	7-3-19 4:00	21.30	1293	8.26	6.9	7-3-19 4:00	22.89	897	8.53	136.1						10-2-19 23:00	8.93	1440	7.25	0.0					
7-3-19 7:30	19.65	1090	7.35	12.4	7-3-19 4:15	21.21	1292	8.26	4.2	7-3-19 4:15	22.72	897	8.53	138.1						10-2-19 23:15	8.92	1436	7.22	0.0					
7-3-19 7:45	19.57	1095	7.43	12.1	7-3-19 4:30	21.19	1279	8.27	7.5	7-3-19 4:30	22.61	895	8.54	143.4						10-2-19 23:30	9.02	1440	7.30	0.0					
7-3-19 8:00	19.60	1108	7.70	10.6	7-3-19 4:45	21.13	1284	8.26	6.0	7-3-19 4:45	22.42	896	8.54	136.6						10-2-19 23:45	9.16	1437	7.26	0.0					
7-3-19 8:15	19.55	1100	7.58	11.3	7-3-19 5:00	20.93	1285	8.29	5.3	7-3-19 5:00	22.32	895	8.55	144.2						10-3-19 0:00	9.07	1432	7.28	0.0					
7-3-19 8:30	19.49	1095	7.50	11.8	7-3-19 5:15	20.55	1292	8.34	6.8	7-3-19 5:15	22.28	896	8.56	137.1						10-3-19 0:15	8.96	1429	7.27	0.0					
7-3-19 8:45	19.42	1092	7.45	11.2	7-3-19 5:30	20.60	1285	8.30	6.9	7-3-19 5:30	22.09	894	8.56	131.8						10-3-19 0:30	8.85	1431	7.30	0.0					
7-3-19 9:00	19.37	1089	7.43	13.2	7-3-19 5:45	20.55	1282	8.28	5.6	7-3-19 5:45	21.80	893	8.57	135.0						10-3-19 0:45	8.81	1414	7.26	0.0					
7-3-19 9:15	19.31	1089	7.41	10.9	7-3-19 6:00	20.41	1288	8.30	4.7	7-3-19 6:00	21.66	894	8.57	127.9						10-3-19 1:00	8.75	1437	7.26	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-3-19 9:30	19.27	1094	7.40	10.5	7-3-19 6:15	20.24	1289	8.32	4.7	7-3-19 6:15	21.48	895	8.58	128.6						10-3-19 1:15	8.72	1444	7.30	0.0					
7-3-19 9:45	19.19	1096	7.33	10.1	7-3-19 6:30	20.20	1288	8.31	5.8	7-3-19 6:30	21.29	896	8.57	126.8						10-3-19 1:30	8.67	1470	7.29	0.0					
7-3-19 10:00	19.15	1110	7.59	10.7	7-3-19 6:45	20.27	1286	8.29	20.3	7-3-19 6:45	21.08	896	8.57	124.4						10-3-19 1:45	8.64	1441	7.28	0.0					
7-3-19 10:15	19.16	1116	7.80	10.9	7-3-19 7:00	20.24	1287	8.29	8.0	7-3-19 7:00	20.82	890	8.55	140.2						10-3-19 2:00	8.63	1443	7.26	0.0					
7-3-19 10:30	19.12	1118	7.36	10.3	7-3-19 7:15	20.22	1287	8.30	7.8	7-3-19 7:15	19.67	925	8.59	234.7						10-3-19 2:15	8.62	1455	7.26	2.8					
7-3-19 10:45	19.07	1114	7.37	10.2	7-3-19 7:30	20.23	1285	8.29	6.1	7-3-19 7:30	20.27	899	8.53	130.6						10-3-19 2:30	8.59	1436	7.32	0.0					
7-3-19 11:00	19.01	1115	7.37	9.3	7-3-19 7:45	20.22	1285	8.28	5.8	7-3-19 7:45	20.13	898	8.50	149.4						10-3-19 2:45	8.57	1436	7.26	0.0					
7-3-19 11:15	18.92	1112	7.36	10.2	7-3-19 8:00	20.14	1286	8.28	5.9	7-3-19 8:00	20.07	898	8.49	132.4						10-3-19 3:00	8.55	1444	7.18	3.4					
7-3-19 11:30	18.91	1106	7.37	9.7	7-3-19 8:15	20.07	1286	8.28	5.7	7-3-19 8:15	20.10	899	8.51	131.0						10-3-19 3:15	8.54	1446	7.17	0.0					
7-3-19 11:45	18.88	1107	7.34	9.7	7-3-19 8:30	20.08	1280	8.27	6.3	7-3-19 8:30	20.06	897	8.51	130.0						10-3-19 3:30	8.52	1438	7.23	0.0					
7-3-19 12:00	18.84	1109	7.30	9.9	7-3-19 8:45	20.04	1283	8.28	6.1	7-3-19 8:45	19.93	896	8.52	137.6						10-3-19 3:45	8.50	1434	7.18	0.0					
7-3-19 12:15	18.80	1123	7.19	9.7	7-3-19 9:00	19.99	1286	8.28	5.4	7-3-19 9:00	19.86	901	8.52	139.5						10-3-19 4:00	8.47	1437	7.14	0.0					
7-3-19 12:30	18.80	1134	7.22	8.6	7-3-19 9:15	19.92	1287	8.28	5.0	7-3-19 9:15	19.70	900	8.53	138.9						10-3-19 4:15	8.44	1435	7.12	0.0					
7-3-19 12:45	18.77	1133	7.21	8.9	7-3-19 9:30	19.90	1285	8.28	4.6	7-3-19 9:30	19.54	912	8.53	157.4						10-3-19 4:30	8.42	1438	7.08	0.0					
7-3-19 13:00	18.71	1127	7.06	9.5	7-3-19 9:45	19.84	1286	8.28	4.5	7-3-19 9:45	19.43	908	8.52	164.4						10-3-19 4:45	8.40	1430	7.06	0.0					
7-3-19 13:15	18.66	1120	7.06	9.8	7-3-19 10:00	19.82	1287	8.28	5.2	7-3-19 10:00	19.39	911	8.53	147.3						10-3-19 5:00	8.37	1443	7.07	0.0					
7-3-19 13:30	18.61	1113	7.10	9.7	7-3-19 10:15	19.76	1287	8.27	4.4	7-3-19 10:15	19.33	912	8.55	145.7						10-3-19 5:15	8.35	1447	7.10	0.0					
7-3-19 13:45	18.57	1120	7.13	9.3	7-3-19 10:30	19.75	1287	8.28	4.6	7-3-19 10:30	19.23	915	8.55	150.7						10-3-19 5:30	8.34	1446	7.09	0.0					
7-3-19 14:00	18.60	1141	7.14	9.2	7-3-19 10:45	19.74	1286	8.28	4.1	7-3-19 10:45	19.16	913	8.55	146.9						10-3-19 5:45	8.32	1442	7.07	0.0					
7-3-19 14:15	18.58	1140	7.13	7.9	7-3-19 11:00	19.74	1287	8.27	4.8	7-3-19 11:00	19.05	914	8.54	150.5						10-3-19 6:00	8.30	1459	7.13	0.0					
7-3-19 14:30	18.55	1139	7.13	10.9	7-3-19 11:15	19.70	1286	8.27	3.6	7-3-19 11:15	18.95	915	8.55	161.9						10-3-19 6:15	8.28	1443	7.13	0.0					
7-3-19 14:45	18.52	1138	7.13	8.1	7-3-19 11:30	19.68	1286	8.27	3.6	7-3-19 11:30	18.92	914	8.55	150.5						10-3-19 6:30	8.24	1443	7.18	0.0					
7-3-19 15:00	18.50	1139	7.14	8.8	7-3-19 11:45	19.64	1286	8.27	3.1	7-3-19 11:45	18.87	915	8.55	153.1						10-3-19 6:45	8.21	1442	7.35	0.0					
7-3-19 15:15	18.49	1139	7.19	7.7	7-3-19 12:00	19.60	1287	8.27	3.8	7-3-19 12:00	18.85	915	8.55	153.8						10-3-19 7:00	8.20	1442	7.18	0.0					
7-3-19 15:30	18.52	1141	7.15	8.3	7-3-19 12:15	19.58	1287	8.27	6.5	7-3-19 12:15	18.81	914	8.55	150.4						10-3-19 7:15	8.17	1443	7.26	0.0					
7-3-19 15:45	18.62	1141	7.15	7.8	7-3-19 12:30	19.55	1287	8.27	3.1	7-3-19 12:30	18.79	914	8.55	151.6						10-3-19 7:30	8.16	1443	7.84	0.0					
7-3-19 16:00	18.68	1143	7.16	7.7	7-3-19 12:45	19.54	1287	8.26	2.2	7-3-19 12:45	18.73	914	8.56	146.2						10-3-19 7:45	8.14	1441	7.13	0.1					
7-3-19 16:15	18.73	1146	7.19	8.6	7-3-19 13:00	19.53	1276	8.26	4.0	7-3-19 13:00	18.69	916	8.56	149.3						10-3-19 8:00	8.11	1485	6.94	0.0					
7-3-19 16:30	18.75	1146	7.18	7.8	7-3-19 13:15	19.52	1276	8.25	5.8	7-3-19 13:15	18.64	916	8.56	148.7						10-3-19 8:15	8.09	1498	6.85	2.9					
7-3-19 16:45	18.74	1145	7.20	7.8	7-3-19 13:30	19.51	1275	8.25	2.7	7-3-19 13:30	18.57	916	8.57	146.8						10-3-19 8:30	8.08	1483	6.85	0.0					
7-3-19 17:00	18.80	1151	7.23	7.7	7-3-19 13:45	19.47	1275	8.24	2.8	7-3-19 13:45	18.54	916	8.57	140.5						10-3-19 8:45	8.05	1441	6.85	0.0					
7-3-19 17:15	18.92	1175	7.39	7.7	7-3-19 14:00	19.47	1288	8.25	3.2	7-3-19 14:00	18.51	916	8.57	140.7						10-3-19 9:00	8.03	1447	6.82	0.0					
7-3-19 17:30	18.97	1164	7.20	8.2	7-3-19 14:15	19.45	1287	8.25	4.0	7-3-19 14:15	18.50	915	8.58	140.0						10-3-19 9:15	8.01	1436	6.78	4.8					
7-3-19 17:45	19.11	1163	7.21	7.3	7-3-19 14:30	19.43	1287	8.25	2.2	7-3-19 14:30	18.46	917	8.57	141.1						10-3-19 9:30	7.98	1430	6.80	0.0					
7-3-19 18:00	19.24	1164	7.27	7.7	7-3-19 14:45	19.42	1286	8.26	2.7	7-3-19 14:45	18.42	916	8.58	132.4						10-3-19 9:45	7.95	1431	6.81	0.0					
7-3-19 18:15	19.34	1173	7.20	7.1	7-3-19 15:00	19.41	1286	8.26	4.8	7-3-19 15:00	18.39	918	8.58	127.6						10-3-19 10:00	7.94	1469	6.81	0.0					
7-3-19 18:30	19.47	1180	7.09	6.9	7-3-19 15:15	19.42	1286	8.27	3.0	7-3-19 15:15	18.34	918	8.58	141.0						10-3-19 10:15	7.92	1379	6.80	0.0					
7-3-19 18:45	19.58	1176	7.11	6.5	7-3-19 15:30	19.44	1286	8.27	3.9	7-3-19 15:30	18.52	918	8.58	133.9						10-3-19 10:30	7.89	1302	6.80	0.0					
7-3-19 19:00	19.92	1184	7.46	7.4	7-3-19 15:45	19.51	1286	8.28	3.5	7-3-19 15:45	18.73	918	8.58	145.9						10-3-19 10:45	7.85	1372	6.76	0.0					
7-3-19 19:15	19.69	1167	7.18	6.7	7-3-19 16:00	19.56	1286	8.30	4.1	7-3-19 16:00	18.82	918	8.57	135.2						10-3-19 11:00	7.83	1464	6.77	0.0					
7-3-19 19:30	20.08	1214	7.35	7.6	7-3-19 16:15	19.59	1285	8.32	7.8	7-3-19 16:15	19.00	919	8.58	128.2						10-3-19 11:15	7.80	1446	6.79	0.0					
7-3-19 19:45	20.44	1226	7.84	7.5	7-3-19 16:30	19.57	1279	8.36	3.9	7-3-19 16:30	19.21	920	8.57	135.2						10-3-19 11:30	7.77	1446	6.78	0.0					
7-3-19 20:00	20.64	1227	7.94	7.2	7-3-19 16:45	19.59	1276	8.37	3.9	7-3-19 16:45	19.19	918	8.57	126.7						10-3-19 11:45	7.74	1442	6.80	2.5					
7-3-19 20:15	20.73	1226	8.02	7.0	7-3-19 17:00	19.65	1275	8.38	3.3	7-3-19 17:00	19.50	918	8.56	127.0						10-3-19 12:00	7.72	1438	6.81	0.0					
7-3-19 20:30	20.99	1224	8.15	7.2	7-3-19 17:15	19.64	1270	8.40	4.0	7-3-19 17:15	19.77	919	8.55	123.5						10-3-19 12:15	7.68	1443	6.78	0.0					
7-3-19 20:45	20.99	1220	8.14	7.0	7-3-19 17:30	19.67	1263	8.40	4.5	7-3-19 17:30	19.64	917	8.55	120.4						10-3-19 12:30	7.66	1518	6.79	0.8					
7-3-19 21:00	20.84	1227	7.83	6.9	7-3-19 17:45	19.73	1256	8.42	6.0	7-3-19 17:45	19.58	918	8.55	119.1						10-3-19 12:45	7.63	1421	6.80	0.0					
7-3-19 21:15	20.77	1220	7.57	7.9	7-3-19 18:00	19.77	1256	8.43	7.7	7-3-19 18:00	20.19	919	8.54	116.7						10-3-19 13:00	7.60	1465	6.80	0.0					
7-3-19 21:30	20.89	1215	7.71	7.4	7-3-19 18:15	19.86	1257	8.40	7.4	7-3-19 18:15	20.51	916	8.52	117.1						10-3-19 13:15	7.57	1445	6.78	0.0					
7-3-19 21:45	21.03	1222	7.75	6.7	7-3-19 18:30	20.20	1251	8.38	5.0	7-3-19 18:30	19.87	912	8.52	120.4						10-3-19 13:30	7.56	1445	6.78	0.0					
7-3-19 22:00	21.08	1218	7.78	7.3	7-3-19 18:45	20.26	1253	8.36	3.9	7-3-19 18:45	20.13	915	8.55	119.8						10-3-19 13:45	7.50	1443	6.92	0.0					
7-3-19 22:15	21.18	1219	7.75	6.4	7-3-19 19:00	20.57	1250	8.33	4.7	7-3-19 19:00	21.85	926	8.52	114.5						10-3-19 14:00	7.47	1447	6.78	0.0					
7-3-19 22:30	21.31	1245	7.75	7.8	7-3-19 19:15	20.32	1241	8.51	6.9	7-3-19 19:15	22.09	926	8.51	108.9						10-3-19 14:15	7.46	1619	6.76	0.0					
7-3-19 22:45	21.43	1271	8.23	8.0	7-3-19 19:30	20.36	1245	8.41	11.5	7-3-19 19:30	22.55	928	8.51	115.6						10-3-19 14:30	7.44	1432	6.78	0.0					
7-3-19 23:00	21.57	1275	8.43	8.3	7-3-19 19:45	20.44	1243	8.43	10.1	7-3-19 19:45	22.79	928	8.50	110.5						10-3-19 14:45	7.43	1446	6.75	0.0					
7-3-19 23:15	21.71	1250	8.36	7.2	7-3-19 20:00	20.44	1237	8.44	6.3	7-3-19 20:00	22.99	927	8.50	113.4						10-3-19 15:00	7.42	1446	6.78	0.0					
7-3-19 23:30	21.69	1264	8.30	7.8	7-3-19 20:15	20.56	1240	8.42	7.7	7-3-19 20:15	22.92	925	8.51	115.3						10-3-19 15:15	7.40	1454	6.77	0.0					
7-3-19 23:45	21.69	1252	8.03	6.7	7-3-19 20:30	20.59	1243	8.37	8.6	7-3-19 20:30	23.82	929	8.51	106.5						10-3-19 15:30	7.41	1446	6.74	0.0					
7-4-19 0:00	21.65	1252	7.84	9.6	7-3-19 20:45	20.45	1242	8.38	6.6	7-3-19 20:45	23.52	926	8.51	104.0						10-3-19 15:45	7.45	1441	6.79	0.0					
7-4-19 0:15	21.68	1261	7.94	6.9	7-3-19 21:00	20.28	1255	8.45	9.1	7-3-19 21:00	23.17	927	8.52	110.6						10-3-19 16:00	7.48	1441	6.78	0.0					
7-4-19 0:30	21.71	1256	8.08	8.4	7-3-19 21:15	20.16	1253	8.49	10.2	7-3-19 21:15	23.11	928	8.54	106.6						10-3-19 16:15	7.50	1477	6.80	0.0					
7-4-19 0:45	21.67	1258	8.16	7.3	7-3-19 21:30	20.31	1256	8.43	18.5	7-3-19 21:30	22.90	928	8.53	107.6						10-3-19 16:30	7.54	1422	6.83	0.0					
7-4-19 1:00	21.68	1264	8.22	6.8	7-3-19 21:45	20.55	1258	8.40	10.2	7-3-19 21:45	23.14	928	8.53	103.1						10-3-19 16:45	7.61	1448	6.97	0.1					
7-4-19 1:15	21.66	1273	8.23	6.4	7-3-19 22:00	20.75	1253	8.41	9.1	7-3-19 22:00	23.75	931	8.52	110.5						10-3-19 17:00	7.61	1448	6.79	0.0					
7-4-19 1:30	21.62	1284	8.24	7.6	7-3-19 22:15	20.68	1248	8.46	12.1	7-3-19 22:15	23.96	930	8.53	105.1						10-3-19 17:15	7.62	1446	6.77	0.0					
7-4-19 1:45	21.55	1286	8.32	6.8	7-3-19 22:30	20.97	1251	8.40	8.9	7-3-19 22:30	24.10	929	8.51	97.2						10-3-19 17:30	7.66	1446	6.72	0.0					
7-4-19 2:00	21.47	1293	8.47	7.2	7-3-19 22:45	21.03	1248	8.40	11.2	7-3-19 22:45	24.18	930	8.52	102.8						10-3-19 17:45	7.68	1443	6.66	0.0					
7-4-19 2:15	21.38	1285	8.19	7.0	7-3-19 23:00	21.06	1256	8.39	7.7	7-3-19 23:00	24.16	930	8.52	102.7						10-3-19 18:00	7.70	1565	6.68	0.0					
7-4-19 2:30	21.27	1282	8.33	6.6	7-3-19 23:15	20.96	1255	8.42	9.0	7-3-19 23:15	24.13	932	8.53	99.9						10-3-19 18:15	7.75	1438	6.65	0.0					
7-4-19 2:45	21.17	1292	8.32	7.5	7-3-19 23:30	20.95	1251	8.44	9.3	7-3-19 23:30	24.12	930	8.53	100.4						10-3-19 18:30	7.79	1432	6.64	0.0					
7-4-19 3:00	21.10	1287	8.26	7.7	7-3-19 23:45	20.92	1260	8.44	10.2	7-3-19 23:45	24.01	931	8.53	101.9						10-3-19 18:45	7.82	1435	6.64	0.0					
7-4-19 3:15	21.08	1290	8.26	6.5	7-4-19 0:00	20.84	1240	8.43	9.3	7-4-19 0:00	23.92	930	8.53	92.5						10-3-19 19:00	7.85	1444	6.66	0.0					
7-4-19 3:30	21.01	1292	8.11	6.8	7-4-19 0:15	20.88	1239	8.40	9.4	7-4-19 0:15	23.71	930	8.54	92.3						10-3-19 19:15	7.88	1462	6.65	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-4-19 3:45	20.95	1295	8.32	6.4	7-4-19 0:30	20.95	1237	8.38	8.9	7-4-19 0:30	23.60	930	8.54	89.9						10-3-19 19:30	7.92	1449	6.66	0.0					
7-4-19 4:00	20.90	1303	8.19	6.9	7-4-19 0:45	21.06	1236	8.38	7.9	7-4-19 0:45	23.49	929	8.55	92.4						10-3-19 19:45	7.97	1431	6.65	0.0					
7-4-19 4:15	20.84	1319	8.00	6.4	7-4-19 1:00	21.05	1249	8.39	8.5	7-4-19 1:00	23.52	929	8.55	90.0						10-3-19 20:00	8.02	1427	6.62	0.0					
7-4-19 4:30	20.79	1322	8.06	7.3	7-4-19 1:15	21.05	1248	8.39	9.7	7-4-19 1:15	23.51	931	8.56	94.0						10-3-19 20:15	8.07	1502	6.64	0.8					
7-4-19 4:45	20.71	1319	8.10	6.5	7-4-19 1:30	21.00	1248	8.39	9.6	7-4-19 1:30	23.41	930	8.55	87.9						10-3-19 20:30	8.18	1334	6.67	0.0					
7-4-19 5:00	20.64	1320	8.17	7.2	7-4-19 1:45	20.94	1246	8.39	9.4	7-4-19 1:45	23.29	929	8.56	88.9						10-3-19 20:45	8.29	1444	6.77	0.0					
7-4-19 5:15	20.56	1313	8.20	6.1	7-4-19 2:00	20.94	1232	8.39	8.1	7-4-19 2:00	23.04	928	8.56	80.1						10-3-19 21:00	8.32	1448	6.72	0.0					
7-4-19 5:30	20.51	1326	7.76	7.4	7-4-19 2:15	20.86	1235	8.40	9.4	7-4-19 2:15	22.96	929	8.57	86.7						10-3-19 21:15	8.35	1447	6.71	0.0					
7-4-19 5:45	20.42	1329	7.79	6.7	7-4-19 2:30	20.78	1237	8.40	9.4	7-4-19 2:30	22.63	927	8.58	81.7						10-3-19 21:30	8.35	1448	6.78	0.0					
7-4-19 6:00	20.38	1324	7.90	6.7	7-4-19 2:45	20.77	1203	8.38	13.3	7-4-19 2:45	22.45	927	8.59	83.8						10-3-19 21:45	8.35	1552	6.88	0.0					
7-4-19 6:15	20.29	1322	8.06	6.0	7-4-19 3:00	20.67	1240	8.37	12.9	7-4-19 3:00	22.35	925	8.58	83.8						10-3-19 22:00	8.39	1422	6.84	0.0					
7-4-19 6:30	20.21	1324	7.88	6.6	7-4-19 3:15	20.70	1240	8.38	18.0	7-4-19 3:15	22.07	927	8.58	84.1						10-3-19 22:30	8.50	1411	6.72	0.0					
7-4-19 6:45	20.15	1326	8.12	6.8	7-4-19 3:30	20.75	1240	8.38	23.8	7-4-19 3:30	21.96	926	8.59	81.5						10-3-19 22:45	8.55	1446	6.79	0.0					
7-4-19 7:00	20.06	1326	7.98	6.9	7-4-19 3:45	20.80	1241	8.36	29.9	7-4-19 3:45	21.68	928	8.59	84.3						10-3-19 23:00	8.56	1442	6.83	0.0					
7-4-19 7:15	19.99	1331	8.25	6.3	7-4-19 4:00	20.81	1236	8.35	345.1	7-4-19 4:00	21.53	928	8.59	81.0						10-3-19 23:15	8.56	1446	6.87	0.0					
7-4-19 7:30	19.94	1338	8.35	6.2	7-4-19 4:15	20.81	1235	8.35	408.1	7-4-19 4:15	21.47	928	8.59	83.4						10-3-19 23:30	8.54	1445	6.94	0.0					
7-4-19 7:45	19.87	1335	8.26	5.9	7-4-19 4:30	20.75	1236	8.35	446.6	7-4-19 4:30	21.32	927	8.58	83.3						10-3-19 23:45	8.58	1451	6.92	1.7					
7-4-19 8:00	19.81	1341	8.26	6.8	7-4-19 4:45	20.69	1235	8.35	462.4	7-4-19 4:45	21.16	928	8.58	80.6						10-4-19 0:00	8.61	1506	6.97	0.0					
7-4-19 8:15	19.74	1349	8.32	6.1	7-4-19 5:00	20.77	1243	8.35	9.2	7-4-19 5:00	20.99	927	8.58	76.5						10-4-19 0:15	8.63	1432	7.03	0.1					
7-4-19 8:30	19.68	1346	8.36	6.4	7-4-19 5:15	20.74	1242	8.35	8.0	7-4-19 5:15	20.91	928	8.57	81.7						10-4-19 0:30	8.62	1506	7.03	0.0					
7-4-19 8:45	19.59	1349	8.23	6.4	7-4-19 5:30	20.65	1244	8.34	9.6	7-4-19 5:30	20.76	929	8.57	82.4						10-4-19 0:45	8.61	1444	7.02	0.0					
7-4-19 9:00	19.55	1356	8.40	6.7	7-4-19 5:45	20.61	1243	8.34	8.9	7-4-19 5:45	20.61	928	8.56	78.5						10-4-19 1:00	8.57	1458	7.05	0.0					
7-4-19 9:15	19.50	1353	8.42	6.3	7-4-19 6:00	20.57	1254	8.33	6.7	7-4-19 6:00	20.43	929	8.55	94.0						10-4-19 1:15	8.55	1445	7.03	0.0					
7-4-19 9:30	19.41	1353	8.31	7.3	7-4-19 6:15	20.52	1257	8.33	7.6	7-4-19 6:15	20.31	930	8.55	76.8						10-4-19 1:30	8.56	1441	7.00	0.0					
7-4-19 9:45	19.28	1340	8.17	5.7	7-4-19 6:30	20.46	1259	8.33	6.3	7-4-19 6:30	20.16	929	8.54	79.6						10-4-19 1:45	8.55	1425	7.01	0.0					
7-4-19 10:00	19.21	1352	8.24	6.7	7-4-19 6:45	20.45	1262	8.33	5.9	7-4-19 6:45	20.02	930	8.54	79.4						10-4-19 2:00	8.54	1441	7.00	0.0					
7-4-19 10:15	19.16	1362	8.29	6.2	7-4-19 7:00	20.42	1243	8.32	8.0	7-4-19 7:00	19.89	930	8.53	79.6						10-4-19 2:15	8.53	1436	6.99	0.0					
7-4-19 10:30	19.12	1366	8.29	6.5	7-4-19 7:15	20.36	1232	8.32	9.2	7-4-19 7:15	19.72	933	8.52	76.8						10-4-19 2:30	8.52	1430	6.98	0.0					
7-4-19 10:45	19.06	1383	8.44	9.6	7-4-19 7:30	20.36	1241	8.32	8.1	7-4-19 7:30	19.64	933	8.51	79.1						10-4-19 2:45	8.51	1444	6.98	0.0					
7-4-19 11:00	19.01	1378	8.37	7.0	7-4-19 7:45	20.30	1243	8.31	9.6	7-4-19 7:45	19.55	935	8.51	76.5						10-4-19 3:00	8.50	1447	6.97	0.0					
7-4-19 11:15	18.97	1381	8.35	7.7	7-4-19 8:00	20.29	1243	8.31	8.1	7-4-19 8:00	19.43	936	8.51	80.4						10-4-19 3:15	8.48	1442	7.01	4.3					
7-4-19 11:30	18.95	1395	8.40	8.1	7-4-19 8:15	20.18	1242	8.30	7.5	7-4-19 8:15	19.32	938	8.52	78.4						10-4-19 3:30	8.47	1480	7.00	0.0					
7-4-19 11:45	18.87	1413	8.43	7.7	7-4-19 8:30	20.20	1240	8.30	9.5	7-4-19 8:30	19.21	940	8.52	77.2						10-4-19 3:45	8.47	1486	7.01	0.0					
7-4-19 12:00	18.84	1416	8.42	9.5	7-4-19 8:45	20.15	1244	8.30	7.7	7-4-19 8:45	19.15	943	8.52	76.5						10-4-19 4:00	8.45	1444	7.00	0.0					
7-4-19 12:15	18.76	1417	8.36	8.8	7-4-19 9:00	20.06	1241	8.29	7.1	7-4-19 9:00	19.02	947	8.52	78.4						10-4-19 4:15	8.44	1431	7.00	0.0					
7-4-19 12:30	18.74	1419	8.37	11.1	7-4-19 9:15	20.02	1241	8.29	7.7	7-4-19 9:15	18.90	953	8.52	78.4						10-4-19 4:30	8.43	1467	7.00	0.0					
7-4-19 12:45	18.66	1425	8.30	8.9	7-4-19 9:30	19.98	1241	8.29	7.5	7-4-19 9:30	18.83	955	8.52	79.9						10-4-19 4:45	8.42	1445	7.02	2.6					
7-4-19 13:00	18.58	1418	8.10	8.6	7-4-19 9:45	19.94	1241	8.28	6.9	7-4-19 9:45	18.76	959	8.52	80.0						10-4-19 5:00	8.41	1448	7.04	0.0					
7-4-19 13:15	18.56	1420	8.20	8.0	7-4-19 10:00	19.92	1243	8.28	6.0	7-4-19 10:00	18.71	962	8.53	79.8						10-4-19 5:15	8.39	1446	7.07	0.0					
7-4-19 13:30	18.53	1427	8.23	8.8	7-4-19 10:15	19.87	1243	8.28	6.4	7-4-19 10:15	18.61	969	8.53	83.3						10-4-19 5:30	8.39	1442	7.08	0.0					
7-4-19 13:45	18.46	1417	8.21	8.7	7-4-19 10:30	19.81	1242	8.28	7.1	7-4-19 10:30	18.53	973	8.54	81.1						10-4-19 5:45	8.37	1503	7.10	0.0					
7-4-19 14:00	18.45	1423	8.25	8.0	7-4-19 10:45	19.77	1241	8.28	4.8	7-4-19 10:45	18.44	974	8.54	87.9						10-4-19 6:00	8.36	1413	7.08	0.0					
7-4-19 14:15	18.40	1416	8.16	7.8	7-4-19 11:00	19.77	1243	8.27	5.7	7-4-19 11:00	18.38	976	8.54	76.9						10-4-19 6:15	8.34	1406	7.11	0.0					
7-4-19 14:30	18.37	1415	8.17	7.9	7-4-19 11:15	19.70	1243	8.27	5.7	7-4-19 11:15	18.32	979	8.55	90.4						10-4-19 6:30	8.33	1398	7.10	0.0					
7-4-19 14:45	18.34	1419	8.18	6.8	7-4-19 11:30	19.69	1241	8.27	4.7	7-4-19 11:30	18.24	980	8.55	84.6						10-4-19 6:45	8.32	1447	7.08	0.0					
7-4-19 15:00	18.31	1425	8.23	7.4	7-4-19 11:45	19.64	1244	8.27	6.8	7-4-19 11:45	18.17	984	8.56	84.7						10-4-19 7:00	8.31	1446	7.05	0.0					
7-4-19 15:15	18.29	1434	8.26	6.6	7-4-19 12:00	19.57	1243	8.26	6.6	7-4-19 12:00	18.13	985	8.56	80.5						10-4-19 7:15	8.29	1442	7.10	1.2					
7-4-19 15:30	18.28	1437	8.20	7.1	7-4-19 12:15	19.54	1244	8.26	5.1	7-4-19 12:15	18.08	987	8.56	87.6						10-4-19 7:30	8.27	1450	7.10	0.0					
7-4-19 15:45	18.30	1444	8.21	8.0	7-4-19 12:30	19.52	1244	8.26	6.7	7-4-19 12:30	18.03	988	8.56	88.9						10-4-19 7:45	8.25	1436	7.10	0.0					
7-4-19 16:00	18.37	1446	8.17	8.2	7-4-19 12:45	19.50	1244	8.26	9.5	7-4-19 12:45	17.99	990	8.57	91.5						10-4-19 8:00	8.24	1448	7.12	0.0					
7-4-19 16:15	18.39	1443	8.10	7.1	7-4-19 13:00	19.45	1243	8.26	5.0	7-4-19 13:00	17.94	991	8.57	89.3						10-4-19 8:15	8.24	1434	7.14	0.0					
7-4-19 16:30	18.48	1445	8.13	8.3	7-4-19 13:15	19.44	1245	8.26	6.4	7-4-19 13:15	17.92	992	8.57	92.2						10-4-19 8:30	8.23	1435	7.12	0.0					
7-4-19 16:45	18.56	1448	8.20	8.0	7-4-19 13:30	19.42	1244	8.26	5.1	7-4-19 13:30	17.89	993	8.57	85.7						10-4-19 8:45	8.22	1449	7.13	0.0					
7-4-19 17:00	18.67	1446	8.30	8.3	7-4-19 13:45	19.39	1245	8.26	6.1	7-4-19 13:45	17.85	991	8.58	87.4						10-4-19 9:00	8.21	1444	7.13	0.0					
7-4-19 17:15	18.74	1455	8.38	7.1	7-4-19 14:00	19.38	1245	8.26	5.2	7-4-19 14:00	17.83	991	8.58	84.9						10-4-19 9:15	8.20	1442	7.13	0.0					
7-4-19 17:30	18.81	1457	8.38	8.2	7-4-19 14:15	19.36	1244	8.27	5.1	7-4-19 14:15	17.81	992	8.58	85.2						10-4-19 9:30	8.20	1440	7.14	0.0					
7-4-19 17:45	18.96	1463	8.50	7.8	7-4-19 14:30	19.35	1244	8.27	10.2	7-4-19 14:30	17.79	992	8.58	80.2						10-4-19 9:45	8.20	1440	7.15	0.0					
7-4-19 18:00	19.05	1470	8.54	9.5	7-4-19 14:45	19.33	1244	8.28	9.3	7-4-19 14:45	17.78	993	8.59	88.6						10-4-19 10:00	8.18	1534	7.10	0.0					
7-4-19 18:15	19.30	1472	8.47	7.6	7-4-19 15:00	19.28	1243	8.28	7.3	7-4-19 15:00	17.75	995	8.59	89.8						10-4-19 10:15	8.17	1440	7.08	0.0					
7-4-19 18:30	19.40	1482	7.45	8.3	7-4-19 15:15	19.24	1243	8.28	5.6	7-4-19 15:15	17.72	994	8.60	94.8						10-4-19 10:30	8.17	1554	7.08	0.0					
7-4-19 18:45	19.55	1481	6.93	7.5	7-4-19 15:30	19.24	1243	8.29	7.1	7-4-19 15:30	17.71	993	8.59	80.6						10-4-19 10:45	8.16	1447	7.10	0.0					
7-4-19 19:00	19.92	1473	7.90	7.7	7-4-19 15:45	19.26	1241	8.29	5.8	7-4-19 15:45	17.73	993	8.60	90.1						10-4-19 11:00	8.15	1440	7.09	0.0					
7-4-19 19:15	20.35	1487	8.55	8.2	7-4-19 16:00	19.29	1232	8.29	4.8	7-4-19 16:00	17.77	997	8.60	96.1						10-4-19 11:15	8.12	1446	7.09	0.0					
7-4-19 19:30	20.53	1494	8.62	7.8	7-4-19 16:15	19.26	1221	8.29	5.7	7-4-19 16:15	17.96	994	8.60	89.3						10-4-19 11:30	8.09	1442	7.11	0.0					
7-4-19 19:45	20.55	1485	8.39	7.7	7-4-19 16:30	19.25	1216	8.30	14.2	7-4-19 16:30	18.24	1001	8.60	89.1						10-4-19 11:45	8.06	1446	7.11	0.0					
7-4-19 20:00	20.51	1492	8.37	7.7	7-4-19 16:45	19.26	1213	8.31	9.3	7-4-19 16:45	18.51	999	8.60	91.6						10-4-19 12:00	8.03	1443	7.12	0.0					
7-4-19 20:15	20.35	1493	8.55	7.6	7-4-19 17:00	19.26	1210	8.35	10.3	7-4-19 17:00	18.64	1003	8.60	89.9						10-4-19 12:15	8.02	1582	7.06	0.0					
7-4-19 20:30	20.45	1496	8.66	9.7	7-4-19 17:15	19.25	1206	8.37	9.4	7-4-19 17:15	18.88	1001	8.60	85.4						10-4-19 12:30	8.01	1438	7.01	0.0					
7-4-19 20:45	20.47	1501	8.60	7.9	7-4-19 17:30	19.21	1204	8.37	9.1	7-4-19 17:30	19.25	1002	8.59	86.1						10-4-19 12:45	8.00	1445	7.04	0.0					
7-4-19 21:00	20.57	1504	8.70	11.2	7-4-19 17:45	19.21	1200	8.41	8.7	7-4-19 17:45	19.32	1007	8.59	91.3						10-4-19 13:00	7.99	1447	7.04	0.0					
7-4-19 21:15	20.77	1501	8.64	7.7	7-4-19 18:00	19.23	1200	8.39	8.3	7-4-19 18:00	19.47	1005	8.58	88.0						10-4-19 13:15	7.99	1549	7.05	0.0					
7-4-19 21:30	20.78	1511	8.47	8.4	7-4-19 18:15	19.37	1201	8.37	7.6	7-4-19 18:15	19.27	1006	8.58	86.4						10-4-19 13:30	7.96	1447	7.01	0.0					
7-4-19 21:45	20.84	1505	8.19	8.6	7-4-19 18:30	19.56	1203	8.33	8.0	7-4-19 18:30	19.48	1004	8.58	90.5						10-4-19 13:45	7.94	1438	7.01	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-4-19 22:00	20.88	1509	8.43	8.8	7-4-19 18:45	19.86	1207	8.30	8.2	7-4-19 18:45	20.73	1011	8.57	82.1						10-4-19 14:00	7.93	1445	7.00	0.0					
7-4-19 22:15	20.97	1510	8.47	7.7	7-4-19 19:00	19.95	1209	8.29	8.5	7-4-19 19:00	21.08	1013	8.56	85.5						10-4-19 14:15	7.92	1317	7.03	0.0					
7-4-19 22:30	20.89	1515	8.26	9.2	7-4-19 19:15	20.08	1205	8.35	9.1	7-4-19 19:15	21.79	1013	8.54	126.0						10-4-19 14:30	7.91	1313	7.05	0.0					
7-4-19 22:45	20.96	1519	8.49	7.4	7-4-19 19:30	20.15	1205	8.37	8.0	7-4-19 19:30	22.39	1010	8.54	87.1						10-4-19 14:45	7.91	1448	7.04	0.0					
7-4-19 23:00	21.06	1523	8.34	7.4	7-4-19 19:45	19.87	1207	8.38	8.5	7-4-19 19:45	22.25	1013	8.55	79.3						10-4-19 15:00	7.90	1440	7.04	0.0					
7-4-19 23:15	21.10	1526	7.86	7.4	7-4-19 20:00	19.79	1206	8.39	8.2	7-4-19 20:00	22.03	1013	8.57	85.3						10-4-19 15:15	7.91	1446	7.04	0.0					
7-4-19 23:30	21.03	1513	7.98	8.4	7-4-19 20:15	19.67	1198	8.44	8.3	7-4-19 20:15	21.13	1007	8.57	80.0						10-4-19 15:30	7.92	1444	7.03	0.0					
7-4-19 23:45	21.31	1516	8.56	8.2	7-4-19 20:30	19.72	1194	8.48	9.3	7-4-19 20:30	19.97	1006	8.61	80.4						10-4-19 15:45	7.92	1476	7.02	0.0					
7-5-19 0:00	21.46	1536	8.57	9.3	7-4-19 20:45	20.23	1203	8.38	7.8	7-4-19 20:45	21.72	1013	8.59	84.2						10-4-19 16:00	7.93	1450	7.02	0.0					
7-5-19 0:15	21.36	1531	8.60	6.8	7-4-19 21:00	20.25	1195	8.46	11.8	7-4-19 21:00	21.99	1011	8.57	76.5						10-4-19 16:15	7.94	1444	6.96	0.0					
7-5-19 0:30	21.22	1533	8.42	7.7	7-4-19 21:15	20.19	1193	8.49	10.5	7-4-19 21:15	22.49	1016	8.56	79.0						10-4-19 16:30	7.96	1445	6.90	0.0					
7-5-19 0:45	21.30	1531	8.64	7.1	7-4-19 21:30	20.34	1190	8.49	11.5	7-4-19 21:30	22.68	1014	8.55	74.9						10-4-19 16:45	7.98	1449	6.81	0.0					
7-5-19 1:00	21.29	1541	8.30	8.4	7-4-19 21:45	20.33	1193	8.46	10.9	7-4-19 21:45	23.01	1017	8.56	77.7						10-4-19 17:00	8.01	1445	6.75	0.0					
7-5-19 1:15	21.19	1542	8.31	7.1	7-4-19 22:00	20.36	1192	8.44	9.8	7-4-19 22:00	22.55	1012	8.56	77.9						10-4-19 17:15	8.04	1455	6.73	0.0					
7-5-19 1:30	21.23	1547	8.20	7.8	7-4-19 22:15	20.56	1192	8.47	9.9	7-4-19 22:15	22.90	1014	8.56	85.0						10-4-19 17:30	8.09	1436	6.73	5.5					
7-5-19 1:45	21.22	1549	8.39	7.1	7-4-19 22:30	20.41	1189	8.48	10.0	7-4-19 22:30	22.67	1014	8.57	77.8						10-4-19 17:45	8.13	1331	6.71	0.0					
7-5-19 2:00	21.21	1556	8.40	7.1	7-4-19 22:45	20.53	1189	8.42	9.9	7-4-19 22:45	22.90	1012	8.56	75.7						10-4-19 18:00	8.17	1324	6.73	24.9					
7-5-19 2:15	21.14	1559	8.47	7.4	7-4-19 23:00	20.74	1193	8.41	11.2	7-4-19 23:00	21.94	1004	8.57	78.4						10-4-19 18:15	8.21	1427	6.73	0.0					
7-5-19 2:30	21.03	1564	8.57	8.3	7-4-19 23:15	20.84	1193	8.40	9.8	7-4-19 23:15	19.27	1010	8.64	74.9						10-4-19 18:30	8.24	1350	6.77	2.4					
7-5-19 2:45	20.93	1562	8.63	7.0	7-4-19 23:30	20.80	1196	8.38	9.3	7-4-19 23:30	21.73	1014	8.62	82.0						10-4-19 18:45	8.26	1447	6.78	0.0					
7-5-19 3:00	20.89	1577	8.31	6.8	7-4-19 23:45	20.85	1199	8.37	7.2	7-4-19 23:45	21.87	1016	8.60	71.4						10-4-19 19:00	8.26	1441	6.85	0.0					
7-5-19 3:15	20.82	1591	8.35	8.0	7-5-19 0:00	20.95	1201	8.39	7.7	7-5-19 0:00	21.95	1015	8.60	78.2						10-4-19 19:15	8.28	1442	6.87	0.0					
7-5-19 3:30	20.78	1598	8.35	7.5	7-5-19 0:15	21.04	1197	8.40	7.5	7-5-19 0:15	19.92	1012	8.60	76.0						10-4-19 19:30	8.31	1438	6.85	0.0					
7-5-19 3:45	20.75	1606	8.64	7.2	7-5-19 0:30	21.17	1199	8.37	7.7	7-5-19 0:30	21.88	1017	8.60	72.0						10-4-19 19:45	8.31	1559	6.92	0.0					
7-5-19 4:00	20.74	1602	8.74	8.2	7-5-19 0:45	21.37	1196	8.37	7.9	7-5-19 0:45	22.00	1017	8.59	69.9						10-4-19 20:15	8.32	1478	7.48	0.7					
7-5-19 4:15	20.70	1604	8.69	6.5	7-5-19 1:00	21.31	1199	8.37	6.9	7-5-19 1:00	21.90	1018	8.59	70.7						10-4-19 20:30	8.35	1379	7.45	0.3					
7-5-19 4:30	20.66	1606	8.61	6.3	7-5-19 1:15	21.34	1200	8.36	6.4	7-5-19 1:15	22.06	1019	8.59	73.0						10-4-19 20:45	8.47	1448	7.22	1.4					
7-5-19 4:45	20.60	1606	8.51	6.8	7-5-19 1:30	21.38	1199	8.36	6.0	7-5-19 1:30	22.04	1018	8.60	72.4						10-4-19 21:00	8.40	1455	7.84	0.0					
7-5-19 5:00	20.55	1605	8.65	6.8	7-5-19 1:45	20.65	1166	8.59	11.1	7-5-19 1:45	21.91	1020	8.59	69.0						10-4-19 21:15	8.44	1452	7.82	0.0					
7-5-19 5:15	20.49	1610	8.58	6.2	7-5-19 2:00	20.82	1184	8.45	9.7	7-5-19 2:00	21.84	1019	8.60	68.1						10-4-19 21:30	8.46	1436	7.84	0.0					
7-5-19 5:30	20.47	1603	8.51	6.7	7-5-19 2:15	20.99	1190	8.41	12.0	7-5-19 2:15	21.84	1020	8.60	67.9						10-4-19 21:45	8.47	1430	8.02	0.0					
7-5-19 5:45	20.42	1605	8.42	6.2	7-5-19 2:30	20.98	1191	8.38	12.3	7-5-19 2:30	21.36	1019	8.60	66.3						10-4-19 22:00	8.48	1468	8.00	0.0					
7-5-19 6:00	20.34	1606	8.45	6.8	7-5-19 2:45	20.89	1190	8.38	12.2	7-5-19 2:45	20.86	1024	8.57	70.2						10-4-19 22:15	8.52	1420	7.89	0.0					
7-5-19 6:15	20.28	1611	8.44	5.6	7-5-19 3:00	20.84	1191	8.38	9.4	7-5-19 3:00	20.71	1026	8.56	76.5						10-4-19 22:30	8.55	1407	7.98	0.1					
7-5-19 6:30	20.26	1621	8.32	6.9	7-5-19 3:15	20.74	1190	8.38	9.6	7-5-19 3:15	20.62	1026	8.55	68.7						10-4-19 22:45	8.55	1471	8.05	0.0					
7-5-19 6:45	20.17	1608	8.55	5.8	7-5-19 3:30	20.72	1190	8.38	8.7	7-5-19 3:30	20.57	1025	8.55	70.2						10-4-19 23:00	8.57	1454	8.04	0.0					
7-5-19 7:00	20.10	1600	8.52	6.0	7-5-19 3:45	20.68	1189	8.38	9.7	7-5-19 3:45	20.49	1026	8.54	65.3						10-4-19 23:15	8.59	1451	8.11	0.0					
7-5-19 7:15	20.05	1620	8.70	5.7	7-5-19 4:00	20.68	1191	8.38	9.6	7-5-19 4:00	20.51	1026	8.55	64.2						10-4-19 23:30	8.57	1449	8.19	0.0					
7-5-19 7:30	19.97	1601	8.58	89.2	7-5-19 4:15	20.63	1191	8.37	8.9	7-5-19 4:15	20.53	1025	8.55	66.3						10-4-19 23:45	8.61	1454	8.20	0.0					
7-5-19 7:45	19.91	1602	8.56	5.5	7-5-19 4:30	20.61	1190	8.37	8.3	7-5-19 4:30	20.51	1024	8.55	71.3						10-5-19 0:00	8.61	1432	8.24	0.0					
7-5-19 8:00	19.86	1606	8.48	5.9	7-5-19 4:45	20.57	1190	8.37	7.5	7-5-19 4:45	20.46	1025	8.55	64.0						10-5-19 0:15	8.60	1408	8.30	0.0					
7-5-19 8:15	19.80	1611	8.55	5.6	7-5-19 5:00	20.51	1188	8.36	7.5	7-5-19 5:00	20.38	1026	8.55	69.4						10-5-19 0:30	8.59	1403	8.34	0.0					
7-5-19 8:30	19.76	1613	8.55	6.2	7-5-19 5:15	20.53	1189	8.35	7.2	7-5-19 5:15	20.33	1024	8.53	58.5						10-5-19 0:45	8.58	1458	8.37	0.1					
7-5-19 8:45	19.74	1623	8.47	5.5	7-5-19 5:30	20.51	1190	8.35	7.4	7-5-19 5:30	20.27	1025	8.55	62.3						10-5-19 1:00	8.58	1453	8.38	0.0					
7-5-19 9:00	19.72	1624	8.58	7.9	7-5-19 5:45	20.52	1186	8.35	6.5	7-5-19 5:45	20.21	1025	8.53	61.1						10-5-19 1:15	8.57	1455	8.39	0.0					
7-5-19 9:15	19.73	1637	8.42	5.4	7-5-19 6:00	20.44	1188	8.35	6.9	7-5-19 6:00	20.14	1025	8.54	60.2						10-5-19 1:30	8.58	1453	8.41	0.0					
7-5-19 9:30	19.70	1638	8.52	6.2	7-5-19 6:15	20.46	1186	8.34	7.4	7-5-19 6:15	20.08	1026	8.53	61.6						10-5-19 1:45	8.57	1339	8.42	0.0					
7-5-19 9:45	19.65	1647	8.53	5.6	7-5-19 6:30	20.43	1189	8.34	7.8	7-5-19 6:30	20.00	1025	8.54	66.1						10-5-19 2:00	8.58	1328	8.43	0.0					
7-5-19 10:00	19.63	1645	8.62	6.5	7-5-19 6:45	20.39	1189	8.34	8.9	7-5-19 6:45	19.89	1026	8.54	64.2						10-5-19 2:15	8.58	1327	8.44	0.0					
7-5-19 10:15	19.60	1648	8.65	5.4	7-5-19 7:00	20.33	1189	8.34	7.5	7-5-19 7:00	19.84	1025	8.54	63.0						10-5-19 2:30	8.57	1322	8.42	0.0					
7-5-19 10:30	19.52	1644	8.63	5.7	7-5-19 7:15	20.28	1189	8.33	7.7	7-5-19 7:15	19.79	1025	8.54	62.8						10-5-19 2:45	8.58	1462	8.44	0.0					
7-5-19 10:45	19.46	1643	8.66	4.9	7-5-19 7:30	20.29	1189	8.33	7.0	7-5-19 7:30	19.74	1024	8.55	63.9						10-5-19 3:00	8.58	1459	8.47	0.0					
7-5-19 11:00	19.41	1648	8.74	5.7	7-5-19 7:45	20.19	1189	8.33	9.0	7-5-19 7:45	19.69	1024	8.54	55.7						10-5-19 3:15	8.58	1455	8.47	0.0					
7-5-19 11:15	19.35	1646	8.52	5.0	7-5-19 8:00	20.21	1190	8.32	10.9	7-5-19 8:00	19.60	1025	8.54	59.5						10-5-19 3:30	8.57	1453	8.47	0.0					
7-5-19 11:30	19.29	1647	8.48	6.9	7-5-19 8:15	20.19	1190	8.32	16.4	7-5-19 8:15	19.54	1024	8.52	56.7						10-5-19 3:45	8.57	1451	8.48	0.0					
7-5-19 11:45	19.26	1657	8.61	5.0	7-5-19 8:30	20.17	1189	8.31	18.2	7-5-19 8:30	19.52	1025	8.53	57.3						10-5-19 4:00	8.57	1441	8.48	0.0					
7-5-19 12:00	19.23	1660	8.66	6.5	7-5-19 8:45	20.14	1189	8.31	19.4	7-5-19 8:45	19.47	1024	8.52	55.9						10-5-19 4:15	8.57	1532	8.48	0.0					
7-5-19 12:15	19.15	1657	8.61	4.6	7-5-19 9:00	20.11	1188	8.31	16.6	7-5-19 9:00	19.43	1024	8.53	57.8						10-5-19 4:30	8.58	1415	8.49	0.0					
7-5-19 12:30	19.14	1658	8.58	7.3	7-5-19 9:15	20.07	1189	8.31	17.2	7-5-19 9:15	19.34	1024	8.52	56.4						10-5-19 4:45	8.57	1474	8.48	0.0					
7-5-19 12:45	19.12	1663	8.62	5.3	7-5-19 9:30	20.02	1189	8.31	16.3	7-5-19 9:30	19.28	1027	8.50	59.0						10-5-19 5:00	8.57	1451	8.49	0.0					
7-5-19 13:00	19.08	1667	8.65	7.0	7-5-19 9:45	19.99	1189	8.30	20.5	7-5-19 9:45	19.23	1026	8.50	52.9						10-5-19 5:15	8.57	1457	8.48	0.0					
7-5-19 13:15	19.09	1673	8.56	5.4	7-5-19 10:00	20.01	1189	8.30	21.5	7-5-19 10:00	19.18	1026	8.51	57.9						10-5-19 5:30	8.57	1452	8.48	0.0					
7-5-19 13:30	19.06	1681	8.53	7.6	7-5-19 10:15	19.97	1190	8.29	21.4	7-5-19 10:15	19.09	1026	8.51	56.3						10-5-19 5:45	8.56	1456	8.48	0.0					
7-5-19 13:45	19.02	1668	8.43	5.0	7-5-19 10:30	19.93	1190	8.29	20.5	7-5-19 10:30	19.03	1027	8.50	54.7						10-5-19 6:00	8.56	1452	8.47	0.0					
7-5-19 14:00	19.01	1673	8.39	6.6	7-5-19 10:45	19.88	1190	8.29	21.2	7-5-19 10:45	19.00	1027	8.50	49.2						10-5-19 6:15	8.57	1416	8.47	0.0					
7-5-19 14:15	19.03	1678	8.54	7.0	7-5-19 11:00	19.82	1189	8.29	20.0	7-5-19 11:00	18.96	1028	8.49	51.8						10-5-19 6:30	8.57	1425	8.48	0.0					
7-5-19 14:30	19.01	1663	8.42	6.5	7-5-19 11:15	19.81	1192	8.29	18.2	7-5-19 11:15	18.91	1029	8.49	50.1						10-5-19 6:45	8.56	1455	8.49	0.0					
7-5-19 14:45	18.99	1672	8.49	4.7	7-5-19 11:30	19.78	1189	8.28	20.7	7-5-19 11:30	18.83	1028	8.48	54.2						10-5-19 7:00	8.57	1452	8.50	0.0					
7-5-19 15:00	19.03	1671	8.39	5.2	7-5-19 11:45	19.75	1189	8.28	20.6	7-5-19 11:45	18.80	1029	8.48	50.9						10-5-19 7:15	8.56	1456	8.48	0.0					
7-5-19 15:15	19.09	1675	8.37	5.2	7-5-19 12:00	19.73	1190	8.28	21.1	7-5-19 12:00	18.76	1028	8.48	59.8						10-5-19 7:30	8.56	1433	8.50	0.0					
7-5-19 15:30	19.14	1674	8.33	5.1	7-5-19 12:15	19.69	1190	8.28	18.6	7-5-19 12:15	18.71	1029	8.48	47.5						10-5-19 7:45	8.56	1451	8.50	0.0					
7-5-19 15:45	19.22	1678	8.33	5.3	7-5-19 12:30	19.70	1191	8.27	16.9	7-5-19 12:30	18.66	1028	8.49	53.8						10-5-19 8:00	8.55	1429	8.50	0.0					
7-5-19 16:00	19.31	1680	8.28	5.0	7-5-19 12:45	19.69	1190	8.27	16.9	7-5-19 12:45	18.63	1028	8.48	50.1						10-5-19 8:15	8.48	1444	8.50	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-5-19 16:15	19.37	1684	8.15	4.8	7-5-19 13:00	19.65	1191	8.27	15.3	7-5-19 13:00	18.61	1029	8.48	54.0						10-5-19 8:30	8.49	1443	8.52	0.0					
7-5-19 16:30	19.47	1685	8.14	6.7	7-5-19 13:15	19.64	1191	8.27	14.5	7-5-19 13:15	18.58	1029	8.49	48.8						10-5-19 8:45	8.51	1440	8.51	0.0					
7-5-19 16:45	19.60	1691	8.05	4.8	7-5-19 13:30	19.63	1191	8.27	16.8	7-5-19 13:30	18.54	1030	8.48	55.3						10-5-19 9:00	8.52	1454	8.53	0.0					
7-5-19 17:00	19.81	1711	8.49	9.4	7-5-19 13:45	19.64	1190	8.27	14.1	7-5-19 13:45	18.53	1030	8.48	51.4						10-5-19 9:15	8.52	1452	8.53	0.0					
7-5-19 17:15	20.12	1719	8.93	5.3	7-5-19 14:00	19.65	1190	8.27	12.3	7-5-19 14:00	18.52	1030	8.49	49.0						10-5-19 9:30	8.49	1448	8.54	0.0					
7-5-19 17:30	20.09	1697	8.53	5.3	7-5-19 14:15	19.65	1191	8.28	12.3	7-5-19 14:15	18.52	1029	8.48	45.8						10-5-19 9:45	8.47	1453	8.53	0.0					
7-5-19 17:45	20.07	1699	7.91	5.1	7-5-19 14:30	19.67	1190	8.28	11.7	7-5-19 14:30	18.56	1029	8.49	50.3						10-5-19 10:00	8.48	1449	8.52	0.0					
7-5-19 18:00	20.26	1706	8.45	5.5	7-5-19 14:45	19.67	1190	8.29	11.7	7-5-19 14:45	18.57	1029	8.48	46.1						10-5-19 10:15	8.49	1442	8.52	0.0					
7-5-19 18:15	20.33	1704	8.25	5.0	7-5-19 15:00	19.68	1190	8.30	10.6	7-5-19 15:00	18.60	1030	8.48	50.8						10-5-19 10:30	8.49	1452	8.52	0.6					
7-5-19 18:30	20.34	1709	8.53	5.6	7-5-19 15:15	19.69	1189	8.32	12.6	7-5-19 15:15	18.64	1030	8.46	46.6						10-5-19 10:45	8.45	1454	8.52	0.0					
7-5-19 18:45	20.65	1716	8.75	6.0	7-5-19 15:30	19.71	1189	8.32	10.3	7-5-19 15:30	18.72	1030	8.48	52.4						10-5-19 11:00	8.47	1451	8.52	0.0					
7-5-19 19:00	20.73	1716	8.36	6.9	7-5-19 15:45	19.73	1188	8.34	10.0	7-5-19 15:45	18.81	1030	8.47	46.4						10-5-19 11:15	8.47	1453	8.52	0.0					
7-5-19 19:15	20.84	1719	8.16	5.8	7-5-19 16:00	19.75	1188	8.36	8.9	7-5-19 16:00	18.92	1031	8.47	49.0						10-5-19 11:30	8.47	1453	8.52	0.0					
7-5-19 19:30	20.93	1725	8.10	6.2	7-5-19 16:15	19.83	1187	8.39	8.8	7-5-19 16:15	19.04	1033	8.47	58.4						10-5-19 11:45	8.46	1451	8.52	0.0					
7-5-19 19:45	21.20	1729	8.79	6.7	7-5-19 16:30	19.96	1185	8.37	7.6	7-5-19 16:30	19.17	1032	8.47	46.0						10-5-19 12:00	8.42	1453	8.51	0.0					
7-5-19 20:00	21.32	1733	8.51	6.0	7-5-19 16:45	19.88	1175	8.48	10.2	7-5-19 16:45	19.36	1032	8.46	47.4						10-5-19 12:15	8.40	1455	8.51	0.0					
7-5-19 20:15	21.38	1748	8.57	5.7	7-5-19 17:00	20.11	1174	8.49	8.6	7-5-19 17:00	19.47	1031	8.46	50.5						10-5-19 12:30	8.40	1564	8.51	0.0					
7-5-19 20:30	21.47	1740	8.74	6.7	7-5-19 17:15	20.41	1166	8.43	7.5	7-5-19 17:15	19.64	1032	8.46	47.6						10-5-19 12:45	8.41	1453	8.52	0.0					
7-5-19 20:45	21.65	1739	8.77	6.7	7-5-19 17:30	20.52	1172	8.46	6.9	7-5-19 17:30	19.58	1032	8.45	50.0						10-5-19 13:00	8.39	1454	8.52	0.0					
7-5-19 21:00	21.60	1739	8.64	8.4	7-5-19 17:45	20.84	1166	8.42	7.2	7-5-19 17:45	19.71	1033	8.46	51.4						10-5-19 13:15	8.37	1451	8.52	0.0					
7-5-19 21:15	21.77	1752	8.82	7.2	7-5-19 18:00	20.81	1171	8.47	8.6	7-5-19 18:00	20.26	1033	8.46	58.6						10-5-19 13:30	8.37	1454	8.52	0.0					
7-5-19 21:30	21.90	1741	8.80	9.8	7-5-19 18:15	21.04	1169	8.41	8.8	7-5-19 18:15	19.77	1031	8.45	53.8						10-5-19 13:45	8.37	1454	8.52	0.0					
7-5-19 21:45	22.04	1751	8.83	6.0	7-5-19 18:30	21.02	1169	8.36	7.5	7-5-19 18:30	19.46	1033	8.46	53.1						10-5-19 14:00	8.35	1446	8.51	0.0					
7-5-19 22:00	22.18	1753	8.92	9.0	7-5-19 18:45	21.18	1172	8.34	8.0	7-5-19 18:45	20.88	1037	8.47	55.6						10-5-19 14:15	8.35	1443	8.52	0.0					
7-5-19 22:15	22.16	1752	8.79	6.1	7-5-19 19:00	21.15	1176	8.37	7.8	7-5-19 19:00	20.83	1037	8.46	57.1						10-5-19 14:30	8.34	1445	8.51	0.0					
7-5-19 22:30	22.23	1761	8.77	7.1	7-5-19 19:15	21.38	1178	8.36	7.9	7-5-19 19:15	20.38	1032	8.45	44.5						10-5-19 14:45	8.34	1448	8.51	0.0					
7-5-19 22:45	22.37	1763	8.83	16.1	7-5-19 19:30	21.43	1173	8.38	8.0	7-5-19 19:30	20.28	1032	8.46	48.9						10-5-19 15:00	8.33	1457	8.51	0.0					
7-5-19 23:00	22.37	1767	8.77	7.8	7-5-19 19:45	21.70	1178	8.35	7.1	7-5-19 19:45	20.90	1036	8.46	54.6						10-5-19 15:15	8.32	1454	8.51	0.0					
7-5-19 23:15	22.48	1773	8.90	6.9	7-5-19 20:00	21.92	1179	8.36	6.7	7-5-19 20:00	21.74	1039	8.45	49.7						10-5-19 15:30	8.33	1447	8.51	0.0					
7-5-19 23:30	22.54	1762	8.64	7.2	7-5-19 20:15	22.11	1179	8.38	7.0	7-5-19 20:15	20.94	1034	8.45	50.2						10-5-19 15:45	8.34	1440	8.51	0.3					
7-5-19 23:45	22.44	1768	8.49	6.5	7-5-19 20:30	22.36	1177	8.38	9.1	7-5-19 20:30	21.70	1040	8.46	48.3						10-5-19 16:00	8.33	1535	7.25	0.0					
7-6-19 0:00	22.46	1776	8.92	11.8	7-5-19 20:45	22.19	1174	8.38	6.4	7-5-19 20:45	22.26	1040	8.45	45.7						10-5-19 16:15	8.35	1424	7.04	0.0					
7-6-19 0:15	22.55	1774	8.89	6.9	7-5-19 21:00	22.05	1171	8.38	7.9	7-5-19 21:00	21.59	1038	8.45	52.0						10-5-19 16:30	8.37	1484	6.94	0.0					
7-6-19 0:30	22.53	1775	8.73	6.9	7-5-19 21:15	22.01	1167	8.39	7.2	7-5-19 21:15	22.46	1042	8.45	52.5						10-5-19 16:45	8.41	1457	6.88	0.0					
7-6-19 0:45	22.47	1777	8.42	6.7	7-5-19 21:30	22.16	1167	8.41	6.9	7-5-19 21:30	22.61	1041	8.45	48.7						10-5-19 17:00	8.43	1456	6.90	0.0					
7-6-19 1:00	22.49	1783	8.81	7.3	7-5-19 21:45	22.45	1168	8.39	6.6	7-5-19 21:45	22.36	1031	8.44	51.6						10-5-19 17:15	8.44	1453	7.01	0.0					
7-6-19 1:15	22.49	1786	8.71	6.5	7-5-19 22:00	22.60	1169	8.39	6.3	7-5-19 22:00	22.87	1042	8.45	48.1						10-5-19 17:30	8.48	1452	7.14	0.0					
7-6-19 1:30	22.46	1777	8.82	7.9	7-5-19 22:15	22.91	1170	8.40	6.5	7-5-19 22:15	22.62	1041	8.45	51.2						10-5-19 17:45	8.56	1444	7.01	0.0					
7-6-19 1:45	22.46	1783	8.71	7.9	7-5-19 22:30	22.82	1169	8.39	5.7	7-5-19 22:30	22.52	1043	8.46	50.7						10-5-19 18:00	8.64	1445	7.04	0.0					
7-6-19 2:00	22.38	1785	8.37	6.9	7-5-19 22:45	22.74	1169	8.39	5.3	7-5-19 22:45	22.96	1041	8.46	50.2						10-5-19 18:15	8.66	1433	7.09	0.0					
7-6-19 2:15	22.35	1791	8.82	6.8	7-5-19 23:00	22.98	1173	8.42	5.1	7-5-19 23:00	22.54	1040	8.45	60.4						10-5-19 18:30	8.68	1429	7.21	1.3					
7-6-19 2:30	22.33	1784	8.75	6.9	7-5-19 23:15	23.01	1174	8.42	5.1	7-5-19 23:15	23.62	1045	8.46	45.8						10-5-19 18:45	8.69	1448	7.31	0.0					
7-6-19 2:45	22.27	1786	8.69	8.5	7-5-19 23:30	22.70	1168	8.40	5.5	7-5-19 23:30	22.92	1041	8.46	50.0						10-5-19 19:00	8.68	1453	7.39	0.7					
7-6-19 3:00	22.19	1787	8.68	6.5	7-5-19 23:45	22.87	1166	8.43	5.2	7-5-19 23:45	22.51	1041	8.46	58.1						10-5-19 19:15	8.69	1463	7.48	0.0					
7-6-19 3:15	22.12	1787	8.58	5.7	7-6-19 0:00	22.83	1163	8.45	6.0	7-6-19 0:00	23.59	1046	8.48	57.3						10-5-19 19:30	8.70	1455	7.56	0.0					
7-6-19 3:30	22.04	1789	8.24	11.2	7-6-19 0:15	22.94	1162	8.45	6.3	7-6-19 0:15	23.51	1043	8.47	57.9						10-5-19 19:45	8.72	1446	7.61	0.0					
7-6-19 3:45	21.94	1787	8.36	5.9	7-6-19 0:30	22.86	1159	8.46	5.9	7-6-19 0:30	22.25	1037	8.45	55.2						10-5-19 20:00	8.80	1452	7.60	0.0					
7-6-19 4:00	21.88	1789	8.56	6.7	7-6-19 0:45	22.94	1160	8.47	6.6	7-6-19 0:45	23.25	1045	8.48	45.5						10-5-19 20:15	8.91	1470	7.58	0.0					
7-6-19 4:15	21.83	1790	8.59	5.6	7-6-19 1:00	22.97	1162	8.47	7.2	7-6-19 1:00	22.25	1037	8.46	51.9						10-5-19 20:30	8.86	1424	7.65	0.0					
7-6-19 4:30	21.77	1788	8.52	6.0	7-6-19 1:15	22.94	1163	8.46	6.8	7-6-19 1:15	23.14	1045	8.50	51.8						10-5-19 20:45	8.92	1458	7.65	0.0					
7-6-19 4:45	21.71	1788	8.46	5.5	7-6-19 1:30	22.95	1161	8.48	5.0	7-6-19 1:30	23.43	1046	8.49	50.3						10-5-19 21:00	8.89	1452	7.66	0.0					
7-6-19 5:00	21.64	1798	8.39	6.2	7-6-19 1:45	22.92	1161	8.47	5.0	7-6-19 1:45	23.24	1045	8.49	46.9						10-5-19 21:30	8.90	1454	7.52	0.0					
7-6-19 5:15	21.57	1794	8.50	5.3	7-6-19 2:00	22.88	1155	8.48	5.4	7-6-19 2:00	22.77	1043	8.49	47.8						10-5-19 21:45	8.93	1428	7.48	0.0					
7-6-19 5:30	21.51	1788	8.50	6.0	7-6-19 2:15	22.83	1151	8.49	5.7	7-6-19 2:15	22.98	1045	8.49	48.8						10-5-19 22:00	8.92	1448	7.45	0.0					
7-6-19 5:45	21.45	1791	8.55	5.0	7-6-19 2:30	22.71	1148	8.48	4.8	7-6-19 2:30	23.01	1045	8.50	46.1						10-5-19 22:15	8.92	1571	7.41	8.4					
7-6-19 6:00	21.39	1788	8.34	6.5	7-6-19 2:45	22.65	1152	8.47	4.9	7-6-19 2:45	22.85	1044	8.49	47.8						10-5-19 22:30	8.93	1435	7.40	0.0					
7-6-19 6:15	21.33	1794	8.39	5.2	7-6-19 3:00	22.57	1152	8.48	4.4	7-6-19 3:00	22.91	1045	8.51	56.1						10-5-19 22:45	8.94	1459	7.40	0.0					
7-6-19 6:30	21.26	1787	8.38	5.1	7-6-19 3:15	22.44	1156	8.46	3.9	7-6-19 3:15	22.78	1045	8.50	48.4						10-5-19 23:00	8.93	1457	7.51	0.0					
7-6-19 6:45	21.19	1789	8.40	4.6	7-6-19 3:30	22.41	1156	8.46	4.0	7-6-19 3:30	22.59	1045	8.51	48.2						10-5-19 23:15	8.94	1450	7.55	0.0					
7-6-19 7:00	21.12	1784	8.34	4.8	7-6-19 3:45	22.36	1154	8.46	3.8	7-6-19 3:45	22.54	1045	8.50	44.4						10-5-19 23:30	8.95	1447	7.54	0.0					
7-6-19 7:15	21.07	1806	8.25	4.6	7-6-19 4:00	22.29	1155	8.46	3.9	7-6-19 4:00	22.47	1045	8.51	55.5						10-5-19 23:45	8.94	1427	7.46	0.0					
7-6-19 7:30	21.00	1788	7.87	4.5	7-6-19 4:15	22.24	1153	8.46	4.1	7-6-19 4:15	22.34	1045	8.50	49.7						10-6-19 0:00	8.93	1422	7.50	0.0					
7-6-19 7:45	20.94	1790	7.71	4.3	7-6-19 4:30	22.19	1151	8.45	4.6	7-6-19 4:30	22.21	1044	8.51	45.5						10-6-19 0:15	8.94	1406	7.50	0.0					
7-6-19 8:00	20.89	1787	7.89	4.4	7-6-19 4:45	22.11	1151	8.44	3.6	7-6-19 4:45	22.11	1044	8.51	42.4						10-6-19 0:30	8.94	1381	7.42	0.0					
7-6-19 8:15	20.82	1801	8.29	4.4	7-6-19 5:00	22.06	1153	8.44	4.2	7-6-19 5:00	21.95	1044	8.50	47.7						10-6-19 0:45	8.92	1460	7.42	0.0					
7-6-19 8:30	20.77	1786	8.59	5.6	7-6-19 5:15	21.99	1151	8.43	3.9	7-6-19 5:15	21.83	1043	8.51	43.2						10-6-19 1:00	8.90	1455	7.36	0.0					
7-6-19 8:45	20.70	1788	8.51	4.6	7-6-19 5:30	21.94	1150	8.43	3.6	7-6-19 5:30	21.75	1043	8.50	46.6						10-6-19 1:15	8.88	1461	7.35	0.5					
7-6-19 9:00	20.61	1788	8.82	6.8	7-6-19 5:45	21.89	1149	8.43	3.3	7-6-19 5:45	21.67	1043	8.50	47.6						10-6-19 1:30	8.88	1459	7.35	0.0					
7-6-19 9:15	20.55	1811	8.23	4.8	7-6-19 6:00	21.78	1149	8.43	3.6	7-6-19 6:00	21.56	1043	8.50	49.1						10-6-19 1:45	8.86	1417	7.34	0.0					
7-6-19 9:30	20.48	1818	8.22	5.2	7-6-19 6:15	21.77	1148	8.43	3.6	7-6-19 6:15	21.45	1042	8.49	44.5						10-6-19 2:00	8.84	1432	7.31	0.0					
7-6-19 9:45	20.46	1805	8.69	5.1	7-6-19 6:30	21.68	1148	8.43	3.6	7-6-19 6:30	21.37	1042	8.46	45.5						10-6-19 2:15	8.80	1485	7.34	0.0					
7-6-19 10:00	20.41	1803	8.48	5.6	7-6-19 6:45	21.62	1131	8.43	3.6	7-6-19 6:45	21.25	1043	8.48	36.9						10-6-19 2:30	8.77	1421	7.40	0.0					
7-6-19 10:15	20.31	1812	8.13	8.5	7-6-19 7:00	21.57	1141	8.44	3.8	7-6-19 7:00	21.18	1042	8.48	41.7						10-6-19 2:45	8.75	1455	7.34	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-6-19 10:30	20.25	1798	8.25	7.2	7-6-19 7:15	21.52	1141	8.44	3.6	7-6-19 7:15	21.05	1042	8.48	41.2						10-6-19 3:00	8.72	1455	7.43	0.0					
7-6-19 10:45	20.21	1801	8.64	5.4	7-6-19 7:30	21.45	1139	8.43	3.8	7-6-19 7:30	20.98	1042	8.48	45.4						10-6-19 3:15	8.73	1461	7.45	0.0					
7-6-19 11:00	20.17	1799	8.60	6.5	7-6-19 7:45	21.38	1135	8.43	4.0	7-6-19 7:45	20.90	1042	8.47	47.3						10-6-19 3:30	8.72	1461	7.41	4.1					
7-6-19 11:15	20.09	1803	8.41	8.5	7-6-19 8:00	21.34	1136	8.43	4.7	7-6-19 8:00	20.81	1042	8.48	42.8						10-6-19 3:45	8.72	1572	7.36	0.0					
7-6-19 11:30	20.03	1800	8.18	9.8	7-6-19 8:15	21.26	1135	8.43	4.3	7-6-19 8:15	20.68	1042	8.48	44.7						10-6-19 4:00	8.70	1391	7.36	7.9					
7-6-19 11:45	19.98	1803	8.32	8.3	7-6-19 8:30	21.22	1134	8.42	4.1	7-6-19 8:30	20.58	1042	8.48	40.3						10-6-19 4:15	8.69	1352	7.38	1.3					
7-6-19 12:00	19.88	1800	7.81	8.2	7-6-19 8:45	21.16	1133	8.42	5.0	7-6-19 8:45	20.51	1041	8.46	41.1						10-6-19 4:30	8.67	1336	7.44	0.0					
7-6-19 12:15	19.84	1801	7.98	10.5	7-6-19 9:00	21.11	1132	8.42	4.5	7-6-19 9:00	20.35	1041	8.48	44.2						10-6-19 4:45	8.66	1459	7.45	0.0					
7-6-19 12:30	19.78	1802	7.65	10.9	7-6-19 9:15	21.04	1131	8.42	4.3	7-6-19 9:15	20.28	1041	8.48	38.8						10-6-19 5:00	8.65	1455	7.50	0.0					
7-6-19 12:45	19.70	1800	7.77	8.6	7-6-19 9:30	21.00	1128	8.42	4.2	7-6-19 9:30	20.21	1041	8.46	39.5						10-6-19 5:15	8.62	1456	7.55	0.0					
7-6-19 13:00	19.64	1801	7.74	9.9	7-6-19 9:45	20.94	1129	8.42	3.7	7-6-19 9:45	20.09	1040	8.46	44.2						10-6-19 5:30	8.61	1457	7.58	0.0					
7-6-19 13:15	19.61	1802	7.76	10.0	7-6-19 10:00	20.87	1124	8.42	4.1	7-6-19 10:00	19.97	1040	8.46	38.8						10-6-19 5:45	8.59	1453	7.49	0.0					
7-6-19 13:30	19.55	1801	7.74	13.4	7-6-19 10:15	20.89	1120	8.42	4.3	7-6-19 10:15	19.92	1040	8.46	41.4						10-6-19 6:00	8.57	1454	7.53	0.0					
7-6-19 13:45	19.50	1801	7.76	10.8	7-6-19 10:30	20.84	1120	8.42	4.0	7-6-19 10:30	19.78	1041	8.47	43.4						10-6-19 6:15	8.56	1454	7.57	0.0					
7-6-19 14:00	19.48	1800	7.75	11.1	7-6-19 10:45	20.79	1126	8.41	4.1	7-6-19 10:45	19.66	1040	8.47	36.1						10-6-19 6:30	8.54	1453	7.54	0.0					
7-6-19 14:15	19.46	1802	7.77	14.3	7-6-19 11:00	20.76	1128	8.40	2.9	7-6-19 11:00	19.59	1040	8.47	42.8						10-6-19 6:45	8.53	1462	7.63	0.0					
7-6-19 14:30	19.45	1802	7.79	10.7	7-6-19 11:15	20.70	1127	8.39	2.9	7-6-19 11:15	19.48	1039	8.46	34.4						10-6-19 7:00	8.50	1459	7.63	0.0					
7-6-19 14:45	19.46	1803	7.75	10.1	7-6-19 11:30	20.66	1130	8.39	3.4	7-6-19 11:30	19.45	1040	8.46	40.0						10-6-19 7:15	8.47	1459	7.67	0.0					
7-6-19 15:00	19.48	1804	7.72	11.6	7-6-19 11:45	20.62	1129	8.39	3.3	7-6-19 11:45	19.34	1039	8.45	34.4						10-6-19 7:30	8.43	1460	7.63	0.0					
7-6-19 15:15	19.49	1804	7.71	11.1	7-6-19 12:00	20.55	1131	8.39	3.2	7-6-19 12:00	19.25	1040	8.45	41.4						10-6-19 7:45	8.41	1458	7.61	0.1					
7-6-19 15:30	19.52	1803	7.77	11.5	7-6-19 12:15	20.56	1132	8.38	3.3	7-6-19 12:15	19.21	1040	8.44	32.9						10-6-19 8:00	8.38	1461	7.54	0.0					
7-6-19 15:45	19.57	1805	7.84	10.4	7-6-19 12:30	20.52	1131	8.37	3.4	7-6-19 12:30	19.13	1039	8.44	39.7						10-6-19 8:15	8.39	1462	7.41	0.0					
7-6-19 16:00	19.65	1806	7.89	12.3	7-6-19 12:45	20.44	1130	8.37	3.5	7-6-19 12:45	19.05	1039	8.43	34.8						10-6-19 8:30	8.38	1461	7.35	0.0					
7-6-19 16:15	19.72	1806	7.94	9.9	7-6-19 13:00	20.38	1133	8.37	2.9	7-6-19 13:00	18.97	1039	8.43	39.0						10-6-19 8:45	8.36	1463	7.32	0.0					
7-6-19 16:30	19.85	1805	7.98	10.2	7-6-19 13:15	20.37	1131	8.37	2.6	7-6-19 13:15	18.89	1039	8.43	33.7						10-6-19 9:00	8.32	1458	7.29	0.0					
7-6-19 16:45	20.00	1806	8.13	9.4	7-6-19 13:30	20.35	1130	8.37	2.9	7-6-19 13:30	18.88	1039	8.42	39.1						10-6-19 9:15	8.32	1454	7.29	0.0					
7-6-19 17:00	20.11	1808	8.31	9.0	7-6-19 13:45	20.33	1129	8.39	2.9	7-6-19 13:45	18.86	1039	8.41	34.4						10-6-19 9:30	8.32	1463	7.32	0.0					
7-6-19 17:15	20.25	1812	8.41	6.4	7-6-19 14:00	20.30	1129	8.40	2.6	7-6-19 14:00	18.83	1039	8.42	39.7						10-6-19 9:45	8.30	1461	7.37	0.0					
7-6-19 17:30	20.32	1811	8.20	7.2	7-6-19 14:15	20.21	1128	8.40	3.6	7-6-19 14:15	18.80	1039	8.42	38.9						10-6-19 10:00	8.27	1462	7.45	0.0					
7-6-19 17:45	20.44	1809	8.26	6.9	7-6-19 14:30	20.21	1131	8.41	3.0	7-6-19 14:30	18.78	1040	8.42	42.4						10-6-19 10:15	8.26	1463	7.52	0.0					
7-6-19 18:00	20.69	1812	8.86	7.3	7-6-19 14:45	20.20	1124	8.45	4.1	7-6-19 14:45	18.80	1040	8.41	41.0						10-6-19 10:30	8.24	1476	7.67	0.0					
7-6-19 18:15	20.84	1818	8.59	7.0	7-6-19 15:00	20.17	1122	8.44	6.8	7-6-19 15:00	18.84	1040	8.42	40.8						10-6-19 10:45	8.22	1464	7.71	0.0					
7-6-19 18:30	20.85	1816	7.62	7.2	7-6-19 15:15	20.16	1120	8.45	9.4	7-6-19 15:15	18.91	1040	8.41	33.4						10-6-19 11:00	8.19	1463	7.85	0.0					
7-6-19 18:45	21.01	1817	8.39	7.1	7-6-19 15:30	20.13	1117	8.46	8.7	7-6-19 15:30	19.00	1040	8.42	40.7						10-6-19 11:15	8.18	1458	8.07	0.0					
7-6-19 19:00	21.28	1820	8.51	9.2	7-6-19 15:45	20.08	1111	8.52	6.8	7-6-19 15:45	19.11	1041	8.41	33.8						10-6-19 11:30	8.14	1451	8.39	0.0					
7-6-19 19:15	21.42	1849	8.21	6.8	7-6-19 16:00	20.07	1104	8.54	5.3	7-6-19 16:00	19.24	1042	8.41	35.3						10-6-19 11:45	8.14	1462	7.83	0.0					
7-6-19 19:30	21.54	1824	8.22	7.2	7-6-19 16:15	20.10	1109	8.52	5.5	7-6-19 16:15	19.42	1042	8.41	31.6						10-6-19 12:00	8.12	1464	7.85	0.0					
7-6-19 19:45	21.73	1830	7.84	6.7	7-6-19 16:30	20.14	1108	8.54	5.4	7-6-19 16:30	19.44	1041	8.42	41.9						10-6-19 12:15	8.11	1463	7.63	0.0					
7-6-19 20:00	21.86	1829	8.71	9.5	7-6-19 16:45	20.22	1110	8.52	4.7	7-6-19 16:45	19.69	1042	8.41	34.9						10-6-19 12:30	8.09	1462	7.58	0.0					
7-6-19 20:15	21.78	1828	8.40	9.4	7-6-19 17:00	20.38	1116	8.43	5.5	7-6-19 17:00	19.92	1040	8.40	35.4						10-6-19 12:45	8.08	1479	7.61	0.0					
7-6-19 20:30	22.18	1830	8.91	7.4	7-6-19 17:15	20.29	1101	8.71	5.1	7-6-19 17:15	20.00	1043	8.38	39.3						10-6-19 13:00	8.07	1455	7.66	0.0					
7-6-19 20:45	22.51	1828	8.81	6.7	7-6-19 17:30	20.32	1104	8.69	5.3	7-6-19 17:30	20.15	1042	8.38	41.8						10-6-19 13:15	8.03	1459	7.76	0.0					
7-6-19 21:00	22.62	1827	8.74	7.4	7-6-19 17:45	20.53	1099	8.62	4.8	7-6-19 17:45	20.19	1042	8.38	38.9						10-6-19 13:30	8.01	1465	7.51	0.0					
7-6-19 21:15	22.66	1828	8.70	7.5	7-6-19 18:00	20.82	1104	8.68	5.2	7-6-19 18:00	20.42	1043	8.40	34.7						10-6-19 13:45	7.98	1464	7.45	0.0					
7-6-19 21:30	22.61	1830	8.48	7.6	7-6-19 18:15	20.75	1102	8.70	10.3	7-6-19 18:15	20.74	1044	8.39	40.6						10-6-19 14:00	8.00	1467	7.42	0.0					
7-6-19 21:45	23.03	1825	7.80	6.6	7-6-19 18:30	20.96	1106	8.65	9.3	7-6-19 18:30	20.94	1044	8.36	42.7						10-6-19 14:15	7.99	1464	7.37	0.0					
7-6-19 22:00	23.33	1833	8.43	8.7	7-6-19 18:45	21.16	1112	8.50	6.5	7-6-19 18:45	21.24	1047	8.37	42.3						10-6-19 14:30	7.98	1458	7.36	0.0					
7-6-19 22:15	23.31	1982	8.79	7.7	7-6-19 19:00	21.46	1101	8.54	8.0	7-6-19 19:00	20.67	1040	8.34	40.2						10-6-19 14:45	7.99	1469	7.37	0.8					
7-6-19 22:30	23.31	1838	8.36	8.5	7-6-19 19:15	21.75	1110	8.53	6.0	7-6-19 19:15	20.67	1044	8.33	35.1						10-6-19 15:00	7.96	1454	7.40	2.5					
7-6-19 22:45	23.47	1839	7.88	6.8	7-6-19 19:30	22.14	1113	8.51	4.8	7-6-19 19:30	20.99	1045	8.37	36.8						10-6-19 15:15	7.95	1462	7.42	0.0					
7-6-19 23:00	23.64	1834	8.85	8.9	7-6-19 19:45	22.23	1105	8.51	4.7	7-6-19 19:45	21.66	1046	8.36	31.2						10-6-19 15:30	7.94	1477	7.34	0.0					
7-6-19 23:15	23.62	1837	8.44	7.1	7-6-19 20:00	22.37	1115	8.49	4.6	7-6-19 20:00	22.06	1045	8.36	37.9						10-6-19 15:45	7.94	1453	7.32	0.0					
7-6-19 23:30	23.71	1837	8.18	7.4	7-6-19 20:15	22.65	1109	8.53	5.0	7-6-19 20:15	22.26	1047	8.37	36.2						10-6-19 16:00	7.94	1461	7.37	0.0					
7-6-19 23:45	23.85	1839	8.63	7.1	7-6-19 20:30	22.63	1109	8.59	14.7	7-6-19 20:30	23.17	1049	8.38	36.0						10-6-19 16:15	7.92	1461	7.56	0.0					
7-7-19 0:00	23.77	1868	7.58	9.1	7-6-19 20:45	22.81	1108	8.61	20.7	7-6-19 20:45	23.02	1047	8.37	34.0						10-6-19 16:30	7.87	1459	7.54	0.0					
7-7-19 0:15	23.85	1843	7.81	7.0	7-6-19 21:00	22.66	1098	8.71	16.9	7-6-19 21:00	22.83	1043	8.35	41.4						10-6-19 16:45	7.88	1470	7.48	0.4					
7-7-19 0:30	23.98	1838	8.64	9.3	7-6-19 21:15	23.01	1110	8.52	6.7	7-6-19 21:15	22.81	1046	8.35	33.0						10-6-19 17:00	7.87	1466	7.64	0.0					
7-7-19 0:45	23.81	1841	8.76	7.5	7-6-19 21:30	23.26	1110	8.62	8.7	7-6-19 21:30	23.92	1050	8.36	43.6						10-6-19 17:15	7.87	1469	7.65	0.0					
7-7-19 1:00	23.91	1843	8.85	8.1	7-6-19 21:45	23.62	1108	8.53	6.7	7-6-19 21:45	23.61	1049	8.35	32.4						10-6-19 17:30	7.85	1468	7.79	0.0					
7-7-19 1:15	23.90	1844	8.59	7.5	7-6-19 22:00	24.07	1110	8.57	5.9	7-6-19 22:00	23.82	1051	8.36	41.4						10-6-19 17:45	7.85	1467	7.62	0.1					
7-7-19 1:30	23.80	1843	7.85	8.6	7-6-19 22:15	23.87	1110	8.55	6.7	7-6-19 22:15	24.47	1054	8.37	31.2						10-6-19 18:00	7.84	1468	7.56	0.0					
7-7-19 1:45	23.76	1845	7.86	6.6	7-6-19 22:30	23.70	1110	8.55	6.1	7-6-19 22:30	24.74	1053	8.36	43.1						10-6-19 18:15	7.84	1470	7.62	0.0					
7-7-19 2:00	23.74	1843	7.43	8.0	7-6-19 22:45	24.15	1108	8.58	5.7	7-6-19 22:45	24.36	1048	8.36	33.3						10-6-19 18:30	7.87	1467	7.64	0.0					
7-7-19 2:15	23.73	1838	8.07	7.0	7-6-19 23:00	23.79	1102	8.67	6.1	7-6-19 23:00	24.54	1054	8.37	32.1						10-6-19 18:45	7.87	1470	7.68	0.0					
7-7-19 2:30	23.70	1842	8.22	7.8	7-6-19 23:15	24.26	1103	8.55	6.0	7-6-19 23:15	24.91	1054	8.37	39.8						10-6-19 19:00	7.89	1469	7.53	0.0					
7-7-19 2:45	23.68	1844	8.16	5.9	7-6-19 23:30	24.36	1105	8.59	6.6	7-6-19 23:30	24.91	1055	8.37	43.2						10-6-19 19:15	7.90	1469	7.50	0.0					
7-7-19 3:00	23.63	1844	7.86	12.2	7-6-19 23:45	24.40	1100	8.55	5.5	7-6-19 23:45	24.76	1054	8.38	29.7						10-6-19 19:30	7.92	1468	7.35	0.0					
7-7-19 3:15	23.55	1848	7.85	6.3	7-7-19 0:00	24.51	1107	8.61	3.5	7-7-19 0:00	24.03	1047	8.38	33.9						10-6-19 19:45	7.94	1559	7.47	0.1					
7-7-19 3:30	23.48	1841	7.87	6.7	7-7-19 0:15	24.56	1100	8.66	3.6	7-7-19 0:15	24.36	1052	8.37	33.7						10-6-19 20:00	7.96	1471	7.45	0.3					
7-7-19 3:45	23.42	1843	8.09	5.8	7-7-19 0:30	24.75	1104	8.64	5.9	7-7-19 0:30	24.05	1046	8.37	36.3						10-6-19 20:15	7.97	1471	7.53	0.0					
7-7-19 4:00	23.34	1829	8.33	7.3	7-7-19 0:45	24.79	1105	8.62	6.9	7-7-19 0:45	25.26	1056	8.41	28.2						10-6-19 20:30	8.03	1468	7.70	1.0					
7-7-19 4:15	23.27	1843	8.61	5.7	7-7-19 1:00	24.50	1101	8.68	3.8	7-7-19 1:00	25.80	1059	8.42	37.7						10-6-19 20:45	8.07	1469	7.78	7.6					
7-7-19 4:30	23.20	1842	8.49	6.3	7-7-19 1:15	24.37	1101	8.62	4.2	7-7-19 1:15	25.80	1059	8.42	33.8						10-6-19 21:00	8.02	1469	7.68	7.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-7-19 4:45	23.13	1844	8.04	6.2	7-7-19 1:30	24.35	1101	8.60	3.3	7-7-19 1:30	25.25	1034	8.42	29.2						10-6-19 21:15	8.03	1469	7.67	0.7					
7-7-19 5:00	23.00	1839	7.40	5.9	7-7-19 1:45	24.60	1101	8.57	3.6	7-7-19 1:45	25.63	1058	8.43	33.8						10-6-19 21:45	8.06	1467	8.04	0.2					
7-7-19 5:15	22.94	1846	7.40	5.5	7-7-19 2:00	24.35	1107	8.50	2.1	7-7-19 2:00	25.12	1049	8.43	43.4						10-6-19 22:00	8.08	1470	8.23	0.3					
7-7-19 5:30	22.86	1840	7.33	6.1	7-7-19 2:15	24.26	1101	8.54	2.7	7-7-19 2:15	24.79	1057	8.43	36.3						10-6-19 22:15	8.10	1468	8.33	0.0					
7-7-19 5:45	22.81	1840	7.24	5.0	7-7-19 2:30	24.28	1103	8.54	2.5	7-7-19 2:30	24.81	1044	8.43	37.5						10-6-19 22:30	8.14	1466	8.43	0.1					
7-7-19 6:00	22.72	1840	7.31	6.7	7-7-19 2:45	24.21	1101	8.52	2.7	7-7-19 2:45	24.96	1056	8.44	27.3						10-6-19 22:45	8.23	1541	8.54	0.8					
7-7-19 6:15	22.64	1841	7.49	6.0	7-7-19 3:00	24.19	1106	8.51	2.4	7-7-19 3:00	24.96	1056	8.45	36.4						10-6-19 23:00	8.22	1456	8.54	0.4					
7-7-19 6:30	22.51	1843	8.74	5.8	7-7-19 3:15	24.14	1105	8.51	2.4	7-7-19 3:15	24.74	1053	8.44	27.1						10-6-19 23:15	8.25	1464	8.55	1.0					
7-7-19 6:45	22.42	1836	8.26	8.9	7-7-19 3:30	24.10	1103	8.52	2.2	7-7-19 3:30	24.11	1045	8.41	35.6						10-6-19 23:30	8.24	1465	8.56	0.7					
7-7-19 7:00	22.34	1838	7.91	7.8	7-7-19 3:45	24.06	1102	8.51	2.1	7-7-19 3:45	24.32	1056	8.46	28.2						10-6-19 23:45	8.22	1462	8.58	0.4					
7-7-19 7:15	22.20	1839	7.30	5.5	7-7-19 4:00	24.06	1103	8.52	2.2	7-7-19 4:00	24.14	1053	8.46	31.1						10-7-19 0:00	8.19	1348	8.57	0.6					
7-7-19 7:30	22.16	1836	7.44	9.4	7-7-19 4:15	23.97	1097	8.56	2.4	7-7-19 4:15	24.09	1052	8.47	26.4						10-7-19 0:15	8.18	1345	8.58	0.6					
7-7-19 7:45	22.03	1837	7.48	5.8	7-7-19 4:30	23.85	1095	8.54	2.6	7-7-19 4:30	23.97	1041	8.47	33.6						10-7-19 0:30	8.14	1341	8.59	0.0					
7-7-19 8:00	21.94	1838	7.48	5.8	7-7-19 4:45	23.75	1099	8.54	2.6	7-7-19 4:45	23.79	1053	8.47	40.2						10-7-19 0:45	8.15	1339	8.61	2.8					
7-7-19 8:15	21.85	1868	7.81	5.2	7-7-19 5:00	23.61	1099	8.52	3.1	7-7-19 5:00	23.69	1066	8.47	33.5						10-7-19 1:00	8.12	1461	8.62	0.1					
7-7-19 8:30	21.77	1835	8.00	6.7	7-7-19 5:15	23.52	1096	8.51	3.0	7-7-19 5:15	23.56	1054	8.45	33.9						10-7-19 1:15	8.08	1464	8.62	0.0					
7-7-19 8:45	21.70	1834	8.10	5.0	7-7-19 5:30	23.39	1097	8.51	2.8	7-7-19 5:30	23.45	1052	8.46	31.5						10-7-19 1:30	8.05	1465	8.63	0.0					
7-7-19 9:00	21.62	1835	8.15	5.6	7-7-19 5:45	23.26	1097	8.51	3.1	7-7-19 5:45	23.28	1053	8.46	26.1						10-7-19 1:45	8.07	1465	8.62	0.0					
7-7-19 9:15	21.51	1838	7.96	5.7	7-7-19 6:00	23.12	1097	8.51	3.7	7-7-19 6:00	23.16	1052	8.46	34.3						10-7-19 2:00	8.07	1465	8.62	0.0					
7-7-19 9:30	21.45	1836	7.77	10.4	7-7-19 6:15	22.97	1094	8.51	3.7	7-7-19 6:15	22.97	1052	8.46	28.6						10-7-19 2:15	8.01	1462	8.62	0.0					
7-7-19 9:45	21.38	1834	7.83	5.4	7-7-19 6:30	22.76	1084	8.55	4.3	7-7-19 6:30	22.77	1051	8.47	31.5						10-7-19 2:30	7.97	1458	8.60	0.0					
7-7-19 10:00	21.31	1834	7.76	7.8	7-7-19 6:45	22.47	1071	8.58	5.7	7-7-19 6:45	22.67	1052	8.47	27.0						10-7-19 2:45	7.94	1460	8.59	0.0					
7-7-19 10:15	21.23	1836	8.10	8.5	7-7-19 7:00	22.30	1064	8.59	7.1	7-7-19 7:00	22.54	1052	8.47	37.9						10-7-19 3:00	7.95	1465	8.60	0.0					
7-7-19 10:30	21.16	1836	7.83	8.2	7-7-19 7:15	22.24	1076	8.54	4.3	7-7-19 7:15	22.41	1054	8.47	24.1						10-7-19 3:15	7.95	1467	8.62	0.5					
7-7-19 10:45	21.09	1835	7.93	6.3	7-7-19 7:30	22.27	1078	8.55	3.2	7-7-19 7:30	22.31	1052	8.47	36.9						10-7-19 3:30	7.94	1465	8.62	0.0					
7-7-19 11:00	20.98	1834	7.93	9.0	7-7-19 7:45	22.22	1077	8.54	3.6	7-7-19 7:45	22.16	1051	8.47	22.6						10-7-19 3:45	7.92	1465	8.62	0.0					
7-7-19 11:15	20.94	1835	7.77	7.6	7-7-19 8:00	22.12	1079	8.55	3.6	7-7-19 8:00	22.04	1052	8.47	33.0						10-7-19 4:00	7.89	1468	8.62	0.8					
7-7-19 11:30	20.87	1831	7.79	6.4	7-7-19 8:15	22.01	1077	8.55	3.8	7-7-19 8:15	21.89	1052	8.47	22.8						10-7-19 4:15	7.88	1467	8.63	0.0					
7-7-19 11:45	20.82	1835	7.85	7.7	7-7-19 8:30	21.92	1074	8.56	4.1	7-7-19 8:30	21.76	1051	8.46	31.7						10-7-19 4:30	7.87	1469	8.63	0.0					
7-7-19 12:00	20.76	1835	8.14	11.4	7-7-19 8:45	21.83	1071	8.56	4.4	7-7-19 8:45	21.65	1051	8.46	28.9						10-7-19 4:45	7.85	1469	8.63	0.0					
7-7-19 12:15	20.68	1835	8.22	10.0	7-7-19 9:00	21.77	1078	8.57	5.5	7-7-19 9:00	21.52	1051	8.46	30.6						10-7-19 5:00	7.84	1465	8.63	0.0					
7-7-19 12:30	20.65	1834	8.44	10.1	7-7-19 9:15	21.71	1064	8.58	5.3	7-7-19 9:15	21.40	1051	8.45	23.8						10-7-19 5:15	7.83	1466	8.63	0.0					
7-7-19 12:45	20.60	1835	8.58	8.6	7-7-19 9:30	21.65	1065	8.58	6.8	7-7-19 9:30	21.27	1050	8.45	39.0						10-7-19 5:30	7.83	1462	8.63	0.0					
7-7-19 13:00	20.55	1835	8.43	13.6	7-7-19 9:45	21.53	1059	8.59	6.8	7-7-19 9:45	21.15	1050	8.44	25.6						10-7-19 5:45	7.82	1465	8.62	0.0					
7-7-19 13:15	20.50	1836	8.33	9.4	7-7-19 10:00	21.42	1058	8.60	6.6	7-7-19 10:00	20.99	1050	8.44	35.1						10-7-19 6:00	7.79	1466	8.62	0.0					
7-7-19 13:30	20.44	1834	8.45	11.4	7-7-19 10:15	21.37	1055	8.59	6.8	7-7-19 10:15	20.88	1050	8.43	21.9						10-7-19 6:15	7.78	1466	8.61	0.0					
7-7-19 13:45	20.43	1836	8.28	10.5	7-7-19 10:30	21.32	1056	8.58	5.9	7-7-19 10:30	20.72	1050	8.43	38.1						10-7-19 6:30	7.77	1465	8.61	0.0					
7-7-19 14:00	20.40	1837	8.36	13.0	7-7-19 10:45	21.29	1053	8.58	14.4	7-7-19 10:45	20.58	1049	8.42	34.3						10-7-19 6:45	7.73	1467	8.62	0.0					
7-7-19 14:15	20.35	1837	8.48	9.4	7-7-19 11:00	21.27	1062	8.57	5.0	7-7-19 11:00	20.50	1049	8.41	62.2						10-7-19 7:00	7.72	1465	8.62	0.0					
7-7-19 14:30	20.33	1836	8.49	16.2	7-7-19 11:15	21.20	1059	8.56	8.2	7-7-19 11:15	20.39	1049	8.40	23.1						10-7-19 7:15	7.74	1465	8.62	0.0					
7-7-19 14:45	20.33	1837	8.56	9.5	7-7-19 11:30	21.21	1063	8.55	14.9	7-7-19 11:30	20.33	1050	8.40	33.1						10-7-19 7:30	7.74	1466	8.63	0.0					
7-7-19 15:00	20.33	1834	8.56	10.1	7-7-19 11:45	21.10	1060	8.55	4.1	7-7-19 11:45	20.23	1050	8.40	35.0						10-7-19 7:45	7.73	1460	8.63	0.0					
7-7-19 15:15	20.34	1836	8.58	8.3	7-7-19 12:00	21.08	1065	8.55	4.5	7-7-19 12:00	20.11	1049	8.39	32.5						10-7-19 8:00	7.76	1464	8.63	0.0					
7-7-19 15:30	20.36	1835	8.56	8.9	7-7-19 12:15	21.06	1065	8.55	3.5	7-7-19 12:15	20.03	1050	8.35	25.4						10-7-19 8:15	7.76	1455	8.63	0.0					
7-7-19 15:45	20.44	1835	8.53	8.9	7-7-19 12:30	21.01	1065	8.55	4.0	7-7-19 12:30	19.94	1050	8.38	33.2						10-7-19 8:30	7.70	1468	8.63	0.0					
7-7-19 16:00	20.41	1836	8.62	9.2	7-7-19 12:45	20.98	1063	8.54	3.0	7-7-19 12:45	19.90	1050	8.38	33.4						10-7-19 8:45	7.69	1467	8.63	0.0					
7-7-19 16:15	20.40	1836	8.63	9.2	7-7-19 13:00	20.93	1069	8.54	2.8	7-7-19 13:00	19.82	1050	8.38	29.3						10-7-19 9:00	7.68	1465	8.64	0.0					
7-7-19 16:30	20.41	1836	8.66	8.1	7-7-19 13:15	20.94	1060	8.55	5.1	7-7-19 13:15	19.77	1050	8.39	21.3						10-7-19 9:15	7.67	1461	8.65	0.6					
7-7-19 16:45	20.45	1837	8.71	8.2	7-7-19 13:30	20.93	1068	8.55	3.8	7-7-19 13:30	19.73	1051	8.39	35.9						10-7-19 9:30	7.66	1467	8.65	0.0					
7-7-19 17:00	20.50	1836	8.75	7.9	7-7-19 13:45	20.88	1066	8.57	2.6	7-7-19 13:45	19.71	1051	8.39	39.0						10-7-19 9:45	7.66	1469	8.65	1.4					
7-7-19 17:15	20.55	1838	8.76	6.7	7-7-19 14:00	20.89	1068	8.58	2.5	7-7-19 14:00	19.68	1051	8.39	34.7						10-7-19 10:00	7.64	1468	8.64	0.0					
7-7-19 17:30	20.61	1838	8.78	6.7	7-7-19 14:15	20.87	1067	8.61	2.4	7-7-19 14:15	19.62	1051	8.39	22.8						10-7-19 10:15	7.64	1470	8.64	0.0					
7-7-19 17:45	20.71	1839	8.83	7.7	7-7-19 14:30	20.86	1062	8.63	2.1	7-7-19 14:30	19.58	1050	8.40	34.7						10-7-19 10:30	7.62	1469	8.64	0.0					
7-7-19 18:00	20.71	1841	8.85	8.1	7-7-19 14:45	20.88	1066	8.65	2.4	7-7-19 14:45	19.59	1052	8.40	21.1						10-7-19 10:45	7.61	1467	8.65	0.0					
7-7-19 18:15	20.95	1842	8.90	7.6	7-7-19 15:00	20.86	1068	8.69	7.6	7-7-19 15:00	19.58	1052	8.40	50.8						10-7-19 11:00	7.60	1464	8.65	0.0					
7-7-19 18:30	21.09	1842	8.91	6.8	7-7-19 15:15	20.90	1076	8.73	2.1	7-7-19 15:15	19.57	1053	8.40	28.4						10-7-19 11:15	7.59	1464	8.65	0.0					
7-7-19 18:45	21.20	1842	8.98	7.1	7-7-19 15:30	20.93	1066	8.74	2.0	7-7-19 15:30	19.60	1053	8.41	38.7						10-7-19 11:30	7.60	1464	8.65	0.0					
7-7-19 19:00	21.24	1844	8.96	8.0	7-7-19 15:45	21.00	1063	8.79	2.4	7-7-19 15:45	19.72	1053	8.41	24.5						10-7-19 11:45	7.60	1462	8.65	0.0					
7-7-19 19:15	21.29	1845	8.97	7.3	7-7-19 16:00	21.06	1072	6.76	2.0	7-7-19 16:00	19.78	1053	8.42	34.6						10-7-19 12:00	7.62	1466	8.64	0.0					
7-7-19 19:30	21.35	1845	8.99	7.0	7-7-19 16:15	21.04	1069	6.77	1.8	7-7-19 16:15	19.76	1054	8.41	22.3						10-7-19 12:15	7.61	1459	8.65	0.0					
7-7-19 19:45	21.35	1886	9.03	6.7	7-7-19 16:30	21.05	1069	6.63	1.7	7-7-19 16:30	19.80	1056	8.42	74.4						10-7-19 12:30	7.57	1510	8.65	0.2					
7-7-19 20:00	21.35	1841	9.03	7.7	7-7-19 16:45	21.06	1072	6.68	2.1	7-7-19 16:45	19.83	1056	8.41	38.0						10-7-19 12:45	7.58	1467	8.66	2.1					
7-7-19 20:15	21.41	1845	9.07	9.5	7-7-19 17:00	21.08	1070	6.78	2.9	7-7-19 17:00	19.89	1056	8.42	86.0						10-7-19 13:00	7.54	1465	8.66	0.0					
7-7-19 20:30	21.37	1846	9.04	6.6	7-7-19 17:15	21.08	1069	6.89	2.2	7-7-19 17:15	19.90	1056	8.42	23.0						10-7-19 13:15	7.46	1463	8.67	0.8					
7-7-19 20:45	21.35	1848	9.05	7.4	7-7-19 17:30	21.07	1064	6.73	4.4	7-7-19 17:30	19.95	1056	8.42	48.5						10-7-19 13:30	7.44	1463	8.68	0.4					
7-7-19 21:00	21.34	1845	9.07	8.4	7-7-19 17:45	21.13	1065	6.71	3.7	7-7-19 17:45	20.05	1057	8.41	32.3						10-7-19 13:45	7.42	1465	8.68	0.6					
7-7-19 21:15	21.35	1850	9.08	6.5	7-7-19 18:00	21.12	1061	6.63	6.8	7-7-19 18:00	20.18	1057	8.42	46.4						10-7-19 14:00	7.45	1467	8.69	1.5					
7-7-19 21:30	21.39	1847	9.07	10.0	7-7-19 18:15	21.18	1065	6.73	7.4	7-7-19 18:15	20.22	1058	8.41	33.0						10-7-19 14:15	7.40	1472	8.69	2.3					
7-7-19 21:45	21.43	1850	9.08	7.3	7-7-19 18:30	21.32	1066	6.58	4.2	7-7-19 18:30	20.45	1058	8.41	71.2						10-7-19 14:30	7.38	1471	8.69	0.9					
7-7-19 22:00	21.45	1843	9.08	7.9	7-7-19 18:45	21.35	1063	6.63	4.6	7-7-19 18:45	20.54	1059	8.40	44.1						10-7-19 14:45	7.40	1467	8.69	0.9					
7-7-19 22:15	21.44	1843	9.08	7.4	7-7-19 19:00	21.36	1061	6.66	3.8	7-7-19 19:00	20.79	1059	8.41	49.4						10-7-19 15:00	7.40	1465	8.69	1.1					
7-7-19 22:30	21.46	1849	9.07	7.8	7-7-19 19:15	21.35	1053	6.65	3.8	7-7-19 19:15	20.87	1060	8.40	49.5						10-7-19 15:15	7.39	1465	8.69	1.0					
7-7-19 22:45	21.44	1849	9.06	7.9	7-7-19 19:30	21.46	1060	6.64	4.0	7-7-19 19:30	21.15	1061	8.41	40.0						10-7-19 15:30	7.37	1466	8.69	0.8					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-7-19 23:00	21.46	1850	9.08	8.0	7-7-19 19:45	21.47	1058	6.57	2.7	7-7-19 19:45	21.19	1062	8.41	27.6						10-7-19 15:45	7.37	1465	8.69	1.0					
7-7-19 23:15	21.47	1847	9.09	7.0	7-7-19 20:00	21.45	1059	6.62	3.2	7-7-19 20:00	21.14	1062	8.40	44.1						10-7-19 16:00	7.36	1469	8.70	1.1					
7-7-19 23:30	21.44	1854	9.07	7.5	7-7-19 20:15	21.50	1058	6.62	3.2	7-7-19 20:15	21.15	1063	8.40	25.0						10-7-19 16:15	7.36	1468	8.70	1.0					
7-7-19 23:45	21.44	1877	9.09	7.1	7-7-19 20:30	21.47	1056	6.57	4.3	7-7-19 20:30	21.05	1062	8.41	67.0						10-7-19 16:30	7.34	1467	8.70	1.4					
7-8-19 0:00	21.44	1852	9.11	9.9	7-7-19 20:45	21.45	1055	6.59	6.2	7-7-19 20:45	21.01	1063	8.41	27.8						10-7-19 16:45	7.29	1468	8.71	2.9					
7-8-19 0:15	21.42	1853	9.10	9.7	7-7-19 21:00	21.47	1056	6.63	5.8	7-7-19 21:00	20.96	1063	8.41	34.1						10-7-19 17:00	7.25	1470	8.71	1.8					
7-8-19 0:30	21.43	1859	9.07	14.2	7-7-19 21:15	21.45	1057	7.34	4.7	7-7-19 21:15	20.91	1063	8.41	35.2						10-7-19 17:15	7.25	1465	8.71	1.4					
7-8-19 0:45	21.43	1852	9.09	8.4	7-7-19 21:30	21.49	1049	8.85	8.4	7-7-19 21:30	20.93	1063	8.41	77.7						10-7-19 17:30	7.21	1465	8.72	1.6					
7-8-19 1:00	21.47	1852	9.12	22.1	7-7-19 21:45	21.55	1050	8.91	6.8	7-7-19 21:45	20.98	1064	8.41	24.2						10-7-19 17:45	7.24	1466	8.72	2.7					
7-8-19 1:15	21.46	1852	9.11	7.4	7-7-19 22:00	21.57	1049	8.94	6.4	7-7-19 22:00	21.02	1064	8.42	31.0						10-7-19 18:00	7.24	1451	8.73	1.6					
7-8-19 1:30	21.44	1853	9.10	7.8	7-7-19 22:15	21.56	1048	8.98	7.3	7-7-19 22:15	21.03	1064	8.41	24.0						10-7-19 18:15	7.22	1457	8.73	1.1					
7-8-19 1:45	21.43	1855	9.11	8.2	7-7-19 22:30	21.58	1047	8.99	7.3	7-7-19 22:30	21.04	1064	8.42	84.6						10-7-19 18:30	7.21	1443	8.74	0.8					
7-8-19 2:00	21.44	1854	9.10	8.6	7-7-19 22:45	21.59	1047	9.02	6.2	7-7-19 22:45	21.00	1064	8.42	26.7						10-7-19 18:45	7.22	1468	8.74	2.1					
7-8-19 2:15	21.43	1854	9.09	7.6	7-7-19 23:00	21.58	1026	9.02	6.4	7-7-19 23:00	20.97	1065	8.42	30.7						10-7-19 19:00	7.21	1466	8.75	2.0					
7-8-19 2:30	21.40	1854	9.10	10.5	7-7-19 23:15	21.62	1043	9.04	6.7	7-7-19 23:15	20.95	1066	8.42	35.5						10-7-19 19:15	7.19	1465	8.76	1.6					
7-8-19 2:45	21.43	1859	9.12	7.6	7-7-19 23:30	21.64	1041	9.05	9.1	7-7-19 23:30	20.94	1067	8.42	75.8						10-7-19 19:30	7.19	1467	8.77	2.2					
7-8-19 3:00	21.42	1867	9.11	9.2	7-7-19 23:45	21.65	1039	9.05	7.8	7-7-19 23:45	20.94	1067	8.42	28.2						10-7-19 19:45	7.20	1480	8.78	1.8					
7-8-19 3:15	21.41	1855	9.12	8.3	7-8-19 0:00	21.66	1040	9.06	7.6	7-8-19 0:00	20.90	1068	8.42	45.9						10-7-19 20:00	7.16	1468	8.79	1.6					
7-8-19 3:30	21.39	1854	9.11	9.0	7-8-19 0:15	21.63	1033	9.07	8.4	7-8-19 0:15	20.95	1068	8.41	27.4						10-7-19 20:15	7.20	1470	8.77	1.7					
7-8-19 3:45	21.36	1871	9.11	8.5	7-8-19 0:30	21.60	1038	9.07	9.0	7-8-19 0:30	20.95	1068	8.42	40.3						10-7-19 20:30	7.18	1474	7.35	1.8					
7-8-19 4:00	21.34	1857	9.10	9.2	7-8-19 0:45	21.64	1040	9.08	14.0	7-8-19 0:45	20.97	1068	8.41	25.2						10-7-19 20:45	7.18	1474	7.36	1.6					
7-8-19 4:15	21.31	1857	9.09	6.5	7-8-19 1:00	21.70	1048	9.07	24.7	7-8-19 1:00	20.99	1068	8.40	42.9						10-7-19 21:00	7.19	1472	7.36	2.2					
7-8-19 4:30	21.29	1861	9.08	11.9	7-8-19 1:15	21.67	1034	9.07	10.5	7-8-19 1:15	21.00	1069	8.40	25.4						10-7-19 21:15	7.19	1472	7.35	2.0					
7-8-19 4:45	21.24	1864	9.09	7.2	7-8-19 1:30	21.69	1039	9.05	13.5	7-8-19 1:30	21.01	1069	8.41	43.8						10-7-19 21:30	7.18	1472	7.35	2.3					
7-8-19 5:00	21.21	1858	9.08	7.6	7-8-19 1:45	21.68	1035	8.68	11.5	7-8-19 1:45	20.99	1069	8.40	26.2						10-7-19 21:45	7.16	1472	7.33	1.4					
7-8-19 5:15	21.19	1888	9.06	8.1	7-8-19 2:00	21.67	1047	6.61	12.6	7-8-19 2:00	20.99	1069	8.41	40.3						10-7-19 22:00	7.14	1473	7.37	1.0					
7-8-19 5:30	21.16	1867	9.06	7.9	7-8-19 2:15	21.68	1047	7.02	12.7	7-8-19 2:15	20.99	1070	8.40	31.9						10-7-19 22:15	7.14	1475	7.39	1.9					
7-8-19 5:45	21.11	1865	9.04	7.7	7-8-19 2:30	21.68	1047	7.02	12.1	7-8-19 2:30	21.01	1070	8.41	40.0						10-7-19 22:30	7.14	1475	7.38	2.6					
7-8-19 6:00	21.05	1865	9.05	11.4	7-8-19 2:45	21.68	1047	6.88	8.0	7-8-19 2:45	21.03	1070	8.41	20.6						10-7-19 22:45	7.11	1474	7.49	1.9					
7-8-19 6:15	21.02	1868	9.04	12.6	7-8-19 3:00	21.63	1044	7.00	9.7	7-8-19 3:00	20.99	1070	8.41	40.8						10-7-19 23:00	7.07	1473	7.59	1.3					
7-8-19 6:30	20.99	1865	9.03	11.7	7-8-19 3:15	21.56	1046	7.03	7.3	7-8-19 3:15	20.97	1070	8.40	26.8						10-7-19 23:15	7.04	1473	7.55	1.3					
7-8-19 6:45	20.95	1868	9.02	11.9	7-8-19 3:30	21.51	1047	8.05	10.0	7-8-19 3:30	20.95	1070	8.40	29.3						10-7-19 23:30	7.02	1472	7.53	1.4					
7-8-19 7:00	20.91	1875	9.00	17.8	7-8-19 3:45	21.49	1047	6.84	9.6	7-8-19 3:45	20.92	1070	8.40	27.4						10-7-19 23:45	6.99	1474	7.52	1.4					
7-8-19 7:15	20.87	1865	8.99	15.1	7-8-19 4:00	21.44	1049	7.06	6.4	7-8-19 4:00	20.87	1070	8.40	37.8						10-8-19 0:00	6.99	1477	7.49	1.7					
7-8-19 7:30	20.82	1867	9.00	15.5	7-8-19 4:15	21.41	1049	6.83	7.2	7-8-19 4:15	20.82	1071	8.40	26.4						10-8-19 0:15	6.97	1475	7.49	2.0					
7-8-19 7:45	20.78	1867	9.02	9.3	7-8-19 4:30	21.39	1045	6.90	7.5	7-8-19 4:30	20.78	1071	8.41	38.3						10-8-19 0:30	6.94	1475	7.41	1.9					
7-8-19 8:00	20.74	1868	9.01	10.0	7-8-19 4:45	21.38	1044	7.05	7.8	7-8-19 4:45	20.74	1071	8.40	30.7						10-8-19 0:45	6.93	1475	7.37	1.4					
7-8-19 8:15	20.70	1868	9.00	12.9	7-8-19 5:00	21.35	1044	7.14	7.7	7-8-19 5:00	20.67	1071	8.41	32.4						10-8-19 1:00	6.89	1475	7.38	1.9					
7-8-19 8:30	20.66	1861	8.99	11.4	7-8-19 5:15	21.31	1049	7.11	7.5	7-8-19 5:15	20.61	1071	8.41	19.3						10-8-19 1:15	6.86	1474	7.41	1.2					
7-8-19 8:45	20.62	1870	9.01	10.4	7-8-19 5:30	21.29	1040	7.18	7.1	7-8-19 5:30	20.56	1071	8.41	79.0						10-8-19 1:30	6.83	1474	7.46	2.4					
7-8-19 9:00	20.57	1866	8.97	20.8	7-8-19 5:45	21.27	1043	7.26	7.5	7-8-19 5:45	20.51	1071	8.41	29.7						10-8-19 1:45	6.80	1474	7.44	2.0					
7-8-19 9:15	20.53	1866	8.97	21.9	7-8-19 6:00	21.22	1047	7.14	4.8	7-8-19 6:00	20.45	1071	8.41	51.4						10-8-19 2:00	6.75	1474	7.40	1.2					
7-8-19 9:30	20.47	1867	8.98	16.9	7-8-19 6:15	21.19	1049	7.09	5.0	7-8-19 6:15	20.40	1072	8.41	23.2						10-8-19 2:15	6.73	1475	7.40	1.7					
7-8-19 9:45	20.43	1868	8.98	18.6	7-8-19 6:30	21.17	1050	7.07	72.7	7-8-19 6:30	20.33	1072	8.41	31.2						10-8-19 2:30	6.72	1476	7.39	1.4					
7-8-19 10:00	20.38	1868	8.96	19.1	7-8-19 6:45	21.14	1052	7.09	80.0	7-8-19 6:45	20.26	1072	8.40	20.5						10-8-19 2:45	6.70	1476	7.36	1.5					
7-8-19 10:15	20.35	1867	8.95	20.2	7-8-19 7:00	21.12	1043	7.11	6.8	7-8-19 7:00	20.20	1073	8.40	73.2						10-8-19 3:00	6.68	1475	7.39	1.4					
7-8-19 10:30	20.31	1868	8.94	16.2	7-8-19 7:15	21.08	1043	7.21	7.8	7-8-19 7:15	20.16	1073	8.39	33.0						10-8-19 3:15	6.63	1475	7.50	1.4					
7-8-19 10:45	20.26	1871	8.96	13.2	7-8-19 7:30	21.04	1042	7.08	6.4	7-8-19 7:30	20.11	1076	8.39	38.3						10-8-19 3:30	6.58	1476	7.51	1.3					
7-8-19 11:00	20.22	1870	8.95	14.1	7-8-19 7:45	21.03	1044	7.30	7.1	7-8-19 7:45	20.06	1074	8.39	71.4						10-8-19 3:45	6.54	1476	7.50	1.7					
7-8-19 11:15	20.19	1872	8.95	11.5	7-8-19 8:00	20.98	1044	7.06	7.0	7-8-19 8:00	20.01	1075	8.38	24.6						10-8-19 4:00	6.51	1477	7.53	1.6					
7-8-19 11:30	20.15	1872	8.93	13.7	7-8-19 8:15	20.99	1040	7.27	7.6	7-8-19 8:15	19.95	1076	8.38	20.1						10-8-19 4:15	6.51	1479	7.51	1.0					
7-8-19 11:45	20.12	1874	8.93	10.9	7-8-19 8:30	20.96	1043	7.32	6.3	7-8-19 8:30	19.90	1075	8.38	36.1						10-8-19 4:30	6.45	1479	7.41	0.9					
7-8-19 12:00	20.08	1874	8.94	11.7	7-8-19 8:45	20.93	1043	7.19	5.1	7-8-19 8:45	19.85	1076	8.38	19.9						10-8-19 4:45	6.42	1478	7.38	1.4					
7-8-19 12:15	20.04	1878	8.93	11.1	7-8-19 9:00	20.88	1042	7.07	5.0	7-8-19 9:00	19.80	1077	8.38	32.1						10-8-19 5:00	6.39	1477	7.37	1.4					
7-8-19 12:30	20.00	1879	8.91	11.6	7-8-19 9:15	20.84	1043	7.23	5.2	7-8-19 9:15	19.76	1077	8.38	30.3						10-8-19 5:15	6.37	1477	7.35	2.6					
7-8-19 12:45	19.96	1874	8.92	12.0	7-8-19 9:30	20.82	1038	7.15	4.8	7-8-19 9:30	19.72	1077	8.38	47.7						10-8-19 5:30	6.35	1478	7.43	1.3					
7-8-19 13:00	19.92	1867	8.90	12.6	7-8-19 9:45	20.80	1039	7.31	4.8	7-8-19 9:45	19.67	1078	8.37	19.9						10-8-19 5:45	6.33	1479	7.50	1.4					
7-8-19 13:15	19.88	1873	8.89	11.9	7-8-19 10:00	20.78	1041	7.38	5.2	7-8-19 10:00	19.61	1079	8.37	39.0						10-8-19 6:00	6.30	1481	7.53	1.7					
7-8-19 13:30	19.84	1872	8.88	14.6	7-8-19 10:15	20.72	1042	7.22	4.1	7-8-19 10:15	19.56	1080	8.36	27.4						10-8-19 6:15	6.26	1482	7.54	1.5					
7-8-19 13:45	19.82	1875	8.89	14.3	7-8-19 10:30	20.70	1042	7.09	4.0	7-8-19 10:30	19.52	1080	8.36	82.6						10-8-19 6:30	6.22	1482	7.49	0.9					
7-8-19 14:00	19.79	1874	8.89	11.5	7-8-19 10:45	20.66	1041	7.29	3.3	7-8-19 10:45	19.48	1081	8.35	37.0						10-8-19 6:45	6.19	1481	7.38	1.7					
7-8-19 14:15	19.75	1883	8.89	12.6	7-8-19 11:00	20.63	1038	7.36	3.9	7-8-19 11:00	19.43	1080	8.35	37.5						10-8-19 7:00	6.17	1481	7.34	1.3					
7-8-19 14:30	19.73	1878	8.87	9.8	7-8-19 11:15	20.60	1041	7.24	3.7	7-8-19 11:15	19.39	1081	8.35	19.0						10-8-19 7:15	6.14	1478	7.36	1.1					
7-8-19 14:45	19.69	1879	8.88	8.7	7-8-19 11:30	20.55	1041	7.13	4.8	7-8-19 11:30	19.35	1081	8.35	40.0						10-8-19 7:30	6.13	1478	7.36	1.2					
7-8-19 15:00	19.66	1881	8.87	13.7	7-8-19 11:45	20.51	1039	7.14	2.8	7-8-19 11:45	19.33	1081	8.34	24.9						10-8-19 7:45	6.13	1478	7.44	2.1					
7-8-19 15:15	19.64	1884	8.86	13.1	7-8-19 12:00	20.47	1041	7.07	3.0	7-8-19 12:00	19.27	1081	8.36	32.4						10-8-19 8:00	6.09	1481	7.46	1.1					
7-8-19 15:30	19.62	1886	8.84	8.4	7-8-19 12:15	20.43	1044	7.12	2.1	7-8-19 12:15	19.22	1082	8.35	18.6						10-8-19 8:15	6.03	1482	7.43	1.1					
7-8-19 15:45	19.58	1887	8.83	10.2	7-8-19 12:30	20.37	1040	7.16	2.6	7-8-19 12:30	19.20	1082	8.36	28.0						10-8-19 8:30	6.01	1482	7.45	1.5					
7-8-19 16:00	19.55	1887	8.85	9.6	7-8-19 12:45	20.37	1040	7.07	2.5	7-8-19 12:45	19.16	1082	8.35	23.9						10-8-19 8:45	5.95	1480	7.47	1.2					
7-8-19 16:15	19.51	1888	8.84	9.2	7-8-19 13:00	20.36	1041	7.32	2.3	7-8-19 13:00	19.12	1082	8.35	77.9						10-8-19 9:00	5.96	1480	7.47	1.8					
7-8-19 16:30	19.47	1886	8.83	8.9	7-8-19 13:15	20.35	1039	7.41	2.9	7-8-19 13:15	19.06	1083	8.35	27.6						10-8-19 9:15	5.89	1479	7.44	1.1					
7-8-19 16:45	19.45	1888	8.83	7.9	7-8-19 13:30	20.34	1038	7.38	2.3	7-8-19 13:30	19.03	1085	8.34	37.2						10-8-19 9:30	5.86	1480	7.43	0.9					
7-8-19 17:00	19.42	1888	8.82	11.2	7-8-19 13:45	20.28	1038	7.13	2.5	7-8-19 13:45	19.02	1086	8.33	34.8						10-8-19 9:45	5.85	1481	7.48	1.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-8-19 17:15	19.40	1891	8.78	8.4	7-8-19 14:00	20.27	1040	7.22	1.8	7-8-19 14:00	18.99	1085	8.33	33.2						10-8-19 10:00	5.79	1484	7.51	1.1					
7-8-19 17:30	19.35	1882	8.78	11.5	7-8-19 14:15	20.19	1037	7.16	1.7	7-8-19 14:15	18.97	1086	8.33	21.8						10-8-19 10:15	5.77	1483	7.52	1.0					
7-8-19 17:45	19.30	1882	8.79	9.0	7-8-19 14:30	20.20	1040	7.07	2.9	7-8-19 14:30	18.94	1086	8.33	68.7						10-8-19 10:30	5.77	1483	7.51	1.2					
7-8-19 18:00	19.26	1882	8.79	13.1	7-8-19 14:45	20.13	1040	7.00	4.0	7-8-19 14:45	18.91	1089	8.32	20.4						10-8-19 10:45	5.74	1483	7.52	1.1					
7-8-19 18:15	19.23	1883	8.80	9.3	7-8-19 15:00	20.08	1226	7.42	4.0	7-8-19 15:00	18.87	1089	8.32	25.6						10-8-19 11:00	5.71	1483	7.41	1.6					
7-8-19 18:30	19.19	1882	8.80	10.4	7-8-19 15:15	20.09	1038	8.21	3.3	7-8-19 15:15	18.84	1090	8.32	20.1						10-8-19 11:15	5.64	1483	7.36	1.1					
7-8-19 18:45	19.13	1882	8.80	10.3	7-8-19 15:30	20.03	1037	8.22	4.0	7-8-19 15:30	18.82	1090	8.31	95.8						10-8-19 11:30	5.55	1481	7.31	1.2					
7-8-19 19:00	19.10	1881	8.80	11.5	7-8-19 15:45	20.00	1035	8.30	3.2	7-8-19 15:45	18.81	1092	8.30	41.7						10-8-19 11:45	5.51	1484	7.38	1.3					
7-8-19 19:15	19.08	1883	8.81	9.7	7-8-19 16:00	19.98	1036	8.35	4.4	7-8-19 16:00	18.79	1091	8.31	37.1						10-8-19 12:00	5.50	1483	7.37	1.1					
7-8-19 19:30	19.05	1883	8.81	11.0	7-8-19 16:15	19.96	1037	8.35	3.0	7-8-19 16:15	18.79	1092	8.30	21.2						10-8-19 12:15	5.45	1485	7.37	1.3					
7-8-19 19:45	19.02	1884	8.81	9.1	7-8-19 16:30	19.94	1036	8.36	3.1	7-8-19 16:30	18.73	1092	8.31	35.9						10-8-19 12:30	5.47	1485	7.34	1.1					
7-8-19 20:00	19.01	1884	8.81	10.7	7-8-19 16:45	19.88	1038	7.00	2.6	7-8-19 16:45	18.72	1094	8.29	29.3						10-8-19 12:45	5.43	1484	7.35	1.1					
7-8-19 20:15	18.98	1886	8.80	9.1	7-8-19 17:00	19.90	1037	7.10	2.7	7-8-19 17:00	18.69	1095	8.29	29.1						10-8-19 13:00	5.35	1484	7.40	1.0					
7-8-19 20:30	18.93	1883	8.81	10.6	7-8-19 17:15	19.91	1037	7.21	2.1	7-8-19 17:15	18.63	1094	8.30	19.5						10-8-19 13:15	5.35	1484	7.43	1.6					
7-8-19 20:45	18.92	1883	8.81	9.1	7-8-19 17:30	19.88	1037	7.04	1.9	7-8-19 17:30	18.61	1099	8.28	88.8						10-8-19 13:30	5.31	1482	7.46	1.3					
7-8-19 21:00	18.89	1884	8.81	8.8	7-8-19 17:45	19.85	1037	6.90	3.0	7-8-19 17:45	18.60	1104	8.26	37.5						10-8-19 13:45	5.34	1484	7.45	1.5					
7-8-19 21:15	18.86	1884	8.81	8.6	7-8-19 18:00	19.85	1035	7.27	8.7	7-8-19 18:00	18.57	1106	8.26	35.0						10-8-19 14:00	5.31	1488	7.44	1.3					
7-8-19 21:30	18.84	1884	8.82	10.8	7-8-19 18:15	19.84	1033	7.34	3.9	7-8-19 18:15	18.56	1105	8.26	21.5						10-8-19 14:15	5.26	1487	7.37	0.9					
7-8-19 21:45	18.82	1884	8.82	7.6	7-8-19 18:30	19.78	1032	7.34	4.8	7-8-19 18:30	18.52	1107	8.26	46.1						10-8-19 14:30	5.22	1487	7.36	1.5					
7-8-19 22:00	18.81	1884	8.83	7.7	7-8-19 18:45	19.71	1030	7.50	27.1	7-8-19 18:45	18.48	1106	8.26	36.4						10-8-19 14:45	5.23	1486	7.33	1.1					
7-8-19 22:15	18.80	1886	8.83	8.0	7-8-19 19:00	19.66	1032	7.48	13.6	7-8-19 19:00	18.46	1106	8.26	40.1						10-8-19 15:00	5.17	1485	7.29	1.1					
7-8-19 22:30	18.77	1886	8.83	8.2	7-8-19 19:15	19.61	986	7.58	7.5	7-8-19 19:15	18.42	1108	8.26	39.0						10-8-19 15:15	5.14	1486	7.28	1.1					
7-8-19 22:45	18.77	1887	8.83	8.1	7-8-19 19:30	19.54	1027	7.42	7.4	7-8-19 19:30	18.40	1111	8.25	77.5						10-8-19 15:30	5.10	1486	7.28	1.0					
7-8-19 23:00	18.73	1887	8.83	10.1	7-8-19 19:45	19.50	1025	7.55	8.4	7-8-19 19:45	18.38	1116	8.24	21.4						10-8-19 15:45	5.11	1484	7.34	1.6					
7-8-19 23:15	18.71	1890	8.85	9.1	7-8-19 20:00	19.46	1025	7.57	5.4	7-8-19 20:00	18.37	1117	8.24	39.5						10-8-19 16:00	5.13	1486	7.34	1.3					
7-8-19 23:30	18.69	1890	8.83	9.6	7-8-19 20:15	19.42	1026	7.19	7.0	7-8-19 20:15	18.33	1118	8.24	25.2						10-8-19 16:15	5.17	1486	7.40	1.4					
7-8-19 23:45	18.69	1892	8.83	8.1	7-8-19 20:30	19.37	1022	7.24	6.8	7-8-19 20:30	18.32	1118	8.24	42.9						10-8-19 16:30	5.19	1486	7.42	0.9					
7-9-19 0:00	18.70	1892	8.82	12.5	7-8-19 20:45	19.33	1022	7.77	6.9	7-8-19 20:45	18.32	1116	8.24	28.4						10-8-19 16:45	5.22	1487	7.37	1.6					
7-9-19 0:15	18.67	1893	8.84	8.6	7-8-19 21:00	19.28	1022	7.66	5.2	7-8-19 21:00	18.30	1116	8.25	62.5						10-8-19 17:00	5.23	1486	7.39	1.5					
7-9-19 0:30	18.66	1893	8.84	8.7	7-8-19 21:15	19.28	1022	7.66	6.0	7-8-19 21:15	18.28	1120	8.24	27.9						10-8-19 17:15	5.25	1486	7.38	1.2					
7-9-19 0:45	18.65	1894	8.83	6.3	7-8-19 21:30	19.24	1017	7.36	5.6	7-8-19 21:30	18.27	1121	8.24	64.6						10-8-19 17:30	5.22	1487	7.37	1.5					
7-9-19 1:00	18.69	1894	8.85	9.6	7-8-19 21:45	19.27	1022	7.53	4.3	7-8-19 21:45	18.25	1120	8.24	26.2						10-8-19 17:45	5.23	1487	7.33	1.3					
7-9-19 1:15	18.68	1895	8.84	7.3	7-8-19 22:00	19.26	1022	7.47	4.8	7-8-19 22:00	18.25	1121	8.24	33.2						10-8-19 18:00	5.28	927	7.33	1.6					
7-9-19 1:30	18.66	1895	8.87	10.2	7-8-19 22:15	19.20	1022	7.51	4.2	7-8-19 22:15	18.24	1121	8.24	31.1						10-8-19 18:15	5.29	926	7.36	1.3					
7-9-19 1:45	18.65	1896	8.86	7.9	7-8-19 22:30	19.23	1023	7.19	3.9	7-8-19 22:30	18.21	1122	8.23	40.3						10-8-19 18:30	5.28	927	7.36	1.2					
7-9-19 2:00	18.62	1895	8.84	12.2	7-8-19 22:45	19.23	1022	7.19	3.9	7-8-19 22:45	18.23	1123	8.23	37.3						10-8-19 18:45	5.26	925	7.44	1.4					
7-9-19 2:15	18.58	1895	8.84	8.3	7-8-19 23:00	19.20	1020	7.14	3.4	7-8-19 23:00	18.24	1123	8.23	43.8						10-8-19 19:00	5.29	927	7.48	1.4					
7-9-19 2:30	18.57	1895	8.85	9.2	7-8-19 23:15	19.20	1019	7.08	4.2	7-8-19 23:15	18.22	1123	8.23	26.0						10-8-19 19:15	5.30	929	7.47	1.4					
7-9-19 2:45	18.53	1896	8.85	8.0	7-8-19 23:30	19.18	1023	7.21	3.5	7-8-19 23:30	18.21	1123	8.24	25.8						10-8-19 19:30	5.34	930	7.48	1.6					
7-9-19 3:00	18.52	1894	8.86	9.1	7-8-19 23:45	19.19	1023	7.04	3.6	7-8-19 23:45	18.22	1123	8.23	25.7						10-8-19 19:45	5.38	931	7.49	1.4					
7-9-19 3:15	18.50	1896	8.85	7.1	7-9-19 0:00	19.23	1023	7.16	3.7	7-9-19 0:00	18.21	1123	8.24	29.1						10-8-19 20:00	5.39	930	7.49	1.4					
7-9-19 3:30	18.48	1895	8.83	6.8	7-9-19 0:15	19.14	1022	7.26	2.8	7-9-19 0:15	18.25	1123	8.24	25.6						10-8-19 20:15	5.44	931	7.46	1.1					
7-9-19 3:45	18.44	1893	8.86	7.0	7-9-19 0:30	19.24	1022	8.01	2.9	7-9-19 0:30	18.25	1123	8.23	33.3						10-8-19 20:30	5.46	931	7.41	1.2					
7-9-19 4:00	18.37	1890	8.85	8.1	7-9-19 0:45	19.31	1020	8.34	2.0	7-9-19 0:45	18.28	1124	8.23	25.9						10-8-19 20:45	5.41	930	7.43	1.3					
7-9-19 4:15	18.33	1890	8.85	6.3	7-9-19 1:00	19.38	1023	7.34	4.4	7-9-19 1:00	18.43	1124	8.24	37.0						10-8-19 21:00	5.47	931	7.35	1.4					
7-9-19 4:30	18.30	1889	8.85	8.1	7-9-19 1:15	19.36	1022	8.05	4.1	7-9-19 1:15	18.44	1124	8.23	26.8						10-8-19 21:15	5.51	935	7.38	1.2					
7-9-19 4:45	18.26	1891	8.84	6.7	7-9-19 1:30	19.29	1023	6.92	8.7	7-9-19 1:30	18.41	1125	8.24	33.1						10-8-19 21:30	5.50	934	7.34	0.9					
7-9-19 5:00	18.24	1890	8.83	8.5	7-9-19 1:45	19.26	1012	7.16	6.2	7-9-19 1:45	18.42	1124	8.24	28.7						10-8-19 21:45	5.54	935	7.33	1.2					
7-9-19 5:15	18.20	1889	8.84	7.0	7-9-19 2:00	19.26	1022	7.40	8.5	7-9-19 2:00	18.40	1124	8.24	33.1						10-8-19 22:00	5.59	936	7.32	1.6					
7-9-19 5:30	18.15	1891	8.83	7.1	7-9-19 2:15	19.20	1022	7.50	7.0	7-9-19 2:15	18.35	1124	8.24	28.5						10-8-19 22:15	5.60	936	7.28	1.1					
7-9-19 5:45	18.13	1889	8.82	6.6	7-9-19 2:30	19.07	1020	7.88	6.7	7-9-19 2:30	18.30	1124	8.24	29.9						10-8-19 22:30	5.61	936	7.28	1.6					
7-9-19 6:00	18.09	1887	8.81	7.6	7-9-19 2:45	19.02	1019	7.57	6.1	7-9-19 2:45	18.28	1125	8.25	28.0						10-8-19 22:45	5.57	933	7.37	1.0					
7-9-19 6:15	18.07	1889	8.81	6.9	7-9-19 3:00	19.00	1018	7.56	6.4	7-9-19 3:00	18.25	1125	8.24	32.9						10-8-19 23:00	5.53	934	7.35	1.7					
7-9-19 6:30	18.04	1888	8.81	8.8	7-9-19 3:15	18.95	1017	7.46	5.4	7-9-19 3:15	18.22	1125	8.25	23.7						10-8-19 23:15	5.49	933	7.35	1.4					
7-9-19 6:45	18.01	1888	8.79	6.0	7-9-19 3:30	18.93	1017	7.68	5.5	7-9-19 3:30	18.18	1125	8.25	33.9						10-8-19 23:30	5.48	932	7.37	1.3					
7-9-19 7:00	17.96	1885	8.77	6.7	7-9-19 3:45	18.86	1018	8.22	4.7	7-9-19 3:45	18.16	1125	8.24	23.9						10-8-19 23:45	5.44	931	7.34	0.8					
7-9-19 7:15	17.92	1885	8.79	6.1	7-9-19 4:00	18.79	1021	7.14	4.3	7-9-19 4:00	18.13	1126	8.25	27.8						10-9-19 0:00	5.44	932	7.34	0.8					
7-9-19 7:30	17.89	1883	8.77	6.4	7-9-19 4:15	18.79	1018	8.26	4.8	7-9-19 4:15	18.08	1126	8.24	23.5						10-9-19 0:15	5.42	931	7.35	1.1					
7-9-19 7:45	17.84	1882	8.77	5.6	7-9-19 4:30	18.79	1020	7.54	4.8	7-9-19 4:30	18.05	1126	8.24	34.1						10-9-19 0:30	5.39	929	7.28	0.8					
7-9-19 8:00	17.81	1881	8.76	6.9	7-9-19 4:45	18.78	1020	7.27	6.2	7-9-19 4:45	18.00	1127	8.24	30.1						10-9-19 0:45	5.31	927	7.30	1.0					
7-9-19 8:15	17.78	1878	8.74	8.8	7-9-19 5:00	18.76	1020	7.45	4.8	7-9-19 5:00	17.96	1127	8.24	34.6						10-9-19 1:00	5.23	925	7.47	1.3					
7-9-19 8:30	17.73	1877	8.74	6.0	7-9-19 5:15	18.74	1020	7.28	4.5	7-9-19 5:15	17.91	1127	8.24	30.3						10-9-19 1:15	5.21	927	7.31	1.1					
7-9-19 8:45	17.69	1877	8.73	6.9	7-9-19 5:30	18.73	1020	7.49	5.0	7-9-19 5:30	17.88	1127	8.24	30.3						10-9-19 1:30	5.17	926	7.24	0.8					
7-9-19 9:00	17.64	1875	8.71	9.4	7-9-19 5:45	18.72	1019	7.55	4.6	7-9-19 5:45	17.84	1127	8.24	24.7						10-9-19 1:45	5.13	925	7.21	0.5					
7-9-19 9:15	17.60	1875	8.70	6.1	7-9-19 6:00	18.69	1020	7.47	4.2	7-9-19 6:00	17.83	1128	8.24	34.7						10-9-19 2:00	5.09	922	7.17	0.9					
7-9-19 9:30	17.58	1874	8.69	7.6	7-9-19 6:15	18.68	1020	7.47	4.3	7-9-19 6:15	17.80	1128	8.24	30.5						10-9-19 2:15	5.04	921	7.16	0.9					
7-9-19 9:45	17.55	1873	8.69	6.5	7-9-19 6:30	18.65	1020	7.35	4.0	7-9-19 6:30	17.77	1129	8.24	27.7						10-9-19 2:30	5.00	920	7.19	0.7					
7-9-19 10:00	17.49	1871	8.67	6.6	7-9-19 6:45	18.60	1020	7.37	3.8	7-9-19 6:45	17.74	1130	8.23	27.6						10-9-19 2:45	4.96	919	7.35	0.9					
7-9-19 10:15	17.46	1869	8.66	5.5	7-9-19 7:00	18.56	1019	7.40	4.2	7-9-19 7:00	17.73	1130	8.23	37.9						10-9-19 3:00	4.93	918	7.30	1.0					
7-9-19 10:30	17.44	1870	8.65	6.2	7-9-19 7:15	18.57	1020	7.35	4.8	7-9-19 7:15	17.70	1131	8.23	29.7						10-9-19 3:15	4.89	918	7.24	0.9					
7-9-19 10:45	17.40	1871	8.66	5.4	7-9-19 7:30	18.56	1020	7.43	5.9	7-9-19 7:30	17.68	1131	8.23	42.1						10-9-19 3:30	4.89	918	7.14	0.8					
7-9-19 11:00	17.37	1868	8.64	6.3	7-9-19 7:45	18.51	1020	7.34	3.8	7-9-19 7:45	17.64	1132	8.22	31.0						10-9-19 3:45	4.85	917	7.21	0.5					
7-9-19 11:15	17.33	1868	8.65	5.4	7-9-19 8:00	18.50	1020	7.25	4.0	7-9-19 8:00	17.63	1132	8.22	42.0						10-9-19 4:00	4.82	915	7.27	0.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-9-19 11:30	17.30	1866	8.64	6.9	7-9-19 8:15	18.48	1020	7.38	3.7	7-9-19 8:15	17.61	1132	8.22	25.9						10-9-19 4:15	4.79	914	7.31	0.9					
7-9-19 11:45	17.27	1866	8.63	5.1	7-9-19 8:30	18.44	1020	7.26	3.3	7-9-19 8:30	17.57	1132	8.22	44.0						10-9-19 4:30	4.75	913	7.26	0.7					
7-9-19 12:00	17.24	1865	8.61	6.0	7-9-19 8:45	18.44	1020	7.19	3.7	7-9-19 8:45	17.55	1133	8.22	32.1						10-9-19 4:45	4.69	912	7.31	0.7					
7-9-19 12:15	17.21	1867	8.59	5.4	7-9-19 9:00	18.42	1019	7.61	3.5	7-9-19 9:00	17.51	1133	8.22	39.5						10-9-19 5:00	4.67	912	7.18	0.9					
7-9-19 12:30	17.18	1863	8.57	7.6	7-9-19 9:15	18.40	1018	7.64	3.4	7-9-19 9:15	17.49	1134	8.22	28.9						10-9-19 5:15	4.63	912	7.18	0.5					
7-9-19 12:45	17.15	1864	8.61	6.5	7-9-19 9:30	18.34	1018	7.66	3.2	7-9-19 9:30	17.48	1135	8.22	43.8						10-9-19 5:30	4.57	910	7.20	0.8					
7-9-19 13:00	17.13	1864	8.59	9.3	7-9-19 9:45	18.28	1016	7.52	5.5	7-9-19 9:45	17.45	1135	8.21	36.4						10-9-19 5:45	4.55	910	7.21	0.5					
7-9-19 13:15	17.11	1864	8.58	5.5	7-9-19 10:00	18.22	1015	7.61	3.4	7-9-19 10:00	17.42	1135	8.22	43.8						10-9-19 6:00	4.51	907	7.16	0.6					
7-9-19 13:30	17.09	1863	8.59	6.4	7-9-19 10:15	18.18	1015	7.40	3.3	7-9-19 10:15	17.41	1135	8.21	29.4						10-9-19 6:15	4.50	906	7.17	0.9					
7-9-19 13:45	17.03	1863	8.58	5.5	7-9-19 10:30	18.13	1014	7.44	2.8	7-9-19 10:30	17.40	1135	8.21	40.6						10-9-19 6:30	4.45	904	7.17	0.6					
7-9-19 14:00	17.03	1862	8.58	6.4	7-9-19 10:45	18.09	1014	7.21	2.7	7-9-19 10:45	17.39	1135	8.21	31.0						10-9-19 6:45	4.37	902	7.18	0.7					
7-9-19 14:15	17.00	1862	8.57	5.4	7-9-19 11:00	18.07	1014	7.19	2.9	7-9-19 11:00	17.37	1135	8.21	36.7						10-9-19 7:00	4.32	901	7.34	0.9					
7-9-19 14:30	16.98	1862	8.56	7.5	7-9-19 11:15	18.03	1013	7.15	2.7	7-9-19 11:15	17.35	1135	8.21	26.2						10-9-19 7:15	4.26	902	7.28	0.6					
7-9-19 14:45	16.96	1862	8.57	5.9	7-9-19 11:30	17.99	1011	7.22	2.9	7-9-19 11:30	17.32	1135	8.21	34.3						10-9-19 7:30	4.26	903	7.20	0.6					
7-9-19 15:00	16.98	1862	8.57	6.9	7-9-19 11:45	17.97	1010	7.28	2.2	7-9-19 11:45	17.30	1135	8.21	26.3						10-9-19 7:45	4.20	900	7.21	1.2					
7-9-19 15:15	16.97	1862	8.57	5.4	7-9-19 12:00	17.91	1009	7.59	3.1	7-9-19 12:00	17.28	1135	8.21	39.6						10-9-19 8:00	4.20	900	7.51	0.7					
7-9-19 15:30	16.94	1860	8.58	6.9	7-9-19 12:15	17.88	1009	7.72	7.0	7-9-19 12:15	17.27	1135	8.21	32.4						10-9-19 8:15	4.17	899	7.54	0.4					
7-9-19 15:45	17.02	1860	8.59	5.9	7-9-19 12:30	17.80	1008	8.06	6.2	7-9-19 12:30	17.24	1135	8.21	40.6						10-9-19 8:30	4.15	897	7.46	0.6					
7-9-19 16:00	17.04	1860	8.62	8.6	7-9-19 12:45	17.81	1006	8.57	3.9	7-9-19 12:45	17.20	1135	8.21	30.2						10-9-19 8:45	4.09	895	7.56	0.4					
7-9-19 16:15	17.08	1861	8.65	7.4	7-9-19 13:00	17.82	1004	8.57	3.8	7-9-19 13:00	17.20	1135	8.21	37.7						10-9-19 9:00	4.08	897	7.52	0.8					
7-9-19 16:30	17.08	1860	8.66	8.3	7-9-19 13:15	17.80	1006	8.55	3.8	7-9-19 13:15	17.19	1135	8.21	33.9						10-9-19 9:15	4.02	896	7.56	0.5					
7-9-19 16:45	17.10	1861	8.67	6.8	7-9-19 13:30	17.74	1006	8.57	3.5	7-9-19 13:30	17.22	1135	8.21	35.3						10-9-19 9:30	3.98	895	7.32	0.5					
7-9-19 17:00	17.18	1861	8.70	7.4	7-9-19 13:45	17.77	1004	8.61	2.8	7-9-19 13:45	17.21	1135	8.21	27.5						10-9-19 9:45	3.89	892	7.28	0.7					
7-9-19 17:15	17.23	1861	8.71	6.5	7-9-19 14:00	17.78	1005	8.63	5.0	7-9-19 14:00	17.20	1135	8.21	33.4						10-9-19 10:00	3.87	891	7.58	0.5					
7-9-19 17:30	17.27	1860	8.70	7.0	7-9-19 14:15	17.75	1006	8.66	2.5	7-9-19 14:15	17.18	1135	8.21	35.7						10-9-19 10:15	3.81	887	7.42	0.7					
7-9-19 17:45	17.42	1860	8.76	5.5	7-9-19 14:30	17.76	1006	8.64	2.4	7-9-19 14:30	17.16	1136	8.21	34.2						10-9-19 10:30	3.79	888	7.29	0.6					
7-9-19 18:00	17.46	1859	8.77	6.9	7-9-19 14:45	17.76	1006	8.68	2.5	7-9-19 14:45	17.17	1135	8.21	27.4						10-9-19 10:45	3.73	887	7.27	0.4					
7-9-19 18:15	17.54	1859	8.81	5.5	7-9-19 15:00	17.77	1005	8.71	7.0	7-9-19 15:00	17.17	1136	8.21	36.6						10-9-19 11:00	3.69	886	7.20	0.7					
7-9-19 18:30	17.66	1858	8.85	6.8	7-9-19 15:15	17.82	1005	8.76	9.0	7-9-19 15:15	17.22	1136	8.20	27.5						10-9-19 11:15	3.67	885	7.20	0.3					
7-9-19 18:45	17.63	1857	8.83	5.6	7-9-19 15:30	17.82	1004	8.76	5.0	7-9-19 15:30	17.23	1138	8.20	43.6						10-9-19 11:30	3.60	885	7.34	0.3					
7-9-19 19:00	17.70	1857	8.86	6.7	7-9-19 15:45	17.88	1004	8.85	6.8	7-9-19 15:45	17.29	1138	8.20	37.5						10-9-19 11:45	3.52	883	7.41	0.2					
7-9-19 19:15	17.82	1856	8.86	6.0	7-9-19 16:00	17.91	1005	8.85	5.8	7-9-19 16:00	17.31	1139	8.20	35.1						10-9-19 12:00	3.53	883	7.31	0.5					
7-9-19 19:30	17.72	1856	8.77	7.6	7-9-19 16:15	17.90	1006	8.75	4.7	7-9-19 16:15	17.32	1140	8.19	32.8						10-9-19 12:15	3.48	881	7.23	0.5					
7-9-19 19:45	17.71	1856	8.78	6.1	7-9-19 16:30	17.94	1006	8.74	4.1	7-9-19 16:30	17.35	1140	8.19	37.9						10-9-19 12:30	3.42	880	7.24	0.6					
7-9-19 20:00	17.74	1852	8.78	6.7	7-9-19 16:45	17.98	1007	8.63	3.7	7-9-19 16:45	17.37	1140	8.19	32.4						10-9-19 12:45	3.39	879	7.17	0.3					
7-9-19 20:15	17.75	1852	8.81	5.8	7-9-19 17:00	18.03	1008	8.37	4.2	7-9-19 17:00	17.37	1140	8.19	41.4						10-9-19 13:00	3.37	878	7.19	0.8					
7-9-19 20:30	17.78	1852	8.84	6.9	7-9-19 17:15	18.05	1005	8.74	4.1	7-9-19 17:15	17.44	1141	8.19	38.4						10-9-19 13:15	3.37	878	7.25	0.4					
7-9-19 20:45	17.78	1853	8.88	5.4	7-9-19 17:30	18.08	1002	8.88	3.6	7-9-19 17:30	17.53	1141	8.19	46.8						10-9-19 13:30	3.35	880	7.20	0.4					
7-9-19 21:00	17.82	1852	8.89	7.2	7-9-19 17:45	18.11	1002	8.91	3.7	7-9-19 17:45	17.59	1141	8.19	33.9						10-9-19 13:45	3.28	877	7.18	0.4					
7-9-19 21:15	17.81	1853	8.86	5.8	7-9-19 18:00	18.13	1006	8.73	3.2	7-9-19 18:00	17.66	1140	8.20	41.4						10-9-19 14:00	3.25	875	7.19	0.3					
7-9-19 21:30	17.84	1852	8.84	7.2	7-9-19 18:15	18.32	1009	8.15	12.1	7-9-19 18:15	17.60	1139	8.20	29.0						10-9-19 14:15	3.26	875	7.21	0.5					
7-9-19 21:45	17.85	1850	8.86	8.7	7-9-19 18:30	18.37	1011	7.48	5.1	7-9-19 18:30	17.82	1142	8.21	35.6						10-9-19 14:30	3.25	876	7.19	0.3					
7-9-19 22:00	17.89	1850	8.86	9.5	7-9-19 18:45	18.33	1010	7.34	4.7	7-9-19 18:45	17.70	1139	8.21	29.1						10-9-19 14:45	3.22	874	7.19	0.4					
7-9-19 22:15	17.92	1851	8.84	7.4	7-9-19 19:00	18.36	1006	8.60	4.0	7-9-19 19:00	17.88	1141	8.22	41.3						10-9-19 15:00	3.23	876	7.17	0.6					
7-9-19 22:30	17.95	1850	8.90	9.4	7-9-19 19:15	18.39	1002	9.07	3.5	7-9-19 19:15	17.95	1140	8.22	30.0						10-9-19 15:15	3.17	875	7.16	0.4					
7-9-19 22:45	17.95	1851	8.92	7.8	7-9-19 19:30	18.40	1005	8.89	3.2	7-9-19 19:30	17.81	1140	8.21	38.9						10-9-19 15:30	3.21	875	7.15	0.4					
7-9-19 23:00	17.96	1851	8.88	7.9	7-9-19 19:45	18.45	1005	8.55	6.9	7-9-19 19:45	17.81	1140	8.21	29.2						10-9-19 15:45	3.22	876	7.13	0.4					
7-9-19 23:15	17.97	1851	8.87	9.6	7-9-19 20:00	18.48	1010	7.66	7.4	7-9-19 20:00	17.93	1141	8.22	36.0						10-9-19 16:00	3.25	876	7.13	0.4					
7-9-19 23:30	17.95	1849	8.88	8.4	7-9-19 20:15	18.49	1010	7.07	6.1	7-9-19 20:15	18.06	1141	8.23	34.5						10-9-19 16:15	3.32	878	7.22	0.4					
7-9-19 23:45	17.95	1849	8.88	7.9	7-9-19 20:30	18.58	1007	7.92	5.9	7-9-19 20:30	18.07	1141	8.23	45.2						10-9-19 16:30	3.34	877	7.22	0.3					
7-10-19 0:00	17.95	1848	8.89	8.1	7-9-19 20:45	18.57	1010	7.19	4.8	7-9-19 20:45	18.07	1141	8.23	36.5						10-9-19 16:45	3.37	879	7.15	0.3					
7-10-19 0:15	17.93	1849	8.88	6.3	7-9-19 21:00	18.70	1007	7.88	5.1	7-9-19 21:00	18.08	1141	8.23	40.8						10-9-19 17:00	3.40	881	7.13	0.5					
7-10-19 0:30	17.92	1849	8.88	9.6	7-9-19 21:15	18.75	1008	7.41	4.9	7-9-19 21:15	18.05	1141	8.23	33.6						10-9-19 17:15	3.49	884	7.12	0.2					
7-10-19 0:45	17.90	1851	8.87	7.2	7-9-19 21:30	18.74	993	9.15	5.0	7-9-19 21:30	18.03	1141	8.23	39.0						10-9-19 17:30	3.57	886	7.14	0.2					
7-10-19 1:00	17.89	1848	8.87	8.3	7-9-19 21:45	18.79	998	9.23	5.7	7-9-19 21:45	18.17	1141	8.24	36.6						10-9-19 17:45	3.64	887	7.15	0.3					
7-10-19 1:15	17.86	1848	8.88	6.5	7-9-19 22:00	18.80	998	9.07	4.5	7-9-19 22:00	18.24	1142	8.24	41.8						10-9-19 18:00	3.72	889	7.20	0.4					
7-10-19 1:30	17.83	1847	8.88	9.4	7-9-19 22:15	18.80	1004	8.78	3.6	7-9-19 22:15	18.24	1141	8.24	31.4						10-9-19 18:15	3.78	889	7.18	0.2					
7-10-19 1:45	17.81	1848	8.88	7.1	7-9-19 22:30	18.85	1003	8.89	4.2	7-9-19 22:30	18.26	1141	8.24	45.1						10-9-19 18:30	3.86	891	7.21	0.3					
7-10-19 2:00	17.81	1848	8.87	8.4	7-9-19 22:45	18.86	999	9.13	4.2	7-9-19 22:45	18.23	1142	8.24	35.6						10-9-19 18:45	3.93	893	7.24	0.3					
7-10-19 2:15	17.80	1848	8.87	7.1	7-9-19 23:00	18.82	1001	8.99	3.7	7-9-19 23:00	18.21	1141	8.24	35.8						10-9-19 19:00	3.97	893	7.21	0.4					
7-10-19 2:30	17.79	1849	8.86	9.3	7-9-19 23:15	18.69	1008	7.53	2.7	7-9-19 23:15	18.28	1141	8.25	28.9						10-9-19 19:30	4.07	899	7.20	0.4					
7-10-19 2:45	17.77	1848	8.86	8.7	7-9-19 23:30	18.71	999	9.07	3.8	7-9-19 23:30	18.25	1142	8.25	45.2						10-9-19 19:45	4.13	898	7.20	0.2					
7-10-19 3:00	17.75	1848	8.85	8.0	7-9-19 23:45	18.64	1006	8.08	2.5	7-9-19 23:45	18.26	1142	8.25	28.6						10-9-19 20:00	4.20	900	7.21	0.4					
7-10-19 3:15	17.73	1848	8.86	6.6	7-10-19 0:00	18.64	1008	6.94	9.7	7-10-19 0:00	18.25	1142	8.26	40.3						10-9-19 20:15	4.24	901	7.20	0.6					
7-10-19 3:30	17.71	1848	8.85	9.5	7-10-19 0:15	18.62	1006	7.82	10.3	7-10-19 0:15	18.22	1141	8.26	28.6						10-9-19 20:30	4.26	901	7.25	0.4					
7-10-19 3:45	17.69	1848	8.86	7.9	7-10-19 0:30	18.59	998	9.16	4.3	7-10-19 0:30	18.19	1141	8.26	42.8						10-9-19 20:45	4.32	903	7.27	0.4					
7-10-19 4:00	17.63	1848	8.85	8.3	7-10-19 0:45	18.51	997	9.19	3.8	7-10-19 0:45	18.15	1142	8.26	28.7						10-9-19 21:00	4.38	906	7.19	0.4					
7-10-19 4:15	17.65	1847	8.85	6.4	7-10-19 1:00	18.48	999	9.15	4.4	7-10-19 1:00	18.07	1141	8.27	29.9						10-9-19 21:15	4.44	907	7.19	0.2					
7-10-19 4:30	17.63	1847	8.83	8.5	7-10-19 1:15	18.45	998	9.12	3.7	7-10-19 1:15	18.11	1141	8.26	27.2						10-9-19 21:30	4.53	910	7.14	0.4					
7-10-19 4:45	17.62	1848	8.84	6.2	7-10-19 1:30	18.41	998	9.09	3.8	7-10-19 1:30	18.09	1141	8.27	32.3						10-9-19 21:45	4.59	911	7.15	0.5					
7-10-19 5:00	17.60	1847	8.83	7.5	7-10-19 1:45	18.42	989	9.03	4.0	7-10-19 1:45	18.06	1142	8.27	35.6						10-9-19 22:00	4.65	913	7.29	0.1					
7-10-19 5:15	17.59	1847	8.83	5.8	7-10-19 2:00	18.39	999	9.03	4.0	7-10-19 2:00	18.05	1142	8.27	36.2						10-9-19 22:15	4.65	912	7.28	0.4					
7-10-19 5:30	17.57	1846	8.82	7.0	7-10-19 2:15	18.37	999	9.01	3.3	7-10-19 2:15	18.01	1142	8.26	23.5						10-9-19 22:30	4.68	913	7.19	0.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-10-19 5:45	17.56	1847	8.81	7.7	7-10-19 2:30	18.36	998	8.98	4.6	7-10-19 2:30	17.99	1142	8.26	39.0						10-9-19 22:45	4.68	913	7.26	0.4					
7-10-19 6:00	17.53	1846	8.81	7.5	7-10-19 2:45	18.35	999	8.98	4.0	7-10-19 2:45	17.97	1142	8.26	26.5						10-9-19 23:00	4.69	913	7.26	1.4					
7-10-19 6:15	17.53	1847	8.82	9.1	7-10-19 3:00	18.32	999	8.98	4.5	7-10-19 3:00	17.95	1141	8.26	36.2						10-9-19 23:15	4.71	915	7.22	0.4					
7-10-19 6:30	17.51	1847	8.81	6.6	7-10-19 3:15	18.29	1000	8.97	3.9	7-10-19 3:15	17.92	1141	8.25	24.0						10-9-19 23:30	4.64	913	7.16	0.3					
7-10-19 6:45	17.48	1846	8.81	6.1	7-10-19 3:30	18.25	1000	8.94	4.4	7-10-19 3:30	17.88	1141	8.26	34.7						10-9-19 23:45	4.63	912	7.14	0.2					
7-10-19 7:00	17.47	1845	8.80	8.0	7-10-19 3:45	18.19	999	8.95	3.5	7-10-19 3:45	17.86	1142	8.26	23.3						10-10-19 0:00	4.60	912	7.19	0.4					
7-10-19 7:15	17.43	1846	8.78	5.6	7-10-19 4:00	18.20	999	8.93	3.4	7-10-19 4:00	17.84	1142	8.26	47.4						10-10-19 0:15	4.56	909	7.18	0.2					
7-10-19 7:30	17.40	1844	8.78	7.3	7-10-19 4:15	18.17	999	8.95	3.7	7-10-19 4:15	17.83	1142	8.26	26.6						10-10-19 0:30	4.54	909	7.20	0.2					
7-10-19 7:45	17.37	1845	8.78	5.9	7-10-19 4:30	18.18	999	8.94	3.6	7-10-19 4:30	17.81	1141	8.25	43.2						10-10-19 0:45	4.52	909	7.16	0.4					
7-10-19 8:00	17.35	1843	8.78	6.5	7-10-19 4:45	18.17	999	8.96	3.3	7-10-19 4:45	17.80	1142	8.25	30.5						10-10-19 1:00	4.50	908	7.17	0.3					
7-10-19 8:15	17.32	1844	8.78	5.2	7-10-19 5:00	18.17	999	8.96	4.1	7-10-19 5:00	17.78	1141	8.25	42.3						10-10-19 1:15	4.49	909	7.15	0.2					
7-10-19 8:30	17.29	1843	8.77	8.0	7-10-19 5:15	18.12	997	8.96	3.5	7-10-19 5:15	17.77	1142	8.25	31.4						10-10-19 1:30	4.47	908	7.16	0.2					
7-10-19 8:45	17.26	1843	8.77	5.0	7-10-19 5:30	18.11	997	8.96	4.1	7-10-19 5:30	17.75	1141	8.25	24.3						10-10-19 1:45	4.45	908	7.18	0.3					
7-10-19 9:00	17.23	1843	8.77	9.3	7-10-19 5:45	18.09	994	9.00	4.0	7-10-19 5:45	17.73	1142	8.25	28.5						10-10-19 2:00	4.41	907	7.19	0.6					
7-10-19 9:15	17.21	1842	8.78	5.5	7-10-19 6:00	18.03	1006	6.85	2.7	7-10-19 6:00	17.70	1142	8.24	47.6						10-10-19 2:15	4.37	904	7.20	0.4					
7-10-19 9:30	17.20	1841	8.76	6.3	7-10-19 6:15	18.06	1001	7.08	3.1	7-10-19 6:15	17.68	1141	8.24	23.5						10-10-19 2:30	4.33	903	7.19	0.5					
7-10-19 9:45	17.16	1840	8.76	6.2	7-10-19 6:30	18.02	1004	6.72	1.5	7-10-19 6:30	17.65	1141	8.24	34.2						10-10-19 2:45	4.30	902	7.20	0.6					
7-10-19 10:00	17.12	1840	8.74	6.6	7-10-19 6:45	18.04	1002	7.30	2.4	7-10-19 6:45	17.61	1141	8.25	32.6						10-10-19 3:00	4.28	901	7.22	0.6					
7-10-19 10:15	17.11	1839	8.75	5.8	7-10-19 7:00	18.04	1003	7.91	2.4	7-10-19 7:00	17.59	1141	8.25	43.6						10-10-19 3:15	4.23	903	7.21	0.2					
7-10-19 10:30	17.09	1837	8.75	7.3	7-10-19 7:15	17.97	1005	6.64	1.6	7-10-19 7:15	17.54	1141	8.25	21.6						10-10-19 3:30	4.23	902	7.21	0.3					
7-10-19 10:45	17.07	1839	8.75	6.3	7-10-19 7:30	17.97	1002	7.26	2.5	7-10-19 7:30	17.51	1141	8.25	30.0						10-10-19 3:45	4.21	900	7.17	0.1					
7-10-19 11:00	17.04	1838	8.74	7.1	7-10-19 7:45	17.96	1004	6.85	1.5	7-10-19 7:45	17.48	1141	8.25	31.6						10-10-19 4:00	4.20	902	7.19	0.5					
7-10-19 11:15	17.02	1839	8.74	6.2	7-10-19 8:00	17.94	1001	6.95	2.0	7-10-19 8:00	17.45	1141	8.26	39.7						10-10-19 4:15	4.17	899	7.23	0.6					
7-10-19 11:30	16.96	1837	8.73	7.1	7-10-19 8:15	17.94	1000	6.87	2.3	7-10-19 8:15	17.41	1141	8.25	21.4						10-10-19 4:30	4.14	899	7.20	1.6					
7-10-19 11:45	16.93	1837	8.74	5.7	7-10-19 8:30	17.91	1003	6.86	2.1	7-10-19 8:30	17.40	1141	8.25	33.1						10-10-19 4:45	4.11	898	7.20	0.9					
7-10-19 12:00	16.89	1837	8.73	6.9	7-10-19 8:45	17.88	1003	6.72	1.4	7-10-19 8:45	17.38	1141	8.25	22.0						10-10-19 5:00	4.09	897	7.26	0.5					
7-10-19 12:15	16.88	1838	8.72	7.8	7-10-19 9:00	17.86	1002	6.80	2.0	7-10-19 9:00	17.35	1141	8.25	37.9						10-10-19 5:15	4.03	898	7.20	0.2					
7-10-19 12:30	16.86	1834	8.74	23.3	7-10-19 9:15	17.82	1003	6.66	6.2	7-10-19 9:15	17.34	1141	8.25	20.1						10-10-19 5:30	4.02	897	7.21	0.1					
7-10-19 12:45	16.85	1836	8.72	6.7	7-10-19 9:30	17.81	1004	6.60	0.9	7-10-19 9:30	17.33	1141	8.25	38.7						10-10-19 5:45	3.97	895	7.18	0.4					
7-10-19 13:00	16.84	1836	8.70	7.1	7-10-19 9:45	17.81	1004	6.61	0.9	7-10-19 9:45	17.31	1141	8.25	21.6						10-10-19 6:00	3.92	894	7.23	0.1					
7-10-19 13:15	16.83	1837	8.70	6.5	7-10-19 10:00	17.81	1004	6.58	0.7	7-10-19 10:00	17.29	1141	8.24	28.1						10-10-19 6:15	3.85	891	7.29	0.3					
7-10-19 13:30	16.83	1837	8.70	6.9	7-10-19 10:15	17.78	1004	6.69	0.8	7-10-19 10:15	17.26	1141	8.24	20.3						10-10-19 6:30	3.83	891	7.29	0.1					
7-10-19 13:45	16.82	1838	8.70	5.5	7-10-19 10:30	17.76	1004	6.62	0.9	7-10-19 10:30	17.24	1141	8.25	22.2						10-10-19 6:45	3.82	890	7.52	0.3					
7-10-19 14:00	16.81	1839	8.70	6.5	7-10-19 10:45	17.73	1004	6.64	0.5	7-10-19 10:45	17.23	1141	8.24	20.1						10-10-19 7:00	3.82	889	7.54	0.2					
7-10-19 14:15	16.81	1836	8.70	6.4	7-10-19 11:00	17.72	1003	6.72	0.8	7-10-19 11:00	17.17	1141	8.25	24.3						10-10-19 7:15	3.78	891	7.24	0.1					
7-10-19 14:30	16.79	1836	8.70	7.8	7-10-19 11:15	17.69	1001	6.78	4.0	7-10-19 11:15	17.15	1141	8.25	20.9						10-10-19 7:30	3.70	889	7.24	0.1					
7-10-19 14:45	16.79	1836	8.71	7.1	7-10-19 11:30	17.67	1003	6.87	2.0	7-10-19 11:30	17.12	1141	8.25	23.5						10-10-19 7:45	3.65	887	7.52	0.0					
7-10-19 15:00	16.78	1835	8.71	8.1	7-10-19 11:45	17.62	1004	6.66	0.8	7-10-19 11:45	17.10	1141	8.25	20.1						10-10-19 8:00	3.64	886	7.66	0.2					
7-10-19 15:15	16.80	1833	8.72	7.8	7-10-19 12:00	17.65	1003	6.75	1.4	7-10-19 12:00	17.07	1141	8.24	26.9						10-10-19 8:15	3.61	885	7.76	0.0					
7-10-19 15:30	16.86	1832	8.72	7.4	7-10-19 12:15	17.60	1002	6.70	1.4	7-10-19 12:15	17.07	1141	8.24	22.8						10-10-19 8:30	3.63	886	7.78	0.2					
7-10-19 15:45	16.88	1834	8.75	5.6	7-10-19 12:30	17.56	1003	6.57	1.7	7-10-19 12:30	17.08	1141	8.25	28.4						10-10-19 8:45	3.54	883	7.71	0.2					
7-10-19 16:00	16.85	1835	8.74	7.3	7-10-19 12:45	17.62	1003	6.77	3.9	7-10-19 12:45	17.07	1141	8.25	20.5						10-10-19 9:00	3.56	885	7.75	0.1					
7-10-19 16:15	16.90	1837	8.77	6.4	7-10-19 13:00	17.62	1003	6.71	2.1	7-10-19 13:00	17.05	1141	8.25	32.8						10-10-19 9:15	3.52	885	7.86	0.2					
7-10-19 16:30	17.01	1834	8.80	6.7	7-10-19 13:15	17.63	1003	6.85	1.4	7-10-19 13:15	17.05	1141	8.24	23.9						10-10-19 9:30	3.47	883	7.66	0.0					
7-10-19 16:45	17.14	1821	8.75	5.9	7-10-19 13:30	17.64	1003	6.75	0.9	7-10-19 13:30	17.04	1141	8.25	27.9						10-10-19 9:45	3.38	881	7.59	0.0					
7-10-19 17:00	17.28	1830	8.78	10.1	7-10-19 13:45	17.65	1003	6.70	0.7	7-10-19 13:45	17.02	1141	8.25	20.6						10-10-19 10:00	3.44	881	7.43	0.0					
7-10-19 17:15	17.29	1824	8.75	6.4	7-10-19 14:00	17.65	1002	6.80	0.5	7-10-19 14:00	17.00	1141	8.25	24.5						10-10-19 10:15	3.38	879	7.38	0.0					
7-10-19 17:30	17.42	1832	8.83	6.8	7-10-19 14:15	17.65	1003	6.75	0.5	7-10-19 14:15	17.00	1141	8.25	21.0						10-10-19 10:30	3.29	876	7.36	0.1					
7-10-19 17:45	17.52	1827	8.78	5.8	7-10-19 14:30	17.66	1002	6.76	0.8	7-10-19 14:30	17.01	1141	8.25	29.9						10-10-19 10:45	3.27	876	7.34	0.0					
7-10-19 18:00	17.63	1827	8.78	6.7	7-10-19 14:45	17.68	1001	6.77	0.4	7-10-19 14:45	17.02	1141	8.25	20.5						10-10-19 11:00	3.16	873	7.35	0.4					
7-10-19 18:15	17.78	1827	8.80	5.6	7-10-19 15:00	17.68	1000	6.81	0.5	7-10-19 15:00	17.03	1141	8.25	29.7						10-10-19 11:15	3.17	874	7.25	0.0					
7-10-19 18:30	17.92	1824	8.77	7.3	7-10-19 15:15	17.68	998	6.93	0.9	7-10-19 15:15	17.05	1141	8.25	23.1						10-10-19 11:30	3.16	875	7.22	0.1					
7-10-19 18:45	18.00	1821	8.75	5.8	7-10-19 15:30	17.68	995	7.21	1.2	7-10-19 15:30	17.11	1141	8.25	34.1						10-10-19 11:45	3.13	874	7.22	0.1					
7-10-19 19:00	18.05	1822	8.73	6.9	7-10-19 15:45	17.67	993	7.15	3.7	7-10-19 15:45	17.15	1141	8.25	21.2						10-10-19 12:00	3.14	874	7.25	0.0					
7-10-19 19:15	18.42	1830	8.88	6.3	7-10-19 16:00	17.62	989	7.20	2.2	7-10-19 16:00	17.14	1141	8.25	32.5						10-10-19 12:15	3.04	870	7.25	0.1					
7-10-19 19:30	18.64	1825	8.87	7.3	7-10-19 16:15	17.56	985	7.32	2.4	7-10-19 16:15	17.16	1141	8.24	21.4						10-10-19 12:30	2.87	867	7.30	0.1					
7-10-19 19:45	18.59	1830	8.90	5.4	7-10-19 16:30	17.56	983	7.22	2.0	7-10-19 16:30	17.23	1141	8.25	33.2						10-10-19 12:45	2.81	865	7.30	0.6					
7-10-19 20:00	18.66	1826	8.86	7.9	7-10-19 16:45	17.62	982	7.16	2.1	7-10-19 16:45	17.47	1141	8.24	22.4						10-10-19 13:00	2.79	864	7.29	0.3					
7-10-19 20:15	18.75	1829	8.86	6.9	7-10-19 17:00	17.69	970	7.13	1.9	7-10-19 17:00	17.72	1142	8.25	34.3						10-10-19 13:15	2.81	867	7.25	0.0					
7-10-19 20:30	18.74	1825	8.86	9.0	7-10-19 17:15	17.66	980	7.26	1.7	7-10-19 17:15	17.78	1142	8.25	22.7						10-10-19 13:30	2.87	868	7.25	0.1					
7-10-19 20:45	18.73	1821	8.85	6.3	7-10-19 17:30	17.67	980	7.17	2.7	7-10-19 17:30	17.76	1142	8.25	32.5						10-10-19 13:45	2.88	868	7.25	0.0					
7-10-19 21:00	18.71	1813	8.84	6.8	7-10-19 17:45	17.72	981	7.13	2.2	7-10-19 17:45	18.00	1143	8.25	23.3						10-10-19 14:00	2.87	869	7.25	0.1					
7-10-19 21:15	18.73	1827	8.89	5.9	7-10-19 18:00	17.82	980	7.34	18.1	7-10-19 18:00	18.20	1142	8.26	32.1						10-10-19 14:15	2.86	867	7.32	0.0					
7-10-19 21:30	18.87	1824	8.90	7.5	7-10-19 18:15	17.88	982	7.06	8.8	7-10-19 18:15	18.37	1143	8.25	22.6						10-10-19 14:30	2.87	867	7.28	0.0					
7-10-19 21:45	19.13	1829	8.97	5.7	7-10-19 18:30	17.92	984	7.11	7.8	7-10-19 18:30	18.46	1142	8.25	35.3						10-10-19 14:45	2.78	864	7.29	0.0					
7-10-19 22:00	19.00	1821	8.94	9.3	7-10-19 18:45	17.97	984	7.01	4.2	7-10-19 18:45	18.66	1143	8.24	23.5						10-10-19 15:00	2.81	865	7.38	0.1					
7-10-19 22:15	19.07	1822	8.95	5.9	7-10-19 19:00	18.16	982	6.82	3.9	7-10-19 19:00	18.65	1144	8.25	34.2						10-10-19 15:15	2.81	867	7.45	0.0					
7-10-19 22:30	19.26	1823	8.91	7.0	7-10-19 19:15	18.25	981	6.73	3.6	7-10-19 19:15	18.70	1145	8.26	23.1						10-10-19 15:30	2.76	866	7.54	0.0					
7-10-19 22:45	19.29	1821	8.92	6.3	7-10-19 19:30	18.26	981	6.83	3.0	7-10-19 19:30	19.04	1145	8.25	30.3						10-10-19 15:45	2.72	864	7.52	0.0					
7-10-19 23:00	19.40	1824	8.93	14.8	7-10-19 19:45	18.16	981	6.71	5.6	7-10-19 19:45	19.04	1144	8.25	29.7						10-10-19 16:00	2.69	863	7.51	0.0					
7-10-19 23:15	19.46	1822	8.99	6.5	7-10-19 20:00	18.09	982	6.79	17.3	7-10-19 20:00	19.17	1145	8.26	33.7						10-10-19 16:15	2.67	862	7.19	0.3					
7-10-19 23:30	19.48	1824	8.97	9.0	7-10-19 20:15	18.08	982	6.82	4.7	7-10-19 20:15	19.28	1146	8.27	22.4						10-10-19 16:30	2.70	862	7.10	0.2					
7-10-19 23:45	19.47	1824	9.00	7.0	7-10-19 20:30	18.10	982	6.72	2.4	7-10-19 20:30	19.43	1146	8.27	32.6						10-10-19 16:45	2.73	863	7.03	0.2					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-11-19 0:00	19.52	1823	9.00	9.8	7-10-19 20:45	18.13	983	6.74	3.3	7-10-19 20:45	19.44	1146	8.27	24.7						10-10-19 17:00	2.77	864	6.94	0.0					
7-11-19 0:15	19.72	1829	9.06	5.2	7-10-19 21:00	18.20	982	6.70	2.6	7-10-19 21:00	19.58	1146	8.28	33.9						10-10-19 17:15	2.82	867	6.86	0.0					
7-11-19 0:30	19.81	1826	8.99	8.2	7-10-19 21:15	18.29	981	6.80	2.4	7-10-19 21:15	19.59	1145	8.26	22.2						10-10-19 17:30	2.86	868	6.82	0.1					
7-11-19 0:45	19.73	1825	9.01	5.9	7-10-19 21:30	18.30	980	6.86	2.3	7-10-19 21:30	19.40	1145	8.27	33.4						10-10-19 17:45	2.93	870	6.80	0.1					
7-11-19 1:00	19.51	1824	8.97	7.9	7-10-19 21:45	18.34	980	6.92	2.5	7-10-19 21:45	19.25	1143	8.26	21.5						10-10-19 18:00	3.00	871	6.83	0.0					
7-11-19 1:15	19.68	1824	9.10	8.3	7-10-19 22:00	18.40	980	6.83	2.4	7-10-19 22:00	19.36	1144	8.27	31.3						10-10-19 18:15	3.06	871	6.88	0.0					
7-11-19 1:30	19.62	1835	9.07	8.2	7-10-19 22:15	18.60	980	6.57	2.4	7-10-19 22:15	19.66	1145	8.27	22.3						10-10-19 18:30	3.12	873	6.86	13.1					
7-11-19 1:45	19.57	1824	9.02	5.5	7-10-19 22:30	18.79	981	6.58	1.9	7-10-19 22:30	19.86	1144	8.28	29.1						10-10-19 18:45	3.18	875	6.83	0.1					
7-11-19 2:00	19.54	1824	9.02	7.9	7-10-19 22:45	18.84	980	6.72	2.2	7-10-19 22:45	19.80	1144	8.27	24.7						10-10-19 19:00	3.25	877	6.82	0.1					
7-11-19 2:15	19.53	1824	9.02	6.2	7-10-19 23:00	18.89	981	6.61	2.1	7-10-19 23:00	19.86	1144	8.28	37.1						10-10-19 19:15	3.30	880	6.93	0.0					
7-11-19 2:30	19.51	1826	9.05	9.2	7-10-19 23:15	19.02	980	6.65	1.7	7-10-19 23:15	20.00	1148	8.28	22.3						10-10-19 19:30	3.37	882	6.86	0.1					
7-11-19 2:45	19.48	1824	9.05	6.8	7-10-19 23:30	19.10	980	6.61	1.9	7-10-19 23:30	20.32	1150	8.31	31.3						10-10-19 19:45	3.43	883	6.83	0.2					
7-11-19 3:00	19.44	1826	9.01	8.2	7-10-19 23:45	19.20	980	6.50	2.1	7-10-19 23:45	20.44	1149	8.30	21.0						10-10-19 20:00	3.51	884	6.83	0.2					
7-11-19 3:15	19.41	1826	9.01	5.4	7-11-19 0:00	19.31	980	6.58	1.6	7-11-19 0:00	20.38	1148	8.31	31.3						10-10-19 20:15	3.60	886	6.82	0.3					
7-11-19 3:30	19.37	1818	9.03	11.0	7-11-19 0:15	19.50	981	6.64	3.2	7-11-19 0:15	20.63	1148	8.31	23.5						10-10-19 20:30	3.68	888	6.83	0.4					
7-11-19 3:45	19.32	1822	9.04	5.4	7-11-19 0:30	19.69	982	6.50	3.7	7-11-19 0:30	20.65	1148	8.31	27.5						10-10-19 20:45	3.77	890	6.86	0.4					
7-11-19 4:00	19.26	1825	9.05	7.3	7-11-19 0:45	19.78	984	6.52	17.6	7-11-19 0:45	20.52	1147	8.31	19.4						10-10-19 21:00	3.85	892	6.85	0.7					
7-11-19 4:15	19.21	1822	9.06	6.0	7-11-19 1:00	19.79	976	6.39	0.8	7-11-19 1:00	20.57	1149	8.32	22.9						10-10-19 21:15	3.92	894	6.84	0.4					
7-11-19 4:30	19.15	1822	9.06	7.1	7-11-19 1:15	19.85	972	6.34	1.5	7-11-19 1:15	20.69	1148	8.31	22.4						10-10-19 21:30	3.98	897	6.84	0.2					
7-11-19 4:45	19.11	1823	9.06	6.1	7-11-19 1:30	19.86	965	6.40	3.2	7-11-19 1:30	20.59	1148	8.31	32.3						10-10-19 21:45	4.00	897	6.95	0.7					
7-11-19 5:00	19.05	1821	9.06	7.9	7-11-19 1:45	19.91	954	7.63	13.1	7-11-19 1:45	20.57	1148	8.32	20.2						10-10-19 22:00	4.04	898	6.97	0.2					
7-11-19 5:15	19.00	1824	9.05	5.1	7-11-19 2:00	19.86	953	7.06	2.5	7-11-19 2:00	20.43	1147	8.33	35.0						10-10-19 22:15	4.10	898	6.99	0.3					
7-11-19 5:30	18.93	1828	9.05	11.6	7-11-19 2:15	19.87	949	6.75	1.1	7-11-19 2:15	20.42	1147	8.34	23.1						10-10-19 22:30	4.14	899	7.03	0.4					
7-11-19 5:45	18.90	1824	9.06	5.7	7-11-19 2:30	19.87	946	6.60	1.0	7-11-19 2:30	20.36	1146	8.33	30.1						10-10-19 22:45	4.16	900	7.04	0.1					
7-11-19 6:00	18.85	1820	9.05	9.8	7-11-19 2:45	19.77	941	7.66	1.9	7-11-19 2:45	20.33	1147	8.34	21.4						10-10-19 23:00	4.17	901	7.06	0.1					
7-11-19 6:15	18.81	1817	9.05	5.8	7-11-19 3:00	19.65	968	8.91	2.7	7-11-19 3:00	20.30	1147	8.34	32.6						10-10-19 23:15	4.18	902	7.09	0.2					
7-11-19 6:30	18.77	1825	9.05	6.7	7-11-19 3:15	19.57	961	9.06	1.3	7-11-19 3:15	20.19	1147	8.35	18.6						10-10-19 23:30	4.18	902	7.05	0.0					
7-11-19 6:45	18.72	1826	9.04	5.4	7-11-19 3:30	19.30	950	9.30	1.6	7-11-19 3:30	20.15	1146	8.35	30.6						10-10-19 23:45	4.17	901	7.04	0.0					
7-11-19 7:00	18.66	1826	9.04	11.9	7-11-19 3:45	19.30	958	8.90	76.7	7-11-19 3:45	20.10	1146	8.36	22.4						10-11-19 0:00	4.16	901	7.03	0.0					
7-11-19 7:15	18.62	1826	9.05	5.2	7-11-19 4:00	19.25	938	9.11	3.1	7-11-19 4:00	20.03	1146	8.36	31.6						10-11-19 0:15	4.15	899	7.00	0.0					
7-11-19 7:30	18.57	1829	9.04	11.4	7-11-19 4:15	19.15	934	9.16	2.4	7-11-19 4:15	19.94	1145	8.36	17.5						10-11-19 0:30	4.15	899	6.99	0.0					
7-11-19 7:45	18.53	1825	9.04	4.4	7-11-19 4:30	19.04	934	9.16	2.0	7-11-19 4:30	19.86	1146	8.37	28.6						10-11-19 0:45	4.14	899	6.97	0.0					
7-11-19 8:00	18.48	1826	9.04	6.0	7-11-19 4:45	19.03	932	9.17	2.8	7-11-19 4:45	19.78	1145	8.37	22.6						10-11-19 1:00	4.10	897	6.96	0.0					
7-11-19 8:15	18.43	1829	9.03	4.5	7-11-19 5:00	18.94	956	9.23	4.1	7-11-19 5:00	19.72	1145	8.36	26.7						10-11-19 1:15	4.08	897	7.00	0.0					
7-11-19 8:30	18.40	1827	9.03	12.9	7-11-19 5:15	18.87	956	9.22	4.0	7-11-19 5:15	19.60	1145	8.37	20.8						10-11-19 1:30	4.04	898	7.01	0.2					
7-11-19 8:45	18.36	1823	9.03	6.8	7-11-19 5:30	18.82	955	9.25	4.5	7-11-19 5:30	19.53	1144	8.37	30.0						10-11-19 1:45	4.02	897	6.99	0.1					
7-11-19 9:00	18.32	1825	9.04	6.7	7-11-19 5:45	18.83	955	9.28	6.5	7-11-19 5:45	19.43	1143	8.36	19.2						10-11-19 2:00	3.98	896	7.01	1.4					
7-11-19 9:15	18.28	1827	9.02	5.0	7-11-19 6:00	18.77	956	9.26	7.0	7-11-19 6:00	19.36	1143	8.37	28.6						10-11-19 2:15	3.96	894	7.00	0.2					
7-11-19 9:30	18.25	1828	9.03	7.7	7-11-19 6:15	18.75	955	9.26	5.2	7-11-19 6:15	19.24	1142	8.37	24.3						10-11-19 2:30	3.93	893	7.01	0.2					
7-11-19 9:45	18.22	1827	9.03	5.0	7-11-19 6:30	18.71	955	9.25	5.4	7-11-19 6:30	19.16	1141	8.37	25.5						10-11-19 2:45	3.89	892	7.03	0.1					
7-11-19 10:00	18.19	1828	9.03	8.5	7-11-19 6:45	18.65	956	9.25	5.0	7-11-19 6:45	19.08	1141	8.37	28.4						10-11-19 3:00	3.87	892	7.01	0.1					
7-11-19 10:15	18.16	1828	9.02	5.5	7-11-19 7:00	18.63	953	9.28	5.9	7-11-19 7:00	18.96	1139	8.37	29.3						10-11-19 3:15	3.84	891	7.07	0.0					
7-11-19 10:30	18.14	1817	9.01	7.1	7-11-19 7:15	18.58	953	9.28	5.6	7-11-19 7:15	18.88	1139	8.37	19.3						10-11-19 3:30	3.81	890	7.01	0.0					
7-11-19 10:45	18.11	1823	9.00	4.9	7-11-19 7:30	18.58	944	9.26	5.8	7-11-19 7:30	18.80	1137	8.36	25.1						10-11-19 3:45	3.76	889	7.02	0.0					
7-11-19 11:00	18.08	1825	8.99	8.2	7-11-19 7:45	18.61	954	9.25	5.2	7-11-19 7:45	18.67	1138	8.36	18.9						10-11-19 4:00	3.74	889	7.15	0.0					
7-11-19 11:15	18.06	1827	9.00	4.7	7-11-19 8:00	18.55	952	9.25	5.5	7-11-19 8:00	18.56	1137	8.36	24.3						10-11-19 4:15	3.75	886	7.28	0.0					
7-11-19 11:30	18.03	1830	8.99	7.3	7-11-19 8:15	18.52	952	9.24	8.6	7-11-19 8:15	18.53	1137	8.36	15.7						10-11-19 4:30	3.72	887	7.20	0.0					
7-11-19 11:45	18.00	1829	8.98	6.2	7-11-19 8:30	18.48	952	9.23	5.1	7-11-19 8:30	18.44	1135	8.35	26.7						10-11-19 4:45	3.72	887	7.17	0.4					
7-11-19 12:00	17.98	1827	8.97	7.6	7-11-19 8:45	18.50	953	9.22	5.4	7-11-19 8:45	18.36	1135	8.35	14.7						10-11-19 5:00	3.68	887	7.16	0.0					
7-11-19 12:15	17.96	1828	8.98	7.4	7-11-19 9:00	18.47	955	9.21	4.5	7-11-19 9:00	18.31	1134	8.36	26.7						10-11-19 5:15	3.63	887	7.31	0.0					
7-11-19 12:30	17.93	1827	8.98	6.8	7-11-19 9:15	18.43	950	9.19	4.3	7-11-19 9:15	18.25	1135	8.36	14.0						10-11-19 5:30	3.63	887	7.17	0.0					
7-11-19 12:45	17.90	1828	8.98	5.4	7-11-19 9:30	18.44	956	9.19	4.6	7-11-19 9:30	18.19	1135	8.36	20.6						10-11-19 5:45	3.61	887	7.16	0.0					
7-11-19 13:00	17.86	1830	8.97	9.5	7-11-19 9:45	18.41	956	9.17	3.6	7-11-19 9:45	18.15	1135	8.36	22.3						10-11-19 6:00	3.58	884	7.13	0.8					
7-11-19 13:15	17.84	1828	8.98	4.6	7-11-19 10:00	18.36	956	9.16	3.7	7-11-19 10:00	18.09	1135	8.36	24.6						10-11-19 6:15	3.51	882	7.19	0.0					
7-11-19 13:30	17.82	1829	8.96	8.1	7-11-19 10:15	18.35	955	9.16	3.6	7-11-19 10:15	18.05	1135	8.36	14.3						10-11-19 6:30	3.49	881	7.05	0.0					
7-11-19 13:45	17.79	1824	8.96	4.6	7-11-19 10:30	18.30	958	9.16	4.0	7-11-19 10:30	18.00	1134	8.33	28.0						10-11-19 6:45	3.44	878	7.08	0.0					
7-11-19 14:00	17.78	1831	8.96	5.8	7-11-19 10:45	18.29	957	9.16	3.7	7-11-19 10:45	17.96	1133	8.32	17.6						10-11-19 7:00	3.45	880	7.01	0.0					
7-11-19 14:15	17.77	1831	8.96	4.9	7-11-19 11:00	18.28	955	9.15	5.2	7-11-19 11:00	17.92	1133	8.30	25.4						10-11-19 7:15	3.42	879	6.99	0.0					
7-11-19 14:30	17.75	1837	8.95	6.0	7-11-19 11:15	18.24	958	9.15	4.5	7-11-19 11:15	17.87	1134	8.33	20.8						10-11-19 7:30	3.38	879	7.01	0.0					
7-11-19 14:45	17.74	1829	8.95	5.4	7-11-19 11:30	18.24	957	9.15	3.1	7-11-19 11:30	17.81	1134	8.34	24.3						10-11-19 7:45	3.34	852	7.01	0.0					
7-11-19 15:00	17.73	1831	8.94	6.2	7-11-19 11:45	18.24	955	9.14	3.1	7-11-19 11:45	17.76	1134	8.34	16.7						10-11-19 8:00	3.33	877	7.00	0.1					
7-11-19 15:15	17.72	1831	8.94	5.0	7-11-19 12:00	18.22	956	9.13	2.9	7-11-19 12:00	17.74	1134	8.34	26.6						10-11-19 8:15	3.31	876	7.01	8.2					
7-11-19 15:30	17.73	1831	8.94	7.6	7-11-19 12:15	18.21	955	9.13	2.9	7-11-19 12:15	17.71	1133	8.34	22.9						10-11-19 8:30	3.28	876	7.04	0.0					
7-11-19 15:45	17.75	1830	8.96	4.2	7-11-19 12:30	18.17	956	9.13	4.0	7-11-19 12:30	17.69	1133	8.34	26.0						10-11-19 8:45	3.23	873	7.04	0.0					
7-11-19 16:00	17.83	1829	8.96	11.6	7-11-19 12:45	18.17	955	9.12	3.0	7-11-19 12:45	17.66	1133	8.33	22.5						10-11-19 9:00	3.22	873	7.01	0.0					
7-11-19 16:15	17.90	1832	9.00	4.9	7-11-19 13:00	18.14	958	9.12	3.1	7-11-19 13:00	17.63	1132	8.33	22.7						10-11-19 9:15	3.18	874	7.02	0.0					
7-11-19 16:30	17.99	1829	9.01	20.3	7-11-19 13:15	18.09	954	9.11	4.4	7-11-19 13:15	17.59	1133	8.33	18.0						10-11-19 9:30	3.14	875	7.03	0.0					
7-11-19 16:45	18.11	1833	9.02	5.4	7-11-19 13:30	18.11	956	9.12	2.3	7-11-19 13:30	17.57	1133	8.33	26.1						10-11-19 9:45	3.10	872	7.02	0.0					
7-11-19 17:00	18.29	1828	9.02	15.4	7-11-19 13:45	18.05	958	9.12	2.5	7-11-19 13:45	17.53	1132	8.33	24.6						10-11-19 10:00	3.10	872	7.04	0.0					
7-11-19 17:15	18.42	1828	9.02	4.9	7-11-19 14:00	18.03	958	9.12	2.5	7-11-19 14:00	17.51	1133	8.33	22.7						10-11-19 10:15	3.08	871	7.09	0.0					
7-11-19 17:30	18.37	1831	9.01	6.1	7-11-19 14:15	18.04	957	9.12	2.9	7-11-19 14:15	17.51	1133	8.33	13.6						10-11-19 10:30	3.05	869	7.11	0.0					
7-11-19 17:45	18.50	1831	9.00	5.2	7-11-19 14:30	18.03	954	9.13	2.1	7-11-19 14:30	17.50	1132	8.33	26.5						10-11-19 10:45	3.05	866	7.14	0.0					
7-11-19 18:00	18.73	1826	9.00	10.5	7-11-19 14:45	18.06	959	9.16	2.6	7-11-19 14:45	17.48	1132	8.33	19.0						10-11-19 11:00	3.03	867	7.12	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-11-19 18:15	18.99	1837	9.01	5.6	7-11-19 15:00	18.08	957	9.15	2.0	7-11-19 15:00	17.45	1131	8.34	25.2						10-11-19 11:15	2.99	866	7.10	0.0					
7-11-19 18:30	19.17	1833	9.01	11.5	7-11-19 15:15	18.07	957	9.18	1.9	7-11-19 15:15	17.46	1132	8.34	14.3						10-11-19 11:30	2.94	866	7.09	0.0					
7-11-19 18:45	19.39	1837	9.01	5.3	7-11-19 15:30	18.13	957	9.23	2.0	7-11-19 15:30	17.50	1132	8.34	23.3						10-11-19 11:45	2.92	866	7.03	0.1					
7-11-19 19:00	19.50	1834	8.99	8.2	7-11-19 15:45	18.18	952	9.22	1.5	7-11-19 15:45	17.59	1133	8.33	17.8						10-11-19 12:00	2.94	868	7.01	0.0					
7-11-19 19:15	19.61	1840	9.01	6.4	7-11-19 16:00	18.16	959	8.84	4.6	7-11-19 16:00	17.66	1133	8.33	27.9						10-11-19 12:15	2.91	867	7.02	0.0					
7-11-19 19:30	19.88	1838	8.98	9.5	7-11-19 16:15	18.19	964	6.29	0.5	7-11-19 16:15	17.78	1134	8.33	19.2						10-11-19 12:30	2.91	867	7.08	0.0					
7-11-19 19:45	20.07	1837	9.00	6.3	7-11-19 16:30	18.23	964	6.49	0.9	7-11-19 16:30	17.84	1132	8.32	28.5						10-11-19 12:45	2.85	865	7.03	0.0					
7-11-19 20:00	20.29	1852	8.97	9.7	7-11-19 16:45	18.29	965	6.54	0.6	7-11-19 16:45	17.86	1132	8.32	19.9						10-11-19 13:00	2.80	863	7.03	0.6					
7-11-19 20:15	21.04	1851	8.98	7.5	7-11-19 17:00	18.34	962	6.54	0.6	7-11-19 17:00	17.90	1132	8.32	27.6						10-11-19 13:15	2.79	865	7.06	0.0					
7-11-19 20:30	21.01	1846	8.99	9.7	7-11-19 17:15	18.42	959	6.69	1.0	7-11-19 17:15	17.99	1133	8.32	23.0						10-11-19 13:30	2.76	864	7.06	0.0					
7-11-19 20:45	21.10	1849	9.02	6.4	7-11-19 17:30	18.50	962	6.75	1.1	7-11-19 17:30	18.27	1132	8.32	26.4						10-11-19 13:45	2.73	863	7.07	0.0					
7-11-19 21:00	21.43	1854	9.01	9.1	7-11-19 17:45	18.61	965	6.66	6.6	7-11-19 17:45	18.48	1133	8.31	20.9						10-11-19 14:00	2.65	861	7.09	0.0					
7-11-19 21:15	21.54	1850	9.01	6.5	7-11-19 18:00	18.96	962	6.95	3.3	7-11-19 18:00	18.72	1130	8.30	35.4						10-11-19 14:15	2.67	863	7.06	0.7					
7-11-19 21:30	21.50	1852	9.02	10.3	7-11-19 18:15	19.26	958	9.00	3.2	7-11-19 18:15	18.91	1129	8.31	25.1						10-11-19 14:30	2.67	861	7.06	0.0					
7-11-19 21:45	21.62	1850	9.03	6.9	7-11-19 18:30	19.60	958	9.16	2.2	7-11-19 18:30	18.87	1130	8.30	26.4						10-11-19 14:45	2.62	859	7.04	0.0					
7-11-19 22:00	21.78	1846	9.03	9.9	7-11-19 18:45	19.76	966	6.97	2.0	7-11-19 18:45	18.93	1129	8.31	22.7						10-11-19 15:00	2.67	860	7.13	0.0					
7-11-19 22:15	21.92	1864	9.06	6.5	7-11-19 19:00	19.95	966	6.59	1.4	7-11-19 19:00	19.03	1132	8.31	22.6						10-11-19 15:15	2.65	854	7.11	0.0					
7-11-19 22:30	21.85	1838	9.05	19.0	7-11-19 19:15	20.25	963	6.36	0.9	7-11-19 19:15	19.17	1131	8.30	21.8						10-11-19 15:30	2.61	853	7.14	0.0					
7-11-19 22:45	21.97	1858	9.08	5.9	7-11-19 19:30	20.36	962	6.57	0.9	7-11-19 19:30	19.07	1129	8.30	15.6						10-11-19 15:45	2.57	854	7.20	0.0					
7-11-19 23:00	21.95	1851	9.06	8.3	7-11-19 19:45	20.40	962	7.07	16.3	7-11-19 19:45	19.22	1130	8.30	15.2						10-11-19 16:00	2.61	856	7.25	0.0					
7-11-19 23:15	22.08	1857	9.07	6.0	7-11-19 20:00	20.57	957	8.79	14.1	7-11-19 20:00	19.59	1126	8.31	30.7						10-11-19 16:15	2.62	858	7.25	0.0					
7-11-19 23:30	21.98	1858	9.09	12.2	7-11-19 20:15	20.51	960	7.41	1.4	7-11-19 20:15	20.03	1131	8.33	16.8						10-11-19 16:30	2.68	862	7.31	0.0					
7-11-19 23:45	22.09	1858	9.08	6.8	7-11-19 20:30	20.56	957	7.28	18.8	7-11-19 20:30	20.81	1135	8.32	33.2						10-11-19 16:45	2.72	863	7.30	0.0					
7-12-19 0:00	22.34	1850	9.09	7.2	7-11-19 20:45	20.39	958	6.96	4.3	7-11-19 20:45	20.97	1135	8.32	17.5						10-11-19 17:00	2.72	862	7.21	0.0					
7-12-19 0:15	22.35	1856	9.07	6.0	7-11-19 21:00	19.93	947	8.89	2.9	7-11-19 21:00	21.15	1135	8.33	29.0						10-11-19 17:15	2.75	867	7.21	0.0					
7-12-19 0:30	22.23	1854	9.09	8.8	7-11-19 21:15	19.54	953	9.41	2.8	7-11-19 21:15	21.23	1135	8.32	18.3						10-11-19 17:30	2.83	869	7.22	0.0					
7-12-19 0:45	22.23	1861	9.10	7.9	7-11-19 21:30	19.69	957	8.88	3.8	7-11-19 21:30	21.39	1135	8.32	21.1						10-11-19 17:45	2.94	872	7.22	0.0					
7-12-19 1:00	22.23	1859	9.10	8.8	7-11-19 21:45	19.72	950	9.29	4.8	7-11-19 21:45	21.32	1135	8.33	22.8						10-11-19 18:00	3.05	874	7.21	0.3					
7-12-19 1:15	22.22	1859	9.11	6.2	7-11-19 22:00	19.84	962	7.59	3.6	7-11-19 22:00	21.44	1134	8.35	26.1						10-11-19 18:15	3.10	873	7.28	0.1					
7-12-19 1:30	22.01	1857	9.12	8.8	7-11-19 22:15	19.97	955	9.34	3.3	7-11-19 22:15	21.58	1135	8.35	18.3						10-11-19 18:30	3.15	875	7.34	0.0					
7-12-19 1:45	22.08	1860	9.17	6.3	7-11-19 22:30	20.14	956	9.17	3.4	7-11-19 22:30	21.77	1135	8.35	27.5						10-11-19 18:45	3.21	876	7.41	0.0					
7-12-19 2:00	21.95	1863	9.13	8.0	7-11-19 22:45	20.29	963	6.71	2.4	7-11-19 22:45	21.69	1133	8.35	17.0						10-11-19 19:00	3.30	878	7.35	0.0					
7-12-19 2:15	21.84	1878	9.16	6.2	7-11-19 23:00	20.32	961	6.89	1.9	7-11-19 23:00	21.70	1132	8.35	25.6						10-11-19 19:15	3.38	881	7.37	0.0					
7-12-19 2:30	21.78	1860	9.14	7.6	7-11-19 23:15	20.28	962	6.85	1.7	7-11-19 23:15	21.65	1132	8.36	41.9						10-11-19 19:30	3.45	885	7.29	0.0					
7-12-19 2:45	21.77	1865	9.15	8.5	7-11-19 23:30	20.27	955	7.62	1.8	7-11-19 23:30	21.73	1132	8.37	25.1						10-11-19 19:45	3.53	886	7.28	0.0					
7-12-19 3:00	21.73	1885	9.14	7.3	7-11-19 23:45	20.27	948	9.40	3.2	7-11-19 23:45	21.75	1131	8.37	30.6						10-11-19 20:00	3.63	888	7.26	0.0					
7-12-19 3:15	21.67	1859	9.14	6.9	7-12-19 0:00	20.35	944	9.05	6.5	7-12-19 0:00	21.80	1131	8.37	18.8						10-11-19 20:15	3.72	889	7.23	0.0					
7-12-19 3:30	21.61	1859	9.13	6.2	7-12-19 0:15	20.34	932	9.02	3.3	7-12-19 0:15	21.74	1130	8.37	19.0						10-11-19 20:30	3.83	892	7.12	0.0					
7-12-19 3:45	21.52	1898	9.15	5.6	7-12-19 0:30	20.39	918	7.38	46.3	7-12-19 0:30	21.70	1128	8.38	32.7						10-11-19 20:45	3.97	896	7.09	0.5					
7-12-19 4:00	21.44	1860	9.14	8.2	7-12-19 0:45	20.37	889	8.75	85.4	7-12-19 0:45	21.72	1129	8.37	27.5						10-11-19 21:00	4.06	891	7.03	0.0					
7-12-19 4:15	21.39	1866	9.16	7.2	7-12-19 1:00	20.39	955	9.37	7.7	7-12-19 1:00	21.68	1128	8.38	32.2						10-11-19 21:15	4.14	901	7.05	0.0					
7-12-19 4:30	21.29	1856	9.16	7.1	7-12-19 1:15	20.40	952	9.23	9.0	7-12-19 1:15	21.65	1127	8.38	36.0						10-11-19 21:30	4.22	901	7.07	0.0					
7-12-19 4:45	21.22	1867	9.16	5.7	7-12-19 1:30	20.37	915	9.27	36.8	7-12-19 1:30	21.58	1127	8.40	24.1						10-11-19 21:45	4.28	903	7.09	0.1					
7-12-19 5:00	21.13	1857	9.16	8.0	7-12-19 1:45	20.37	953	7.46	10.4	7-12-19 1:45	21.48	1126	8.40	24.0						10-11-19 22:00	4.35	906	7.08	0.0					
7-12-19 5:15	21.05	1859	9.16	6.2	7-12-19 2:00	20.38	950	6.60	1.5	7-12-19 2:00	21.42	1123	8.40	23.2						10-11-19 22:15	4.43	908	7.06	0.1					
7-12-19 5:30	20.97	1856	9.17	7.8	7-12-19 2:15	20.38	940	6.72	2.0	7-12-19 2:15	21.32	1123	8.39	27.9						10-11-19 22:30	4.51	908	7.10	1.2					
7-12-19 5:45	20.87	1854	9.18	6.2	7-12-19 2:30	20.39	931	7.35	2.0	7-12-19 2:30	21.30	1124	8.40	29.7						10-11-19 22:45	4.38	905	7.07	0.4					
7-12-19 6:00	20.78	1852	9.18	6.6	7-12-19 2:45	20.37	923	6.89	45.9	7-12-19 2:45	21.21	1123	8.40	28.2						10-11-19 23:00	4.36	904	7.07	0.1					
7-12-19 6:15	20.72	1857	9.18	5.6	7-12-19 3:00	20.69	936	9.54	5.3	7-12-19 3:00	20.92	1113	8.39	27.8						10-11-19 23:15	4.35	904	7.07	0.3					
7-12-19 6:30	20.66	1856	9.17	6.2	7-12-19 3:15	20.64	940	9.57	5.3	7-12-19 3:15	20.88	1118	8.41	24.2						10-11-19 23:30	4.37	905	7.11	0.1					
7-12-19 6:45	20.58	1855	9.20	6.2	7-12-19 3:30	20.54	959	9.52	4.9	7-12-19 3:30	20.63	1113	8.41	24.2						10-11-19 23:45	4.38	905	7.20	0.0					
7-12-19 7:00	20.50	1856	9.20	8.0	7-12-19 3:45	20.49	938	9.45	4.9	7-12-19 3:45	20.45	1111	8.40	28.6						10-12-19 0:00	4.33	901	7.18	1.3					
7-12-19 7:15	20.45	1852	9.19	5.9	7-12-19 4:00	20.45	941	9.00	3.3	7-12-19 4:00	20.43	1113	8.41	27.3						10-12-19 0:15	4.33	903	7.18	0.1					
7-12-19 7:30	20.38	1856	9.18	7.2	7-12-19 4:15	20.38	942	8.84	3.4	7-12-19 4:15	20.41	1112	8.41	34.5						10-12-19 0:30	4.33	903	7.25	0.0					
7-12-19 7:45	20.35	1857	9.18	4.9	7-12-19 4:30	20.29	947	6.93	2.1	7-12-19 4:30	20.42	1114	8.41	36.1						10-12-19 0:45	4.33	902	7.19	0.5					
7-12-19 8:00	20.29	1859	9.17	5.1	7-12-19 4:45	20.27	950	6.74	2.0	7-12-19 4:45	20.36	1113	8.40	22.8						10-12-19 1:00	4.33	908	7.19	0.0					
7-12-19 8:15	20.22	1861	9.17	5.0	7-12-19 5:00	20.24	949	6.81	3.1	7-12-19 5:00	20.29	1114	8.41	32.6						10-12-19 1:15	4.34	902	7.12	0.0					
7-12-19 8:30	20.17	1860	9.17	5.8	7-12-19 5:15	20.23	952	6.79	2.0	7-12-19 5:15	20.21	1113	8.41	32.4						10-12-19 1:30	4.35	905	7.05	0.0					
7-12-19 8:45	20.12	1859	9.17	5.5	7-12-19 5:30	20.21	947	7.28	2.6	7-12-19 5:30	20.14	1113	8.41	35.2						10-12-19 1:45	4.35	903	7.04	0.4					
7-12-19 9:00	20.04	1859	9.16	7.2	7-12-19 5:45	20.15	949	7.14	2.4	7-12-19 5:45	20.07	1111	8.40	37.6						10-12-19 2:00	4.35	906	7.00	0.3					
7-12-19 9:15	19.97	1859	9.17	6.1	7-12-19 6:00	20.12	950	6.87	2.5	7-12-19 6:00	20.02	1111	8.41	30.7						10-12-19 2:15	4.34	903	7.00	0.4					
7-12-19 9:30	19.91	1855	9.16	6.2	7-12-19 6:15	20.11	947	7.37	2.4	7-12-19 6:15	19.94	1110	8.40	17.5						10-12-19 2:30	4.33	903	7.02	0.0					
7-12-19 9:45	19.84	1870	9.16	4.5	7-12-19 6:30	20.07	951	7.07	1.9	7-12-19 6:30	19.85	1108	8.40	34.2						10-12-19 2:45	4.32	905	7.01	0.0					
7-12-19 10:00	19.79	1858	9.16	7.4	7-12-19 6:45	19.99	932	6.84	1.4	7-12-19 6:45	19.78	1108	8.40	19.3						10-12-19 3:00	4.31	902	7.02	0.0					
7-12-19 10:15	19.75	1858	9.15	6.0	7-12-19 7:00	19.99	844	8.16	2.2	7-12-19 7:00	19.71	1107	8.40	40.1						10-12-19 3:15	4.31	904	7.19	0.0					
7-12-19 10:30	19.68	1857	9.16	7.7	7-12-19 7:15	19.94	842	7.04	2.8	7-12-19 7:15	19.64	1107	8.40	30.2						10-12-19 3:30	4.31	901	7.11	0.6					
7-12-19 10:45	19.62	1858	9.15	4.1	7-12-19 7:30	19.90	837	6.78	3.6	7-12-19 7:30	19.57	1106	8.40	31.8						10-12-19 3:45	4.32	901	7.17	0.0					
7-12-19 11:00	19.57	1857	9.15	5.8	7-12-19 7:45	19.86	824	7.08	5.0	7-12-19 7:45	19.51	1106	8.40	20.8						10-12-19 4:00	4.32	901	7.16	0.0					
7-12-19 11:15	19.55	1866	9.15	4.8	7-12-19 8:00	19.85	947	8.73	3.1	7-12-19 8:00	19.45	1106	8.40	33.9						10-12-19 4:15	4.32	903	7.09	0.5					
7-12-19 11:30	19.49	1865	9.14	5.5	7-12-19 8:15	19.79	947	8.58	2.5	7-12-19 8:15	19.40	1106	8.40	27.5						10-12-19 4:30	4.31	904	7.04	0.0					
7-12-19 11:45	19.44	1854	9.14	5.1	7-12-19 8:30	19.76	950	7.09	1.5	7-12-19 8:30	19.35	1105	8.40	34.9						10-12-19 4:45	4.29	903	7.01	0.0					
7-12-19 12:00	19.37	1855	9.14	8.3	7-12-19 8:45	19.72	941	8.17	1.7	7-12-19 8:45	19.29	1105	8.40	26.6						10-12-19 5:00	4.29	946	7.05	0.0					
7-12-19 12:15	19.30	1860	9.14	4.5	7-12-19 9:00	19.72	949	6.84	1.5	7-12-19 9:00	19.22	1105	8.40	32.1						10-12-19 5:15	4.29	898	7.03	0.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-12-19 12:30	19.27	1857	9.14	9.8	7-12-19 9:15	19.68	947	7.27	2.4	7-12-19 9:15	19.11	1105	8.40	18.6						10-12-19 5:30	4.28	901	7.05	0.5					
7-12-19 12:45	19.20	1860	9.14	7.1	7-12-19 9:30	19.60	949	7.69	1.6	7-12-19 9:30	19.05	1105	8.40	27.4						10-12-19 5:45	4.29	897	7.03	0.6					
7-12-19 13:00	19.15	1857	9.14	6.5	7-12-19 9:45	19.61	951	6.80	1.2	7-12-19 9:45	19.04	1105	8.40	22.6						10-12-19 6:00	4.28	904	7.00	0.0					
7-12-19 13:15	19.13	1858	9.14	5.8	7-12-19 10:00	19.62	946	6.78	1.3	7-12-19 10:00	18.94	1104	8.40	31.4						10-12-19 6:15	4.29	903	6.96	0.0					
7-12-19 13:30	19.09	1852	9.13	5.9	7-12-19 10:15	19.60	946	6.83	1.4	7-12-19 10:15	18.88	1102	8.40	23.3						10-12-19 6:30	4.28	903	7.02	0.0					
7-12-19 13:45	19.02	1857	9.13	4.8	7-12-19 10:30	19.57	947	7.00	1.4	7-12-19 10:30	18.83	1104	8.40	32.6						10-12-19 6:45	4.29	902	7.01	0.0					
7-12-19 14:00	19.01	1856	9.13	7.7	7-12-19 10:45	19.53	946	6.97	1.6	7-12-19 10:45	18.75	1104	8.40	20.2						10-12-19 7:00	4.29	888	7.01	0.0					
7-12-19 14:15	18.99	1856	9.14	4.3	7-12-19 11:00	19.46	945	6.72	1.3	7-12-19 11:00	18.68	1104	8.40	29.9						10-12-19 7:15	4.29	899	6.99	0.0					
7-12-19 14:30	18.98	1857	9.14	6.2	7-12-19 11:15	19.39	946	6.81	1.3	7-12-19 11:15	18.62	1103	8.40	17.4						10-12-19 7:30	4.29	905	6.98	0.0					
7-12-19 14:45	19.01	1857	9.13	5.5	7-12-19 11:30	19.35	944	6.90	1.6	7-12-19 11:30	18.56	1103	8.39	25.0						10-12-19 7:45	4.29	886	6.97	0.0					
7-12-19 15:00	19.04	1855	9.14	7.5	7-12-19 11:45	19.28	945	8.03	0.7	7-12-19 11:45	18.54	1102	8.39	22.5						10-12-19 8:00	4.30	903	6.97	0.0					
7-12-19 15:15	19.06	1860	9.13	5.7	7-12-19 12:00	19.27	944	8.36	2.0	7-12-19 12:00	18.49	1103	8.39	31.7						10-12-19 8:15	4.30	904	6.97	0.0					
7-12-19 15:30	19.11	1857	9.14	6.6	7-12-19 12:15	19.18	945	6.86	1.2	7-12-19 12:15	18.43	1102	8.39	28.1						10-12-19 8:30	4.31	903	6.99	0.0					
7-12-19 15:45	19.15	1860	9.14	5.1	7-12-19 12:30	19.17	945	6.75	0.9	7-12-19 12:30	18.38	1102	8.39	32.7						10-12-19 8:45	4.31	903	6.97	1.3					
7-12-19 16:00	19.20	1859	9.14	6.5	7-12-19 12:45	19.18	944	6.86	2.2	7-12-19 12:45	18.33	1102	8.39	21.0						10-12-19 9:00	4.32	904	7.01	0.0					
7-12-19 16:15	19.31	1860	9.14	5.8	7-12-19 13:00	19.13	946	6.73	6.0	7-12-19 13:00	18.28	1102	8.39	33.1						10-12-19 9:15	4.32	904	6.99	0.0					
7-12-19 16:30	19.40	1858	9.14	9.6	7-12-19 13:15	19.14	945	6.88	3.4	7-12-19 13:15	18.26	1102	8.39	19.3						10-12-19 9:30	4.32	903	6.97	0.0					
7-12-19 16:45	19.52	1863	9.16	5.5	7-12-19 13:30	19.09	946	6.74	1.7	7-12-19 13:30	18.23	1102	8.39	33.2						10-12-19 9:45	4.32	903	6.98	0.0					
7-12-19 17:00	19.56	1860	9.17	13.1	7-12-19 13:45	19.12	944	6.98	1.4	7-12-19 13:45	18.20	1101	8.38	24.7						10-12-19 10:00	4.32	903	6.99	0.0					
7-12-19 17:15	19.71	1850	9.19	5.5	7-12-19 14:00	19.11	944	6.89	1.1	7-12-19 14:00	18.20	1100	8.38	32.1						10-12-19 10:15	4.32	900	6.97	0.0					
7-12-19 17:30	19.84	1861	9.20	7.4	7-12-19 14:15	19.13	942	7.12	0.9	7-12-19 14:15	18.21	1099	8.38	19.9						10-12-19 10:30	4.32	902	6.99	0.0					
7-12-19 17:45	20.00	1858	9.22	8.9	7-12-19 14:30	19.12	942	6.98	1.0	7-12-19 14:30	18.23	1098	8.37	32.2						10-12-19 10:45	4.32	904	7.00	0.0					
7-12-19 18:00	20.06	1869	9.20	10.2	7-12-19 14:45	19.16	944	6.83	0.8	7-12-19 14:45	18.26	1099	8.37	16.0						10-12-19 11:00	4.33	913	6.99	0.0					
7-12-19 18:15	20.27	1866	9.22	9.0	7-12-19 15:00	19.19	942	7.05	2.3	7-12-19 15:00	18.33	1099	8.37	34.7						10-12-19 11:15	4.32	902	6.99	0.0					
7-12-19 18:30	20.41	1865	9.21	7.7	7-12-19 15:15	19.22	943	7.13	0.9	7-12-19 15:15	18.39	1099	8.38	19.2						10-12-19 11:30	4.32	903	6.99	0.0					
7-12-19 18:45	20.64	1866	9.23	7.0	7-12-19 15:30	19.24	943	7.12	0.9	7-12-19 15:30	18.42	1099	8.38	32.0						10-12-19 11:45	4.32	897	6.98	0.0					
7-12-19 19:00	20.75	1865	9.24	5.7	7-12-19 15:45	19.26	943	7.02	0.6	7-12-19 15:45	18.51	1100	8.38	21.0						10-12-19 12:00	4.32	905	7.00	0.0					
7-12-19 19:15	20.92	1875	9.32	5.6	7-12-19 16:00	19.32	942	7.46	0.7	7-12-19 16:00	18.56	1100	8.38	33.1						10-12-19 12:15	4.32	904	6.99	0.0					
7-12-19 19:30	21.02	1865	9.22	6.6	7-12-19 16:15	19.36	942	7.19	1.4	7-12-19 16:15	18.66	1100	8.38	20.0						10-12-19 12:30	4.32	902	6.99	0.0					
7-12-19 19:45	21.19	1871	9.20	7.2	7-12-19 16:30	19.41	942	7.42	1.1	7-12-19 16:30	18.79	1101	8.38	18.0						10-12-19 12:45	4.32	903	7.01	0.0					
7-12-19 20:00	21.49	1869	9.22	6.9	7-12-19 16:45	19.45	942	7.46	1.3	7-12-19 16:45	18.80	1100	8.38	20.1						10-12-19 13:00	4.32	905	7.00	0.1					
7-12-19 20:15	21.66	1872	9.23	6.2	7-12-19 17:00	19.49	939	8.32	0.9	7-12-19 17:00	19.02	1100	8.40	19.7						10-12-19 13:15	4.31	903	6.98	0.1					
7-12-19 20:30	21.76	1869	9.23	10.6	7-12-19 17:15	19.57	941	8.09	1.4	7-12-19 17:15	19.11	1100	8.39	22.9						10-12-19 13:30	4.30	905	6.99	29.8					
7-12-19 20:45	21.94	1883	9.26	5.7	7-12-19 17:30	19.63	938	9.20	3.0	7-12-19 17:30	19.23	1100	8.39	31.2						10-12-19 13:45	4.29	903	6.97	0.3					
7-12-19 21:00	22.18	1875	9.28	7.6	7-12-19 17:45	19.73	939	9.10	3.1	7-12-19 17:45	19.39	1100	8.39	18.2						10-12-19 14:00	4.29	876	6.95	0.0					
7-12-19 21:15	22.36	1876	9.26	8.3	7-12-19 18:00	19.89	937	8.88	2.0	7-12-19 18:00	19.35	1100	8.39	27.1						10-12-19 14:15	4.28	899	6.98	0.0					
7-12-19 21:30	22.46	1876	9.24	8.1	7-12-19 18:15	19.95	938	8.79	1.5	7-12-19 18:15	19.56	1101	8.39	20.3						10-12-19 14:30	4.26	901	6.99	0.0					
7-12-19 21:45	22.51	1877	9.26	7.8	7-12-19 18:30	20.09	940	7.46	0.9	7-12-19 18:30	19.68	1099	8.40	30.3						10-12-19 14:45	4.25	901	6.95	0.0					
7-12-19 22:00	22.63	1877	9.25	9.0	7-12-19 18:45	20.14	940	8.51	1.6	7-12-19 18:45	19.92	1102	8.40	16.8						10-12-19 15:00	4.24	902	6.97	0.0					
7-12-19 22:15	22.73	1883	9.28	8.8	7-12-19 19:00	20.28	935	8.88	1.6	7-12-19 19:00	19.92	1101	8.40	26.2						10-12-19 15:15	4.23	902	6.97	7.9					
7-12-19 22:30	22.84	1880	9.29	13.3	7-12-19 19:15	20.37	949	8.38	1.3	7-12-19 19:15	19.97	1102	8.39	21.6						10-12-19 15:30	4.23	897	6.96	0.0					
7-12-19 22:45	22.82	1879	9.28	8.2	7-12-19 19:30	20.40	934	9.63	2.1	7-12-19 19:30	20.32	1102	8.40	33.6						10-12-19 15:45	4.25	903	6.96	0.0					
7-12-19 23:00	22.83	1879	9.29	7.6	7-12-19 19:45	20.51	939	8.87	7.1	7-12-19 19:45	20.40	1104	8.39	18.3						10-12-19 16:00	4.27	904	6.96	0.0					
7-12-19 23:15	22.77	1879	9.27	10.4	7-12-19 20:00	20.64	938	8.96	3.3	7-12-19 20:00	20.52	1101	8.40	37.6						10-12-19 16:15	4.30	904	7.00	0.0					
7-12-19 23:30	22.79	1880	9.26	8.0	7-12-19 20:15	20.77	939	8.18	3.2	7-12-19 20:15	20.72	1104	8.40	20.9						10-12-19 16:30	4.32	903	6.97	0.0					
7-12-19 23:45	22.82	1877	9.27	11.0	7-12-19 20:30	20.94	936	8.78	2.8	7-12-19 20:30	20.81	1102	8.40	31.7						10-12-19 16:45	4.35	901	7.02	0.0					
7-13-19 0:00	22.65	1875	9.29	10.0	7-12-19 20:45	21.02	938	8.40	2.4	7-12-19 20:45	21.23	1105	8.41	20.2						10-12-19 17:00	4.39	899	7.03	0.0					
7-13-19 0:15	22.57	1877	9.32	10.4	7-12-19 21:00	21.07	936	7.71	1.8	7-12-19 21:00	21.25	1103	8.41	19.3						10-12-19 17:15	4.43	899	7.01	6.6					
7-13-19 0:30	22.54	1877	9.34	14.4	7-12-19 21:15	21.06	936	8.75	2.3	7-12-19 21:15	21.40	1104	8.40	16.6						10-12-19 17:30	4.48	899	6.98	0.0					
7-13-19 0:45	22.43	1857	9.34	8.5	7-12-19 21:30	21.20	933	8.29	1.6	7-12-19 21:30	21.40	1103	8.41	25.5						10-12-19 17:45	4.55	902	6.94	0.0					
7-13-19 1:00	22.38	1876	9.32	8.7	7-12-19 21:45	21.23	932	9.18	1.7	7-12-19 21:45	21.53	1102	8.41	30.4						10-12-19 18:00	4.64	910	7.00	0.0					
7-13-19 1:15	22.39	1877	9.32	10.1	7-12-19 22:00	21.24	933	9.01	1.4	7-12-19 22:00	21.53	1104	8.41	28.8						10-12-19 18:15	4.71	914	7.06	0.0					
7-13-19 1:30	22.38	1871	9.30	6.6	7-12-19 22:15	21.24	934	9.03	1.6	7-12-19 22:15	21.50	1102	8.41	16.7						10-12-19 18:30	4.80	916	7.15	0.0					
7-13-19 1:45	22.39	1870	9.31	6.4	7-12-19 22:30	21.32	932	9.02	1.6	7-12-19 22:30	21.51	1103	8.41	26.4						10-12-19 18:45	4.88	924	7.16	0.0					
7-13-19 2:00	22.34	1876	9.31	7.1	7-12-19 22:45	21.38	933	8.96	1.2	7-12-19 22:45	21.50	1102	8.41	15.1						10-12-19 19:00	5.20	943	7.17	0.0					
7-13-19 2:15	22.32	1877	9.32	7.1	7-12-19 23:00	21.33	935	8.84	1.1	7-12-19 23:00	21.69	1104	8.42	20.0						10-12-19 19:15	5.14	926	7.07	1.1					
7-13-19 2:30	22.28	1875	9.32	5.9	7-12-19 23:15	21.39	933	8.56	1.2	7-12-19 23:15	21.62	1103	8.42	20.5						10-12-19 19:30	5.20	924	7.08	0.0					
7-13-19 2:45	22.24	1877	9.34	10.2	7-12-19 23:30	21.45	933	8.95	1.1	7-12-19 23:30	21.73	1104	8.44	32.8						10-12-19 19:45	5.25	928	7.07	0.0					
7-13-19 3:00	22.20	1874	9.38	6.1	7-12-19 23:45	21.49	935	8.08	0.8	7-12-19 23:45	21.66	1103	8.43	18.0						10-12-19 20:00	5.34	932	7.04	0.2					
7-13-19 3:15	22.16	1882	9.37	8.1	7-13-19 0:00	21.38	937	8.57	0.8	7-13-19 0:00	21.47	1102	8.42	30.4						10-12-19 20:15	5.44	936	7.08	0.0					
7-13-19 3:30	22.12	1880	9.35	5.5	7-13-19 0:15	21.27	932	8.79	1.1	7-13-19 0:15	21.41	1102	8.43	19.0						10-12-19 20:30	5.58	941	7.11	0.0					
7-13-19 3:45	22.10	1863	9.35	5.2	7-13-19 0:30	21.26	934	8.82	1.2	7-13-19 0:30	21.37	1101	8.44	31.6						10-12-19 20:45	5.59	941	7.16	0.0					
7-13-19 4:00	22.06	1872	9.35	5.8	7-13-19 0:45	21.28	931	8.61	1.5	7-13-19 0:45	21.36	1103	8.44	17.1						10-12-19 21:00	5.84	955	7.25	0.0					
7-13-19 4:15	22.01	1873	9.37	10.4	7-13-19 1:00	21.27	936	7.43	0.7	7-13-19 1:00	21.36	1103	8.44	30.5						10-12-19 21:15	5.77	954	7.22	0.0					
7-13-19 4:30	21.96	1866	9.36	6.5	7-13-19 1:15	21.37	936	7.21	0.8	7-13-19 1:15	21.32	1103	8.44	19.1						10-12-19 21:30	5.66	934	7.38	0.6					
7-13-19 4:45	21.91	1871	9.36	7.2	7-13-19 1:30	21.39	936	6.98	0.7	7-13-19 1:30	21.34	1103	8.44	29.8						10-12-19 21:45	5.65	935	7.31	0.0					
7-13-19 5:00	21.86	1871	9.37	7.6	7-13-19 1:45	21.37	935	6.83	0.7	7-13-19 1:45	21.17	1100	8.44	17.6						10-12-19 22:00	5.67	943	7.27	1.0					
7-13-19 5:15	21.78	1875	9.38	11.0	7-13-19 2:00	21.37	931	8.61	1.7	7-13-19 2:00	21.02	1097	8.42	27.5						10-12-19 22:15	5.69	944	7.25	0.1					
7-13-19 5:30	21.74	1871	9.37	13.7	7-13-19 2:15	21.67	923	9.86	2.3	7-13-19 2:15	21.03	1099	8.43	20.3						10-12-19 22:30	5.76	949	7.21	0.0					
7-13-19 5:45	21.69	1870	9.36	8.9	7-13-19 2:30	21.69	904	9.86	1.8	7-13-19 2:30	20.99	1098	8.43	27.3						10-12-19 22:45	5.77	945	7.09	0.0					
7-13-19 6:00	21.65	1871	9.36	6.4	7-13-19 2:45	21.70	901	9.86	1.5	7-13-19 2:45	21.04	1098	8.43	28.1						10-12-19 23:00	5.89	919	7.17	0.0					
7-13-19 6:15	21.63	1873	9.36	8.0	7-13-19 3:00	21.63	908	9.75	0.6	7-13-19 3:00	21.05	1098	8.44	25.7						10-12-19 23:15	5.87	943	7.03	0.5					
7-13-19 6:30	21.59	1871	9.36	7.5	7-13-19 3:15	21.56	907	9.61	0.6	7-13-19 3:15	21.07	1099	8.44	16.8						10-12-19 23:30	5.88	919	7.00	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-13-19 6:45	21.54	1873	9.35	10.3	7-13-19 3:30	21.56	907	9.84	4.1	7-13-19 3:30	21.05	1099	8.44	26.2						10-12-19 23:45	5.89	927	7.01	0.0					
7-13-19 7:00	21.50	1867	9.36	5.3	7-13-19 3:45	21.56	908	9.87	5.0	7-13-19 3:45	21.06	1099	8.44	23.0						10-13-19 0:00	5.87	951	7.15	0.0					
7-13-19 7:15	21.46	1869	9.36	7.8	7-13-19 4:00	21.55	827	9.86	0.5	7-13-19 4:00	21.02	1099	8.44	24.0						10-13-19 0:15	5.85	949	7.09	0.0					
7-13-19 7:30	21.41	1870	9.36	5.2	7-13-19 4:15	21.52	824	9.83	66.4	7-13-19 4:15	21.00	1099	8.43	15.4						10-13-19 0:30	5.83	944	7.10	0.0					
7-13-19 7:45	21.36	1866	9.34	9.4	7-13-19 4:30	21.49	822	9.79	1.1	7-13-19 4:30	20.97	1098	8.44	15.8						10-13-19 0:45	5.80	947	7.18	0.0					
7-13-19 8:00	21.30	1872	9.33	6.1	7-13-19 4:45	21.41	816	9.78	1.0	7-13-19 4:45	20.92	1099	8.44	16.4						10-13-19 1:00	5.80	968	7.19	0.0					
7-13-19 8:15	21.25	1872	9.33	9.3	7-13-19 5:00	21.38	843	9.75	1.0	7-13-19 5:00	20.88	1098	8.44	16.4						10-13-19 1:15	5.77	939	7.15	0.0					
7-13-19 8:30	21.22	1869	9.33	8.6	7-13-19 5:15	21.37	840	9.72	0.8	7-13-19 5:15	20.82	1098	8.44	15.3						10-13-19 1:30	5.77	940	7.13	0.0					
7-13-19 8:45	21.18	1866	9.33	6.4	7-13-19 5:30	21.35	838	9.69	1.2	7-13-19 5:30	20.78	1098	8.44	16.9						10-13-19 1:45	5.74	903	7.13	0.0					
7-13-19 9:00	21.13	1870	9.33	6.6	7-13-19 5:45	21.31	837	9.69	1.9	7-13-19 5:45	20.77	1098	8.44	14.9						10-13-19 2:00	5.72	945	7.11	0.0					
7-13-19 9:15	21.09	1866	9.33	8.2	7-13-19 6:00	21.24	901	9.75	0.6	7-13-19 6:00	20.73	1098	8.44	16.1						10-13-19 2:15	5.66	942	7.17	0.0					
7-13-19 9:30	21.04	1859	9.34	9.4	7-13-19 6:15	21.26	899	9.70	0.7	7-13-19 6:15	20.71	1098	8.44	16.7						10-13-19 2:30	5.63	939	7.09	0.0					
7-13-19 9:45	21.00	1867	9.32	9.0	7-13-19 6:30	21.25	897	9.71	0.4	7-13-19 6:30	20.68	1098	8.44	15.4						10-13-19 2:45	5.58	942	7.12	66.0					
7-13-19 10:00	20.95	1866	9.31	5.9	7-13-19 6:45	21.19	895	9.69	0.4	7-13-19 6:45	20.64	1098	8.44	13.6						10-13-19 3:00	5.57	938	7.10	0.0					
7-13-19 10:15	20.92	1867	9.30	9.9	7-13-19 7:00	21.15	928	8.60	1.3	7-13-19 7:00	20.62	1098	8.44	15.8						10-13-19 3:15	5.56	938	7.09	0.0					
7-13-19 10:30	20.89	1866	9.29	12.0	7-13-19 7:15	21.13	928	8.40	0.7	7-13-19 7:15	20.56	1097	8.44	13.4						10-13-19 3:30	5.56	933	7.09	0.0					
7-13-19 10:45					7-13-19 7:30	21.07	921	8.71	2.3	7-13-19 7:30	20.51	1097	8.45	14.1						10-13-19 3:45	5.55	935	7.09	0.0					
7-13-19 11:00					7-13-19 7:45	21.00	911	6.91	0.8	7-13-19 7:45	20.45	1097	8.45	13.9						10-13-19 4:00	5.53	942	7.12	0.0					
7-13-19 11:15					7-13-19 8:00	20.99	930	6.74	0.6	7-13-19 8:00	20.40	1097	8.45	16.2						10-13-19 4:15	5.48	940	7.18	0.0					
7-13-19 11:30					7-13-19 8:15	20.97	928	6.96	0.7	7-13-19 8:15	20.34	1096	8.45	15.7						10-13-19 4:30	5.45	938	7.14	0.0					
7-13-19 11:45					7-13-19 8:30	20.93	927	6.85	0.4	7-13-19 8:30	20.32	1096	8.45	17.1						10-13-19 4:45	5.42	932	7.08	0.0					
7-13-19 12:00					7-13-19 8:45	20.92	928	6.77	0.7	7-13-19 8:45	20.28	1095	8.45	14.8						10-13-19 5:00	5.42	955	7.07	0.0					
7-13-19 12:15					7-13-19 9:00	20.88	929	6.54	0.3	7-13-19 9:00	20.24	1095	8.45	16.3						10-13-19 5:15	5.36	929	7.08	0.0					
7-13-19 12:30	20.60	1866	9.30	11.2	7-13-19 9:15	20.84	926	6.87	0.8	7-13-19 9:15	20.20	1095	8.44	14.8						10-13-19 5:30	5.32	930	7.08	0.0					
7-13-19 12:45	20.54	1878	9.28	8.9	7-13-19 9:30	20.80	927	7.03	0.3	7-13-19 9:30	20.18	1094	8.45	14.5						10-13-19 5:45	5.29	920	7.06	0.0					
7-13-19 13:00	20.50	1867	9.28	8.3	7-13-19 9:45	20.81	926	8.62	0.5	7-13-19 9:45	20.12	1094	8.44	15.3						10-13-19 6:00	5.27	930	7.06	129.4					
7-13-19 13:15	20.47	1869	9.28	8.8	7-13-19 10:00	20.73	928	7.44	0.9	7-13-19 10:00	20.08	1094	8.44	14.1						10-13-19 6:15	5.26	933	7.08	0.0					
7-13-19 13:30	20.44	1866	9.28	7.0	7-13-19 10:15	20.75	927	7.63	2.5	7-13-19 10:15	20.05	1094	8.44	14.3						10-13-19 6:30	5.25	932	7.04	0.0					
7-13-19 13:45	20.38	1877	9.28	9.9	7-13-19 10:30	20.75	928	7.06	2.4	7-13-19 10:30	20.01	1094	8.44	16.8						10-13-19 6:45	5.22	928	7.08	0.0					
7-13-19 14:00	20.38	1866	9.28	7.2	7-13-19 10:45	20.73	927	7.43	2.3	7-13-19 10:45	19.98	1095	8.44	14.6						10-13-19 7:00	5.18	874	7.10	0.0					
7-13-19 14:15	20.36	1865	9.28	8.4	7-13-19 11:00	20.70	916	6.72	2.4	7-13-19 11:00	19.96	1094	8.44	13.5						10-13-19 7:15	5.16	917	7.06	11.4					
7-13-19 14:30	20.37	1866	9.28	9.1	7-13-19 11:15	20.68	914	6.88	44.1	7-13-19 11:15	19.93	1094	8.44	14.9						10-13-19 7:30	5.13	921	7.10	0.0					
7-13-19 14:45	20.37	1865	9.28	8.6	7-13-19 11:30	20.62	912	6.63	19.9	7-13-19 11:30	19.91	1094	8.44	13.0						10-13-19 7:45	5.12	926	7.09	0.0					
7-13-19 15:00	20.37	1874	9.30	16.8	7-13-19 11:45	20.64	910	6.83	2.2	7-13-19 11:45	19.87	1094	8.44	15.5						10-13-19 8:00	5.10	930	7.08	0.0					
7-13-19 15:15	20.39	1866	9.29	6.0	7-13-19 12:00	20.60	927	6.81	0.4	7-13-19 12:00	19.83	1094	8.44	13.8						10-13-19 8:15	5.07	927	7.07	0.0					
7-13-19 15:30	20.42	1864	9.29	9.9	7-13-19 12:15	20.55	927	6.63	0.3	7-13-19 12:15	19.78	1094	8.44	15.8						10-13-19 8:30	5.04	925	7.08	0.0					
7-13-19 15:45	20.48	1866	9.28	6.0	7-13-19 12:30	20.50	926	6.96	0.5	7-13-19 12:30	19.76	1094	8.44	12.3						10-13-19 8:45	5.02	924	7.08	0.0					
7-13-19 16:00	20.57	1869	9.30	11.5	7-13-19 12:45	20.50	926	6.85	0.3	7-13-19 12:45	19.71	1094	8.44	14.6						10-13-19 9:00	5.01	945	7.11	0.0					
7-13-19 16:15	20.62	1866	9.28	5.2	7-13-19 13:00	20.48	926	6.80	1.3	7-13-19 13:00	19.67	1093	8.44	13.4						10-13-19 9:15	4.99	924	7.11	0.0					
7-13-19 16:30	20.67	1869	9.29	12.0	7-13-19 13:15	20.45	926	6.78	0.2	7-13-19 13:15	19.64	1093	8.44	13.0						10-13-19 9:30	4.99	924	7.09	0.0					
7-13-19 16:45	20.75	1865	9.29	8.2	7-13-19 13:30	20.43	926	6.84	0.3	7-13-19 13:30	19.61	1093	8.44	13.5						10-13-19 9:45	4.95	923	7.08	0.0					
7-13-19 17:00	20.87	1866	9.29	10.9	7-13-19 13:45	20.44	926	6.83	0.1	7-13-19 13:45	19.59	1093	8.44	13.4						10-13-19 10:00	4.92	923	7.08	0.0					
7-13-19 17:15	20.97	1869	9.29	9.4	7-13-19 14:00	20.46	926	6.91	0.1	7-13-19 14:00	19.58	1093	8.44	13.7						10-13-19 10:15	4.90	923	7.10	0.0					
7-13-19 17:30	21.06	1895	9.28	12.4	7-13-19 14:15	20.49	926	6.89	0.2	7-13-19 14:15	19.57	1092	8.44	11.8						10-13-19 10:30	4.89	922	7.10	0.0					
7-13-19 17:45	21.12	1868	9.28	6.3	7-13-19 14:30	20.53	909	7.58	0.3	7-13-19 14:30	19.58	1092	8.44	13.3						10-13-19 10:45	4.90	925	7.11	0.0					
7-13-19 18:00	21.26	1864	9.31	10.8	7-13-19 14:45	20.50	905	8.97	0.0	7-13-19 14:45	19.62	1093	8.44	13.0						10-13-19 11:00	4.89	926	7.10	0.0					
7-13-19 18:15	21.43	1867	9.31	5.7	7-13-19 15:00	20.55	922	9.15	0.7	7-13-19 15:00	19.65	1092	8.44	15.0						10-13-19 11:15	4.89	913	7.12	0.0					
7-13-19 18:30	21.60	1864	9.30	10.9	7-13-19 15:15	20.61	921	9.32	0.2	7-13-19 15:15	19.71	1092	8.43	12.6						10-13-19 11:30	4.86	920	7.10	0.0					
7-13-19 18:45	21.60	1864	9.32	6.6	7-13-19 15:30	20.65	923	9.35	0.3	7-13-19 15:30	19.76	1092	8.44	13.1						10-13-19 11:45	4.87	912	7.10	0.0					
7-13-19 19:00	21.74	1866	9.31	10.7	7-13-19 15:45	20.65	922	9.45	0.4	7-13-19 15:45	19.84	1090	8.44	13.4						10-13-19 12:00	4.84	923	7.12	0.0					
7-13-19 19:15	21.98	1868	9.31	6.3	7-13-19 16:00	20.66	923	9.60	2.2	7-13-19 16:00	19.93	1090	8.43	14.6						10-13-19 12:15	4.83	921	7.09	0.0					
7-13-19 19:30	22.09	1856	9.32	9.9	7-13-19 16:15	20.75	924	9.04	1.6	7-13-19 16:15	20.02	1090	8.42	13.2						10-13-19 12:30	4.81	919	7.11	0.0					
7-13-19 19:45	22.17	1867	9.35	7.5	7-13-19 16:30	20.71	924	8.50	0.6	7-13-19 16:30	20.12	1088	8.42	14.9						10-13-19 12:45	4.79	912	7.09	0.0					
7-13-19 20:00	22.33	1867	9.33	11.2	7-13-19 16:45	20.74	924	8.74	0.7	7-13-19 16:45	20.18	1089	8.42	15.1						10-13-19 13:00	4.75	902	7.08	0.0					
7-13-19 20:15	22.28	1857	9.34	8.6	7-13-19 17:00	20.81	923	8.61	0.4	7-13-19 17:00	20.20	1090	8.42	13.7						10-13-19 13:15	4.70	916	7.06	0.0					
7-13-19 20:30	22.49	1863	9.33	10.3	7-13-19 17:15	20.89	924	8.57	0.8	7-13-19 17:15	20.35	1090	8.41	14.6						10-13-19 13:30	4.68	917	7.04	0.0					
7-13-19 20:45	22.74	1870	9.32	5.6	7-13-19 17:30	20.95	924	8.70	2.3	7-13-19 17:30	20.48	1089	8.41	14.9						10-13-19 13:45	4.66	916	7.07	0.0					
7-13-19 21:00	23.14	1878	9.38	10.9	7-13-19 17:45	21.03	917	9.39	0.2	7-13-19 17:45	20.68	1088	8.42	15.7						10-13-19 14:00	4.67	912	7.12	0.0					
7-13-19 21:15	23.15	1865	9.38	8.0	7-13-19 18:00	21.11	926	7.93	0.7	7-13-19 18:00	20.82	1088	8.42	14.8						10-13-19 14:15	4.65	918	7.13	0.0					
7-13-19 21:30	23.31	1867	9.40	11.2	7-13-19 18:15	21.14	923	9.09	3.2	7-13-19 18:15	21.01	1090	8.41	14.0						10-13-19 14:30	4.63	914	7.10	0.0					
7-13-19 21:45	22.97	1865	9.30	8.1	7-13-19 18:30	21.17	926	9.08	56.5	7-13-19 18:30	21.51	1089	8.42	16.1						10-13-19 14:45	4.61	917	7.09	0.0					
7-13-19 22:00	23.34	1889	9.43	8.0	7-13-19 18:45	21.19	927	9.08	70.6	7-13-19 18:45	21.66	1088	8.41	13.7						10-13-19 15:00	4.59	928	7.12	0.0					
7-13-19 22:15	23.47	1867	9.46	8.4	7-13-19 19:00	21.32	915	9.43	1.1	7-13-19 19:00	21.80	1088	8.42	12.2						10-13-19 15:15	4.61	913	7.10	0.0					
7-13-19 22:30	23.52	1871	9.47	11.9	7-13-19 19:15	21.41	881	9.58	2.6	7-13-19 19:15	22.15	1091	8.43	12.6						10-13-19 15:30	4.59	910	7.09	0.0					
7-13-19 22:45	23.57	1866	9.37	7.4	7-13-19 19:30	21.49	875	9.35	4.6	7-13-19 19:30	22.01	1090	8.42	13.1						10-13-19 15:45	4.59	910	7.08	0.0					
7-13-19 23:00	23.86	1880	9.37	12.6	7-13-19 19:45	21.67	870	8.13	10.4	7-13-19 19:45	22.19	1093	8.41	13.1						10-13-19 16:00	4.58	917	7.08	1.1					
7-13-19 23:15	24.04	1878	9.38	6.5	7-13-19 20:00	21.52	928	10.10	0.8	7-13-19 20:00	22.53	1093	8.43	13.7						10-13-19 16:15	4.60	917	7.08	0.0					
7-13-19 23:30	23.75	1869	9.41	14.0	7-13-19 20:15	21.63	907	10.10	0.4	7-13-19 20:15	22.48	1092	8.42	13.1						10-13-19 16:30	4.61	917	7.09	0.0					
7-13-19 23:45	23.64	1872	9.45	6.9	7-13-19 20:30	21.75	906	9.93	0.6	7-13-19 20:30	22.36	1092	8.42	16.3						10-13-19 16:45	4.62	915	7.09	0.0					
7-14-19 0:00	23.50	1875	9.47	12.6	7-13-19 20:45	21.90	902	9.85	6.5	7-13-19 20:45	22.62	1093	8.41	12.2						10-13-19 17:00	4.63	966	7.09	0.0					
7-14-19 0:15	23.41	1869	9.45	8.5	7-13-19 21:00	22.07	813	9.87	1.6	7-13-19 21:00	22.54	1093	8.41	14.1						10-13-19 17:15	4.64	918	7.10	0.0					
7-14-19 0:30	23.41	1864	9.46	16.1	7-13-19 21:15	22.27	812	7.00	0.6	7-13-19 21:15	22.98	1093	8.41	14.7						10-13-19 17:30	4.66	915	7.12	0.0					
7-14-19 0:45	23.41	1872	9.47	14.7	7-13-19 21:30	22.43	811	6.88	0.8	7-13-19 21:30	23.07	1093	8.42	16.4						10-13-19 17:45	4.70	914	6.96	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-14-19 1:00	23.38	1873	9.48	12.8	7-13-19 21:45	22.65	803	6.73	0.8	7-13-19 21:45	23.41	1095	8.41	15.0						10-13-19 18:00	4.73	919	6.92	0.0					
7-14-19 1:15	23.42	1870	9.48	8.1	7-13-19 22:00	22.85	894	8.02	1.0	7-13-19 22:00	23.13	1091	8.40	15.0						10-13-19 18:15	4.78	917	6.88	0.0					
7-14-19 1:30	23.39	1872	9.47	13.5	7-13-19 22:15	23.02	895	6.96	14.7	7-13-19 22:15	22.93	1093	8.41	13.0						10-13-19 18:30	4.79	919	6.86	0.0					
7-14-19 1:45	23.28	1870	9.48	8.5	7-13-19 22:30	23.19	950	9.28	5.5	7-13-19 22:30	23.23	1094	8.42	13.7						10-13-19 19:00	4.83	1484	6.97	0.0					
7-14-19 2:00	23.24	1876	9.47	14.4	7-13-19 22:45	23.75	961	9.88	1.7	7-13-19 22:45	23.45	1095	8.42	21.8						10-13-19 19:15	4.85	1528	7.00	0.0					
7-14-19 2:15	23.21	1872	9.48	6.3	7-13-19 23:00	23.56	914	9.77	4.6	7-13-19 23:00	24.01	1097	8.43	12.4						10-13-19 19:30	4.88	1490	7.04	0.0					
7-14-19 2:30	23.17	1870	9.49	12.8	7-13-19 23:15	23.56	916	8.74	125.9	7-13-19 23:15	24.18	1095	8.42	12.3						10-13-19 19:45	4.90	1483	7.15	0.0					
7-14-19 2:45	23.11	1868	9.49	7.6	7-13-19 23:30	23.45	916	8.11	279.7	7-13-19 23:30	24.11	1095	8.43	13.5						10-13-19 20:00	4.85	1490	7.22	0.0					
7-14-19 3:00	23.02	1872	9.49	15.5	7-13-19 23:45	22.48	922	10.20	147.6	7-13-19 23:45	23.96	1094	8.44	15.6						10-13-19 20:15	4.90	1501	7.23	0.0					
7-14-19 3:15	22.97	1866	9.49	7.9	7-14-19 0:00	22.38	882	9.31	153.9	7-14-19 0:00	23.83	1093	8.45	17.6						10-13-19 20:30	4.99	1490	7.30	0.0					
7-14-19 3:30	22.92	1870	9.47	14.4	7-14-19 0:15	22.31	875	9.44	223.5	7-14-19 0:15	23.76	1095	8.45	12.9						10-13-19 20:45	5.10	1494	7.34	0.0					
7-14-19 3:45	22.86	1865	9.49	8.6	7-14-19 0:30	22.44	865	9.56	251.7	7-14-19 0:30	23.72	1095	8.47	17.8						10-13-19 21:00	5.16	1488	7.24	0.0					
7-14-19 4:00	22.81	1868	9.50	14.1	7-14-19 0:45	22.53	858	9.28	281.0	7-14-19 0:45	23.79	1095	8.47	16.5						10-13-19 21:15	5.20	1509	7.26	0.0					
7-14-19 4:15	22.75	1869	9.50	6.9	7-14-19 1:00	22.56	925	7.22	1.0	7-14-19 1:00	23.73	1092	8.47	16.7						10-13-19 21:30	5.25	1576	7.22	0.0					
7-14-19 4:30	22.68	1871	9.51	15.0	7-14-19 1:15	22.65	924	7.76	0.7	7-14-19 1:15	23.76	1094	8.48	18.4						10-13-19 21:45	5.25	1483	7.17	0.0					
7-14-19 4:45	22.62	1864	9.52	6.7	7-14-19 1:30	22.59	924	6.74	0.5	7-14-19 1:30	23.68	1093	8.47	13.4						10-13-19 22:00	5.26	1492	7.13	0.3					
7-14-19 5:00	22.55	1868	9.52	14.4	7-14-19 1:45	22.61	923	8.45	0.7	7-14-19 1:45	23.67	1093	8.47	13.9						10-13-19 22:15	5.28	1498	7.10	0.3					
7-14-19 5:15	22.46	1865	9.53	7.5	7-14-19 2:00	22.64	924	7.17	0.7	7-14-19 2:00	23.61	1093	8.47	11.7						10-13-19 22:30	5.27	1499	7.16	0.6					
7-14-19 5:30	22.37	1864	9.54	14.4	7-14-19 2:15	22.74	921	9.78	6.5	7-14-19 2:15	23.59	1095	8.46	11.4						10-13-19 22:45	5.28	1497	7.20	0.0					
7-14-19 5:45	22.31	1864	9.55	6.8	7-14-19 2:30	22.66	908	9.73	1.4	7-14-19 2:30	23.46	1094	8.49	12.7						10-13-19 23:00	5.30	1502	7.15	0.0					
7-14-19 6:00	22.25	1864	9.52	16.6	7-14-19 2:45	22.71	911	10.00	0.6	7-14-19 2:45	23.36	1094	8.48	14.1						10-13-19 23:15	5.32	1492	7.13	0.0					
7-14-19 6:15	22.22	1862	9.49	5.7	7-14-19 3:00	22.67	899	10.00	0.3	7-14-19 3:00	23.32	1094	8.48	13.8						10-13-19 23:30	5.32	1495	7.11	0.0					
7-14-19 6:30	22.16	1864	9.51	12.7	7-14-19 3:15	22.67	898	10.00	0.4	7-14-19 3:15	23.27	1095	8.48	13.6						10-13-19 23:45	5.32	1500	7.10	0.0					
7-14-19 6:45	22.09	1865	9.52	7.7	7-14-19 3:30	22.64	906	10.00	0.8	7-14-19 3:30	23.23	1093	8.48	13.4						10-14-19 0:00	5.29	1488	7.10	2.4					
7-14-19 7:00	22.02	1859	9.52	11.8	7-14-19 3:45	22.58	852	10.00	1.2	7-14-19 3:45	23.11	1094	8.49	16.2						10-14-19 0:15	5.24	1500	7.21	0.0					
7-14-19 7:15	21.95	1864	9.50	7.5	7-14-19 4:00	22.54	908	10.00	0.6	7-14-19 4:00	23.02	1093	8.49	11.8						10-14-19 0:30	5.22	1493	7.19	0.0					
7-14-19 7:30	21.88	1862	9.51	12.0	7-14-19 4:15	22.52	909	10.00	113.8	7-14-19 4:15	22.99	1094	8.49	15.2						10-14-19 0:45	5.21	1493	7.12	0.0					
7-14-19 7:45	21.84	1860	9.50	7.1	7-14-19 4:30	22.49	907	10.00	0.7	7-14-19 4:30	22.86	1094	8.49	12.7						10-14-19 1:00	5.18	1488	7.19	0.4					
7-14-19 8:00	21.78	1861	9.49	11.2	7-14-19 4:45	22.43	906	10.00	0.5	7-14-19 4:45	22.75	1093	8.50	11.0						10-14-19 1:15	5.18	1187	7.17	0.0					
7-14-19 8:15	21.70	1864	9.48	6.4	7-14-19 5:00	22.39	922	10.00	2.7	7-14-19 5:00	22.66	1093	8.50	13.4						10-14-19 1:30	5.16	1447	7.19	0.0					
7-14-19 8:30	21.63	1864	9.49	11.4	7-14-19 5:15	22.36	925	9.91	11.6	7-14-19 5:15	22.53	1090	8.50	10.6						10-14-19 1:45	5.15	1432	7.21	0.0					
7-14-19 8:45	21.56	1860	9.47	7.4	7-14-19 5:30	22.31	928	9.90	132.4	7-14-19 5:30	22.42	1093	8.51	11.3						10-14-19 2:00	5.14	1323	7.21	0.0					
7-14-19 9:00	21.48	1861	9.47	4.5	7-14-19 5:45	22.25	932	9.93	140.4	7-14-19 5:45	22.27	1092	8.51	9.5						10-14-19 2:15	5.14	1498	7.28	0.0					
7-14-19 9:15	21.38	1852	9.47	5.1	7-14-19 6:00	22.26	890	10.00	3.4	7-14-19 6:00	22.13	1111	8.52	14.4						10-14-19 2:30	5.15	1542	7.32	0.0					
7-14-19 9:30	21.32	1859	9.46	6.2	7-14-19 6:15	22.18	887	9.90	4.4	7-14-19 6:15	22.03	1091	8.52	8.8						10-14-19 2:45	5.16	1498	7.43	0.0					
7-14-19 9:45	21.28	1859	9.45	5.9	7-14-19 6:30	22.07	884	9.89	5.6	7-14-19 6:30	21.95	1091	8.52	11.1						10-14-19 3:00	5.15	1498	7.41	0.0					
7-14-19 10:00	21.23	1860	9.44	4.1	7-14-19 6:45	22.00	875	9.65	7.1	7-14-19 6:45	21.86	1091	8.52	12.6						10-14-19 3:15	5.14	1539	7.41	0.0					
7-14-19 10:15	21.16	1859	9.44	5.2	7-14-19 7:00	21.98	907	9.77	3.3	7-14-19 7:00	21.75	1090	8.52	14.0						10-14-19 3:30	5.13	1496	7.33	0.0					
7-14-19 10:30	21.11	1856	9.44	4.1	7-14-19 7:15	21.94	907	9.84	34.8	7-14-19 7:15	21.62	1089	8.52	12.3						10-14-19 3:45	5.12	1502	7.35	0.0					
7-14-19 10:45	21.05	1860	9.44	6.0	7-14-19 7:30	21.87	907	9.78	42.7	7-14-19 7:30	21.48	1097	8.52	15.9						10-14-19 4:00	5.10	1493	7.44	0.4					
7-14-19 11:00	20.97	1859	9.44	4.0	7-14-19 7:45	21.83	905	9.62	47.6	7-14-19 7:45	21.37	1090	8.52	13.6						10-14-19 4:15	5.09	1480	7.47	2.5					
7-14-19 11:15	20.89	1859	9.43	4.4	7-14-19 8:00	21.79	895	9.40	223.7	7-14-19 8:00	21.30	1090	8.52	12.0						10-14-19 4:30	5.07	1486	7.47	14.6					
7-14-19 11:30	20.84	1856	9.43	4.6	7-14-19 8:15	21.69	895	9.00	268.2	7-14-19 8:15	21.19	1089	8.52	8.9						10-14-19 4:45	5.07	1497	7.40	0.0					
7-14-19 11:45	20.80	1859	9.42	6.3	7-14-19 8:30	21.66	898	7.83	36.7	7-14-19 8:30	21.10	1089	8.51	16.1						10-14-19 5:00	5.07	1458	7.41	0.0					
7-14-19 12:00	20.71	1859	9.42	4.6	7-14-19 8:45	21.64	892	9.02	36.7	7-14-19 8:45	21.01	1089	8.51	9.3						10-14-19 5:15	5.07	1479	7.35	0.3					
7-14-19 12:15	20.66	1858	9.41	9.2	7-14-19 9:00	21.57	920	9.13	0.3	7-14-19 9:00	20.94	1089	8.51	14.4						10-14-19 5:30	5.06	1447	7.28	0.0					
7-14-19 12:30	20.57	1847	9.41	4.0	7-14-19 9:15	21.53	923	7.87	0.2	7-14-19 9:15	20.81	1087	8.51	11.2						10-14-19 5:45	5.06	1493	7.27	0.0					
7-14-19 12:45	20.51	1860	9.41	6.4	7-14-19 9:30	21.51	924	7.79	0.2	7-14-19 9:30	20.74	1088	8.51	10.2						10-14-19 6:00	5.06	1458	7.22	0.0					
7-14-19 13:00	20.45	1857	9.41	3.7	7-14-19 9:45	21.50	923	8.23	0.1	7-14-19 9:45	20.67	1088	8.50	10.7						10-14-19 6:15	5.06	1494	7.24	0.0					
7-14-19 13:15	20.43	1855	9.39	4.8	7-14-19 10:00	21.46	901	7.83	0.0	7-14-19 10:00	20.57	1087	8.50	10.1						10-14-19 6:30	5.04	1494	7.23	0.0					
7-14-19 13:30	20.38	1857	9.39	4.5	7-14-19 10:15	21.43	901	7.36	0.3	7-14-19 10:15	20.51	1087	8.49	9.7						10-14-19 6:45	5.04	1490	7.23	0.0					
7-14-19 13:45	20.34	1855	9.39	5.9	7-14-19 10:30	21.38	899	7.98	3.2	7-14-19 10:30	20.46	1087	8.49	13.1						10-14-19 7:00	5.03	1497	7.22	0.0					
7-14-19 14:00	20.29	1856	9.39	4.6	7-14-19 10:45	21.36	898	8.54	2.3	7-14-19 10:45	20.35	1085	8.49	9.4						10-14-19 7:15	5.03	1499	7.21	1.2					
7-14-19 14:15	20.25	1854	9.38	5.6	7-14-19 11:00	21.30	914	8.18	0.2	7-14-19 11:00	20.29	1086	8.49	12.4						10-14-19 7:30	5.03	1500	7.16	0.0					
7-14-19 14:30	20.25	1860	9.39	5.4	7-14-19 11:15	21.27	913	8.21	0.0	7-14-19 11:15	20.21	1086	8.48	7.9						10-14-19 7:45	5.03	1498	7.15	0.0					
7-14-19 14:45	20.22	1855	9.39	7.5	7-14-19 11:30	21.24	910	8.97	0.0	7-14-19 11:30	20.13	1086	8.48	14.7						10-14-19 8:00	5.03	1492	7.16	0.1					
7-14-19 15:00	20.23	1855	9.38	4.7	7-14-19 11:45	21.17	913	7.84	3.3	7-14-19 11:45	20.09	1085	8.48	9.5						10-14-19 8:15	5.03	1494	7.17	0.0					
7-14-19 15:15	20.21	1854	9.38	5.3	7-14-19 12:00	21.09	917	7.80	0.7	7-14-19 12:00	20.03	1085	8.48	13.7						10-14-19 8:30	5.02	1496	7.18	0.0					
7-14-19 15:30	20.18	1854	9.40	4.8	7-14-19 12:15	21.09	913	9.06	0.4	7-14-19 12:15	19.95	1084	8.48	8.2						10-14-19 8:45	5.03	1495	7.18	3.0					
7-14-19 15:45	20.20	1854	9.39	4.7	7-14-19 12:30	21.02	911	9.00	0.8	7-14-19 12:30	19.87	1082	8.47	12.4						10-14-19 9:00	5.03	1499	7.17	0.0					
7-14-19 16:00	20.23	1853	9.39	4.7	7-14-19 12:45	20.99	909	8.68	0.6	7-14-19 12:45	19.86	1084	8.46	8.2						10-14-19 9:15	5.03	1498	7.17	0.0					
7-14-19 16:15	20.27	1854	9.39	7.1	7-14-19 13:00	20.94	920	8.03	0.3	7-14-19 13:00	19.79	1084	8.46	13.5						10-14-19 9:30	5.03	1499	7.12	3.9					
7-14-19 16:30	20.34	1852	9.39	4.8	7-14-19 13:15	20.89	918	8.55	0.5	7-14-19 13:15	19.75	1084	8.46	8.9						10-14-19 9:45	5.02	1497	7.14	0.0					
7-14-19 16:45	20.38	1853	9.39	5.9	7-14-19 13:30	20.89	918	9.10	0.5	7-14-19 13:30	19.69	1083	8.47	14.0						10-14-19 10:00	5.02	1495	7.14	0.0					
7-14-19 17:00	20.44	1849	9.39	5.8	7-14-19 13:45	20.85	917	9.17	0.4	7-14-19 13:45	19.65	1082	8.47	10.1						10-14-19 10:15	5.02	1500	7.16	0.0					
7-14-19 17:15	20.61	1852	9.38	9.8	7-14-19 14:00	20.81	919	8.70	0.2	7-14-19 14:00	19.60	1081	8.47	13.9						10-14-19 10:30	5.02	1491	7.15	0.0					
7-14-19 17:30	20.62	1852	9.37	5.2	7-14-19 14:15	20.81	918	8.93	0.2	7-14-19 14:15	19.60	1080	8.46	10.7						10-14-19 10:45	5.00	1490	7.14	0.0					
7-14-19 17:45	20.71	1853	9.36	6.0	7-14-19 14:30	20.81	901	8.93	0.2	7-14-19 14:30	19.56	1074	8.46	10.6						10-14-19 11:00	4.99	1491	7.14	0.0					
7-14-19 18:00	20.82	1852	9.34	7.5	7-14-19 14:45	20.80	901	8.89	0.4	7-14-19 14:45	19.57	1074	8.46	9.0						10-14-19 11:15	4.98	1486	7.15	0.0					
7-14-19 18:15	20.87	1851	9.34	7.7	7-14-19 15:00	20.79	834	8.90	0.3	7-14-19 15:00	19.50	1071	8.45	12.6						10-14-19 11:30	4.97	1463	7.18	0.0					
7-14-19 18:30	20.90	1852	9.32	7.1	7-14-19 15:15	20.81	834	8.57	0.5	7-14-19 15:15	19.52	1070	8.45	11.2						10-14-19 11:45	4.95	1510	7.19	0.0					
7-14-19 18:45	20.95	1852	9.33	7.1	7-14-19 15:30	20.81	832	8.80	0.8	7-14-19 15:30	19.56	1077	8.45	10.6						10-14-19 12:00	4.93	1510	7.14	0.0					
7-14-19 19:00	20.94	1883	9.32	5.8	7-14-19 15:45	20.81	832	8.86	0.8	7-14-19 15:45	19.57	1070	8.45	11.1						10-14-19 12:15	4.92	1501	7.16	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-14-19 19:15	20.95	1849	9.32	10.7	7-14-19 16:00	20.84	896	8.92	0.8	7-14-19 16:00	19.61	1071	8.45	13.4						10-14-19 12:30	4.92	1501	7.16	0.0					
7-14-19 19:45	21.08	1850	9.32	6.4	7-14-19 16:15	20.84	896	9.06	2.2	7-14-19 16:15	19.68	1073	8.46	10.5						10-14-19 12:45	4.91	1501	7.15	0.0					
7-14-19 20:00	21.19	1852	9.32	9.6	7-14-19 16:30	20.86	896	9.17	1.3	7-14-19 16:30	19.72	1073	8.46	16.2						10-14-19 13:00	4.91	1503	7.16	13.1					
7-14-19 20:15	21.32	1854	9.30	5.7	7-14-19 16:45	20.87	897	9.15	2.4	7-14-19 16:45	19.75	1074	8.46	12.5						10-14-19 13:15	4.89	1449	7.14	0.0					
7-14-19 20:30	21.33	1849	9.29	9.3	7-14-19 17:00	20.83	911	9.22	4.0	7-14-19 17:00	19.74	1070	8.46	16.2						10-14-19 13:30	4.88	1467	7.17	0.0					
7-14-19 20:45	21.44	1853	9.28	7.4	7-14-19 17:15	20.87	910	9.20	4.8	7-14-19 17:15	19.95	1073	8.46	12.8						10-14-19 13:45	4.88	1468	7.16	0.0					
7-14-19 21:00	21.59	1853	9.24	9.7	7-14-19 17:30	20.92	908	9.36	4.6	7-14-19 17:30	20.05	1074	8.46	14.5						10-14-19 14:00	4.87	1466	7.18	0.0					
7-14-19 21:15	21.74	1853	9.26	6.4	7-14-19 17:45	20.97	905	9.75	4.6	7-14-19 17:45	20.18	1074	8.47	13.0						10-14-19 14:15	4.85	1498	7.18	0.0					
7-14-19 21:30	21.88	1853	9.30	8.1	7-14-19 18:00	20.99	904	9.63	2.9	7-14-19 18:00	20.43	1075	8.47	15.0						10-14-19 14:30	4.86	1501	7.19	0.0					
7-14-19 21:45	22.08	1852	9.29	6.9	7-14-19 18:15	20.98	906	9.30	3.2	7-14-19 18:15	20.47	1075	8.47	11.1						10-14-19 14:45	4.87	1506	7.17	0.0					
7-14-19 22:00	22.31	1851	9.30	8.1	7-14-19 18:30	20.98	891	9.37	5.0	7-14-19 18:30	20.46	1084	8.47	16.3						10-14-19 15:00	4.87	1503	7.14	0.0					
7-14-19 22:15	22.26	1837	9.29	7.2	7-14-19 18:45	20.98	905	9.29	4.1	7-14-19 18:45	20.58	1075	8.48	10.6						10-14-19 15:15	4.88	1503	7.14	0.0					
7-14-19 22:30	22.28	1852	9.27	11.4	7-14-19 19:00	20.98	906	9.09	3.2	7-14-19 19:00	20.53	1074	8.47	15.2						10-14-19 15:30	4.89	1502	7.05	0.0					
7-14-19 22:45	22.39	1863	9.23	7.6	7-14-19 19:15	21.05	906	8.98	4.6	7-14-19 19:15	20.52	1075	8.47	10.0						10-14-19 15:45	4.91	1512	6.98	0.0					
7-14-19 23:00	22.40	1857	9.30	11.1	7-14-19 19:30	21.06	905	9.15	4.0	7-14-19 19:30	20.58	1075	8.48	13.1						10-14-19 16:00	4.91	1505	6.95	0.0					
7-14-19 23:15	22.40	1859	9.24	7.0	7-14-19 19:45	21.19	901	9.83	3.0	7-14-19 19:45	20.88	1076	8.49	13.7						10-14-19 16:15	4.92	1506	6.92	0.6					
7-14-19 23:30	22.40	1858	9.28	8.8	7-14-19 20:00	21.25	903	9.59	2.9	7-14-19 20:00	20.81	1075	8.48	16.5						10-14-19 16:30	4.90	1492	6.90	0.0					
7-14-19 23:45	22.36	1859	9.28	7.1	7-14-19 20:15	21.31	904	10.00	2.4	7-14-19 20:15	20.87	1076	8.47	9.5						10-14-19 16:45	4.88	1490	6.92	0.0					
7-15-19 0:00	22.33	1859	9.27	10.9	7-14-19 20:30	21.40	909	10.10	2.8	7-14-19 20:30	21.05	1076	8.47	14.1						10-14-19 17:00	4.87	1501	6.91	0.0					
7-15-19 0:15	22.31	1840	9.26	6.7	7-14-19 20:45	21.47	904	9.47	2.4	7-14-19 20:45	21.25	1077	8.48	11.8						10-14-19 17:15	4.87	1469	6.97	0.0					
7-15-19 0:30	22.27	1866	9.26	8.3	7-14-19 21:00	21.60	901	9.49	3.0	7-14-19 21:00	21.46	1078	8.47	14.0						10-14-19 17:30	4.88	1473	6.98	0.0					
7-15-19 0:45	22.20	1864	9.25	6.6	7-14-19 21:15	21.65	903	9.46	2.7	7-14-19 21:15	21.68	1076	8.47	12.6						10-14-19 17:45	4.89	1459	6.97	0.0					
7-15-19 1:00	22.15	1864	9.23	9.6	7-14-19 21:30	21.72	904	9.71	2.8	7-14-19 21:30	21.76	1077	8.47	13.5						10-14-19 18:00	4.90	1505	6.97	0.0					
7-15-19 1:15	22.10	1878	9.20	7.9	7-14-19 21:45	21.81	904	9.27	3.1	7-14-19 21:45	22.19	1078	8.47	9.8						10-14-19 18:15	4.91	1501	6.98	0.0					
7-15-19 1:30	22.04	1868	9.21	7.3	7-14-19 22:00	21.93	903	9.57	2.4	7-14-19 22:00	22.15	1077	8.47	14.4						10-14-19 18:30	4.92	1505	6.99	0.0					
7-15-19 1:45	21.98	1869	9.21	9.3	7-14-19 22:15	21.95	906	9.15	2.7	7-14-19 22:15	22.52	1078	8.49	13.7						10-14-19 18:45	4.94	1504	7.01	0.5					
7-15-19 2:00	21.93	1874	9.19	8.8	7-14-19 22:30	21.86	904	9.51	2.6	7-14-19 22:30	22.26	1078	8.48	14.5						10-14-19 19:00	4.96	1505	6.99	0.4					
7-15-19 2:15	21.90	1866	9.18	6.5	7-14-19 22:45	21.93	905	9.81	1.9	7-14-19 22:45	22.45	1078	8.48	13.0						10-14-19 19:15	4.98	1497	7.00	0.0					
7-15-19 2:30	21.92	1868	9.18	9.1	7-14-19 23:00	22.01	904	9.56	1.9	7-14-19 23:00	22.58	1076	8.48	19.0						10-14-19 19:30	5.00	1498	7.00	0.0					
7-15-19 2:45	21.88	1869	9.20	6.4	7-14-19 23:15	21.98	905	8.99	2.6	7-14-19 23:15	22.60	1077	8.49	12.1						10-14-19 19:45	5.02	1492	6.98	4.5					
7-15-19 3:00	21.84	1870	9.22	11.2	7-14-19 23:30	21.95	904	9.06	3.1	7-14-19 23:30	22.56	1077	8.51	13.6						10-14-19 20:00	5.05	1495	6.99	0.0					
7-15-19 3:15	21.80	1884	9.18	8.0	7-14-19 23:45	21.94	903	9.20	3.7	7-14-19 23:45	22.35	1077	8.49	11.7						10-14-19 20:15	5.08	1502	6.99	0.0					
7-15-19 3:30	21.79	1878	9.14	8.9	7-15-19 0:00	21.91	905	9.54	2.6	7-15-19 0:00	22.27	1077	8.50	14.7						10-14-19 20:30	5.11	1501	7.00	0.0					
7-15-19 3:45	21.75	1873	9.13	6.9	7-15-19 0:15	21.91	909	8.66	1.9	7-15-19 0:15	22.21	1072	8.50	35.8						10-14-19 20:45	5.13	1504	7.02	0.0					
7-15-19 4:00	21.74	1890	9.07	9.5	7-15-19 0:30	21.94	910	7.39	1.8	7-15-19 0:30	22.18	1076	8.50	17.9						10-14-19 21:00	5.15	1504	6.99	0.0					
7-15-19 4:15	21.73	1887	9.05	7.3	7-15-19 0:45	21.92	905	9.02	2.0	7-15-19 0:45	22.14	1063	8.50	16.8						10-14-19 21:15	5.17	1501	6.96	0.0					
7-15-19 4:30	21.68	1885	9.08	8.3	7-15-19 1:00	21.91	903	9.07	1.8	7-15-19 1:00	22.10	1076	8.50	11.2						10-14-19 21:30	5.17	1499	6.95	0.0					
7-15-19 4:45	21.63	1884	9.11	7.5	7-15-19 1:15	21.89	907	8.93	1.8	7-15-19 1:15	22.04	1068	8.51	10.1						10-14-19 21:45	5.18	1501	6.92	0.0					
7-15-19 5:00	21.60	1883	9.08	12.2	7-15-19 1:30	21.84	906	8.94	2.0	7-15-19 1:30	21.99	1075	8.51	16.3						10-14-19 22:00	5.18	1502	6.97	0.0					
7-15-19 5:15	21.57	1887	9.06	6.4	7-15-19 1:45	21.80	904	8.74	1.4	7-15-19 1:45	21.94	1077	8.51	13.4						10-14-19 22:15	5.18	1500	7.00	0.0					
7-15-19 5:30	21.50	1880	9.10	10.2	7-15-19 2:00	21.80	904	8.58	50.1	7-15-19 2:00	21.85	1076	8.52	15.7						10-14-19 22:30	5.20	1500	6.99	0.0					
7-15-19 5:45	21.44	1884	9.11	6.8	7-15-19 2:15	21.78	900	8.97	2.6	7-15-19 2:15	21.77	1070	8.52	10.4						10-14-19 22:45	5.22	1499	6.95	0.0					
7-15-19 6:00	21.40	1883	9.10	11.6	7-15-19 2:30	21.81	899	8.97	2.3	7-15-19 2:30	21.68	1072	8.52	16.2						10-14-19 23:00	5.22	1491	6.98	4.6					
7-15-19 6:15	21.34	1879	9.11	6.9	7-15-19 2:45	21.80	895	8.75	1.6	7-15-19 2:45	21.64	1073	8.52	10.0						10-14-19 23:15	5.22	1485	6.94	1.8					
7-15-19 6:30	21.29	1881	9.09	8.6	7-15-19 3:00	21.79	906	9.07	1.8	7-15-19 3:00	21.59	1073	8.52	13.5						10-14-19 23:30	5.24	1499	6.95	0.0					
7-15-19 6:45	21.26	1881	9.09	7.5	7-15-19 3:15	21.76	905	9.31	1.6	7-15-19 3:15	21.58	1073	8.52	12.6						10-14-19 23:45	5.23	1489	6.99	0.0					
7-15-19 7:00	21.22	1887	9.05	8.5	7-15-19 3:30	21.75	904	9.22	1.7	7-15-19 3:30	21.54	1073	8.52	15.5						10-15-19 0:00	5.21	1501	6.97	0.0					
7-15-19 7:15	21.21	1893	9.04	7.2	7-15-19 3:45	21.72	899	9.16	1.6	7-15-19 3:45	21.50	1065	8.52	9.3						10-15-19 0:15	5.19	1473	6.92	0.0					
7-15-19 7:30	21.17	1893	9.02	8.3	7-15-19 4:00	21.67	910	7.76	1.0	7-15-19 4:00	21.46	1073	8.52	14.8						10-15-19 0:30	5.18	1504	6.92	0.0					
7-15-19 7:45	21.12	1901	9.03	6.9	7-15-19 4:15	21.66	905	9.03	1.4	7-15-19 4:15	21.41	1074	8.52	9.6						10-15-19 0:45	5.13	1505	6.96	0.0					
7-15-19 8:00	21.08	1891	9.01	10.1	7-15-19 4:30	21.58	907	8.50	1.2	7-15-19 4:30	21.33	1071	8.52	15.1						10-15-19 1:00	5.10	1514	7.03	0.0					
7-15-19 8:15	21.05	1886	8.97	7.2	7-15-19 4:45	21.57	909	6.95	1.3	7-15-19 4:45	21.28	1060	8.51	12.0						10-15-19 1:15	5.09	1494	7.00	0.0					
7-15-19 8:30	21.01	1897	8.97	7.9	7-15-19 5:00	21.56	904	9.34	1.8	7-15-19 5:00	21.25	1068	8.51	13.5						10-15-19 1:30	5.08	1505	6.97	1.4					
7-15-19 8:45	20.97	1900	8.98	6.1	7-15-19 5:15	21.52	906	7.55	1.5	7-15-19 5:15	21.23	1069	8.51	12.8						10-15-19 1:45	5.06	1507	6.99	0.0					
7-15-19 9:00	20.91	1897	8.97	7.7	7-15-19 5:30	21.48	907	7.97	1.2	7-15-19 5:30	21.18	1069	8.51	15.3						10-15-19 2:00	5.03	1506	7.06	0.0					
7-15-19 9:15	20.86	1896	8.98	5.9	7-15-19 5:45	21.44	906	7.63	1.3	7-15-19 5:45	21.14	1054	8.51	12.6						10-15-19 2:15	5.01	1503	7.14	97.6					
7-15-19 9:30	20.82	1895	8.96	7.0	7-15-19 6:00	21.46	910	7.37	1.1	7-15-19 6:00	21.08	1069	8.51	13.5						10-15-19 2:30	4.99	1509	7.10	0.0					
7-15-19 9:45	20.80	1902	8.96	5.2	7-15-19 6:15	21.41	909	7.23	0.9	7-15-19 6:15	21.04	1069	8.51	10.9						10-15-19 2:45	4.98	1491	7.09	0.0					
7-15-19 10:00	20.76	1900	8.94	7.8	7-15-19 6:30	21.35	904	9.18	1.1	7-15-19 6:30	20.99	1069	8.51	12.1						10-15-19 3:00	4.96	1474	7.10	0.0					
7-15-19 10:15	20.73	1903	8.93	4.8	7-15-19 6:45	21.37	906	10.00	1.2	7-15-19 6:45	20.94	1068	8.51	11.0						10-15-19 3:15	4.94	1490	7.10	0.0					
7-15-19 10:30	20.66	1905	8.91	6.5	7-15-19 7:00	21.31	906	10.00	1.0	7-15-19 7:00	20.89	1068	8.51	12.9						10-15-19 3:30	4.91	1498	7.06	0.3					
7-15-19 10:45	20.60	1902	8.94	5.4	7-15-19 7:15	21.27	910	10.00	1.2	7-15-19 7:15	20.86	1060	8.51	11.5						10-15-19 3:45	4.88	1500	7.11	0.0					
7-15-19 11:00	20.57	1907	8.92	6.1	7-15-19 7:30	21.26	906	10.00	1.0	7-15-19 7:30	20.81	1068	8.51	13.2						10-15-19 4:00	4.86	1508	7.22	3.5					
7-15-19 11:15	20.49	1897	8.94	4.6	7-15-19 7:45	21.25	907	10.00	1.6	7-15-19 7:45	20.76	1069	8.51	9.2						10-15-19 4:15	4.83	1479	7.43	0.0					
7-15-19 11:30	20.45	1906	8.92	10.4	7-15-19 8:00	21.22	905	10.00	1.4	7-15-19 8:00	20.71	1068	8.51	11.9						10-15-19 4:30	4.79	1501	7.31	0.0					
7-15-19 11:45	20.37	1898	8.95	5.7	7-15-19 8:15	21.18	906	10.00	0.9	7-15-19 8:15	20.68	1068	8.51	8.3						10-15-19 4:45	4.76	1503	7.65	0.0					
7-15-19 12:00	20.37	1905	8.91	6.3	7-15-19 8:30	21.15	904	9.90	1.1	7-15-19 8:30	20.63	1069	8.51	15.2						10-15-19 5:00	4.76	1498	7.42	0.0					
7-15-19 12:15	20.32	1908	8.89	5.0	7-15-19 8:45	21.10	903	9.88	1.1	7-15-19 8:45	20.59	1068	8.51	8.5						10-15-19 5:15	4.73	1484	7.24	0.0					
7-15-19 12:30	20.30	1913	8.86	10.2	7-15-19 9:00	21.05	901	10.00	0.7	7-15-19 9:00	20.54	1068	8.51	13.4						10-15-19 5:30	4.71	1489	7.18	0.0					
7-15-19 12:45	20.19	1895	8.95	5.4	7-15-19 9:15	21.03	905	9.93	1.1	7-15-19 9:15	20.51	1060	8.51	11.5						10-15-19 5:45	4.69	1505	7.15	0.0					
7-15-19 13:00	20.13	1901	8.93	4.8	7-15-19 9:30	21.00	904	9.90	0.9	7-15-19 9:30	20.47	1068	8.51	13.3						10-15-19 6:00	4.68	1508	7.19	0.0					
7-15-19 13:15	20.16	1914	8.86	6.0	7-15-19 9:45	20.94	905	10.00	1.2	7-15-19 9:45	20.43	1068	8.51	9.0						10-15-19 6:15	4.67	1501	7.19	0.0					
7-15-19 13:30	20.13	1914	8.86	9.4	7-15-19 10:00	20.93	905	10.00	1.4	7-15-19 10:00	20.39	1068	8.51	13.6						10-15-19 6:30	4.63	1507	7.20	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-15-19 13:45	20.12	1916	8.84	5.3	7-15-19 10:15	20.87	905	10.00	1.1	7-15-19 10:15	20.35	1067	8.50	10.3						10-15-19 6:45	4.58	1510	7.19	0.0					
7-15-19 14:00	20.09	1913	8.84	5.9	7-15-19 10:30	20.89	903	9.92	0.9	7-15-19 10:30	20.28	1067	8.51	15.2						10-15-19 7:00	4.56	1506	7.25	0.0					
7-15-19 14:15	20.07	1911	8.86	4.9	7-15-19 10:45	20.82	902	9.89	0.8	7-15-19 10:45	20.24	1052	8.51	10.8						10-15-19 7:15	4.53	1498	7.21	0.0					
7-15-19 14:30	20.06	1909	8.85	5.7	7-15-19 11:00	20.78	900	9.93	0.5	7-15-19 11:00	20.19	1067	8.50	10.2						10-15-19 7:30	4.51	1507	7.15	22.2					
7-15-19 14:45	20.04	1907	8.88	4.4	7-15-19 11:15	20.75	900	9.94	0.8	7-15-19 11:15	20.15	1066	8.50	8.9						10-15-19 7:45	4.46	1506	7.43	0.0					
7-15-19 15:00	20.04	1912	8.86	6.8	7-15-19 11:30	20.70	898	9.81	1.3	7-15-19 11:30	20.11	1067	8.50	13.3						10-15-19 8:00	4.45	1507	7.58	0.0					
7-15-19 15:15	20.06	1912	8.85	4.6	7-15-19 11:45	20.64	902	9.76	0.5	7-15-19 11:45	20.04	1066	8.50	8.1						10-15-19 8:15	4.42	1505	7.28	0.0					
7-15-19 15:30	20.10	1918	8.83	5.7	7-15-19 12:00	20.64	904	9.87	0.8	7-15-19 12:00	19.97	1066	8.51	10.2						10-15-19 8:30	4.40	1513	7.21	0.5					
7-15-19 15:45	20.17	1921	8.81	4.9	7-15-19 12:15	20.62	904	9.82	0.9	7-15-19 12:15	19.92	1064	8.50	10.5						10-15-19 8:45	4.36	1506	7.24	0.0					
7-15-19 16:00	20.22	1916	8.84	6.2	7-15-19 12:30	20.61	903	9.80	0.6	7-15-19 12:30	19.86	1062	8.50	12.6						10-15-19 9:00	4.35	1507	7.23	0.0					
7-15-19 16:15	20.30	1923	8.81	4.1	7-15-19 12:45	20.59	904	9.85	0.7	7-15-19 12:45	19.84	1048	8.49	11.5						10-15-19 9:15	4.32	1506	7.26	0.0					
7-15-19 16:30	20.39	1918	8.81	7.1	7-15-19 13:00	20.57	904	9.87	0.8	7-15-19 13:00	19.82	1061	8.49	15.0						10-15-19 9:30	4.31	1501	7.21	0.0					
7-15-19 16:45	20.47	1922	8.81	5.9	7-15-19 13:15	20.57	903	9.77	1.7	7-15-19 13:15	19.79	1061	8.49	7.6						10-15-19 9:45	4.32	1508	7.19	0.0					
7-15-19 17:00	20.59	1928	8.79	5.7	7-15-19 13:30	20.53	903	9.61	0.7	7-15-19 13:30	19.73	1059	8.50	15.2						10-15-19 10:00	4.30	1514	7.18	0.0					
7-15-19 17:15	20.70	1928	8.76	5.3	7-15-19 13:45	20.51	902	9.62	0.5	7-15-19 13:45	19.72	1041	8.49	8.7						10-15-19 10:15	4.28	1460	7.20	0.0					
7-15-19 17:30	20.82	1935	8.76	5.7	7-15-19 14:00	20.50	903	9.67	0.5	7-15-19 14:00	19.70	1054	8.49	8.3						10-15-19 10:30	4.27	1510	7.18	0.0					
7-15-19 17:45	20.86	1935	8.78	5.5	7-15-19 14:15	20.47	902	9.66	0.5	7-15-19 14:15	19.70	1055	8.49	9.3						10-15-19 10:45	4.27	1504	7.15	0.0					
7-15-19 18:00	21.11	1936	8.81	8.2	7-15-19 14:30	20.50	903	9.74	0.6	7-15-19 14:30	19.69	1054	8.49	8.2						10-15-19 11:00	4.22	1503	7.28	0.0					
7-15-19 18:15	21.16	1940	8.80	5.3	7-15-19 14:45	20.48	903	9.81	0.9	7-15-19 14:45	19.67	1052	8.49	8.6						10-15-19 11:15	4.21	1507	7.38	0.0					
7-15-19 18:30	21.32	1939	8.80	10.4	7-15-19 15:00	20.50	904	9.78	0.5	7-15-19 15:00	19.67	1055	8.49	9.0						10-15-19 11:30	4.20	1506	7.24	0.0					
7-15-19 18:45	21.48	1937	8.82	5.2	7-15-19 15:15	20.50	903	9.56	0.5	7-15-19 15:15	19.73	1054	8.49	8.5						10-15-19 11:45	4.18	1506	7.18	0.0					
7-15-19 19:00	21.63	1932	8.83	6.1	7-15-19 15:30	20.53	903	9.25	0.5	7-15-19 15:30	19.76	1054	8.50	8.6						10-15-19 12:00	4.20	1519	7.25	0.0					
7-15-19 19:15	21.65	1937	8.79	5.4	7-15-19 15:45	20.59	903	9.22	0.7	7-15-19 15:45	19.84	1053	8.50	8.4						10-15-19 12:15	4.17	1511	7.20	0.0					
7-15-19 19:30	21.99	1937	8.83	6.5	7-15-19 16:00	20.63	910	7.23	0.3	7-15-19 16:00	19.91	1053	8.50	8.6						10-15-19 12:30	4.17	1509	7.21	0.0					
7-15-19 19:45	21.96	1941	8.83	6.0	7-15-19 16:15	20.68	909	7.22	0.8	7-15-19 16:15	19.99	1052	8.50	7.5						10-15-19 12:45	4.18	1511	7.17	0.0					
7-15-19 20:00	22.38	1942	8.83	7.2	7-15-19 16:30	20.71	908	7.74	1.4	7-15-19 16:30	20.12	1050	8.49	8.5						10-15-19 13:00	4.15	1512	7.17	0.0					
7-15-19 20:15	22.53	1932	8.89	5.8	7-15-19 16:45	20.82	907	7.66	1.2	7-15-19 16:45	20.27	1051	8.49	8.0						10-15-19 13:15	4.12	1511	7.35	13.2					
7-15-19 20:30	22.23	1953	8.86	7.8	7-15-19 17:00	20.90	908	8.14	0.6	7-15-19 17:00	20.44	1050	8.49	7.9						10-15-19 13:30	4.11	1511	7.89	0.0					
7-15-19 20:45	22.62	1935	8.87	5.7	7-15-19 17:15	20.99	907	8.45	0.9	7-15-19 17:15	20.61	1048	8.50	8.0						10-15-19 13:45	4.10	1512	7.29	24.1					
7-15-19 21:00	22.77	1937	8.88	7.0	7-15-19 17:30	21.13	907	8.82	0.5	7-15-19 17:30	20.67	1046	8.49	8.4						10-15-19 14:00	4.09	1510	7.25	0.0					
7-15-19 21:15	23.16	1940	8.87	5.6	7-15-19 17:45	21.28	909	7.43	0.3	7-15-19 17:45	20.99	1048	8.49	8.2						10-15-19 14:15	4.08	1512	7.22	0.0					
7-15-19 21:30	23.14	1936	8.88	7.4	7-15-19 18:00	21.33	904	9.26	0.5	7-15-19 18:00	21.04	1051	8.48	8.1						10-15-19 14:30	4.08	1510	7.21	0.0					
7-15-19 21:45	23.23	1941	8.90	5.7	7-15-19 18:15	21.25	905	9.78	0.5	7-15-19 18:15	21.22	1055	8.48	8.1						10-15-19 14:45	4.07	1524	7.25	0.0					
7-15-19 22:00	23.34	1935	8.90	12.3	7-15-19 18:30	21.35	905	9.46	0.4	7-15-19 18:30	21.45	1055	8.48	8.2						10-15-19 15:00	4.05	1509	7.19	0.0					
7-15-19 22:15	23.42	1935	8.88	6.1	7-15-19 18:45	21.42	904	9.39	0.4	7-15-19 18:45	22.00	1052	8.48	7.4						10-15-19 15:15	4.05	1525	7.16	0.0					
7-15-19 22:30	23.53	1939	8.90	8.0	7-15-19 19:00	21.47	907	9.91	1.0	7-15-19 19:00	22.36	1056	8.48	8.3						10-15-19 15:30	4.06	1510	7.15	0.0					
7-15-19 22:45	23.73	1948	8.94	5.2	7-15-19 19:15	21.59	906	9.50	0.4	7-15-19 19:15	22.97	1056	8.50	8.1						10-15-19 15:45	4.05	1515	7.46	0.0					
7-15-19 23:00	23.69	1945	8.91	8.1	7-15-19 19:30	21.65	906	9.57	0.9	7-15-19 19:30	22.72	1055	8.49	8.4						10-15-19 16:00	4.05	1513	7.23	0.0					
7-15-19 23:15	23.60	1942	8.89	5.5	7-15-19 19:45	21.82	905	9.58	0.5	7-15-19 19:45	22.75	1058	8.48	8.0						10-15-19 16:15	4.06	1511	7.21	0.0					
7-15-19 23:30	23.66	1957	8.91	6.0	7-15-19 20:00	21.86	906	9.61	0.7	7-15-19 20:00	22.93	1055	8.49	8.9						10-15-19 16:30	4.06	1511	7.22	0.0					
7-15-19 23:45	23.72	1940	8.91	5.6	7-15-19 20:15	21.88	910	9.93	0.5	7-15-19 20:15	23.28	1053	8.49	8.4						10-15-19 16:45	4.07	1512	7.23	0.0					
7-16-19 0:00	23.78	1934	8.92	6.8	7-15-19 20:30	21.95	906	9.34	0.6	7-15-19 20:30	23.49	1055	8.50	9.6						10-15-19 17:00	4.07	1510	7.24	0.0					
7-16-19 0:15	23.93	1937	8.92	6.0	7-15-19 20:45	22.11	905	9.75	0.6	7-15-19 20:45	23.54	1054	8.50	8.1						10-15-19 17:15	4.10	1514	7.27	0.0					
7-16-19 0:30	23.80	1938	8.92	6.3	7-15-19 21:00	22.14	904	9.31	0.6	7-15-19 21:00	23.75	1052	8.51	9.7						10-15-19 17:30	4.11	1498	7.38	0.3					
7-16-19 0:45	23.76	1947	8.94	5.3	7-15-19 21:15	22.14	906	10.00	0.8	7-15-19 21:15	23.74	1055	8.50	8.1						10-15-19 17:45	4.13	1539	7.56	2.5					
7-16-19 1:00	23.76	1938	8.94	5.2	7-15-19 21:30	22.20	902	9.21	0.7	7-15-19 21:30	23.77	1053	8.51	8.5						10-15-19 18:00	4.15	1503	7.46	0.9					
7-16-19 1:15	23.73	1941	8.94	5.2	7-15-19 21:45	22.26	901	9.46	0.7	7-15-19 21:45	23.77	1056	8.50	8.4						10-15-19 18:15	4.18	1524	7.36	0.6					
7-16-19 1:30	23.61	1941	8.90	5.9	7-15-19 22:00	22.35	901	9.59	0.8	7-15-19 22:00	23.96	1048	8.52	8.6						10-15-19 18:30	4.20	1513	7.26	0.0					
7-16-19 1:45	23.27	1925	8.96	9.3	7-15-19 22:15	22.45	900	9.59	0.8	7-15-19 22:15	23.87	1055	8.51	8.6						10-15-19 18:45	4.24	1513	7.25	0.2					
7-16-19 2:00	23.04	1902	8.99	15.6	7-15-19 22:30	22.58	902	9.17	0.8	7-15-19 22:30	23.91	1055	8.51	8.9						10-15-19 19:00	4.27	1516	7.24	0.0					
7-16-19 2:15	23.00	1920	8.98	7.2	7-15-19 22:45	22.52	901	9.83	0.9	7-15-19 22:45	23.90	1056	8.51	7.6						10-15-19 19:15	4.31	1516	7.20	0.0					
7-16-19 2:30	22.89	1901	8.97	30.0	7-15-19 23:00	22.59	901	9.91	0.7	7-15-19 23:00	24.04	1050	8.52	8.7						10-15-19 19:30	4.34	1516	7.22	0.4					
7-16-19 2:45	22.81	1912	8.99	9.6	7-15-19 23:15	22.53	909	10.20	1.0	7-15-19 23:15	24.08	1054	8.51	8.2						10-15-19 19:45	4.39	1514	7.24	0.0					
7-16-19 3:00	22.75	1906	9.00	13.7	7-15-19 23:30	22.62	889	9.72	31.8	7-15-19 23:30	24.09	1051	8.51	8.7						10-15-19 20:00	4.42	1513	7.21	0.0					
7-16-19 3:15	22.70	1970	9.03	9.4	7-15-19 23:45	22.73	896	9.69	1.2	7-15-19 23:45	24.13	1053	8.52	8.1						10-15-19 20:15	4.48	1512	7.22	0.0					
7-16-19 3:30	22.63	1902	9.00	12.5	7-16-19 0:00	22.71	903	10.10	1.1	7-16-19 0:00	24.23	1052	8.52	9.5						10-15-19 20:30	4.52	1507	7.26	0.3					
7-16-19 3:45	22.61	1918	9.01	9.2	7-16-19 0:15	22.80	899	9.90	1.3	7-16-19 0:15	24.26	1038	8.52	8.7						10-15-19 20:45	4.56	1515	7.23	0.0					
7-16-19 4:00	22.58	1909	9.00	9.2	7-16-19 0:30	22.83	900	8.73	1.0	7-16-19 0:30	24.21	1029	8.52	9.0						10-15-19 21:00	4.57	1525	7.16	0.1					
7-16-19 4:15	22.54	1896	9.00	9.0	7-16-19 0:45	22.89	897	9.19	1.2	7-16-19 0:45	24.14	1050	8.53	8.6						10-15-19 21:15	4.57	1511	7.21	0.1					
7-16-19 4:30	22.50	1901	9.00	8.8	7-16-19 1:00	22.94	899	9.05	1.3	7-16-19 1:00	24.19	1050	8.54	9.0						10-15-19 21:30	4.57	1512	7.20	51.0					
7-16-19 4:45	22.45	1908	9.01	8.1	7-16-19 1:15	22.86	898	9.11	1.7	7-16-19 1:15	24.03	1049	8.53	10.2						10-15-19 21:45	4.56	1519	7.19	0.4					
7-16-19 5:00	22.42	1907	9.00	8.7	7-16-19 1:30	22.78	896	9.39	1.4	7-16-19 1:30	23.83	1043	8.54	8.7						10-15-19 22:00	4.56	1509	7.22	0.5					
7-16-19 5:15	22.37	1908	8.99	12.1	7-16-19 1:45	22.64	898	9.24	1.4	7-16-19 1:45	23.61	1056	8.56	13.0						10-15-19 22:15	4.57	1530	7.22	1.1					
7-16-19 5:30	22.32	1900	8.98	16.7	7-16-19 2:00	22.58	895	9.47	1.1	7-16-19 2:00	23.40	1057	8.56	8.5						10-15-19 22:30	4.57	1509	7.22	1.2					
7-16-19 5:45	22.25	1910	8.96	8.4	7-16-19 2:15	22.57	888	9.39	1.2	7-16-19 2:15	22.91	1046	8.55	8.5						10-15-19 22:45	4.58	1481	7.18	1.2					
7-16-19 6:00	22.23	1889	8.97	14.2	7-16-19 2:30	22.55	896	9.30	1.0	7-16-19 2:30	22.78	1052	8.57	7.1						10-15-19 23:00	4.57	1496	7.22	0.0					
7-16-19 6:15	22.18	1911	8.94	6.2	7-16-19 2:45	22.55	894	9.46	0.7	7-16-19 2:45	22.68	1060	8.57	6.9						10-15-19 23:15	4.57	1509	7.22	0.0					
7-16-19 6:30	22.13	1898	8.97	7.0	7-16-19 3:00	22.47	898	8.96	0.8	7-16-19 3:00	22.59	1046	8.57	6.3						10-15-19 23:30	4.58	1512	7.16	0.0					
7-16-19 6:45	22.08	1910	8.96	5.8	7-16-19 3:15	22.45	896	9.18	0.6	7-16-19 3:15	22.48	1048	8.56	6.4						10-15-19 23:45	4.57	1505	7.16	0.0					
7-16-19 7:00	22.04	1908	8.95	8.1	7-16-19 3:30	22.38	895	9.82	0.5	7-16-19 3:30	22.37	1048	8.56	6.2						10-16-19 0:00	4.58	1508	7.21	0.0					
7-16-19 7:15	21.99	1906	8.96	7.2	7-16-19 3:45	22.33	898	10.00	0.8	7-16-19 3:45	22.32	1048	8.56	6.2						10-16-19 0:15	4.58	1506	7.24	0.0					
7-16-19 7:30	21.94	1896	8.95	7.3	7-16-19 4:00	22.35	899	10.00	1.3	7-16-19 4:00	22.25	1047	8.56	6.3						10-16-19 0:30	4.58	1513	7.19	0.0					
7-16-19 7:45	21.89	1913	8.93	6.8	7-16-19 4:15	22.53	894	10.00	1.7	7-16-19 4:15	22.19	1047	8.55	6.3						10-16-19 0:45	4.57	1509	7.71	0.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-16-19 8:00	21.85	1908	8.93	13.0	7-16-19 4:30	22.53	891	10.00	1.6	7-16-19 4:30	22.05	1045	8.56	6.6						10-16-19 1:00	4.56	1512	7.31	0.0					
7-16-19 8:15	21.78	1917	8.92	8.5	7-16-19 4:45	22.46	891	10.00	1.5	7-16-19 4:45	21.98	1044	8.55	6.0						10-16-19 1:15	4.56	1509	7.27	0.0					
7-16-19 8:30	21.74	1905	8.93	10.1	7-16-19 5:00	22.38	891	10.00	1.2	7-16-19 5:00	21.94	1044	8.56	6.1						10-16-19 1:30	4.56	1518	7.24	0.0					
7-16-19 8:45	21.68	1907	8.92	6.9	7-16-19 5:15	22.28	886	9.62	1.4	7-16-19 5:15	21.88	1041	8.55	6.4						10-16-19 1:45	4.56	1488	7.29	0.0					
7-16-19 9:00	21.64	1901	8.90	11.2	7-16-19 5:30	22.22	888	9.31	1.2	7-16-19 5:30	21.78	1039	8.55	6.3						10-16-19 2:00	4.55	1506	7.22	0.0					
7-16-19 9:15	21.61	1911	8.93	5.9	7-16-19 5:45	22.16	890	9.15	0.9	7-16-19 5:45	21.73	1040	8.54	5.9						10-16-19 2:15	4.53	1505	7.20	0.0					
7-16-19 9:30	21.55	1911	8.92	6.2	7-16-19 6:00	22.10	888	9.92	1.4	7-16-19 6:00	21.68	1039	8.55	6.1						10-16-19 2:30	4.51	1506	7.17	0.0					
7-16-19 9:45	21.50	1907	8.91	6.1	7-16-19 6:15	22.12	890	10.00	1.7	7-16-19 6:15	21.64	1039	8.54	6.4						10-16-19 2:45	4.48	1497	7.08	0.0					
7-16-19 10:00	21.46	1907	8.90	6.4	7-16-19 6:30	22.09	891	10.00	0.9	7-16-19 6:30	21.58	1039	8.54	5.8						10-16-19 3:00	4.46	1452	7.06	0.0					
7-16-19 10:15	21.42	1910	8.91	5.5	7-16-19 6:45	22.04	891	10.00	1.5	7-16-19 6:45	21.54	1039	8.54	6.1						10-16-19 3:15	4.45	1509	7.10	0.0					
7-16-19 10:30	21.37	1908	8.89	6.2	7-16-19 7:00	22.02	892	10.00	0.8	7-16-19 7:00	21.49	1039	8.54	6.1						10-16-19 3:30	4.44	1506	7.09	0.0					
7-16-19 10:45	21.32	1902	8.88	7.7	7-16-19 7:15	22.00	892	10.00	1.0	7-16-19 7:15	21.43	1038	8.53	6.7						10-16-19 3:45	4.42	1506	7.08	0.0					
7-16-19 11:00	21.27	1904	8.88	7.3	7-16-19 7:30	21.95	891	10.00	1.0	7-16-19 7:30	21.37	1039	8.54	5.7						10-16-19 4:00	4.40	1534	7.08	0.0					
7-16-19 11:15	21.22	1906	8.88	6.6	7-16-19 7:45	21.90	891	10.00	1.7	7-16-19 7:45	21.33	1038	8.54	6.0						10-16-19 4:15	4.37	1510	7.05	0.0					
7-16-19 11:30	21.19	1906	8.87	9.1	7-16-19 8:00	21.85	891	10.00	0.8	7-16-19 8:00	21.29	1037	8.54	5.5						10-16-19 4:30	4.34	1510	7.00	0.0					
7-16-19 11:45	21.14	1905	8.86	6.4	7-16-19 8:15	21.89	892	10.00	0.8	7-16-19 8:15	21.22	1038	8.54	5.4						10-16-19 4:45	4.31	1507	7.02	0.0					
7-16-19 12:00	21.04	1891	8.85	13.4	7-16-19 8:30	21.84	891	10.00	1.0	7-16-19 8:30	21.16	1037	8.54	5.1						10-16-19 5:00	4.29	1508	6.99	0.0					
7-16-19 12:15	20.98	1883	8.82	11.6	7-16-19 8:45	21.81	890	9.92	0.7	7-16-19 8:45	21.11	1038	8.54	6.1						10-16-19 5:15	4.28	1511	7.00	0.0					
7-16-19 12:30	20.95	1889	8.82	9.3	7-16-19 9:00	21.76	889	9.81	0.8	7-16-19 9:00	21.06	1038	8.54	7.0						10-16-19 5:30	4.27	1512	6.99	0.0					
7-16-19 12:45	20.90	1883	8.84	45.5	7-16-19 9:15	21.70	889	9.82	1.3	7-16-19 9:15	21.00	1038	8.54	6.4						10-16-19 5:45	4.24	1512	6.99	0.0					
7-16-19 13:00	20.88	1894	8.84	8.5	7-16-19 9:30	21.66	887	9.80	0.6	7-16-19 9:30	20.95	1037	8.54	6.6						10-16-19 6:00	4.21	1510	6.99	0.0					
7-16-19 13:15	20.80	1895	8.80	10.5	7-16-19 9:45	21.64	889	9.80	0.9	7-16-19 9:45	20.89	1036	8.54	6.3						10-16-19 6:15	4.19	1508	7.05	0.0					
7-16-19 13:30	20.72	1870	8.76	14.5	7-16-19 10:00	21.63	890	9.85	0.8	7-16-19 10:00	20.85	1036	8.54	6.3						10-16-19 6:30	4.17	1509	7.03	0.0					
7-16-19 13:45	20.71	1877	8.78	12.6	7-16-19 10:15	21.60	890	9.86	0.5	7-16-19 10:15	20.83	1036	8.54	6.1						10-16-19 6:45	4.14	1508	7.04	0.0					
7-16-19 14:00	20.65	1870	8.76	19.1	7-16-19 10:30	21.58	891	9.89	1.1	7-16-19 10:30	20.79	1036	8.53	6.8						10-16-19 7:00	4.11	1523	6.99	0.0					
7-16-19 14:15	20.62	1868	8.76	12.0	7-16-19 10:45	21.56	891	9.90	0.6	7-16-19 10:45	20.74	1035	8.53	6.1						10-16-19 7:15	4.08	1511	6.98	0.0					
7-16-19 14:30	20.60	1869	8.76	24.9	7-16-19 11:00	21.55	891	9.90	0.7	7-16-19 11:00	20.70	1033	8.54	6.4						10-16-19 7:30	4.06	1514	6.99	0.0					
7-16-19 14:45	20.57	1865	8.73	9.5	7-16-19 11:15	21.50	890	9.82	0.7	7-16-19 11:15	20.66	1035	8.53	7.3						10-16-19 7:45	4.04	1514	7.00	0.0					
7-16-19 15:00	20.57	1869	8.75	11.2	7-16-19 11:30	21.45	888	9.65	0.5	7-16-19 11:30	20.60	1026	8.53	7.4						10-16-19 8:00	4.01	1511	6.99	0.0					
7-16-19 15:15	20.61	1870	8.75	10.5	7-16-19 11:45	21.39	888	9.68	0.6	7-16-19 11:45	20.58	1034	8.53	6.2						10-16-19 8:15	3.99	1511	7.00	0.0					
7-16-19 15:30	20.63	1868	8.76	15.8	7-16-19 12:00	21.38	888	9.75	0.5	7-16-19 12:00	20.56	1033	8.53	7.6						10-16-19 8:30	3.97	1511	6.95	0.0					
7-16-19 15:45	20.67	1865	8.74	8.4	7-16-19 12:15	21.36	888	9.77	0.4	7-16-19 12:15	20.52	1033	8.53	6.8						10-16-19 8:45	3.96	1513	6.97	0.0					
7-16-19 16:00	20.71	1862	8.71	10.8	7-16-19 12:30	21.31	888	9.75	0.4	7-16-19 12:30	20.47	1033	8.53	7.1						10-16-19 9:00	3.95	1511	6.99	0.0					
7-16-19 16:15	20.77	1855	8.70	8.4	7-16-19 12:45	21.28	888	9.76	0.5	7-16-19 12:45	20.44	1033	8.53	7.1						10-16-19 9:15	3.97	1515	7.01	0.0					
7-16-19 16:30	20.82	1845	8.71	12.5	7-16-19 13:00	21.24	888	9.71	0.6	7-16-19 13:00	20.41	1033	8.53	6.6						10-16-19 9:30	3.97	1512	6.99	0.0					
7-16-19 16:45	20.93	1854	8.70	7.7	7-16-19 13:15	21.23	888	9.77	0.4	7-16-19 13:15	20.38	1033	8.53	6.2						10-16-19 9:45	3.96	1512	6.99	0.0					
7-16-19 17:00	21.03	1853	8.69	10.7	7-16-19 13:30	21.21	888	9.67	0.3	7-16-19 13:30	20.37	1034	8.53	8.2						10-16-19 10:00	3.96	1514	6.99	0.0					
7-16-19 17:15	21.16	1858	8.68	9.3	7-16-19 13:45	21.21	887	9.62	0.9	7-16-19 13:45	20.34	1033	8.53	6.9						10-16-19 10:15	3.95	1513	7.00	0.0					
7-16-19 17:30	21.29	1842	8.68	10.9	7-16-19 14:00	21.14	887	9.73	2.7	7-16-19 14:00	20.33	1033	8.53	7.5						10-16-19 10:30	3.94	1512	7.00	0.0					
7-16-19 17:45	21.44	1840	8.68	10.1	7-16-19 14:15	21.19	888	9.81	0.9	7-16-19 14:15	20.31	1033	8.53	6.2						10-16-19 10:45	3.94	1513	6.96	0.0					
7-16-19 18:00	21.60	1848	8.69	10.7	7-16-19 14:30	21.17	888	9.84	1.0	7-16-19 14:30	20.29	1033	8.53	7.3						10-16-19 11:00	3.93	1512	6.96	0.0					
7-16-19 18:15	21.73	1850	8.69	9.0	7-16-19 14:45	21.11	888	9.86	0.6	7-16-19 14:45	20.28	1033	8.53	7.3						10-16-19 11:15	3.92	1513	6.98	0.0					
7-16-19 18:30	22.21	1862	8.71	10.6	7-16-19 15:00	21.20	888	9.81	0.3	7-16-19 15:00	20.30	1033	8.53	8.2						10-16-19 11:30	3.90	1513	6.97	0.0					
7-16-19 18:45	22.27	1858	8.71	9.5	7-16-19 15:15	21.18	887	9.71	0.6	7-16-19 15:15	20.33	1033	8.53	7.4						10-16-19 11:45	3.90	1516	7.02	0.0					
7-16-19 19:00	22.53	1852	8.69	10.8	7-16-19 15:30	21.24	888	9.53	0.5	7-16-19 15:30	20.36	1033	8.53	7.4						10-16-19 12:00	3.89	1514	7.10	0.0					
7-16-19 19:15	22.45	1867	8.69	10.6	7-16-19 15:45	21.19	895	7.02	0.3	7-16-19 15:45	20.41	1033	8.53	6.7						10-16-19 12:15	3.89	1512	7.06	0.0					
7-16-19 19:30	22.82	1819	8.71	11.8	7-16-19 16:00	21.23	895	7.00	0.5	7-16-19 16:00	20.49	1034	8.54	7.5						10-16-19 12:30	3.88	1512	6.95	0.0					
7-16-19 19:45	22.85	1839	8.69	14.1	7-16-19 16:15	21.31	894	7.31	0.5	7-16-19 16:15	20.59	1034	8.53	6.5						10-16-19 12:45	3.88	1514	6.98	0.0					
7-16-19 20:00	22.94	1840	8.70	12.5	7-16-19 16:30	21.39	895	7.35	0.4	7-16-19 16:30	20.67	1034	8.53	6.9						10-16-19 13:00	3.87	1516	7.04	12.6					
7-16-19 20:15	23.20	1843	8.72	15.2	7-16-19 16:45	21.45	894	7.47	0.5	7-16-19 16:45	20.77	1034	8.53	7.8						10-16-19 13:15	3.86	1517	7.01	0.0					
7-16-19 20:30	23.36	1843	8.71	11.5	7-16-19 17:00	21.55	895	7.60	0.3	7-16-19 17:00	20.88	1034	8.52	7.9						10-16-19 13:30	3.85	1515	6.94	0.0					
7-16-19 20:45	23.44	1841	8.71	10.4	7-16-19 17:15	21.60	894	7.94	0.3	7-16-19 17:15	20.96	1034	8.52	7.4						10-16-19 13:45	3.84	1515	7.06	0.0					
7-16-19 21:00	23.28	1827	8.72	13.0	7-16-19 17:30	21.71	893	8.53	0.4	7-16-19 17:30	21.01	1034	8.52	7.0						10-16-19 14:00	3.82	1515	7.05	0.0					
7-16-19 21:15	22.93	1831	8.76	11.3	7-16-19 17:45	21.84	893	8.54	0.3	7-16-19 17:45	21.22	1035	8.53	7.1						10-16-19 14:15	3.83	1512	7.02	0.0					
7-16-19 21:30	22.98	1834	8.76	12.9	7-16-19 18:00	21.98	894	7.75	0.3	7-16-19 18:00	21.42	1035	8.52	7.6						10-16-19 14:30	3.82	1511	7.04	0.0					
7-16-19 21:45	22.90	1836	8.76	8.5	7-16-19 18:15	22.07	895	7.96	0.4	7-16-19 18:15	21.96	1036	8.53	6.5						10-16-19 14:45	3.83	1513	6.98	0.0					
7-16-19 22:00	22.74	1819	8.75	11.3	7-16-19 18:30	22.03	889	9.66	0.4	7-16-19 18:30	22.20	1036	8.52	7.3						10-16-19 15:00	3.82	1514	6.97	0.0					
7-16-19 22:15	22.64	1825	8.76	9.6	7-16-19 18:45	22.08	890	9.82	0.5	7-16-19 18:45	22.29	1039	8.52	6.8						10-16-19 15:15	3.81	1514	7.02	0.0					
7-16-19 22:30	22.58	1825	8.76	10.5	7-16-19 19:00	22.18	891	9.86	0.3	7-16-19 19:00	22.67	1036	8.52	7.6						10-16-19 15:30	3.79	1515	7.23	9.7					
7-16-19 22:45	22.51	1829	8.77	7.8	7-16-19 19:15	22.21	891	9.81	0.3	7-16-19 19:15	22.71	1037	8.52	6.7						10-16-19 15:45	3.80	1514	7.03	0.0					
7-16-19 23:00	22.59	1829	8.76	9.0	7-16-19 19:30	22.21	890	9.81	0.4	7-16-19 19:30	23.18	1038	8.54	7.7						10-16-19 16:00	3.80	1514	7.27	0.0					
7-16-19 23:15	22.71	1829	8.74	6.6	7-16-19 19:45	22.27	892	9.91	0.4	7-16-19 19:45	23.01	1038	8.53	6.1						10-16-19 16:15	3.81	1512	6.99	0.0					
7-16-19 23:30	22.85	1827	8.73	8.5	7-16-19 20:00	22.32	894	10.00	0.5	7-16-19 20:00	23.19	1037	8.53	7.3						10-16-19 16:30	3.82	1508	7.00	0.0					
7-16-19 23:45	22.94	1830	8.75	7.6	7-16-19 20:15	22.45	895	10.00	0.3	7-16-19 20:15	23.42	1038	8.53	7.0						10-16-19 16:45	3.82	1513	7.08	0.0					
7-17-19 0:00	23.04	1830	8.76	10.3	7-16-19 20:30	22.53	889	9.63	0.5	7-16-19 20:30	23.51	1035	8.53	10.1						10-16-19 17:00	3.85	1512	6.90	0.0					
7-17-19 0:15	23.13	1830	8.76	7.1	7-16-19 20:45	22.48	890	9.32	0.4	7-16-19 20:45	23.33	1038	8.53	6.9						10-16-19 17:15	3.86	1515	6.93	0.0					
7-17-19 0:30	23.09	1831	8.75	7.3	7-16-19 21:00	22.35	891	9.16	0.4	7-16-19 21:00	23.13	1037	8.54	6.1						10-16-19 17:30	3.86	1515	6.95	0.0					
7-17-19 0:45	23.11	1826	8.76	7.6	7-16-19 21:15	22.33	893	8.86	1.0	7-16-19 21:15	23.06	1036	8.55	6.9						10-16-19 17:45	3.86	1517	6.99	0.0					
7-17-19 1:00	23.07	1831	8.76	7.9	7-16-19 21:30	22.35	889	9.38	0.5	7-16-19 21:30	22.97	1036	8.55	7.1						10-16-19 18:00	3.88	1515	7.00	0.0					
7-17-19 1:15	23.04	1821	8.75	7.0	7-16-19 21:45	22.37	890	9.38	0.6	7-16-19 21:45	22.91	1036	8.56	6.5						10-16-19 18:15	3.93	1517	6.99	0.0					
7-17-19 1:30	23.02	1822	8.74	8.6	7-16-19 22:00	22.36	886	9.35	0.4	7-16-19 22:00	22.87	1037	8.56	6.0						10-16-19 18:30	4.01	1515	6.99	0.0					
7-17-19 1:45	23.01	1821	8.75	7.0	7-16-19 22:15	22.36	885	9.12	0.5	7-16-19 22:15	22.76	1036	8.57	6.2						10-16-19 18:45	4.08	1512	6.99	0.0					
7-17-19 2:00	22.99	1821	8.74	8.3	7-16-19 22:30	22.32	880	9.18	0.4	7-16-19 22:30	22.64	1036	8.57	6.4						10-16-19 19:00	4.20	1550	6.95	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-17-19 2:15	22.97	1824	8.72	37.0	7-16-19 22:45	22.28	873	9.68	4.9	7-16-19 22:45	22.58	1036	8.57	6.5						10-16-19 19:15	4.35	1514	6.98	0.0					
7-17-19 2:30	22.94	1822	8.75	6.8	7-16-19 23:00	22.34	884	9.78	4.1	7-16-19 23:00	22.54	1036	8.57	6.2						10-16-19 19:30	4.47	1510	6.96	0.0					
7-17-19 2:45	22.92	1822	8.76	5.4	7-16-19 23:15	22.55	889	8.77	2.5	7-16-19 23:15	22.66	1035	8.57	6.0						10-16-19 19:45	4.42	1515	7.01	0.0					
7-17-19 3:00	22.88	1817	8.73	14.6	7-16-19 23:30	22.73	885	9.57	1.7	7-16-19 23:30	22.69	1037	8.57	6.2						10-16-19 20:00	4.45	1510	7.02	0.0					
7-17-19 3:15	22.84	1819	8.73	5.2	7-16-19 23:45	22.88	886	9.28	1.2	7-16-19 23:45	22.70	1037	8.57	5.7						10-16-19 20:15	4.49	1511	7.02	0.0					
7-17-19 3:30	22.79	1811	8.72	6.3	7-17-19 0:00	22.85	886	9.82	0.8	7-17-19 0:00	22.75	1037	8.57	5.9						10-16-19 20:30	4.57	1509	7.02	0.0					
7-17-19 3:45	22.74	1816	8.74	5.4	7-17-19 0:15	23.02	884	9.82	4.0	7-17-19 0:15	22.96	1037	8.58	6.7						10-16-19 20:45	4.67	1509	7.02	0.0					
7-17-19 4:00	22.66	1812	8.71	7.5	7-17-19 0:30	23.09	886	8.24	0.8	7-17-19 0:30	23.06	1037	8.58	7.5						10-16-19 21:00	4.84	1507	7.05	0.0					
7-17-19 4:15	22.60	1815	8.71	5.2	7-17-19 0:45	23.04	890	8.49	2.3	7-17-19 0:45	23.07	1040	8.58	7.1						10-16-19 21:15	4.81	1510	6.97	0.0					
7-17-19 4:30	22.52	1816	8.72	6.4	7-17-19 1:00	23.04	884	9.55	0.8	7-17-19 1:00	23.03	1037	8.59	7.6						10-16-19 21:30	4.76	1512	7.01	0.0					
7-17-19 4:45	22.47	1816	8.74	4.9	7-17-19 1:15	22.95	882	9.50	0.6	7-17-19 1:15	23.02	1037	8.58	6.2						10-16-19 21:45	4.78	1512	7.00	0.0					
7-17-19 5:00	22.41	1816	8.74	6.4	7-17-19 1:30	22.99	884	9.21	0.7	7-17-19 1:30	23.01	1037	8.58	6.3						10-16-19 22:00	4.81	1512	7.02	0.0					
7-17-19 5:15	22.35	1814	8.75	7.5	7-17-19 1:45	22.95	887	9.04	0.8	7-17-19 1:45	22.96	1037	8.57	6.1						10-16-19 22:15	4.85	1511	7.04	0.0					
7-17-19 5:30	22.26	1811	8.72	5.9	7-17-19 2:00	22.92	887	9.02	0.5	7-17-19 2:00	22.95	1037	8.58	6.5						10-16-19 22:30	4.87	1511	7.05	0.0					
7-17-19 5:45	22.17	1808	8.71	4.3	7-17-19 2:15	22.92	884	9.38	6.2	7-17-19 2:15	22.88	1037	8.58	6.2						10-16-19 22:45	4.88	1512	7.06	0.0					
7-17-19 6:00	22.11	1810	8.70	5.7	7-17-19 2:30	22.91	887	8.64	0.9	7-17-19 2:30	22.82	1036	8.58	6.4						10-16-19 23:00	4.93	1507	7.08	4.6					
7-17-19 6:15	22.04	1808	8.71	4.2	7-17-19 2:45	22.87	888	8.39	1.0	7-17-19 2:45	22.78	1036	8.59	6.0						10-16-19 23:15	4.93	1514	7.04	0.0					
7-17-19 6:30	21.99	1803	8.74	5.5	7-17-19 3:00	22.81	883	9.57	0.8	7-17-19 3:00	22.72	1034	8.59	5.8						10-16-19 23:30	4.96	1510	7.09	0.0					
7-17-19 6:45	21.93	1804	8.72	4.0	7-17-19 3:15	22.79	890	10.10	0.6	7-17-19 3:15	22.70	1033	8.58	5.5						10-16-19 23:45	4.98	1509	7.10	0.0					
7-17-19 7:00	21.87	1804	8.72	26.9	7-17-19 3:30	22.76	894	10.20	0.5	7-17-19 3:30	22.66	1037	8.58	5.7						10-17-19 0:00	4.97	1510	7.11	0.0					
7-17-19 7:15	21.81	1804	8.73	3.8	7-17-19 3:45	22.73	896	10.20	27.5	7-17-19 3:45	22.58	1036	8.59	5.5						10-17-19 0:15	4.98	1509	7.10	0.0					
7-17-19 7:30	21.74	1804	8.73	4.6	7-17-19 4:00	22.70	893	10.20	0.4	7-17-19 4:00	22.54	1036	8.58	5.5						10-17-19 0:30	4.98	1509	7.10	0.0					
7-17-19 7:45	21.68	1805	8.73	4.4	7-17-19 4:15	22.64	885	10.10	0.6	7-17-19 4:15	22.42	1036	8.59	5.1						10-17-19 0:45	4.96	1511	7.06	0.0					
7-17-19 8:00	21.62	1805	8.73	5.4	7-17-19 4:30	22.64	887	10.10	1.0	7-17-19 4:30	22.33	1036	8.59	5.4						10-17-19 1:00	4.96	1507	7.02	0.0					
7-17-19 8:15	21.57	1805	8.74	4.1	7-17-19 4:45	22.64	890	10.10	0.5	7-17-19 4:45	22.28	1036	8.60	5.0						10-17-19 1:15	4.98	1460	7.02	0.0					
7-17-19 8:30	21.51	1803	8.79	6.2	7-17-19 5:00	22.59	889	10.10	0.5	7-17-19 5:00	22.23	1036	8.60	5.6						10-17-19 1:30	4.99	1508	7.03	0.0					
7-17-19 8:45	21.46	1801	8.81	4.2	7-17-19 5:15	22.52	889	10.10	0.4	7-17-19 5:15	22.11	1036	8.59	5.3						10-17-19 1:45	5.01	1509	7.03	0.0					
7-17-19 9:00	21.39	1801	8.79	5.6	7-17-19 5:30	22.51	888	10.00	0.3	7-17-19 5:30	22.08	1036	8.60	4.9						10-17-19 2:00	5.02	1510	7.05	0.0					
7-17-19 9:15	21.33	1799	8.81	11.8	7-17-19 5:45	22.48	888	10.10	0.4	7-17-19 5:45	22.02	1032	8.59	8.6						10-17-19 2:15	5.04	1509	7.22	0.0					
7-17-19 9:30	21.27	1800	8.77	4.3	7-17-19 6:00	22.44	888	10.00	0.8	7-17-19 6:00	21.94	1037	8.59	4.8						10-17-19 2:30	5.04	1507	7.01	0.0					
7-17-19 9:45	21.22	1797	8.79	3.9	7-17-19 6:15	22.40	887	10.00	0.4	7-17-19 6:15	21.85	1036	8.59	5.9						10-17-19 2:45	5.03	1508	7.01	0.0					
7-17-19 10:00	21.15	1795	8.76	5.2	7-17-19 6:30	22.36	885	10.00	1.2	7-17-19 6:30	21.79	1037	8.59	6.4						10-17-19 3:00	5.03	1435	6.98	0.0					
7-17-19 10:15	21.11	1801	8.74	3.4	7-17-19 6:45	22.35	885	10.00	0.7	7-17-19 6:45	21.71	1032	8.58	7.3						10-17-19 3:15	5.02	1505	6.92	0.0					
7-17-19 10:30	21.07	1801	8.74	9.5	7-17-19 7:00	22.31	882	9.90	0.5	7-17-19 7:00	21.67	1037	8.59	7.3						10-17-19 3:30	5.01	1504	6.95	0.0					
7-17-19 10:45	21.00	1801	8.72	3.6	7-17-19 7:15	22.25	885	9.94	0.4	7-17-19 7:15	21.62	1038	8.57	7.1						10-17-19 3:45	5.02	1505	6.99	0.0					
7-17-19 11:00	20.96	1798	8.75	5.1	7-17-19 7:30	22.21	886	10.10	1.3	7-17-19 7:30	21.55	1042	8.58	8.3						10-17-19 4:00	5.03	1510	7.04	0.0					
7-17-19 11:15	20.90	1801	8.75	3.2	7-17-19 7:45	22.14	884	10.10	0.4	7-17-19 7:45	21.50	1042	8.57	7.8						10-17-19 4:15	5.03	1506	7.00	0.0					
7-17-19 11:30	20.86	1801	8.73	4.1	7-17-19 8:00	22.10	885	10.10	0.5	7-17-19 8:00	21.45	1045	8.57	9.4						10-17-19 4:30	5.05	1507	7.07	0.0					
7-17-19 11:45	20.81	1802	8.71	3.4	7-17-19 8:15	22.08	883	10.00	0.5	7-17-19 8:15	21.41	1045	8.57	38.3						10-17-19 4:45	5.07	1504	7.09	0.0					
7-17-19 12:00	20.76	1802	8.70	10.5	7-17-19 8:30	22.03	882	10.00	0.6	7-17-19 8:30	21.34	1041	8.56	9.0						10-17-19 5:00	5.09	1507	7.08	3.9					
7-17-19 12:15	20.71	1803	8.70	3.6	7-17-19 8:45	21.98	883	10.00	0.4	7-17-19 8:45	21.30	1041	8.57	8.4						10-17-19 5:15	5.06	1510	6.98	0.0					
7-17-19 12:30	20.67	1803	8.69	7.9	7-17-19 9:00	21.96	885	10.00	0.6	7-17-19 9:00	21.26	1042	8.56	8.1						10-17-19 5:30	5.07	1510	7.01	0.0					
7-17-19 12:45	20.62	1802	8.69	3.4	7-17-19 9:15	21.90	885	10.00	0.4	7-17-19 9:15	21.19	1040	8.57	7.1						10-17-19 5:45	5.08	1508	7.05	0.0					
7-17-19 13:00	20.59	1805	8.67	4.3	7-17-19 9:30	21.88	883	10.00	0.4	7-17-19 9:30	21.15	1040	8.56	8.3						10-17-19 6:00	5.08	1511	7.02	0.0					
7-17-19 13:15	20.55	1805	8.66	3.6	7-17-19 9:45	21.87	885	10.00	0.4	7-17-19 9:45	21.10	1039	8.56	7.0						10-17-19 6:15	5.07	1488	7.07	0.0					
7-17-19 13:30	20.49	1808	8.64	5.1	7-17-19 10:00	21.80	883	9.92	0.5	7-17-19 10:00	21.05	1037	8.54	7.7						10-17-19 6:30	5.08	1510	7.34	0.0					
7-17-19 13:45	20.46	1811	8.64	4.3	7-17-19 10:15	21.79	882	9.92	0.5	7-17-19 10:15	21.01	1037	8.54	7.0						10-17-19 6:45	5.09	1511	7.08	0.0					
7-17-19 14:00	20.42	1809	8.62	6.8	7-17-19 10:30	21.71	880	9.85	0.6	7-17-19 10:30	20.94	1037	8.55	8.9						10-17-19 7:00	5.10	1529	7.04	0.0					
7-17-19 14:15	20.40	1808	8.63	5.2	7-17-19 10:45	21.66	880	9.80	0.4	7-17-19 10:45	20.88	1036	8.55	7.2						10-17-19 7:15	5.11	1508	7.28	0.0					
7-17-19 14:30	20.38	1804	8.65	5.9	7-17-19 11:00	21.64	881	9.83	0.4	7-17-19 11:00	20.84	1037	8.55	7.5						10-17-19 7:30	5.10	1512	7.07	0.0					
7-17-19 14:45	20.39	1808	8.65	3.7	7-17-19 11:15	21.59	883	9.88	0.5	7-17-19 11:15	20.81	1038	8.55	7.5						10-17-19 7:45	5.09	1506	7.06	0.0					
7-17-19 15:00	20.39	1809	8.65	5.2	7-17-19 11:30	21.62	883	9.91	0.5	7-17-19 11:30	20.77	1036	8.55	8.5						10-17-19 8:00	5.09	1513	7.03	0.0					
7-17-19 15:15	20.39	1809	8.64	5.5	7-17-19 11:45	21.55	883	10.00	0.7	7-17-19 11:45	20.70	1035	8.55	7.9						10-17-19 8:15	5.08	1513	7.01	0.1					
7-17-19 15:30	20.35	1810	8.64	6.9	7-17-19 12:00	21.48	883	10.00	0.4	7-17-19 12:00	20.67	1034	8.54	8.6						10-17-19 8:30	5.08	1509	7.01	0.0					
7-17-19 15:45	20.33	1814	8.64	4.5	7-17-19 12:15	21.43	881	9.89	0.4	7-17-19 12:15	20.63	1033	8.54	7.6						10-17-19 8:45	5.07	1508	6.99	0.0					
7-17-19 16:00	20.32	1812	8.63	4.9	7-17-19 12:30	21.37	881	9.83	0.4	7-17-19 12:30	20.59	1034	8.53	8.3						10-17-19 9:00	5.07	1506	7.02	0.0					
7-17-19 16:15	20.34	1812	8.63	4.4	7-17-19 12:45	21.35	880	9.77	0.3	7-17-19 12:45	20.55	1031	8.51	9.4						10-17-19 9:15	5.06	1509	7.01	0.0					
7-17-19 16:30	20.37	1812	8.63	4.8	7-17-19 13:00	21.28	882	9.94	0.4	7-17-19 13:00	20.50	1030	8.51	9.5						10-17-19 9:30	5.06	1509	7.00	0.0					
7-17-19 16:45	20.42	1812	8.64	4.2	7-17-19 13:15	21.31	883	9.93	0.4	7-17-19 13:15	20.46	1030	8.50	8.9						10-17-19 9:45	5.05	1511	7.00	0.0					
7-17-19 17:00	20.43	1810	8.64	5.8	7-17-19 13:30	21.28	880	9.90	0.5	7-17-19 13:30	20.44	1030	8.50	11.0						10-17-19 10:00	5.04	1509	7.02	0.0					
7-17-19 17:15	20.42	1811	8.62	4.0	7-17-19 13:45	21.33	882	9.94	0.4	7-17-19 13:45	20.43	1033	8.50	7.9						10-17-19 10:15	5.03	1510	7.01	0.0					
7-17-19 17:30	20.41	1811	8.62	5.7	7-17-19 14:00	21.26	880	9.81	1.4	7-17-19 14:00	20.41	1032	8.50	9.5						10-17-19 10:30	5.02	1507	7.02	0.0					
7-17-19 17:45	20.41	1815	8.63	4.1	7-17-19 14:15	21.25	881	9.88	0.5	7-17-19 14:15	20.40	1031	8.50	7.6						10-17-19 10:45	5.01	1510	7.03	0.8					
7-17-19 18:00	20.39	1814	8.64	4.6	7-17-19 14:30	21.27	880	9.88	0.9	7-17-19 14:30	20.40	1031	8.50	9.2						10-17-19 11:00	4.98	1500	7.01	0.0					
7-17-19 18:15	20.49	1815	8.67	4.0	7-17-19 14:45	21.32	880	9.81	0.7	7-17-19 14:45	20.41	1032	8.50	10.5						10-17-19 11:15	4.94	1507	7.19	0.0					
7-17-19 18:30	20.67	1815	8.66	4.8	7-17-19 15:00	21.33	881	9.80	0.7	7-17-19 15:00	20.41	1030	8.51	9.5						10-17-19 11:30	4.92	1507	7.09	0.0					
7-17-19 18:45	20.74	1813	8.65	4.1	7-17-19 15:15	21.33	880	9.66	0.8	7-17-19 15:15	20.43	1034	8.51	8.1						10-17-19 11:45	4.91	1509	7.05	0.0					
7-17-19 19:00	20.75	1814	8.66	5.0	7-17-19 15:30	21.34	879	9.68	0.7	7-17-19 15:30	20.44	1015	8.51	9.0						10-17-19 12:00	4.87	1509	7.28	0.0					
7-17-19 19:15	20.78	1812	8.67	4.8	7-17-19 15:45	21.38	876	9.70	0.7	7-17-19 15:45	20.45	1033	8.51	7.3						10-17-19 12:15	4.88	1509	6.99	0.0					
7-17-19 19:30	20.81	1809	8.71	6.3	7-17-19 16:00	21.39	878	9.65	0.6	7-17-19 16:00	20.45	1033	8.51	10.4						10-17-19 12:30	4.89	1512	7.05	0.0					
7-17-19 19:45	20.87	1814	8.69	4.4	7-17-19 16:15	21.38	876	9.58	0.7	7-17-19 16:15	20.47	1034	8.52	8.0						10-17-19 12:45	4.87	1499	7.02	0.0					
7-17-19 20:00	20.82	1813	8.71	5.2	7-17-19 16:30	21.41	877	9.53	0.5	7-17-19 16:30	20.49	1034	8.51	9.7						10-17-19 13:00	4.86	1505	7.00	0.0					
7-17-19 20:15	20.86	1815	8.72	5.4	7-17-19 16:45	21.45	877	9.53	0.6	7-17-19 16:45	20.54	1032	8.52	9.3						10-17-19 13:15	4.84	1507	6.99	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-17-19 20:30	20.89	1813	8.73	5.1	7-17-19 17:00	21.45	880	9.44	0.8	7-17-19 17:00	20.56	1031	8.52	10.0						10-17-19 13:30	4.83	1512	7.01	0.0					
7-17-19 20:45	20.91	1815	8.72	4.4	7-17-19 17:15	21.42	889	6.85	0.6	7-17-19 17:15	20.55	1033	8.52	7.4						10-17-19 13:45	4.82	1512	7.01	0.0					
7-17-19 21:00	20.95	1811	8.74	5.0	7-17-19 17:30	21.43	887	6.85	0.5	7-17-19 17:30	20.54	1033	8.52	9.5						10-17-19 14:00	4.78	1513	7.05	0.0					
7-17-19 21:15	20.98	1813	8.74	3.5	7-17-19 17:45	21.47	888	6.95	0.4	7-17-19 17:45	20.56	1032	8.52	8.9						10-17-19 14:15	4.75	1512	7.15	0.0					
7-17-19 21:30	21.01	1813	8.72	5.5	7-17-19 18:00	21.51	887	7.68	0.9	7-17-19 18:00	20.61	1033	8.52	11.9						10-17-19 14:30	4.71	1506	7.12	0.0					
7-17-19 21:45	21.05	1817	8.75	3.7	7-17-19 18:15	21.59	883	8.53	0.5	7-17-19 18:15	20.72	1033	8.52	9.3						10-17-19 14:45	4.69	1506	7.17	0.0					
7-17-19 22:00	21.09	1813	8.73	5.9	7-17-19 18:30	21.67	886	8.38	4.2	7-17-19 18:30	20.77	1033	8.52	10.5						10-17-19 15:00	4.68	1508	7.13	0.0					
7-17-19 22:15	21.13	1814	8.77	4.5	7-17-19 18:45	21.69	886	7.69	7.1	7-17-19 18:45	20.81	1032	8.52	9.8						10-17-19 15:15	4.67	1516	7.09	0.0					
7-17-19 22:30	21.09	1812	8.77	4.9	7-17-19 19:00	21.70	888	8.28	1.0	7-17-19 19:00	20.88	1033	8.52	11.0						10-17-19 15:30	4.59	1513	7.36	0.0					
7-17-19 22:45	21.03	1813	8.78	3.9	7-17-19 19:15	21.73	883	8.15	0.7	7-17-19 19:15	20.97	1033	8.52	10.4						10-17-19 15:45	4.62	1513	7.05	0.0					
7-17-19 23:00	20.97	1810	8.81	5.2	7-17-19 19:30	21.79	885	7.53	0.6	7-17-19 19:30	21.03	1033	8.52	10.6						10-17-19 16:00	4.60	1513	7.17	0.0					
7-17-19 23:15	20.99	1808	8.80	4.2	7-17-19 19:45	21.81	883	8.79	0.9	7-17-19 19:45	21.04	1033	8.52	8.3						10-17-19 16:15	4.61	1512	7.13	0.0					
7-17-19 23:30	21.00	1807	8.80	13.1	7-17-19 20:00	21.80	878	9.26	0.7	7-17-19 20:00	21.00	1033	8.52	11.4						10-17-19 16:30	4.62	1513	7.05	0.0					
7-17-19 23:45	21.03	1808	8.80	4.1	7-17-19 20:15	21.82	877	9.30	0.5	7-17-19 20:15	21.02	1033	8.54	7.8						10-17-19 16:45	4.65	1511	6.97	0.0					
7-18-19 0:00	21.12	1820	8.82	5.6	7-17-19 20:30	21.86	877	9.49	0.5	7-17-19 20:30	21.14	1033	8.54	9.7						10-17-19 17:00	4.69	1515	7.03	0.0					
7-18-19 0:15	21.22	1810	8.82	4.1	7-17-19 20:45	21.92	885	8.51	1.1	7-17-19 20:45	21.17	1033	8.54	10.0						10-17-19 17:15	4.73	1520	6.97	0.0					
7-18-19 0:30	21.25	1810	8.79	5.3	7-17-19 21:00	21.94	881	7.44	0.5	7-17-19 21:00	21.20	1033	8.55	9.3						10-17-19 17:30	4.80	1514	7.00	0.0					
7-18-19 0:45	21.21	1803	8.80	4.0	7-17-19 21:15	21.99	884	8.28	0.7	7-17-19 21:15	21.25	1033	8.56	9.3						10-17-19 17:45	4.85	1529	7.00	0.0					
7-18-19 1:00	21.12	1811	8.81	25.7	7-17-19 21:30	21.98	885	8.24	0.9	7-17-19 21:30	21.28	1032	8.56	9.8						10-17-19 18:00	4.88	1513	7.02	0.0					
7-18-19 1:15	21.14	1809	8.81	3.9	7-17-19 21:45	22.02	886	7.95	0.6	7-17-19 21:45	21.32	1031	8.55	9.9						10-17-19 18:15	4.97	1509	7.01	0.0					
7-18-19 1:30	21.15	1810	8.81	10.9	7-17-19 22:00	22.06	887	7.41	0.4	7-17-19 22:00	21.35	1032	8.56	9.8						10-17-19 18:30	5.04	1512	7.00	0.0					
7-18-19 1:45	21.15	1812	8.81	3.7	7-17-19 22:15	22.07	886	8.10	0.5	7-17-19 22:15	21.37	1029	8.55	7.2						10-17-19 18:45	5.12	1517	7.01	0.0					
7-18-19 2:00	21.16	1811	8.80	5.5	7-17-19 22:30	21.84	872	9.66	1.3	7-17-19 22:30	21.35	1031	8.56	10.7						10-17-19 19:00	5.21	1510	7.01	0.0					
7-18-19 2:15	21.14	1815	8.81	4.1	7-17-19 22:45	21.86	873	9.52	1.2	7-17-19 22:45	21.27	1025	8.56	7.3						10-17-19 19:15	5.33	1514	7.02	0.0					
7-18-19 2:30	21.12	1815	8.86	5.9	7-17-19 23:00	21.88	878	9.44	0.9	7-17-19 23:00	21.25	1028	8.56	9.0						10-17-19 19:30	5.40	1509	7.01	0.0					
7-18-19 2:45	21.09	1812	8.87	4.0	7-17-19 23:15	21.97	871	9.33	0.9	7-17-19 23:15	21.25	1026	8.56	8.0						10-17-19 19:45	5.54	1511	7.02	0.0					
7-18-19 3:00	21.07	1809	8.87	7.1	7-17-19 23:30	22.03	869	9.90	0.8	7-17-19 23:30	21.23	1026	8.56	9.1						10-17-19 20:00	5.64	1503	7.05	0.0					
7-18-19 3:15	21.04	1811	8.87	4.4	7-17-19 23:45	22.08	870	9.91	0.7	7-17-19 23:45	21.31	1026	8.55	9.0						10-17-19 20:15	5.54	1507	7.21	0.0					
7-18-19 3:30	21.01	1809	8.87	100.3	7-18-19 0:00	22.11	875	9.94	0.8	7-18-19 0:00	21.33	1029	8.55	9.9						10-17-19 20:30	5.56	1506	7.19	0.0					
7-18-19 3:45	20.99	1813	8.87	3.9	7-18-19 0:15	22.18	878	9.94	1.5	7-18-19 0:15	21.43	1026	8.55	9.1						10-17-19 20:45	5.71	1505	7.20	0.0					
7-18-19 4:00	20.96	1803	8.85	7.0	7-18-19 0:30	22.15	880	8.95	0.9	7-18-19 0:30	21.41	1025	8.55	9.7						10-17-19 21:00	5.76	1507	7.18	0.0					
7-18-19 4:15	20.91	1819	8.86	4.3	7-18-19 0:45	22.18	883	7.35	0.5	7-18-19 0:45	21.35	1026	8.55	8.8						10-17-19 21:15	5.74	1513	7.22	0.0					
7-18-19 4:30	20.88	1810	8.88	5.0	7-18-19 1:00	22.20	884	7.57	0.5	7-18-19 1:00	21.29	1025	8.55	10.2						10-17-19 21:30	5.81	1515	7.15	0.0					
7-18-19 4:45	20.85	1809	8.86	4.0	7-18-19 1:15	22.19	882	8.13	0.5	7-18-19 1:15	21.33	1027	8.55	6.9						10-17-19 21:45	5.93	1503	7.14	0.0					
7-18-19 5:00	20.81	1811	8.85	6.8	7-18-19 1:30	22.18	878	9.13	0.6	7-18-19 1:30	21.30	1026	8.55	9.6						10-17-19 22:00	6.14	1508	7.20	0.0					
7-18-19 5:15	20.77	1811	8.85	3.2	7-18-19 1:45	22.16	878	9.18	0.7	7-18-19 1:45	21.31	1025	8.55	9.5						10-17-19 22:15	6.15	1506	7.17	0.0					
7-18-19 5:30	20.73	1809	8.86	5.5	7-18-19 2:00	22.17	878	9.24	0.6	7-18-19 2:00	21.30	1027	8.55	8.8						10-17-19 22:30	6.21	1505	7.21	0.0					
7-18-19 5:45	20.69	1817	8.86	3.4	7-18-19 2:15	22.13	881	8.56	0.6	7-18-19 2:15	21.32	1025	8.55	6.9						10-17-19 22:45	6.13	1505	7.17	0.4					
7-18-19 6:00	20.64	1809	8.86	6.4	7-18-19 2:30	22.11	880	8.90	0.7	7-18-19 2:30	21.27	1026	8.56	10.8						10-17-19 23:00	6.11	1503	7.14	0.0					
7-18-19 6:15	20.61	1816	8.85	3.3	7-18-19 2:45	22.09	876	9.55	0.5	7-18-19 2:45	21.28	1024	8.55	7.7						10-17-19 23:15	6.10	1506	7.14	0.0					
7-18-19 6:30	20.56	1810	8.85	13.8	7-18-19 3:00	22.02	878	8.87	0.5	7-18-19 3:00	21.26	1024	8.56	9.5						10-17-19 23:30	6.09	1509	7.14	0.0					
7-18-19 6:45	20.52	1810	8.85	3.5	7-18-19 3:15	22.01	876	9.50	0.5	7-18-19 3:15	21.24	1028	8.56	6.6						10-17-19 23:45	6.10	1505	7.11	0.0					
7-18-19 7:00	20.48	1809	8.84	5.2	7-18-19 3:30	22.00	881	8.69	0.5	7-18-19 3:30	21.22	1028	8.57	10.1						10-18-19 0:00	6.09	1524	7.08	0.0					
7-18-19 7:15	20.44	1812	8.84	3.1	7-18-19 3:45	21.93	879	8.91	0.5	7-18-19 3:45	21.18	1026	8.56	6.2						10-18-19 0:15	6.08	1509	7.08	0.0					
7-18-19 7:30	20.39	1812	8.84	6.3	7-18-19 4:00	21.88	882	7.51	0.3	7-18-19 4:00	21.14	1027	8.57	8.6						10-18-19 0:30	6.07	1508	7.10	0.0					
7-18-19 7:45	20.36	1813	8.85	3.2	7-18-19 4:15	21.82	884	7.09	0.4	7-18-19 4:15	21.11	1009	8.57	7.8						10-18-19 0:45	6.06	1506	7.09	0.0					
7-18-19 8:00	20.31	1813	8.84	4.1	7-18-19 4:30	21.80	876	9.47	0.4	7-18-19 4:30	21.05	1027	8.57	9.9						10-18-19 1:00	6.05	1496	7.06	0.0					
7-18-19 8:15	20.27	1813	8.84	3.0	7-18-19 4:45	21.75	881	8.45	0.4	7-18-19 4:45	20.99	1027	8.57	6.8						10-18-19 1:15	6.02	1510	7.04	0.0					
7-18-19 8:30	20.22	1811	8.84	4.7	7-18-19 5:00	21.69	873	9.61	0.4	7-18-19 5:00	20.95	1028	8.56	9.2						10-18-19 1:30	5.99	1509	7.03	0.0					
7-18-19 8:45	20.18	1811	8.83	3.1	7-18-19 5:15	21.67	874	9.81	0.3	7-18-19 5:15	20.90	1009	8.56	8.8						10-18-19 1:45	5.96	1507	7.04	0.0					
7-18-19 9:00	20.13	1813	8.82	6.5	7-18-19 5:30	21.69	874	9.60	0.3	7-18-19 5:30	20.85	1027	8.56	8.7						10-18-19 2:00	5.94	1507	7.05	0.0					
7-18-19 9:15	20.08	1815	8.82	3.8	7-18-19 5:45	21.59	874	9.50	0.3	7-18-19 5:45	20.79	1026	8.56	7.4						10-18-19 2:15	5.92	1507	7.03	0.0					
7-18-19 9:30	20.03	1809	8.84	4.8	7-18-19 6:00	21.56	876	9.21	0.3	7-18-19 6:00	20.74	1026	8.56	8.7						10-18-19 2:30	5.90	1510	7.04	0.0					
7-18-19 9:45	19.98	1814	8.83	2.9	7-18-19 6:15	21.53	878	8.61	0.5	7-18-19 6:15	20.69	1026	8.56	7.9						10-18-19 2:45	5.89	1509	7.05	0.0					
7-18-19 10:00	19.94	1813	8.82	7.7	7-18-19 6:30	21.46	877	8.70	0.5	7-18-19 6:30	20.65	1024	8.55	9.2						10-18-19 3:00	5.87	1507	7.11	0.0					
7-18-19 10:15	19.86	1812	8.83	2.9	7-18-19 6:45	21.46	874	9.01	0.3	7-18-19 6:45	20.62	1024	8.55	7.8						10-18-19 3:15	5.88	1508	7.10	0.0					
7-18-19 10:30	19.81	1811	8.82	6.5	7-18-19 7:00	21.47	872	9.61	0.5	7-18-19 7:00	20.57	1023	8.55	9.7						10-18-19 3:30	5.87	1511	7.11	0.0					
7-18-19 10:45	19.74	1811	8.83	2.5	7-18-19 7:15	21.40	869	9.49	22.5	7-18-19 7:15	20.55	1023	8.54	9.0						10-18-19 3:45	5.86	1508	7.10	0.0					
7-18-19 11:00	19.70	1816	8.81	4.8	7-18-19 7:30	21.36	872	9.28	0.3	7-18-19 7:30	20.51	1023	8.54	10.2						10-18-19 4:00	5.85	1518	7.14	0.0					
7-18-19 11:15	19.64	1813	8.82	2.6	7-18-19 7:45	21.34	876	9.15	0.4	7-18-19 7:45	20.48	1021	8.52	9.1						10-18-19 4:15	5.84	1510	7.11	0.0					
7-18-19 11:30	19.58	1806	8.81	4.5	7-18-19 8:00	21.27	878	8.57	0.4	7-18-19 8:00	20.43	1021	8.52	12.0						10-18-19 4:30	5.81	1510	7.11	0.0					
7-18-19 11:45	19.51	1813	8.81	3.0	7-18-19 8:15	21.23	877	8.57	0.2	7-18-19 8:15	20.40	1020	8.51	10.6						10-18-19 4:45	5.79	1505	7.07	0.0					
7-18-19 12:00	19.46	1812	8.81	5.6	7-18-19 8:30	21.15	878	8.19	0.3	7-18-19 8:30	20.35	1020	8.50	10.3						10-18-19 5:00	5.76	1512	7.08	0.0					
7-18-19 12:15	19.38	1814	8.80	3.9	7-18-19 8:45	21.20	877	8.70	0.3	7-18-19 8:45	20.32	1018	8.50	11.4						10-18-19 5:15	5.73	1493	7.05	0.0					
7-18-19 12:30	19.35	1813	8.80	3.6	7-18-19 9:00	21.14	880	8.33	0.2	7-18-19 9:00	20.27	1019	8.50	11.0						10-18-19 5:30	5.69	1497	7.04	0.0					
7-18-19 12:45	19.26	1812	8.80	3.0	7-18-19 9:15	21.08	880	7.97	5.3	7-18-19 9:15	20.21	1020	8.51	10.0						10-18-19 5:45	5.66	1504	7.07	0.0					
7-18-19 13:00	19.23	1813	8.80	5.2	7-18-19 9:30	21.06	881	7.79	0.2	7-18-19 9:30	20.16	1020	8.52	11.2						10-18-19 6:00	5.65	1511	7.04	0.0					
7-18-19 13:15	19.14	1814	8.79	3.1	7-18-19 9:45	20.99	878	7.41	0.2	7-18-19 9:45	20.08	1019	8.52	8.0						10-18-19 6:15	5.64	1510	7.03	0.0					
7-18-19 13:30	19.10	1813	8.79	3.9	7-18-19 10:00	20.93	870	9.05	0.3	7-18-19 10:00	20.04	1018	8.52	10.5						10-18-19 6:30	5.62	1511	7.03	0.0					
7-18-19 13:45	19.08	1814	8.79	3.3	7-18-19 10:15	20.82	877	8.23	0.3	7-18-19 10:15	19.98	1016	8.52	10.1						10-18-19 6:45	5.61	1509	7.04	0.0					
7-18-19 14:00	19.05	1814	8.79	8.2	7-18-19 10:30	20.76	873	8.88	0.2	7-18-19 10:30	19.93	1016	8.53	11.3						10-18-19 7:00	5.60	1511	7.06	0.0					
7-18-19 14:15	19.01	1814	8.79	2.6	7-18-19 10:45	20.73	868	9.50	0.2	7-18-19 10:45	19.89	1016	8.53	7.7						10-18-19 7:15	5.59	1518	7.04	0.0					
7-18-19 14:30	18.99	1816	8.79	3.5	7-18-19 11:00	20.79	866	9.82	0.3	7-18-19 11:00	19.85	1015	8.53	11.1						10-18-19 7:30	5.59	1475	7.04	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-18-19 14:45	18.99	1823	8.79	3.1	7-18-19 11:15	20.79	865	9.83	0.4	7-18-19 11:15	19.80	1017	8.53	10.1						10-18-19 7:45	5.58	1513	7.04	0.0					
7-18-19 15:00	18.97	1814	8.79	16.0	7-18-19 11:30	20.79	865	9.83	0.3	7-18-19 11:30	19.76	1016	8.52	10.8						10-18-19 8:00	5.58	1508	7.04	0.0					
7-18-19 15:15	18.96	1813	8.81	3.7	7-18-19 11:45	20.75	865	9.82	0.4	7-18-19 11:45	19.71	1021	8.52	8.5						10-18-19 8:15	5.59	1507	7.04	0.0					
7-18-19 15:30	18.98	1814	8.81	5.1	7-18-19 12:00	20.57	865	9.65	0.4	7-18-19 12:00	19.64	1016	8.53	11.5						10-18-19 8:30	5.59	1507	7.04	0.0					
7-18-19 15:45	18.98	1813	8.82	3.9	7-18-19 12:15	20.56	865	9.69	0.3	7-18-19 12:15	19.60	1017	8.52	10.7						10-18-19 8:45	5.57	1503	7.08	0.0					
7-18-19 16:00	18.98	1815	8.84	6.3	7-18-19 12:30	20.49	866	9.52	0.5	7-18-19 12:30	19.53	1016	8.52	12.0						10-18-19 9:00	5.57	1504	7.05	0.0					
7-18-19 16:15	19.00	1814	8.84	3.3	7-18-19 12:45	20.44	870	9.04	1.5	7-18-19 12:45	19.52	1016	8.52	9.7						10-18-19 9:15	5.55	1507	7.14	0.0					
7-18-19 16:30	19.02	1815	8.84	7.3	7-18-19 13:00	20.53	866	9.66	1.0	7-18-19 13:00	19.46	1016	8.53	10.5						10-18-19 9:30	5.53	1506	7.06	0.0					
7-18-19 16:45	19.01	1814	8.86	3.3	7-18-19 13:15	20.44	866	9.49	0.8	7-18-19 13:15	19.43	1016	8.52	10.7						10-18-19 9:45	5.57	1506	7.05	0.0					
7-18-19 17:00	19.00	1811	8.86	4.6	7-18-19 13:30	20.37	867	9.34	1.3	7-18-19 13:30	19.39	1016	8.53	10.4						10-18-19 10:00	5.57	1511	7.08	0.0					
7-18-19 17:15	19.01	1813	8.87	3.8	7-18-19 13:45	20.32	866	9.40	1.8	7-18-19 13:45	19.37	1016	8.52	9.1						10-18-19 10:15	5.56	1510	7.07	0.0					
7-18-19 17:30	19.01	1814	8.86	6.7	7-18-19 14:00	20.30	866	9.39	1.1	7-18-19 14:00	19.35	1015	8.53	12.1						10-18-19 10:30	5.56	1508	7.05	0.0					
7-18-19 17:45	19.01	1814	8.86	3.0	7-18-19 14:15	20.26	868	9.23	1.4	7-18-19 14:15	19.35	1015	8.53	11.4						10-18-19 10:45	5.55	1502	7.06	0.0					
7-18-19 18:00	19.00	1814	8.88	4.4	7-18-19 14:30	20.30	873	8.47	1.1	7-18-19 14:30	19.33	1016	8.53	11.2						10-18-19 11:00	5.55	1502	7.03	0.0					
7-18-19 18:15	19.01	1814	8.88	3.1	7-18-19 14:45	20.33	874	8.48	0.6	7-18-19 14:45	19.34	1016	8.53	8.5						10-18-19 11:15	5.53	1505	7.03	0.0					
7-18-19 18:30	19.02	1804	8.90	7.4	7-18-19 15:00	20.40	870	9.00	0.8	7-18-19 15:00	19.33	1017	8.53	13.3						10-18-19 11:30	5.52	1508	7.03	0.0					
7-18-19 18:45	19.02	1822	8.90	3.5	7-18-19 15:15	20.39	869	8.93	0.5	7-18-19 15:15	19.34	1016	8.53	9.9						10-18-19 11:45	5.50	1510	7.02	0.0					
7-18-19 19:00	19.08	1814	8.91	6.1	7-18-19 15:30	20.34	867	8.96	0.5	7-18-19 15:30	19.33	1015	8.54	11.9						10-18-19 12:00	5.50	1509	7.02	0.0					
7-18-19 19:15	19.08	1814	8.91	3.8	7-18-19 15:45	20.28	866	9.04	0.7	7-18-19 15:45	19.33	1016	8.54	12.5						10-18-19 12:15	5.50	1510	7.06	0.0					
7-18-19 19:30	19.05	1813	8.91	5.0	7-18-19 16:00	20.23	868	8.94	1.0	7-18-19 16:00	19.33	1016	8.54	12.2						10-18-19 12:30	5.48	1509	7.04	41.1					
7-18-19 19:45	19.06	1814	8.92	3.5	7-18-19 16:15	20.18	868	9.08	1.7	7-18-19 16:15	19.32	1016	8.54	10.8						10-18-19 12:45	5.46	1508	7.03	0.0					
7-18-19 20:00	19.04	1815	8.92	5.8	7-18-19 16:30	20.11	869	8.96	1.1	7-18-19 16:30	19.34	1015	8.54	12.3						10-18-19 13:00	5.45	1503	7.02	0.0					
7-18-19 20:15	19.06	1810	8.92	4.0	7-18-19 16:45	20.09	873	8.67	0.6	7-18-19 16:45	19.34	1015	8.54	13.9						10-18-19 13:15	5.43	1507	7.03	0.0					
7-18-19 20:30	19.09	1814	8.94	5.4	7-18-19 17:00	20.08	871	8.88	0.6	7-18-19 17:00	19.36	1015	8.55	11.6						10-18-19 13:30	5.41	1508	7.03	0.0					
7-18-19 20:45	19.17	1813	8.94	4.0	7-18-19 17:15	20.07	869	8.87	0.6	7-18-19 17:15	19.36	1015	8.55	10.0						10-18-19 13:45	5.40	1503	7.02	0.0					
7-18-19 21:00	19.27	1814	8.93	7.1	7-18-19 17:30	20.05	872	8.86	0.8	7-18-19 17:30	19.34	1015	8.55	13.6						10-18-19 14:00	5.38	1513	7.03	0.0					
7-18-19 21:15	19.37	1814	8.94	3.8	7-18-19 17:45	20.03	874	8.61	0.6	7-18-19 17:45	19.32	1015	8.55	10.4						10-18-19 14:15	5.36	1508	7.02	0.0					
7-18-19 21:30	19.33	1813	8.94	6.9	7-18-19 18:00	20.06	873	8.46	0.5	7-18-19 18:00	19.31	1015	8.55	13.7						10-18-19 14:30	5.33	1500	7.05	0.0					
7-18-19 21:45	19.40	1812	8.93	3.8	7-18-19 18:15	20.05	873	8.82	0.5	7-18-19 18:15	19.32	1015	8.55	12.2						10-18-19 14:45	5.32	1511	7.02	0.0					
7-18-19 22:00	19.37	1814	8.93	83.4	7-18-19 18:30	20.03	871	8.96	0.6	7-18-19 18:30	19.33	1016	8.56	12.8						10-18-19 15:00	5.29	1506	7.04	0.0					
7-18-19 22:15	19.36	1810	8.95	3.8	7-18-19 18:45	20.05	871	8.94	0.6	7-18-19 18:45	19.34	1016	8.56	14.4						10-18-19 15:15	5.28	1512	7.02	0.0					
7-18-19 22:30	19.31	1808	8.96	6.5	7-18-19 19:00	20.05	870	8.91	0.5	7-18-19 19:00	19.33	1016	8.56	12.8						10-18-19 15:30	5.28	1520	7.06	0.0					
7-18-19 22:45	19.30	1812	8.99	3.9	7-18-19 19:15	20.07	871	8.59	0.8	7-18-19 19:15	19.34	1016	8.56	10.7						10-18-19 15:45	5.25	1523	7.06	0.0					
7-18-19 23:00	19.30	1806	9.00	6.3	7-18-19 19:30	20.02	872	8.53	0.6	7-18-19 19:30	19.34	1016	8.57	10.4						10-18-19 16:00	5.21	1504	7.09	0.0					
7-18-19 23:15	19.32	1807	9.01	20.7	7-18-19 19:45	20.01	869	9.05	0.5	7-18-19 19:45	19.33	1015	8.58	9.3						10-18-19 16:15	5.19	1510	7.05	0.0					
7-18-19 23:30	19.36	1807	9.00	4.9	7-18-19 20:00	20.04	872	8.76	0.7	7-18-19 20:00	19.33	1016	8.57	12.0						10-18-19 16:30	5.18	1511	7.12	0.0					
7-18-19 23:45	19.41	1807	9.02	4.3	7-18-19 20:15	20.05	871	8.85	0.6	7-18-19 20:15	19.33	1016	8.58	10.9						10-18-19 16:45	5.21	1511	7.22	0.0					
7-19-19 0:00	19.41	1810	9.02	6.9	7-18-19 20:30	20.03	868	9.07	1.1	7-18-19 20:30	19.34	1016	8.58	15.7						10-18-19 17:00	5.23	1511	7.17	0.0					
7-19-19 0:15	19.42	1814	9.00	3.8	7-18-19 20:45	20.07	871	8.91	1.3	7-18-19 20:45	19.36	1016	8.58	9.9						10-18-19 17:15	5.24	1514	7.22	0.0					
7-19-19 0:30	19.37	1804	9.02	12.4	7-18-19 21:00	20.11	865	9.47	2.7	7-18-19 21:00	19.42	1016	8.59	14.6						10-18-19 17:30	5.28	1502	7.22	0.0					
7-19-19 0:45	19.35	1807	9.03	4.5	7-18-19 21:15	20.27	873	8.56	1.0	7-18-19 21:15	19.60	1016	8.59	9.0						10-18-19 17:45	5.30	1500	7.27	0.0					
7-19-19 1:00	19.37	1787	9.03	5.3	7-18-19 21:30	20.30	875	8.18	0.8	7-18-19 21:30	19.70	1016	8.59	11.5						10-18-19 18:00	5.35	1510	7.07	0.0					
7-19-19 1:15	19.39	1811	9.02	3.5	7-18-19 21:45	20.25	863	9.51	37.2	7-18-19 21:45	19.72	1016	8.59	12.4						10-18-19 18:15	5.40	1510	7.10	0.0					
7-19-19 1:30	19.37	1806	9.04	5.4	7-18-19 22:00	20.24	865	9.39	0.5	7-18-19 22:00	19.68	1016	8.59	11.8						10-18-19 18:30	5.45	1510	7.09	0.0					
7-19-19 1:45	19.37	1808	9.04	3.8	7-18-19 22:15	20.21	869	9.06	0.8	7-18-19 22:15	19.74	1016	8.59	10.5						10-18-19 18:45	5.53	1506	7.19	0.0					
7-19-19 2:00	19.36	1811	9.03	6.3	7-18-19 22:30	20.17	868	9.19	0.7	7-18-19 22:30	19.71	1015	8.59	10.0						10-18-19 19:00	5.57	1512	7.17	0.0					
7-19-19 2:15	19.34	1803	9.04	3.6	7-18-19 22:45	20.13	867	8.89	0.5	7-18-19 22:45	19.61	1016	8.59	9.5						10-18-19 19:15	5.64	1512	7.17	0.0					
7-19-19 2:30	19.32	1796	9.03	15.1	7-18-19 23:00	20.09	868	9.22	0.5	7-18-19 23:00	19.55	1015	8.59	16.0						10-18-19 19:30	5.74	1496	7.20	0.0					
7-19-19 2:45	19.31	1810	9.04	4.1	7-18-19 23:15	20.13	870	8.52	0.5	7-18-19 23:15	19.59	1015	8.60	10.5						10-18-19 19:45	5.78	1521	7.12	0.0					
7-19-19 3:00	19.27	1803	9.03	6.0	7-18-19 23:30	20.20	870	8.90	0.7	7-18-19 23:30	19.59	1016	8.60	15.0						10-18-19 20:00	5.73	1513	7.07	0.0					
7-19-19 3:15	19.25	1802	9.04	5.0	7-18-19 23:45	20.24	870	8.94	1.0	7-18-19 23:45	19.60	1016	8.60	12.5						10-18-19 20:15	5.78	1508	7.04	0.0					
7-19-19 3:30	19.24	1812	9.01	7.1	7-19-19 0:00	20.24	871	8.98	1.0	7-19-19 0:00	19.62	1015	8.60	10.9						10-18-19 20:30	5.86	1446	7.07	0.0					
7-19-19 3:45	19.22	1809	9.03	4.6	7-19-19 0:15	20.20	871	8.95	1.2	7-19-19 0:15	19.59	1015	8.60	11.0						10-18-19 20:45	5.89	1492	7.12	0.0					
7-19-19 4:00	19.18	1802	9.04	8.1	7-19-19 0:30	20.20	868	9.26	1.3	7-19-19 0:30	19.59	1016	8.60	14.1						10-18-19 21:00	5.86	1551	7.24	0.0					
7-19-19 4:15	19.15	1802	9.03	6.9	7-19-19 0:45	20.20	871	8.91	1.3	7-19-19 0:45	19.57	1016	8.60	10.8						10-18-19 21:15	6.02	1473	7.27	1.8					
7-19-19 4:30	19.12	1800	9.01	8.3	7-19-19 1:00	20.24	871	8.99	0.9	7-19-19 1:00	19.59	1016	8.60	15.9						10-18-19 21:30	5.96	1501	7.23	0.0					
7-19-19 4:45	19.08	1810	9.03	7.1	7-19-19 1:15	20.24	870	9.02	0.9	7-19-19 1:15	19.56	1016	8.60	11.7						10-18-19 22:00	6.07	1513	7.13	0.1					
7-19-19 5:00	19.06	1790	8.99	19.1	7-19-19 1:30	20.23	868	9.01	1.3	7-19-19 1:30	19.55	1016	8.60	15.6						10-18-19 22:15	6.11	1501	7.18	2.2					
7-19-19 5:15	19.02	1803	9.01	7.4	7-19-19 1:45	20.22	868	9.05	1.5	7-19-19 1:45	19.55	1016	8.60	11.0						10-18-19 22:30	6.10	1510	7.25	0.2					
7-19-19 5:30	19.00	1796	9.01	9.9	7-19-19 2:00	20.19	871	8.95	0.8	7-19-19 2:00	19.54	1016	8.60	14.9						10-18-19 22:45	6.10	1509	7.23	2.4					
7-19-19 5:45	18.98	1790	9.01	6.8	7-19-19 2:15	20.17	870	9.01	0.9	7-19-19 2:15	19.53	1016	8.59	9.6						10-18-19 23:00	6.10	1510	7.22	0.0					
7-19-19 6:00	18.94	1802	9.00	11.7	7-19-19 2:30	20.13	874	8.45	1.0	7-19-19 2:30	19.50	1016	8.61	13.9						10-18-19 23:15	6.07	1511	7.23	0.0					
7-19-19 6:15	18.92	1804	9.01	6.3	7-19-19 2:45	20.11	874	8.52	0.7	7-19-19 2:45	19.49	1016	8.60	9.8						10-18-19 23:30	6.04	1504	7.17	0.0					
7-19-19 6:30	18.88	1801	8.99	9.8	7-19-19 3:00	20.12	875	8.52	0.7	7-19-19 3:00	19.46	1016	8.60	14.1						10-18-19 23:45	6.05	1505	7.21	0.1					
7-19-19 6:45	18.86	1807	8.99	6.5	7-19-19 3:15	20.10	876	8.29	0.7	7-19-19 3:15	19.44	1016	8.60	10.4						10-19-19 0:00	6.03	1504	7.48	0.0					
7-19-19 7:00	18.81	1796	8.99	9.1	7-19-19 3:30	20.07	872	8.74	0.9	7-19-19 3:30	19.44	1016	8.60	13.5						10-19-19 0:15	6.01	1506	7.50	0.8					
7-19-19 7:15	18.82	1799	8.97	6.2	7-19-19 3:45	20.06	870	9.00	0.6	7-19-19 3:45	19.40	1016	8.60	10.4						10-19-19 0:30	6.00	1499	7.46	0.0					
7-19-19 7:30	18.79	1793	8.98	7.7	7-19-19 4:00	20.06	868	9.00	0.7	7-19-19 4:00	19.37	1016	8.61	13.9						10-19-19 0:45	5.99	1504	7.37	1.4					
7-19-19 7:45	18.76	1802	8.97	6.2	7-19-19 4:15	20.02	869	8.94	0.5	7-19-19 4:15	19.36	1016	8.60	11.0						10-19-19 1:00	5.98	1505	7.39	0.4					
7-19-19 8:00	18.72	1778	8.97	10.8	7-19-19 4:30	19.97	874	8.34	0.6	7-19-19 4:30	19.34	1017	8.60	14.2						10-19-19 1:15	5.97	1502	7.39	0.1					
7-19-19 8:15	18.69	1794	8.97	5.4	7-19-19 4:45	19.96	872	8.62	0.7	7-19-19 4:45	19.30	1016	8.60	13.1						10-19-19 1:30	5.97	1503	7.36	0.0					
7-19-19 8:30	18.67	1790	8.97	8.8	7-19-19 5:00	19.94	873	8.60	0.5	7-19-19 5:00	19.28	1016	8.60	13.0						10-19-19 1:45	5.98	1500	7.33	1.3					
7-19-19 8:45	18.65	1799	8.97	6.7	7-19-19 5:15	19.89	870	9.04	0.5	7-19-19 5:15	19.26	1016	8.60	12.6						10-19-19 2:00	5.96	1492	7.31	0.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-19-19 9:00	18.63	1799	8.96	7.1	7-19-19 5:30	19.90	871	8.73	0.9	7-19-19 5:30	19.23	1016	8.60	14.7						10-19-19 2:15	5.94	1498	7.27	0.0					
7-19-19 9:15	18.61	1797	8.97	5.4	7-19-19 5:45	19.89	869	9.02	0.5	7-19-19 5:45	19.18	1014	8.61	9.1						10-19-19 2:30	5.95	1509	7.17	0.0					
7-19-19 9:30	18.59	1776	8.96	8.5	7-19-19 6:00	19.89	867	8.88	1.1	7-19-19 6:00	19.17	1014	8.61	11.7						10-19-19 2:45	5.95	1506	7.29	0.0					
7-19-19 9:45	18.56	1795	8.96	5.2	7-19-19 6:15	19.86	870	8.83	0.6	7-19-19 6:15	19.14	1014	8.60	8.5						10-19-19 3:00	5.94	1504	7.27	2.2					
7-19-19 10:00	18.53	1794	8.95	7.4	7-19-19 6:30	19.83	870	8.77	0.5	7-19-19 6:30	19.12	1015	8.60	13.2						10-19-19 3:15	5.94	1504	7.42	0.0					
7-19-19 10:15	18.50	1796	8.95	6.2	7-19-19 6:45	19.81	871	8.70	0.6	7-19-19 6:45	19.08	1015	8.60	7.8						10-19-19 3:30	5.92	1510	7.45	0.0					
7-19-19 10:30	18.47	1795	8.95	7.8	7-19-19 7:00	19.79	871	8.81	1.0	7-19-19 7:00	19.07	1015	8.60	12.5						10-19-19 3:45	5.90	1504	7.51	0.0					
7-19-19 10:45	18.45	1793	8.93	6.2	7-19-19 7:15	19.78	870	8.84	0.6	7-19-19 7:15	19.05	1015	8.60	9.3						10-19-19 4:00	5.91	1503	7.43	0.0					
7-19-19 11:00	18.43	1795	8.93	6.2	7-19-19 7:30	19.76	868	9.02	0.6	7-19-19 7:30	19.03	1014	8.60	12.1						10-19-19 4:15	5.89	1498	7.35	33.7					
7-19-19 11:15	18.41	1797	8.94	6.1	7-19-19 7:45	19.74	869	8.79	0.4	7-19-19 7:45	19.00	1014	8.60	10.1						10-19-19 4:30	5.87	1500	7.39	0.0					
7-19-19 11:30	18.39	1796	8.94	10.9	7-19-19 8:00	19.73	871	8.79	0.6	7-19-19 8:00	18.98	1014	8.60	11.7						10-19-19 4:45	5.85	1499	7.32	0.0					
7-19-19 11:45	18.36	1797	8.93	5.4	7-19-19 8:15	19.69	870	8.65	0.6	7-19-19 8:15	18.95	1014	8.60	8.6						10-19-19 5:00	5.82	1487	7.29	0.0					
7-19-19 12:00	18.33	1797	8.91	7.7	7-19-19 8:30	19.67	872	8.48	0.5	7-19-19 8:30	18.96	1015	8.60	11.3						10-19-19 5:15	5.80	1507	7.27	0.0					
7-19-19 12:15	18.30	1785	8.92	6.0	7-19-19 8:45	19.66	871	8.48	0.5	7-19-19 8:45	18.92	1015	8.60	7.9						10-19-19 5:30	5.76	1508	7.29	0.0					
7-19-19 12:30	18.29	1795	8.91	6.8	7-19-19 9:00	19.62	871	8.52	0.9	7-19-19 9:00	18.91	1015	8.60	13.1						10-19-19 5:45	5.75	1506	7.29	0.0					
7-19-19 12:45	18.26	1797	8.90	5.2	7-19-19 9:15	19.60	868	8.82	0.4	7-19-19 9:15	18.89	1015	8.60	10.0						10-19-19 6:00	5.74	1508	7.37	0.0					
7-19-19 13:00	18.23	1787	8.90	7.5	7-19-19 9:30	19.60	870	8.61	0.4	7-19-19 9:30	18.89	1016	8.60	14.2						10-19-19 6:15	5.71	1502	7.40	0.0					
7-19-19 13:15	18.22	1796	8.89	5.5	7-19-19 9:45	19.58	870	8.69	0.3	7-19-19 9:45	18.88	1015	8.60	8.3						10-19-19 6:30	5.69	1500	7.39	0.0					
7-19-19 13:30	18.20	1790	8.89	17.4	7-19-19 10:00	19.56	874	8.15	0.6	7-19-19 10:00	18.88	1015	8.60	12.1						10-19-19 6:45	5.67	1497	7.38	0.0					
7-19-19 13:45	18.17	1794	8.90	5.2	7-19-19 10:15	19.55	870	8.53	0.6	7-19-19 10:15	18.85	1015	8.59	10.4						10-19-19 7:00	5.67	1494	7.38	0.0					
7-19-19 14:00	18.19	1794	8.89	6.0	7-19-19 10:30	19.52	873	8.35	0.4	7-19-19 10:30	18.84	1016	8.59	11.6						10-19-19 7:15	5.67	1503	7.36	0.7					
7-19-19 14:15	18.17	1790	8.89	5.0	7-19-19 10:45	19.48	870	8.74	0.3	7-19-19 10:45	18.83	1016	8.59	8.4						10-19-19 7:30	5.66	1477	7.36	0.0					
7-19-19 14:30	18.15	1791	8.88	6.5	7-19-19 11:00	19.48	874	8.22	0.3	7-19-19 11:00	18.80	1016	8.59	12.4						10-19-19 7:45	5.65	1502	7.37	0.0					
7-19-19 14:45	18.15	1793	8.90	6.4	7-19-19 11:15	19.45	872	8.31	0.9	7-19-19 11:15	18.77	1016	8.59	8.9						10-19-19 8:00	5.64	1505	7.36	0.0					
7-19-19 15:00	18.14	1792	8.89	6.7	7-19-19 11:30	19.42	874	7.60	0.4	7-19-19 11:30	18.76	1016	8.59	12.1						10-19-19 8:15	5.63	1505	7.34	0.0					
7-19-19 15:15	18.13	1794	8.89	5.6	7-19-19 11:45	19.42	870	8.73	0.5	7-19-19 11:45	18.74	1016	8.59	9.7						10-19-19 8:30	5.63	1504	7.34	0.0					
7-19-19 15:30	18.12	1791	8.87	6.9	7-19-19 12:00	19.41	869	8.92	0.3	7-19-19 12:00	18.70	1016	8.59	13.1						10-19-19 8:45	5.63	1502	7.34	0.1					
7-19-19 15:45	18.13	1794	8.87	5.2	7-19-19 12:15	19.38	874	8.21	0.3	7-19-19 12:15	18.69	1016	8.59	9.6						10-19-19 9:00	5.61	1497	7.34	0.0					
7-19-19 16:00	18.15	1793	8.87	6.5	7-19-19 12:30	19.38	872	8.53	0.4	7-19-19 12:30	18.68	1016	8.59	12.3						10-19-19 9:15	5.60	1503	7.33	0.0					
7-19-19 16:15	18.17	1793	8.88	5.1	7-19-19 12:45	19.39	873	8.56	0.3	7-19-19 12:45	18.66	1016	8.59	10.0						10-19-19 9:30	5.58	1501	7.33	0.0					
7-19-19 16:30	18.18	1795	8.87	6.7	7-19-19 13:00	19.38	870	8.76	0.2	7-19-19 13:00	18.63	1016	8.59	12.4						10-19-19 9:45	5.55	1495	7.30	0.0					
7-19-19 16:45	18.21	1792	8.87	5.3	7-19-19 13:15	19.38	872	8.53	0.4	7-19-19 13:15	18.61	1016	8.59	11.2						10-19-19 10:00	5.56	1500	7.31	0.0					
7-19-19 17:00	18.22	1793	8.87	6.6	7-19-19 13:30	19.36	872	8.33	0.3	7-19-19 13:30	18.60	1015	8.59	13.7						10-19-19 10:15	5.53	1467	7.31	0.0					
7-19-19 17:15	18.20	1793	8.87	5.6	7-19-19 13:45	19.32	871	8.65	0.3	7-19-19 13:45	18.57	1015	8.59	9.1						10-19-19 10:30	5.53	1503	7.38	0.0					
7-19-19 17:30	18.22	1793	8.87	6.8	7-19-19 14:00	19.29	872	8.56	0.3	7-19-19 14:00	18.56	1014	8.59	12.3						10-19-19 10:45	5.52	1499	7.37	0.0					
7-19-19 17:45	18.23	1790	8.89	5.3	7-19-19 14:15	19.24	873	8.37	0.3	7-19-19 14:15	18.55	1014	8.59	8.1						10-19-19 11:00	5.52	1472	7.35	0.0					
7-19-19 18:00	18.26	1790	8.90	8.7	7-19-19 14:30	19.22	875	7.81	0.4	7-19-19 14:30	18.54	1014	8.59	13.4						10-19-19 11:15	5.53	1528	7.34	0.0					
7-19-19 18:15	18.34	1805	8.90	5.3	7-19-19 14:45	19.21	876	7.59	0.4	7-19-19 14:45	18.53	1014	8.59	12.0						10-19-19 11:30	5.52	1489	7.33	0.0					
7-19-19 18:30	18.37	1790	8.90	13.9	7-19-19 15:00	19.22	877	7.72	0.3	7-19-19 15:00	18.53	1014	8.59	14.4						10-19-19 11:45	5.52	1503	7.34	0.0					
7-19-19 18:45	18.45	1790	8.91	5.3	7-19-19 15:15	19.18	877	8.62	1.5	7-19-19 15:15	18.53	1014	8.59	10.0						10-19-19 12:00	5.50	1501	7.34	0.0					
7-19-19 19:00	18.49	1787	8.92	7.4	7-19-19 15:30	19.16	882	7.68	0.6	7-19-19 15:30	18.52	1014	8.59	12.9						10-19-19 12:15	5.50	1502	7.32	0.0					
7-19-19 19:15	18.55	1789	8.92	5.1	7-19-19 15:45	19.14	881	7.99	0.5	7-19-19 15:45	18.53	1014	8.59	8.7						10-19-19 12:30	5.49	1507	7.35	1.7					
7-19-19 19:30	18.66	1788	8.92	5.8	7-19-19 16:00	19.15	881	7.50	0.4	7-19-19 16:00	18.54	1014	8.59	12.4						10-19-19 12:45	5.46	1504	7.36	0.0					
7-19-19 19:45	18.78	1788	8.91	5.8	7-19-19 16:15	19.14	882	7.41	0.4	7-19-19 16:15	18.53	1014	8.59	9.5						10-19-19 13:00	5.45	1527	7.34	1.5					
7-19-19 20:00	18.90	1790	8.92	7.3	7-19-19 16:30	19.13	886	7.76	0.9	7-19-19 16:30	18.56	1015	8.59	13.2						10-19-19 13:15	5.44	1483	7.30	0.0					
7-19-19 20:15	18.90	1788	8.92	6.0	7-19-19 16:45	19.11	888	8.58	2.0	7-19-19 16:45	18.61	1017	8.59	10.1						10-19-19 13:30	5.43	1500	7.30	3.1					
7-19-19 20:30	19.02	1785	8.93	7.0	7-19-19 17:00	19.07	883	8.65	1.2	7-19-19 17:00	18.63	1018	8.60	13.9						10-19-19 13:45	5.42	1507	7.32	0.6					
7-19-19 20:45	18.86	1780	8.99	6.8	7-19-19 17:15	19.02	880	8.82	2.0	7-19-19 17:15	18.62	1000	8.60	8.8						10-19-19 14:00	5.41	1502	7.37	15.0					
7-19-19 21:00	18.97	1784	8.94	10.8	7-19-19 17:30	19.04	883	8.81	1.4	7-19-19 17:30	18.66	1017	8.60	16.3						10-19-19 14:15	5.40	1499	7.32	44.2					
7-19-19 21:15	19.03	1784	8.94	5.6	7-19-19 17:45	19.04	888	8.84	1.1	7-19-19 17:45	18.74	1017	8.61	9.2						10-19-19 14:30	5.39	1503	7.35	0.0					
7-19-19 21:30	19.17	1783	8.95	8.3	7-19-19 18:00	19.06	890	8.90	2.0	7-19-19 18:00	18.73	1017	8.60	11.7						10-19-19 14:45	5.38	1488	7.33	0.0					
7-19-19 21:45	19.35	1783	8.95	7.8	7-19-19 18:15	19.11	895	8.60	1.0	7-19-19 18:15	18.78	1018	8.60	11.7						10-19-19 15:00	5.35	1518	7.31	0.0					
7-19-19 22:00	19.47	1782	8.93	8.1	7-19-19 18:30	19.21	901	7.60	1.0	7-19-19 18:30	18.87	1018	8.61	15.2						10-19-19 15:15	5.35	1501	7.34	0.0					
7-19-19 22:15	19.50	1767	8.93	9.0	7-19-19 18:45	19.27	898	8.31	1.2	7-19-19 18:45	18.92	1018	8.60	10.1						10-19-19 15:30	5.35	1499	7.35	0.0					
7-19-19 22:30	19.57	1761	8.92	10.0	7-19-19 19:00	19.30	894	9.16	0.9	7-19-19 19:00	18.96	1018	8.60	16.8						10-19-19 15:45	5.33	1502	7.31	12.2					
7-19-19 22:45	19.80	1769	8.93	8.4	7-19-19 19:15	19.32	893	9.02	1.1	7-19-19 19:15	19.14	1019	8.61	11.1						10-19-19 16:00	5.32	1500	7.36	0.0					
7-19-19 23:00	20.01	1770	8.94	8.8	7-19-19 19:30	19.32	902	9.00	1.9	7-19-19 19:30	19.10	1017	8.60	13.7						10-19-19 16:15	5.30	1509	7.30	0.0					
7-19-19 23:15	20.22	1781	8.95	6.4	7-19-19 19:45	19.36	916	8.75	1.6	7-19-19 19:45	19.18	1018	8.60	11.8						10-19-19 16:30	5.29	1500	7.32	0.0					
7-19-19 23:30	20.14	1773	8.94	6.8	7-19-19 20:00	19.43	924	8.81	1.0	7-19-19 20:00	19.28	1019	8.61	13.7						10-19-19 16:45	5.28	1498	7.35	0.0					
7-19-19 23:45	19.99	1763	8.94	6.8	7-19-19 20:15	19.46	925	8.69	1.7	7-19-19 20:15	19.29	1019	8.61	10.9						10-19-19 17:00	5.28	1504	7.37	0.0					
7-20-19 0:00	20.07	1764	8.96	8.6	7-19-19 20:30	19.46	931	8.79	1.0	7-19-19 20:30	19.35	1018	8.61	13.9						10-19-19 17:15	5.29	1501	7.40	0.0					
7-20-19 0:15	20.16	1774	8.96	5.9	7-19-19 20:45	19.45	943	8.50	0.7	7-19-19 20:45	19.40	1018	8.61	12.3						10-19-19 17:30	5.30	1506	7.41	0.0					
7-20-19 0:30	20.10	1760	8.94	10.4	7-19-19 21:00	19.49	950	8.35	0.7	7-19-19 21:00	19.36	1019	8.61	18.2						10-19-19 17:45	5.31	1504	7.38	0.0					
7-20-19 0:45	20.22	1770	8.97	6.5	7-19-19 21:15	19.51	955	7.98	0.9	7-19-19 21:15	19.36	1019	8.61	10.6						10-19-19 18:00	5.31	1503	7.39	0.0					
7-20-19 1:00	20.35	1774	8.96	8.7	7-19-19 21:30	19.63	952	7.65	1.1	7-19-19 21:30	19.38	1019	8.61	14.8						10-19-19 18:15	5.33	1500	7.32	0.0					
7-20-19 1:15	20.34	1770	8.98	6.6	7-19-19 21:45	19.79	944	7.76	1.1	7-19-19 21:45	19.51	1019	8.61	10.2						10-19-19 18:30	5.33	1502	7.37	0.0					
7-20-19 1:30	20.39	1744	8.93	9.0	7-19-19 22:00	19.90	947	7.82	1.2	7-19-19 22:00	19.74	1019	8.61	16.3						10-19-19 18:45	5.35	1501	7.31	0.0					
7-20-19 1:45	20.27	1775	8.91	7.6	7-19-19 22:15	19.89	936	8.53	0.9	7-19-19 22:15	19.75	1019	8.61	11.4						10-19-19 19:00	5.35	1482	7.27	92.9					
7-20-19 2:00	20.35	1754	8.96	10.5	7-19-19 22:30	19.91	935	8.75	1.2	7-19-19 22:30	19.95	1019	8.63	17.7						10-19-19 19:15	5.35	1488	7.40	6.7					
7-20-19 2:15	20.26	1748	8.93	7.7	7-19-19 22:45	19.94	932	8.57	1.3	7-19-19 22:45	20.02	1019	8.62	11.6						10-19-19 19:30	5.36	1483	7.34	13.6					
7-20-19 2:30	20.22	1742	8.92	9.7	7-19-19 23:00	19.91	933	8.62	1.0	7-19-19 23:00	20.01	1019	8.62	15.4						10-19-19 19:45	5.37	1476	7.29	3.2					
7-20-19 2:45	20.19	1748	8.90	7.7	7-19-19 23:15	19.92	934	8.50	0.9	7-19-19 23:15	20.07	1019	8.62	10.1						10-19-19 20:00	5.38	1502	7.30	2.2					
7-20-19 3:00	20.13	1752	8.91	12.9	7-19-19 23:30	19.86	935	8.56	0.8	7-19-19 23:30	20.02	1019	8.62	14.6						10-19-19 20:15	5.40	1503	7.29	1.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-20-19 3:15	20.10	1736	8.91	8.7	7-19-19 23:45	19.85	934	8.54	0.9	7-19-19 23:45	19.98	1019	8.62	11.5						10-19-19 20:30	5.42	1503	7.28	1.1					
7-20-19 3:30	20.06	1738	8.90	9.4	7-20-19 0:00	19.95	927	9.14	1.2	7-20-19 0:00	20.09	1019	8.63	15.2						10-19-19 20:45	5.45	1501	7.29	0.6					
7-20-19 3:45	20.04	1743	8.89	7.1	7-20-19 0:15	20.07	923	9.30	1.0	7-20-19 0:15	20.11	1019	8.63	9.5						10-19-19 21:00	5.47	1499	7.29	4.5					
7-20-19 4:00	20.00	1735	8.89	11.6	7-20-19 0:30	20.10	929	9.24	2.0	7-20-19 0:30	20.16	1020	8.63	14.4						10-19-19 21:15	5.47	1504	7.28	0.2					
7-20-19 4:15	19.97	1737	8.91	7.7	7-20-19 0:45	20.21	940	8.49	1.3	7-20-19 0:45	20.23	1020	8.63	10.0						10-19-19 21:30	5.48	1503	7.30	0.8					
7-20-19 4:30	19.94	1742	8.93	11.2	7-20-19 1:00	20.31	946	8.08	1.1	7-20-19 1:00	20.22	1019	8.63	16.9						10-19-19 21:45	5.49	1512	7.27	0.3					
7-20-19 4:45	19.89	1741	8.92	7.3	7-20-19 1:15	20.35	937	8.90	1.7	7-20-19 1:15	20.36	1019	8.63	10.3						10-19-19 22:00	5.49	1503	7.31	5.4					
7-20-19 5:00	19.84	1743	8.92	8.0	7-20-19 1:30	20.38	950	7.48	1.2	7-20-19 1:30	20.46	1020	8.64	14.3						10-19-19 22:15	5.49	1498	7.31	0.8					
7-20-19 5:15	19.81	1744	8.95	6.8	7-20-19 1:45	20.20	935	9.25	1.3	7-20-19 1:45	20.34	1019	8.63	9.1						10-19-19 22:30	5.50	1499	7.27	0.8					
7-20-19 5:30	19.72	1748	8.97	8.0	7-20-19 2:00	20.24	948	7.35	1.6	7-20-19 2:00	20.33	1020	8.63	16.0						10-19-19 22:45	5.51	1502	7.23	0.6					
7-20-19 5:45	19.72	1755	8.99	4.9	7-20-19 2:15	20.16	938	8.84	0.9	7-20-19 2:15	20.29	1019	8.63	9.0						10-19-19 23:00	5.52	1494	7.22	0.8					
7-20-19 6:00	19.63	1749	8.97	8.9	7-20-19 2:30	20.17	935	8.85	1.1	7-20-19 2:30	20.25	1020	8.64	16.6						10-19-19 23:15	5.51	1502	7.24	0.6					
7-20-19 6:15	19.58	1749	8.96	5.3	7-20-19 2:45	20.18	939	8.54	1.3	7-20-19 2:45	20.23	1020	8.63	9.5						10-19-19 23:30	5.52	1531	7.21	0.4					
7-20-19 6:30	19.55	1725	8.96	7.4	7-20-19 3:00	20.20	940	7.93	0.7	7-20-19 3:00	20.21	1020	8.64	18.4						10-19-19 23:45	5.51	1501	7.22	0.2					
7-20-19 6:45	19.51	1746	8.96	6.0	7-20-19 3:15	20.17	939	8.62	0.9	7-20-19 3:15	20.20	1020	8.63	9.4						10-20-19 0:00	5.50	1505	7.27	0.8					
7-20-19 7:00	19.46	1759	8.96	8.1	7-20-19 3:30	20.15	940	8.36	0.9	7-20-19 3:30	20.18	1019	8.63	20.3						10-20-19 0:15	5.49	1499	7.27	0.5					
7-20-19 7:15	19.43	1745	8.95	6.3	7-20-19 3:45	20.11	941	8.59	1.3	7-20-19 3:45	20.13	1019	8.63	13.3						10-20-19 0:30	5.48	1498	7.28	0.4					
7-20-19 7:30	19.38	1737	8.95	8.7	7-20-19 4:00	20.12	945	8.16	0.7	7-20-19 4:00	20.11	1019	8.64	19.3						10-20-19 0:45	5.47	1497	7.26	0.5					
7-20-19 7:45	19.34	1749	8.95	7.7	7-20-19 4:15	20.08	943	8.16	1.1	7-20-19 4:15	20.07	1019	8.64	10.9						10-20-19 1:00	5.45	1498	7.27	1.2					
7-20-19 8:00	19.31	1743	8.96	6.8	7-20-19 4:30	20.03	936	8.66	0.8	7-20-19 4:30	20.02	1019	8.64	14.8						10-20-19 1:15	5.44	1503	7.27	0.1					
7-20-19 8:15	19.28	1745	8.97	4.9	7-20-19 4:45	20.02	948	7.88	0.8	7-20-19 4:45	19.98	1019	8.64	7.8						10-20-19 1:30	5.43	1499	7.25	0.1					
7-20-19 8:30	19.24	1742	8.97	6.9	7-20-19 5:00	20.03	948	8.36	0.8	7-20-19 5:00	19.95	1019	8.64	16.0						10-20-19 1:45	5.40	1515	7.25	0.4					
7-20-19 8:45	19.19	1740	8.95	9.9	7-20-19 5:15	20.01	949	8.31	1.4	7-20-19 5:15	19.90	1019	8.64	11.1						10-20-19 2:00	5.36	1481	7.27	0.2					
7-20-19 9:00	19.16	1733	8.94	10.2	7-20-19 5:30	19.97	954	7.68	0.7	7-20-19 5:30	19.87	1019	8.64	18.0						10-20-19 2:15	5.31	1494	7.28	0.4					
7-20-19 9:15	19.14	1755	8.96	5.6	7-20-19 5:45	19.95	955	7.96	1.8	7-20-19 5:45	19.85	1019	8.64	7.4						10-20-19 2:30	5.29	1502	7.27	0.2					
7-20-19 9:30	19.11	1731	8.96	7.9	7-20-19 6:00	19.90	957	7.40	0.9	7-20-19 6:00	19.80	1019	8.64	17.0						10-20-19 2:45	5.27	1500	7.28	0.3					
7-20-19 9:45	19.06	1742	8.97	5.0	7-20-19 6:15	19.88	957	7.53	0.8	7-20-19 6:15	19.73	1019	8.64	9.0						10-20-19 3:00	5.25	1477	7.20	1.1					
7-20-19 10:00	19.03	1737	8.95	9.1	7-20-19 6:30	19.83	956	8.10	1.0	7-20-19 6:30	19.69	1019	8.64	14.9						10-20-19 3:15	5.22	1489	7.32	0.0					
7-20-19 10:15	18.97	1740	8.94	5.9	7-20-19 6:45	19.80	957	7.34	1.0	7-20-19 6:45	19.63	1019	8.64	11.0						10-20-19 3:30	5.21	1496	7.27	0.0					
7-20-19 10:30	18.94	1729	8.94	7.8	7-20-19 7:00	19.76	953	8.36	0.8	7-20-19 7:00	19.59	1019	8.65	16.0						10-20-19 3:45	5.18	1494	7.26	0.1					
7-20-19 10:45	18.90	1748	8.93	5.1	7-20-19 7:15	19.73	954	8.25	0.8	7-20-19 7:15	19.56	1019	8.64	10.6						10-20-19 4:00	5.17	1481	7.29	21.5					
7-20-19 11:00	18.86	1727	8.92	6.7	7-20-19 7:30	19.71	954	8.29	0.8	7-20-19 7:30	19.52	1019	8.65	14.7						10-20-19 4:15	5.15	1505	7.24	0.7					
7-20-19 11:15	18.80	1733	8.92	5.2	7-20-19 7:45	19.69	953	8.47	0.8	7-20-19 7:45	19.48	1018	8.64	9.8						10-20-19 4:30	5.15	1502	7.21	0.7					
7-20-19 11:30	18.75	1731	8.91	9.4	7-20-19 8:00	19.66	956	7.69	0.9	7-20-19 8:00	19.44	1019	8.64	14.8						10-20-19 4:45	5.14	1505	7.24	0.5					
7-20-19 11:45	18.72	1733	8.91	4.8	7-20-19 8:15	19.64	953	8.38	1.0	7-20-19 8:15	19.41	1018	8.64	9.6						10-20-19 5:00	5.11	1506	7.31	0.7					
7-20-19 12:00	18.69	1741	8.92	16.4	7-20-19 8:30	19.62	949	8.86	0.9	7-20-19 8:30	19.37	1019	8.64	13.5						10-20-19 5:15	5.10	1498	7.31	0.1					
7-20-19 12:15	18.65	1722	8.90	6.1	7-20-19 8:45	19.59	949	8.74	0.9	7-20-19 8:45	19.34	1019	8.64	9.2						10-20-19 5:30	5.08	1501	7.30	0.5					
7-20-19 12:30	18.61	1733	8.89	8.3	7-20-19 9:00	19.53	953	8.65	0.6	7-20-19 9:00	19.30	1018	8.64	13.8						10-20-19 5:45	5.06	1504	7.22	0.0					
7-20-19 12:45	18.60	1727	8.89	5.6	7-20-19 9:15	19.54	953	8.53	0.8	7-20-19 9:15	19.27	1018	8.64	8.0						10-20-19 6:00	5.06	1505	7.22	0.1					
7-20-19 13:00	18.59	1727	8.88	8.4	7-20-19 9:30	19.53	947	8.82	0.5	7-20-19 9:30	19.22	1018	8.64	15.0						10-20-19 6:15	5.05	1504	7.19	0.0					
7-20-19 13:15	18.57	1728	8.90	7.3	7-20-19 9:45	19.50	944	8.83	0.6	7-20-19 9:45	19.19	1018	8.64	11.1						10-20-19 6:30	5.06	1504	7.23	0.6					
7-20-19 13:30	18.56	1728	8.89	11.8	7-20-19 10:00	19.44	947	8.87	1.0	7-20-19 10:00	19.13	1018	8.64	11.7						10-20-19 6:45	5.05	1506	7.25	0.2					
7-20-19 13:45	18.55	1729	8.88	5.5	7-20-19 10:15	19.41	948	8.73	0.6	7-20-19 10:15	19.10	1018	8.64	11.1						10-20-19 7:00	5.04	1504	7.28	0.2					
7-20-19 14:00	18.54	1728	8.88	8.0	7-20-19 10:30	19.40	945	8.98	0.8	7-20-19 10:30	19.07	1018	8.64	15.5						10-20-19 7:15	5.04	1503	7.32	0.1					
7-20-19 14:15	18.52	1730	8.88	5.8	7-20-19 10:45	19.35	943	8.99	0.5	7-20-19 10:45	19.04	1019	8.63	8.3						10-20-19 7:30	5.03	1504	7.21	0.0					
7-20-19 14:30	18.52	1741	8.88	8.3	7-20-19 11:00	19.34	942	9.05	0.5	7-20-19 11:00	19.02	1018	8.63	12.5						10-20-19 7:45	5.02	1503	7.25	0.0					
7-20-19 14:45	18.50	1725	8.88	6.9	7-20-19 11:15	19.34	943	9.13	0.5	7-20-19 11:15	18.96	1018	8.63	8.6						10-20-19 8:00	5.01	1511	7.30	1.0					
7-20-19 15:00	18.51	1724	8.87	8.2	7-20-19 11:30	19.32	942	9.17	0.5	7-20-19 11:30	18.92	1018	8.63	14.1						10-20-19 8:15	5.00	1504	7.30	0.2					
7-20-19 15:15	18.51	1722	8.86	6.1	7-20-19 11:45	19.31	941	9.19	0.4	7-20-19 11:45	18.89	1018	8.63	8.7						10-20-19 8:30	5.00	1500	7.35	0.0					
7-20-19 15:30	18.49	1722	8.87	7.9	7-20-19 12:00	19.32	938	9.21	0.4	7-20-19 12:00	18.86	1018	8.63	19.4						10-20-19 8:45	4.99	1506	7.42	0.2					
7-20-19 15:45	18.57	1725	8.88	5.2	7-20-19 12:15	19.31	936	9.23	0.4	7-20-19 12:15	18.82	1018	8.63	9.2						10-20-19 9:00	4.99	1503	7.45	0.1					
7-20-19 16:00	18.70	1731	8.89	8.1	7-20-19 12:30	19.27	937	9.23	0.3	7-20-19 12:30	18.79	1019	8.63	16.1						10-20-19 9:15	4.99	1505	7.45	0.0					
7-20-19 16:15	18.77	1723	8.88	5.2	7-20-19 12:45	19.26	937	9.22	0.4	7-20-19 12:45	18.78	1019	8.63	12.9						10-20-19 9:30	4.97	1505	7.40	0.1					
7-20-19 16:30	18.90	1716	8.86	8.3	7-20-19 13:00	19.23	939	9.22	0.3	7-20-19 13:00	18.76	1019	8.63	14.5						10-20-19 9:45	4.97	1504	7.40	0.0					
7-20-19 16:45	18.97	1714	8.85	5.7	7-20-19 13:15	19.21	940	9.22	0.3	7-20-19 13:15	18.74	1019	8.62	8.6						10-20-19 10:00	4.95	1505	7.43	1.1					
7-20-19 17:00	19.09	1695	8.85	10.1	7-20-19 13:30	19.18	939	9.22	0.3	7-20-19 13:30	18.72	1019	8.62	17.0						10-20-19 10:15	4.94	1498	7.43	0.0					
7-20-19 17:15	19.15	1709	8.85	8.0	7-20-19 13:45	19.20	939	9.22	0.2	7-20-19 13:45	18.71	1019	8.62	10.8						10-20-19 10:30	4.93	1498	7.43	0.0					
7-20-19 17:30	19.24	1702	8.84	8.5	7-20-19 14:00	19.23	940	9.21	0.4	7-20-19 14:00	18.70	1019	8.63	17.6						10-20-19 10:45	4.92	1499	7.45	0.5					
7-20-19 17:45	19.23	1701	8.85	7.7	7-20-19 14:15	19.22	939	9.21	0.3	7-20-19 14:15	18.69	1019	8.62	10.6						10-20-19 11:00	4.92	1490	7.43	0.0					
7-20-19 18:00	19.48	1708	8.85	9.0	7-20-19 14:30	19.23	939	9.22	0.4	7-20-19 14:30	18.68	1019	8.62	17.2						10-20-19 11:15	4.91	1494	7.41	0.1					
7-20-19 18:15	19.57	1713	8.86	6.3	7-20-19 14:45	19.25	939	9.22	0.5	7-20-19 14:45	18.68	1019	8.62	9.0						10-20-19 11:30	4.90	1508	7.36	0.0					
7-20-19 18:30	19.67	1703	8.87	9.1	7-20-19 15:00	19.18	948	7.34	0.4	7-20-19 15:00	18.70	1019	8.63	18.5						10-20-19 11:45	4.89	1492	7.41	0.0					
7-20-19 18:45	20.23	1698	8.85	7.0	7-20-19 15:15	19.22	952	6.95	0.4	7-20-19 15:15	18.70	1019	8.62	7.9						10-20-19 12:00	4.87	1504	7.40	0.0					
7-20-19 19:00	20.38	1694	8.82	9.7	7-20-19 15:30	19.24	952	6.84	1.2	7-20-19 15:30	18.75	1019	8.63	19.1						10-20-19 12:15	4.87	1505	7.48	0.0					
7-20-19 19:15	20.65	1698	8.91	7.9	7-20-19 15:45	19.28	952	6.88	0.6	7-20-19 15:45	18.85	1019	8.63	13.4						10-20-19 12:30	4.86	1507	7.43	0.0					
7-20-19 19:30	21.04	1696	8.84	12.7	7-20-19 16:00	19.37	952	6.89	0.5	7-20-19 16:00	18.94	1020	8.63	15.0						10-20-19 12:45	4.85	1503	7.44	0.0					
7-20-19 19:45	20.92	1700	8.88	8.3	7-20-19 16:15	19.45	952	6.78	0.5	7-20-19 16:15	19.06	1019	8.63	12.1						10-20-19 13:00	4.84	1504	7.44	0.0					
7-20-19 20:00	20.75	1686	8.92	11.4	7-20-19 16:30	19.48	952	6.92	0.5	7-20-19 16:30	19.02	1019	8.62	16.2						10-20-19 13:15	4.83	1504	7.45	0.0					
7-20-19 20:15	21.05	1702	8.89	6.5	7-20-19 16:45	19.51	951	7.23	1.1	7-20-19 16:45	19.11	1019	8.62	10.7						10-20-19 13:30	4.82	1504	7.47	0.0					
7-20-19 20:30	21.28	1696	8.87	10.1	7-20-19 17:00	19.58	953	7.31	1.2	7-20-19 17:00	19.33	1020	8.63	15.8						10-20-19 13:45	4.81	1505	7.38	0.0					
7-20-19 20:45	21.41	1694	8.90	7.6	7-20-19 17:15	19.66	950	7.54	0.5	7-20-19 17:15	19.35	1019	8.62	10.5						10-20-19 14:00	4.79	1508	7.40	0.0					
7-20-19 21:00	21.43	1686	8.92	14.0	7-20-19 17:30	19.77	950	7.26	0.6	7-20-19 17:30	19.41	1020	8.62	15.8						10-20-19 14:15	4.76	1506	7.44	0.0					
7-20-19 21:15	21.96	1704	8.92	7.1	7-20-19 17:45	19.93	951	7.14	0.4	7-20-19 17:45	19.44	1019	8.63	12.0						10-20-19 14:30	4.77	1507	7.39	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-20-19 21:30	21.89	1696	8.91	22.4	7-20-19 18:00	20.07	951	6.96	0.6	7-20-19 18:00	19.61	1021	8.62	14.1						10-20-19 14:45	4.76	1506	7.44	0.0					
7-20-19 21:45	22.18	1697	8.91	7.1	7-20-19 18:15	20.12	950	7.08	0.6	7-20-19 18:15	19.93	1023	8.62	10.5						10-20-19 15:00	4.75	1497	7.36	0.0					
7-20-19 22:00	22.07	1695	8.92	15.5	7-20-19 18:30	20.65	949	8.04	0.5	7-20-19 18:30	20.31	1020	8.62	15.4						10-20-19 15:15	4.74	1507	7.39	0.0					
7-20-19 22:15	22.05	1689	8.90	7.8	7-20-19 18:45	20.84	945	8.56	0.7	7-20-19 18:45	20.44	1022	8.61	11.4						10-20-19 15:30	4.73	1507	7.38	0.0					
7-20-19 22:30	22.34	1690	8.90	14.2	7-20-19 19:00	20.39	942	9.08	2.3	7-20-19 19:00	20.67	1023	8.61	16.0						10-20-19 15:45	4.71	1508	7.43	0.0					
7-20-19 22:45	22.44	1681	8.87	8.7	7-20-19 19:15	21.20	946	8.87	0.6	7-20-19 19:15	21.06	1023	8.61	11.4						10-20-19 16:00	4.68	1507	7.38	0.0					
7-20-19 23:00	22.34	1680	8.91	10.6	7-20-19 19:30	20.94	946	8.54	2.6	7-20-19 19:30	21.24	1023	8.61	13.4						10-20-19 16:15	4.68	1507	7.40	0.0					
7-20-19 23:15	22.49	1688	8.89	7.9	7-20-19 19:45	20.78	951	7.78	2.3	7-20-19 19:45	21.28	1022	8.60	11.0						10-20-19 16:30	4.69	1508	7.38	0.0					
7-20-19 23:30	22.78	1688	8.91	21.6	7-20-19 20:00	21.55	953	6.97	1.0	7-20-19 20:00	20.94	1020	8.61	16.8						10-20-19 16:45	4.68	1506	7.48	0.0					
7-20-19 23:45	22.80	1685	8.87	7.6	7-20-19 20:15	22.25	947	8.87	0.7	7-20-19 20:15	21.55	1026	8.61	10.9						10-20-19 17:00	4.70	1509	7.52	0.1					
7-21-19 0:00	22.73	1686	8.95	12.4	7-20-19 20:30	22.36	950	8.18	1.0	7-20-19 20:30	21.92	1025	8.61	18.3						10-20-19 17:15	4.71	1506	7.52	0.0					
7-21-19 0:15	22.75	1683	8.91	6.7	7-20-19 20:45	22.43	955	7.52	0.7	7-20-19 20:45	22.24	1025	8.61	11.3						10-20-19 17:30	4.72	1508	7.50	0.0					
7-21-19 0:30	22.93	1684	8.90	13.3	7-20-19 21:00	22.55	953	6.99	0.8	7-20-19 21:00	22.39	1026	8.61	16.2						10-20-19 17:45	4.73	1495	7.42	0.0					
7-21-19 0:45	22.83	1689	8.87	7.0	7-20-19 21:15	22.74	958	6.79	0.8	7-20-19 21:15	22.73	1026	8.60	12.4						10-20-19 18:00	4.74	1507	7.31	0.0					
7-21-19 1:00	22.95	1681	8.88	15.9	7-20-19 21:30	22.94	953	8.66	0.6	7-20-19 21:30	23.06	1027	8.61	19.0						10-20-19 18:15	4.76	1506	7.34	0.0					
7-21-19 1:15	22.98	1690	8.91	8.6	7-20-19 21:45	22.54	955	6.91	1.0	7-20-19 21:45	23.16	1028	8.60	14.9						10-20-19 18:30	4.77	1506	7.36	0.0					
7-21-19 1:30	22.93	1679	8.90	14.5	7-20-19 22:00	22.99	958	7.61	0.6	7-20-19 22:00	23.19	1026	8.61	19.3						10-20-19 18:45	4.81	1505	7.37	0.0					
7-21-19 1:45	22.80	1668	8.86	7.5	7-20-19 22:15	22.19	953	7.51	0.8	7-20-19 22:15	23.35	1029	8.61	11.2						10-20-19 19:00	4.83	1503	7.36	0.0					
7-21-19 2:00	22.71	1671	8.89	26.2	7-20-19 22:30	23.10	956	7.41	0.6	7-20-19 22:30	23.70	1029	8.61	17.7						10-20-19 19:15	4.84	1521	7.30	0.1					
7-21-19 2:15	22.65	1681	8.91	7.7	7-20-19 22:45	22.79	954	7.14	1.1	7-20-19 22:45	23.82	1029	8.61	10.9						10-20-19 19:30	4.85	1498	7.35	0.0					
7-21-19 2:30	22.53	1677	8.93	10.1	7-20-19 23:00	23.19	952	8.85	0.7	7-20-19 23:00	23.78	1029	8.61	20.1						10-20-19 19:45	4.86	1506	7.33	0.0					
7-21-19 2:45	22.40	1667	8.95	6.3	7-20-19 23:15	23.32	952	8.91	0.7	7-20-19 23:15	23.67	1029	8.61	11.7						10-20-19 20:00	4.88	1509	7.37	0.0					
7-21-19 3:00	22.33	1672	8.92	10.6	7-20-19 23:30	23.29	958	7.23	0.6	7-20-19 23:30	23.86	1031	8.62	21.0						10-20-19 20:15	4.90	1504	7.35	0.0					
7-21-19 3:15	22.23	1670	8.93	7.5	7-20-19 23:45	23.47	959	7.71	0.6	7-20-19 23:45	23.91	1030	8.62	14.6						10-20-19 20:30	4.91	1504	7.36	0.0					
7-21-19 3:30	22.13	1676	8.94	16.6	7-21-19 0:00	23.34	961	6.91	0.7	7-21-19 0:00	24.09	1035	8.62	18.2						10-20-19 20:45	4.92	1503	7.35	0.0					
7-21-19 3:45	22.04	1670	8.94	5.8	7-21-19 0:15	22.53	934	9.50	1.4	7-21-19 0:15	24.01	1028	8.62	11.8						10-20-19 21:00	4.94	1500	7.36	0.0					
7-21-19 4:00	21.95	1667	8.95	9.1	7-21-19 0:30	22.44	958	7.66	1.8	7-21-19 0:30	24.07	1028	8.64	18.2						10-20-19 21:15	4.95	1497	7.33	0.0					
7-21-19 4:15	21.85	1669	8.94	6.1	7-21-19 0:45	22.63	955	7.79	1.5	7-21-19 0:45	24.17	1028	8.63	10.6						10-20-19 21:45	4.97	1504	7.36	0.0					
7-21-19 4:30	21.79	1663	8.96	7.6	7-21-19 1:00	22.08	948	8.13	2.5	7-21-19 1:00	24.08	1028	8.64	16.4						10-20-19 22:00	4.98	1505	7.33	0.0					
7-21-19 4:45	21.70	1666	8.96	5.0	7-21-19 1:15	22.04	946	8.57	2.8	7-21-19 1:15	23.92	1028	8.64	13.5						10-20-19 22:15	4.98	1508	7.32	0.0					
7-21-19 5:00	21.64	1666	8.95	6.2	7-21-19 1:30	21.78	941	9.24	3.1	7-21-19 1:30	23.81	1028	8.64	21.8						10-20-19 22:30	4.97	1503	7.38	0.0					
7-21-19 5:15	21.56	1661	8.96	4.9	7-21-19 1:45	21.89	942	9.27	2.4	7-21-19 1:45	23.77	1028	8.64	12.0						10-20-19 22:45	4.97	1503	7.35	0.0					
7-21-19 5:30	21.51	1669	8.98	8.4	7-21-19 2:00	21.89	949	9.32	2.2	7-21-19 2:00	23.64	1027	8.65	22.9						10-20-19 23:00	4.96	1499	7.39	0.0					
7-21-19 5:45	21.44	1665	8.99	6.3	7-21-19 2:15	21.79	955	8.22	1.8	7-21-19 2:15	23.55	1026	8.65	10.5						10-20-19 23:15	4.96	1516	7.37	0.0					
7-21-19 6:00	21.37	1667	8.99	7.7	7-21-19 2:30	21.74	957	6.92	1.7	7-21-19 2:30	23.45	1026	8.66	20.1						10-20-19 23:30	4.96	1505	7.33	0.0					
7-21-19 6:15	21.29	1665	8.97	6.5	7-21-19 2:45	21.74	943	9.26	3.0	7-21-19 2:45	23.35	1027	8.66	13.3						10-20-19 23:45	4.94	1505	7.30	0.0					
7-21-19 6:30	21.21	1659	8.95	6.3	7-21-19 3:00	21.73	947	9.28	1.8	7-21-19 3:00	23.23	1025	8.66	20.3						10-21-19 0:00	4.93	1509	7.31	0.0					
7-21-19 6:45	21.14	1663	8.96	5.7	7-21-19 3:15	21.62	955	8.96	1.4	7-21-19 3:15	23.05	1024	8.66	18.6						10-21-19 0:15	4.92	1504	7.36	0.1					
7-21-19 7:00	21.08	1677	8.95	6.4	7-21-19 3:30	21.88	952	9.25	1.3	7-21-19 3:30	22.87	1025	8.67	21.7						10-21-19 0:30	4.92	1503	7.33	0.0					
7-21-19 7:15	21.03	1668	8.99	5.4	7-21-19 3:45	21.82	954	9.25	1.2	7-21-19 3:45	22.81	1022	8.67	9.8						10-21-19 0:45	4.90	1502	7.30	0.0					
7-21-19 7:30	20.98	1666	8.98	9.7	7-21-19 4:00	21.75	953	9.25	1.0	7-21-19 4:00	22.73	1028	8.68	14.2						10-21-19 1:00	4.90	1505	7.32	0.0					
7-21-19 7:45	20.90	1664	8.98	7.1	7-21-19 4:15	21.74	953	9.24	1.6	7-21-19 4:15	22.56	1024	8.68	10.0						10-21-19 1:15	4.88	1507	7.32	0.0					
7-21-19 8:00	20.81	1661	8.96	6.4	7-21-19 4:30	21.87	956	9.20	2.4	7-21-19 4:30	22.35	1023	8.68	19.8						10-21-19 1:30	4.86	1471	7.33	0.0					
7-21-19 8:15	20.75	1661	8.97	4.3	7-21-19 4:45	21.97	957	9.16	0.7	7-21-19 4:45	22.27	1024	8.69	13.6						10-21-19 1:45	4.85	1469	7.30	0.0					
7-21-19 8:30	20.71	1662	8.98	11.4	7-21-19 5:00	21.99	961	9.15	0.7	7-21-19 5:00	22.13	1021	8.68	21.0						10-21-19 2:00	4.85	1515	7.25	0.0					
7-21-19 8:45	20.69	1677	9.01	4.9	7-21-19 5:15	21.97	962	9.14	0.9	7-21-19 5:15	22.07	1022	8.69	12.7						10-21-19 2:15	4.83	1501	7.31	0.0					
7-21-19 9:00	20.62	1667	9.01	7.5	7-21-19 5:30	21.93	961	9.14	0.7	7-21-19 5:30	21.93	1024	8.68	25.0						10-21-19 2:30	4.82	1502	7.32	0.0					
7-21-19 9:15	20.57	1665	9.00	4.0	7-21-19 5:45	21.82	962	9.13	0.6	7-21-19 5:45	21.80	1021	8.69	9.5						10-21-19 2:45	4.80	1505	7.29	0.0					
7-21-19 9:30	20.52	1663	8.99	6.0	7-21-19 6:00	21.72	959	9.10	0.8	7-21-19 6:00	21.73	1021	8.69	21.3						10-21-19 3:00	4.80	1506	7.28	0.0					
7-21-19 9:45	20.48	1664	9.00	6.7	7-21-19 6:15	21.64	960	9.11	1.1	7-21-19 6:15	21.65	1021	8.69	15.0						10-21-19 3:15	4.79	1505	7.33	0.0					
7-21-19 10:00	20.41	1665	9.00	6.8	7-21-19 6:30	21.59	960	9.09	0.9	7-21-19 6:30	21.54	1020	8.68	24.8						10-21-19 3:30	4.79	1507	7.31	0.0					
7-21-19 10:15	20.37	1662	8.99	5.4	7-21-19 6:45	21.55	962	8.96	0.9	7-21-19 6:45	21.44	1018	8.68	11.0						10-21-19 3:45	4.78	1507	7.29	0.0					
7-21-19 10:30	20.33	1663	8.99	8.9	7-21-19 7:00	21.45	961	9.04	1.0	7-21-19 7:00	21.36	1018	8.67	19.8						10-21-19 4:00	4.76	1508	7.32	0.0					
7-21-19 10:45	20.28	1663	8.99	4.9	7-21-19 7:15	21.42	961	9.02	0.8	7-21-19 7:15	21.26	1019	8.67	10.4						10-21-19 4:15	4.76	1505	7.39	0.0					
7-21-19 11:00	20.24	1665	8.99	6.1	7-21-19 7:30	21.35	959	9.09	0.9	7-21-19 7:30	21.16	1019	8.67	15.5						10-21-19 4:30	4.75	1506	7.32	0.0					
7-21-19 11:15	20.19	1664	8.97	4.5	7-21-19 7:45	21.32	958	9.13	1.1	7-21-19 7:45	21.10	1020	8.67	13.5						10-21-19 4:45	4.75	1504	7.40	0.0					
7-21-19 11:30	20.14	1666	8.97	6.6	7-21-19 8:00	21.29	955	9.13	1.5	7-21-19 8:00	21.02	1018	8.67	22.0						10-21-19 5:00	4.75	1505	7.27	0.0					
7-21-19 11:45	20.10	1663	8.97	4.8	7-21-19 8:15	21.23	953	9.13	2.0	7-21-19 8:15	20.94	1019	8.67	11.9						10-21-19 5:15	4.74	1507	7.25	0.0					
7-21-19 12:00	20.06	1665	8.96	7.2	7-21-19 8:30	21.19	953	9.12	1.4	7-21-19 8:30	20.87	1019	8.67	19.7						10-21-19 5:30	4.73	1507	7.25	0.0					
7-21-19 12:15	20.02	1662	8.95	4.8	7-21-19 8:45	21.13	956	9.13	1.7	7-21-19 8:45	20.79	1017	8.67	9.5						10-21-19 5:45	4.72	1508	7.29	0.0					
7-21-19 12:30	19.99	1661	8.95	10.5	7-21-19 9:00	21.05	956	9.15	1.2	7-21-19 9:00	20.71	1022	8.67	13.7						10-21-19 6:00	4.72	1503	7.33	0.0					
7-21-19 12:45	19.93	1664	8.95	4.1	7-21-19 9:15	21.03	955	9.17	1.2	7-21-19 9:15	20.64	1020	8.67	12.1						10-21-19 6:15	4.72	1502	7.33	0.4					
7-21-19 13:00	19.89	1656	8.96	7.1	7-21-19 9:30	20.96	955	9.19	1.1	7-21-19 9:30	20.57	1018	8.66	15.5						10-21-19 6:30	4.71	1501	7.29	0.1					
7-21-19 13:15	19.85	1661	8.95	4.7	7-21-19 9:45	20.96	955	9.17	1.0	7-21-19 9:45	20.49	1019	8.66	9.7						10-21-19 6:45	4.70	1501	7.39	0.5					
7-21-19 13:30	19.80	1657	8.95	8.6	7-21-19 10:00	20.92	954	9.17	1.1	7-21-19 10:00	20.43	1019	8.66	16.8						10-21-19 7:00	4.67	1502	7.43	0.0					
7-21-19 13:45	19.79	1659	8.94	5.0	7-21-19 10:15	20.89	954	9.16	1.3	7-21-19 10:15	20.36	1019	8.66	9.2						10-21-19 7:15	4.68	1506	7.31	0.0					
7-21-19 14:00	19.77	1655	8.95	6.8	7-21-19 10:30	20.86	955	9.14	0.9	7-21-19 10:30	20.30	1018	8.66	12.1						10-21-19 7:30	4.68	1502	7.35	0.0					
7-21-19 14:15	19.76	1658	8.94	5.0	7-21-19 10:45	20.78	954	9.13	1.0	7-21-19 10:45	20.23	1019	8.67	9.9						10-21-19 7:45	4.67	1500	7.32	0.0					
7-21-19 14:30	19.77	1655	8.92	7.3	7-21-19 11:00	20.76	951	9.15	1.1	7-21-19 11:00	20.17	1019	8.66	18.1						10-21-19 8:00	4.66	1498	7.32	0.0					
7-21-19 14:45	19.77	1655	8.94	4.7	7-21-19 11:15	20.75	953	9.16	1.0	7-21-19 11:15	20.10	1019	8.67	10.5						10-21-19 8:15	4.64	1496	7.35	0.8					
7-21-19 15:00	19.77	1652	8.94	6.9	7-21-19 11:30	20.70	950	9.15	0.9	7-21-19 11:30	20.06	1018	8.66	15.8						10-21-19 8:30	4.63	1497	7.38	0.0					
7-21-19 15:15	19.78	1653	8.95	5.5	7-21-19 11:45	20.61	953	9.14	0.9	7-21-19 11:45	20.01	1018	8.66	11.5						10-21-19 8:45	4.63	1495	7.44	0.0					
7-21-19 15:30	19.79	1657	8.96	7.3	7-21-19 12:00	20.59	953	9.12	1.4	7-21-19 12:00	19.96	1017	8.67	15.2						10-21-19 9:00	4.59	1494	7.41	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-21-19 15:45	19.80	1658	8.96	5.5	7-21-19 12:15	20.56	953	9.13	1.0	7-21-19 12:15	19.91	1017	8.66	11.0						10-21-19 9:15	4.57	1492	7.40	0.0					
7-21-19 16:00	19.85	1661	8.98	12.1	7-21-19 12:30	20.53	953	9.11	0.9	7-21-19 12:30	19.86	1017	8.66	18.2						10-21-19 9:30	4.58	1494	7.39	0.0					
7-21-19 16:15	19.94	1657	8.98	5.7	7-21-19 12:45	20.53	953	9.09	0.9	7-21-19 12:45	19.82	1018	8.67	9.7						10-21-19 9:45	4.56	1494	7.44	0.1					
7-21-19 16:30	20.02	1658	8.99	13.9	7-21-19 13:00	20.48	956	8.95	0.8	7-21-19 13:00	19.79	1017	8.67	19.4						10-21-19 10:00	4.56	1494	7.40	0.0					
7-21-19 16:45	20.11	1656	8.98	6.1	7-21-19 13:15	20.44	955	8.99	0.8	7-21-19 13:15	19.75	1022	8.66	10.9						10-21-19 10:15	4.54	1492	7.45	0.0					
7-21-19 17:00	20.27	1671	8.97	7.9	7-21-19 13:30	20.31	962	8.05	0.8	7-21-19 13:30	19.72	1015	8.67	19.2						10-21-19 10:30	4.55	1494	7.49	0.2					
7-21-19 17:15	20.37	1659	9.00	7.6	7-21-19 13:45	20.43	957	8.88	1.7	7-21-19 13:45	19.69	1017	8.67	8.7						10-21-19 10:45	4.53	1493	7.44	0.2					
7-21-19 17:30	20.40	1651	8.95	9.3	7-21-19 14:00	20.45	958	8.76	1.8	7-21-19 14:00	19.69	1017	8.66	18.1						10-21-19 11:00	4.51	1491	7.42	0.4					
7-21-19 17:45	20.41	1655	8.97	6.1	7-21-19 14:15	20.42	956	8.97	0.8	7-21-19 14:15	19.69	1017	8.67	10.7						10-21-19 11:15	4.49	1492	7.42	0.2					
7-21-19 18:00	20.49	1652	8.97	8.2	7-21-19 14:30	20.30	965	6.79	0.9	7-21-19 14:30	19.71	1017	8.67	15.4						10-21-19 11:30	4.46	1506	7.44	1.1					
7-21-19 18:15	20.81	1660	8.98	8.4	7-21-19 14:45	20.34	963	6.72	2.3	7-21-19 14:45	19.66	1017	8.67	12.6						10-21-19 11:45	4.46	1492	7.46	0.0					
7-21-19 18:30	21.01	1659	8.98	9.5	7-21-19 15:00	20.39	966	6.92	1.2	7-21-19 15:00	19.70	1017	8.67	17.7						10-21-19 12:00	4.46	1494	7.49	0.0					
7-21-19 18:45	21.43	1655	8.95	7.8	7-21-19 15:15	20.42	966	6.70	0.7	7-21-19 15:15	19.72	1016	8.68	11.2						10-21-19 12:15	4.45	1493	7.63	0.1					
7-21-19 19:00	21.50	1659	8.95	16.2	7-21-19 15:30	20.50	962	7.42	1.1	7-21-19 15:30	19.74	1017	8.68	24.4						10-21-19 12:30	4.45	1496	7.67	0.2					
7-21-19 19:15	21.56	1656	8.95	7.5	7-21-19 15:45	20.64	955	8.68	1.2	7-21-19 15:45	19.74	1013	8.67	9.3						10-21-19 12:45	4.44	1495	7.64	0.3					
7-21-19 19:30	21.85	1652	8.96	9.9	7-21-19 16:00	20.63	963	7.27	1.2	7-21-19 16:00	19.81	1017	8.68	14.4						10-21-19 13:00	4.44	1493	7.62	0.3					
7-21-19 19:45	21.97	1661	8.98	6.8	7-21-19 16:15	20.68	963	6.77	1.1	7-21-19 16:15	19.89	1017	8.68	10.6						10-21-19 13:15	4.43	1496	7.60	0.2					
7-21-19 20:00	22.08	1652	8.99	11.8	7-21-19 16:30	20.79	962	6.89	1.3	7-21-19 16:30	19.96	1018	8.67	14.4						10-21-19 13:30	4.43	1495	7.50	0.3					
7-21-19 20:15	22.13	1652	8.94	6.2	7-21-19 16:45	20.87	962	7.05	1.0	7-21-19 16:45	20.08	1018	8.68	8.2						10-21-19 13:45	4.46	1497	7.41	0.2					
7-21-19 20:30	22.20	1652	8.97	42.5	7-21-19 17:00	20.87	958	7.92	1.2	7-21-19 17:00	20.19	1018	8.68	14.6						10-21-19 14:00	4.48	1492	7.42	0.1					
7-21-19 20:45	22.54	1660	8.96	6.1	7-21-19 17:15	20.98	962	7.41	1.0	7-21-19 17:15	20.14	1023	8.68	8.9						10-21-19 14:15	4.48	1495	7.37	0.3					
7-21-19 21:00	22.60	1664	8.95	8.7	7-21-19 17:30	21.08	961	7.63	0.8	7-21-19 17:30	20.19	1018	8.68	14.4						10-21-19 14:30	4.48	1503	7.35	0.3					
7-21-19 21:15	22.59	1650	8.98	6.0	7-21-19 17:45	21.12	959	7.89	1.2	7-21-19 17:45	20.21	1020	8.68	11.4						10-21-19 14:45	4.48	1498	7.33	0.2					
7-21-19 21:30	22.58	1653	8.97	14.6	7-21-19 18:00	21.22	960	7.60	1.4	7-21-19 18:00	20.40	1020	8.68	9.3						10-21-19 15:00	4.48	1496	7.30	0.4					
7-21-19 21:45	22.51	1653	9.01	5.9	7-21-19 18:15	21.65	952	9.06	1.4	7-21-19 18:15	20.42	1020	8.68	13.3						10-21-19 15:15	4.47	1498	7.27	0.8					
7-21-19 22:00	22.67	1663	9.00	8.1	7-21-19 18:30	21.70	961	7.46	1.2	7-21-19 18:30	20.61	1020	8.69	12.9						10-21-19 15:30	4.45	1499	7.30	0.3					
7-21-19 22:15	22.69	1661	8.99	6.4	7-21-19 18:45	21.71	951	8.98	1.3	7-21-19 18:45	20.83	1020	8.69	12.2						10-21-19 15:45	4.45	1495	7.32	0.3					
7-21-19 22:30	22.69	1651	9.02	8.5	7-21-19 19:00	21.78	961	7.99	1.1	7-21-19 19:00	20.97	1023	8.69	11.3						10-21-19 16:00	4.44	1498	7.31	0.2					
7-21-19 22:45	22.60	1654	9.00	5.4	7-21-19 19:15	21.80	960	7.34	0.9	7-21-19 19:15	21.28	1022	8.70	9.6						10-21-19 16:15	4.44	1494	7.31	0.3					
7-21-19 23:00	22.48	1652	9.02	8.3	7-21-19 19:30	21.74	947	9.20	1.3	7-21-19 19:30	21.41	1022	8.69	12.5						10-21-19 16:30	4.46	1498	7.34	0.7					
7-21-19 23:15	22.58	1660	9.03	6.3	7-21-19 19:45	21.80	947	8.79	1.2	7-21-19 19:45	21.67	1021	8.70	11.7						10-21-19 16:45	4.47	1497	7.33	0.4					
7-21-19 23:30	22.71	1657	9.02	11.1	7-21-19 20:00	21.73	950	9.23	2.2	7-21-19 20:00	21.86	1022	8.70	16.9						10-21-19 17:00	4.48	1496	7.32	0.2					
7-21-19 23:45	22.73	1659	9.02	7.6	7-21-19 20:15	21.87	955	8.28	1.9	7-21-19 20:15	22.14	1023	8.70	13.3						10-21-19 17:15	4.49	1496	7.31	0.1					
7-22-19 0:00	22.63	1673	9.07	11.0	7-21-19 20:30	22.12	960	7.02	1.8	7-21-19 20:30	22.12	1025	8.70	14.2						10-21-19 17:30	4.49	1498	7.34	0.0					
7-22-19 0:15	22.64	1658	9.05	9.3	7-21-19 20:45	22.39	959	6.68	1.9	7-21-19 20:45	21.98	1022	8.69	10.0						10-21-19 17:45	4.50	1497	7.33	0.1					
7-22-19 0:30	22.58	1668	9.07	9.8	7-21-19 21:00	22.51	961	6.87	1.5	7-21-19 21:00	21.93	1021	8.69	13.2						10-21-19 18:00	4.49	1498	7.34	0.2					
7-22-19 0:45	22.47	1653	9.09	6.8	7-21-19 21:15	22.69	963	6.84	1.8	7-21-19 21:15	22.10	1024	8.69	12.0						10-21-19 18:15	4.49	1496	7.37	0.1					
7-22-19 1:00	22.48	1650	9.09	13.2	7-21-19 21:30	22.68	961	7.11	1.9	7-21-19 21:30	21.79	1021	8.69	15.7						10-21-19 18:30	4.50	1497	7.37	0.2					
7-22-19 1:15	22.47	1657	9.08	7.6	7-21-19 21:45	22.67	962	6.90	1.6	7-21-19 21:45	21.93	1022	8.70	10.8						10-21-19 18:45	4.50	1496	7.45	0.1					
7-22-19 1:30	22.46	1656	9.07	12.2	7-21-19 22:00	22.82	962	7.45	1.5	7-21-19 22:00	21.89	1023	8.69	11.6						10-21-19 19:00	4.52	1495	7.44	0.3					
7-22-19 1:45	22.44	1656	9.08	6.0	7-21-19 22:15	22.81	962	6.75	1.3	7-21-19 22:15	21.93	1023	8.69	11.9						10-21-19 19:15	4.53	1498	7.47	0.1					
7-22-19 2:00	22.42	1660	9.09	10.0	7-21-19 22:30	22.71	963	6.95	1.4	7-21-19 22:30	21.96	1022	8.70	11.5						10-21-19 19:30	4.55	1498	7.45	0.4					
7-22-19 2:15	22.43	1658	9.08	7.0	7-21-19 22:45	22.70	963	6.87	1.4	7-21-19 22:45	21.97	1023	8.70	13.6						10-21-19 19:45	4.56	1497	7.43	0.4					
7-22-19 2:30	22.46	1666	9.08	9.6	7-21-19 23:00	22.75	961	6.83	1.3	7-21-19 23:00	21.96	1022	8.71	14.7						10-21-19 20:00	4.58	1498	7.45	0.1					
7-22-19 2:45	22.43	1660	9.07	6.2	7-21-19 23:15	22.86	961	6.77	1.1	7-21-19 23:15	22.00	1023	8.70	17.1						10-21-19 20:15	4.60	1496	7.39	0.2					
7-22-19 3:00	22.38	1652	9.08	9.9	7-21-19 23:30	22.91	964	7.33	1.1	7-21-19 23:30	22.09	1023	8.70	15.5						10-21-19 20:30	4.62	1495	7.39	0.4					
7-22-19 3:15	22.33	1658	9.08	5.8	7-21-19 23:45	22.95	958	8.48	5.1	7-21-19 23:45	22.07	1023	8.70	13.2						10-21-19 20:45	4.63	1501	7.42	0.5					
7-22-19 3:30	22.29	1667	9.06	12.4	7-22-19 0:00	23.01	952	9.03	3.8	7-22-19 0:00	22.18	1023	8.70	13.6						10-21-19 21:00	4.65	1496	7.42	0.3					
7-22-19 3:45	22.26	1658	9.06	6.2	7-22-19 0:15	23.03	960	6.91	2.1	7-22-19 0:15	22.17	1024	8.70	14.3						10-21-19 21:15	4.66	1499	7.43	0.4					
7-22-19 4:00	22.22	1653	9.05	8.8	7-22-19 0:30	22.94	962	7.23	2.9	7-22-19 0:30	22.18	1024	8.71	13.2						10-21-19 21:30	4.68	1499	7.43	0.2					
7-22-19 4:15	22.16	1648	9.07	6.4	7-22-19 0:45	22.90	962	6.89	3.5	7-22-19 0:45	22.21	1024	8.70	14.4						10-21-19 21:45	4.73	1500	7.46	0.6					
7-22-19 4:30	22.11	1654	9.07	7.2	7-22-19 1:00	22.95	961	6.75	1.7	7-22-19 1:00	22.25	1020	8.70	12.5						10-21-19 22:00	4.82	1502	7.52	2.0					
7-22-19 4:45	22.07	1660	9.08	4.7	7-22-19 1:15	22.92	960	6.76	2.0	7-22-19 1:15	22.26	1024	8.70	12.5						10-21-19 22:15	4.85	1501	7.54	18.8					
7-22-19 5:00	22.01	1653	9.09	8.7	7-22-19 1:30	22.88	957	6.83	1.6	7-22-19 1:30	22.21	1021	8.71	13.1						10-21-19 22:30	4.84	1499	7.47	2.5					
7-22-19 5:15	21.96	1662	9.09	5.4	7-22-19 1:45	22.88	958	6.69	1.8	7-22-19 1:45	22.17	1023	8.71	9.6						10-21-19 22:45	4.80	1487	7.45	2.2					
7-22-19 5:30	21.92	1686	9.09	8.8	7-22-19 2:00	22.90	967	6.70	1.7	7-22-19 2:00	22.23	1023	8.71	11.7						10-21-19 23:00	4.75	1494	7.57	1.8					
7-22-19 5:45	21.87	1660	9.09	5.2	7-22-19 2:15	22.92	965	6.60	2.2	7-22-19 2:15	22.25	1020	8.71	11.3						10-21-19 23:15	4.75	1499	7.51	47.7					
7-22-19 6:00	21.83	1650	9.11	15.5	7-22-19 2:30	22.90	955	8.77	2.2	7-22-19 2:30	22.26	1022	8.71	10.5						10-21-19 23:30	4.75	1499	7.51	1.0					
7-22-19 6:15	21.79	1651	9.14	4.7	7-22-19 2:45	22.79	951	9.09	2.1	7-22-19 2:45	22.13	1019	8.71	13.1						10-21-19 23:45	4.74	1500	7.49	0.7					
7-22-19 6:30	21.74	1676	9.12	11.6	7-22-19 3:00	22.75	959	7.08	2.4	7-22-19 3:00	22.15	1022	8.72	10.6						10-22-19 0:00	4.73	1491	7.50	0.9					
7-22-19 6:45	21.69	1655	9.12	4.9	7-22-19 3:15	22.77	959	6.81	1.5	7-22-19 3:15	22.14	1022	8.71	10.8						10-22-19 0:15	4.71	1491	7.56	1.6					
7-22-19 7:00	21.64	1655	9.14	6.1	7-22-19 3:30	22.73	955	6.57	1.2	7-22-19 3:30	22.12	1022	8.71	13.4						10-22-19 0:30	4.71	1489	7.54	1.2					
7-22-19 7:15	21.60	1648	9.15	5.4	7-22-19 3:45	22.70	955	6.64	1.1	7-22-19 3:45	22.08	1021	8.71	12.7						10-22-19 0:45	4.71	1497	7.56	1.3					
7-22-19 7:30	21.55	1676	9.15	7.9	7-22-19 4:00	22.66	966	6.87	1.6	7-22-19 4:00	22.06	1023	8.71	12.1						10-22-19 1:00	4.70	1496	7.58	1.4					
7-22-19 7:45	21.48	1657	9.16	5.5	7-22-19 4:15	22.61	960	7.08	1.9	7-22-19 4:15	22.02	1021	8.71	10.0						10-22-19 1:15	4.67	1496	7.65	1.1					
7-22-19 8:00	21.42	1671	9.13	7.2	7-22-19 4:30	22.59	958	7.14	1.5	7-22-19 4:30	21.98	1022	8.71	13.4						10-22-19 1:30	4.66	1499	7.68	0.9					
7-22-19 8:15	21.37	1649	9.11	3.8	7-22-19 4:45	22.53	956	7.22	1.2	7-22-19 4:45	21.90	1023	8.71	10.2						10-22-19 1:45	4.64	1499	7.86	0.7					
7-22-19 8:30	21.34	1649	9.14	7.1	7-22-19 5:00	22.50	953	7.40	1.3	7-22-19 5:00	21.85	1023	8.72	12.8						10-22-19 2:00	4.63	1496	7.86	1.1					
7-22-19 8:45	21.30	1652	9.14	5.4	7-22-19 5:15	22.45	950	7.51	1.5	7-22-19 5:15	21.80	1023	8.71	11.4						10-22-19 2:15	4.62	1496	7.93	1.1					
7-22-19 9:00	21.26	1646	9.12	8.8	7-22-19 5:30	22.41	949	7.02	1.4	7-22-19 5:30	21.74	1021	8.72	11.8						10-22-19 2:30	4.62	1494	7.99	1.0					
7-22-19 9:15	21.20	1650	9.12	4.2	7-22-19 5:45	22.36	947	6.91	1.5	7-22-19 5:45	21.67	1022	8.72	9.3						10-22-19 2:45	4.62	1490	8.07	1.4					
7-22-19 9:30	21.15	1647	9.11	8.0	7-22-19 6:00	22.30	953	7.01	1.4	7-22-19 6:00	21.64	1020	8.72	11.9						10-22-19 3:00	4.61	1495	7.91	1.2					
7-22-19 9:45	21.11	1653	9.10	5.4	7-22-19 6:15	22.29	956	6.83	1.6	7-22-19 6:15	21.63	1022	8.72	12.3						10-22-19 3:15	4.60	1496	7.94	1.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-22-19 10:00	21.07	1653	9.11	7.9	7-22-19 6:30	22.24	956	6.93	1.6	7-22-19 6:30	21.58	1020	8.73	12.2						10-22-19 3:30	4.59	1499	7.87	0.8					
7-22-19 10:15	21.01	1653	9.09	4.7	7-22-19 6:45	22.21	956	7.12	2.1	7-22-19 6:45	21.55	1019	8.72	9.0						10-22-19 3:45	4.59	1500	7.90	0.8					
7-22-19 10:30	20.98	1654	9.11	9.0	7-22-19 7:00	22.17	953	7.25	1.3	7-22-19 7:00	21.48	1020	8.73	11.4						10-22-19 4:00	4.58	1499	7.80	1.2					
7-22-19 10:45	20.92	1653	9.09	4.6	7-22-19 7:15	22.14	952	7.02	1.2	7-22-19 7:15	21.45	1023	8.73	10.9						10-22-19 4:15	4.56	1496	7.84	1.5					
7-22-19 11:00	20.86	1780	9.10	7.7	7-22-19 7:30	22.12	955	7.12	1.2	7-22-19 7:30	21.40	1022	8.73	10.9						10-22-19 4:30	4.56	1496	8.10	1.3					
7-22-19 11:15	20.81	1654	9.10	4.3	7-22-19 7:45	22.05	955	7.41	1.2	7-22-19 7:45	21.34	1023	8.73	7.6						10-22-19 4:45	4.55	1497	7.91	1.3					
7-22-19 11:30	20.76	1654	9.08	12.2	7-22-19 8:00	22.02	957	6.80	1.3	7-22-19 8:00	21.28	1022	8.73	14.4						10-22-19 5:00	4.54	1495	7.86	1.6					
7-22-19 11:45	20.69	1655	9.09	5.1	7-22-19 8:15	22.04	948	8.96	1.5	7-22-19 8:15	21.25	1022	8.73	10.3						10-22-19 5:15	4.54	1499	8.06	1.1					
7-22-19 12:00	20.63	1659	9.09	15.4	7-22-19 8:30	22.03	945	8.97	1.2	7-22-19 8:30	21.17	1022	8.73	11.6						10-22-19 5:30	4.53	1496	7.99	1.3					
7-22-19 12:15	20.58	1649	9.08	5.5	7-22-19 8:45	21.91	952	7.96	1.5	7-22-19 8:45	21.13	1022	8.73	8.1						10-22-19 5:45	4.53	1497	7.97	1.7					
7-22-19 12:30	20.53	1652	9.09	7.3	7-22-19 9:00	21.87	957	7.08	1.1	7-22-19 9:00	21.09	1022	8.72	13.5						10-22-19 6:00	4.53	1497	7.96	1.4					
7-22-19 12:45	20.48	1652	9.09	5.3	7-22-19 9:15	21.84	954	7.86	0.9	7-22-19 9:15	21.03	1022	8.73	11.5						10-22-19 6:15	4.52	1494	8.00	1.8					
7-22-19 13:00	20.41	1649	9.09	6.9	7-22-19 9:30	21.88	948	8.95	1.1	7-22-19 9:30	20.96	1022	8.73	13.2						10-22-19 6:30	4.49	1493	8.08	1.9					
7-22-19 13:15	20.38	1652	9.07	5.6	7-22-19 9:45	21.87	949	8.95	1.1	7-22-19 9:45	20.94	1022	8.72	7.6						10-22-19 6:45	4.48	1494	8.04	1.9					
7-22-19 13:30	20.32	1653	9.10	7.0	7-22-19 10:00	21.83	947	8.98	0.9	7-22-19 10:00	20.87	1022	8.73	11.5						10-22-19 7:00	4.47	1456	8.03	2.0					
7-22-19 13:45	20.31	1648	9.08	7.0	7-22-19 10:15	21.83	947	9.02	1.2	7-22-19 10:15	20.84	1021	8.73	10.5						10-22-19 7:15	4.47	1496	8.15	2.2					
7-22-19 14:00	20.30	1658	9.08	9.1	7-22-19 10:30	21.77	945	8.99	1.4	7-22-19 10:30	20.79	1021	8.73	10.1						10-22-19 7:30	4.45	1495	8.20	1.9					
7-22-19 14:15	20.29	1651	9.08	5.1	7-22-19 10:45	21.74	944	8.95	1.2	7-22-19 10:45	20.74	1021	8.73	7.4						10-22-19 7:45	4.45	1498	8.20	2.2					
7-22-19 14:30	20.31	1653	9.07	6.8	7-22-19 11:00	21.71	944	8.91	8.4	7-22-19 11:00	20.67	1021	8.73	13.6						10-22-19 8:00	4.43	1492	8.26	2.5					
7-22-19 14:45	20.32	1656	9.07	4.5	7-22-19 11:15	21.67	944	8.83	9.2	7-22-19 11:15	20.62	1021	8.73	8.2						10-22-19 8:15	4.43	1490	8.22	2.4					
7-22-19 15:00	20.30	1652	9.08	7.2	7-22-19 11:30	21.61	945	8.83	10.5	7-22-19 11:30	20.57	1021	8.73	11.8						10-22-19 8:30	4.41	1490	8.28	2.4					
7-22-19 15:15	20.32	1651	9.09	6.1	7-22-19 11:45	21.55	945	8.79	10.9	7-22-19 11:45	20.52	1021	8.73	8.8						10-22-19 8:45	4.41	1487	8.34	3.0					
7-22-19 15:30	20.33	1653	9.10	15.5	7-22-19 12:00	21.53	951	8.79	0.9	7-22-19 12:00	20.44	1021	8.73	12.3						10-22-19 9:00	4.39	1435	8.34	5.2					
7-22-19 15:45	20.36	1653	9.10	6.2	7-22-19 12:15	21.47	949	8.83	1.2	7-22-19 12:15	20.39	1021	8.73	10.0						10-22-19 9:15	4.35	1478	8.37	6.0					
7-22-19 16:00	20.40	1652	9.11	15.3	7-22-19 12:30	21.49	950	8.84	0.8	7-22-19 12:30	20.35	1020	8.73	12.2						10-22-19 9:30	4.36	1520	8.41	5.5					
7-22-19 16:15	20.46	1649	9.10	6.1	7-22-19 12:45	21.41	950	8.78	0.6	7-22-19 12:45	20.29	1020	8.73	10.4						10-22-19 9:45	4.34	1500	8.41	2.7					
7-22-19 16:30	20.54	1655	9.10	9.5	7-22-19 13:00	21.38	950	8.83	0.9	7-22-19 13:00	20.24	1020	8.73	12.5						10-22-19 10:00	4.34	1494	8.42	3.6					
7-22-19 16:45	20.68	1671	9.10	6.1	7-22-19 13:15	21.38	949	8.78	1.0	7-22-19 13:15	20.21	1020	8.73	8.2						10-22-19 10:15	4.33	1495	8.42	2.5					
7-22-19 17:00	20.76	1657	9.12	7.2	7-22-19 13:30	21.28	944	8.74	1.1	7-22-19 13:30	20.16	1020	8.73	14.4						10-22-19 10:30	4.31	1495	8.42	2.5					
7-22-19 17:15	20.93	1660	9.13	6.4	7-22-19 13:45	21.27	948	8.78	0.8	7-22-19 13:45	20.13	1018	8.73	40.4						10-22-19 10:45	4.31	1493	8.42	2.8					
7-22-19 17:30	21.07	1641	9.14	18.4	7-22-19 14:00	21.23	949	8.74	1.0	7-22-19 14:00	20.11	1020	8.73	14.6						10-22-19 11:00	4.27	1492	8.42	3.0					
7-22-19 17:45	21.20	1664	9.14	6.2	7-22-19 14:15	21.19	954	7.90	1.2	7-22-19 14:15	20.11	1019	8.73	8.3						10-22-19 11:15	4.27	1492	8.42	2.6					
7-22-19 18:00	21.35	1652	9.15	8.0	7-22-19 14:30	21.23	954	7.22	0.7	7-22-19 14:30	20.12	1019	8.73	16.0						10-22-19 11:30	4.25	1493	8.40	2.2					
7-22-19 18:15	21.45	1656	9.18	5.6	7-22-19 14:45	21.23	952	7.15	0.7	7-22-19 14:45	20.12	1019	8.73	14.7						10-22-19 11:45	4.24	1493	8.38	2.0					
7-22-19 18:30	21.59	1650	9.18	9.4	7-22-19 15:00	21.21	956	6.77	0.7	7-22-19 15:00	20.16	1019	8.73	18.5						10-22-19 12:00	4.24	1496	8.41	2.4					
7-22-19 18:45	21.71	1654	9.18	8.3	7-22-19 15:15	21.28	955	6.67	0.8	7-22-19 15:15	20.18	1019	8.73	14.6						10-22-19 12:15	4.25	1491	8.42	2.5					
7-22-19 19:00	21.94	1658	9.18	8.3	7-22-19 15:30	21.34	956	6.75	0.6	7-22-19 15:30	20.24	1019	8.73	15.3						10-22-19 12:30	4.22	1492	8.41	2.4					
7-22-19 19:15	22.14	1655	9.16	5.2	7-22-19 15:45	21.35	954	7.01	0.7	7-22-19 15:45	20.28	1020	8.73	11.1						10-22-19 12:45	4.24	1493	8.43	2.3					
7-22-19 19:30	22.31	1644	9.15	10.4	7-22-19 16:00	21.37	951	7.14	0.9	7-22-19 16:00	20.32	1020	8.73	12.9						10-22-19 13:00	4.24	1491	8.42	2.4					
7-22-19 19:45	22.40	1654	9.17	6.5	7-22-19 16:15	21.35	949	7.95	1.2	7-22-19 16:15	20.41	1020	8.73	13.2						10-22-19 13:15	4.23	1490	8.40	2.6					
7-22-19 20:00	22.55	1650	9.15	8.5	7-22-19 16:30	21.29	943	8.07	1.1	7-22-19 16:30	20.48	1020	8.74	17.7						10-22-19 13:30	4.23	1492	8.43	2.5					
7-22-19 20:15	22.80	1669	9.19	6.0	7-22-19 16:45	21.25	941	8.34	1.4	7-22-19 16:45	20.55	1020	8.73	11.4						10-22-19 13:45	4.22	1495	8.43	2.5					
7-22-19 20:30	22.61	1659	9.22	7.5	7-22-19 17:00	21.28	946	7.70	1.1	7-22-19 17:00	20.74	1020	8.74	17.0						10-22-19 14:00	4.22	1493	8.44	2.5					
7-22-19 20:45	22.91	1659	9.20	5.0	7-22-19 17:15	21.37	948	7.37	1.1	7-22-19 17:15	20.81	1020	8.73	16.6						10-22-19 14:15	4.19	1492	8.45	2.2					
7-22-19 21:00	23.19	1653	9.22	9.0	7-22-19 17:30	21.55	914	7.28	3.0	7-22-19 17:30	21.07	1021	8.72	21.1						10-22-19 14:30	4.17	1492	8.44	2.2					
7-22-19 21:15	23.37	1658	9.23	5.1	7-22-19 17:45	21.62	914	7.00	2.1	7-22-19 17:45	21.51	1021	8.72	19.1						10-22-19 14:45	4.14	1494	8.41	2.4					
7-22-19 21:30	23.37	1660	9.29	21.0	7-22-19 18:00	21.61	949	7.17	2.1	7-22-19 18:00	21.46	1021	8.72	18.3						10-22-19 15:00	4.14	1492	8.42	2.6					
7-22-19 21:45	23.42	1656	9.25	5.9	7-22-19 18:15	21.63	948	7.39	1.4	7-22-19 18:15	21.48	1021	8.72	13.8						10-22-19 15:15	4.15	1490	8.41	2.2					
7-22-19 22:00	23.65	1663	9.25	15.2	7-22-19 18:30	21.72	948	7.35	1.4	7-22-19 18:30	21.84	1021	8.72	19.9						10-22-19 15:30	4.16	1494	8.41	2.0					
7-22-19 22:15	23.83	1675	9.26	6.8	7-22-19 18:45	21.81	948	7.31	1.8	7-22-19 18:45	21.85	1022	8.72	18.0						10-22-19 15:45	4.17	1495	8.43	2.0					
7-22-19 22:30	23.88	1668	9.28	20.4	7-22-19 19:00	21.93	949	7.09	4.3	7-22-19 19:00	21.94	1019	8.72	20.7						10-22-19 16:00	4.15	1496	8.43	2.3					
7-22-19 22:45	23.92	1663	9.27	5.3	7-22-19 19:15	22.13	947	7.07	9.0	7-22-19 19:15	22.17	1019	8.71	18.5						10-22-19 16:15	4.20	1494	8.44	2.4					
7-22-19 23:00	23.84	1658	9.27	16.7	7-22-19 19:30	22.34	944	7.25	2.8	7-22-19 19:30	22.43	1019	8.71	20.6						10-22-19 16:30	4.20	1494	8.43	2.1					
7-22-19 23:15	23.92	1659	9.28	5.9	7-22-19 19:45	22.47	950	7.41	4.3	7-22-19 19:45	22.51	1019	8.71	18.2						10-22-19 16:45	4.19	1494	8.44	2.0					
7-22-19 23:30	24.06	1672	9.30	10.1	7-22-19 20:00	22.57	951	7.08	2.4	7-22-19 20:00	22.41	1019	8.71	18.1						10-22-19 17:00	4.21	1493	8.44	2.4					
7-22-19 23:45	23.94	1658	9.30	6.6	7-22-19 20:15	22.76	950	6.98	2.6	7-22-19 20:15	22.29	1021	8.72	16.1						10-22-19 17:15	4.22	1496	8.43	1.9					
7-23-19 0:00	23.98	1647	9.29	17.6	7-22-19 20:30	23.25	949	7.88	2.4	7-22-19 20:30	22.43	1021	8.71	18.9						10-22-19 17:30	4.25	1494	8.44	2.4					
7-23-19 0:15	24.02	1672	9.29	6.2	7-22-19 20:45	23.70	949	7.31	1.8	7-22-19 20:45	22.71	1022	8.70	13.2						10-22-19 17:45	4.27	1494	8.44	1.7					
7-23-19 0:30	24.09	1653	9.29	15.3	7-22-19 21:00	23.91	952	6.80	1.6	7-22-19 21:00	23.26	1020	8.70	19.0						10-22-19 18:00	4.28	1492	8.45	1.9					
7-23-19 0:45	24.08	1656	9.29	5.7	7-22-19 21:15	24.03	951	6.99	1.6	7-22-19 21:15	23.40	1023	8.70	15.6						10-22-19 18:15	4.29	1487	8.45	3.6					
7-23-19 1:00	24.04	1673	9.30	15.3	7-22-19 21:30	24.36	956	7.16	1.7	7-22-19 21:30	23.11	1022	8.70	20.2						10-22-19 18:30	4.30	1492	8.45	2.1					
7-23-19 1:15	24.05	1659	9.31	6.4	7-22-19 21:45	24.66	955	7.15	2.0	7-22-19 21:45	22.97	1024	8.70	14.7						10-22-19 18:45	4.33	1492	8.46	2.2					
7-23-19 1:30	23.99	1671	9.32	17.6	7-22-19 22:00	24.71	955	8.11	2.0	7-22-19 22:00	23.04	1023	8.71	11.6						10-22-19 19:00	4.35	1492	8.46	2.1					
7-23-19 1:45	23.98	1654	9.30	7.0	7-22-19 22:15	24.98	958	7.05	3.0	7-22-19 22:15	23.23	1024	8.72	11.8						10-22-19 19:15	4.39	1493	8.45	1.8					
7-23-19 2:00	23.89	1656	9.32	11.2	7-22-19 22:30	24.99	958	7.10	1.8	7-22-19 22:30	23.24	1025	8.72	13.9						10-22-19 19:30	4.47	1493	8.46	1.8					
7-23-19 2:15	23.84	1652	9.30	5.5	7-22-19 22:45	24.89	951	8.35	1.8	7-22-19 22:45	23.26	1025	8.72	15.6						10-22-19 19:45	4.61	1492	8.47	1.7					
7-23-19 2:30	23.79	1649	9.31	8.9	7-22-19 23:00	25.04	958	7.06	2.2	7-22-19 23:00	23.28	1017	8.72	15.7						10-22-19 20:00	4.54	1492	8.48	1.8					
7-23-19 2:45	23.75	1651	9.31	5.6	7-22-19 23:15	25.20	952	8.57	2.1	7-22-19 23:15	23.52	1023	8.72	15.8						10-22-19 20:15	4.60	1492	8.49	2.1					
7-23-19 3:00	23.69	1652	9.32	10.9	7-22-19 23:30	25.16	951	8.69	2.0	7-22-19 23:30	23.46	1024	8.72	13.3						10-22-19 20:30	4.64	1494	8.49	2.1					
7-23-19 3:15	23.64	1644	9.32	6.4	7-22-19 23:45	25.10	952	8.25	2.0	7-22-19 23:45	23.74	1030	8.72	12.1						10-22-19 20:45	4.60	1493	8.50	2.0					
7-23-19 3:30	23.57	1653	9.34	13.3	7-23-19 0:00	25.00	956	7.41	1.8	7-23-19 0:00	23.84	1019	8.71	17.0						10-22-19 21:00	4.61	1494	8.51	2.0					
7-23-19 3:45	23.50	1654	9.33	6.3	7-23-19 0:15	25.06	958	6.72	2.1	7-23-19 0:15	23.53	1025	8.72	16.4						10-22-19 21:15	4.61	1496	8.50	2.0					
7-23-19 4:00	23.41	1648	9.33	7.8	7-23-19 0:30	25.14	951	8.48	2.2	7-23-19 0:30	23.43	1025	8.72	15.3						10-22-19 21:30	4.69	1494	8.51	2.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-23-19 4:15	23.33	1654	9.32	5.7	7-23-19 0:45	25.06	953	7.69	2.3	7-23-19 0:45	23.68	1023	8.72	18.0						10-22-19 21:45	4.71	1499	8.52	2.3					
7-23-19 4:30	23.29	1645	9.33	9.4	7-23-19 1:00	24.85	942	9.10	3.0	7-23-19 1:00	23.75	1048	8.72	19.1						10-22-19 22:00	4.71	1493	8.53	2.3					
7-23-19 4:45	23.24	1645	9.33	5.8	7-23-19 1:15	24.80	948	8.97	2.0	7-23-19 1:15	23.77	1022	8.72	13.7						10-22-19 22:15	4.71	1491	8.54	2.0					
7-23-19 5:00	23.19	1656	9.32	16.0	7-23-19 1:30	24.73	945	9.02	1.8	7-23-19 1:30	23.71	1016	8.72	18.4						10-22-19 22:30	4.69	1492	8.55	2.1					
7-23-19 5:15	23.13	1652	9.30	5.6	7-23-19 1:45	24.88	954	6.58	2.1	7-23-19 1:45	23.72	1022	8.72	15.3						10-22-19 22:45	4.67	1490	8.55	2.9					
7-23-19 5:30	23.09	1645	9.31	8.5	7-23-19 2:00	24.80	956	6.61	2.1	7-23-19 2:00	23.72	1022	8.72	12.8						10-22-19 23:00	4.64	1491	8.56	2.2					
7-23-19 5:45	23.05	1643	9.32	7.1	7-23-19 2:15	24.70	954	6.80	2.3	7-23-19 2:15	23.64	1023	8.72	16.4						10-22-19 23:15	4.65	1495	8.56	1.8					
7-23-19 6:00	22.98	1647	9.31	7.2	7-23-19 2:30	24.57	954	6.71	1.9	7-23-19 2:30	23.69	1024	8.73	15.2						10-22-19 23:30	4.64	1493	8.56	1.7					
7-23-19 6:15	22.94	1644	9.31	7.2	7-23-19 2:45	24.43	952	6.90	2.1	7-23-19 2:45	23.66	1026	8.73	16.7						10-22-19 23:45	4.64	1490	8.56	2.0					
7-23-19 6:30	22.90	1637	9.30	8.4	7-23-19 3:00	24.27	952	6.75	2.0	7-23-19 3:00	23.62	1025	8.73	17.8						10-23-19 0:00	4.64	1490	8.57	2.3					
7-23-19 6:45	22.84	1645	9.31	5.0	7-23-19 3:15	24.04	942	7.60	3.9	7-23-19 3:15	23.52	1025	8.73	11.5						10-23-19 0:15	4.61	1489	8.57	2.3					
7-23-19 7:00	22.80	1637	9.30	6.1	7-23-19 3:30	23.95	943	7.79	3.4	7-23-19 3:30	23.44	1026	8.74	16.6						10-23-19 0:30	4.62	1488	8.58	2.2					
7-23-19 7:15	22.76	1643	9.28	5.6	7-23-19 3:45	23.80	939	7.57	8.1	7-23-19 3:45	23.40	1025	8.73	12.7						10-23-19 0:45	4.62	1488	8.58	1.9					
7-23-19 7:30	22.65	1627	9.31	7.0	7-23-19 4:00	23.65	936	8.43	3.7	7-23-19 4:00	23.30	1025	8.74	17.4						10-23-19 1:00	4.58	1489	8.57	2.2					
7-23-19 7:45	22.68	1637	9.28	5.0	7-23-19 4:15	23.56	939	7.08	3.3	7-23-19 4:15	23.25	1025	8.74	12.0						10-23-19 1:15	4.61	1490	8.57	1.6					
7-23-19 8:00	22.65	1632	9.27	9.5	7-23-19 4:30	23.53	936	7.46	3.3	7-23-19 4:30	23.18	1023	8.74	16.9						10-23-19 1:30	4.59	1491	8.57	1.6					
7-23-19 8:15	22.62	1636	9.26	4.8	7-23-19 4:45	23.49	939	6.96	3.1	7-23-19 4:45	23.12	1025	8.74	11.3						10-23-19 1:45	4.60	1491	8.57	1.8					
7-23-19 8:30	22.58	1635	9.26	6.3	7-23-19 5:00	23.48	940	7.71	3.7	7-23-19 5:00	23.06	1024	8.73	17.6						10-23-19 2:00	4.60	1489	8.58	2.2					
7-23-19 8:45	22.53	1636	9.25	4.5	7-23-19 5:15	23.50	933	9.02	3.8	7-23-19 5:15	22.99	1007	8.74	11.3						10-23-19 2:15	4.56	1490	8.58	2.1					
7-23-19 9:00	22.51	1634	9.26	5.5	7-23-19 5:30	23.46	934	8.99	3.6	7-23-19 5:30	22.93	1024	8.75	17.1						10-23-19 2:30	4.43	1489	8.58	2.2					
7-23-19 9:15	22.47	1632	9.24	4.7	7-23-19 5:45	23.36	940	8.07	3.3	7-23-19 5:45	22.86	1024	8.75	9.2						10-23-19 2:45	4.33	1490	8.59	2.2					
7-23-19 9:30	22.44	1631	9.24	7.1	7-23-19 6:00	23.33	937	8.67	3.4	7-23-19 6:00	22.72	1029	8.76	17.5						10-23-19 3:00	4.24	1493	8.58	2.1					
7-23-19 9:45	22.40	1630	9.23	4.9	7-23-19 6:15	23.21	935	7.65	3.3	7-23-19 6:15	22.66	1029	8.75	15.2						10-23-19 3:15	4.22	1494	8.58	1.8					
7-23-19 10:00	22.35	1631	9.25	10.4	7-23-19 6:30	23.18	938	7.52	3.2	7-23-19 6:30	22.56	1030	8.76	14.0						10-23-19 3:30	4.20	1494	8.58	1.6					
7-23-19 10:15	22.32	1630	9.25	5.3	7-23-19 6:45	23.12	933	8.60	3.5	7-23-19 6:45	22.51	1030	8.75	13.2						10-23-19 3:45	4.13	1494	8.58	1.7					
7-23-19 10:30	22.26	1638	9.26	8.5	7-23-19 7:00	23.14	926	9.15	4.0	7-23-19 7:00	22.44	1030	8.75	19.2						10-23-19 4:00	4.18	1492	8.58	1.9					
7-23-19 10:45	22.19	1632	9.21	4.4	7-23-19 7:15	23.04	931	8.21	3.2	7-23-19 7:15	22.41	1029	8.75	14.7						10-23-19 4:15	4.10	1490	8.59	2.1					
7-23-19 11:00	22.15	1632	9.22	6.5	7-23-19 7:30	22.99	924	8.98	3.7	7-23-19 7:30	22.30	1026	8.76	13.4						10-23-19 4:30	4.13	1492	8.59	1.8					
7-23-19 11:15	22.10	1628	9.23	4.7	7-23-19 7:45	22.95	923	8.70	3.6	7-23-19 7:45	22.33	1028	8.75	14.5						10-23-19 4:45	4.09	1491	8.59	1.8					
7-23-19 11:30	22.03	1641	9.24	5.6	7-23-19 8:00	22.98	930	8.81	4.4	7-23-19 8:00	22.28	1029	8.75	18.3						10-23-19 5:00	4.12	1491	8.58	2.0					
7-23-19 11:45	21.98	1628	9.23	4.8	7-23-19 8:15	22.88	930	8.26	3.7	7-23-19 8:15	22.24	1030	8.75	14.6						10-23-19 5:15	4.03	1492	8.58	1.6					
7-23-19 12:00	21.89	1631	9.24	6.5	7-23-19 8:30	22.96	924	9.19	3.8	7-23-19 8:30	22.20	1030	8.74	18.1						10-23-19 5:30	4.11	1494	8.58	1.8					
7-23-19 12:15	21.83	1628	9.22	4.6	7-23-19 8:45	22.96	925	9.22	4.0	7-23-19 8:45	22.16	1031	8.74	13.6						10-23-19 5:45	3.97	1493	8.58	1.7					
7-23-19 12:30	21.78	1626	9.23	6.9	7-23-19 9:00	22.93	926	9.22	4.1	7-23-19 9:00	22.12	1031	8.74	15.3						10-23-19 6:00	3.89	1494	8.59	2.0					
7-23-19 12:45	21.74	1625	9.22	4.6	7-23-19 9:15	22.90	922	9.23	3.6	7-23-19 9:15	22.07	1031	8.74	11.2						10-23-19 6:15	3.88	1491	8.59	2.0					
7-23-19 13:00	21.67	1626	9.23	7.5	7-23-19 9:30	22.89	915	9.23	3.4	7-23-19 9:30	22.04	1031	8.74	12.6						10-23-19 6:30	3.81	1492	8.59	2.0					
7-23-19 13:15	21.65	1624	9.23	4.4	7-23-19 9:45	22.83	925	9.23	3.1	7-23-19 9:45	22.00	1032	8.74	12.9						10-23-19 6:45	3.82	1490	8.59	2.5					
7-23-19 13:30	21.57	1627	9.24	6.7	7-23-19 10:00	22.81	926	9.22	3.4	7-23-19 10:00	21.95	1033	8.73	18.0						10-23-19 7:00	3.85	1495	8.59	1.9					
7-23-19 13:45	21.51	1624	9.22	5.1	7-23-19 10:15	22.78	926	9.20	3.2	7-23-19 10:15	21.90	1033	8.73	16.5						10-23-19 7:15	3.87	1493	8.58	2.0					
7-23-19 14:00	21.48	1625	9.24	6.6	7-23-19 10:30	22.65	927	9.01	4.0	7-23-19 10:30	21.82	1033	8.74	15.7						10-23-19 7:30	3.92	1493	8.58	1.4					
7-23-19 14:15	21.45	1624	9.22	5.1	7-23-19 10:45	22.55	934	7.85	2.6	7-23-19 10:45	21.76	1032	8.73	14.2						10-23-19 7:45	3.82	1494	8.58	1.4					
7-23-19 14:30	21.43	1625	9.21	8.3	7-23-19 11:00	22.54	935	7.48	1.9	7-23-19 11:00	21.69	1032	8.74	20.4						10-23-19 8:00	3.82	1493	8.59	1.5					
7-23-19 14:45	21.45	1620	9.19	4.9	7-23-19 11:15	22.46	912	7.10	2.3	7-23-19 11:15	21.62	1032	8.74	12.9						10-23-19 8:15	3.83	1492	8.59	1.4					
7-23-19 15:00	21.42	1620	9.19	9.4	7-23-19 11:30	22.42	938	6.95	1.9	7-23-19 11:30	21.56	1032	8.74	18.6						10-23-19 8:30	3.80	1493	8.59	1.5					
7-23-19 15:15	21.44	1622	9.21	5.2	7-23-19 11:45	22.38	934	6.98	1.9	7-23-19 11:45	21.50	1032	8.74	9.2						10-23-19 8:45	3.83	1492	8.59	1.7					
7-23-19 15:30	21.47	1618	9.15	6.9	7-23-19 12:00	22.31	936	6.82	1.6	7-23-19 12:00	21.46	1032	8.74	24.8						10-23-19 9:00	3.83	1493	8.58	1.8					
7-23-19 15:45	21.47	1619	9.13	5.2	7-23-19 12:15	22.26	937	6.63	1.3	7-23-19 12:15	21.39	1032	8.74	10.1						10-23-19 9:15	3.85	1493	8.58	1.3					
7-23-19 16:00	21.53	1618	9.14	7.9	7-23-19 12:30	22.21	935	6.97	1.6	7-23-19 12:30	21.34	1032	8.74	20.7						10-23-19 9:30	3.81	1494	8.58	1.2					
7-23-19 16:15	21.57	1621	9.19	5.9	7-23-19 12:45	22.18	935	7.25	1.7	7-23-19 12:45	21.28	1032	8.74	11.1						10-23-19 9:45	3.78	1494	8.58	1.2					
7-23-19 16:30	21.62	1617	9.20	7.6	7-23-19 13:00	22.17	933	7.70	1.9	7-23-19 13:00	21.22	1032	8.74	17.9						10-23-19 10:00	3.78	1494	8.58	1.4					
7-23-19 16:45	21.71	1619	9.19	5.2	7-23-19 13:15	22.12	935	7.09	1.7	7-23-19 13:15	21.19	1032	8.73	12.5						10-23-19 10:15	3.77	1493	8.59	1.5					
7-23-19 17:00	21.81	1616	9.16	6.6	7-23-19 13:30	22.11	934	7.74	1.5	7-23-19 13:30	21.15	1032	8.74	28.1						10-23-19 10:30	3.71	1493	8.59	1.4					
7-23-19 17:15	21.88	1619	9.18	5.7	7-23-19 13:45	22.12	935	7.23	1.3	7-23-19 13:45	21.10	1032	8.73	16.8						10-23-19 10:45	3.73	1496	8.51	1.5					
7-23-19 17:30	21.96	1618	9.19	6.0	7-23-19 14:00	22.08	935	7.46	1.7	7-23-19 14:00	21.06	1032	8.73	18.8						10-23-19 11:00	3.81	1496	7.51	1.7					
7-23-19 17:45	22.27	1619	9.20	5.2	7-23-19 14:15	22.05	937	6.76	1.7	7-23-19 14:15	21.03	1031	8.73	11.1						10-23-19 11:15	3.82	1498	7.37	1.7					
7-23-19 18:00	22.37	1614	9.21	5.9	7-23-19 14:30	22.13	929	8.96	1.6	7-23-19 14:30	21.05	1032	8.73	31.2						10-23-19 11:30	3.82	1497	7.30	2.5					
7-23-19 18:15	22.48	1617	9.23	5.3	7-23-19 14:45	22.15	930	8.92	2.0	7-23-19 14:45	21.05	1032	8.73	13.0						10-23-19 11:45	3.81	1499	7.22	1.6					
7-23-19 18:30	22.63	1609	9.19	5.9	7-23-19 15:00	22.10	938	6.57	1.1	7-23-19 15:00	21.01	1033	8.73	21.0						10-23-19 12:00	3.82	1498	7.19	1.6					
7-23-19 18:45	22.73	1611	9.16	5.0	7-23-19 15:15	22.14	937	7.02	1.4	7-23-19 15:15	21.06	1033	8.73	10.1						10-23-19 12:15	3.81	1496	7.18	1.6					
7-23-19 19:00	22.72	1624	9.20	7.9	7-23-19 15:30	22.15	937	6.81	2.5	7-23-19 15:30	21.08	1033	8.73	45.6						10-23-19 12:30	3.80	1496	7.15	1.4					
7-23-19 19:15	23.00	1618	9.17	4.8	7-23-19 15:45	22.24	938	6.65	2.3	7-23-19 15:45	21.14	1033	8.74	11.8						10-23-19 12:45	3.79	1496	7.16	1.6					
7-23-19 19:30	23.23	1611	9.16	11.7	7-23-19 16:00	22.31	939	6.65	2.7	7-23-19 16:00	21.21	1033	8.74	22.4						10-23-19 13:00	3.79	1496	7.14	1.5					
7-23-19 19:45	23.45	1621	9.17	4.7	7-23-19 16:15	22.35	938	6.82	2.6	7-23-19 16:15	21.27	1033	8.74	14.8						10-23-19 13:15	3.78	1498	7.12	1.1					
7-23-19 20:00	23.98	1617	9.21	6.2	7-23-19 16:30	22.38	937	7.17	1.9	7-23-19 16:30	21.22	1035	8.73	55.1						10-23-19 13:30	3.77	1500	7.17	1.2					
7-23-19 20:15	23.70	1610	9.16	4.4	7-23-19 16:45	22.29	937	7.78	1.4	7-23-19 16:45	21.32	1035	8.73	9.4						10-23-19 13:45	3.75	1500	7.15	1.4					
7-23-19 20:30	23.90	1623	9.20	8.3	7-23-19 17:00	22.31	938	7.43	1.6	7-23-19 17:00	21.49	1038	8.74	36.3						10-23-19 14:00	3.75	1499	7.15	2.1					
7-23-19 20:45	23.67	1614	9.20	6.0	7-23-19 17:15	22.38	938	7.24	1.7	7-23-19 17:15	21.53	1036	8.73	8.3						10-23-19 14:15	3.73	1498	7.10	1.5					
7-23-19 21:00	24.12	1611	9.23	8.6	7-23-19 17:30	22.45	931	7.73	2.1	7-23-19 17:30	21.81	1037	8.72	19.2						10-23-19 14:30	3.75	1498	7.09	1.5					
7-23-19 21:15	24.02	1608	9.23	5.1	7-23-19 17:45	22.53	938	7.11	1.7	7-23-19 17:45	21.98	1037	8.72	17.0						10-23-19 14:45	3.75	1497	7.09	1.2					
7-23-19 21:30	24.11	1601	9.24	8.2	7-23-19 18:00	22.61	938	7.10	1.8	7-23-19 18:00	22.07	1038	8.71	32.4						10-23-19 15:00	3.75	1498	7.06	1.4					
7-23-19 21:45	24.42	1608	9.26	5.6	7-23-19 18:15	22.69	938	7.12	1.5	7-23-19 18:15	22.21	1037	8.71	15.0						10-23-19 15:15	3.75	1500	7.05	1.8					
7-23-19 22:00	24.63	1608	9.26	7.8	7-23-19 18:30	22.78	936	7.22	1.7	7-23-19 18:30	22.46	1038	8.71	41.2						10-23-19 15:30	3.74	1498	7.05	1.1					
7-23-19 22:15	24.56	1604	9.26	6.1	7-23-19 18:45	22.89	937	7.10	1.9	7-23-19 18:45	22.73	1039	8.71	10.9						10-23-19 15:45	3.74	1500	7.08	1.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-23-19 22:30	24.56	1597	9.24	6.7	7-23-19 19:00	22.95	937	7.83	2.6	7-23-19 19:00	22.93	1037	8.70	34.4						10-23-19 16:00	3.75	1499	7.08	1.5					
7-23-19 22:45	24.38	1597	9.25	5.8	7-23-19 19:15	22.89	929	8.90	4.6	7-23-19 19:15	23.11	1038	8.69	13.0						10-23-19 16:15	3.74	1497	7.06	1.5					
7-23-19 23:00	24.29	1609	9.27	8.5	7-23-19 19:30	23.11	933	8.57	3.7	7-23-19 19:30	23.37	1029	8.69	56.9						10-23-19 16:30	3.74	1496	7.06	1.2					
7-23-19 23:15	24.27	1598	9.29	6.5	7-23-19 19:45	23.44	936	7.01	2.3	7-23-19 19:45	23.26	1037	8.70	11.2						10-23-19 16:45	3.75	1497	7.06	1.3					
7-23-19 23:30	24.32	1596	9.28	7.0	7-23-19 20:00	23.70	941	6.71	2.3	7-23-19 20:00	22.91	1034	8.70	119.0						10-23-19 17:00	3.75	1497	7.04	1.4					
7-23-19 23:45	24.23	1595	9.28	6.0	7-23-19 20:15	23.97	938	7.54	2.4	7-23-19 20:15	22.62	1036	8.71	15.5						10-23-19 17:15	3.76	1499	7.02	1.1					
7-24-19 0:00	24.16	1602	9.29	14.2	7-23-19 20:30	24.48	941	7.38	2.0	7-23-19 20:30	22.68	1036	8.72	22.4						10-23-19 17:30	3.77	1498	7.03	1.2					
7-24-19 0:15	24.12	1598	9.28	6.3	7-23-19 20:45	24.68	942	7.10	1.8	7-23-19 20:45	23.12	1039	8.72	12.2						10-23-19 17:45	3.78	1500	7.03	1.3					
7-24-19 0:30	24.10	1594	9.29	6.6	7-23-19 21:00	24.86	940	7.75	2.1	7-23-19 21:00	23.42	1039	8.71	44.1						10-23-19 18:00	3.80	1498	7.04	1.2					
7-24-19 0:45	24.09	1594	9.28	6.2	7-23-19 21:15	24.86	937	8.61	1.8	7-23-19 21:15	23.46	1038	8.71	12.9						10-23-19 18:15	3.82	1498	7.04	1.2					
7-24-19 1:00	24.08	1589	9.28	13.5	7-23-19 21:30	24.98	941	7.23	2.0	7-23-19 21:30	23.43	1040	8.72	80.5						10-23-19 18:30	3.84	1497	7.03	1.1					
7-24-19 1:15	24.06	1590	9.27	5.8	7-23-19 21:45	25.33	944	7.20	1.8	7-23-19 21:45	24.08	1038	8.71	16.6						10-23-19 18:45	3.86	1497	7.05	1.3					
7-24-19 1:30	24.03	1579	9.26	16.3	7-23-19 22:00	25.20	943	6.97	1.6	7-23-19 22:00	23.97	1044	8.70	17.9						10-23-19 19:00	3.86	1496	7.07	1.5					
7-24-19 1:45	24.00	1580	9.23	5.4	7-23-19 22:15	25.10	942	6.98	1.5	7-23-19 22:15	23.57	1038	8.70	14.3						10-23-19 19:15	3.85	1496	7.05	0.9					
7-24-19 2:00	23.95	1582	9.22	9.2	7-23-19 22:30	25.11	943	6.77	1.4	7-23-19 22:30	24.14	1041	8.72	11.0						10-23-19 19:30	3.86	1497	7.06	1.0					
7-24-19 2:15	23.89	1585	9.24	5.4	7-23-19 22:45	25.14	943	6.75	1.5	7-23-19 22:45	24.23	1040	8.71	11.7						10-23-19 19:45	3.85	1497	7.08	1.5					
7-24-19 2:30	23.85	1586	9.26	6.9	7-23-19 23:00	25.11	942	6.80	1.4	7-23-19 23:00	24.11	1036	8.71	96.0						10-23-19 20:00	3.88	1498	7.16	1.4					
7-24-19 2:45	23.81	1588	9.27	6.2	7-23-19 23:15	24.93	942	6.80	1.4	7-23-19 23:15	23.75	1035	8.71	14.5						10-23-19 20:15	3.91	1496	7.23	1.7					
7-24-19 3:00	23.75	1577	9.26	6.8	7-23-19 23:30	24.97	942	6.89	1.7	7-23-19 23:30	24.00	1037	8.72	33.0						10-23-19 20:30	3.98	1496	7.41	1.8					
7-24-19 3:15	23.71	1580	9.26	6.1	7-23-19 23:45	24.94	942	7.37	1.4	7-23-19 23:45	24.06	1036	8.71	8.0						10-23-19 20:45	4.00	1496	7.54	2.3					
7-24-19 3:30	23.68	1582	9.26	7.0	7-24-19 0:00	24.90	943	6.64	1.7	7-24-19 0:00	23.94	1034	8.72	18.0						10-23-19 21:00	4.00	1493	7.31	2.2					
7-24-19 3:45	23.64	1584	9.25	6.0	7-24-19 0:15	24.89	943	6.67	1.4	7-24-19 0:15	23.80	1036	8.71	24.8						10-23-19 21:15	3.98	1492	7.44	5.7					
7-24-19 4:00	23.59	1570	9.25	7.2	7-24-19 0:30	24.83	942	6.90	1.4	7-24-19 0:30	23.90	1040	8.72	34.5						10-23-19 21:30	3.96	1493	7.19	1.8					
7-24-19 4:15	23.56	1583	9.24	6.1	7-24-19 0:45	24.80	942	6.71	1.3	7-24-19 0:45	23.95	1040	8.72	33.2						10-23-19 21:45	3.97	1494	7.25	1.6					
7-24-19 4:30	23.53	1592	9.25	6.7	7-24-19 1:00	24.77	942	6.89	1.2	7-24-19 1:00	23.91	1038	8.72	18.5						10-23-19 22:00	4.00	1496	7.47	2.0					
7-24-19 4:45	23.49	1586	9.24	5.4	7-24-19 1:15	24.76	936	6.90	1.5	7-24-19 1:15	23.86	1039	8.72	30.6						10-23-19 22:15	4.00	1495	7.24	2.4					
7-24-19 5:00	23.45	1586	9.26	6.7	7-24-19 1:30	24.71	941	6.77	1.4	7-24-19 1:30	23.78	1038	8.73	27.1						10-23-19 22:30	4.02	1494	7.38	2.5					
7-24-19 5:15	23.41	1581	9.24	5.0	7-24-19 1:45	24.63	940	6.73	1.3	7-24-19 1:45	23.75	1039	8.72	36.7						10-23-19 23:00	3.97	1493	7.23	1.9					
7-24-19 5:30	23.38	1583	9.26	5.8	7-24-19 2:00	24.51	939	6.64	1.4	7-24-19 2:00	23.72	1038	8.73	24.9						10-23-19 23:15	3.95	1495	7.26	1.5					
7-24-19 5:45	23.33	1580	9.26	5.6	7-24-19 2:15	24.43	941	7.16	1.0	7-24-19 2:15	23.57	1038	8.73	34.5						10-23-19 23:30	3.96	1496	7.33	1.3					
7-24-19 6:00	23.28	1559	9.24	7.6	7-24-19 2:30	24.38	942	6.59	1.2	7-24-19 2:30	23.53	1039	8.74	31.6						10-23-19 23:45	3.95	1495	7.30	1.6					
7-24-19 6:15	23.23	1578	9.24	5.9	7-24-19 2:45	24.37	942	6.50	1.1	7-24-19 2:45	23.54	1039	8.74	40.3						10-24-19 0:00	3.91	1496	7.47	1.9					
7-24-19 6:30	23.19	1578	9.26	7.2	7-24-19 3:00	24.35	942	6.73	1.2	7-24-19 3:00	23.51	1039	8.74	28.9						10-24-19 0:15	3.91	1495	7.34	1.7					
7-24-19 6:45	23.14	1580	9.25	5.3	7-24-19 3:15	24.32	941	6.68	1.3	7-24-19 3:15	23.45	1039	8.73	36.2						10-24-19 0:30	3.91	1494	7.43	1.6					
7-24-19 7:00	23.08	1595	9.24	6.6	7-24-19 3:30	24.30	941	6.66	1.1	7-24-19 3:30	23.41	1039	8.74	21.9						10-24-19 0:45	3.87	1494	7.53	1.7					
7-24-19 7:15	23.02	1570	9.21	5.6	7-24-19 3:45	24.26	941	6.73	1.2	7-24-19 3:45	23.36	1038	8.74	14.5						10-24-19 1:00	3.88	1495	7.48	1.7					
7-24-19 7:30	22.97	1567	9.22	13.6	7-24-19 4:00	24.22	941	6.66	1.2	7-24-19 4:00	23.33	1038	8.74	57.4						10-24-19 1:15	3.89	1496	7.52	1.2					
7-24-19 7:45	22.94	1571	9.20	5.1	7-24-19 4:15	24.16	941	6.70	1.1	7-24-19 4:15	23.28	1038	8.73	16.5						10-24-19 1:30	3.88	1498	7.53	1.4					
7-24-19 8:00	22.90	1574	9.21	6.6	7-24-19 4:30	24.10	940	6.69	1.0	7-24-19 4:30	23.23	1038	8.74	74.1						10-24-19 1:45	3.87	1494	7.53	1.2					
7-24-19 8:15	22.87	1566	9.20	4.7	7-24-19 4:45	24.02	940	6.51	1.2	7-24-19 4:45	23.16	1037	8.73	16.1						10-24-19 2:00	3.88	1494	7.97	1.6					
7-24-19 8:30	22.85	1574	9.24	5.4	7-24-19 5:00	23.97	940	6.64	1.2	7-24-19 5:00	23.11	1037	8.74	64.0						10-24-19 2:15	3.88	1490	7.97	1.3					
7-24-19 8:45	22.83	1574	9.22	5.1	7-24-19 5:15	23.96	940	6.59	1.0	7-24-19 5:15	23.07	1037	8.73	15.3						10-24-19 2:30	3.87	1491	7.62	1.6					
7-24-19 9:00	22.79	1572	9.21	7.6	7-24-19 5:30	23.91	940	6.68	1.1	7-24-19 5:30	23.02	1035	8.74	70.1						10-24-19 2:45	3.87	1490	7.58	1.7					
7-24-19 9:15	22.77	1575	9.16	4.9	7-24-19 5:45	23.86	939	6.76	1.1	7-24-19 5:45	22.96	1037	8.73	9.3						10-24-19 3:00	3.88	1491	7.46	1.6					
7-24-19 9:30	22.73	1568	9.22	6.6	7-24-19 6:00	23.78	939	6.60	1.2	7-24-19 6:00	22.91	1036	8.74	42.3						10-24-19 3:15	3.89	1492	7.30	1.8					
7-24-19 9:45	22.71	1574	9.21	4.5	7-24-19 6:15	23.70	938	6.67	1.1	7-24-19 6:15	22.84	1037	8.74	15.1						10-24-19 3:30	3.87	1491	7.31	1.4					
7-24-19 10:00	22.67	1568	9.21	7.0	7-24-19 6:30	23.56	935	6.86	1.3	7-24-19 6:30	22.78	1036	8.74	60.3						10-24-19 3:45	3.87	1492	7.36	1.4					
7-24-19 10:15	22.63	1573	9.19	4.3	7-24-19 6:45	23.43	933	6.94	1.4	7-24-19 6:45	22.74	1037	8.74	12.3						10-24-19 4:00	3.85	1493	7.37	1.7					
7-24-19 10:30	22.61	1566	9.20	5.0	7-24-19 7:00	23.37	935	6.84	1.3	7-24-19 7:00	22.70	1037	8.74	44.0						10-24-19 4:15	3.86	1492	7.33	1.5					
7-24-19 10:45	22.57	1571	9.18	4.8	7-24-19 7:15	23.33	934	6.79	1.4	7-24-19 7:15	22.63	1029	8.74	12.6						10-24-19 4:30	3.85	1492	7.29	1.5					
7-24-19 11:00	22.54	1570	9.20	6.4	7-24-19 7:30	23.24	934	6.83	1.8	7-24-19 7:30	22.57	1037	8.74	27.2						10-24-19 4:45	3.83	1492	7.27	1.4					
7-24-19 11:15	22.49	1570	9.20	4.6	7-24-19 7:45	23.27	933	8.11	1.7	7-24-19 7:45	22.51	1037	8.74	13.4						10-24-19 5:00	3.83	1492	7.29	1.6					
7-24-19 11:30	22.46	1568	9.19	6.7	7-24-19 8:00	23.31	930	8.65	1.4	7-24-19 8:00	22.49	1037	8.74	72.0						10-24-19 5:15	3.82	1496	7.29	0.9					
7-24-19 11:45	22.40	1573	9.18	4.9	7-24-19 8:15	23.30	930	8.70	1.6	7-24-19 8:15	22.45	1037	8.74	10.9						10-24-19 5:30	3.81	1495	7.32	1.2					
7-24-19 12:00	22.37	1567	9.17	6.2	7-24-19 8:30	23.25	929	8.81	1.8	7-24-19 8:30	22.40	1037	8.74	65.6						10-24-19 5:45	3.80	1501	7.39	1.2					
7-24-19 12:15	22.31	1560	9.14	5.3	7-24-19 8:45	23.20	928	8.92	1.5	7-24-19 8:45	22.32	1036	8.74	12.1						10-24-19 6:00	3.80	1492	7.29	1.4					
7-24-19 12:30	22.29	1560	9.15	5.9	7-24-19 9:00	23.21	928	8.95	1.2	7-24-19 9:00	22.32	1037	8.74	73.3						10-24-19 6:15	3.81	1493	7.31	1.4					
7-24-19 12:45	22.25	1565	9.17	5.0	7-24-19 9:15	23.16	927	9.02	1.3	7-24-19 9:15	22.28	1036	8.74	11.4						10-24-19 6:30	3.79	1492	7.34	1.4					
7-24-19 13:00	22.17	1559	9.17	6.0	7-24-19 9:30	23.13	928	8.98	1.3	7-24-19 9:30	22.23	1036	8.74	54.6						10-24-19 6:45	3.78	1492	7.28	1.3					
7-24-19 13:15	22.14	1561	9.16	4.9	7-24-19 9:45	23.06	928	8.92	1.2	7-24-19 9:45	22.19	1037	8.73	9.4						10-24-19 7:00	3.79	1493	7.26	1.5					
7-24-19 13:30	22.11	1557	9.14	8.6	7-24-19 10:00	23.05	928	8.89	1.2	7-24-19 10:00	22.14	1037	8.73	32.9						10-24-19 7:15	3.78	1496	7.27	1.1					
7-24-19 13:45	22.07	1566	9.15	5.1	7-24-19 10:15	23.02	929	8.83	1.1	7-24-19 10:15	22.11	1037	8.73	9.5						10-24-19 7:30	3.78	1492	7.25	1.7					
7-24-19 14:00	22.03	1561	9.15	6.1	7-24-19 10:30	23.00	929	8.79	1.1	7-24-19 10:30	22.07	1036	8.73	71.9						10-24-19 7:45	3.77	1493	7.26	1.3					
7-24-19 14:15	22.01	1565	9.16	4.7	7-24-19 10:45	22.95	928	8.78	1.2	7-24-19 10:45	22.04	1036	8.73	8.1						10-24-19 8:00	3.77	1492	7.25	1.1					
7-24-19 14:30	21.99	1565	9.15	6.0	7-24-19 11:00	22.94	930	8.73	1.2	7-24-19 11:00	22.00	1036	8.72	48.4						10-24-19 8:15	3.78	1492	7.27	1.5					
7-24-19 14:45	21.96	1557	9.12	5.4	7-24-19 11:15	22.92	929	8.79	1.0	7-24-19 11:15	21.95	1036	8.72	10.7						10-24-19 8:30	3.78	1492	7.27	1.2					
7-24-19 15:00	21.90	1562	9.15	6.5	7-24-19 11:30	22.88	929	8.82	1.1	7-24-19 11:30	21.92	1036	8.72	29.5						10-24-19 8:45	3.79	1491	7.32	1.2					
7-24-19 15:15	21.89	1556	9.12	5.1	7-24-19 11:45	22.82	927	8.79	1.1	7-24-19 11:45	21.85	1036	8.72	9.5						10-24-19 9:00	3.79	1490	7.35	1.3					
7-24-19 15:30	21.83	1561	9.14	6.7	7-24-19 12:00	22.84	929	8.70	1.2	7-24-19 12:00	21.84	1036	8.72	31.9						10-24-19 9:15	3.81	1494	7.36	1.2					
7-24-19 15:45	21.80	1556	9.13	5.0	7-24-19 12:15	22.79	929	8.71	1.1	7-24-19 12:15	21.80	1034	8.72	6.4						10-24-19 9:30	3.85	1492	7.47	1.3					
7-24-19 16:00	21.77	1554	9.11	7.8	7-24-19 12:30	22.78	929	8.72	1.0	7-24-19 12:30	21.77	1032	8.72	38.3						10-24-19 9:45	3.85	1487	7.46	1.2					
7-24-19 16:15	21.74	1554	9.10	6.3	7-24-19 12:45	22.74	930	8.50	1.0	7-24-19 12:45	21.73	1036	8.72	6.9						10-24-19 10:00	3.86	1499	7.39	1.2					
7-24-19 16:30	21.71	1553	9.12	6.1	7-24-19 13:00	22.71	931	8.52	1.0	7-24-19 13:00	21.66	1035	8.73	38.1						10-24-19 10:15	3.86	1490	7.47	1.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-24-19 16:45	21.65	1554	9.09	5.6	7-24-19 13:15	22.64	932	8.42	1.1	7-24-19 13:15	21.61	1035	8.72	8.6						10-24-19 10:30	3.86	1491	7.39	1.1					
7-24-19 17:00	21.61	1546	9.07	6.3	7-24-19 13:30	22.56	931	8.05	1.0	7-24-19 13:30	21.59	1036	8.72	29.4						10-24-19 10:45	3.86	1491	7.43	1.3					
7-24-19 17:15	21.58	1544	9.08	6.4	7-24-19 13:45	22.53	929	7.51	0.9	7-24-19 13:45	21.56	1036	8.72	8.9						10-24-19 11:00	3.86	1491	7.46	1.2					
7-24-19 17:30	21.56	1542	9.07	9.1	7-24-19 14:00	22.50	933	7.00	0.9	7-24-19 14:00	21.53	1036	8.72	36.3						10-24-19 11:15	3.84	1492	7.55	1.0					
7-24-19 17:45	21.52	1542	9.06	5.2	7-24-19 14:15	22.55	925	8.64	1.0	7-24-19 14:15	21.50	1036	8.72	6.8						10-24-19 11:30	3.84	1494	7.49	0.9					
7-24-19 18:00	21.49	1537	9.07	6.3	7-24-19 14:30	22.55	926	8.79	1.0	7-24-19 14:30	21.48	1037	8.72	59.1						10-24-19 11:45	3.84	1492	7.31	1.1					
7-24-19 18:15	21.43	1534	9.06	5.1	7-24-19 14:45	22.55	925	8.89	1.0	7-24-19 14:45	21.45	1036	8.72	10.7						10-24-19 12:00	3.83	1492	7.35	0.8					
7-24-19 18:30	21.33	1525	9.03	10.2	7-24-19 15:00	22.53	927	8.94	0.9	7-24-19 15:00	21.42	1036	8.71	48.8						10-24-19 12:15	3.82	1491	7.61	1.3					
7-24-19 18:45	21.29	1530	9.03	5.8	7-24-19 15:15	22.49	926	8.95	1.0	7-24-19 15:15	21.36	1047	8.71	8.4						10-24-19 12:30	3.82	1491	7.45	1.1					
7-24-19 19:00	21.25	1527	9.03	7.2	7-24-19 15:30	22.48	929	8.80	1.0	7-24-19 15:30	21.31	1037	8.72	17.4						10-24-19 12:45	3.82	1492	7.44	1.5					
7-24-19 19:15	21.21	1526	9.03	6.6	7-24-19 15:45	22.34	933	7.14	0.7	7-24-19 15:45	21.28	1038	8.71	10.5						10-24-19 13:00	3.82	1492	7.27	1.3					
7-24-19 19:30	21.15	1521	9.03	7.0	7-24-19 16:00	22.41	930	8.46	0.8	7-24-19 16:00	21.24	1038	8.71	42.8						10-24-19 13:15	3.81	1495	7.30	0.8					
7-24-19 19:45	21.12	1524	9.01	6.2	7-24-19 16:15	22.33	931	7.31	0.8	7-24-19 16:15	21.23	1038	8.70	10.8						10-24-19 13:30	3.81	1495	7.30	0.7					
7-24-19 20:00	21.08	1522	9.01	8.1	7-24-19 16:30	22.26	933	6.67	0.8	7-24-19 16:30	21.23	1038	8.70	127.4						10-24-19 13:45	3.81	1495	7.43	0.9					
7-24-19 20:15	21.06	1519	9.00	5.3	7-24-19 16:45	22.29	933	6.75	2.2	7-24-19 16:45	21.19	1039	8.70	11.3						10-24-19 14:00	3.81	1493	7.32	0.9					
7-24-19 20:30	21.02	1516	9.00	6.5	7-24-19 17:00	22.23	931	7.18	2.3	7-24-19 17:00	21.14	1036	8.69	48.7						10-24-19 14:15	3.80	1492	7.74	1.3					
7-24-19 20:45	21.00	1516	9.00	6.5	7-24-19 17:15	22.19	930	6.93	3.7	7-24-19 17:15	21.12	1090	8.69	9.8						10-24-19 14:30	3.80	1491	7.33	1.1					
7-24-19 21:00	20.95	1510	8.99	6.5	7-24-19 17:30	22.20	922	7.35	4.2	7-24-19 17:30	21.06	1032	8.70	12.7						10-24-19 14:45	3.80	1492	7.38	1.2					
7-24-19 21:15	20.92	1513	8.99	5.7	7-24-19 17:45	22.15	916	6.98	6.3	7-24-19 17:45	21.01	1036	8.70	12.6						10-24-19 15:00	3.80	1492	7.40	1.1					
7-24-19 21:30	20.91	1511	8.98	6.8	7-24-19 18:00	22.12	933	7.01	3.4	7-24-19 18:00	20.97	1035	8.70	11.4						10-24-19 15:15	3.79	1494	7.40	1.2					
7-24-19 21:45	20.88	1510	8.98	5.4	7-24-19 18:15	22.11	932	6.99	2.7	7-24-19 18:15	20.91	1035	8.69	19.0						10-24-19 15:30	3.79	1492	7.47	0.9					
7-24-19 22:00	20.82	1507	8.96	7.1	7-24-19 18:30	22.07	930	7.05	2.8	7-24-19 18:30	20.85	1038	8.68	10.2						10-24-19 15:45	3.80	1492	7.41	0.9					
7-24-19 22:15	20.81	1501	8.95	6.3	7-24-19 18:45	22.00	930	7.12	2.8	7-24-19 18:45	20.83	1043	8.66	9.3						10-24-19 16:00	3.80	1494	7.37	0.9					
7-24-19 22:30	20.78	1503	8.96	7.1	7-24-19 19:00	21.93	931	7.20	3.3	7-24-19 19:00	20.82	1045	8.65	10.0						10-24-19 16:15	3.81	1492	7.38	1.2					
7-24-19 22:45	20.79	1504	8.97	6.2	7-24-19 19:15	21.90	930	7.25	12.3	7-24-19 19:15	20.77	1045	8.65	10.8						10-24-19 16:30	3.82	1492	7.35	0.9					
7-24-19 23:00	20.77	1501	8.96	10.6	7-24-19 19:30	21.82	926	7.08	5.9	7-24-19 19:30	20.75	1045	8.64	12.0						10-24-19 16:45	3.83	1492	7.34	1.1					
7-24-19 23:15	20.72	1501	8.96	5.1	7-24-19 19:45	21.82	927	7.15	6.1	7-24-19 19:45	20.74	1046	8.63	15.2						10-24-19 17:00	3.84	1492	7.32	1.2					
7-24-19 23:30	20.70	1495	8.96	5.1	7-24-19 20:00	21.79	930	7.22	4.3	7-24-19 20:00	20.73	1046	8.62	15.1						10-24-19 17:15	3.86	1491	7.31	0.7					
7-24-19 23:45	20.66	1496	8.94	6.7	7-24-19 20:15	21.76	929	7.05	3.4	7-24-19 20:15	20.69	1046	8.62	12.5						10-24-19 17:30	3.87	1492	7.29	0.8					
7-25-19 0:00	20.63	1495	8.95	6.3	7-24-19 20:30	21.74	927	7.12	3.3	7-24-19 20:30	20.67	1046	8.62	12.3						10-24-19 17:45	3.88	1490	7.26	0.8					
7-25-19 0:15	20.58	1492	8.93	5.7	7-24-19 20:45	21.68	928	7.12	3.3	7-24-19 20:45	20.65	1046	8.62	12.3						10-24-19 18:00	3.89	1487	7.32	1.0					
7-25-19 0:30	20.59	1487	8.95	5.9	7-24-19 21:00	21.59	926	7.69	4.0	7-24-19 21:00	20.62	1046	8.62	14.6						10-24-19 18:15	3.93	1491	7.33	1.0					
7-25-19 0:45	20.54	1490	8.93	5.7	7-24-19 21:15	21.55	924	7.07	2.6	7-24-19 21:15	20.58	1045	8.63	13.8						10-24-19 18:30	3.95	1491	7.28	0.9					
7-25-19 1:00	20.52	1490	8.94	7.1	7-24-19 21:30	21.50	928	7.04	2.8	7-24-19 21:30	20.57	1045	8.63	13.5						10-24-19 18:45	3.97	1491	7.30	1.4					
7-25-19 1:15	20.45	1478	8.88	7.5	7-24-19 21:45	21.47	927	7.01	3.4	7-24-19 21:45	20.55	1045	8.63	14.2						10-24-19 19:00	4.01	1490	7.38	1.2					
7-25-19 1:30	20.41	1478	8.88	6.5	7-24-19 22:00	21.41	925	7.79	4.1	7-24-19 22:00	20.52	1045	8.63	15.3						10-24-19 19:15	4.05	1493	7.32	0.9					
7-25-19 1:45	20.37	1468	8.86	6.4	7-24-19 22:15	21.41	927	7.04	6.2	7-24-19 22:15	20.51	1045	8.63	15.3						10-24-19 19:30	4.08	1492	7.27	0.6					
7-25-19 2:00	20.35	1471	8.84	6.8	7-24-19 22:30	21.41	926	7.06	3.5	7-24-19 22:30	20.50	1045	8.63	14.4						10-24-19 19:45	4.12	1484	7.31	0.9					
7-25-19 2:15	20.33	1476	8.87	6.2	7-24-19 22:45	21.41	925	7.19	3.1	7-24-19 22:45	20.47	1045	8.63	13.8						10-24-19 20:00	4.15	1491	7.30	0.9					
7-25-19 2:30	20.32	1477	8.87	7.9	7-24-19 23:00	21.38	927	7.08	3.3	7-24-19 23:00	20.47	1045	8.63	13.5						10-24-19 20:15	4.21	1490	7.27	0.9					
7-25-19 2:45	20.29	1475	8.86	5.7	7-24-19 23:15	21.34	927	7.21	2.4	7-24-19 23:15	20.46	1045	8.63	13.6						10-24-19 20:30	4.26	1491	7.36	1.0					
7-25-19 3:00	20.24	1471	8.85	7.4	7-24-19 23:30	21.31	926	7.08	2.3	7-24-19 23:30	20.42	1045	8.63	13.4						10-24-19 20:45	4.27	1490	7.43	0.8					
7-25-19 3:15	20.21	1476	8.85	5.2	7-24-19 23:45	21.26	926	7.17	2.5	7-24-19 23:45	20.40	1045	8.62	13.7						10-24-19 21:00	4.31	1490	7.48	1.2					
7-25-19 3:30	20.20	1472	8.84	5.7	7-25-19 0:00	21.24	926	6.99	2.3	7-25-19 0:00	20.38	1046	8.62	16.1						10-24-19 21:15	4.33	1490	7.42	0.8					
7-25-19 3:45	20.15	1466	8.82	5.9	7-25-19 0:15	21.22	926	7.16	3.5	7-25-19 0:15	20.36	1046	8.62	13.9						10-24-19 21:30	4.35	1490	7.45	0.8					
7-25-19 4:00	20.13	1465	8.81	5.6	7-25-19 0:30	21.17	925	7.11	2.2	7-25-19 0:30	20.36	1046	8.61	14.8						10-24-19 21:45	4.36	1491	7.43	0.9					
7-25-19 4:15	20.09	1466	8.81	5.7	7-25-19 0:45	21.16	925	7.06	2.2	7-25-19 0:45	20.35	1046	8.61	15.3						10-24-19 22:00	4.36	1481	7.40	0.9					
7-25-19 4:30	20.05	1465	8.81	5.7	7-25-19 1:00	21.13	925	7.25	3.8	7-25-19 1:00	20.34	1046	8.61	14.7						10-24-19 22:15	4.38	1462	7.39	1.0					
7-25-19 4:45	20.02	1464	8.80	5.1	7-25-19 1:15	21.09	925	7.20	2.4	7-25-19 1:15	20.31	1045	8.61	14.8						10-24-19 22:30	4.40	1489	7.34	0.9					
7-25-19 5:00	19.98	1462	8.78	5.7	7-25-19 1:30	21.06	925	7.22	2.9	7-25-19 1:30	20.28	1045	8.62	16.1						10-24-19 22:45	4.44	1487	7.32	0.8					
7-25-19 5:15	19.95	1461	8.79	5.5	7-25-19 1:45	21.02	924	7.42	3.1	7-25-19 1:45	20.24	1045	8.62	16.1						10-24-19 23:00	4.45	1483	7.27	1.0					
7-25-19 5:30	19.91	1459	8.77	6.0	7-25-19 2:00	20.99	924	7.38	3.9	7-25-19 2:00	20.22	1045	8.62	18.1						10-24-19 23:15	4.44	1485	7.38	0.8					
7-25-19 5:45	19.84	1459	8.77	5.6	7-25-19 2:15	20.95	925	7.30	4.0	7-25-19 2:15	20.19	1045	8.61	14.5						10-24-19 23:30	4.42	1486	7.43	0.5					
7-25-19 6:00	19.82	1457	8.76	5.4	7-25-19 2:30	20.94	925	7.11	2.9	7-25-19 2:30	20.16	1045	8.62	16.1						10-24-19 23:45	4.41	1486	7.41	0.7					
7-25-19 6:15	19.78	1456	8.75	7.0	7-25-19 2:45	20.91	925	7.18	3.1	7-25-19 2:45	20.16	1045	8.62	15.8						10-25-19 0:00	4.42	1486	7.42	0.7					
7-25-19 6:30	19.74	1456	8.75	5.7	7-25-19 3:00	20.87	926	7.15	2.9	7-25-19 3:00	20.16	1045	8.62	18.7						10-25-19 0:15	4.44	1484	7.39	1.1					
7-25-19 6:45	19.71	1457	8.75	5.5	7-25-19 3:15	20.83	928	7.14	2.9	7-25-19 3:15	20.15	1046	8.62	15.1						10-25-19 0:30	4.44	1484	7.34	0.9					
7-25-19 7:00	19.67	1456	8.73	8.7	7-25-19 3:30	20.78	930	7.16	3.3	7-25-19 3:30	20.13	1045	8.62	15.4						10-25-19 1:00	4.43	1489	7.28	0.9					
7-25-19 7:15	19.66	1455	8.72	5.5	7-25-19 3:45	20.73	933	7.10	3.8	7-25-19 3:45	20.13	1046	8.61	14.3						10-25-19 1:15	4.43	1484	7.25	0.8					
7-25-19 7:30	19.62	1452	8.70	5.9	7-25-19 4:00	20.64	937	7.22	4.6	7-25-19 4:00	20.11	1046	8.61	15.6						10-25-19 1:30	4.42	1489	7.27	1.4					
7-25-19 7:45	19.59	1455	8.72	5.3	7-25-19 4:15	20.58	942	7.25	4.7	7-25-19 4:15	20.09	1045	8.61	14.6						10-25-19 1:45	4.42	1489	7.27	0.6					
7-25-19 8:00	19.56	1453	8.71	5.8	7-25-19 4:30	20.53	948	7.02	5.2	7-25-19 4:30	20.07	1046	8.61	15.1						10-25-19 2:00	4.42	1488	7.26	0.8					
7-25-19 8:15	19.53	1453	8.71	6.0	7-25-19 4:45	20.46	960	7.18	5.2	7-25-19 4:45	20.01	1045	8.61	12.5						10-25-19 2:15	4.42	1488	7.25	1.2					
7-25-19 8:30	19.49	1451	8.69	5.9	7-25-19 5:00	20.45	951	7.58	5.8	7-25-19 5:00	20.01	1045	8.61	16.0						10-25-19 2:30	4.41	1486	7.25	1.1					
7-25-19 8:45	19.45	1450	8.69	5.7	7-25-19 5:15	20.45	938	8.30	4.6	7-25-19 5:15	19.97	1046	8.61	12.5						10-25-19 2:45	4.41	1486	7.25	0.8					
7-25-19 9:00	19.42	1453	8.69	6.4	7-25-19 5:30	20.40	941	8.38	5.0	7-25-19 5:30	19.94	1046	8.61	15.1						10-25-19 3:00	4.41	1487	7.26	0.7					
7-25-19 9:15	19.38	1452	8.67	5.7	7-25-19 5:45	20.37	943	8.42	6.5	7-25-19 5:45	19.94	1046	8.61	13.7						10-25-19 3:15	4.41	1488	7.25	0.8					
7-25-19 9:30	19.35	1453	8.68	5.0	7-25-19 6:00	20.30	953	7.04	4.2	7-25-19 6:00	19.90	1046	8.61	14.2						10-25-19 3:30	4.42	1489	7.25	0.7					
7-25-19 9:45	19.31	1450	8.65	5.5	7-25-19 6:15	20.25	959	6.88	4.7	7-25-19 6:15	19.87	1046	8.61	12.9						10-25-19 3:45	4.42	1489	7.23	1.1					
7-25-19 10:00	19.29	1450	8.65	5.5	7-25-19 6:30	20.21	959	6.87	4.5	7-25-19 6:30	19.86	1046	8.61	15.8						10-25-19 4:00	4.41	1487	7.26	0.6					
7-25-19 10:15	19.24	1449	8.65	5.1	7-25-19 6:45	20.21	965	6.71	4.1	7-25-19 6:45	19.84	1047	8.61	11.8						10-25-19 4:15	4.42	1486	7.27	0.7					
7-25-19 10:30	19.21	1450	8.65	5.2	7-25-19 7:00	20.16	967	6.86	3.9	7-25-19 7:00	19.81	1047	8.61	15.1						10-25-19 4:30	4.42	1487	7.25	0.7					
7-25-19 10:45	19.17	1450	8.64	5.2	7-25-19 7:15	20.15	968	6.68	4.3	7-25-19 7:15	19.78	1047	8.61	12.0						10-25-19 4:45	4.41	1488	7.31	0.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-25-19 11:00	19.11	1449	8.64	6.0	7-25-19 7:30	20.14	968	6.67	3.4	7-25-19 7:30	19.76	1047	8.61	13.7						10-25-19 5:00	4.41	1488	7.28	0.7					
7-25-19 11:15	19.08	1450	8.64	5.4	7-25-19 7:45	20.10	971	6.65	3.2	7-25-19 7:45	19.74	1047	8.61	11.9						10-25-19 5:15	4.42	1489	7.36	0.4					
7-25-19 11:30	19.06	1449	8.63	5.6	7-25-19 8:00	20.08	973	6.66	3.3	7-25-19 8:00	19.72	1047	8.61	13.9						10-25-19 5:30	4.41	1492	7.38	0.3					
7-25-19 11:45	19.02	1449	8.63	5.2	7-25-19 8:15	20.04	974	6.70	3.4	7-25-19 8:15	19.72	1047	8.61	12.1						10-25-19 5:45	4.41	1490	7.27	0.5					
7-25-19 12:00	18.98	1448	8.62	5.5	7-25-19 8:30	20.01	981	6.72	3.2	7-25-19 8:30	19.69	1047	8.61	12.9						10-25-19 6:00	4.41	1489	7.24	0.5					
7-25-19 12:15	18.94	1448	8.62	5.3	7-25-19 8:45	20.01	998	6.73	3.5	7-25-19 8:45	19.66	1047	8.61	14.1						10-25-19 6:15	4.41	1486	7.28	0.8					
7-25-19 12:30	18.93	1448	8.60	5.5	7-25-19 9:00	19.97	1014	6.71	3.4	7-25-19 9:00	19.63	1047	8.61	14.8						10-25-19 6:30	4.41	1488	7.23	0.7					
7-25-19 12:45	18.91	1447	8.59	5.4	7-25-19 9:15	19.96	1023	6.74	3.3	7-25-19 9:15	19.61	1047	8.61	11.8						10-25-19 6:45	4.40	1485	7.26	0.6					
7-25-19 13:00	18.88	1447	8.58	6.1	7-25-19 9:30	19.92	1026	6.73	3.3	7-25-19 9:30	19.59	1048	8.61	18.3						10-25-19 7:00	4.41	1488	7.26	0.6					
7-25-19 13:15	18.86	1448	8.58	6.7	7-25-19 9:45	19.91	1031	6.71	5.7	7-25-19 9:45	19.59	1048	8.61	13.8						10-25-19 7:15	4.41	1488	7.31	0.5					
7-25-19 13:30	18.84	1448	8.58	5.6	7-25-19 10:00	19.84	1020	6.85	3.1	7-25-19 10:00	19.57	1048	8.61	14.1						10-25-19 7:30	4.41	1483	7.32	0.5					
7-25-19 13:45	18.82	1449	8.58	6.9	7-25-19 10:15	19.80	1013	6.88	3.7	7-25-19 10:15	19.55	1048	8.61	13.0						10-25-19 7:45	4.42	1480	7.28	0.6					
7-25-19 14:00	18.81	1448	8.58	6.8	7-25-19 10:30	19.79	1038	6.76	3.1	7-25-19 10:30	19.52	1049	8.61	15.5						10-25-19 8:00	4.42	1488	7.28	0.6					
7-25-19 14:15	18.81	1449	8.58	6.0	7-25-19 10:45	19.79	1044	6.73	3.3	7-25-19 10:45	19.50	1051	8.61	14.4						10-25-19 8:15	4.42	1486	7.28	0.9					
7-25-19 14:30	18.80	1448	8.58	6.4	7-25-19 11:00	19.68	975	8.11	3.7	7-25-19 11:00	19.45	1050	8.61	15.7						10-25-19 8:30	4.42	1485	7.27	0.5					
7-25-19 14:45	18.81	1448	8.57	6.1	7-25-19 11:15	19.63	980	7.99	3.6	7-25-19 11:15	19.43	1051	8.61	13.9						10-25-19 8:45	4.42	1493	7.26	0.4					
7-25-19 15:00	18.84	1448	8.57	6.8	7-25-19 11:30	19.61	995	7.40	3.3	7-25-19 11:30	19.41	1052	8.61	14.4						10-25-19 9:00	4.42	1592	7.27	0.5					
7-25-19 15:15	18.90	1448	8.58	6.4	7-25-19 11:45	19.56	971	8.33	3.6	7-25-19 11:45	19.39	1052	8.61	14.9						10-25-19 9:15	4.42	1482	7.27	0.4					
7-25-19 15:30	18.84	1446	8.57	6.4	7-25-19 12:00	19.52	974	8.03	4.4	7-25-19 12:00	19.34	1053	8.61	13.5						10-25-19 9:30	4.42	1503	7.25	0.3					
7-25-19 15:45	18.89	1448	8.59	8.9	7-25-19 12:15	19.49	986	7.82	3.0	7-25-19 12:15	19.33	1054	8.61	13.1						10-25-19 9:45	4.41	1477	7.29	0.4					
7-25-19 16:00	18.97	1447	8.58	8.2	7-25-19 12:30	19.45	997	7.60	3.5	7-25-19 12:30	19.31	1055	8.61	16.0						10-25-19 10:00	4.41	1475	7.36	0.9					
7-25-19 16:15	19.03	1448	8.58	7.8	7-25-19 12:45	19.40	986	7.98	3.0	7-25-19 12:45	19.28	1055	8.60	15.8						10-25-19 10:15	4.40	1471	7.44	0.7					
7-25-19 16:30	19.06	1447	8.58	6.5	7-25-19 13:00	19.40	992	7.86	3.7	7-25-19 13:00	19.25	1055	8.60	15.9						10-25-19 10:30	4.40	1474	7.40	1.2					
7-25-19 16:45	19.10	1448	8.57	6.0	7-25-19 13:15	19.35	977	8.38	3.4	7-25-19 13:15	19.25	1056	8.60	14.8						10-25-19 10:45	4.40	1473	7.39	1.1					
7-25-19 17:00	19.18	1447	8.60	5.9	7-25-19 13:30	19.33	979	8.39	3.3	7-25-19 13:30	19.23	1056	8.60	18.0						10-25-19 11:00	4.39	1432	7.47	1.2					
7-25-19 17:15	19.14	1445	8.61	7.5	7-25-19 13:45	19.32	992	8.21	2.7	7-25-19 13:45	19.20	1056	8.60	14.4						10-25-19 11:15	4.39	1469	7.45	0.9					
7-25-19 17:30	19.26	1445	8.62	8.3	7-25-19 14:00	19.33	1021	8.03	2.9	7-25-19 14:00	19.18	1057	8.60	17.2						10-25-19 11:30	4.38	1463	7.58	1.7					
7-25-19 17:45	19.41	1445	8.59	7.0	7-25-19 14:15	19.43	1077	7.01	2.6	7-25-19 14:15	19.19	1057	8.60	15.7						10-25-19 11:45	4.37	1464	7.70	1.5					
7-25-19 18:00	19.47	1440	8.53	7.7	7-25-19 14:30	19.46	1121	6.88	4.0	7-25-19 14:30	19.19	1058	8.60	14.9						10-25-19 12:00	4.36	1462	7.57	2.2					
7-25-19 18:15	19.59	1444	8.58	7.0	7-25-19 14:45	19.39	1063	7.06	4.1	7-25-19 14:45	19.20	1058	8.59	14.9						10-25-19 12:15	4.36	1463	7.43	1.7					
7-25-19 18:30	19.72	1444	8.59	7.4	7-25-19 15:00	19.43	1077	6.98	4.2	7-25-19 15:00	19.25	1058	8.60	18.3						10-25-19 12:30	4.35	1460	7.43	2.6					
7-25-19 18:45	19.79	1443	8.59	6.5	7-25-19 15:15	19.49	1076	6.87	5.4	7-25-19 15:15	19.31	1058	8.59	15.8						10-25-19 12:45	4.36	1465	7.51	2.0					
7-25-19 19:00	19.93	1443	8.59	7.4	7-25-19 15:30	19.50	1073	6.79	3.7	7-25-19 15:30	19.32	1059	8.60	16.6						10-25-19 13:00	4.38	1468	7.64	1.2					
7-25-19 19:15	19.96	1444	8.59	6.8	7-25-19 15:45	19.53	1073	6.80	5.7	7-25-19 15:45	19.33	1059	8.60	15.5						10-25-19 13:15	4.39	1472	7.72	1.1					
7-25-19 19:30	20.08	1441	8.58	6.4	7-25-19 16:00	19.57	1079	6.92	3.6	7-25-19 16:00	19.36	1059	8.60	18.0						10-25-19 13:30	4.39	1472	7.84	1.0					
7-25-19 19:45	20.37	1444	8.60	6.4	7-25-19 16:15	19.55	1079	7.10	3.8	7-25-19 16:15	19.41	1059	8.61	16.4						10-25-19 13:45	4.40	1476	7.83	0.8					
7-25-19 20:00	20.69	1444	8.58	7.7	7-25-19 16:30	19.59	1107	7.10	10.4	7-25-19 16:30	19.43	1058	8.60	18.4						10-25-19 14:00	4.41	1476	8.04	0.8					
7-25-19 20:15	20.74	1442	8.60	6.4	7-25-19 16:45	19.56	1114	7.27	5.1	7-25-19 16:45	19.47	1059	8.60	14.8						10-25-19 14:15	4.40	1473	7.73	1.2					
7-25-19 20:30	20.94	1442	8.59	7.1	7-25-19 17:00	19.64	1117	7.00	4.6	7-25-19 17:00	19.47	1059	8.61	16.9						10-25-19 14:30	4.39	1471	7.72	1.7					
7-25-19 20:45	21.10	1443	8.60	6.8	7-25-19 17:15	19.62	1098	6.99	4.4	7-25-19 17:15	19.54	1059	8.62	18.9						10-25-19 14:45	4.41	1470	7.91	1.1					
7-25-19 21:00	21.34	1440	8.61	8.0	7-25-19 17:30	19.68	1125	7.02	4.0	7-25-19 17:30	19.65	1060	8.62	19.0						10-25-19 15:00	4.42	1468	7.93	0.6					
7-25-19 21:15	21.59	1442	8.62	6.8	7-25-19 17:45	19.80	1127	6.96	3.7	7-25-19 17:45	19.83	1059	8.62	22.3						10-25-19 15:15	4.42	1467	7.96	0.7					
7-25-19 21:30	21.66	1437	8.60	7.1	7-25-19 18:00	19.84	1101	6.95	3.6	7-25-19 18:00	19.79	1060	8.62	20.1						10-25-19 15:30	4.38	1478	7.78	1.2					
7-25-19 21:45	21.69	1441	8.62	6.3	7-25-19 18:15	19.83	1087	7.15	4.0	7-25-19 18:15	19.84	1060	8.62	17.7						10-25-19 15:45	4.37	1470	7.82	1.1					
7-25-19 22:00	21.88	1437	8.62	7.2	7-25-19 18:30	19.84	1097	7.11	3.9	7-25-19 18:30	19.97	1060	8.62	19.6						10-25-19 16:00	4.35	1469	7.86	1.0					
7-25-19 22:15	22.11	1441	8.63	6.7	7-25-19 18:45	19.88	1099	7.07	4.0	7-25-19 18:45	20.07	1061	8.62	18.3						10-25-19 16:15	4.31	1468	7.83	0.9					
7-25-19 22:30	21.99	1438	8.62	7.9	7-25-19 19:00	19.95	1087	7.08	5.6	7-25-19 19:00	20.17	1061	8.62	21.9						10-25-19 16:30	4.29	1460	7.88	1.8					
7-25-19 22:45	21.96	1437	8.63	6.9	7-25-19 19:15	19.90	1068	7.26	4.9	7-25-19 19:15	20.31	1061	8.61	15.2						10-25-19 16:45	4.31	1467	7.88	1.7					
7-25-19 23:00	22.32	1439	8.64	8.0	7-25-19 19:30	20.01	1061	7.34	3.5	7-25-19 19:30	20.52	1062	8.62	17.2						10-25-19 17:00	4.31	1470	7.90	0.9					
7-25-19 23:15	22.33	1437	8.65	6.7	7-25-19 19:45	20.13	1064	7.15	3.0	7-25-19 19:45	20.83	1063	8.62	15.7						10-25-19 17:15	4.34	1466	8.05	1.1					
7-25-19 23:30	22.34	1438	8.65	7.7	7-25-19 20:00	20.31	1066	7.42	5.8	7-25-19 20:00	21.07	1063	8.63	18.2						10-25-19 17:30	4.35	1464	7.99	1.0					
7-25-19 23:45	22.32	1437	8.64	6.5	7-25-19 20:15	20.27	1064	8.36	5.9	7-25-19 20:15	21.17	1062	8.62	15.8						10-25-19 17:45	4.43	1453	7.89	22.0					
7-26-19 0:00	22.35	1435	8.65	7.3	7-25-19 20:30	20.29	1079	7.64	7.1	7-25-19 20:30	21.31	1063	8.62	20.9						10-25-19 18:00	4.51	1451	7.93	48.4					
7-26-19 0:15	22.33	1436	8.66	6.2	7-25-19 20:45	20.46	1082	6.96	4.1	7-25-19 20:45	21.60	1066	8.62	16.8						10-25-19 18:15	4.52	1451	7.97	50.3					
7-26-19 0:30	22.31	1436	8.67	7.3	7-25-19 21:00	20.61	1082	6.93	4.0	7-25-19 21:00	21.64	1064	8.61	21.1						10-25-19 18:30	4.48	1456	7.98	40.4					
7-26-19 0:45	21.78	1432	8.67	6.4	7-25-19 21:15	20.74	1072	7.22	11.3	7-25-19 21:15	21.72	1064	8.61	16.4						10-25-19 18:45	4.49	1452	7.92	47.6					
7-26-19 1:00	22.25	1437	8.69	7.5	7-25-19 21:30	20.89	1064	6.88	6.7	7-25-19 21:30	21.96	1065	8.61	20.4						10-25-19 19:00	4.50	1453	7.88	55.4					
7-26-19 1:15	22.28	1436	8.67	6.7	7-25-19 21:45	20.93	1059	6.95	6.1	7-25-19 21:45	22.29	1066	8.61	16.2						10-25-19 19:15	4.50	1458	7.93	50.2					
7-26-19 1:30	22.27	1433	8.69	15.2	7-25-19 22:00	20.92	1053	7.03	4.3	7-25-19 22:00	22.08	1065	8.60	18.4						10-25-19 19:30	4.51	1454	7.91	156.4					
7-26-19 1:45	22.25	1433	8.68	6.9	7-25-19 22:15	20.95	1050	6.99	4.3	7-25-19 22:15	22.15	1066	8.61	14.4						10-25-19 19:45	4.53	1430	7.92	113.4					
7-26-19 2:00	22.21	1434	8.67	7.8	7-25-19 22:30	21.04	1048	7.04	4.5	7-25-19 22:30	22.16	1066	8.62	19.4						10-25-19 20:00	4.58	1461	7.91	59.2					
7-26-19 2:15	22.18	1434	8.67	7.1	7-25-19 22:45	21.16	1048	7.06	3.9	7-25-19 22:45	22.36	1067	8.62	14.4						10-25-19 20:15	4.57	1454	7.88	60.9					
7-26-19 2:30	22.16	1432	8.66	8.4	7-25-19 23:00	21.31	1048	6.98	3.0	7-25-19 23:00	22.28	1067	8.62	16.5						10-25-19 20:30	4.61	1478	7.74	66.0					
7-26-19 2:45	22.13	1430	8.66	5.8	7-25-19 23:15	21.38	1048	6.99	3.2	7-25-19 23:15	22.35	1066	8.62	14.1						10-25-19 20:45	4.63	1461	7.83	52.4					
7-26-19 3:00	22.08	1429	8.66	12.2	7-25-19 23:30	21.37	1047	7.66	3.1	7-25-19 23:30	22.34	1067	8.63	14.5						10-25-19 21:00	4.61	1460	7.84	57.2					
7-26-19 3:15	22.03	1428	8.64	6.6	7-25-19 23:45	21.39	1051	7.05	3.4	7-25-19 23:45	22.46	1067	8.63	18.0						10-25-19 21:15	4.65	1451	7.92	50.1					
7-26-19 3:30	21.98	1427	8.67	6.9	7-26-19 0:00	21.33	1054	6.88	3.6	7-26-19 0:00	22.31	1066	8.63	18.8						10-25-19 21:30	4.63	1467	7.85	43.2					
7-26-19 3:45	21.92	1429	8.65	5.5	7-26-19 0:15	21.20	1052	8.10	4.4	7-26-19 0:15	22.37	1067	8.63	15.2						10-25-19 21:45	4.67	1466	7.89	45.6					
7-26-19 4:00	21.85	1430	8.65	7.5	7-26-19 0:30	21.30	1057	7.48	5.0	7-26-19 0:30	22.33	1067	8.63	16.9						10-25-19 22:00	4.68	1470	7.92	41.6					
7-26-19 4:15	21.80	1425	8.65	5.5	7-26-19 0:45	21.43	1060	6.94	4.2	7-26-19 0:45	22.30	1067	8.63	19.0						10-25-19 22:15	4.66	1470	7.86	37.2					
7-26-19 4:30	21.72	1425	8.64	7.9	7-26-19 1:00	21.41	1061	7.03	4.5	7-26-19 1:00	22.32	1067	8.64	18.4						10-25-19 22:30	4.66	1463	7.81	40.1					
7-26-19 4:45	21.62	1428	8.65	5.1	7-26-19 1:15	21.36	1063	6.99	3.6	7-26-19 1:15	22.31	1067	8.63	18.5						10-25-19 22:45	4.67	1467	7.82	38.6					
7-26-19 5:00	21.55	1427	8.67	6.2	7-26-19 1:30	21.34	1061	7.14	3.5	7-26-19 1:30	22.27	1067	8.64	18.3						10-25-19 23:00	4.67	1461	7.87	38.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-26-19 5:15	21.49	1429	8.66	5.7	7-26-19 1:45	21.34	1057	7.94	3.3	7-26-19 1:45	22.23	1067	8.64	16.9						10-25-19 23:15	4.69	1438	7.86	34.6					
7-26-19 5:30	21.42	1428	8.67	7.0	7-26-19 2:00	21.34	1060	7.54	3.2	7-26-19 2:00	22.22	1067	8.64	18.0						10-25-19 23:30	4.69	1465	7.80	38.0					
7-26-19 5:45	21.36	1429	8.68	5.8	7-26-19 2:15	21.33	1058	7.89	2.8	7-26-19 2:15	22.20	1067	8.64	14.1						10-25-19 23:45	4.69	1459	7.74	37.6					
7-26-19 6:00	21.30	1426	8.69	6.4	7-26-19 2:30	21.28	1059	7.36	3.0	7-26-19 2:30	22.10	1067	8.65	17.4						10-26-19 0:00	4.70	1466	7.83	38.6					
7-26-19 6:15	21.24	1427	8.68	6.0	7-26-19 2:45	21.25	1059	7.07	3.2	7-26-19 2:45	22.04	1066	8.65	16.4						10-26-19 0:15	4.70	1465	7.81	33.5					
7-26-19 6:30	21.17	1430	8.69	6.7	7-26-19 3:00	21.21	1060	7.30	4.3	7-26-19 3:00	21.97	1067	8.65	17.6						10-26-19 0:45	4.67	1466	7.79	35.8					
7-26-19 6:45	21.11	1425	8.69	5.7	7-26-19 3:15	21.16	1060	7.31	2.9	7-26-19 3:15	21.91	1066	8.65	12.6						10-26-19 1:00	4.65	1439	7.78	30.1					
7-26-19 7:00	21.05	1422	8.69	7.5	7-26-19 3:30	21.12	1061	7.16	2.2	7-26-19 3:30	21.83	1066	8.66	13.5						10-26-19 1:15	4.65	1471	7.77	32.8					
7-26-19 7:15	20.97	1425	8.70	5.3	7-26-19 3:45	21.08	1061	7.11	2.1	7-26-19 3:45	21.76	1066	8.65	14.8						10-26-19 1:30	4.65	1467	7.79	29.6					
7-26-19 7:30	20.90	1424	8.70	11.2	7-26-19 4:00	21.08	1062	6.95	2.1	7-26-19 4:00	21.70	1066	8.65	18.8						10-26-19 1:45	4.65	1468	7.80	28.9					
7-26-19 7:45	20.85	1424	8.70	6.6	7-26-19 4:15	21.05	1062	6.92	2.1	7-26-19 4:15	21.62	1066	8.65	14.7						10-26-19 2:00	4.63	1466	7.83	34.8					
7-26-19 8:00	20.81	1424	8.69	7.5	7-26-19 4:30	21.00	1061	7.03	2.3	7-26-19 4:30	21.55	1066	8.66	17.8						10-26-19 2:15	4.64	1464	7.84	33.4					
7-26-19 8:15	20.77	1423	8.68	5.1	7-26-19 4:45	21.14	1044	8.41	4.3	7-26-19 4:45	21.49	1066	8.65	17.1						10-26-19 2:30	4.64	1466	7.80	29.0					
7-26-19 8:30	20.71	1423	8.68	6.7	7-26-19 5:00	21.11	1044	8.43	3.4	7-26-19 5:00	21.42	1066	8.65	16.9						10-26-19 2:45	4.58	1467	7.65	29.7					
7-26-19 8:45	20.66	1422	8.65	4.8	7-26-19 5:15	21.04	1045	8.42	3.1	7-26-19 5:15	21.34	1066	8.66	15.0						10-26-19 3:00	4.54	1466	7.66	25.8					
7-26-19 9:00	20.62	1421	8.67	5.9	7-26-19 5:30	20.95	1050	7.78	2.9	7-26-19 5:30	21.28	1066	8.66	17.5						10-26-19 3:15	4.53	1470	7.69	24.9					
7-26-19 9:15	20.56	1421	8.66	7.8	7-26-19 5:45	20.89	1051	7.16	2.8	7-26-19 5:45	21.23	1066	8.66	14.8						10-26-19 3:30	4.50	1473	7.68	22.7					
7-26-19 9:30					7-26-19 6:00	20.87	1051	7.19	3.0	7-26-19 6:00	21.17	1065	8.66	18.3						10-26-19 3:45	4.50	1468	7.59	26.2					
7-26-19 9:45					7-26-19 6:15	20.81	1052	6.85	2.6	7-26-19 6:15	21.12	1065	8.66	14.8						10-26-19 4:00	4.49	1469	7.46	25.1					
7-26-19 10:00					7-26-19 6:30	20.74	1052	6.89	2.2	7-26-19 6:30	21.03	1065	8.66	17.4						10-26-19 4:15	4.47	1462	7.49	26.8					
7-26-19 10:15					7-26-19 6:45	20.74	1052	6.86	2.7	7-26-19 6:45	20.97	1065	8.66	13.8						10-26-19 4:30	4.47	1479	7.44	22.7					
7-26-19 10:30	20.26	1421	8.65	5.0	7-26-19 7:00	20.72	1054	7.09	2.2	7-26-19 7:00	20.92	1065	8.67	17.2						10-26-19 4:45	4.46	1467	7.35	23.9					
7-26-19 10:45	20.21	1419	8.66	5.5	7-26-19 7:15	20.67	1055	7.10	2.1	7-26-19 7:15	20.85	1065	8.67	14.1						10-26-19 5:00	4.46	1466	7.40	24.9					
7-26-19 11:00	20.14	1420	8.65	5.0	7-26-19 7:30	20.61	1054	7.01	2.1	7-26-19 7:30	20.77	1065	8.67	15.6						10-26-19 5:15	4.46	1468	7.37	24.4					
7-26-19 11:15	20.08	1417	8.62	7.2	7-26-19 7:45	20.61	1054	6.88	2.8	7-26-19 7:45	20.71	1065	8.66	12.3						10-26-19 5:30	4.46	1468	7.33	22.8					
7-26-19 11:30	20.03	1421	8.64	5.1	7-26-19 8:00	20.56	1054	6.94	2.1	7-26-19 8:00	20.67	1065	8.66	14.4						10-26-19 5:45	4.47	1454	7.36	24.5					
7-26-19 11:45	19.96	1418	8.64	7.5	7-26-19 8:15	20.53	1054	6.87	2.0	7-26-19 8:15	20.61	1065	8.66	13.3						10-26-19 6:00	4.48	1469	7.31	25.8					
7-26-19 12:00	19.88	1421	8.63	4.2	7-26-19 8:30	20.51	1054	6.94	1.9	7-26-19 8:30	20.57	1065	8.67	14.4						10-26-19 6:15	4.49	1470	7.31	24.2					
7-26-19 12:15	19.85	1420	8.64	5.9	7-26-19 8:45	20.48	1054	6.97	1.5	7-26-19 8:45	20.51	1064	8.66	13.0						10-26-19 6:30	4.50	1474	7.32	23.9					
7-26-19 12:30	19.80	1421	8.63	4.2	7-26-19 9:00	20.48	1054	6.96	1.8	7-26-19 9:00	20.41	1064	8.67	15.2						10-26-19 6:45	4.46	1466	7.23	22.8					
7-26-19 12:45	19.75	1420	8.63	5.7	7-26-19 9:15	20.48	1055	6.94	1.9	7-26-19 9:15	20.35	1064	8.67	13.6						10-26-19 7:00	4.39	1465	7.27	23.7					
7-26-19 13:00	19.72	1417	8.62	5.6	7-26-19 9:30	20.44	1055	6.94	1.5	7-26-19 9:30	20.31	1064	8.66	15.6						10-26-19 7:15	4.41	1468	7.28	26.2					
7-26-19 13:15	19.68	1415	8.62	6.6	7-26-19 9:45	20.42	1056	6.97	1.7	7-26-19 9:45	20.26	1065	8.66	12.4						10-26-19 7:30	4.41	1468	7.27	24.1					
7-26-19 13:30	19.64	1418	8.61	5.3	7-26-19 10:00	20.38	1056	6.91	1.8	7-26-19 10:00	20.21	1065	8.66	14.5						10-26-19 7:45	4.36	1469	7.25	19.3					
7-26-19 13:45	19.60	1421	8.61	8.1	7-26-19 10:15	20.34	1057	6.89	1.5	7-26-19 10:15	20.17	1064	8.66	13.1						10-26-19 8:00	4.35	1469	7.26	22.1					
7-26-19 14:00	19.58	1419	8.61	5.7	7-26-19 10:30	20.32	1058	7.01	1.8	7-26-19 10:30	20.12	1064	8.66	15.6						10-26-19 8:15	4.41	1470	7.29	25.3					
7-26-19 14:15	19.56	1417	8.61	6.1	7-26-19 10:45	20.30	1058	7.01	1.3	7-26-19 10:45	20.05	1064	8.65	11.8						10-26-19 8:30	4.43	1472	7.23	21.3					
7-26-19 14:30	19.56	1417	8.60	6.4	7-26-19 11:00	20.27	1059	7.01	1.5	7-26-19 11:00	19.99	1064	8.66	14.9						10-26-19 8:45	4.46	1472	7.27	21.2					
7-26-19 14:45	19.54	1417	8.60	6.4	7-26-19 11:15	20.24	1059	6.96	1.5	7-26-19 11:15	19.96	1065	8.65	11.8						10-26-19 9:00	4.48	1473	7.24	22.0					
7-26-19 15:00	19.53	1415	8.59	5.5	7-26-19 11:30	20.22	1059	6.96	1.4	7-26-19 11:30	19.89	1065	8.65	15.4						10-26-19 9:15	4.47	1476	7.22	24.0					
7-26-19 15:15	19.55	1414	8.59	10.6	7-26-19 11:45	20.17	1060	6.99	1.7	7-26-19 11:45	19.87	1065	8.65	13.2						10-26-19 9:30	4.50	1476	7.24	20.8					
7-26-19 15:30	19.60	1412	8.59	6.9	7-26-19 12:00	20.14	1060	7.05	1.5	7-26-19 12:00	19.81	1065	8.65	16.2						10-26-19 9:45	4.53	1477	7.26	21.8					
7-26-19 15:45	19.66	1416	8.61	6.4	7-26-19 12:15	20.10	1060	6.92	1.4	7-26-19 12:15	19.78	1065	8.64	13.4						10-26-19 10:00	4.58	1477	7.29	20.1					
7-26-19 16:00	19.70	1415	8.60	6.0	7-26-19 12:30	20.06	1060	6.90	1.7	7-26-19 12:30	19.74	1065	8.65	16.0						10-26-19 10:15	4.59	1476	7.28	21.5					
7-26-19 16:15	19.72	1404	8.60	6.6	7-26-19 12:45	20.06	1060	6.99	1.4	7-26-19 12:45	19.72	1065	8.64	16.6						10-26-19 10:30	4.57	1462	7.24	21.3					
7-26-19 16:30	19.77	1402	8.60	6.4	7-26-19 13:00	20.01	1060	6.90	1.4	7-26-19 13:00	19.69	1066	8.64	15.0						10-26-19 10:45	4.58	1494	7.26	19.7					
7-26-19 16:45	19.85	1403	8.60	6.8	7-26-19 13:15	19.99	1061	6.90	1.7	7-26-19 13:15	19.67	1066	8.64	12.2						10-26-19 11:00	4.58	1465	7.27	19.5					
7-26-19 17:00	19.97	1406	8.60	6.0	7-26-19 13:30	19.94	1061	6.85	1.9	7-26-19 13:30	19.64	1066	8.64	16.8						10-26-19 11:15	4.61	1470	7.33	19.1					
7-26-19 17:15	20.07	1406	8.62	6.7	7-26-19 13:45	19.91	1061	6.93	2.0	7-26-19 13:45	19.58	1066	8.64	12.0						10-26-19 11:30	4.62	1475	7.29	17.6					
7-26-19 17:30	20.17	1406	8.62	5.5	7-26-19 14:00	19.91	1061	7.01	1.6	7-26-19 14:00	19.57	1067	8.64	15.7						10-26-19 11:45	4.59	1476	7.28	17.4					
7-26-19 17:45	20.24	1404	8.62	7.1	7-26-19 14:15	19.92	1061	7.01	2.3	7-26-19 14:15	19.56	1067	8.64	13.7						10-26-19 12:00	4.55	1476	7.21	17.7					
7-26-19 18:00	20.37	1405	8.62	6.0	7-26-19 14:30	19.92	1061	7.16	1.6	7-26-19 14:30	19.56	1067	8.64	16.3						10-26-19 12:15	4.51	1473	7.18	16.5					
7-26-19 18:15	20.54	1405	8.63	6.8	7-26-19 14:45	19.93	1061	7.11	3.5	7-26-19 14:45	19.55	1068	8.64	13.6						10-26-19 12:30	4.47	1474	7.13	14.8					
7-26-19 18:30	20.68	1405	8.63	5.9	7-26-19 15:00	19.94	1061	6.98	4.0	7-26-19 15:00	19.56	1069	8.63	16.6						10-26-19 12:45	4.43	1472	7.17	18.1					
7-26-19 18:45	20.78	1391	8.62	7.1	7-26-19 15:15	19.96	1061	7.18	3.4	7-26-19 15:15	19.59	1069	8.63	15.1						10-26-19 13:00	4.41	1476	7.21	16.7					
7-26-19 19:00	20.86	1401	8.61	6.7	7-26-19 15:30	19.99	1061	7.09	2.1	7-26-19 15:30	19.67	1070	8.63	16.6						10-26-19 13:15	4.42	1475	7.21	17.7					
7-26-19 19:15	21.22	1404	8.66	10.1	7-26-19 15:45	20.00	1061	7.11	2.8	7-26-19 15:45	19.72	1074	8.62	14.9						10-26-19 13:30	4.46	1476	7.25	17.5					
7-26-19 19:30	21.32	1404	8.65	6.1	7-26-19 16:00	20.01	1061	7.08	3.0	7-26-19 16:00	19.78	1073	8.63	16.2						10-26-19 13:45	4.44	1475	7.17	16.7					
7-26-19 19:45	21.39	1404	8.66	8.6	7-26-19 16:15	20.04	1061	7.01	3.8	7-26-19 16:15	19.90	1077	8.60	13.1						10-26-19 14:00	4.41	1475	7.19	16.7					
7-26-19 20:00	21.41	1402	8.64	7.4	7-26-19 16:30	20.08	1060	7.27	3.1	7-26-19 16:30	19.94	1076	8.62	17.8						10-26-19 14:15	4.37	1473	7.10	15.7					
7-26-19 20:15	21.50	1401	8.69	7.2	7-26-19 16:45	20.05	1060	7.36	7.5	7-26-19 16:45	19.94	1075	8.62	14.8						10-26-19 14:30	4.34	1476	7.12	16.7					
7-26-19 20:30	21.67	1405	8.66	6.1	7-26-19 17:00	20.09	1060	7.27	4.8	7-26-19 17:00	20.06	1075	8.62	17.8						10-26-19 14:45	4.32	1477	7.10	16.7					
7-26-19 20:45	21.61	1403	8.69	12.2	7-26-19 17:15	20.19	1060	7.23	5.6	7-26-19 17:15	20.06	1077	8.62	15.4						10-26-19 15:00	4.31	1476	7.13	16.3					
7-26-19 21:00	21.63	1411	8.69	7.0	7-26-19 17:30	20.25	1060	7.42	6.4	7-26-19 17:30	20.15	1076	8.62	19.4						10-26-19 15:15	4.32	1479	7.16	16.9					
7-26-19 21:15	21.72	1403	8.68	10.7	7-26-19 17:45	20.37	1061	7.05	4.6	7-26-19 17:45	20.36	1078	8.62	15.3						10-26-19 15:30	4.31	1480	7.14	16.3					
7-26-19 21:30	21.73	1404	8.68	6.7	7-26-19 18:00	20.30	1060	7.46	4.5	7-26-19 18:00	20.24	1079	8.61	19.0						10-26-19 15:45	4.31	1480	7.11	16.8					
7-26-19 21:45	21.82	1401	8.67	7.2	7-26-19 18:15	20.42	1058	8.02	8.5	7-26-19 18:15	20.54	1081	8.62	15.9						10-26-19 16:00	4.29	1477	7.12	16.8					
7-26-19 22:00	21.91	1403	8.67	5.7	7-26-19 18:30	20.58	1060	7.51	14.6	7-26-19 18:30	20.48	1081	8.61	18.1						10-26-19 16:15	4.27	1473	7.14	18.1					
7-26-19 22:15	21.97	1398	8.67	7.9	7-26-19 18:45	20.79	1062	6.86	13.5	7-26-19 18:45	20.80	1080	8.62	19.0						10-26-19 16:30	4.25	1476	7.08	15.9					
7-26-19 22:30	22.06	1396	8.67	6.0	7-26-19 19:00	20.90	1063	6.80	10.6	7-26-19 19:00	20.92	1080	8.62	17.7						10-26-19 16:45	4.26	1474	7.11	15.6					
7-26-19 22:45	22.15	1389	8.70	9.5	7-26-19 19:15	20.70	1057	8.25	9.9	7-26-19 19:15	20.96	1080	8.61	16.4						10-26-19 17:00	4.28	1473	7.09	13.6					
7-26-19 23:00	22.11	1391	8.69	6.8	7-26-19 19:30	20.83	1058	8.20	6.3	7-26-19 19:30	21.14	1081	8.62	16.7						10-26-19 17:15	4.33	1474	7.14	15.7					
7-26-19 23:15	22.15	1399	8.72	9.7	7-26-19 19:45	20.96	1060	7.42	7.0	7-26-19 19:45	21.08	1082	8.61	15.2						10-26-19 17:30	4.36	1474	7.13	15.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-26-19 23:30	22.12	1396	8.70	7.4	7-26-19 20:00	20.83	1061	7.02	6.8	7-26-19 20:00	21.08	1081	8.61	17.7						10-26-19 17:45	4.38	1473	7.16	14.9					
7-26-19 23:45	22.02	1377	8.70	9.5	7-26-19 20:15	20.89	1060	7.43	6.1	7-26-19 20:15	21.13	1083	8.62	17.7						10-26-19 18:00	4.38	1477	7.20	16.0					
7-27-19 0:00	21.95	1397	8.70	7.2	7-26-19 20:30	20.98	1061	7.32	4.0	7-26-19 20:30	21.31	1083	8.62	16.0						10-26-19 18:15	4.36	1475	7.22	14.4					
7-27-19 0:15	21.93	1385	8.70	9.2	7-26-19 20:45	21.05	1061	7.09	4.1	7-26-19 20:45	21.23	1082	8.62	17.3						10-26-19 18:30	4.35	1475	7.25	15.2					
7-27-19 0:30	21.91	1390	8.71	6.4	7-26-19 21:00	21.05	1059	7.48	4.1	7-26-19 21:00	21.26	1082	8.62	17.5						10-26-19 18:45	4.37	1475	7.21	15.5					
7-27-19 0:45	21.96	1393	8.70	9.8	7-26-19 21:15	21.09	1057	7.62	3.7	7-26-19 21:15	21.22	1082	8.62	16.4						10-26-19 19:00	4.41	1473	7.13	14.6					
7-27-19 1:00	21.95	1391	8.70	5.9	7-26-19 21:30	21.18	1057	7.27	3.1	7-26-19 21:30	21.29	1083	8.62	16.5						10-26-19 19:15	4.42	1475	7.16	14.0					
7-27-19 1:15	21.92	1391	8.70	7.6	7-26-19 21:45	21.12	1056	8.28	3.3	7-26-19 21:45	21.31	1083	8.62	15.5						10-26-19 19:30	4.45	1476	7.13	14.2					
7-27-19 1:30	21.87	1394	8.70	5.5	7-26-19 22:00	21.28	1059	7.90	3.4	7-26-19 22:00	21.45	1083	8.63	17.6						10-26-19 19:45	4.50	1475	7.10	12.2					
7-27-19 1:45	21.85	1394	8.70	7.0	7-26-19 22:15	21.29	1059	7.98	3.8	7-26-19 22:15	21.49	1083	8.62	15.1						10-26-19 20:00	4.52	1475	7.13	12.4					
7-27-19 2:00	21.82	1393	8.68	5.4	7-26-19 22:30	21.40	1058	7.94	4.3	7-26-19 22:30	21.58	1084	8.62	13.6						10-26-19 20:15	4.52	1474	7.19	14.3					
7-27-19 2:15	21.80	1388	8.69	11.3	7-26-19 22:45	21.53	1060	7.23	4.5	7-26-19 22:45	21.76	1084	8.62	14.3						10-26-19 20:30	4.56	1473	7.15	13.8					
7-27-19 2:30	21.76	1388	8.66	5.7	7-26-19 23:00	21.57	1061	6.93	3.5	7-26-19 23:00	21.69	1084	8.62	14.2						10-26-19 20:45	4.58	1473	7.15	13.4					
7-27-19 2:45	21.73	1387	8.69	6.9	7-26-19 23:15	21.46	1059	7.58	3.6	7-26-19 23:15	21.79	1085	8.63	13.3						10-26-19 21:00	4.58	1474	7.15	13.4					
7-27-19 3:00	21.71	1393	8.68	5.7	7-26-19 23:30	21.39	1060	7.05	3.0	7-26-19 23:30	21.59	1084	8.63	13.8						10-26-19 21:15	4.57	1474	7.15	14.3					
7-27-19 3:15	21.69	1388	8.70	7.6	7-26-19 23:45	21.33	1059	7.18	5.9	7-26-19 23:45	21.56	1084	8.63	13.5						10-26-19 21:30	4.55	1476	7.19	13.4					
7-27-19 3:30	21.67	1389	8.70	5.9	7-27-19 0:00	21.26	1060	6.98	3.9	7-27-19 0:00	21.50	1084	8.64	13.3						10-26-19 21:45	4.56	1474	7.11	11.6					
7-27-19 3:45	21.64	1387	8.70	7.9	7-27-19 0:15	21.20	1060	6.90	5.2	7-27-19 0:15	21.47	1084	8.63	12.1						10-26-19 22:00	4.55	1475	7.15	13.2					
7-27-19 4:00	21.60	1387	8.70	6.2	7-27-19 0:30	21.18	1060	6.96	5.7	7-27-19 0:30	21.42	1084	8.64	13.3						10-26-19 22:15	4.55	1474	7.12	11.6					
7-27-19 4:15	21.56	1386	8.71	7.5	7-27-19 0:45	21.20	1060	6.99	6.2	7-27-19 0:45	21.40	1084	8.63	11.5						10-26-19 22:30	4.55	1473	7.09	12.5					
7-27-19 4:30	21.52	1389	8.70	5.5	7-27-19 1:00	21.25	1059	7.51	4.9	7-27-19 1:00	21.40	1084	8.64	12.7						10-26-19 22:45	4.55	1474	7.16	13.3					
7-27-19 4:45	21.48	1388	8.71	10.9	7-27-19 1:15	21.27	1060	7.01	4.0	7-27-19 1:15	21.37	1084	8.64	13.1						10-26-19 23:00	4.56	1472	7.15	12.7					
7-27-19 5:00	21.44	1388	8.67	5.7	7-27-19 1:30	21.24	1058	7.89	3.9	7-27-19 1:30	21.34	1084	8.64	12.0						10-26-19 23:15	4.56	1476	7.16	12.6					
7-27-19 5:15	21.42	1387	8.69	10.7	7-27-19 1:45	21.20	1060	6.91	3.2	7-27-19 1:45	21.30	1084	8.64	11.3						10-26-19 23:30	4.56	1475	7.13	13.3					
7-27-19 5:30	21.37	1389	8.69	5.9	7-27-19 2:00	21.22	1058	7.04	4.0	7-27-19 2:00	21.27	1085	8.64	11.9						10-26-19 23:45	4.57	1475	7.15	12.4					
7-27-19 5:45	21.33	1387	8.68	6.5	7-27-19 2:15	21.22	1059	6.95	4.5	7-27-19 2:15	21.26	1085	8.63	11.2						10-27-19 0:00	4.51	1474	7.20	12.4					
7-27-19 6:00	21.28	1388	8.69	4.8	7-27-19 2:30	21.21	1059	6.92	3.2	7-27-19 2:30	21.21	1085	8.63	11.9						10-27-19 0:15	4.49	1472	7.17	12.7					
7-27-19 6:15	21.24	1387	8.68	7.0	7-27-19 2:45	21.18	1059	6.98	3.2	7-27-19 2:45	21.19	1085	8.63	12.4						10-27-19 0:30	4.41	1472	7.20	12.4					
7-27-19 6:30	21.21	1383	8.68	5.0	7-27-19 3:00	21.15	1059	6.90	3.6	7-27-19 3:00	21.19	1085	8.63	12.1						10-27-19 0:45	4.33	1471	7.26	12.0					
7-27-19 6:45	21.18	1384	8.69	6.0	7-27-19 3:15	21.10	1058	7.03	3.6	7-27-19 3:15	21.14	1084	8.64	11.2						10-27-19 1:00	4.27	1473	7.36	120.5					
7-27-19 7:00	21.15	1388	8.69	4.9	7-27-19 3:30	21.04	1058	7.17	3.1	7-27-19 3:30	21.11	1084	8.64	11.7						10-27-19 1:15	4.24	1470	7.35	10.5					
7-27-19 7:15	21.12	1385	8.68	7.3	7-27-19 3:45	21.00	1058	7.39	3.4	7-27-19 3:45	21.08	1084	8.64	11.7						10-27-19 1:30	4.22	1464	7.38	11.7					
7-27-19 7:30	21.09	1386	8.67	4.4	7-27-19 4:00	20.99	1058	7.12	2.9	7-27-19 4:00	21.05	1085	8.64	11.9						10-27-19 1:45	4.20	1473	7.37	11.1					
7-27-19 7:45	21.04	1387	8.67	6.0	7-27-19 4:15	20.96	1058	7.18	2.9	7-27-19 4:15	21.00	1085	8.64	11.9						10-27-19 2:00	4.19	1472	7.35	12.4					
7-27-19 8:00	21.03	1387	8.66	4.6	7-27-19 4:30	20.93	1058	7.15	2.8	7-27-19 4:30	20.96	1085	8.64	12.4						10-27-19 2:15	4.15	1476	7.32	12.7					
7-27-19 8:15	20.98	1386	8.66	6.2	7-27-19 4:45	20.89	1059	7.07	2.8	7-27-19 4:45	20.92	1085	8.64	11.5						10-27-19 2:30	4.13	1472	7.33	12.1					
7-27-19 8:30	20.94	1384	8.66	4.7	7-27-19 5:00	20.87	1059	7.08	2.7	7-27-19 5:00	20.87	1085	8.64	11.8						10-27-19 2:45	4.10	1473	7.34	12.3					
7-27-19 8:45	20.92	1382	8.67	5.7	7-27-19 5:15	20.83	1053	6.95	3.1	7-27-19 5:15	20.82	1085	8.64	10.6						10-27-19 3:00	4.06	1476	7.40	11.2					
7-27-19 9:00	20.88	1381	8.66	4.1	7-27-19 5:30	20.80	1059	6.96	2.6	7-27-19 5:30	20.79	1085	8.64	11.1						10-27-19 3:15	4.04	1477	7.40	11.4					
7-27-19 9:15	20.85	1378	8.65	5.2	7-27-19 5:45	20.76	1060	6.90	2.3	7-27-19 5:45	20.76	1085	8.64	10.4						10-27-19 3:30	4.02	1476	7.33	10.4					
7-27-19 9:30	20.83	1382	8.65	4.5	7-27-19 6:00	20.74	1060	6.83	2.3	7-27-19 6:00	20.74	1085	8.63	11.3						10-27-19 3:45	4.01	1476	7.27	10.9					
7-27-19 9:45	20.81	1383	8.65	6.9	7-27-19 6:15	20.73	1060	7.12	2.2	7-27-19 6:15	20.70	1084	8.64	10.8						10-27-19 4:00	3.99	1476	7.27	11.3					
7-27-19 10:00	20.77	1373	8.65	5.3	7-27-19 6:30	20.72	1060	6.93	2.1	7-27-19 6:30	20.66	1085	8.64	10.9						10-27-19 4:15	3.97	1475	7.29	11.6					
7-27-19 10:15	20.74	1379	8.65	5.0	7-27-19 6:45	20.68	1060	6.80	3.5	7-27-19 6:45	20.64	1085	8.64	11.2						10-27-19 4:30	3.94	1475	7.26	11.0					
7-27-19 10:30	20.71	1380	8.64	5.1	7-27-19 7:00	20.68	1061	6.84	2.4	7-27-19 7:00	20.63	1084	8.64	10.8						10-27-19 4:45	3.95	1476	7.23	10.9					
7-27-19 10:45	20.66	1381	8.64	5.0	7-27-19 7:15	20.63	1060	6.89	2.7	7-27-19 7:15	20.60	1084	8.63	11.3						10-27-19 5:00	3.93	1474	7.24	10.4					
7-27-19 11:00	20.61	1379	8.63	4.8	7-27-19 7:30	20.57	1061	6.77	2.6	7-27-19 7:30	20.57	1084	8.63	10.7						10-27-19 5:15	3.93	1475	7.25	10.7					
7-27-19 11:15	20.56	1376	8.64	5.5	7-27-19 7:45	20.50	1058	7.59	2.0	7-27-19 7:45	20.54	1084	8.63	12.2						10-27-19 5:30	3.93	1477	7.24	11.0					
7-27-19 11:30	20.53	1379	8.63	6.6	7-27-19 8:00	20.53	1060	6.81	2.4	7-27-19 8:00	20.52	1085	8.63	11.1						10-27-19 5:45	3.92	1474	7.22	10.9					
7-27-19 11:45	20.51	1378	8.64	6.5	7-27-19 8:15	20.52	1060	6.83	1.9	7-27-19 8:15	20.50	1085	8.63	10.4						10-27-19 6:00	3.90	1476	7.24	10.4					
7-27-19 12:00	20.49	1380	8.63	4.4	7-27-19 8:30	20.42	1058	7.65	2.3	7-27-19 8:30	20.42	1085	8.64	11.0						10-27-19 6:15	3.89	1476	7.23	9.7					
7-27-19 12:15	20.46	1378	8.63	5.3	7-27-19 8:45	20.44	1056	8.39	2.7	7-27-19 8:45	20.43	1085	8.63	10.2						10-27-19 6:30	3.86	1476	7.23	10.1					
7-27-19 12:30	20.45	1382	8.62	4.2	7-27-19 9:00	20.51	1056	8.45	2.3	7-27-19 9:00	20.43	1085	8.63	11.1						10-27-19 6:45	3.84	1459	7.24	10.5					
7-27-19 12:45	20.41	1382	8.62	9.4	7-27-19 9:15	20.50	1056	8.44	2.5	7-27-19 9:15	20.40	1085	8.63	9.7						10-27-19 7:00	3.83	1575	7.22	10.9					
7-27-19 13:00	20.37	1384	8.62	4.9	7-27-19 9:30	20.49	1056	8.43	2.1	7-27-19 9:30	20.38	1085	8.63	10.4						10-27-19 7:15	3.79	1473	7.24	9.6					
7-27-19 13:15	20.29	1383	8.63	5.5	7-27-19 9:45	20.45	1056	8.42	2.3	7-27-19 9:45	20.35	1085	8.62	10.8						10-27-19 7:30	3.76	1492	7.23	9.9					
7-27-19 13:30	20.29	1385	8.62	6.5	7-27-19 10:00	20.43	1056	8.39	2.8	7-27-19 10:00	20.34	1085	8.61	12.3						10-27-19 7:45	3.74	1466	7.21	11.5					
7-27-19 13:45	20.23	1381	8.62	6.1	7-27-19 10:15	20.39	1057	8.33	2.0	7-27-19 10:15	20.30	1084	8.61	11.8						10-27-19 8:00	3.71	1473	7.25	10.6					
7-27-19 14:00	20.21	1382	8.61	5.9	7-27-19 10:30	20.34	1057	8.32	2.0	7-27-19 10:30	20.27	1084	8.60	12.7						10-27-19 8:15	3.69	1471	7.22	10.5					
7-27-19 14:15	20.19	1381	8.61	9.4	7-27-19 10:45	20.34	1058	8.21	2.1	7-27-19 10:45	20.24	1084	8.60	11.5						10-27-19 8:30	3.65	1472	7.19	9.0					
7-27-19 14:30	20.15	1375	8.61	10.4	7-27-19 11:00	20.30	1058	8.17	2.0	7-27-19 11:00	20.21	1083	8.60	13.1						10-27-19 8:45	3.63	1475	7.20	9.0					
7-27-19 14:45	20.11	1375	8.61	5.9	7-27-19 11:15	20.27	1059	8.10	3.0	7-27-19 11:15	20.19	1084	8.60	11.1						10-27-19 9:00	3.60	1475	7.23	7.8					
7-27-19 15:00	20.08	1373	8.60	5.2	7-27-19 11:30	20.26	1058	8.14	1.9	7-27-19 11:30	20.17	1084	8.60	12.4						10-27-19 9:15	3.58	1478	7.22	10.0					
7-27-19 15:15	20.07	1371	8.60	7.1	7-27-19 11:45	20.24	1058	8.18	2.0	7-27-19 11:45	20.14	1084	8.60	11.5						10-27-19 9:30	3.50	1478	7.23	8.5					
7-27-19 15:30	20.07	1374	8.60	6.3	7-27-19 12:00	20.23	1058	8.17	1.7	7-27-19 12:00	20.10	1083	8.60	12.5						10-27-19 9:45	3.47	1475	7.20	9.1					
7-27-19 15:45	20.08	1375	8.61	5.2	7-27-19 12:15	20.19	1060	7.84	2.0	7-27-19 12:15	20.09	1084	8.59	12.4						10-27-19 10:00	3.44	1478	7.25	9.6					
7-27-19 16:00	20.05	1377	8.61	5.9	7-27-19 12:30	20.13	1060	7.40	2.0	7-27-19 12:30	20.06	1084	8.59	13.0						10-27-19 10:15	3.44	1477	7.29	9.1					
7-27-19 16:15	20.03	1376	8.62	6.3	7-27-19 12:45	20.12	1061	7.38	3.2	7-27-19 12:45	20.01	1084	8.60	11.8						10-27-19 10:30	3.43	1477	7.25	9.2					
7-27-19 16:30	20.04	1375	8.61	5.8	7-27-19 13:00	20.05	1061	7.04	1.6	7-27-19 13:00	19.96	1084	8.61	12.5						10-27-19 10:45	3.40	1477	7.26	8.8					
7-27-19 16:45	20.04	1373	8.61	6.3	7-27-19 13:15	20.04	1061	7.09	1.8	7-27-19 13:15	19.93	1084	8.60	11.8						10-27-19 11:00	3.38	1476	7.24	9.4					
7-27-19 17:00	20.03	1373	8.61	5.5	7-27-19 13:30	20.03	1062	7.09	1.8	7-27-19 13:30	19.93	1084	8.61	12.1						10-27-19 11:15	3.35	1478	7.21	9.9					
7-27-19 17:15	20.04	1370	8.62	5.8	7-27-19 13:45	20.05	1061	7.38	7.6	7-27-19 13:45	19.91	1084	8.61	12.8						10-27-19 11:30	3.33	1479	7.23	8.7					
7-27-19 17:30	20.01	1370	8.62	5.9	7-27-19 14:00	19.96	1062	6.94	6.6	7-27-19 14:00	19.90	1084	8.61	14.8						10-27-19 11:45	3.35	1480	7.25	9.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-27-19 17:45	19.98	1366	8.61	5.7	7-27-19 14:15	19.95	1063	6.64	6.1	7-27-19 14:15	19.87	1084	8.61	12.0						10-27-19 12:00	3.35	1479	7.21	9.4					
7-27-19 18:00	20.00	1366	8.62	5.4	7-27-19 14:30	19.98	1062	6.87	4.6	7-27-19 14:30	19.85	1084	8.61	13.3						10-27-19 12:15	3.36	1476	7.19	9.5					
7-27-19 18:15	20.02	1366	8.61	6.1	7-27-19 14:45	19.94	1063	6.77	3.1	7-27-19 14:45	19.84	1084	8.60	14.1						10-27-19 12:30	3.38	1485	7.23	9.3					
7-27-19 18:30	20.02	1361	8.61	5.2	7-27-19 15:00	19.96	1063	6.76	2.9	7-27-19 15:00	19.83	1084	8.61	13.9						10-27-19 12:45	3.40	1478	7.23	8.5					
7-27-19 18:45	20.01	1364	8.61	6.1	7-27-19 15:15	20.00	1063	6.78	6.2	7-27-19 15:15	19.82	1083	8.61	13.6						10-27-19 13:00	3.41	1477	7.15	9.1					
7-27-19 19:00	20.00	1365	8.61	5.8	7-27-19 15:30	20.02	1063	6.81	8.0	7-27-19 15:30	19.81	1083	8.61	15.7						10-27-19 13:15	3.40	1479	7.13	8.2					
7-27-19 19:15	20.01	1364	8.61	5.7	7-27-19 15:45	20.04	1063	6.82	5.4	7-27-19 15:45	19.81	1083	8.61	24.8						10-27-19 13:30	3.39	1479	7.13	9.4					
7-27-19 19:30	20.00	1364	8.60	6.0	7-27-19 16:00	20.02	1063	6.78	5.0	7-27-19 16:00	19.82	1082	8.61	17.4						10-27-19 13:45	3.39	1478	7.12	9.9					
7-27-19 19:45	20.02	1363	8.60	6.0	7-27-19 16:15	19.97	1063	6.81	5.1	7-27-19 16:15	19.79	1082	8.61	13.9						10-27-19 14:00	3.41	1478	7.17	8.6					
7-27-19 20:00	20.02	1363	8.61	5.8	7-27-19 16:30	19.97	1063	6.87	5.0	7-27-19 16:30	19.77	1082	8.61	16.2						10-27-19 14:15	3.40	1477	7.13	8.6					
7-27-19 20:15	20.01	1363	8.62	6.5	7-27-19 16:45	19.98	1063	6.83	4.1	7-27-19 16:45	19.78	1083	8.61	16.5						10-27-19 14:30	3.41	1477	7.10	8.4					
7-27-19 20:30	19.99	1362	8.62	5.9	7-27-19 17:00	20.00	1063	6.81	15.2	7-27-19 17:00	19.78	1083	8.61	15.4						10-27-19 14:45	3.44	1477	7.13	8.4					
7-27-19 20:45	19.98	1362	8.61	5.9	7-27-19 17:15	20.06	1064	6.82	9.3	7-27-19 17:15	19.80	1083	8.61	15.3						10-27-19 15:00	3.45	1478	7.09	8.2					
7-27-19 21:00	19.95	1359	8.62	6.0	7-27-19 17:30	20.06	1063	6.82	7.0	7-27-19 17:30	19.77	1083	8.61	15.9						10-27-19 15:15	3.46	1481	7.10	9.4					
7-27-19 21:15	19.92	1356	8.62	5.5	7-27-19 17:45	20.05	1063	6.94	5.1	7-27-19 17:45	19.75	1083	8.61	14.6						10-27-19 15:30	3.49	1481	7.16	9.1					
7-27-19 21:30	19.93	1357	8.61	6.1	7-27-19 18:00	20.07	1063	6.95	5.0	7-27-19 18:00	19.76	1083	8.61	19.6						10-27-19 15:45	3.51	1480	7.16	8.6					
7-27-19 21:45	19.91	1352	8.62	5.2	7-27-19 18:15	20.07	1063	6.93	4.6	7-27-19 18:15	19.76	1083	8.61	16.1						10-27-19 16:00	3.51	1478	7.10	8.6					
7-27-19 22:00	19.91	1352	8.61	5.7	7-27-19 18:30	20.07	1063	6.91	8.5	7-27-19 18:30	19.75	1082	8.61	15.9						10-27-19 16:15	3.60	1480	7.19	7.3					
7-27-19 22:15	19.90	1349	8.61	6.7	7-27-19 18:45	20.05	1062	6.99	5.7	7-27-19 18:45	19.77	1082	8.61	14.9						10-27-19 16:30	3.68	1480	7.16	8.2					
7-27-19 22:30	19.95	1349	8.61	6.2	7-27-19 19:00	20.04	1062	6.91	4.5	7-27-19 19:00	19.76	1082	8.61	14.8						10-27-19 16:45	3.71	1479	7.15	7.2					
7-27-19 22:45	20.02	1349	8.62	6.7	7-27-19 19:15	20.07	1062	6.99	4.1	7-27-19 19:15	19.75	1082	8.61	14.4						10-27-19 17:00	3.72	1478	7.23	7.7					
7-27-19 23:00	20.07	1346	8.61	6.7	7-27-19 19:30	20.05	1062	6.98	4.0	7-27-19 19:30	19.75	1081	8.62	16.6						10-27-19 17:15	3.72	1480	7.24	6.9					
7-27-19 23:15	20.14	1345	8.61	6.9	7-27-19 19:45	20.08	1061	7.14	6.8	7-27-19 19:45	19.74	1081	8.61	15.7						10-27-19 17:30	3.74	1478	7.27	7.6					
7-27-19 23:30	20.20	1345	8.60	6.1	7-27-19 20:00	20.08	1061	6.98	9.0	7-27-19 20:00	19.76	1081	8.62	18.3						10-27-19 17:45	3.76	1481	7.22	7.5					
7-27-19 23:45	20.37	1350	8.60	5.9	7-27-19 20:15	20.08	1061	7.00	7.1	7-27-19 20:15	19.74	1081	8.62	15.3						10-27-19 18:00	3.79	1480	7.24	9.6					
7-28-19 0:00	20.46	1345	8.59	6.1	7-27-19 20:30	20.03	1058	7.05	5.9	7-27-19 20:30	19.73	1080	8.61	17.8						10-27-19 18:15	3.82	1478	7.16	8.2					
7-28-19 0:15	20.57	1344	8.58	5.9	7-27-19 20:45	19.98	1055	7.04	9.5	7-27-19 20:45	19.70	1077	8.62	14.4						10-27-19 18:30	3.81	1479	7.25	8.7					
7-28-19 0:30	20.63	1344	8.60	5.8	7-27-19 21:00	19.97	1056	7.12	11.4	7-27-19 21:00	19.69	1076	8.61	15.6						10-27-19 18:45	3.82	1476	7.24	7.7					
7-28-19 0:45	20.42	1333	8.63	8.5	7-27-19 21:15	19.95	1055	7.10	6.1	7-27-19 21:15	19.66	1076	8.62	15.2						10-27-19 19:00	3.83	1478	7.22	8.2					
7-28-19 1:00	20.72	1339	8.60	5.9	7-27-19 21:30	19.96	1056	7.12	6.3	7-27-19 21:30	19.69	1078	8.61	15.2						10-27-19 19:15	3.84	1481	7.25	7.6					
7-28-19 1:15	20.83	1339	8.60	6.3	7-27-19 21:45	19.98	1057	7.16	5.9	7-27-19 21:45	19.68	1077	8.61	15.9						10-27-19 19:30	3.83	1498	7.24	7.8					
7-28-19 1:30	20.83	1336	8.61	6.0	7-27-19 22:00	20.00	1057	7.19	6.1	7-27-19 22:00	19.69	1077	8.62	17.6						10-27-19 19:45	3.84	1473	7.28	7.2					
7-28-19 1:45	20.79	1329	8.62	6.8	7-27-19 22:15	20.02	1058	7.04	5.8	7-27-19 22:15	19.70	1077	8.62	16.6						10-27-19 20:00	3.87	1468	7.19	7.6					
7-28-19 2:00	20.75	1330	8.62	5.8	7-27-19 22:30	20.06	1057	7.05	7.9	7-27-19 22:30	19.76	1076	8.62	18.8						10-27-19 20:15	3.88	1475	7.18	7.1					
7-28-19 2:15	20.74	1334	8.63	6.1	7-27-19 22:45	20.05	1054	7.32	9.0	7-27-19 22:45	19.75	1076	8.63	17.3						10-27-19 20:30	3.90	1476	7.12	7.2					
7-28-19 2:30	20.76	1333	8.63	5.4	7-27-19 23:00	20.04	1054	7.43	7.3	7-27-19 23:00	19.91	1076	8.63	22.9						10-27-19 20:45	3.91	1476	7.15	7.7					
7-28-19 2:45	20.73	1329	8.63	6.7	7-27-19 23:15	20.06	1053	7.52	7.0	7-27-19 23:15	20.00	1076	8.63	19.0						10-27-19 21:00	3.92	1477	7.18	7.9					
7-28-19 3:00	20.70	1330	8.63	5.5	7-27-19 23:30	20.11	1051	8.03	8.0	7-27-19 23:30	19.96	1078	8.62	17.5						10-27-19 21:15	3.94	1478	7.12	7.5					
7-28-19 3:15	20.67	1326	8.63	6.8	7-27-19 23:45	20.12	1051	8.06	6.8	7-27-19 23:45	20.29	1078	8.63	15.4						10-27-19 21:30	3.95	1478	7.17	8.3					
7-28-19 3:30	20.64	1325	8.62	5.1	7-28-19 0:00	20.07	1052	8.03	11.3	7-28-19 0:00	20.16	1077	8.62	17.3						10-27-19 21:45	3.96	1477	7.23	6.6					
7-28-19 3:45	20.61	1321	8.61	5.5	7-28-19 0:15	20.08	1053	8.11	12.0	7-28-19 0:15	20.38	1078	8.63	16.1						10-27-19 22:00	3.91	1478	7.27	8.0					
7-28-19 4:00	20.59	1324	8.62	5.2	7-28-19 0:30	20.17	1058	7.43	8.0	7-28-19 0:30	20.47	1078	8.62	18.0						10-27-19 22:15	3.87	1474	7.35	7.2					
7-28-19 4:15	20.54	1319	8.64	5.6	7-28-19 0:45	20.28	1064	7.29	9.3	7-28-19 0:45	20.55	1078	8.62	15.6						10-27-19 22:30	3.87	1476	7.27	7.0					
7-28-19 4:30	20.48	1320	8.65	5.3	7-28-19 1:00	20.32	1066	7.08	8.8	7-28-19 1:00	20.66	1079	8.61	16.4						10-27-19 22:45	3.86	1475	7.26	7.1					
7-28-19 4:45	20.45	1324	8.65	5.3	7-28-19 1:15	20.34	1067	6.94	8.6	7-28-19 1:15	20.81	1079	8.61	14.4						10-27-19 23:00	3.85	1475	7.38	7.3					
7-28-19 5:00	20.41	1320	8.65	5.1	7-28-19 1:30	20.36	1066	6.95	7.6	7-28-19 1:30	20.76	1078	8.62	15.7						10-27-19 23:15	3.85	1478	7.36	6.5					
7-28-19 5:15	20.36	1318	8.66	5.7	7-28-19 1:45	20.31	1068	7.04	8.6	7-28-19 1:45	20.81	1079	8.63	15.0						10-27-19 23:30	3.83	1477	7.35	6.5					
7-28-19 5:30	20.35	1320	8.64	5.0	7-28-19 2:00	20.26	1069	7.04	7.5	7-28-19 2:00	20.79	1078	8.63	15.0						10-27-19 23:45	3.81	1479	7.30	6.5					
7-28-19 5:45	20.31	1319	8.64	6.2	7-28-19 2:15	20.24	1074	6.99	9.6	7-28-19 2:15	20.69	1077	8.62	14.0						10-28-19 0:00	3.80	1477	7.28	6.4					
7-28-19 6:00	20.28	1318	8.65	5.9	7-28-19 2:30	20.22	1075	7.08	7.5	7-28-19 2:30	20.58	1077	8.63	14.6						10-28-19 0:15	3.78	1474	7.25	7.2					
7-28-19 6:15	20.25	1317	8.64	4.8	7-28-19 2:45	20.30	1073	7.20	6.8	7-28-19 2:45	20.58	1078	8.63	13.5						10-28-19 0:30	3.76	1474	7.21	6.2					
7-28-19 6:30	20.22	1315	8.64	6.8	7-28-19 3:00	20.33	1070	7.42	6.6	7-28-19 3:00	20.57	1078	8.64	13.7						10-28-19 0:45	3.74	1473	7.18	6.1					
7-28-19 6:45	20.18	1316	8.65	6.9	7-28-19 3:15	20.30	1069	7.35	6.7	7-28-19 3:15	20.57	1078	8.63	12.6						10-28-19 1:00	3.71	1458	7.16	6.1					
7-28-19 7:00	20.15	1316	8.64	4.3	7-28-19 3:30	20.30	1071	7.31	6.1	7-28-19 3:30	20.55	1078	8.63	13.2						10-28-19 1:15	3.68	1472	7.19	6.5					
7-28-19 7:15	20.13	1316	8.63	4.9	7-28-19 3:45	20.29	1071	6.98	5.9	7-28-19 3:45	20.53	1078	8.63	13.2						10-28-19 1:30	3.68	1475	7.22	5.9					
7-28-19 7:30	20.09	1317	8.63	4.8	7-28-19 4:00	20.29	1071	7.21	5.4	7-28-19 4:00	20.48	1078	8.64	13.4						10-28-19 1:45	3.70	1473	7.26	6.6					
7-28-19 7:45	20.06	1316	8.62	4.9	7-28-19 4:15	20.27	1073	6.91	6.0	7-28-19 4:15	20.47	1078	8.63	11.9						10-28-19 2:00	3.73	1471	7.30	6.4					
7-28-19 8:00	20.01	1314	8.64	5.5	7-28-19 4:30	20.22	1073	7.18	6.2	7-28-19 4:30	20.43	1077	8.64	13.2						10-28-19 2:15	3.74	1488	7.27	7.6					
7-28-19 8:15	19.97	1311	8.62	4.5	7-28-19 4:45	20.19	1076	6.94	6.1	7-28-19 4:45	20.37	1077	8.64	11.3						10-28-19 2:30	3.74	1468	7.25	6.6					
7-28-19 8:30	19.91	1311	8.62	4.9	7-28-19 5:00	20.13	1079	7.02	5.8	7-28-19 5:00	20.33	1077	8.64	12.9						10-28-19 2:45	3.71	1475	7.18	6.3					
7-28-19 8:45	19.86	1308	8.63	5.1	7-28-19 5:30	20.11	1088	7.88	6.7	7-28-19 5:30	20.24	1077	8.64	10.9						10-28-19 3:00	3.71	1474	7.24	5.6					
7-28-19 9:00	19.85	1308	8.62	4.8	7-28-19 5:45	20.05	1090	7.15	6.9	7-28-19 5:45	20.22	1077	8.64	12.8						10-28-19 3:15	3.68	1478	7.22	6.1					
7-28-19 9:15	19.81	1306	8.62	5.0	7-28-19 6:00	20.05	1090	7.02	6.3	7-28-19 6:00	20.18	1077	8.63	12.1						10-28-19 3:30	3.66	1475	7.21	7.6					
7-28-19 9:30	19.77	1306	8.62	5.0	7-28-19 6:15	20.03	1092	6.95	6.1	7-28-19 6:15	20.16	1077	8.64	13.0						10-28-19 3:45	3.66	1472	7.23	6.8					
7-28-19 9:45	19.74	1306	8.62	4.9	7-28-19 6:30	19.99	1097	6.93	6.2	7-28-19 6:30	20.15	1077	8.63	11.7						10-28-19 4:00	3.66	1474	7.22	6.6					
7-28-19 10:00	19.71	1306	8.60	5.0	7-28-19 6:45	19.98	1100	6.91	6.5	7-28-19 6:45	20.11	1077	8.63	12.6						10-28-19 4:15	3.66	1477	7.22	6.1					
7-28-19 10:15	19.65	1304	8.61	5.8	7-28-19 7:00	19.94	1098	7.35	6.0	7-28-19 7:00	20.08	1077	8.63	13.0						10-28-19 4:30	3.64	1476	7.23	6.2					
7-28-19 10:30	19.62	1305	8.62	4.6	7-28-19 7:15	19.91	1102	7.25	7.2	7-28-19 7:15	20.05	1077	8.64	14.0						10-28-19 4:45	3.61	1477	7.27	5.3					
7-28-19 10:45	19.58	1304	8.60	4.5	7-28-19 7:30	19.89	1110	7.12	6.3	7-28-19 7:30	20.01	1077	8.63	11.0						10-28-19 5:00	3.59	1476	7.18	5.8					
7-28-19 11:00	19.54	1306	8.60	4.4	7-28-19 7:45	19.85	1114	6.92	6.1	7-28-19 7:45	19.98	1077	8.63	12.5						10-28-19 5:15	3.56	1470	7.20	4.4					
7-28-19 11:15	19.50	1304	8.60	4.8	7-28-19 8:00	19.80	1119	6.87	6.7	7-28-19 8:00	19.95	1077	8.63	11.7						10-28-19 5:30	3.57	1474	7.28	5.7					
7-28-19 11:30	19.45	1305	8.61	4.4	7-28-19 8:15	19.80	1126	6.83	5.7	7-28-19 8:15	19.90	1077	8.63	11.8						10-28-19 5:45	3.56	1474	7.25	6.0					
7-28-19 11:45	19.42	1301	8.59	5.2	7-28-19 8:30	19.78	1144	6.90	6.0	7-28-19 8:30	19.87	1077	8.63	11.1						10-28-19 6:00	3.55	1478	7.28	6.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-28-19 12:00	19.38	1301	8.59	4.3	7-28-19 8:45	19.80	1153	6.96	6.9	7-28-19 8:45	19.85	1077	8.63	12.9						10-28-19 6:15	3.60	1476	7.24	5.3					
7-28-19 12:15	19.35	1307	8.59	5.3	7-28-19 9:00	19.79	1161	6.93	6.1	7-28-19 9:00	19.82	1076	8.62	11.0						10-28-19 6:30	3.57	1476	7.23	5.8					
7-28-19 12:30	19.32	1304	8.59	5.0	7-28-19 9:15	19.71	1157	6.90	6.3	7-28-19 9:15	19.78	1076	8.63	12.9						10-28-19 6:45	3.52	1475	7.19	5.8					
7-28-19 12:45	19.30	1301	8.58	7.3	7-28-19 9:30	19.66	1136	7.00	5.3	7-28-19 9:30	19.73	1076	8.62	13.0						10-28-19 7:00	3.49	1475	7.23	5.7					
7-28-19 13:00	19.27	1294	8.58	5.6	7-28-19 9:45	19.62	1152	6.88	6.9	7-28-19 9:45	19.67	1076	8.62	13.7						10-28-19 7:15	3.48	1477	7.27	4.7					
7-28-19 13:15	19.25	1301	8.57	5.4	7-28-19 10:00	19.56	1143	6.93	7.1	7-28-19 10:00	19.64	1075	8.62	13.1						10-28-19 7:30	3.47	1477	7.27	5.7					
7-28-19 13:30	19.21	1302	8.57	5.4	7-28-19 10:15	19.55	1151	6.86	5.0	7-28-19 10:15	19.61	1075	8.62	15.0						10-28-19 7:45	3.47	1479	7.29	5.3					
7-28-19 13:45	19.21	1302	8.57	4.7	7-28-19 10:30	19.55	1162	6.85	4.7	7-28-19 10:30	19.57	1074	8.61	16.0						10-28-19 8:00	3.43	1476	7.27	5.6					
7-28-19 14:00	19.16	1299	8.56	5.1	7-28-19 10:45	19.55	1172	6.86	4.7	7-28-19 10:45	19.54	1073	8.60	20.2						10-28-19 8:15	3.41	1476	7.28	5.3					
7-28-19 14:15	19.13	1299	8.57	4.9	7-28-19 11:00	19.54	1179	6.86	4.5	7-28-19 11:00	19.53	1073	8.59	19.5						10-28-19 8:30	3.41	1477	7.29	5.6					
7-28-19 14:30	19.12	1299	8.57	5.2	7-28-19 11:15	19.52	1190	6.86	4.9	7-28-19 11:15	19.50	1073	8.59	19.2						10-28-19 8:45	3.35	1477	7.24	4.9					
7-28-19 14:45	19.16	1303	8.56	5.7	7-28-19 11:30	19.48	1194	6.85	4.4	7-28-19 11:30	19.46	1073	8.59	19.7						10-28-19 9:00	3.31	1478	7.20	5.9					
7-28-19 15:00	19.21	1302	8.55	4.8	7-28-19 11:45	19.46	1187	6.96	3.7	7-28-19 11:45	19.44	1072	8.58	20.9						10-28-19 9:15	3.28	1481	7.18	4.5					
7-28-19 15:15	19.19	1302	8.56	4.9	7-28-19 12:00	19.41	1167	7.10	4.0	7-28-19 12:00	19.41	1072	8.57	19.3						10-28-19 9:30	3.30	1481	7.26	4.8					
7-28-19 15:30	19.19	1304	8.55	5.2	7-28-19 12:15	19.38	1147	7.17	4.2	7-28-19 12:15	19.40	1072	8.57	20.4						10-28-19 9:45	3.29	1481	7.23	4.9					
7-28-19 15:45	19.17	1303	8.55	6.4	7-28-19 12:30	19.34	1130	7.72	5.9	7-28-19 12:30	19.39	1071	8.56	20.1						10-28-19 10:00	3.29	1479	7.17	5.9					
7-28-19 16:00	19.18	1303	8.55	5.4	7-28-19 12:45	19.36	1132	7.76	6.3	7-28-19 12:45	19.38	1071	8.56	23.3						10-28-19 10:15	3.31	1478	7.20	5.1					
7-28-19 16:15	19.22	1301	8.55	5.9	7-28-19 13:00	19.32	1139	7.27	5.0	7-28-19 13:00	19.36	1070	8.54	21.6						10-28-19 10:30	3.31	1476	7.26	4.6					
7-28-19 16:30	19.30	1301	8.55	5.9	7-28-19 13:15	19.33	1140	7.00	5.3	7-28-19 13:15	19.35	1070	8.54	21.9						10-28-19 10:45	3.25	1478	7.22	4.5					
7-28-19 16:45	19.31	1299	8.55	5.8	7-28-19 13:30	19.33	1142	7.02	7.7	7-28-19 13:30	19.33	1069	8.53	21.4						10-28-19 11:00	3.20	1477	7.22	5.3					
7-28-19 17:00	19.38	1300	8.55	5.5	7-28-19 13:45	19.31	1142	6.90	5.9	7-28-19 13:45	19.31	1070	8.54	22.5						10-28-19 11:15	3.23	1482	7.26	4.7					
7-28-19 17:15	19.43	1298	8.55	5.7	7-28-19 14:00	19.31	1148	6.85	8.9	7-28-19 14:00	19.29	1070	8.55	22.3						10-28-19 11:30	3.20	1481	7.24	4.9					
7-28-19 17:30	19.44	1295	8.55	5.8	7-28-19 14:15	19.27	1149	6.86	7.9	7-28-19 14:15	19.28	1070	8.55	24.2						10-28-19 11:45	3.23	1482	7.22	4.8					
7-28-19 17:45	19.52	1293	8.55	5.7	7-28-19 14:30	19.31	1155	6.94	11.9	7-28-19 14:30	19.27	1070	8.55	22.4						10-28-19 12:00	3.20	1479	7.24	4.8					
7-28-19 18:00	19.65	1291	8.54	5.4	7-28-19 14:45	19.32	1160	7.00	8.9	7-28-19 14:45	19.30	1070	8.55	23.7						10-28-19 12:15	3.18	1478	7.21	5.2					
7-28-19 18:15	19.77	1290	8.54	10.5	7-28-19 15:00	19.37	1166	6.88	8.1	7-28-19 15:00	19.35	1070	8.55	22.5						10-28-19 12:30	3.15	1478	7.21	4.7					
7-28-19 18:30	19.98	1291	8.54	6.5	7-28-19 15:15	19.46	1175	6.89	7.2	7-28-19 15:15	19.38	1069	8.53	25.7						10-28-19 12:45	3.05	1479	7.16	4.1					
7-28-19 18:45	20.05	1289	8.53	5.3	7-28-19 15:30	19.48	1178	6.85	6.7	7-28-19 15:30	19.37	1069	8.53	24.3						10-28-19 13:00	3.00	1480	7.21	5.2					
7-28-19 19:00	19.99	1290	8.53	7.3	7-28-19 15:45	19.46	1184	6.90	6.0	7-28-19 15:45	19.34	1069	8.53	27.5						10-28-19 13:15	3.03	1483	7.26	5.6					
7-28-19 19:15	20.16	1290	8.53	5.5	7-28-19 16:00	19.50	1192	6.94	6.4	7-28-19 16:00	19.35	1069	8.53	23.7						10-28-19 13:30	3.03	1484	7.23	4.4					
7-28-19 19:30	20.20	1290	8.54	5.6	7-28-19 16:15	19.56	1196	6.95	5.4	7-28-19 16:15	19.41	1068	8.54	27.6						10-28-19 13:45	3.04	1482	7.21	4.3					
7-28-19 19:45	20.21	1288	8.53	5.3	7-28-19 16:30	19.57	1193	7.03	4.6	7-28-19 16:30	19.48	1069	8.54	27.8						10-28-19 14:00	3.04	1480	7.26	4.7					
7-28-19 20:00	20.54	1291	8.52	5.6	7-28-19 16:45	19.64	1202	6.96	5.0	7-28-19 16:45	19.57	1068	8.54	30.0						10-28-19 14:15	2.64	1482	7.19	4.2					
7-28-19 20:15	20.45	1286	8.53	9.1	7-28-19 17:00	19.67	1203	7.04	5.2	7-28-19 17:00	19.61	1068	8.54	26.3						10-28-19 14:30	2.54	1482	7.25	4.2					
7-28-19 20:30	20.68	1287	8.52	5.7	7-28-19 17:15	19.64	1192	7.12	21.7	7-28-19 17:15	19.57	1068	8.53	28.6						10-28-19 14:45	2.21	1485	7.47	4.7					
7-28-19 20:45	20.94	1288	8.53	8.1	7-28-19 17:30	19.66	1187	7.04	10.5	7-28-19 17:30	19.61	1068	8.54	25.1						10-28-19 15:00	2.27	1485	7.38	4.7					
7-28-19 21:00	21.06	1287	8.51	6.2	7-28-19 17:45	19.70	1189	7.00	6.2	7-28-19 17:45	19.71	1069	8.54	26.2						10-28-19 15:15	2.33	1489	7.37	4.5					
7-28-19 21:15	21.36	1290	8.52	6.7	7-28-19 18:00	19.75	1182	7.24	7.1	7-28-19 18:00	19.89	1068	8.55	22.8						10-28-19 15:30	2.44	1488	7.39	4.7					
7-28-19 21:30	21.49	1287	8.53	6.5	7-28-19 18:15	19.80	1174	7.26	6.7	7-28-19 18:15	20.22	1069	8.56	26.5						10-28-19 15:45	2.45	1488	7.35	4.1					
7-28-19 21:45	21.48	1290	8.54	6.0	7-28-19 18:30	19.86	1162	7.18	5.7	7-28-19 18:30	20.25	1071	8.54	22.1						10-28-19 16:00	2.49	1486	7.32	4.9					
7-28-19 22:00	21.70	1288	8.52	6.7	7-28-19 18:45	19.92	1159	7.00	9.3	7-28-19 18:45	20.45	1068	8.54	24.9						10-28-19 16:15	2.53	1483	7.29	4.9					
7-28-19 22:15	21.76	1287	8.54	6.3	7-28-19 19:00	19.87	1156	7.09	6.8	7-28-19 19:00	20.45	1071	8.52	25.2						10-28-19 16:30	2.56	1485	7.29	4.7					
7-28-19 22:30	21.87	1288	8.53	6.0	7-28-19 19:15	19.85	1153	7.13	5.9	7-28-19 19:15	20.45	1070	8.54	24.6						10-28-19 16:45	2.64	1484	7.23	4.9					
7-28-19 22:45	21.90	1289	8.55	6.4	7-28-19 19:30	19.83	1150	6.99	5.5	7-28-19 19:30	20.48	1070	8.56	24.9						10-28-19 17:00	2.77	1484	7.25	5.2					
7-28-19 23:00	22.02	1288	8.54	6.0	7-28-19 19:45	19.83	1147	7.08	7.3	7-28-19 19:45	20.59	1069	8.57	26.8						10-28-19 17:15	2.85	1486	7.23	4.4					
7-28-19 23:15	22.05	1288	8.54	6.0	7-28-19 20:00	19.91	1150	7.35	6.2	7-28-19 20:00	20.58	1070	8.56	24.6						10-28-19 17:30	2.91	1487	7.23	3.9					
7-28-19 23:30	22.06	1291	8.55	5.7	7-28-19 20:15	20.18	1151	7.18	5.4	7-28-19 20:15	20.72	1069	8.55	24.0						10-28-19 17:45	2.93	1485	7.19	4.0					
7-28-19 23:45	22.07	1288	8.55	5.9	7-28-19 20:30	20.43	1157	7.17	4.8	7-28-19 20:30	20.95	1070	8.56	22.6						10-28-19 18:00	2.91	1465	7.22	4.1					
7-29-19 0:00	22.11	1288	8.53	6.0	7-28-19 20:45	20.55	1156	7.33	6.3	7-28-19 20:45	21.11	1071	8.57	25.3						10-28-19 18:15	2.85	1485	7.21	4.6					
7-29-19 0:15	22.02	1285	8.52	6.8	7-28-19 21:00	20.64	1155	7.08	5.9	7-28-19 21:00	21.30	1071	8.57	25.1						10-28-19 18:30	2.83	1485	7.21	4.5					
7-29-19 0:30	22.12	1282	8.54	6.8	7-28-19 21:15	20.65	1155	7.40	6.4	7-28-19 21:15	21.49	1072	8.57	25.2						10-28-19 18:45	2.84	1485	7.20	4.4					
7-29-19 0:45	22.11	1284	8.55	6.3	7-28-19 21:30	20.78	1155	7.03	5.2	7-28-19 21:30	21.35	1072	8.56	22.8						10-28-19 19:00	2.83	1486	7.15	4.5					
7-29-19 1:00	22.11	1287	8.55	5.7	7-28-19 21:45	20.76	1155	7.08	5.8	7-28-19 21:45	21.51	1072	8.57	22.6						10-28-19 19:15	2.66	1488	7.31	4.3					
7-29-19 1:15	22.06	1286	8.54	5.6	7-28-19 22:00	20.79	1155	7.09	5.9	7-28-19 22:00	21.52	1072	8.57	23.7						10-28-19 19:30	2.62	1489	7.33	4.9					
7-29-19 1:30	22.03	1286	8.53	5.9	7-28-19 22:15	20.83	1156	7.09	5.3	7-28-19 22:15	21.61	1072	8.57	24.7						10-28-19 20:00	2.60	1487	7.30	4.8					
7-29-19 1:45	22.01	1287	8.55	6.3	7-28-19 22:30	20.83	1155	7.81	5.8	7-28-19 22:30	21.68	1072	8.56	20.9						10-28-19 20:15	2.60	1486	7.27	4.2					
7-29-19 2:00	22.02	1302	8.55	5.7	7-28-19 22:45	20.96	1157	7.10	6.4	7-28-19 22:45	21.68	1072	8.56	25.7						10-28-19 20:30	2.57	1486	7.23	3.9					
7-29-19 2:15	21.99	1284	8.54	5.9	7-28-19 23:00	20.87	1155	7.44	7.7	7-28-19 23:00	21.71	1073	8.56	21.1						10-28-19 20:45	2.48	1486	7.32	5.3					
7-29-19 2:30	21.96	1285	8.53	5.3	7-28-19 23:15	20.98	1155	7.78	6.1	7-28-19 23:15	21.71	1073	8.56	21.7						10-28-19 21:00	2.46	1486	7.42	4.9					
7-29-19 2:45	21.92	1285	8.54	5.6	7-28-19 23:30	21.01	1156	7.38	6.6	7-28-19 23:30	21.76	1073	8.56	20.0						10-28-19 21:15	2.41	1487	7.38	4.1					
7-29-19 3:00	21.88	1284	8.54	5.4	7-28-19 23:45	21.12	1158	7.05	6.9	7-28-19 23:45	21.82	1073	8.57	19.5						10-28-19 21:30	2.43	1487	7.30	4.3					
7-29-19 3:15	21.80	1284	8.54	5.5	7-29-19 0:00	21.10	1156	7.44	7.3	7-29-19 0:00	21.88	1073	8.58	20.8						10-28-19 21:45	2.44	1487	7.30	3.8					
7-29-19 3:30	21.73	1280	8.54	5.4	7-29-19 0:15	21.16	1157	7.17	6.9	7-29-19 0:15	21.86	1075	8.57	21.8						10-28-19 22:00	2.46	1487	7.26	4.2					
7-29-19 3:45	21.70	1284	8.55	6.1	7-29-19 0:30	21.13	1157	7.15	9.5	7-29-19 0:30	21.78	1073	8.57	18.1						10-28-19 22:15	2.44	1479	7.27	4.3					
7-29-19 4:00	21.62	1282	8.53	5.0	7-29-19 0:45	21.15	1156	7.19	6.6	7-29-19 0:45	21.81	1070	8.58	22.2						10-28-19 22:30	2.43	1485	7.24	4.5					
7-29-19 4:15	21.56	1284	8.53	8.2	7-29-19 1:00	21.12	1157	7.15	6.7	7-29-19 1:00	21.83	1072	8.58	17.0						10-28-19 22:45	2.39	1485	7.23	4.3					
7-29-19 4:30	21.47	1285	8.53	5.0	7-29-19 1:15	21.12	1157	7.22	6.4	7-29-19 1:15	21.81	1073	8.57	20.9						10-28-19 23:00	2.38	1486	7.30	4.0					
7-29-19 4:45	21.40	1283	8.54	5.4	7-29-19 1:30	21.15	1156	7.37	6.4	7-29-19 1:30	21.80	1073	8.57	16.4						10-28-19 23:15	2.34	1489	7.30	4.1					
7-29-19 5:00	21.33	1286	8.52	5.2	7-29-19 1:45	21.17	1156	7.30	6.1	7-29-19 1:45	21.77	1073	8.58	20.6						10-28-19 23:30	2.30	1490	7.25	4.1					
7-29-19 5:15	21.28	1283	8.55	8.8	7-29-19 2:00	21.16	1156	7.29	5.5	7-29-19 2:00	21.74	1073	8.58	17.3						10-28-19 23:45	2.14	1490	7.36	3.4					
7-29-19 5:30	21.23	1282	8.54	4.8	7-29-19 2:15	21.13	1156	7.09	4.8	7-29-19 2:15	21.69	1073	8.58	21.0						10-29-19 0:00	2.09	1491	7.34	4.4					
7-29-19 5:45	21.16	1282	8.54	4.9	7-29-19 2:30	21.13	1157	7.00	6.4	7-29-19 2:30	21.65	1072	8.58	17.6						10-29-19 0:15	2.04	1487	7.41	4.4					
7-29-19 6:00	21.10	1280	8.54	4.7	7-29-19 2:45	21.12	1156	7.03	4.1	7-29-19 2:45	21.58	1072	8.59	22.1						10-29-19 0:30	1.96	1486	7.32	4.2					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-29-19 6:15	21.03	1281	8.54	4.4
7-29-19 6:30	20.97	1282	8.55	4.4
7-29-19 6:45	20.91	1282	8.55	4.3
7-29-19 7:00	20.84	1283	8.58	4.4
7-29-19 7:15	20.78	1283	8.61	4.3
7-29-19 7:30	20.69	1284	8.59	4.0
7-29-19 7:45	20.65	1286	8.59	4.7
7-29-19 8:00	20.59	1283	8.57	3.9
7-29-19 8:15	20.53	1282	8.57	4.3
7-29-19 8:30	20.48	1282	8.56	4.1
7-29-19 8:45	20.43	1281	8.55	5.2
7-29-19 9:00	20.38	1285	8.55	4.1
7-29-19 9:15	20.31	1280	8.56	7.9
7-29-19 9:30	20.27	1282	8.54	3.7
7-29-19 9:45	20.21	1281	8.54	6.0
7-29-19 10:00	20.15	1279	8.53	3.7
7-29-19 10:15	20.10	1281	8.53	5.6
7-29-19 10:30	20.05	1280	8.53	3.6
7-29-19 10:45	19.97	1280	8.53	3.9
7-29-19 11:00	19.93	1281	8.52	3.8
7-29-19 11:15	19.88	1281	8.52	4.1
7-29-19 11:30	19.82	1280	8.52	3.5
7-29-19 11:45	19.76	1282	8.51	3.7
7-29-19 12:00	19.69	1281	8.51	3.9
7-29-19 12:15	19.64	1282	8.51	3.8
7-29-19 12:30	19.59	1282	8.50	4.0
7-29-19 12:45	19.53	1282	8.51	4.0
7-29-19 13:00	19.44	1281	8.51	3.6
7-29-19 13:15	19.39	1281	8.49	4.1
7-29-19 13:30	19.33	1279	8.49	3.7
7-29-19 13:45				
7-29-19 14:00				
7-29-19 14:15				
7-29-19 14:30	19.21	1275	8.48	3.7
7-29-19 14:45	19.18	1281	8.48	3.8
7-29-19 15:00	19.16	1281	8.48	3.5
7-29-19 15:15	19.15	1280	8.48	4.3
7-29-19 15:30	19.16	1280	8.48	3.7
7-29-19 15:45	19.19	1280	8.47	4.2
7-29-19 16:00	19.22	1278	8.48	4.0
7-29-19 16:15	19.24	1278	8.49	3.8
7-29-19 16:30	19.33	1278	8.48	3.8
7-29-19 16:45	19.40	1278	8.48	3.9
7-29-19 17:00	19.50	1279	8.47	4.1
7-29-19 17:15	19.52	1273	8.49	3.9
7-29-19 17:30	19.61	1277	8.48	5.6
7-29-19 17:45	19.70	1277	8.49	3.7
7-29-19 18:00	19.86	1278	8.48	3.9
7-29-19 18:15	19.99	1277	8.48	4.1
7-29-19 18:30	20.01	1277	8.48	3.9
7-29-19 18:45	20.14	1276	8.49	3.9
7-29-19 19:00	20.32	1275	8.49	4.2
7-29-19 19:15	20.48	1277	8.50	4.0
7-29-19 19:30	20.65	1279	8.49	4.2
7-29-19 19:45	20.63	1276	8.50	4.2
7-29-19 20:00	20.90	1275	8.51	4.9
7-29-19 20:15	20.97	1276	8.51	4.3
7-29-19 20:30	21.16	1278	8.50	4.4
7-29-19 20:45	21.08	1277	8.51	5.4
7-29-19 21:00	21.27	1278	8.51	4.7
7-29-19 21:15	21.53	1278	8.53	5.1
7-29-19 21:30	21.49	1277	8.52	4.6
7-29-19 21:45	21.56	1277	8.52	4.8
7-29-19 22:00	21.53	1278	8.53	5.1
7-29-19 22:15	21.51	1277	8.53	5.0
7-29-19 22:30	21.59	1276	8.54	4.7
7-29-19 22:45	21.65	1277	8.54	11.7
7-29-19 23:00	21.51	1273	8.55	7.4
7-29-19 23:15	21.64	1277	8.55	7.8
7-29-19 23:30	21.62	1283	8.54	5.9
7-29-19 23:45	21.61	1274	8.55	7.4
7-30-19 0:00	21.60	1274	8.54	5.6
7-30-19 0:15	21.66	1277	8.55	7.2

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-29-19 3:00	21.06	1156	7.08	4.2
7-29-19 3:15	20.99	1156	7.22	5.1
7-29-19 3:30	20.93	1157	7.07	3.9
7-29-19 3:45	20.90	1156	7.02	3.5
7-29-19 4:00	20.85	1157	6.97	3.6
7-29-19 4:15	20.85	1157	7.02	3.7
7-29-19 4:30	20.82	1157	7.00	3.7
7-29-19 4:45	20.77	1157	7.00	3.4
7-29-19 5:00	20.72	1157	7.02	3.5
7-29-19 5:15	20.70	1157	7.07	3.4
7-29-19 5:30	20.67	1156	7.03	3.4
7-29-19 5:45	20.62	1156	7.00	3.4
7-29-19 6:00	20.58	1156	7.05	4.9
7-29-19 6:15	20.52	1156	7.01	4.2
7-29-19 6:30	20.49	1156	7.00	3.6
7-29-19 6:45	20.43	1157	6.93	3.1
7-29-19 7:00	20.40	1156	7.09	3.4
7-29-19 7:15	20.37	1156	6.91	3.1
7-29-19 7:30	20.32	1157	6.95	3.7
7-29-19 7:45	20.30	1157	6.96	3.1
7-29-19 8:00	20.27	1157	6.88	3.1
7-29-19 8:15	20.22	1157	6.98	3.2
7-29-19 8:30	20.25	1157	7.08	3.8
7-29-19 8:45	20.20	1157	6.97	3.2
7-29-19 9:00	20.17	1158	7.08	2.6
7-29-19 9:15	20.15	1158	7.04	2.7
7-29-19 9:30	20.12	1158	6.96	3.3
7-29-19 9:45	20.08	1158	7.03	2.9
7-29-19 10:00	20.05	1158	7.10	3.1
7-29-19 10:15	20.02	1158	7.02	2.6
7-29-19 10:30	19.98	1158	7.04	2.9
7-29-19 10:45	19.94	1158	7.02	2.8
7-29-19 11:00	19.89	1158	7.08	3.5
7-29-19 11:15	19.85	1158	7.05	3.1
7-29-19 11:30	19.79	1158	6.99	3.3
7-29-19 11:45	19.73	1158	7.01	3.7
7-29-19 12:00	19.72	1158	7.06	3.9
7-29-19 12:15	19.66	1158	7.01	4.4
7-29-19 12:30	19.61	1158	7.09	4.6
7-29-19 12:45	19.58	1158	7.09	14.8
7-29-19 13:00	19.54	1159	7.06	5.4
7-29-19 13:15	19.50	1159	6.99	4.2
7-29-19 13:30	19.50	1159	7.07	4.9
7-29-19 13:45	19.46	1159	7.01	4.2
7-29-19 14:00	19.45	1159	6.93	3.8
7-29-19 14:15	19.42	1159	7.03	3.6
7-29-19 14:30	19.42	1159	7.08	4.3
7-29-19 14:45	19.42	1159	7.07	4.4
7-29-19 15:00	19.43	1159	7.07	3.8
7-29-19 15:15	19.41	1160	7.03	4.2
7-29-19 15:30	19.41	1159	7.08	4.4
7-29-19 15:45	19.45	1159	7.07	7.9
7-29-19 16:00	19.45	1159	7.08	4.9
7-29-19 16:15	19.47	1159	7.11	5.8
7-29-19 16:30	19.51	1158	7.06	5.1
7-29-19 16:45	19.47	1155	7.25	5.1
7-29-19 17:00	19.51	1155	7.11	4.7
7-29-19 17:15	19.52	1154	7.07	7.0
7-29-19 17:30	19.56	1154	7.17	7.4
7-29-19 17:45	19.64	1154	7.16	6.0
7-29-19 18:00	19.72	1154	7.20	6.5
7-29-19 18:15	19.81	1153	7.13	8.6
7-29-19 18:30	19.86	1154	7.24	10.8
7-29-19 18:45	19.96	1153	7.21	13.4
7-29-19 19:00	20.05	1155	7.12	13.0
7-29-19 19:15	20.06	1154	7.65	7.9
7-29-19 19:30	20.19	1154	7.68	8.6
7-29-19 19:45	20.00	1153	7.79	6.5
7-29-19 20:00	20.20	1155	7.18	6.3
7-29-19 20:15	20.28	1155	7.14	7.3
7-29-19 20:30	20.34	1155	7.13	7.2
7-29-19 20:45	20.46	1155	7.06	7.3
7-29-19 21:00	20.47	1154	7.14	6.1

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-29-19 3:00	21.52	1072	8.59	17.1
7-29-19 3:15	21.49	1072	8.60	18.5
7-29-19 3:30	21.41	1072	8.60	16.0
7-29-19 3:45	21.34	1070	8.61	18.6
7-29-19 4:00	21.29	1072	8.60	17.1
7-29-19 4:15	21.22	1072	8.61	18.4
7-29-19 4:30	21.18	1072	8.60	15.7
7-29-19 4:45	21.13	1071	8.60	17.3
7-29-19 5:00	21.07	1071	8.60	16.8
7-29-19 5:15	21.00	1071	8.61	18.1
7-29-19 5:30	20.94	1071	8.61	15.0
7-29-19 5:45	20.88	1071	8.60	17.8
7-29-19 6:00	20.82	1071	8.61	16.4
7-29-19 6:15	20.78	1071	8.60	17.4
7-29-19 6:30	20.70	1071	8.61	15.9
7-29-19 6:45	20.66	1070	8.60	19.1
7-29-19 7:00	20.63	1071	8.61	15.8
7-29-19 7:15	20.55	1071	8.61	16.7
7-29-19 7:30	20.51	1070	8.60	15.6
7-29-19 7:45	20.44	1070	8.62	17.5
7-29-19 8:00	20.42	1070	8.62	17.0
7-29-19 8:15	20.34	1070	8.62	21.4
7-29-19 8:30	20.25	1070	8.62	15.7
7-29-19 8:45	20.18	1070	8.62	18.2
7-29-19 9:00	20.14	1070	8.62	15.4
7-29-19 9:15	20.09	1069	8.62	16.9
7-29-19 9:30	20.02	1069	8.61	15.5
7-29-19 9:45	19.95	1068	8.60	20.2
7-29-19 10:00	19.88	1068	8.59	16.8
7-29-19 10:15	19.83	1068	8.59	21.5
7-29-19 10:30	19.78	1068	8.58	18.9
7-29-19 10:45	19.75	1068	8.58	20.3
7-29-19 11:00	19.69	1067	8.58	18.6
7-29-19 11:15	19.62	1068	8.58	20.4
7-29-19 11:30	19.58	1067	8.57	15.7
7-29-19 11:45	19.53	1066	8.57	20.3
7-29-19 12:00	19.41	1066	8.56	17.3
7-29-19 12:15	19.42	1066	8.56	17.9
7-29-19 12:30	19.39	1067	8.56	17.5
7-29-19 12:45	19.34	1067	8.56	17.7
7-29-19 13:00	19.30	1067	8.56	19.3
7-29-19 13:15	19.25	1067	8.56	21.7
7-29-19 13:30	19.17	1067	8.56	17.3
7-29-19 13:45	19.13	1067	8.56	21.6
7-29-19 14:00	19.13	1066	8.56	20.2
7-29-19 14:15	19.11	1067	8.56	19.7
7-29-19 14:30	19.11	1066	8.56	17.1
7-29-19 14:45	19.10	1066	8.56	23.6
7-29-19 15:00	19.11	1066	8.55	17.0
7-29-19 15:15	19.12	1065	8.55	26.9
7-29-19 15:30	19.14	1065	8.54	17.4
7-29-19 15:45	19.17	1065	8.54	27.1
7-29-19 16:00	19.22	1065	8.52	18.1
7-29-19 16:15	19.23	1065	8.53	27.1
7-29-19 16:30	19.33	1065	8.52	19.3
7-29-19 16:45	19.40	1066	8.52	27.2
7-29-19 17:00	19.40	1066	8.53	20.0
7-29-19 17:15	19.45	1066	8.54	27.1
7-29-19 17:30	19.63	1066	8.55	20.3
7-29-19 17:45	19.78	1066	8.55	33.5
7-29-19 18:00	19.87	1066	8.54	20.4
7-29-19 18:15	20.00	1066	8.54	32.7
7-29-19 18:30	20.14	1067	8.54	24.4
7-29-19 18:45	20.23	1067	8.53	33.5
7-29-19 19:00	20.34	1066	8.54	21.8
7-29-19 19:15	20.50	1067	8.54	26.2
7-29-19 19:30	20.68	1069	8.54	20.3
7-29-19 19:45	20.59	1067	8.54	27.0
7-29-19 20:00	21.05	1070	8.54	18.7
7-29-19 20:15	21.01	1068	8.54	19.4
7-29-19 20:30	21.05	1070	8.54	20.3
7-29-19 20:45	21.23	1069	8.56	26.1
7-29-19 21:00	21.11	1068	8.55	23.2

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-29-19 0:45	1.85	1489	7.42	12.3
10-29-19 1:00	1.82	1489	7.47	4.9
10-29-19 1:15	1.84	1481	7.23	3.8
10-29-19 1:30	1.73	1487	7.31	4.8
10-29-19 1:45	1.68	1492	7.39	4.5
10-29-19 2:00	1.66	1494	7.34	4.2
10-29-19 2:15	1.64	1491	7.30	4.8
10-29-19 2:30	1.58	1492	7.27	3.7
10-29-19 2:45	1.54	1492	7.31	3.6
10-29-19 3:00	1.55	1492	7.77	4.5
10-29-19 3:15	1.54	1492	7.83	4.0
10-29-19 3:30	1.47	1496	7.62	3.5
10-29-19 3:45	1.39	1496	7.36	3.5
10-29-19 4:00	1.36	1497	7.66	3.9
10-29-19 4:15	1.27	1493	7.61	4.0
10-29-19 4:30	1.32	1494	7.45	3.8
10-29-19 4:45	1.29	1495	7.34	4.1
10-29-19 5:00	1.24	1494	7.36	4.1
10-29-19 5:15	1.23	1500	7.29	3.8
10-29-19 5:30	1.20	1499	7.28	3.6
10-29-19 5:45	1.08	1502	7.25	3.5
10-29-19 6:00	1.04	1503	7.24	3.6
10-29-19 6:15	1.03	1499	7.25	3.2
10-29-19 6:30	0.99	1502	7.46	3.6
10-29-19 6:45	0.97	1501	7.24	3.5
10-29-19 7:00	0.94	1501	7.21	3.9
10-29-19 7:15	0.92	1503	7.13	3.5
10-29-19 7:30	0.90	1506	7.14	3.0
10-29-19 7:45	0.89	1504	7.13	3.1
10-29-19 8:00	0.87	1507	7.16	3.4
10-29-19 8:15	0.86	1504	7.14	3.5
10-29-19 8:30	0.87	1504	7.15	3.1
10-29-19 8:45	0.89	1504	7.14	3.2
10-29-19 9:00	0.90	1504	7.15	3.7
10-29-19 9:15	0.93	1506	7.13	3.3
10-29-19 9:30	0.94	1506	7.11	3.1
10-29-19 9:45	0.95	1507	7.11	3.3
10-29-19 10:00	0.96	1506	7.10	3.3
10-29-19 10:15	0.97	1504	7.10	3.2
10-29-19 10:30	0.97	1505	7.14	3.3
10-29-19 10:45	0.97	1505	7.11	3.1
10-29-19 11:00	0.97	1505	7.10	3.7
10-29-19 11:15	0.95	1508	7.09	3.2
10-29-19 11:30	0.95	1511	7.06	3.3
10-29-19 11:45	0.93	1513	7.05	2.6
10-29-19 12:00	0.94	1512	7.04	3.6
10-29-19 12:15	0.91	1510	7.02	3.4
10-29-19 12:30	0.88	1511	7.04	3.2
10-29-19 12:45	0.88	1511	7.06	3.3
10-29-19 13:00	0.87	1512	7.06	3.7
10-29-19 13:15	0.87	1517	7.05	2.9
10-29-19 13:30	0.87	1515	7.03	2.9
10-29-19 13:45	0.85	1517	7.03	3.0
10-29-19 14:00	0.84	1519	7.05	3.4
10-29-19 14:15	0.84	1516	7.05	3.5
10-29-19 14:30	0.84	1516	7.05	3.3
10-29-19 14:45	0.84	1516	7.04	3.3
10-29-19 15:00	0.83	1518	7.05	3.5
10-29-19 15:15	0.83	1519	7.06	3.3
10-29-19 15:30	0.82	1519	7.04	2.9
10-29-19 15:45	0.79	1521	7.07	2.9
10-29-19 16:00	0.78	1523	7.10	3.2
10-29-19 16:15	0.76	1523	7.11	3.1
10-29-19 16:30	0.73	1525	7.13	3.2
10-29-19 16:45	0.70	1527	7.14	3.1
10-29-19 17:00	0.71	1528	7.15	3.0
10-29-19 17:15	0.69	1533	7.15	3.5
10-29-19 17:30	0.68	1534	7.23	2.7
10-29-19 17:45	0.67	1535	7.24	2.7
10-29-19 18:00	0.72	1531	7.27	3.4
10-29-19 18:15	0.75	1530	7.25	3.1
10-29-19 18:30	0.79	1529	7.23	2.9
10-29-19 18:45	0.87	1526	7.31	3.1

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-30-19 0:30	21.70	1277	8.54	5.5	7-29-19 21:15	20.50	1155	7.12	7.0	7-29-19 21:15	21.18	1068	8.55	25.0						10-29-19 19:00	0.89	1525	7.30	3.2					
7-30-19 0:45	21.75	1277	8.54	7.2	7-29-19 21:30	20.54	1155	7.07	6.4	7-29-19 21:30	21.17	1068	8.54	25.6						10-29-19 19:15	0.93	1529	7.28	3.2					
7-30-19 1:00	21.76	1274	8.53	4.7	7-29-19 21:45	20.62	1155	7.15	6.4	7-29-19 21:45	21.15	1069	8.55	22.1						10-29-19 19:45	1.04	1526	7.34	3.3					
7-30-19 1:15	21.77	1277	8.54	6.0	7-29-19 22:00	20.65	1155	6.97	8.1	7-29-19 22:00	21.28	1069	8.56	20.4						10-29-19 20:00	1.07	1525	7.32	3.3					
7-30-19 1:30	21.79	1275	8.54	4.6	7-29-19 22:15	20.75	1155	7.05	8.7	7-29-19 22:15	21.27	1069	8.57	22.8						10-29-19 20:15	1.09	1522	7.31	3.4					
7-30-19 1:45	21.78	1277	8.55	5.1	7-29-19 22:30	20.82	1155	7.10	7.0	7-29-19 22:30	21.33	1070	8.56	21.7						10-29-19 20:30	1.13	1520	7.24	3.1					
7-30-19 2:00	21.77	1286	8.54	4.4	7-29-19 22:45	20.82	1155	7.07	9.4	7-29-19 22:45	21.33	1068	8.56	22.8						10-29-19 20:45	1.17	1521	7.19	3.4					
7-30-19 2:15	21.74	1277	8.53	5.3	7-29-19 23:00	20.76	1155	7.06	7.4	7-29-19 23:00	21.25	1069	8.55	18.0						10-29-19 21:00	1.20	1521	7.21	3.5					
7-30-19 2:30	21.72	1284	8.54	4.8	7-29-19 23:15	20.66	1155	7.03	17.4	7-29-19 23:15	21.29	1069	8.57	18.8						10-29-19 21:15	1.21	1524	7.21	2.9					
7-30-19 2:45	21.69	1277	8.53	4.7	7-29-19 23:30	20.66	1155	7.08	10.8	7-29-19 23:30	21.23	1069	8.56	16.8						10-29-19 21:30	1.23	1523	7.16	3.2					
7-30-19 3:00	21.66	1273	8.53	4.3	7-29-19 23:45	20.67	1155	7.01	13.1	7-29-19 23:45	21.18	1069	8.56	23.4						10-29-19 21:45	1.23	1524	7.17	3.1					
7-30-19 3:15	21.63	1277	8.53	7.7	7-30-19 0:00	20.69	1155	7.29	10.3	7-30-19 0:00	21.16	1070	8.56	17.3						10-29-19 22:00	1.24	1523	7.16	3.5					
7-30-19 3:30	21.60	1278	8.53	4.2	7-30-19 0:15	20.78	1155	7.11	9.4	7-30-19 0:15	21.17	1069	8.57	18.8						10-29-19 22:15	1.25	1520	7.14	3.2					
7-30-19 3:45	21.55	1278	8.54	5.1	7-30-19 0:30	20.90	1155	7.06	8.8	7-30-19 0:30	21.22	1079	8.57	16.0						10-29-19 22:30	1.25	1522	7.15	3.8					
7-30-19 4:00	21.50	1276	8.53	4.0	7-30-19 0:45	20.91	1155	7.25	7.4	7-30-19 0:45	21.22	1068	8.56	23.5						10-29-19 22:45	1.23	1521	7.15	2.9					
7-30-19 4:15	21.44	1276	8.55	4.8	7-30-19 1:00	20.98	1156	7.13	7.1	7-30-19 1:00	21.26	1091	8.56	14.5						10-29-19 23:00	1.24	1521	7.17	3.4					
7-30-19 4:30	21.39	1270	8.54	4.6	7-30-19 1:15	20.96	1156	7.11	6.1	7-30-19 1:15	21.27	1070	8.57	21.9						10-29-19 23:15	1.24	1524	7.09	3.2					
7-30-19 4:45	21.34	1275	8.56	4.1	7-30-19 1:30	20.90	1156	7.22	6.1	7-30-19 1:30	21.28	1069	8.58	15.9						10-29-19 23:30	1.24	1523	7.13	3.5					
7-30-19 5:00	21.29	1280	8.55	4.1	7-30-19 1:45	20.91	1156	7.07	6.2	7-30-19 1:45	21.21	1069	8.57	23.6						10-29-19 23:45	1.22	1524	7.07	3.2					
7-30-19 5:15	21.24	1275	8.54	3.9	7-30-19 2:00	20.86	1156	7.26	6.7	7-30-19 2:00	21.18	1069	8.58	19.4						10-30-19 0:00	1.21	1524	7.07	3.5					
7-30-19 5:30	21.17	1281	8.55	4.0	7-30-19 2:15	20.80	1155	7.25	6.2	7-30-19 2:15	21.15	1069	8.58	18.5						10-30-19 0:15	1.21	1521	7.08	3.0					
7-30-19 5:45	21.12	1270	8.57	4.9	7-30-19 2:30	20.77	1156	7.10	6.5	7-30-19 2:30	21.13	1069	8.58	15.0						10-30-19 0:30	1.20	1522	7.11	2.9					
7-30-19 6:00	21.04	1278	8.57	4.6	7-30-19 2:45	20.76	1156	6.98	5.3	7-30-19 2:45	21.09	1069	8.58	23.9						10-30-19 0:45	1.17	1522	7.10	3.1					
7-30-19 6:15	20.95	1277	8.57	3.8	7-30-19 3:00	20.74	1156	7.05	4.8	7-30-19 3:00	21.04	1069	8.58	19.1						10-30-19 1:00	1.17	1520	7.09	3.0					
7-30-19 6:30	20.89	1273	8.56	3.8	7-30-19 3:15	20.70	1157	6.92	4.5	7-30-19 3:15	21.03	1069	8.58	22.4						10-30-19 1:15	1.17	1526	7.11	3.0					
7-30-19 6:45	20.86	1273	8.54	3.7	7-30-19 3:30	20.67	1156	6.96	5.2	7-30-19 3:30	21.00	1069	8.58	15.8						10-30-19 1:30	1.17	1523	7.08	2.8					
7-30-19 7:00	20.78	1273	8.55	3.6	7-30-19 3:45	20.64	1156	7.03	4.9	7-30-19 3:45	20.93	1069	8.58	22.6						10-30-19 1:45	1.16	1524	7.11	2.8					
7-30-19 7:15	20.71	1272	8.56	4.5	7-30-19 4:00	20.60	1156	7.10	5.5	7-30-19 4:00	20.91	1069	8.57	14.7						10-30-19 2:00	1.14	1525	7.13	3.0					
7-30-19 7:30	20.65	1273	8.55	3.6	7-30-19 4:15	20.58	1156	7.17	5.4	7-30-19 4:15	20.85	1069	8.57	23.2						10-30-19 2:15	1.13	1524	7.11	3.4					
7-30-19 7:45	20.61	1273	8.55	4.1	7-30-19 4:30	20.69	1155	7.84	7.0	7-30-19 4:30	20.82	1068	8.58	15.2						10-30-19 2:30	1.13	1524	7.12	2.9					
7-30-19 8:00	20.55	1274	8.55	3.4	7-30-19 4:45	20.68	1155	7.87	6.9	7-30-19 4:45	20.76	1068	8.58	22.1						10-30-19 2:45	1.13	1525	7.11	3.5					
7-30-19 8:15	20.51	1271	8.56	3.7	7-30-19 5:00	20.63	1155	7.85	5.4	7-30-19 5:00	20.71	1068	8.58	16.0						10-30-19 3:00	1.12	1523	7.11	3.4					
7-30-19 8:30	20.44	1272	8.55	3.7	7-30-19 5:15	20.59	1155	7.76	5.1	7-30-19 5:15	20.67	1068	8.58	23.5						10-30-19 3:15	1.11	1528	7.07	2.8					
7-30-19 8:45	20.36	1270	8.56	5.4	7-30-19 5:30	20.50	1155	7.59	5.1	7-30-19 5:30	20.58	1068	8.58	21.3						10-30-19 3:30	1.10	1526	7.12	2.9					
7-30-19 9:00	20.30	1271	8.55	3.8	7-30-19 5:45	20.39	1156	7.18	6.2	7-30-19 5:45	20.52	1068	8.59	15.3						10-30-19 3:45	1.10	1526	7.10	3.1					
7-30-19 9:15	20.25	1271	8.56	4.5	7-30-19 6:00	20.36	1157	6.97	4.9	7-30-19 6:00	20.45	1068	8.58	15.4						10-30-19 4:00	1.10	1528	7.13	2.7					
7-30-19 9:30	20.21	1270	8.55	3.4	7-30-19 6:15	20.34	1157	6.96	5.9	7-30-19 6:15	20.36	1068	8.59	17.7						10-30-19 4:15	1.08	1526	7.11	3.3					
7-30-19 9:45	20.17	1272	8.54	4.2	7-30-19 6:30	20.31	1157	6.98	5.7	7-30-19 6:30	20.31	1068	8.59	14.2						10-30-19 4:30	1.08	1525	7.10	3.0					
7-30-19 10:00	20.11	1273	8.54	3.0	7-30-19 6:45	20.28	1158	6.95	4.9	7-30-19 6:45	20.25	1067	8.59	23.8						10-30-19 4:45	1.09	1526	7.10	3.0					
7-30-19 10:15	20.05	1273	8.54	3.2	7-30-19 7:00	20.20	1158	6.87	4.6	7-30-19 7:00	20.20	1067	8.59	15.3						10-30-19 5:00	1.10	1525	7.11	3.2					
7-30-19 10:30	19.96	1273	8.53	2.9	7-30-19 7:15	20.19	1158	6.90	5.2	7-30-19 7:15	20.15	1067	8.58	20.8						10-30-19 5:15	1.10	1527	7.12	3.2					
7-30-19 10:45	19.92	1272	8.54	3.2	7-30-19 7:30	20.16	1158	7.00	4.7	7-30-19 7:30	20.09	1067	8.58	15.8						10-30-19 5:30	1.09	1527	7.13	2.9					
7-30-19 11:00	19.87	1271	8.53	3.0	7-30-19 7:45	20.12	1158	6.89	3.9	7-30-19 7:45	20.03	1067	8.58	25.4						10-30-19 5:45	1.09	1527	7.06	3.2					
7-30-19 11:15	19.79	1273	8.53	3.4	7-30-19 8:00	20.10	1158	6.97	3.8	7-30-19 8:00	19.96	1067	8.58	13.8						10-30-19 6:00	1.11	1528	7.11	3.1					
7-30-19 11:30	19.74	1274	8.52	3.0	7-30-19 8:15	20.07	1158	6.97	4.3	7-30-19 8:15	19.93	1067	8.59	25.4						10-30-19 6:15	1.11	1526	7.09	3.1					
7-30-19 11:45	19.70	1273	8.52	3.1	7-30-19 8:30	20.04	1158	7.02	5.5	7-30-19 8:30	19.84	1067	8.59	20.4						10-30-19 6:30	1.11	1525	7.12	2.7					
7-30-19 12:00	19.64	1271	8.53	2.9	7-30-19 8:45	20.00	1158	6.97	4.0	7-30-19 8:45	19.82	1067	8.59	20.7						10-30-19 6:45	1.10	1525	7.09	3.0					
7-30-19 12:15	19.58	1272	8.53	3.0	7-30-19 9:00	19.94	1158	6.95	4.9	7-30-19 9:00	19.77	1066	8.58	14.7						10-30-19 7:00	1.09	1526	7.13	3.1					
7-30-19 12:30	19.53	1271	8.53	2.9	7-30-19 9:15	19.90	1158	6.96	3.8	7-30-19 9:15	19.74	1066	8.59	18.4						10-30-19 7:15	1.06	1528	7.14	2.6					
7-30-19 12:45	19.47	1272	8.53	3.2	7-30-19 9:30	19.85	1158	6.99	3.7	7-30-19 9:30	19.69	1066	8.58	13.7						10-30-19 7:30	1.04	1532	7.13	2.7					
7-30-19 13:00	19.39	1266	8.52	3.0	7-30-19 9:45	19.83	1158	6.95	3.6	7-30-19 9:45	19.64	1066	8.58	22.5						10-30-19 7:45	1.00	1530	7.10	2.5					
7-30-19 13:15	19.34	1271	8.52	2.8	7-30-19 10:00	19.79	1158	7.00	4.1	7-30-19 10:00	19.59	1066	8.57	14.4						10-30-19 8:00	0.98	1529	7.11	2.7					
7-30-19 13:30	19.28	1270	8.53	2.8	7-30-19 10:15	19.74	1158	6.97	5.0	7-30-19 10:15	19.54	1066	8.57	21.7						10-30-19 8:15	0.97	1529	7.09	2.4					
7-30-19 13:45	19.23	1271	8.53	3.1	7-30-19 10:30	19.73	1158	6.99	6.6	7-30-19 10:30	19.51	1066	8.57	17.4						10-30-19 8:30	0.98	1528	7.10	2.6					
7-30-19 14:00	19.19	1271	8.52	2.9	7-30-19 10:45	19.72	1158	7.10	4.2	7-30-19 10:45	19.46	1066	8.57	20.7						10-30-19 8:45	0.95	1529	7.11	2.4					
7-30-19 14:15	19.14	1271	8.52	2.9	7-30-19 11:00	19.67	1158	7.05	6.1	7-30-19 11:00	19.38	1066	8.57	20.9						10-30-19 9:00	0.97	1527	7.12	2.9					
7-30-19 14:30	19.11	1270	8.52	3.2	7-30-19 11:15	19.65	1158	7.05	4.3	7-30-19 11:15	19.34	1066	8.57	17.9						10-30-19 9:15	0.96	1533	7.10	2.7					
7-30-19 14:45	19.04	1270	8.53	2.9	7-30-19 11:30	19.56	1158	7.07	3.5	7-30-19 11:30	19.29	1065	8.57	16.7						10-30-19 9:30	0.96	1533	7.09	2.5					
7-30-19 15:00	19.02	1269	8.53	3.0	7-30-19 11:45	19.54	1158	7.02	3.9	7-30-19 11:45	19.23	1066	8.57	26.7						10-30-19 9:45	0.96	1530	7.10	2.4					
7-30-19 15:15	18.99	1269	8.53	3.2	7-30-19 12:00	19.49	1158	7.02	4.8	7-30-19 12:00	19.19	1065	8.57	15.9						10-30-19 10:00	0.97	1531	7.09	2.6					
7-30-19 15:30	18.99	1269	8.53	4.9	7-30-19 12:15	19.45	1158	7.07	4.6	7-30-19 12:15	19.11	1065	8.57	22.0						10-30-19 10:15	0.97	1529	7.09	2.6					
7-30-19 15:45	18.96	1268	8.54	3.4	7-30-19 12:30	19.43	1158	7.13	4.7	7-30-19 12:30	19.06	1065	8.57	14.2						10-30-19 10:30	0.97	1530	7.09	2.5					
7-30-19 16:00	18.95	1268	8.54	3.2	7-30-19 12:45	19.37	1158	7.03	4.2	7-30-19 12:45	19.05	1065	8.57	18.6						10-30-19 10:45	0.98	1529	7.09	2.5					
7-30-19 16:15	18.93	1266	8.56	4.3	7-30-19 13:00	19.31	1158	7.00	4.2	7-30-19 13:00	18.96	1065	8.57	15.0						10-30-19 11:00	0.98	1529	7.07	2.8					
7-30-19 16:30	18.94	1266	8.56	22.9	7-30-19 13:15	19.29	1158	7.11	13.1	7-30-19 13:15	18.91	1065	8.57	21.8						10-30-19 11:15	0.98	1534	7.08	2.7					
7-30-19 16:45	19.01	1266	8.55	4.0	7-30-19 13:30	19.23	1158	7.09	5.4	7-30-19 13:30	18.90	1065	8.57	19.7						10-30-19 11:30	0.97	1531	7.07	2.3					
7-30-19 17:00	19.02	1267	8.55	4.1	7-30-19 13:45	19.21	1158	7.06	4.8	7-30-19 13:45	18.88	1065	8.57	23.6						10-30-19 11:45	0.98	1532	7.08	2.7					
7-30-19 17:15	19.05	1267	8.55	3.9	7-30-19 14:00	19.19	1158	7.11	5.0	7-30-19 14:00	18.87	1063	8.56	18.8						10-30-19 12:00	0.99	1532	7.10	2.5					
7-30-19 17:30	19.12	1266	8.56	4.0	7-30-19 14:15	19.17	1158	7.06	4.6	7-30-19 14:15	18.83	1062	8.56	21.9						10-30-19 12:15	1.00	1529	7.08	2.7					
7-30-19 17:45	19.17	1265	8.57	3.9	7-30-19 14:30	19.16	1158	7.01	5.3	7-30-19 14:30	18.81	1060	8.56	25.2						10-30-19 12:30	1.00	1530	7.09	2.4					
7-30-19 18:00	19.28	1265	8.57	3.6	7-30-19 14:45	19.13	1158	7.02	4.7	7-30-19 14:45	18.78	1061	8.56	21.7						10-30-19 12:45	0.99	1529	7.08	4.1					
7-30-19 18:30	19.50	1264	8.57	3.6	7-30-19 15:00	19.12	1157	7.04	4.4	7-30-19 15:00	18.77	1058	8.56	17.3						10-30-19 13:00	0.99	1526	7.07	2.9					
7-30-19 18:45	19.61	1263	8.57	4.2	7-30-19 15:15	19.10	1158	7.06	5.1	7-30-19 15:15	18.75	1057	8.56	27.8						10-30-19 13:15	0.99	1530	7.07	2.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-30-19 19:00	19.76	1264	8.56	3.6	7-30-19 15:30	19.06	1157	7.06	6.8	7-30-19 15:30	18.73	1058	8.56	17.0						10-30-19 13:30	1.00	1530	7.06	2.6					
7-30-19 19:15	19.88	1262	8.56	3.9	7-30-19 15:45	19.09	1158	7.03	6.3	7-30-19 15:45	18.73	1057	8.56	22.9						10-30-19 13:45	1.02	1529	7.06	2.3					
7-30-19 19:30	20.09	1264	8.55	3.4	7-30-19 16:00	19.08	1157	7.07	9.9	7-30-19 16:00	18.74	1055	8.56	18.5						10-30-19 14:00	1.00	1531	7.08	2.4					
7-30-19 19:45	20.42	1263	8.55	4.0	7-30-19 16:15	19.09	1157	7.06	7.6	7-30-19 16:15	18.75	1056	8.56	31.4						10-30-19 14:15	1.01	1528	7.07	2.2					
7-30-19 20:00	20.39	1262	8.55	3.6	7-30-19 16:30	19.08	1157	7.07	6.2	7-30-19 16:30	18.74	1055	8.56	19.8						10-30-19 14:30	1.03	1528	7.07	2.6					
7-30-19 20:15	20.51	1262	8.54	3.9	7-30-19 16:45	19.11	1157	7.11	7.6	7-30-19 16:45	18.79	1055	8.56	27.2						10-30-19 14:45	1.02	1528	7.07	2.5					
7-30-19 20:30	20.65	1265	8.53	3.3	7-30-19 17:00	19.09	1156	7.08	6.2	7-30-19 17:00	18.81	1055	8.56	25.6						10-30-19 15:00	1.06	1527	7.07	2.7					
7-30-19 20:45	21.13	1260	8.58	3.9	7-30-19 17:15	19.06	1156	7.12	9.7	7-30-19 17:15	18.81	1054	8.56	33.6						10-30-19 15:15	1.07	1530	7.06	2.2					
7-30-19 21:00	21.22	1259	8.56	4.3	7-30-19 17:30	19.10	1155	7.12	6.0	7-30-19 17:30	18.87	1054	8.56	19.4						10-30-19 15:30	1.06	1530	7.05	1.9					
7-30-19 21:15	21.44	1263	8.56	3.4	7-30-19 17:45	19.08	1154	7.40	12.3	7-30-19 17:45	18.94	1053	8.56	24.8						10-30-19 15:45	1.07	1531	7.06	2.1					
7-30-19 21:30	21.04	1258	8.55	3.8	7-30-19 18:00	19.15	1155	7.23	12.8	7-30-19 18:00	19.12	1053	8.57	20.5						10-30-19 16:00	1.06	1529	7.07	2.1					
7-30-19 21:45	21.10	1265	8.58	3.8	7-30-19 18:15	19.12	1153	7.39	31.0	7-30-19 18:15	19.21	1054	8.56	29.0						10-30-19 16:15	1.09	1527	7.05	2.6					
7-30-19 22:00	21.18	1263	8.59	3.6	7-30-19 18:30	19.21	1154	7.26	8.3	7-30-19 18:30	19.33	1056	8.57	17.7						10-30-19 16:30	1.09	1526	7.05	2.3					
7-30-19 22:15	21.36	1263	8.58	3.7	7-30-19 18:45	19.26	1153	7.25	7.9	7-30-19 18:45	19.52	1054	8.56	31.0						10-30-19 16:45	1.11	1526	7.04	2.4					
7-30-19 22:30	21.33	1264	8.59	3.7	7-30-19 19:00	19.30	1154	7.22	8.1	7-30-19 19:00	19.75	1055	8.56	28.8						10-30-19 17:00	1.14	1527	7.05	2.9					
7-30-19 22:45	21.25	1258	8.62	3.8	7-30-19 19:15	19.38	1153	7.15	8.1	7-30-19 19:15	20.02	1056	8.55	37.6						10-30-19 17:15	1.16	1527	7.05	2.6					
7-30-19 23:00	21.26	1261	8.60	3.9	7-30-19 19:30	19.49	1154	7.09	7.9	7-30-19 19:30	20.26	1055	8.55	21.4						10-30-19 17:30	1.21	1525	7.07	2.3					
7-30-19 23:15	21.29	1261	8.60	3.4	7-30-19 19:45	19.62	1153	7.09	7.5	7-30-19 19:45	20.44	1056	8.54	31.7						10-30-19 17:45	1.24	1527	7.07	2.7					
7-30-19 23:30	21.27	1261	8.60	3.2	7-30-19 20:00	19.72	1154	6.99	9.2	7-30-19 20:00	20.79	1059	8.55	26.4						10-30-19 18:00	1.28	1526	7.06	2.7					
7-30-19 23:45	21.24	1260	8.61	3.8	7-30-19 20:15	20.02	1155	6.92	9.7	7-30-19 20:15	20.81	1056	8.55	33.4						10-30-19 18:15	1.32	1524	7.07	2.7					
7-31-19 0:00	21.22	1260	8.61	3.5	7-30-19 20:30	20.96	1158	7.44	9.9	7-30-19 20:30	21.00	1057	8.55	20.8						10-30-19 18:30	1.36	1523	7.09	2.5					
7-31-19 0:15	21.18	1259	8.62	4.5	7-30-19 20:45	21.24	1157	7.38	8.3	7-30-19 20:45	20.52	1052	8.54	39.8						10-30-19 18:45	1.38	1524	7.08	2.5					
7-31-19 0:30	21.11	1259	8.62	3.4	7-30-19 21:00	20.87	1157	6.79	7.9	7-30-19 21:00	21.11	1059	8.54	24.3						10-30-19 19:00	1.44	1523	7.04	2.6					
7-31-19 0:45	21.02	1258	8.64	4.0	7-30-19 21:15	21.92	1158	7.07	9.4	7-30-19 21:15	21.21	1056	8.54	29.6						10-30-19 19:15	1.47	1523	7.03	2.1					
7-31-19 1:00	20.96	1257	8.64	3.3	7-30-19 21:30	22.08	1159	7.12	6.7	7-30-19 21:30	21.05	1055	8.53	17.0						10-30-19 19:30	1.50	1522	7.01	2.6					
7-31-19 1:15	20.89	1257	8.65	3.6	7-30-19 21:45	22.03	1158	7.30	6.2	7-30-19 21:45	21.69	1060	8.55	22.1						10-30-19 19:45	1.54	1522	7.03	2.0					
7-31-19 1:30	20.82	1257	8.64	3.5	7-30-19 22:00	20.68	1152	7.52	7.9	7-30-19 22:00	22.03	1061	8.55	17.8						10-30-19 20:15	1.58	1522	7.07	2.1					
7-31-19 1:45	20.79	1257	8.65	6.7	7-30-19 22:15	20.27	1152	7.53	8.8	7-30-19 22:15	22.11	1060	8.55	28.5						10-30-19 20:30	1.60	1521	7.10	2.3					
7-31-19 2:00	20.71	1254	8.65	3.1	7-30-19 22:30	20.06	1152	7.62	8.8	7-30-19 22:30	22.19	1061	8.55	20.3						10-30-19 20:45	1.64	1516	7.10	2.2					
7-31-19 2:15	20.65	1255	8.66	3.7	7-30-19 22:45	20.03	1154	7.08	7.7	7-30-19 22:45	22.16	1061	8.54	42.1						10-30-19 21:00	1.65	1520	7.10	2.4					
7-31-19 2:30	20.62	1258	8.65	3.3	7-30-19 23:00	20.19	1154	7.07	7.7	7-30-19 23:00	22.24	1062	8.55	17.0						10-30-19 21:15	1.67	1520	7.06	2.3					
7-31-19 2:45	20.56	1258	8.68	4.1	7-30-19 23:15	21.17	1155	7.66	6.5	7-30-19 23:15	22.28	1062	8.56	31.9						10-30-19 21:30	1.69	1519	7.08	1.9					
7-31-19 3:00	20.52	1254	8.68	3.2	7-30-19 23:30	21.40	1156	7.48	6.3	7-30-19 23:30	21.66	1051	8.55	14.7						10-30-19 21:45	1.71	1513	7.06	2.1					
7-31-19 3:15	20.44	1256	8.69	3.4	7-30-19 23:45	21.54	1158	7.13	6.9	7-30-19 23:45	21.30	1055	8.53	30.1						10-30-19 22:00	1.71	1521	7.06	2.3					
7-31-19 3:30	20.41	1255	8.70	3.6	7-31-19 0:00	21.55	1158	7.20	5.1	7-31-19 0:00	21.91	1061	8.57	14.4						10-30-19 22:15	1.72	1521	7.05	2.2					
7-31-19 3:45	20.38	1255	8.69	3.8	7-31-19 0:15	21.54	1159	7.13	5.4	7-31-19 0:15	21.92	1061	8.58	27.0						10-30-19 22:30	1.72	1519	7.08	2.1					
7-31-19 4:00	20.32	1249	8.70	3.2	7-31-19 0:30	20.57	1154	7.33	6.3	7-31-19 0:30	21.87	1060	8.57	15.6						10-30-19 22:45	1.71	1520	7.09	2.1					
7-31-19 4:15	20.30	1252	8.70	6.5	7-31-19 0:45	20.28	1155	6.99	7.2	7-31-19 0:45	21.78	1060	8.57	30.3						10-30-19 23:00	1.71	1520	7.10	2.6					
7-31-19 4:30	20.27	1256	8.70	3.2	7-31-19 1:00	20.18	1156	6.99	5.7	7-31-19 1:00	21.73	1060	8.57	14.2						10-30-19 23:15	1.70	1520	7.15	2.0					
7-31-19 4:45	20.23	1253	8.70	6.3	7-31-19 1:15	20.12	1155	7.11	4.8	7-31-19 1:15	21.67	1060	8.59	20.8						10-30-19 23:30	1.70	1523	7.15	2.5					
7-31-19 5:00	20.19	1254	8.69	3.4	7-31-19 1:30	19.95	1154	7.18	5.4	7-31-19 1:30	21.54	1060	8.59	13.3						10-30-19 23:45	1.70	1523	7.13	2.3					
7-31-19 5:15	20.16	1254	8.68	4.0	7-31-19 1:45	20.48	1153	7.66	6.0	7-31-19 1:45	21.43	1059	8.61	30.5						10-31-19 0:00	1.71	1522	7.09	2.4					
7-31-19 5:30	20.12	1255	8.69	3.6	7-31-19 2:00	20.35	1152	7.66	5.4	7-31-19 2:00	21.37	1059	8.60	16.7						10-31-19 0:15	1.70	1521	7.07	2.2					
7-31-19 5:45	20.08	1255	8.68	4.0	7-31-19 2:15	20.18	1154	7.11	5.1	7-31-19 2:15	21.27	1058	8.61	23.1						10-31-19 0:30	1.69	1516	7.06	2.8					
7-31-19 6:00	20.06	1255	8.67	3.2	7-31-19 2:30	20.06	1155	6.96	7.5	7-31-19 2:30	21.19	1058	8.61	37.7						10-31-19 0:45	1.67	1484	7.06	2.6					
7-31-19 6:15	20.02	1254	8.66	3.5	7-31-19 2:45	19.86	1155	7.13	9.2	7-31-19 2:45	21.06	1058	8.62	18.2						10-31-19 1:00	1.67	1514	7.08	2.8					
7-31-19 6:30	19.97	1255	8.66	2.9	7-31-19 3:00	19.70	1156	7.09	6.9	7-31-19 3:00	20.97	1058	8.62	24.8						10-31-19 1:15	1.65	1515	7.09	2.4					
7-31-19 6:45	19.94	1255	8.66	3.3	7-31-19 3:15	19.70	1154	7.42	6.1	7-31-19 3:15	20.84	1056	8.62	24.3						10-31-19 1:30	1.66	1520	7.05	2.4					
7-31-19 7:00	19.91	1254	8.65	2.9	7-31-19 3:30	19.74	1153	7.59	7.0	7-31-19 3:30	20.78	1056	8.61	26.7						10-31-19 1:45	1.64	1517	7.03	2.6					
7-31-19 7:15	19.87	1254	8.64	3.1	7-31-19 3:45	19.69	1153	7.66	6.2	7-31-19 3:45	20.70	1057	8.62	33.1						10-31-19 2:00	1.63	1520	7.04	2.6					
7-31-19 7:30	19.85	1260	8.67	2.8	7-31-19 4:00	19.87	1153	7.72	5.7	7-31-19 4:00	20.61	1057	8.61	21.7						10-31-19 2:15	1.67	1504	7.02	2.2					
7-31-19 7:45	19.81	1254	8.67	3.0	7-31-19 4:15	20.19	1153	7.74	5.8	7-31-19 4:15	20.55	1057	8.61	24.4						10-31-19 2:30	1.66	1494	7.02	2.8					
7-31-19 8:00	19.80	1249	8.66	2.8	7-31-19 4:30	20.24	1153	7.75	7.0	7-31-19 4:30	20.43	1056	8.62	12.2						10-31-19 2:45	1.66	1519	7.04	2.4					
7-31-19 8:15	19.77	1255	8.66	4.9	7-31-19 4:45	20.20	1152	7.77	5.6	7-31-19 4:45	20.33	1056	8.62	26.0						10-31-19 3:00	1.67	1519	7.03	2.4					
7-31-19 8:30	19.73	1254	8.66	3.0	7-31-19 5:00	20.32	1150	7.80	4.9	7-31-19 5:00	20.26	1056	8.62	11.6						10-31-19 3:15	1.66	1518	7.03	2.5					
7-31-19 8:45	19.71	1254	8.66	8.9	7-31-19 5:15	20.30	1150	7.81	5.3	7-31-19 5:15	20.18	1056	8.61	28.7						10-31-19 3:30	1.64	1520	7.02	1.7					
7-31-19 9:00	19.68	1257	8.66	3.0	7-31-19 5:30	20.26	1149	7.82	5.8	7-31-19 5:30	20.12	1055	8.62	11.9						10-31-19 3:45	1.64	1521	7.04	2.0					
7-31-19 9:15	19.64	1253	8.66	4.5	7-31-19 5:45	20.16	1149	7.69	5.2	7-31-19 5:45	20.02	1054	8.61	28.9						10-31-19 4:00	1.63	1522	7.06	2.1					
7-31-19 9:30	19.62	1254	8.65	2.6	7-31-19 6:00	20.10	1152	7.00	4.9	7-31-19 6:00	19.94	1054	8.60	11.9						10-31-19 4:15	1.63	1522	7.03	2.1					
7-31-19 9:45	19.58	1254	8.65	3.1	7-31-19 6:15	20.04	1153	6.94	4.8	7-31-19 6:15	19.88	1053	8.61	30.3						10-31-19 4:30	1.62	1519	7.05	2.0					
7-31-19 10:00	19.55	1254	8.65	2.6	7-31-19 6:30	19.96	1154	6.92	4.6	7-31-19 6:30	19.84	1053	8.60	12.6						10-31-19 4:45	1.65	1517	7.01	2.1					
7-31-19 10:15	19.51	1255	8.64	3.2	7-31-19 6:45	19.84	1154	7.07	5.2	7-31-19 6:45	19.77	1053	8.61	28.5						10-31-19 5:00	1.64	1517	7.05	2.3					
7-31-19 10:30	19.48	1257	8.64	2.8	7-31-19 7:00	19.77	1154	7.04	4.6	7-31-19 7:00	19.75	1053	8.60	12.5						10-31-19 5:15	1.64	1516	7.05	2.3					
7-31-19 10:45	19.43	1254	8.64	3.3	7-31-19 7:15	19.73	1154	7.10	4.6	7-31-19 7:15	19.74	1053	8.60	32.0						10-31-19 5:30	1.64	1520	7.05	1.9					
7-31-19 11:00	19.39	1248	8.65	2.8	7-31-19 7:30	19.72	1155	6.89	4.3	7-31-19 7:30	19.71	1052	8.60	12.4						10-31-19 5:45	1.62	1519	7.06	1.9					
7-31-19 11:15	19.36	1255	8.64	2.9	7-31-19 7:45	19.71	1155	6.83	4.3	7-31-19 7:45	19.67	1053	8.60	21.8						10-31-19 6:00	1.62	1518	7.07	1.9					
7-31-19 11:30	19.33	1255	8.64	3.8	7-31-19 8:00	19.65	1155	6.68	5.4	7-31-19 8:00	19.64	1052	8.60	12.8						10-31-19 6:15	1.61	1518	7.07	2.1					
7-31-19 11:45	19.29	1255	8.62	3.0	7-31-19 8:15	19.56	1154	7.04	4.6	7-31-19 8:15	19.59	1052	8.60	30.5						10-31-19 6:30	1.60	1517	7.09	2.7					
7-31-19 12:00	19.25	1255	8.64	2.8	7-31-19 8:30	19.60	1155	6.87	4.8	7-31-19 8:30	19.58	1051	8.60	12.1						10-31-19 6:45	1.59	1518	7.08	2.2					
7-31-19 12:15	19.21	1256	8.62	3.1	7-31-19 8:45	19.56	1154	7.15	4.5	7-31-19 8:45	19.55	1051	8.59	31.1						10-31-19 7:00	1.60	1516	7.08	2.4					
7-31-19 12:30	19.16	1256	8.62	3.1	7-31-19 9:00	19.62	1153	7.44	4.4	7-31-19 9:00	19.51	1051	8.60	11.9						10-31-19 7:15	1.60	1517	7.06	2.3					
7-31-19 12:45	19.14	1256	8.61	3.0	7-31-19 9:15	19.60	1154	7.36	4.8	7-31-19 9:15	19.47	1051	8.60	30.2						10-31-19 7:30	1.65	1518	7.05	1.7					
7-31-19 13:00	19.09	1256	8.62	3.0	7-31-19 9:30	19.58	1153	7.56	4.5	7-31-19 9:30	19.44	1051	8.60	12.8						10-31-19 7:45	1.67	1520	7.02	1.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
7-31-19 13:15	19.07	1255	8.64	4.2	7-31-19 9:45	19.60	1154	7.61	5.3	7-31-19 9:45	19.40	1050	8.59	31.0						10-31-19 8:00	1.77	1520	7.01	1.9					
7-31-19 13:30	19.04	1256	8.63	2.9	7-31-19 10:00	19.56	1155	7.54	5.0	7-31-19 10:00	19.38	1051	8.60	23.1						10-31-19 8:15	1.84	1509	6.99	2.4					
7-31-19 13:45	19.02	1256	8.61	3.3	7-31-19 10:15	19.55	1155	7.51	7.5	7-31-19 10:15	19.33	1051	8.60	20.0						10-31-19 8:30	1.89	1511	6.98	2.1					
7-31-19 14:00	19.00	1257	8.62	3.3	7-31-19 10:30	19.44	1156	7.19	5.2	7-31-19 10:30	19.30	1049	8.60	13.5						10-31-19 8:45	1.92	1474	6.96	2.1					
7-31-19 14:15	18.99	1256	8.62	3.7	7-31-19 10:45	19.39	1156	7.10	7.0	7-31-19 10:45	19.25	1049	8.59	29.7						10-31-19 9:00	1.91	1516	6.95	1.9					
7-31-19 14:30	18.98	1257	8.61	3.1	7-31-19 11:00	19.38	1156	7.18	6.1	7-31-19 11:00	19.21	1048	8.59	16.6						10-31-19 9:15	1.92	1509	6.95	2.1					
7-31-19 14:45	18.97	1256	8.61	3.3	7-31-19 11:15	19.35	1156	7.03	4.5	7-31-19 11:15	19.17	1048	8.58	31.6						10-31-19 9:30	1.89	1498	6.96	3.4					
7-31-19 15:00	18.96	1257	8.62	3.5	7-31-19 11:30	19.33	1157	6.99	5.4	7-31-19 11:30	19.13	1047	8.58	12.7						10-31-19 9:45	1.88	1513	6.95	2.0					
7-31-19 15:15	18.98	1257	8.60	3.7	7-31-19 11:45	19.30	1157	6.96	5.2	7-31-19 11:45	19.10	1046	8.58	29.8						10-31-19 10:00	1.88	1510	6.95	2.6					
7-31-19 15:30	19.03	1257	8.59	3.5	7-31-19 12:00	19.26	1157	7.04	5.1	7-31-19 12:00	19.07	1042	8.58	12.5						10-31-19 10:15	1.88	1497	6.95	2.1					
7-31-19 15:45	19.08	1257	8.58	3.4	7-31-19 12:15	19.26	1157	6.80	4.5	7-31-19 12:15	19.04	1044	8.58	28.0						10-31-19 10:30	1.86	1515	6.94	2.3					
7-31-19 16:00	19.16	1257	8.57	3.1	7-31-19 12:30	19.24	1157	6.80	4.7	7-31-19 12:30	19.00	1044	8.58	23.0						10-31-19 10:45	1.87	1527	6.92	2.5					
7-31-19 16:15	19.21	1257	8.57	3.1	7-31-19 12:45	19.18	1157	6.85	4.3	7-31-19 12:45	18.97	1043	8.58	20.8						10-31-19 11:00	1.89	1513	6.93	2.4					
7-31-19 16:30	19.26	1258	8.57	3.0	7-31-19 13:00	19.18	1157	6.99	4.9	7-31-19 13:00	18.93	1041	8.58	12.2						10-31-19 11:15	1.88	1515	6.92	2.7					
7-31-19 16:45	19.27	1257	8.57	3.1	7-31-19 13:15	19.16	1157	6.85	5.0	7-31-19 13:15	18.91	1040	8.57	20.2						10-31-19 11:30	1.89	1506	6.93	3.4					
7-31-19 17:00	19.26	1258	8.58	5.1	7-31-19 13:30	19.16	1157	6.87	4.6	7-31-19 13:30	18.89	1039	8.57	12.7						10-31-19 11:45	1.88	1513	6.92	2.4					
7-31-19 17:15	19.31	1258	8.59	3.3	7-31-19 13:45	19.15	1158	6.82	5.1	7-31-19 13:45	18.85	1037	8.57	20.6						10-31-19 12:00	1.85	1513	6.94	2.7					
7-31-19 17:30	19.41	1258	8.60	3.9	7-31-19 14:00	19.14	1158	6.77	5.1	7-31-19 14:00	18.84	1036	8.57	13.1						10-31-19 12:15	1.83	1510	6.96	1.8					
7-31-19 17:45	19.53	1259	8.61	3.2	7-31-19 14:15	19.15	1157	6.91	4.6	7-31-19 14:15	18.83	1035	8.56	21.3						10-31-19 12:30	1.80	1521	6.94	1.7					
7-31-19 18:00	19.67	1259	8.60	3.5	7-31-19 14:30	19.15	1158	6.81	11.3	7-31-19 14:30	18.83	1035	8.56	14.4						10-31-19 12:45	1.78	1512	6.94	2.0					
7-31-19 18:15	19.94	1261	8.61	3.4	7-31-19 14:45	19.16	1158	6.80	8.2	7-31-19 14:45	18.82	1036	8.57	20.1						10-31-19 13:00	1.78	1503	6.93	1.7					
7-31-19 18:30	20.25	1262	8.60	3.3	7-31-19 15:00	19.17	1158	6.89	7.5	7-31-19 15:00	18.85	1036	8.57	13.3						10-31-19 13:15	1.76	1515	6.93	1.8					
7-31-19 18:45	20.27	1262	8.59	3.3	7-31-19 15:15	19.23	1159	6.85	6.4	7-31-19 15:15	18.90	1036	8.57	15.8						10-31-19 13:30	1.78	1520	6.93	1.5					
7-31-19 19:00	19.84	1258	8.63	4.7	7-31-19 15:30	19.27	1159	6.90	6.5	7-31-19 15:30	18.94	1036	8.57	18.3						10-31-19 13:45	1.78	1516	6.94	1.9					
7-31-19 19:15	19.97	1261	8.61	4.7	7-31-19 15:45	19.30	1159	6.93	6.6	7-31-19 15:45	19.00	1036	8.58	22.0						10-31-19 14:00	1.79	1520	6.94	2.0					
7-31-19 19:30	20.04	1264	8.61	3.9	7-31-19 16:00	19.34	1159	6.92	6.2	7-31-19 16:00	19.10	1036	8.58	12.8						10-31-19 14:15	1.80	1519	6.95	3.1					
7-31-19 19:45	20.45	1264	8.61	3.7	7-31-19 16:15	19.36	1159	6.92	6.5	7-31-19 16:15	19.17	1037	8.58	24.5						10-31-19 14:30	1.83	1517	6.94	2.0					
7-31-19 20:00	20.55	1264	8.61	3.3	7-31-19 16:30	19.38	1159	6.94	7.4	7-31-19 16:30	19.24	1037	8.58	11.6						10-31-19 14:45	1.88	1517	6.93	2.4					
7-31-19 20:15	20.72	1261	8.60	3.3	7-31-19 16:45	19.37	1159	6.95	7.4	7-31-19 16:45	19.28	1037	8.57	15.9						10-31-19 15:00	1.91	1515	6.93	2.2					
7-31-19 20:30	20.68	1265	8.61	4.5	7-31-19 17:00	19.36	1157	7.07	9.2	7-31-19 17:00	19.37	1037	8.59	12.1						10-31-19 15:15	1.92	1517	6.96	2.0					
7-31-19 20:45	20.91	1264	8.60	3.6	7-31-19 17:15	19.28	1146	7.37	9.5	7-31-19 17:15	19.47	1038	8.59	23.1						10-31-19 15:30	1.94	1496	6.95	1.8					
7-31-19 21:00	21.01	1266	8.60	3.5	7-31-19 17:30	19.26	1146	7.17	13.3	7-31-19 17:30	19.46	1038	8.57	13.7						10-31-19 15:45	1.97	1517	6.95	1.5					
7-31-19 21:15	21.22	1268	8.61	3.6	7-31-19 17:45	19.32	1146	7.11	15.1	7-31-19 17:45	19.52	1037	8.58	18.5						10-31-19 16:00	1.97	1514	6.94	1.9					
7-31-19 21:30	21.12	1268	8.61	4.2	7-31-19 18:00	19.42	1145	7.13	12.3	7-31-19 18:00	19.80	1038	8.58	14.3						10-31-19 16:15	1.99	1544	6.95	1.9					
7-31-19 21:45	21.18	1266	8.63	4.3	7-31-19 18:15	19.55	1146	6.98	18.0	7-31-19 18:15	19.99	1038	8.57	22.6						10-31-19 16:30	1.98	1511	6.96	2.3					
7-31-19 22:00	21.26	1266	8.62	3.5	7-31-19 18:30	19.71	1147	7.19	11.8	7-31-19 18:30	20.03	1036	8.57	13.7						10-31-19 16:45	2.01	1516	6.95	1.8					
7-31-19 22:15	21.35	1265	8.63	3.9	7-31-19 18:45	19.75	1148	7.00	26.5	7-31-19 18:45	19.99	1036	8.57	17.0						10-31-19 17:00	2.05	1453	6.96	2.1					
7-31-19 22:30	21.28	1267	8.62	3.8	7-31-19 19:00	19.86	1149	6.89	16.4	7-31-19 19:00	19.96	1034	8.57	18.6						10-31-19 17:15	2.11	1512	6.97	1.8					
7-31-19 22:45	21.44	1266	8.62	3.5	7-31-19 19:15	19.92	1150	7.00	13.6	7-31-19 19:15	20.26	1037	8.58	15.7						10-31-19 17:30	2.13	1514	6.96	1.9					
7-31-19 23:00	21.50	1265	8.62	3.9	7-31-19 19:30	20.26	1152	7.21	9.9	7-31-19 19:30	20.50	1038	8.58	13.7						10-31-19 17:45	2.15	1500	6.96	1.6					
7-31-19 23:15	21.52	1267	8.61	3.9	7-31-19 19:45	20.38	1151	7.30	9.6	7-31-19 19:45	20.75	1036	8.57	14.6						10-31-19 18:00	2.18	1515	6.95	1.5					
7-31-19 23:30	21.63	1265	8.62	3.3	7-31-19 20:00	20.43	1151	6.98	10.2	7-31-19 20:00	21.02	1038	8.57	12.5						10-31-19 18:15	2.19	1514	6.95	1.9					
7-31-19 23:45	21.67	1266	8.62	4.8	7-31-19 20:15	20.48	1152	7.02	10.0	7-31-19 20:15	21.13	1038	8.57	14.5						10-31-19 18:30	2.22	1509	6.94	2.0					
8-1-19 0:00	21.79	1266	8.61	3.3	7-31-19 20:30	20.50	1152	6.94	9.9	7-31-19 20:30	21.38	1037	8.57	11.6						10-31-19 18:45	2.23	1511	6.93	1.8					
8-1-19 0:15	21.85	1265	8.63	5.0	7-31-19 20:45	21.17	1154	7.57	6.5	7-31-19 20:45	21.44	1038	8.57	15.6						10-31-19 19:00	2.24	1512	6.92	1.6					
8-1-19 0:30	21.86	1267	8.62	3.4	7-31-19 21:00	21.51	1155	7.03	9.2	7-31-19 21:00	20.83	1033	8.60	13.0						10-31-19 19:15	2.26	1511	6.91	1.7					
8-1-19 0:45	21.79	1277	8.62	4.6	7-31-19 21:15	21.78	1156	7.19	7.2	7-31-19 21:15	21.50	1040	8.59	13.5						10-31-19 19:30	2.30	1514	6.91	1.8					
8-1-19 1:00	21.79	1264	8.62	3.3	7-31-19 21:30	21.73	1157	6.96	7.4	7-31-19 21:30	21.54	1039	8.59	14.2						10-31-19 19:45	2.31	1514	6.91	6.2					
8-1-19 1:15	21.76	1268	8.63	3.9	7-31-19 21:45	21.00	1148	7.51	8.6	7-31-19 21:45	21.47	1039	8.60	17.5						10-31-19 20:00	2.33	1511	6.90	1.8					
8-1-19 1:30	21.71	1262	8.63	3.4	7-31-19 22:00	20.18	1149	7.53	8.9	7-31-19 22:00	21.53	1038	8.59	13.5						10-31-19 20:15	2.36	1512	6.89	2.5					
8-1-19 1:45	21.67	1268	8.63	4.4	7-31-19 22:15	20.28	1151	7.12	8.9	7-31-19 22:15	21.57	1039	8.59	16.8						10-31-19 20:30	2.39	1509	6.90	2.7					
8-1-19 2:00	21.63	1267	8.63	3.1	7-31-19 22:30	20.66	1152	7.42	9.4	7-31-19 22:30	21.72	1040	8.60	15.5						10-31-19 20:45	2.40	1502	6.89	1.8					
8-1-19 2:15	21.58	1272	8.64	17.7	7-31-19 22:45	21.12	1150	7.36	8.8	7-31-19 22:45	21.90	1040	8.59	17.2						10-31-19 21:00	2.38	1494	6.91	2.3					
8-1-19 2:30	21.56	1270	8.62	3.2	7-31-19 23:00	21.04	1149	7.30	13.4	7-31-19 23:00	22.09	1040	8.58	13.1						10-31-19 21:15	2.35	1498	6.93	2.0					
8-1-19 2:45	21.51	1269	8.63	3.9	7-31-19 23:15	21.18	1146	7.47	22.5	7-31-19 23:15	22.05	1032	8.59	14.8						10-31-19 21:30	2.31	1511	6.91	1.8					
8-1-19 3:00	21.44	1261	8.64	3.0	7-31-19 23:30	21.40	1146	7.58	24.5	7-31-19 23:30	22.09	1040	8.59	13.2						10-31-19 21:45	2.29	1562	6.93	1.7					
8-1-19 3:15	21.36	1267	8.64	3.1	7-31-19 23:45	21.34	1143	7.62	14.4	7-31-19 23:45	21.95	1040	8.59	15.6						10-31-19 22:00	2.29	1509	6.92	1.6					
8-1-19 3:30	21.31	1270	8.63	2.8	8-1-19 0:00	21.45	1147	7.07	16.5	8-1-19 0:00	22.15	1041	8.60	13.2						10-31-19 22:15	2.27	1511	6.97	1.6					
8-1-19 3:45	21.29	1271	8.64	3.1	8-1-19 0:15	21.43	1146	7.33	16.0	8-1-19 0:15	22.01	1040	8.60	11.3						10-31-19 22:30	2.26	1510	6.96	2.0					
8-1-19 4:00	21.24	1270	8.63	2.9	8-1-19 0:30	21.56	1146	7.44	11.8	8-1-19 0:30	22.01	1040	8.59	12.3						10-31-19 22:45	2.24	1513	6.94	1.7					
8-1-19 4:15	21.18	1271	8.65	3.2	8-1-19 0:45	21.47	1145	7.52	21.8	8-1-19 0:45	22.01	1038	8.60	16.4						10-31-19 23:00	2.23	1510	6.96	1.6					
8-1-19 4:30	21.11	1269	8.65	2.8	8-1-19 1:00	21.48	1145	7.61	27.0	8-1-19 1:00	22.05	1039	8.60	11.4						10-31-19 23:15	2.22	1512	6.97	1.8					
8-1-19 4:45	21.05	1270	8.67	3.3	8-1-19 1:15	21.54	1146	7.37	19.5	8-1-19 1:15	22.02	1039	8.61	14.5						10-31-19 23:30	2.21	1516	6.95	1.4					
8-1-19 5:00	20.98	1269	8.66	3.0	8-1-19 1:30	21.57	1145	7.60	10.1	8-1-19 1:30	21.98	1033	8.60	10.5						10-31-19 23:45	2.19	1504	6.96	10.0					
8-1-19 5:15	20.93	1269	8.67	29.7	8-1-19 1:45	21.61	1144	7.66	8.9	8-1-19 1:45	21.94	1038	8.59	13.1						11-1-19 0:00	2.17	1509	6.94	2.1					
8-1-19 5:30	20.88	1269	8.67	3.0	8-1-19 2:00	21.62	1147	7.64	8.5	8-1-19 2:00	21.86	1038	8.60	10.5						11-1-19 0:15	2.17	1514	6.94	2.0					
8-1-19 5:45	20.82	1267	8.70	3.5	8-1-19 2:15	21.65	1148	7.63	6.1	8-1-19 2:15	21.83	1038	8.60	11.6						11-1-19 0:30	2.16	1507	6.93	2.0					
8-1-19 6:00	20.78	1269	8.69	3.0	8-1-19 2:30	21.58	1149	7.47	6.5	8-1-19 2:30	21.77	1037	8.61	9.8						11-1-19 0:45	2.11	1512	6.94	2.5					
8-1-19 6:15	20.75	1270	8.69	3.2	8-1-19 2:45	21.53	1149	7.16	7.7	8-1-19 2:45	21.73	1038	8.61	11.0						11-1-19 1:00	2.06	1518	6.99	1.7					
8-1-19 6:30	20.70	1268	8.69	3.3	8-1-19 3:00	21.48	1150	7.19	10.1	8-1-19 3:00	21.67	1038	8.61	11.6						11-1-19 1:15	2.09	1506	6.95	2.5					
8-1-19 6:45	20.65	1265	8.72	3.6	8-1-19 3:15	21.42	1149	7.41	7.1	8-1-19 3:15	21.61	1046	8.61	12.7						11-1-19 1:30	2.09	1517	6.92	2.7					
8-1-19 7:00	20.61	1268	8.70	2.8	8-1-19 3:30	21.30	1149	7.16	6.0	8-1-19 3:30	21.56	1037	8.61	9.9						11-1-19 1:45	2.10	1516	6.94	1.1					
8-1-19 7:15	20.57	1268	8.70	6.0	8-1-19 3:45	21.26	1150	7.08	6.1	8-1-19 3:45	21.51	1037	8.62	12.7						11-1-19 2:00	2.11	1513	6.96	1.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-1-19 7:30	20.53	1267	8.68	2.8	8-1-19 4:00	21.18	1150	7.11	5.9	8-1-19 4:00	21.47	1037	8.62	10.2						11-1-19 2:15	2.12	1508	6.93	1.4					
8-1-19 7:45	20.49	1270	8.68	3.4	8-1-19 4:15	21.11	1150	6.91	6.5	8-1-19 4:15	21.39	1038	8.62	11.7						11-1-19 2:30	2.12	1512	6.93	1.5					
8-1-19 8:00	20.45	1265	8.68	2.7	8-1-19 4:30	21.03	1150	6.98	6.5	8-1-19 4:30	21.31	1036	8.63	13.3						11-1-19 2:45	2.13	1515	6.91	2.0					
8-1-19 8:15	20.39	1270	8.68	2.8	8-1-19 4:45	20.98	1150	7.00	6.3	8-1-19 4:45	21.22	1036	8.63	10.7						11-1-19 3:00	2.12	1514	6.92	1.7					
8-1-19 8:30	20.32	1271	8.67	2.7	8-1-19 5:00	20.94	1150	7.07	5.8	8-1-19 5:00	21.16	1026	8.62	9.1						11-1-19 3:15	2.11	1513	6.93	7.6					
8-1-19 8:45	20.26	1273	8.66	2.9	8-1-19 5:15	20.86	1150	7.10	5.9	8-1-19 5:15	21.06	1035	8.63	11.0						11-1-19 3:30	2.12	1514	6.92	1.0					
8-1-19 9:00	20.20	1271	8.66	2.7	8-1-19 5:30	20.85	1149	7.57	5.3	8-1-19 5:30	21.00	1036	8.63	9.3						11-1-19 3:45	2.12	1513	6.93	1.5					
8-1-19 9:15	20.15	1272	8.67	2.9	8-1-19 5:45	20.83	1150	7.61	5.4	8-1-19 5:45	20.94	1036	8.63	11.4						11-1-19 4:00	2.16	1513	6.91	1.6					
8-1-19 9:30	20.10	1272	8.67	3.0	8-1-19 6:00	20.76	1149	7.63	5.3	8-1-19 6:00	20.89	1036	8.63	8.9						11-1-19 4:15	2.23	1515	6.91	1.3					
8-1-19 9:45	20.06	1272	8.68	5.0	8-1-19 6:15	20.74	1150	7.63	5.7	8-1-19 6:15	20.84	1034	8.63	10.7						11-1-19 4:30	2.28	1512	6.90	2.0					
8-1-19 10:00	20.03	1275	8.68	2.5	8-1-19 6:30	20.72	1150	7.61	6.6	8-1-19 6:30	20.78	1025	8.63	9.4						11-1-19 4:45	2.31	1513	6.87	1.7					
8-1-19 10:15	19.99	1274	8.67	3.1	8-1-19 6:45	20.67	1150	7.55	5.7	8-1-19 6:45	20.74	1028	8.63	12.4						11-1-19 5:00	2.34	1501	6.87	6.7					
8-1-19 10:30	19.94	1272	8.67	2.8	8-1-19 7:00	20.58	1149	7.53	5.6	8-1-19 7:00	20.66	1032	8.62	10.1						11-1-19 5:15	2.34	1508	6.87	1.6					
8-1-19 10:45	19.90	1271	8.66	2.7	8-1-19 7:15	20.54	1150	7.26	5.4	8-1-19 7:15	20.61	1033	8.63	10.6						11-1-19 5:30	2.36	1507	6.87	1.7					
8-1-19 11:00	19.83	1271	8.66	2.6	8-1-19 7:30	20.51	1151	7.00	4.9	8-1-19 7:30	20.51	1032	8.62	10.0						11-1-19 5:45	2.35	1503	6.87	1.1					
8-1-19 11:15	19.78	1274	8.66	3.2	8-1-19 7:45	20.45	1151	6.99	5.1	8-1-19 7:45	20.47	1032	8.63	12.2						11-1-19 6:00	2.35	1496	6.88	1.2					
8-1-19 11:30	19.74	1274	8.66	3.1	8-1-19 8:00	20.40	1151	7.06	5.8	8-1-19 8:00	20.38	1029	8.63	9.9						11-1-19 6:15	2.35	1510	6.90	1.0					
8-1-19 11:45	19.72	1275	8.67	2.7	8-1-19 8:15	20.35	1152	6.88	5.0	8-1-19 8:15	20.30	1032	8.63	12.3						11-1-19 6:30	2.36	1507	6.88	1.3					
8-1-19 12:00	19.68	1274	8.66	2.5	8-1-19 8:30	20.26	1152	6.92	5.2	8-1-19 8:30	20.22	1026	8.63	9.3						11-1-19 6:45	2.35	1513	6.87	1.7					
8-1-19 12:15	19.64	1275	8.66	2.9	8-1-19 8:45	20.23	1152	6.92	5.3	8-1-19 8:45	20.17	1031	8.63	12.3						11-1-19 7:00	2.36	1506	6.88	3.5					
8-1-19 12:30	19.60	1276	8.66	2.8	8-1-19 9:00	20.17	1153	6.91	5.8	8-1-19 9:00	20.13	1030	8.63	9.4						11-1-19 7:15	2.35	1514	6.88	1.2					
8-1-19 12:45	19.55	1276	8.66	3.2	8-1-19 9:15	20.13	1152	6.94	4.7	8-1-19 9:15	20.08	1030	8.62	11.3						11-1-19 7:30	2.34	1504	6.88	1.4					
8-1-19 13:00	19.50	1277	8.66	2.8	8-1-19 9:30	20.10	1152	6.94	4.6	8-1-19 9:30	20.03	1029	8.62	9.8						11-1-19 7:45	2.36	1514	6.89	1.1					
8-1-19 13:15	19.48	1276	8.65	3.1	8-1-19 9:45	20.07	1152	6.95	4.9	8-1-19 9:45	20.00	1029	8.62	11.3						11-1-19 8:00	2.34	1507	6.88	1.4					
8-1-19 13:30	19.44	1277	8.64	3.0	8-1-19 10:00	20.02	1152	6.90	5.0	8-1-19 10:00	19.94	1023	8.62	9.3						11-1-19 8:15	2.33	1512	6.89	22.6					
8-1-19 13:45	19.42	1277	8.65	3.3	8-1-19 10:15	19.99	1152	6.95	5.8	8-1-19 10:15	19.88	1028	8.62	11.8						11-1-19 8:30	2.32	1513	6.88	1.1					
8-1-19 14:00	19.40	1277	8.64	3.7	8-1-19 10:30	19.93	1153	6.90	5.5	8-1-19 10:30	19.84	1023	8.62	9.2						11-1-19 8:45	2.31	1508	6.87	1.4					
8-1-19 14:15	19.37	1277	8.63	2.9	8-1-19 10:45	19.92	1152	7.00	5.3	8-1-19 10:45	19.80	1065	8.61	11.9						11-1-19 9:00	2.32	1507	6.86	2.1					
8-1-19 14:30	19.36	1278	8.64	2.8	8-1-19 11:00	19.86	1153	7.02	5.2	8-1-19 11:00	19.77	1028	8.62	11.4						11-1-19 9:15	2.32	1451	6.87	1.1					
8-1-19 14:45	19.34	1278	8.65	2.8	8-1-19 11:15	19.86	1152	7.17	5.1	8-1-19 11:15	19.74	1027	8.61	11.9						11-1-19 9:30	2.32	1489	6.87	1.0					
8-1-19 15:00	19.32	1278	8.64	2.9	8-1-19 11:30	19.79	1152	7.02	4.7	8-1-19 11:30	19.69	1027	8.61	9.2						11-1-19 9:45	2.31	1484	6.88	1.2					
8-1-19 15:15	19.32	1278	8.64	3.2	8-1-19 11:45	19.76	1152	6.92	5.3	8-1-19 11:45	19.66	1027	8.62	12.2						11-1-19 10:00	2.29	1507	6.88	1.4					
8-1-19 15:30	19.31	1279	8.64	2.7	8-1-19 12:00	19.75	1153	6.90	5.2	8-1-19 12:00	19.61	1028	8.61	9.8						11-1-19 10:15	2.27	1518	6.87	1.3					
8-1-19 15:45	19.30	1277	8.64	3.1	8-1-19 12:15	19.71	1154	7.26	9.4	8-1-19 12:15	19.57	1028	8.61	11.9						11-1-19 10:30	2.24	1517	6.88	1.0					
8-1-19 16:00	19.32	1278	8.62	2.9	8-1-19 12:30	19.76	1153	7.42	4.9	8-1-19 12:30	19.50	1028	8.61	10.1						11-1-19 10:45	2.22	1517	6.87	1.2					
8-1-19 16:15	19.31	1272	8.64	3.3	8-1-19 12:45	19.74	1153	7.43	5.2	8-1-19 12:45	19.46	1025	8.61	12.6						11-1-19 11:00	2.22	1515	6.87	1.2					
8-1-19 16:30	19.34	1278	8.63	2.7	8-1-19 13:00	19.68	1153	7.42	5.0	8-1-19 13:00	19.43	1028	8.62	9.9						11-1-19 11:15	2.20	1514	6.87	1.3					
8-1-19 16:45	19.39	1278	8.62	2.8	8-1-19 13:15	19.64	1153	7.38	5.6	8-1-19 13:15	19.39	1028	8.61	14.2						11-1-19 11:30	2.20	1515	6.87	0.9					
8-1-19 17:00	19.40	1275	8.62	3.0	8-1-19 13:30	19.59	1153	7.32	5.8	8-1-19 13:30	19.36	1028	8.60	10.7						11-1-19 11:45	2.20	1508	6.87	1.2					
8-1-19 17:15	19.43	1277	8.62	3.0	8-1-19 13:45	19.54	1154	7.13	5.5	8-1-19 13:45	19.35	1028	8.60	15.4						11-1-19 12:00	2.19	1509	6.85	1.3					
8-1-19 17:30	19.49	1278	8.62	2.9	8-1-19 14:00	19.56	1153	7.34	6.0	8-1-19 14:00	19.32	1028	8.60	10.9						11-1-19 12:15	2.18	1513	6.88	3.7					
8-1-19 17:45	19.59	1278	8.63	3.0	8-1-19 14:15	19.54	1154	7.14	5.9	8-1-19 14:15	19.29	1028	8.60	14.3						11-1-19 12:30	2.17	1508	6.87	2.1					
8-1-19 18:00	19.68	1280	8.63	3.1	8-1-19 14:30	19.57	1154	7.38	8.3	8-1-19 14:30	19.27	1028	8.60	10.0						11-1-19 12:45	2.16	1511	6.85	4.7					
8-1-19 18:15	19.78	1282	8.65	3.4	8-1-19 14:45	19.58	1153	7.37	5.9	8-1-19 14:45	19.27	1028	8.60	13.5						11-1-19 13:00	2.16	1449	6.85	98.0					
8-1-19 18:30	19.93	1288	8.67	2.8	8-1-19 15:00	19.58	1154	7.33	6.3	8-1-19 15:00	19.26	1028	8.60	10.8						11-1-19 13:15	2.15	1466	6.84	2.1					
8-1-19 18:45	20.11	1289	8.68	2.9	8-1-19 15:15	19.55	1154	7.35	11.2	8-1-19 15:15	19.23	1027	8.60	12.9						11-1-19 13:30	2.14	1514	6.83	6.9					
8-1-19 19:00	20.07	1288	8.66	3.3	8-1-19 15:30	19.57	1154	7.34	5.5	8-1-19 15:30	19.24	1027	8.61	10.1						11-1-19 13:45	2.13	1509	6.84	1.2					
8-1-19 19:15	20.15	1288	8.66	3.4	8-1-19 15:45	19.59	1154	7.33	5.8	8-1-19 15:45	19.23	1026	8.60	19.7						11-1-19 14:00	2.13	1513	6.83	1.0					
8-1-19 19:30	20.38	1289	8.65	3.0	8-1-19 16:00	19.61	1153	7.38	9.5	8-1-19 16:00	19.26	1024	8.60	11.6						11-1-19 14:15	2.14	1522	6.82	1.4					
8-1-19 19:45	20.54	1288	8.64	3.0	8-1-19 16:15	19.60	1155	6.87	6.2	8-1-19 16:15	19.27	1024	8.60	19.4						11-1-19 14:30	2.14	1520	6.83	1.0					
8-1-19 20:00	20.67	1287	8.65	3.2	8-1-19 16:30	19.60	1155	6.86	6.8	8-1-19 16:30	19.29	1022	8.59	12.0						11-1-19 14:45	2.14	1518	6.83	1.5					
8-1-19 20:15	20.76	1287	8.67	3.2	8-1-19 16:45	19.62	1156	6.89	7.3	8-1-19 16:45	19.34	1023	8.60	14.9						11-1-19 15:00	2.13	1519	6.83	1.6					
8-1-19 20:30	20.96	1288	8.64	2.9	8-1-19 17:00	19.72	1156	6.87	8.1	8-1-19 17:00	19.38	1024	8.61	11.6						11-1-19 15:15	2.14	1616	6.82	1.1					
8-1-19 20:45	21.01	1286	8.65	3.2	8-1-19 17:15	19.76	1156	6.83	8.1	8-1-19 17:15	19.45	1025	8.61	15.3						11-1-19 15:30	2.15	1518	6.82	0.8					
8-1-19 21:00	20.99	1284	8.64	3.0	8-1-19 17:30	19.84	1157	6.76	6.9	8-1-19 17:30	19.51	1025	8.61	11.7						11-1-19 15:45	2.15	1532	6.81	1.1					
8-1-19 21:15	20.93	1285	8.64	3.1	8-1-19 17:45	19.93	1157	6.90	7.1	8-1-19 17:45	19.62	1025	8.61	14.7						11-1-19 16:00	2.15	1526	6.82	1.2					
8-1-19 21:30	20.82	1289	8.68	3.8	8-1-19 18:00	20.00	1156	7.01	7.2	8-1-19 18:00	19.70	1023	8.61	12.0						11-1-19 16:15	2.15	1508	6.83	4.2					
8-1-19 21:45	21.20	1288	8.66	3.2	8-1-19 18:15	20.17	1156	6.98	8.1	8-1-19 18:15	19.71	1022	8.61	14.3						11-1-19 16:30	2.16	1513	6.82	7.2					
8-1-19 22:00	21.23	1287	8.65	3.3	8-1-19 18:30	20.22	1155	7.12	6.8	8-1-19 18:30	19.79	1020	8.60	11.9						11-1-19 16:45	2.17	1517	6.82	1.4					
8-1-19 22:15	21.19	1287	8.66	3.5	8-1-19 18:45	20.27	1154	7.19	6.1	8-1-19 18:45	19.85	1017	8.60	15.7						11-1-19 17:00	2.19	1526	6.80	1.6					
8-1-19 22:30	21.29	1285	8.67	3.7	8-1-19 19:00	20.34	1153	7.22	6.2	8-1-19 19:00	19.84	1011	8.59	13.0						11-1-19 17:15	2.20	1512	6.82	2.7					
8-1-19 22:45	21.34	1287	8.66	4.1	8-1-19 19:15	20.43	1154	7.01	6.4	8-1-19 19:15	19.85	1016	8.59	13.2						11-1-19 17:30	2.20	1501	6.81	1.9					
8-1-19 23:00	21.41	1286	8.67	3.7	8-1-19 19:30	20.64	1155	6.91	6.2	8-1-19 19:30	19.98	1013	8.60	13.3						11-1-19 17:45	2.23	1503	6.81	1.4					
8-1-19 23:15	21.47	1289	8.67	3.8	8-1-19 19:45	20.86	1154	7.33	7.1	8-1-19 19:45	20.17	1012	8.60	17.2						11-1-19 18:00	2.25	1513	6.83	2.5					
8-1-19 23:30	21.47	1283	8.67	4.4	8-1-19 20:00	20.88	1153	7.14	6.2	8-1-19 20:00	20.20	1015	8.59	12.1						11-1-19 18:15	2.28	1510	6.82	11.0					
8-1-19 23:45	21.46	1290	8.67	3.4	8-1-19 20:15	20.97	1153	7.07	7.8	8-1-19 20:15	20.38	1017	8.60	21.2						11-1-19 18:30	2.30	1518	6.81	1.8					
8-2-19 0:00	21.45	1287	8.67	3.2	8-1-19 20:30	21.09	1153	7.12	9.2	8-1-19 20:30	20.59	1017	8.59	12.2						11-1-19 18:45	2.33	1471	6.79	1.6					
8-2-19 0:15	21.46	1286	8.68	3.4	8-1-19 20:45	21.27	1155	6.91	9.3	8-1-19 20:45	20.77	1017	8.60	15.0						11-1-19 19:00	2.35	1514	6.80	3.6					
8-2-19 0:30	21.42	1283	8.67	3.3	8-1-19 21:00	21.43	1154	7.09	7.9	8-1-19 21:00	20.96	1018	8.60	11.6						11-1-19 19:15	2.36	1464	6.80	25.6					
8-2-19 0:45	21.39	1291	8.67	3.1	8-1-19 21:15	21.60	1155	7.10	7.1	8-1-19 21:15	21.06	1018	8.61	26.3						11-1-19 19:30	2.38	1513	6.79	1.5					
8-2-19 1:00	21.38	1288	8.67	2.9	8-1-19 21:30	21.66	1155	6.89	7.1	8-1-19 21:30	21.24	1017	8.62	12.7						11-1-19 19:45	2.40	1540	6.78	3.6					
8-2-19 1:15	21.38	1288	8.68	3.3	8-1-19 21:45	21.90	1155	7.29	6.9	8-1-19 21:45	21.30	1017	8.62	17.0						11-1-19 20:15	2.42	1522	6.80	1.3					
8-2-19 1:30	21.37	1290	8.69	3.2	8-1-19 22:00	21.91	1155	7.47	6.4	8-1-19 22:00	21.33	1013	8.62	82.6						11-1-19 20:30	2.44	1514	6.79	3.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-2-19 1:45	21.33	1288	8.69	3.5	8-1-19 22:15	21.92	1155	7.47	5.9	8-1-19 22:15	21.29	1012	8.61	15.1						11-1-19 20:45	2.48	1517	6.79	1.0					
8-2-19 2:00	21.32	1290	8.70	3.2	8-1-19 22:30	22.00	1156	7.30	6.1	8-1-19 22:30	21.34	1009	8.61	12.1						11-1-19 21:00	2.50	1514	6.80	1.4					
8-2-19 2:15	21.30	1290	8.70	3.6	8-1-19 22:45	22.06	1157	6.88	5.7	8-1-19 22:45	21.49	1011	8.62	15.6						11-1-19 21:15	2.53	1516	6.78	1.9					
8-2-19 2:30	21.25	1289	8.71	4.0	8-1-19 23:00	22.18	1158	6.73	5.9	8-1-19 23:00	21.59	1013	8.62	12.6						11-1-19 21:30	2.56	1518	6.77	0.9					
8-2-19 2:45	21.23	1289	8.71	5.1	8-1-19 23:15	22.33	1157	6.90	5.8	8-1-19 23:15	21.66	1015	8.62	14.8						11-1-19 21:45	2.56	1519	6.76	1.4					
8-2-19 3:00	21.19	1288	8.72	3.2	8-1-19 23:30	22.27	1156	7.01	5.5	8-1-19 23:30	21.70	1017	8.61	12.0						11-1-19 22:00	2.56	1518	6.77	3.5					
8-2-19 3:15	21.15	1286	8.73	3.6	8-1-19 23:45	22.16	1158	6.77	6.0	8-1-19 23:45	21.63	1017	8.62	13.6						11-1-19 22:15	2.59	1513	6.77	14.6					
8-2-19 3:30	21.11	1287	8.72	5.3	8-2-19 0:00	22.26	1157	7.02	5.8	8-2-19 0:00	21.65	1019	8.62	12.6						11-1-19 22:30	2.60	1507	6.77	2.6					
8-2-19 3:45	21.05	1285	8.72	3.7	8-2-19 0:15	22.26	1157	7.10	6.4	8-2-19 0:15	21.69	1016	8.62	17.6						11-1-19 22:45	2.60	1516	6.77	2.5					
8-2-19 4:00	21.01	1288	8.72	4.6	8-2-19 0:30	22.23	1158	6.90	6.6	8-2-19 0:30	21.67	1016	8.62	10.0						11-1-19 23:00	2.60	1499	6.77	1.8					
8-2-19 4:15	20.96	1288	8.73	4.0	8-2-19 0:45	22.18	1158	6.92	5.5	8-2-19 0:45	21.63	1016	8.62	14.0						11-1-19 23:15	2.60	1512	6.77	9.9					
8-2-19 4:30	20.93	1288	8.72	3.7	8-2-19 1:00	22.14	1159	6.72	5.7	8-2-19 1:00	21.59	1016	8.62	10.7						11-1-19 23:30	2.60	1518	6.77	1.0					
8-2-19 4:45	20.89	1291	8.72	3.4	8-2-19 1:15	22.06	1158	6.72	5.8	8-2-19 1:15	21.54	1016	8.63	14.5						11-1-19 23:45	2.61	1520	6.77	1.6					
8-2-19 5:00	20.85	1296	8.73	3.4	8-2-19 1:30	22.05	1158	6.76	5.5	8-2-19 1:30	21.49	1015	8.63	9.3						11-2-19 0:00	2.62	1519	6.77	1.9					
8-2-19 5:15	20.82	1289	8.73	3.6	8-2-19 1:45	22.00	1157	6.75	5.1	8-2-19 1:45	21.45	1014	8.63	15.5						11-2-19 0:15	2.62	1512	6.77	1.0					
8-2-19 5:30	20.78	1285	8.73	3.1	8-2-19 2:00	21.94	1156	6.74	4.9	8-2-19 2:00	21.42	1016	8.63	10.0						11-2-19 0:30	2.63	1508	6.80	1.4					
8-2-19 5:45	20.74	1288	8.72	3.3	8-2-19 2:15	21.89	1155	6.71	5.3	8-2-19 2:15	21.37	1015	8.63	13.0						11-2-19 0:45	2.64	1515	6.80	1.5					
8-2-19 6:00	20.71	1286	8.73	3.5	8-2-19 2:30	21.85	1155	6.73	5.3	8-2-19 2:30	21.30	1004	8.63	10.0						11-2-19 1:00	2.65	1514	6.80	102.2					
8-2-19 6:15	20.67	1289	8.73	3.0	8-2-19 2:45	21.78	1154	6.66	6.1	8-2-19 2:45	21.23	1014	8.64	16.2						11-2-19 1:15	2.66	1515	6.79	1.0					
8-2-19 6:30	20.62	1283	8.73	2.9	8-2-19 3:00	21.74	1153	6.69	5.9	8-2-19 3:00	21.17	1014	8.63	9.1						11-2-19 1:30	2.67	1512	6.79	2.1					
8-2-19 6:45	20.58	1288	8.73	3.6	8-2-19 3:15	21.69	1153	6.67	4.9	8-2-19 3:15	21.12	1011	8.63	12.1						11-2-19 1:45	2.68	1517	6.81	2.0					
8-2-19 7:00	20.54	1286	8.72	3.0	8-2-19 3:30	21.61	1153	6.67	5.3	8-2-19 3:30	21.07	1013	8.63	9.8						11-2-19 2:00	2.69	1509	6.81	1.1					
8-2-19 7:15	20.49	1287	8.72	3.4	8-2-19 3:45	21.55	1151	6.76	5.2	8-2-19 3:45	21.00	1012	8.64	12.2						11-2-19 2:15	2.70	1506	6.81	1.3					
8-2-19 7:30	20.43	1281	8.71	2.7	8-2-19 4:00	21.46	1150	6.91	5.1	8-2-19 4:00	20.95	1011	8.63	11.1						11-2-19 2:30	2.72	1518	6.81	1.0					
8-2-19 7:45	20.39	1288	8.72	3.5	8-2-19 4:15	21.40	1150	7.00	5.2	8-2-19 4:15	20.85	1011	8.64	11.3						11-2-19 2:45	2.71	1600	6.83	1.7					
8-2-19 8:00	20.34	1292	8.71	2.6	8-2-19 4:30	21.32	1151	6.93	4.9	8-2-19 4:30	20.77	1010	8.63	9.2						11-2-19 3:00	2.72	1496	6.81	0.7					
8-2-19 8:15	20.31	1284	8.71	3.7	8-2-19 4:45	21.25	1151	6.88	5.0	8-2-19 4:45	20.71	1009	8.62	12.6						11-2-19 3:15	2.74	1508	6.79	1.6					
8-2-19 8:30	20.26	1289	8.71	2.9	8-2-19 5:00	21.21	1152	6.88	5.0	8-2-19 5:00	20.64	1004	8.62	9.4						11-2-19 3:30	2.73	1511	6.79	0.8					
8-2-19 8:45	20.19	1285	8.72	2.7	8-2-19 5:15	21.09	1152	6.74	6.5	8-2-19 5:15	20.59	1000	8.61	12.4						11-2-19 3:45	2.74	1511	6.81	15.0					
8-2-19 9:00	20.13	1292	8.71	2.5	8-2-19 5:30	21.02	1152	6.98	5.4	8-2-19 5:30	20.53	1001	8.62	8.9						11-2-19 4:00	2.76	1509	6.79	0.8					
8-2-19 9:15	20.06	1288	8.71	2.8	8-2-19 5:45	20.99	1153	6.90	6.2	8-2-19 5:45	20.48	998	8.61	14.7						11-2-19 4:15	2.77	1507	6.81	0.8					
8-2-19 9:30	20.01	1281	8.71	3.2	8-2-19 6:00	20.96	1154	6.83	7.6	8-2-19 6:00	20.42	999	8.61	9.4						11-2-19 4:30	2.79	1497	6.80	0.6					
8-2-19 9:45	19.95	1287	8.71	3.8	8-2-19 6:15	20.94	1154	6.95	5.0	8-2-19 6:15	20.37	999	8.60	12.8						11-2-19 4:45	2.80	1515	6.79	0.6					
8-2-19 10:00	19.90	1286	8.71	2.5	8-2-19 6:30	20.88	1154	6.91	4.6	8-2-19 6:30	20.33	1004	8.60	9.7						11-2-19 5:00	2.81	1498	6.78	0.6					
8-2-19 10:15	19.83	1289	8.71	2.5	8-2-19 6:45	20.78	1154	6.87	4.4	8-2-19 6:45	20.28	999	8.60	12.3						11-2-19 5:15	2.82	1515	6.79	46.3					
8-2-19 10:30	19.79	1289	8.71	3.0	8-2-19 7:00	20.71	1154	6.82	5.0	8-2-19 7:00	20.20	1000	8.61	9.5						11-2-19 5:30	2.83	1519	6.80	0.6					
8-2-19 10:45	19.73	1289	8.71	2.4	8-2-19 7:15	20.64	1154	6.83	5.0	8-2-19 7:15	20.15	1000	8.61	11.3						11-2-19 5:45	2.86	1518	6.78	0.7					
8-2-19 11:00	19.65	1290	8.70	4.6	8-2-19 7:30	20.55	1154	6.91	5.0	8-2-19 7:30	20.09	999	8.61	9.6						11-2-19 6:00	2.86	1510	6.76	0.9					
8-2-19 11:15	19.59	1290	8.71	2.6	8-2-19 7:45	20.44	1153	6.89	5.4	8-2-19 7:45	20.01	990	8.60	12.9						11-2-19 6:15	2.87	1529	6.78	16.4					
8-2-19 11:30	19.46	1290	8.71	2.7	8-2-19 8:00	20.38	1153	6.84	4.8	8-2-19 8:00	19.97	990	8.58	11.0						11-2-19 6:30	2.88	1514	6.78	6.0					
8-2-19 11:45	19.38	1291	8.71	2.9	8-2-19 8:15	20.33	1153	6.83	4.8	8-2-19 8:15	19.93	988	8.59	22.4						11-2-19 6:45	2.88	1505	6.78	5.7					
8-2-19 12:00	19.34	1289	8.70	3.2	8-2-19 8:30	20.24	1153	6.74	5.4	8-2-19 8:30	19.91	990	8.59	9.1						11-2-19 7:00	2.88	1512	6.79	11.1					
8-2-19 12:15	19.26	1290	8.70	3.3	8-2-19 8:45	20.20	1153	6.76	5.1	8-2-19 8:45	19.86	988	8.59	12.8						11-2-19 7:15	2.88	1494	6.77	0.6					
8-2-19 12:30	19.18	1291	8.70	2.7	8-2-19 9:00	20.18	1152	6.79	5.3	8-2-19 9:00	19.80	992	8.60	10.7						11-2-19 7:30	2.89	1516	6.77	0.4					
8-2-19 12:45	19.15	1290	8.70	2.9	8-2-19 9:15	20.08	1153	6.78	5.2	8-2-19 9:15	19.75	991	8.60	12.0						11-2-19 7:45	2.88	1500	6.78	0.7					
8-2-19 13:00	19.08	1291	8.69	2.7	8-2-19 9:30	20.03	1153	6.85	5.2	8-2-19 9:30	19.70	992	8.60	9.9						11-2-19 8:00	2.87	1506	6.78	4.1					
8-2-19 13:15	19.03	1290	8.70	2.9	8-2-19 9:45	19.94	1153	6.83	8.2	8-2-19 9:45	19.66	991	8.60	14.6						11-2-19 8:15	2.87	1505	6.77	2.2					
8-2-19 13:30	18.96	1291	8.69	3.0	8-2-19 10:00	19.90	1151	6.97	5.5	8-2-19 10:00	19.63	991	8.59	9.4						11-2-19 8:30	2.87	1515	6.78	2.5					
8-2-19 13:45	18.89	1290	8.70	2.8	8-2-19 10:15	19.89	1151	6.91	5.1	8-2-19 10:15	19.55	989	8.59	21.1						11-2-19 8:45	2.88	1506	6.77	3.0					
8-2-19 14:00	18.85	1287	8.70	2.7	8-2-19 10:30	19.84	1150	7.02	5.7	8-2-19 10:30	19.53	977	8.59	10.2						11-2-19 9:00	2.87	1511	6.78	131.8					
8-2-19 14:15	18.80	1291	8.69	2.6	8-2-19 10:45	19.77	1150	7.04	5.4	8-2-19 10:45	19.46	989	8.59	13.0						11-2-19 9:15	2.87	1509	6.79	21.0					
8-2-19 14:30	18.76	1293	8.69	3.2	8-2-19 11:00	19.72	1150	7.08	6.3	8-2-19 11:00	19.40	989	8.59	11.0						11-2-19 9:30	2.86	1508	6.79	0.7					
8-2-19 14:45	18.69	1292	8.70	2.7	8-2-19 11:15	19.68	1149	7.11	6.4	8-2-19 11:15	19.32	987	8.59	12.9						11-2-19 9:45	2.86	1531	6.79	15.4					
8-2-19 15:00	18.69	1289	8.70	2.9	8-2-19 11:30	19.61	1150	7.00	6.8	8-2-19 11:30	19.24	986	8.58	10.9						11-2-19 10:00	2.88	1498	6.79	2.7					
8-2-19 15:15	18.67	1292	8.71	3.2	8-2-19 11:45	19.60	1150	7.11	7.5	8-2-19 11:45	19.19	984	8.58	11.9						11-2-19 10:15	2.88	1507	6.79	0.6					
8-2-19 15:30	18.66	1293	8.71	2.8	8-2-19 12:00	19.52	1150	6.99	6.1	8-2-19 12:00	19.13	984	8.58	10.9						11-2-19 10:30	2.89	1488	6.80	0.4					
8-2-19 15:45	18.64	1293	8.72	3.0	8-2-19 12:15	19.55	1151	6.93	5.8	8-2-19 12:15	19.07	983	8.58	13.5						11-2-19 10:45	2.89	1507	6.80	0.5					
8-2-19 16:00	18.68	1293	8.71	2.8	8-2-19 12:30	19.49	1151	6.91	10.4	8-2-19 12:30	19.01	983	8.58	10.4						11-2-19 11:00	2.90	1525	6.79	0.1					
8-2-19 16:15	18.68	1294	8.72	3.3	8-2-19 12:45	19.50	1150	6.92	7.3	8-2-19 12:45	18.93	983	8.58	13.9						11-2-19 11:15	2.88	1499	6.79	0.8					
8-2-19 16:30	18.70	1294	8.73	2.9	8-2-19 13:00	19.49	1149	7.02	7.3	8-2-19 13:00	18.89	983	8.57	9.9						11-2-19 11:30	2.88	1505	6.80	0.4					
8-2-19 16:45	18.72	1294	8.73	2.8	8-2-19 13:15	19.43	1149	7.06	7.2	8-2-19 13:15	18.87	988	8.57	16.3						11-2-19 11:45	2.90	1510	6.79	0.3					
8-2-19 17:00	18.71	1294	8.73	2.8	8-2-19 13:30	19.38	1150	7.05	8.5	8-2-19 13:30	18.82	988	8.57	12.8						11-2-19 12:00	2.87	1508	6.79	0.4					
8-2-19 17:15	18.70	1294	8.74	3.2	8-2-19 13:45	19.37	1148	7.01	8.9	8-2-19 13:45	18.81	988	8.56	14.0						11-2-19 12:15	2.87	1529	6.80	0.6					
8-2-19 17:30	18.71	1294	8.73	4.3	8-2-19 14:00	19.36	1147	7.06	7.9	8-2-19 14:00	18.78	988	8.56	10.0						11-2-19 12:30	2.87	1513	6.81	0.3					
8-2-19 17:45	18.70	1293	8.74	2.8	8-2-19 14:15	19.30	1147	7.05	7.5	8-2-19 14:15	18.74	976	8.56	14.0						11-2-19 12:45	2.87	1515	6.81	0.7					
8-2-19 18:00	18.70	1294	8.73	3.4	8-2-19 14:30	19.25	1147	6.99	8.6	8-2-19 14:30	18.70	986	8.56	11.3						11-2-19 13:00	2.86	1515	6.81	0.4					
8-2-19 18:15	18.69	1293	8.73	2.8	8-2-19 14:45	19.24	1146	7.04	8.1	8-2-19 14:45	18.67	985	8.56	12.8						11-2-19 13:15	2.87	1510	6.80	0.7					
8-2-19 18:30	18.70	1295	8.74	2.8	8-2-19 15:00	19.23	1146	7.09	10.7	8-2-19 15:00	18.68	985	8.56	11.0						11-2-19 13:30	2.82	1509	6.80	1.1					
8-2-19 18:45	18.74	1294	8.74	3.2	8-2-19 15:15	19.21	1146	7.22	14.1	8-2-19 15:15	18.67	986	8.57	19.8						11-2-19 13:45	2.77	1517	6.81	0.3					
8-2-19 19:00	18.75	1294	8.74	2.7	8-2-19 15:30	19.19	1146	7.10	11.1	8-2-19 15:30	18.68	983	8.57	11.1						11-2-19 14:00	2.77	1502	6.83	0.4					
8-2-19 19:15	18.77	1294	8.74	2.8	8-2-19 15:45	19.15	1145	7.11	10.4	8-2-19 15:45	18.69	985	8.57	15.6						11-2-19 14:15	2.77	1507	6.83	2.2					
8-2-19 19:30	18.77	1294	8.74	4.1	8-2-19 16:00	19.16	1145	7.11	35.4	8-2-19 16:00	18.71	984	8.58	10.5						11-2-19 14:30	2.78	1513	6.84	5.0					
8-2-19 19:45	18.79	1294	8.74	4.6	8-2-19 16:15	19.18	1144	7.36	12.7	8-2-19 16:15	18.73	983	8.58	12.7						11-2-19 14:45	2.76	1507	6.84	1.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-2-19 20:00	18.87	1295	8.73	3.6	8-2-19 16:30	19.10	1144	7.16	9.4	8-2-19 16:30	18.75	984	8.57	10.2						11-2-19 15:00	2.75	1516	6.86	2.0					
8-2-19 20:15	18.93	1294	8.73	4.6	8-2-19 16:45	19.12	1144	7.09	9.4	8-2-19 16:45	18.74	984	8.57	13.8						11-2-19 15:15	2.74	1529	6.85	3.8					
8-2-19 20:30	18.90	1294	8.74	4.3	8-2-19 17:00	19.08	1144	7.16	10.7	8-2-19 17:00	18.74	983	8.58	10.8						11-2-19 15:30	2.76	1505	6.84	0.2					
8-2-19 20:45	18.94	1295	8.73	3.5	8-2-19 17:15	19.03	1143	7.10	10.5	8-2-19 17:15	18.74	983	8.58	15.1						11-2-19 15:45	2.77	1510	6.84	0.5					
8-2-19 21:00	18.94	1295	8.73	4.2	8-2-19 17:30	19.02	1143	7.11	8.6	8-2-19 17:30	18.74	983	8.58	11.0						11-2-19 16:00	2.80	1510	6.85	0.2					
8-2-19 21:15	18.97	1295	8.74	3.7	8-2-19 17:45	19.06	1144	6.95	8.4	8-2-19 17:45	18.72	982	8.58	12.6						11-2-19 16:15	2.83	1520	6.84	0.3					
8-2-19 21:30	19.05	1295	8.73	4.0	8-2-19 18:00	19.07	1143	7.02	9.4	8-2-19 18:00	18.71	982	8.58	11.3						11-2-19 16:30	2.84	1510	6.84	1.1					
8-2-19 21:45	19.12	1295	8.73	8.5	8-2-19 18:15	19.09	1144	6.99	12.6	8-2-19 18:15	18.71	983	8.59	13.2						11-2-19 16:45	2.86	1617	6.85	0.2					
8-2-19 22:00	19.15	1295	8.72	3.3	8-2-19 18:30	19.08	1143	7.28	10.2	8-2-19 18:30	18.73	983	8.59	11.1						11-2-19 17:00	2.88	1501	6.84	0.7					
8-2-19 22:15	19.14	1295	8.73	3.7	8-2-19 18:45	19.10	1143	7.22	11.7	8-2-19 18:45	18.73	983	8.59	14.4						11-2-19 17:15	2.91	1532	6.83	1.3					
8-2-19 22:30	19.11	1295	8.73	3.6	8-2-19 19:00	19.10	1143	7.32	12.0	8-2-19 19:00	18.74	983	8.59	11.0						11-2-19 17:30	2.91	1637	6.83	20.1					
8-2-19 22:45	19.11	1295	8.73	4.2	8-2-19 19:15	19.09	1144	7.04	9.8	8-2-19 19:15	18.72	982	8.58	13.8						11-2-19 17:45	2.92	1520	6.82	0.4					
8-2-19 23:00	19.11	1295	8.73	4.8	8-2-19 19:30	19.06	1144	7.00	10.2	8-2-19 19:30	18.72	982	8.59	10.8						11-2-19 18:00	2.94	1510	6.82	0.1					
8-2-19 23:15	19.10	1295	8.73	6.0	8-2-19 19:45	19.12	1144	7.03	12.4	8-2-19 19:45	18.75	982	8.59	15.1						11-2-19 18:15	2.96	1509	6.83	0.2					
8-2-19 23:30	19.10	1295	8.73	4.4	8-2-19 20:00	19.16	1144	7.12	13.6	8-2-19 20:00	18.78	982	8.58	10.7						11-2-19 18:30	2.96	1560	6.84	1.6					
8-2-19 23:45	19.10	1295	8.73	6.0	8-2-19 20:15	19.14	1143	7.22	9.6	8-2-19 20:15	18.83	982	8.58	14.6						11-2-19 18:45	2.97	1513	6.86	0.3					
8-3-19 0:00	19.10	1292	8.72	3.8	8-2-19 20:30	19.14	1143	7.21	11.7	8-2-19 20:30	18.90	982	8.58	10.9						11-2-19 19:00	2.97	1510	6.84	1.5					
8-3-19 0:15	19.09	1294	8.72	3.6	8-2-19 20:45	19.13	1143	7.11	16.0	8-2-19 20:45	18.85	982	8.58	12.0						11-2-19 19:15	2.97	1505	6.84	0.2					
8-3-19 0:30	19.08	1295	8.72	3.5	8-2-19 21:00	19.12	1144	7.08	11.6	8-2-19 21:00	18.85	983	8.58	10.2						11-2-19 19:30	2.99	1524	6.84	0.4					
8-3-19 0:45	19.09	1295	8.72	3.9	8-2-19 21:15	19.13	1144	7.09	15.5	8-2-19 21:15	18.90	982	8.59	12.2						11-2-19 19:45	3.04	1501	6.85	0.2					
8-3-19 1:00	19.10	1295	8.72	4.0	8-2-19 21:30	19.15	1143	7.23	11.8	8-2-19 21:30	19.02	981	8.60	10.6						11-2-19 20:00	3.05	1502	6.83	0.1					
8-3-19 1:15	19.10	1295	8.72	4.6	8-2-19 21:45	19.15	1143	7.08	9.8	8-2-19 21:45	19.09	981	8.60	12.5						11-2-19 20:15	3.07	1510	6.84	0.4					
8-3-19 1:30	19.10	1295	8.72	3.4	8-2-19 22:00	19.12	1144	7.09	9.9	8-2-19 22:00	19.04	981	8.59	9.9						11-2-19 20:30	3.07	1506	6.84	0.8					
8-3-19 1:45	19.10	1295	8.73	3.4	8-2-19 22:15	19.18	1143	7.06	9.3	8-2-19 22:15	19.04	981	8.58	13.6						11-2-19 20:45	3.06	1512	6.85	39.3					
8-3-19 2:00	19.09	1296	8.73	3.3	8-2-19 22:30	19.20	1144	6.97	8.7	8-2-19 22:30	19.08	981	8.58	9.7						11-2-19 21:00	3.07	1533	6.85	0.7					
8-3-19 2:15	19.08	1295	8.73	17.4	8-2-19 22:45	19.17	1143	6.99	8.3	8-2-19 22:45	19.03	981	8.58	13.5						11-2-19 21:15	3.08	1511	6.84	0.1					
8-3-19 2:30	19.08	1295	8.72	3.3	8-2-19 23:00	19.16	1144	6.85	8.1	8-2-19 23:00	19.04	981	8.59	10.3						11-2-19 21:30	3.05	1513	6.85	0.3					
8-3-19 2:45	19.07	1295	8.72	3.8	8-2-19 23:15	19.19	1144	6.85	19.7	8-2-19 23:15	19.06	980	8.60	12.5						11-2-19 21:45	3.01	1510	6.84	0.3					
8-3-19 3:00	19.07	1296	8.72	3.6	8-2-19 23:30	19.14	1143	6.95	8.9	8-2-19 23:30	19.04	980	8.60	9.6						11-2-19 22:00	3.01	1511	6.84	0.1					
8-3-19 3:15	19.05	1295	8.72	3.2	8-2-19 23:45	19.12	1144	6.95	10.2	8-2-19 23:45	19.04	980	8.60	12.2						11-2-19 22:15	3.02	1491	6.84	0.4					
8-3-19 3:30	19.04	1296	8.71	3.4	8-3-19 0:00	19.12	1143	6.94	14.4	8-3-19 0:00	19.05	979	8.60	8.8						11-2-19 22:30	3.01	1497	6.83	0.2					
8-3-19 3:45	19.03	1295	8.71	3.9	8-3-19 0:15	19.09	1142	7.09	13.1	8-3-19 0:15	19.00	980	8.59	11.1						11-2-19 22:45	3.03	1510	6.84	0.7					
8-3-19 4:00	19.01	1296	8.71	4.3	8-3-19 0:30	19.11	1143	6.88	9.0	8-3-19 0:30	18.99	979	8.59	9.1						11-2-19 23:00	2.86	1515	6.94	0.4					
8-3-19 4:15	18.98	1296	8.71	4.8	8-3-19 0:45	19.14	1143	6.91	9.1	8-3-19 0:45	18.98	980	8.58	12.7						11-2-19 23:15	2.83	1512	6.90	1.1					
8-3-19 4:30	18.96	1296	8.70	4.0	8-3-19 1:00	19.14	1142	7.02	9.7	8-3-19 1:00	18.98	979	8.59	9.0						11-2-19 23:30	2.81	1516	6.93	0.1					
8-3-19 4:45	18.94	1296	8.70	3.5	8-3-19 1:15	19.15	1142	6.97	9.8	8-3-19 1:15	18.99	980	8.59	12.7						11-2-19 23:45	2.82	1511	6.88	0.1					
8-3-19 5:00	18.92	1296	8.70	3.5	8-3-19 1:30	19.16	1143	6.77	64.4	8-3-19 1:30	18.97	980	8.59	8.9						11-3-19 0:00	2.84	1511	6.86	0.6					
8-3-19 5:15	18.90	1296	8.70	3.1	8-3-19 1:45	19.17	1143	6.78	9.9	8-3-19 1:45	18.98	979	8.59	12.5						11-3-19 0:15	2.86	1494	6.88	5.0					
8-3-19 5:30	18.88	1296	8.69	3.4	8-3-19 2:00	19.16	1143	6.81	10.5	8-3-19 2:00	18.98	979	8.59	9.9						11-3-19 0:30	2.87	1505	6.89	0.6					
8-3-19 5:45	18.85	1296	8.70	3.0	8-3-19 2:15	19.14	1143	6.83	9.2	8-3-19 2:15	18.96	979	8.59	12.6						11-3-19 0:45	2.89	1537	6.90	0.3					
8-3-19 6:00	18.82	1296	8.69	3.9	8-3-19 2:30	19.11	1143	6.89	11.3	8-3-19 2:30	18.95	979	8.60	8.7						11-3-19 1:00	2.86	1512	6.93	0.2					
8-3-19 6:15	18.79	1296	8.69	3.0	8-3-19 2:45	19.09	1143	6.88	9.5	8-3-19 2:45	18.93	979	8.60	11.8						11-3-19 1:15	2.85	1513	6.92	0.4					
8-3-19 6:30	18.76	1296	8.69	4.0	8-3-19 3:00	19.09	1144	6.84	9.7	8-3-19 3:00	18.91	979	8.60	9.6						11-3-19 1:30	2.81	1514	6.93	3.7					
8-3-19 6:45	18.73	1296	8.70	3.0	8-3-19 3:15	19.09	1143	6.86	11.0	8-3-19 3:15	18.90	979	8.60	12.5						11-3-19 1:45	2.83	1518	6.92	122.3					
8-3-19 7:00	18.71	1296	8.69	2.8	8-3-19 3:30	19.06	1143	6.86	10.2	8-3-19 3:30	18.88	979	8.60	9.2						11-3-19 2:00	2.85	1515	6.91	0.0					
8-3-19 7:15	18.68	1296	8.69	2.8	8-3-19 3:45	19.04	1143	6.85	10.2	8-3-19 3:45	18.86	979	8.60	12.8						11-3-19 2:15	2.89	1514	6.88	0.2					
8-3-19 7:30	18.64	1296	8.69	2.8	8-3-19 4:00	19.01	1143	6.88	8.9	8-3-19 4:00	18.82	978	8.59	9.0						11-3-19 2:30	2.87	1512	6.92	0.6					
8-3-19 7:45	18.61	1296	8.69	2.9	8-3-19 4:15	18.98	1143	6.92	9.0	8-3-19 4:15	18.81	978	8.59	12.6						11-3-19 2:45	2.84	1512	6.93	0.8					
8-3-19 8:00	18.58	1295	8.68	3.3	8-3-19 4:30	18.97	1143	6.91	8.8	8-3-19 4:30	18.79	978	8.60	8.8						11-3-19 3:00	2.82	1510	6.93	3.9					
8-3-19 8:15	18.54	1296	8.69	2.9	8-3-19 4:45	18.92	1143	6.86	8.3	8-3-19 4:45	18.76	978	8.59	13.1						11-3-19 3:15	2.86	1503	6.90	2.3					
8-3-19 8:30	18.49	1296	8.69	2.5	8-3-19 5:00	18.93	1143	6.93	9.1	8-3-19 5:00	18.73	978	8.59	9.6						11-3-19 3:30	2.86	1479	6.94	2.1					
8-3-19 8:45	18.45	1296	8.69	3.4	8-3-19 5:15	18.89	1143	6.88	10.3	8-3-19 5:15	18.71	978	8.59	13.0						11-3-19 3:45	2.89	1513	6.89	1.7					
8-3-19 9:00	18.42	1296	8.69	3.0	8-3-19 5:30	18.89	1144	6.90	8.7	8-3-19 5:30	18.70	977	8.59	8.7						11-3-19 4:00	2.80	1503	6.94	2.1					
8-3-19 9:15	18.38	1296	8.69	2.6	8-3-19 5:45	18.87	1143	7.02	12.3	8-3-19 5:45	18.67	977	8.58	13.7						11-3-19 4:15	2.91	1622	6.93	0.9					
8-3-19 9:30	18.31	1297	8.68	2.5	8-3-19 6:00	18.86	1143	7.02	10.0	8-3-19 6:00	18.63	977	8.59	9.8						11-3-19 4:30	2.99	1514	6.93	1.2					
8-3-19 9:45	18.27	1296	8.69	2.5	8-3-19 6:15	18.86	1143	7.04	8.3	8-3-19 6:15	18.62	976	8.59	12.1						11-3-19 4:45	3.05	1526	6.90	2.2					
8-3-19 10:00	18.23	1297	8.68	2.5	8-3-19 6:30	18.83	1143	7.02	9.5	8-3-19 6:30	18.58	976	8.59	9.9						11-3-19 5:00	3.05	1477	6.92	223.6					
8-3-19 10:15	18.21	1296	8.68	2.5	8-3-19 6:45	18.83	1143	7.08	7.7	8-3-19 6:45	18.58	977	8.58	10.7						11-3-19 5:15	3.07	1496	6.91	0.5					
8-3-19 10:30	18.14	1297	8.68	2.4	8-3-19 7:00	18.76	1144	6.91	8.8	8-3-19 7:00	18.54	977	8.59	9.1						11-3-19 5:30	3.04	1517	6.91	2.1					
8-3-19 10:45	18.11	1296	8.69	2.9	8-3-19 7:15	18.74	1144	6.94	10.3	8-3-19 7:15	18.53	976	8.59	11.9						11-3-19 5:45	3.05	1508	6.91	0.2					
8-3-19 11:00	18.07	1297	8.68	3.5	8-3-19 7:30	18.72	1144	6.92	8.0	8-3-19 7:30	18.49	976	8.59	9.3						11-3-19 6:00	3.06	1515	6.90	0.1					
8-3-19 11:15	18.02	1296	8.68	2.6	8-3-19 7:45	18.70	1144	6.96	11.0	8-3-19 7:45	18.46	976	8.59	12.8						11-3-19 6:15	3.05	1511	6.89	0.1					
8-3-19 11:30	17.97	1297	8.68	2.4	8-3-19 8:00	18.70	1144	6.95	9.9	8-3-19 8:00	18.44	976	8.59	9.0						11-3-19 6:30	3.06	1584	6.90	0.3					
8-3-19 11:45	17.92	1293	8.68	4.3	8-3-19 8:15	18.66	1144	6.98	10.3	8-3-19 8:15	18.42	976	8.59	10.8						11-3-19 6:45	3.06	1501	6.87	0.1					
8-3-19 12:00	17.86	1291	8.66	2.8	8-3-19 8:30	18.68	1144	7.06	7.6	8-3-19 8:30	18.39	977	8.59	9.2						11-3-19 7:00	3.05	1513	6.90	0.2					
8-3-19 12:15	17.82	1293	8.67	2.8	8-3-19 8:45	18.64	1144	7.01	7.2	8-3-19 8:45	18.37	977	8.58	10.9						11-3-19 7:15	3.07	1510	6.89	0.6					
8-3-19 12:30	17.76	1294	8.67	2.7	8-3-19 9:00	18.61	1144	7.04	11.6	8-3-19 9:00	18.31	977	8.58	9.0						11-3-19 7:30	3.07	1518	6.90	0.0					
8-3-19 12:45	17.70	1290	8.66	3.5	8-3-19 9:15	18.56	1144	6.97	8.0	8-3-19 9:15	18.30	978	8.58	15.1						11-3-19 7:45	3.10	1512	6.90	123.1					
8-3-19 13:00	17.66	1290	8.64	3.1	8-3-19 9:30	18.53	1144	6.94	8.1	8-3-19 9:30	18.26	977	8.58	8.9						11-3-19 8:00	3.08	1531	6.90	1.1					
8-3-19 13:15	17.60	1288	8.65	3.2	8-3-19 9:45	18.52	1144	7.01	12.4	8-3-19 9:45	18.22	978	8.58	12.3						11-3-19 8:15	3.09	1515	6.90	0.2					
8-3-19 13:30	17.58	1288	8.65	3.1	8-3-19 10:00	18.52	1144	7.07	10.6	8-3-19 10:00	18.19	978	8.57	10.2						11-3-19 8:30	3.09	1522	6.90	0.1					
8-3-19 13:45	17.53	1287	8.66	3.3	8-3-19 10:15	18.50	1144	7.03	7.2	8-3-19 10:15	18.15	977	8.57	12.4						11-3-19 8:45	3.14	1513	6.93	0.1					
8-3-19 14:00	17.50	1285	8.65	3.4	8-3-19 10:30	18.46	1143	7.02	8.4	8-3-19 10:30	18.13	975	8.57	9.2						11-3-19 9:00	3.12	1513	6.91	0.2					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-3-19 14:15	17.46	1284	8.65	3.6	8-3-19 10:45	18.43	1144	6.95	7.7	8-3-19 10:45	18.11	975	8.56	11.8						11-3-19 9:15	3.07	1511	6.93	19.1					
8-3-19 14:30	17.42	1283	8.64	4.0	8-3-19 11:00	18.41	1143	7.01	14.0	8-3-19 11:00	18.08	975	8.56	9.2						11-3-19 9:30	3.12	1514	6.88	0.0					
8-3-19 14:45	17.42	1284	8.64	4.1	8-3-19 11:15	18.41	1143	7.09	10.5	8-3-19 11:15	18.07	976	8.56	14.1						11-3-19 9:45	3.11	1510	6.89	0.0					
8-3-19 15:00	17.41	1285	8.64	5.0	8-3-19 11:30	18.36	1143	7.04	10.8	8-3-19 11:30	18.05	977	8.56	12.6						11-3-19 10:00	3.10	1517	6.89	0.5					
8-3-19 15:15	17.41	1285	8.63	3.6	8-3-19 11:45	18.33	1143	7.01	11.1	8-3-19 11:45	18.02	977	8.56	13.8						11-3-19 10:15	3.12	1509	6.90	0.1					
8-3-19 15:30	17.39	1286	8.64	3.6	8-3-19 12:00	18.28	1143	7.01	9.3	8-3-19 12:00	17.96	977	8.56	9.6						11-3-19 10:30	3.14	1557	6.89	0.1					
8-3-19 15:45	17.39	1286	8.64	4.0	8-3-19 12:15	18.27	1143	7.01	7.8	8-3-19 12:15	17.93	977	8.56	11.9						11-3-19 10:45	3.08	1499	6.91	0.1					
8-3-19 16:00	17.39	1288	8.66	3.6	8-3-19 12:30	18.22	1142	6.98	8.9	8-3-19 12:30	17.89	977	8.55	8.8						11-3-19 11:00	3.13	1511	6.89	0.2					
8-3-19 16:15	17.43	1287	8.65	4.1	8-3-19 12:45	18.21	1142	7.03	9.4	8-3-19 12:45	17.86	978	8.55	13.8						11-3-19 11:15	3.16	1506	6.91	0.7					
8-3-19 16:30	17.52	1288	8.65	3.5	8-3-19 13:00	18.16	1141	7.06	10.9	8-3-19 13:00	17.81	978	8.55	9.2						11-3-19 11:30	3.16	1514	6.90	0.0					
8-3-19 16:45	17.59	1289	8.66	3.7	8-3-19 13:15	18.13	1141	7.11	9.8	8-3-19 13:15	17.82	979	8.54	12.7						11-3-19 11:45	3.16	1526	6.89	0.5					
8-3-19 17:00	17.71	1289	8.67	3.7	8-3-19 13:30	18.11	1141	7.10	11.5	8-3-19 13:30	17.78	979	8.54	11.1						11-3-19 12:00	3.15	1487	6.90	0.7					
8-3-19 17:15	17.69	1290	8.68	3.4	8-3-19 13:45	18.05	1141	7.02	10.9	8-3-19 13:45	17.77	979	8.54	12.8						11-3-19 12:15	3.13	1516	6.92	394.3					
8-3-19 17:30	17.84	1291	8.68	3.4	8-3-19 14:00	18.04	1141	6.99	10.5	8-3-19 14:00	17.75	979	8.54	11.0						11-3-19 12:30	3.13	1612	6.92	0.2					
8-3-19 17:45	17.98	1291	8.68	3.2	8-3-19 14:15	18.04	1139	7.18	11.2	8-3-19 14:15	17.73	980	8.54	13.2						11-3-19 12:45	3.13	1515	6.91	0.0					
8-3-19 18:00	18.13	1291	8.67	3.6	8-3-19 14:30	18.01	1138	7.29	11.5	8-3-19 14:30	17.71	980	8.53	9.9						11-3-19 13:00	3.18	1501	6.92	0.0					
8-3-19 18:15	18.25	1290	8.66	4.1	8-3-19 14:45	17.96	1139	7.04	10.6	8-3-19 14:45	17.70	980	8.53	12.9						11-3-19 13:15	3.22	1512	6.93	0.3					
8-3-19 18:30	18.44	1291	8.65	3.4	8-3-19 15:00	17.94	1138	7.10	11.9	8-3-19 15:00	17.69	979	8.53	9.4						11-3-19 13:30	3.23	1509	6.90	0.0					
8-3-19 18:45	18.60	1290	8.65	3.2	8-3-19 15:15	17.91	1138	7.06	10.3	8-3-19 15:15	17.69	980	8.54	12.7						11-3-19 13:45	3.16	1507	6.89	0.0					
8-3-19 19:00	18.81	1290	8.64	3.3	8-3-19 15:30	17.88	1137	7.05	11.0	8-3-19 15:30	17.66	980	8.54	13.9						11-3-19 14:00	3.10	1514	6.91	0.0					
8-3-19 19:15	19.06	1293	8.64	3.2	8-3-19 15:45	17.89	1137	7.08	11.7	8-3-19 15:45	17.67	979	8.54	14.0						11-3-19 14:15	3.15	1541	6.90	7.1					
8-3-19 19:30	19.32	1293	8.63	3.0	8-3-19 16:00	17.88	1137	7.06	10.5	8-3-19 16:00	17.67	979	8.54	9.7						11-3-19 14:30	3.14	1505	6.90	0.0					
8-3-19 19:45	19.33	1289	8.63	3.5	8-3-19 16:15	17.91	1137	7.07	11.0	8-3-19 16:15	17.73	979	8.55	12.1						11-3-19 14:45	3.19	1610	6.93	0.5					
8-3-19 20:00	19.51	1291	8.62	3.2	8-3-19 16:30	17.94	1137	7.25	10.0	8-3-19 16:30	17.82	980	8.54	9.0						11-3-19 15:00	3.22	1516	6.95	0.5					
8-3-19 20:15	19.84	1291	8.63	3.2	8-3-19 16:45	17.89	1136	7.15	11.2	8-3-19 16:45	17.88	979	8.56	11.9						11-3-19 15:15	3.23	1510	6.99	7.8					
8-3-19 20:30	19.50	1294	8.64	3.2	8-3-19 17:00	17.92	1134	7.32	12.9	8-3-19 17:00	18.01	979	8.55	9.4						11-3-19 15:30	3.25	1519	6.98	0.0					
8-3-19 20:45	20.06	1292	8.64	3.3	8-3-19 17:15	17.87	1135	7.18	18.1	8-3-19 17:15	18.00	979	8.55	12.1						11-3-19 15:45	3.26	1530	6.98	0.1					
8-3-19 21:00	20.60	1295	8.62	3.2	8-3-19 17:30	17.90	1135	7.17	13.9	8-3-19 17:30	18.09	980	8.56	10.2						11-3-19 16:00	3.23	1522	6.98	0.0					
8-3-19 21:15	20.56	1292	8.63	3.4	8-3-19 17:45	17.97	1135	7.10	14.4	8-3-19 17:45	18.27	980	8.55	11.3						11-3-19 16:15	3.23	1519	6.98	0.2					
8-3-19 21:30	20.65	1293	8.63	3.1	8-3-19 18:00	18.10	1135	7.07	12.5	8-3-19 18:00	18.42	979	8.55	10.4						11-3-19 16:30	3.23	1521	6.99	0.4					
8-3-19 21:45	20.43	1286	8.68	4.4	8-3-19 18:15	18.46	1136	6.98	13.9	8-3-19 18:15	18.33	979	8.54	14.1						11-3-19 16:45	3.24	1515	6.99	0.2					
8-3-19 22:00	20.50	1295	8.65	3.5	8-3-19 18:30	18.70	1137	6.99	16.2	8-3-19 18:30	18.60	980	8.53	9.4						11-3-19 17:00	3.25	1548	6.99	0.3					
8-3-19 22:15	20.35	1291	8.67	3.2	8-3-19 18:45	18.68	1135	7.00	9.7	8-3-19 18:45	18.48	979	8.54	13.0						11-3-19 17:15	3.29	1517	7.00	0.1					
8-3-19 22:30	20.45	1293	8.66	3.6	8-3-19 19:00	19.00	1137	6.93	10.4	8-3-19 19:00	18.67	981	8.53	10.0						11-3-19 17:30	3.32	1523	6.99	0.4					
8-3-19 22:45	20.39	1290	8.67	3.7	8-3-19 19:15	19.02	1136	6.98	12.0	8-3-19 19:15	19.03	981	8.54	11.4						11-3-19 17:45	3.31	1500	6.98	0.1					
8-3-19 23:00	20.41	1290	8.67	4.2	8-3-19 19:30	18.86	1133	7.26	9.4	8-3-19 19:30	19.67	979	8.53	9.0						11-3-19 18:00	3.23	1544	6.95	0.2					
8-3-19 23:15	20.54	1291	8.67	3.4	8-3-19 19:45	18.79	1134	7.17	12.1	8-3-19 19:45	20.23	985	8.54	14.8						11-3-19 18:15	3.22	1521	6.95	0.0					
8-3-19 23:30	20.58	1292	8.67	3.1	8-3-19 20:00	18.67	1134	7.48	9.0	8-3-19 20:00	20.16	981	8.53	8.9						11-3-19 18:30	3.22	1518	6.94	1.4					
8-3-19 23:45	20.56	1290	8.67	3.7	8-3-19 20:15	18.77	1134	7.41	9.9	8-3-19 20:15	20.38	984	8.54	13.8						11-3-19 18:45	3.19	1517	6.96	0.3					
8-4-19 0:00	20.58	1289	8.68	3.3	8-3-19 20:30	18.74	1133	7.34	10.5	8-3-19 20:30	20.69	984	8.54	9.1						11-3-19 19:00	3.22	1481	6.95	0.0					
8-4-19 0:15	20.63	1289	8.69	4.2	8-3-19 20:45	19.10	1137	7.20	8.9	8-3-19 20:45	20.94	984	8.54	12.3						11-3-19 19:15	3.09	1639	6.97	0.0					
8-4-19 0:30	20.68	1289	8.68	4.0	8-3-19 21:00	19.25	1137	7.23	9.1	8-3-19 21:00	21.04	984	8.55	9.4						11-3-19 19:30	3.17	1514	6.93	0.1					
8-4-19 0:45	20.69	1288	8.69	4.0	8-3-19 21:15	19.41	1137	7.13	8.6	8-3-19 21:15	21.17	984	8.55	11.8						11-3-19 19:45	3.27	1496	6.94	0.0					
8-4-19 1:00	20.66	1288	8.68	3.7	8-3-19 21:30	19.60	1137	7.04	8.4	8-3-19 21:30	21.08	983	8.54	9.0						11-3-19 20:00	3.22	1497	6.94	0.0					
8-4-19 1:15	20.69	1288	8.69	3.7	8-3-19 21:45	19.33	1135	7.46	9.5	8-3-19 21:45	21.46	985	8.55	10.2						11-3-19 20:15	3.32	1518	6.92	0.0					
8-4-19 1:30	20.70	1287	8.68	3.1	8-3-19 22:00	18.98	1132	7.43	12.7	8-3-19 22:00	21.07	984	8.55	10.1						11-3-19 20:30	3.37	1513	6.91	1.3					
8-4-19 1:45	20.71	1287	8.69	3.6	8-3-19 22:15	18.77	1135	7.35	11.8	8-3-19 22:15	20.98	984	8.56	15.2						11-3-19 20:45	3.36	1587	6.94	0.3					
8-4-19 2:00	20.70	1287	8.68	3.0	8-3-19 22:30	19.06	1135	7.27	13.1	8-3-19 22:30	20.82	983	8.57	12.0						11-3-19 21:00	3.39	1484	6.95	0.4					
8-4-19 2:15	20.68	1287	8.69	3.0	8-3-19 22:45	19.17	1137	6.90	11.9	8-3-19 22:45	20.78	984	8.58	14.7						11-3-19 21:15	3.36	1496	6.94	0.2					
8-4-19 2:30	20.67	1287	8.69	3.0	8-3-19 23:00	19.09	1133	7.48	10.3	8-3-19 23:00	20.76	986	8.57	10.7						11-3-19 21:30	3.42	1519	6.94	0.0					
8-4-19 2:45	20.65	1286	8.69	4.0	8-3-19 23:15	19.24	1136	7.23	9.7	8-3-19 23:15	20.94	984	8.57	14.3						11-3-19 21:45	3.43	1504	6.90	0.0					
8-4-19 3:00	20.62	1284	8.69	3.2	8-3-19 23:30	19.35	1134	7.14	8.8	8-3-19 23:30	20.93	985	8.57	10.3						11-3-19 22:00	3.38	1539	6.90	1.0					
8-4-19 3:15	20.58	1283	8.70	3.2	8-3-19 23:45	19.43	1135	7.32	8.2	8-3-19 23:45	20.97	985	8.58	14.5						11-3-19 22:15	3.32	1518	6.91	0.0					
8-4-19 3:30	20.56	1283	8.69	2.8	8-4-19 0:00	19.56	1135	7.46	9.2	8-4-19 0:00	20.88	986	8.58	10.2						11-3-19 22:45	3.15	1515	6.96	0.0					
8-4-19 3:45	20.54	1281	8.69	3.1	8-4-19 0:15	19.68	1135	7.42	9.6	8-4-19 0:15	21.14	985	8.58	14.2						11-3-19 23:00	3.13	1467	6.98	0.0					
8-4-19 4:00	20.50	1283	8.69	2.9	8-4-19 0:30	19.88	1138	7.29	10.7	8-4-19 0:30	21.02	985	8.57	11.0						11-3-19 23:15	3.18	1498	7.02	0.0					
8-4-19 4:15	20.47	1281	8.70	3.0	8-4-19 0:45	19.97	1137	7.16	8.9	8-4-19 0:45	21.09	986	8.58	13.3						11-3-19 23:30	3.19	1508	7.02	0.0					
8-4-19 4:30	20.42	1282	8.69	3.5	8-4-19 1:00	20.05	1137	7.21	8.7	8-4-19 1:00	21.07	986	8.58	11.1						11-3-19 23:45	3.19	1508	7.03	0.0					
8-4-19 4:45	20.37	1281	8.69	2.9	8-4-19 1:15	20.12	1136	7.50	8.5	8-4-19 1:15	20.96	986	8.58	15.9						11-4-19 0:00	3.17	1511	7.02	0.0					
8-4-19 5:00	20.33	1279	8.70	2.6	8-4-19 1:30	20.16	1138	6.88	9.1	8-4-19 1:30	21.00	986	8.58	22.0						11-4-19 0:15	3.15	1513	7.02	0.3					
8-4-19 5:15	20.27	1279	8.70	2.8	8-4-19 1:45	20.24	1137	7.10	11.5	8-4-19 1:45	21.03	986	8.59	12.9						11-4-19 0:30	3.13	1513	7.03	0.2					
8-4-19 5:30	20.20	1280	8.70	2.6	8-4-19 2:00	20.27	1137	7.11	7.1	8-4-19 2:00	21.03	986	8.60	9.5						11-4-19 0:45	3.07	1516	7.03	0.0					
8-4-19 5:45	20.16	1280	8.71	3.1	8-4-19 2:15	20.29	1137	7.12	7.2	8-4-19 2:15	20.95	985	8.59	14.1						11-4-19 1:00	3.10	1521	7.02	0.0					
8-4-19 6:00	20.11	1279	8.70	2.6	8-4-19 2:30	20.29	1137	7.03	6.7	8-4-19 2:30	20.91	986	8.59	9.2						11-4-19 1:15	3.05	1515	7.02	0.0					
8-4-19 6:15	20.06	1279	8.70	2.9	8-4-19 2:45	20.16	1138	6.92	6.3	8-4-19 2:45	20.90	985	8.59	12.6						11-4-19 1:30	3.07	1515	7.01	0.0					
8-4-19 6:30	20.01	1280	8.70	2.7	8-4-19 3:00	20.15	1137	7.02	7.6	8-4-19 3:00	20.86	984	8.59	8.7						11-4-19 1:45	3.08	1513	7.02	0.0					
8-4-19 6:45	19.96	1280	8.70	2.8	8-4-19 3:15	20.16	1137	7.23	8.9	8-4-19 3:15	20.79	985	8.59	13.3						11-4-19 2:00	3.07	1531	7.03	0.0					
8-4-19 7:00	19.92	1280	8.70	2.7	8-4-19 3:30	20.14	1138	7.02	7.6	8-4-19 3:30	20.72	983	8.59	8.5						11-4-19 2:15	3.11	1522	7.03	0.3					
8-4-19 7:15	19.88	1279	8.71	2.9	8-4-19 3:45	20.14	1138	6.92	12.6	8-4-19 3:45	20.66	985	8.60	12.5						11-4-19 2:30	3.16	1514	7.05	0.0					
8-4-19 7:30	19.86	1280	8.70	2.6	8-4-19 4:00	20.11	1138	6.94	6.5	8-4-19 4:00	20.63	985	8.60	8.8						11-4-19 2:45	3.11	1506	7.04	1.3					
8-4-19 7:45	19.82	1280	8.70	4.1	8-4-19 4:15	20.06	1138	6.92	5.5	8-4-19 4:15	20.59	983	8.60	13.2						11-4-19 3:00	3.12	1541	7.03	4.9					
8-4-19 8:00	19.79	1278	8.70	2.6	8-4-19 4:30	20.04	1137	7.01	5.5	8-4-19 4:30	20.55	983	8.60	8.2						11-4-19 3:15	3.11	1516	7.03	0.0					
8-4-19 8:15	19.77	1280	8.70	3.1	8-4-19 4:45	20.15	1136	7.42	5.0	8-4-19 4:45	20.49	984	8.60	12.4						11-4-19 3:30	3.11	1506	7.02	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-4-19 8:30	19.73	1279	8.70	2.6	8-4-19 5:00	20.15	1136	7.55	5.3	8-4-19 5:00	20.43	985	8.60	8.8						11-4-19 3:45	3.13	1514	7.01	0.0					
8-4-19 8:45	19.69	1280	8.70	2.8	8-4-19 5:15	20.10	1136	7.53	5.2	8-4-19 5:15	20.38	981	8.60	10.6						11-4-19 4:00	3.13	1510	6.99	0.0					
8-4-19 9:00	19.66	1279	8.70	2.5	8-4-19 5:30	20.00	1137	7.18	5.8	8-4-19 5:30	20.30	981	8.60	7.9						11-4-19 4:15	3.30	1510	6.97	0.5					
8-4-19 9:15	19.63	1280	8.70	3.6	8-4-19 5:45	19.96	1136	7.25	5.4	8-4-19 5:45	20.22	982	8.61	11.2						11-4-19 4:30	3.38	1516	6.95	0.0					
8-4-19 9:30	19.61	1279	8.69	3.2	8-4-19 6:00	19.85	1137	6.94	5.0	8-4-19 6:00	20.16	984	8.61	8.9						11-4-19 4:45	3.38	1505	6.95	3.5					
8-4-19 9:45	19.59	1280	8.69	3.7	8-4-19 6:15	19.79	1136	7.23	5.2	8-4-19 6:15	20.09	982	8.62	13.8						11-4-19 5:00	3.35	1519	6.94	0.0					
8-4-19 10:00	19.56	1279	8.69	2.5	8-4-19 6:30	19.67	1137	7.05	4.7	8-4-19 6:30	20.02	983	8.62	8.5						11-4-19 5:15	3.36	1506	6.96	0.0					
8-4-19 10:15	19.53	1280	8.69	2.4	8-4-19 6:45	19.63	1137	7.00	5.6	8-4-19 6:45	19.96	983	8.61	10.2						11-4-19 5:30	3.37	1518	6.98	0.0					
8-4-19 10:30	19.49	1280	8.69	5.8	8-4-19 7:00	19.63	1137	7.17	6.9	8-4-19 7:00	19.90	982	8.62	8.0						11-4-19 5:45	3.30	1495	6.95	0.0					
8-4-19 10:45	19.45	1280	8.68	2.6	8-4-19 7:15	19.46	1138	6.92	4.6	8-4-19 7:15	19.82	982	8.62	9.3						11-4-19 6:00	3.29	1513	6.93	0.2					
8-4-19 11:00	19.44	1279	8.67	2.5	8-4-19 7:30	19.38	1138	6.91	5.0	8-4-19 7:30	19.73	983	8.62	8.2						11-4-19 6:15	3.29	1639	6.94	0.9					
8-4-19 11:15	19.41	1281	8.68	2.5	8-4-19 7:45	19.37	1138	7.01	5.1	8-4-19 7:45	19.69	983	8.62	10.4						11-4-19 6:30	3.27	1517	6.94	0.3					
8-4-19 11:30	19.39	1280	8.67	2.4	8-4-19 8:00	19.37	1137	7.03	5.9	8-4-19 8:00	19.64	983	8.62	8.9						11-4-19 6:45	3.31	1510	6.94	0.0					
8-4-19 11:45	19.36	1279	8.68	3.0	8-4-19 8:15	19.40	1137	7.14	5.8	8-4-19 8:15	19.60	983	8.62	12.5						11-4-19 7:00	3.34	1521	6.94	1.0					
8-4-19 12:00	19.32	1280	8.67	2.5	8-4-19 8:30	19.34	1138	7.12	6.0	8-4-19 8:30	19.55	984	8.62	9.5						11-4-19 7:15	3.34	1508	6.93	14.8					
8-4-19 12:15	19.29	1280	8.68	2.4	8-4-19 8:45	19.35	1136	7.43	5.7	8-4-19 8:45	19.46	983	8.62	11.2						11-4-19 7:30	3.33	1518	6.93	0.0					
8-4-19 12:30	19.25	1280	8.67	2.7	8-4-19 9:00	19.31	1136	7.45	5.9	8-4-19 9:00	19.44	984	8.62	8.8						11-4-19 7:45	3.33	1522	6.95	0.0					
8-4-19 12:45	19.23	1278	8.67	2.7	8-4-19 9:15	19.30	1136	7.47	5.8	8-4-19 9:15	19.38	983	8.62	12.0						11-4-19 8:00	3.33	1518	6.95	0.0					
8-4-19 13:00	19.21	1280	8.66	2.4	8-4-19 9:30	19.27	1136	7.48	5.8	8-4-19 9:30	19.35	983	8.61	9.5						11-4-19 8:15	3.33	1525	6.96	42.9					
8-4-19 13:15	19.19	1279	8.67	2.5	8-4-19 9:45	19.22	1137	7.34	5.0	8-4-19 9:45	19.33	984	8.61	12.6						11-4-19 8:30	3.31	1517	6.95	0.0					
8-4-19 13:30	19.17	1279	8.66	2.5	8-4-19 10:00	19.17	1138	7.10	7.2	8-4-19 10:00	19.29	983	8.60	9.4						11-4-19 8:45	3.33	1499	6.96	0.0					
8-4-19 13:45	19.13	1278	8.68	2.4	8-4-19 10:15	19.15	1137	7.19	7.0	8-4-19 10:15	19.27	983	8.61	10.0						11-4-19 9:00	3.24	1520	6.94	0.0					
8-4-19 14:00	19.11	1278	8.67	2.5	8-4-19 10:30	19.12	1138	6.90	7.7	8-4-19 10:30	19.21	983	8.61	8.7						11-4-19 9:15	3.19	1510	6.93	5.3					
8-4-19 14:15	19.09	1279	8.67	2.5	8-4-19 10:45	19.10	1138	7.16	5.2	8-4-19 10:45	19.18	983	8.61	14.0						11-4-19 9:30	3.26	1512	6.91	0.0					
8-4-19 14:30	19.08	1275	8.67	3.0	8-4-19 11:00	19.07	1138	7.08	5.9	8-4-19 11:00	19.12	983	8.61	7.9						11-4-19 9:45	3.27	1509	6.92	0.3					
8-4-19 14:45	19.06	1276	8.67	2.8	8-4-19 11:15	19.05	1138	7.21	5.6	8-4-19 11:15	19.10	981	8.61	11.3						11-4-19 10:00	3.29	1527	6.89	153.2					
8-4-19 15:00	19.05	1278	8.66	2.6	8-4-19 11:30	18.99	1139	6.94	5.8	8-4-19 11:30	19.08	985	8.61	8.8						11-4-19 10:15	3.26	1509	6.87	0.4					
8-4-19 15:15	19.06	1279	8.66	2.7	8-4-19 11:45	18.98	1138	7.06	5.0	8-4-19 11:45	19.03	979	8.61	13.2						11-4-19 10:30	3.23	1525	6.88	0.2					
8-4-19 15:30	19.09	1278	8.65	2.5	8-4-19 12:00	18.97	1138	7.09	5.2	8-4-19 12:00	18.97	984	8.61	6.8						11-4-19 10:45	3.18	1509	6.89	0.0					
8-4-19 15:45	19.14	1278	8.65	2.7	8-4-19 12:15	18.97	1137	7.41	6.5	8-4-19 12:15	18.96	984	8.60	15.0						11-4-19 11:00	3.25	1585	6.89	0.0					
8-4-19 16:00	19.21	1277	8.65	2.9	8-4-19 12:30	18.92	1138	7.12	5.7	8-4-19 12:30	18.94	985	8.60	6.9						11-4-19 11:15	3.28	1520	6.87	0.0					
8-4-19 16:15	19.28	1275	8.66	2.9	8-4-19 12:45	18.89	1138	7.11	5.5	8-4-19 12:45	18.90	986	8.60	11.3						11-4-19 11:30	3.33	1518	6.88	0.0					
8-4-19 16:30	19.29	1274	8.66	2.9	8-4-19 13:00	18.86	1138	7.07	5.3	8-4-19 13:00	18.87	990	8.60	6.9						11-4-19 11:45	3.25	1506	6.90	0.0					
8-4-19 16:45	19.47	1273	8.66	2.8	8-4-19 13:15	18.85	1138	7.12	5.5	8-4-19 13:15	18.85	986	8.60	8.5						11-4-19 12:00	3.20	1526	6.89	0.0					
8-4-19 17:00	19.56	1272	8.66	2.9	8-4-19 13:30	18.87	1137	7.38	6.2	8-4-19 13:30	18.83	987	8.60	7.2						11-4-19 12:15	3.22	1516	6.90	0.0					
8-4-19 17:15	19.71	1272	8.66	3.2	8-4-19 13:45	18.84	1139	6.97	5.5	8-4-19 13:45	18.81	986	8.60	7.7						11-4-19 12:30	3.30	1510	6.90	0.0					
8-4-19 17:30	19.81	1273	8.66	2.8	8-4-19 14:00	18.83	1139	6.90	5.8	8-4-19 14:00	18.77	987	8.60	13.8						11-4-19 12:45	3.35	1493	6.89	1.2					
8-4-19 17:45	19.97	1272	8.66	2.8	8-4-19 14:15	18.83	1140	6.85	5.9	8-4-19 14:15	18.76	988	8.60	12.6						11-4-19 13:00	3.31	1516	6.89	1.0					
8-4-19 18:00	19.99	1271	8.66	2.8	8-4-19 14:30	18.81	1140	6.88	8.2	8-4-19 14:30	18.74	988	8.60	7.2						11-4-19 13:15	3.19	1514	6.89	0.0					
8-4-19 18:15	20.00	1272	8.66	2.6	8-4-19 14:45	18.80	1140	6.90	7.1	8-4-19 14:45	18.72	989	8.60	11.5						11-4-19 13:30	3.24	1514	6.85	0.0					
8-4-19 18:30	20.17	1272	8.65	2.7	8-4-19 15:00	18.81	1139	6.95	6.3	8-4-19 15:00	18.74	990	8.60	8.2						11-4-19 13:45	3.22	1513	6.87	0.0					
8-4-19 18:45	20.36	1272	8.65	2.8	8-4-19 15:15	18.81	1139	7.04	8.5	8-4-19 15:15	18.76	990	8.61	13.1						11-4-19 14:00	3.19	1512	6.87	0.0					
8-4-19 19:00	20.58	1272	8.64	2.9	8-4-19 15:30	18.85	1139	6.91	7.0	8-4-19 15:30	18.75	990	8.61	7.1						11-4-19 14:15	3.16	1507	6.89	0.8					
8-4-19 19:15	20.67	1271	8.64	3.5	8-4-19 15:45	18.92	1140	6.96	7.2	8-4-19 15:45	18.81	991	8.61	9.1						11-4-19 14:30	3.22	1501	6.89	0.9					
8-4-19 19:30	20.95	1274	8.64	2.8	8-4-19 16:00	18.95	1140	6.86	7.5	8-4-19 16:00	18.85	991	8.62	7.1						11-4-19 14:45	3.19	1542	6.89	0.2					
8-4-19 19:45	21.28	1274	8.64	3.2	8-4-19 16:15	19.03	1140	6.83	7.3	8-4-19 16:15	18.91	991	8.61	9.1						11-4-19 15:00	3.22	1500	6.88	2.1					
8-4-19 20:00	21.47	1273	8.63	2.8	8-4-19 16:30	19.03	1138	7.22	12.0	8-4-19 16:30	19.01	992	8.62	8.2						11-4-19 15:15	3.24	1499	6.88	2.2					
8-4-19 20:15	21.58	1274	8.64	3.9	8-4-19 16:45	19.10	1139	7.15	9.3	8-4-19 16:45	19.10	992	8.62	8.6						11-4-19 15:30	3.21	1627	6.89	3.3					
8-4-19 20:30	21.84	1274	8.64	3.0	8-4-19 17:00	19.11	1137	7.46	7.2	8-4-19 17:00	19.18	992	8.61	8.4						11-4-19 15:45	3.26	1494	6.87	1.1					
8-4-19 20:45	22.04	1274	8.64	3.1	8-4-19 17:15	19.20	1137	7.47	9.1	8-4-19 17:15	19.30	992	8.61	12.0						11-4-19 16:00	3.27	1521	6.89	0.0					
8-4-19 21:00	22.26	1273	8.64	3.3	8-4-19 17:30	19.34	1138	7.20	8.5	8-4-19 17:30	19.26	992	8.61	7.3						11-4-19 16:15	3.26	1514	6.90	0.0					
8-4-19 21:15	22.38	1271	8.64	3.1	8-4-19 17:45	19.47	1139	6.94	9.6	8-4-19 17:45	19.37	992	8.61	11.4						11-4-19 16:30	3.23	1535	6.90	38.8					
8-4-19 21:30	22.49	1273	8.64	3.4	8-4-19 18:00	19.50	1139	7.09	9.0	8-4-19 18:00	19.36	982	8.60	7.6						11-4-19 16:45	3.18	1530	6.88	8.5					
8-4-19 21:45	22.55	1270	8.64	8.3	8-4-19 18:15	19.48	1139	6.93	9.9	8-4-19 18:15	19.45	990	8.61	10.9						11-4-19 17:00	3.12	1517	6.88	10.2					
8-4-19 22:00	22.51	1269	8.63	3.8	8-4-19 18:30	19.62	1139	6.95	9.7	8-4-19 18:30	19.61	992	8.61	7.1						11-4-19 17:15	3.20	1596	6.86	2.8					
8-4-19 22:15	22.78	1271	8.64	3.4	8-4-19 18:45	19.79	1139	7.00	9.1	8-4-19 18:45	19.99	992	8.62	11.8						11-4-19 17:30	3.19	1478	6.88	9.5					
8-4-19 22:30	22.70	1277	8.64	3.2	8-4-19 19:00	19.81	1138	7.11	9.3	8-4-19 19:00	20.17	992	8.62	8.4						11-4-19 17:45	3.16	1484	6.85	1.6					
8-4-19 22:45	22.82	1272	8.64	3.3	8-4-19 19:15	19.94	1139	7.11	10.5	8-4-19 19:15	20.30	994	8.62	13.7						11-4-19 18:00	3.13	1563	6.86	0.0					
8-4-19 23:00	22.91	1268	8.64	3.1	8-4-19 19:30	20.03	1139	7.13	10.3	8-4-19 19:30	20.54	994	8.61	7.6						11-4-19 18:15	3.13	1597	6.84	0.1					
8-4-19 23:15	22.98	1272	8.64	4.0	8-4-19 19:45	20.33	1139	7.27	9.7	8-4-19 19:45	20.55	992	8.61	11.8						11-4-19 18:30	3.10	1592	6.85	2.2					
8-4-19 23:30	23.13	1269	8.63	3.0	8-4-19 20:00	20.48	1139	7.04	8.2	8-4-19 20:00	20.84	994	8.62	8.0						11-4-19 18:45	3.08	1452	6.86	0.3					
8-4-19 23:45	23.10	1275	8.64	3.0	8-4-19 20:15	20.43	1138	7.14	8.4	8-4-19 20:15	21.14	998	8.63	12.7						11-4-19 19:00	3.05	1576	6.86	0.3					
8-5-19 0:00	23.22	1284	8.62	3.0	8-4-19 20:30	20.58	1139	7.15	8.1	8-4-19 20:30	21.04	992	8.61	8.2						11-4-19 19:15	3.05	1493	6.83	0.4					
8-5-19 0:15	23.35	1273	8.64	3.5	8-4-19 20:45	20.31	1137	7.47	9.4	8-4-19 20:45	21.56	996	8.62	11.9						11-4-19 19:30	3.04	1469	6.81	0.0					
8-5-19 0:30	23.49	1270	8.63	2.8	8-4-19 21:00	20.89	1139	7.16	7.4	8-4-19 21:00	21.63	998	8.62	8.4						11-4-19 19:45	2.92	1505	6.87	1.0					
8-5-19 0:45	23.29	1269	8.66	3.1	8-4-19 21:15	20.67	1137	7.39	10.6	8-4-19 21:15	21.41	996	8.61	9.8						11-4-19 20:00	2.88	1499	6.88	0.1					
8-5-19 1:00	23.20	1269	8.64	3.0	8-4-19 21:30	20.76	1139	7.20	8.3	8-4-19 21:30	21.82	998	8.62	9.1						11-4-19 20:15	2.79	1516	6.90	1.2					
8-5-19 1:15	23.06	1269	8.66	3.4	8-4-19 21:45	20.63	1136	7.48	10.0	8-4-19 21:45	21.87	1051	8.62	17.6						11-4-19 20:30	2.73	1492	6.93	0.7					
8-5-19 1:30	23.13	1277	8.64	2.7	8-4-19 22:00	21.22	1139	7.33	7.6	8-4-19 22:00	21.82	997	8.61	12.4						11-4-19 20:45	2.65	1483	6.95	0.0					
8-5-19 1:45	23.08	1275	8.65	2.9	8-4-19 22:15	21.28	1140	6.94	7.2	8-4-19 22:15	22.23	997	8.62	13.3						11-4-19 21:00	2.49	1500	7.02	0.1					
8-5-19 2:00	23.07	1275	8.65	2.6	8-4-19 22:30	21.36	1139	7.11	6.9	8-4-19 22:30	22.05	996	8.62	7.8						11-4-19 21:15	2.43	1489	7.00	0.0					
8-5-19 2:15	22.94	1274	8.66	3.2	8-4-19 22:45	21.44	1139	7.03	6.2	8-4-19 22:45	21.92	993	8.62	10.7						11-4-19 21:30	2.42	1510	7.03	0.0					
8-5-19 2:30	22.77	1268	8.66	2.9	8-4-19 23:00	21.60	1140	7.04	6.5	8-4-19 23:00	22.05	988	8.62	8.4						11-4-19 21:45	2.46	1503	7.02	29.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-5-19 2:45	22.66	1266	8.68	3.1	8-4-19 23:15	21.71	1139	7.33	5.9	8-4-19 23:15	22.33	1022	8.64	12.5						11-4-19 22:00	2.52	1504	7.02	0.0					
8-5-19 3:00	22.59	1267	8.67	2.8	8-4-19 23:30	21.82	1140	7.16	5.3	8-4-19 23:30	22.32	997	8.64	11.7						11-4-19 22:15	2.69	1502	6.97	0.0					
8-5-19 3:15	22.53	1268	8.68	3.0	8-4-19 23:45	21.96	1140	7.17	4.8	8-4-19 23:45	22.24	993	8.62	19.9						11-4-19 22:30	2.61	1520	7.01	0.0					
8-5-19 3:30	22.48	1269	8.67	2.8	8-5-19 0:00	22.05	1140	7.08	4.9	8-5-19 0:00	22.29	996	8.63	9.3						11-4-19 22:45	2.51	1498	7.05	0.0					
8-5-19 3:45	22.41	1259	8.69	3.0	8-5-19 0:15	22.10	1140	7.08	4.8	8-5-19 0:15	22.56	994	8.65	12.6						11-4-19 23:00	2.46	1498	7.09	2.3					
8-5-19 4:00	22.35	1270	8.69	3.0	8-5-19 0:30	22.16	1140	7.06	4.7	8-5-19 0:30	22.49	994	8.64	9.8						11-4-19 23:15	2.59	1502	7.04	0.0					
8-5-19 4:15	22.29	1266	8.68	3.8	8-5-19 0:45	22.05	1139	7.30	4.1	8-5-19 0:45	22.41	1006	8.63	14.6						11-4-19 23:30	2.60	1511	7.02	0.0					
8-5-19 4:30	22.23	1269	8.68	2.9	8-5-19 1:00	22.03	1139	7.20	5.4	8-5-19 1:00	22.35	995	8.62	7.0						11-4-19 23:45	2.56	1519	7.04	0.0					
8-5-19 4:45	22.18	1269	8.68	3.6	8-5-19 1:15	22.08	1138	7.20	4.8	8-5-19 1:15	22.27	990	8.63	15.9						11-5-19 0:00	2.50	1504	7.06	0.0					
8-5-19 5:00	22.12	1266	8.69	3.1	8-5-19 1:30	22.08	1139	7.14	4.5	8-5-19 1:30	21.94	992	8.62	6.3						11-5-19 0:15	2.55	1513	7.06	0.0					
8-5-19 5:15	22.06	1268	8.70	3.3	8-5-19 1:45	21.98	1138	7.24	4.5	8-5-19 1:45	21.86	992	8.62	13.9						11-5-19 0:30	2.58	1512	7.05	10.9					
8-5-19 5:30	22.02	1269	8.70	3.0	8-5-19 2:00	22.04	1138	7.45	4.5	8-5-19 2:00	21.74	990	8.62	7.5						11-5-19 0:45	2.51	1512	7.08	0.0					
8-5-19 5:45	21.98	1268	8.70	3.4	8-5-19 2:15	22.01	1138	7.26	5.2	8-5-19 2:15	21.58	986	8.64	10.3						11-5-19 1:00	2.49	1521	7.09	0.0					
8-5-19 6:00	21.95	1269	8.68	3.1	8-5-19 2:30	21.90	1139	7.04	4.9	8-5-19 2:30	21.52	992	8.65	8.2						11-5-19 1:15	2.48	1511	7.10	0.0					
8-5-19 6:15	21.92	1271	8.70	3.1	8-5-19 2:45	21.83	1138	7.21	4.3	8-5-19 2:45	21.64	987	8.65	13.1						11-5-19 1:30	2.45	1525	7.06	0.0					
8-5-19 6:30	21.89	1266	8.69	2.8	8-5-19 3:00	21.94	1138	7.55	3.2	8-5-19 3:00	21.60	993	8.64	6.4						11-5-19 1:45	2.38	1510	7.10	0.0					
8-5-19 6:45	21.86	1268	8.70	3.1	8-5-19 3:15	22.11	1134	7.63	4.0	8-5-19 3:15	21.57	993	8.64	15.6						11-5-19 2:00	2.28	1506	7.12	0.0					
8-5-19 7:00	21.82	1263	8.69	3.1	8-5-19 3:30	22.11	1130	7.67	5.2	8-5-19 3:30	21.53	994	8.64	7.2						11-5-19 2:15	2.29	1516	7.15	0.0					
8-5-19 7:15	21.79	1268	8.70	3.3	8-5-19 3:45	22.12	1128	7.67	5.3	8-5-19 3:45	21.49	994	8.64	15.1						11-5-19 2:30	2.16	1509	7.24	0.0					
8-5-19 7:30	21.75	1268	8.69	3.3	8-5-19 4:00	22.15	1124	7.70	4.5	8-5-19 4:00	21.44	995	8.65	7.8						11-5-19 2:45	2.26	1561	7.24	0.0					
8-5-19 7:45	21.71	1267	8.70	2.8	8-5-19 4:15	22.07	1125	7.69	4.0	8-5-19 4:15	21.42	994	8.65	15.2						11-5-19 3:00	2.36	1492	7.20	0.0					
8-5-19 8:00	21.68	1268	8.69	2.9	8-5-19 4:30	22.04	1124	7.69	5.3	8-5-19 4:30	21.39	991	8.65	10.5						11-5-19 3:15	2.25	1504	7.15	0.0					
8-5-19 8:15	21.65	1267	8.69	3.0	8-5-19 4:45	22.07	1120	7.72	4.1	8-5-19 4:45	21.34	993	8.65	12.5						11-5-19 3:30	2.31	1513	7.13	0.0					
8-5-19 8:30	21.62	1267	8.68	2.6	8-5-19 5:00	22.02	1121	7.70	3.9	8-5-19 5:00	21.31	994	8.65	6.5						11-5-19 3:45	2.39	1512	7.10	0.0					
8-5-19 8:45	21.58	1267	8.69	3.1	8-5-19 5:15	21.98	1122	7.69	4.0	8-5-19 5:15	21.27	994	8.64	13.7						11-5-19 4:00	2.41	1514	7.10	42.3					
8-5-19 9:00	21.54	1268	8.68	2.6	8-5-19 5:30	21.99	1124	7.67	3.7	8-5-19 5:30	21.22	991	8.64	6.1						11-5-19 4:15	2.31	1518	7.16	0.0					
8-5-19 9:15	21.50	1267	8.68	2.4	8-5-19 5:45	21.94	1125	7.66	3.7	8-5-19 5:45	21.20	994	8.64	7.6						11-5-19 4:30	2.31	1500	7.16	0.0					
8-5-19 9:30	21.46	1270	8.68	2.6	8-5-19 6:00	21.81	1126	7.62	3.4	8-5-19 6:00	21.18	996	8.64	5.6						11-5-19 4:45	2.43	1516	7.12	0.0					
8-5-19 9:45	21.42	1263	8.68	2.5	8-5-19 6:15	21.80	1127	7.55	4.0	8-5-19 6:15	21.15	995	8.64	14.8						11-5-19 5:00	2.54	1516	7.09	0.0					
8-5-19 10:00	21.37	1267	8.67	2.6	8-5-19 6:30	21.79	1127	7.53	3.0	8-5-19 6:30	21.09	995	8.64	5.8						11-5-19 5:15	2.59	1515	7.09	0.0					
8-5-19 10:15	21.32	1268	8.68	2.6	8-5-19 6:45	21.76	1127	7.53	3.1	8-5-19 6:45	21.07	995	8.64	15.0						11-5-19 5:30	2.70	1507	7.07	93.6					
8-5-19 10:30	21.29	1267	8.69	2.5	8-5-19 7:00	21.73	1128	7.55	3.0	8-5-19 7:00	21.04	995	8.64	5.7						11-5-19 5:45	2.69	1526	7.09	0.0					
8-5-19 10:45	21.22	1267	8.69	2.6	8-5-19 7:15	21.69	1126	7.55	3.6	8-5-19 7:15	21.02	995	8.64	11.0						11-5-19 6:00	2.69	1557	7.08	0.2					
8-5-19 11:00	21.16	1268	8.67	2.6	8-5-19 7:30	21.62	1128	7.05	3.2	8-5-19 7:30	20.98	995	8.64	6.7						11-5-19 6:15	2.67	1510	7.09	2.2					
8-5-19 11:15	21.10	1268	8.67	2.5	8-5-19 7:45	21.56	1128	7.12	2.7	8-5-19 7:45	20.95	995	8.64	9.9						11-5-19 6:30	2.54	1515	7.11	2.2					
8-5-19 11:30	21.03	1264	8.66	2.5	8-5-19 8:00	21.54	1128	6.95	2.8	8-5-19 8:00	20.93	995	8.63	7.1						11-5-19 6:45	2.53	1520	7.10	0.0					
8-5-19 11:45	20.99	1268	8.68	2.6	8-5-19 8:15	21.49	1128	7.02	2.8	8-5-19 8:15	20.90	995	8.63	14.3						11-5-19 7:00	2.57	1503	7.10	1.3					
8-5-19 12:00	20.96	1266	8.67	2.5	8-5-19 8:30	21.46	1128	7.01	6.3	8-5-19 8:30	20.87	995	8.64	5.6						11-5-19 7:15	2.52	1627	7.11	0.0					
8-5-19 12:15	20.91	1265	8.68	3.4	8-5-19 8:45	21.42	1128	6.99	2.5	8-5-19 8:45	20.84	995	8.63	9.0						11-5-19 7:30	2.48	1508	7.12	0.1					
8-5-19 12:30	20.87	1268	8.67	2.8	8-5-19 9:00	21.39	1128	6.92	2.3	8-5-19 9:00	20.81	989	8.63	8.2						11-5-19 7:45	2.40	1509	7.19	0.0					
8-5-19 12:45	20.81	1265	8.67	2.7	8-5-19 9:15	21.35	1128	6.84	2.5	8-5-19 9:15	20.79	993	8.63	13.2						11-5-19 8:00	2.39	1515	7.14	0.4					
8-5-19 13:00	20.76	1264	8.67	2.9	8-5-19 9:30	21.28	1128	7.08	2.3	8-5-19 9:30	20.76	993	8.64	5.7						11-5-19 8:15	2.49	1517	7.16	9.7					
8-5-19 13:15	20.72	1264	8.67	2.7	8-5-19 9:45	21.25	1128	6.97	2.1	8-5-19 9:45	20.73	993	8.64	14.3						11-5-19 8:30	2.48	1514	7.17	0.0					
8-5-19 13:30	20.70	1264	8.67	2.9	8-5-19 10:00	21.19	1128	6.95	2.3	8-5-19 10:00	20.67	994	8.63	6.1						11-5-19 8:45	2.49	1518	7.16	0.0					
8-5-19 13:45	20.69	1262	8.67	3.4	8-5-19 10:15	21.18	1128	6.87	2.0	8-5-19 10:15	20.60	993	8.63	14.2						11-5-19 9:00	2.58	1516	7.14	0.7					
8-5-19 14:00	20.68	1262	8.66	3.3	8-5-19 10:30	21.11	1128	6.90	2.2	8-5-19 10:30	20.57	994	8.64	5.4						11-5-19 9:15	2.45	1520	7.17	31.1					
8-5-19 14:15	20.65	1263	8.66	3.6	8-5-19 10:45	21.09	1129	6.91	2.1	8-5-19 10:45	20.52	993	8.64	13.2						11-5-19 9:30	2.57	1517	7.13	0.0					
8-5-19 14:30	20.63	1263	8.65	7.1	8-5-19 11:00	21.03	1130	6.90	2.4	8-5-19 11:00	20.47	993	8.65	5.5						11-5-19 9:45	2.57	1520	7.14	0.0					
8-5-19 14:45	20.60	1264	8.64	3.5	8-5-19 11:15	20.96	1131	6.89	2.5	8-5-19 11:15	20.42	993	8.65	8.6						11-5-19 10:00	2.58	1521	7.16	0.0					
8-5-19 15:00	20.59	1263	8.64	3.1	8-5-19 11:30	20.87	1133	6.94	2.6	8-5-19 11:30	20.40	995	8.65	5.7						11-5-19 10:15	2.52	1518	7.16	0.0					
8-5-19 15:15	20.59	1264	8.63	2.8	8-5-19 11:45	20.85	1132	7.04	2.6	8-5-19 11:45	20.38	998	8.65	8.3						11-5-19 10:30	2.42	1516	7.21	0.0					
8-5-19 15:30	20.59	1264	8.64	2.9	8-5-19 12:00	20.76	1132	6.98	3.1	8-5-19 12:00	20.34	993	8.65	4.9						11-5-19 10:45	2.39	1518	7.20	0.0					
8-5-19 15:45	20.59	1263	8.63	3.1	8-5-19 12:15	20.73	1131	7.01	2.7	8-5-19 12:15	20.32	993	8.65	11.7						11-5-19 11:00	2.42	1516	7.19	0.0					
8-5-19 16:00	20.61	1263	8.63	3.1	8-5-19 12:30	20.71	1133	6.88	3.5	8-5-19 12:30	20.24	989	8.65	5.4						11-5-19 11:15	2.42	1516	7.19	0.0					
8-5-19 16:15	20.62	1263	8.63	3.0	8-5-19 12:45	20.62	1134	6.91	4.1	8-5-19 12:45	20.23	989	8.65	9.1						11-5-19 11:30	2.34	1516	7.19	0.0					
8-5-19 16:30	20.68	1263	8.62	2.9	8-5-19 13:00	20.57	1132	7.02	4.0	8-5-19 13:00	20.19	989	8.65	4.9						11-5-19 11:45	2.35	1515	7.19	0.0					
8-5-19 16:45	20.74	1263	8.62	3.2	8-5-19 13:15	20.52	1132	7.01	4.8	8-5-19 13:15	20.16	989	8.64	9.8						11-5-19 12:00	2.35	1521	7.19	0.0					
8-5-19 17:00	20.82	1262	8.62	3.1	8-5-19 13:30	20.57	1128	7.54	3.3	8-5-19 13:30	20.13	994	8.64	24.9						11-5-19 12:15	2.37	1535	7.19	0.0					
8-5-19 17:15	20.82	1262	8.63	3.0	8-5-19 13:45	20.57	1125	7.57	3.0	8-5-19 13:45	20.13	990	8.64	15.4						11-5-19 12:30	2.52	1517	7.15	0.0					
8-5-19 17:30	20.92	1262	8.62	2.9	8-5-19 14:00	20.58	1126	7.57	3.6	8-5-19 14:00	20.11	1005	8.64	5.4						11-5-19 12:45	2.53	1516	7.15	0.0					
8-5-19 17:45	21.13	1267	8.62	3.0	8-5-19 14:15	20.57	1125	7.54	3.5	8-5-19 14:15	20.10	990	8.64	14.6						11-5-19 13:00	2.59	1513	7.14	0.2					
8-5-19 18:00	21.22	1262	8.61	3.0	8-5-19 14:30	20.51	1128	7.35	6.1	8-5-19 14:30	20.05	993	8.65	9.7						11-5-19 13:15	2.65	1516	7.13	0.0					
8-5-19 18:15	21.31	1261	8.62	3.0	8-5-19 14:45	20.49	1129	7.04	4.6	8-5-19 14:45	20.02	994	8.65	9.4						11-5-19 13:30	2.64	1605	7.13	0.0					
8-5-19 18:30	21.48	1262	8.61	2.9	8-5-19 15:00	20.47	1132	7.05	5.8	8-5-19 15:00	20.04	992	8.65	5.5						11-5-19 13:45	2.67	1557	7.13	0.0					
8-5-19 18:45	21.62	1262	8.62	2.9	8-5-19 15:15	20.49	1133	7.06	5.9	8-5-19 15:15	20.03	994	8.64	9.6						11-5-19 14:00	2.71	1524	7.13	0.0					
8-5-19 19:00	21.67	1262	8.60	3.1	8-5-19 15:30	20.48	1132	7.08	6.1	8-5-19 15:30	20.02	995	8.64	7.1						11-5-19 14:15	2.65	1522	7.14	0.0					
8-5-19 19:15	21.83	1262	8.61	3.1	8-5-19 15:45	20.52	1134	6.95	7.3	8-5-19 15:45	20.02	994	8.64	11.6						11-5-19 14:30	2.69	1517	7.13	0.1					
8-5-19 19:30	21.89	1261	8.60	3.0	8-5-19 16:00	20.55	1134	6.91	6.7	8-5-19 16:00	20.05	995	8.64	5.2						11-5-19 14:45	2.64	1519	7.13	0.0					
8-5-19 19:45	21.95	1260	8.61	2.9	8-5-19 16:15	20.58	1133	6.93	8.0	8-5-19 16:15	20.07	994	8.65	14.0						11-5-19 15:00	2.65	1516	7.13	0.0					
8-5-19 20:00	22.05	1261	8.60	2.9	8-5-19 16:30	20.61	1132	7.00	13.0	8-5-19 16:30	20.13	996	8.65	5.2						11-5-19 15:15	2.50	1521	7.15	57.4					
8-5-19 20:15	22.20	1261	8.61	3.0	8-5-19 16:45	20.67	1129	7.08	12.7	8-5-19 16:45	20.27	994	8.65	13.1						11-5-19 15:30	2.46	1519	7.14	0.0					
8-5-19 20:30	22.12	1260	8.61	2.9	8-5-19 17:00	20.69	1129	7.03	9.4	8-5-19 17:00	20.33	996	8.64	5.5						11-5-19 15:45	2.31	1533	7.17	0.0					
8-5-19 20:45	22.26	1262	8.62	3.1	8-5-19 17:15	20.60	1124	7.15	9.1	8-5-19 17:15	20.23	995	8.64	13.4						11-5-19 16:00	2.33	1519	7.17	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-5-19 21:00	22.47	1260	8.60	3.3	8-5-19 17:30	20.56	1121	7.20	6.6	8-5-19 17:30	20.26	996	8.65	5.4						11-5-19 16:15	2.54	1542	7.14	0.0					
8-5-19 21:15	22.65	1260	8.61	3.1	8-5-19 17:45	20.74	1120	7.21	6.3	8-5-19 17:45	20.41	995	8.65	13.9						11-5-19 16:30	2.59	1590	7.14	0.0					
8-5-19 21:30	22.80	1268	8.61	3.1	8-5-19 18:00	20.86	1121	7.18	5.7	8-5-19 18:00	20.50	997	8.65	5.9						11-5-19 16:45	2.47	1504	7.16	0.0					
8-5-19 21:45	22.91	1262	8.62	3.3	8-5-19 18:15	20.89	1121	7.60	7.1	8-5-19 18:15	21.12	1000	8.65	13.2						11-5-19 17:00	2.33	1531	7.20	0.0					
8-5-19 22:00	23.16	1265	8.59	2.8	8-5-19 18:30	20.99	1121	7.13	6.5	8-5-19 18:30	20.83	997	8.64	6.0						11-5-19 17:15	2.27	1521	7.20	0.0					
8-5-19 22:15	23.20	1260	8.61	3.1	8-5-19 18:45	21.01	1122	7.11	5.2	8-5-19 18:45	21.03	996	8.64	7.4						11-5-19 17:30	2.21	1513	7.20	0.0					
8-5-19 22:30	23.31	1260	8.60	3.2	8-5-19 19:00	21.05	1122	7.11	8.6	8-5-19 19:00	21.14	999	8.63	5.4						11-5-19 17:45	2.30	1533	7.19	0.0					
8-5-19 22:45	23.48	1261	8.62	3.2	8-5-19 19:15	21.10	1121	7.19	6.6	8-5-19 19:15	21.19	986	8.63	14.2						11-5-19 18:00	2.40	1520	7.16	0.0					
8-5-19 23:00	23.40	1260	8.62	3.7	8-5-19 19:30	21.14	1121	7.25	7.1	8-5-19 19:30	21.39	990	8.63	5.5						11-5-19 18:15	2.26	1520	7.22	0.0					
8-5-19 23:15	23.28	1265	8.63	3.2	8-5-19 19:45	21.20	1122	7.08	6.8	8-5-19 19:45	21.46	993	8.63	8.4						11-5-19 18:30	2.00	1527	7.25	0.0					
8-5-19 23:30	23.29	1273	8.62	3.9	8-5-19 20:00	21.30	1123	7.04	6.3	8-5-19 20:00	21.75	985	8.64	5.3						11-5-19 18:45	2.10	1553	7.23	0.0					
8-5-19 23:45	23.22	1262	8.63	4.0	8-5-19 20:15	21.39	1124	7.03	5.0	8-5-19 20:15	21.71	994	8.63	10.8						11-5-19 19:00	2.19	1520	7.23	1.5					
8-6-19 0:00	23.01	1262	8.64	4.9	8-5-19 20:30	21.41	1125	6.99	5.2	8-5-19 20:30	21.81	992	8.63	5.6						11-5-19 19:15	2.33	1525	7.20	0.0					
8-6-19 0:15	23.09	1263	8.64	3.9	8-5-19 20:45	21.54	1126	6.98	4.2	8-5-19 20:45	21.87	995	8.64	14.1						11-5-19 19:30	2.30	1525	7.21	0.0					
8-6-19 0:30	23.08	1262	8.63	4.3	8-5-19 21:00	21.65	1126	7.03	4.1	8-5-19 21:00	21.98	994	8.64	5.5						11-5-19 19:45	2.11	1522	7.26	0.0					
8-6-19 0:45	23.06	1262	8.63	4.3	8-5-19 21:15	21.89	1126	7.04	6.1	8-5-19 21:15	22.12	993	8.64	13.0						11-5-19 20:00	2.19	1527	7.25	0.0					
8-6-19 1:00	23.03	1259	8.63	3.9	8-5-19 21:30	21.91	1126	7.06	5.2	8-5-19 21:30	22.34	996	8.63	7.1						11-5-19 20:15	2.27	1523	7.24	0.0					
8-6-19 1:15	22.92	1260	8.64	6.3	8-5-19 21:45	22.20	1127	6.95	3.8	8-5-19 21:45	22.29	987	8.62	15.8						11-5-19 20:30	2.32	1520	7.25	0.0					
8-6-19 1:30	22.89	1260	8.63	3.9	8-5-19 22:00	22.51	1126	6.96	3.8	8-5-19 22:00	22.44	991	8.64	11.2						11-5-19 20:45	2.30	1515	7.25	0.0					
8-6-19 1:45	22.83	1262	8.65	5.1	8-5-19 22:15	22.63	1125	7.00	4.4	8-5-19 22:15	22.56	995	8.64	14.3						11-5-19 21:00	2.21	1530	7.27	0.0					
8-6-19 2:00	22.78	1261	8.65	3.9	8-5-19 22:30	21.99	1119	7.48	4.6	8-5-19 22:30	22.95	994	8.64	9.4						11-5-19 21:15	1.90	1542	7.31	61.0					
8-6-19 2:15	22.74	1258	8.66	5.1	8-5-19 22:45	21.94	1119	7.40	5.6	8-5-19 22:45	23.13	984	8.64	12.9						11-5-19 21:30	2.12	1533	7.26	0.2					
8-6-19 2:30	22.70	1256	8.64	3.6	8-5-19 23:00	21.68	1122	7.52	4.1	8-5-19 23:00	23.08	988	8.64	28.5						11-5-19 21:45	2.11	1537	7.28	0.0					
8-6-19 2:45	22.67	1259	8.64	4.8	8-5-19 23:15	21.57	1124	7.26	6.1	8-5-19 23:15	22.90	978	8.64	12.6						11-5-19 22:00	2.11	1537	7.25	0.0					
8-6-19 3:00	22.62	1256	8.64	3.2	8-5-19 23:30	21.72	1121	7.40	6.1	8-5-19 23:30	22.90	986	8.66	6.2						11-5-19 22:15	2.12	1535	7.27	0.1					
8-6-19 3:15	22.58	1256	8.67	3.6	8-5-19 23:45	21.82	1115	7.57	6.4	8-5-19 23:45	22.81	983	8.65	16.3						11-5-19 22:30	2.10	1539	7.26	1.5					
8-6-19 3:30	22.54	1257	8.65	3.1	8-6-19 0:00	22.38	1123	7.56	4.7	8-6-19 0:00	22.80	985	8.65	6.7						11-5-19 22:45	2.08	1538	7.26	2.3					
8-6-19 3:45	22.50	1257	8.64	3.8	8-6-19 0:15	22.39	1120	7.54	55.4	8-6-19 0:15	22.80	980	8.66	16.0						11-5-19 23:00	2.01	1530	7.26	0.3					
8-6-19 4:00	22.45	1257	8.64	2.9	8-6-19 0:30	22.40	1123	7.09	8.1	8-6-19 0:30	22.70	974	8.66	9.8						11-5-19 23:15	1.97	1539	7.24	0.0					
8-6-19 4:15	22.42	1258	8.63	3.0	8-6-19 0:45	22.46	1123	7.12	3.9	8-6-19 0:45	22.60	972	8.66	11.7						11-5-19 23:30	1.92	1546	7.24	0.0					
8-6-19 4:30	22.40	1257	8.63	3.2	8-6-19 1:00	22.72	1124	7.56	2.8	8-6-19 1:00	22.29	984	8.64	6.3						11-5-19 23:45	1.93	1548	7.23	0.0					
8-6-19 4:45	22.36	1258	8.64	3.4	8-6-19 1:15	22.72	1124	7.56	2.8	8-6-19 1:15	22.36	984	8.66	10.6						11-6-19 0:00	1.92	1466	7.23	0.0					
8-6-19 5:00	22.33	1258	8.63	2.9	8-6-19 1:30	22.70	1123	7.57	2.7	8-6-19 1:30	22.38	985	8.66	5.6						11-6-19 0:15	1.97	1546	7.22	0.0					
8-6-19 5:15	22.31	1258	8.65	4.3	8-6-19 1:45	22.61	1123	7.40	2.7	8-6-19 1:45	22.29	982	8.67	15.6						11-6-19 0:30	1.95	1545	7.22	0.0					
8-6-19 5:30	22.27	1258	8.63	3.0	8-6-19 2:00	22.40	1122	7.31	3.9	8-6-19 2:00	22.27	993	8.67	49.7						11-6-19 0:45	1.98	1546	7.22	0.0					
8-6-19 5:45	22.24	1258	8.64	3.2	8-6-19 2:15	22.26	1121	7.50	3.5	8-6-19 2:15	22.15	986	8.67	13.1						11-6-19 1:00	1.98	1573	7.21	0.0					
8-6-19 6:00	22.20	1250	8.64	2.9	8-6-19 2:30	22.26	1118	7.46	3.6	8-6-19 2:30	22.12	990	8.67	5.0						11-6-19 1:15	2.02	1547	7.21	0.0					
8-6-19 6:15	22.17	1258	8.65	3.2	8-6-19 2:45	22.31	1115	7.60	3.5	8-6-19 2:45	22.05	989	8.67	12.5						11-6-19 1:30	1.98	1556	7.20	0.0					
8-6-19 6:30	22.14	1258	8.64	3.2	8-6-19 3:00	22.35	1116	7.61	2.6	8-6-19 3:00	22.03	991	8.67	5.4						11-6-19 1:45	1.98	1551	7.20	0.0					
8-6-19 6:45	22.11	1258	8.64	3.0	8-6-19 3:15	22.33	1115	7.62	3.2	8-6-19 3:15	22.01	990	8.67	12.1						11-6-19 2:00	2.00	1562	7.20	0.0					
8-6-19 7:00	22.08	1258	8.63	2.9	8-6-19 3:30	22.36	1116	7.61	3.1	8-6-19 3:30	21.93	988	8.67	4.7						11-6-19 2:15	2.04	1551	7.19	0.0					
8-6-19 7:15	22.04	1258	8.62	2.9	8-6-19 3:45	22.22	1117	7.27	2.9	8-6-19 3:45	21.87	978	8.67	12.1						11-6-19 2:30	2.04	1548	7.19	0.0					
8-6-19 7:30	22.00	1259	8.61	2.9	8-6-19 4:00	21.91	1120	7.32	3.6	8-6-19 4:00	21.83	972	8.67	27.7						11-6-19 2:45	2.06	1548	7.19	0.0					
8-6-19 7:45	21.96	1258	8.61	2.7	8-6-19 4:15	21.67	1120	7.41	4.3	8-6-19 4:15	21.78	983	8.67	12.3						11-6-19 3:00	2.07	1551	7.19	0.0					
8-6-19 8:00	21.92	1259	8.63	3.1	8-6-19 4:30	21.80	1119	7.45	3.7	8-6-19 4:30	21.72	986	8.66	4.8						11-6-19 3:15	2.10	1546	7.19	0.6					
8-6-19 8:15	21.90	1259	8.64	3.6	8-6-19 4:45	21.95	1118	7.54	3.3	8-6-19 4:45	21.68	965	8.66	17.5						11-6-19 3:30	2.08	1554	7.18	0.0					
8-6-19 8:30	21.85	1259	8.63	2.8	8-6-19 5:00	21.95	1118	7.57	2.8	8-6-19 5:00	21.62	984	8.67	5.2						11-6-19 3:45	2.10	1511	7.18	0.0					
8-6-19 8:45	21.81	1258	8.62	2.8	8-6-19 5:15	21.91	1118	7.56	3.0	8-6-19 5:15	21.58	984	8.66	13.1						11-6-19 4:00	2.11	1552	7.18	0.0					
8-6-19 9:00	21.80	1265	8.60	2.6	8-6-19 5:30	21.85	1118	7.48	4.0	8-6-19 5:30	21.57	985	8.67	4.9						11-6-19 4:15	2.13	1552	7.18	0.0					
8-6-19 9:15	21.76	1257	8.62	2.5	8-6-19 5:45	21.81	1118	7.39	2.9	8-6-19 5:45	21.51	982	8.67	14.7						11-6-19 4:30	2.18	1550	7.18	0.0					
8-6-19 9:30	21.70	1257	8.62	3.5	8-6-19 6:00	21.76	1119	7.27	2.4	8-6-19 6:00	21.47	990	8.66	6.1						11-6-19 4:45	2.21	1553	7.19	0.0					
8-6-19 9:45	21.67	1257	8.62	2.5	8-6-19 6:15	21.72	1119	7.08	2.7	8-6-19 6:15	21.43	991	8.66	13.3						11-6-19 5:00	2.24	1552	7.19	0.0					
8-6-19 10:00	21.63	1258	8.60	2.6	8-6-19 6:30	21.67	1118	7.32	2.6	8-6-19 6:30	21.39	991	8.67	4.8						11-6-19 5:15	2.26	1549	7.19	0.0					
8-6-19 10:15	21.57	1258	8.60	2.4	8-6-19 6:45	21.66	1117	7.56	2.3	8-6-19 6:45	21.35	991	8.66	15.8						11-6-19 5:30	2.28	1559	7.18	0.0					
8-6-19 10:30	21.53	1258	8.60	2.5	8-6-19 7:00	21.65	1117	7.56	2.3	8-6-19 7:00	21.33	986	8.67	5.1						11-6-19 5:45	2.29	1564	7.19	0.0					
8-6-19 10:45	21.49	1258	8.61	4.1	8-6-19 7:15	21.62	1117	7.58	2.1	8-6-19 7:15	21.28	989	8.67	17.8						11-6-19 6:00	2.31	1555	7.19	0.0					
8-6-19 11:00	21.46	1258	8.62	2.4	8-6-19 7:30	21.62	1117	7.56	2.2	8-6-19 7:30	21.23	989	8.67	10.1						11-6-19 6:15	2.35	1553	7.20	0.0					
8-6-19 11:15	21.43	1258	8.60	2.5	8-6-19 7:45	21.57	1117	7.56	2.2	8-6-19 7:45	21.18	989	8.67	15.7						11-6-19 6:30	2.41	1574	7.21	1.1					
8-6-19 11:30	21.41	1258	8.60	2.3	8-6-19 8:00	21.52	1117	7.57	2.3	8-6-19 8:00	21.16	990	8.67	4.3						11-6-19 6:45	2.42	1559	7.21	0.0					
8-6-19 11:45	21.37	1258	8.59	2.5	8-6-19 8:15	21.50	1116	7.58	2.3	8-6-19 8:15	21.12	989	8.66	12.1						11-6-19 7:00	2.43	1556	7.21	0.0					
8-6-19 12:00	21.34	1259	8.59	2.5	8-6-19 8:30	21.45	1116	7.59	2.4	8-6-19 8:30	21.07	991	8.66	6.2						11-6-19 7:15	2.44	1560	7.22	0.0					
8-6-19 12:15	21.31	1259	8.63	2.7	8-6-19 8:45	21.44	1117	7.57	2.0	8-6-19 8:45	21.05	990	8.66	13.4						11-6-19 7:30	2.45	1554	7.22	0.0					
8-6-19 12:30	21.28	1259	8.61	2.8	8-6-19 9:00	21.40	1116	7.57	2.2	8-6-19 9:00	21.03	990	8.66	4.3						11-6-19 7:45	2.47	1560	7.22	0.0					
8-6-19 12:45	21.25	1259	8.61	2.7	8-6-19 9:15	21.36	1116	7.57	1.9	8-6-19 9:15	20.98	990	8.67	9.6						11-6-19 8:00	2.48	1562	7.22	0.0					
8-6-19 13:00	21.22	1259	8.61	2.5	8-6-19 9:30	21.32	1116	7.58	2.1	8-6-19 9:30	20.95	990	8.66	4.7						11-6-19 8:15	2.49	1556	7.23	0.0					
8-6-19 13:15	21.18	1259	8.62	2.6	8-6-19 9:45	21.30	1116	7.58	2.1	8-6-19 9:45	20.93	990	8.67	14.3						11-6-19 8:30	2.47	1560	7.24	0.0					
8-6-19 13:30	21.15	1259	8.60	2.8	8-6-19 10:00	21.27	1116	7.58	1.8	8-6-19 10:00	20.89	990	8.66	5.0						11-6-19 8:45	2.49	1558	7.24	0.0					
8-6-19 13:45	21.12	1258	8.61	2.6	8-6-19 10:15	21.25	1117	7.58	1.9	8-6-19 10:15	20.86	990	8.66	13.3						11-6-19 9:00	2.44	1563	7.24	0.0					
8-6-19 14:00	21.09	1259	8.62	2.7	8-6-19 10:30	21.24	1116	7.60	1.8	8-6-19 10:30	20.83	990	8.67	6.0						11-6-19 9:15	2.44	1558	7.24	0.0					
8-6-19 14:15	21.07	1259	8.61	3.1	8-6-19 10:45	21.20	1116	7.59	1.9	8-6-19 10:45	20.79	989	8.66	8.4						11-6-19 9:30	2.43	1562	7.24	0.0					
8-6-19 14:30	21.04	1260	8.60	3.8	8-6-19 11:00	21.15	1116	7.57	1.9	8-6-19 11:00	20.77	990	8.66	29.9						11-6-19 9:45	2.41	1567	7.25	0.0					
8-6-19 14:45	21.02	1259	8.60	3.8	8-6-19 11:15	21.14	1117	7.51	2.0	8-6-19 11:15	20.73	990	8.66	13.7						11-6-19 10:00	2.46	1560	7.26	0.0					
8-6-19 15:00	21.00	1259	8.60	4.1	8-6-19 11:30	21.12	1117	7.48	2.2	8-6-19 11:30	20.70	991	8.65	5.2						11-6-19 10:15	2.43	1559	7.27	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-6-19 15:15	20.97	1259	8.59	3.4	8-6-19 11:45	21.09	1117	7.48	2.1	8-6-19 11:45	20.66	991	8.64	22.1						11-6-19 10:30	2.45	1516	7.27	103.4					
8-6-19 15:30	20.94	1260	8.57	3.9	8-6-19 12:00	21.04	1117	7.48	2.3	8-6-19 12:00	20.65	993	8.64	5.4						11-6-19 10:45	2.41	1565	7.27	0.0					
8-6-19 15:45	20.90	1259	8.59	3.7	8-6-19 12:15	21.01	1117	7.47	2.0	8-6-19 12:15	20.64	992	8.64	21.6						11-6-19 11:00	2.41	1567	7.27	0.0					
8-6-19 16:00	20.88	1266	8.59	3.5	8-6-19 12:30	20.95	1117	7.36	2.0	8-6-19 12:30	20.62	993	8.64	5.4						11-6-19 11:15	2.39	1579	7.27	0.0					
8-6-19 16:15	20.83	1264	8.59	3.3	8-6-19 12:45	20.92	1118	7.15	2.0	8-6-19 12:45	20.59	992	8.64	20.7						11-6-19 11:30	2.37	1568	7.26	6.0					
8-6-19 16:30	20.80	1267	8.59	3.7	8-6-19 13:00	20.86	1118	7.07	2.3	8-6-19 13:00	20.57	990	8.64	5.4						11-6-19 11:45	2.35	1568	7.26	0.0					
8-6-19 16:45	20.76	1265	8.59	3.6	8-6-19 13:15	20.87	1118	7.25	2.3	8-6-19 13:15	20.54	991	8.63	19.4						11-6-19 12:00	2.36	1560	7.26	0.0					
8-6-19 17:00	20.75	1265	8.58	3.2	8-6-19 13:30	20.84	1117	7.21	2.2	8-6-19 13:30	20.52	991	8.63	6.4						11-6-19 12:15	2.33	1562	7.27	0.0					
8-6-19 17:15	20.74	1263	8.58	3.3	8-6-19 13:45	20.79	1118	6.96	1.7	8-6-19 13:45	20.49	990	8.64	21.1						11-6-19 12:30	2.32	1561	7.28	0.0					
8-6-19 17:30	20.73	1262	8.57	3.9	8-6-19 14:00	20.77	1119	6.97	2.0	8-6-19 14:00	20.47	991	8.64	6.0						11-6-19 12:45	2.30	1567	7.27	0.0					
8-6-19 17:45	20.73	1262	8.56	4.3	8-6-19 14:15	20.75	1117	7.51	2.0	8-6-19 14:15	20.46	990	8.64	24.8						11-6-19 13:00	2.27	1569	7.27	0.0					
8-6-19 18:00	20.72	1263	8.57	3.2	8-6-19 14:30	20.75	1117	7.52	2.0	8-6-19 14:30	20.45	995	8.64	9.8						11-6-19 13:15	2.25	1572	7.27	0.0					
8-6-19 18:15	20.69	1264	8.56	3.4	8-6-19 14:45	20.74	1117	7.52	2.3	8-6-19 14:45	20.44	993	8.63	19.0						11-6-19 13:30	2.22	1574	7.27	0.0					
8-6-19 18:30	20.69	1264	8.56	3.7	8-6-19 15:00	20.73	1117	7.52	2.1	8-6-19 15:00	20.41	995	8.62	7.8						11-6-19 13:45	2.21	1582	7.27	0.0					
8-6-19 18:45	20.70	1263	8.56	3.4	8-6-19 15:15	20.71	1117	7.53	2.0	8-6-19 15:15	20.39	993	8.63	20.6						11-6-19 14:00	2.20	1574	7.26	0.0					
8-6-19 19:00	20.73	1263	8.56	3.4	8-6-19 15:30	20.68	1117	7.53	2.1	8-6-19 15:30	20.39	996	8.61	7.8						11-6-19 14:15	2.18	1572	7.27	0.0					
8-6-19 19:15	20.74	1263	8.56	4.0	8-6-19 15:45	20.69	1117	7.53	2.6	8-6-19 15:45	20.36	995	8.62	18.3						11-6-19 14:30	2.20	1570	7.27	0.0					
8-6-19 19:30	20.81	1265	8.55	4.7	8-6-19 16:00	20.63	1118	7.52	2.7	8-6-19 16:00	20.35	996	8.61	8.2						11-6-19 14:45	2.18	1575	7.27	0.0					
8-6-19 19:45	20.81	1263	8.55	6.3	8-6-19 16:15	20.64	1118	7.52	3.5	8-6-19 16:15	20.34	995	8.60	11.7						11-6-19 15:00	2.16	1576	7.28	0.0					
8-6-19 20:00	20.78	1263	8.53	3.6	8-6-19 16:30	20.62	1118	7.51	4.5	8-6-19 16:30	20.32	981	8.60	10.4						11-6-19 15:15	2.13	1574	7.27	1.6					
8-6-19 20:15	20.76	1264	8.54	4.6	8-6-19 16:45	20.62	1118	7.49	4.3	8-6-19 16:45	20.31	995	8.60	10.8						11-6-19 15:30	2.11	1608	7.27	0.0					
8-6-19 20:30	20.75	1264	8.52	3.4	8-6-19 17:00	20.61	1118	7.50	2.7	8-6-19 17:00	20.31	995	8.60	8.4						11-6-19 15:45	2.09	1580	7.27	0.3					
8-6-19 20:45	20.76	1265	8.52	3.2	8-6-19 17:15	20.64	1118	7.47	3.8	8-6-19 17:15	20.26	995	8.60	19.4						11-6-19 16:00	2.07	1591	7.27	0.6					
8-6-19 21:00	20.76	1266	8.54	3.4	8-6-19 17:30	20.61	1118	7.42	4.3	8-6-19 17:30	20.27	997	8.59	10.5						11-6-19 16:15	2.06	1575	7.28	0.0					
8-6-19 21:15	20.78	1267	8.55	4.8	8-6-19 17:45	20.58	1119	7.19	3.7	8-6-19 17:45	20.26	996	8.60	19.2						11-6-19 16:30	2.07	1581	7.28	0.2					
8-6-19 21:30	20.76	1269	8.56	6.8	8-6-19 18:00	20.58	1119	7.16	3.3	8-6-19 18:00	20.24	996	8.60	8.4						11-6-19 16:45	2.06	1579	7.28	0.0					
8-6-19 21:45	20.78	1268	8.55	4.3	8-6-19 18:15	20.57	1119	7.08	4.3	8-6-19 18:15	20.27	996	8.61	28.0						11-6-19 17:00	2.07	1579	7.28	0.0					
8-6-19 22:00	20.82	1269	8.55	4.1	8-6-19 18:30	20.57	1119	7.01	3.5	8-6-19 18:30	20.27	996	8.60	9.5						11-6-19 17:15	2.06	1579	7.28	0.0					
8-6-19 22:15	20.83	1269	8.55	5.6	8-6-19 18:45	20.58	1119	6.98	3.3	8-6-19 18:45	20.27	996	8.60	17.5						11-6-19 17:30	2.02	1581	7.28	0.2					
8-6-19 22:30	20.85	1269	8.54	4.3	8-6-19 19:00	20.59	1118	7.20	2.9	8-6-19 19:00	20.29	996	8.61	10.0						11-6-19 17:45	2.03	1593	7.28	0.0					
8-6-19 22:45	20.89	1269	8.55	5.8	8-6-19 19:15	20.65	1118	7.14	3.5	8-6-19 19:15	20.33	996	8.61	29.8						11-6-19 18:00	2.03	1579	7.28	0.0					
8-6-19 23:00	20.91	1270	8.55	5.4	8-6-19 19:30	20.66	1119	7.09	3.0	8-6-19 19:30	20.33	994	8.61	9.9						11-6-19 18:15	2.03	1580	7.28	0.0					
8-6-19 23:15	20.96	1269	8.55	6.0	8-6-19 19:45	20.64	1119	7.03	4.6	8-6-19 19:45	20.34	994	8.60	28.4						11-6-19 18:30	2.05	1578	7.29	0.0					
8-6-19 23:30	20.98	1270	8.54	5.2	8-6-19 20:00	20.61	1119	7.08	3.5	8-6-19 20:00	20.32	980	8.59	9.1						11-6-19 18:45	2.04	1695	7.29	0.3					
8-6-19 23:45	20.97	1270	8.55	5.7	8-6-19 20:15	20.62	1119	7.01	3.5	8-6-19 20:15	20.31	996	8.60	21.8						11-6-19 19:00	2.05	1694	7.29	0.0					
8-7-19 0:00	20.93	1273	8.55	7.1	8-6-19 20:30	20.62	1119	7.12	4.0	8-6-19 20:30	20.30	996	8.60	9.8						11-6-19 19:15	2.05	1598	7.28	0.0					
8-7-19 0:15	20.94	1271	8.56	6.7	8-6-19 20:45	20.64	1119	7.06	2.9	8-6-19 20:45	20.30	997	8.60	26.3						11-6-19 19:30	2.04	1584	7.28	0.0					
8-7-19 0:30	20.92	1271	8.54	6.5	8-6-19 21:00	20.68	1118	7.08	4.2	8-6-19 21:00	20.32	996	8.61	11.8						11-6-19 19:45	2.04	1593	7.27	0.0					
8-7-19 0:45	20.91	1272	8.55	5.4	8-6-19 21:15	20.71	1118	7.07	3.3	8-6-19 21:15	20.32	993	8.61	14.4						11-6-19 20:00	2.04	1581	7.28	0.0					
8-7-19 1:00	20.93	1273	8.54	5.4	8-6-19 21:30	20.72	1118	7.01	3.5	8-6-19 21:30	20.34	996	8.61	10.0						11-6-19 20:15	2.04	1578	7.28	0.0					
8-7-19 1:15	20.92	1272	8.55	6.2	8-6-19 21:45	20.74	1118	6.93	3.3	8-6-19 21:45	20.35	994	8.62	13.4						11-6-19 20:30	2.05	1580	7.29	0.2					
8-7-19 1:30	20.93	1274	8.55	4.9	8-6-19 22:00	20.78	1118	6.91	4.2	8-6-19 22:00	20.39	994	8.62	9.2						11-6-19 20:45	2.06	1580	7.29	0.1					
8-7-19 1:45	20.94	1273	8.55	5.3	8-6-19 22:15	20.81	1118	6.89	3.4	8-6-19 22:15	20.40	994	8.61	28.0						11-6-19 21:00	2.05	1576	7.29	2.6					
8-7-19 2:00	20.93	1275	8.55	4.0	8-6-19 22:30	20.84	1118	6.92	3.7	8-6-19 22:30	20.42	995	8.62	9.3						11-6-19 21:15	2.04	1693	7.29	0.0					
8-7-19 2:15	20.91	1274	8.56	6.3	8-6-19 22:45	20.87	1119	6.90	4.0	8-6-19 22:45	20.43	994	8.62	23.6						11-6-19 21:30	2.01	1585	7.28	0.0					
8-7-19 2:30	20.89	1274	8.56	3.9	8-6-19 23:00	20.94	1119	6.94	3.9	8-6-19 23:00	20.48	995	8.62	7.8						11-6-19 21:45	2.01	1581	7.28	0.0					
8-7-19 2:45	20.87	1274	8.56	4.1	8-6-19 23:15	21.00	1118	7.03	3.4	8-6-19 23:15	20.47	995	8.61	26.2						11-6-19 22:00	1.98	1582	7.28	0.0					
8-7-19 3:00	20.84	1275	8.55	5.0	8-6-19 23:30	20.99	1119	6.89	3.4	8-6-19 23:30	20.47	995	8.62	9.1						11-6-19 22:15	1.98	1583	7.28	0.0					
8-7-19 3:15	20.81	1275	8.56	6.0	8-6-19 23:45	20.94	1119	6.93	3.9	8-6-19 23:45	20.47	994	8.62	22.3						11-6-19 22:30	1.99	1601	7.29	0.0					
8-7-19 3:30	20.78	1276	8.53	3.8	8-7-19 0:00	20.93	1119	6.94	2.4	8-7-19 0:00	20.47	994	8.62	11.4						11-6-19 22:45	1.98	1573	7.29	0.0					
8-7-19 3:45	20.75	1275	8.55	4.1	8-7-19 0:15	20.93	1119	6.91	2.7	8-7-19 0:15	20.50	995	8.62	22.1						11-6-19 23:00	1.96	1583	7.29	1.2					
8-7-19 4:00	20.72	1276	8.55	3.9	8-7-19 0:30	20.94	1118	7.01	2.3	8-7-19 0:30	20.49	995	8.62	8.7						11-6-19 23:15	1.96	1577	7.29	0.0					
8-7-19 4:15	20.70	1277	8.55	3.5	8-7-19 0:45	20.95	1118	7.11	2.5	8-7-19 0:45	20.47	982	8.62	28.3						11-6-19 23:30	1.91	1586	7.28	0.0					
8-7-19 4:30	20.67	1276	8.55	3.7	8-7-19 1:00	20.94	1118	7.02	2.6	8-7-19 1:00	20.47	982	8.63	8.7						11-6-19 23:45	1.91	1586	7.28	0.0					
8-7-19 4:45	20.63	1276	8.55	4.6	8-7-19 1:15	20.95	1117	7.10	2.9	8-7-19 1:15	20.43	982	8.63	16.5						11-7-19 0:00	1.90	1584	7.28	0.0					
8-7-19 5:00	20.60	1277	8.54	3.4	8-7-19 1:30	20.94	1117	7.08	2.5	8-7-19 1:30	20.43	993	8.62	15.2						11-7-19 0:15	1.88	1584	7.29	0.0					
8-7-19 5:15	20.54	1276	8.53	3.8	8-7-19 1:45	20.91	1117	7.08	3.9	8-7-19 1:45	20.44	992	8.62	16.1						11-7-19 0:30	1.91	1582	7.29	0.0					
8-7-19 5:30	20.53	1277	8.53	3.6	8-7-19 2:00	20.93	1117	7.07	2.7	8-7-19 2:00	20.43	991	8.62	7.6						11-7-19 0:45	1.90	1585	7.29	0.0					
8-7-19 5:45	20.49	1276	8.56	3.6	8-7-19 2:15	20.89	1117	7.01	2.5	8-7-19 2:15	20.43	992	8.61	23.5						11-7-19 1:00	1.89	1596	7.29	0.3					
8-7-19 6:00	20.45	1277	8.55	3.3	8-7-19 2:30	20.84	1118	6.95	2.3	8-7-19 2:30	20.41	994	8.61	8.3						11-7-19 1:15	1.88	1592	7.29	1.4					
8-7-19 6:15	20.42	1277	8.56	3.8	8-7-19 2:45	20.80	1118	6.94	2.8	8-7-19 2:45	20.39	992	8.61	24.3						11-7-19 1:30	1.84	1590	7.28	0.0					
8-7-19 6:30	20.39	1277	8.55	3.4	8-7-19 3:00	20.80	1118	6.99	2.0	8-7-19 3:00	20.37	994	8.61	7.6						11-7-19 1:45	1.83	1597	7.27	0.1					
8-7-19 6:45	20.34	1277	8.56	3.1	8-7-19 3:15	20.75	1118	6.99	2.3	8-7-19 3:15	20.35	992	8.61	27.9						11-7-19 2:00	1.82	1579	7.28	0.0					
8-7-19 7:00	20.29	1277	8.54	3.2	8-7-19 3:30	20.71	1118	7.16	2.1	8-7-19 3:30	20.33	993	8.61	7.3						11-7-19 2:15	1.86	1599	7.29	4.2					
8-7-19 7:15	20.26	1277	8.55	3.1	8-7-19 3:45	20.66	1118	7.03	2.7	8-7-19 3:45	20.31	993	8.61	23.4						11-7-19 2:30	1.82	1593	7.29	0.0					
8-7-19 7:30	20.21	1278	8.53	3.0	8-7-19 4:00	20.61	1118	7.14	3.3	8-7-19 4:00	20.28	993	8.61	13.8						11-7-19 2:45	1.81	1612	7.29	0.0					
8-7-19 7:45	20.18	1278	8.55	3.1	8-7-19 4:15	20.61	1117	7.21	3.0	8-7-19 4:15	20.26	993	8.61	25.3						11-7-19 3:00	1.81	1589	7.29	0.0					
8-7-19 8:00	20.14	1278	8.53	2.9	8-7-19 4:30	20.55	1117	7.05	2.3	8-7-19 4:30	20.24	993	8.60	7.6						11-7-19 3:15	1.83	1592	7.29	0.0					
8-7-19 8:15	20.11	1277	8.54	3.0	8-7-19 4:45	20.52	1117	7.14	2.2	8-7-19 4:45	20.21	994	8.60	23.0						11-7-19 3:30	1.77	1592	7.28	0.0					
8-7-19 8:30	20.06	1278	8.53	2.7	8-7-19 5:00	20.52	1116	7.18	2.8	8-7-19 5:00	20.19	996	8.59	11.6						11-7-19 3:45	1.77	1588	7.28	0.0					
8-7-19 8:45	20.02	1277	8.55	2.7	8-7-19 5:15	20.49	1116	7.24	2.5	8-7-19 5:15	20.17	997	8.58	27.6						11-7-19 4:00	1.77	1582	7.28	0.0					
8-7-19 9:00	19.95	1277	8.53	2.7	8-7-19 5:30	20.43	1116	7.10	2.8	8-7-19 5:30	20.15	999	8.56	13.0						11-7-19 4:15	1.81	1583	7.29	0.0					
8-7-19 9:15	19.92	1276	8.53	2.8	8-7-19 5:45	20.40	1116	7.15	3.7	8-7-19 5:45	20.12	1002	8.57	25.8						11-7-19 4:30	1.79	1587	7.29	0.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-7-19 9:30	19.85	1277	8.52	2.7	8-7-19 6:00	20.34	1116	6.95	3.0	8-7-19 6:00	20.10	1001	8.56	18.7						11-7-19 4:45	1.80	1584	7.29	0.0					
8-7-19 9:45	19.82	1277	8.54	2.7	8-7-19 6:15	20.33	1115	7.05	3.4	8-7-19 6:15	20.07	1002	8.57	31.1						11-7-19 5:00	1.80	1597	7.29	0.0					
8-7-19 10:00	19.76	1277	8.53	2.5	8-7-19 6:30	20.26	1115	6.96	2.5	8-7-19 6:30	20.05	1004	8.55	15.8						11-7-19 5:15	1.83	1591	7.29	0.0					
8-7-19 10:15	19.71	1276	8.54	2.6	8-7-19 6:45	20.28	1115	7.08	3.3	8-7-19 6:45	20.03	1004	8.57	30.6						11-7-19 5:30	1.78	1587	7.28	0.0					
8-7-19 10:30	19.64	1277	8.53	2.5	8-7-19 7:00	20.21	1115	7.05	3.4	8-7-19 7:00	19.99	1002	8.57	12.5						11-7-19 5:45	1.77	1596	7.28	0.0					
8-7-19 10:45	19.59	1276	8.52	4.7	8-7-19 7:15	20.20	1115	7.06	2.8	8-7-19 7:15	19.97	1002	8.56	29.5						11-7-19 6:00	1.77	1610	7.28	0.5					
8-7-19 11:00	19.55	1275	8.51	2.7	8-7-19 7:30	20.17	1115	7.09	2.6	8-7-19 7:30	19.95	1002	8.56	13.9						11-7-19 6:15	1.83	1591	7.29	0.0					
8-7-19 11:15	19.53	1277	8.51	2.6	8-7-19 7:45	20.17	1115	7.22	2.5	8-7-19 7:45	19.93	1002	8.56	30.0						11-7-19 6:30	1.77	1595	7.29	0.0					
8-7-19 11:30	19.50	1277	8.51	2.6	8-7-19 8:00	20.10	1115	7.04	3.0	8-7-19 8:00	19.89	1002	8.56	13.4						11-7-19 6:45	1.76	1588	7.29	0.3					
8-7-19 11:45	19.46	1277	8.51	2.7	8-7-19 8:15	20.00	1115	6.98	3.2	8-7-19 8:15	19.86	1001	8.57	22.2						11-7-19 7:00	1.77	1588	7.29	0.0					
8-7-19 12:00	19.41	1277	8.51	2.6	8-7-19 8:30	20.03	1113	7.45	2.5	8-7-19 8:30	19.84	1001	8.57	17.5						11-7-19 7:15	1.79	1590	7.29	0.0					
8-7-19 12:15	19.39	1277	8.51	2.9	8-7-19 8:45	20.00	1113	7.45	2.3	8-7-19 8:45	19.81	1001	8.57	35.8						11-7-19 7:30	1.74	1590	7.29	0.0					
8-7-19 12:30	19.35	1277	8.49	2.4	8-7-19 9:00	19.99	1112	7.45	2.5	8-7-19 9:00	19.79	1001	8.57	11.1						11-7-19 7:45	1.74	1591	7.29	0.0					
8-7-19 12:45	19.32	1277	8.50	2.6	8-7-19 9:15	19.93	1113	7.45	3.2	8-7-19 9:15	19.76	1001	8.57	23.1						11-7-19 8:00	1.73	1605	7.28	0.0					
8-7-19 13:00	19.30	1277	8.51	2.6	8-7-19 9:30	19.89	1113	7.45	2.5	8-7-19 9:30	19.72	1001	8.57	11.1						11-7-19 8:15	1.81	1594	7.29	0.0					
8-7-19 13:15	19.27	1277	8.51	2.7	8-7-19 9:45	19.85	1112	7.46	3.4	8-7-19 9:45	19.68	1000	8.57	29.3						11-7-19 8:30	1.75	1594	7.29	0.0					
8-7-19 13:30	19.24	1278	8.50	2.6	8-7-19 10:00	19.81	1113	7.45	3.7	8-7-19 10:00	19.67	999	8.57	12.1						11-7-19 8:45	1.76	1591	7.29	0.0					
8-7-19 13:45	19.22	1277	8.51	2.5	8-7-19 10:15	19.78	1112	7.45	3.0	8-7-19 10:15	19.63	1001	8.57	27.0						11-7-19 9:00	1.77	1634	7.29	0.0					
8-7-19 14:00	19.19	1278	8.49	2.5	8-7-19 10:30	19.73	1112	7.45	3.2	8-7-19 10:30	19.63	998	8.57	11.5						11-7-19 9:15	1.79	1605	7.29	0.0					
8-7-19 14:15	19.16	1277	8.49	2.6	8-7-19 10:45	19.74	1113	7.45	3.0	8-7-19 10:45	19.60	1000	8.57	26.0						11-7-19 9:30	1.74	1596	7.28	0.0					
8-7-19 14:30	19.13	1278	8.48	3.1	8-7-19 11:00	19.70	1112	7.46	2.5	8-7-19 11:00	19.58	1001	8.57	17.6						11-7-19 9:45	1.74	1602	7.28	0.0					
8-7-19 14:45	19.12	1278	8.49	2.6	8-7-19 11:15	19.71	1112	7.46	2.4	8-7-19 11:15	19.56	1001	8.57	29.1						11-7-19 10:00	1.74	1593	7.28	0.4					
8-7-19 15:00	19.09	1278	8.48	2.5	8-7-19 11:30	19.67	1112	7.45	3.7	8-7-19 11:30	19.54	1001	8.57	11.0						11-7-19 10:15	1.79	1595	7.29	0.0					
8-7-19 15:15	19.07	1278	8.49	2.9	8-7-19 11:45	19.60	1112	7.45	2.9	8-7-19 11:45	19.53	1001	8.57	30.8						11-7-19 10:30	1.76	1606	7.29	0.3					
8-7-19 15:30	19.04	1279	8.48	3.0	8-7-19 12:00	19.61	1112	7.44	2.6	8-7-19 12:00	19.51	995	8.57	68.6						11-7-19 10:45	1.76	1595	7.29	0.2					
8-7-19 15:45	19.03	1278	8.49	3.1	8-7-19 12:15	19.54	1112	7.45	2.3	8-7-19 12:15	19.48	998	8.57	25.2						11-7-19 11:00	1.77	1592	7.29	1.6					
8-7-19 16:00	19.01	1279	8.49	3.4	8-7-19 12:30	19.53	1112	7.45	2.4	8-7-19 12:30	19.47	1001	8.57	10.3						11-7-19 11:15	1.79	1602	7.29	0.0					
8-7-19 16:15	18.99	1279	8.49	3.2	8-7-19 12:45	19.57	1112	7.44	3.6	8-7-19 12:45	19.45	1001	8.56	24.1						11-7-19 11:30	1.74	1593	7.28	0.0					
8-7-19 16:30	18.98	1279	8.48	4.7	8-7-19 13:00	19.55	1111	7.45	2.7	8-7-19 13:00	19.44	1001	8.57	9.4						11-7-19 11:45	1.74	1598	7.28	5.6					
8-7-19 16:45	18.97	1279	8.49	3.2	8-7-19 13:15	19.51	1111	7.45	4.9	8-7-19 13:15	19.42	1000	8.57	27.9						11-7-19 12:00	1.74	1598	7.28	0.0					
8-7-19 17:00	18.97	1280	8.46	4.3	8-7-19 13:30	19.49	1111	7.44	2.9	8-7-19 13:30	19.40	1001	8.56	10.6						11-7-19 12:15	1.81	1593	7.29	1.0					
8-7-19 17:15	19.00	1280	8.46	4.3	8-7-19 13:45	19.43	1111	7.44	3.2	8-7-19 13:45	19.39	1002	8.57	30.3						11-7-19 12:30	1.76	1598	7.29	0.0					
8-7-19 17:30	19.06	1280	8.44	4.0	8-7-19 14:00	19.41	1111	7.44	3.8	8-7-19 14:00	19.39	1002	8.56	9.6						11-7-19 12:45	1.75	1596	7.29	0.0					
8-7-19 17:45	19.06	1280	8.44	4.5	8-7-19 14:15	19.42	1111	7.43	4.6	8-7-19 14:15	19.38	1002	8.57	28.7						11-7-19 13:00	1.75	1581	7.29	0.0					
8-7-19 18:00	19.09	1281	8.45	4.1	8-7-19 14:30	19.36	1109	7.43	3.5	8-7-19 14:30	19.36	1001	8.56	15.3						11-7-19 13:15	1.78	1591	7.29	0.0					
8-7-19 18:15	19.16	1281	8.45	3.5	8-7-19 14:45	19.32	1111	7.19	4.1	8-7-19 14:45	19.35	1002	8.56	25.5						11-7-19 13:30	1.72	1599	7.28	0.0					
8-7-19 18:30	19.30	1282	8.44	4.5	8-7-19 15:00	19.33	1112	7.05	3.5	8-7-19 15:00	19.34	1002	8.56	20.1						11-7-19 13:45	1.71	1602	7.28	0.0					
8-7-19 18:45	19.38	1280	8.43	3.6	8-7-19 15:15	19.30	1112	7.01	2.8	8-7-19 15:15	19.33	1002	8.57	31.5						11-7-19 14:00	1.71	1604	7.28	0.1					
8-7-19 19:00	19.36	1280	8.43	3.2	8-7-19 15:30	19.29	1112	6.93	3.5	8-7-19 15:30	19.31	1002	8.56	14.5						11-7-19 14:15	1.77	1590	7.28	0.0					
8-7-19 19:15	19.40	1281	8.44	3.5	8-7-19 15:45	19.30	1112	6.96	3.6	8-7-19 15:45	19.29	1002	8.55	20.9						11-7-19 14:30	1.71	1592	7.29	0.0					
8-7-19 19:30	19.39	1280	8.43	3.5	8-7-19 16:00	19.23	1110	6.98	3.3	8-7-19 16:00	19.27	1002	8.56	10.4						11-7-19 14:45	1.72	1596	7.29	0.0					
8-7-19 19:45	19.52	1281	8.45	3.3	8-7-19 16:15	19.23	1111	6.92	3.8	8-7-19 16:15	19.27	1002	8.57	25.7						11-7-19 15:00	1.70	1599	7.29	0.0					
8-7-19 20:00	19.50	1282	8.44	3.2	8-7-19 16:30	19.20	1105	7.46	3.0	8-7-19 16:30	19.28	1002	8.56	19.5						11-7-19 15:15	1.73	1597	7.28	0.0					
8-7-19 20:15	19.57	1282	8.44	3.1	8-7-19 16:45	19.21	1104	7.44	3.1	8-7-19 16:45	19.28	1002	8.57	31.3						11-7-19 15:30	1.67	1600	7.28	0.0					
8-7-19 20:30	19.70	1284	8.44	3.0	8-7-19 17:00	19.30	1105	7.44	2.9	8-7-19 17:00	19.29	992	8.57	11.2						11-7-19 15:45	1.67	1610	7.28	0.0					
8-7-19 20:45	19.69	1282	8.43	3.0	8-7-19 17:15	19.35	1105	7.44	3.6	8-7-19 17:15	19.29	1003	8.57	30.4						11-7-19 16:00	1.66	1596	7.28	0.0					
8-7-19 21:00	19.71	1283	8.43	2.9	8-7-19 17:30	19.35	1107	7.08	2.8	8-7-19 17:30	19.31	990	8.57	10.9						11-7-19 16:15	1.72	1593	7.29	0.0					
8-7-19 21:15	19.73	1283	8.45	2.9	8-7-19 17:45	19.39	1108	6.97	3.5	8-7-19 17:45	19.33	1003	8.57	28.8						11-7-19 16:30	1.70	1595	7.29	0.0					
8-7-19 21:30	19.78	1283	8.43	2.7	8-7-19 18:00	19.41	1107	7.02	3.5	8-7-19 18:00	19.34	991	8.57	10.4						11-7-19 16:45	1.69	1529	7.29	0.0					
8-7-19 21:45	19.82	1283	8.44	2.8	8-7-19 18:15	19.45	1107	7.03	3.9	8-7-19 18:15	19.38	1003	8.57	29.9						11-7-19 17:00	1.70	1598	7.29	0.0					
8-7-19 22:00	19.91	1283	8.43	3.1	8-7-19 18:30	19.52	1106	7.22	3.5	8-7-19 18:30	19.51	988	8.58	11.2						11-7-19 17:15	1.71	1591	7.29	0.0					
8-7-19 22:15	19.97	1283	8.43	3.9	8-7-19 18:45	19.67	1107	7.09	3.5	8-7-19 18:45	19.56	990	8.57	28.2						11-7-19 17:30	1.67	1600	7.28	0.0					
8-7-19 22:30	20.16	1285	8.44	4.2	8-7-19 19:00	19.74	1107	7.00	3.2	8-7-19 19:00	19.62	989	8.57	12.3						11-7-19 17:45	1.65	1598	7.29	0.0					
8-7-19 22:45	20.17	1284	8.45	3.2	8-7-19 19:15	19.79	1107	7.08	2.9	8-7-19 19:15	19.64	1001	8.57	31.4						11-7-19 18:00	1.66	1593	7.29	0.9					
8-7-19 23:00	20.28	1285	8.44	3.5	8-7-19 19:30	19.80	1106	7.11	2.9	8-7-19 19:30	19.67	989	8.57	11.2						11-7-19 18:15	1.73	1601	7.28	2.1					
8-7-19 23:15	20.58	1287	8.45	3.1	8-7-19 19:45	19.83	1105	7.22	5.0	8-7-19 19:45	19.72	1003	8.58	29.7						11-7-19 18:30	1.68	1600	7.29	0.1					
8-7-19 23:30	20.58	1286	8.45	3.2	8-7-19 20:00	19.75	1104	7.09	4.5	8-7-19 20:00	19.76	999	8.58	11.0						11-7-19 18:45	1.70	1604	7.29	0.0					
8-7-19 23:45	20.61	1287	8.46	3.4	8-7-19 20:15	19.92	1104	7.11	3.0	8-7-19 20:15	19.88	1000	8.58	29.6						11-7-19 19:00	1.69	1600	7.30	0.0					
8-8-19 0:00	20.58	1287	8.45	2.9	8-7-19 20:30	19.95	1103	7.16	5.7	8-7-19 20:30	19.95	998	8.56	9.8						11-7-19 19:15	1.71	1623	7.29	0.0					
8-8-19 0:15	20.58	1287	8.46	2.9	8-7-19 20:45	20.09	1104	7.22	3.1	8-7-19 20:45	20.04	1001	8.59	29.2						11-7-19 19:30	1.66	1581	7.29	0.3					
8-8-19 0:30	20.56	1288	8.45	2.9	8-7-19 21:00	20.02	1103	7.08	4.2	8-7-19 21:00	20.11	998	8.59	17.4						11-7-19 19:45	1.66	1601	7.29	0.0					
8-8-19 0:45	20.58	1287	8.46	3.0	8-7-19 21:15	19.95	1102	7.07	4.1	8-7-19 21:15	20.11	997	8.59	37.2						11-7-19 20:00	1.66	1591	7.29	2.4					
8-8-19 1:00	20.58	1288	8.46	3.3	8-7-19 21:30	19.91	1101	7.08	4.7	8-7-19 21:30	20.26	997	8.60	13.5						11-7-19 20:15	1.72	1597	7.29	0.0					
8-8-19 1:15	20.52	1288	8.46	2.9	8-7-19 21:45	20.02	1102	7.06	3.6	8-7-19 21:45	20.30	996	8.59	23.6						11-7-19 20:30	1.68	1593	7.30	0.0					
8-8-19 1:30	20.53	1288	8.45	2.7	8-7-19 22:00	20.06	1101	7.11	5.5	8-7-19 22:00	20.40	989	8.60	11.9						11-7-19 20:45	1.67	1599	7.30	0.0					
8-8-19 1:45	20.50	1288	8.46	2.7	8-7-19 22:15	20.04	1100	7.31	5.7	8-7-19 22:15	20.48	986	8.58	28.1						11-7-19 21:00	1.67	1582	7.30	0.0					
8-8-19 2:00	20.47	1289	8.45	6.6	8-7-19 22:30	20.08	1099	7.36	6.3	8-7-19 22:30	20.62	901	8.59	13.8						11-7-19 21:15	1.69	1598	7.30	0.0					
8-8-19 2:15	20.43	1288	8.46	2.6	8-7-19 22:45	20.10	1100	7.05	4.9	8-7-19 22:45	20.81	981	8.61	27.8						11-7-19 21:30	1.63	1594	7.29	0.0					
8-8-19 2:30	20.35	1289	8.46	2.4	8-7-19 23:00	20.03	1099	7.43	5.2	8-7-19 23:00	20.99	979	8.61	8.6						11-7-19 21:45	1.63	1597	7.29	0.0					
8-8-19 2:45	20.32	1289	8.47	2.6	8-7-19 23:15	20.01	1099	7.36	5.4	8-7-19 23:15	20.92	980	8.60	30.0						11-7-19 22:00	1.63	1593	7.29	0.0					
8-8-19 3:00	20.27	1289	8.47	2.6	8-7-19 23:30	19.92	1096	7.43	6.3	8-7-19 23:30	21.09	996	8.62	10.6						11-7-19 22:15	1.67	1599	7.30	0.0					
8-8-19 3:15	20.20	1289	8.48	2.5	8-7-19 23:45	19.83	1094	7.46	5.7	8-7-19 23:45	21.02	1001	8.61	30.4						11-7-19 22:30	1.63	1608	7.30	0.0					
8-8-19 3:30	20.13	1290	8.48	2.7	8-8-19 0:00	19.79	1095	7.12	5.4	8-8-19 0:00	20.92	1002	8.61	16.2						11-7-19 22:45	1.62	1587	7.30	0.1					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-8-19 3:45	20.04	1291	8.48	2.5	8-8-19 0:15	19.93	1094	7.26	6.4	8-8-19 0:15	21.09	1001	8.63	30.5						11-7-19 23:00	1.60	1593	7.30	0.0					
8-8-19 4:00	19.98	1292	8.48	2.5	8-8-19 0:30	19.95	1093	7.26	6.4	8-8-19 0:30	21.01	1000	8.61	11.8						11-7-19 23:15	1.61	1596	7.30	0.0					
8-8-19 4:15	19.91	1292	8.49	2.5	8-8-19 0:45	19.98	1094	7.04	5.2	8-8-19 0:45	20.95	1002	8.60	32.0						11-7-19 23:30	0.07	1	8.33	0.0					
8-8-19 4:30	19.86	1293	8.49	2.4	8-8-19 1:00	20.04	1093	7.07	6.1	8-8-19 1:00	20.97	1000	8.61	9.8						11-7-19 23:45	1.26	1153	7.32	1.5					
8-8-19 4:45	19.78	1293	8.50	2.4	8-8-19 1:15	20.32	1096	7.48	3.4	8-8-19 1:15	21.01	1000	8.61	34.7						11-8-19 0:00	1.58	1607	7.30	2.9					
8-8-19 5:00	19.75	1294	8.50	2.3	8-8-19 1:30	20.37	1099	7.35	3.0	8-8-19 1:30	20.97	997	8.63	9.7						11-8-19 0:15	1.66	1596	7.30	4.1					
8-8-19 5:15	19.71	1295	8.50	2.5	8-8-19 1:45	20.36	1099	7.19	3.0	8-8-19 1:45	20.89	1001	8.62	33.6						11-8-19 0:30	1.63	1592	7.30	0.8					
8-8-19 5:30	19.66	1294	8.49	2.4	8-8-19 2:00	20.38	1100	7.20	3.1	8-8-19 2:00	20.82	1000	8.61	13.3						11-8-19 0:45	1.62	1599	7.30	0.5					
8-8-19 5:45	19.62	1293	8.48	2.7	8-8-19 2:15	20.36	1099	7.13	3.1	8-8-19 2:15	20.79	1000	8.62	33.8						11-8-19 1:00	1.60	1606	7.30	0.4					
8-8-19 6:00	19.60	1294	8.47	2.4	8-8-19 2:30	20.34	1099	7.16	2.8	8-8-19 2:30	20.75	991	8.62	8.7						11-8-19 1:15	1.62	1594	7.30	5.9					
8-8-19 6:15	19.54	1294	8.48	2.4	8-8-19 2:45	20.12	1094	7.29	5.5	8-8-19 2:45	20.71	1001	8.62	29.0						11-8-19 1:30	1.57	1602	7.29	2.6					
8-8-19 6:30	19.50	1294	8.49	2.4	8-8-19 3:00	20.08	1096	7.10	3.8	8-8-19 3:00	20.68	988	8.63	8.1						11-8-19 1:45	1.56	1591	7.29	1.8					
8-8-19 6:45	19.45	1294	8.48	2.5	8-8-19 3:15	20.02	1096	7.08	4.1	8-8-19 3:15	20.60	1000	8.63	9.9						11-8-19 2:00	1.56	1596	7.29	2.9					
8-8-19 7:00	19.43	1296	8.48	2.4	8-8-19 3:30	19.83	1093	7.05	5.0	8-8-19 3:30	20.54	973	8.63	10.1						11-8-19 2:15	1.60	1593	7.30	0.2					
8-8-19 7:15	19.41	1294	8.48	2.4	8-8-19 3:45	19.69	1091	7.20	5.5	8-8-19 3:45	20.46	961	8.64	25.1						11-8-19 2:30	1.57	1582	7.30	0.3					
8-8-19 7:30	19.36	1294	8.48	2.3	8-8-19 4:00	19.74	1091	7.30	4.8	8-8-19 4:00	20.41	998	8.64	19.5						11-8-19 2:45	1.57	1589	7.30	0.2					
8-8-19 7:45	19.32	1294	8.48	2.4	8-8-19 4:15	19.78	1089	7.34	5.8	8-8-19 4:15	20.35	997	8.64	6.9						11-8-19 3:00	1.57	1588	7.30	0.8					
8-8-19 8:00	19.29	1295	8.48	2.6	8-8-19 4:30	19.71	1091	7.10	4.9	8-8-19 4:30	20.30	999	8.63	7.0						11-8-19 3:15	1.58	1595	7.30	13.9					
8-8-19 8:15	19.27	1295	8.48	2.6	8-8-19 4:45	19.66	1091	7.05	4.4	8-8-19 4:45	20.24	999	8.64	32.9						11-8-19 3:30	1.54	1597	7.29	0.0					
8-8-19 8:30	19.23	1296	8.47	3.4	8-8-19 5:00	19.68	1091	7.36	3.8	8-8-19 5:00	20.18	999	8.64	5.7						11-8-19 3:45	1.53	1598	7.30	0.0					
8-8-19 8:45	19.19	1295	8.48	2.8	8-8-19 5:15	19.60	1091	7.21	3.9	8-8-19 5:15	20.12	998	8.64	24.2						11-8-19 4:00	1.51	1595	7.30	0.0					
8-8-19 9:00	19.15	1296	8.47	2.5	8-8-19 5:30	19.59	1093	7.19	3.0	8-8-19 5:30	20.08	996	8.64	6.7						11-8-19 4:15	1.51	1589	7.30	0.0					
8-8-19 9:15	19.14	1296	8.46	2.6	8-8-19 5:45	19.54	1094	7.14	3.3	8-8-19 5:45	20.02	997	8.63	33.1						11-8-19 4:30	1.42	1593	7.31	0.0					
8-8-19 9:30	19.09	1296	8.47	2.8	8-8-19 6:00	19.57	1093	7.48	2.9	8-8-19 6:00	19.99	996	8.62	8.1						11-8-19 4:45	1.37	1592	7.31	0.0					
8-8-19 9:45	19.07	1295	8.46	2.4	8-8-19 6:15	19.55	1093	7.39	2.5	8-8-19 6:15	19.94	996	8.63	30.7						11-8-19 5:00	1.39	1593	7.31	0.3					
8-8-19 10:00	19.02	1296	8.46	2.5	8-8-19 6:30	19.49	1093	7.28	2.6	8-8-19 6:30	19.90	988	8.63	7.6						11-8-19 5:15	1.40	1595	7.31	1.6					
8-8-19 10:15	18.99	1296	8.46	2.6	8-8-19 6:45	19.45	1092	7.28	2.6	8-8-19 6:45	19.84	995	8.64	32.5						11-8-19 5:30	1.40	1598	7.31	0.1					
8-8-19 10:30	18.97	1297	8.47	2.4	8-8-19 7:00	19.43	1092	7.36	2.6	8-8-19 7:00	19.79	996	8.63	10.6						11-8-19 5:45	1.43	1598	7.30	0.1					
8-8-19 10:45	18.94	1296	8.46	2.7	8-8-19 7:15	19.40	1092	7.24	2.6	8-8-19 7:15	19.73	993	8.64	31.9						11-8-19 6:00	1.41	1597	7.30	0.0					
8-8-19 11:00	18.89	1297	8.44	2.5	8-8-19 7:30	19.38	1091	7.37	3.0	8-8-19 7:30	19.70	996	8.63	5.8						11-8-19 6:15	1.46	1590	7.31	0.0					
8-8-19 11:15	18.86	1296	8.45	2.5	8-8-19 7:45	19.36	1092	7.24	4.1	8-8-19 7:45	19.66	994	8.62	29.6						11-8-19 6:30	1.42	1596	7.31	0.0					
8-8-19 11:30	18.84	1297	8.44	2.6	8-8-19 8:00	19.32	1091	7.22	2.9	8-8-19 8:00	19.61	996	8.63	7.8						11-8-19 6:45	1.42	1599	7.31	0.0					
8-8-19 11:45	18.81	1295	8.45	2.4	8-8-19 8:15	19.30	1091	7.10	2.7	8-8-19 8:15	19.59	994	8.63	30.4						11-8-19 7:00	1.42	1592	7.31	0.0					
8-8-19 12:00	18.75	1295	8.45	4.7	8-8-19 8:30	19.27	1091	7.14	4.2	8-8-19 8:30	19.55	1036	8.63	5.5						11-8-19 7:15	1.44	1596	7.31	0.0					
8-8-19 12:15	18.72	1295	8.44	2.7	8-8-19 8:45	19.26	1091	7.08	4.2	8-8-19 8:45	19.50	988	8.63	25.3						11-8-19 7:30	1.41	1599	7.30	0.0					
8-8-19 12:30	18.68	1296	8.43	2.4	8-8-19 9:00	19.24	1091	7.09	2.8	8-8-19 9:00	19.43	996	8.63	7.6						11-8-19 7:45	1.40	1592	7.31	0.0					
8-8-19 12:45	18.65	1295	8.43	2.5	8-8-19 9:15	19.20	1090	7.25	3.2	8-8-19 9:15	19.40	994	8.63	31.9						11-8-19 8:00	1.39	1586	7.30	0.0					
8-8-19 13:00	18.61	1296	8.43	3.5	8-8-19 9:30	19.18	1090	7.22	3.4	8-8-19 9:30	19.37	996	8.62	9.1						11-8-19 8:15	1.43	1593	7.31	0.0					
8-8-19 13:15	18.59	1296	8.42	2.7	8-8-19 9:45	19.15	1090	7.09	3.0	8-8-19 9:45	19.36	995	8.62	34.1						11-8-19 8:30	1.39	1595	7.31	0.6					
8-8-19 13:30	18.56	1295	8.42	2.6	8-8-19 10:00	19.12	1090	7.10	3.4	8-8-19 10:00	19.34	992	8.62	11.1						11-8-19 8:45	1.38	1597	7.31	0.0					
8-8-19 13:45	18.50	1293	8.41	3.2	8-8-19 10:15	19.08	1089	7.14	3.2	8-8-19 10:15	19.30	998	8.62	29.1						11-8-19 9:00	1.37	1577	7.31	0.0					
8-8-19 14:00	18.48	1295	8.41	2.7	8-8-19 10:30	19.08	1090	7.23	4.9	8-8-19 10:30	19.28	992	8.62	24.0						11-8-19 9:15	1.37	1597	7.31	0.0					
8-8-19 14:15	18.45	1296	8.41	2.6	8-8-19 10:45	19.03	1090	7.11	3.7	8-8-19 10:45	19.25	994	8.62	30.3						11-8-19 9:30	1.32	1599	7.31	0.0					
8-8-19 14:30	18.42	1295	8.41	2.6	8-8-19 11:00	19.00	1089	7.20	3.1	8-8-19 11:00	19.21	995	8.62	6.3						11-8-19 9:45	1.33	1601	7.31	0.0					
8-8-19 14:45	18.39	1294	8.41	2.4	8-8-19 11:15	18.98	1088	7.28	3.5	8-8-19 11:15	19.17	995	8.62	32.3						11-8-19 10:00	1.34	1595	7.31	0.0					
8-8-19 15:00	18.35	1294	8.41	2.5	8-8-19 11:30	18.97	1088	7.27	3.4	8-8-19 11:30	19.15	996	8.61	9.8						11-8-19 10:15	1.39	1598	7.31	0.0					
8-8-19 15:15	18.30	1293	8.41	2.5	8-8-19 11:45	18.92	1088	7.18	3.4	8-8-19 11:45	19.12	993	8.62	31.7						11-8-19 10:30	1.37	1595	7.31	0.0					
8-8-19 15:30	18.29	1295	8.42	3.6	8-8-19 12:00	18.89	1088	7.10	4.5	8-8-19 12:00	19.08	993	8.61	7.4						11-8-19 10:45	1.37	1596	7.32	0.0					
8-8-19 15:45	18.28	1294	8.42	3.3	8-8-19 12:15	18.94	1088	7.12	3.9	8-8-19 12:15	19.08	993	8.62	29.8						11-8-19 11:00	1.38	1595	7.32	0.0					
8-8-19 16:00	18.24	1295	8.41	3.5	8-8-19 12:30	18.93	1089	7.08	3.8	8-8-19 12:30	19.05	993	8.61	5.0						11-8-19 11:15	1.39	1612	7.31	0.0					
8-8-19 16:15	18.23	1294	8.41	3.6	8-8-19 12:45	18.94	1088	7.17	4.6	8-8-19 12:45	19.01	992	8.61	28.7						11-8-19 11:30	1.36	1598	7.31	0.0					
8-8-19 16:30	18.21	1294	8.41	3.3	8-8-19 13:00	18.90	1088	7.17	4.1	8-8-19 13:00	18.98	989	8.61	6.8						11-8-19 11:45	1.35	1598	7.31	0.0					
8-8-19 16:45	18.18	1295	8.41	3.6	8-8-19 13:15	18.87	1088	7.11	5.2	8-8-19 13:15	18.96	992	8.61	29.6						11-8-19 12:00	1.34	1599	7.31	42.4					
8-8-19 17:00	18.18	1296	8.41	3.6	8-8-19 13:30	18.87	1088	7.15	6.9	8-8-19 13:30	18.92	993	8.62	5.8						11-8-19 12:15	1.38	1596	7.31	0.0					
8-8-19 17:15	18.16	1295	8.40	3.8	8-8-19 13:45	18.84	1087	7.16	5.3	8-8-19 13:45	18.88	992	8.61	31.2						11-8-19 12:30	1.35	1599	7.32	0.0					
8-8-19 17:30	18.14	1295	8.40	2.7	8-8-19 14:00	18.81	1087	7.15	6.0	8-8-19 14:00	18.84	992	8.62	7.8						11-8-19 12:45	1.34	1609	7.32	0.0					
8-8-19 17:45	18.12	1294	8.39	3.0	8-8-19 14:15	18.82	1087	7.11	5.6	8-8-19 14:15	18.81	991	8.62	31.8						11-8-19 13:00	1.34	1592	7.32	0.0					
8-8-19 18:00	18.12	1295	8.39	2.8	8-8-19 14:30	18.79	1088	7.14	6.3	8-8-19 14:30	18.77	986	8.62	5.2						11-8-19 13:15	1.34	1592	7.32	0.7					
8-8-19 18:15	18.11	1295	8.39	2.9	8-8-19 14:45	18.80	1088	7.16	8.5	8-8-19 14:45	18.76	993	8.62	28.0						11-8-19 13:30	1.31	1595	7.31	0.0					
8-8-19 18:30	18.11	1296	8.39	2.9	8-8-19 15:00	18.78	1087	7.16	7.7	8-8-19 15:00	18.73	993	8.62	5.9						11-8-19 13:45	1.31	1598	7.31	0.0					
8-8-19 18:45	18.14	1296	8.40	3.7	8-8-19 15:15	18.78	1087	7.19	7.6	8-8-19 15:15	18.72	994	8.62	30.6						11-8-19 14:00	1.30	1593	7.31	0.0					
8-8-19 19:00	18.16	1297	8.39	3.4	8-8-19 15:30	18.74	1088	7.13	7.7	8-8-19 15:30	18.71	987	8.61	8.1						11-8-19 14:15	1.33	1589	7.32	0.0					
8-8-19 19:15	18.14	1297	8.40	3.7	8-8-19 15:45	18.70	1092	7.12	7.1	8-8-19 15:45	18.68	993	8.61	28.9						11-8-19 14:30	1.30	1593	7.32	0.0					
8-8-19 19:30	18.12	1297	8.40	3.0	8-8-19 16:00	18.66	1096	7.17	7.2	8-8-19 16:00	18.68	993	8.61	11.4						11-8-19 14:45	1.29	1591	7.32	0.0					
8-8-19 19:45	18.11	1297	8.40	3.2	8-8-19 16:15	18.64	1103	7.15	7.5	8-8-19 16:15	18.67	993	8.62	31.2						11-8-19 15:00	1.29	1596	7.32	0.0					
8-8-19 20:00	18.11	1298	8.39	3.2	8-8-19 16:30	18.64	1106	7.14	7.4	8-8-19 16:30	18.66	994	8.62	11.4						11-8-19 15:15	1.30	1606	7.32	0.0					
8-8-19 20:15	18.11	1298	8.39	3.4	8-8-19 16:45	18.62	1108	7.14	6.4	8-8-19 16:45	18.64	993	8.62	28.9						11-8-19 15:30	1.26	1598	7.32	0.0					
8-8-19 20:30	18.11	1299	8.40	4.3	8-8-19 17:00	18.60	1112	7.14	6.3	8-8-19 17:00	18.62	994	8.62	10.5						11-8-19 15:45	1.25	1597	7.32	0.0					
8-8-19 20:45	18.16	1299	8.40	3.2	8-8-19 17:15	18.60	1118	7.12	7.2	8-8-19 17:15	18.61	978	8.63	26.3						11-8-19 16:00	1.25	1596	7.32	0.0					
8-8-19 21:00	18.18	1301	8.39	2.9	8-8-19 17:30	18.60	1125	7.11	5.7	8-8-19 17:30	18.59	994	8.62	7.6						11-8-19 16:15	1.27	1596	7.32	0.0					
8-8-19 21:15	18.17	1300	8.39	4.8	8-8-19 17:45	18.57	1128	7.14	5.6	8-8-19 17:45	18.59	995	8.63	33.0						11-8-19 16:30	1.25	1594	7.32	0.0					
8-8-19 21:30	18.17	1300	8.37	3.0	8-8-19 18:00	18.58	1133	7.08	6.0	8-8-19 18:00	18.59	986	8.62	8.7						11-8-19 16:45	1.25	1595	7.32	0.0					
8-8-19 21:45	18.16	1300	8.38	3.1	8-8-19 18:15	18.57	1137	7.06	6.4	8-8-19 18:15	18.57	995	8.63	29.5						11-8-19 17:00	1.25	1592	7.32	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-8-19 22:00	18.16	1301	8.39	3.7	8-8-19 18:30	18.53	1140	7.09	6.3	8-8-19 18:30	18.56	995	8.63	5.9						11-8-19 17:15	1.25	1598	7.32	0.0					
8-8-19 22:15	18.18	1301	8.39	3.7	8-8-19 19:00	18.55	1153	6.98	6.0	8-8-19 19:00	18.60	994	8.64	8.9						11-8-19 17:30	1.22	1598	7.32	0.0					
8-8-19 22:30	18.20	1302	8.39	3.7	8-8-19 19:15	18.55	1157	6.99	5.5	8-8-19 19:15	18.62	994	8.63	8.0						11-8-19 17:45	1.22	1598	7.32	0.0					
8-8-19 22:45	18.19	1302	8.38	3.4	8-8-19 19:30	18.52	1153	7.05	5.7	8-8-19 19:30	18.63	994	8.63	25.7						11-8-19 18:00	1.22	1599	7.32	0.0					
8-8-19 23:00	18.18	1302	8.39	3.6	8-8-19 19:45	18.53	1160	7.01	5.0	8-8-19 19:45	18.62	985	8.63	15.4						11-8-19 18:15	1.25	1587	7.32	0.0					
8-8-19 23:15	18.14	1303	8.39	3.4	8-8-19 20:00	18.50	1165	7.03	5.1	8-8-19 20:00	18.62	994	8.63	34.3						11-8-19 18:30	1.24	1590	7.33	0.0					
8-8-19 23:30	18.13	1303	8.39	3.5	8-8-19 20:15	18.51	1174	7.05	4.8	8-8-19 20:15	18.62	994	8.64	9.1						11-8-19 18:45	1.25	1591	7.32	0.0					
8-8-19 23:45	18.13	1304	8.39	3.6	8-8-19 20:30	18.51	1184	7.06	5.1	8-8-19 20:30	18.63	994	8.64	34.8						11-8-19 19:00	1.25	1619	7.32	1.0					
8-9-19 0:00	18.10	1304	8.39	3.0	8-8-19 20:45	18.49	1179	7.10	5.2	8-8-19 20:45	18.62	981	8.64	12.6						11-8-19 19:15	1.25	1594	7.32	0.0					
8-9-19 0:15	18.07	1304	8.39	3.1	8-8-19 21:00	18.50	1180	7.03	4.0	8-8-19 21:00	18.63	981	8.64	28.7						11-8-19 19:30	1.25	1593	7.32	0.0					
8-9-19 0:30	18.06	1305	8.40	3.3	8-8-19 21:15	18.48	1163	7.08	4.5	8-8-19 21:15	18.63	981	8.64	10.8						11-8-19 19:45	1.25	1604	7.32	0.0					
8-9-19 0:45	18.04	1305	8.40	3.5	8-8-19 21:30	18.48	1151	7.16	3.9	8-8-19 21:30	18.63	981	8.65	32.1						11-8-19 20:00	1.25	1591	7.32	0.0					
8-9-19 1:00	18.01	1306	8.40	3.0	8-8-19 21:45	18.47	1147	7.10	4.6	8-8-19 21:45	18.62	981	8.65	8.2						11-8-19 20:15	1.25	1594	7.33	0.0					
8-9-19 1:15	18.01	1306	8.40	3.5	8-8-19 22:00	18.51	1146	7.06	4.2	8-8-19 22:00	18.63	977	8.65	30.9						11-8-19 20:30	1.25	1610	7.33	0.0					
8-9-19 1:30	17.97	1304	8.40	3.1	8-8-19 22:15	18.54	1148	7.00	3.9	8-8-19 22:15	18.64	981	8.65	8.2						11-8-19 20:45	1.25	1597	7.33	0.0					
8-9-19 1:45	17.95	1303	8.41	3.5	8-8-19 22:30	18.55	1156	6.97	4.3	8-8-19 22:30	18.65	994	8.66	34.0						11-8-19 21:00	1.25	1591	7.33	0.0					
8-9-19 2:00	17.93	1304	8.40	3.0	8-8-19 22:45	18.50	1162	6.99	4.0	8-8-19 22:45	18.62	993	8.65	17.8						11-8-19 21:15	1.25	1595	7.33	9.9					
8-9-19 2:15	17.87	1303	8.40	3.3	8-8-19 23:00	18.47	1214	7.09	7.0	8-8-19 23:00	18.62	995	8.66	34.4						11-8-19 21:30	1.23	1602	7.33	12.6					
8-9-19 2:30	17.84	1303	8.41	3.7	8-8-19 23:15	18.43	1202	7.17	5.4	8-8-19 23:15	18.62	991	8.65	7.2						11-8-19 21:45	1.46	1604	7.34	0.5					
8-9-19 2:45	17.80	1304	8.41	3.9	8-8-19 23:30	18.38	1239	7.16	5.8	8-8-19 23:30	18.61	999	8.65	31.4						11-8-19 22:00	0.91	1609	7.35	0.0					
8-9-19 3:00	17.80	1308	8.41	3.1	8-8-19 23:45	18.38	1224	7.27	6.7	8-8-19 23:45	18.61	996	8.66	8.0						11-8-19 22:15	0.86	1609	7.34	1.1					
8-9-19 3:15	17.73	1305	8.41	3.2	8-9-19 0:00	18.35	1199	7.29	6.0	8-9-19 0:00	18.59	996	8.66	30.2						11-8-19 22:30	0.85	1606	7.35	0.6					
8-9-19 3:30	17.70	1306	8.40	3.3	8-9-19 0:15	18.33	1199	7.29	6.0	8-9-19 0:15	18.56	990	8.65	7.9						11-8-19 22:45	0.82	1605	7.35	0.0					
8-9-19 3:45	17.66	1306	8.41	3.0	8-9-19 0:30	18.27	1208	7.17	5.8	8-9-19 0:30	18.54	990	8.65	30.0						11-8-19 23:00	0.80	1608	7.35	0.0					
8-9-19 4:00	17.63	1308	8.41	2.8	8-9-19 0:45	18.24	1231	7.13	7.7	8-9-19 0:45	18.51	990	8.65	9.2						11-8-19 23:15	0.81	1609	7.35	0.0					
8-9-19 4:15	17.61	1310	8.41	3.0	8-9-19 1:00	18.20	1216	7.41	7.1	8-9-19 1:00	18.48	989	8.65	34.5						11-8-19 23:30	0.79	1609	7.34	0.0					
8-9-19 4:30	17.56	1309	8.39	3.0	8-9-19 1:15	18.19	1200	7.50	7.3	8-9-19 1:15	18.46	989	8.64	7.1						11-8-19 23:45	0.79	1615	7.34	0.0					
8-9-19 4:45	17.51	1308	8.40	3.4	8-9-19 1:30	18.14	1219	7.27	7.5	8-9-19 1:30	18.43	989	8.65	33.7						11-9-19 0:00	0.80	1613	7.34	0.0					
8-9-19 5:00	17.48	1308	8.39	2.8	8-9-19 1:45	18.11	1184	7.57	6.1	8-9-19 1:45	18.41	988	8.65	6.9						11-9-19 0:15	0.79	1612	7.35	0.0					
8-9-19 5:15	17.44	1308	8.39	2.7	8-9-19 2:00	18.08	1221	7.20	7.0	8-9-19 2:00	18.40	992	8.65	30.7						11-9-19 0:30	0.81	1599	7.35	0.0					
8-9-19 5:30	17.40	1309	8.38	2.8	8-9-19 2:15	18.03	1217	7.20	8.5	8-9-19 2:15	18.37	991	8.65	11.9						11-9-19 0:45	0.82	1610	7.35	0.5					
8-9-19 5:45	17.38	1308	8.38	3.6	8-9-19 2:30	17.96	1196	7.50	5.8	8-9-19 2:30	18.33	991	8.65	34.1						11-9-19 1:00	0.82	1606	7.35	5.8					
8-9-19 6:00	17.35	1310	8.39	2.5	8-9-19 2:45	17.94	1208	7.38	6.4	8-9-19 2:45	18.30	990	8.65	10.8						11-9-19 1:15	0.82	1598	7.34	0.0					
8-9-19 6:15	17.30	1310	8.39	2.8	8-9-19 3:00	17.91	1210	7.54	6.0	8-9-19 3:00	18.26	990	8.65	28.2						11-9-19 1:30	0.81	1609	7.34	0.0					
8-9-19 6:30	17.27	1310	8.38	2.6	8-9-19 3:15	17.87	1213	7.38	5.5	8-9-19 3:15	18.25	986	8.65	8.9						11-9-19 1:45	0.80	1621	7.34	0.0					
8-9-19 6:45	17.24	1311	8.39	2.5	8-9-19 3:30	17.88	1232	7.14	6.2	8-9-19 3:30	18.21	990	8.65	32.6						11-9-19 2:00	0.80	1613	7.34	0.0					
8-9-19 7:00	17.20	1312	8.40	3.7	8-9-19 3:45	17.90	1248	7.08	6.0	8-9-19 3:45	18.19	981	8.65	7.6						11-9-19 2:15	0.80	1612	7.34	0.0					
8-9-19 7:15	17.17	1313	8.41	2.5	8-9-19 4:00	17.90	1270	7.10	7.3	8-9-19 4:00	18.16	990	8.65	34.4						11-9-19 2:30	0.82	1589	7.35	0.0					
8-9-19 7:30	17.13	1313	8.40	2.5	8-9-19 4:15	17.93	1305	7.08	7.0	8-9-19 4:15	18.13	978	8.65	8.0						11-9-19 2:45	0.82	1610	7.34	0.0					
8-9-19 7:45	17.09	1313	8.39	2.5	8-9-19 4:30	17.94	1332	7.12	7.5	8-9-19 4:30	18.10	990	8.65	37.2						11-9-19 3:00	0.81	1612	7.34	0.0					
8-9-19 8:00	17.04	1312	8.39	2.5	8-9-19 4:45	18.00	1394	7.15	9.2	8-9-19 4:45	18.07	989	8.64	11.9						11-9-19 3:15	0.81	1597	7.34	0.0					
8-9-19 8:15	17.02	1312	8.38	2.2	8-9-19 5:00	17.97	1427	7.19	9.8	8-9-19 5:00	18.04	988	8.65	35.4						11-9-19 3:30	0.79	1612	7.34	0.0					
8-9-19 8:30	16.97	1312	8.38	2.4	8-9-19 5:15	17.93	1414	7.18	7.9	8-9-19 5:15	18.01	989	8.64	7.9						11-9-19 3:45	0.79	1614	7.34	0.0					
8-9-19 8:45	16.94	1311	8.38	2.3	8-9-19 5:30	17.92	1423	7.12	7.1	8-9-19 5:30	17.98	989	8.64	30.3						11-9-19 4:00	0.78	1610	7.34	0.0					
8-9-19 9:00	16.91	1313	8.39	2.3	8-9-19 5:45	17.83	1409	7.17	7.4	8-9-19 5:45	17.96	989	8.64	7.8						11-9-19 4:15	0.78	1612	7.34	0.0					
8-9-19 9:15	16.87	1312	8.37	2.3	8-9-19 6:00	17.79	1413	7.12	8.4	8-9-19 6:00	17.93	988	8.64	29.4						11-9-19 4:30	0.80	1608	7.34	0.2					
8-9-19 9:30	16.84	1313	8.38	2.2	8-9-19 6:15	17.76	1405	7.08	7.6	8-9-19 6:15	17.91	987	8.64	12.9						11-9-19 4:45	0.79	1605	7.34	0.8					
8-9-19 9:45	16.83	1314	8.37	2.3	8-9-19 6:30	17.62	1341	7.23	8.5	8-9-19 6:30	17.90	987	8.64	33.4						11-9-19 5:00	0.80	1602	7.34	1.1					
8-9-19 10:00	16.81	1315	8.38	2.5	8-9-19 6:45	17.57	1334	7.23	8.1	8-9-19 6:45	17.86	987	8.64	14.6						11-9-19 5:15	0.80	1615	7.34	2.9					
8-9-19 10:15	16.77	1314	8.38	2.5	8-9-19 7:00	17.58	1347	7.10	7.5	8-9-19 7:00	17.84	987	8.64	34.6						11-9-19 5:30	0.78	1596	7.33	0.0					
8-9-19 10:30	16.75	1315	8.38	2.3	8-9-19 7:15	17.59	1358	7.08	7.4	8-9-19 7:15	17.80	988	8.64	8.3						11-9-19 5:45	0.78	1614	7.34	0.0					
8-9-19 10:45	16.73	1315	8.38	2.4	8-9-19 7:30	17.61	1391	7.16	8.5	8-9-19 7:30	17.78	988	8.64	33.8						11-9-19 6:00	0.78	1611	7.34	0.0					
8-9-19 11:00	16.68	1316	8.37	2.4	8-9-19 7:45	17.65	1432	7.17	9.4	8-9-19 7:45	17.79	989	8.63	8.6						11-9-19 6:15	0.77	1609	7.34	0.0					
8-9-19 11:15	16.64	1317	8.37	2.4	8-9-19 8:00	17.62	1442	7.16	7.6	8-9-19 8:00	17.75	989	8.64	41.2						11-9-19 6:30	0.79	1605	7.34	0.0					
8-9-19 11:30	16.62	1317	8.36	2.3	8-9-19 8:15	17.59	1461	7.09	7.4	8-9-19 8:15	17.72	988	8.63	11.1						11-9-19 6:45	0.78	1604	7.34	0.0					
8-9-19 11:45	16.59	1316	8.36	2.4	8-9-19 8:30	17.56	1450	7.12	7.3	8-9-19 8:30	17.70	989	8.63	29.1						11-9-19 7:00	0.78	1612	7.34	0.0					
8-9-19 12:00	16.55	1316	8.36	2.5	8-9-19 8:45	17.49	1447	7.05	6.5	8-9-19 8:45	17.66	989	8.63	10.7						11-9-19 7:15	0.77	1610	7.34	0.0					
8-9-19 12:15	16.53	1317	8.35	2.4	8-9-19 9:00	17.34	1378	7.25	8.2	8-9-19 9:00	17.63	989	8.63	32.6						11-9-19 7:30	0.75	1614	7.34	0.0					
8-9-19 12:30	16.49	1317	8.35	3.5	8-9-19 9:15	17.32	1404	7.14	6.1	8-9-19 9:15	17.65	989	8.63	9.4						11-9-19 7:45	0.75	1614	7.34	0.0					
8-9-19 12:45	16.46	1317	8.35	2.3	8-9-19 9:30	17.27	1375	7.17	6.5	8-9-19 9:30	17.61	989	8.63	33.2						11-9-19 8:00	0.74	1610	7.34	0.0					
8-9-19 13:00	16.43	1317	8.35	2.4	8-9-19 9:45	17.27	1383	7.11	6.0	8-9-19 9:45	17.58	989	8.63	8.5						11-9-19 8:15	0.74	1610	7.34	0.0					
8-9-19 13:15	16.43	1317	8.35	2.6	8-9-19 10:00	17.28	1394	7.11	6.6	8-9-19 10:00	17.56	989	8.63	32.1						11-9-19 8:30	0.75	1609	7.34	0.0					
8-9-19 13:30	16.41	1318	8.34	2.8	8-9-19 10:15	17.28	1418	7.13	6.6	8-9-19 10:15	17.53	988	8.63	11.2						11-9-19 8:45	0.75	1610	7.34	0.0					
8-9-19 13:45	16.37	1318	8.34	3.5	8-9-19 10:30	17.28	1445	7.12	5.6	8-9-19 10:30	17.50	989	8.63	29.3						11-9-19 9:00	0.74	1601	7.34	0.6					
8-9-19 14:00	16.36	1318	8.34	3.0	8-9-19 10:45	17.32	1493	7.12	6.6	8-9-19 10:45	17.46	989	8.63	12.3						11-9-19 9:15	0.73	1638	7.34	18.3					
8-9-19 14:15	16.34	1318	8.33	3.2	8-9-19 11:00	17.32	1516	7.12	8.2	8-9-19 11:00	17.43	989	8.63	32.3						11-9-19 9:30	0.71	1612	7.34	1.2					
8-9-19 14:30	16.32	1318	8.33	2.7	8-9-19 11:15	17.18	1450	7.38	7.1	8-9-19 11:15	17.41	989	8.63	12.7						11-9-19 9:45	0.71	1611	7.34	0.0					
8-9-19 14:45	16.30	1318	8.33	3.5	8-9-19 11:30	17.00	1350	7.61	6.4	8-9-19 11:30	17.40	989	8.63	29.7						11-9-19 10:00	0.71	1605	7.34	0.0					
8-9-19 15:00	16.30	1319	8.33	5.8	8-9-19 11:45	16.92	1335	7.64	8.0	8-9-19 11:45	17.37	989	8.62	9.0						11-9-19 10:15	0.70	1610	7.35	0.1					
8-9-19 15:15	16.29	1318	8.33	5.2	8-9-19 12:00	16.87	1338	7.63	7.4	8-9-19 12:00	17.35	989	8.62	20.7						11-9-19 10:30	0.72	1605	7.35	0.7					
8-9-19 15:30	16.30	1319	8.33	4.3	8-9-19 12:15	16.88	1350	7.62	6.4	8-9-19 12:15	17.35	989	8.62	7.6						11-9-19 10:45	0.70	1606	7.35	2.3					
8-9-19 15:45	16.32	1318	8.33	4.1	8-9-19 12:30	16.87	1362	7.62	8.5	8-9-19 12:30	17.33	989	8.62	31.3						11-9-19 11:00	0.70	1607	7.35	39.7					
8-9-19 16:00	16.35	1317	8.33	4.5	8-9-19 12:45	16.95	1386	7.60	8.4	8-9-19 12:45	17.31	989	8.62	10.6						11-9-19 11:15	0.71	1609	7.35	1.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-9-19 16:15	16.37	1318	8.32	4.4
8-9-19 16:30	16.36	1319	8.32	3.6
8-9-19 16:45	16.41	1319	8.32	3.6
8-9-19 17:00	16.37	1319	8.32	3.4
8-9-19 17:15	16.37	1319	8.32	3.8
8-9-19 17:45	16.40	1320	8.32	3.4
8-9-19 18:00	16.42	1320	8.32	3.5
8-9-19 18:15	16.57	1321	8.33	3.9
8-9-19 18:30	16.57	1320	8.32	3.4
8-9-19 18:45	16.67	1320	8.32	3.8
8-9-19 19:00	16.67	1320	8.31	4.3
8-9-19 19:15	16.66	1320	8.32	3.7
8-9-19 19:30	16.69	1321	8.32	3.4
8-9-19 19:45	16.95	1321	8.31	6.6
8-9-19 20:00	17.01	1321	8.31	4.3
8-9-19 20:15	17.02	1322	8.32	3.8
8-9-19 20:30	17.06	1321	8.32	3.9
8-9-19 20:45	17.08	1322	8.32	3.8
8-9-19 21:00	17.04	1321	8.32	3.4
8-9-19 21:15	17.15	1323	8.32	5.7
8-9-19 21:30	17.14	1322	8.32	3.8
8-9-19 21:45	17.15	1323	8.31	3.7
8-9-19 22:00	17.17	1323	8.32	3.5
8-9-19 22:15	17.25	1324	8.32	4.4
8-9-19 22:30	17.29	1324	8.31	4.2
8-9-19 22:45	17.33	1326	8.32	4.4
8-9-19 23:00	17.34	1325	8.32	4.2
8-9-19 23:15	17.35	1326	8.34	4.5
8-9-19 23:30	17.33	1325	8.34	4.4
8-9-19 23:45	17.31	1327	8.34	4.1
8-10-19 0:00	17.39	1327	8.35	4.6
8-10-19 0:15	17.53	1328	8.34	4.0
8-10-19 0:30	17.59	1327	8.34	4.6
8-10-19 0:45	17.57	1326	8.33	3.8
8-10-19 1:00	17.51	1328	8.34	4.3
8-10-19 1:15	17.40	1331	8.35	4.2
8-10-19 1:30	17.35	1333	8.35	4.1
8-10-19 1:45	17.32	1334	8.34	4.7
8-10-19 2:00	17.27	1332	8.35	3.9
8-10-19 2:15	17.25	1332	8.34	3.9
8-10-19 2:30	17.22	1332	8.34	3.9
8-10-19 2:45	17.15	1331	8.35	3.7
8-10-19 3:00	17.11	1331	8.34	3.7
8-10-19 3:15	17.08	1332	8.33	3.6
8-10-19 3:30	17.05	1332	8.34	3.4
8-10-19 3:45	16.99	1335	8.33	4.2
8-10-19 4:00	17.02	1344	8.35	3.6
8-10-19 4:15	16.97	1341	8.34	3.6
8-10-19 4:30	16.90	1341	8.35	3.5
8-10-19 4:45	16.86	1342	8.36	3.4
8-10-19 5:00	16.85	1347	8.38	3.4
8-10-19 5:15	16.82	1344	8.37	3.4
8-10-19 5:30	16.76	1344	8.36	3.9
8-10-19 5:45	16.72	1344	8.36	3.6
8-10-19 6:00	16.69	1345	8.36	3.5
8-10-19 6:15	16.62	1345	8.35	3.2
8-10-19 6:30	16.59	1345	8.36	3.2
8-10-19 6:45	16.55	1345	8.34	5.3
8-10-19 7:00	16.50	1344	8.35	3.7
8-10-19 7:15	16.46	1345	8.36	3.1
8-10-19 7:30	16.39	1345	8.36	6.0
8-10-19 7:45	16.33	1346	8.35	3.2
8-10-19 8:00	16.29	1345	8.35	3.7
8-10-19 8:15	16.26	1346	8.35	2.8
8-10-19 8:30	16.22	1346	8.35	13.9
8-10-19 8:45	16.19	1347	8.34	2.7
8-10-19 9:00	16.14	1346	8.33	3.3
8-10-19 9:15	16.10	1348	8.33	3.2
8-10-19 9:30	16.06	1347	8.31	2.8
8-10-19 9:45	16.03	1347	8.33	2.7
8-10-19 10:00	16.00	1348	8.32	2.8
8-10-19 10:15	15.96	1349	8.33	2.7
8-10-19 10:30	15.96	1351	8.33	2.8

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-9-19 13:00	16.97	1428	7.58	9.4
8-9-19 13:15	16.94	1433	7.59	8.8
8-9-19 13:30	16.94	1422	7.60	8.6
8-9-19 13:45	16.92	1427	7.59	9.8
8-9-19 14:00	16.88	1431	7.45	11.4
8-9-19 14:15	16.88	1438	7.28	9.8
8-9-19 14:30	16.90	1438	7.16	9.4
8-9-19 14:45	16.91	1436	7.13	10.5
8-9-19 15:00	16.88	1422	7.12	11.6
8-9-19 15:15	16.83	1395	7.20	9.9
8-9-19 15:30	16.77	1360	7.24	12.8
8-9-19 15:45	16.71	1342	7.24	12.5
8-9-19 16:00	16.68	1335	7.21	12.6
8-9-19 16:15	16.69	1330	7.20	13.2
8-9-19 16:30	16.64	1330	7.26	12.5
8-9-19 16:45	16.65	1327	7.21	14.1
8-9-19 17:00	16.63	1322	7.48	8.8
8-9-19 17:15	16.63	1323	7.22	11.3
8-9-19 17:30	16.64	1318	7.56	9.4
8-9-19 17:45	16.65	1321	7.37	11.5
8-9-19 18:00	16.64	1323	7.40	11.7
8-9-19 18:15	16.74	1324	7.34	10.1
8-9-19 18:30	16.80	1328	7.39	10.6
8-9-19 18:45	16.87	1330	7.39	10.9
8-9-19 19:00	16.93	1332	7.49	10.5
8-9-19 19:15	16.81	1335	7.45	11.6
8-9-19 19:30	16.79	1336	7.32	16.5
8-9-19 19:45	16.94	1339	7.19	12.8
8-9-19 20:00	17.04	1339	7.22	14.3
8-9-19 20:15	16.91	1341	7.17	12.6
8-9-19 20:30	16.97	1343	7.22	12.4
8-9-19 20:45	17.02	1346	7.20	13.6
8-9-19 21:00	17.08	1348	7.35	10.0
8-9-19 21:15	17.18	1352	7.23	9.3
8-9-19 21:30	17.25	1352	7.22	10.9
8-9-19 21:45	17.34	1351	7.27	9.5
8-9-19 22:00	17.47	1350	7.44	11.8
8-9-19 22:15	17.62	1350	7.56	9.2
8-9-19 22:30	17.65	1350	7.53	10.9
8-9-19 22:45	17.65	1350	7.37	13.4
8-9-19 23:00	17.70	1351	7.34	8.2
8-9-19 23:15	17.78	1350	7.49	8.2
8-9-19 23:30	17.77	1350	7.44	10.3
8-9-19 23:45	17.70	1351	7.25	8.0
8-10-19 0:00	17.77	1350	7.30	18.4
8-10-19 0:15	17.64	1352	7.53	9.3
8-10-19 0:30	17.70	1353	7.42	9.4
8-10-19 0:45	17.70	1353	7.30	10.9
8-10-19 1:00	17.47	1354	7.16	9.1
8-10-19 1:15	17.42	1354	7.20	10.9
8-10-19 1:30	17.28	1353	7.32	9.4
8-10-19 1:45	17.26	1353	7.28	13.3
8-10-19 2:00	17.30	1352	7.35	11.5
8-10-19 2:15	17.31	1350	7.57	9.7
8-10-19 2:30	17.28	1350	7.62	9.3
8-10-19 2:45	17.32	1349	7.65	9.0
8-10-19 3:00	17.32	1349	7.68	7.8
8-10-19 3:15	17.31	1348	7.69	7.2
8-10-19 3:30	17.28	1347	7.69	7.7
8-10-19 3:45	17.27	1347	7.69	7.4
8-10-19 4:00	17.15	1349	7.25	7.0
8-10-19 4:15	17.13	1349	7.40	6.5
8-10-19 4:30	17.11	1349	7.27	7.2
8-10-19 4:45	17.05	1349	7.31	6.4
8-10-19 5:00	17.05	1350	7.18	5.4
8-10-19 5:15	17.02	1350	7.23	6.5
8-10-19 5:30	16.95	1350	7.16	5.0
8-10-19 5:45	16.92	1350	7.16	5.3
8-10-19 6:00	16.91	1350	7.21	6.4
8-10-19 6:15	16.80	1350	7.18	6.8
8-10-19 6:30	16.81	1351	7.17	6.8
8-10-19 6:45	16.82	1350	7.18	5.9
8-10-19 7:00	16.79	1349	7.34	8.4

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-9-19 13:00	17.28	989	8.62	34.0
8-9-19 13:15	17.26	989	8.61	7.3
8-9-19 13:30	17.24	989	8.62	31.3
8-9-19 13:45	17.22	989	8.62	8.5
8-9-19 14:00	17.18	989	8.62	36.5
8-9-19 14:15	17.17	989	8.63	7.1
8-9-19 14:30	17.16	990	8.63	34.8
8-9-19 14:45	17.15	989	8.63	12.2
8-9-19 15:00	17.13	989	8.63	35.6
8-9-19 15:15	17.13	992	8.63	7.8
8-9-19 15:30	17.14	992	8.63	36.5
8-9-19 15:45	17.15	990	8.64	8.5
8-9-19 16:00	17.14	990	8.64	31.8
8-9-19 16:15	17.16	991	8.64	10.9
8-9-19 16:30	17.17	991	8.64	28.0
8-9-19 16:45	17.19	991	8.64	11.1
8-9-19 17:00	17.19	991	8.64	34.9
8-9-19 17:15	17.20	991	8.64	10.5
8-9-19 17:30	17.20	991	8.65	40.3
8-9-19 17:45	17.21	992	8.65	10.6
8-9-19 18:00	17.24	992	8.65	37.8
8-9-19 18:15	17.33	991	8.66	7.5
8-9-19 18:30	17.33	992	8.66	37.1
8-9-19 18:45	17.48	992	8.67	16.4
8-9-19 19:00	17.46	992	8.66	41.5
8-9-19 19:15	17.46	992	8.66	14.1
8-9-19 19:30	17.55	992	8.66	34.8
8-9-19 19:45	17.62	979	8.68	9.8
8-9-19 20:00	17.69	993	8.66	40.9
8-9-19 20:15	17.81	993	8.67	9.4
8-9-19 20:30	17.83	993	8.67	40.0
8-9-19 20:45	17.88	995	8.66	10.6
8-9-19 21:00	17.84	992	8.66	40.8
8-9-19 21:15	17.88	992	8.66	11.1
8-9-19 21:30	17.92	991	8.67	41.0
8-9-19 21:45	17.95	993	8.66	9.9
8-9-19 22:00	17.97	992	8.67	40.2
8-9-19 22:15	18.10	990	8.67	13.7
8-9-19 22:30	18.18	992	8.66	38.5
8-9-19 22:45	18.21	993	8.66	8.7
8-9-19 23:00	18.28	992	8.67	37.7
8-9-19 23:15	18.27	993	8.67	15.2
8-9-19 23:30	18.24	993	8.67	41.8
8-9-19 23:45	18.23	993	8.66	13.8
8-10-19 0:00	18.26	993	8.67	43.4
8-10-19 0:15	18.40	993	8.68	8.3
8-10-19 0:30	18.52	993	8.68	39.8
8-10-19 0:45	18.52	993	8.67	12.1
8-10-19 1:00	18.56	995	8.68	38.0
8-10-19 1:15	18.39	990	8.67	10.0
8-10-19 1:30	18.31	994	8.68	42.8
8-10-19 1:45	18.32	988	8.68	8.1
8-10-19 2:00	18.33	995	8.68	46.0
8-10-19 2:15	18.31	989	8.67	9.2
8-10-19 2:30	18.28	993	8.68	41.2
8-10-19 2:45	18.25	993	8.68	11.2
8-10-19 3:00	18.22	993	8.68	37.2
8-10-19 3:15	18.19	993	8.67	14.5
8-10-19 3:30	18.13	993	8.67	37.2
8-10-19 3:45	18.08	993	8.67	8.6
8-10-19 4:00	18.01	993	8.68	35.3
8-10-19 4:15	17.94	993	8.68	11.1
8-10-19 4:30	17.88	993	8.69	37.8
8-10-19 4:45	17.83	993	8.69	9.8
8-10-19 5:00	17.78	993	8.69	37.3
8-10-19 5:15	17.72	993	8.69	9.3
8-10-19 5:30	17.66	994	8.69	27.9
8-10-19 5:45	17.60	994	8.69	17.1
8-10-19 6:00	17.53	994	8.69	35.1
8-10-19 6:15	17.49	994	8.69	10.0
8-10-19 6:30	17.45	995	8.69	35.6
8-10-19 6:45	17.39	988	8.69	8.3
8-10-19 7:00	17.34	996	8.69	34.0

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-9-19 11:30	0.68	1612	7.34	0.0
11-9-19 11:45	0.68	1612	7.34	0.0
11-9-19 12:00	0.67	1610	7.34	0.0
11-9-19 12:15	0.67	1606	7.35	0.0
11-9-19 12:30	0.68	1604	7.35	0.0
11-9-19 12:45	0.68	1611	7.35	0.0
11-9-19 13:00	0.68	1611	7.35	0.0
11-9-19 13:15	0.67	1609	7.35	28.0
11-9-19 13:30	0.66	1584	7.34	0.0
11-9-19 13:45	0.65	1589	7.35	22.9
11-9-19 14:00	0.65	1586	7.35	0.0
11-9-19 14:15	0.65	1583	7.35	18.1
11-9-19 14:30	0.66	1611	7.35	277.5
11-9-19 14:45	0.66	1608	7.36	0.2
11-9-19 15:00	0.65	1602	7.36	0.0
11-9-19 15:15	0.64	1610	7.36	0.0
11-9-19 15:30	0.63	1616	7.35	0.0
11-9-19 15:45	0.62	1614	7.35	0.0
11-9-19 16:00	0.62	1618	7.35	0.0
11-9-19 16:15	0.62	1607	7.36	0.0
11-9-19 16:30	0.63	1605	7.36	0.0
11-9-19 16:45	0.63	1608	7.36	0.0
11-9-19 17:00	0.62	1607	7.36	0.0
11-9-19 17:15	0.62	1611	7.36	0.0
11-9-19 17:30	0.60	1614	7.35	0.0
11-9-19 17:45	0.60	1612	7.36	0.0
11-9-19 18:00	0.60	1611	7.36	0.0
11-9-19 18:15	0.60	1604	7.36	0.0
11-9-19 18:30	0.61	1606	7.37	0.3
11-9-19 18:45	0.61	1607	7.37	0.5
11-9-19 19:00	0.61	1606	7.37	0.0
11-9-19 19:30	0.62	1609	7.37	10.2
11-9-19 19:45	0.60	1601	7.36	0.0
11-9-19 20:00	0.60	1611	7.36	0.0
11-9-19 20:15	0.60	1613	7.36	0.0
11-9-19 20:30	0.60	1612	7.36	0.0
11-9-19 20:45	0.62	1607	7.36	0.0
11-9-19 21:00	0.61	1605	7.37	0.0
11-9-19 21:15	0.62	1608	7.36	0.0
11-9-19 21:30	0.62	1603	7.37	0.0
11-9-19 21:45	0.60	1563	7.36	0.0
11-9-19 22:00	0.61	1608	7.36	0.0
11-9-19 22:15	0.62	1590	7.37	0.0
11-9-19 22:30	0.61	1606	7.37	3.3
11-9-19 22:45	0.63	1609	7.37	10.7
11-9-19 23:00	0.62	1629	7.37	3.9
11-9-19 23:15	0.62	1610	7.37	0.3
11-9-19 23:30	0.63	1609	7.37	0.8
11-9-19 23:45	0.61	1613	7.36	0.0
11-10-19 0:00	0.61	1612	7.36	0.0
11-10-19 0:15	0.61	1608	7.36	0.0
11-10-19 0:30	0.61	1623	7.36	0.0
11-10-19 0:45	0.62	1608	7.37	0.0
11-10-19 1:00	0.62	1606	7.37	0.0
11-10-19 1:15	0.62	1607	7.37	0.0
11-10-19 1:30	0.62	1608	7.37	0.0
11-10-19 1:45	0.60	1613	7.37	0.0
11-10-19 2:00	0.60	1594	7.36	0.0
11-10-19 2:15	0.60	1604	7.37	0.0
11-10-19 2:30	0.63	1605	7.38	0.0
11-10-19 2:45	0.60	1606	7.38	0.0
11-10-19 3:00	0.60	1606	7.38	0.0
11-10-19 3:15	0.59	1617	7.39	0.0
11-10-19 3:30	0.60	1605	7.39	0.0
11-10-19 3:45	0.58	1605	7.38	0.0
11-10-19 4:00	0.57	1599	7.38	0.0
11-10-19 4:15	0.57	1600	7.39	0.0
11-10-19 4:30	0.60	1599	7.39	17.7
11-10-19 4:45	0.58	1608	7.40	2.0
11-10-19 5:00	0.57	1610	7.40	2.5
11-10-19 5:15	0.57	1614	7.40	6.1
11-10-19 5:30	0.57	1609	7.40	0.0
11-10-19 5:45	0.54	1609	7.39	0.0

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-10-19 10:45	15.92	1352	8.34	2.8	8-10-19 7:15	16.73	1350	7.25	6.5	8-10-19 7:15	17.30	996	8.68	9.5						11-10-19 6:00	0.53	1609	7.39	0.0					
8-10-19 11:00	15.89	1352	8.33	2.7	8-10-19 7:30	16.69	1350	7.32	5.7	8-10-19 7:30	17.27	998	8.69	18.9						11-10-19 6:15	0.53	1606	7.40	0.0					
8-10-19 11:15	15.86	1353	8.32	4.1	8-10-19 7:45	16.62	1350	7.20	5.2	8-10-19 7:45	17.20	996	8.69	9.4						11-10-19 6:30	0.55	1604	7.40	0.0					
8-10-19 11:30	15.82	1355	8.31	2.7	8-10-19 8:00	16.64	1349	7.45	7.7	8-10-19 8:00	17.16	997	8.68	40.4						11-10-19 6:45	0.54	1608	7.41	0.0					
8-10-19 11:45	15.78	1353	8.32	2.6	8-10-19 8:15	16.62	1349	7.55	5.7	8-10-19 8:15	17.10	997	8.68	10.3						11-10-19 7:00	0.53	1610	7.41	0.0					
8-10-19 12:00	15.74	1353	8.31	2.7	8-10-19 8:30	16.61	1349	7.42	9.4	8-10-19 8:30	17.07	997	8.68	35.4						11-10-19 7:15	0.53	1607	7.41	0.0					
8-10-19 12:15	15.69	1353	8.32	2.6	8-10-19 8:45	16.59	1349	7.44	5.6	8-10-19 8:45	17.03	998	8.68	10.3						11-10-19 7:30	0.53	1606	7.41	16.6					
8-10-19 12:30	15.66	1350	8.32	2.5	8-10-19 9:00	16.51	1350	7.16	7.9	8-10-19 9:00	17.01	998	8.67	36.7						11-10-19 7:45	0.50	1613	7.40	0.0					
8-10-19 12:45	15.64	1350	8.30	2.7	8-10-19 9:15	16.51	1350	7.13	5.7	8-10-19 9:15	16.96	998	8.67	15.2						11-10-19 8:00	0.50	1606	7.40	0.0					
8-10-19 13:00	15.59	1349	8.31	2.6	8-10-19 9:30	16.49	1350	7.17	5.5	8-10-19 9:30	16.95	998	8.67	38.5						11-10-19 8:15	0.50	1611	7.41	0.0					
8-10-19 13:15	15.56	1352	8.31	2.5	8-10-19 9:45	16.44	1350	7.26	5.2	8-10-19 9:45	16.91	1000	8.67	21.3						11-10-19 8:30	0.53	1602	7.41	0.1					
8-10-19 13:30	15.54	1351	8.30	2.4	8-10-19 10:00	16.47	1350	7.16	5.6	8-10-19 10:00	16.86	998	8.67	39.7						11-10-19 8:45	0.51	1609	7.41	0.0					
8-10-19 13:45	15.50	1354	8.30	3.1	8-10-19 10:15	16.44	1350	7.22	5.6	8-10-19 10:15	16.87	1002	8.66	16.7						11-10-19 9:00	0.51	1610	7.41	0.0					
8-10-19 14:00	15.46	1353	8.30	3.7	8-10-19 10:30	16.44	1350	7.20	7.0	8-10-19 10:30	16.86	1004	8.65	36.3						11-10-19 9:15	0.50	1606	7.42	0.0					
8-10-19 14:15	15.40	1355	8.30	3.0	8-10-19 10:45	16.43	1350	7.19	6.1	8-10-19 10:45	16.82	1002	8.66	16.7						11-10-19 9:30	0.51	1606	7.42	0.9					
8-10-19 14:30	15.38	1354	8.30	2.8	8-10-19 11:00	16.36	1351	7.19	4.9	8-10-19 11:00	16.78	1003	8.65	42.3						11-10-19 9:45	0.48	1609	7.41	0.0					
8-10-19 14:45	15.34	1355	8.30	6.6	8-10-19 11:15	16.39	1350	7.28	5.9	8-10-19 11:15	16.77	1003	8.65	9.8						11-10-19 10:00	0.48	1610	7.41	0.0					
8-10-19 15:00	15.36	1354	8.30	3.2	8-10-19 11:30	16.37	1350	7.24	7.2	8-10-19 11:30	16.72	1003	8.65	43.4						11-10-19 10:15	0.47	1607	7.41	0.0					
8-10-19 15:15	15.34	1355	8.29	2.8	8-10-19 11:45	16.36	1350	7.27	5.3	8-10-19 11:45	16.70	1002	8.66	10.6						11-10-19 10:30	0.50	1606	7.42	0.0					
8-10-19 15:30	15.32	1355	8.30	2.5	8-10-19 12:00	16.31	1350	7.28	5.0	8-10-19 12:00	16.69	1002	8.66	42.8						11-10-19 10:45	0.49	1607	7.42	0.7					
8-10-19 15:45	15.31	1356	8.30	2.8	8-10-19 12:15	16.28	1350	7.15	5.1	8-10-19 12:15	16.65	1002	8.66	9.1						11-10-19 11:00	0.48	1611	7.42	7.4					
8-10-19 16:00	15.31	1355	8.31	3.0	8-10-19 12:30	16.28	1350	7.17	5.7	8-10-19 12:30	16.59	1002	8.66	37.6						11-10-19 11:15	0.47	1607	7.42	1.4					
8-10-19 16:15	15.35	1357	8.31	2.7	8-10-19 12:45	16.23	1350	7.21	7.2	8-10-19 12:45	16.59	1002	8.66	11.5						11-10-19 11:30	0.48	1608	7.42	0.0					
8-10-19 16:30	15.38	1359	8.31	2.8	8-10-19 13:00	16.15	1350	7.16	6.5	8-10-19 13:00	16.53	1002	8.66	29.0						11-10-19 11:45	0.46	1608	7.42	0.0					
8-10-19 16:45	15.42	1360	8.31	2.9	8-10-19 13:15	16.10	1349	7.26	5.7	8-10-19 13:15	16.46	1002	8.66	15.0						11-10-19 12:00	0.45	1605	7.42	0.2					
8-10-19 17:00	15.45	1360	8.31	3.0	8-10-19 13:30	16.04	1349	7.11	5.2	8-10-19 13:30	16.56	1003	8.66	39.9						11-10-19 12:15	0.45	1606	7.42	0.0					
8-10-19 17:15	15.50	1360	8.31	3.0	8-10-19 13:45	16.01	1349	7.29	5.4	8-10-19 13:45	16.50	1003	8.65	11.6						11-10-19 12:30	0.48	1608	7.42	0.0					
8-10-19 17:30	15.62	1361	8.30	3.3	8-10-19 14:00	16.07	1349	7.52	5.3	8-10-19 14:00	16.52	1003	8.66	34.5						11-10-19 12:45	0.46	1641	7.43	0.0					
8-10-19 17:45	15.84	1363	8.30	2.9	8-10-19 14:15	16.10	1349	7.53	6.8	8-10-19 14:15	16.50	1002	8.65	21.4						11-10-19 13:00	0.46	1601	7.43	0.0					
8-10-19 18:00	15.94	1362	8.28	3.0	8-10-19 14:30	16.07	1350	7.54	6.7	8-10-19 14:30	16.50	1003	8.65	34.2						11-10-19 13:15	0.46	1608	7.43	0.0					
8-10-19 18:15	15.98	1361	8.28	2.7	8-10-19 14:45	16.05	1349	7.54	7.0	8-10-19 14:45	16.48	1003	8.65	11.7						11-10-19 13:30	0.47	1577	7.43	0.0					
8-10-19 18:30	16.12	1363	8.28	2.8	8-10-19 15:00	16.05	1349	7.55	6.5	8-10-19 15:00	16.41	997	8.65	38.6						11-10-19 13:45	0.44	1572	7.42	0.0					
8-10-19 18:45	16.35	1364	8.29	2.7	8-10-19 15:15	16.05	1349	7.52	6.8	8-10-19 15:15	16.43	988	8.65	11.6						11-10-19 14:00	0.44	1604	7.42	0.0					
8-10-19 19:00	16.51	1361	8.29	2.8	8-10-19 15:30	16.02	1349	7.55	6.3	8-10-19 15:30	16.45	1003	8.65	42.3						11-10-19 14:15	0.43	1611	7.42	0.0					
8-10-19 19:15	16.59	1361	8.28	2.8	8-10-19 15:45	15.99	1351	7.12	4.9	8-10-19 15:45	16.44	1003	8.65	10.8						11-10-19 14:30	0.47	1603	7.42	0.0					
8-10-19 19:30	16.97	1364	8.29	2.7	8-10-19 16:00	15.96	1349	7.25	5.0	8-10-19 16:00	16.42	1003	8.66	40.2						11-10-19 14:45	0.45	1610	7.43	0.0					
8-10-19 19:45	16.98	1364	8.28	2.7	8-10-19 16:15	15.98	1350	7.14	5.5	8-10-19 16:15	16.43	1003	8.66	9.4						11-10-19 15:00	0.45	1609	7.43	0.0					
8-10-19 20:00	17.11	1360	8.29	2.7	8-10-19 16:30	16.00	1349	7.59	6.1	8-10-19 16:30	16.38	1003	8.66	34.3						11-10-19 15:15	0.44	1608	7.43	0.0					
8-10-19 20:15	17.12	1364	8.29	2.7	8-10-19 16:45	16.03	1348	7.64	6.2	8-10-19 16:45	16.41	1004	8.66	10.9						11-10-19 15:30	0.45	1602	7.43	0.3					
8-10-19 20:30	17.23	1366	8.31	2.9	8-10-19 17:00	16.12	1348	7.65	6.6	8-10-19 17:00	16.48	1005	8.66	42.8						11-10-19 15:45	0.42	1611	7.42	0.0					
8-10-19 20:45	17.38	1367	8.32	2.8	8-10-19 17:15	16.14	1347	7.67	6.3	8-10-19 17:15	16.50	1005	8.66	8.0						11-10-19 16:00	0.42	1606	7.43	0.0					
8-10-19 21:00	17.45	1366	8.30	2.7	8-10-19 17:30	16.14	1348	7.65	5.5	8-10-19 17:30	16.53	1005	8.66	31.6						11-10-19 16:15	0.42	1607	7.43	0.0					
8-10-19 21:15	17.46	1365	8.29	2.7	8-10-19 17:45	16.19	1350	7.20	5.5	8-10-19 17:45	16.64	993	8.67	19.9						11-10-19 16:30	0.45	1605	7.43	0.0					
8-10-19 21:30	17.50	1366	8.30	2.7	8-10-19 18:00	16.35	1350	7.13	7.2	8-10-19 18:00	16.77	991	8.67	43.1						11-10-19 16:45	0.43	1609	7.43	0.0					
8-10-19 21:45	17.53	1368	8.31	2.6	8-10-19 18:15	16.40	1348	7.17	10.7	8-10-19 18:15	16.88	1004	8.67	17.8						11-10-19 17:00	0.42	1610	7.43	0.0					
8-10-19 22:00	17.82	1370	8.32	2.8	8-10-19 18:30	16.49	1347	7.17	8.1	8-10-19 18:30	17.11	1005	8.66	41.4						11-10-19 17:15	0.42	1610	7.43	0.0					
8-10-19 22:15	17.68	1369	8.32	2.6	8-10-19 18:45	16.57	1347	7.21	7.7	8-10-19 18:45	17.35	1005	8.67	12.6						11-10-19 17:30	0.43	1612	7.44	0.0					
8-10-19 22:30	17.70	1367	8.32	2.6	8-10-19 19:00	16.54	1342	7.32	10.7	8-10-19 19:00	17.58	1013	8.65	45.3						11-10-19 17:45	0.41	1617	7.43	0.0					
8-10-19 22:45	17.78	1367	8.31	2.5	8-10-19 19:15	16.56	1339	7.64	8.4	8-10-19 19:15	17.71	1007	8.65	19.4						11-10-19 18:00	0.40	1602	7.43	0.0					
8-10-19 23:00	17.82	1367	8.32	2.7	8-10-19 19:30	16.55	1337	7.64	10.4	8-10-19 19:30	18.02	1004	8.66	36.6						11-10-19 18:15	0.40	1614	7.43	0.0					
8-10-19 23:15	17.92	1368	8.31	7.3	8-10-19 19:45	16.69	1339	7.15	12.1	8-10-19 19:45	17.90	1009	8.65	19.1						11-10-19 18:30	0.43	1611	7.43	0.0					
8-10-19 23:30	17.96	1368	8.32	3.2	8-10-19 20:00	17.40	1350	7.49	6.1	8-10-19 20:00	17.66	1009	8.64	39.2						11-10-19 18:45	0.41	1602	7.44	1.9					
8-10-19 23:45	17.97	1370	8.33	2.5	8-10-19 20:15	17.58	1348	7.35	6.7	8-10-19 20:15	17.49	1008	8.65	9.9						11-10-19 19:00	0.41	1601	7.44	4.9					
8-11-19 0:00	18.03	1370	8.33	2.6	8-10-19 20:30	17.48	1349	7.38	5.7	8-10-19 20:30	17.51	1008	8.65	15.4						11-10-19 19:30	0.42	1594	7.44	2.7					
8-11-19 0:15	17.96	1370	8.33	2.5	8-10-19 20:45	17.74	1350	7.35	4.8	8-10-19 20:45	17.65	1010	8.64	13.4						11-10-19 19:45	0.40	1595	7.43	0.0					
8-11-19 0:30	18.01	1371	8.35	2.6	8-10-19 21:00	17.91	1351	7.29	5.2	8-10-19 21:00	17.77	1012	8.64	24.9						11-10-19 20:00	0.40	1605	7.43	0.0					
8-11-19 0:45	17.95	1370	8.34	2.7	8-10-19 21:15	18.02	1350	7.26	6.0	8-10-19 21:15	17.80	1010	8.65	13.6						11-10-19 20:15	0.40	1605	7.43	0.0					
8-11-19 1:00	18.01	1372	8.35	2.6	8-10-19 21:30	18.22	1351	7.15	5.4	8-10-19 21:30	17.79	1011	8.66	43.5						11-10-19 20:30	0.40	1602	7.43	75.5					
8-11-19 1:15	17.97	1371	8.35	2.5	8-10-19 21:45	18.35	1351	7.23	5.8	8-10-19 21:45	18.00	1011	8.65	9.8						11-10-19 20:45	0.40	1602	7.44	0.0					
8-11-19 1:30	17.92	1371	8.35	2.5	8-10-19 22:00	18.41	1351	7.24	6.6	8-10-19 22:00	18.11	1011	8.65	14.2						11-10-19 21:00	0.41	1560	7.44	0.0					
8-11-19 1:45	17.90	1372	8.35	3.7	8-10-19 22:15	18.23	1351	7.49	6.8	8-10-19 22:15	18.24	1008	8.64	26.7						11-10-19 21:15	0.41	1609	7.44	0.0					
8-11-19 2:00	17.87	1372	8.36	2.6	8-10-19 22:30	18.10	1349	7.30	9.8	8-10-19 22:30	18.25	1014	8.64	19.9						11-10-19 21:30	0.40	1609	7.44	0.0					
8-11-19 2:15	17.86	1373	8.36	2.8	8-10-19 22:45	18.28	1350	7.46	5.5	8-10-19 22:45	18.27	1001	8.64	9.9						11-10-19 21:45	0.39	1602	7.43	0.0					
8-11-19 2:30	17.83	1372	8.36	2.6	8-10-19 23:00	18.54	1352	7.17	7.6	8-10-19 23:00	18.29	1014	8.65	45.6						11-10-19 22:00	0.39	1606	7.44	0.0					
8-11-19 2:45	17.77	1373	8.36	2.7	8-10-19 23:15	18.70	1352	7.10	5.2	8-10-19 23:15	18.41	999	8.64	16.4						11-10-19 22:15	0.39	1598	7.44	0.0					
8-11-19 3:00	17.74	1373	8.36	2.4	8-10-19 23:30	18.77	1352	7.24	5.2	8-10-19 23:30	18.41	1012	8.64	39.8						11-10-19 22:30	0.39	1600	7.44	0.0					
8-11-19 3:15	17.69	1374	8.37	2.4	8-10-19 23:45	18.88	1352	7.13	4.7	8-10-19 23:45	18.51	1012	8.64	10.8						11-10-19 22:45	0.40	1607	7.44	0.0					
8-11-19 3:30	17.64	1375	8.37	2.6	8-11-19 0:00	18.69	1350	7.41	5.8	8-11-19 0:00	18.65	1013	8.64	11.6						11-10-19 23:00	0.40	1607	7.44	0.0					
8-11-19 3:45	17.57	1375	8.38	2.4	8-11-19 0:15	18.96	1352	7.17	7.0	8-11-19 0:15	18.62	1013	8.63	11.2						11-10-19 23:15	0.40	1608	7.44	0.0					
8-11-19 4:00	17.52	1377	8.40	2.3	8-11-19 0:30	18.97	1351	7.22	6.4	8-11-19 0:30	18.56	1013	8.64	32.9						11-10-19 23:30	0.39	1609	7.44	0.0					
8-11-19 4:15	17.46	1376	8.39	2.3	8-11-19 0:45	18.90	1352	7.08	5.4	8-11-19 0:45	18.61	1000	8.64	10.7						11-10-19 23:45	0.38	1614	7.44	0.0					
8-11-19 4:30	17.40	1376	8.39	2.5	8-11-19 1:00	18.85	1351	7.29	4.7	8-11-19 1:00	18.76	1012	8.64	14.9						11-11-19 0:00	0.38	1611	7.43	0.0					
8-11-19 4:45	17.34	1375	8.38	2.4	8-11-19 1:15	18.70	1348	7.64	3.8	8-11-19 1:15	18.68	1012	8.64	12.6						11-11-19 0:15	0.38	1611	7.44	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-11-19 5:00	17.27	1369	8.36	2.4	8-11-19 1:30	18.60	1349	7.48	4.5	8-11-19 1:30	18.67	1013	8.64	43.7						11-11-19 0:30	0.38	1611	7.44	0.0					
8-11-19 5:15	17.22	1371	8.35	2.4	8-11-19 1:45	18.64	1352	6.99	4.6	8-11-19 1:45	18.63	1002	8.64	12.9						11-11-19 0:45	0.39	1609	7.44	0.0					
8-11-19 5:30	17.18	1370	8.37	2.4	8-11-19 2:00	18.55	1351	7.13	4.1	8-11-19 2:00	18.53	1012	8.64	43.5						11-11-19 1:00	0.39	1608	7.44	0.0					
8-11-19 5:45	17.14	1370	8.39	2.6	8-11-19 2:15	18.49	1349	7.24	4.1	8-11-19 2:15	18.54	1008	8.65	33.3						11-11-19 1:15	0.38	1612	7.45	0.0					
8-11-19 6:00	17.11	1372	8.43	2.8	8-11-19 2:30	18.56	1352	6.92	4.6	8-11-19 2:30	18.56	1013	8.65	44.7						11-11-19 1:30	0.38	1611	7.44	0.0					
8-11-19 6:15	17.09	1375	8.41	2.4	8-11-19 2:45	18.51	1352	6.98	4.5	8-11-19 2:45	18.52	1008	8.64	12.3						11-11-19 1:45	0.37	1613	7.44	0.0					
8-11-19 6:30	17.07	1376	8.41	2.4	8-11-19 3:00	18.45	1351	6.98	2.7	8-11-19 3:00	18.48	1011	8.64	30.9						11-11-19 2:00	0.36	1611	7.44	0.0					
8-11-19 6:45	17.04	1379	8.41	2.4	8-11-19 3:15	18.33	1350	7.04	2.7	8-11-19 3:15	18.42	1012	8.64	20.5						11-11-19 2:15	0.36	1612	7.43	0.0					
8-11-19 7:00	17.01	1381	8.41	2.7	8-11-19 3:30	18.26	1349	7.02	3.7	8-11-19 3:30	18.35	1012	8.64	47.0						11-11-19 2:30	0.36	1604	7.44	92.1					
8-11-19 7:15	16.99	1384	8.39	2.3	8-11-19 3:45	18.14	1350	7.12	3.4	8-11-19 3:45	18.30	1013	8.64	15.0						11-11-19 2:45	0.37	1606	7.44	7.9					
8-11-19 7:30	16.94	1383	8.39	2.3	8-11-19 4:00	18.07	1347	7.53	3.6	8-11-19 4:00	18.25	1013	8.64	36.6						11-11-19 3:00	0.36	1608	7.44	0.0					
8-11-19 7:45	16.91	1383	8.38	2.3	8-11-19 4:15	18.09	1350	6.96	3.7	8-11-19 4:15	18.20	1012	8.65	13.0						11-11-19 3:15	0.36	1615	7.44	0.0					
8-11-19 8:00	16.87	1381	8.37	2.2	8-11-19 4:30	18.05	1350	7.07	3.3	8-11-19 4:30	18.15	1012	8.65	43.8						11-11-19 3:30	0.36	1608	7.44	0.0					
8-11-19 8:15	16.83	1383	8.37	2.4	8-11-19 4:45	18.03	1349	7.12	4.0	8-11-19 4:45	18.10	1012	8.65	21.3						11-11-19 3:45	0.35	1606	7.44	0.0					
8-11-19 8:30	16.79	1379	8.36	2.5	8-11-19 5:00	17.99	1349	7.14	2.7	8-11-19 5:00	18.04	1012	8.65	43.1						11-11-19 4:00	0.34	1611	7.43	0.0					
8-11-19 8:45	16.75	1380	8.36	2.4	8-11-19 5:15	17.93	1349	7.09	2.8	8-11-19 5:15	17.99	1012	8.65	18.1						11-11-19 4:15	0.34	1611	7.43	0.0					
8-11-19 9:00	16.72	1380	8.37	2.7	8-11-19 5:30	17.88	1348	7.24	2.8	8-11-19 5:30	17.94	1012	8.65	43.3						11-11-19 4:30	0.34	1613	7.44	4.7					
8-11-19 9:15	16.67	1379	8.36	2.3	8-11-19 5:45	17.84	1348	7.13	3.1	8-11-19 5:45	17.91	1012	8.64	11.9						11-11-19 4:45	0.35	1605	7.44	0.0					
8-11-19 9:30	16.65	1379	8.37	2.3	8-11-19 6:00	17.75	1348	7.06	2.5	8-11-19 6:00	17.85	1012	8.64	44.2						11-11-19 5:00	0.35	1610	7.44	0.0					
8-11-19 9:45	16.61	1379	8.37	2.1	8-11-19 6:15	17.72	1347	7.34	2.9	8-11-19 6:15	17.80	1012	8.64	13.6						11-11-19 5:15	0.35	1608	7.44	0.0					
8-11-19 10:00	16.57	1379	8.36	2.2	8-11-19 6:30	17.66	1347	7.12	3.0	8-11-19 6:30	17.76	1012	8.64	42.2						11-11-19 5:30	0.34	1612	7.43	0.0					
8-11-19 10:15	16.54	1379	8.36	2.3	8-11-19 6:45	17.59	1347	7.07	2.4	8-11-19 6:45	17.72	1012	8.65	24.4						11-11-19 5:45	0.33	1611	7.43	0.0					
8-11-19 10:30	16.51	1378	8.36	2.2	8-11-19 7:00	17.55	1346	7.11	1.8	8-11-19 7:00	17.66	1012	8.65	39.9						11-11-19 6:00	0.33	1594	7.42	0.0					
8-11-19 10:45	16.46	1379	8.35	2.2	8-11-19 7:15	17.48	1347	7.05	1.9	8-11-19 7:15	17.63	1012	8.65	9.5						11-11-19 6:15	0.33	1566	7.42	0.0					
8-11-19 11:00	16.42	1380	8.37	2.5	8-11-19 7:30	17.44	1346	7.16	2.2	8-11-19 7:30	17.58	1012	8.64	43.2						11-11-19 6:30	0.33	1565	7.43	0.0					
8-11-19 11:15	16.40	1381	8.36	2.3	8-11-19 7:45	17.39	1346	7.07	2.1	8-11-19 7:45	17.54	1012	8.65	19.0						11-11-19 6:45	0.33	1610	7.43	0.0					
8-11-19 11:30	16.36	1380	8.35	2.6	8-11-19 8:00	17.32	1346	7.06	2.4	8-11-19 8:00	17.48	1012	8.65	43.8						11-11-19 7:00	0.33	1609	7.43	0.0					
8-11-19 11:45	16.33	1381	8.35	2.3	8-11-19 8:15	17.29	1346	7.21	2.7	8-11-19 8:15	17.44	1012	8.65	13.4						11-11-19 7:15	0.33	1613	7.43	0.0					
8-11-19 12:00	16.30	1380	8.34	2.2	8-11-19 8:30	17.22	1346	7.08	3.1	8-11-19 8:30	17.39	1011	8.65	41.4						11-11-19 7:30	0.33	1609	7.42	0.0					
8-11-19 12:15	16.25	1381	8.33	2.3	8-11-19 8:45	17.18	1345	7.13	2.7	8-11-19 8:45	17.36	1011	8.64	11.4						11-11-19 7:45	0.32	1590	7.42	0.0					
8-11-19 12:30	16.24	1381	8.35	2.3	8-11-19 9:00	17.15	1344	7.19	2.7	8-11-19 9:00	17.32	1011	8.65	44.2						11-11-19 8:00	0.32	1614	7.42	0.0					
8-11-19 12:45	16.19	1382	8.34	2.4	8-11-19 9:15	17.08	1345	7.03	2.3	8-11-19 9:15	17.27	1011	8.65	9.3						11-11-19 8:15	0.31	1614	7.41	0.0					
8-11-19 13:00	16.16	1381	8.33	2.5	8-11-19 9:30	17.04	1345	7.13	2.3	8-11-19 9:30	17.23	1011	8.65	43.3						11-11-19 8:30	0.31	1594	7.42	0.0					
8-11-19 13:15	16.10	1381	8.33	2.3	8-11-19 9:45	17.01	1345	7.12	2.8	8-11-19 9:45	17.17	1011	8.65	12.7						11-11-19 8:45	0.32	1611	7.42	0.0					
8-11-19 13:30	16.08	1381	8.34	2.5	8-11-19 10:00	17.02	1344	7.12	2.7	8-11-19 10:00	17.13	1011	8.65	45.7						11-11-19 9:00	0.32	1613	7.42	0.0					
8-11-19 13:45	16.04	1382	8.33	2.7	8-11-19 10:15	16.99	1345	7.12	2.8	8-11-19 10:15	17.09	1011	8.65	9.3						11-11-19 9:15	0.32	1613	7.42	0.0					
8-11-19 14:00	16.01	1381	8.34	2.3	8-11-19 10:30	16.92	1344	7.13	2.9	8-11-19 10:30	17.03	1011	8.64	44.4						11-11-19 9:30	0.32	1611	7.41	0.0					
8-11-19 14:15	15.96	1382	8.32	2.4	8-11-19 10:45	16.88	1345	7.07	3.1	8-11-19 10:45	16.99	1011	8.64	19.1						11-11-19 9:45	0.31	1612	7.41	0.0					
8-11-19 14:30	15.95	1382	8.33	2.5	8-11-19 11:00	16.84	1344	7.07	3.1	8-11-19 11:00	16.95	1012	8.64	43.9						11-11-19 10:00	0.30	1609	7.41	0.0					
8-11-19 14:45	15.94	1382	8.32	2.5	8-11-19 11:15	16.84	1344	7.16	3.1	8-11-19 11:15	16.92	1012	8.64	10.3						11-11-19 10:15	0.30	1590	7.41	0.0					
8-11-19 15:00	15.93	1382	8.32	2.4	8-11-19 11:30	16.80	1344	7.08	3.2	8-11-19 11:30	16.89	1011	8.64	47.2						11-11-19 10:30	0.30	1592	7.41	0.0					
8-11-19 15:15	15.91	1382	8.33	3.8	8-11-19 11:45	16.73	1344	7.11	4.6	8-11-19 11:45	16.86	1012	8.64	8.6						11-11-19 10:45	0.31	1613	7.41	0.0					
8-11-19 15:30	15.90	1381	8.33	2.4	8-11-19 12:00	16.73	1344	7.11	4.0	8-11-19 12:00	16.82	1011	8.64	43.9						11-11-19 11:00	0.31	1608	7.41	0.0					
8-11-19 15:45	15.87	1381	8.34	2.5	8-11-19 12:15	16.72	1343	7.17	3.9	8-11-19 12:15	16.79	1011	8.64	9.4						11-11-19 11:15	0.31	1601	7.41	0.1					
8-11-19 16:00	15.86	1382	8.34	2.4	8-11-19 12:30	16.68	1343	7.19	3.7	8-11-19 12:30	16.74	1011	8.64	45.3						11-11-19 11:30	0.31	1597	7.40	0.0					
8-11-19 16:15	15.86	1382	8.35	3.5	8-11-19 12:45	16.64	1342	7.16	4.1	8-11-19 12:45	16.73	1011	8.64	9.3						11-11-19 11:45	0.30	1616	7.40	0.0					
8-11-19 16:30	15.84	1383	8.35	2.5	8-11-19 13:00	16.65	1342	7.18	4.1	8-11-19 13:00	16.69	1011	8.63	47.0						11-11-19 12:00	0.30	1616	7.40	0.0					
8-11-19 16:45	15.85	1383	8.35	2.7	8-11-19 13:15	16.64	1342	7.21	3.8	8-11-19 13:15	16.66	1011	8.64	15.0						11-11-19 12:15	0.29	1615	7.40	0.0					
8-11-19 17:00	15.88	1382	8.35	2.8	8-11-19 13:30	16.64	1343	7.20	5.9	8-11-19 13:30	16.63	1011	8.63	50.6						11-11-19 12:30	0.29	1615	7.40	0.0					
8-11-19 17:15	15.87	1383	8.35	2.9	8-11-19 13:45	16.63	1343	7.19	4.3	8-11-19 13:45	16.62	1011	8.63	11.6						11-11-19 12:45	0.30	1613	7.41	0.0					
8-11-19 17:30	15.87	1384	8.35	2.9	8-11-19 14:00	16.62	1343	7.22	5.4	8-11-19 14:00	16.59	1011	8.64	36.5						11-11-19 13:00	0.31	1614	7.41	0.0					
8-11-19 17:45	15.96	1384	8.35	3.5	8-11-19 14:15	16.59	1343	7.24	5.6	8-11-19 14:15	16.55	1012	8.63	7.8						11-11-19 13:15	0.30	1612	7.41	0.0					
8-11-19 18:00	16.03	1384	8.35	3.0	8-11-19 14:30	16.56	1343	7.22	4.9	8-11-19 14:30	16.54	1012	8.63	47.7						11-11-19 13:30	0.30	1614	7.41	0.0					
8-11-19 18:15	16.13	1384	8.35	2.5	8-11-19 14:45	16.61	1343	7.17	6.1	8-11-19 14:45	16.54	1012	8.62	8.2						11-11-19 13:45	0.29	1618	7.40	0.0					
8-11-19 18:30	16.19	1385	8.35	2.6	8-11-19 15:00	16.59	1343	7.18	6.1	8-11-19 15:00	16.54	1013	8.62	46.7						11-11-19 14:00	0.29	1618	7.40	0.0					
8-11-19 18:45	16.26	1386	8.35	2.4	8-11-19 15:15	16.60	1342	7.20	6.7	8-11-19 15:15	16.51	1013	8.62	14.8						11-11-19 14:15	0.29	1616	7.40	0.0					
8-11-19 19:00	16.44	1387	8.36	2.3	8-11-19 15:30	16.59	1341	7.29	8.6	8-11-19 15:30	16.50	1013	8.63	44.5						11-11-19 14:30	0.29	1617	7.40	0.0					
8-11-19 19:15	16.65	1388	8.37	2.3	8-11-19 15:45	16.55	1338	7.34	8.4	8-11-19 15:45	16.50	1012	8.63	8.6						11-11-19 14:45	0.30	1611	7.41	0.0					
8-11-19 19:30	16.67	1385	8.35	2.9	8-11-19 16:00	16.49	1334	7.42	9.4	8-11-19 16:00	16.48	1013	8.62	48.5						11-11-19 15:00	0.29	1611	7.40	0.0					
8-11-19 19:45	16.77	1386	8.35	2.7	8-11-19 16:15	16.47	1334	7.32	11.7	8-11-19 16:15	16.49	1013	8.62	10.9						11-11-19 15:15	0.29	1603	7.41	0.0					
8-11-19 20:00	16.97	1385	8.35	2.8	8-11-19 16:30	16.45	1334	7.33	8.9	8-11-19 16:30	16.49	1013	8.61	51.1						11-11-19 15:30	0.30	1614	7.40	0.0					
8-11-19 20:15	16.98	1390	8.35	3.2	8-11-19 16:45	16.45	1333	7.31	7.5	8-11-19 16:45	16.52	1014	8.60	13.2						11-11-19 15:45	0.28	1618	7.40	0.0					
8-11-19 20:30	17.18	1388	8.35	2.4	8-11-19 17:00	16.46	1333	7.32	6.7	8-11-19 17:00	16.53	1014	8.60	43.8						11-11-19 16:00	0.28	1618	7.40	0.0					
8-11-19 20:45	17.35	1387	8.33	2.3	8-11-19 17:15	16.42	1332	7.38	6.5	8-11-19 17:15	16.53	1014	8.59	37.4						11-11-19 16:15	0.28	1615	7.40	0.0					
8-11-19 21:00					8-11-19 17:30	16.43	1332	7.33	5.7	8-11-19 17:30	16.55	1014	8.60	61.9						11-11-19 16:30	0.28	1618	7.40	0.0					
8-11-19 21:15					8-11-19 17:45	16.47	1332	7.34	6.5	8-11-19 17:45	16.59	1014	8.60	36.8						11-11-19 16:45	0.30	1614	7.41	0.0					
8-11-19 21:30					8-11-19 18:00	16.50	1332	7.32	7.2	8-11-19 18:00	16.64	1014	8.61	50.4						11-11-19 17:00	0.33	1605	7.41	0.0					
8-11-19 21:45					8-11-19 18:15					8-11-19 18:15										11-11-19 17:15	0.32	1618	7.41	0.0					
8-11-19 22:00					8-11-19 18:30					8-11-19 18:30										11-11-19 17:30	0.32	1618	7.40	0.0					
8-11-19 22:15					8-11-19 18:45					8-11-19 18:45										11-11-19 17:45	0.31	1620	7.39	0.0					
8-11-19 22:30					8-11-19 19:00					8-11-19 19:00										11-11-19 18:00	0.31	1621	7.40	0.0					
8-11-19 22:45					8-11-19 19:15					8-11-19 19:15										11-11-19 18:15	0.31	1622	7.40	0.0					
8-11-19 23:00					8-11-19 19:30					8-11-19 19:30										11-11-19 18:30	0.31	1621	7.40	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-11-19 23:15	20.04	1383	8.19	1.6	8-11-19 19:45					8-11-19 19:45										11-11-19 18:45	0.31	1617	7.41	0.0					
8-11-19 23:30	19.27	1412	8.47	1.8	8-11-19 20:00					8-11-19 20:00										11-11-19 19:00	0.32	1618	7.41	0.0					
8-11-19 23:45	19.21	1427	8.64	1.9	8-11-19 20:15					8-11-19 20:15										11-11-19 19:15	0.31	1614	7.41	0.0					
8-12-19 0:00	19.18	1420	8.58	2.0	8-11-19 20:30					8-11-19 20:30										11-11-19 19:30	0.32	1615	7.41	0.0					
8-12-19 0:15	19.31	1420	8.56	2.4	8-11-19 20:45					8-11-19 20:45										11-11-19 19:45	0.31	1621	7.40	0.0					
8-12-19 0:30	19.31	1415	8.50	3.9	8-11-19 21:00					8-11-19 21:00										11-11-19 20:00	0.31	1618	7.40	0.0					
8-12-19 0:45	19.44	1411	8.50	6.4	8-11-19 21:15	18.00	1294	7.70	8.1	8-11-19 21:15	19.55	1037	8.40	9.6						11-11-19 20:15	0.30	1618	7.40	0.0					
8-12-19 1:00	19.54	1408	8.50	0.8	8-11-19 21:30	17.76	1322	6.89	9.3	8-11-19 21:30	19.45	1030	8.32	10.2						11-11-19 20:30	0.30	1619	7.40	0.0					
8-12-19 1:15	19.29	1408	8.48	44.7	8-11-19 21:45	17.70	1316	7.42	8.6	8-11-19 21:45	19.50	1035	8.20	10.6						11-11-19 20:45	0.31	1616	7.40	0.0					
8-12-19 1:30	19.18	1414	8.49	10.9	8-11-19 22:00	17.75	1316	7.45	10.1	8-11-19 22:00	19.80	1037	8.17	10.5						11-11-19 21:00	0.31	1616	7.41	0.0					
8-12-19 1:45	19.48	1423	8.53	5.0	8-11-19 22:15	17.89	1322	7.38	7.4	8-11-19 22:15	19.81	1033	8.21	9.8						11-11-19 21:15	0.31	1613	7.41	0.0					
8-12-19 2:00	19.46	1419	8.52	0.6	8-11-19 22:30	18.02	1323	7.07	7.8	8-11-19 22:30	20.05	1032	8.25	11.5						11-11-19 21:30	0.31	1615	7.40	0.0					
8-12-19 2:15	19.35	1413	8.53	1.3	8-11-19 22:45	18.87	1324	7.38	76.8	8-11-19 22:45	20.17	1034	8.30	10.9						11-11-19 21:45	0.30	1620	7.40	0.0					
8-12-19 2:30	19.18	1409	8.56	0.9	8-11-19 23:00	19.29	1325	7.20	6.8	8-11-19 23:00	19.61	1034	8.34	11.7						11-11-19 22:00	0.29	1620	7.40	0.0					
8-12-19 2:45	19.09	1412	8.54	0.9	8-11-19 23:15	19.71	1320	7.15	5.2	8-11-19 23:15	20.09	1032	8.37	10.7						11-11-19 22:15	0.29	1617	7.40	0.0					
8-12-19 3:00	18.94	1437	8.54	0.5	8-11-19 23:30	19.59	1326	7.63	6.0	8-11-19 23:30	20.23	1042	8.38	9.9						11-11-19 22:30	0.29	1613	7.40	0.0					
8-12-19 3:15	18.82	1413	8.56	1.3	8-11-19 23:45	18.98	1322	7.67	10.6	8-11-19 23:45	20.34	1034	8.39	10.2						11-11-19 22:45	0.29	1614	7.40	0.0					
8-12-19 3:30	18.72	1429	8.57	1.2	8-12-19 0:00	19.18	1320	7.60	8.9	8-12-19 0:00	20.15	1025	8.41	11.0						11-11-19 23:00	0.29	1607	7.41	0.0					
8-12-19 3:45	18.67	1426	8.57	11.5	8-12-19 0:15	18.20	1321	7.77	13.2	8-12-19 0:15	20.22	1035	8.39	10.8						11-11-19 23:15	0.29	1600	7.41	0.1					
8-12-19 4:00	18.59	1421	8.56	0.4	8-12-19 0:30	18.14	1320	7.74	3.2	8-12-19 0:30	20.54	1039	8.40	10.4						11-11-19 23:30	0.29	1609	7.40	0.0					
8-12-19 4:15	18.43	1419	8.57	8.5	8-12-19 0:45	18.07	1323	7.71	1.4	8-12-19 0:45	20.59	1037	8.39	9.4						11-11-19 23:45	0.28	1635	7.40	0.0					
8-12-19 4:30	18.36	1430	8.55	3.4	8-12-19 1:00	19.33	1324	7.48	1.0	8-12-19 1:00	20.60	1036	8.40	10.3						11-12-19 0:00	0.28	1593	7.40	0.0					
8-12-19 4:45	18.28	1421	8.58	1.5	8-12-19 1:15	20.03	1328	7.29	4.9	8-12-19 1:15	20.53	1038	8.40	8.8						11-12-19 0:15	0.28	1600	7.40	0.0					
8-12-19 5:00	18.21	1412	8.57	1.3	8-12-19 1:30	20.13	1328	7.12	5.1	8-12-19 1:30	20.37	1036	8.40	9.5						11-12-19 0:30	0.27	1599	7.40	0.0					
8-12-19 5:15	18.13	1419	8.57	0.9	8-12-19 1:45	20.14	1328	7.14	4.5	8-12-19 1:45	20.47	1037	8.41	9.2						11-12-19 0:45	0.28	1613	7.40	1.0					
8-12-19 5:30	18.05	1415	8.57	0.3	8-12-19 2:00	20.23	1326	7.25	3.8	8-12-19 2:00	20.34	1032	8.41	9.7						11-12-19 1:00	0.28	1617	7.40	1.8					
8-12-19 5:45	17.98	1420	8.56	0.9	8-12-19 2:15	19.78	1317	7.22	6.4	8-12-19 2:15	20.30	1036	8.41	9.0						11-12-19 1:15	0.28	1612	7.40	0.0					
8-12-19 6:00	17.91	1412	8.55	0.4	8-12-19 2:30	18.99	1320	7.51	5.9	8-12-19 2:30	20.09	1027	8.41	8.4						11-12-19 1:30	0.27	1611	7.40	1.4					
8-12-19 6:15	17.84	1419	8.55	5.0	8-12-19 2:45	18.76	1328	7.48	6.2	8-12-19 2:45	20.18	1026	8.42	9.1						11-12-19 1:45	0.26	1619	7.39	0.0					
8-12-19 6:30	17.80	1431	8.54	0.2	8-12-19 3:00	18.45	1323	7.58	5.9	8-12-19 3:00	20.05	1035	8.42	9.4						11-12-19 2:00	0.26	1618	7.40	0.0					
8-12-19 6:45	17.74	1418	8.55	2.3	8-12-19 3:15	18.45	1325	7.61	6.8	8-12-19 3:15	19.94	1034	8.42	8.4						11-12-19 2:15	0.26	1619	7.40	0.0					
8-12-19 7:00	17.69	1411	8.55	0.8	8-12-19 3:30	18.66	1325	7.36	5.6	8-12-19 3:30	19.79	1034	8.42	8.3						11-12-19 2:30	0.25	1615	7.40	0.0					
8-12-19 7:15	17.68	1418	8.55	3.6	8-12-19 3:45	18.62	1325	7.42	5.3	8-12-19 3:45	19.66	1033	8.42	7.2						11-12-19 2:45	0.26	1606	7.40	0.0					
8-12-19 7:30	17.65	1414	8.54	0.7	8-12-19 4:00	18.18	1325	7.66	7.1	8-12-19 4:00	19.58	1026	8.43	6.7						11-12-19 3:00	0.26	1615	7.40	0.0					
8-12-19 7:45	17.63	1424	8.54	0.5	8-12-19 4:15	18.33	1327	7.43	7.6	8-12-19 4:15	19.49	1033	8.43	6.6						11-12-19 3:15	0.26	1617	7.40	0.0					
8-12-19 8:00	17.59	1421	8.54	2.5	8-12-19 4:30	18.08	1325	7.68	6.7	8-12-19 4:30	19.40	1033	8.43	6.5						11-12-19 3:30	0.26	1599	7.40	0.0					
8-12-19 8:15	17.55	1444	8.55	6.7	8-12-19 4:45	17.97	1326	7.61	8.1	8-12-19 4:45	19.25	1031	8.42	7.0						11-12-19 3:45	0.25	1589	7.39	0.0					
8-12-19 8:30	17.53	1418	8.56	7.2	8-12-19 5:00	17.86	1327	7.12	6.2	8-12-19 5:00	19.09	1032	8.43	6.5						11-12-19 4:00	0.24	1590	7.39	0.0					
8-12-19 8:45	17.49	1427	8.55	3.3	8-12-19 5:15	17.81	1328	7.10	6.2	8-12-19 5:15	18.97	1031	8.42	6.6						11-12-19 4:15	0.24	1589	7.39	0.0					
8-12-19 9:00	17.46	1427	8.54	0.5	8-12-19 5:30	17.73	1329	7.09	5.3	8-12-19 5:30	18.87	1029	8.42	6.7						11-12-19 4:30	0.24	1582	7.40	0.0					
8-12-19 9:15	17.43	1426	8.54	15.6	8-12-19 5:45	17.63	1328	7.09	6.7	8-12-19 5:45	18.76	1030	8.41	8.0						11-12-19 4:45	0.25	1615	7.40	0.4					
8-12-19 9:30	17.39	1434	8.54	0.7	8-12-19 6:00	17.76	1325	7.42	6.3	8-12-19 6:00	18.68	1028	8.41	7.7						11-12-19 5:00	0.25	1617	7.40	0.0					
8-12-19 9:45	17.36	1427	8.53	0.4	8-12-19 6:15	17.70	1326	7.19	6.7	8-12-19 6:15	18.58	1017	8.40	6.8						11-12-19 5:15	0.24	1619	7.40	0.0					
8-12-19 10:00	17.35	1425	8.53	1.4	8-12-19 6:30	17.70	1324	7.55	6.4	8-12-19 6:30	18.49	1019	8.40	9.4						11-12-19 5:30	0.24	1618	7.40	0.2					
8-12-19 10:15	17.30	1431	8.54	2.2	8-12-19 6:45	17.61	1325	7.59	4.7	8-12-19 6:45	18.36	1024	8.40	6.8						11-12-19 5:45	0.24	1617	7.39	0.0					
8-12-19 10:30	17.27	1428	8.53	0.8	8-12-19 7:00	17.63	1324	7.69	5.0	8-12-19 7:00	18.31	1026	8.40	6.5						11-12-19 6:00	0.23	1620	7.39	0.0					
8-12-19 10:45	17.24	1427	8.53	0.3	8-12-19 7:15	17.66	1323	7.72	4.6	8-12-19 7:15	18.19	1022	8.40	7.8						11-12-19 6:15	0.23	1616	7.39	0.0					
8-12-19 11:00	17.19	1429	8.53	1.0	8-12-19 7:30	17.68	1324	7.71	4.2	8-12-19 7:30	18.13	1033	8.40	7.0						11-12-19 6:30	0.23	1656	7.40	11.3					
8-12-19 11:15	17.14	1431	8.54	0.8	8-12-19 7:45	17.60	1325	7.70	4.1	8-12-19 7:45	18.08	1027	8.39	7.0						11-12-19 6:45	0.24	1613	7.40	87.8					
8-12-19 11:30	17.10	1441	8.55	0.4	8-12-19 8:00	17.48	1328	7.33	4.3	8-12-19 8:00	17.99	1024	8.39	6.7						11-12-19 7:00	0.23	1614	7.40	0.0					
8-12-19 11:45	17.06	1429	8.54	1.5	8-12-19 8:15	17.42	1328	7.22	3.1	8-12-19 8:15	17.96	1029	8.39	7.1						11-12-19 7:15	0.23	1644	7.40	0.0					
8-12-19 12:00	17.02	1431	8.53	30.5	8-12-19 8:30	17.41	1326	7.36	4.1	8-12-19 8:30	17.87	1029	8.39	7.1						11-12-19 7:30	0.23	1619	7.40	0.0					
8-12-19 12:15	16.98	1431	8.54	1.5	8-12-19 8:45	17.59	1319	7.76	3.3	8-12-19 8:45	17.78	1028	8.39	20.1						11-12-19 7:45	0.23	1622	7.39	0.0					
8-12-19 12:30	16.95	1432	8.53	0.9	8-12-19 9:00	17.45	1322	7.55	4.4	8-12-19 9:00	17.73	1027	8.39	6.9						11-12-19 8:00	0.22	1620	7.39	0.0					
8-12-19 12:45	16.90	1433	8.54	0.8	8-12-19 9:15	17.38	1322	7.57	4.0	8-12-19 9:15	17.70	1028	8.37	7.6						11-12-19 8:15	0.22	1621	7.39	0.0					
8-12-19 13:00	16.85	1432	8.53	2.8	8-12-19 9:30	17.40	1322	7.73	3.8	8-12-19 9:30	17.65	1026	8.36	8.3						11-12-19 8:30	0.22	1613	7.40	0.0					
8-12-19 13:15	16.81	1432	8.52	1.0	8-12-19 9:45	17.33	1325	7.20	2.6	8-12-19 9:45	17.57	1026	8.37	7.7						11-12-19 8:45	0.22	1616	7.40	0.0					
8-12-19 13:30	16.77	1432	8.52	3.3	8-12-19 10:00	17.31	1325	7.19	3.0	8-12-19 10:00	17.52	1024	8.38	6.3						11-12-19 9:00	0.22	1613	7.40	0.0					
8-12-19 13:45	16.74	1432	8.51	0.9	8-12-19 10:15	17.29	1327	7.15	2.8	8-12-19 10:15	17.46	1026	8.38	8.0						11-12-19 9:15	0.22	1615	7.40	0.0					
8-12-19 14:00	16.71	1432	8.51	0.6	8-12-19 10:30	17.25	1327	7.09	3.0	8-12-19 10:30	17.42	1027	8.38	7.7						11-12-19 9:30	0.22	1616	7.40	0.0					
8-12-19 14:15	16.68	1432	8.51	0.9	8-12-19 10:45	17.20	1329	7.11	4.3	8-12-19 10:45	17.36	1026	8.37	6.8						11-12-19 9:45	0.22	1588	7.39	0.0					
8-12-19 14:30	16.67	1434	8.51	0.4	8-12-19 11:00	17.17	1330	7.06	3.5	8-12-19 11:00	17.30	1026	8.37	7.3						11-12-19 10:00	0.21	1584	7.39	0.0					
8-12-19 14:45	16.65	1433	8.52	0.6	8-12-19 11:15	17.12	1330	6.99	3.5	8-12-19 11:15	17.26	1025	8.37	8.1						11-12-19 10:15	0.21	1584	7.39	0.0					
8-12-19 15:00	16.65	1434	8.52	0.3	8-12-19 11:30	17.08	1331	7.04	3.3	8-12-19 11:30	17.23	1014	8.37	8.0						11-12-19 10:30	0.21	1572	7.40	0.0					
8-12-19 15:15	16.66	1431	8.52	0.5	8-12-19 11:45	17.06	1331	7.17	3.7	8-12-19 11:45	17.19	1025	8.37	7.6						11-12-19 10:45	0.22	1608	7.40	0.0					
8-12-19 15:30	16.66	1430	8.51	0.6	8-12-19 12:00	17.04	1331	7.16	3.7	8-12-19 12:00	17.15	1025	8.37	8.5						11-12-19 11:00	0.21	1610	7.40	0.0					
8-12-19 15:45	16.69	1435	8.52	1.8	8-12-19 12:15	17.00	1331	7.15	4.0	8-12-19 12:15	17.11	1026	8.37	8.2						11-12-19 11:15	0.21	1566	7.40	0.0					
8-12-19 16:00	16.74	1432	8.50	0.6	8-12-19 12:30	16.99	1331	7.14	3.2	8-12-19 12:30	17.08	1025	8.37	8.1						11-12-19 11:30	0.22	1615	7.40	0.0					
8-12-19 16:15	16.78	1432	8.50	0.7	8-12-19 12:45	16.98	1331	7.18	3.1	8-12-19 12:45	17.03	1025	8.37	7.9						11-12-19 11:45	0.21	1618	7.39	0.0					
8-12-19 16:30	16.84	1432	8.50	0.4	8-12-19 13:00	16.97	1331	7.16	3.3	8-12-19 13:00	17.00	1025	8.37	7.9						11-12-19 12:00	0.21	1614	7.39	0.0					
8-12-19 16:45	16.93	1430	8.50	0.7	8-12-19 13:15	16.94	1331	7.23	3.6	8-12-19 13:15	16.95	1026	8.37	7.4						11-12-19 12:15	0.20	1616	7.40	0.0					
8-12-19 17:00	17.01	1430	8.49	0.4	8-12-19 13:30	16.92	1332	7.11	5.2	8-12-19 13:30	16.89	1023	8.37	7.5						11-12-19 12:30	0.20	1614	7.40	53.3					
8-12-19 17:15	17.11	1432	8.50	2.1	8-12-19 13:45	16.90	1332	7.04	4.0	8-12-19 13:45	16.90	1021	8.36	9.4						11-12-19 12:45	0.21	1613	7.40	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-12-19 17:30	17.22	1436	8.52	0.4	8-12-19 14:00	16.94	1329	7.55	7.8	8-12-19 14:00	16.89	980	8.36	10.0						11-12-19 13:00	0.22	1617	7.40	0.0					
8-12-19 17:45	17.32	1439	8.54	0.5	8-12-19 14:15	16.92	1329	7.62	10.5	8-12-19 14:15	16.88	1024	8.34	9.0						11-12-19 13:15	0.21	1614	7.40	0.0					
8-12-19 18:00	17.45	1439	8.54	0.4	8-12-19 14:30	16.90	1330	7.40	6.1	8-12-19 14:30	16.88	976	8.35	9.2						11-12-19 13:30	0.21	1616	7.40	0.0					
8-12-19 18:15	17.69	1439	8.53	0.5	8-12-19 14:45	16.93	1329	7.63	6.2	8-12-19 14:45	16.87	1023	8.34	8.9						11-12-19 13:45	0.20	1618	7.39	0.0					
8-12-19 18:30	17.69	1436	8.53	0.5	8-12-19 15:00	16.93	1329	7.64	6.7	8-12-19 15:00	16.87	1021	8.34	9.3						11-12-19 14:00	0.20	1621	7.40	0.0					
8-12-19 18:45	17.86	1437	8.53	0.4	8-12-19 15:15	16.94	1329	7.64	7.3	8-12-19 15:15	16.88	1020	8.33	10.8						11-12-19 14:15	0.20	1591	7.40	0.0					
8-12-19 19:00	18.06	1442	8.51	0.3	8-12-19 15:30	16.96	1329	7.65	6.6	8-12-19 15:30	16.89	1019	8.33	10.3						11-12-19 14:30	0.20	1569	7.40	43.7					
8-12-19 19:15	18.15	1434	8.51	0.7	8-12-19 15:45	17.00	1329	7.66	6.3	8-12-19 15:45	16.92	1022	8.33	11.0						11-12-19 14:45	0.21	1599	7.40	0.0					
8-12-19 19:30	18.30	1429	8.48	0.7	8-12-19 16:00	17.05	1329	7.66	5.8	8-12-19 16:00	16.99	1023	8.33	10.6						11-12-19 15:00	0.21	1617	7.40	0.0					
8-12-19 19:45	18.50	1441	8.55	1.3	8-12-19 16:15	17.08	1329	7.66	6.7	8-12-19 16:15	17.07	1025	8.34	10.1						11-12-19 15:15	0.20	1616	7.40	0.0					
8-12-19 20:00	18.70	1433	8.51	1.2	8-12-19 16:30	17.15	1329	7.65	6.5	8-12-19 16:30	17.14	1024	8.34	10.6						11-12-19 15:30	0.21	1616	7.40	0.0					
8-12-19 20:15	18.92	1438	8.53	2.1	8-12-19 16:45	17.21	1329	7.66	4.8	8-12-19 16:45	17.25	1025	8.35	10.2						11-12-19 15:45	0.20	1597	7.40	0.0					
8-12-19 20:30	18.94	1454	8.54	7.1	8-12-19 17:00	17.30	1329	7.67	4.9	8-12-19 17:00	17.38	1025	8.35	9.7						11-12-19 16:00	0.20	1596	7.40	0.0					
8-12-19 20:45	19.19	1438	8.52	1.0	8-12-19 17:15	17.43	1329	7.67	4.6	8-12-19 17:15	17.54	1026	8.35	9.9						11-12-19 16:15	0.19	1595	7.40	0.0					
8-12-19 21:00	19.38	1432	8.52	0.5	8-12-19 17:30	17.44	1328	7.68	6.3	8-12-19 17:30	17.65	1025	8.34	8.6						11-12-19 16:30	0.19	1593	7.40	0.0					
8-12-19 21:15	19.62	1445	8.52	0.7	8-12-19 17:45	17.40	1325	7.70	6.1	8-12-19 17:45	17.84	1023	8.31	9.7						11-12-19 16:45	0.20	1615	7.41	0.0					
8-12-19 21:30	19.70	1438	8.52	0.5	8-12-19 18:00	17.38	1320	7.73	7.3	8-12-19 18:00	18.04	1024	8.31	10.0						11-12-19 17:00	0.20	1611	7.41	0.1					
8-12-19 21:45	19.58	1429	8.52	1.1	8-12-19 18:15	17.44	1320	7.72	8.7	8-12-19 18:15	18.27	1026	8.31	9.7						11-12-19 17:15	0.20	1614	7.41	0.0					
8-12-19 22:00	19.62	1461	8.53	7.1	8-12-19 18:30	17.56	1316	7.74	8.4	8-12-19 18:30	18.44	1026	8.32	9.5						11-12-19 17:30	0.20	1613	7.41	0.0					
8-12-19 22:15	19.80	1428	8.53	0.9	8-12-19 18:45	17.57	1314	7.75	11.9	8-12-19 18:45	18.85	1027	8.31	9.5						11-12-19 17:45	0.20	1592	7.40	0.0					
8-12-19 22:30	20.39	1459	8.51	0.5	8-12-19 19:00	17.65	1313	7.76	11.8	8-12-19 19:00	19.16	1024	8.31	9.7						11-12-19 18:00	0.20	1589	7.40	0.0					
8-12-19 22:45	20.43	1432	8.55	1.4	8-12-19 19:15	17.89	1312	7.76	9.7	8-12-19 19:15	19.27	1025	8.30	51.6						11-12-19 18:15	0.20	1588	7.40	0.0					
8-12-19 23:00	20.31	1435	8.51	0.6	8-12-19 19:30	18.07	1311	7.76	9.0	8-12-19 19:30	19.30	1025	8.30	8.9						11-12-19 18:30	0.20	1588	7.40	0.0					
8-12-19 23:15	20.54	1434	8.52	1.3	8-12-19 19:45	18.21	1310	7.77	7.5	8-12-19 19:45	19.16	1026	8.29	10.7						11-12-19 18:45	0.22	1633	7.41	13.6					
8-12-19 23:30	20.66	1423	8.53	1.1	8-12-19 20:00	18.34	1306	7.78	7.1	8-12-19 20:00	18.93	1017	8.31	10.0						11-12-19 19:00	0.21	1611	7.41	14.3					
8-12-19 23:45	20.43	1431	8.54	2.3	8-12-19 20:15	18.45	1307	7.78	7.2	8-12-19 20:15	19.12	1026	8.31	9.8						11-12-19 19:15	0.22	1614	7.41	0.0					
8-13-19 0:00	20.53	1433	8.61	0.8	8-12-19 20:30	18.53	1312	7.77	14.7	8-12-19 20:30	19.77	1027	8.31	10.0						11-12-19 19:30	0.22	1591	7.41	0.0					
8-13-19 0:15	20.74	1441	8.69	2.7	8-12-19 20:45	18.52	1311	7.77	10.2	8-12-19 20:45	20.26	1030	8.30	89.4						11-12-19 19:45	0.21	1617	7.40	0.0					
8-13-19 0:30	20.85	1446	8.64	0.7	8-12-19 21:00	18.93	1313	7.77	8.4	8-12-19 21:00	20.05	1023	8.30	10.1						11-12-19 20:00	0.22	1616	7.40	0.0					
8-13-19 0:45	20.62	1445	8.74	1.4	8-12-19 21:15	19.37	1316	7.75	7.8	8-12-19 21:15	19.73	1025	8.30	10.3						11-12-19 20:15	0.22	1616	7.40	0.0					
8-13-19 1:00	20.67	1440	8.61	0.5	8-12-19 21:30	20.71	1324	7.74	4.9	8-12-19 21:30	20.35	1020	8.29	10.7						11-12-19 20:45	0.24	1618	7.41	0.0					
8-13-19 1:15	20.38	1441	8.60	0.4	8-12-19 21:45	21.05	1327	7.74	4.1	8-12-19 21:45	21.41	1029	8.31	9.0						11-12-19 21:00	0.24	1612	7.41	3.8					
8-13-19 1:30	20.13	1430	8.61	1.5	8-12-19 22:00	21.17	1320	7.76	3.3	8-12-19 22:00	21.02	1005	8.28	10.8						11-12-19 21:15	0.24	1594	7.41	0.4					
8-13-19 1:45	20.15	1442	8.65	0.5	8-12-19 22:15	20.16	1328	7.77	4.5	8-12-19 22:15	21.17	1026	8.29	13.2						11-12-19 21:30	0.24	1608	7.41	0.7					
8-13-19 2:00	20.14	1443	8.67	0.4	8-12-19 22:30	21.53	1321	7.78	4.8	8-12-19 22:30	20.55	1013	8.30	11.4						11-12-19 21:45	0.24	1614	7.41	0.0					
8-13-19 2:15	20.21	1439	8.67	0.8	8-12-19 22:45	19.20	1307	7.76	10.7	8-12-19 22:45	20.63	1022	8.29	10.8						11-12-19 22:00	0.25	1617	7.40	33.1					
8-13-19 2:30	20.16	1444	8.66	0.4	8-12-19 23:00	20.62	1311	7.80	8.1	8-12-19 23:00	21.63	1021	8.34	10.4						11-12-19 22:15	0.24	1618	7.40	0.0					
8-13-19 2:45	20.11	1446	8.62	0.5	8-12-19 23:15	22.09	1301	7.81	6.0	8-12-19 23:15	21.48	1019	8.30	19.6						11-12-19 22:30	0.24	1617	7.40	0.0					
8-13-19 3:00	20.07	1438	8.60	0.3	8-12-19 23:30	21.76	1299	7.81	5.4	8-12-19 23:30	20.97	1012	8.27	11.7						11-12-19 22:45	0.24	1611	7.41	0.0					
8-13-19 3:15	20.08	1443	8.63	0.6	8-12-19 23:45	21.78	1285	7.83	6.8	8-12-19 23:45	21.29	1021	8.32	10.1						11-12-19 23:00	0.26	1619	7.41	0.0					
8-13-19 3:30	20.04	1447	8.64	0.3	8-13-19 0:00	21.82	1286	7.83	6.8	8-13-19 0:00	21.69	1012	8.32	9.5						11-12-19 23:15	0.26	1616	7.42	0.0					
8-13-19 3:45	19.97	1445	8.64	3.0	8-13-19 0:15	21.95	1286	7.84	5.9	8-13-19 0:15	21.83	1022	8.32	10.7						11-12-19 23:30	0.27	1616	7.42	0.0					
8-13-19 4:00	19.84	1441	8.65	0.3	8-13-19 0:30	22.01	1286	7.84	5.1	8-13-19 0:30	21.53	1020	8.29	10.9						11-12-19 23:45	0.27	1605	7.41	18.8					
8-13-19 4:15	19.77	1446	8.65	1.9	8-13-19 0:45	21.97	1287	7.85	4.8	8-13-19 0:45	21.84	1186	8.33	9.4						11-13-19 0:00	0.27	1646	7.40	0.0					
8-13-19 4:30	19.68	1445	8.65	0.3	8-13-19 1:00	21.98	1307	7.84	4.8	8-13-19 1:00	21.02	1002	8.31	9.8						11-13-19 0:15	0.27	1613	7.40	0.0					
8-13-19 4:45	19.59	1446	8.65	0.8	8-13-19 1:15	21.78	1308	7.84	4.7	8-13-19 1:15	19.80	1003	8.33	9.0						11-13-19 0:30	0.27	1608	7.40	0.0					
8-13-19 5:00	19.50	1445	8.65	0.1	8-13-19 1:30	21.66	1308	7.84	4.6	8-13-19 1:30	21.04	1009	8.36	10.1						11-13-19 0:45	0.27	1615	7.41	0.0					
8-13-19 5:15	19.41	1445	8.66	0.4	8-13-19 1:45	21.63	1306	7.85	4.8	8-13-19 1:45	20.54	1018	8.32	11.2						11-13-19 1:00	0.28	1607	7.41	0.0					
8-13-19 5:30	19.35	1444	8.66	0.1	8-13-19 2:00	21.65	1306	7.86	4.2	8-13-19 2:00	20.34	999	8.34	10.8						11-13-19 1:15	0.29	1613	7.42	0.0					
8-13-19 5:45	19.30	1445	8.66	0.3	8-13-19 2:15	20.84	1298	7.83	6.5	8-13-19 2:15	20.51	1015	8.34	69.6						11-13-19 1:30	0.30	1614	7.41	0.0					
8-13-19 6:00	19.24	1444	8.65	0.0	8-13-19 2:30	20.98	1301	7.84	4.5	8-13-19 2:30	20.59	985	8.35	9.9						11-13-19 1:45	0.29	1612	7.41	0.0					
8-13-19 6:15	19.17	1446	8.66	0.7	8-13-19 2:45	20.61	1305	7.80	5.0	8-13-19 2:45	20.62	1015	8.33	9.3						11-13-19 2:00	0.29	1693	7.40	0.0					
8-13-19 6:30	19.09	1449	8.66	0.0	8-13-19 3:00	21.24	1300	7.86	3.4	8-13-19 3:00	20.63	1006	8.33	9.6						11-13-19 2:15	0.29	1659	7.40	0.0					
8-13-19 6:45	19.01	1443	8.65	2.5	8-13-19 3:15	21.20	1297	7.88	3.1	8-13-19 3:15	20.60	1020	8.33	110.4						11-13-19 2:30	0.30	1656	7.40	0.0					
8-13-19 7:00	18.96	1444	8.65	0.1	8-13-19 3:30	21.16	1296	7.83	2.4	8-13-19 3:30	20.50	1017	8.34	10.7						11-13-19 2:45	0.30	1652	7.41	0.0					
8-13-19 7:15	18.91	1443	8.65	0.3	8-13-19 3:45	20.98	1298	7.56	2.4	8-13-19 3:45	20.40	1015	8.34	9.5						11-13-19 3:00	0.30	1605	7.41	0.0					
8-13-19 7:30	18.87	1442	8.65	0.3	8-13-19 4:00	20.83	1298	7.50	4.3	8-13-19 4:00	20.33	1014	8.35	9.0						11-13-19 3:15	0.31	1604	7.41	0.0					
8-13-19 7:45	18.81	1444	8.66	0.3	8-13-19 4:15	20.84	1300	7.40	2.0	8-13-19 4:15	20.23	1018	8.34	8.9						11-13-19 3:30	0.31	1610	7.41	0.0					
8-13-19 8:00	18.75	1444	8.65	0.4	8-13-19 4:30	20.46	1303	7.43	3.2	8-13-19 4:30	20.13	1007	8.35	8.3						11-13-19 3:45	0.30	1610	7.41	0.0					
8-13-19 8:15	18.72	1444	8.67	0.5	8-13-19 4:45	19.85	1310	7.70	6.8	8-13-19 4:45	20.05	1013	8.34	7.9						11-13-19 4:00	0.30	1620	7.40	0.0					
8-13-19 8:30	18.67	1444	8.66	0.0	8-13-19 5:00	19.46	1314	7.68	6.0	8-13-19 5:00	19.93	1005	8.35	8.1						11-13-19 4:15	0.30	1596	7.40	0.0					
8-13-19 8:45	18.63	1443	8.66	0.2	8-13-19 5:15	19.81	1310	7.57	4.9	8-13-19 5:15	19.89	1017	8.35	7.6						11-13-19 4:30	0.30	1621	7.40	0.0					
8-13-19 9:00	18.58	1444	8.66	92.7	8-13-19 5:30	19.71	1312	7.34	3.8	8-13-19 5:30	19.81	1013	8.36	7.9						11-13-19 4:45	0.30	1609	7.41	0.0					
8-13-19 9:15	18.51	1443	8.66	1.2	8-13-19 5:45	19.78	1311	7.16	3.7	8-13-19 5:45	19.72	1013	8.35	7.5						11-13-19 5:00	0.31	1614	7.41	0.0					
8-13-19 9:30	18.47	1441	8.65	0.1	8-13-19 6:00	19.73	1312	7.20	3.1	8-13-19 6:00	19.68	1011	8.34	9.6						11-13-19 5:15	0.31	1611	7.41	46.3					
8-13-19 9:45	18.41	1443	8.66	0.5	8-13-19 6:15	19.64	1311	7.26	3.4	8-13-19 6:15	19.66	1014	8.34	7.2						11-13-19 5:30	0.31	1610	7.41	1.1					
8-13-19 10:00	18.36	1443	8.66	0.8	8-13-19 6:30	19.48	1310	7.14	3.2	8-13-19 6:30	19.58	1013	8.34	8.8						11-13-19 5:45	0.32	1613	7.41	0.0					
8-13-19 10:15	18.30	1445	8.65	0.4	8-13-19 6:45	19.07	1314	7.69	4.5	8-13-19 6:45	19.50	1011	8.35	11.0						11-13-19 6:00	0.31	1611	7.40	0.0					
8-13-19 10:30	18.28	1445	8.66	0.2	8-13-19 7:00	19.01	1315	7.17	3.9	8-13-19 7:00	19.45	1010	8.34	9.5						11-13-19 6:15	0.30	1613	7.40	0.0					
8-13-19 10:45	18.22	1444	8.66	0.1	8-13-19 7:15	18.82	1316	7.15	4.3	8-13-19 7:15	19.39	1013	8.34	9.3						11-13-19 6:30	0.30	1594	7.40	0.0					
8-13-19 11:00	18.20	1445	8.66	0.2	8-13-19 7:30	18.63	1315	7.19	4.0	8-13-19 7:30	19.26	1001	8.35	9.1						11-13-19 6:45	0.30	1588	7.41	0.0					
8-13-19 11:15	18.16	1443	8.65	2.0	8-13-19 7:45	18.52	1313	7.26	3.5	8-13-19 7:45	19.17	1017	8.34	9.0						11-13-19 7:00	0.31	1605	7.41	0.0					
8-13-19 11:30	18.11	1444	8.65	0.0	8-13-19 8:00	18.62	1311	7.40	3.7	8-13-19 8:00	19.11	1008	8.35	8.6						11-13-19 7:15	0.31	1610	7.42	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-13-19 11:45	18.03	1444	8.65	0.2	8-13-19 8:15	18.70	1308	7.54	4.3	8-13-19 8:15	19.03	1017	8.34	210.4						11-13-19 7:30	0.31	1608	7.42	0.0					
8-13-19 12:00	17.99	1445	8.64	0.3	8-13-19 8:30	18.57	1306	7.65	5.6	8-13-19 8:30	18.96	1015	8.34	9.0						11-13-19 7:45	0.31	1612	7.41	7.9					
8-13-19 12:15	17.95	1445	8.65	0.1	8-13-19 8:45	18.47	1310	7.16	4.8	8-13-19 8:45	18.86	1017	8.33	8.0						11-13-19 8:00	0.30	1612	7.40	0.0					
8-13-19 12:30	17.90	1445	8.67	0.3	8-13-19 9:00	18.40	1310	7.22	5.1	8-13-19 9:00	18.80	1016	8.33	9.8						11-13-19 8:15	0.30	1614	7.41	0.0					
8-13-19 12:45	17.87	1445	8.65	1.7	8-13-19 9:15	18.35	1312	7.08	5.0	8-13-19 9:15	18.71	1016	8.32	9.2						11-13-19 8:30	0.30	1586	7.41	0.0					
8-13-19 13:00	17.79	1444	8.65	0.0	8-13-19 9:30	18.36	1311	7.18	4.3	8-13-19 9:30	18.64	1020	8.32	10.3						11-13-19 8:45	0.30	1593	7.42	0.0					
8-13-19 13:15	17.75	1445	8.64	0.2	8-13-19 9:45	18.29	1312	7.00	5.0	8-13-19 9:45	18.59	1013	8.32	8.8						11-13-19 9:00	0.31	1611	7.42	0.0					
8-13-19 13:30	17.72	1445	8.65	0.1	8-13-19 10:00	18.18	1313	7.14	4.9	8-13-19 10:00	18.51	1013	8.31	10.5						11-13-19 9:15	0.31	1608	7.42	0.0					
8-13-19 13:45	17.69	1445	8.65	0.2	8-13-19 10:15	18.14	1314	7.31	4.2	8-13-19 10:15	18.44	1016	8.31	9.4						11-13-19 9:30	0.30	1608	7.42	0.0					
8-13-19 14:00	17.63	1446	8.65	0.1	8-13-19 10:30	18.07	1315	7.11	3.8	8-13-19 10:30	18.36	1014	8.30	9.4						11-13-19 9:45	0.31	1621	7.42	0.0					
8-13-19 14:15	17.58	1445	8.65	0.5	8-13-19 10:45	18.08	1315	7.14	3.8	8-13-19 10:45	18.30	1015	8.30	9.2						11-13-19 10:00	0.30	1611	7.41	0.0					
8-13-19 14:30	17.57	1446	8.65	0.9	8-13-19 11:00	18.01	1315	7.20	4.0	8-13-19 11:00	18.26	1015	8.30	10.9						11-13-19 10:15	0.30	1608	7.42	0.0					
8-13-19 14:45	17.54	1445	8.65	0.4	8-13-19 11:15	18.00	1316	7.04	3.4	8-13-19 11:15	18.21	1014	8.30	8.5						11-13-19 10:30	0.29	1587	7.41	0.0					
8-13-19 15:00	17.56	1445	8.65	0.2	8-13-19 11:30	17.99	1315	7.13	3.1	8-13-19 11:30	18.16	1010	8.30	10.1						11-13-19 10:45	0.29	1607	7.42	0.0					
8-13-19 15:15	17.58	1445	8.65	0.0	8-13-19 11:45	17.91	1315	7.23	3.5	8-13-19 11:45	18.09	1012	8.30	10.2						11-13-19 11:00	0.30	1607	7.42	0.0					
8-13-19 15:30	17.58	1446	8.65	0.3	8-13-19 12:00	17.91	1316	7.06	2.8	8-13-19 12:00	18.05	1010	8.30	10.4						11-13-19 11:15	0.31	1607	7.43	0.0					
8-13-19 15:45	17.59	1446	8.68	0.1	8-13-19 12:15	17.86	1316	7.08	3.1	8-13-19 12:15	18.00	1010	8.29	10.8						11-13-19 11:30	0.31	1607	7.42	0.0					
8-13-19 16:00	17.58	1446	8.69	0.1	8-13-19 12:30	17.83	1317	7.09	3.1	8-13-19 12:30	17.95	1012	8.30	9.7						11-13-19 11:45	0.31	1611	7.42	0.0					
8-13-19 16:15	17.61	1446	8.70	0.3	8-13-19 12:45	17.79	1317	7.21	3.1	8-13-19 12:45	17.87	1016	8.29	9.5						11-13-19 12:00	0.31	1600	7.41	0.0					
8-13-19 16:30	17.66	1446	8.69	0.7	8-13-19 13:00	17.76	1317	7.16	3.1	8-13-19 13:00	17.86	1013	8.29	9.7						11-13-19 12:15	0.31	1611	7.41	0.0					
8-13-19 16:45	17.71	1446	8.70	0.1	8-13-19 13:15	17.75	1318	7.17	8.4	8-13-19 13:15	17.80	1015	8.29	10.3						11-13-19 12:30	0.31	1603	7.41	0.0					
8-13-19 17:00	17.77	1446	8.70	0.3	8-13-19 13:30	17.73	1318	7.18	4.5	8-13-19 13:30	17.78	1015	8.29	9.8						11-13-19 12:45	0.31	1609	7.42	9.8					
8-13-19 17:15	17.85	1447	8.70	0.4	8-13-19 13:45	17.71	1318	7.11	5.5	8-13-19 13:45	17.71	1012	8.29	9.5						11-13-19 13:00	0.32	1607	7.42	0.0					
8-13-19 17:30	17.94	1446	8.71	3.6	8-13-19 14:00	17.71	1318	7.11	4.0	8-13-19 14:00	17.71	1015	8.29	9.0						11-13-19 13:15	0.32	1610	7.42	0.0					
8-13-19 17:45	18.02	1445	8.72	0.3	8-13-19 14:15	17.72	1318	7.15	4.4	8-13-19 14:15	17.67	1014	8.29	10.8						11-13-19 13:30	0.32	1607	7.42	0.0					
8-13-19 18:00	18.11	1444	8.72	0.2	8-13-19 14:30	17.74	1318	7.22	5.5	8-13-19 14:30	17.64	1014	8.29	9.9						11-13-19 13:45	0.32	1607	7.42	0.0					
8-13-19 18:15	18.20	1443	8.73	0.8	8-13-19 14:45	17.73	1318	7.23	5.8	8-13-19 14:45	17.64	1014	8.29	11.5						11-13-19 14:00	0.31	1610	7.41	0.0					
8-13-19 18:30	18.35	1446	8.72	0.7	8-13-19 15:00	17.74	1317	7.24	4.6	8-13-19 15:00	17.63	1014	8.29	11.1						11-13-19 14:15	0.31	1611	7.41	0.0					
8-13-19 18:45	18.49	1445	8.72	0.3	8-13-19 15:15	17.75	1318	7.20	4.6	8-13-19 15:15	17.62	1016	8.28	11.9						11-13-19 14:30	0.30	1609	7.41	0.0					
8-13-19 19:00	18.55	1445	8.72	0.5	8-13-19 15:30	17.77	1316	7.22	4.8	8-13-19 15:30	17.60	1014	8.29	12.2						11-13-19 14:45	0.30	1606	7.42	0.0					
8-13-19 19:15	18.81	1446	8.72	0.5	8-13-19 15:45	17.79	1316	7.23	4.9	8-13-19 15:45	17.64	1015	8.28	12.2						11-13-19 15:00	0.31	1610	7.42	1.6					
8-13-19 19:30	18.95	1445	8.71	0.8	8-13-19 16:00	17.83	1316	7.23	7.8	8-13-19 16:00	17.65	1013	8.28	13.8						11-13-19 15:15	0.32	1618	7.42	1.3					
8-13-19 19:45	19.29	1447	8.71	1.0	8-13-19 16:15	17.85	1315	7.27	12.4	8-13-19 16:15	17.69	1014	8.28	13.8						11-13-19 15:30	0.31	1608	7.42	0.0					
8-13-19 20:00	19.43	1446	8.69	0.6	8-13-19 16:30	17.88	1314	7.28	4.0	8-13-19 16:30	17.74	1017	8.29	13.2						11-13-19 15:45	0.31	1610	7.42	0.0					
8-13-19 20:15	19.63	1440	8.69	0.8	8-13-19 16:45	17.91	1313	7.32	7.6	8-13-19 16:45	17.77	1015	8.29	13.4						11-13-19 16:00	0.30	1605	7.41	0.0					
8-13-19 20:30	19.37	1443	8.70	0.2	8-13-19 17:00	17.95	1311	7.53	9.3	8-13-19 17:00	17.86	1015	8.29	12.8						11-13-19 16:15	0.30	1604	7.41	0.0					
8-13-19 20:45	19.45	1443	8.69	0.9	8-13-19 17:15	17.97	1311	7.58	14.8	8-13-19 17:15	17.90	1006	8.29	14.1						11-13-19 16:30	0.30	1602	7.41	0.0					
8-13-19 21:00	19.69	1443	8.70	0.5	8-13-19 17:30	18.06	1310	7.47	15.3	8-13-19 17:30	17.98	1006	8.29	126.2						11-13-19 16:45	0.31	1601	7.42	0.0					
8-13-19 21:15	19.97	1443	8.71	1.0	8-13-19 17:45	18.12	1308	7.62	9.9	8-13-19 17:45	18.07	1012	8.28	12.5						11-13-19 17:00	0.32	1610	7.42	1.0					
8-13-19 21:30	20.17	1444	8.70	0.5	8-13-19 18:00	18.18	1309	7.36	9.5	8-13-19 18:00	18.09	1013	8.28	14.5						11-13-19 17:15	0.31	1597	7.42	0.0					
8-13-19 21:45	20.31	1444	8.70	1.4	8-13-19 18:15	18.26	1308	7.33	6.7	8-13-19 18:15	18.24	1009	8.27	12.3						11-13-19 17:30	0.31	1609	7.42	0.0					
8-13-19 22:00	20.36	1441	8.70	0.4	8-13-19 18:30	18.31	1307	7.36	5.8	8-13-19 18:30	18.34	1010	8.28	13.7						11-13-19 17:45	0.32	1615	7.42	0.0					
8-13-19 22:15	20.51	1443	8.70	0.6	8-13-19 18:45	18.37	1304	7.36	5.6	8-13-19 18:45	18.48	1012	8.27	12.5						11-13-19 18:00	0.31	1614	7.42	0.0					
8-13-19 22:30	20.76	1441	8.70	0.1	8-13-19 19:00	18.49	1304	7.40	4.3	8-13-19 19:00	18.73	1011	8.27	13.9						11-13-19 18:15	0.30	1627	7.42	0.0					
8-13-19 22:45	20.99	1448	8.70	0.5	8-13-19 19:15	18.45	1305	7.73	18.2	8-13-19 19:15	18.88	1012	8.26	14.8						11-13-19 18:30	0.30	1604	7.42	0.0					
8-13-19 23:00	20.94	1437	8.70	0.4	8-13-19 19:30	18.60	1305	7.73	16.4	8-13-19 19:30	19.07	1012	8.26	12.7						11-13-19 18:45	0.32	1611	7.42	0.0					
8-13-19 23:15	21.21	1446	8.70	2.6	8-13-19 19:45	18.72	1305	7.65	18.7	8-13-19 19:45	19.24	1012	8.26	12.6						11-13-19 19:00	0.31	1624	7.43	0.0					
8-13-19 23:30	21.33	1451	8.71	7.0	8-13-19 20:00	18.82	1302	7.78	12.1	8-13-19 20:00	19.14	1012	8.26	13.3						11-13-19 19:15	0.31	1610	7.42	0.0					
8-13-19 23:45	21.44	1445	8.71	0.5	8-13-19 20:15	19.03	1303	7.57	9.5	8-13-19 20:15	19.28	1011	8.25	13.8						11-13-19 19:30	0.31	1608	7.43	0.0					
8-14-19 0:00	21.48	1447	8.70	53.3	8-13-19 20:30	19.23	1306	7.23	9.3	8-13-19 20:30	19.66	1013	8.25	12.6						11-13-19 19:45	0.32	1611	7.42	0.0					
8-14-19 0:15	21.54	1447	8.71	0.4	8-13-19 20:45	19.29	1304	7.39	9.7	8-13-19 20:45	20.19	1009	8.25	13.2						11-13-19 20:00	0.30	1603	7.42	0.0					
8-14-19 0:30	21.53	1438	8.70	0.2	8-13-19 21:00	19.47	1305	7.47	8.0	8-13-19 21:00	19.99	1008	8.25	12.8						11-13-19 20:15	0.30	1612	7.42	0.0					
8-14-19 0:45	21.49	1442	8.71	0.5	8-13-19 21:15	19.36	1301	7.71	10.5	8-13-19 21:15	20.11	1010	8.25	13.0						11-13-19 20:30	0.30	1613	7.42	0.0					
8-14-19 1:00	21.57	1441	8.71	37.5	8-13-19 21:30	19.57	1301	7.72	9.1	8-13-19 21:30	20.63	1010	8.24	13.6						11-13-19 20:45	0.32	1609	7.43	0.0					
8-14-19 1:15	21.57	1446	8.71	0.2	8-13-19 21:45	19.47	1302	7.77	9.2	8-13-19 21:45	21.30	1014	8.25	12.7						11-13-19 21:00	0.34	1607	7.43	0.0					
8-14-19 1:30	21.55	1444	8.71	0.2	8-13-19 22:00	19.58	1302	7.69	9.1	8-13-19 22:00	21.47	1003	8.25	13.2						11-13-19 21:15	0.33	1612	7.43	0.0					
8-14-19 1:45	21.55	1443	8.71	2.0	8-13-19 22:15	19.87	1302	7.56	8.6	8-13-19 22:15	21.49	1012	8.25	13.4						11-13-19 21:30	0.33	1606	7.43	0.0					
8-14-19 2:00	21.62	1444	8.71	57.2	8-13-19 22:30	20.73	1303	7.80	7.2	8-13-19 22:30	21.19	1005	8.25	13.5						11-13-19 21:45	0.33	1609	7.43	0.0					
8-14-19 2:15	21.57	1443	8.72	0.2	8-13-19 22:45	20.93	1302	7.82	7.8	8-13-19 22:45	21.66	1016	8.26	15.3						11-13-19 22:00	0.32	1605	7.42	0.0					
8-14-19 2:30	21.53	1445	8.71	0.1	8-13-19 23:00	21.87	1300	7.86	7.2	8-13-19 23:00	22.43	1021	8.28	11.7						11-13-19 22:15	0.32	1596	7.42	0.0					
8-14-19 2:45	21.42	1439	8.73	0.0	8-13-19 23:15	22.04	1298	7.86	7.3	8-13-19 23:15	22.72	1015	8.27	12.3						11-13-19 22:30	0.32	1584	7.42	0.0					
8-14-19 3:00	21.31	1440	8.75	0.0	8-13-19 23:30	20.61	1294	7.72	8.9	8-13-19 23:30	22.81	995	8.28	12.2						11-13-19 22:45	0.33	1606	7.43	0.6					
8-14-19 3:15	21.19	1441	8.74	0.4	8-13-19 23:45	20.53	1296	7.73	10.7	8-13-19 23:45	22.83	1010	8.28	13.6						11-13-19 23:00	0.32	1601	7.43	0.0					
8-14-19 3:30	21.13	1440	8.73	0.1	8-14-19 0:00	19.57	1301	7.78	16.9	8-14-19 0:00	22.98	1010	8.30	14.3						11-13-19 23:15	0.32	1602	7.43	0.0					
8-14-19 3:45	21.05	1442	8.73	0.2	8-14-19 0:15	19.67	1302	7.78	15.7	8-14-19 0:15	22.89	998	8.28	13.1						11-13-19 23:30	0.33	1607	7.43	0.0					
8-14-19 4:00	20.95	1435	8.74	0.0	8-14-19 0:30	19.56	1302	7.78	13.0	8-14-19 0:30	22.91	1007	8.30	12.6						11-13-19 23:45	0.33	1692	7.43	0.0					
8-14-19 4:15	20.86	1439	8.75	0.2	8-14-19 0:45	20.43	1311	7.48	10.3	8-14-19 0:45	22.94	1000	8.30	13.5						11-14-19 0:00	0.31	1626	7.43	0.0					
8-14-19 4:30	20.79	1438	8.74	0.0	8-14-19 1:00	20.96	1301	7.72	9.2	8-14-19 1:00	22.93	1006	8.30	12.4						11-14-19 0:15	0.31	1585	7.43	0.0					
8-14-19 4:45	20.68	1437	8.76	0.8	8-14-19 1:15	21.78	1303	7.18	6.4	8-14-19 1:15	22.31	998	8.31	12.7						11-14-19 0:30	0.31	1585	7.43	0.0					
8-14-19 5:00	20.59	1438	8.75	0.0	8-14-19 1:30	21.60	1304	7.10	6.8	8-14-19 1:30	22.53	1005	8.32	11.8						11-14-19 0:45	0.33	1596	7.44	0.0					
8-14-19 5:15	20.50	1436	8.76	0.2	8-14-19 1:45	21.66	1293	7.35	7.6	8-14-19 1:45	22.50	999	8.31	11.9						11-14-19 1:00	0.32	1608	7.44	0.1					
8-14-19 5:30	20.38	1442	8.77	0.0	8-14-19 2:00	21.45	1287	7.53	8.5	8-14-19 2:00	21.43	994	8.26	11.5						11-14-19 1:15	0.33	1601	7.44	0.0					
8-14-19 5:45	20.30	1438	8.79	0.0	8-14-19 2:15	21.60	1303	7.05	5.6	8-14-19 2:15	21.34	1003	8.26	13.1						11-14-19 1:30	0.33	1607	7.44	0.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-14-19 6:00	20.24	1439	8.78	0.0	8-14-19 2:30	21.37	1295	7.33	8.7	8-14-19 2:30	21.56	972	8.29	12.2						11-14-19 1:45	0.33	1647	7.44	0.0					
8-14-19 6:15	20.18	1437	8.81	0.0	8-14-19 2:45	21.40	1300	7.14	6.1	8-14-19 2:45	21.91	1026	8.31	16.0						11-14-19 2:00	0.32	1580	7.43	0.0					
8-14-19 6:30	20.13	1437	8.80	0.0	8-14-19 3:00	21.41	1303	7.03	4.2	8-14-19 3:00	21.80	1021	8.31	11.3						11-14-19 2:15	0.32	1572	7.43	0.0					
8-14-19 6:45	20.07	1440	8.79	0.0	8-14-19 3:15	21.59	1300	7.24	3.9	8-14-19 3:15	21.68	1020	8.30	11.9						11-14-19 2:30	0.32	1557	7.43	0.0					
8-14-19 7:00	20.01	1438	8.79	0.0	8-14-19 3:30	21.46	1300	7.15	3.1	8-14-19 3:30	21.53	1015	8.30	10.5						11-14-19 2:45	0.34	1603	7.44	0.0					
8-14-19 7:15	19.96	1436	8.78	0.3	8-14-19 3:45	21.43	1299	7.39	3.2	8-14-19 3:45	21.48	1039	8.30	22.8						11-14-19 3:00	0.33	1608	7.43	0.0					
8-14-19 7:30	19.92	1438	8.78	0.0	8-14-19 4:00	21.34	1300	7.33	2.9	8-14-19 4:00	21.48	1015	8.34	10.5						11-14-19 3:15	0.33	1609	7.43	0.0					
8-14-19 7:45	19.85	1437	8.79	0.0	8-14-19 4:15	21.24	1300	7.27	2.8	8-14-19 4:15	21.35	1015	8.34	10.8						11-14-19 3:30	0.33	1608	7.43	0.0					
8-14-19 8:00	19.82	1436	8.79	0.0	8-14-19 4:30	21.14	1300	7.24	2.4	8-14-19 4:30	21.17	1008	8.34	10.2						11-14-19 3:45	0.34	1640	7.43	0.0					
8-14-19 8:15	19.77	1439	8.79	0.0	8-14-19 4:45	20.03	1304	7.57	6.6	8-14-19 4:45	21.06	1021	8.34	10.6						11-14-19 4:00	0.32	1619	7.43	0.0					
8-14-19 8:30	19.74	1436	8.78	0.0	8-14-19 5:00	19.77	1303	7.72	6.9	8-14-19 5:00	21.00	977	8.34	9.9						11-14-19 4:15	0.32	1608	7.43	0.0					
8-14-19 8:45	19.71	1437	8.78	0.2	8-14-19 5:15	19.74	1306	7.40	6.4	8-14-19 5:15	20.92	1017	8.34	11.1						11-14-19 4:30	0.32	1599	7.43	0.0					
8-14-19 9:00	19.65	1435	8.78	0.6	8-14-19 5:30	19.81	1306	7.23	6.6	8-14-19 5:30	20.80	1017	8.34	10.3						11-14-19 4:45	0.34	1609	7.43	0.0					
8-14-19 9:15	19.61	1436	8.78	0.0	8-14-19 5:45	19.88	1304	7.39	5.2	8-14-19 5:45	20.71	1021	8.34	9.3						11-14-19 5:00	0.33	1608	7.43	0.0					
8-14-19 9:30	19.57	1435	8.78	0.0	8-14-19 6:00	19.97	1298	7.71	7.9	8-14-19 6:00	20.62	1021	8.34	8.7						11-14-19 5:15	0.33	1608	7.43	0.0					
8-14-19 9:45	19.53	1435	8.77	0.0	8-14-19 6:15	20.14	1298	7.66	6.3	8-14-19 6:15	20.53	1019	8.34	8.8						11-14-19 5:30	0.33	1606	7.43	0.0					
8-14-19 10:00	19.50	1435	8.77	0.0	8-14-19 6:30	20.08	1297	7.62	4.1	8-14-19 6:30	20.43	1027	8.34	8.0						11-14-19 5:45	0.34	1606	7.43	0.0					
8-14-19 10:15	19.46	1433	8.77	0.1	8-14-19 6:45	19.96	1299	7.31	4.6	8-14-19 6:45	20.31	1020	8.34	8.6						11-14-19 6:00	0.32	1604	7.43	0.0					
8-14-19 10:30	19.41	1436	8.76	0.0	8-14-19 7:00	19.90	1300	7.27	3.6	8-14-19 7:00	20.23	1025	8.35	9.2						11-14-19 6:15	0.32	1596	7.43	0.0					
8-14-19 10:45	19.37	1435	8.77	0.0	8-14-19 7:15	19.64	1303	7.16	6.1	8-14-19 7:15	20.13	1016	8.35	33.0						11-14-19 6:30	0.32	1603	7.43	0.0					
8-14-19 11:00	19.31	1435	8.77	42.0	8-14-19 7:30	19.51	1305	7.22	6.4	8-14-19 7:30	20.06	1021	8.35	8.4						11-14-19 6:45	0.34	1606	7.44	4.1					
8-14-19 11:15	19.26	1436	8.77	0.0	8-14-19 7:45	19.41	1306	7.22	6.1	8-14-19 7:45	19.97	1026	8.34	8.4						11-14-19 7:00	0.33	1606	7.44	0.0					
8-14-19 11:30	19.22	1435	8.77	0.0	8-14-19 8:00	19.31	1306	7.29	5.7	8-14-19 8:00	19.88	1025	8.34	8.7						11-14-19 7:15	0.33	1604	7.44	0.0					
8-14-19 11:45	19.14	1434	8.78	0.0	8-14-19 8:15	19.26	1306	7.15	5.7	8-14-19 8:15	19.80	1014	8.34	9.1						11-14-19 7:30	0.32	1597	7.44	0.0					
8-14-19 12:00	19.09	1431	8.78	0.0	8-14-19 8:30	19.37	1299	7.58	4.1	8-14-19 8:30	19.70	1018	8.34	9.6						11-14-19 7:45	0.34	1578	7.44	0.0					
8-14-19 12:15	19.04	1434	8.78	0.0	8-14-19 8:45	19.34	1297	7.78	3.9	8-14-19 8:45	19.61	1013	8.34	16.9						11-14-19 8:00	0.32	1585	7.43	0.0					
8-14-19 12:30	19.00	1434	8.78	0.1	8-14-19 9:00	19.35	1298	7.77	4.0	8-14-19 9:00	19.55	993	8.34	8.3						11-14-19 8:15	0.32	1589	7.43	0.0					
8-14-19 12:45	18.95	1434	8.78	0.0	8-14-19 9:15	19.29	1302	7.49	5.5	8-14-19 9:15	19.45	1020	8.34	7.9						11-14-19 8:30	0.32	1592	7.43	6.6					
8-14-19 13:00	18.87	1435	8.78	0.0	8-14-19 9:30	19.17	1304	7.17	4.6	8-14-19 9:30	19.40	1021	8.34	9.0						11-14-19 8:45	0.34	1593	7.44	0.0					
8-14-19 13:15	18.84	1434	8.78	0.0	8-14-19 9:45	19.17	1304	7.35	5.1	8-14-19 9:45	19.34	1017	8.34	8.9						11-14-19 9:00	0.32	1598	7.44	0.0					
8-14-19 13:30	18.80	1434	8.78	0.0	8-14-19 10:00	19.16	1305	7.14	4.4	8-14-19 10:00	19.29	1015	8.34	9.0						11-14-19 9:15	0.32	1610	7.44	0.0					
8-14-19 13:45	18.76	1434	8.78	0.0	8-14-19 10:15	19.11	1304	7.23	4.3	8-14-19 10:15	19.22	1017	8.33	8.8						11-14-19 9:30	0.32	1606	7.44	0.0					
8-14-19 14:00	18.70	1434	8.78	0.0	8-14-19 10:30	19.05	1305	7.11	4.8	8-14-19 10:30	19.14	1021	8.34	8.6						11-14-19 9:45	0.33	1627	7.44	0.0					
8-14-19 14:15	18.66	1433	8.78	0.0	8-14-19 10:45	19.03	1305	7.17	4.0	8-14-19 10:45	19.10	1014	8.34	8.9						11-14-19 10:00	0.31	1577	7.44	0.0					
8-14-19 14:30	18.65	1433	8.79	0.0	8-14-19 11:00	19.01	1305	7.06	4.2	8-14-19 11:00	19.03	1020	8.34	8.4						11-14-19 10:15	0.31	1585	7.44	0.0					
8-14-19 14:45	18.63	1432	8.79	0.7	8-14-19 11:15	18.98	1305	7.12	4.5	8-14-19 11:15	18.98	1014	8.33	9.0						11-14-19 10:30	0.31	1570	7.44	0.0					
8-14-19 15:00	18.64	1432	8.79	0.0	8-14-19 11:30	18.96	1305	7.23	3.7	8-14-19 11:30	18.90	1019	8.33	9.4						11-14-19 10:45	0.33	1604	7.45	0.0					
8-14-19 15:15	18.65	1432	8.79	0.0	8-14-19 11:45	18.95	1305	7.09	3.5	8-14-19 11:45	18.88	1016	8.33	7.7						11-14-19 11:00	0.31	1606	7.45	0.1					
8-14-19 15:30	18.68	1433	8.78	0.1	8-14-19 12:00	18.91	1305	7.19	4.7	8-14-19 12:00	18.81	1020	8.33	8.0						11-14-19 11:15	0.32	1606	7.44	0.0					
8-14-19 15:45	18.68	1432	8.78	0.0	8-14-19 12:15	18.90	1305	7.21	3.8	8-14-19 12:15	18.74	1015	8.32	11.6						11-14-19 11:30	0.32	1581	7.45	0.0					
8-14-19 16:00	18.72	1432	8.79	0.9	8-14-19 12:30	18.88	1305	7.18	3.1	8-14-19 12:30	18.70	1019	8.32	10.4						11-14-19 11:45	0.32	1520	7.44	0.0					
8-14-19 16:15	18.73	1431	8.80	0.6	8-14-19 12:45	18.86	1305	7.21	3.6	8-14-19 12:45	18.65	1014	8.31	9.5						11-14-19 12:00	0.30	1711	7.44	0.0					
8-14-19 16:30	18.80	1431	8.79	0.7	8-14-19 13:00	18.83	1305	7.24	3.9	8-14-19 13:00	18.59	1015	8.32	9.3						11-14-19 12:15	0.30	1512	7.44	0.0					
8-14-19 16:45	18.88	1431	8.80	0.4	8-14-19 13:15	18.81	1305	7.26	3.7	8-14-19 13:15	18.56	1012	8.31	9.0						11-14-19 12:30	0.30	1530	7.44	0.0					
8-14-19 17:00	18.99	1430	8.79	0.1	8-14-19 13:30	18.81	1304	7.33	3.8	8-14-19 13:30	18.50	1015	8.31	9.3						11-14-19 12:45	0.32	1612	7.45	0.0					
8-14-19 17:15	19.11	1430	8.79	0.1	8-14-19 13:45	18.77	1304	7.33	3.8	8-14-19 13:45	18.48	1014	8.31	9.4						11-14-19 13:00	0.31	1611	7.45	0.0					
8-14-19 17:30	19.22	1430	8.80	0.0	8-14-19 14:00	18.75	1304	7.34	3.9	8-14-19 14:00	18.42	1012	8.30	11.1						11-14-19 13:15	0.31	1610	7.45	0.0					
8-14-19 17:45	19.27	1429	8.81	0.0	8-14-19 14:15	18.74	1304	7.32	2.7	8-14-19 14:15	18.40	1013	8.30	10.8						11-14-19 13:30	0.31	1610	7.45	0.0					
8-14-19 18:00	19.38	1430	8.81	0.5	8-14-19 14:30	18.73	1304	7.32	2.4	8-14-19 14:30	18.37	1012	8.29	11.2						11-14-19 13:45	0.33	1609	7.45	0.0					
8-14-19 18:15	19.53	1428	8.81	0.1	8-14-19 14:45	18.71	1304	7.33	3.0	8-14-19 14:45	18.35	1019	8.29	10.5						11-14-19 14:00	0.31	1610	7.44	0.0					
8-14-19 18:30	19.67	1428	8.82	0.0	8-14-19 15:00	18.73	1304	7.30	2.7	8-14-19 15:00	18.33	1018	8.29	11.5						11-14-19 14:15	0.31	1611	7.44	0.0					
8-14-19 18:45	19.88	1428	8.81	0.1	8-14-19 15:15	18.76	1304	7.32	4.0	8-14-19 15:15	18.34	1015	8.28	12.0						11-14-19 14:30	0.32	1613	7.43	0.0					
8-14-19 19:00	19.97	1427	8.81	28.8	8-14-19 15:30	18.77	1304	7.28	4.4	8-14-19 15:30	18.35	1013	8.28	11.3						11-14-19 14:45	0.33	1607	7.44	0.0					
8-14-19 19:15	20.05	1427	8.80	4.6	8-14-19 15:45	18.78	1304	7.28	4.2	8-14-19 15:45	18.37	1014	8.27	12.7						11-14-19 15:00	0.32	1609	7.44	0.0					
8-14-19 19:30	20.29	1424	8.80	1.0	8-14-19 16:00	18.81	1304	7.28	5.2	8-14-19 16:00	18.40	1013	8.27	11.3						11-14-19 15:15	0.32	1610	7.44	0.0					
8-14-19 19:45	20.28	1429	8.81	0.7	8-14-19 16:15	18.86	1304	7.29	6.0	8-14-19 16:15	18.44	1013	8.26	13.0						11-14-19 15:30	0.33	1608	7.44	0.0					
8-14-19 20:00	20.59	1423	8.79	1.3	8-14-19 16:30	18.91	1303	7.29	5.1	8-14-19 16:30	18.50	1013	8.27	12.8						11-14-19 15:45	0.33	1681	7.44	0.0					
8-14-19 20:15	20.68	1424	8.80	34.5	8-14-19 16:45	18.95	1303	7.28	4.5	8-14-19 16:45	18.56	1014	8.27	12.0						11-14-19 16:00	0.32	1612	7.42	0.0					
8-14-19 20:30	20.64	1424	8.80	1.4	8-14-19 17:00	18.98	1301	7.51	4.7	8-14-19 17:00	18.60	1013	8.27	11.6						11-14-19 16:15	0.32	1625	7.42	0.0					
8-14-19 20:45	20.73	1424	8.80	140.5	8-14-19 17:15	19.05	1300	7.41	4.4	8-14-19 17:15	18.70	1012	8.27	11.3						11-14-19 16:30	0.32	1584	7.42	0.0					
8-14-19 21:00	21.07	1424	8.80	0.7	8-14-19 17:30	19.12	1282	7.79	4.9	8-14-19 17:30	18.80	1010	8.27	12.7						11-14-19 16:45	0.33	1608	7.43	0.0					
8-14-19 21:15	21.13	1426	8.81	1.9	8-14-19 17:45	19.13	1277	7.86	5.8	8-14-19 17:45	18.90	1015	8.27	12.6						11-14-19 17:00	0.32	1606	7.43	7.7					
8-14-19 21:30	21.33	1426	8.81	0.7	8-14-19 18:00	19.23	1283	7.45	12.9	8-14-19 18:00	18.96	1014	8.27	12.4						11-14-19 17:15	0.32	1601	7.43	0.0					
8-14-19 21:45	21.48	1428	8.80	3.4	8-14-19 18:15	19.27	1279	7.80	4.2	8-14-19 18:15	19.10	1013	8.27	11.8						11-14-19 17:30	0.32	1600	7.43	0.5					
8-14-19 22:00	21.45	1447	8.81	0.6	8-14-19 18:30	19.39	1283	7.52	5.1	8-14-19 18:30	19.28	1008	8.27	11.7						11-14-19 17:45	0.34	1581	7.43	0.0					
8-14-19 22:15	21.36	1424	8.80	0.7	8-14-19 18:45	19.48	1288	7.65	5.7	8-14-19 18:45	19.73	989	8.26	12.7						11-14-19 18:00	0.33	1566	7.41	0.0					
8-14-19 22:30	21.43	1425	8.80	0.6	8-14-19 19:00	19.49	1292	7.79	5.9	8-14-19 19:00	19.69	1004	8.26	12.2						11-14-19 18:15	0.33	1561	7.41	0.0					
8-14-19 22:45	21.54	1425	8.81	0.9	8-14-19 19:15	19.56	1292	7.40	5.9	8-14-19 19:15	19.87	1015	8.26	12.6						11-14-19 18:30	0.33	1559	7.41	0.0					
8-14-19 23:00	21.68	1427	8.80	0.4	8-14-19 19:30	19.74	1295	7.37	4.0	8-14-19 19:30	20.01	1015	8.26	12.0						11-14-19 18:45	0.36	1578	7.41	0.0					
8-14-19 23:15	21.63	1425	8.81	0.5	8-14-19 19:45	19.84	1294	7.45	4.5	8-14-19 19:45	20.52	1005	8.27	12.4						11-14-19 19:00	0.36	1595	7.41	0.0					
8-14-19 23:30	21.69	1427	8.81	0.3	8-14-19 20:00	19.88	1294	7.34	4.4	8-14-19 20:00	20.62	1008	8.27	12.7						11-14-19 19:15	0.36	1596	7.41	0.0					
8-14-19 23:45	21.74	1425	8.82	0.6	8-14-19 20:15	19.87	1292	7.51	6.4	8-14-19 20:15	20.54	1014	8.27	11.4						11-14-19 19:30	0.37	1606	7.40	0.0					
8-15-19 0:00	21.78	1430	8.81	0.2	8-14-19 20:30	19.73	1292	7.78	5.5	8-14-19 20:30	20.66	1014	8.28	11.8						11-14-19 19:45	0.38	1589	7.40	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-15-19 0:15	21.84	1428	8.82	0.5	8-14-19 20:45	19.81	1295	7.35	4.2	8-14-19 20:45	20.74	1016	8.29	12.9						11-14-19 20:00	0.37	1590	7.39	0.0					
8-15-19 0:30	21.84	1425	8.82	0.2	8-14-19 21:00	20.06	1294	7.35	4.5	8-14-19 21:00	21.00	1007	8.28	12.8						11-14-19 20:15	0.37	1589	7.39	0.0					
8-15-19 0:45	21.79	1423	8.82	0.4	8-14-19 21:15	20.15	1291	7.69	4.2	8-14-19 21:15	21.11	1011	8.27	12.0						11-14-19 20:30	0.38	1585	7.39	0.0					
8-15-19 1:00	21.87	1426	8.82	0.1	8-14-19 21:30	20.22	1292	7.58	4.6	8-14-19 21:30	21.32	1028	8.28	12.4						11-14-19 20:45	0.41	1585	7.40	0.0					
8-15-19 1:15	21.89	1425	8.83	0.4	8-14-19 21:45	20.29	1292	7.40	3.7	8-14-19 21:45	21.21	1011	8.27	11.5						11-14-19 21:00	0.39	1586	7.40	0.0					
8-15-19 1:30	21.87	1425	8.82	0.1	8-14-19 22:00	20.39	1290	7.64	4.9	8-14-19 22:00	21.23	991	8.27	10.5						11-14-19 21:15	0.41	1610	7.40	0.0					
8-15-19 1:45	21.79	1424	8.83	0.3	8-14-19 22:15	20.49	1289	7.62	3.7	8-14-19 22:15	21.28	1008	8.27	12.6						11-14-19 21:30	0.40	1607	7.40	0.0					
8-15-19 2:00	21.76	1425	8.82	0.0	8-14-19 22:30	20.58	1287	7.72	3.4	8-14-19 22:30	21.48	1010	8.28	11.3						11-14-19 21:45	0.42	1684	7.40	0.0					
8-15-19 2:15	21.71	1423	8.83	0.0	8-14-19 22:45	20.66	1285	7.78	3.2	8-14-19 22:45	21.55	1014	8.28	11.4						11-14-19 22:00	0.41	1547	7.39	0.0					
8-15-19 2:30	21.67	1426	8.83	67.1	8-14-19 23:00	20.62	1285	7.84	3.8	8-14-19 23:00	21.55	1010	8.28	11.5						11-14-19 22:15	0.41	1546	7.39	0.0					
8-15-19 2:45	21.62	1422	8.84	0.3	8-14-19 23:15	20.59	1285	7.84	3.5	8-14-19 23:15	21.54	1004	8.28	10.5						11-14-19 22:30	0.41	1537	7.39	0.0					
8-15-19 3:00	21.56	1420	8.84	0.0	8-14-19 23:30	20.77	1286	7.83	4.4	8-14-19 23:30	21.49	1008	8.29	11.4						11-14-19 22:45	0.45	1611	7.40	0.0					
8-15-19 3:15	21.49	1422	8.85	0.0	8-14-19 23:45	20.95	1286	7.85	2.9	8-14-19 23:45	21.60	1016	8.29	11.3						11-14-19 23:00	0.42	1607	7.40	0.0					
8-15-19 3:30	21.44	1420	8.85	0.0	8-15-19 0:00	20.73	1286	7.81	3.3	8-15-19 0:00	21.77	1019	8.30	11.2						11-14-19 23:15	0.43	1609	7.40	0.0					
8-15-19 3:45	21.40	1423	8.85	0.0	8-15-19 0:15	20.97	1286	7.84	2.5	8-15-19 0:15	21.98	1013	8.31	11.1						11-14-19 23:30	0.42	1609	7.40	0.3					
8-15-19 4:00	21.34	1421	8.85	0.0	8-15-19 0:30	20.80	1286	7.82	2.3	8-15-19 0:30	21.91	1007	8.31	12.3						11-14-19 23:45	0.43	1533	7.40	0.0					
8-15-19 4:15	21.29	1422	8.85	0.1	8-15-19 0:45	21.03	1286	7.86	2.2	8-15-19 0:45	21.93	1015	8.31	10.5						11-15-19 0:00	0.41	1537	7.39	0.0					
8-15-19 4:30	21.24	1420	8.85	0.0	8-15-19 1:00	21.01	1286	7.86	2.2	8-15-19 1:00	21.94	1015	8.33	12.1						11-15-19 0:15	0.41	1538	7.39	0.0					
8-15-19 4:45	21.19	1420	8.85	1.8	8-15-19 1:15	20.96	1286	7.86	2.3	8-15-19 1:15	21.83	1014	8.32	10.8						11-15-19 0:30	0.41	1537	7.39	0.0					
8-15-19 5:00	21.11	1416	8.86	0.0	8-15-19 1:30	20.95	1286	7.86	2.5	8-15-19 1:30	21.77	1006	8.32	12.3						11-15-19 0:45	0.44	1609	7.40	0.0					
8-15-19 5:15	21.04	1420	8.87	0.0	8-15-19 1:45	20.93	1287	7.86	2.0	8-15-19 1:45	21.74	1014	8.31	12.7						11-15-19 1:00	0.43	1607	7.40	0.0					
8-15-19 5:30	20.98	1419	8.87	0.0	8-15-19 2:00	20.85	1286	7.86	2.0	8-15-19 2:00	21.70	1014	8.32	11.4						11-15-19 1:15	0.43	1608	7.40	0.0					
8-15-19 5:45	20.93	1420	8.87	0.7	8-15-19 2:15	20.84	1287	7.85	2.1	8-15-19 2:15	21.64	1016	8.32	11.0						11-15-19 1:30	0.44	1610	7.40	1.0					
8-15-19 6:00	20.87	1420	8.86	143.3	8-15-19 2:30	20.80	1287	7.86	1.9	8-15-19 2:30	21.58	1013	8.32	10.7						11-15-19 1:45	0.45	1535	7.40	0.3					
8-15-19 6:15	20.82	1421	8.86	0.5	8-15-19 2:45	20.81	1287	7.86	2.0	8-15-19 2:45	21.56	1014	8.32	10.1						11-15-19 2:00	0.44	1528	7.39	0.0					
8-15-19 6:30	20.74	1421	8.86	0.0	8-15-19 3:00	20.81	1286	7.85	2.1	8-15-19 3:00	21.47	1013	8.33	10.1						11-15-19 2:15	0.44	1529	7.39	0.0					
8-15-19 6:45	20.69	1421	8.87	0.0	8-15-19 3:15	20.76	1287	7.85	2.1	8-15-19 3:15	21.39	1013	8.32	10.1						11-15-19 2:30	0.45	1530	7.38	0.0					
8-15-19 7:00	20.64	1421	8.87	0.0	8-15-19 3:30	20.72	1287	7.84	2.1	8-15-19 3:30	21.35	1013	8.33	8.9						11-15-19 2:45	0.48	1575	7.39	0.3					
8-15-19 7:15	20.59	1419	8.87	47.0	8-15-19 3:45	20.70	1287	7.84	2.7	8-15-19 3:45	21.30	1014	8.32	8.5						11-15-19 3:00	0.48	1609	7.39	0.0					
8-15-19 7:30	20.56	1419	8.87	0.0	8-15-19 4:00	20.65	1287	7.84	1.5	8-15-19 4:00	21.24	1011	8.33	9.3						11-15-19 3:15	0.49	1607	7.39	0.0					
8-15-19 7:45	20.50	1421	8.88	0.0	8-15-19 4:15	20.61	1287	7.84	1.6	8-15-19 4:15	21.13	1006	8.33	9.4						11-15-19 3:30	0.49	1608	7.39	0.0					
8-15-19 8:00	20.46	1418	8.88	0.0	8-15-19 4:30	20.59	1287	7.83	1.7	8-15-19 4:30	21.05	1013	8.33	9.1						11-15-19 3:45	0.50	1652	7.39	0.0					
8-15-19 8:15	20.41	1420	8.88	0.4	8-15-19 4:45	20.54	1287	7.83	1.8	8-15-19 4:45	20.96	1011	8.33	7.6						11-15-19 4:00	0.49	1537	7.38	0.0					
8-15-19 8:30	20.37	1418	8.87	0.0	8-15-19 5:00	20.49	1287	7.82	1.7	8-15-19 5:00	20.87	1006	8.33	7.6						11-15-19 4:15	0.49	1595	7.38	0.0					
8-15-19 8:45	20.34	1420	8.87	0.0	8-15-19 5:15	20.44	1288	7.82	2.0	8-15-19 5:15	20.80	1012	8.33	8.6						11-15-19 4:30	0.50	1595	7.38	0.0					
8-15-19 9:00	20.31	1419	8.86	0.0	8-15-19 5:30	20.39	1287	7.82	1.6	8-15-19 5:30	20.70	1012	8.33	7.5						11-15-19 4:45	0.53	1610	7.38	0.0					
8-15-19 9:15	20.26	1419	8.87	0.0	8-15-19 5:45	20.35	1288	7.81	3.5	8-15-19 5:45	20.63	1001	8.33	7.0						11-15-19 5:00	0.53	1607	7.38	0.5					
8-15-19 9:30	20.19	1419	8.86	0.2	8-15-19 6:00	20.30	1288	7.81	1.5	8-15-19 6:00	20.54	1010	8.33	7.5						11-15-19 5:15	0.54	1607	7.38	0.3					
8-15-19 9:45	20.17	1419	8.86	0.0	8-15-19 6:15	20.24	1288	7.81	1.2	8-15-19 6:15	20.49	1010	8.33	7.3						11-15-19 5:30	0.54	1606	7.38	0.8					
8-15-19 10:00	20.15	1420	8.85	0.0	8-15-19 6:30	20.21	1288	7.80	1.4	8-15-19 6:30	20.43	1007	8.33	6.6						11-15-19 5:45	0.55	1647	7.38	0.0					
8-15-19 10:15	20.10	1420	8.86	0.0	8-15-19 6:45	20.18	1289	7.80	1.3	8-15-19 6:45	20.34	1031	8.33	8.7						11-15-19 6:00	0.54	1592	7.37	0.0					
8-15-19 10:30	20.07	1421	8.86	0.0	8-15-19 7:00	20.15	1289	7.80	2.1	8-15-19 7:00	20.26	1001	8.32	8.4						11-15-19 6:15	0.55	1595	7.37	0.0					
8-15-19 10:45	20.03	1421	8.86	0.0	8-15-19 7:15	20.11	1289	7.80	1.4	8-15-19 7:15	20.20	1009	8.32	7.6						11-15-19 6:30	0.55	1599	7.37	0.0					
8-15-19 11:00	20.01	1421	8.86	0.0	8-15-19 7:30	20.09	1289	7.80	1.4	8-15-19 7:30	20.14	1009	8.32	7.4						11-15-19 6:45	0.58	1604	7.38	0.0					
8-15-19 11:15	19.96	1419	8.85	0.5	8-15-19 7:45	20.05	1289	7.79	1.5	8-15-19 7:45	20.11	1008	8.31	7.7						11-15-19 7:00	0.55	1603	7.39	0.0					
8-15-19 11:30	19.93	1418	8.86	0.1	8-15-19 8:00	20.04	1290	7.80	2.0	8-15-19 8:00	20.04	1007	8.31	8.8						11-15-19 7:15	0.56	1600	7.39	0.0					
8-15-19 11:45	19.92	1419	8.86	0.3	8-15-19 8:15	20.03	1289	7.79	2.1	8-15-19 8:15	19.97	1008	8.31	6.9						11-15-19 7:30	0.56	1608	7.39	0.0					
8-15-19 12:00	19.89	1417	8.86	0.0	8-15-19 8:30	20.04	1289	7.81	1.6	8-15-19 8:30	19.93	1007	8.31	7.8						11-15-19 7:45	0.58	1610	7.38	0.0					
8-15-19 12:15	19.86	1418	8.86	0.3	8-15-19 8:45	20.05	1289	7.82	1.2	8-15-19 8:45	19.89	1003	8.30	7.0						11-15-19 8:00	0.56	1608	7.38	0.0					
8-15-19 12:30	19.84	1419	8.85	0.0	8-15-19 9:00	20.02	1289	7.81	1.2	8-15-19 9:00	19.84	1003	8.30	6.9						11-15-19 8:15	0.55	1608	7.38	0.0					
8-15-19 12:45	19.80	1418	8.86	0.5	8-15-19 9:15	20.01	1289	7.81	1.2	8-15-19 9:15	19.78	1005	8.30	6.1						11-15-19 8:30	0.55	1605	7.38	0.0					
8-15-19 13:00	19.76	1417	8.86	0.1	8-15-19 9:30	19.96	1289	7.81	1.6	8-15-19 9:30	19.73	1006	8.30	6.8						11-15-19 8:45	0.58	1600	7.39	0.0					
8-15-19 13:15	19.74	1418	8.86	0.3	8-15-19 9:45	19.91	1289	7.81	1.4	8-15-19 9:45	19.69	1005	8.29	7.4						11-15-19 9:00	0.55	1593	7.40	0.0					
8-15-19 13:30	19.71	1418	8.86	0.0	8-15-19 10:00	19.87	1289	7.80	1.5	8-15-19 10:00	19.64	1005	8.28	8.0						11-15-19 9:15	0.56	1595	7.40	0.0					
8-15-19 13:45	19.69	1418	8.85	0.8	8-15-19 10:15	19.85	1290	7.80	1.3	8-15-19 10:15	19.60	1004	8.28	6.9						11-15-19 9:30	0.58	1628	7.40	0.0					
8-15-19 14:00	19.65	1418	8.85	0.4	8-15-19 10:30	19.82	1290	7.79	1.9	8-15-19 10:30	19.57	1003	8.28	7.2						11-15-19 9:45	0.59	1562	7.39	0.0					
8-15-19 14:15	19.62	1416	8.87	0.3	8-15-19 10:45	19.80	1290	7.79	1.3	8-15-19 10:45	19.55	1006	8.28	7.0						11-15-19 10:00	0.57	1606	7.39	0.0					
8-15-19 14:30	19.62	1418	8.86	0.0	8-15-19 11:00	19.80	1290	7.80	1.4	8-15-19 11:00	19.51	1006	8.28	6.4						11-15-19 10:15	0.57	1596	7.39	0.0					
8-15-19 14:45	19.60	1417	8.86	0.0	8-15-19 11:15	19.79	1290	7.80	1.2	8-15-19 11:15	19.46	1005	8.28	6.3						11-15-19 10:30	0.56	1581	7.40	0.0					
8-15-19 15:00	19.54	1416	8.86	0.0	8-15-19 11:30	19.77	1290	7.80	1.4	8-15-19 11:30	19.45	1004	8.27	6.5						11-15-19 10:45	0.59	1609	7.40	0.0					
8-15-19 15:15	19.54	1416	8.86	0.0	8-15-19 11:45	19.75	1290	7.79	1.2	8-15-19 11:45	19.41	1005	8.27	6.2						11-15-19 11:00	0.58	1607	7.41	20.7					
8-15-19 15:30	19.52	1416	8.86	0.0	8-15-19 12:00	19.72	1290	7.80	1.6	8-15-19 12:00	19.38	1002	8.27	7.6						11-15-19 11:15	0.59	1607	7.41	0.0					
8-15-19 15:45	19.49	1415	8.86	0.2	8-15-19 12:15	19.71	1290	7.81	1.2	8-15-19 12:15	19.35	1004	8.26	7.0						11-15-19 11:30	0.59	1598	7.42	0.0					
8-15-19 16:00	19.46	1414	8.87	1.2	8-15-19 12:30	19.69	1290	7.80	1.2	8-15-19 12:30	19.32	1003	8.26	7.0						11-15-19 11:45	0.60	1587	7.40	0.0					
8-15-19 16:15	19.43	1414	8.87	0.1	8-15-19 12:45	19.68	1290	7.79	1.8	8-15-19 12:45	19.28	1004	8.26	7.1						11-15-19 12:00	0.57	1543	7.41	0.0					
8-15-19 16:30	19.42	1412	8.87	42.1	8-15-19 13:00	19.67	1290	7.79	1.2	8-15-19 13:00	19.26	1004	8.25	6.8						11-15-19 12:15	0.57	1552	7.41	0.0					
8-15-19 16:45	19.41	1411	8.87	0.8	8-15-19 13:15	19.66	1290	7.79	1.5	8-15-19 13:15	19.26	1003	8.25	6.8						11-15-19 12:30	0.58	1546	7.41	0.0					
8-15-19 17:00	19.39	1410	8.87	0.8	8-15-19 13:30	19.65	1290	7.79	1.7	8-15-19 13:30	19.23	1003	8.25	6.6						11-15-19 12:45	0.62	1609	7.41	0.0					
8-15-19 17:15	19.38	1409	8.87	1.1	8-15-19 13:45	19.65	1290	7.79	1.9	8-15-19 13:45	19.20	1002	8.24	6.7						11-15-19 13:00	0.60	1601	7.42	1.9					
8-15-19 17:30	19.38	1409	8.87	0.3	8-15-19 14:00	19.65	1290	7.79	2.1	8-15-19 14:00	19.19	1002	8.24	6.9						11-15-19 13:15	0.60	1611	7.42	0.0					
8-15-19 17:45	19.41	1408	8.87	0.2	8-15-19 14:15	19.63	1290	7.79	2.2	8-15-19 14:15	19.16	1001	8.23	7.2						11-15-19 13:30	0.61	1602	7.42	13.6					
8-15-19 18:00	19.45	1408	8.86	0.1	8-15-19 14:30	19.62	1290	7.80	2.6	8-15-19 14:30	19.15	1003	8.24	6.6						11-15-19 13:45	0.64	1542	7.41	0.0					
8-15-19 18:15	19.53	1407	8.87	0.1	8-15-19 14:45	19.64	1290	7.80	2.6	8-15-19 14:45	19.14	1002	8.24	6.9						11-15-19 14:00	0.63	1534	7.41	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-15-19 18:30	19.68	1405	8.86	0.4	8-15-19 15:00	19.62	1290	7.79	2.8	8-15-19 15:00	19.12	1002	8.25	6.8						11-15-19 14:15	0.64	1532	7.41	0.0					
8-15-19 18:45	19.70	1408	8.87	0.3	8-15-19 15:15	19.59	1290	7.79	2.7	8-15-19 15:15	19.09	1002	8.24	7.1						11-15-19 14:30	0.65	1526	7.42	0.0					
8-15-19 19:00	19.76	1408	8.87	0.2	8-15-19 15:30	19.57	1290	7.80	2.5	8-15-19 15:30	19.07	1002	8.24	6.7						11-15-19 14:45	0.69	1596	7.42	3.1					
8-15-19 19:15	19.78	1405	8.87	0.2	8-15-19 15:45	19.57	1289	7.81	2.1	8-15-19 15:45	19.06	1001	8.23	6.9						11-15-19 15:00	0.67	1596	7.44	0.0					
8-15-19 19:30	19.73	1405	8.88	0.2	8-15-19 16:00	19.58	1289	7.81	2.0	8-15-19 16:00	19.04	1000	8.23	7.5						11-15-19 15:15	0.68	1598	7.44	0.0					
8-15-19 19:45	19.71	1403	8.89	0.5	8-15-19 16:15	19.55	1288	7.82	2.2	8-15-19 16:15	19.02	1000	8.23	6.8						11-15-19 15:30	0.69	1609	7.45	0.0					
8-15-19 20:00	19.72	1404	8.88	0.2	8-15-19 16:30	19.54	1288	7.82	1.7	8-15-19 16:30	19.00	997	8.22	7.3						11-15-19 15:45	0.70	1642	7.42	0.4					
8-15-19 20:15	19.74	1404	8.89	0.4	8-15-19 16:45	19.54	1287	7.83	2.1	8-15-19 16:45	18.99	997	8.22	7.4						11-15-19 16:00	0.68	1587	7.44	0.0					
8-15-19 20:30	19.71	1403	8.88	0.2	8-15-19 17:00	19.53	1287	7.83	3.1	8-15-19 17:00	18.98	992	8.22	7.1						11-15-19 16:15	0.69	1595	7.45	0.0					
8-15-19 20:45	19.71	1403	8.88	0.3	8-15-19 17:15	19.53	1287	7.83	2.5	8-15-19 17:15	18.98	995	8.22	7.2						11-15-19 16:30	0.71	1628	7.45	0.0					
8-15-19 21:00	19.72	1405	8.88	0.2	8-15-19 17:30	19.56	1287	7.83	2.2	8-15-19 17:30	18.98	996	8.22	7.6						11-15-19 16:45	0.75	1604	7.45	0.0					
8-15-19 21:15	19.76	1403	8.89	0.4	8-15-19 17:45	19.63	1287	7.84	2.2	8-15-19 17:45	19.04	997	8.22	7.8						11-15-19 17:00	0.74	1607	7.47	0.0					
8-15-19 21:30	19.75	1402	8.88	0.4	8-15-19 18:00	19.65	1287	7.83	2.6	8-15-19 18:00	19.06	996	8.21	7.6						11-15-19 17:15	0.75	1603	7.48	0.0					
8-15-19 21:45	19.72	1402	8.89	0.2	8-15-19 18:15	19.68	1285	7.84	3.4	8-15-19 18:15	19.20	998	8.23	7.6						11-15-19 17:30	0.76	1609	7.48	0.0					
8-15-19 22:00	19.71	1402	8.89	0.2	8-15-19 18:30	19.72	1283	7.84	2.4	8-15-19 18:30	19.20	992	8.21	7.3						11-15-19 17:45	0.76	1619	7.47	0.0					
8-15-19 22:15	19.71	1401	8.89	1.1	8-15-19 18:45	19.73	1282	7.85	2.6	8-15-19 18:45	19.29	997	8.21	7.7						11-15-19 18:00	0.74	1629	7.48	0.0					
8-15-19 22:30	19.71	1405	8.89	0.0	8-15-19 19:00	19.73	1278	7.86	3.8	8-15-19 19:00	19.36	996	8.23	7.3						11-15-19 18:15	0.76	1603	7.48	0.0					
8-15-19 22:45	19.68	1398	8.91	0.6	8-15-19 19:15	19.68	1266	7.88	4.7	8-15-19 19:15	19.34	998	8.21	7.2						11-15-19 18:30	0.77	1620	7.49	0.0					
8-15-19 23:00	19.64	1387	8.90	1.8	8-15-19 19:30	19.65	1260	7.89	4.3	8-15-19 19:30	19.35	996	8.22	7.3						11-15-19 18:45	0.82	1609	7.50	0.0					
8-15-19 23:15	19.59	1382	8.91	12.6	8-15-19 19:45	19.65	1261	7.89	5.1	8-15-19 19:45	19.36	998	8.22	7.4						11-15-19 19:00	0.81	1604	7.52	0.0					
8-15-19 23:30	19.58	1384	8.90	6.2	8-15-19 20:00	19.65	1256	7.91	4.0	8-15-19 20:00	19.33	986	8.22	6.6						11-15-19 19:15	0.84	1603	7.52	0.0					
8-15-19 23:45	19.58	1381	8.89	9.6	8-15-19 20:15	19.65	1256	7.91	4.0	8-15-19 20:15	19.33	995	8.21	6.6						11-15-19 19:30	0.85	1605	7.52	0.0					
8-16-19 0:00	19.55	1378	8.90	8.2	8-15-19 20:30	19.68	1258	7.91	4.3	8-15-19 20:30	19.34	994	8.23	7.2						11-15-19 19:45	0.87	1562	7.51	0.0					
8-16-19 0:15	19.53	1376	8.90	9.4	8-15-19 20:45	19.70	1261	7.90	5.6	8-15-19 20:45	19.37	994	8.23	7.3						11-15-19 20:00	0.91	1577	7.50	0.0					
8-16-19 0:30	19.53	1377	8.90	7.7	8-15-19 21:00	19.71	1263	7.90	4.4	8-15-19 21:00	19.35	994	8.23	7.0						11-15-19 20:15	1.73	1574	7.40	0.0					
8-16-19 0:45	19.52	1376	8.90	8.0	8-15-19 21:15	19.75	1268	7.89	3.5	8-15-19 21:15	19.38	994	8.23	6.0						11-15-19 20:30	2.14	1562	7.35	0.0					
8-16-19 1:00	19.51	1377	8.90	10.1	8-15-19 21:30	19.74	1266	7.90	3.7	8-15-19 21:30	19.36	997	8.24	6.6						11-15-19 20:45	2.34	1606	7.36	0.0					
8-16-19 1:15	19.51	1376	8.90	9.1	8-15-19 21:45	19.72	1265	7.90	3.5	8-15-19 21:45	19.35	995	8.24	7.6						11-15-19 21:00	2.31	1624	7.38	4.3					
8-16-19 1:30	19.50	1376	8.89	8.5	8-15-19 22:00	19.73	1268	7.90	3.4	8-15-19 22:00	19.33	976	8.24	6.8						11-15-19 21:15	2.31	1589	7.39	0.3					
8-16-19 1:45	19.48	1374	8.89	7.8	8-15-19 22:15	19.73	1271	7.88	5.0	8-15-19 22:15	19.32	993	8.24	6.6						11-15-19 21:30	2.22	1587	7.40	286.6					
8-16-19 2:00	19.46	1371	8.89	7.0	8-15-19 22:30	19.74	1270	7.89	3.6	8-15-19 22:30	19.31	996	8.24	6.6						11-15-19 21:45	2.17	1575	7.41	0.0					
8-16-19 2:15	19.40	1362	8.90	20.7	8-15-19 22:45	19.66	1257	7.90	6.6	8-15-19 22:45	19.27	993	8.25	8.1						11-15-19 22:00	2.13	1603	7.44	0.0					
8-16-19 2:30	19.37	1355	8.89	22.0	8-15-19 23:00	19.67	1266	7.89	5.7	8-15-19 23:00	19.19	986	8.25	8.2						11-15-19 22:15	2.10	1579	7.47	0.0					
8-16-19 2:45	19.37	1363	8.90	17.9	8-15-19 23:15	19.65	1259	7.89	11.3	8-15-19 23:15	19.19	987	8.25	8.7						11-15-19 22:30	2.05	1542	7.48	0.0					
8-16-19 3:00	19.34	1361	8.89	23.8	8-15-19 23:30	19.67	1260	7.89	11.2	8-15-19 23:30	19.18	975	8.25	8.4						11-15-19 22:45	2.00	1599	7.50	0.4					
8-16-19 3:15	19.28	1359	8.89	21.6	8-15-19 23:45	19.66	1263	7.89	6.0	8-15-19 23:45	19.20	986	8.24	6.7						11-15-19 23:00	1.94	1598	7.52	0.0					
8-16-19 3:30	19.25	1356	8.88	21.8	8-16-19 0:00	19.63	1262	7.89	4.4	8-16-19 0:00	19.17	986	8.25	7.1						11-15-19 23:15	1.93	1599	7.52	0.0					
8-16-19 3:45	19.21	1351	8.89	36.6	8-16-19 0:15	19.63	1261	7.89	9.5	8-16-19 0:15	19.15	983	8.24	8.9						11-15-19 23:30	1.88	1598	7.53	114.9					
8-16-19 4:00	19.17	1351	8.88	22.7	8-16-19 0:30	19.55	1359	7.93	47.4	8-16-19 0:30	19.14	983	8.25	8.2						11-15-19 23:45	1.82	1656	7.53	0.0					
8-16-19 4:15	19.12	1356	8.90	19.0	8-16-19 0:45	19.56	1310	7.92	28.1	8-16-19 0:45	19.12	984	8.25	7.7						11-16-19 0:00	1.77	1574	7.52	0.0					
8-16-19 4:30	19.03	1340	8.90	32.6	8-16-19 1:00	19.54	1294	7.92	23.1	8-16-19 1:00	19.11	984	8.25	7.9						11-16-19 0:15	1.70	1571	7.52	0.0					
8-16-19 4:45	18.91	1325	8.89	52.2	8-16-19 1:15	19.52	1296	7.92	29.8	8-16-19 1:15	19.09	985	8.25	7.0						11-16-19 0:30	1.66	1578	7.53	0.0					
8-16-19 5:00	18.87	1319	8.88	46.7	8-16-19 1:30	19.51	1306	7.93	31.0	8-16-19 1:30	19.08	983	8.25	6.8						11-16-19 0:45	1.65	1602	7.54	0.0					
8-16-19 5:15	18.80	1306	8.89	56.3	8-16-19 1:45	19.54	1321	7.94	40.1	8-16-19 1:45	19.06	982	8.25	7.4						11-16-19 1:00	1.60	1603	7.54	0.0					
8-16-19 5:30	18.78	1312	8.88	48.4	8-16-19 2:00	19.48	1302	7.95	23.8	8-16-19 2:00	19.03	974	8.25	7.5						11-16-19 1:15	1.56	1600	7.54	0.0					
8-16-19 5:45	18.73	1293	8.87	68.0	8-16-19 2:15	19.42	1297	7.96	23.3	8-16-19 2:15	19.00	974	8.25	6.8						11-16-19 1:30	1.55	1561	7.54	0.0					
8-16-19 6:00	18.65	1287	8.86	60.7	8-16-19 2:30	19.40	1306	7.96	26.7	8-16-19 2:30	18.97	978	8.26	7.5						11-16-19 1:45	1.55	1595	7.54	0.0					
8-16-19 6:15	18.59	1280	8.87	81.8	8-16-19 2:45	19.37	1336	7.96	34.0	8-16-19 2:45	18.97	976	8.25	7.5						11-16-19 2:00	1.52	1630	7.54	0.0					
8-16-19 6:30	18.63	1295	8.87	59.2	8-16-19 3:00	19.34	1352	7.96	30.7	8-16-19 3:00	18.93	975	8.26	10.9						11-16-19 2:15	1.51	1611	7.54	0.0					
8-16-19 6:45	18.63	1297	8.87	59.2	8-16-19 3:15	19.28	1356	7.97	31.9	8-16-19 3:15	18.86	978	8.26	23.3						11-16-19 2:30	1.50	1613	7.55	0.0					
8-16-19 7:00	18.49	1269	8.85	70.3	8-16-19 3:30	19.21	1375	7.96	28.7	8-16-19 3:30	18.85	976	8.26	12.7						11-16-19 2:45	1.51	1599	7.55	0.0					
8-16-19 7:15	18.44	1271	8.86	71.5	8-16-19 3:45	19.15	1366	7.97	49.6	8-16-19 3:45	18.81	977	8.26	10.6						11-16-19 3:00	1.50	1586	7.56	35.7					
8-16-19 7:30	18.43	1280	8.86	63.2	8-16-19 4:00	19.15	1363	7.97	28.0	8-16-19 4:00	18.79	973	8.26	11.9						11-16-19 3:15	1.49	1585	7.57	0.0					
8-16-19 7:45	18.40	1281	8.86	64.1	8-16-19 4:15	19.18	1460	7.96	42.6	8-16-19 4:15	18.75	909	8.26	16.6						11-16-19 3:30	1.48	1583	7.57	0.0					
8-16-19 8:00	18.33	1278	8.85	62.1	8-16-19 4:30	19.24	1579	7.92	41.5	8-16-19 4:30	18.67	985	8.27	22.6						11-16-19 3:45	1.48	1670	7.57	0.0					
8-16-19 8:15	18.30	1276	8.85	66.9	8-16-19 4:45	19.00	1405	7.96	26.4	8-16-19 4:45	18.62	986	8.26	27.9						11-16-19 4:00	1.45	1558	7.57	0.0					
8-16-19 8:30	18.24	1265	8.85	65.4	8-16-19 5:00	18.89	1375	7.97	24.7	8-16-19 5:00	18.60	982	8.26	29.4						11-16-19 4:15	1.46	1502	7.57	0.0					
8-16-19 8:45	18.17	1264	8.85	67.1	8-16-19 5:15	18.84	1376	7.97	22.5	8-16-19 5:15	18.57	979	8.26	45.3						11-16-19 4:30	1.47	1481	7.57	0.0					
8-16-19 9:00	18.08	1256	8.84	63.2	8-16-19 5:30	18.76	1365	7.97	26.0	8-16-19 5:30	18.53	975	8.25	48.8						11-16-19 4:45	1.47	1582	7.58	1.7					
8-16-19 9:15	18.03	1248	8.85	72.7	8-16-19 5:45	18.77	1373	7.97	25.5	8-16-19 5:45	18.48	974	8.26	57.1						11-16-19 5:00	1.45	1570	7.59	25.8					
8-16-19 9:30	17.91	1247	8.85	67.5	8-16-19 6:00	18.78	1402	7.97	25.7	8-16-19 6:00	18.45	979	8.26	59.5						11-16-19 5:15	1.44	1643	7.59	0.0					
8-16-19 9:45	17.87	1239	8.85	78.3	8-16-19 6:15	18.88	1486	7.95	27.3	8-16-19 6:15	18.40	979	8.26	58.3						11-16-19 5:30	1.44	1594	7.59	0.0					
8-16-19 10:00	17.79	1240	8.84	74.6	8-16-19 6:30	18.92	1522	7.95	29.0	8-16-19 6:30	18.37	979	8.26	60.9						11-16-19 5:45	1.43	1595	7.59	0.0					
8-16-19 10:15	17.75	1241	8.84	72.6	8-16-19 6:45	18.80	1494	7.95	35.6	8-16-19 6:45	18.32	979	8.26	66.7						11-16-19 6:00	1.41	1583	7.59	0.0					
8-16-19 10:30	17.64	1229	8.84	69.1	8-16-19 7:00	18.59	1415	7.97	25.5	8-16-19 7:00	18.29	978	8.26	74.3						11-16-19 6:15	1.41	1597	7.60	0.0					
8-16-19 10:45	17.54	1221	8.84	78.5	8-16-19 7:15	18.55	1403	7.96	25.6	8-16-19 7:15	18.24	978	8.26	87.3						11-16-19 6:30	1.44	1599	7.60	0.0					
8-16-19 11:00	17.54	1232	8.84	66.7	8-16-19 7:30	18.55	1412	7.96	26.3	8-16-19 7:30	18.18	978	8.27	91.5						11-16-19 6:45	1.46	1587	7.61	1.4					
8-16-19 11:15	17.36	1188	8.82	84.2	8-16-19 7:45	18.65	1508	7.94	39.8	8-16-19 7:45	18.13	977	8.27	108.4						11-16-19 7:00	1.45	1582	7.61	4.3					
8-16-19 11:30	17.31	1193	8.82	77.6	8-16-19 8:00	18.50	1450	7.95	31.1	8-16-19 8:00	18.13	974	8.27	120.1						11-16-19 7:15	1.46	1604	7.62	26.8					
8-16-19 11:45	17.32	1218	8.83	61.7	8-16-19 8:15	18.39	1406	7.96	33.5	8-16-19 8:15	18.07	974	8.27	127.8						11-16-19 7:30	1.48	1603	7.62	19.2					
8-16-19 12:00	17.25	1217	8.82	65.8	8-16-19 8:30	18.41	1463	7.94	33.7	8-16-19 8:30	18.04	974	8.27	125.6						11-16-19 7:45	1.50	1626	7.61	0.0					
8-16-19 12:15	17.17	1191	8.81	79.4	8-16-19 8:45	18.26	1413	7.96	21.7	8-16-19 8:45	18.01	974	8.27	136.0						11-16-19 8:00	1.48	1597	7.61	0.0					
8-16-19 12:30	17.05	1195	8.81	63.2	8-16-19 9:00	18.23	1425	7.96	23.3	8-16-19 9:00	17.97	973	8.28	151.1						11-16-19 8:15	1.49	1586	7.61	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-16-19 12:45	16.98	1185	8.81	73.2	8-16-19 9:15	18.18	1416	7.96	21.5	8-16-19 9:15	17.91	972	8.28	159.4						11-16-19 8:30	1.49	1588	7.61	0.0					
8-16-19 13:00	16.95	1188	8.81	65.5	8-16-19 9:30	18.13	1426	7.96	21.5	8-16-19 9:30	17.87	972	8.28	167.3						11-16-19 8:45	1.54	1593	7.61	0.0					
8-16-19 13:15	16.94	1199	8.81	74.0	8-16-19 9:45	18.07	1432	7.96	22.3	8-16-19 9:45	17.86	965	8.28	166.1						11-16-19 9:00	1.56	1590	7.62	0.0					
8-16-19 13:30	16.87	1177	8.79	61.7	8-16-19 10:00	18.01	1440	7.96	25.0	8-16-19 10:00	17.83	968	8.29	205.7						11-16-19 9:15	1.55	1593	7.62	0.0					
8-16-19 13:45	16.78	1166	8.78	82.4	8-16-19 10:15	17.97	1444	7.95	23.1	8-16-19 10:15	17.81	969	8.29	203.4						11-16-19 9:30	1.54	1586	7.62	0.0					
8-16-19 14:00	16.74	1155	8.78	68.0	8-16-19 10:30	17.93	1441	7.95	20.6	8-16-19 10:30	17.78	967	8.30	224.9						11-16-19 9:45	1.55	1579	7.62	0.0					
8-16-19 14:15	16.68	1154	8.77	75.1	8-16-19 10:45	17.95	1440	7.95	20.5	8-16-19 10:45	17.72	969	8.29	189.8						11-16-19 10:00	1.52	1433	7.62	0.0					
8-16-19 14:30	16.65	1153	8.77	60.5	8-16-19 11:00	17.86	1442	7.96	24.3	8-16-19 11:00	17.66	968	8.30	202.3						11-16-19 10:15	1.52	1477	7.62	0.0					
8-16-19 14:45	16.63	1152	8.77	64.6	8-16-19 11:15	17.82	1446	7.95	21.3	8-16-19 11:15	17.60	968	8.30	197.1						11-16-19 10:30	1.53	1467	7.62	0.0					
8-16-19 15:00	16.64	1155	8.76	58.9	8-16-19 11:30	17.80	1450	7.95	21.4	8-16-19 11:30	17.58	970	8.29	185.4						11-16-19 10:45	1.57	1600	7.62	1.7					
8-16-19 15:15	16.59	1146	8.76	71.4	8-16-19 11:45	17.82	1453	7.95	21.6	8-16-19 11:45	17.53	969	8.29	191.8						11-16-19 11:00	1.57	1590	7.63	3.1					
8-16-19 15:30	16.59	1138	8.75	55.8	8-16-19 12:00	17.78	1448	7.95	19.2	8-16-19 12:00	17.48	968	8.30	216.6						11-16-19 11:15	1.56	1595	7.63	0.9					
8-16-19 15:45	16.61	1150	8.75	60.2	8-16-19 12:15	17.74	1449	7.96	19.4	8-16-19 12:15	17.46	968	8.30	198.1						11-16-19 11:30	1.59	1602	7.63	0.0					
8-16-19 16:00	16.61	1137	8.74	58.1	8-16-19 12:30	17.75	1451	7.95	19.8	8-16-19 12:30	17.43	967	8.30	219.5						11-16-19 11:45	1.60	1676	7.63	0.0					
8-16-19 16:15	16.66	1133	8.74	56.3	8-16-19 12:45	17.73	1452	7.95	18.2	8-16-19 12:45	17.42	967	8.30	227.1						11-16-19 12:00	1.57	1600	7.64	0.0					
8-16-19 16:30	16.68	1133	8.72	50.6	8-16-19 13:00	17.62	1450	7.96	15.6	8-16-19 13:00	17.37	967	8.31	221.2						11-16-19 12:15	1.56	1595	7.65	0.0					
8-16-19 16:45	16.68	1142	8.73	55.6	8-16-19 13:15	17.63	1451	7.96	16.6	8-16-19 13:15	17.33	967	8.31	222.1						11-16-19 12:30	1.57	1553	7.65	0.0					
8-16-19 17:00	16.77	1155	8.74	51.9	8-16-19 13:30	17.62	1452	7.96	24.4	8-16-19 13:30	17.32	967	8.31	230.6						11-16-19 12:45	1.60	1603	7.66	9.2					
8-16-19 17:15	16.77	1154	8.74	53.7	8-16-19 13:45	17.62	1451	7.96	17.8	8-16-19 13:45	17.27	966	8.31	224.0						11-16-19 13:00	1.59	1605	7.67	0.0					
8-16-19 17:30	16.79	1153	8.73	50.0	8-16-19 14:00	17.54	1451	7.96	15.6	8-16-19 14:00	17.27	966	8.31	214.0						11-16-19 13:15	1.60	1606	7.68	0.0					
8-16-19 17:45	16.88	1152	8.73	55.4	8-16-19 14:15	17.54	1452	7.97	16.5	8-16-19 14:15	17.25	966	8.31	228.3						11-16-19 13:30	1.61	1604	7.68	0.0					
8-16-19 18:00	16.96	1147	8.71	45.1	8-16-19 14:30	17.52	1453	7.97	14.4	8-16-19 14:30	17.22	966	8.31	218.1						11-16-19 13:45	1.62	1645	7.68	0.0					
8-16-19 18:15	16.86	1142	8.71	51.6	8-16-19 14:45	17.45	1454	7.97	16.0	8-16-19 14:45	17.20	970	8.31	215.1						11-16-19 14:00	1.59	1589	7.68	0.0					
8-16-19 18:30	16.91	1143	8.70	46.5	8-16-19 15:00	17.38	1453	7.98	14.5	8-16-19 15:00	17.22	963	8.32	237.2						11-16-19 14:15	1.57	1609	7.68	0.0					
8-16-19 18:45	17.02	1145	8.71	47.1	8-16-19 15:15	17.42	1454	7.98	16.6	8-16-19 15:15	17.23	962	8.32	251.3						11-16-19 14:30	1.56	1586	7.68	0.0					
8-16-19 19:00	17.05	1140	8.69	42.5	8-16-19 15:30	17.38	1454	7.98	19.8	8-16-19 15:30	17.23	963	8.32	259.4						11-16-19 14:45	1.57	1594	7.68	0.0					
8-16-19 19:15	17.09	1144	8.70	48.2	8-16-19 15:45	17.36	1453	7.99	14.5	8-16-19 15:45	17.23	963	8.32	239.0						11-16-19 15:00	1.57	1591	7.68	0.0					
8-16-19 19:30	17.12	1144	8.69	41.4	8-16-19 16:00	17.37	1453	7.99	24.2	8-16-19 16:00	17.35	963	8.32	240.4						11-16-19 15:15	1.56	1594	7.68	0.0					
8-16-19 19:45	17.15	1142	8.69	44.6	8-16-19 16:15	17.34	1453	7.98	14.1	8-16-19 16:15	17.40	964	8.32	221.8						11-16-19 15:30	1.55	1584	7.68	0.0					
8-16-19 20:00	17.21	1141	8.68	42.1	8-16-19 16:30	17.27	1455	7.99	14.9	8-16-19 16:30	17.29	964	8.32	237.6						11-16-19 15:45	1.55	1611	7.67	0.0					
8-16-19 20:15	17.23	1141	8.69	40.9	8-16-19 16:45	17.22	1454	7.99	14.4	8-16-19 16:45	17.24	970	8.33	240.2						11-16-19 16:00	1.53	1582	7.66	29.4					
8-16-19 20:30	17.17	1138	8.68	35.2	8-16-19 17:00	17.18	1454	8.00	15.3	8-16-19 17:00	17.25	969	8.33	249.1						11-16-19 16:15	1.53	1578	7.64	4.7					
8-16-19 20:45	17.24	1137	8.68	41.8	8-16-19 17:15	17.15	1456	8.00	14.4	8-16-19 17:15	17.23	970	8.33	223.0						11-16-19 16:30	1.52	1573	7.64	0.0					
8-16-19 21:00	17.41	1137	8.67	36.7	8-16-19 17:30	17.18	1457	8.00	13.2	8-16-19 17:30	17.23	969	8.32	240.0						11-16-19 16:45	1.52	1607	7.65	0.0					
8-16-19 21:15	17.55	1137	8.67	37.5	8-16-19 17:45	17.25	1454	8.00	14.5	8-16-19 17:45	17.23	970	8.32	232.2						11-16-19 17:00	1.62	1605	7.65	0.2					
8-16-19 21:30	17.85	1134	8.65	34.4	8-16-19 18:00	17.26	1455	8.01	14.4	8-16-19 18:00	17.24	969	8.33	224.8						11-16-19 17:15	1.64	1601	7.65	0.0					
8-16-19 21:45	18.06	1133	8.64	36.6	8-16-19 18:15	17.22	1454	8.02	14.7	8-16-19 18:15	17.24	969	8.33	227.1						11-16-19 17:30	1.64	1602	7.65	0.0					
8-16-19 22:00	18.13	1135	8.64	35.5	8-16-19 18:30	17.28	1454	8.02	13.4	8-16-19 18:30	17.31	969	8.33	227.8						11-16-19 17:45	1.69	1538	7.65	0.0					
8-16-19 22:15	18.17	1130	8.63	33.2	8-16-19 18:45	17.29	1454	8.03	13.7	8-16-19 18:45	17.31	969	8.32	216.1						11-16-19 18:00	1.66	1548	7.64	0.0					
8-16-19 22:30	18.15	1120	8.61	32.0	8-16-19 19:00	17.35	1455	8.01	18.3	8-16-19 19:00	17.32	969	8.33	260.9						11-16-19 18:15	1.66	1538	7.65	5.3					
8-16-19 22:45	18.37	1129	8.62	30.9	8-16-19 19:15	17.34	1455	8.02	17.6	8-16-19 19:15	17.37	969	8.32	226.3						11-16-19 18:30	1.69	1477	7.65	220.1					
8-16-19 23:00	18.34	1120	8.61	31.3	8-16-19 19:30	17.32	1456	8.01	15.7	8-16-19 19:30	17.37	969	8.33	217.6						11-16-19 18:45	1.71	1611	7.65	0.0					
8-16-19 23:15	18.25	1120	8.62	30.4	8-16-19 19:45	17.35	1455	8.01	14.5	8-16-19 19:45	17.40	970	8.33	200.4						11-16-19 19:00	1.71	1594	7.65	0.0					
8-16-19 23:30	18.16	1120	8.61	25.8	8-16-19 20:00	17.38	1455	8.02	16.2	8-16-19 20:00	17.41	969	8.33	224.0						11-16-19 19:15	1.77	1602	7.65	0.0					
8-16-19 23:45	18.08	1120	8.63	26.0	8-16-19 20:15	17.39	1456	8.03	16.2	8-16-19 20:15	17.45	969	8.33	219.8						11-16-19 19:30	1.80	1606	7.65	0.0					
8-17-19 0:00	18.05	1120	8.62	23.2	8-16-19 20:30	17.35	1456	8.04	13.3	8-16-19 20:30	17.41	969	8.33	207.1						11-16-19 19:45	1.79	1606	7.64	0.0					
8-17-19 0:15	17.97	1115	8.62	19.1	8-16-19 20:45	17.43	1456	8.04	13.1	8-16-19 20:45	17.50	970	8.32	215.0						11-16-19 20:00	1.78	1612	7.66	0.0					
8-17-19 0:30	17.92	1114	8.62	16.6	8-16-19 21:00	17.52	1456	8.05	13.8	8-16-19 21:00	17.68	970	8.32	215.5						11-16-19 20:15	1.77	1598	7.69	0.0					
8-17-19 0:45	17.87	1117	8.63	20.7	8-16-19 21:15	17.53	1456	8.05	15.7	8-16-19 21:15	18.12	972	8.31	210.7						11-16-19 20:30	1.75	1590	7.70	0.0					
8-17-19 1:00	17.80	1116	8.63	16.6	8-16-19 21:30	17.54	1457	8.05	12.0	8-16-19 21:30	18.54	974	8.31	198.3						11-16-19 20:45	1.76	1602	7.69	0.0					
8-17-19 1:15	17.64	1112	8.64	14.4	8-16-19 21:45	17.62	1457	8.04	14.1	8-16-19 21:45	18.79	973	8.30	191.4						11-16-19 21:00	1.78	1601	7.70	0.0					
8-17-19 1:30	17.50	1105	8.63	18.2	8-16-19 22:00	17.68	1456	8.04	15.4	8-16-19 22:00	18.89	973	8.30	183.9						11-16-19 21:15	1.80	1611	7.75	0.0					
8-17-19 1:45	17.47	1110	8.63	14.0	8-16-19 22:15	17.75	1455	8.05	15.6	8-16-19 22:15	19.02	976	8.30	190.0						11-16-19 21:30	1.77	1602	7.71	0.0					
8-17-19 2:00	17.44	1109	8.63	18.6	8-16-19 22:30	17.68	1457	8.04	12.4	8-16-19 22:30	19.66	974	8.31	184.4						11-16-19 21:45	1.80	1598	7.72	167.9					
8-17-19 2:15	17.39	1108	8.64	15.6	8-16-19 22:45	17.70	1456	8.04	13.7	8-16-19 22:45	19.46	975	8.30	184.6						11-16-19 22:00	1.82	1603	7.70	0.0					
8-17-19 2:30	17.31	1107	8.63	14.6	8-16-19 23:00	17.78	1456	8.05	11.8	8-16-19 23:00	19.59	974	8.30	177.9						11-16-19 22:15	1.80	1564	7.70	0.0					
8-17-19 2:45	17.28	1107	8.63	15.3	8-16-19 23:15	17.68	1451	8.05	11.9	8-16-19 23:15	19.46	970	8.31	179.3						11-16-19 22:30	1.79	1535	7.70	0.0					
8-17-19 3:00	17.21	1107	8.63	12.8	8-16-19 23:30	17.61	1448	8.06	13.3	8-16-19 23:30	19.37	970	8.31	176.2						11-16-19 22:45	1.80	1604	7.70	0.0					
8-17-19 3:15	17.15	1107	8.63	16.6	8-16-19 23:45	17.66	1454	8.06	10.7	8-16-19 23:45	19.32	970	8.31	169.7						11-16-19 23:00	1.79	1592	7.70	0.0					
8-17-19 3:30	17.08	1108	8.62	15.3	8-17-19 0:00	17.73	1453	8.06	11.3	8-17-19 0:00	19.22	969	8.32	174.1						11-16-19 23:15	1.79	1600	7.69	0.0					
8-17-19 3:45	17.06	1108	8.62	15.3	8-17-19 0:15	17.72	1452	8.06	10.9	8-17-19 0:15	18.41	962	8.32	183.9						11-16-19 23:30	1.81	1607	7.69	0.0					
8-17-19 4:00	17.00	1109	8.62	19.0	8-17-19 0:30	17.65	1451	8.05	10.2	8-17-19 0:30	18.42	968	8.33	168.4						11-16-19 23:45	1.83	1583	7.70	10.4					
8-17-19 4:15	16.97	1108	8.61	22.7	8-17-19 0:45	17.57	1453	8.06	11.2	8-17-19 0:45	18.38	962	8.35	166.8						11-17-19 0:00	1.82	1558	7.69	0.0					
8-17-19 4:30	16.92	1108	8.61	23.9	8-17-19 1:00	17.53	1452	8.06	9.7	8-17-19 1:00	18.40	963	8.35	170.7						11-17-19 0:15	1.85	1574	7.71	0.0					
8-17-19 4:45	16.87	1107	8.61	19.2	8-17-19 1:15	17.54	1452	8.05	8.5	8-17-19 1:15	18.32	962	8.35	173.8						11-17-19 0:30	1.85	1568	7.73	0.0					
8-17-19 5:00	16.83	1106	8.60	22.3	8-17-19 1:30	17.53	1453	8.05	8.9	8-17-19 1:30	18.15	960	8.36	174.8						11-17-19 0:45	1.88	1616	7.73	0.0					
8-17-19 5:15	16.78	1106	8.60	23.1	8-17-19 1:45	17.50	1453	8.05	7.7	8-17-19 1:45	18.08	961	8.35	167.3						11-17-19 1:00	1.92	1601	7.75	0.0					
8-17-19 5:30	16.71	1106	8.60	22.1	8-17-19 2:00	17.54	1453	8.04	7.7	8-17-19 2:00	18.08	961	8.36	174.1						11-17-19 1:15	1.90	1600	7.75	0.0					
8-17-19 5:45	16.69	1106	8.60	21.3	8-17-19 2:15	17.53	1453	8.04	8.6	8-17-19 2:15	18.04	960	8.36	168.6						11-17-19 1:30	1.88	1605	7.74	0.0					
8-17-19 6:00	16.64	1106	8.59	20.0	8-17-19 2:30	17.52	1454	8.04	7.0	8-17-19 2:30	17.94	961	8.35	167.2						11-17-19 1:45	1.88	1567	7.73	1.6					
8-17-19 6:15	16.58	1105	8.59	24.3	8-17-19 2:45	17.54	1455	8.03	8.1	8-17-19 2:45	17.91	961	8.35	164.1						11-17-19 2:00	1.87	1545	7.72	0.0					
8-17-19 6:30	16.55	1105	8.59	26.2	8-17-19 3:00	17.55	1481	8.03	17.3	8-17-19 3:00	17.82	961	8.35	165.7						11-17-19 2:15	1.85	1679	7.70	0.0					
8-17-19 6:45	16.51	1104	8.59	26.5	8-17-19 3:15	17.44	1476	8.04	15.1	8-17-19 3:15	17.76	961	8.35	170.4						11-17-19 2:30	1.84	1639	7.69	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-17-19 7:00	16.48	1104	8.59	31.6	8-17-19 3:30	17.43	1485	8.05	21.8	8-17-19 3:30	17.68	962	8.35	165.2						11-17-19 2:45	1.83	1608	7.70	0.8					
8-17-19 7:15	16.43	1103	8.59	27.4	8-17-19 3:45	17.45	1483	8.05	23.8	8-17-19 3:45	17.60	961	8.35	168.6						11-17-19 3:00	1.84	1600	7.69	43.7					
8-17-19 7:30	16.39	1103	8.58	29.3	8-17-19 4:00	17.42	1479	8.05	17.5	8-17-19 4:00	17.56	961	8.35	161.5						11-17-19 3:15	1.84	1599	7.69	0.0					
8-17-19 7:45	16.34	1102	8.58	29.5	8-17-19 4:15	17.38	1480	8.04	18.6	8-17-19 4:15	17.49	961	8.35	162.0						11-17-19 3:30	1.83	1608	7.67	0.0					
8-17-19 8:00	16.29	1102	8.58	28.5	8-17-19 4:30	17.34	1482	8.04	16.9	8-17-19 4:30	17.43	962	8.35	171.9						11-17-19 3:45	1.83	1548	7.68	0.0					
8-17-19 8:15	16.26	1102	8.58	28.3	8-17-19 4:45	17.35	1490	8.04	18.0	8-17-19 4:45	17.36	962	8.35	174.3						11-17-19 4:00	1.84	1504	7.66	0.0					
8-17-19 8:30	16.21	1102	8.58	28.0	8-17-19 5:00	17.25	1498	8.05	16.6	8-17-19 5:00	17.29	962	8.35	173.6						11-17-19 4:15	1.81	1406	7.65	0.0					
8-17-19 8:45	16.20	1102	8.57	27.4	8-17-19 5:15	17.26	1504	8.05	17.2	8-17-19 5:15	17.19	962	8.35	167.2						11-17-19 4:30	1.81	1524	7.65	0.0					
8-17-19 9:00	16.17	1102	8.56	23.4	8-17-19 5:30	17.27	1518	8.05	19.4	8-17-19 5:30	17.14	962	8.35	169.3						11-17-19 4:45	1.82	1612	7.64	0.0					
8-17-19 9:15	16.12	1099	8.56	30.8	8-17-19 5:45	17.22	1518	8.05	16.8	8-17-19 5:45	17.07	962	8.35	164.3						11-17-19 5:00	1.85	1602	7.66	0.0					
8-17-19 9:30	16.10	1098	8.56	38.4	8-17-19 6:00	17.22	1522	8.04	19.7	8-17-19 6:00	17.01	962	8.35	179.9						11-17-19 5:15	1.85	1598	7.65	0.0					
8-17-19 9:45	16.04	1096	8.56	41.8	8-17-19 6:15	17.14	1525	8.04	16.6	8-17-19 6:15	16.94	962	8.35	174.9						11-17-19 5:30	1.84	1594	7.66	0.0					
8-17-19 10:00	16.00	1097	8.55	41.9	8-17-19 6:30	17.09	1523	8.04	16.1	8-17-19 6:30	16.91	962	8.35	180.4						11-17-19 5:45	1.84	1528	7.65	0.0					
8-17-19 10:15	15.98	1098	8.56	28.2	8-17-19 6:45	17.05	1529	8.04	15.9	8-17-19 6:45	16.83	962	8.35	174.8						11-17-19 6:00	1.85	1495	7.64	0.0					
8-17-19 10:30	15.97	1099	8.55	28.0	8-17-19 7:00	17.03	1523	8.04	15.2	8-17-19 7:00	16.77	962	8.35	185.2						11-17-19 6:15	1.87	1496	7.65	0.0					
8-17-19 10:45	15.93	1098	8.55	35.9	8-17-19 7:15	17.00	1525	8.04	15.3	8-17-19 7:15	16.74	961	8.35	193.3						11-17-19 6:30	1.88	1480	7.65	0.0					
8-17-19 11:00	15.89	1098	8.54	31.0	8-17-19 7:30	16.99	1533	8.04	13.8	8-17-19 7:30	16.70	961	8.35	187.8						11-17-19 6:45	1.88	1603	7.65	0.0					
8-17-19 11:15	15.81	1097	8.54	32.6	8-17-19 7:45	16.98	1541	8.03	14.0	8-17-19 7:45	16.66	961	8.35	187.5						11-17-19 7:00	1.90	1607	7.64	0.0					
8-17-19 11:30	15.78	1097	8.54	32.9	8-17-19 8:00	16.96	1547	8.03	16.0	8-17-19 8:00	16.64	961	8.35	184.7						11-17-19 7:15	1.90	1604	7.66	0.0					
8-17-19 11:45	15.74	1097	8.54	29.5	8-17-19 8:15	16.93	1539	8.03	12.6	8-17-19 8:15	16.60	961	8.35	182.7						11-17-19 7:30	1.90	1604	7.65	74.0					
8-17-19 12:00	15.67	1096	8.53	28.3	8-17-19 8:30	16.81	1519	8.05	10.0	8-17-19 8:30	16.58	961	8.35	187.6						11-17-19 7:45	1.88	1529	7.64	0.0					
8-17-19 12:15	15.62	1098	8.53	30.5	8-17-19 8:45	16.83	1531	8.04	12.5	8-17-19 8:45	16.55	961	8.35	193.8						11-17-19 8:00	1.88	1520	7.64	0.0					
8-17-19 12:30	15.59	1098	8.52	36.0	8-17-19 9:00	16.78	1511	8.04	12.7	8-17-19 9:00	16.54	960	8.35	193.8						11-17-19 8:15	1.88	1513	7.64	0.0					
8-17-19 12:45	15.57	1098	8.52	31.4	8-17-19 9:15	16.71	1508	8.04	9.8	8-17-19 9:15	16.52	960	8.35	197.0						11-17-19 8:30	1.86	1510	7.65	0.0					
8-17-19 13:00	15.51	1099	8.52	28.7	8-17-19 9:30	16.70	1509	8.04	10.3	8-17-19 9:30	16.52	960	8.35	195.7						11-17-19 8:45	1.86	1609	7.66	0.0					
8-17-19 13:15	15.51	1100	8.52	29.1	8-17-19 9:45	16.68	1513	8.04	9.1	8-17-19 9:45	16.53	959	8.35	198.4						11-17-19 9:00	1.89	1598	7.67	0.0					
8-17-19 13:30	15.46	1100	8.51	30.4	8-17-19 10:00	16.67	1515	8.04	9.6	8-17-19 10:00	16.47	960	8.35	195.4						11-17-19 9:15	1.89	1598	7.67	0.0					
8-17-19 13:45	15.45	1100	8.51	28.4	8-17-19 10:15	16.71	1515	8.03	8.4	8-17-19 10:15	16.46	960	8.35	195.9						11-17-19 9:30	1.89	1609	7.67	0.0					
8-17-19 14:00	15.41	1101	8.50	27.7	8-17-19 10:30	16.64	1514	8.03	10.1	8-17-19 10:30	16.44	959	8.36	211.6						11-17-19 9:45	1.90	1599	7.66	0.0					
8-17-19 14:15	15.37	1102	8.50	32.7	8-17-19 10:45	16.59	1515	8.03	10.5	8-17-19 10:45	16.40	958	8.36	226.6						11-17-19 10:00	1.87	1655	7.65	0.0					
8-17-19 14:30	15.35	1103	8.49	24.7	8-17-19 11:00	16.51	1517	8.03	10.3	8-17-19 11:00	16.38	957	8.37	239.7						11-17-19 10:15	1.87	1597	7.65	15.2					
8-17-19 14:45	15.30	1105	8.49	26.3	8-17-19 11:15	16.51	1520	8.03	9.8	8-17-19 11:15	16.37	957	8.37	248.6						11-17-19 10:30	1.88	1600	7.64	0.0					
8-17-19 15:00	15.30	1106	8.48	23.5	8-17-19 11:30	16.55	1531	8.03	11.2	8-17-19 11:30	16.36	955	8.37	264.3						11-17-19 10:45	1.88	1617	7.65	0.0					
8-17-19 15:15	15.29	1107	8.48	25.4	8-17-19 11:45	16.51	1534	8.02	10.2	8-17-19 11:45	16.36	954	8.38	305.4						11-17-19 11:00	1.89	1608	7.66	5.4					
8-17-19 15:30	15.26	1107	8.47	20.6	8-17-19 12:00	16.45	1534	8.02	9.7	8-17-19 12:00	16.29	953	8.39	315.2						11-17-19 11:15	1.91	1608	7.67	23.7					
8-17-19 15:45	15.26	1108	8.47	21.9	8-17-19 12:15	16.43	1537	8.03	11.3	8-17-19 12:15	16.27	952	8.39	345.0						11-17-19 11:30	1.93	1606	7.66	52.1					
8-17-19 16:00	15.26	1109	8.47	18.6	8-17-19 12:30	16.32	1537	8.02	9.2	8-17-19 12:30	16.25	951	8.40	323.2						11-17-19 11:45	1.91	1674	7.68	0.0					
8-17-19 16:15	15.25	1110	8.47	21.5	8-17-19 12:45	16.32	1539	8.03	7.3	8-17-19 12:45	16.27	951	8.40	363.0						11-17-19 12:00	1.89	1572	7.70	0.0					
8-17-19 16:30	15.21	1111	8.46	19.0	8-17-19 13:00	16.29	1537	8.03	7.6	8-17-19 13:00	16.22	953	8.40	334.6						11-17-19 12:15	1.90	1600	7.68	0.0					
8-17-19 16:45	15.19	1110	8.47	18.9	8-17-19 13:15	16.24	1537	8.03	10.1	8-17-19 13:15	16.19	953	8.39	322.6						11-17-19 12:30	1.93	1591	7.66	0.0					
8-17-19 17:00	15.21	1111	8.46	20.0	8-17-19 13:30	16.18	1535	8.03	8.0	8-17-19 13:30	16.17	952	8.40	325.5						11-17-19 12:45	1.92	1613	7.72	0.0					
8-17-19 17:15	15.21	1111	8.47	18.3	8-17-19 13:45	16.19	1536	8.03	8.0	8-17-19 13:45	16.20	951	8.40	368.8						11-17-19 13:00	1.94	1599	7.73	0.0					
8-17-19 17:30	15.23	1111	8.46	17.3	8-17-19 14:00	16.14	1535	8.03	6.7	8-17-19 14:00	16.18	951	8.40	363.7						11-17-19 13:15	1.95	1609	7.75	0.0					
8-17-19 17:45	15.28	1111	8.47	17.9	8-17-19 14:15	16.15	1534	8.03	7.9	8-17-19 14:15	16.15	952	8.40	363.6						11-17-19 13:30	1.98	1611	7.72	0.0					
8-17-19 18:00	15.30	1114	8.46	18.3	8-17-19 14:30	16.12	1532	8.03	7.4	8-17-19 14:30	16.11	952	8.40	370.9						11-17-19 13:45	1.93	1625	7.74	270.9					
8-17-19 18:15	15.31	1115	8.45	16.6	8-17-19 14:45	16.10	1531	8.03	7.1	8-17-19 14:45	16.14	952	8.40	354.4						11-17-19 14:00	1.91	1645	7.75	0.0					
8-17-19 18:30	15.34	1115	8.45	18.3	8-17-19 15:00	16.10	1531	8.03	6.1	8-17-19 15:00	16.17	950	8.41	385.1						11-17-19 14:15	1.91	1595	7.75	2.6					
8-17-19 18:45	15.33	1115	8.45	16.5	8-17-19 15:15	16.13	1530	8.03	6.1	8-17-19 15:15	16.11	950	8.41	384.6						11-17-19 14:30	1.90	1591	7.74	0.0					
8-17-19 19:00	15.31	1116	8.45	15.1	8-17-19 15:30	16.12	1530	8.03	6.2	8-17-19 15:30	16.12	950	8.41	400.7						11-17-19 14:45	1.92	1619	7.75	309.4					
8-17-19 19:15	15.38	1117	8.46	20.5	8-17-19 15:45	16.12	1530	8.04	7.1	8-17-19 15:45	16.08	951	8.40	357.7						11-17-19 15:00	1.93	1614	7.75	0.0					
8-17-19 19:30	15.42	1118	8.45	13.1	8-17-19 16:00	16.13	1529	8.04	6.3	8-17-19 16:00	16.11	951	8.41	419.2						11-17-19 15:15	1.94	1617	7.76	0.0					
8-17-19 19:45	15.47	1120	8.45	14.3	8-17-19 16:15	16.11	1529	8.04	6.8	8-17-19 16:15	16.08	951	8.40	358.1						11-17-19 15:30	1.94	1607	7.75	0.0					
8-17-19 20:00	15.44	1121	8.45	13.1	8-17-19 16:30	16.09	1528	8.04	6.2	8-17-19 16:30	16.15	950	8.41	398.4						11-17-19 15:45	1.92	1583	7.76	0.0					
8-17-19 20:15	15.41	1123	8.45	13.0	8-17-19 16:45	16.06	1525	8.05	6.3	8-17-19 16:45	16.18	950	8.41	418.2						11-17-19 16:00	1.91	1541	7.76	0.2					
8-17-19 20:30	15.42	1124	8.45	12.6	8-17-19 17:00	16.07	1525	8.05	5.8	8-17-19 17:00	16.06	952	8.39	371.6						11-17-19 16:15	1.95	1545	7.76	0.0					
8-17-19 20:45	15.44	1126	8.45	12.8	8-17-19 17:15	16.06	1524	8.05	5.2	8-17-19 17:15	16.05	953	8.38	314.4						11-17-19 16:30	1.58	1558	7.72	0.0					
8-17-19 21:00	15.45	1128	8.45	13.3	8-17-19 17:30	16.09	1524	8.05	5.8	8-17-19 17:30	16.04	953	8.38	311.7						11-17-19 16:45	1.55	1624	7.71	1.9					
8-17-19 21:15	15.43	1127	8.46	14.2	8-17-19 17:45	16.11	1523	8.06	6.5	8-17-19 17:45	16.09	954	8.37	289.4						11-17-19 17:00	1.56	1618	7.72	8.5					
8-17-19 21:30	15.42	1130	8.45	13.0	8-17-19 18:00	16.12	1522	8.06	5.1	8-17-19 18:00	16.09	953	8.38	295.6						11-17-19 17:15	1.56	1617	7.71	0.0					
8-17-19 21:45	15.43	1130	8.46	12.7	8-17-19 18:15	16.14	1522	8.06	6.3	8-17-19 18:15	16.04	954	8.37	281.8						11-17-19 17:30	1.58	1621	7.73	0.0					
8-17-19 22:00	15.44	1132	8.46	10.8	8-17-19 18:30	16.15	1520	8.06	5.4	8-17-19 18:30	16.08	953	8.37	277.8						11-17-19 17:45	1.58	1626	7.73	0.0					
8-17-19 22:15	15.45	1132	8.47	11.3	8-17-19 18:45	16.14	1518	8.06	5.9	8-17-19 18:45	16.04	954	8.37	267.9						11-17-19 18:00	1.58	1629	7.72	0.0					
8-17-19 22:30	15.45	1132	8.46	13.1	8-17-19 19:00	16.16	1518	8.06	6.3	8-17-19 19:00	15.99	953	8.38	293.8						11-17-19 18:15	1.64	1605	7.73	0.0					
8-17-19 22:45	15.45	1132	8.47	11.1	8-17-19 19:15	16.18	1518	8.06	5.8	8-17-19 19:15	16.06	954	8.38	290.4						11-17-19 18:30	1.62	1598	7.73	0.0					
8-17-19 23:00	15.46	1133	8.47	11.1	8-17-19 19:30	16.24	1518	8.07	5.9	8-17-19 19:30	16.11	952	8.38	308.4						11-17-19 18:45	1.64	1610	7.74	0.0					
8-17-19 23:15	15.45	1133	8.47	10.1	8-17-19 19:45	16.26	1516	8.07	6.1	8-17-19 19:45	16.18	953	8.38	295.7						11-17-19 19:00	1.68	1620	7.73	0.0					
8-17-19 23:30	15.45	1133	8.47	8.5	8-17-19 20:00	16.30	1515	8.08	5.6	8-17-19 20:00	16.10	953	8.39	301.5						11-17-19 19:15	1.66	1609	7.72	0.0					
8-17-19 23:45	15.44	1134	8.47	14.3	8-17-19 20:15	16.34	1514	8.08	6.0	8-17-19 20:15	16.12	953	8.38	292.0						11-17-19 19:30	1.68	1620	7.75	0.0					
8-18-19 0:00	15.44	1135	8.46	8.1	8-17-19 20:30	16.29	1511	8.08	7.1	8-17-19 20:30	16.17	953	8.38	303.7						11-17-19 19:45	1.70	1612	7.75	0.0					
8-18-19 0:15	15.41	1135	8.47	8.3	8-17-19 20:45	16.29	1509	8.08	6.3	8-17-19 20:45	16.19	953	8.38	313.2						11-17-19 20:00	1.70	1620	7.73	0.0					
8-18-19 0:30	15.41	1137	8.47	9.2	8-17-19 21:00	16.29	1508	8.08	6.5	8-17-19 21:00	16.17	953	8.38	294.2						11-17-19 20:15	1.77	1589	7.76	0.0					
8-18-19 0:45	15.39	1136	8.47	7.9	8-17-19 21:15	16.29	1508	8.08	5.6	8-17-19 21:15	16.17	954	8.39	301.3						11-17-19 20:30	1.80	1601	7.77	0.0					
8-18-19 1:00	15.37	1137	8.47	7.1	8-17-19 21:30	16.28	1506	8.08	6.5	8-17-19 21:30	16.17	954	8.39	323.0						11-17-19 20:45	1.82	1631	7.78	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-18-19 1:15	15.36	1137	8.47	7.4	8-17-19 21:45	16.29	1506	8.08	8.9	8-17-19 21:45	16.20	954	8.39	301.4						11-17-19 21:00	1.87	1614	7.78	4.9					
8-18-19 1:30	15.33	1136	8.47	9.2	8-17-19 22:00	16.28	1507	8.08	6.6	8-17-19 22:00	16.21	954	8.39	296.1						11-17-19 21:15	1.95	1694	7.79	1.8					
8-18-19 1:45	15.31	1137	8.47	6.5	8-17-19 22:15	16.27	1508	8.08	8.2	8-17-19 22:15	16.21	954	8.39	293.3						11-17-19 21:30	2.04	1612	7.79	1.0					
8-18-19 2:00	15.29	1137	8.47	10.1	8-17-19 22:30	16.28	1508	8.08	6.4	8-17-19 22:30	16.20	955	8.39	299.0						11-17-19 21:45	2.06	1622	7.79	238.5					
8-18-19 2:15	15.27	1136	8.48	5.4	8-17-19 22:45	16.29	1507	8.09	6.0	8-17-19 22:45	16.20	956	8.38	297.0						11-17-19 22:00	2.07	1629	7.79	0.0					
8-18-19 2:30	15.26	1136	8.47	6.2	8-17-19 23:00	16.30	1507	8.09	6.2	8-17-19 23:00	16.22	955	8.38	288.4						11-17-19 22:15	2.06	1622	7.79	0.0					
8-18-19 2:45	15.24	1137	8.47	6.2	8-17-19 23:15	16.28	1507	8.08	7.2	8-17-19 23:15	16.21	955	8.38	317.9						11-17-19 22:30	2.28	1617	7.79	0.0					
8-18-19 3:00	15.20	1138	8.47	5.7	8-17-19 23:30	16.27	1507	8.09	6.1	8-17-19 23:30	16.19	955	8.39	282.7						11-17-19 22:45	2.61	1635	7.79	0.0					
8-18-19 3:15	15.17	1138	8.47	5.4	8-17-19 23:45	16.25	1507	8.09	5.7	8-17-19 23:45	16.18	956	8.38	297.4						11-17-19 23:00	2.96	1613	7.77	0.0					
8-18-19 3:30	15.17	1139	8.47	8.3	8-18-19 0:00	16.22	1506	8.09	5.6	8-18-19 0:00	16.17	956	8.38	294.2						11-17-19 23:15	3.07	1618	7.72	0.0					
8-18-19 3:45	15.14	1140	8.47	6.9	8-18-19 0:15	16.20	1507	8.09	6.4	8-18-19 0:15	16.17	956	8.39	298.6						11-17-19 23:30	3.03	1647	7.69	0.0					
8-18-19 4:00	15.13	1139	8.46	5.3	8-18-19 0:30	16.19	1507	8.09	5.9	8-18-19 0:30	16.15	956	8.39	293.1						11-17-19 23:45	3.02	1604	7.72	0.0					
8-18-19 4:15	15.08	1139	8.47	5.7	8-18-19 0:45	16.18	1506	8.09	5.9	8-18-19 0:45	16.12	956	8.39	289.7						11-18-19 0:00	3.36	1623	7.70	0.0					
8-18-19 4:30	15.07	1141	8.46	4.9	8-18-19 1:00	16.17	1506	8.09	5.6	8-18-19 1:00	16.06	955	8.39	280.9						11-18-19 0:15	3.91	1619	7.85	0.0					
8-18-19 4:45	15.04	1142	8.46	4.8	8-18-19 1:15	16.17	1506	8.09	5.2	8-18-19 1:15	16.07	957	8.38	275.8						11-18-19 0:30	4.03	1582	7.82	0.0					
8-18-19 5:00	15.01	1141	8.47	6.0	8-18-19 1:30	16.16	1505	8.09	7.1	8-18-19 1:30	16.01	957	8.39	283.1						11-18-19 0:45	4.13	1704	7.83	0.0					
8-18-19 5:15	14.98	1143	8.46	5.5	8-18-19 1:45	16.13	1503	8.09	5.8	8-18-19 1:45	16.07	955	8.39	268.5						11-18-19 1:00	4.31	1741	7.86	0.0					
8-18-19 5:30	14.96	1144	8.46	4.7	8-18-19 2:00	16.09	1501	8.09	4.7	8-18-19 2:00	16.06	955	8.39	270.3						11-18-19 1:15	4.52	1763	7.90	175.6					
8-18-19 5:45	14.93	1144	8.46	5.4	8-18-19 2:15	16.07	1501	8.09	5.2	8-18-19 2:15	16.04	954	8.39	271.7						11-18-19 1:30	5.01	1843	7.89	5.4					
8-18-19 6:00	14.87	1145	8.45	6.2	8-18-19 2:30	16.04	1499	8.09	4.8	8-18-19 2:30	16.01	955	8.39	269.7						11-18-19 1:45	3.54	1910	7.90	7.9					
8-18-19 6:15	14.84	1148	8.45	7.5	8-18-19 2:45	16.04	1500	8.08	4.9	8-18-19 2:45	15.97	954	8.38	284.8						11-18-19 2:00	3.28	1918	7.91	31.8					
8-18-19 6:30	14.81	1147	8.45	7.9	8-18-19 3:00	16.02	1500	8.08	5.2	8-18-19 3:00	15.97	954	8.39	274.3						11-18-19 2:15	2.80	1952	7.96	119.3					
8-18-19 6:45	14.80	1147	8.45	10.7	8-18-19 3:15	15.99	1498	8.08	6.2	8-18-19 3:15	15.96	954	8.38	278.7						11-18-19 2:30	2.61	1946	7.96	64.0					
8-18-19 7:00	14.75	1147	8.45	10.2	8-18-19 3:30	15.95	1498	8.08	4.6	8-18-19 3:30	15.92	954	8.38	258.8						11-18-19 2:45	2.58	1951	7.96	106.0					
8-18-19 7:15	14.71	1147	8.45	12.7	8-18-19 3:45	15.95	1498	8.08	5.4	8-18-19 3:45	15.91	954	8.38	272.9						11-18-19 3:00	2.62	1930	7.95	66.6					
8-18-19 7:30	14.64	1148	8.44	17.4	8-18-19 4:00	15.93	1498	8.08	4.2	8-18-19 4:00	15.90	955	8.39	273.9						11-18-19 3:15	2.47	2001	7.94	92.7					
8-18-19 7:45	14.62	1150	8.45	22.1	8-18-19 4:15	15.92	1499	8.07	5.0	8-18-19 4:15	15.89	955	8.38	261.5						11-18-19 3:30	2.73	1964	7.93	74.0					
8-18-19 8:00	14.59	1150	8.44	24.8	8-18-19 4:30	15.90	1498	8.07	4.1	8-18-19 4:30	15.86	956	8.38	253.3						11-18-19 3:45	2.56	1958	7.93	88.5					
8-18-19 8:15	14.52	1150	8.44	36.3	8-18-19 4:45	15.90	1498	8.07	4.5	8-18-19 4:45	15.84	956	8.38	253.2						11-18-19 4:00	2.89	1999	7.90	81.0					
8-18-19 8:30	14.44	1148	8.43	45.5	8-18-19 5:00	15.86	1497	8.07	4.2	8-18-19 5:00	15.80	958	8.39	256.2						11-18-19 4:15	2.80	1998	7.88	97.0					
8-18-19 8:45	14.41	1145	8.43	53.0	8-18-19 5:15	15.82	1496	8.07	3.9	8-18-19 5:15	15.80	959	8.38	253.1						11-18-19 4:30	2.68	1998	7.90	78.3					
8-18-19 9:00	14.39	1145	8.42	66.6	8-18-19 5:30	15.82	1496	8.07	4.9	8-18-19 5:30	15.80	961	8.38	270.8						11-18-19 4:45	2.36	1974	7.89	112.3					
8-18-19 9:15	14.33	1141	8.42	66.6	8-18-19 5:45	15.78	1494	8.07	3.7	8-18-19 5:45	15.78	962	8.38	247.9						11-18-19 5:00	2.36	1989	7.89	84.5					
8-18-19 9:30	14.29	1138	8.42	78.4	8-18-19 6:00	15.77	1494	8.07	4.0	8-18-19 6:00	15.77	959	8.39	264.2						11-18-19 5:15	2.42	1985	7.88	74.8					
8-18-19 9:45	14.25	1135	8.41	82.8	8-18-19 6:15	15.74	1492	8.07	3.6	8-18-19 6:15	15.74	958	8.39	270.9						11-18-19 5:30	2.30	1961	7.87	88.9					
8-18-19 10:00	14.20	1133	8.41	87.6	8-18-19 6:30	15.70	1491	8.07	6.1	8-18-19 6:30	15.68	958	8.39	247.6						11-18-19 5:45	2.26	1954	7.87	89.0					
8-18-19 10:15	14.14	1130	8.41	90.9	8-18-19 6:45	15.65	1487	8.07	4.6	8-18-19 6:45	15.69	958	8.39	266.6						11-18-19 6:00	2.20	1943	7.86	78.1					
8-18-19 10:30	14.11	1129	8.41	84.8	8-18-19 7:00	15.65	1487	8.07	4.9	8-18-19 7:00	15.70	957	8.39	258.3						11-18-19 6:15	2.23	1957	7.86	93.6					
8-18-19 10:45	14.09	1127	8.40	94.4	8-18-19 7:15	15.62	1486	8.07	5.7	8-18-19 7:15	15.66	956	8.39	274.5						11-18-19 6:30	2.22	1933	7.85	74.3					
8-18-19 11:00	14.05	1127	8.40	84.8	8-18-19 7:30	15.59	1484	8.06	7.5	8-18-19 7:30	15.58	955	8.40	286.9						11-18-19 6:45	2.17	1952	7.86	63.4					
8-18-19 11:15	14.03	1126	8.40	83.9	8-18-19 7:45	15.53	1481	8.07	11.0	8-18-19 7:45	15.60	957	8.39	275.0						11-18-19 7:00	2.14	1967	7.86	76.9					
8-18-19 11:30	14.01	1126	8.40	89.6	8-18-19 8:00	15.51	1486	8.06	6.6	8-18-19 8:00	15.60	957	8.39	267.4						11-18-19 7:15	2.11	1946	7.86	90.6					
8-18-19 11:45	13.95	1123	8.39	98.7	8-18-19 8:15	15.46	1491	8.07	4.8	8-18-19 8:15	15.59	959	8.39	291.2						11-18-19 7:30	2.08	1935	7.85	99.3					
8-18-19 12:00	13.92	1122	8.39	93.6	8-18-19 8:30	15.47	1495	8.07	3.6	8-18-19 8:30	15.54	954	8.40	274.2						11-18-19 7:45	2.01	1958	7.85	82.0					
8-18-19 12:15	13.88	1121	8.38	103.6	8-18-19 8:45	15.44	1497	8.07	4.1	8-18-19 8:45	15.47	957	8.40	286.7						11-18-19 8:00	2.02	1939	7.85	84.4					
8-18-19 12:30	13.83	1120	8.37	100.0	8-18-19 9:00	15.40	1500	8.07	3.9	8-18-19 9:00	15.48	960	8.41	317.2						11-18-19 8:15	2.02	1959	7.85	85.7					
8-18-19 12:45	13.79	1119	8.37	103.7	8-18-19 9:15	15.36	1501	8.08	3.8	8-18-19 9:15	15.50	967	8.42	339.0						11-18-19 8:30	1.93	1935	7.84	87.2					
8-18-19 13:00	13.77	1119	8.37	97.4	8-18-19 9:30	15.33	1505	8.07	4.9	8-18-19 9:30	15.41	959	8.41	312.3						11-18-19 8:45	1.94	1941	7.85	99.8					
8-18-19 13:15	13.72	1119	8.37	94.7	8-18-19 9:45	15.30	1507	8.07	5.1	8-18-19 9:45	15.29	954	8.41	321.4						11-18-19 9:00	1.96	1939	7.85	100.0					
8-18-19 13:30	13.68	1118	8.36	109.8	8-18-19 10:00	15.26	1508	8.08	4.0	8-18-19 10:00	15.26	954	8.41	316.6						11-18-19 9:15	1.94	1939	7.84	95.3					
8-18-19 13:45	13.65	1117	8.36	94.7	8-18-19 10:15	15.24	1508	8.08	5.0	8-18-19 10:15	15.23	955	8.41	338.7						11-18-19 9:30	2.05	1934	7.85	101.9					
8-18-19 14:00	13.60	1117	8.36	82.0	8-18-19 10:30	15.19	1507	8.08	3.5	8-18-19 10:30	15.18	955	8.41	307.7						11-18-19 9:45	2.36	1912	7.85	37.0					
8-18-19 14:15	13.56	1116	8.36	81.5	8-18-19 10:45	15.16	1508	8.08	5.8	8-18-19 10:45	15.13	955	8.41	295.4						11-18-19 10:00	2.27	1926	7.85	26.4					
8-18-19 14:30	13.54	1116	8.36	81.1	8-18-19 11:00	15.12	1517	8.08	6.0	8-18-19 11:00	15.13	956	8.41	309.8						11-18-19 10:15	2.38	1919	7.85	24.6					
8-18-19 14:45	13.52	1115	8.36	82.4	8-18-19 11:15	15.08	1517	8.08	5.6	8-18-19 11:15	15.11	956	8.41	305.2						11-18-19 10:30	2.32	1914	7.85	26.9					
8-18-19 15:00	13.46	1116	8.36	69.0	8-18-19 11:30	15.05	1532	8.08	7.3	8-18-19 11:30	15.07	956	8.41	331.0						11-18-19 10:45	2.32	1904	7.84	29.7					
8-18-19 15:15	13.48	1114	8.35	82.6	8-18-19 11:45	15.00	1530	8.08	6.8	8-18-19 11:45	15.05	957	8.41	319.4						11-18-19 11:00	2.29	1905	7.85	19.7					
8-18-19 15:30	13.47	1114	8.35	79.6	8-18-19 12:00	14.95	1529	8.08	5.8	8-18-19 12:00	15.04	958	8.41	327.3						11-18-19 11:15	2.25	1902	7.87	18.6					
8-18-19 15:45	13.46	1115	8.35	81.2	8-18-19 12:15	14.93	1529	8.08	5.7	8-18-19 12:15	15.05	958	8.41	318.5						11-18-19 11:30	2.12	1880	7.95	23.3					
8-18-19 16:00	13.45	1114	8.34	72.0	8-18-19 12:30	14.89	1529	8.08	6.5	8-18-19 12:30	15.04	958	8.41	339.0						11-18-19 11:45	2.06	1882	7.95	25.2					
8-18-19 16:15	13.45	1113	8.34	73.3	8-18-19 12:45	14.86	1530	8.07	5.2	8-18-19 12:45	15.02	958	8.40	323.6						11-18-19 12:00	2.02	1887	7.95	29.4					
8-18-19 16:30	13.40	1113	8.34	68.3	8-18-19 13:00	14.83	1533	8.07	5.1	8-18-19 13:00	15.01	958	8.40	320.7						11-18-19 12:15	1.97	1891	7.95	32.0					
8-18-19 16:45	13.41	1112	8.34	69.3	8-18-19 13:15	14.74	1529	8.08	6.0	8-18-19 13:15	14.99	958	8.40	337.3						11-18-19 12:30	1.96	1891	7.95	32.5					
8-18-19 17:00	13.41	1111	8.34	65.7	8-18-19 13:30	14.63	1529	8.08	5.1	8-18-19 13:30	14.97	958	8.41	342.5						11-18-19 12:45	1.91	1873	7.96	37.5					
8-18-19 17:15	13.49	1110	8.33	70.0	8-18-19 13:45	14.63	1569	8.05	13.8	8-18-19 13:45	14.95	959	8.41	343.1						11-18-19 13:00	1.88	1893	7.96	30.8					
8-18-19 17:30	13.57	1110	8.33	60.8	8-18-19 14:00	14.59	1604	8.03	24.9	8-18-19 14:00	14.95	959	8.41	345.2						11-18-19 13:15	1.88	1896	7.96	31.9					
8-18-19 17:45	13.59	1109	8.32	65.8	8-18-19 14:15	14.43	1601	8.04	31.5	8-18-19 14:15	14.92	959	8.41	337.2						11-18-19 13:30	1.94	1894	7.96	28.1					
8-18-19 18:00	13.53	1111	8.31	61.0	8-18-19 14:30	14.36	1598	8.04	32.3	8-18-19 14:30	14.89	959	8.41	316.1						11-18-19 13:45	1.96	1889	7.95	32.4					
8-18-19 18:15	13.52	1111	8.31	64.2	8-18-19 14:45	14.37	1563	8.06	12.5	8-18-19 14:45	14.86	959	8.41	331.0						11-18-19 14:00	1.89	1894	7.95	29.0					
8-18-19 18:30	13.49	1112	8.32	60.9	8-18-19 15:00	14.37	1568	8.06	20.6	8-18-19 15:00	14.85	959	8.41	340.1						11-18-19 14:15	1.86	1888	7.94	27.1					
8-18-19 18:45	13.54	1110	8.31	58.1	8-18-19 15:15	14.35	1579	8.06	25.9	8-18-19 15:15	14.81	959	8.41	323.2						11-18-19 14:30	1.80	1889	7.93	26.1					
8-18-19 19:00	13.56	1110	8.31	52.9	8-18-19 15:30	14.34	1579	8.06	24.7	8-18-19 15:30	14.81	959	8.41	317.0						11-18-19 14:45	1.81	1894	7.94	26.4					
8-18-19 19:15	13.59	1109	8.32	55.2	8-18-19 15:45	14.41	1580	8.06	24.1	8-18-19 15:45	14.80	959	8.41	309.0						11-18-19 15:00	1.76	1889	7.93	24.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-18-19 19:30	13.65	1109	8.31	51.1	8-18-19 16:00	14.37	1578	8.06	25.5	8-18-19 16:00	14.79	959	8.41	324.2						11-18-19 15:15	1.76	1893	7.94	24.1					
8-18-19 19:45	13.69	1109	8.31	48.9	8-18-19 16:15	14.32	1581	8.06	31.4	8-18-19 16:15	14.79	959	8.40	326.5						11-18-19 15:30	1.78	1890	7.93	24.4					
8-18-19 20:00	13.67	1111	8.31	48.4	8-18-19 16:30	14.33	1581	8.05	28.9	8-18-19 16:30	14.78	959	8.41	327.5						11-18-19 15:45	1.86	1882	7.92	18.5					
8-18-19 20:15	13.74	1110	8.31	51.3	8-18-19 16:45	14.33	1580	8.06	25.4	8-18-19 16:45	14.78	959	8.40	326.9						11-18-19 16:00	2.05	1894	7.94	17.3					
8-18-19 20:30	13.81	1111	8.30	49.1	8-18-19 17:00	14.33	1577	8.06	23.2	8-18-19 17:00	14.78	958	8.41	336.4						11-18-19 16:15	2.01	1880	7.94	16.3					
8-18-19 20:45	13.82	1110	8.30	50.5	8-18-19 17:15	14.34	1579	8.06	24.1	8-18-19 17:15	14.81	958	8.41	313.7						11-18-19 16:30	2.02	1887	7.94	15.1					
8-18-19 21:00	13.77	1110	8.30	42.4	8-18-19 17:30	14.40	1563	8.07	23.2	8-18-19 17:30	14.85	957	8.40	313.0						11-18-19 16:45	1.99	1876	7.92	18.1					
8-18-19 21:15	13.79	1111	8.30	47.9	8-18-19 17:45	14.38	1565	8.07	21.0	8-18-19 17:45	14.86	957	8.41	295.4						11-18-19 17:00	1.89	1868	7.92	21.4					
8-18-19 21:30	13.77	1111	8.30	37.1	8-18-19 18:00	14.34	1564	8.07	24.8	8-18-19 18:00	14.93	956	8.41	318.4						11-18-19 17:15	1.82	1886	7.94	22.0					
8-18-19 21:45	13.79	1110	8.30	37.4	8-18-19 18:15	14.28	1570	8.05	28.8	8-18-19 18:15	14.92	957	8.41	299.2						11-18-19 17:30	1.77	1883	7.93	23.0					
8-18-19 22:00	13.81	1109	8.31	37.5	8-18-19 18:30	14.26	1562	8.04	34.8	8-18-19 18:30	14.89	957	8.41	315.0						11-18-19 17:45	1.71	1889	7.91	18.3					
8-18-19 22:15	13.82	1107	8.31	37.3	8-18-19 18:45	14.18	1558	8.02	34.2	8-18-19 18:45	14.93	957	8.41	294.7						11-18-19 18:00	1.69	1889	7.91	15.9					
8-18-19 22:30	13.81	1111	8.29	40.2	8-18-19 19:00	14.12	1557	8.02	29.3	8-18-19 19:00	14.95	957	8.41	335.0						11-18-19 18:15	1.68	1885	7.90	14.4					
8-18-19 22:45	13.78	1111	8.28	40.2	8-18-19 19:15	14.12	1563	8.03	35.7	8-18-19 19:15	14.96	957	8.41	304.2						11-18-19 18:30	1.73	1884	7.89	16.2					
8-18-19 23:00	13.80	1113	8.27	41.0	8-18-19 19:30	14.13	1548	8.04	32.1	8-18-19 19:30	14.98	957	8.41	326.4						11-18-19 18:45	1.74	1877	7.89	18.2					
8-18-19 23:15	13.74	1115	8.26	43.4	8-18-19 19:45	14.13	1549	8.05	29.2	8-18-19 19:45	15.04	958	8.41	326.5						11-18-19 19:00	1.74	1862	7.88	13.9					
8-18-19 23:30	13.72	1118	8.26	43.4	8-18-19 20:00	14.16	1546	8.06	30.8	8-18-19 20:00	15.08	958	8.41	322.4						11-18-19 19:15	1.75	1866	7.88	14.5					
8-18-19 23:45	13.70	1120	8.26	45.4	8-18-19 20:15	14.22	1544	8.08	30.8	8-18-19 20:15	15.18	958	8.40	287.8						11-18-19 19:30	1.77	1867	7.89	13.3					
8-19-19 0:00	13.62	1124	8.25	42.9	8-18-19 20:30	14.38	1542	8.10	24.0	8-18-19 20:30	15.18	958	8.40	307.1						11-18-19 19:45	1.78	1875	7.89	14.8					
8-19-19 0:15	13.60	1124	8.25	38.0	8-18-19 20:45	14.45	1544	8.11	22.6	8-18-19 20:45	15.29	959	8.39	287.3						11-18-19 20:00	1.80	1873	7.88	12.1					
8-19-19 0:30	13.63	1128	8.24	36.1	8-18-19 21:00	14.46	1548	8.10	20.7	8-18-19 21:00	15.10	958	8.40	298.3						11-18-19 20:15	1.78	1871	7.88	12.3					
8-19-19 0:45	13.62	1129	8.24	39.8	8-18-19 21:15	14.49	1545	8.11	19.3	8-18-19 21:15	15.07	958	8.40	307.2						11-18-19 20:30	1.74	1876	7.86	8.8					
8-19-19 1:00	13.55	1126	8.24	36.0	8-18-19 21:30	14.51	1548	8.11	18.6	8-18-19 21:30	15.02	958	8.40	316.7						11-18-19 20:45	1.68	1868	7.87	13.8					
8-19-19 1:15	13.54	1126	8.24	34.4	8-18-19 21:45	14.50	1549	8.10	16.8	8-18-19 21:45	15.00	957	8.40	303.1						11-18-19 21:00	1.64	1865	7.87	12.3					
8-19-19 1:30	13.54	1128	8.24	34.0	8-18-19 22:00	14.51	1549	8.10	16.8	8-18-19 22:00	15.07	957	8.40	318.1						11-18-19 21:15	1.63	1869	7.88	12.9					
8-19-19 1:45	13.54	1130	8.23	37.1	8-18-19 22:15	14.52	1548	8.11	15.3	8-18-19 22:15	15.01	956	8.40	291.9						11-18-19 21:30	1.37	1844	7.87	10.0					
8-19-19 2:00	13.53	1131	8.23	34.8	8-18-19 22:30	14.54	1546	8.12	14.4	8-18-19 22:30	15.09	958	8.40	317.2						11-18-19 21:45	1.66	1859	7.93	5.2					
8-19-19 2:15	13.52	1132	8.23	34.8	8-18-19 22:45	14.56	1544	8.12	13.6	8-18-19 22:45	15.09	958	8.40	296.0						11-18-19 22:00	1.66	1846	7.94	5.2					
8-19-19 2:30	13.54	1134	8.22	33.7	8-18-19 23:00	14.59	1545	8.12	12.2	8-18-19 23:00	15.17	958	8.40	302.2						11-18-19 22:15	1.64	1862	7.93	7.8					
8-19-19 2:45	13.53	1135	8.22	31.9	8-18-19 23:15	14.59	1544	8.13	11.9	8-18-19 23:15	15.15	958	8.40	290.6						11-18-19 22:30	1.63	1865	7.90	7.6					
8-19-19 3:00	13.52	1138	8.22	30.4	8-18-19 23:30	14.62	1544	8.13	11.7	8-18-19 23:30	15.13	958	8.40	302.3						11-18-19 22:45	1.56	1851	7.87	6.5					
8-19-19 3:15	13.50	1139	8.22	33.6	8-18-19 23:45	14.63	1544	8.13	11.6	8-18-19 23:45	15.16	958	8.40	299.9						11-18-19 23:00	1.48	1848	7.87	6.8					
8-19-19 3:30	13.48	1141	8.22	30.1	8-19-19 0:00	14.63	1544	8.13	11.5	8-19-19 0:00	15.12	957	8.40	286.4						11-18-19 23:15	1.47	1853	7.86	7.4					
8-19-19 3:45	13.47	1142	8.22	32.7	8-19-19 0:15	14.58	1544	8.13	13.2	8-19-19 0:15	15.02	957	8.40	295.9						11-18-19 23:30	1.42	1846	7.86	6.7					
8-19-19 4:00	13.46	1145	8.21	32.1	8-19-19 0:30	14.60	1544	8.13	10.3	8-19-19 0:30	15.16	958	8.41	276.4						11-18-19 23:45	1.40	1857	7.85	8.2					
8-19-19 4:15	13.44	1144	8.22	34.1	8-19-19 0:45	14.56	1543	8.14	10.5	8-19-19 0:45	15.18	957	8.41	287.4						11-19-19 0:00	1.37	1846	7.84	8.1					
8-19-19 4:30	13.44	1145	8.22	29.3	8-19-19 1:00	14.54	1544	8.13	11.8	8-19-19 1:00	15.15	957	8.40	274.2						11-19-19 0:15	1.35	1849	7.85	8.2					
8-19-19 4:45	13.44	1148	8.21	30.4	8-19-19 1:15	14.53	1545	8.13	9.6	8-19-19 1:15	15.09	957	8.40	293.5						11-19-19 0:30	1.40	1856	7.86	8.8					
8-19-19 5:00	13.42	1151	8.20	30.1	8-19-19 1:30	14.49	1544	8.13	11.4	8-19-19 1:30	15.02	957	8.40	286.0						11-19-19 0:45	1.41	1857	7.87	7.3					
8-19-19 5:15	13.41	1151	8.20	27.7	8-19-19 1:45	14.47	1545	8.13	10.9	8-19-19 1:45	14.99	957	8.40	269.2						11-19-19 1:00	1.39	1859	7.87	8.2					
8-19-19 5:30	13.41	1152	8.20	29.3	8-19-19 2:00	14.46	1545	8.13	10.0	8-19-19 2:00	15.04	957	8.41	273.9						11-19-19 1:15	1.37	1858	7.88	8.0					
8-19-19 5:45	13.39	1152	8.19	26.7	8-19-19 2:15	14.45	1546	8.13	9.3	8-19-19 2:15	15.03	957	8.40	287.9						11-19-19 1:30	1.36	1868	7.88	8.0					
8-19-19 6:00	13.37	1153	8.19	26.2	8-19-19 2:30	14.42	1548	8.12	9.8	8-19-19 2:30	14.98	958	8.40	278.8						11-19-19 1:45	1.35	1867	7.88	8.7					
8-19-19 6:15	13.35	1154	8.19	24.4	8-19-19 2:45	14.41	1548	8.12	10.1	8-19-19 2:45	14.93	957	8.40	273.8						11-19-19 2:00	1.32	1872	7.87	8.0					
8-19-19 6:30	13.34	1154	8.19	23.5	8-19-19 3:00	14.35	1548	8.12	8.9	8-19-19 3:00	14.91	957	8.40	257.4						11-19-19 2:15	1.31	1876	7.88	7.6					
8-19-19 6:45	13.32	1154	8.18	23.0	8-19-19 3:15	14.33	1548	8.12	11.6	8-19-19 3:15	14.88	957	8.40	281.3						11-19-19 2:30	1.30	1879	7.89	6.8					
8-19-19 7:00	13.31	1155	8.18	21.5	8-19-19 3:30	14.32	1548	8.11	12.5	8-19-19 3:30	14.86	957	8.40	262.6						11-19-19 2:45	1.33	1881	7.90	5.5					
8-19-19 7:15	13.30	1159	8.17	19.9	8-19-19 3:45	14.33	1548	8.11	9.0	8-19-19 3:45	14.85	957	8.40	280.7						11-19-19 3:00	1.33	1881	7.90	6.6					
8-19-19 7:30	13.29	1160	8.18	22.0	8-19-19 4:00	14.34	1548	8.11	8.2	8-19-19 4:00	14.80	957	8.40	279.0						11-19-19 3:15	1.36	1880	7.90	6.4					
8-19-19 7:45	13.26	1161	8.17	21.4	8-19-19 4:15	14.33	1548	8.11	6.8	8-19-19 4:15	14.79	957	8.40	283.3						11-19-19 3:30	1.42	1875	7.91	7.2					
8-19-19 8:00	13.24	1161	8.17	21.9	8-19-19 4:30	14.30	1548	8.11	7.1	8-19-19 4:30	14.78	958	8.40	273.8						11-19-19 3:45	1.35	1881	7.90	7.2					
8-19-19 8:15	13.25	1161	8.16	21.2	8-19-19 4:45	14.29	1549	8.10	8.0	8-19-19 4:45	14.76	957	8.40	274.3						11-19-19 4:00	1.33	1884	7.90	7.4					
8-19-19 8:30	13.23	1167	8.15	20.9	8-19-19 5:00	14.30	1550	8.10	8.2	8-19-19 5:00	14.71	957	8.40	264.9						11-19-19 4:15	1.31	1882	7.90	7.0					
8-19-19 8:45	13.22	1163	8.16	19.1	8-19-19 5:15	14.29	1552	8.10	5.8	8-19-19 5:15	14.68	959	8.40	261.7						11-19-19 4:30	1.25	1877	7.89	6.9					
8-19-19 9:00	13.19	1163	8.15	17.7	8-19-19 5:30	14.28	1557	8.09	3.6	8-19-19 5:30	14.65	957	8.40	270.3						11-19-19 4:45	1.20	1881	7.88	5.3					
8-19-19 9:15	13.18	1165	8.15	18.4	8-19-19 5:45	14.30	1559	8.08	10.7	8-19-19 5:45	14.64	957	8.40	251.3						11-19-19 5:00	1.12	1856	7.87	5.2					
8-19-19 9:30	13.19	1167	8.14	18.0	8-19-19 6:00	14.29	1562	8.07	11.4	8-19-19 6:00	14.61	957	8.40	264.2						11-19-19 5:15	1.09	1857	7.86	4.9					
8-19-19 9:45	13.13	1166	8.15	20.0	8-19-19 6:15	14.22	1560	8.09	12.0	8-19-19 6:15	14.59	957	8.41	246.5						11-19-19 5:30	1.05	1854	7.87	5.3					
8-19-19 10:00	13.13	1166	8.15	15.8	8-19-19 6:30	14.17	1556	8.10	11.2	8-19-19 6:30	14.59	957	8.40	255.1						11-19-19 5:45	1.04	1864	7.88	5.3					
8-19-19 10:15	13.04	1164	8.16	18.7	8-19-19 6:45	14.18	1557	8.10	9.0	8-19-19 6:45	14.56	957	8.40	255.9						11-19-19 6:00	1.01	1856	7.88	3.9					
8-19-19 10:30	13.01	1166	8.15	16.5	8-19-19 7:00	14.19	1557	8.09	8.9	8-19-19 7:00	14.55	957	8.40	255.6						11-19-19 6:15	1.00	1860	7.88	3.8					
8-19-19 10:45	13.04	1168	8.15	16.4	8-19-19 7:15	14.19	1561	8.09	9.3	8-19-19 7:15	14.54	957	8.40	249.3						11-19-19 6:30	0.99	1870	7.89	3.7					
8-19-19 11:00	12.97	1167	8.15	15.4	8-19-19 7:30	14.22	1563	8.08	10.2	8-19-19 7:30	14.52	957	8.40	271.9						11-19-19 6:45	1.22	1886	7.81	10.2					
8-19-19 11:15	12.92	1166	8.15	16.5	8-19-19 7:45	14.14	1561	8.09	9.8	8-19-19 7:45	14.48	958	8.41	248.0						11-19-19 7:00	1.88	1887	7.40	15.6					
8-19-19 11:30	12.89	1167	8.15	15.7	8-19-19 8:00	14.11	1560	8.09	9.6	8-19-19 8:00	14.44	958	8.40	265.0						11-19-19 7:15	1.97	1901	7.27	20.2					
8-19-19 11:45	12.88	1167	8.15	14.3	8-19-19 8:15	14.14	1561	8.08	8.9	8-19-19 8:15	14.41	957	8.40	270.3						11-19-19 7:30	1.93	1905	7.24	21.4					
8-19-19 12:00	12.86	1167	8.14	13.0	8-19-19 8:30	14.14	1562	8.08	9.4	8-19-19 8:30	14.38	957	8.40	266.5						11-19-19 7:45	1.84	1900	7.22	24.8					
8-19-19 12:15	12.84	1168	8.15	14.1	8-19-19 8:45	14.13	1564	8.07	9.5	8-19-19 8:45	14.37	957	8.40	270.1						11-19-19 8:00	1.81	1907	7.22	19.3					
8-19-19 12:30	12.80	1170	8.15	22.4	8-19-19 9:00	14.12	1565	8.07	10.0	8-19-19 9:00	14.36	958	8.41	273.9						11-19-19 8:15	1.85	1912	7.22	18.5					
8-19-19 12:45	12.79	1170	8.15	17.1	8-19-19 9:15	14.09	1566	8.07	9.0	8-19-19 9:15	14.36	958	8.41	269.7						11-19-19 8:30	1.79	1895	7.22	21.5					
8-19-19 13:00	12.74	1171	8.15	14.2	8-19-19 9:30	14.11	1568	8.07	10.3	8-19-19 9:30	14.34	958	8.41	285.5						11-19-19 8:45	1.75	1902	7.22	17.7					
8-19-19 13:15	12.72	1171	8.15	13.6	8-19-19 9:45	14.10	1568	8.07	9.5	8-19-19 9:45	14.32	958	8.42	295.6						11-19-19 9:00	1.79	1912	7.22	20.7					
8-19-19 13:30	12.70	1172	8.14	16.3	8-19-19 10:00	14.09	1567	8.07	9.5	8-19-19 10:00	14.27	958	8.42	312.8						11-19-19 9:15	1.79	1901	7.24	18.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-19-19 13:45	12.68	1175	8.14	14.5	8-19-19 10:15	14.06	1566	8.07	10.3	8-19-19 10:15	14.25	959	8.43	327.5						11-19-19 9:30	1.78	1907	7.24	18.2					
8-19-19 14:00	12.70	1182	8.13	14.2	8-19-19 10:30	14.02	1565	8.07	10.0	8-19-19 10:30	14.23	959	8.43	316.7						11-19-19 9:45	1.88	1910	7.21	19.8					
8-19-19 14:15	12.68	1182	8.14	17.9	8-19-19 10:45	13.96	1558	8.07	26.8	8-19-19 10:45	14.24	961	8.43	343.4						11-19-19 10:00	1.97	1922	7.18	21.6					
8-19-19 14:30	12.63	1182	8.14	15.4	8-19-19 11:00	13.90	1552	8.08	83.4	8-19-19 11:00	14.23	961	8.44	391.2						11-19-19 10:15	2.02	1928	7.21	21.6					
8-19-19 14:45	12.62	1184	8.14	15.4	8-19-19 11:15	13.87	1559	8.08	11.3	8-19-19 11:15	14.23	961	8.43	366.1						11-19-19 10:30	2.00	1918	7.21	21.0					
8-19-19 15:00	12.62	1188	8.13	15.5	8-19-19 11:30	13.86	1559	8.07	14.8	8-19-19 11:30	14.21	962	8.43	368.6						11-19-19 10:45	2.03	1960	7.22	20.7					
8-19-19 15:15	12.60	1187	8.12	13.1	8-19-19 11:45	13.83	1558	8.08	16.3	8-19-19 11:45	14.20	961	8.43	336.3						11-19-19 11:00	2.03	1909	7.22	19.0					
8-19-19 15:30	12.58	1189	8.12	12.0	8-19-19 12:00	13.77	1558	8.08	11.8	8-19-19 12:00	14.18	961	8.43	343.7						11-19-19 11:15	2.04	1913	7.22	19.0					
8-19-19 15:45	12.57	1190	8.12	11.8	8-19-19 12:15	13.77	1557	8.08	14.8	8-19-19 12:15	14.16	962	8.43	346.3						11-19-19 11:30	2.02	1914	7.21	19.8					
8-19-19 16:00	12.56	1190	8.12	11.8	8-19-19 12:30	13.75	1557	8.07	14.2	8-19-19 12:30	14.13	962	8.43	347.1						11-19-19 11:45	2.02	1898	7.20	24.4					
8-19-19 16:15	12.56	1191	8.12	12.7	8-19-19 12:45	13.73	1555	8.07	16.5	8-19-19 12:45	14.09	962	8.43	346.1						11-19-19 12:00	1.99	1913	7.19	21.9					
8-19-19 16:30	12.56	1192	8.12	10.8	8-19-19 13:00	13.75	1554	8.07	17.0	8-19-19 13:00	14.05	963	8.43	349.4						11-19-19 12:15	1.98	1917	7.17	19.7					
8-19-19 16:45	12.59	1193	8.12	12.0	8-19-19 13:15	13.60	1541	8.06	45.1	8-19-19 13:15	14.04	963	8.43	335.1						11-19-19 12:30	1.98	1916	7.17	19.1					
8-19-19 17:00	12.60	1194	8.11	10.4	8-19-19 13:30	13.48	1542	8.05	33.0	8-19-19 13:30	14.01	963	8.43	348.0						11-19-19 12:45	1.97	1914	7.17	17.5					
8-19-19 17:15	12.62	1194	8.11	10.4	8-19-19 13:45	13.55	1544	8.05	27.6	8-19-19 13:45	13.97	964	8.43	327.4						11-19-19 13:00	1.95	1912	7.17	18.9					
8-19-19 17:30	12.66	1197	8.12	11.2	8-19-19 14:00	13.52	1547	8.06	21.0	8-19-19 14:00	13.95	964	8.43	343.0						11-19-19 13:15	1.95	1908	7.16	18.0					
8-19-19 17:45	12.72	1201	8.13	11.4	8-19-19 14:15	13.49	1546	8.05	24.7	8-19-19 14:15	13.96	965	8.43	342.7						11-19-19 13:30	1.94	1912	7.15	17.7					
8-19-19 18:00	12.75	1203	8.12	11.8	8-19-19 14:30	13.43	1545	8.05	23.1	8-19-19 14:30	13.91	965	8.43	340.6						11-19-19 13:45	1.94	1914	7.16	19.8					
8-19-19 18:15	12.77	1203	8.12	11.9	8-19-19 14:45	13.44	1546	8.05	22.8	8-19-19 14:45	13.92	966	8.43	331.9						11-19-19 14:00	1.91	1917	7.15	19.0					
8-19-19 18:30	12.82	1205	8.12	14.3	8-19-19 15:00	13.40	1545	8.06	23.4	8-19-19 15:00	13.88	966	8.43	337.9						11-19-19 14:15	1.92	1915	7.13	19.6					
8-19-19 18:45	12.90	1202	8.13	12.4	8-19-19 15:15	13.33	1544	8.06	23.0	8-19-19 15:15	13.85	966	8.43	352.5						11-19-19 14:30	1.91	1917	7.13	19.6					
8-19-19 19:00	12.91	1199	8.12	10.7	8-19-19 15:30	13.31	1542	8.05	30.9	8-19-19 15:30	13.87	967	8.43	382.3						11-19-19 14:45	1.89	1916	7.14	18.5					
8-19-19 19:15	12.97	1202	8.12	12.2	8-19-19 15:45	13.33	1540	8.05	41.2	8-19-19 15:45	13.85	967	8.43	337.8						11-19-19 15:00	1.89	1924	7.12	18.2					
8-19-19 19:30	13.01	1201	8.12	12.0	8-19-19 16:00	13.32	1535	8.06	33.4	8-19-19 16:00	13.86	968	8.43	352.3						11-19-19 15:15	1.87	1918	7.12	16.8					
8-19-19 19:45	13.08	1204	8.12	11.7	8-19-19 16:15	13.31	1536	8.06	33.0	8-19-19 16:15	13.85	968	8.43	345.7						11-19-19 15:30	1.88	1919	7.12	16.9					
8-19-19 20:00	13.18	1201	8.12	10.1	8-19-19 16:30	13.33	1536	8.06	32.0	8-19-19 16:30	13.86	968	8.43	350.6						11-19-19 15:45	1.86	1920	7.11	18.5					
8-19-19 20:15	13.19	1204	8.13	10.5	8-19-19 16:45	13.36	1534	8.07	33.5	8-19-19 16:45	13.87	968	8.43	336.0						11-19-19 16:00	1.88	1926	7.10	19.3					
8-19-19 20:30	13.31	1203	8.12	12.2	8-19-19 17:00	13.38	1534	8.07	36.7	8-19-19 17:00	13.89	968	8.42	335.5						11-19-19 16:15	1.85	1924	7.10	18.2					
8-19-19 20:45	13.28	1201	8.12	12.2	8-19-19 17:15	13.37	1532	8.07	36.2	8-19-19 17:15	13.90	968	8.42	326.5						11-19-19 16:30	1.84	1921	7.11	18.8					
8-19-19 21:00	13.44	1203	8.13	10.9	8-19-19 17:30	13.39	1533	8.07	34.6	8-19-19 17:30	14.02	969	8.42	325.4						11-19-19 16:45	1.84	1921	7.11	17.7					
8-19-19 21:15	13.62	1202	8.13	10.7	8-19-19 17:45	13.41	1536	8.07	32.0	8-19-19 17:45	13.94	969	8.42	337.0						11-19-19 17:00	1.88	1919	7.10	18.0					
8-19-19 21:30	13.68	1209	8.13	12.6	8-19-19 18:00	13.43	1538	8.07	29.4	8-19-19 18:00	13.98	970	8.42	335.3						11-19-19 17:15	1.89	1918	7.11	16.9					
8-19-19 21:45	13.86	1209	8.14	11.6	8-19-19 18:15	13.42	1538	8.08	26.9	8-19-19 18:15	14.02	970	8.42	332.7						11-19-19 17:30	1.88	1922	7.11	15.7					
8-19-19 22:00	13.98	1206	8.13	12.5	8-19-19 18:30	13.44	1538	8.08	30.0	8-19-19 18:30	14.02	970	8.41	330.2						11-19-19 17:45	1.90	1922	7.10	19.6					
8-19-19 22:15	14.13	1209	8.12	12.0	8-19-19 18:45	13.42	1536	8.09	28.7	8-19-19 18:45	14.07	971	8.42	325.7						11-19-19 18:00	1.92	1927	7.10	18.4					
8-19-19 22:30	14.26	1211	8.12	11.4	8-19-19 19:00	13.46	1534	8.09	30.1	8-19-19 19:00	14.10	971	8.41	335.3						11-19-19 18:15	1.93	1928	7.09	18.7					
8-19-19 22:45	14.42	1207	8.12	11.0	8-19-19 19:15	13.47	1533	8.09	29.9	8-19-19 19:15	14.13	971	8.42	314.6						11-19-19 18:30	1.95	1927	7.09	18.1					
8-19-19 23:00	14.57	1211	8.14	9.6	8-19-19 19:30	13.53	1534	8.09	28.4	8-19-19 19:30	14.23	971	8.41	344.9						11-19-19 18:45	1.94	1924	7.09	16.5					
8-19-19 23:15	14.65	1211	8.13	10.4	8-19-19 19:45	13.52	1534	8.09	29.1	8-19-19 19:45	14.22	972	8.41	319.9						11-19-19 19:00	1.96	1921	7.09	16.4					
8-19-19 23:30	14.64	1212	8.12	10.9	8-19-19 20:00	13.57	1533	8.09	30.2	8-19-19 20:00	14.38	972	8.41	343.0						11-19-19 19:15	1.95	1921	7.09	15.9					
8-19-19 23:45	14.62	1215	8.12	11.5	8-19-19 20:15	13.58	1533	8.09	28.6	8-19-19 20:15	14.38	972	8.41	338.4						11-19-19 19:30	1.97	1920	7.07	14.4					
8-20-19 0:00	14.93	1214	8.14	8.8	8-19-19 20:30	13.55	1530	8.09	30.1	8-19-19 20:30	14.62	972	8.40	331.2						11-19-19 19:45	1.99	1921	7.08	16.4					
8-20-19 0:15	14.96	1211	8.14	9.9	8-19-19 20:45	13.53	1527	8.10	34.1	8-19-19 20:45	14.56	973	8.41	311.6						11-19-19 20:00	2.00	1925	7.09	16.1					
8-20-19 0:30	14.90	1212	8.15	9.7	8-19-19 21:00	13.66	1520	8.10	32.7	8-19-19 21:00	14.63	973	8.40	321.2						11-19-19 20:15	2.00	1925	7.08	15.1					
8-20-19 0:45	14.88	1215	8.14	10.3	8-19-19 21:15	13.69	1518	8.10	37.4	8-19-19 21:15	15.18	974	8.39	298.7						11-19-19 20:30	2.01	1920	7.07	16.5					
8-20-19 1:00	14.70	1215	8.14	9.1	8-19-19 21:30	13.83	1517	8.10	33.5	8-19-19 21:30	14.92	973	8.39	319.6						11-19-19 20:45	2.02	1925	7.07	13.8					
8-20-19 1:15	14.60	1221	8.12	10.9	8-19-19 21:45	13.84	1515	8.11	34.8	8-19-19 21:45	15.61	973	8.38	295.4						11-19-19 21:00	2.01	1917	7.07	15.3					
8-20-19 1:30	14.75	1216	8.16	8.5	8-19-19 22:00	13.71	1510	8.11	40.9	8-19-19 22:00	15.52	973	8.39	311.9						11-19-19 21:15	2.03	1919	7.07	14.3					
8-20-19 1:45	14.69	1224	8.13	8.6	8-19-19 22:15	13.76	1516	8.11	33.6	8-19-19 22:15	15.41	974	8.38	283.2						11-19-19 21:30	2.03	1916	7.07	14.6					
8-20-19 2:00	14.66	1233	8.11	8.5	8-19-19 22:30	13.83	1518	8.11	31.3	8-19-19 22:30	15.72	974	8.38	282.2						11-19-19 21:45	2.02	1920	7.07	15.4					
8-20-19 2:15	14.62	1228	8.11	9.2	8-19-19 22:45	13.85	1522	8.11	32.1	8-19-19 22:45	16.31	976	8.37	279.6						11-19-19 22:00	2.04	1924	7.07	14.7					
8-20-19 2:30	14.55	1229	8.12	8.7	8-19-19 23:00	13.99	1522	8.11	32.8	8-19-19 23:00	16.29	975	8.37	288.6						11-19-19 22:15	2.03	1925	7.06	16.3					
8-20-19 2:45	14.53	1231	8.15	7.9	8-19-19 23:15	14.01	1520	8.11	31.3	8-19-19 23:15	16.15	974	8.36	279.3						11-19-19 22:30	2.04	1921	7.05	14.3					
8-20-19 3:00	14.47	1228	8.16	6.7	8-19-19 23:30	14.11	1521	8.11	29.7	8-19-19 23:30	16.29	973	8.37	286.0						11-19-19 22:45	2.05	1920	7.06	14.3					
8-20-19 3:15	14.41	1231	8.16	7.8	8-19-19 23:45	14.31	1520	8.11	27.1	8-19-19 23:45	16.21	975	8.37	286.7						11-19-19 22:30	2.04	1921	7.05	14.3					
8-20-19 3:30	14.36	1234	8.15	6.7	8-20-19 0:00	14.52	1518	8.11	28.4	8-20-19 0:00	16.20	975	8.37	288.6						11-19-19 22:45	2.05	1920	7.06	14.3					
8-20-19 3:45	14.31	1236	8.15	7.8	8-20-19 0:15	15.05	1462	8.14	50.6	8-20-19 0:15	15.96	973	8.37	287.2						11-19-19 23:15	1.72	1900	7.35	10.2					
8-20-19 4:00	14.28	1238	8.16	6.4	8-20-19 0:30	15.52	1354	8.20	89.6	8-20-19 0:30	15.87	974	8.38	269.7						11-19-19 23:30	1.74	1895	7.37	8.7					
8-20-19 4:15	14.27	1242	8.14	6.9	8-20-19 0:45	15.45	1357	8.20	85.4	8-20-19 0:45	16.29	974	8.38	275.7						11-19-19 23:45	1.76	1893	7.34	11.8					
8-20-19 4:30	14.21	1238	8.15	6.8	8-20-19 1:00	14.69	1503	8.11	28.6	8-20-19 1:00	16.37	976	8.38	261.9						11-20-19 0:00	1.77	1902	7.32	8.3					
8-20-19 4:45	14.18	1247	8.13	8.2	8-20-19 1:15	14.56	1498	8.12	35.6	8-20-19 1:15	16.46	976	8.38	254.7						11-20-19 0:15	1.73	1902	7.31	8.0					
8-20-19 5:00	14.12	1243	8.15	6.3	8-20-19 1:30	15.06	1460	8.13	43.3	8-20-19 1:30	16.17	970	8.38	268.0						11-20-19 0:30	1.68	1901	7.34	7.8					
8-20-19 5:15	14.08	1244	8.14	8.0	8-20-19 1:45	15.34	1391	8.17	59.5	8-20-19 1:45	15.54	971	8.37	286.9						11-20-19 0:45	1.70	1903	7.37	10.6					
8-20-19 5:30	14.05	1248	8.13	6.8	8-20-19 2:00	15.53	1309	8.23	86.0	8-20-19 2:00	15.65	974	8.39	261.3						11-20-19 1:00	1.69	1898	7.38	10.2					
8-20-19 5:45	14.05	1259	8.13	8.0	8-20-19 2:15	15.62	1287	8.25	86.8	8-20-19 2:15	16.06	976	8.39	266.2						11-20-19 1:15	1.68	1897	7.36	8.6					
8-20-19 6:00	14.01	1249	8.14	9.6	8-20-19 2:30	14.97	1473	8.11	40.4	8-20-19 2:30	16.02	975	8.39	267.7						11-20-19 1:30	1.65	1902	7.35	8.4					
8-20-19 6:15	13.97	1249	8.14	6.5	8-20-19 2:45	15.55	1288	8.25	78.1	8-20-19 2:45	15.87	975	8.38	264.0						11-20-19 1:45	1.68	1902	7.35	11.6					
8-20-19 6:30	13.91	1245	8.14	6.3	8-20-19 3:00	15.50	1302	8.24	71.5	8-20-19 3:00	15.78	974	8.39	279.4						11-20-19 2:00	1.71	1904	7.35	8.4					
8-20-19 6:45	13.87	1244	8.14	6.4	8-20-19 3:15	15.52	1328	8.22	73.1	8-20-19 3:15	15.63	974	8.39	278.2						11-20-19 2:15	1.70	1901	7.35	8.6					
8-20-19 7:00	13.84	1247	8.14	7.1	8-20-19 3:30	15.41	1347	8.22	65.4	8-20-19 3:30	15.49	973	8.39	284.3						11-20-19 2:30	1.74	1904	7.35	8.9					
8-20-19 7:15	13.81	1245	8.14	6.6	8-20-19 3:45	15.32	1329	8.22	63.4	8-20-19 3:45	15.33	973	8.40	261.8						11-20-19 2:45	1.78	1905	7.33	8.9					
8-20-19 7:30	13.78	1246	8.14	6.3	8-20-19 4:00	15.19	1341	8.22	63.4	8-20-19 4:00	15.25	975	8.40	256.2						11-20-19 3:00	1.80	1902	7.35	10.9					
8-20-19 7:45	13.75	1245	8.14	6.0	8-20-19 4:15	15.13	1344	8.21	63.3	8-20-19 4:15	15.23	975	8.41	245.0						11-20-19 3:15	1.79	1902	7.34	10.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-20-19 8:00	13.72	1246	8.14	5.2	8-20-19 4:30	15.07	1348	8.21	60.5	8-20-19 4:30	15.15	974	8.41	259.6						11-20-19 3:30	1.80	1902	7.34	11.2					
8-20-19 8:15	13.71	1248	8.14	7.1	8-20-19 4:45	15.02	1351	8.21	54.9	8-20-19 4:45	15.09	975	8.40	259.9						11-20-19 3:45	1.82	1903	7.34	12.6					
8-20-19 8:30	13.79	1280	8.14	5.7	8-20-19 5:00	14.93	1353	8.21	51.3	8-20-19 5:00	15.01	975	8.40	252.9						11-20-19 4:00	1.82	1906	7.33	11.0					
8-20-19 8:45	13.84	1288	8.14	6.1	8-20-19 5:15	14.89	1354	8.20	47.4	8-20-19 5:15	14.98	974	8.40	263.4						11-20-19 4:15	1.81	1905	7.33	10.9					
8-20-19 9:00	13.80	1290	8.14	6.5	8-20-19 5:30	14.86	1356	8.20	45.6	8-20-19 5:30	14.92	974	8.41	240.4						11-20-19 4:30	1.79	1907	7.34	10.3					
8-20-19 9:15	13.75	1279	8.14	6.1	8-20-19 5:45	14.79	1357	8.20	42.6	8-20-19 5:45	14.86	974	8.41	249.9						11-20-19 4:45	1.80	1906	7.34	10.7					
8-20-19 9:30	13.72	1277	8.13	5.1	8-20-19 6:00	14.77	1357	8.20	46.1	8-20-19 6:00	14.82	974	8.40	237.3						11-20-19 5:00	1.83	1902	7.34	10.3					
8-20-19 9:45	13.66	1277	8.15	5.9	8-20-19 6:15	14.71	1358	8.20	43.2	8-20-19 6:15	14.78	974	8.41	245.1						11-20-19 5:15	1.82	1899	7.31	10.5					
8-20-19 10:00	13.62	1280	8.14	5.3	8-20-19 6:30	14.64	1359	8.20	39.6	8-20-19 6:30	14.75	974	8.40	236.0						11-20-19 5:30	1.82	1901	7.28	10.0					
8-20-19 10:15	13.60	1285	8.14	6.2	8-20-19 6:45	14.63	1360	8.20	40.3	8-20-19 6:45	14.72	975	8.40	250.3						11-20-19 5:45	1.84	1903	7.28	9.9					
8-20-19 10:30	13.54	1279	8.15	5.7	8-20-19 7:00	14.60	1361	8.19	38.7	8-20-19 7:00	14.69	974	8.40	234.2						11-20-19 6:00	1.85	1913	7.27	10.2					
8-20-19 10:45	13.50	1279	8.15	5.4	8-20-19 7:15	14.53	1362	8.20	37.9	8-20-19 7:15	14.66	975	8.41	232.1						11-20-19 6:15	1.88	1913	7.27	11.0					
8-20-19 11:00	13.39	1273	8.19	4.8	8-20-19 7:30	14.47	1364	8.19	37.9	8-20-19 7:30	14.63	974	8.41	237.4						11-20-19 6:30	1.89	1915	7.27	11.0					
8-20-19 11:15	13.37	1276	8.21	5.5	8-20-19 7:45	14.42	1366	8.19	36.5	8-20-19 7:45	14.57	974	8.40	239.4						11-20-19 6:45	1.91	1914	7.29	12.1					
8-20-19 11:30	13.32	1279	8.23	5.1	8-20-19 8:00	14.43	1369	8.19	36.1	8-20-19 8:00	14.58	974	8.40	238.8						11-20-19 7:00	1.92	1912	7.31	11.4					
8-20-19 11:45	13.33	1286	8.19	5.6	8-20-19 8:15	14.42	1369	8.19	36.4	8-20-19 8:15	14.54	974	8.40	232.4						11-20-19 7:15	1.93	1911	7.31	11.6					
8-20-19 12:00	13.43	1297	8.15	5.6	8-20-19 8:30	14.35	1373	8.19	36.2	8-20-19 8:30	14.50	974	8.40	235.3						11-20-19 7:30	1.94	1915	7.31	11.3					
8-20-19 12:15	13.36	1300	8.16	5.5	8-20-19 8:45	14.29	1377	8.18	33.8	8-20-19 8:45	14.48	974	8.40	235.9						11-20-19 7:45	1.95	1912	7.30	12.4					
8-20-19 12:30	13.35	1305	8.15	6.1	8-20-19 9:00	14.25	1380	8.18	37.5	8-20-19 9:00	14.43	974	8.40	235.7						11-20-19 8:00	1.95	1913	7.30	12.0					
8-20-19 12:45	13.34	1313	8.14	5.3	8-20-19 9:15	14.24	1382	8.18	33.5	8-20-19 9:15	14.39	974	8.40	224.8						11-20-19 8:15	1.95	1912	7.28	11.8					
8-20-19 13:00	13.33	1319	8.13	4.9	8-20-19 9:30	14.23	1385	8.18	31.4	8-20-19 9:30	14.38	974	8.40	241.2						11-20-19 8:30	1.96	1910	7.27	11.3					
8-20-19 13:15	13.32	1322	8.12	5.0	8-20-19 9:45	14.19	1389	8.18	33.9	8-20-19 9:45	14.34	974	8.40	246.7						11-20-19 8:45	1.98	1912	7.26	9.8					
8-20-19 13:30	13.36	1331	8.12	4.9	8-20-19 10:00	14.16	1392	8.18	29.6	8-20-19 10:00	14.30	974	8.40	232.7						11-20-19 9:00	1.99	1909	7.26	11.0					
8-20-19 13:45	13.41	1340	8.11	4.1	8-20-19 10:15	14.13	1394	8.17	31.7	8-20-19 10:15	14.22	974	8.40	233.1						11-20-19 9:15	1.99	1910	7.26	10.7					
8-20-19 14:00	13.41	1342	8.11	6.1	8-20-19 10:30	14.11	1393	8.18	30.3	8-20-19 10:30	14.21	975	8.39	235.2						11-20-19 9:30	2.01	1911	7.25	11.3					
8-20-19 14:15	13.39	1340	8.12	4.6	8-20-19 10:45	14.08	1394	8.17	30.1	8-20-19 10:45	14.19	975	8.39	230.4						11-20-19 9:45	2.02	1910	7.26	12.0					
8-20-19 14:30	13.39	1343	8.11	4.0	8-20-19 11:00	14.06	1392	8.17	27.7	8-20-19 11:00	14.17	976	8.39	238.8						11-20-19 10:00	2.02	1911	7.26	11.6					
8-20-19 14:45	13.41	1346	8.10	4.5	8-20-19 11:15	14.02	1384	8.18	28.0	8-20-19 11:15	14.14	976	8.39	250.3						11-20-19 10:15	2.03	1913	7.30	12.6					
8-20-19 15:00	13.36	1347	8.12	5.4	8-20-19 11:30	13.99	1390	8.18	27.6	8-20-19 11:30	14.10	976	8.39	241.6						11-20-19 10:30	2.04	1915	7.32	13.0					
8-20-19 15:15	13.37	1349	8.12	5.2	8-20-19 11:45	13.95	1395	8.17	26.7	8-20-19 11:45	14.04	977	8.38	241.4						11-20-19 10:45	2.04	1914	7.31	10.4					
8-20-19 15:30	13.38	1348	8.12	5.3	8-20-19 12:00	13.94	1399	8.17	25.7	8-20-19 12:00	14.01	980	8.37	245.2						11-20-19 11:00	2.05	1911	7.25	10.2					
8-20-19 15:45	13.39	1348	8.14	4.9	8-20-19 12:15	13.95	1402	8.16	22.8	8-20-19 12:15	14.02	986	8.35	257.4						11-20-19 11:15	2.07	1911	7.27	12.1					
8-20-19 16:00	13.43	1351	8.13	5.3	8-20-19 12:30	13.94	1404	8.16	22.5	8-20-19 12:30	14.03	991	8.33	265.9						11-20-19 11:30	2.06	1909	7.28	11.3					
8-20-19 16:15	13.47	1354	8.14	5.5	8-20-19 12:45	13.89	1409	8.16	22.9	8-20-19 12:45	13.99	988	8.34	260.2						11-20-19 11:45	2.05	1911	7.34	12.4					
8-20-19 16:30	13.52	1357	8.13	5.1	8-20-19 13:00	13.93	1402	8.16	21.2	8-20-19 13:00	14.03	990	8.34	257.3						11-20-19 12:00	2.04	1916	7.36	12.4					
8-20-19 16:45	13.53	1360	8.13	6.1	8-20-19 13:15	13.92	1402	8.16	21.5	8-20-19 13:15	14.03	988	8.35	264.1						11-20-19 12:15	2.06	1917	7.38	12.4					
8-20-19 17:00	13.58	1362	8.13	4.4	8-20-19 13:30	13.89	1410	8.15	21.4	8-20-19 13:30	14.01	987	8.36	253.8						11-20-19 12:30	2.09	1918	7.41	12.6					
8-20-19 17:15	13.71	1361	8.14	4.6	8-20-19 13:45	13.85	1412	8.15	25.1	8-20-19 13:45	14.03	994	8.34	261.8						11-20-19 12:45	2.08	1918	7.42	10.6					
8-20-19 17:30	13.82	1361	8.14	4.2	8-20-19 14:00	13.87	1414	8.14	22.9	8-20-19 14:00	14.00	992	8.34	237.8						11-20-19 13:00	2.07	1913	7.42	10.7					
8-20-19 17:45	13.84	1364	8.14	4.5	8-20-19 14:15	13.87	1414	8.15	21.7	8-20-19 14:15	14.00	989	8.35	247.2						11-20-19 13:15	2.06	1909	7.39	10.7					
8-20-19 18:00	13.91	1364	8.15	4.3	8-20-19 14:30	13.88	1417	8.14	22.0	8-20-19 14:30	13.98	987	8.34	239.0						11-20-19 13:30	2.10	1913	7.38	11.3					
8-20-19 18:15	13.89	1363	8.15	4.3	8-20-19 14:45	13.87	1418	8.14	21.6	8-20-19 14:45	13.96	989	8.34	250.7						11-20-19 13:45	2.11	1915	7.39	11.9					
8-20-19 18:30	13.95	1366	8.15	4.0	8-20-19 15:00	13.88	1414	8.14	18.3	8-20-19 15:00	14.00	992	8.34	253.2						11-20-19 14:00	2.13	1918	7.37	10.9					
8-20-19 18:45	13.97	1366	8.16	4.5	8-20-19 15:15	13.87	1418	8.15	17.7	8-20-19 15:15	13.99	992	8.33	248.8						11-20-19 14:15	2.12	1919	7.39	10.0					
8-20-19 19:00	14.02	1366	8.16	4.0	8-20-19 15:30	13.93	1419	8.15	17.6	8-20-19 15:30	14.05	991	8.34	248.3						11-20-19 14:30	2.12	1918	7.39	9.7					
8-20-19 19:15	14.02	1368	8.17	5.1	8-20-19 15:45	13.97	1425	8.14	18.9	8-20-19 15:45	14.04	992	8.34	234.8						11-20-19 14:45	2.12	1933	7.42	7.8					
8-20-19 19:30	14.12	1369	8.17	3.7	8-20-19 16:00	14.01	1436	8.13	18.8	8-20-19 16:00	14.07	993	8.34	247.6						11-20-19 15:00	2.15	1918	7.42	9.4					
8-20-19 19:45	14.30	1370	8.18	4.4	8-20-19 16:15	14.03	1440	8.13	16.2	8-20-19 16:15	14.12	993	8.34	239.4						11-20-19 15:15	2.16	1916	7.43	8.9					
8-20-19 20:00	14.41	1371	8.18	4.9	8-20-19 16:30	14.08	1434	8.14	19.2	8-20-19 16:30	14.19	993	8.34	235.2						11-20-19 15:30	1.91	1947	7.36	11.3					
8-20-19 20:15	14.42	1375	8.18	4.1	8-20-19 16:45	14.04	1429	8.14	16.6	8-20-19 16:45	14.11	991	8.35	240.0						11-20-19 15:45	2.13	1950	7.26	11.5					
8-20-19 20:30	14.58	1372	8.18	3.8	8-20-19 17:00	14.11	1431	8.14	17.5	8-20-19 17:00	14.15	990	8.35	222.0						11-20-19 16:00	2.20	1958	7.24	14.0					
8-20-19 20:45	14.60	1376	8.18	3.7	8-20-19 17:15	14.18	1440	8.13	15.2	8-20-19 17:15	14.32	991	8.34	227.6						11-20-19 16:15	2.23	1957	7.25	11.8					
8-20-19 21:00	14.70	1378	8.19	4.0	8-20-19 17:30	14.17	1442	8.13	16.3	8-20-19 17:30	14.35	989	8.34	221.4						11-20-19 16:30	2.20	1956	7.26	11.7					
8-20-19 21:15	14.80	1380	8.19	4.1	8-20-19 17:45	14.19	1438	8.14	18.4	8-20-19 17:45	14.31	990	8.34	221.6						11-20-19 16:45	2.22	1956	7.28	11.4					
8-20-19 21:30	14.90	1381	8.19	3.3	8-20-19 18:00	14.34	1433	8.14	17.1	8-20-19 18:00	14.43	991	8.34	224.9						11-20-19 17:00	2.12	1954	7.27	12.3					
8-20-19 21:45	15.06	1382	8.20	3.8	8-20-19 18:15	14.46	1433	8.15	15.3	8-20-19 18:15	14.44	993	8.33	224.9						11-20-19 17:15	2.18	1957	7.26	11.5					
8-20-19 22:00	15.08	1384	8.20	3.4	8-20-19 18:30	14.53	1432	8.15	15.2	8-20-19 18:30	14.37	994	8.33	219.5						11-20-19 17:30	2.24	1957	7.26	11.9					
8-20-19 22:15	15.16	1384	8.20	4.0	8-20-19 18:45	14.56	1440	8.14	16.2	8-20-19 18:45	14.54	993	8.34	222.0						11-20-19 17:45	2.25	1962	7.27	12.1					
8-20-19 22:30	15.21	1384	8.20	3.7	8-20-19 19:00	14.57	1443	8.14	15.4	8-20-19 19:00	14.62	995	8.34	208.2						11-20-19 18:00	2.29	1961	7.27	11.8					
8-20-19 22:45	15.23	1383	8.19	4.2	8-20-19 19:15	14.63	1442	8.14	16.1	8-20-19 19:15	14.70	994	8.33	219.6						11-20-19 18:15	2.38	1967	7.25	10.0					
8-20-19 23:00	15.13	1384	8.20	3.2	8-20-19 19:30	14.79	1441	8.14	14.5	8-20-19 19:30	14.77	993	8.33	220.9						11-20-19 18:30	2.44	1966	7.28	10.0					
8-20-19 23:15	15.05	1382	8.22	3.4	8-20-19 19:45	14.90	1441	8.15	15.0	8-20-19 19:45	14.96	994	8.33	207.2						11-20-19 18:45	2.42	1962	7.28	12.1					
8-20-19 23:30	15.11	1380	8.19	3.5	8-20-19 20:00	14.93	1445	8.14	15.3	8-20-19 20:00	14.98	995	8.33	210.3						11-20-19 19:00	2.45	1964	7.30	11.6					
8-20-19 23:45	15.07	1380	8.19	5.0	8-20-19 20:15	15.13	1445	8.14	16.8	8-20-19 20:15	14.87	996	8.33	199.4						11-20-19 19:15	2.45	1964	7.28	17.3					
8-21-19 0:00	15.12	1385	8.20	3.4	8-20-19 20:30	15.27	1443	8.14	13.0	8-20-19 20:30	15.05	997	8.33	201.0						11-20-19 19:30	2.52	1968	7.27	10.6					
8-21-19 0:15	15.11	1387	8.22	3.6	8-20-19 20:45	15.26	1441	8.14	14.2	8-20-19 20:45	15.40	998	8.33	215.2						11-20-19 19:45	2.34	1947	7.44	11.5					
8-21-19 0:30	15.14	1393	8.25	3.3	8-20-19 21:00	15.28	1441	8.14	15.5	8-20-19 21:00	15.55	996	8.33	201.0						11-20-19 20:00	2.31	1944	7.50	11.2					
8-21-19 0:45	15.11	1390	8.24	2.9	8-20-19 21:15	15.31	1441	8.14	14.4	8-20-19 21:15	15.57	996	8.32	210.7						11-20-19 20:15	2.32	1944	7.50	12.0					
8-21-19 1:00	15.13	1397	8.25	2.4	8-20-19 21:30	15.51	1442	8.14	13.8	8-20-19 21:30	15.73	996	8.32	200.6						11-20-19 20:30	2.31	1948	7.40	10.5					
8-21-19 1:15	15.14	1397	8.24	3.4	8-20-19 21:45	15.73	1442	8.14	14.9	8-20-19 21:45	15.90	996	8.32	200.8						11-20-19 20:45	2.34	1948	7.42	10.0					
8-21-19 1:30	15.15	1398	8.24	2.4	8-20-19 22:00	15.71	1434	8.15	13.5	8-20-19 22:00	15.94	995	8.32	189.4						11-20-19 21:00	2.37	1944	7.36	11.0					
8-21-19 1:45	15.16	1400	8.25	2.5	8-20-19 22:15	15.74	1428	8.15	14.4	8-20-19 22:15	16.10	996	8.32	191.1						11-20-19 21:15	2.42	1943	7.40	11.3					
8-21-19 2:00	15.17	1400	8.23	2.3	8-20-19 22:30	15.81	1428	8.15	13.8	8-20-19 22:30	16.32	996	8.32	191.6						11-20-19 21:30	2.47	1944	7.50	12.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-21-19 2:15	15.15	1399	8.23	2.5	8-20-19 22:45	15.83	1424	8.16	18.2	8-20-19 22:45	16.52	996	8.32	192.2						11-20-19 21:45	2.49	1941	7.47	12.8					
8-21-19 2:30	15.15	1396	8.23	2.3	8-20-19 23:00	15.78	1421	8.16	14.3	8-20-19 23:00	16.62	996	8.31	187.2						11-20-19 22:00	2.51	1946	7.58	15.6					
8-21-19 2:45	15.18	1396	8.24	1.9	8-20-19 23:15	15.66	1424	8.15	14.0	8-20-19 23:15	16.84	997	8.31	183.5						11-20-19 22:15	2.52	1943	7.74	12.8					
8-21-19 3:00	15.12	1396	8.24	2.0	8-20-19 23:30	15.60	1431	8.15	12.4	8-20-19 23:30	17.16	997	8.32	173.3						11-20-19 22:30	2.53	1942	7.74	12.2					
8-21-19 3:15	15.11	1416	8.26	2.2	8-20-19 23:45	15.47	1433	8.15	12.5	8-20-19 23:45	17.02	997	8.32	176.2						11-20-19 22:45	2.56	1947	7.77	11.3					
8-21-19 3:30	15.12	1417	8.28	2.0	8-21-19 0:00	15.41	1436	8.15	13.0	8-21-19 0:00	17.16	998	8.32	180.1						11-20-19 23:00	2.54	1937	7.73	10.2					
8-21-19 3:45	15.05	1399	8.26	1.7	8-21-19 0:15	15.48	1436	8.16	13.6	8-21-19 0:15	17.12	997	8.32	175.4						11-20-19 23:15	2.57	1952	7.71	13.3					
8-21-19 4:00	15.00	1399	8.26	1.6	8-21-19 0:30	15.43	1437	8.15	14.4	8-21-19 0:30	16.76	997	8.32	176.9						11-20-19 23:30	2.67	1961	7.81	15.2					
8-21-19 4:15	14.96	1396	8.26	1.2	8-21-19 0:45	15.46	1440	8.15	13.5	8-21-19 0:45	17.06	997	8.32	171.4						11-20-19 23:45	2.63	1956	7.81	16.1					
8-21-19 4:30	14.95	1402	8.27	1.7	8-21-19 1:00	15.51	1438	8.15	12.1	8-21-19 1:00	17.13	997	8.32	167.8						11-21-19 0:00	2.61	1953	7.80	14.6					
8-21-19 4:45	14.97	1417	8.28	2.0	8-21-19 1:15	15.50	1438	8.14	10.4	8-21-19 1:15	17.13	996	8.32	177.2						11-21-19 0:15	2.65	1954	7.81	16.9					
8-21-19 5:00	14.96	1414	8.28	1.6	8-21-19 1:30	15.55	1435	8.15	12.4	8-21-19 1:30	16.68	995	8.31	175.7						11-21-19 0:30	2.70	1952	7.77	16.5					
8-21-19 5:15	14.97	1415	8.28	1.9	8-21-19 1:45	15.68	1435	8.14	11.3	8-21-19 1:45	16.68	996	8.32	176.5						11-21-19 0:45	2.72	1961	7.79	13.0					
8-21-19 5:30	14.97	1417	8.28	1.7	8-21-19 2:00	15.80	1429	8.16	10.7	8-21-19 2:00	16.72	995	8.32	175.3						11-21-19 1:00	2.72	1959	7.79	15.5					
8-21-19 5:45	15.00	1430	8.27	1.7	8-21-19 2:15	15.84	1429	8.16	10.7	8-21-19 2:15	16.87	997	8.32	174.6						11-21-19 1:15	2.73	1971	7.78	15.5					
8-21-19 6:00	15.03	1436	8.27	1.7	8-21-19 2:30	15.69	1437	8.14	11.1	8-21-19 2:30	16.82	996	8.31	174.1						11-21-19 1:30	2.71	1968	7.79	14.7					
8-21-19 6:15	15.04	1439	8.27	1.6	8-21-19 2:45	15.77	1439	8.14	11.0	8-21-19 2:45	16.81	997	8.32	175.5						11-21-19 1:45	2.62	1959	7.78	16.2					
8-21-19 6:30	15.05	1440	8.28	2.2	8-21-19 3:00	15.79	1433	8.15	10.7	8-21-19 3:00	16.85	997	8.32	183.6						11-21-19 2:00	2.58	1961	7.78	15.3					
8-21-19 6:45	15.04	1439	8.27	2.1	8-21-19 3:15	15.88	1434	8.15	9.0	8-21-19 3:15	16.83	996	8.32	179.2						11-21-19 2:15	2.53	1955	7.78	15.4					
8-21-19 7:00	15.01	1435	8.29	1.8	8-21-19 3:30	15.88	1435	8.15	7.9	8-21-19 3:30	16.80	997	8.32	175.2						11-21-19 2:30	2.69	1976	7.79	14.0					
8-21-19 7:15	15.01	1437	8.28	1.7	8-21-19 3:45	15.87	1434	8.15	8.1	8-21-19 3:45	16.80	997	8.32	170.2						11-21-19 2:45	2.69	1980	7.80	13.7					
8-21-19 7:30	14.98	1435	8.28	1.9	8-21-19 4:00	15.86	1436	8.15	7.4	8-21-19 4:00	16.75	997	8.31	172.6						11-21-19 3:00	2.63	1966	7.79	14.3					
8-21-19 7:45	14.94	1431	8.30	2.1	8-21-19 4:15	15.84	1434	8.16	8.1	8-21-19 4:15	16.69	996	8.31	176.2						11-21-19 3:15	2.62	1975	7.78	14.8					
8-21-19 8:00	14.90	1430	8.30	2.6	8-21-19 4:30	15.89	1421	8.17	10.6	8-21-19 4:30	16.67	997	8.32	172.1						11-21-19 3:30	2.74	1994	7.82	15.2					
8-21-19 8:15	14.88	1428	8.30	1.6	8-21-19 4:45	15.92	1417	8.18	11.6	8-21-19 4:45	16.54	995	8.32	177.3						11-21-19 3:45	2.72	1995	7.81	15.1					
8-21-19 8:30	14.86	1429	8.29	2.3	8-21-19 5:00	15.93	1415	8.18	10.5	8-21-19 5:00	16.42	996	8.33	177.0						11-21-19 4:00	2.67	1982	7.80	13.6					
8-21-19 8:45	14.84	1430	8.29	1.3	8-21-19 5:15	15.92	1412	8.18	11.7	8-21-19 5:15	16.28	995	8.33	170.4						11-21-19 4:15	2.59	1970	7.78	14.1					
8-21-19 9:00	14.83	1433	8.29	1.4	8-21-19 5:30	15.91	1406	8.18	11.7	8-21-19 5:30	16.06	995	8.33	175.6						11-21-19 4:30	2.61	1976	7.79	14.3					
8-21-19 9:15	14.85	1438	8.29	2.4	8-21-19 5:45	15.90	1405	8.18	10.9	8-21-19 5:45	16.19	996	8.33	174.8						11-21-19 4:45	2.67	1993	7.80	13.4					
8-21-19 9:30	14.86	1445	8.28	2.9	8-21-19 6:00	15.89	1415	8.18	10.2	8-21-19 6:00	16.31	996	8.33	163.3						11-21-19 5:00	2.63	1981	7.81	14.7					
8-21-19 9:45	14.88	1452	8.28	2.7	8-21-19 6:15	15.88	1411	8.18	10.4	8-21-19 6:15	16.21	995	8.33	165.6						11-21-19 5:15	2.61	1983	7.80	14.2					
8-21-19 10:00	14.89	1455	8.26	1.9	8-21-19 6:30	15.85	1417	8.17	9.6	8-21-19 6:30	16.08	996	8.32	169.5						11-21-19 5:30	2.54	1976	7.80	13.3					
8-21-19 10:15	14.89	1462	8.26	2.3	8-21-19 6:45	15.82	1417	8.17	8.3	8-21-19 6:45	15.97	996	8.33	168.7						11-21-19 5:45	2.49	1975	7.78	13.9					
8-21-19 10:30	14.89	1463	8.25	1.9	8-21-19 7:00	15.80	1417	8.17	8.8	8-21-19 7:00	16.06	997	8.34	158.9						11-21-19 6:00	2.57	1982	7.77	13.3					
8-21-19 10:45	14.89	1468	8.24	1.9	8-21-19 7:15	15.77	1417	8.17	8.4	8-21-19 7:15	16.10	997	8.34	163.0						11-21-19 6:15	2.58	1977	7.77	12.7					
8-21-19 11:00	14.89	1470	8.24	2.0	8-21-19 7:30	15.75	1417	8.17	8.4	8-21-19 7:30	16.12	996	8.34	155.7						11-21-19 6:30	2.56	1978	7.78	12.3					
8-21-19 11:15	14.87	1470	8.24	2.2	8-21-19 7:45	15.74	1418	8.17	8.3	8-21-19 7:45	16.12	996	8.34	154.4						11-21-19 6:45	2.57	1976	7.79	11.3					
8-21-19 11:30	14.87	1471	8.24	1.6	8-21-19 8:00	15.71	1417	8.16	8.2	8-21-19 8:00	16.09	996	8.35	165.6						11-21-19 7:00	2.63	1974	7.78	12.4					
8-21-19 11:45	14.87	1472	8.23	2.1	8-21-19 8:15	15.67	1417	8.18	9.7	8-21-19 8:15	16.04	997	8.34	155.5						11-21-19 7:15	2.66	1981	7.75	11.3					
8-21-19 12:00	14.88	1476	8.22	1.8	8-21-19 8:30	15.64	1419	8.17	6.3	8-21-19 8:30	16.01	997	8.34	154.0						11-21-19 7:30	2.72	1989	7.75	10.2					
8-21-19 12:15	14.88	1476	8.21	1.5	8-21-19 8:45	15.59	1421	8.17	7.1	8-21-19 8:45	15.92	997	8.34	155.5						11-21-19 7:45	2.70	1995	7.75	10.0					
8-21-19 12:30	14.87	1478	8.21	1.6	8-21-19 9:00	15.57	1422	8.17	6.8	8-21-19 9:00	15.78	1001	8.34	157.7						11-21-19 8:00	2.70	1995	7.75	9.8					
8-21-19 12:45	14.86	1478	8.21	1.6	8-21-19 9:15	15.53	1425	8.16	7.8	8-21-19 9:15	15.58	997	8.33	156.8						11-21-19 8:15	2.72	1996	7.74	9.4					
8-21-19 13:00	14.84	1477	8.21	2.1	8-21-19 9:30	15.55	1423	8.16	7.3	8-21-19 9:30	15.46	999	8.33	163.9						11-21-19 8:30	2.68	1994	7.74	9.6					
8-21-19 13:15	14.85	1477	8.21	2.0	8-21-19 9:45	15.55	1422	8.16	6.6	8-21-19 9:45	15.56	1006	8.34	157.8						11-21-19 8:45	2.72	2001	7.75	8.0					
8-21-19 13:30	14.86	1479	8.20	1.8	8-21-19 10:00	15.53	1422	8.16	7.1	8-21-19 10:00	15.62	1007	8.34	158.8						11-21-19 9:00	2.72	1998	7.75	8.5					
8-21-19 13:45	14.86	1479	8.20	2.5	8-21-19 10:15	15.51	1423	8.16	6.6	8-21-19 10:15	15.60	1008	8.33	161.4						11-21-19 9:15	2.71	1996	7.75	8.1					
8-21-19 14:00	14.86	1480	8.20	1.6	8-21-19 10:30	15.51	1422	8.17	6.1	8-21-19 10:30	15.57	1009	8.33	157.5						11-21-19 9:30	2.65	1989	7.75	8.1					
8-21-19 14:15	14.85	1480	8.20	2.2	8-21-19 10:45	15.50	1422	8.17	6.4	8-21-19 10:45	15.56	1010	8.33	148.9						11-21-19 9:45	2.64	1999	7.75	9.1					
8-21-19 14:30	14.85	1481	8.20	2.2	8-21-19 11:00	15.50	1422	8.17	5.5	8-21-19 11:00	15.55	1007	8.33	154.4						11-21-19 10:00	2.62	1997	7.74	8.8					
8-21-19 14:45	14.85	1481	8.19	1.8	8-21-19 11:15	15.48	1422	8.16	5.9	8-21-19 11:15	15.55	1007	8.33	151.5						11-21-19 10:15	2.62	2002	7.74	8.1					
8-21-19 15:00	14.85	1481	8.19	1.3	8-21-19 11:30	15.48	1422	8.17	6.1	8-21-19 11:30	15.56	1006	8.34	146.8						11-21-19 10:30	2.59	2001	7.74	8.3					
8-21-19 15:15	14.85	1483	8.21	1.7	8-21-19 11:45	15.44	1422	8.16	5.3	8-21-19 11:45	15.48	1007	8.33	150.5						11-21-19 10:45	2.63	1997	7.75	7.7					
8-21-19 15:30	14.87	1485	8.20	1.5	8-21-19 12:00	15.41	1422	8.16	5.3	8-21-19 12:00	15.42	1009	8.32	149.5						11-21-19 11:00	2.60	1999	7.75	7.7					
8-21-19 15:45	14.91	1485	8.19	2.0	8-21-19 12:15	15.38	1422	8.16	5.0	8-21-19 12:15	15.41	1013	8.32	155.0						11-21-19 11:15	2.53	1997	7.75	7.8					
8-21-19 16:00	15.07	1482	8.19	1.6	8-21-19 12:30	15.37	1422	8.16	4.8	8-21-19 12:30	15.42	1007	8.33	147.4						11-21-19 11:30	2.37	1982	7.75	8.4					
8-21-19 16:15	15.03	1484	8.19	2.0	8-21-19 12:45	15.37	1422	8.16	5.4	8-21-19 12:45	15.44	1006	8.34	145.0						11-21-19 11:45	2.32	1982	7.75	8.4					
8-21-19 16:30	15.06	1490	8.19	2.0	8-21-19 13:00	15.36	1422	8.17	6.0	8-21-19 13:00	15.44	1006	8.34	141.7						11-21-19 12:00	2.23	1972	7.75	5.6					
8-21-19 16:45	15.12	1494	8.17	3.2	8-21-19 13:15	15.34	1422	8.16	4.8	8-21-19 13:15	15.43	1005	8.34	147.5						11-21-19 12:15	2.22	1967	7.74	4.6					
8-21-19 17:00	15.24	1498	8.16	2.8	8-21-19 13:30	15.35	1422	8.16	4.0	8-21-19 13:30	15.45	1005	8.34	140.3						11-21-19 12:30	2.32	1985	7.73	7.6					
8-21-19 17:15	15.30	1497	8.15	3.0	8-21-19 13:45	15.36	1422	8.16	4.4	8-21-19 13:45	15.44	1005	8.33	146.5						11-21-19 12:45	2.47	1995	7.75	6.8					
8-21-19 17:30	15.46	1501	8.16	2.8	8-21-19 14:00	15.36	1422	8.16	4.5	8-21-19 14:00	15.43	1005	8.33	135.7						11-21-19 13:00	2.37	1994	7.75	6.5					
8-21-19 17:45	15.68	1500	8.16	2.3	8-21-19 14:15	15.35	1424	8.15	4.6	8-21-19 14:15	15.43	1005	8.34	138.2						11-21-19 13:15	2.32	1986	7.74	7.0					
8-21-19 18:00	15.78	1498	8.17	1.7	8-21-19 14:30	15.33	1424	8.15	4.2	8-21-19 14:30	15.43	1005	8.34	142.6						11-21-19 13:30	2.21	1968	7.73	6.4					
8-21-19 18:15	15.78	1500	8.17	2.1	8-21-19 14:45	15.30	1427	8.13	4.2	8-21-19 14:45	15.41	1005	8.33	139.3						11-21-19 13:45	2.32	1995	7.74	6.2					
8-21-19 18:30	15.79	1503	8.17	2.1	8-21-19 15:00	15.32	1424	8.15	4.0	8-21-19 15:00	15.41	1005	8.34	139.0						11-21-19 14:00	2.30	1985	7.73	6.2					
8-21-19 18:45	16.01	1507	8.19	2.7	8-21-19 15:15	15.35	1424	8.16	4.0	8-21-19 15:15	15.48	1005	8.33	138.0						11-21-19 14:15	2.26	1983	7.73	6.0					
8-21-19 19:00	16.23	1511	8.20	2.3	8-21-19 15:30	15.35	1424	8.16	4.0	8-21-19 15:30	15.52	1005	8.34	140.3						11-21-19 14:30	2.32	1993	7.74	5.7					
8-21-19 19:15	16.28	1510	8.20	2.4	8-21-19 15:45	15.39	1424	8.16	4.4	8-21-19 15:45	15.53	1005	8.33	133.8						11-21-19 14:45	2.29	1991	7.75	5.6					
8-21-19 19:30	16.32	1505	8.19	2.3	8-21-19 16:00	15.43	1424	8.17	4.4	8-21-19 16:00	15.54	1005	8.33	132.5						11-21-19 15:00	2.17	1985	7.73	5.7					
8-21-19 19:45	16.37	1508	8.18	2.9	8-21-19 16:15	15.46	1424	8.17	4.5	8-21-19 16:15	15.67	1005	8.32	131.9						11-21-19 15:15	2.17	1975	7.74	5.3					
8-21-19 20:00	16.65	1510	8.19	1.9	8-21-19 16:30	15.51	1423	8.18	4.6	8-21-19 16:30	15.58	1005	8.32	134.5						11-21-19 15:30	2.17	1990	7.73	5.2					
8-21-19 20:15	16.77	1504	8.21	2.6	8-21-19 16:45	15.58	1423	8.18	4.1	8-21-19 16:45	15.58	1005	8.32	133.7						11-21-19 15:45	2.29	2003	7.75	5.8					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-21-19 20:30	16.96	1509	8.19	1.8	8-21-19 17:00	15.63	1423	8.17	4.2	8-21-19 17:00	15.62	1005	8.32	137.3						11-21-19 16:00	2.25	1999	7.74	5.3					
8-21-19 20:45	17.27	1510	8.22	2.2	8-21-19 17:15	15.62	1423	8.17	4.3	8-21-19 17:15	15.75	1004	8.31	133.3						11-21-19 16:15	2.12	2000	7.54	4.8					
8-21-19 21:00	17.15	1502	8.24	1.7	8-21-19 17:30	15.71	1423	8.17	4.8	8-21-19 17:30	15.75	1006	8.32	132.0						11-21-19 16:30	2.19	2014	7.34	5.2					
8-21-19 21:15	17.33	1509	8.22	2.4	8-21-19 17:45	15.84	1423	8.17	4.3	8-21-19 17:45	15.98	1006	8.32	126.2						11-21-19 16:45	2.05	2032	7.21	6.0					
8-21-19 21:30	17.59	1508	8.22	1.7	8-21-19 18:00	15.99	1424	8.17	4.8	8-21-19 18:00	16.08	1005	8.32	130.6						11-21-19 17:00	1.98	2038	7.17	7.3					
8-21-19 21:45	17.49	1508	8.22	2.1	8-21-19 18:15	16.18	1424	8.17	4.8	8-21-19 18:15	16.08	1005	8.32	135.9						11-21-19 17:15	1.98	2040	7.15	7.0					
8-21-19 22:00	17.47	1509	8.22	4.0	8-21-19 18:30	16.29	1422	8.17	4.1	8-21-19 18:30	16.58	1007	8.32	133.8						11-21-19 17:30	1.98	2041	7.14	6.5					
8-21-19 22:15	17.47	1514	8.25	1.9	8-21-19 18:45	16.24	1423	8.17	4.6	8-21-19 18:45	17.18	1005	8.30	130.3						11-21-19 17:45	1.95	2042	7.14	7.4					
8-21-19 22:30	17.53	1514	8.24	2.0	8-21-19 19:00	16.53	1423	8.18	4.2	8-21-19 19:00	17.73	1010	8.30	132.3						11-21-19 18:00	1.96	2046	7.13	6.7					
8-21-19 22:45	17.34	1518	8.26	2.7	8-21-19 19:15	16.07	1425	8.13	6.6	8-21-19 19:15	18.02	1009	8.30	125.0						11-21-19 18:15	1.97	2051	7.11	7.1					
8-21-19 23:00	17.43	1523	8.27	2.2	8-21-19 19:30	15.78	1436	8.10	11.6	8-21-19 19:30	18.03	1008	8.31	127.5						11-21-19 18:30	1.96	2050	7.13	5.9					
8-21-19 23:15	17.58	1526	8.29	2.8	8-21-19 19:45	16.53	1427	8.17	4.4	8-21-19 19:45	17.72	1008	8.30	128.0						11-21-19 18:45	1.97	2051	7.13	6.9					
8-21-19 23:30	17.49	1538	8.31	3.0	8-21-19 20:00	16.59	1425	8.16	5.0	8-21-19 20:00	18.41	1012	8.32	127.0						11-21-19 19:00	2.30	1999	7.63	5.9					
8-21-19 23:45	17.54	1540	8.32	3.1	8-21-19 20:15	16.14	1429	8.15	6.0	8-21-19 20:15	18.58	1011	8.31	121.5						11-21-19 19:15	2.35	1995	7.72	5.4					
8-22-19 0:00	17.60	1538	8.31	2.9	8-21-19 20:30	16.85	1427	8.16	4.9	8-21-19 20:30	18.79	1012	8.31	131.1						11-21-19 19:30	2.36	1999	7.74	4.7					
8-22-19 0:15	17.65	1539	8.30	2.3	8-21-19 20:45	16.34	1428	8.15	6.5	8-21-19 20:45	18.64	1012	8.31	125.8						11-21-19 19:45	2.45	1999	7.74	4.2					
8-22-19 0:30	17.72	1535	8.31	2.5	8-21-19 21:00	16.60	1427	8.16	6.1	8-21-19 21:00	18.80	1011	8.31	121.2						11-21-19 20:00	2.41	1999	7.73	5.1					
8-22-19 0:45	17.79	1538	8.32	4.4	8-21-19 21:15	17.20	1426	8.16	4.8	8-21-19 21:15	19.06	1013	8.31	129.2						11-21-19 20:15	2.40	2001	7.74	4.5					
8-22-19 1:00	17.78	1540	8.33	2.0	8-21-19 21:30	17.39	1424	8.17	6.1	8-21-19 21:30	19.07	1010	8.31	120.3						11-21-19 20:30	2.40	2001	7.74	4.5					
8-22-19 1:15	17.80	1564	8.36	4.0	8-21-19 21:45	17.72	1419	8.18	9.3	8-21-19 21:45	19.03	1012	8.31	120.5						11-21-19 20:45	2.40	1999	7.74	4.6					
8-22-19 1:30	17.81	1545	8.35	1.9	8-21-19 22:00	17.63	1413	8.19	8.6	8-21-19 22:00	18.88	1012	8.33	124.3						11-21-19 21:00	2.39	1998	7.75	4.5					
8-22-19 1:45	17.84	1564	8.33	3.9	8-21-19 22:15	17.62	1417	8.19	9.6	8-21-19 22:15	18.76	1013	8.33	120.2						11-21-19 21:15	2.36	1998	7.75	5.1					
8-22-19 2:00	17.87	1568	8.36	3.7	8-21-19 22:30	17.84	1408	8.19	10.4	8-21-19 22:30	18.90	1013	8.32	120.9						11-21-19 21:30	2.36	1998	7.75	4.7					
8-22-19 2:15	17.90	1569	8.35	4.8	8-21-19 22:45	17.98	1402	8.20	11.6	8-21-19 22:45	18.89	1014	8.33	120.6						11-21-19 21:45	2.37	2000	7.75	4.3					
8-22-19 2:30	17.90	1566	8.33	3.9	8-21-19 23:00	17.91	1392	8.22	16.1	8-21-19 23:00	19.11	1014	8.33	128.0						11-21-19 22:00	2.36	2001	7.74	5.0					
8-22-19 2:45	17.87	1566	8.33	3.3	8-21-19 23:15	17.77	1393	8.23	12.8	8-21-19 23:15	18.67	1014	8.31	116.2						11-21-19 22:15	2.34	2002	7.74	4.8					
8-22-19 3:00	17.83	1564	8.35	3.2	8-21-19 23:30	18.14	1399	8.21	10.8	8-21-19 23:30	18.69	1016	8.32	116.8						11-21-19 22:30	2.13	2029	7.36	4.7					
8-22-19 3:15	17.80	1565	8.34	2.6	8-21-19 23:45	17.80	1401	8.21	10.1	8-21-19 23:45	19.36	1018	8.32	112.9						11-21-19 22:45	2.10	2049	7.18	7.0					
8-22-19 3:30	17.75	1562	8.35	2.7	8-22-19 0:00	17.84	1402	8.21	8.5	8-22-19 0:00	19.17	1017	8.31	113.0						11-21-19 23:00	2.03	2055	7.14	6.2					
8-22-19 3:45	17.70	1566	8.33	4.2	8-22-19 0:15	17.68	1402	8.21	8.6	8-22-19 0:15	19.34	1016	8.31	112.1						11-21-19 23:15	1.98	2046	7.21	11.3					
8-22-19 4:00	17.65	1565	8.33	3.6	8-22-19 0:30	17.61	1403	8.21	8.0	8-22-19 0:30	19.38	1018	8.33	120.4						11-21-19 23:30	1.96	2039	7.27	7.0					
8-22-19 4:15	17.61	1566	8.34	3.5	8-22-19 0:45	17.85	1406	8.21	8.4	8-22-19 0:45	19.49	1017	8.32	113.2						11-21-19 23:45	1.95	2039	7.28	6.3					
8-22-19 4:30	17.57	1567	8.34	6.5	8-22-19 1:00	17.55	1405	8.21	7.8	8-22-19 1:00	19.73	1017	8.35	122.1						11-22-19 0:00	1.94	2037	7.28	6.2					
8-22-19 4:45	17.51	1565	8.34	3.1	8-22-19 1:15	17.56	1407	8.20	7.7	8-22-19 1:15	19.65	1017	8.34	116.6						11-22-19 0:15	1.92	2042	7.26	5.5					
8-22-19 5:00	17.45	1566	8.34	2.8	8-22-19 1:30	17.39	1412	8.19	8.4	8-22-19 1:30	19.63	1017	8.35	118.5						11-22-19 0:30	1.91	2042	7.26	5.4					
8-22-19 5:15	17.41	1563	8.33	3.0	8-22-19 1:45	17.49	1409	8.21	7.9	8-22-19 1:45	19.52	1017	8.34	117.0						11-22-19 0:45	1.90	2042	7.26	5.6					
8-22-19 5:30	17.32	1560	8.35	2.6	8-22-19 2:00	17.48	1409	8.21	7.9	8-22-19 2:00	19.53	1017	8.35	119.4						11-22-19 1:00	1.89	2040	7.26	5.9					
8-22-19 5:45	17.27	1558	8.35	4.9	8-22-19 2:15	17.41	1410	8.21	6.4	8-22-19 2:15	19.42	1017	8.35	118.4						11-22-19 1:15	1.89	2042	7.25	5.9					
8-22-19 6:00	17.20	1558	8.35	1.6	8-22-19 2:30	17.31	1410	8.21	6.3	8-22-19 2:30	19.32	1018	8.35	120.3						11-22-19 1:30	1.90	2053	7.17	6.2					
8-22-19 6:15	17.16	1556	8.35	1.9	8-22-19 2:45	17.24	1410	8.21	6.7	8-22-19 2:45	19.24	1018	8.35	110.8						11-22-19 1:45	1.90	2060	7.12	6.7					
8-22-19 6:30	17.17	1560	8.35	2.0	8-22-19 3:00	17.19	1411	8.20	5.6	8-22-19 3:00	19.14	1018	8.36	109.9						11-22-19 2:00	1.89	2064	7.10	6.3					
8-22-19 6:45	17.11	1556	8.35	2.0	8-22-19 3:15	17.16	1415	8.20	5.9	8-22-19 3:15	19.04	1018	8.36	112.2						11-22-19 2:15	1.89	2067	7.07	6.1					
8-22-19 7:00	17.08	1557	8.36	1.3	8-22-19 3:30	17.08	1414	8.20	5.9	8-22-19 3:30	18.94	1018	8.36	106.6						11-22-19 2:30	1.89	2070	7.07	5.4					
8-22-19 7:15	17.04	1560	8.35	1.6	8-22-19 3:45	17.05	1413	8.20	6.4	8-22-19 3:45	18.88	1018	8.36	107.7						11-22-19 2:45	1.88	2070	7.06	6.5					
8-22-19 7:30	16.99	1558	8.35	1.6	8-22-19 4:00	17.02	1413	8.20	5.5	8-22-19 4:00	18.79	1017	8.36	108.7						11-22-19 3:00	1.88	2071	7.06	6.2					
8-22-19 7:45	16.97	1555	8.36	3.6	8-22-19 4:15	17.00	1413	8.20	6.5	8-22-19 4:15	18.64	1017	8.36	111.9						11-22-19 3:15	1.86	2071	7.06	5.9					
8-22-19 8:00	16.97	1564	8.36	2.6	8-22-19 4:30	17.00	1409	8.20	5.8	8-22-19 4:30	18.48	1017	8.37	109.8						11-22-19 3:30	1.85	2074	7.04	6.2					
8-22-19 8:15	16.90	1557	8.38	2.9	8-22-19 4:45	16.97	1409	8.20	5.2	8-22-19 4:45	18.36	1018	8.37	107.9						11-22-19 3:45	1.85	2076	7.04	6.1					
8-22-19 8:30	16.86	1560	8.39	3.4	8-22-19 5:00	16.93	1408	8.20	4.6	8-22-19 5:00	18.29	1018	8.37	108.5						11-22-19 4:00	1.84	2081	7.04	5.5					
8-22-19 8:45	16.80	1556	8.40	3.2	8-22-19 5:15	16.89	1413	8.20	5.5	8-22-19 5:15	18.21	1018	8.37	104.5						11-22-19 4:15	1.82	2078	7.04	5.9					
8-22-19 9:00	16.78	1583	8.39	2.6	8-22-19 5:30	16.90	1414	8.19	4.9	8-22-19 5:30	18.16	1017	8.38	106.7						11-22-19 4:30	1.80	2078	7.04	5.3					
8-22-19 9:15	16.73	1560	8.38	3.5	8-22-19 5:45	16.83	1414	8.20	5.3	8-22-19 5:45	18.07	1017	8.37	105.4						11-22-19 4:45	1.81	2079	7.03	5.8					
8-22-19 9:30	16.72	1565	8.37	2.0	8-22-19 6:00	16.79	1414	8.20	5.1	8-22-19 6:00	17.97	1017	8.38	106.1						11-22-19 5:00	1.79	2075	7.04	5.5					
8-22-19 9:45	16.63	1558	8.36	1.3	8-22-19 6:15	16.78	1407	8.20	5.2	8-22-19 6:15	17.89	1018	8.37	96.8						11-22-19 5:15	1.78	2078	7.05	6.1					
8-22-19 10:00	16.65	1571	8.37	2.1	8-22-19 6:30	16.76	1409	8.19	4.4	8-22-19 6:30	17.84	1018	8.37	103.3						11-22-19 5:30	1.78	2077	7.04	5.6					
8-22-19 10:15	16.68	1579	8.37	3.4	8-22-19 6:45	16.68	1414	8.19	4.7	8-22-19 6:45	17.80	1018	8.37	93.3						11-22-19 5:45	1.78	2080	7.03	6.2					
8-22-19 10:30	16.64	1579	8.36	3.0	8-22-19 7:00	16.71	1414	8.19	5.2	8-22-19 7:00	17.72	1018	8.37	97.7						11-22-19 6:00	1.77	2077	7.03	5.2					
8-22-19 10:45	16.62	1582	8.35	4.5	8-22-19 7:15	16.69	1414	8.19	4.4	8-22-19 7:15	17.65	1018	8.37	102.5						11-22-19 6:15	1.76	2075	7.03	5.4					
8-22-19 11:00	16.55	1580	8.34	2.7	8-22-19 7:30	16.60	1414	8.19	3.7	8-22-19 7:30	17.56	1018	8.38	91.7						11-22-19 6:30	1.77	2079	7.02	5.4					
8-22-19 11:15	16.52	1580	8.36	3.2	8-22-19 7:45	16.57	1414	8.19	3.5	8-22-19 7:45	17.45	1018	8.38	93.1						11-22-19 6:45	1.77	2079	7.02	5.9					
8-22-19 11:30	16.50	1593	8.35	3.7	8-22-19 8:00	16.59	1414	8.19	5.3	8-22-19 8:00	17.36	1018	8.38	100.2						11-22-19 7:00	1.75	2076	7.03	5.3					
8-22-19 11:45	16.48	1594	8.35	109.7	8-22-19 8:15	16.51	1411	8.19	3.6	8-22-19 8:15	17.32	1018	8.38	93.7						11-22-19 7:15	1.76	2078	7.02	5.6					
8-22-19 12:00	16.44	1601	8.36	3.6	8-22-19 8:30	16.47	1416	8.18	4.5	8-22-19 8:30	17.19	1019	8.38	98.2						11-22-19 7:30	1.77	2080	7.02	5.2					
8-22-19 12:15	16.43	1609	8.36	5.7	8-22-19 8:45	16.43	1417	8.18	3.8	8-22-19 8:45	17.11	1020	8.38	101.2						11-22-19 7:45	1.76	2076	7.02	6.0					
8-22-19 12:30	16.43	1615	8.35	4.2	8-22-19 9:00	16.38	1418	8.18	3.3	8-22-19 9:00	17.03	1020	8.38	97.5						11-22-19 8:00	1.76	2085	7.01	5.4					
8-22-19 12:45	16.39	1613	8.35	4.9	8-22-19 9:15	16.39	1417	8.18	4.2	8-22-19 9:15	16.91	1020	8.38	96.1						11-22-19 8:15	1.76	2083	7.01	5.4					
8-22-19 13:00	16.38	1619	8.34	4.0	8-22-19 9:30	16.39	1417	8.18	4.1	8-22-19 9:30	16.89	1020	8.37	96.4						11-22-19 8:30	1.75	2084	7.02	5.2					
8-22-19 13:15	16.39	1623	8.35	6.0	8-22-19 9:45	16.39	1416	8.18	4.8	8-22-19 9:45	16.85	1021	8.37	94.2						11-22-19 8:45	1.75	2085	7.01	5.2					
8-22-19 13:30	16.38	1627	8.34	5.1	8-22-19 10:00	16.38	1416	8.18	5.0	8-22-19 10:00	16.78	1020	8.37	95.0						11-22-19 9:00	1.74	2080	7.03	5.0					
8-22-19 13:45	16.33	1628	8.34	6.0	8-22-19 10:15	16.38	1415	8.18	5.4	8-22-19 10:15	16.70	1021	8.37	92.4						11-22-19 9:15	1.73	2080	7.02	5.6					
8-22-19 14:00	16.24	1616	8.33	4.5	8-22-19 10:30	16.35	1415	8.18	3.8	8-22-19 10:30	16.63	1022	8.37	99.9						11-22-19 9:30	1.73	2084	7.01	5.7					
8-22-19 14:15	16.20	1619	8.33	5.3	8-22-19 10:45	16.32	1416	8.17	3.6	8-22-19 10:45	16.58	1021	8.36	91.7						11-22-19 9:45	1.72	2087	7.01	6.1					
8-22-19 14:30	16.17	1621	8.33	3.8	8-22-19 11:00	16.29	1415	8.17	4.0	8-22-19 11:00	16.53	1021	8.37	93.9						11-22-19 10:00	1.69	2085	7.02	4.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-22-19 14:45	16.12	1615	8.33	3.6	8-22-19 11:15	16.27	1417	8.17	4.0	8-22-19 11:15	16.46	1022	8.37	91.8						11-22-19 10:15	1.70	2087	7.00	5.3					
8-22-19 15:00	16.12	1620	8.33	4.4	8-22-19 11:30	16.25	1416	8.16	4.2	8-22-19 11:30	16.42	1021	8.37	94.2						11-22-19 10:30	1.70	2088	7.00	5.0					
8-22-19 15:15	16.12	1624	8.33	4.3	8-22-19 11:45	16.22	1415	8.16	3.8	8-22-19 11:45	16.37	1023	8.36	92.5						11-22-19 10:45	1.70	2088	7.00	4.7					
8-22-19 15:30	16.16	1631	8.32	3.5	8-22-19 12:00	16.22	1414	8.17	3.9	8-22-19 12:00	16.34	1023	8.37	90.0						11-22-19 11:00	1.70	2087	7.00	5.0					
8-22-19 15:45	16.14	1633	8.33	4.5	8-22-19 12:15	16.19	1414	8.16	4.2	8-22-19 12:15	16.31	1023	8.36	93.4						11-22-19 11:15	1.69	2088	6.99	4.7					
8-22-19 16:00	16.13	1637	8.32	4.2	8-22-19 12:30	16.16	1414	8.16	3.4	8-22-19 12:30	16.23	1022	8.37	93.4						11-22-19 11:30	1.67	2086	7.00	4.8					
8-22-19 16:15	16.12	1642	8.32	4.1	8-22-19 12:45	16.15	1413	8.16	4.3	8-22-19 12:45	16.17	1022	8.37	90.9						11-22-19 11:45	1.67	2085	7.00	5.3					
8-22-19 16:30	16.17	1646	8.32	4.5	8-22-19 13:00	16.14	1413	8.16	3.4	8-22-19 13:00	16.13	1022	8.36	93.7						11-22-19 12:00	1.65	2090	6.99	4.8					
8-22-19 16:45	16.20	1654	8.32	5.3	8-22-19 13:15	16.11	1414	8.15	4.0	8-22-19 13:15	16.07	1022	8.36	87.7						11-22-19 12:15	1.65	2089	7.00	5.6					
8-22-19 17:00	16.21	1656	8.32	4.0	8-22-19 13:30	16.11	1415	8.15	3.6	8-22-19 13:30	16.01	1023	8.36	88.0						11-22-19 12:30	1.66	2089	7.00	4.7					
8-22-19 17:15	16.26	1659	8.32	4.8	8-22-19 13:45	16.10	1414	8.15	3.6	8-22-19 13:45	16.00	1022	8.36	89.5						11-22-19 12:45	1.66	2093	7.00	4.9					
8-22-19 17:30	16.33	1662	8.31	3.8	8-22-19 14:00	16.06	1414	8.15	5.1	8-22-19 14:00	15.94	1024	8.36	91.6						11-22-19 13:00	1.65	2090	6.99	5.0					
8-22-19 17:45	16.43	1666	8.31	4.2	8-22-19 14:15	16.04	1414	8.16	4.1	8-22-19 14:15	15.92	1025	8.36	90.8						11-22-19 13:15	1.63	2088	7.00	4.6					
8-22-19 18:00	16.48	1667	8.31	4.5	8-22-19 14:30	16.06	1413	8.16	3.3	8-22-19 14:30	15.90	1026	8.35	88.8						11-22-19 13:30	1.63	2087	7.00	4.7					
8-22-19 18:15	16.75	1672	8.31	4.6	8-22-19 14:45	16.06	1412	8.16	3.4	8-22-19 14:45	15.89	1026	8.35	88.4						11-22-19 13:45	1.63	2089	6.99	5.1					
8-22-19 18:30	16.97	1673	8.30	3.5	8-22-19 15:00	16.05	1412	8.17	4.3	8-22-19 15:00	15.89	1025	8.36	87.0						11-22-19 14:00	1.62	2092	6.99	4.7					
8-22-19 18:45	17.17	1672	8.29	4.1	8-22-19 15:15	16.10	1412	8.17	3.7	8-22-19 15:15	15.90	1025	8.36	87.1						11-22-19 14:15	1.62	2097	7.00	5.3					
8-22-19 19:00	17.03	1675	8.28	4.0	8-22-19 15:30	16.16	1411	8.17	3.9	8-22-19 15:30	15.97	1027	8.35	81.8						11-22-19 14:30	1.61	2094	6.99	4.9					
8-22-19 19:15	17.13	1679	8.28	4.8	8-22-19 15:45	16.18	1410	8.17	3.8	8-22-19 15:45	15.99	1027	8.35	80.8						11-22-19 14:45	1.61	2092	7.01	4.5					
8-22-19 19:30	17.44	1678	8.29	4.0	8-22-19 16:00	16.19	1410	8.17	4.4	8-22-19 16:00	15.96	1030	8.35	83.6						11-22-19 15:00	1.62	2096	6.98	4.7					
8-22-19 19:45	17.50	1671	8.29	4.7	8-22-19 16:15	16.24	1410	8.18	2.9	8-22-19 16:15	15.95	1034	8.34	82.5						11-22-19 15:15	1.63	2093	6.98	4.5					
8-22-19 20:00	17.66	1677	8.28	3.7	8-22-19 16:30	16.24	1409	8.18	4.4	8-22-19 16:30	15.95	1038	8.34	80.9						11-22-19 15:30	1.61	2081	7.06	4.4					
8-22-19 20:15	17.74	1677	8.29	4.0	8-22-19 16:45	16.26	1408	8.18	3.9	8-22-19 16:45	16.00	1041	8.34	81.7						11-22-19 15:45	1.62	2075	7.11	4.3					
8-22-19 20:30	17.78	1681	8.30	3.1	8-22-19 17:00	16.27	1407	8.19	4.1	8-22-19 17:00	15.97	1041	8.34	82.5						11-22-19 16:00	1.65	2078	7.13	4.3					
8-22-19 20:45	17.82	1681	8.29	4.0	8-22-19 17:15	16.28	1405	8.19	6.1	8-22-19 17:15	16.01	1035	8.35	80.3						11-22-19 16:15	1.65	2080	7.12	4.2					
8-22-19 21:00	17.89	1679	8.30	3.3	8-22-19 17:30	16.31	1402	8.20	5.2	8-22-19 17:30	16.04	1042	8.34	81.4						11-22-19 16:30	1.66	2082	7.12	4.3					
8-22-19 21:15	17.97	1682	8.31	3.8	8-22-19 17:45	16.39	1401	8.20	6.0	8-22-19 17:45	16.18	1033	8.35	85.7						11-22-19 16:45	1.66	2078	7.13	4.3					
8-22-19 21:30	18.07	1684	8.32	3.3	8-22-19 18:00	16.44	1401	8.20	6.0	8-22-19 18:00	16.29	1034	8.35	85.0						11-22-19 17:00	1.66	2075	7.11	4.2					
8-22-19 21:45	18.05	1692	8.33	3.6	8-22-19 18:15	16.54	1401	8.20	8.5	8-22-19 18:15	16.38	1034	8.35	84.0						11-22-19 17:15	1.63	2075	7.13	4.4					
8-22-19 22:00	18.09	1693	8.33	3.0	8-22-19 18:30	16.65	1403	8.20	5.1	8-22-19 18:30	16.52	1032	8.34	81.4						11-22-19 17:30	1.60	2044	7.18	4.3					
8-22-19 22:15	18.10	1689	8.34	3.9	8-22-19 18:45	16.69	1402	8.20	5.5	8-22-19 18:45	16.74	1034	8.34	81.9						11-22-19 17:45	1.40	2048	7.25	3.8					
8-22-19 22:30	18.13	1689	8.33	2.7	8-22-19 19:00	16.83	1402	8.20	5.2	8-22-19 19:00	16.88	1035	8.34	80.5						11-22-19 18:00	1.24	2038	7.33	2.6					
8-22-19 22:45	18.11	1688	8.34	3.8	8-22-19 19:15	16.89	1403	8.20	4.9	8-22-19 19:15	16.84	1035	8.33	84.0						11-22-19 18:15	1.21	2027	7.45	2.2					
8-22-19 23:00	18.11	1689	8.35	2.5	8-22-19 19:30	16.92	1399	8.20	7.0	8-22-19 19:30	17.07	1038	8.33	79.8						11-22-19 18:30	1.15	2014	7.55	2.0					
8-22-19 23:15	18.15	1691	8.36	2.6	8-22-19 19:45	17.26	1401	8.20	5.2	8-22-19 19:45	17.70	1038	8.32	79.0						11-22-19 18:45	1.16	2007	7.57	2.2					
8-22-19 23:30	18.14	1693	8.35	2.1	8-22-19 20:00	17.33	1399	8.20	5.7	8-22-19 20:00	18.00	1038	8.32	78.3						11-22-19 19:00	1.18	2006	7.61	2.3					
8-22-19 23:45	18.19	1692	8.35	2.7	8-22-19 20:15	17.45	1402	8.20	4.6	8-22-19 20:15	18.12	1038	8.32	80.9						11-22-19 19:15	1.15	2001	7.69	1.7					
8-23-19 0:00	18.21	1695	8.35	2.0	8-22-19 20:30	17.09	1383	8.21	7.2	8-22-19 20:30	18.13	1038	8.32	81.5						11-22-19 19:30	1.20	2009	7.60	1.7					
8-23-19 0:15	18.18	1695	8.35	2.2	8-22-19 20:45	17.14	1377	8.21	7.8	8-22-19 20:45	18.26	1039	8.32	82.1						11-22-19 19:45	1.15	1997	7.69	2.5					
8-23-19 0:30	18.25	1694	8.36	1.7	8-22-19 21:00	17.20	1402	8.20	4.9	8-22-19 21:00	18.52	1040	8.33	79.6						11-22-19 20:00	1.13	2001	7.70	1.8					
8-23-19 0:45	18.24	1695	8.36	2.5	8-22-19 21:15	17.22	1397	8.20	7.1	8-22-19 21:15	18.66	1040	8.33	76.6						11-22-19 20:15	1.12	2002	7.70	1.8					
8-23-19 1:00	18.20	1697	8.37	1.6	8-22-19 21:30	17.17	1396	8.21	6.5	8-22-19 21:30	18.70	1040	8.33	77.5						11-22-19 20:30	1.27	2021	7.67	1.7					
8-23-19 1:15	18.18	1689	8.37	1.5	8-22-19 21:45	16.91	1376	8.21	11.2	8-22-19 21:45	18.71	1040	8.32	75.9						11-22-19 20:45	1.35	2014	7.55	1.5					
8-23-19 1:30	18.18	1693	8.36	1.2	8-22-19 22:00	16.83	1380	8.21	7.1	8-22-19 22:00	18.73	1040	8.33	78.1						11-22-19 21:00	1.34	2002	7.62	1.9					
8-23-19 1:45	18.16	1693	8.36	1.4	8-22-19 22:15	16.96	1391	8.21	7.2	8-22-19 22:15	18.61	1040	8.33	74.1						11-22-19 21:15	1.33	2012	7.63	2.1					
8-23-19 2:00	18.12	1692	8.37	0.5	8-22-19 22:30	16.94	1387	8.21	7.6	8-22-19 22:30	18.62	1040	8.34	78.6						11-22-19 21:30	1.33	2019	7.52	2.3					
8-23-19 2:15	18.06	1694	8.37	0.9	8-22-19 22:45	16.89	1388	8.22	6.9	8-22-19 22:45	18.54	1040	8.34	78.6						11-22-19 21:45	1.37	2007	7.58	2.0					
8-23-19 2:30	18.02	1695	8.38	0.5	8-22-19 23:00	16.85	1387	8.21	8.0	8-22-19 23:00	18.55	1040	8.34	79.3						11-22-19 22:00	1.36	2023	7.52	1.8					
8-23-19 2:45	18.04	1710	8.35	1.3	8-22-19 23:15	16.93	1388	8.21	6.2	8-22-19 23:15	18.51	1040	8.34	74.4						11-22-19 22:15	1.38	2026	7.54	2.4					
8-23-19 3:00	18.00	1713	8.33	0.6	8-22-19 23:30	16.93	1385	8.22	7.0	8-22-19 23:30	18.50	1041	8.34	78.6						11-22-19 22:30	1.42	2020	7.52	2.0					
8-23-19 3:15	17.93	1703	8.35	0.7	8-22-19 23:45	17.00	1383	8.23	8.5	8-22-19 23:45	18.48	1041	8.34	76.6						11-22-19 22:45	1.34	1998	7.69	1.8					
8-23-19 3:30	17.87	1707	8.33	0.9	8-23-19 0:00	17.11	1384	8.23	7.8	8-23-19 0:00	18.54	1041	8.35	78.4						11-22-19 23:00	1.30	1997	7.71	2.1					
8-23-19 3:45	17.79	1704	8.34	0.8	8-23-19 0:15	17.16	1384	8.23	8.1	8-23-19 0:15	18.60	1041	8.34	75.0						11-22-19 23:15	1.26	2007	7.72	1.5					
8-23-19 4:00	17.73	1708	8.33	0.5	8-23-19 0:30	17.08	1384	8.23	7.7	8-23-19 0:30	18.61	1041	8.35	77.8						11-22-19 23:30	1.29	1997	7.72	1.7					
8-23-19 4:15	17.66	1703	8.33	0.7	8-23-19 0:45	17.13	1383	8.23	8.2	8-23-19 0:45	18.59	1042	8.34	73.3						11-22-19 23:45	1.25	2001	7.71	2.0					
8-23-19 4:30	17.59	1705	8.33	0.6	8-23-19 1:00	17.14	1384	8.23	7.6	8-23-19 1:00	18.58	1042	8.35	73.2						11-23-19 0:00	1.21	1998	7.69	1.4					
8-23-19 4:45	17.52	1703	8.33	0.6	8-23-19 1:15	17.18	1384	8.23	7.8	8-23-19 1:15	18.62	1042	8.35	73.9						11-23-19 0:15	1.25	1998	7.71	1.3					
8-23-19 5:00	17.47	1704	8.34	0.4	8-23-19 1:30	17.28	1388	8.23	6.0	8-23-19 1:30	18.62	1042	8.34	74.1						11-23-19 0:30	1.17	1985	7.70	1.3					
8-23-19 5:15	17.43	1705	8.34	0.6	8-23-19 1:45	17.35	1387	8.23	6.9	8-23-19 1:45	18.64	1042	8.35	73.9						11-23-19 0:45	1.18	1990	7.57	2.4					
8-23-19 5:30	17.40	1710	8.34	0.3	8-23-19 2:00	17.31	1388	8.23	7.0	8-23-19 2:00	18.57	1042	8.35	71.6						11-23-19 1:00	1.26	1985	7.54	1.6					
8-23-19 5:45	17.36	1711	8.34	0.6	8-23-19 2:15	17.28	1388	8.24	5.2	8-23-19 2:15	18.51	1042	8.35	72.6						11-23-19 1:15	1.29	1986	7.55	1.6					
8-23-19 6:00	17.35	1720	8.34	0.7	8-23-19 2:30	17.32	1388	8.23	5.5	8-23-19 2:30	18.48	1042	8.36	69.4						11-23-19 1:30	1.22	1976	7.66	1.7					
8-23-19 6:15	17.30	1713	8.34	0.5	8-23-19 2:45	17.38	1389	8.23	5.3	8-23-19 2:45	18.35	1041	8.36	71.9						11-23-19 1:45	1.20	1980	7.62	2.1					
8-23-19 6:30	17.27	1715	8.35	0.3	8-23-19 3:00	17.31	1388	8.23	5.3	8-23-19 3:00	18.28	1042	8.35	70.3						11-23-19 2:00	1.12	1984	7.62	1.7					
8-23-19 6:45	17.22	1715	8.34	0.4	8-23-19 3:15	17.26	1387	8.23	5.0	8-23-19 3:15	18.19	1041	8.37	70.4						11-23-19 2:15	1.05	1983	7.72	2.0					
8-23-19 7:00	17.19	1717	8.35	0.2	8-23-19 3:30	17.24	1387	8.23	4.7	8-23-19 3:30	18.09	1041	8.37	69.8						11-23-19 2:30	1.11	1987	7.69	1.9					
8-23-19 7:15	17.16	1718	8.35	0.9	8-23-19 3:45	17.26	1387	8.23	4.9	8-23-19 3:45	17.99	1041	8.38	69.0						11-23-19 2:45	1.06	1974	7.71	1.8					
8-23-19 7:30	17.12	1721	8.36	0.3	8-23-19 4:00	17.21	1381	8.23	5.3	8-23-19 4:00	17.92	1042	8.37	72.4						11-23-19 3:00	1.04	1982	7.72	1.8					
8-23-19 7:45	17.10	1727	8.39	0.5	8-23-19 4:15	17.19	1369	8.22	5.5	8-23-19 4:15	17.82	1042	8.37	70.9						11-23-19 3:15	1.03	1973	7.72	2.0					
8-23-19 8:00	17.04	1725	8.37	0.0	8-23-19 4:30	17.15	1375	8.22	5.4	8-23-19 4:30	17.79	1042	8.37	70.8						11-23-19 3:30	1.05	2034	7.71	2.0					
8-23-19 8:15	17.00	1723	8.37	0.3	8-23-19 4:45	17.15	1380	8.22	5.1	8-23-19 4:45	17.73	1042	8.37	69.0						11-23-19 3:45	1.27	2001	7.63	2.0					
8-23-19 8:30	16.94	1719	8.37	0.2	8-23-19 5:00	17.13	1381	8.22	4.6	8-23-19 5:00	17.66	1042	8.37	72.2						11-23-19 4:00	1.11	1997	7.67	1.6					
8-23-19 8:45	16.93	1724	8.37	0.8	8-23-19 5:15	17.02	1382	8.22	6.2	8-23-19 5:15	17.56	1042	8.37	70.1						11-23-19 4:15	1.06	1998	7.68	1.5					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-23-19 9:00	16.90	1721	8.36	0.4
8-23-19 9:15	16.85	1718	8.35	0.1
8-23-19 9:30	16.81	1717	8.35	0.2
8-23-19 9:45	16.78	1723	8.35	0.1
8-23-19 10:00	16.82	1737	8.36	0.0
8-23-19 10:15	16.79	1739	8.36	0.7
8-23-19 10:30	16.74	1736	8.35	0.0
8-23-19 10:45	16.72	1741	8.35	0.7
8-23-19 11:00	16.72	1745	8.35	0.4
8-23-19 11:15	16.68	1742	8.35	0.5
8-23-19 11:30	16.65	1743	8.34	0.4
8-23-19 11:45	16.63	1749	8.34	0.0
8-23-19 12:00	16.56	1743	8.34	0.0
8-23-19 12:15	16.53	1746	8.34	0.0
8-23-19 12:30	16.45	1750	8.34	0.0
8-23-19 12:45	16.44	1748	8.34	0.2
8-23-19 13:00	16.42	1754	8.34	0.0
8-23-19 13:15	16.41	1757	8.33	0.1
8-23-19 13:30	16.36	1753	8.33	0.0
8-23-19 13:45	16.36	1759	8.33	0.1
8-23-19 14:00	16.34	1765	8.33	0.0
8-23-19 14:15	16.30	1760	8.33	0.0
8-23-19 14:30	16.29	1766	8.34	0.0
8-23-19 14:45	16.28	1770	8.33	0.0
8-23-19 15:00	16.28	1772	8.33	0.0
8-23-19 15:15	16.30	1775	8.33	0.5
8-23-19 15:30	16.34	1775	8.33	0.0
8-23-19 15:45	16.40	1776	8.33	0.2
8-23-19 16:00	16.40	1778	8.33	0.0
8-23-19 16:15	16.41	1775	8.32	0.0
8-23-19 16:30	16.43	1780	8.32	0.0
8-23-19 16:45	16.43	1780	8.32	0.0
8-23-19 17:00				
8-23-19 17:15				
8-23-19 17:30				
8-23-19 17:45				
8-23-19 18:00				
8-23-19 18:15				
8-23-19 18:30				
8-23-19 18:45				
8-23-19 19:00				
8-23-19 19:15				
8-23-19 19:30				
8-23-19 19:45				
8-23-19 20:00				
8-23-19 20:15				
8-23-19 20:30				
8-23-19 20:45				
8-23-19 21:00				
8-23-19 21:15				
8-23-19 21:30				
8-23-19 21:45				
8-23-19 22:00				
8-23-19 22:15				
8-23-19 22:30				
8-23-19 22:45				
8-23-19 23:00				
8-23-19 23:15				
8-23-19 23:30				
8-23-19 23:45				
8-24-19 0:00				
8-24-19 0:15				
8-24-19 0:30				
8-24-19 0:45				
8-24-19 1:00				
8-24-19 1:15				
8-24-19 1:30				
8-24-19 1:45				
8-24-19 2:00				
8-24-19 2:15				
8-24-19 2:30				
8-24-19 2:45				
8-24-19 3:00				

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-23-19 5:30	17.02	1383	8.22	5.1
8-23-19 5:45	17.00	1384	8.22	4.6
8-23-19 6:00	16.97	1384	8.22	8.7
8-23-19 6:15	16.93	1385	8.22	4.7
8-23-19 6:30	16.89	1384	8.22	4.7
8-23-19 6:45	16.86	1382	8.22	4.5
8-23-19 7:00	16.86	1382	8.22	5.2
8-23-19 7:15	16.84	1381	8.22	4.5
8-23-19 7:30	16.83	1381	8.22	4.8
8-23-19 7:45	16.82	1381	8.21	4.7
8-23-19 8:00	16.82	1381	8.21	4.0
8-23-19 8:15	16.82	1381	8.21	3.6
8-23-19 8:30	16.76	1380	8.20	3.7
8-23-19 8:45	16.74	1379	8.21	3.5
8-23-19 9:00	16.70	1379	8.21	3.9
8-23-19 9:15	16.68	1379	8.21	3.8
8-23-19 9:30	16.65	1379	8.21	3.4
8-23-19 9:45	16.64	1378	8.21	5.4
8-23-19 10:00	16.62	1379	8.21	3.7
8-23-19 10:15	16.58	1378	8.20	3.9
8-23-19 10:30	16.55	1378	8.21	3.5
8-23-19 10:45	16.52	1378	8.21	3.5
8-23-19 11:00	16.51	1377	8.20	3.8
8-23-19 11:15	16.48	1377	8.20	3.8
8-23-19 11:30	16.47	1377	8.20	3.1
8-23-19 11:45	16.45	1377	8.20	3.2
8-23-19 12:00	16.41	1377	8.20	3.1
8-23-19 12:15	16.37	1377	8.20	4.5
8-23-19 12:30	16.34	1377	8.20	3.7
8-23-19 12:45	16.33	1377	8.20	3.4
8-23-19 13:00	16.29	1377	8.20	3.3
8-23-19 13:15	16.30	1377	8.20	3.1
8-23-19 13:30	16.27	1377	8.20	4.3
8-23-19 13:45	16.24	1377	8.20	2.8
8-23-19 14:00	16.20	1377	8.20	2.9
8-23-19 14:15	16.20	1377	8.20	3.3
8-23-19 14:30	16.17	1377	8.20	3.0
8-23-19 14:45	16.15	1377	8.20	3.2
8-23-19 15:00	16.13	1377	8.20	3.2
8-23-19 15:15	16.13	1377	8.20	11.1
8-23-19 15:30	16.13	1376	8.20	5.1
8-23-19 15:45	16.17	1376	8.20	4.0
8-23-19 16:00	16.24	1375	8.21	3.2
8-23-19 16:15	16.32	1375	8.20	3.5
8-23-19 16:30	16.34	1377	8.20	5.5
8-23-19 16:45	16.37	1378	8.20	4.4
8-23-19 17:00	16.43	1377	8.21	4.3
8-23-19 17:15	16.54	1376	8.21	4.2
8-23-19 17:30	16.63	1376	8.21	4.0
8-23-19 17:45	16.75	1376	8.21	3.8
8-23-19 18:00	16.81	1377	8.21	3.4
8-23-19 18:15	16.84	1379	8.21	3.7
8-23-19 18:30	16.72	1391	8.18	6.0
8-23-19 18:45	16.52	1392	8.17	7.8
8-23-19 19:00	16.68	1391	8.18	6.4
8-23-19 19:15	16.65	1389	8.18	7.0
8-23-19 19:30	16.72	1390	8.18	6.5
8-23-19 19:45	16.80	1390	8.18	7.1
8-23-19 20:00	16.88	1391	8.18	7.8
8-23-19 20:15	16.95	1392	8.18	7.5
8-23-19 20:30	16.93	1396	8.19	9.6
8-23-19 20:45	17.16	1391	8.19	8.4
8-23-19 21:00	17.28	1388	8.20	8.5
8-23-19 21:15	17.41	1390	8.19	8.2
8-23-19 21:30	17.48	1391	8.19	8.9
8-23-19 21:45	17.35	1392	8.19	9.4
8-23-19 22:00	17.27	1391	8.19	8.4
8-23-19 22:15	17.53	1391	8.20	9.7
8-23-19 22:30	17.47	1392	8.20	8.0
8-23-19 22:45	17.51	1397	8.19	9.4
8-23-19 23:00	17.48	1399	8.19	10.7
8-23-19 23:15	17.53	1398	8.19	9.1
8-23-19 23:30	17.48	1395	8.20	8.2

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-23-19 5:30	17.50	1042	8.37	69.5
8-23-19 5:45	17.46	1043	8.37	69.2
8-23-19 6:00	17.41	1043	8.37	70.0
8-23-19 6:15	17.36	1043	8.37	69.6
8-23-19 6:30	17.30	1043	8.37	69.6
8-23-19 6:45	17.23	1044	8.36	69.6
8-23-19 7:00	17.15	1043	8.38	67.2
8-23-19 7:15	17.08	1043	8.37	68.0
8-23-19 7:30	17.01	1043	8.37	71.7
8-23-19 7:45	16.95	1043	8.37	68.9
8-23-19 8:00	16.91	1044	8.37	73.2
8-23-19 8:15	16.85	1043	8.37	70.3
8-23-19 8:30	16.77	1043	8.37	70.2
8-23-19 8:45	16.72	1042	8.36	68.5
8-23-19 9:00	16.69	1042	8.36	69.8
8-23-19 9:15	16.61	1042	8.37	66.9
8-23-19 9:30	16.60	1042	8.37	68.9
8-23-19 9:45	16.56	1041	8.37	66.1
8-23-19 10:00	16.52	1041	8.37	66.7
8-23-19 10:15	16.49	1041	8.36	65.5
8-23-19 10:30	16.43	1041	8.37	65.2
8-23-19 10:45	16.39	1040	8.37	64.1
8-23-19 11:00	16.34	1041	8.36	65.3
8-23-19 11:15	16.26	1042	8.36	62.1
8-23-19 11:30	16.28	1045	8.35	64.2
8-23-19 11:45	16.23	1045	8.35	62.5
8-23-19 12:00	16.22	1051	8.34	66.6
8-23-19 12:15	16.12	1052	8.34	63.8
8-23-19 12:30	16.04	1053	8.33	64.5
8-23-19 12:45	16.13	1068	8.30	66.4
8-23-19 13:00	16.13	1069	8.29	65.7
8-23-19 13:15	16.09	1075	8.27	67.7
8-23-19 13:30	16.06	1076	8.27	69.9
8-23-19 13:45	16.03	1078	8.26	68.2
8-23-19 14:00	15.99	1074	8.27	68.7
8-23-19 14:15	16.00	1078	8.26	66.7
8-23-19 14:30	15.95	1077	8.26	65.6
8-23-19 14:45	15.94	1083	8.25	67.2
8-23-19 15:00	15.96	1088	8.24	68.0
8-23-19 15:15	15.92	1085	8.25	65.7
8-23-19 15:30	15.93	1084	8.25	64.8
8-23-19 15:45	15.96	1080	8.25	66.6
8-23-19 16:00	16.00	1083	8.25	66.8
8-23-19 16:15	16.09	1084	8.24	66.8
8-23-19 16:30	16.22	1084	8.25	64.3
8-23-19 16:45	16.26	1083	8.25	66.2
8-23-19 17:00	16.17	1082	8.25	63.2
8-23-19 17:15	16.34	1083	8.25	60.1
8-23-19 17:30	16.59	1085	8.25	63.1
8-23-19 17:45	16.68	1090	8.24	68.5
8-23-19 18:00	16.84	1088	8.24	64.6
8-23-19 18:15	17.21	1084	8.27	68.5
8-23-19 18:30	17.22	1079	8.28	66.9
8-23-19 18:45	17.39	1085	8.26	60.8
8-23-19 19:00	17.38	1084	8.26	70.8
8-23-19 19:15	17.29	1086	8.27	61.4
8-23-19 19:30	17.34	1085	8.26	62.4
8-23-19 19:45	17.43	1086	8.27	61.9
8-23-19 20:00	17.45	1087	8.27	64.5
8-23-19 20:15	17.61	1088	8.26	63.9
8-23-19 20:30	17.57	1087	8.26	62.3
8-23-19 20:45	17.79	1088	8.26	61.6
8-23-19 21:00	17.89	1090	8.26	63.1
8-23-19 21:15	18.14	1091	8.26	63.6
8-23-19 21:30	18.21	1090	8.26	64.1
8-23-19 21:45	18.34	1091	8.26	62.7
8-23-19 22:00	18.21	1092	8.26	60.1
8-23-19 22:15	18.24	1092	8.26	61.2
8-23-19 22:30	18.24	1094	8.26	60.3
8-23-19 22:45	18.27	1095	8.26	63.3
8-23-19 23:00	18.26	1096	8.26	63.1
8-23-19 23:15	18.23	1097	8.26	62.1
8-23-19 23:30	18.18	1098	8.26	63.3

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-23-19 4:30	1.07	1997	7.68	1.7
11-23-19 4:45	1.09	1999	7.66	1.9
11-23-19 5:00	1.04	1987	7.66	1.5
11-23-19 5:15	1.02	2023	7.66	1.8
11-23-19 5:30	1.09	2031	7.62	1.8
11-23-19 5:45	1.09	2018	7.64	2.3
11-23-19 6:00	1.03	2020	7.68	1.6
11-23-19 6:15	1.04	2005	7.67	1.8
11-23-19 6:30	1.10	2008	7.61	1.6
11-23-19 6:45	1.12	2019	7.62	1.7
11-23-19 7:00	1.11	2022	7.56	1.6
11-23-19 7:15	1.11	2009	7.60	1.4
11-23-19 7:30	1.10	2007	7.61	1.5
11-23-19 7:45	1.10	2008	7.61	1.7
11-23-19 8:00	1.06	2013	7.59	1.4
11-23-19 8:15	1.05	2015	7.57	1.4
11-23-19 8:30	1.03	2020	7.55	1.3
11-23-19 8:45	1.03	2028	7.54	1.5
11-23-19 9:00	1.02	2018	7.55	1.5
11-23-19 9:15	1.04	2029	7.53	1.5
11-23-19 9:30	1.04	2023	7.51	1.5
11-23-19 9:45	1.03	2045	7.48	2.0
11-23-19 10:00	1.02	2026	7.49	1.2
11-23-19 10:15	1.02	2033	7.47	1.3
11-23-19 10:30	1.02	2035	7.46	1.2
11-23-19 10:45	1.05	2038	7.44	1.2
11-23-19 11:00	1.04	2035	7.43	1.3
11-23-19 11:15	1.03	2032	7.45	1.3
11-23-19 11:30	1.02	2038	7.43	1.4
11-23-19 11:45	1.02	2042	7.40	1.6
11-23-19 12:00	1.02	2042	7.40	1.2
11-23-19 12:15	1.02	2048	7.38	1.1
11-23-19 12:30	1.02	2042	7.42	1.2
11-23-19 12:45	1.04	2050	7.39	1.1
11-23-19 13:00	1.04	2048	7.38	1.1
11-23-19 13:15	1.05	2052	7.36	1.4
11-23-19 13:30	1.06	2052	7.35	1.1
11-23-19 13:45	1.07	2053	7.35	1.4
11-23-19 14:00	1.06	2048	7.37	0.9
11-23-19 14:15	1.06	2049	7.39	0.9
11-23-19 14:30	1.05	2050	7.38	1.0
11-23-19 14:45	1.07	2049	7.38	1.2
11-23-19 15:00	1.06	2046	7.39	1.3
11-23-19 15:15	1.05	2046	7.38	1.2
11-23-19 15:30	1.04	2045	7.38	0.8
11-23-19 15:45	1.06	2050	7.39	1.3
11-23-19 16:00	1.07	2052	7.38	0.8
11-23-19 16:15	1.08	2055	7.35	1.0
11-23-19 16:30	1.07	2055	7.35	1.0
11-23-19 16:45	1.20	2070	7.33	2.1
11-23-19 17:00	1.48	2099	7.20	2.4
11-23-19 17:15	1.52	2105	7.18	2.5
11-23-19 17:30	1.55	2107	7.18	2.7
11-23-19 17:45	1.58	2108	7.16	3.3
11-23-19 18:00	1.57	2112	7.17	2.4
11-23-19 18:15	1.56	2113	7.16	2.7
11-23-19 18:30	1.57	2110	7.16	2.9
11-23-19 18:45	1.60	2112	7.15	3.0
11-23-19 19:00	1.58	2100	7.16	2.9
11-23-19 19:15	1.54	2095	7.18	2.4
11-23-19 19:30	1.57	2097	7.17	2.7
11-23-19 19:45	1.57	2096	7.16	2.7
11-23-19 20:00	1.44	2067	7.26	2.0
11-23-19 20:15	1.26	2068	7.28	1.7
11-23-19 20:30	1.11	2040	7.39	1.3
11-23-19 20:45	1.05	2028	7.49	1.0
11-23-19 21:00	1.00	2013	7.56	1.3
11-23-19 21:15	1.02	2014	7.55	1.0
11-23-19 21:30	1.17	2050	7.50	1.1
11-23-19 21:45	1.15	2051	7.35	1.5
11-23-19 22:00	1.11	2051	7.37	1.0
11-23-19 22:15	1.08	2044	7.41	0.9
11-23-19 22:30	1.07	2011	7.57	1.5

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-24-19 3:15					8-23-19 23:45	17.54	1395	8.19	8.2	8-23-19 23:45	18.18	1099	8.25	62.4						11-23-19 22:45	0.92	2030	7.56	4.1					
8-24-19 3:30					8-24-19 0:00	17.58	1369	8.20	8.8	8-24-19 0:00	18.18	1099	8.26	63.6						11-23-19 23:00	0.97	2025	7.57	3.4					
8-24-19 3:45					8-24-19 0:15	17.67	1391	8.20	9.3	8-24-19 0:15	18.27	1099	8.26	57.5						11-23-19 23:15	1.04	2024	7.55	3.1					
8-24-19 4:00					8-24-19 0:30	17.77	1390	8.20	7.7	8-24-19 0:30	18.24	1100	8.26	63.1						11-23-19 23:30	0.90	2025	7.61	2.9					
8-24-19 4:15					8-24-19 0:45	17.73	1391	8.20	8.3	8-24-19 0:45	18.25	1100	8.26	59.3						11-23-19 23:45	0.90	2019	7.59	4.1					
8-24-19 4:30					8-24-19 1:00	17.54	1394	8.20	8.6	8-24-19 1:00	18.19	1100	8.27	58.9						11-24-19 0:00	0.88	2022	7.62	2.3					
8-24-19 4:45					8-24-19 1:15	17.52	1394	8.20	8.0	8-24-19 1:15	18.11	1101	8.27	60.4						11-24-19 0:15	0.86	2020	7.62	1.1					
8-24-19 5:00					8-24-19 1:30	17.48	1394	8.20	7.4	8-24-19 1:30	18.09	1101	8.26	57.7						11-24-19 0:30	0.81	2018	7.64	1.0					
8-24-19 5:15					8-24-19 1:45	17.51	1390	8.21	8.2	8-24-19 1:45	18.04	1102	8.27	59.2						11-24-19 0:45	0.80	2013	7.68	1.1					
8-24-19 5:30					8-24-19 2:00	17.51	1389	8.21	7.6	8-24-19 2:00	18.00	1103	8.26	60.3						11-24-19 1:00	0.78	2014	7.70	0.8					
8-24-19 5:45					8-24-19 2:15	17.51	1391	8.21	9.1	8-24-19 2:15	17.89	1103	8.27	59.7						11-24-19 1:15	0.80	2002	7.74	1.2					
8-24-19 6:00					8-24-19 2:30	17.46	1391	8.20	7.7	8-24-19 2:30	17.82	1104	8.27	60.4						11-24-19 1:30	0.79	2003	7.70	1.0					
8-24-19 6:15					8-24-19 2:45	17.40	1392	8.20	7.0	8-24-19 2:45	17.83	1103	8.27	58.1						11-24-19 1:45	0.74	2004	7.74	1.6					
8-24-19 6:30					8-24-19 3:00	17.38	1393	8.20	8.4	8-24-19 3:00	17.76	1104	8.27	60.1						11-24-19 2:00	0.73	2006	7.75	1.0					
8-24-19 6:45					8-24-19 3:15	17.32	1394	8.20	6.8	8-24-19 3:15	17.71	1104	8.27	59.9						11-24-19 2:15	0.71	2004	7.75	0.8					
8-24-19 7:00					8-24-19 3:30	17.30	1394	8.20	7.2	8-24-19 3:30	17.63	1104	8.27	60.8						11-24-19 2:30	0.68	2009	7.75	0.8					
8-24-19 7:15					8-24-19 3:45	17.31	1393	8.20	6.2	8-24-19 3:45	17.59	1105	8.26	60.3						11-24-19 2:45	0.68	2007	7.75	1.0					
8-24-19 7:30					8-24-19 4:00	17.29	1393	8.20	6.3	8-24-19 4:00	17.54	1105	8.26	56.9						11-24-19 3:00	0.66	2000	7.76	0.9					
8-24-19 7:45					8-24-19 4:15	17.19	1391	8.20	6.0	8-24-19 4:15	17.44	1106	8.25	59.1						11-24-19 3:15	0.63	2007	7.79	0.9					
8-24-19 8:00					8-24-19 4:30	17.23	1381	8.23	7.5	8-24-19 4:30	17.42	1109	8.25	59.5						11-24-19 3:30	0.80	2004	7.74	0.8					
8-24-19 8:15					8-24-19 4:45	17.25	1381	8.23	7.0	8-24-19 4:45	17.42	1113	8.23	62.2						11-24-19 3:45	0.73	2005	7.74	1.5					
8-24-19 8:30					8-24-19 5:00	17.30	1380	8.23	6.5	8-24-19 5:00	17.38	1111	8.24	57.9						11-24-19 4:00	0.68	2009	7.74	0.9					
8-24-19 8:45					8-24-19 5:15	17.27	1379	8.23	6.6	8-24-19 5:15	17.33	1112	8.24	59.7						11-24-19 4:15	0.66	2008	7.75	0.9					
8-24-19 9:00					8-24-19 5:30	17.22	1379	8.23	6.7	8-24-19 5:30	17.29	1113	8.23	58.8						11-24-19 4:30	0.64	2000	7.75	0.9					
8-24-19 9:15					8-24-19 5:45	17.15	1379	8.23	6.0	8-24-19 5:45	17.27	1117	8.21	59.0						11-24-19 4:45	0.63	2013	7.75	1.2					
8-24-19 9:30					8-24-19 6:00	17.08	1377	8.23	6.2	8-24-19 6:00	17.23	1117	8.21	60.9						11-24-19 5:00	0.63	2004	7.76	1.2					
8-24-19 9:45					8-24-19 6:15	17.08	1375	8.23	6.0	8-24-19 6:15	17.20	1117	8.21	58.7						11-24-19 5:15	0.61	2005	7.76	1.0					
8-24-19 10:00					8-24-19 6:30	17.06	1376	8.22	6.2	8-24-19 6:30	17.17	1117	8.21	60.0						11-24-19 5:30	0.60	2012	7.76	0.9					
8-24-19 10:15					8-24-19 6:45	17.06	1366	8.23	7.4	8-24-19 6:45	17.15	1117	8.21	59.2						11-24-19 5:45	0.61	2005	7.75	1.2					
8-24-19 10:30					8-24-19 7:00	17.06	1366	8.22	7.7	8-24-19 7:00	17.12	1117	8.21	60.1						11-24-19 6:00	0.59	2009	7.75	0.8					
8-24-19 10:45					8-24-19 7:15	17.04	1367	8.22	6.5	8-24-19 7:15	17.09	1117	8.21	58.7						11-24-19 6:15	0.59	2008	7.75	0.8					
8-24-19 11:00					8-24-19 7:30	17.05	1369	8.22	7.6	8-24-19 7:30	17.05	1116	8.21	58.6						11-24-19 6:30	0.59	2007	7.75	0.8					
8-24-19 11:15					8-24-19 7:45	17.00	1372	8.22	6.6	8-24-19 7:45	17.03	1117	8.21	60.1						11-24-19 6:45	0.60	2007	7.76	1.1					
8-24-19 11:30					8-24-19 8:00	17.01	1372	8.22	6.3	8-24-19 8:00	17.01	1119	8.21	57.8						11-24-19 7:00	0.61	2003	7.76	0.9					
8-24-19 11:45					8-24-19 8:15	16.99	1374	8.21	5.8	8-24-19 8:15	16.97	1118	8.21	58.8						11-24-19 7:15	0.62	2004	7.76	0.7					
8-24-19 12:00					8-24-19 8:30	16.97	1376	8.21	6.1	8-24-19 8:30	16.92	1118	8.21	59.0						11-24-19 7:30	0.62	2003	7.76	0.9					
8-24-19 12:15					8-24-19 8:45	16.94	1376	8.21	6.0	8-24-19 8:45	16.90	1119	8.21	58.8						11-24-19 7:45	0.62	2004	7.75	1.1					
8-24-19 12:30					8-24-19 9:00	16.92	1377	8.21	5.6	8-24-19 9:00	16.87	1119	8.20	59.2						11-24-19 8:00	0.63	2006	7.74	0.6					
8-24-19 12:45					8-24-19 9:15	16.86	1378	8.21	5.7	8-24-19 9:15	16.84	1121	8.19	58.0						11-24-19 8:15	0.62	2006	7.74	0.7					
8-24-19 13:00					8-24-19 9:30	16.83	1379	8.21	7.0	8-24-19 9:30	16.81	1120	8.20	57.1						11-24-19 8:30	0.62	2006	7.74	0.6					
8-24-19 13:15					8-24-19 9:45	16.85	1380	8.20	5.0	8-24-19 9:45	16.78	1120	8.20	57.6						11-24-19 8:45	0.62	2006	7.75	0.7					
8-24-19 13:30					8-24-19 10:00	16.83	1380	8.20	4.8	8-24-19 10:00	16.76	1120	8.20	56.5						11-24-19 9:00	0.64	2002	7.75	0.7					
8-24-19 13:45					8-24-19 10:15	16.79	1379	8.20	5.3	8-24-19 10:15	16.72	1120	8.20	56.5						11-24-19 9:15	0.63	2002	7.75	0.7					
8-24-19 14:00					8-24-19 10:30	16.78	1380	8.20	5.1	8-24-19 10:30	16.70	1119	8.21	56.2						11-24-19 9:30	0.63	2003	7.74	0.7					
8-24-19 14:15					8-24-19 10:45	16.74	1379	8.20	4.8	8-24-19 10:45	16.68	1119	8.21	57.0						11-24-19 9:45	0.64	2003	7.74	1.0					
8-24-19 14:30					8-24-19 11:00	16.69	1380	8.21	4.9	8-24-19 11:00	16.65	1119	8.20	55.4						11-24-19 10:00	0.64	2005	7.74	0.7					
8-24-19 14:45					8-24-19 11:15	16.67	1380	8.20	5.2	8-24-19 11:15	16.62	1120	8.21	53.4						11-24-19 10:15	0.64	2007	7.74	0.6					
8-24-19 15:00					8-24-19 11:30	16.62	1379	8.20	5.1	8-24-19 11:30	16.56	1120	8.21	55.8						11-24-19 10:30	0.64	2005	7.73	0.7					
8-24-19 15:15					8-24-19 11:45	16.61	1380	8.20	5.7	8-24-19 11:45	16.52	1122	8.20	57.1						11-24-19 10:45	0.63	2005	7.74	0.9					
8-24-19 15:30					8-24-19 12:00	16.58	1380	8.20	5.3	8-24-19 12:00	16.47	1122	8.20	58.6						11-24-19 11:00	0.65	2002	7.74	0.9					
8-24-19 15:45					8-24-19 12:15	16.58	1380	8.20	4.8	8-24-19 12:15	16.39	1121	8.21	60.9						11-24-19 11:15	0.65	2002	7.74	0.7					
8-24-19 16:00					8-24-19 12:30	16.56	1380	8.20	5.2	8-24-19 12:30	16.39	1123	8.20	59.3						11-24-19 11:30	0.65	2002	7.74	0.8					
8-24-19 16:15					8-24-19 12:45	16.50	1380	8.20	5.7	8-24-19 12:45	16.34	1123	8.21	58.5						11-24-19 11:45	0.64	2003	7.74	1.0					
8-24-19 16:30					8-24-19 13:00	16.52	1380	8.19	4.6	8-24-19 13:00	16.31	1123	8.21	61.9						11-24-19 12:00	0.64	2005	7.74	0.6					
8-24-19 16:45					8-24-19 13:15	16.51	1380	8.19	4.7	8-24-19 13:15	16.27	1123	8.20	56.2						11-24-19 12:15	0.64	2004	7.74	0.7					
8-24-19 17:00					8-24-19 13:30	16.48	1380	8.19	4.5	8-24-19 13:30	16.21	1124	8.20	61.8						11-24-19 12:30	0.63	2003	7.74	0.6					
8-24-19 17:15	17.88	1812	8.44	1.5	8-24-19 13:45	16.45	1379	8.18	5.0	8-24-19 13:45	16.21	1124	8.20	58.0						11-24-19 12:45	0.63	2004	7.74	0.8					
8-24-19 17:30	17.12	1838	8.47	3.7	8-24-19 14:00	16.44	1378	8.18	6.2	8-24-19 14:00	16.16	1125	8.20	61.8						11-24-19 13:00	0.64	2002	7.75	0.6					
8-24-19 17:45	17.10	1819	8.34	0.6	8-24-19 14:15	16.42	1377	8.18	4.6	8-24-19 14:15	16.15	1126	8.19	58.4						11-24-19 13:15	0.64	2002	7.75	0.7					
8-24-19 18:00	17.20	1816	8.35	0.9	8-24-19 14:30	16.42	1376	8.18	4.7	8-24-19 14:30	16.13	1126	8.19	60.5						11-24-19 13:30	0.64	2002	7.75	0.7					
8-24-19 18:15	17.33	1822	8.31	0.8	8-24-19 14:45	16.41	1373	8.18	4.8	8-24-19 14:45	16.11	1127	8.19	60.7						11-24-19 13:45	0.64	2001	7.75	0.8					
8-24-19 18:30	17.50	1816	8.31	2.9	8-24-19 15:00	16.41	1371	8.18	4.8	8-24-19 15:00	16.10	1127	8.18	60.9						11-24-19 14:00	0.64	2003	7.75	0.5					
8-24-19 18:45	17.60	1826	8.31	0.9	8-24-19 15:15	16.41	1368	8.18	5.3	8-24-19 15:15	16.15	1129	8.18	60.1						11-24-19 14:15	0.63	2006	7.74	0.6					
8-24-19 19:00	17.71	1816	8.31	1.4	8-24-19 15:30	16.44	1364	8.17	5.1	8-24-19 15:30	16.19	1130	8.17	59.2						11-24-19 14:30	0.63	2005	7.74	0.5					
8-24-19 19:15	17.83	1814	8.34	0.7	8-24-19 15:45	16.46	1361	8.17	5.7	8-24-19 15:45	16.18	1128	8.18	61.9						11-24-19 14:45	0.65	2003	7.75	0.5					
8-24-19 19:30	17.88	1821	8.38	6.9	8-24-19 16:00	16.49	1360	8.18	5.6	8-24-19 16:00	16.27	1130	8.17	59.8						11-24-19 15:00	0.65	2002	7.78	0.5					
8-24-19 19:45	18.17	1817	8.42	0.9	8-24-19 16:15	16.54	1360	8.17	6.1	8-24-19 16:15	16.45	1130	8.18	60.8						11-24-19 15:15	1.03	2065	7.50	0.7					
8-24-19 20:00	18.27	1833	8.46	7.7	8-24-19 16:30	16.49	1355	8.17	8.5	8-24-19 16:30	16.50	1129	8.18	58.7						11-24-19 15:30	1.18	2080	7.38	1.5					
8-24-19 20:15	18.45	1814	8.51	0.8	8-24-19 16:45	16.43	1347	8.17	9.4	8-24-19 16:45	16.64	1129	8.18	58.8						11-24-19 15:45	1.23	2087	7.36	1.6					
8-24-19 20:30	18.48	1813	8.54	5.9	8-24-19 17:00	16.45	1345	8.17	7.4	8-24-19 17:00	16.68	1129	8.18	62.1						11-24-19 16:00	1.21	2094	7.35	1.8					
8-24-19 20:45	18.56	1815	8.56	0.7	8-24-19 17:15	16.43	1343	8.18	7.6	8-24-19 17:15	16.67	1129	8.19	60.0						11-24-19 16:15	1.23	2091	7.34	1.3					
8-24-19 21:00	18.50	1825	8.57	2.4	8-24-19 17:30	16.52	1344	8.18	8.7	8-24-19 17:30	16.77	1129	8.19	60.2						11-24-19 16:30	1.21	2093	7.35	1.5					
8-24-19 21:15	18.43	1819	8.59	0.9	8-24-19 17:45	16.62	1347	8.18	8.0	8-24-19 17:45	16.94	1130	8.18	61.1						11-24-19 16:45	1.21	2090	7.36	1.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-24-19 21:30	18.45	1803	8.57	1.2	8-24-19 18:00	16.70	1341	8.19	8.8	8-24-19 18:00	17.07	1129	8.18	61.6						11-24-19 17:00	1.21	2088	7.36	1.5					
8-24-19 21:45	18.64	1819	8.57	0.9	8-24-19 18:15	16.69	1346	8.19	7.9	8-24-19 18:15	17.13	1132	8.18	59.7						11-24-19 17:15	1.21	2087	7.35	1.5					
8-24-19 22:00	18.81	1814	8.57	1.6	8-24-19 18:30	16.83	1345	8.20	8.2	8-24-19 18:30	17.27	1131	8.18	61.3						11-24-19 17:30	1.20	2090	7.36	1.5					
8-24-19 22:15	18.91	1817	8.57	0.8	8-24-19 18:45	16.89	1346	8.20	9.6	8-24-19 18:45	17.39	1132	8.19	59.5						11-24-19 17:45	1.24	2092	7.35	1.5					
8-24-19 22:30	18.94	1813	8.57	16.7	8-24-19 19:00	17.07	1343	8.20	8.8	8-24-19 19:00	17.44	1131	8.19	57.2						11-24-19 18:00	1.21	2092	7.36	0.9					
8-24-19 22:45	19.15	1816	8.58	1.0	8-24-19 19:15	17.01	1343	8.20	9.3	8-24-19 19:15	17.54	1131	8.18	57.1						11-24-19 18:15	1.20	2092	7.37	1.0					
8-24-19 23:00	19.30	1819	8.57	2.1	8-24-19 19:30	17.08	1343	8.20	9.4	8-24-19 19:30	17.74	1132	8.19	54.8						11-24-19 18:30	1.17	2086	7.38	1.1					
8-24-19 23:15	19.42	1815	8.58	1.1	8-24-19 19:45	17.12	1342	8.20	9.9	8-24-19 19:45	17.76	1132	8.19	59.7						11-24-19 18:45	1.19	2090	7.37	1.3					
8-24-19 23:30	19.31	1809	8.60	1.2	8-24-19 20:00	17.16	1342	8.21	10.3	8-24-19 20:00	17.75	1134	8.19	55.5						11-24-19 19:00	1.17	2086	7.40	1.3					
8-24-19 23:45	19.30	1842	8.61	1.4	8-24-19 20:30	17.39	1344	8.20	9.0	8-24-19 20:30	18.17	1133	8.19	54.8						11-24-19 19:15	1.19	2085	7.38	1.3					
8-25-19 0:00	19.38	1810	8.60	2.2	8-24-19 20:45	17.52	1344	8.20	8.3	8-24-19 20:45	18.27	1134	8.20	55.1						11-24-19 19:30	1.18	2098	7.35	1.4					
8-25-19 0:15	19.39	1802	8.60	5.1	8-24-19 21:00	17.45	1344	8.20	9.1	8-24-19 21:00	18.25	1134	8.20	54.9						11-24-19 19:45	1.24	2096	7.36	1.6					
8-25-19 0:30	19.33	1836	8.59	2.5	8-24-19 21:15	17.38	1342	8.20	8.5	8-24-19 21:15	18.13	1134	8.19	54.9						11-24-19 20:00	0.85	2007	7.70	0.0					
8-25-19 0:45	19.29	1816	8.59	0.9	8-24-19 21:30	17.54	1343	8.20	8.7	8-24-19 21:30	18.24	1134	8.19	53.5						11-24-19 20:15	0.75	2009	7.73	0.0					
8-25-19 1:00	19.29	1808	8.59	2.9	8-24-19 21:45	17.64	1344	8.20	9.1	8-24-19 21:45	18.39	1134	8.19	53.7						11-24-19 20:30	0.75	2007	7.74	0.0					
8-25-19 1:15	19.26	1820	8.59	0.8	8-24-19 22:00	17.72	1343	8.20	8.3	8-24-19 22:00	18.46	1135	8.20	54.8						11-24-19 20:45	0.79	2004	7.76	0.0					
8-25-19 1:30	19.26	1815	8.59	0.9	8-24-19 22:15	17.85	1344	8.20	9.2	8-24-19 22:15	18.59	1135	8.20	55.4						11-24-19 21:00	0.77	2003	7.75	0.0					
8-25-19 1:45	19.22	1818	8.59	0.7	8-24-19 22:30	17.83	1344	8.20	8.1	8-24-19 22:30	18.73	1136	8.20	56.6						11-24-19 21:15	0.72	2004	7.77	0.0					
8-25-19 2:00	19.17	1817	8.59	0.8	8-24-19 22:45	17.90	1344	8.20	8.3	8-24-19 22:45	18.75	1135	8.20	53.0						11-24-19 21:30	0.68	2006	7.78	0.0					
8-25-19 2:15	19.13	1817	8.59	0.7	8-24-19 23:00	17.97	1343	8.20	8.9	8-24-19 23:00	18.93	1135	8.20	56.7						11-24-19 21:45	0.65	2009	7.78	0.2					
8-25-19 2:30	19.11	1828	8.59	1.3	8-24-19 23:15	18.08	1343	8.20	8.1	8-24-19 23:15	18.92	1136	8.20	52.3						11-24-19 22:00	0.61	2013	7.78	0.0					
8-25-19 2:45	19.06	1826	8.59	0.6	8-24-19 23:30	17.96	1343	8.20	8.8	8-24-19 23:30	18.91	1137	8.21	53.1						11-24-19 22:15	0.59	2013	7.78	0.0					
8-25-19 3:00	19.00	1826	8.60	1.5	8-24-19 23:45	17.93	1342	8.20	8.9	8-24-19 23:45	18.78	1136	8.21	55.7						11-24-19 22:30	0.59	2014	7.78	0.0					
8-25-19 3:15	18.93	1817	8.61	0.6	8-25-19 0:00	17.85	1342	8.20	8.3	8-25-19 0:00	18.82	1136	8.21	54.2						11-24-19 22:45	0.60	2011	7.79	0.0					
8-25-19 3:30	18.89	1814	8.62	1.0	8-25-19 0:15	17.88	1342	8.21	8.2	8-25-19 0:15	18.81	1136	8.22	57.5						11-24-19 23:00	0.61	2008	7.79	0.0					
8-25-19 3:45	18.84	1812	8.62	0.9	8-25-19 0:30	17.95	1341	8.21	8.8	8-25-19 0:30	18.77	1137	8.21	53.9						11-24-19 23:15	0.62	2007	7.79	0.0					
8-25-19 4:00	18.79	1796	8.61	1.1	8-25-19 0:45	17.91	1341	8.21	8.1	8-25-19 0:45	18.74	1137	8.22	54.9						11-24-19 23:30	0.62	2006	7.79	0.0					
8-25-19 4:15	18.74	1814	8.61	0.7	8-25-19 1:00	17.90	1341	8.21	9.0	8-25-19 1:00	18.75	1137	8.22	54.4						11-24-19 23:45	0.63	2008	7.79	0.0					
8-25-19 4:30	18.70	1834	8.61	1.5	8-25-19 1:15	17.92	1342	8.21	9.6	8-25-19 1:15	18.70	1137	8.21	54.9						11-25-19 0:00	0.62	2008	7.78	0.0					
8-25-19 4:45	18.65	1811	8.62	0.7	8-25-19 1:30	17.94	1342	8.21	8.0	8-25-19 1:30	18.72	1137	8.22	50.9						11-25-19 0:15	0.62	2009	7.78	0.0					
8-25-19 5:00	18.61	1807	8.61	1.1	8-25-19 1:45	17.94	1342	8.21	8.4	8-25-19 1:45	18.67	1136	8.22	56.4						11-25-19 0:30	0.64	2010	7.79	0.0					
8-25-19 5:15	18.55	1815	8.61	1.1	8-25-19 2:00	17.88	1341	8.21	8.1	8-25-19 2:00	18.63	1137	8.23	53.4						11-25-19 0:45	0.68	2009	7.80	0.0					
8-25-19 5:30	18.53	1803	8.61	1.3	8-25-19 2:15	17.82	1341	8.21	8.1	8-25-19 2:15	18.58	1137	8.23	54.9						11-25-19 1:00	0.67	2007	7.80	0.0					
8-25-19 5:45	18.48	1813	8.62	0.8	8-25-19 2:30	17.73	1341	8.21	6.8	8-25-19 2:30	18.54	1137	8.23	53.2						11-25-19 1:15	0.64	2006	7.80	0.0					
8-25-19 6:00	18.45	1811	8.61	1.4	8-25-19 2:45	17.75	1341	8.21	7.8	8-25-19 2:45	18.47	1137	8.23	52.5						11-25-19 1:30	0.64	2008	7.79	0.0					
8-25-19 6:15	18.41	1828	8.60	0.5	8-25-19 3:00	17.68	1341	8.21	7.5	8-25-19 3:00	18.43	1137	8.23	50.4						11-25-19 1:45	0.64	2009	7.78	0.0					
8-25-19 6:30	18.37	1813	8.60	1.2	8-25-19 3:15	17.65	1341	8.21	7.5	8-25-19 3:15	18.38	1137	8.24	51.2						11-25-19 2:00	0.61	2012	7.79	0.0					
8-25-19 6:45	18.33	1815	8.60	0.7	8-25-19 3:30	17.65	1341	8.21	7.2	8-25-19 3:30	18.29	1137	8.24	49.8						11-25-19 2:15	0.62	2014	7.78	0.0					
8-25-19 7:00	18.30	1815	8.60	1.1	8-25-19 3:45	17.67	1341	8.21	7.7	8-25-19 3:45	18.24	1137	8.24	52.8						11-25-19 2:30	0.62	2013	7.78	0.0					
8-25-19 7:15	18.25	1816	8.60	0.5	8-25-19 4:00	17.64	1341	8.20	8.6	8-25-19 4:00	18.13	1136	8.24	51.9						11-25-19 2:45	0.63	2017	7.79	0.0					
8-25-19 7:30	18.20	1816	8.60	0.6	8-25-19 4:15	17.60	1341	8.20	7.4	8-25-19 4:15	18.07	1137	8.24	51.1						11-25-19 3:00	0.61	2019	7.80	0.0					
8-25-19 7:45	18.12	1816	8.60	0.4	8-25-19 4:30	17.59	1341	8.20	7.6	8-25-19 4:30	18.03	1137	8.23	51.0						11-25-19 3:15	0.59	2020	7.80	0.0					
8-25-19 8:00	18.09	1812	8.61	0.6	8-25-19 4:45	17.54	1340	8.20	7.2	8-25-19 4:45	17.98	1136	8.24	50.5						11-25-19 3:30	0.58	2031	7.80	0.0					
8-25-19 8:15	18.06	1818	8.60	0.9	8-25-19 5:00	17.52	1341	8.20	6.7	8-25-19 5:00	17.90	1136	8.24	50.6						11-25-19 3:45	0.58	2040	7.81	0.3					
8-25-19 8:30	18.01	1830	8.59	3.6	8-25-19 5:15	17.47	1341	8.20	7.1	8-25-19 5:15	17.84	1136	8.24	51.3						11-25-19 4:00	0.55	2042	7.83	0.0					
8-25-19 8:45	17.97	1816	8.59	0.2	8-25-19 5:30	17.44	1341	8.20	6.3	8-25-19 5:30	17.78	1136	8.24	48.7						11-25-19 4:15	0.54	2046	7.83	0.0					
8-25-19 9:00	17.93	1815	8.59	1.2	8-25-19 5:45	17.44	1341	8.20	6.6	8-25-19 5:45	17.73	1136	8.24	48.8						11-25-19 4:30	0.53	2051	7.84	0.2					
8-25-19 9:15	17.89	1818	8.59	0.2	8-25-19 6:00	17.38	1341	8.20	6.5	8-25-19 6:00	17.69	1136	8.24	51.0						11-25-19 4:45	0.54	2059	7.85	0.2					
8-25-19 9:30	17.83	1819	8.59	0.3	8-25-19 6:15	17.38	1340	8.19	6.4	8-25-19 6:15	17.64	1136	8.24	49.3						11-25-19 5:00	0.49	2058	7.85	0.5					
8-25-19 9:45	17.77	1817	8.59	0.3	8-25-19 6:30	17.34	1340	8.19	6.1	8-25-19 6:30	17.57	1136	8.25	49.5						11-25-19 5:15	0.55	2070	7.87	0.8					
8-25-19 10:00	17.71	1818	8.58	1.0	8-25-19 6:45	17.32	1341	8.19	6.2	8-25-19 6:45	17.54	1136	8.25	50.8						11-25-19 5:30	0.40	2070	7.88	0.5					
8-25-19 10:15	17.65	1818	8.58	0.0	8-25-19 7:00	17.30	1341	8.19	5.6	8-25-19 7:00	17.44	1136	8.24	50.3						11-25-19 5:45	0.33	2075	7.86	0.7					
8-25-19 10:30	17.62	1819	8.58	1.1	8-25-19 7:15	17.24	1341	8.19	5.6	8-25-19 7:15	17.41	1136	8.24	50.8						11-25-19 6:00	0.29	2075	7.86	0.3					
8-25-19 10:45	17.56	1818	8.57	0.0	8-25-19 7:30	17.22	1341	8.19	5.5	8-25-19 7:30	17.37	1136	8.24	49.4						11-25-19 6:15	0.26	2072	7.85	0.3					
8-25-19 11:00	17.49	1816	8.58	0.2	8-25-19 7:45	17.19	1341	8.19	5.9	8-25-19 7:45	17.34	1136	8.24	54.1						11-25-19 6:30	0.24	2078	7.85	0.3					
8-25-19 11:15	17.44	1816	8.57	0.0	8-25-19 8:00	17.20	1341	8.18	5.8	8-25-19 8:00	17.29	1136	8.24	49.8						11-25-19 6:45	0.24	2078	7.86	0.8					
8-25-19 11:30	17.38	1818	8.57	0.1	8-25-19 8:15	17.17	1341	8.18	5.4	8-25-19 8:15	17.24	1137	8.24	51.6						11-25-19 7:00	0.21	2078	7.87	0.8					
8-25-19 11:45	17.34	1820	8.57	0.0	8-25-19 8:30	17.13	1341	8.18	5.2	8-25-19 8:30	17.19	1137	8.24	48.9						11-25-19 7:15	0.19	2079	7.87	0.7					
8-25-19 12:00	17.30	1819	8.57	0.0	8-25-19 8:45	17.10	1341	8.18	5.1	8-25-19 8:45	17.14	1137	8.24	52.9						11-25-19 7:30	0.18	2079	7.87	0.8					
8-25-19 12:15	17.23	1818	8.57	0.0	8-25-19 9:00	17.10	1341	8.18	6.7	8-25-19 9:00	17.08	1137	8.24	48.3						11-25-19 7:45	0.18	2082	7.87	0.9					
8-25-19 12:30	17.17	1817	8.57	0.1	8-25-19 9:15	17.10	1341	8.18	6.2	8-25-19 9:15	17.02	1137	8.25	47.0						11-25-19 8:00	0.15	2083	7.86	0.7					
8-25-19 12:45	17.11	1826	8.57	0.0	8-25-19 9:30	17.05	1341	8.18	6.3	8-25-19 9:30	16.94	1137	8.25	47.0						11-25-19 8:15	0.14	2090	7.86	0.7					
8-25-19 13:00	17.04	1818	8.56	0.0	8-25-19 9:45	17.04	1341	8.18	7.4	8-25-19 9:45	16.88	1137	8.25	49.5						11-25-19 8:30	0.13	2091	7.87	0.6					
8-25-19 13:15	16.99	1817	8.56	0.0	8-25-19 10:00	17.01	1341	8.18	6.0	8-25-19 10:00	16.82	1137	8.24	47.2						11-25-19 8:45	0.15	2090	7.87	0.5					
8-25-19 13:30	16.90	1819	8.56	0.0	8-25-19 10:15	17.00	1341	8.18	6.2	8-25-19 10:15	16.77	1137	8.24	49.1						11-25-19 9:00	0.15	2092	7.87	0.7					
8-25-19 13:45	16.81	1819	8.56	0.0	8-25-19 10:30	16.96	1341	8.18	6.2	8-25-19 10:30	16.72	1138	8.23	50.5						11-25-19 9:15	0.16	2093	7.87	0.8					
8-25-19 14:00	16.76	1821	8.56	0.3	8-25-19 10:45	16.93	1341	8.18	5.9	8-25-19 10:45	16.66	1138	8.23	52.5						11-25-19 9:30	0.16	2091	7.86	0.8					
8-25-19 14:15	16.74	1820	8.56	0.0	8-25-19 11:00	16.88	1341	8.18	5.9	8-25-19 11:00	16.59	1139	8.22	48.1						11-25-19 9:45	0.18	2093	7.86	1.2					
8-25-19 14:30	16.72	1819	8.56	0.3	8-25-19 11:15	16.84	1340	8.18	6.4	8-25-19 11:15	16.53	1140	8.22	51.1						11-25-19 10:00	0.17	2095	7.85	0.7					
8-25-19 14:45	16.70	1818	8.56	0.0	8-25-19 11:30	16.78	1341	8.18	6.8	8-25-19 11:30	16.50	1140	8.22	48.9						11-25-19 10:15	0.17	2094	7.85	0.6					
8-25-19 15:00	16.67	1821	8.55	0.5	8-25-19 11:45	16.78	1341	8.18	6.7	8-25-19 11:45	16.46	1141	8.21	54.0						11-25-19 10:30	0.16	2094	7.85	0.5					
8-25-19 15:15	16.63	1819	8.55	0.2	8-25-19 12:00	16.73	1340	8.17	6.0	8-25-19 12:00	16.40	1141	8.20	52.2						11-25-19 10:45	0.19	2093	7.85	0.6					
8-25-19 15:30	16.58	1819	8.55	0.6	8-25-19 12:15	16.70	1340	8.18	7.2	8-25-19 12:15	16.35	1142	8.20	53.6						11-25-19 11:00	0.18	2091	7.85	0.6					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-25-19 15:45	16.57	1819	8.55	0.2
8-25-19 16:00	16.56	1816	8.55	0.4
8-25-19 16:15	16.56	1819	8.55	0.5
8-25-19 16:30	16.56	1818	8.55	0.4
8-25-19 16:45	16.57	1818	8.55	0.1
8-25-19 17:00	16.57	1818	8.56	0.7
8-25-19 17:15	16.59	1816	8.57	0.4
8-25-19 17:30	16.63	1817	8.57	0.2
8-25-19 17:45	16.68	1816	8.57	1.0
8-25-19 18:00	16.75	1816	8.57	0.3
8-25-19 18:15	16.85	1815	8.57	0.4
8-25-19 18:30	16.91	1814	8.57	0.5
8-25-19 18:45	16.94	1813	8.57	0.5
8-25-19 19:00	17.06	1804	8.58	0.6
8-25-19 19:15	17.14	1806	8.58	0.7
8-25-19 19:30	17.36	1805	8.58	1.4
8-25-19 19:45	17.34	1804	8.58	0.7
8-25-19 20:00	17.50	1807	8.58	1.2
8-25-19 20:15	17.52	1803	8.59	0.8
8-25-19 20:30	17.63	1803	8.59	1.3
8-25-19 20:45	17.51	1800	8.59	0.9
8-25-19 21:00	17.48	1802	8.60	1.1
8-25-19 21:15	17.56	1800	8.61	1.1
8-25-19 21:30	17.58	1799	8.61	1.6
8-25-19 21:45	17.58	1797	8.61	1.7
8-25-19 22:00	17.56	1800	8.62	1.2
8-25-19 22:15	17.65	1806	8.62	1.0
8-25-19 22:30	17.60	1792	8.62	2.9
8-25-19 22:45	17.52	1791	8.62	0.8
8-25-19 23:00	17.52	1797	8.63	1.6
8-25-19 23:15	17.53	1796	8.63	0.9
8-25-19 23:30	17.53	1796	8.63	1.3
8-25-19 23:45	17.53	1796	8.64	0.5
8-26-19 0:00	17.54	1796	8.65	1.3
8-26-19 0:15	17.62	1795	8.66	1.0
8-26-19 0:30	17.59	1786	8.65	1.1
8-26-19 0:45	17.59	1798	8.64	0.8
8-26-19 1:00	17.56	1792	8.66	1.3
8-26-19 1:15	17.55	1789	8.68	1.0
8-26-19 1:30	17.54	1787	8.68	1.7
8-26-19 1:45	17.54	1787	8.67	0.9
8-26-19 2:00	17.53	1787	8.67	2.3
8-26-19 2:15	17.52	1789	8.67	1.1
8-26-19 2:30	17.51	1790	8.66	1.0
8-26-19 2:45	17.50	1787	8.66	0.8
8-26-19 3:00	17.48	1791	8.66	1.3
8-26-19 3:15	17.47	1793	8.66	0.6
8-26-19 3:30	17.43	1793	8.66	0.8
8-26-19 3:45	17.40	1792	8.65	0.4
8-26-19 4:00	17.36	1786	8.65	0.8
8-26-19 4:15	17.33	1792	8.65	0.3
8-26-19 4:30	17.29	1792	8.65	0.7
8-26-19 4:45	17.27	1792	8.66	0.3
8-26-19 5:00	17.24	1792	8.65	0.6
8-26-19 5:15	17.21	1793	8.65	0.4
8-26-19 5:30	17.19	1792	8.64	1.0
8-26-19 5:45	17.16	1794	8.64	0.7
8-26-19 6:00	17.13	1793	8.64	0.9
8-26-19 6:15	17.11	1792	8.64	0.3
8-26-19 6:30	17.06	1792	8.63	0.6
8-26-19 6:45	17.04	1790	8.64	0.3
8-26-19 7:00	16.97	1790	8.64	0.4
8-26-19 7:15	16.91	1794	8.63	0.3
8-26-19 7:30	16.84	1791	8.63	0.6
8-26-19 7:45	16.84	1792	8.63	0.7
8-26-19 8:00	16.76	1790	8.63	0.4
8-26-19 8:15	16.71	1791	8.63	0.6
8-26-19 8:30	16.68	1790	8.63	0.3
8-26-19 8:45	16.63	1792	8.63	0.2
8-26-19 9:00	16.60	1790	8.62	0.4
8-26-19 9:15	16.55	1791	8.62	0.1
8-26-19 9:30	16.53	1790	8.62	0.7
8-26-19 9:45	16.50	1791	8.62	0.1

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-25-19 12:30	16.66	1339	8.18	5.9
8-25-19 12:45	16.63	1339	8.18	6.2
8-25-19 13:00	16.59	1338	8.18	6.3
8-25-19 13:15	16.53	1338	8.18	6.8
8-25-19 13:30	16.52	1338	8.18	6.9
8-25-19 13:45	16.48	1337	8.18	7.5
8-25-19 14:00	16.47	1337	8.17	6.4
8-25-19 14:15	16.44	1337	8.17	6.3
8-25-19 14:30	16.41	1336	8.17	6.1
8-25-19 14:45	16.41	1335	8.17	6.3
8-25-19 15:00	16.42	1334	8.17	6.5
8-25-19 15:15	16.42	1331	8.17	6.5
8-25-19 15:30	16.43	1329	8.17	6.6
8-25-19 15:45	16.37	1328	8.17	6.4
8-25-19 16:00	16.37	1325	8.17	8.1
8-25-19 16:15	16.34	1321	8.17	7.0
8-25-19 16:30	16.33	1322	8.17	7.2
8-25-19 16:45	16.36	1321	8.17	8.2
8-25-19 17:00	16.28	1313	8.17	8.1
8-25-19 17:15	16.28	1311	8.17	13.8
8-25-19 17:30	16.29	1311	8.18	7.4
8-25-19 17:45	16.33	1312	8.18	7.7
8-25-19 18:00	16.41	1307	8.18	8.5
8-25-19 18:15	16.42	1309	8.19	10.4
8-25-19 18:30	16.44	1310	8.18	15.5
8-25-19 18:45	16.47	1311	8.18	10.9
8-25-19 19:00	16.58	1310	8.19	8.8
8-25-19 19:15	16.58	1311	8.18	7.9
8-25-19 19:30	16.59	1310	8.19	8.3
8-25-19 19:45	16.59	1309	8.19	7.5
8-25-19 20:00	16.63	1305	8.21	8.2
8-25-19 20:15	16.59	1303	8.21	8.4
8-25-19 20:30	16.69	1300	8.22	8.4
8-25-19 20:45	16.65	1302	8.22	8.3
8-25-19 21:00	16.59	1304	8.21	7.8
8-25-19 21:15	16.77	1304	8.21	8.8
8-25-19 21:30	16.87	1304	8.21	7.4
8-25-19 21:45	16.81	1304	8.21	8.1
8-25-19 22:00	16.90	1306	8.21	7.8
8-25-19 22:15	17.05	1305	8.21	7.3
8-25-19 22:30	17.01	1304	8.21	7.8
8-25-19 22:45	17.00	1304	8.21	7.2
8-25-19 23:00	17.00	1304	8.21	8.1
8-25-19 23:15	16.95	1304	8.20	9.4
8-25-19 23:30	16.96	1304	8.20	8.3
8-25-19 23:45	16.99	1304	8.20	9.2
8-26-19 0:00	17.12	1303	8.20	9.4
8-26-19 0:15	17.12	1303	8.21	8.8
8-26-19 0:30	17.12	1303	8.21	10.3
8-26-19 0:45	17.09	1304	8.21	8.4
8-26-19 1:00	17.08	1303	8.21	9.5
8-26-19 1:15	17.05	1304	8.20	8.8
8-26-19 1:30	17.06	1303	8.20	9.7
8-26-19 1:45	17.08	1303	8.20	9.7
8-26-19 2:00	17.01	1303	8.20	9.4
8-26-19 2:15	16.98	1303	8.20	8.9
8-26-19 2:30	16.96	1301	8.20	7.4
8-26-19 2:45	16.89	1301	8.21	7.7
8-26-19 3:00	16.83	1301	8.21	7.8
8-26-19 3:15	16.80	1301	8.20	8.1
8-26-19 3:30	16.80	1300	8.20	8.7
8-26-19 3:45	16.74	1301	8.20	8.3
8-26-19 4:00	16.72	1301	8.20	7.7
8-26-19 4:15	16.68	1300	8.20	7.6
8-26-19 4:30	16.61	1300	8.20	7.7
8-26-19 4:45	16.65	1300	8.20	7.9
8-26-19 5:00	16.61	1299	8.20	7.7
8-26-19 5:15	16.59	1299	8.19	7.9
8-26-19 5:30	16.58	1300	8.19	7.9
8-26-19 5:45	16.59	1300	8.19	8.1
8-26-19 6:00	16.57	1300	8.19	7.6
8-26-19 6:15	16.54	1299	8.19	7.4
8-26-19 6:30	16.55	1299	8.19	8.3

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-25-19 12:30	16.32	1143	8.18	55.9
8-25-19 12:45	16.28	1145	8.17	62.1
8-25-19 13:00	16.24	1146	8.16	59.4
8-25-19 13:15	16.19	1146	8.16	58.8
8-25-19 13:30	16.15	1145	8.16	58.6
8-25-19 13:45	16.13	1147	8.15	60.1
8-25-19 14:00	16.10	1148	8.14	59.3
8-25-19 14:15	16.07	1148	8.14	57.4
8-25-19 14:30	16.05	1148	8.14	56.3
8-25-19 14:45	16.01	1148	8.14	60.0
8-25-19 15:00	16.00	1148	8.14	57.0
8-25-19 15:15	15.95	1147	8.15	59.3
8-25-19 15:30	15.95	1147	8.16	56.8
8-25-19 15:45	15.95	1148	8.15	60.3
8-25-19 16:00	15.95	1148	8.15	56.0
8-25-19 16:15	15.98	1149	8.14	61.8
8-25-19 16:30	15.98	1148	8.14	55.9
8-25-19 16:45	15.99	1148	8.15	59.5
8-25-19 17:00	16.02	1149	8.14	54.7
8-25-19 17:15	16.06	1148	8.16	55.8
8-25-19 17:30	16.09	1148	8.16	53.5
8-25-19 17:45	16.17	1148	8.16	54.1
8-25-19 18:00	16.33	1148	8.15	55.1
8-25-19 18:15	16.32	1149	8.14	57.9
8-25-19 18:30	16.48	1152	8.14	54.9
8-25-19 18:45	16.49	1150	8.14	54.7
8-25-19 19:00	16.70	1149	8.14	51.0
8-25-19 19:15	16.96	1150	8.14	54.5
8-25-19 19:30	17.17	1151	8.13	54.1
8-25-19 19:45	17.22	1150	8.14	50.3
8-25-19 20:00	17.55	1153	8.14	51.2
8-25-19 20:15	17.56	1151	8.14	52.5
8-25-19 20:30	17.91	1152	8.15	48.1
8-25-19 20:45	17.65	1152	8.15	59.2
8-25-19 21:00	17.62	1152	8.17	49.5
8-25-19 21:15	17.52	1149	8.17	52.6
8-25-19 21:30	17.45	1151	8.16	50.4
8-25-19 21:45	17.56	1151	8.17	50.9
8-25-19 22:00	17.35	1151	8.16	49.1
8-25-19 22:15	17.34	1151	8.17	47.7
8-25-19 22:30	17.26	1150	8.17	48.7
8-25-19 22:45	17.15	1151	8.17	49.9
8-25-19 23:00	17.21	1151	8.17	51.2
8-25-19 23:15	17.27	1151	8.17	50.1
8-25-19 23:30	17.23	1151	8.17	47.0
8-25-19 23:45	17.24	1151	8.17	45.3
8-26-19 0:00	17.18	1151	8.18	47.6
8-26-19 0:15	17.19	1152	8.17	46.7
8-26-19 0:30	17.22	1151	8.17	47.6
8-26-19 0:45	17.14	1152	8.16	46.8
8-26-19 1:00	17.04	1152	8.16	47.5
8-26-19 1:15	16.97	1151	8.17	48.9
8-26-19 1:30	17.04	1152	8.16	47.7
8-26-19 1:45	17.06	1152	8.17	46.4
8-26-19 2:00	17.08	1152	8.17	47.8
8-26-19 2:15	17.04	1152	8.17	45.3
8-26-19 2:30	17.04	1152	8.17	44.2
8-26-19 2:45	17.02	1152	8.16	46.5
8-26-19 3:00	16.98	1152	8.16	45.8
8-26-19 3:15	16.96	1152	8.16	44.9
8-26-19 3:30	16.94	1152	8.16	44.7
8-26-19 3:45	16.89	1152	8.17	45.2
8-26-19 4:00	16.86	1151	8.17	44.3
8-26-19 4:15	16.82	1152	8.17	46.3
8-26-19 4:30	16.77	1152	8.17	43.8
8-26-19 4:45	16.73	1151	8.17	45.6
8-26-19 5:00	16.70	1151	8.17	44.0
8-26-19 5:15	16.67	1152	8.16	44.3
8-26-19 5:30	16.65	1152	8.16	42.6
8-26-19 5:45	16.62	1152	8.16	42.6
8-26-19 6:00	16.59	1152	8.16	43.1
8-26-19 6:15	16.56	1151	8.17	42.2
8-26-19 6:30	16.52	1151	8.16	40.7

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-25-19 11:15	0.17	2092	7.85	0.7
11-25-19 11:30	0.18	2093	7.85	0.5
11-25-19 11:45	0.21	2095	7.85	0.7
11-25-19 12:00	0.22	2096	7.84	0.6
11-25-19 12:15	0.23	2097	7.84	0.7
11-25-19 12:30	0.26	2094	7.84	0.6
11-25-19 12:45	0.30	2090	7.84	0.9
11-25-19 13:00	0.29	2090	7.84	0.7
11-25-19 13:15	0.31	2090	7.84	0.7
11-25-19 13:30	0.31	2090	7.83	0.7
11-25-19 13:45	0.33	2092	7.83	0.8
11-25-19 14:00	0.32	2097	7.83	0.6
11-25-19 14:15	0.32	2096	7.83	0.6
11-25-19 14:30	0.32	2098	7.83	0.7
11-25-19 14:45	0.36	2096	7.83	0.6
11-25-19 15:00	0.32	2097	7.83	0.7
11-25-19 15:15	0.34	2100	7.83	0.6
11-25-19 15:30	0.33	2101	7.83	0.8
11-25-19 15:45	0.30	2113	7.84	1.0
11-25-19 16:00	0.23	2115	7.84	0.7
11-25-19 16:15	0.22	2116	7.84	0.6
11-25-19 16:30	0.22	2116	7.83	0.6
11-25-19 16:45	0.27	2118	7.84	0.8
11-25-19 17:00	0.29	2114	7.84	1.0
11-25-19 17:15	0.47	2117	7.82	0.6
11-25-19 17:30	0.47	2123	7.81	0.7
11-25-19 17:45	0.40	2154	7.81	0.8
11-25-19 18:00	0.37	2144	7.82	0.7
11-25-19 18:15	0.40	2150	7.83	1.2
11-25-19 18:30	0.43	2145	7.84	1.2
11-25-19 18:45	0.49	2142	7.84	1.1
11-25-19 19:00	0.49	2141	7.84	1.1
11-25-19 19:15	0.58	2135	7.83	1.1
11-25-19 19:30	0.66	2126	7.82	1.2
11-25-19 19:45	0.67	2137	7.83	1.6
11-25-19 20:00	0.65	2133	7.83	1.5
11-25-19 20:15	0.68	2133	7.83	1.7
11-25-19 20:30	0.69	2130	7.85	2.1
11-25-19 20:45	0.75	2136	7.86	2.7
11-25-19 21:00	0.73	2129	7.88	2.8
11-25-19 21:15	0.67	2136	7.88	2.8
11-25-19 21:30	0.51	2121	7.89	10.8
11-25-19 21:45	0.57	2148	7.90	3.7
11-25-19 22:00	0.58	2135	7.89	3.4
11-25-19 22:15	0.60	2143	7.88	2.8
11-25-19 22:30	0.44	2140	7.89	2.8
11-25-19 22:45	0.31	2154	7.89	2.7
11-25-19 23:00	0.23	2154	7.90	2.5
11-25-19 23:15	0.19	2155	7.90	2.5
11-25-19 23:30	0.18	2150	7.90	2.8
11-25-19 23:45	0.17	2150	7.89	2.8
11-26-19 0:00	0.14	2155	7.89	2.2
11-26-19 0:15	0.12	2155	7.89	2.4
11-26-19 0:30	0.11	2155	7.89	2.0
11-26-19 0:45	0.13	2152	7.89	2.5
11-26-19 1:00	0.14	2149	7.89	2.6
11-26-19 1:15	0.15	2148	7.90	2.5
11-26-19 1:30	0.15	2146	7.90	2.5
11-26-19 1:45	0.15	2151	7.90	3.0
11-26-19 2:00	0.13	2147	7.89	2.4
11-26-19 2:15	0.13	2149	7.89	2.2
11-26-19 2:30	0.13	2148	7.89	2.2
11-26-19 2:45	0.14	2148	7.89	2.3
11-26-19 3:00	0.12	2148	7.89	2.5
11-26-19 3:15	0.11	2149	7.89	2.4
11-26-19 3:30	0.11	2151	7.89	2.3
11-26-19 3:45	0.11	2152	7.89	2.5
11-26-19 4:00	0.09	2157	7.88	2.2
11-26-19 4:15	0.08	2159	7.88	2.3
11-26-19 4:30	0.08	2157	7.88	2.0
11-26-19 4:45	0.10	2156	7.89	2.5
11-26-19 5:00	0.08	2157	7.89	2.6
11-26-19 5:15	0.07	2158	7.89	2.5

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-26-19 10:00	16.38	1792	8.62	1.5	8-26-19 6:45	16.55	1300	8.18	7.5	8-26-19 6:45	16.45	1152	8.16	41.2						11-26-19 5:30	0.08	2156	7.89	2.2					
8-26-19 10:15	16.31	1793	8.61	0.0	8-26-19 7:00	16.52	1299	8.18	7.4	8-26-19 7:00	16.41	1152	8.16	40.7						11-26-19 5:45	0.09	2159	7.89	2.4					
8-26-19 10:30	16.23	1791	8.62	0.6	8-26-19 7:15	16.51	1299	8.18	8.2	8-26-19 7:15	16.34	1151	8.16	41.0						11-26-19 6:00	0.06	2158	7.88	2.2					
8-26-19 10:45	16.17	1794	8.62	0.0	8-26-19 7:30	16.42	1300	8.18	7.8	8-26-19 7:30	16.29	1151	8.17	41.0						11-26-19 6:15	0.05	2155	7.88	2.2					
8-26-19 11:00	16.12	1789	8.61	1.3	8-26-19 7:45	16.42	1299	8.17	7.4	8-26-19 7:45	16.25	1150	8.16	44.5						11-26-19 6:30	0.05	2239	7.88	1.9					
8-26-19 11:15	16.01	1792	8.62	0.0	8-26-19 8:00	16.40	1299	8.17	7.2	8-26-19 8:00	16.22	1149	8.16	46.2						11-26-19 6:45	0.09	2158	7.88	2.1					
8-26-19 11:30	15.99	1792	8.61	0.0	8-26-19 8:15	16.34	1299	8.17	7.7	8-26-19 8:15	16.24	1150	8.15	46.7						11-26-19 7:00	0.06	2161	7.89	2.3					
8-26-19 11:45	15.90	1793	8.61	0.0	8-26-19 8:30	16.29	1299	8.17	6.9	8-26-19 8:30	16.20	1149	8.15	47.7						11-26-19 7:15	0.06	2160	7.88	2.2					
8-26-19 12:00	15.86	1793	8.61	0.1	8-26-19 8:45	16.22	1299	8.17	7.7	8-26-19 8:45	16.19	1149	8.14	45.8						11-26-19 7:30	0.06	2161	7.89	2.5					
8-26-19 12:15	15.79	1793	8.61	0.0	8-26-19 9:00	16.17	1298	8.17	7.5	8-26-19 9:00	16.15	1149	8.15	45.1						11-26-19 7:45	0.07	2163	7.89	2.7					
8-26-19 12:30	15.72	1793	8.60	0.0	8-26-19 9:15	16.17	1299	8.17	7.4	8-26-19 9:15	16.13	1148	8.15	47.0						11-26-19 8:00	0.03	2159	7.88	2.2					
8-26-19 12:45	15.65	1794	8.61	0.0	8-26-19 9:30	16.14	1299	8.17	8.2	8-26-19 9:30	16.09	1149	8.15	45.2						11-26-19 8:15	0.03	2160	7.88	2.0					
8-26-19 13:00	15.57	1795	8.60	0.2	8-26-19 9:45	16.14	1299	8.17	8.8	8-26-19 9:45	16.06	1149	8.15	46.9						11-26-19 8:30	0.03	2164	7.88	1.9					
8-26-19 13:15	15.51	1794	8.60	0.0	8-26-19 10:00	16.08	1299	8.17	6.8	8-26-19 10:00	15.97	1149	8.16	46.5						11-26-19 8:45	0.08	2175	7.88	2.2					
8-26-19 13:30	15.43	1793	8.60	0.1	8-26-19 10:15	16.04	1298	8.16	5.5	8-26-19 10:15	15.96	1149	8.16	44.3						11-26-19 9:00	0.05	2165	7.89	2.0					
8-26-19 13:45	15.40	1794	8.60	0.0	8-26-19 10:30	16.02	1299	8.16	5.1	8-26-19 10:30	15.90	1149	8.15	41.7						11-26-19 9:15	0.05	2162	7.88	2.3					
8-26-19 14:00	15.33	1794	8.60	0.0	8-26-19 10:45	16.01	1299	8.16	5.4	8-26-19 10:45	15.82	1148	8.16	48.1						11-26-19 9:30	0.05	2163	7.89	2.1					
8-26-19 14:15	15.31	1795	8.60	0.7	8-26-19 11:00	15.98	1299	8.16	4.9	8-26-19 11:00	15.77	1148	8.16	41.5						11-26-19 9:45	0.06	2171	7.88	2.5					
8-26-19 14:30	15.24	1793	8.60	1.0	8-26-19 11:15	15.95	1299	8.16	5.3	8-26-19 11:15	15.75	1149	8.16	45.8						11-26-19 10:00	0.00	2169	7.88	2.1					
8-26-19 14:45	15.18	1793	8.60	0.3	8-26-19 11:30	15.93	1299	8.16	5.1	8-26-19 11:30	15.71	1148	8.15	45.8						11-26-19 10:15	-0.02	2170	7.88	1.9					
8-26-19 15:00	15.17	1794	8.60	0.2	8-26-19 11:45	15.93	1299	8.15	5.0	8-26-19 11:45	15.67	1148	8.15	46.9						11-26-19 10:30	-0.04	2172	7.88	1.9					
8-26-19 15:15	15.15	1796	8.60	0.1	8-26-19 12:00	15.89	1299	8.15	4.6	8-26-19 12:00	15.64	1147	8.16	47.2						11-26-19 10:45	0.00	2174	7.88	2.0					
8-26-19 15:30	15.14	1795	8.60	0.2	8-26-19 12:15	15.87	1298	8.15	5.2	8-26-19 12:15	15.61	1147	8.16	51.2						11-26-19 11:00	-0.05	2173	7.89	2.2					
8-26-19 15:45	15.11	1794	8.60	0.6	8-26-19 12:30	15.82	1298	8.15	4.4	8-26-19 12:30	15.56	1147	8.15	44.6						11-26-19 11:15	-0.07	2176	7.89	2.1					
8-26-19 16:00	15.10	1787	8.60	0.2	8-26-19 12:45	15.83	1298	8.15	7.3	8-26-19 12:45	15.53	1146	8.16	48.7						11-26-19 11:30	-0.10	2169	7.89	2.1					
8-26-19 16:15	15.14	1792	8.60	0.0	8-26-19 13:00	15.76	1297	8.15	5.0	8-26-19 13:00	15.49	1146	8.16	45.9						11-26-19 11:45	-0.10	2184	7.88	2.3					
8-26-19 16:30	15.17	1790	8.61	0.9	8-26-19 13:15	15.72	1296	8.15	4.4	8-26-19 13:15	15.44	1146	8.16	48.0						11-26-19 12:00	-0.15	2180	7.88	1.8					
8-26-19 16:45	15.22	1790	8.61	0.2	8-26-19 13:30	15.71	1295	8.15	5.0	8-26-19 13:30	15.38	1146	8.16	49.3						11-26-19 12:15	-0.10	2175	7.88	1.8					
8-26-19 17:00	15.29	1790	8.60	0.1	8-26-19 13:45	15.67	1294	8.15	5.0	8-26-19 13:45	15.36	1147	8.16	45.2						11-26-19 12:30	-0.12	2177	7.88	1.6					
8-26-19 17:15	15.40	1790	8.61	0.0	8-26-19 14:00	15.63	1293	8.15	4.7	8-26-19 14:00	15.34	1146	8.16	45.7						11-26-19 12:45	-0.10	2186	7.88	1.9					
8-26-19 17:30	15.45	1789	8.61	0.2	8-26-19 14:15	15.62	1292	8.15	5.7	8-26-19 14:15	15.32	1146	8.16	47.0						11-26-19 13:00	-0.15	2184	7.89	2.0					
8-26-19 17:45	15.61	1790	8.61	0.0	8-26-19 14:30	15.59	1289	8.15	6.2	8-26-19 14:30	15.26	1145	8.16	46.2						11-26-19 13:15	-0.18	2187	7.88	2.0					
8-26-19 18:00	15.73	1790	8.60	0.2	8-26-19 14:45	15.53	1285	8.15	5.7	8-26-19 14:45	15.24	1145	8.16	48.7						11-26-19 13:30	-0.20	2186	7.89	1.9					
8-26-19 18:15	15.86	1789	8.61	0.0	8-26-19 15:00	15.43	1274	8.14	5.8	8-26-19 15:00	15.24	1146	8.16	46.3						11-26-19 13:45	-0.22	2223	7.89	1.9					
8-26-19 18:30	15.93	1788	8.61	0.3	8-26-19 15:15	15.38	1273	8.14	6.5	8-26-19 15:15	15.26	1145	8.17	44.8						11-26-19 14:00	-0.30	2206	7.89	1.4					
8-26-19 18:45	16.02	1789	8.61	0.6	8-26-19 15:30	15.36	1274	8.14	7.7	8-26-19 15:30	15.27	1144	8.17	44.9						11-26-19 14:15	-0.33	2207	7.88	1.5					
8-26-19 19:00	16.15	1787	8.61	0.2	8-26-19 15:45	15.38	1274	8.14	8.1	8-26-19 15:45	15.26	1144	8.17	46.2						11-26-19 14:30	-0.36	2207	7.89	1.5					
8-26-19 19:15	16.42	1789	8.60	0.2	8-26-19 16:00	15.38	1278	7.47	6.6	8-26-19 16:00	15.30	1144	8.17	44.0						11-26-19 14:45	-0.29	1939	7.88	2.2					
8-26-19 19:30	16.56	1788	8.60	0.7	8-26-19 16:15	15.42	1280	7.41	7.7	8-26-19 16:15	15.35	1144	8.18	45.3						11-26-19 15:00	-0.40	1924	7.89	1.4					
8-26-19 19:45	16.67	1787	8.60	0.2	8-26-19 16:30	15.43	1279	7.41	6.3	8-26-19 16:30	15.38	1143	8.17	45.6						11-26-19 15:15	-0.42	1917	7.89	1.3					
8-26-19 20:00	16.76	1794	8.60	0.3	8-26-19 16:45	15.47	1279	7.43	6.5	8-26-19 16:45	15.40	1144	8.18	43.2						11-26-19 15:30	-0.44	1909	7.88	1.4					
8-26-19 20:15	16.85	1787	8.60	0.3	8-26-19 17:00	15.52	1280	7.35	7.7	8-26-19 17:00	15.51	1144	8.18	43.5						11-26-19 15:45	-0.31	2231	7.88	2.4					
8-26-19 20:30	16.98	1790	8.60	0.4	8-26-19 17:15	15.53	1279	7.43	9.1	8-26-19 17:15	15.68	1144	8.18	46.0						11-26-19 16:00	-0.27	3014	7.88	1.6					
8-26-19 20:45	17.15	1784	8.60	0.4	8-26-19 17:30	15.57	1279	7.45	9.3	8-26-19 17:30	15.80	1142	8.17	45.7						11-26-19 16:15	-0.30	3493	7.88	1.4					
8-26-19 21:00	17.31	1782	8.61	0.6	8-26-19 17:45	15.56	1274	8.06	6.6	8-26-19 17:45	15.84	1144	8.17	44.8						11-26-19 16:30	-0.32	722	7.88	1.9					
8-26-19 21:15	17.42	1781	8.60	0.5	8-26-19 18:00	15.61	1275	7.86	7.6	8-26-19 18:00	16.03	1143	8.17	45.1						11-26-19 16:45	-0.33	897	7.89	2.1					
8-26-19 21:30	17.53	1781	8.60	0.7	8-26-19 18:15	15.53	1267	8.16	6.6	8-26-19 18:15	16.25	1144	8.17	46.5						11-26-19 17:00	-0.34	430	7.89	2.4					
8-26-19 21:45	17.51	1777	8.62	1.1	8-26-19 18:30	15.56	1272	7.61	6.6	8-26-19 18:30	16.36	1144	8.17	43.7						11-26-19 17:15	-0.35	234	7.89	3.0					
8-26-19 22:00	17.92	1781	8.62	0.7	8-26-19 18:45	15.61	1272	7.34	5.8	8-26-19 18:45	16.60	1143	8.16	42.8						11-26-19 17:30	-0.36	160	7.89	3.3					
8-26-19 22:15	17.91	1779	8.59	0.8	8-26-19 19:00	15.68	1272	7.30	8.5	8-26-19 19:00	16.75	1144	8.16	44.0						11-26-19 17:45	-0.37	123	7.89	5.9					
8-26-19 22:30	17.93	1771	8.61	1.2	8-26-19 19:15	15.76	1270	7.36	8.4	8-26-19 19:15	16.91	1144	8.14	44.1						11-26-19 18:00	-0.38	102	7.88	8.0					
8-26-19 22:45	18.03	1772	8.61	2.4	8-26-19 19:30	15.92	1265	7.88	10.5	8-26-19 19:30	17.26	1145	8.13	43.8						11-26-19 18:15	-0.38	89	7.88	8.6					
8-26-19 23:00	18.31	1777	8.60	0.9	8-26-19 19:45	15.93	1260	8.15	8.1	8-26-19 19:45	17.90	1143	8.16	41.7						11-26-19 18:30	-0.39	72	7.88	7.9					
8-26-19 23:15	18.24	1772	8.60	1.1	8-26-19 20:00	16.00	1258	8.17	8.3	8-26-19 20:00	18.27	1146	8.16	41.5						11-26-19 18:45	-0.40	58	7.88	9.7					
8-26-19 23:30	18.52	1783	8.60	1.0	8-26-19 20:15	16.10	1258	8.17	8.2	8-26-19 20:15	18.24	1146	8.15	42.2						11-26-19 19:00	-0.40	73	7.89	12.8					
8-26-19 23:45	18.47	1775	8.60	0.9	8-26-19 20:30	16.25	1259	8.15	8.2	8-26-19 20:30	18.33	1146	8.14	42.4						11-26-19 19:15	-0.40	74	7.89	12.4					
8-27-19 0:00	18.48	1776	8.60	1.3	8-26-19 20:45	16.48	1259	8.09	7.5	8-26-19 20:45	18.90	1151	8.15	41.3						11-26-19 19:30	-0.42	65	7.88	11.2					
8-27-19 0:15	18.47	1768	8.64	2.6	8-26-19 21:00	16.39	1260	8.09	7.7	8-26-19 21:00	19.47	1150	8.18	39.7						11-26-19 19:45	-0.45	50	7.87	9.4					
8-27-19 0:30	18.49	1767	8.63	1.7	8-26-19 21:15	16.87	1262	8.08	7.6	8-26-19 21:15	19.28	1150	8.17	42.0						11-26-19 20:00	-0.46	38	7.87	7.1					
8-27-19 0:45	18.46	1760	8.65	2.0	8-26-19 21:30	17.20	1264	8.05	6.8	8-26-19 21:30	18.90	1141	8.16	39.0						11-26-19 20:15	-0.47	38	7.87	6.9					
8-27-19 1:00	18.46	1762	8.65	1.8	8-26-19 21:45	17.26	1266	8.10	6.4	8-26-19 21:45	19.46	1149	8.18	37.6						11-26-19 20:30	-0.47	31	7.87	5.0					
8-27-19 1:15	18.43	1769	8.66	1.0	8-26-19 22:00	17.64	1264	8.11	7.0	8-26-19 22:00	19.83	1151	8.17	38.6						11-26-19 20:45	-0.48	35	7.87	5.1					
8-27-19 1:30	18.33	1769	8.65	1.2	8-26-19 22:15	17.28	1259	8.14	6.5	8-26-19 22:15	19.83	1152	8.16	40.0						11-26-19 21:00	-0.49	38	7.86	4.4					
8-27-19 1:45	18.26	1775	8.65	0.7	8-26-19 22:30	18.08	1263	8.14	5.4	8-26-19 22:30	19.85	1151	8.16	40.1						11-26-19 21:15	-0.49	35	7.86	3.9					
8-27-19 2:00	18.12	1758	8.67	1.5	8-26-19 22:45	17.04	1260	8.16	7.7	8-26-19 22:45	20.07	1153	8.18	38.6						11-26-19 21:30	-0.49	41	7.87	4.5					
8-27-19 2:15	18.05	1768	8.68	1.4	8-26-19 23:00	16.56	1259	8.17	8.2	8-26-19 23:00	20.19	1152	8.18	40.6						11-26-19 21:45	-0.50	39	7.87	3.3					
8-27-19 2:30	17.94	1756	8.68	1.6	8-26-19 23:15	16.87	1259	8.16	7.6	8-26-19 23:15	20.24	1152	8.17	41.0						11-26-19 22:00	-0.52	30	7.86	2.6					
8-27-19 2:45	17.88	1768	8.68	1.2	8-26-19 23:30	16.88	1261	8.16	8.0	8-26-19 23:30	20.28	1153	8.17	38.0						11-26-19 22:15	-0.53	24	7.86	1.9					
8-27-19 3:00	17.78	1756	8.68	1.7	8-26-19 23:45	17.12	1258	8.17	7.0	8-26-19 23:45	20.22	1153	8.18	39.2						11-26-19 22:30	-0.55	18	7.85	1.2					
8-27-19 3:15	17.67	1750	8.71	1.4	8-27-19 0:00	17.21	1263	8.15	6.7	8-27-19 0:00	20.24	1153	8.19	38.6						11-26-19 22:45	-0.57	17	7.85	0.6					
8-27-19 3:30	17.61	1751	8.70	1.6	8-27-19 0:15	17.28	1262	8.15	6.6	8-27-19 0:15	20.30	1153	8.19	39.2						11-26-19 23:00	-0.60	14	7.84	0.4					
8-27-19 3:45	17.56	1755	8.70	1.6	8-27-19 0:30	17.67	1266	8.15	5.6	8-27-19 0:30	20.25	1154	8.19	38.4						11-26-19 23:15	-0.62	12	7.83	0.4					
8-27-19 4:00	17.51	1752	8.70	1.3	8-27-19 0:45	17.94	1265	8.15	6.0	8-27-19 0:45	20.11	1153	8.20	38.8						11-26-19 23:30	-0.63	11	7.83	0.4					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-27-19 4:15	17.45	1753	8.71	0.9	8-27-19 1:00	18.22	1262	8.17	4.9	8-27-19 1:00	20.08	1153	8.20	38.0						11-26-19 23:45	-2.41	5	5.10	14.7					
8-27-19 4:30	17.39	1728	8.70	1.3	8-27-19 1:15	18.25	1262	8.16	5.6	8-27-19 1:15	20.06	1153	8.21	38.7						11-27-19 0:00	-0.13	25	8.16	2023.8					
8-27-19 4:45	17.35	1774	8.71	0.9	8-27-19 1:30	17.17	1258	8.15	8.4	8-27-19 1:30	19.96	1153	8.21	37.3						11-27-19 0:15	-0.05	39	8.03	1751.4					
8-27-19 5:00	17.30	1753	8.70	1.2	8-27-19 1:45	17.30	1257	8.15	8.0	8-27-19 1:45	19.85	1153	8.22	37.9						11-27-19 0:30	-0.02	50	7.97	1465.6					
8-27-19 5:15	17.24	1755	8.71	1.4	8-27-19 2:00	17.22	1257	8.16	6.7	8-27-19 2:00	19.71	1152	8.22	37.9						11-27-19 0:45	0.00	56	7.94	1369.6					
8-27-19 5:30	17.20	1756	8.71	1.9	8-27-19 2:15	17.08	1258	8.14	8.6	8-27-19 2:15	19.63	1152	8.23	38.9						11-27-19 1:00	0.01	58	7.90	494.2					
8-27-19 5:45	17.16	1752	8.72	1.2	8-27-19 2:30	17.54	1263	8.17	4.8	8-27-19 2:30	19.50	1152	8.23	37.4						11-27-19 1:15	0.02	55	7.86	332.2					
8-27-19 6:00	17.12	1752	8.73	1.4	8-27-19 2:45	17.40	1260	8.16	5.2	8-27-19 2:45	19.33	1151	8.24	38.7						11-27-19 1:30	0.03	54	7.84	224.1					
8-27-19 6:15	17.08	1754	8.73	1.4	8-27-19 3:00	17.39	1257	8.18	4.9	8-27-19 3:00	19.10	1150	8.25	37.5						11-27-19 1:45	0.06	57	7.82	251.3					
8-27-19 6:30	17.05	1753	8.72	1.8	8-27-19 3:15	17.53	1242	8.20	5.5	8-27-19 3:15	18.96	1151	8.26	36.4						11-27-19 2:00	0.08	63	7.76	278.1					
8-27-19 6:45	17.01	1753	8.73	1.1	8-27-19 3:30	17.46	1247	8.20	5.6	8-27-19 3:30	18.85	1151	8.25	35.3						11-27-19 2:15	0.10	75	7.73	1109.9					
8-27-19 7:00	16.98	1754	8.72	1.5	8-27-19 3:45	17.38	1242	8.20	5.7	8-27-19 3:45	18.72	1150	8.26	37.2						11-27-19 2:30	0.13	94	7.72	1122.3					
8-27-19 7:15	16.95	1753	8.72	1.5	8-27-19 4:00	17.29	1243	8.19	5.4	8-27-19 4:00	18.65	1150	8.25	35.9						11-27-19 2:45	0.15	155	7.73	1415.7					
8-27-19 7:30	16.94	1754	8.71	2.0	8-27-19 4:15	17.27	1249	8.18	4.7	8-27-19 4:15	18.54	1150	8.26	34.7						11-27-19 3:00	0.17	210	7.75	2208.1					
8-27-19 7:45	16.93	1756	8.70	1.2	8-27-19 4:30	17.23	1251	8.18	4.6	8-27-19 4:30	18.43	1149	8.26	34.8						11-27-19 3:15	0.19	281	7.78	499.2					
8-27-19 8:00	16.90	1757	8.70	2.0	8-27-19 4:45	17.19	1249	8.18	4.9	8-27-19 4:45	18.30	1149	8.27	36.8						11-27-19 3:30	0.22	365	7.79	620.8					
8-27-19 8:15	16.88	1756	8.70	1.8	8-27-19 5:00	17.11	1247	8.18	4.9	8-27-19 5:00	18.20	1149	8.26	34.7						11-27-19 3:45	0.23	356	7.80	660.3					
8-27-19 8:30	16.86	1756	8.70	1.4	8-27-19 5:15	16.99	1254	8.15	5.2	8-27-19 5:15	18.12	1149	8.26	34.4						11-27-19 4:00	0.25	419	7.80	551.8					
8-27-19 8:45	16.83	1752	8.70	1.6	8-27-19 5:30	16.99	1254	8.17	4.2	8-27-19 5:30	18.00	1148	8.26	34.6						11-27-19 4:15	0.27	503	7.81	459.0					
8-27-19 9:00	16.79	1753	8.70	2.1	8-27-19 5:45	16.92	1253	8.17	4.4	8-27-19 5:45	17.98	1149	8.26	35.3						11-27-19 4:30	0.28	605	7.83	466.4					
8-27-19 9:15	16.74	1752	8.70	2.6	8-27-19 6:00	16.85	1254	8.17	4.3	8-27-19 6:00	17.83	1148	8.26	33.0						11-27-19 4:45	0.35	1862	7.83	48.6					
8-27-19 9:30	16.74	1758	8.69	1.5	8-27-19 6:15	16.82	1255	8.17	4.0	8-27-19 6:15	17.71	1148	8.26	32.2						11-27-19 5:00	0.37	1751	7.85	42.8					
8-27-19 9:45	16.71	1751	8.69	1.3	8-27-19 6:30	16.80	1255	8.17	4.1	8-27-19 6:30	17.62	1148	8.26	31.7						11-27-19 5:15	0.40	1810	7.84	33.2					
8-27-19 10:00	16.67	1751	8.69	2.3	8-27-19 6:45	16.74	1253	8.17	4.7	8-27-19 6:45	17.56	1148	8.26	34.3						11-27-19 5:30	0.44	1756	7.85	20.8					
8-27-19 10:15	16.64	1752	8.69	2.6	8-27-19 7:00	16.67	1250	8.17	4.4	8-27-19 7:00	17.53	1148	8.26	33.1						11-27-19 5:45	0.51	1177	7.85	40.2					
8-27-19 10:30	16.62	1752	8.69	2.2	8-27-19 7:15	16.66	1250	8.17	5.3	8-27-19 7:15	17.45	1148	8.26	33.7						11-27-19 6:00	0.60	2215	7.85	20.3					
8-27-19 10:45	16.59	1755	8.68	1.9	8-27-19 7:30	16.70	1247	8.17	4.6	8-27-19 7:30	17.40	1148	8.26	33.3						11-27-19 6:15	0.61	2246	7.85	38.4					
8-27-19 11:00	16.57	1753	8.68	3.2	8-27-19 7:45	16.68	1245	8.17	4.6	8-27-19 7:45	17.34	1148	8.26	33.7						11-27-19 6:30	0.61	2236	7.85	12.5					
8-27-19 11:15	16.53	1769	8.68	3.6	8-27-19 8:00	16.66	1243	8.17	5.1	8-27-19 8:00	17.29	1147	8.25	32.0						11-27-19 6:45	0.63	2235	7.85	16.9					
8-27-19 11:30	16.51	1753	8.68	3.1	8-27-19 8:15	16.61	1239	8.17	4.9	8-27-19 8:15	17.21	1147	8.25	32.3						11-27-19 7:00	0.62	2238	7.85	15.5					
8-27-19 11:45	16.48	1752	8.68	2.4	8-27-19 8:30	16.61	1240	8.17	4.7	8-27-19 8:30	17.13	1147	8.25	30.3						11-27-19 7:15	0.62	2237	7.85	13.5					
8-27-19 12:00	16.45	1752	8.68	3.4	8-27-19 8:45	16.54	1236	8.17	5.5	8-27-19 8:45	17.10	1147	8.26	32.4						11-27-19 7:30	0.61	2237	7.85	12.8					
8-27-19 12:15	16.42	1753	8.67	2.9	8-27-19 9:00	16.54	1239	8.17	5.0	8-27-19 9:00	17.04	1147	8.26	31.9						11-27-19 7:45	0.61	2243	7.85	14.4					
8-27-19 12:30	16.40	1752	8.67	3.6	8-27-19 9:15	16.55	1239	8.17	5.4	8-27-19 9:15	16.98	1147	8.27	32.4						11-27-19 8:00	0.60	2242	7.85	8.9					
8-27-19 12:45	16.38	1752	8.67	3.0	8-27-19 9:30	16.51	1239	8.17	5.2	8-27-19 9:30	16.92	1147	8.26	31.8						11-27-19 8:15	0.59	2244	7.84	7.5					
8-27-19 13:00	16.34	1752	8.66	2.9	8-27-19 9:45	16.47	1241	8.17	5.8	8-27-19 9:45	16.86	1146	8.25	33.0						11-27-19 8:30	0.58	2245	7.84	7.0					
8-27-19 13:15	16.32	1752	8.66	2.1	8-27-19 10:00	16.45	1240	8.16	4.9	8-27-19 10:00	16.83	1145	8.24	31.8						11-27-19 8:45	0.58	2248	7.85	10.2					
8-27-19 13:30	16.28	1751	8.66	3.2	8-27-19 10:15	16.43	1242	8.16	5.0	8-27-19 10:15	16.75	1146	8.25	32.4						11-27-19 9:00	0.55	2245	7.85	8.9					
8-27-19 13:45	16.26	1751	8.66	2.8	8-27-19 10:30	16.39	1242	8.16	4.5	8-27-19 10:30	16.69	1146	8.26	31.9						11-27-19 9:15	0.53	2249	7.85	7.1					
8-27-19 14:00	16.24	1752	8.65	6.8	8-27-19 10:45	16.42	1243	8.16	5.8	8-27-19 10:45	16.63	1146	8.25	32.9						11-27-19 9:30	0.51	2252	7.85	7.1					
8-27-19 14:15	16.22	1754	8.65	2.1	8-27-19 11:00	16.39	1243	8.16	4.8	8-27-19 11:00	16.60	1145	8.24	32.5						11-27-19 9:45	0.50	2258	7.85	8.1					
8-27-19 14:30	16.20	1754	8.64	2.9	8-27-19 11:15	16.38	1242	8.16	4.8	8-27-19 11:15	16.56	1145	8.23	33.2						11-27-19 10:00	0.48	2261	7.84	4.4					
8-27-19 14:45	16.19	1754	8.65	1.9	8-27-19 11:30	16.33	1243	8.16	4.5	8-27-19 11:30	16.50	1145	8.23	31.3						11-27-19 10:15	0.47	2258	7.85	3.7					
8-27-19 15:00	16.19	1754	8.64	2.1	8-27-19 11:45	16.31	1243	8.16	4.5	8-27-19 11:45	16.47	1145	8.23	31.5						11-27-19 10:30	0.47	2263	7.85	3.4					
8-27-19 15:15	16.18	1755	8.64	1.9	8-27-19 12:00	16.28	1244	8.16	4.0	8-27-19 12:00	16.44	1145	8.24	30.6						11-27-19 10:45	0.47	2263	7.85	5.2					
8-27-19 15:30	16.17	1753	8.64	2.5	8-27-19 12:15	16.23	1245	8.16	4.3	8-27-19 12:15	16.39	1144	8.24	31.1						11-27-19 11:00	0.45	2264	7.85	4.5					
8-27-19 15:45	16.16	1752	8.65	3.5	8-27-19 12:30	16.26	1245	8.16	4.4	8-27-19 12:30	16.36	1144	8.23	30.7						11-27-19 11:15	0.44	2266	7.85	4.2					
8-27-19 16:00	16.18	1753	8.64	3.2	8-27-19 12:45	16.27	1246	8.16	4.2	8-27-19 12:45	16.33	1144	8.23	32.1						11-27-19 11:30	0.43	2268	7.84	3.4					
8-27-19 16:15	16.21	1753	8.63	2.1	8-27-19 13:00	16.28	1246	8.15	4.1	8-27-19 13:00	16.30	1143	8.22	29.3						11-27-19 11:45	0.43	2271	7.84	4.5					
8-27-19 16:30	16.25	1751	8.63	3.5	8-27-19 13:15	16.23	1247	8.15	4.8	8-27-19 13:15	16.27	1143	8.23	30.7						11-27-19 12:00	0.41	2272	7.85	2.6					
8-27-19 16:45	16.32	1752	8.63	2.9	8-27-19 13:30	16.17	1247	8.15	3.9	8-27-19 13:30	16.23	1143	8.23	29.5						11-27-19 12:15	0.41	2270	7.85	2.4					
8-27-19 17:00	16.38	1752	8.63	3.0	8-27-19 13:45	16.19	1247	8.15	4.0	8-27-19 13:45	16.17	1144	8.23	32.3						11-27-19 12:30	0.40	2267	7.84	2.2					
8-27-19 17:15	16.39	1751	8.63	2.6	8-27-19 14:00	16.17	1247	8.15	4.2	8-27-19 14:00	16.15	1143	8.23	29.7						11-27-19 12:45	0.41	2274	7.84	3.3					
8-27-19 17:30	16.43	1750	8.63	3.3	8-27-19 14:15	16.14	1247	8.15	3.8	8-27-19 14:15	16.12	1143	8.23	31.7						11-27-19 13:00	0.39	2274	7.85	3.1					
8-27-19 17:45	16.47	1753	8.63	2.6	8-27-19 14:30	16.16	1247	8.15	8.4	8-27-19 14:30	16.08	1143	8.23	31.1						11-27-19 13:15	0.38	2275	7.85	3.2					
8-27-19 18:00	16.67	1754	8.62	3.2	8-27-19 14:45	16.17	1247	8.15	4.1	8-27-19 14:45	16.07	1143	8.23	31.7						11-27-19 13:30	0.37	2277	7.85	2.9					
8-27-19 18:15	16.77	1756	8.61	2.6	8-27-19 15:00	16.15	1247	8.15	3.5	8-27-19 15:00	16.04	1142	8.23	31.2						11-27-19 13:45	0.36	2278	7.85	3.9					
8-27-19 18:30	16.99	1750	8.62	3.9	8-27-19 15:15	16.13	1247	8.15	4.0	8-27-19 15:15	16.04	1142	8.23	31.9						11-27-19 14:00	0.35	2296	7.85	2.6					
8-27-19 18:45	17.20	1751	8.62	3.0	8-27-19 15:30	16.17	1246	8.15	3.6	8-27-19 15:30	16.03	1141	8.23	31.2						11-27-19 14:15	0.35	2296	7.85	2.0					
8-27-19 19:00	17.21	1762	8.62	4.2	8-27-19 15:45	16.22	1246	8.15	4.0	8-27-19 15:45	16.03	1140	8.22	32.0						11-27-19 14:30	0.34	2298	7.85	2.1					
8-27-19 19:15	17.34	1752	8.61	4.5	8-27-19 16:00	16.26	1245	8.15	4.0	8-27-19 16:00	16.05	1141	8.23	31.5						11-27-19 14:45	0.34	2299	7.85	3.2					
8-27-19 19:30	17.19	1786	8.63	5.2	8-27-19 16:15	16.25	1247	8.15	3.8	8-27-19 16:15	16.10	1140	8.22	31.5						11-27-19 15:00	0.33	2299	7.85	2.9					
8-27-19 19:45	17.35	1750	8.62	4.1	8-27-19 16:30	16.29	1246	8.16	3.9	8-27-19 16:30	16.17	1140	8.22	31.0						11-27-19 15:15	0.32	2301	7.85	2.8					
8-27-19 20:00	17.59	1750	8.62	4.2	8-27-19 16:45	16.34	1246	8.15	4.4	8-27-19 16:45	16.23	1140	8.22	32.0						11-27-19 15:30	0.32	2301	7.85	2.8					
8-27-19 20:15	17.82	1752	8.62	3.6	8-27-19 17:00	16.39	1246	8.16	3.7	8-27-19 17:00	16.34	1141	8.22	32.0						11-27-19 15:45	0.32	2301	7.85	3.4					
8-27-19 20:30	17.96	1750	8.62	4.2	8-27-19 17:15	16.43	1245	8.15	4.4	8-27-19 17:15	16.35	1141	8.23	31.1						11-27-19 16:00	0.31	2301	7.85	2.0					
8-27-19 20:45	17.95	1751	8.62	4.0	8-27-19 17:30	16.46	1246	8.15	4.4	8-27-19 17:30	16.54	1142	8.22	30.9						11-27-19 16:15	0.31	2306	7.84	1.7					
8-27-19 21:00	18.16	1755	8.62	4.1	8-27-19 17:45	16.51	1246	8.15	4.4	8-27-19 17:45	16.58	1142	8.23	31.0						11-27-19 16:30	0.30	2306	7.84	1.6					
8-27-19 21:15	18.13	1751	8.62	4.2	8-27-19 18:00	16.68	1246	8.16	4.3	8-27-19 18:00	16.67	1142	8.23	31.4						11-27-19 16:45	0.30	2310	7.85	2.2					
8-27-19 21:30	18.25	1750	8.63	5.9	8-27-19 18:15	16.62	1246	8.15	5.2	8-27-19 18:15	16.77	1142	8.23	31.4						11-27-19 17:00	0.29	2308	7.85	2.1					
8-27-19 21:45	18.36	1751	8.63	3.8	8-27-19 18:30	16.57	1226	8.15	6.0	8-27-19 18:30	17.00	1141	8.24	31.8						11-27-19 17:15	0.30	2309	7.85	2.1					
8-27-19 22:00	18.52	1752	8.63	4.4	8-27-19 18:45	16.68	1226	8.15	5.2	8-27-19 18:45	17.13	1142	8.24	32.9						11-27-19 17:30	0.29	2310	7.85	2.3					
8-27-19 22:15	18.58	1756	8.63	3.6	8-27-19 19:00	16.88	1223	8.17	5.1	8-27-19 19:00	17.27	1143	8.24	32.0						11-27-19 17:45	0.30	2307	7.85	2.9					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-27-19 22:30	18.80	1752	8.63	4.2	8-27-19 19:15	16.92	1217	8.18	5.5	8-27-19 19:15	17.46	1142	8.25	33.6						11-27-19 18:00	0.29	2313	7.84	1.3					
8-27-19 22:45	19.00	1757	8.64	3.6	8-27-19 19:30	16.80	1221	8.18	5.2	8-27-19 19:30	17.46	1143	8.24	30.9						11-27-19 18:15	0.30	2312	7.84	1.2					
8-27-19 23:00	18.90	1751	8.64	4.6	8-27-19 19:45	16.78	1221	8.19	5.4	8-27-19 19:45	17.36	1143	8.25	31.7						11-27-19 18:30	0.30	2311	7.84	1.2					
8-27-19 23:15	18.94	1751	8.64	4.7	8-27-19 20:00	16.97	1225	8.20	5.4	8-27-19 20:00	17.56	1144	8.24	29.9						11-27-19 18:45	0.31	2308	7.84	2.4					
8-27-19 23:30	18.98	1751	8.65	4.9	8-27-19 20:15	17.19	1228	8.20	5.3	8-27-19 20:15	17.73	1144	8.25	31.1						11-27-19 19:00	0.31	2318	7.84	2.2					
8-27-19 23:45	18.94	1752	8.65	4.4	8-27-19 20:30	17.23	1229	8.20	4.7	8-27-19 20:30	17.78	1143	8.25	32.8						11-27-19 19:15	0.73	2299	7.83	0.4					
8-28-19 0:00	18.94	1753	8.65	3.8	8-27-19 20:45	17.40	1230	8.19	4.8	8-27-19 20:45	17.94	1144	8.25	35.2						11-27-19 19:30	0.49	2331	7.85	0.5					
8-28-19 0:15	18.94	1755	8.64	3.4	8-27-19 21:00	17.47	1227	8.19	4.4	8-27-19 21:00	18.22	1145	8.26	29.7						11-27-19 19:45	0.62	2339	7.85	0.8					
8-28-19 0:30	18.92	1752	8.64	3.9	8-27-19 21:15	17.57	1230	8.18	5.2	8-27-19 21:15	18.13	1146	8.26	32.1						11-27-19 20:00	0.45	2332	7.86	0.8					
8-28-19 0:45	18.88	1753	8.65	3.2	8-27-19 21:30	17.17	1228	8.18	5.9	8-27-19 21:30	18.19	1145	8.25	30.6						11-27-19 20:15	0.51	2329	7.87	1.0					
8-28-19 1:00	18.80	1750	8.65	7.0	8-27-19 21:45	17.43	1229	8.18	5.0	8-27-19 21:45	18.16	1144	8.25	31.5						11-27-19 20:30	0.58	2329	7.86	1.4					
8-28-19 1:15	18.78	1756	8.65	2.5	8-27-19 22:00	17.36	1227	8.18	5.2	8-27-19 22:00	18.22	1146	8.26	30.0						11-27-19 20:45	0.56	2329	7.86	1.4					
8-28-19 1:30	18.77	1753	8.64	3.2	8-27-19 22:15	17.52	1228	8.18	5.7	8-27-19 22:15	18.31	1144	8.26	32.8						11-27-19 21:00	0.55	2330	7.86	1.3					
8-28-19 1:45	18.72	1751	8.64	2.3	8-27-19 22:30	17.54	1230	8.18	5.6	8-27-19 22:30	18.47	1146	8.26	30.6						11-27-19 21:15	0.77	2312	7.84	0.9					
8-28-19 2:00	18.57	1751	8.67	4.8	8-27-19 22:45	17.72	1228	8.18	5.0	8-27-19 22:45	18.40	1144	8.26	29.5						11-27-19 21:30	0.88	2304	7.83	0.8					
8-28-19 2:15	18.49	1754	8.68	4.8	8-27-19 23:00	17.73	1227	8.18	4.9	8-27-19 23:00	18.50	1145	8.26	29.5						11-27-19 21:45	0.96	2292	7.83	0.8					
8-28-19 2:30	18.38	1750	8.69	2.3	8-27-19 23:15	17.74	1227	8.18	5.8	8-27-19 23:15	18.42	1145	8.26	31.5						11-27-19 22:00	1.06	2313	7.82	1.7					
8-28-19 2:45	18.28	1751	8.69	2.0	8-27-19 23:30	17.71	1228	8.18	5.6	8-27-19 23:30	18.39	1145	8.27	29.6						11-27-19 22:15	0.98	2302	7.83	1.1					
8-28-19 3:00	18.18	1750	8.70	2.7	8-27-19 23:45	17.69	1228	8.18	5.1	8-27-19 23:45	18.45	1145	8.27	32.2						11-27-19 22:30	1.07	2295	7.83	1.2					
8-28-19 3:15	18.12	1751	8.70	4.4	8-28-19 0:00	17.70	1228	8.18	7.5	8-28-19 0:00	18.44	1145	8.26	28.3						11-27-19 22:45	1.12	2296	7.84	1.4					
8-28-19 3:30	18.00	1750	8.70	2.3	8-28-19 0:15	17.71	1229	8.18	5.2	8-28-19 0:15	18.42	1145	8.27	30.1						11-27-19 23:00	1.10	2292	7.84	1.2					
8-28-19 3:45	17.96	1752	8.70	1.8	8-28-19 0:30	17.55	1229	8.19	4.9	8-28-19 0:30	18.37	1145	8.27	29.8						11-27-19 23:15	0.99	2298	7.86	1.5					
8-28-19 4:00	17.92	1749	8.70	3.5	8-28-19 0:45	17.62	1229	8.20	5.2	8-28-19 0:45	18.34	1144	8.27	30.7						11-27-19 23:30	1.08	2297	7.85	1.3					
8-28-19 4:15	17.84	1749	8.71	1.7	8-28-19 1:00	17.69	1226	8.19	5.7	8-28-19 1:00	18.23	1140	8.28	34.1						11-27-19 23:45	1.05	2299	7.85	3.6					
8-28-19 4:30	17.78	1749	8.71	3.0	8-28-19 1:15	17.71	1228	8.19	5.3	8-28-19 1:15	18.16	1141	8.28	31.7						11-28-19 0:00	1.02	2302	7.85	1.4					
8-28-19 4:45	17.74	1752	8.72	2.0	8-28-19 1:30	17.74	1227	8.19	5.2	8-28-19 1:30	18.12	1141	8.27	30.9						11-28-19 0:15	1.33	2307	7.83	1.1					
8-28-19 5:00	17.69	1749	8.74	2.9	8-28-19 1:45	17.67	1227	8.18	5.3	8-28-19 1:45	18.09	1141	8.28	30.8						11-28-19 0:30	0.73	2326	7.87	1.1					
8-28-19 5:15	17.64	1752	8.72	1.7	8-28-19 2:00	17.65	1227	8.18	5.9	8-28-19 2:00	18.00	1141	8.29	30.9						11-28-19 0:45	0.96	2318	7.90	1.3					
8-28-19 5:30	17.61	1751	8.72	2.3	8-28-19 2:15	17.61	1229	8.18	5.5	8-28-19 2:15	17.87	1141	8.29	29.5						11-28-19 1:00	1.04	2303	7.86	1.3					
8-28-19 5:45	17.57	1752	8.71	2.0	8-28-19 2:30	17.50	1228	8.18	5.4	8-28-19 2:30	17.82	1141	8.29	28.1						11-28-19 1:15	0.99	2308	7.87	1.0					
8-28-19 6:00	17.53	1750	8.70	2.2	8-28-19 2:45	17.45	1229	8.18	4.6	8-28-19 2:45	17.62	1140	8.28	29.4						11-28-19 1:30	1.00	2309	7.88	1.0					
8-28-19 6:15	17.48	1751	8.71	1.8	8-28-19 3:00	17.41	1228	8.18	5.3	8-28-19 3:00	17.61	1140	8.28	27.0						11-28-19 1:45	0.96	2310	7.85	0.8					
8-28-19 6:30	17.42	1751	8.71	2.3	8-28-19 3:15	17.39	1227	8.18	5.3	8-28-19 3:15	17.53	1140	8.28	28.7						11-28-19 2:00	0.95	2319	7.86	0.9					
8-28-19 6:45	17.38	1750	8.70	1.4	8-28-19 3:30	17.41	1226	8.18	5.7	8-28-19 3:30	17.49	1140	8.28	28.3						11-28-19 2:15	0.95	2316	7.87	0.8					
8-28-19 7:00	17.34	1751	8.70	1.8	8-28-19 3:45	17.41	1225	8.19	5.5	8-28-19 3:45	17.43	1140	8.28	30.1						11-28-19 2:30	0.92	2318	7.87	0.7					
8-28-19 7:15	17.28	1750	8.70	1.1	8-28-19 4:00	17.39	1224	8.19	5.0	8-28-19 4:00	17.38	1140	8.28	29.5						11-28-19 2:45	0.99	2317	7.89	1.2					
8-28-19 7:30	17.24	1751	8.70	1.8	8-28-19 4:15	17.37	1226	8.18	5.6	8-28-19 4:15	17.32	1140	8.28	29.2						11-28-19 3:00	0.96	2316	7.87	1.4					
8-28-19 7:45	17.17	1752	8.70	1.4	8-28-19 4:30	17.36	1228	8.18	4.6	8-28-19 4:30	17.27	1140	8.28	28.4						11-28-19 3:15	0.97	2310	7.88	0.7					
8-28-19 8:00	17.11	1752	8.70	1.6	8-28-19 4:45	17.27	1227	8.18	4.8	8-28-19 4:45	17.23	1139	8.27	28.3						11-28-19 3:30	0.98	2315	7.88	0.8					
8-28-19 8:15	17.05	1751	8.69	1.0	8-28-19 5:00	17.25	1228	8.18	4.7	8-28-19 5:00	17.21	1140	8.28	27.3						11-28-19 3:45	0.99	2328	7.88	7.9					
8-28-19 8:30	17.02	1752	8.69	0.9	8-28-19 5:15	17.26	1223	8.18	4.5	8-28-19 5:15	17.17	1140	8.28	28.0						11-28-19 4:00	0.94	2319	7.90	0.6					
8-28-19 8:45	16.96	1752	8.69	0.8	8-28-19 5:30	17.26	1228	8.18	5.6	8-28-19 5:30	17.11	1140	8.28	27.3						11-28-19 4:15	0.81	2333	7.90	0.9					
8-28-19 9:00	16.88	1751	8.69	1.3	8-28-19 5:45	17.21	1229	8.17	4.7	8-28-19 5:45	17.09	1140	8.27	26.9						11-28-19 4:30	0.64	2339	7.91	0.8					
8-28-19 9:15	16.82	1752	8.69	0.8	8-28-19 6:00	17.22	1228	8.17	4.5	8-28-19 6:00	17.07	1140	8.27	26.4						11-28-19 4:45	0.55	2351	7.93	1.1					
8-28-19 9:30	16.77	1751	8.69	1.1	8-28-19 6:15	17.19	1229	8.17	4.7	8-28-19 6:15	17.04	1139	8.27	29.0						11-28-19 5:00	0.54	2350	7.95	1.4					
8-28-19 9:45	16.73	1752	8.68	0.4	8-28-19 6:30	17.12	1228	8.17	4.3	8-28-19 6:30	16.97	1139	8.27	27.0						11-28-19 5:15	0.53	2354	7.94	1.1					
8-28-19 10:00	16.64	1752	8.68	0.5	8-28-19 6:45	17.09	1228	8.17	4.4	8-28-19 6:45	16.93	1139	8.27	26.6						11-28-19 5:30	0.49	2355	7.95	1.2					
8-28-19 10:15	16.58	1754	8.69	0.5	8-28-19 7:00	17.07	1228	8.17	4.0	8-28-19 7:00	16.87	1139	8.27	27.2						11-28-19 5:45	0.44	2361	7.95	1.1					
8-28-19 10:30	16.51	1752	8.68	1.2	8-28-19 7:15	17.05	1228	8.17	4.3	8-28-19 7:15	16.81	1139	8.27	28.5						11-28-19 6:00	0.40	2367	7.94	1.2					
8-28-19 10:45	16.43	1753	8.69	0.8	8-28-19 7:30	17.03	1228	8.17	4.0	8-28-19 7:30	16.74	1139	8.27	26.4						11-28-19 6:15	0.38	2368	7.94	1.0					
8-28-19 11:00	16.40	1752	8.68	0.7	8-28-19 7:45	16.99	1227	8.17	4.4	8-28-19 7:45	16.71	1139	8.27	28.1						11-28-19 6:30	0.36	2368	7.94	1.0					
8-28-19 11:15	16.32	1754	8.69	1.1	8-28-19 8:00	16.97	1227	8.16	5.3	8-28-19 8:00	16.64	1138	8.27	28.1						11-28-19 6:45	0.35	2369	7.94	1.1					
8-28-19 11:30	16.24	1754	8.68	1.5	8-28-19 8:15	16.93	1228	8.16	4.2	8-28-19 8:15	16.63	1138	8.26	30.6						11-28-19 7:00	0.36	2368	7.94	1.1					
8-28-19 11:45	16.19	1754	8.68	1.1	8-28-19 8:30	16.91	1228	8.16	4.3	8-28-19 8:30	16.58	1138	8.26	27.4						11-28-19 7:15	0.35	2370	7.94	0.9					
8-28-19 12:00	16.13	1754	8.68	1.7	8-28-19 8:45	16.89	1227	8.16	4.0	8-28-19 8:45	16.51	1138	8.26	28.0						11-28-19 7:30	0.34	2359	7.94	0.9					
8-28-19 12:15	16.10	1755	8.67	0.5	8-28-19 9:00	16.86	1226	8.16	4.4	8-28-19 9:00	16.47	1138	8.25	27.2						11-28-19 7:45	0.34	2371	7.93	1.0					
8-28-19 12:30	16.01	1754	8.67	1.8	8-28-19 9:15	16.83	1227	8.16	4.4	8-28-19 9:15	16.43	1138	8.25	28.4						11-28-19 8:00	0.33	2365	7.92	0.9					
8-28-19 12:45	15.98	1755	8.67	1.5	8-28-19 9:30	16.79	1227	8.17	5.1	8-28-19 9:30	16.38	1138	8.25	26.0						11-28-19 8:15	0.33	2372	7.92	1.2					
8-28-19 13:00	15.89	1755	8.67	1.3	8-28-19 9:45	16.75	1227	8.16	5.8	8-28-19 9:45	16.32	1137	8.25	29.4						11-28-19 8:30	0.33	2374	7.92	1.0					
8-28-19 13:15	15.80	1754	8.67	1.0	8-28-19 10:00	16.70	1227	8.16	4.6	8-28-19 10:00	16.26	1137	8.23	28.6						11-28-19 8:45	0.32	2373	7.92	1.5					
8-28-19 13:30	15.74	1754	8.67	2.2	8-28-19 10:15	16.68	1227	8.16	4.6	8-28-19 10:15	16.22	1137	8.23	29.5						11-28-19 9:00	0.34	2371	7.93	1.3					
8-28-19 13:45	15.66	1755	8.67	0.9	8-28-19 10:30	16.66	1226	8.16	4.1	8-28-19 10:30	16.18	1137	8.23	27.0						11-28-19 9:15	0.35	2370	7.92	1.3					
8-28-19 14:00	15.61	1756	8.67	1.3	8-28-19 10:45	16.60	1226	8.16	4.5	8-28-19 10:45	16.14	1136	8.23	30.2						11-28-19 9:30	0.36	2373	7.93	1.4					
8-28-19 14:15	15.57	1755	8.66	2.1	8-28-19 11:00	16.54	1226	8.16	4.6	8-28-19 11:00	16.12	1137	8.23	26.8						11-28-19 9:45	0.36	2373	7.92	1.6					
8-28-19 14:30	15.54	1757	8.65	1.4	8-28-19 11:15	16.51	1225	8.16	4.3	8-28-19 11:15	16.07	1137	8.23	28.9						11-28-19 10:00	0.35	2381	7.91	1.3					
8-28-19 14:45	15.51	1757	8.66	1.2	8-28-19 11:30	16.46	1226	8.16	4.0	8-28-19 11:30	16.00	1137	8.23	27.9						11-28-19 10:15	0.34	2380	7.91	1.3					
8-28-19 15:00	15.45	1757	8.66	2.1	8-28-19 11:45	16.42	1226	8.16	4.2	8-28-19 11:45	15.95	1137	8.24	29.0						11-28-19 10:30	0.32	2384	7.91	1.3					
8-28-19 15:15	15.44	1758	8.66	1.4	8-28-19 12:00	16.34	1225	8.16	3.7	8-28-19 12:00	15.91	1137	8.23	27.1						11-28-19 10:45	0.30	2383	7.91	1.4					
8-28-19 15:30	15.44	1758	8.66	1.3	8-28-19 12:15	16.32	1225	8.16	4.3	8-28-19 12:15	15.87	1137	8.24	29.3						11-28-19 11:00	0.28	2387	7.91	1.5					
8-28-19 15:45	15.44	1757	8.66	1.3	8-28-19 12:30	16.30	1226	8.16	4.3	8-28-19 12:30	15.80	1136	8.24	26.9						11-28-19 11:15	0.23	2392	7.91	2.1					
8-28-19 16:00	15.47	1758	8.66	1.8	8-28-19 12:45	16.26	1225	8.16	4.9	8-28-19 12:45	15.78	1137	8.24	29.7						11-28-19 11:30	0.20	2401	7.92	1.5					
8-28-19 16:15	15.45	1759	8.66	1.7	8-28-19 13:00	16.24	1225	8.16	4.5	8-28-19 13:00	15.71	1137	8.24	28.3						11-28-19 11:45	0.16	2401	7.91	1.5					
8-28-19 16:30	15.45	1759	8.66	2.0	8-28-19 13:15	16.17	1223	8.16	4.1	8-28-19 13:15	15.65	1136	8.24	28.4						11-28-19 12:00	0.13	2412	7.91	1.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
8-28-19 16:45	15.48	1760	8.66	2.0	8-28-19 13:30	16.11	1223	8.16	4.2	8-28-19 13:30	15.61	1137	8.24	27.1						11-28-19 12:15	0.11	2415	7.91	1.1					
8-28-19 17:00	15.52	1759	8.66	2.1	8-28-19 13:45	16.08	1222	8.16	5.5	8-28-19 13:45	15.57	1136	8.24	27.3						11-28-19 12:30	0.08	2420	7.91	1.0					
8-28-19 17:15	15.54	1759	8.66	2.0	8-28-19 14:00	16.07	1223	8.16	4.6	8-28-19 14:00	15.57	1137	8.24	25.5						11-28-19 12:45	0.07	2422	7.92	1.3					
8-28-19 17:30	15.61	1760	8.65	2.4	8-28-19 14:15	16.05	1223	8.16	4.7	8-28-19 14:15	15.52	1136	8.24	28.7						11-28-19 13:00	0.06	2424	7.92	1.4					
8-28-19 17:45	15.68	1757	8.65	2.1	8-28-19 14:30	16.02	1222	8.16	8.6	8-28-19 14:30	15.51	1136	8.23	27.3						11-28-19 13:15	0.04	2428	7.92	1.3					
8-28-19 18:00	15.76	1758	8.65	2.8	8-28-19 14:45	15.99	1220	8.16	4.5	8-28-19 14:45	15.47	1136	8.23	29.2						11-28-19 13:30	0.02	2434	7.92	1.4					
8-28-19 18:15	15.84	1759	8.64	2.1	8-28-19 15:00	15.98	1219	8.16	4.7	8-28-19 15:00	15.47	1136	8.23	27.1						11-28-19 13:45	-0.01	2438	7.92	1.6					
8-28-19 18:30	15.89	1759	8.64	2.7	8-28-19 15:15	15.99	1218	8.16	5.0	8-28-19 15:15	15.48	1136	8.23	27.8						11-28-19 14:00	-0.02	2447	7.92	1.3					
8-29-19 0:00					8-28-19 15:30	15.98	1217	8.17	5.0	8-28-19 15:30	15.46	1136	8.23	29.8						11-28-19 14:15	-0.03	2448	7.92	1.2					
8-30-19 0:00					8-28-19 15:45	15.98	1215	8.17	6.4	8-28-19 15:45	15.49	1136	8.23	27.5						11-28-19 14:30	-0.03	2449	7.92	1.2					
8-31-19 0:00					8-28-19 16:00	15.92	1204	8.17	5.8	8-28-19 16:00	15.51	1136	8.23	27.5						11-28-19 14:45	-0.03	2451	7.92	1.7					
9-1-19 0:00					8-28-19 16:15	15.86	1204	8.17	6.4	8-28-19 16:15	15.54	1136	8.23	28.9						11-28-19 15:00	-0.03	2451	7.92	1.5					
9-2-19 0:00					8-28-19 16:30	15.90	1204	8.17	5.6	8-28-19 16:30	15.61	1136	8.24	28.1						11-28-19 15:15	-0.04	2451	7.92	2.8					
9-3-19 0:00					8-28-19 16:45	15.95	1204	8.18	5.4	8-28-19 16:45	15.66	1135	8.22	29.8						11-28-19 15:30	-0.04	2451	7.92	1.4					
9-4-19 0:00					8-28-19 17:00	16.00	1204	8.18	5.2	8-28-19 17:00	15.76	1136	8.24	27.5						11-28-19 15:45	-0.05	2457	7.91	2.0					
9-5-19 0:00					8-28-19 17:15	16.03	1203	8.18	5.7	8-28-19 17:15	15.83	1135	8.23	28.9						11-28-19 16:00	-0.06	2463	7.91	1.3					
9-6-19 0:00					8-28-19 17:30	16.07	1204	8.18	6.1	8-28-19 17:30	15.97	1135	8.23	26.8						11-28-19 16:15	-0.05	2464	7.91	1.2					
9-7-19 0:00					8-28-19 17:45	16.09	1205	8.18	6.1	8-28-19 17:45	15.99	1134	8.20	30.2						11-28-19 16:30	-0.05	2465	7.91	1.2					
9-8-19 0:00					8-28-19 18:00	16.13	1204	8.19	5.5	8-28-19 18:00	16.15	1134	8.21	26.9						11-28-19 16:45	-0.05	2466	7.91	1.4					
9-9-19 0:00					8-28-19 18:15	16.14	1202	8.20	5.7	8-28-19 18:15	16.26	1137	8.22	28.0						11-28-19 17:00	-0.05	2468	7.92	1.4					
9-10-19 0:00					8-28-19 18:30	16.20	1200	8.21	6.1	8-28-19 18:30	16.32	1137	8.22	27.8						11-28-19 17:15	-0.05	2470	7.92	1.5					
9-11-19 0:00					8-28-19 18:45	16.28	1200	8.22	6.2	8-28-19 18:45	16.75	1138	8.22	29.2						11-28-19 17:30	-0.05	2474	7.92	1.5					
9-12-19 0:00					8-28-19 19:00	16.19	1200	8.22	6.0	8-28-19 19:00	16.91	1134	8.20	25.3						11-28-19 17:45	-0.03	2472	7.92	1.5					
9-13-19 0:00					8-28-19 19:15	16.24	1200	8.22	6.5	8-28-19 19:15	17.13	1134	8.19	28.3						11-28-19 18:00	-0.02	2475	7.92	2.5					
9-13-19 0:45	17.77	1623	8.25	28.4	8-28-19 19:30	16.33	1199	8.23	10.9	8-28-19 19:30	17.23	1135	8.19	27.4						11-28-19 18:15	-0.01	2511	7.91	0.9					
9-13-19 1:00	17.59	1624	8.27	27.3	8-28-19 19:45	16.25	1200	8.22	9.7	8-28-19 19:45	17.24	1133	8.20	26.5						11-28-19 18:30	0.00	2483	7.91	1.1					
9-13-19 1:15	17.40	1567	8.28	21.7	8-28-19 20:00	16.16	1198	8.22	5.7	8-28-19 20:00	17.31	1133	8.20	25.8						11-28-19 18:45	0.01	2482	7.92	2.4					
9-13-19 1:30	17.36	1589	8.28	25.8	8-28-19 20:15	16.18	1197	8.23	5.9	8-28-19 20:15	17.17	1134	8.21	27.0						11-28-19 19:00	0.04	2475	7.92	1.5					
9-13-19 1:45	17.50	1745	8.32	25.3	8-28-19 20:30	16.37	1196	8.23	6.3	8-28-19 20:30	17.05	1135	8.20	25.5						11-28-19 19:15	0.04	2484	7.92	2.1					
9-13-19 2:00	17.20	1579	8.28	28.1	8-28-19 20:45	16.42	1198	8.22	5.6	8-28-19 20:45	17.23	1136	8.20	26.3						11-28-19 19:30	0.05	2477	7.92	1.4					
9-13-19 2:15	17.06	1569	8.28	22.4	8-28-19 21:00	16.40	1198	8.23	5.4	8-28-19 21:00	17.21	1136	8.21	25.7						11-28-19 19:45	0.07	2462	7.91	3.9					
9-13-19 2:30	17.01	1582	8.28	23.0	8-28-19 21:15	16.62	1197	8.22	5.9	8-28-19 21:15	17.40	1136	8.22	27.5						11-28-19 20:00	0.07	2482	7.91	1.4					
9-13-19 2:45	16.97	1590	8.28	21.1	8-28-19 21:30	16.44	1195	8.24	6.4	8-28-19 21:30	17.46	1135	8.21	25.7						11-28-19 20:15	0.09	2482	7.91	1.3					
9-13-19 3:00	16.91	1590	8.28	22.7	8-28-19 21:45	16.59	1194	8.23	6.9	8-28-19 21:45	17.43	1136	8.21	25.5						11-28-19 20:30	0.10	2487	7.91	1.3					
9-13-19 3:15	16.85	1595	8.28	20.3	8-28-19 22:00	16.64	1195	8.23	6.8	8-28-19 22:00	17.40	1135	8.20	24.7						11-28-19 20:45	0.11	2483	7.91	0.6					
9-13-19 3:30	16.79	1596	8.28	22.5	8-28-19 22:15	16.62	1194	8.24	7.2	8-28-19 22:15	17.48	1135	8.20	25.6						11-28-19 21:00	0.15	2480	7.92	0.8					
9-13-19 3:45	16.74	1605	8.27	19.4	8-28-19 22:30	16.62	1195	8.23	6.7	8-28-19 22:30	17.36	1135	8.20	25.0						11-28-19 21:15	0.15	2478	7.92	0.7					
9-13-19 4:00	16.67	1615	8.27	21.6	8-28-19 22:45	16.63	1190	8.24	7.5	8-28-19 22:45	17.46	1137	8.22	24.9						11-28-19 21:30	0.14	2477	7.92	0.9					
9-13-19 4:15	16.58	1611	8.28	19.8	8-28-19 23:00	16.67	1193	8.23	6.9	8-28-19 23:00	17.47	1136	8.23	23.6						11-28-19 21:45	0.14	2481	7.91	0.9					
9-13-19 4:30	16.52	1622	8.28	22.3	8-28-19 23:15	16.78	1194	8.23	6.7	8-28-19 23:15	17.56	1136	8.22	25.2						11-28-19 22:00	0.15	2485	7.91	0.7					
9-13-19 4:45	16.48	1639	8.28	17.1	8-28-19 23:30	16.89	1193	8.23	6.7	8-28-19 23:30	17.64	1137	8.22	24.5						11-28-19 22:15	0.14	2482	7.91	0.7					
9-13-19 5:00	16.45	1657	8.29	21.2	8-28-19 23:45	16.78	1192	8.23	7.3	8-28-19 23:45	17.68	1137	8.22	25.3						11-28-19 22:30	0.11	2484	7.91	0.7					
9-13-19 5:15	16.41	1668	8.29	16.9	8-29-19 0:00	16.79	1191	8.23	7.5	8-29-19 0:00	17.67	1137	8.21	23.9						11-28-19 22:45	0.12	2503	7.91	0.9					
9-13-19 5:30	16.33	1665	8.30	20.2	8-29-19 0:15	16.88	1192	8.23	7.5	8-29-19 0:15	17.61	1136	8.23	25.5						11-28-19 23:00	-0.12	2436	7.92	1.5					
9-13-19 5:45	16.29	1671	8.30	17.7	8-29-19 0:30	16.91	1193	8.23	6.9	8-29-19 0:30	17.77	1137	8.24	25.5						11-28-19 23:15	-0.04	2461	7.92	1.5					
9-13-19 6:00	16.22	1672	8.30	19.4	8-29-19 0:45	16.96	1192	8.23	6.7	8-29-19 0:45	17.73	1137	8.23	25.1						11-28-19 23:30	0.03	2490	7.92	0.9					
9-13-19 6:15	16.20	1689	8.30	16.6	8-29-19 1:00	16.97	1192	8.23	7.3	8-29-19 1:00	17.70	1137	8.23	24.0						11-28-19 23:45	0.03	2482	7.92	0.7					
9-13-19 6:30	16.15	1698	8.31	18.0	8-29-19 1:15	16.94	1191	8.23	7.1	8-29-19 1:15	17.66	1137	8.23	25.5						11-29-19 0:00	-0.03	2452	7.92	0.7					
9-13-19 6:45	16.09	1695	8.31	16.4	8-29-19 1:30	16.94	1192	8.23	7.5	8-29-19 1:30	17.63	1137	8.22	23.4						11-29-19 0:15	0.02	2507	7.92	0.6					
9-13-19 7:00	16.05	1706	8.31	19.5	8-29-19 1:45	16.92	1192	8.23	6.9	8-29-19 1:45	17.68	1137	8.25	24.3						11-29-19 0:30	0.02	2499	7.92	0.8					
9-13-19 7:15	15.97	1696	8.31	15.1	8-29-19 2:00	16.90	1193	8.23	6.4	8-29-19 2:00	17.68	1137	8.24	23.3						11-29-19 0:45	0.03	2502	7.92	1.2					
9-13-19 7:30	15.90	1700	8.32	17.6	8-29-19 2:15	16.85	1192	8.23	6.5	8-29-19 2:15	17.63	1137	8.24	25.1						11-29-19 1:00	0.01	2495	7.93	0.8					
9-13-19 7:45	15.84	1706	8.32	15.7	8-29-19 2:30	16.80	1191	8.23	6.9	8-29-19 2:30	17.57	1137	8.24	23.0						11-29-19 1:15	0.01	2497	7.93	0.9					
9-13-19 8:00	15.80	1720	8.33	17.8	8-29-19 2:45	16.75	1191	8.23	6.7	8-29-19 2:45	17.52	1137	8.24	23.7						11-29-19 1:30	0.00	2501	7.93	0.8					
9-13-19 8:15	15.72	1719	8.32	15.0	8-29-19 3:00	16.74	1191	8.23	6.8	8-29-19 3:00	17.44	1137	8.24	22.9						11-29-19 1:45	-0.01	2508	7.92	0.7					
9-13-19 8:30	15.62	1714	8.32	16.6	8-29-19 3:15	16.65	1192	8.23	7.7	8-29-19 3:15	17.39	1137	8.25	23.6						11-29-19 2:00	-0.03	2512	7.92	0.6					
9-13-19 8:45	15.54	1714	8.32	15.6	8-29-19 3:30	16.59	1192	8.23	6.0	8-29-19 3:30	17.35	1136	8.25	22.3						11-29-19 2:15	-0.04	2511	7.92	0.6					
9-13-19 9:00	15.64	1778	8.36	16.0	8-29-19 3:45	16.62	1193	8.23	6.1	8-29-19 3:45	17.27	1136	8.25	23.1						11-29-19 2:30	-0.04	2508	7.92	0.7					
9-13-19 9:15	15.52	1744	8.33	14.3	8-29-19 4:00	16.60	1192	8.23	6.5	8-29-19 4:00	17.19	1136	8.25	22.4						11-29-19 2:45	-0.02	2510	7.92	0.8					
9-13-19 9:30	15.38	1717	8.33	15.9	8-29-19 4:15	16.55	1192	8.23	6.5	8-29-19 4:15	17.13	1136	8.26	24.1						11-29-19 3:00	-0.03	2502	7.93	0.8					
9-13-19 9:45	15.31	1722	8.33	12.7	8-29-19 4:30	16.53	1193	8.22	6.6	8-29-19 4:30	17.05	1136	8.25	23.0						11-29-19 3:15	-0.04	2510	7.93	1.3					
9-13-19 10:00	15.24	1722	8.33	15.3	8-29-19 4:45	16.54	1193	8.23	6.4	8-29-19 4:45	16.99	1136	8.26	25.4						11-29-19 3:30	-0.03	2513	7.93	0.7					
9-13-19 10:15	15.17	1722	8.33	14.6	8-29-19 5:00	16.51	1192	8.22	6.2	8-29-19 5:00	16.90	1136	8.26	23.1						11-29-19 3:45	-0.03	2516	7.92	0.7					
9-13-19 10:30	15.11	1721	8.33	14.3	8-29-19 5:15	16.49	1192	8.22	6.1	8-29-19 5:15	16.82	1135	8.26	23.8						11-29-19 4:00	-0.03	2518	7.92	0.6					
9-13-19 10:45	15.05	1730	8.33	14.0	8-29-19 5:30	16.45	1192	8.22	7.9	8-29-19 5:30	16.76	1136	8.27	22.6						11-29-19 4:15	-0.04	2525	7.92	0.7					
9-13-19 11:00	15.00	1728	8.33	14.0	8-29-19 5:45	16.48	1193	8.21	6.9	8-29-19 5:45	16.72	1136	8.26	23.9						11-29-19 4:30	-0.05	2519	7.92	0.7					
9-13-19 11:15	14.94	1730	8.33	13.3	8-29-19 6:00	16.48	1192	8.21	7.3	8-29-19 6:00	16.67	1136	8.26	22.0						11-29-19 4:45	-0.04	2531	7.92	0.9					
9-13-19 11:30	14.85	1734	8.34	14.7	8-29-19 6:15	16.40	1192	8.21	6.4	8-29-19 6:15	16.61	1135	8.26	23.3						11-29-19 5:00	-0.03	2525	7.93	0.6					
9-13-19 11:45	14.81	1734	8.34	12.6	8-29-19 6:30	16.34	1191	8.21	5.6	8-29-19 6:30	16.57	1136	8.26	22.2						11-29-19 5:15	-0.03	2524	7.93	0.9					
9-13-19 12:00	14.76	1735	8.34	13.9	8-29-19 6:45	16.29	1191	8.21	5.9	8-29-19 6:45	16.49	1135	8.26	22.3						11-29-19 5:30	-0.03	2526	7.93	1.0					
9-13-19 12:15	14.67	1737	8.34	11.8	8-29-19 7:00	16.24	1192	8.21	5.6	8-29-19 7:00	16.43	1135	8.26	22.4						11-29-19 5:45	-0.03	2531	7.92	0.7					
9-13-19 12:30	14.63	1743	8.34	14.2	8-29-19 7:15	16.24	1192	8.20	6.6	8-29-19 7:15	16.40	1136	8.25	22.1						11-29-19 6:00	-0.04	2528	7.92	0.5					
9-13-19 12:45	14.56	1743	8.34	11.8	8-29-19 7:30	16.20	1192	8.20	8.4	8-29-19 7:30	16.31	1136	8.24	21.9						11-29-19 6:15	-0.06	2517	7.92	0.7					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-13-19 13:00	14.46	1743	8.34	13.6	8-29-19 7:45	16.11	1191	8.20	6.6	8-29-19 7:45	16.24	1137	8.23	22.8						11-29-19 6:30	-0.06	2524	7.92	0.6					
9-13-19 13:15	14.32	1746	8.35	12.6	8-29-19 8:00	16.11	1191	8.20	5.6	8-29-19 8:00	16.18	1139	8.22	22.8						11-29-19 6:45	-0.05	2538	7.92	0.8					
9-13-19 13:30	14.22	1747	8.35	13.2	8-29-19 8:15	16.11	1190	8.20	5.5	8-29-19 8:15	16.13	1139	8.21	24.9						11-29-19 7:00	-0.06	2530	7.93	0.7					
9-13-19 13:45	14.17	1762	8.35	12.3	8-29-19 8:30	16.08	1192	8.19	5.3	8-29-19 8:30	16.08	1140	8.19	23.3						11-29-19 7:15	-0.05	2537	7.93	0.9					
9-13-19 14:00	14.09	1756	8.36	12.8	8-29-19 8:45	16.03	1191	8.19	6.3	8-29-19 8:45	16.04	1139	8.18	24.0						11-29-19 7:30	-0.06	2534	7.93	0.7					
9-13-19 14:15	14.05	1764	8.36	13.4	8-29-19 9:00	15.97	1191	8.19	5.0	8-29-19 9:00	16.01	1141	8.17	23.7						11-29-19 7:45	-0.05	2532	7.92	0.7					
9-13-19 14:30	14.00	1771	8.36	12.7	8-29-19 9:15	15.96	1191	8.19	5.0	8-29-19 9:15	15.98	1141	8.16	25.6						11-29-19 8:00	-0.06	2539	7.92	0.4					
9-13-19 14:45	13.95	1776	8.36	11.7	8-29-19 9:30	15.86	1190	8.19	5.0	8-29-19 9:30	15.93	1139	8.16	24.6						11-29-19 8:15	-0.05	2541	7.92	0.5					
9-13-19 15:00	13.92	1773	8.36	12.6	8-29-19 9:45	15.88	1191	8.19	5.5	8-29-19 9:45	15.89	1139	8.17	25.4						11-29-19 8:30	-0.05	2541	7.92	0.5					
9-13-19 15:15	13.93	1774	8.36	11.5	8-29-19 10:00	15.87	1190	8.19	5.6	8-29-19 10:00	15.86	1139	8.18	23.8						11-29-19 8:45	-0.04	2556	7.92	0.7					
9-13-19 15:30	13.92	1774	8.36	12.6	8-29-19 10:15	15.89	1190	8.19	5.1	8-29-19 10:15	15.82	1139	8.18	24.8						11-29-19 9:00	-0.04	2542	7.92	0.7					
9-13-19 15:45	13.94	1776	8.35	14.0	8-29-19 10:30	15.75	1189	8.19	4.6	8-29-19 10:30	15.80	1139	8.18	29.4						11-29-19 9:15	-0.06	2545	7.93	0.5					
9-13-19 16:00	13.95	1777	8.35	12.6	8-29-19 10:45	15.79	1189	8.19	5.3	8-29-19 10:45	15.77	1140	8.18	27.2						11-29-19 9:30	-0.06	2545	7.93	0.8					
9-13-19 16:15	14.00	1778	8.35	12.0	8-29-19 11:00	15.84	1189	8.19	5.3	8-29-19 11:00	15.75	1140	8.18	24.7						11-29-19 9:45	-0.05	2555	7.92	0.9					
9-13-19 16:30	14.03	1776	8.35	12.5	8-29-19 11:15	15.77	1186	8.19	5.3	8-29-19 11:15	15.72	1141	8.17	27.3						11-29-19 10:00	-0.07	2551	7.92	0.5					
9-13-19 16:45	14.12	1778	8.34	10.6	8-29-19 11:30	15.79	1190	8.18	5.3	8-29-19 11:30	15.70	1141	8.17	25.6						11-29-19 10:15	-0.07	2551	7.92	1.8					
9-13-19 17:00	14.18	1779	8.34	11.6	8-29-19 11:45	15.74	1189	8.18	4.6	8-29-19 11:45	15.69	1140	8.17	25.3						11-29-19 10:30	-0.06	2549	7.92	0.6					
9-13-19 17:15	14.32	1780	8.34	11.1	8-29-19 12:00	15.73	1190	8.18	5.2	8-29-19 12:00	15.68	1141	8.17	25.4						11-29-19 10:45	-0.05	2558	7.92	0.7					
9-13-19 17:30	14.50	1783	8.34	11.8	8-29-19 12:15	15.71	1190	8.18	4.8	8-29-19 12:15	15.66	1141	8.17	25.7						11-29-19 11:00	-0.05	2548	7.92	0.6					
9-13-19 17:45	14.62	1780	8.33	11.0	8-29-19 12:30	15.67	1190	8.18	4.6	8-29-19 12:30	15.65	1140	8.18	23.5						11-29-19 11:15	-0.05	2548	7.92	0.6					
9-13-19 18:00	14.83	1786	8.33	12.6	8-29-19 12:45	15.61	1189	8.18	4.9	8-29-19 12:45	15.64	1140	8.18	26.5						11-29-19 11:30	-0.05	2546	7.93	0.7					
9-13-19 18:15	15.00	1785	8.33	10.3	8-29-19 13:00	15.61	1189	8.18	4.9	8-29-19 13:00	15.63	1140	8.17	25.4						11-29-19 11:45	-0.05	2560	7.92	0.7					
9-13-19 18:30	15.13	1785	8.32	10.7	8-29-19 13:15	15.58	1190	8.17	5.1	8-29-19 13:15	15.60	1141	8.17	26.3						11-29-19 12:00	-0.07	2553	7.92	0.4					
9-13-19 18:45	15.20	1787	8.32	10.5	8-29-19 13:30	15.56	1189	8.17	4.7	8-29-19 13:30	15.58	1141	8.16	25.2						11-29-19 12:15	-0.08	2554	7.92	0.6					
9-13-19 19:00	15.37	1787	8.32	12.2	8-29-19 13:45	15.52	1189	8.18	4.9	8-29-19 13:45	15.56	1141	8.17	25.0						11-29-19 12:30	-0.09	2556	7.92	0.6					
9-13-19 19:15	15.69	1792	8.31	10.5	8-29-19 14:00	15.49	1190	8.18	4.5	8-29-19 14:00	15.55	1141	8.17	24.2						11-29-19 12:45	-0.07	2559	7.92	0.7					
9-13-19 19:30	15.79	1793	8.32	11.1	8-29-19 14:15	15.46	1189	8.17	5.1	8-29-19 14:15	15.53	1141	8.17	28.8						11-29-19 13:00	-0.07	2546	7.92	0.6					
9-13-19 19:45	16.14	1790	8.31	10.6	8-29-19 14:30	15.45	1189	8.18	4.9	8-29-19 14:30	15.50	1141	8.17	27.1						11-29-19 13:15	-0.07	2550	7.92	0.6					
9-13-19 20:00	16.18	1795	8.31	11.6	8-29-19 14:45	15.44	1188	8.18	7.7	8-29-19 14:45	15.48	1140	8.17	26.9						11-29-19 13:30	-0.07	2547	7.92	0.5					
9-13-19 20:15	16.43	1798	8.31	12.0	8-29-19 15:00	15.47	1187	8.18	4.9	8-29-19 15:00	15.48	1141	8.17	25.0						11-29-19 13:45	-0.07	2555	7.92	0.6					
9-13-19 20:30	16.09	1798	8.31	11.9	8-29-19 15:15	15.47	1187	8.18	5.1	8-29-19 15:15	15.46	1141	8.17	26.9						11-29-19 14:00	-0.09	2558	7.91	0.6					
9-13-19 20:45	16.15	1798	8.32	11.6	8-29-19 15:30	15.42	1187	8.18	5.2	8-29-19 15:30	15.45	1141	8.17	25.1						11-29-19 14:15	-0.09	2555	7.91	0.5					
9-13-19 21:00	16.20	1797	8.32	11.8	8-29-19 15:45	15.48	1187	8.18	5.9	8-29-19 15:45	15.45	1140	8.17	26.8						11-29-19 14:30	-0.09	2552	7.91	0.4					
9-13-19 21:15	16.36	1799	8.32	12.8	8-29-19 16:00	15.49	1187	8.18	5.2	8-29-19 16:00	15.46	1140	8.17	25.3						11-29-19 14:45	-0.08	2564	7.92	2.5					
9-13-19 21:30	16.39	1799	8.32	12.6	8-29-19 16:15	15.46	1186	8.18	4.9	8-29-19 16:15	15.44	1140	8.17	27.0						11-29-19 15:00	-0.08	2553	7.92	0.5					
9-13-19 21:45	16.37	1799	8.32	12.3	8-29-19 16:30	15.53	1186	8.18	5.6	8-29-19 16:30	15.44	1140	8.17	25.2						11-29-19 15:15	-0.08	2566	7.92	0.6					
9-13-19 22:00	16.46	1800	8.33	12.5	8-29-19 16:45	15.53	1187	8.18	4.8	8-29-19 16:45	15.46	1141	8.17	26.2						11-29-19 15:30	-0.08	2558	7.92	0.8					
9-13-19 22:15	16.40	1802	8.32	10.9	8-29-19 17:00	15.53	1187	8.19	4.9	8-29-19 17:00	15.46	1141	8.17	27.0						11-29-19 15:45	-0.07	2569	7.91	0.6					
9-13-19 22:30	16.39	1801	8.33	11.8	8-29-19 17:15	15.59	1187	8.18	5.1	8-29-19 17:15	15.49	1142	8.17	26.4						11-29-19 16:00	-0.08	2567	7.91	0.5					
9-13-19 22:45	16.43	1803	8.33	10.9	8-29-19 17:30	15.60	1187	8.19	5.1	8-29-19 17:30	15.51	1142	8.16	25.8						11-29-19 16:15	-0.08	2569	7.91	0.5					
9-13-19 23:00	16.45	1804	8.33	11.2	8-29-19 17:45	15.69	1186	8.19	4.8	8-29-19 17:45	15.56	1142	8.16	27.0						11-29-19 16:30	-0.09	2570	7.91	0.6					
9-13-19 23:15	16.51	1805	8.33	11.4	8-29-19 18:00	15.67	1170	8.17	8.3	8-29-19 18:00	15.65	1143	8.14	24.8						11-29-19 16:45	-0.07	2575	7.91	0.8					
9-13-19 23:30	16.45	1805	8.33	12.1	8-29-19 18:15	15.72	1163	8.18	6.2	8-29-19 18:15	15.72	1143	8.12	26.6						11-29-19 17:00	-0.08	2571	7.92	0.6					
9-13-19 23:45	16.50	1806	8.33	11.9	8-29-19 18:30	15.78	1159	8.19	6.2	8-29-19 18:30	15.86	1142	8.14	26.3						11-29-19 17:15	-0.08	2576	7.92	0.7					
9-14-19 0:00	16.60	1808	8.34	11.9	8-29-19 18:45	15.89	1162	8.19	6.3	8-29-19 18:45	16.08	1142	8.17	25.2						11-29-19 17:30	-0.08	2561	7.92	1.4					
9-14-19 0:15	16.53	1808	8.33	11.1	8-29-19 19:00	15.89	1163	8.19	10.0	8-29-19 19:00	16.34	1144	8.12	24.8						11-29-19 17:45	-0.08	2586	7.91	0.6					
9-14-19 0:30	16.57	1808	8.34	12.5	8-29-19 19:15	15.99	1165	8.19	6.6	8-29-19 19:15	16.46	1142	8.13	25.7						11-29-19 18:00	-0.10	2579	7.91	0.4					
9-14-19 0:45	16.51	1809	8.34	11.5	8-29-19 19:30	16.05	1165	8.20	5.8	8-29-19 19:30	16.66	1142	8.11	25.1						11-29-19 18:15	-0.09	2576	7.91	3.9					
9-14-19 1:00	16.49	1808	8.34	11.5	8-29-19 19:45	16.13	1166	8.20	5.7	8-29-19 19:45	16.64	1143	8.12	24.9						11-29-19 18:30	-0.09	2578	7.91	0.6					
9-14-19 1:15	16.45	1808	8.34	10.4	8-29-19 20:00	16.26	1168	8.20	5.5	8-29-19 20:00	17.03	1143	8.11	23.9						11-29-19 18:45	-0.05	2581	7.91	0.7					
9-14-19 1:30	16.38	1808	8.35	11.4	8-29-19 20:15	16.31	1169	8.20	6.2	8-29-19 20:15	17.28	1143	8.10	25.2						11-29-19 19:00	-0.06	2567	7.91	0.6					
9-14-19 1:45	16.36	1809	8.34	10.8	8-29-19 20:30	16.32	1168	8.21	5.9	8-29-19 20:30	17.66	1140	8.09	24.7						11-29-19 19:15	-0.06	2570	7.91	0.8					
9-14-19 2:00	16.31	1810	8.35	10.6	8-29-19 20:45	16.41	1168	8.21	6.8	8-29-19 20:45	17.85	1143	8.07	24.9						11-29-19 19:30	-0.06	2572	7.91	0.6					
9-14-19 2:15	16.27	1811	8.35	9.3	8-29-19 21:00	16.65	1166	8.21	6.3	8-29-19 21:00	17.95	1142	8.08	23.9						11-29-19 19:45	-0.06	2573	7.91	0.7					
9-14-19 2:30	16.22	1812	8.35	11.7	8-29-19 21:15	16.56	1168	8.21	8.1	8-29-19 21:15	17.94	1140	8.07	25.5						11-29-19 20:00	-0.07	2583	7.91	0.4					
9-14-19 2:45	16.16	1813	8.35	9.5	8-29-19 21:30	16.77	1167	8.21	7.2	8-29-19 21:30	17.78	1141	8.08	25.4						11-29-19 20:15	-0.04	2573	7.91	0.6					
9-14-19 3:00	16.13	1813	8.35	10.8	8-29-19 21:45	16.78	1166	8.21	8.6	8-29-19 21:45	17.52	1140	8.08	24.4						11-29-19 20:30	-0.03	2569	7.91	0.6					
9-14-19 3:15	16.07	1813	8.35	9.1	8-29-19 22:00	17.13	1163	8.21	6.0	8-29-19 22:00	18.40	1149	8.10	23.4						11-29-19 20:45	0.00	2578	7.91	0.8					
9-14-19 3:30	16.00	1812	8.36	10.4	8-29-19 22:15	17.15	1164	8.21	6.8	8-29-19 22:15	19.00	1144	8.10	24.1						11-29-19 21:00	-0.01	2565	7.91	0.5					
9-14-19 3:45	15.95	1812	8.36	9.6	8-29-19 22:30	17.69	1163	8.21	6.0	8-29-19 22:30	18.46	1138	8.09	23.7						11-29-19 21:15	-0.02	2575	7.91	0.6					
9-14-19 4:00	15.88	1817	8.36	10.1	8-29-19 22:45	17.76	1162	8.20	5.7	8-29-19 22:45	18.45	1145	8.08	23.3						11-29-19 21:30	-0.04	2572	7.92	0.5					
9-14-19 4:15	15.81	1817	8.36	9.4	8-29-19 23:00	17.99	1161	8.19	6.1	8-29-19 23:00	18.48	1138	8.06	24.1						11-29-19 21:45	-0.03	2574	7.91	1.3					
9-14-19 4:30	15.79	1817	8.36	9.9	8-29-19 23:15	18.17	1164	8.20	5.0	8-29-19 23:15	18.47	1144	8.12	22.8						11-29-19 22:00	-0.06	2568	7.91	0.8					
9-14-19 4:45	15.76	1817	8.36	8.6	8-29-19 23:30	18.27	1163	8.19	5.4	8-29-19 23:30	18.37	1144	8.11	23.3						11-29-19 22:15	-0.07	2572	7.91	0.9					
9-14-19 5:00	15.72	1815	8.36	10.4	8-29-19 23:45	18.35	1160	8.19	5.5	8-29-19 23:45	18.91	1144	8.12	23.4						11-29-19 22:30	-0.08	2576	7.91	1.0					
9-14-19 5:15	15.67	1816	8.36	8.8	8-30-19 0:00	18.51	1160	8.20	5.4	8-30-19 0:00	18.67	1140	8.09	23.4						11-29-19 22:45	-0.07	2579	7.91	1.1					
9-14-19 5:30	15.63	1816	8.36	10.0	8-30-19 0:15	18.66	1154	8.21	5.4	8-30-19 0:15	18.53	1143	8.11	23.8						11-29-19 23:00	-0.09	2580	7.92	0.6					
9-14-19 5:45	15.60	1816	8.36	8.1	8-30-19 0:30	18.68	1150	8.21	5.5	8-30-19 0:30	18.79	1146	8.12	22.9						11-29-19 23:15	-0.16	1813	7.97	1.0					
9-14-19 6:00	15.56	1816	8.36	10.2	8-30-19 0:45	18.60	1139	8.23	5.8	8-30-19 0:45	19.07	1147	8.15	23.1						11-29-19 23:30	-0.14	1882	7.92	1.3					
9-14-19 6:15	15.54	1819	8.36	8.3	8-30-19 1:00	18.51	1141	8.23	6.2	8-30-19 1:00	18.95	1146	8.12	22.7						11-29-19 23:45	-0.13	1977	7.92	149.0					
9-14-19 6:30	15.53	1823	8.36	9.6	8-30-19 1:15	18.41	1140	8.23	6.0	8-30-19 1:15	18.75	1142	8.11	21.9						11-30-19 0:00	-0.14	2094	7.91	0.6					
9-14-19 6:45	15.51	1829	8.36	8.1	8-30-19 1:30	18.27	1128	8.27	8.0	8-30-19 1:30	18.59	1142	8.11	21.3						11-30-19 0:15	-0.14	2310	7.91	0.8					
9-14-19 7:00	15.46	1824	8.36	9.7	8-30-19 1:45	18.21	1117	8.28	8.7	8-30-19 1:45	18.85	1146	8.15	22.2						11-30-19 0:30	-0.14	2475	7.91	0.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-14-19 7:15	15.40	1821	8.36	8.8	8-30-19 2:00	18.18	1109	8.29	11.2	8-30-19 2:00	18.78	1147	8.15	23.0						11-30-19 0:45	-0.13	2679	7.92	2.0					
9-14-19 7:30	15.34	1821	8.37	9.7	8-30-19 2:15	18.13	1113	8.28	8.7	8-30-19 2:15	18.85	1146	8.16	23.2						11-30-19 1:00	-0.13	2694	7.92	0.8					
9-14-19 7:45	15.32	1820	8.36	8.4	8-30-19 2:30	18.07	1126	8.25	7.6	8-30-19 2:30	18.80	1147	8.17	22.4						11-30-19 1:15	-0.12	2657	7.92	1.1					
9-14-19 8:00	15.28	1820	8.37	10.4	8-30-19 2:45	17.78	1151	8.19	7.4	8-30-19 2:45	18.76	1147	8.18	22.6						11-30-19 1:30	-0.12	2504	7.92	1.9					
9-14-19 8:15	15.23	1820	8.37	8.5	8-30-19 3:00	17.53	1157	8.18	6.8	8-30-19 3:00	18.65	1147	8.18	21.8						11-30-19 1:45	-0.11	2358	7.91	0.6					
9-14-19 8:30	15.20	1821	8.37	10.0	8-30-19 3:15	17.22	1162	8.17	7.3	8-30-19 3:15	18.53	1146	8.18	22.5						11-30-19 2:00	-0.11	2584	7.91	1.8					
9-14-19 8:45	15.14	1821	8.37	11.8	8-30-19 3:30	17.17	1163	8.18	6.8	8-30-19 3:30	18.40	1147	8.19	21.5						11-30-19 2:15	-0.11	2578	7.91	0.9					
9-14-19 9:00	15.12	1827	8.37	9.0	8-30-19 3:45	17.33	1153	8.20	7.6	8-30-19 3:45	18.30	1146	8.19	23.0						11-30-19 2:30	-0.10	2601	7.91	0.4					
9-14-19 9:15	15.06	1825	8.37	9.1	8-30-19 4:00	17.29	1137	8.23	6.9	8-30-19 4:00	18.20	1147	8.19	21.2						11-30-19 2:45	-0.08	2614	7.91	0.6					
9-14-19 9:30	15.02	1822	8.38	9.1	8-30-19 4:15	17.24	1132	8.24	6.7	8-30-19 4:15	18.09	1146	8.20	22.2						11-30-19 3:00	-0.08	2600	7.92	0.4					
9-14-19 9:45	14.99	1826	8.37	8.4	8-30-19 4:30	17.23	1132	8.24	6.5	8-30-19 4:30	18.02	1146	8.20	21.3						11-30-19 3:15	-0.08	2600	7.92	0.6					
9-14-19 10:00	14.97	1827	8.38	9.6	8-30-19 4:45	17.17	1132	8.23	6.0	8-30-19 4:45	17.91	1146	8.21	22.7						11-30-19 3:30	-0.08	2606	7.92	0.6					
9-14-19 10:15	14.95	1827	8.37	8.3	8-30-19 5:00	17.15	1149	8.20	7.3	8-30-19 5:00	17.83	1146	8.21	21.2						11-30-19 3:45	-0.08	2590	7.91	0.6					
9-14-19 10:30	14.93	1829	8.37	9.2	8-30-19 5:15	17.06	1144	8.21	6.5	8-30-19 5:15	17.72	1146	8.21	20.7						11-30-19 4:00	-0.08	2578	7.91	0.4					
9-14-19 10:45	14.91	1831	8.37	7.8	8-30-19 5:30	16.99	1138	8.22	6.4	8-30-19 5:30	17.62	1146	8.21	21.3						11-30-19 4:15	-0.08	2604	7.91	0.3					
9-14-19 11:00	14.88	1832	8.37	8.7	8-30-19 5:45	16.88	1142	8.22	6.2	8-30-19 5:45	17.52	1145	8.21	23.2						11-30-19 4:30	-0.07	2605	7.91	0.4					
9-14-19 11:15	14.85	1835	8.37	7.7	8-30-19 6:00	16.83	1142	8.21	6.0	8-30-19 6:00	17.44	1145	8.21	20.0						11-30-19 4:45	-0.06	2627	7.91	1.7					
9-14-19 11:30	14.83	1835	8.37	8.8	8-30-19 6:15	16.82	1147	8.21	5.7	8-30-19 6:15	17.35	1145	8.21	21.0						11-30-19 5:00	-0.06	2610	7.92	1.1					
9-14-19 11:45	14.79	1834	8.37	7.6	8-30-19 6:30	16.79	1148	8.21	6.2	8-30-19 6:30	17.26	1145	8.21	19.5						11-30-19 5:15	-0.07	2615	7.92	0.4					
9-14-19 12:00	14.75	1833	8.37	8.7	8-30-19 6:45	16.76	1146	8.21	6.5	8-30-19 6:45	17.18	1145	8.21	20.7						11-30-19 5:30	-0.07	2618	7.92	0.5					
9-14-19 12:15	14.71	1832	8.37	7.6	8-30-19 7:00	16.71	1145	8.20	6.3	8-30-19 7:00	17.09	1145	8.21	19.1						11-30-19 5:45	-0.07	2612	7.91	0.3					
9-14-19 12:30	14.60	1828	8.38	9.1	8-30-19 7:15	16.68	1148	8.20	6.6	8-30-19 7:15	16.99	1145	8.21	21.8						11-30-19 6:00	-0.08	2601	7.91	0.3					
9-14-19 12:45	14.59	1832	8.37	7.4	8-30-19 7:30	16.64	1147	8.20	6.1	8-30-19 7:30	16.90	1144	8.21	19.6						11-30-19 6:15	-0.07	2609	7.91	0.4					
9-14-19 13:00	14.56	1832	8.38	9.0	8-30-19 7:45	16.56	1145	8.20	5.2	8-30-19 7:45	16.82	1145	8.21	21.8						11-30-19 6:30	-0.08	2649	7.91	0.3					
9-14-19 13:15	14.47	1831	8.38	8.5	8-30-19 8:00	16.54	1141	8.20	6.3	8-30-19 8:00	16.75	1144	8.21	19.0						11-30-19 6:45	-0.06	2624	7.91	0.4					
9-14-19 13:30	14.45	1833	8.38	8.1	8-30-19 8:15	16.51	1151	8.19	5.8	8-30-19 8:15	16.68	1144	8.20	20.9						11-30-19 7:00	-0.08	2622	7.92	0.2					
9-14-19 13:45	14.45	1837	8.38	7.3	8-30-19 8:30	16.52	1150	8.18	6.5	8-30-19 8:30	16.60	1144	8.20	18.5						11-30-19 7:15	-0.08	2621	7.92	0.5					
9-14-19 14:00	14.43	1835	8.38	8.3	8-30-19 8:45	16.54	1148	8.18	6.1	8-30-19 8:45	16.51	1144	8.21	22.1						11-30-19 7:30	-0.09	2623	7.92	0.3					
9-14-19 14:15	14.41	1836	8.38	7.8	8-30-19 9:00	16.50	1153	8.17	5.8	8-30-19 9:00	16.44	1144	8.20	19.4						11-30-19 7:45	-0.07	2612	7.91	0.4					
9-14-19 14:30	14.39	1836	8.38	8.2	8-30-19 9:15	16.43	1154	8.18	5.9	8-30-19 9:15	16.37	1144	8.21	21.5						11-30-19 8:00	-0.09	2616	7.91	0.4					
9-14-19 14:45	14.37	1836	8.38	7.5	8-30-19 9:30	16.40	1152	8.17	5.2	8-30-19 9:30	16.26	1144	8.20	19.5						11-30-19 8:15	-0.09	2612	7.91	0.2					
9-14-19 15:00	14.35	1835	8.38	8.4	8-30-19 9:45	16.36	1151	8.18	6.1	8-30-19 9:45	16.23	1143	8.19	20.4						11-30-19 8:30	-0.09	2613	7.91	0.3					
9-14-19 15:15	14.32	1836	8.38	7.3	8-30-19 10:00	16.28	1152	8.17	4.8	8-30-19 10:00	16.15	1144	8.20	17.8						11-30-19 8:45	-0.07	2627	7.91	0.8					
9-14-19 15:30	14.33	1835	8.38	8.4	8-30-19 10:15	16.28	1152	8.17	5.5	8-30-19 10:15	16.08	1143	8.20	20.4						11-30-19 9:00	-0.09	2619	7.91	0.5					
9-14-19 15:45	14.33	1836	8.38	6.9	8-30-19 10:30	16.28	1153	8.17	5.1	8-30-19 10:30	16.02	1143	8.19	18.6						11-30-19 9:15	-0.09	2620	7.91	0.3					
9-14-19 16:00	14.35	1836	8.38	7.8	8-30-19 10:45	16.22	1153	8.17	5.1	8-30-19 10:45	16.00	1143	8.19	20.5						11-30-19 9:30	-0.10	2627	7.91	0.4					
9-14-19 16:15	14.41	1838	8.37	7.3	8-30-19 11:00	16.19	1152	8.17	5.2	8-30-19 11:00	15.94	1143	8.19	19.1						11-30-19 9:45	-0.09	2629	7.91	0.7					
9-14-19 16:30	14.42	1837	8.38	8.0	8-30-19 11:15	16.12	1152	8.17	4.9	8-30-19 11:15	15.86	1143	8.19	21.5						11-30-19 10:00	-0.11	2637	7.91	0.5					
9-14-19 16:45	14.44	1836	8.37	7.0	8-30-19 11:30	16.10	1148	8.17	4.6	8-30-19 11:30	15.83	1144	8.19	18.8						11-30-19 10:15	-0.11	2627	7.91	0.4					
9-14-19 17:00	14.47	1836	8.37	8.0	8-30-19 11:45	16.06	1152	8.17	4.5	8-30-19 11:45	15.80	1143	8.19	20.3						11-30-19 10:30	-0.11	2627	7.90	0.4					
9-14-19 17:15	14.54	1837	8.37	7.1	8-30-19 12:00	16.04	1153	8.17	4.7	8-30-19 12:00	15.75	1143	8.18	19.1						11-30-19 10:45	-0.07	2638	7.91	1.2					
9-14-19 17:30	14.66	1836	8.37	7.8	8-30-19 12:15	16.03	1153	8.17	4.9	8-30-19 12:15	15.70	1143	8.19	20.7						11-30-19 11:00	-0.10	2630	7.91	0.6					
9-14-19 17:45	14.78	1836	8.37	7.1	8-30-19 12:30	16.01	1153	8.17	4.8	8-30-19 12:30	15.67	1143	8.18	18.8						11-30-19 11:15	-0.10	2629	7.91	0.8					
9-14-19 18:00	14.81	1840	8.37	7.9	8-30-19 12:45	15.98	1153	8.17	4.5	8-30-19 12:45	15.64	1144	8.17	21.8						11-30-19 11:30	-0.10	2624	7.91	0.6					
9-14-19 18:30	15.19	1839	8.35	7.3	8-30-19 13:00	15.96	1152	8.17	4.8	8-30-19 13:00	15.60	1144	8.18	18.7						11-30-19 11:45	-0.09	2637	7.90	0.4					
9-14-19 18:45	15.11	1839	8.36	7.0	8-30-19 13:15	15.95	1150	8.17	4.5	8-30-19 13:15	15.56	1144	8.17	21.3						11-30-19 12:00	-0.12	2615	7.90	0.2					
9-14-19 19:00	15.22	1840	8.36	8.0	8-30-19 13:30	15.93	1150	8.17	5.2	8-30-19 13:30	15.54	1144	8.17	20.0						11-30-19 12:15	-0.11	2632	7.90	0.1					
9-14-19 19:15	15.33	1841	8.36	7.2	8-30-19 13:45	15.89	1150	8.17	5.0	8-30-19 13:45	15.50	1144	8.17	20.1						11-30-19 12:30	-0.11	2628	7.90	0.2					
9-14-19 19:30	15.45	1842	8.35	7.2	8-30-19 14:00	15.83	1150	8.17	4.9	8-30-19 14:00	15.48	1144	8.16	19.9						11-30-19 12:45	-0.09	2647	7.91	0.4					
9-14-19 19:45	15.63	1842	8.35	7.2	8-30-19 14:15	15.82	1149	8.17	5.5	8-30-19 14:15	15.44	1144	8.17	21.1						11-30-19 13:00	-0.12	2641	7.91	0.3					
9-14-19 20:00	15.73	1842	8.35	7.0	8-30-19 14:30	15.83	1147	8.17	5.2	8-30-19 14:30	15.42	1145	8.17	20.9						11-30-19 13:15	-0.12	2637	7.91	0.2					
9-14-19 20:15	15.87	1840	8.35	7.6	8-30-19 14:45	15.79	1143	8.17	6.8	8-30-19 14:45	15.39	1145	8.17	21.8						11-30-19 13:30	-0.12	2644	7.91	0.2					
9-14-19 20:30	16.16	1845	8.34	7.5	8-30-19 15:00	15.77	1139	8.16	5.9	8-30-19 15:00	15.39	1145	8.16	20.5						11-30-19 13:45	-0.10	2645	7.90	0.3					
9-14-19 20:45	16.08	1843	8.34	6.9	8-30-19 15:15	15.75	1136	8.16	6.7	8-30-19 15:15	15.37	1145	8.17	21.7						11-30-19 14:00	-0.13	2641	7.90	0.2					
9-14-19 21:00	16.26	1845	8.35	7.7	8-30-19 15:30	15.70	1134	8.17	6.5	8-30-19 15:30	15.35	1146	8.16	19.5						11-30-19 14:15	-0.13	2650	7.91	0.6					
9-14-19 21:15	16.29	1843	8.35	7.4	8-30-19 15:45	15.70	1133	8.17	8.1	8-30-19 15:45	15.35	1146	8.16	22.1						11-30-19 14:30	-0.13	2641	7.90	0.2					
9-14-19 21:30	16.33	1846	8.35	6.9	8-30-19 16:00	15.67	1131	8.17	8.4	8-30-19 16:00	15.33	1146	8.15	21.3						11-30-19 14:45	-0.09	2675	7.91	0.5					
9-14-19 21:45	16.40	1847	8.36	7.4	8-30-19 16:15	15.66	1129	8.17	9.5	8-30-19 16:15	15.32	1146	8.15	22.4						11-30-19 15:00	-0.13	2651	7.91	0.2					
9-14-19 22:00	16.43	1846	8.35	6.9	8-30-19 16:30	15.71	1127	8.17	8.9	8-30-19 16:30	15.37	1146	8.15	20.6						11-30-19 15:15	-0.13	2651	7.91	0.3					
9-14-19 22:15	16.41	1845	8.36	7.4	8-30-19 16:45	15.76	1127	8.17	7.6	8-30-19 16:45	15.42	1147	8.15	21.7						11-30-19 15:30	-0.13	2652	7.91	0.5					
9-14-19 22:30	16.45	1848	8.36	6.8	8-30-19 17:00	15.74	1125	8.18	7.1	8-30-19 17:00	15.52	1147	8.15	20.8						11-30-19 15:45	-0.12	2737	7.91	0.4					
9-14-19 22:45	16.49	1846	8.36	6.6	8-30-19 17:15	15.71	1123	8.19	6.5	8-30-19 17:15	15.58	1146	8.16	21.8						11-30-19 16:00	-0.15	2651	7.91	0.3					
9-14-19 23:00	16.50	1850	8.36	7.6	8-30-19 17:30	15.66	1119	8.22	6.0	8-30-19 17:30	15.75	1147	8.16	21.0						11-30-19 16:15	-0.15	2650	7.91	0.5					
9-14-19 23:15	16.42	1847	8.36	7.4	8-30-19 17:45	15.64	1116	8.24	6.9	8-30-19 17:45	15.86	1148	8.15	22.8						11-30-19 16:30	-0.15	2651	7.91	0.2					
9-14-19 23:30	16.35	1847	8.37	6.8	8-30-19 18:00	15.74	1117	8.23	6.5	8-30-19 18:00	15.82	1148	8.12	21.8						11-30-19 16:45	-0.10	2665	7.91	0.4					
9-14-19 23:45	16.35	1847	8.37	8.2	8-30-19 18:15	15.81	1115	8.24	6.5	8-30-19 18:15	15.94	1149	8.11	24.0						11-30-19 17:00	-0.12	2651	7.92	0.5					
9-15-19 0:00	16.36	1849	8.37	6.8	8-30-19 18:30	15.84	1118	8.24	6.5	8-30-19 18:30	16.09	1149	8.13	20.7						11-30-19 17:15	-0.14	2651	7.92	0.5					
9-15-19 0:15	16.39	1847	8.37	7.8	8-30-19 18:45	15.90	1116	8.24	7.4	8-30-19 18:45	16.42	1150	8.13	21.8						11-30-19 17:30	-0.16	2657	7.92	0.6					
9-15-19 0:30	16.36	1847	8.37	7.1	8-30-19 19:00	15.98	1120	8.24	6.4	8-30-19 19:00	16.55	1149	8.12	21.4						11-30-19 17:45	-0.16	2698	7.91	0.6					
9-15-19 0:45	16.36	1847	8.37	7.2	8-30-19 19:15	16.07	1119	8.25	6.4	8-30-19 19:15	16.46	1149	8.11	23.0						11-30-19 18:00	-0.19	2686	7.92	0.5					
9-15-19 1:00	16.33	1849	8.38	6.7	8-30-19 19:30	16.16	1123	8.22	6.2	8-30-19 19:30	16.71	1148	8.11	20.9						11-30-19 18:15	-0.20	2686	7.91	0.5					
9-15-19 1:15	16.32	1849	8.38	7.3	8-30-19 19:45	16.25	1122	8.23	5.8	8-30-19 19:45	17.02	1149	8.09	22.7						11-30-19 18:30	-0.21	2686	7.91	0.4					
9-15-19 1:30	16.28	1850	8.38	7.0	8-30-19 20:00	16.29	1120	8.24	6.6	8-30-19 20:00	17.34	1149	8.09	20.9						11-30-19 18:45	-0.19	2373	7.91	1.3					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-15-19 1:45	16.21	1849	8.38	6.8	8-30-19 20:15	16.37	1123	8.23	6.3	8-30-19 20:15	17.77	1149	8.10	22.4						11-30-19 19:00	-0.21	2378	7.91	1.3					
9-15-19 2:00	16.18	1850	8.38	6.5	8-30-19 20:30	16.50	1122	8.22	5.9	8-30-19 20:30	17.88	1149	8.11	20.3						11-30-19 19:15	-0.22	2376	7.92	1.5					
9-15-19 2:15	16.12	1850	8.39	7.4	8-30-19 20:45	16.53	1119	8.23	6.9	8-30-19 20:45	18.02	1148	8.12	22.2						11-30-19 19:30	-0.22	2374	7.92	1.5					
9-15-19 2:30	16.06	1850	8.39	5.8	8-30-19 21:00	16.70	1120	8.23	6.4	8-30-19 21:00	18.30	1148	8.11	19.9						11-30-19 19:45	-0.22	2725	7.93	4.3					
9-15-19 2:45	16.00	1850	8.39	7.1	8-30-19 21:15	16.80	1120	8.22	6.2	8-30-19 21:15	18.28	1144	8.10	21.8						11-30-19 20:00	-0.23	2739	7.92	0.7					
9-15-19 3:00	15.96	1850	8.39	6.0	8-30-19 21:30	16.87	1119	8.22	6.0	8-30-19 21:30	17.74	1146	8.08	20.2						11-30-19 20:15	-0.23	2674	7.93	0.8					
9-15-19 3:15	15.92	1850	8.40	7.1	8-30-19 21:45	16.93	1118	8.23	6.3	8-30-19 21:45	17.91	1149	8.09	21.6						11-30-19 20:30	-0.23	2696	7.93	0.7					
9-15-19 3:30	15.88	1851	8.39	5.7	8-30-19 22:00	17.14	1117	8.22	6.4	8-30-19 22:00	18.92	1155	8.13	19.3						11-30-19 20:45	-0.20	2413	7.92	1.0					
9-15-19 3:45	15.85	1850	8.40	6.8	8-30-19 22:15	17.35	1104	8.22	6.4	8-30-19 22:15	19.14	1153	8.11	21.0						11-30-19 21:00	-0.22	2399	7.93	0.8					
9-15-19 4:00	15.80	1849	8.40	6.0	8-30-19 22:30	17.60	1105	8.22	6.0	8-30-19 22:30	18.97	1145	8.10	19.0						11-30-19 21:15	-0.21	2378	7.92	0.9					
9-15-19 4:15	15.77	1849	8.40	6.7	8-30-19 22:45	17.85	1121	8.22	5.6	8-30-19 22:45	18.62	1145	8.10	21.5						11-30-19 21:30	-0.20	2569	7.92	1.0					
9-15-19 4:30	15.73	1850	8.40	5.9	8-30-19 23:00	18.02	1122	8.22	5.5	8-30-19 23:00	17.88	1145	8.09	18.4						11-30-19 21:45	-0.20	2621	7.92	1.2					
9-15-19 4:45	15.68	1848	8.40	6.8	8-30-19 23:15	18.16	1120	8.22	5.7	8-30-19 23:15	17.93	1150	8.12	19.8						11-30-19 22:00	-0.15	2654	7.93	2.9					
9-15-19 5:00	15.64	1848	8.40	5.8	8-30-19 23:30	18.38	1117	8.22	5.8	8-30-19 23:30	18.87	1153	8.13	18.6						11-30-19 22:15	-0.13	2647	7.92	1.1					
9-15-19 5:15	15.58	1846	8.41	6.4	8-30-19 23:45	18.53	1121	8.22	5.3	8-30-19 23:45	18.79	1149	8.11	20.5						11-30-19 22:30	-0.10	2659	7.92	1.5					
9-15-19 5:30	15.53	1849	8.40	5.6	8-31-19 0:00	18.72	1118	8.23	4.9	8-31-19 0:00	18.62	1149	8.11	18.9						11-30-19 22:45	-0.07	2710	7.92	7.0					
9-15-19 5:45	15.45	1848	8.41	6.5	8-31-19 0:15	18.86	1117	8.24	4.6	8-31-19 0:15	18.41	1149	8.10	19.2						11-30-19 23:00	-0.02	2705	7.92	12.4					
9-15-19 6:00	15.40	1848	8.41	5.6	8-31-19 0:30	18.84	1111	8.25	5.0	8-31-19 0:30	19.09	1153	8.13	19.3						11-30-19 23:15	-0.01	2709	7.92	11.8					
9-15-19 6:15	15.36	1848	8.41	6.3	8-31-19 0:45	18.34	1111	8.23	5.9	8-31-19 0:45	19.09	1153	8.13	20.5						11-30-19 23:30	0.01	2727	7.92	11.2					
9-15-19 6:30	15.32	1848	8.41	5.5	8-31-19 1:00	18.49	1106	8.25	5.5	8-31-19 1:00	19.14	1154	8.14	19.4						11-30-19 23:45	0.01	2764	7.91	1.1					
9-15-19 6:45	15.28	1849	8.41	6.2	8-31-19 1:15	18.37	1105	8.24	5.7	8-31-19 1:15	19.05	1150	8.13	19.4						12-1-19 0:00	-0.01	2656	7.91	0.4					
9-15-19 7:00	15.24	1850	8.41	5.7	8-31-19 1:30	18.78	1097	8.28	5.7	8-31-19 1:30	18.90	1154	8.15	18.3						12-1-19 0:15	-0.01	2656	7.91	0.6					
9-15-19 7:15	15.23	1854	8.42	6.2	8-31-19 1:45	18.76	1099	8.28	6.1	8-31-19 1:45	18.86	1153	8.15	19.8						12-1-19 0:30	-0.01	2656	7.91	0.5					
9-15-19 7:30	15.18	1852	8.41	5.8	8-31-19 2:00	18.73	1092	8.27	6.1	8-31-19 2:00	18.89	1153	8.14	19.2						12-1-19 0:45	0.00	2675	7.92	2.2					
9-15-19 7:45	15.13	1850	8.41	6.2	8-31-19 2:15	18.66	1098	8.27	5.7	8-31-19 2:15	18.85	1153	8.16	19.1						12-1-19 1:00	-0.02	2679	7.92	0.7					
9-15-19 8:00	15.09	1852	8.41	5.3	8-31-19 2:30	18.57	1097	8.26	5.6	8-31-19 2:30	18.77	1153	8.16	20.5						12-1-19 1:15	-0.02	2677	7.92	0.8					
9-15-19 8:15	15.06	1852	8.42	6.3	8-31-19 2:45	18.36	1105	8.23	6.0	8-31-19 2:45	18.81	1153	8.17	18.2						12-1-19 1:30	-0.03	2684	7.93	0.7					
9-15-19 8:30	15.01	1852	8.41	5.3	8-31-19 3:00	18.17	1115	8.22	6.1	8-31-19 3:00	18.73	1153	8.18	17.3						12-1-19 1:45	-0.02	2691	7.92	0.5					
9-15-19 8:45	14.97	1851	8.42	6.3	8-31-19 3:15	17.86	1113	8.21	5.6	8-31-19 3:15	18.60	1153	8.18	18.2						12-1-19 2:00	-0.05	2669	7.92	0.4					
9-15-19 9:00	14.91	1852	8.42	5.4	8-31-19 3:30	17.57	1113	8.21	5.8	8-31-19 3:30	18.51	1152	8.18	17.7						12-1-19 2:15	-0.06	2679	7.92	0.4					
9-15-19 9:15	14.88	1851	8.42	6.2	8-31-19 3:45	17.52	1113	8.22	6.1	8-31-19 3:45	18.41	1152	8.19	17.8						12-1-19 2:30	-0.06	2680	7.92	0.4					
9-15-19 9:30	14.85	1852	8.42	5.4	8-31-19 4:00	17.32	1114	8.20	6.8	8-31-19 4:00	18.32	1151	8.19	16.2						12-1-19 2:45	-0.04	2705	7.92	4.1					
9-15-19 9:45	14.81	1852	8.42	6.6	8-31-19 4:15	17.27	1117	8.20	5.9	8-31-19 4:15	18.23	1152	8.20	17.0						12-1-19 3:00	-0.06	2689	7.93	0.4					
9-15-19 10:00	14.78	1853	8.42	5.5	8-31-19 4:30	17.23	1113	8.22	6.0	8-31-19 4:30	18.16	1152	8.19	15.7						12-1-19 3:15	-0.06	2689	7.93	0.5					
9-15-19 10:15	14.73	1854	8.42	5.8	8-31-19 4:45	17.19	1108	8.23	6.9	8-31-19 4:45	18.08	1152	8.20	15.9						12-1-19 3:30	-0.06	2687	7.93	0.6					
9-15-19 10:30	14.68	1854	8.42	5.0	8-31-19 5:00	17.18	1101	8.25	6.1	8-31-19 5:00	18.00	1152	8.20	15.4						12-1-19 3:45	-0.06	2697	7.92	0.6					
9-15-19 10:45	14.66	1854	8.42	6.0	8-31-19 5:15	17.15	1100	8.25	6.2	8-31-19 5:15	17.93	1151	8.20	16.7						12-1-19 4:00	-0.07	2679	7.92	0.5					
9-15-19 11:00	14.60	1855	8.42	4.9	8-31-19 5:30	17.06	1095	8.26	8.0	8-31-19 5:30	17.84	1151	8.20	15.0						12-1-19 4:15	-0.08	2686	7.92	0.6					
9-15-19 11:15	14.58	1854	8.42	6.4	8-31-19 5:45	17.06	1092	8.27	7.5	8-31-19 5:45	17.77	1152	8.21	16.5						12-1-19 4:30	-0.08	2684	7.92	0.6					
9-15-19 11:30	14.53	1854	8.42	5.1	8-31-19 6:00	17.02	1089	8.27	6.0	8-31-19 6:00	17.69	1152	8.21	15.2						12-1-19 4:45	-0.05	2705	7.92	0.6					
9-15-19 11:45	14.47	1854	8.42	6.6	8-31-19 6:15	17.02	1090	8.26	5.3	8-31-19 6:15	17.60	1151	8.21	15.8						12-1-19 5:00	-0.06	2693	7.93	0.7					
9-15-19 12:00	14.43	1855	8.42	5.3	8-31-19 6:30	16.97	1091	8.26	5.7	8-31-19 6:30	17.49	1151	8.22	14.9						12-1-19 5:15	-0.07	2694	7.93	0.6					
9-15-19 12:15	14.36	1854	8.43	5.8	8-31-19 6:45	16.95	1090	8.26	5.5	8-31-19 6:45	17.42	1151	8.21	16.6						12-1-19 5:30	-0.07	2694	7.93	0.6					
9-15-19 12:30	14.29	1853	8.42	5.5	8-31-19 7:00	16.88	1087	8.26	6.0	8-31-19 7:00	17.33	1151	8.21	15.4						12-1-19 5:45	-0.06	2694	7.92	0.9					
9-15-19 12:45	14.26	1855	8.43	6.0	8-31-19 7:15	16.77	1095	8.26	5.6	8-31-19 7:15	17.26	1151	8.20	15.8						12-1-19 6:00	-0.09	2690	7.92	6.7					
9-15-19 13:00	14.23	1855	8.43	6.1	8-31-19 7:30	16.73	1098	8.25	5.8	8-31-19 7:30	17.19	1150	8.20	15.2						12-1-19 6:15	-0.09	2671	7.92	0.7					
9-15-19 13:15	14.20	1855	8.43	5.9	8-31-19 7:45	16.67	1103	8.25	6.0	8-31-19 7:45	17.10	1150	8.21	15.9						12-1-19 6:30	-0.09	2687	7.92	0.3					
9-15-19 13:30	14.17	1856	8.43	4.9	8-31-19 8:00	16.67	1102	8.25	7.3	8-31-19 8:00	17.04	1150	8.19	15.3						12-1-19 6:45	-0.09	2686	7.92	0.3					
9-15-19 13:45	14.14	1858	8.43	5.4	8-31-19 8:15	16.70	1099	8.25	6.5	8-31-19 8:15	16.93	1150	8.19	15.8						12-1-19 7:00	-0.07	2695	7.93	0.3					
9-15-19 14:00	14.07	1859	8.43	4.9	8-31-19 8:30	16.64	1098	8.25	5.3	8-31-19 8:30	16.84	1150	8.18	15.0						12-1-19 7:15	-0.08	2735	7.93	0.4					
9-15-19 14:15	14.03	1858	8.43	5.3	8-31-19 8:45	16.52	1098	8.24	5.4	8-31-19 8:45	16.76	1149	8.18	16.1						12-1-19 7:30	-0.09	2698	7.93	0.3					
9-15-19 14:30	14.04	1860	8.43	5.1	8-31-19 9:00	16.53	1101	8.23	5.2	8-31-19 9:00	16.62	1149	8.16	15.6						12-1-19 7:45	-0.09	2701	7.92	0.4					
9-15-19 14:45	14.03	1859	8.43	5.8	8-31-19 9:15	16.51	1099	8.23	5.8	8-31-19 9:15	16.45	1148	8.14	17.0						12-1-19 8:00	-0.11	2645	7.92	0.3					
9-15-19 15:00	13.97	1858	8.43	5.1	8-31-19 9:30	16.48	1097	8.23	5.2	8-31-19 9:30	16.37	1148	8.14	16.0						12-1-19 8:15	-0.11	2702	7.92	0.3					
9-15-19 15:15	13.92	1857	8.43	5.8	8-31-19 9:45	16.51	1096	8.23	5.0	8-31-19 9:45	16.34	1148	8.14	15.8						12-1-19 8:30	-0.12	2697	7.92	0.4					
9-15-19 15:30	13.93	1860	8.43	5.3	8-31-19 10:00	16.43	1096	8.23	5.1	8-31-19 10:00	16.29	1149	8.16	15.5						12-1-19 8:45	-0.12	2693	7.92	0.5					
9-15-19 15:45	13.94	1859	8.43	5.2	8-31-19 10:15	16.39	1097	8.23	5.1	8-31-19 10:15	16.21	1149	8.14	17.5						12-1-19 9:00	-0.11	2710	7.93	0.5					
9-15-19 16:00	13.93	1859	8.43	4.7	8-31-19 10:30	16.32	1098	8.24	5.0	8-31-19 10:30	16.18	1148	8.13	15.8						12-1-19 9:15	-0.11	2709	7.93	0.3					
9-15-19 16:15	13.95	1859	8.43	5.9	8-31-19 10:45	16.33	1097	8.23	5.0	8-31-19 10:45	16.12	1148	8.14	17.8						12-1-19 9:30	-0.12	2712	7.93	0.4					
9-15-19 16:30	13.99	1859	8.43	4.7	8-31-19 11:00	16.29	1098	8.23	5.0	8-31-19 11:00	16.09	1149	8.12	16.5						12-1-19 9:45	-0.12	2704	7.92	0.6					
9-15-19 16:45	13.98	1858	8.43	5.3	8-31-19 11:15	16.24	1098	8.23	4.8	8-31-19 11:15	16.05	1149	8.12	18.7						12-1-19 10:00	-0.14	2696	7.92	33.2					
9-15-19 17:00	14.04	1858	8.42	4.8	8-31-19 11:30	16.24	1098	8.23	5.0	8-31-19 11:30	16.04	1150	8.14	17.0						12-1-19 10:15	-0.14	2694	7.92	17.1					
9-15-19 17:15	14.06	1857	8.43	5.3	8-31-19 11:45	16.21	1097	8.23	4.5	8-31-19 11:45	16.01	1150	8.14	18.7						12-1-19 10:30	-0.15	2711	7.92	1.7					
9-15-19 17:30	14.06	1857	8.42	4.6	8-31-19 12:00	16.18	1097	8.23	4.6	8-31-19 12:00	15.98	1150	8.14	17.7						12-1-19 10:45	-0.15	2713	7.93	1.5					
9-15-19 18:00	14.13	1857	8.43	5.4	8-31-19 12:15	16.18	1098	8.23	5.3	8-31-19 12:15	15.93	1150	8.14	19.0						12-1-19 11:00	-0.16	2719	7.93	2.0					
9-15-19 18:15	14.26	1858	8.42	5.1	8-31-19 12:30	16.18	1095	8.23	4.7	8-31-19 12:30	15.89	1150	8.13	17.3						12-1-19 11:15	-0.16	2722	7.93	0.8					
9-15-19 18:30	14.35	1858	8.42	5.1	8-31-19 12:45	16.14	1097	8.22	5.1	8-31-19 12:45	15.87	1150	8.12	19.0						12-1-19 11:30	-0.16	2722	7.93	0.0					
9-15-19 18:45	14.50	1859	8.42	5.0	8-31-19 13:00	16.12	1097	8.22	4.9	8-31-19 13:00	15.81	1150	8.13	17.9						12-1-19 11:45	-0.16	2721	7.92	0.5					
9-15-19 19:00	14.50	1858	8.42	5.5	8-31-19 13:15	16.13	1096	8.21	4.8	8-31-19 13:15	15.79	1150	8.13	19.4						12-1-19 12:00	-0.18	2714	7.92	0.1					
9-15-19 19:15	14.68	1861	8.41	5.0	8-31-19 13:30	16.14	1096	8.21	5.4	8-31-19 13:30	15.77	1150	8.12	18.1						12-1-19 12:15	-0.18	2717	7.92	2.4					
9-15-19 19:30	14.74	1860	8.41	5.6	8-31-19 13:45	16.10	1095	8.21	5.1	8-31-19 13:45	15.75	1150	8.12	20.3						12-1-19 12:30	-0.18	2725	7.92	0.0					
9-15-19 19:45	14.77	1860	8.41	5.6	8-31-19 14:00	16.10	1094	8.21	4.7	8-31-19 14:00	15.71	1150	8.11	18.7						12-1-19 12:45	-0.19	2723	7.93	0.2					
9-15-19 20:00	14.98	1862	8.41	5.2	8-31-19 14:15	16.06	1097	8.21	4.8	8-31-19 14:15	15.73	1151	8.10	20.2						12-1-19 13:00	-0.17	2724	7.93	0.2					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-15-19 20:15	15.12	1862	8.40	6.1	8-31-19 14:30	16.08	1096	8.20	5.1	8-31-19 14:30	15.70	1151	8.10	17.7						12-1-19 13:15	-0.18	2723	7.93	0.2					
9-15-19 20:30	15.44	1865	8.40	6.4	8-31-19 14:45	16.07	1096	8.20	9.1	8-31-19 14:45	15.65	1151	8.11	19.1						12-1-19 13:30	-0.18	2724	7.93	0.2					
9-15-19 20:45	15.29	1860	8.40	5.4	8-31-19 15:00	16.06	1096	8.20	5.4	8-31-19 15:00	15.64	1151	8.09	19.3						12-1-19 13:45	-0.18	2722	7.93	0.2					
9-15-19 21:00	15.27	1862	8.40	5.9	8-31-19 15:15	16.03	1094	8.20	5.3	8-31-19 15:15	15.62	1152	8.09	20.5						12-1-19 14:00	-0.20	2742	7.93	0.1					
9-15-19 21:15	15.34	1864	8.40	5.3	8-31-19 15:30	15.98	1092	8.20	5.4	8-31-19 15:30	15.62	1153	8.06	19.3						12-1-19 14:15	-0.20	2739	7.93	0.1					
9-15-19 21:30	15.40	1864	8.41	5.8	8-31-19 15:45	16.00	1091	8.20	5.6	8-31-19 15:45	15.60	1153	8.07	21.5						12-1-19 14:30	-0.20	2737	7.93	0.1					
9-15-19 21:45	15.42	1865	8.40	5.5	8-31-19 16:00	16.01	1090	8.20	5.9	8-31-19 16:00	15.58	1152	8.08	19.5						12-1-19 14:45	-0.21	2733	7.93	10.9					
9-15-19 22:00	15.45	1864	8.41	5.5	8-31-19 16:15	16.03	1087	8.20	7.0	8-31-19 16:15	15.60	1152	8.07	21.5						12-1-19 15:00	-0.20	2744	7.93	17.1					
9-15-19 22:15	15.40	1863	8.41	5.1	8-31-19 16:30	15.99	1084	8.19	6.4	8-31-19 16:30	15.60	1153	8.07	20.0						12-1-19 15:15	-0.20	2688	7.93	28.2					
9-15-19 22:30	15.36	1862	8.41	5.6	8-31-19 16:45	16.00	1079	8.19	6.5	8-31-19 16:45	15.62	1153	8.07	20.9						12-1-19 15:30	-0.20	2745	7.93	13.5					
9-15-19 22:45	15.33	1863	8.41	4.8	8-31-19 17:00	15.98	1078	8.19	6.2	8-31-19 17:00	15.64	1152	8.07	18.3						12-1-19 15:45	-0.21	2774	7.93	0.1					
9-15-19 23:00	15.31	1863	8.42	5.5	8-31-19 17:15	15.97	1072	8.19	6.6	8-31-19 17:15	15.66	1153	8.07	21.1						12-1-19 16:00	-0.22	2716	7.93	0.1					
9-15-19 23:15	15.24	1863	8.42	5.2	8-31-19 17:30	15.97	1070	8.21	6.3	8-31-19 17:30	15.74	1153	8.07	19.7						12-1-19 16:15	-0.22	2720	7.93	0.0					
9-15-19 23:30	15.26	1864	8.43	5.9	8-31-19 17:45	16.01	1070	8.22	6.7	8-31-19 17:45	15.88	1153	8.07	22.1						12-1-19 16:30	-0.22	2722	7.93	0.1					
9-15-19 23:45	15.23	1864	8.43	6.1	8-31-19 18:00	16.06	1071	8.22	6.7	8-31-19 18:00	16.00	1153	8.06	20.4						12-1-19 16:45	-0.22	2710	7.93	0.2					
9-16-19 0:00	15.24	1866	8.43	8.4	8-31-19 18:15	16.10	1072	8.24	6.8	8-31-19 18:15	16.06	1154	8.06	22.1						12-1-19 17:00	-0.21	2703	7.93	0.3					
9-16-19 0:15	15.18	1864	8.44	6.3	8-31-19 18:30	16.14	1082	8.24	6.4	8-31-19 18:30	16.20	1154	8.06	20.0						12-1-19 17:15	-0.21	2713	7.93	0.4					
9-16-19 0:30	15.12	1864	8.44	7.3	8-31-19 18:45	16.19	1081	8.25	6.7	8-31-19 18:45	16.39	1155	8.04	21.3						12-1-19 17:30	-0.21	2715	7.93	0.2					
9-16-19 0:45	15.00	1865	8.45	16.5	8-31-19 19:00	16.19	1079	8.27	6.4	8-31-19 19:00	16.66	1154	8.07	19.6						12-1-19 17:45	-0.21	2707	7.93	0.3					
9-16-19 1:00	14.90	1864	8.45	12.3	8-31-19 19:15	16.24	1079	8.29	6.8	8-31-19 19:15	16.72	1153	8.06	20.9						12-1-19 18:00	-0.21	2730	7.93	0.1					
9-16-19 1:15	14.83	1866	8.45	11.8	8-31-19 19:30	16.32	1080	8.28	6.3	8-31-19 19:30	16.91	1153	8.06	19.1						12-1-19 18:15	-0.21	2728	7.93	0.2					
9-16-19 1:30	14.76	1864	8.46	12.8	8-31-19 19:45	16.38	1082	8.26	6.6	8-31-19 19:45	17.09	1155	8.05	20.6						12-1-19 18:30	-0.21	2726	7.93	0.3					
9-16-19 1:45	14.73	1863	8.46	11.7	8-31-19 20:00	16.50	1080	8.27	7.3	8-31-19 20:00	17.44	1155	8.06	19.5						12-1-19 18:45	-0.21	2723	7.93	0.2					
9-16-19 2:00	14.68	1861	8.46	11.2	8-31-19 20:15	16.65	1082	8.27	6.3	8-31-19 20:15	18.06	1156	8.05	20.9						12-1-19 19:00	-0.19	2684	7.93	11.6					
9-16-19 2:15	14.64	1860	8.46	11.3	8-31-19 20:30	16.77	1083	8.27	6.9	8-31-19 20:30	18.13	1157	8.03	19.5						12-1-19 19:15	-0.19	2766	7.93	12.6					
9-16-19 2:30	14.58	1855	8.46	15.3	8-31-19 20:45	16.87	1080	8.27	6.3	8-31-19 20:45	18.22	1155	8.03	20.7						12-1-19 19:30	-0.05	2775	7.93	8.0					
9-16-19 2:45	14.51	1850	8.46	15.1	8-31-19 21:00	16.94	1075	8.26	6.8	8-31-19 21:00	17.91	1150	8.00	19.0						12-1-19 19:45	0.01	2858	7.94	13.4					
9-16-19 3:00	14.45	1847	8.47	14.3	8-31-19 21:15	17.07	1079	8.27	6.2	8-31-19 21:15	18.24	1155	8.02	20.1						12-1-19 20:00	0.05	2723	7.93	0.5					
9-16-19 3:15	14.41	1841	8.47	16.6	8-31-19 21:30	17.20	1083	8.23	6.1	8-31-19 21:30	18.55	1157	8.06	18.9						12-1-19 20:15	0.05	2728	7.93	0.1					
9-16-19 3:30	14.33	1836	8.47	28.6	8-31-19 21:45	17.30	1084	8.22	5.7	8-31-19 21:45	18.44	1151	8.02	20.7						12-1-19 20:30	0.05	2720	7.93	0.1					
9-16-19 3:45	14.30	1833	8.47	31.2	8-31-19 22:00	17.70	1086	8.22	6.2	8-31-19 22:00	17.66	1154	7.99	19.4						12-1-19 20:45	0.06	2723	7.93	0.2					
9-16-19 4:00	14.26	1831	8.47	33.9	8-31-19 22:15	17.94	1082	8.22	5.5	8-31-19 22:15	17.77	1156	8.03	19.1						12-1-19 21:00	0.07	2733	7.93	1.1					
9-16-19 4:15	14.20	1831	8.47	31.8	8-31-19 22:30	18.17	1087	8.24	5.5	8-31-19 22:30	17.75	1158	8.01	19.1						12-1-19 21:15	0.06	2726	7.94	0.7					
9-16-19 4:30	14.18	1829	8.47	43.7	8-31-19 22:45	18.40	1079	8.24	5.1	8-31-19 22:45	17.74	1158	8.04	19.8						12-1-19 21:30	0.07	2726	7.93	1.3					
9-16-19 4:45	14.15	1828	8.47	43.9	8-31-19 23:00	18.57	1084	8.24	5.2	8-31-19 23:00	17.69	1158	8.03	17.8						12-1-19 21:45	0.07	2726	7.93	0.7					
9-16-19 5:00	14.11	1827	8.47	52.9	8-31-19 23:15	18.67	1085	8.25	4.7	8-31-19 23:15	17.92	1157	8.04	18.7						12-1-19 22:00	0.09	2720	7.93	0.1					
9-16-19 5:15	14.05	1827	8.47	53.4	8-31-19 23:30	18.74	1083	8.26	5.2	8-31-19 23:30	18.16	1160	8.04	18.2						12-1-19 22:15	0.09	2721	7.92	0.0					
9-16-19 5:30	14.03	1825	8.47	58.7	8-31-19 23:45	18.78	1075	8.26	6.2	8-31-19 23:45	18.37	1155	8.03	18.9						12-1-19 22:30	0.09	2723	7.92	0.0					
9-16-19 5:45	13.99	1827	8.47	62.4	9-1-19 0:00	18.76	1071	8.26	9.3	9-1-19 0:00	18.69	1157	8.04	19.2						12-1-19 22:45	0.09	2727	7.93	0.0					
9-16-19 6:00	13.96	1827	8.47	58.9	9-1-19 0:15	18.72	1078	8.26	5.4	9-1-19 0:15	18.92	1161	8.05	18.2						12-1-19 23:00	0.09	2722	7.93	0.0					
9-16-19 6:15	13.95	1828	8.47	59.2	9-1-19 0:30	18.75	1071	8.26	5.7	9-1-19 0:30	18.85	1158	8.05	19.2						12-1-19 23:15	0.09	2728	7.93	0.0					
9-16-19 6:30	13.88	1826	8.47	62.7	9-1-19 0:45	18.77	1065	8.27	5.3	9-1-19 0:45	18.88	1160	8.06	18.2						12-1-19 23:30	0.09	2721	7.93	0.0					
9-16-19 6:45	13.82	1825	8.47	54.2	9-1-19 1:00	18.75	1064	8.27	5.5	9-1-19 1:00	18.79	1159	8.05	17.2						12-1-19 23:45	0.10	2714	7.93	0.0					
9-16-19 7:00	13.76	1821	8.47	61.0	9-1-19 1:15	18.75	1066	8.27	5.6	9-1-19 1:15	18.88	1159	8.05	20.0						12-2-19 0:00	0.10	2718	7.93	0.0					
9-16-19 7:15	13.72	1817	8.47	49.2	9-1-19 1:30	18.68	1063	8.27	5.3	9-1-19 1:30	18.99	1161	8.08	18.7						12-2-19 0:15	0.10	2720	7.92	0.0					
9-16-19 7:30	13.72	1818	8.47	52.7	9-1-19 1:45	18.64	1059	8.27	6.6	9-1-19 1:45	18.98	1160	8.07	18.4						12-2-19 0:30	0.11	2718	7.92	0.0					
9-16-19 7:45	13.64	1808	8.48	53.2	9-1-19 2:00	18.37	1056	8.26	6.1	9-1-19 2:00	19.05	1161	8.10	17.5						12-2-19 0:45	0.11	2715	7.92	0.4					
9-16-19 8:00	13.55	1799	8.48	46.0	9-1-19 2:15	18.41	1059	8.27	7.1	9-1-19 2:15	19.02	1161	8.10	17.8						12-2-19 1:00	0.12	2710	7.92	0.2					
9-16-19 8:15	13.47	1789	8.48	48.8	9-1-19 2:30	18.38	1037	8.29	6.8	9-1-19 2:30	19.01	1161	8.11	17.7						12-2-19 1:15	0.11	2712	7.92	0.2					
9-16-19 8:30	13.44	1792	8.48	46.3	9-1-19 2:45	18.28	1042	8.26	6.3	9-1-19 2:45	18.95	1161	8.11	20.2						12-2-19 1:30	0.11	2713	7.92	0.3					
9-16-19 8:45	13.42	1792	8.48	43.4	9-1-19 3:00	18.24	1041	8.25	7.4	9-1-19 3:00	18.86	1161	8.11	17.4						12-2-19 1:45	0.10	2712	7.92	0.3					
9-16-19 9:00	13.32	1775	8.48	39.4	9-1-19 3:15	18.20	1066	8.28	5.8	9-1-19 3:15	18.78	1160	8.12	18.3						12-2-19 2:00	0.10	2714	7.92	0.0					
9-16-19 9:15	13.30	1777	8.48	42.5	9-1-19 3:30	18.17	1064	8.28	5.7	9-1-19 3:30	18.66	1160	8.12	17.4						12-2-19 2:15	0.09	2715	7.91	0.0					
9-16-19 9:30	13.20	1771	8.48	46.6	9-1-19 3:45	18.09	1063	8.28	5.6	9-1-19 3:45	18.56	1160	8.13	18.1						12-2-19 2:30	0.08	2718	7.91	0.0					
9-16-19 9:45	13.19	1772	8.47	37.6	9-1-19 4:00	18.03	1063	8.28	5.9	9-1-19 4:00	18.46	1160	8.13	17.0						12-2-19 2:45	0.08	2716	7.91	0.0					
9-16-19 10:00	13.11	1765	8.48	42.5	9-1-19 4:15	17.95	1064	8.27	5.8	9-1-19 4:15	18.29	1160	8.13	17.4						12-2-19 3:00	0.08	2716	7.92	0.0					
9-16-19 10:15	13.10	1765	8.48	36.9	9-1-19 4:30	17.72	1078	8.25	6.1	9-1-19 4:30	18.23	1160	8.13	16.6						12-2-19 3:15	0.07	2716	7.92	0.0					
9-16-19 10:30	13.04	1757	8.47	36.4	9-1-19 4:45	17.57	1073	8.24	6.1	9-1-19 4:45	18.13	1160	8.13	17.5						12-2-19 3:30	0.06	2720	7.92	0.0					
9-16-19 10:45	13.00	1746	8.47	32.4	9-1-19 5:00	17.51	1072	8.24	5.8	9-1-19 5:00	18.05	1159	8.13	16.4						12-2-19 3:45	0.06	2722	7.92	0.0					
9-16-19 11:00	12.99	1748	8.47	32.5	9-1-19 5:15	17.48	1077	8.26	7.4	9-1-19 5:15	17.99	1160	8.14	16.8						12-2-19 4:00	0.06	2737	7.92	0.0					
9-16-19 11:15	12.92	1733	8.47	49.2	9-1-19 5:30	17.39	1078	8.23	6.7	9-1-19 5:30	17.91	1159	8.13	16.2						12-2-19 4:15	0.04	2716	7.92	0.0					
9-16-19 11:30	12.87	1730	8.47	28.0	9-1-19 5:45	17.30	1069	8.26	5.8	9-1-19 5:45	17.85	1159	8.13	17.0						12-2-19 4:30	0.03	2723	7.92	0.0					
9-16-19 11:45	12.86	1728	8.47	27.7	9-1-19 6:00	17.28	1070	8.26	5.6	9-1-19 6:00	17.76	1159	8.14	15.6						12-2-19 4:45	0.02	2724	7.92	0.0					
9-16-19 12:00	12.87	1737	8.47	30.2	9-1-19 6:15	17.26	1072	8.27	5.7	9-1-19 6:15	17.72	1159	8.14	16.1						12-2-19 5:00	0.01	2724	7.92	0.0					
9-16-19 12:15	12.86	1743	8.47	28.1	9-1-19 6:30	17.28	1071	8.27	5.4	9-1-19 6:30	17.61	1158	8.15	16.5						12-2-19 5:15	0.01	2719	7.93	0.0					
9-16-19 12:30	12.86	1750	8.47	29.7	9-1-19 6:45	17.24	1070	8.27	5.5	9-1-19 6:45	17.53	1159	8.13	16.8						12-2-19 5:30	0.00	2724	7.93	0.0					
9-16-19 12:45	12.81	1748	8.47	24.0	9-1-19 7:00	17.16	1071	8.27	5.4	9-1-19 7:00	17.46	1158	8.12	15.9						12-2-19 5:45	0.00	2722	7.93	0.2					
9-16-19 13:00	12.81	1748	8.47	24.6	9-1-19 7:15	17.15	1071	8.27	5.4	9-1-19 7:15	17.38	1158	8.12	17.6						12-2-19 6:00	0.00	2728	7.93	0.0					
9-16-19 13:15	12.81	1747	8.47	24.2	9-1-19 7:30	17.11	1068	8.28	6.5	9-1-19 7:30	17.33	1158	8.13	15.8						12-2-19 6:15	0.00	2736	7.92	0.0					
9-16-19 13:30	12.78	1745	8.47	28.9	9-1-19 7:45	17.04	1068	8.27	6.2	9-1-19 7:45	17.29	1158	8.13	17.1						12-2-19 6:30	-0.01	2709	7.92	0.0					
9-16-19 13:45	12.75	1743	8.47	21.5	9-1-19 8:00	16.99	1067	8.27	6.6	9-1-19 8:00	17.23	1158	8.12	15.9						12-2-19 6:45	-0.01	2728	7.92	0.0					
9-16-19 14:00	12.73	1742	8.47	33.8	9-1-19 8:15	16.99	1066	8.27	6.1	9-1-19 8:15	17.18	1158	8.12	17.1						12-2-19 7:00	0.00	2738	7.92	0.0					
9-16-19 14:15	12.71	1741	8.46	18.3	9-1-19 8:30	16.95	1062	8.27	6.0	9-1-19 8:30	17.12	1158	8.12	15.4						12-2-19 7:15	-0.01	2729	7.93	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-16-19 14:30	12.67	1735	8.47	23.9	9-1-19 8:45	16.92	1060	8.27	5.6	9-1-19 8:45	17.04	1158	8.12	17.7						12-2-19 7:30	-0.01	2730	7.93	0.0					
9-16-19 14:45	12.66	1735	8.46	23.4	9-1-19 9:00	16.87	1061	8.26	5.5	9-1-19 9:00	17.02	1158	8.12	15.0						12-2-19 7:45	-0.01	2724	7.93	0.0					
9-16-19 15:00	12.66	1735	8.47	22.0	9-1-19 9:15	16.88	1067	8.25	5.1	9-1-19 9:15	16.95	1158	8.13	17.2						12-2-19 8:00	-0.02	2728	7.92	0.0					
9-16-19 15:15	12.66	1737	8.46	19.9	9-1-19 9:30	16.85	1067	8.24	4.9	9-1-19 9:30	16.88	1158	8.13	14.7						12-2-19 8:15	-0.02	2723	7.92	0.0					
9-16-19 15:30	12.66	1732	8.46	20.2	9-1-19 9:45	16.80	1066	8.25	5.3	9-1-19 9:45	16.81	1156	8.07	19.0						12-2-19 8:30	-0.03	2725	7.92	0.0					
9-16-19 15:45	12.64	1730	8.46	17.1	9-1-19 10:00	16.80	1065	8.24	4.9	9-1-19 10:00	16.74	1157	8.10	14.5						12-2-19 8:45	-0.03	2745	7.92	0.0					
9-16-19 16:00	12.63	1728	8.46	23.4	9-1-19 10:15	16.71	1067	8.25	4.9	9-1-19 10:15	16.67	1157	8.10	17.3						12-2-19 9:00	-0.04	2735	7.92	0.0					
9-16-19 16:15	12.63	1729	8.46	17.8	9-1-19 10:30	16.75	1065	8.25	4.9	9-1-19 10:30	16.63	1157	8.07	15.0						12-2-19 9:15	-0.04	2761	7.93	0.0					
9-16-19 16:30	12.62	1725	8.46	18.6	9-1-19 10:45	16.72	1063	8.25	4.9	9-1-19 10:45	16.56	1157	8.09	16.5						12-2-19 9:30	-0.04	2734	7.93	0.0					
9-16-19 16:45	12.64	1722	8.46	17.9	9-1-19 11:00	16.70	1065	8.24	5.0	9-1-19 11:00	16.47	1157	8.10	13.8						12-2-19 9:45	-0.05	2756	7.93	0.0					
9-16-19 17:00	12.64	1721	8.46	19.2	9-1-19 11:15	16.67	1066	8.24	5.1	9-1-19 11:15	16.43	1157	8.09	16.8						12-2-19 10:00	-0.06	2738	7.93	0.0					
9-16-19 17:15	12.68	1718	8.46	16.6	9-1-19 11:30	16.63	1065	8.24	6.3	9-1-19 11:30	16.38	1157	8.09	14.6						12-2-19 10:15	-0.07	2742	7.92	0.0					
9-16-19 17:30	12.76	1714	8.45	18.1	9-1-19 11:45	16.55	1064	8.24	6.4	9-1-19 11:45	16.32	1157	8.09	16.9						12-2-19 10:30	-0.07	2744	7.92	0.0					
9-16-19 17:45	12.73	1705	8.45	16.6	9-1-19 12:00	16.54	1064	8.24	5.3	9-1-19 12:00	16.25	1157	8.09	14.1						12-2-19 10:45	-0.07	2738	7.92	0.0					
9-16-19 18:00	12.93	1703	8.45	16.9	9-1-19 12:15	16.49	1065	8.24	4.8	9-1-19 12:15	16.19	1157	8.09	16.9						12-2-19 11:00	-0.07	2746	7.92	0.0					
9-16-19 18:15	13.15	1706	8.44	20.2	9-1-19 12:30	16.48	1065	8.24	4.8	9-1-19 12:30	16.16	1157	8.09	15.3						12-2-19 11:15	-0.07	2744	7.92	0.0					
9-16-19 18:30	13.26	1718	8.43	16.1	9-1-19 12:45	16.45	1066	8.24	5.0	9-1-19 12:45	16.14	1157	8.08	21.0						12-2-19 11:30	-0.07	2745	7.92	0.0					
9-16-19 18:45	13.38	1719	8.43	13.8	9-1-19 13:00	16.42	1061	8.24	4.6	9-1-19 13:00	16.08	1157	8.07	16.9						12-2-19 11:45	-0.07	2746	7.92	0.0					
9-16-19 19:00	13.47	1714	8.43	15.0	9-1-19 13:15	16.38	1064	8.24	4.8	9-1-19 13:15	15.99	1158	8.07	18.9						12-2-19 12:00	-0.07	2751	7.92	0.0					
9-16-19 19:15	13.50	1713	8.43	16.5	9-1-19 13:30	16.35	1063	8.24	4.9	9-1-19 13:30	15.99	1158	8.07	15.5						12-2-19 12:15	-0.07	2751	7.92	0.0					
9-16-19 19:30	13.52	1712	8.43	14.7	9-1-19 13:45	16.34	1063	8.24	6.0	9-1-19 13:45	15.94	1158	8.06	17.7						12-2-19 12:30	-0.07	2751	7.92	0.1					
9-16-19 19:45	13.50	1716	8.43	14.1	9-1-19 14:00	16.31	1061	8.23	5.5	9-1-19 14:00	15.92	1158	8.05	15.4						12-2-19 12:45	-0.08	2756	7.92	0.1					
9-16-19 20:00	13.61	1717	8.43	14.8	9-1-19 14:15	16.29	1063	8.23	4.9	9-1-19 14:15	15.89	1158	8.05	18.9						12-2-19 13:00	-0.07	2753	7.92	0.5					
9-16-19 20:15	13.88	1715	8.42	13.5	9-1-19 14:30	16.30	1072	8.23	5.7	9-1-19 14:30	15.86	1158	8.05	16.3						12-2-19 13:15	-0.08	2753	7.93	0.0					
9-16-19 20:30	13.90	1717	8.42	13.8	9-1-19 14:45	16.31	1068	8.22	5.5	9-1-19 14:45	15.84	1159	8.04	21.2						12-2-19 13:30	-0.08	2755	7.93	1.4					
9-16-19 20:45	13.94	1706	8.42	13.8	9-1-19 15:00	16.28	1065	8.22	5.4	9-1-19 15:00	15.83	1159	8.04	15.7						12-2-19 13:45	-0.09	2756	7.93	0.2					
9-16-19 21:00	13.98	1705	8.42	14.0	9-1-19 15:15	16.29	1063	8.22	5.4	9-1-19 15:15	15.80	1158	8.04	17.6						12-2-19 14:00	-0.08	2764	7.93	0.0					
9-16-19 21:15	14.12	1706	8.42	12.4	9-1-19 15:30	16.29	1064	8.22	5.7	9-1-19 15:30	15.80	1159	8.03	16.0						12-2-19 14:15	-0.08	2760	7.92	0.0					
9-16-19 21:30	14.36	1704	8.42	13.0	9-1-19 15:45	16.28	1064	8.22	6.0	9-1-19 15:45	15.80	1159	8.04	17.7						12-2-19 14:30	-0.08	2755	7.92	0.0					
9-16-19 21:45	14.33	1705	8.41	12.5	9-1-19 16:00	16.29	1061	8.22	5.9	9-1-19 16:00	15.80	1159	8.02	16.3						12-2-19 14:45	-0.07	2759	7.92	0.0					
9-16-19 22:00	14.36	1700	8.41	14.7	9-1-19 16:15	16.27	1054	8.21	6.7	9-1-19 16:15	15.80	1159	8.02	16.6						12-2-19 15:00	-0.06	2757	7.92	0.0					
9-16-19 22:15	14.44	1702	8.41	12.9	9-1-19 16:30	16.27	1051	8.21	6.9	9-1-19 16:30	15.82	1159	8.02	15.7						12-2-19 15:15	-0.05	2755	7.93	0.0					
9-16-19 22:30	14.53	1702	8.41	13.1	9-1-19 16:45	16.24	1047	8.20	7.1	9-1-19 16:45	15.83	1159	8.02	17.3						12-2-19 15:30	-0.04	2756	7.92	0.0					
9-16-19 22:45	14.62	1701	8.41	12.3	9-1-19 17:00	16.20	1045	8.20	7.6	9-1-19 17:00	15.85	1159	8.02	16.1						12-2-19 15:45	-0.03	2753	7.92	0.0					
9-16-19 23:00	14.68	1699	8.41	12.5	9-1-19 17:15	16.13	1040	8.21	7.6	9-1-19 17:15	15.84	1160	8.01	17.4						12-2-19 16:00	-0.01	2755	7.91	0.0					
9-16-19 23:15	14.57	1699	8.41	13.4	9-1-19 17:30	16.13	1039	8.23	7.0	9-1-19 17:30	15.87	1160	8.01	16.1						12-2-19 16:15	-0.01	2752	7.91	0.0					
9-16-19 23:30	14.56	1697	8.42	12.3	9-1-19 17:45	16.12	1039	8.24	7.0	9-1-19 17:45	15.87	1160	8.01	18.1						12-2-19 16:30	0.00	2754	7.91	0.0					
9-16-19 23:45	14.51	1697	8.42	12.3	9-1-19 18:00	16.14	1038	8.23	7.1	9-1-19 18:00	15.94	1160	8.01	16.2						12-2-19 16:45	0.01	2748	7.91	0.0					
9-17-19 0:00	14.48	1696	8.42	12.0	9-1-19 18:15	16.21	1041	8.24	6.3	9-1-19 18:15	16.09	1160	8.01	17.6						12-2-19 17:00	0.03	2748	7.92	0.3					
9-17-19 0:15	14.46	1696	8.42	11.3	9-1-19 18:30	16.31	1044	8.23	6.8	9-1-19 18:30	16.21	1161	8.01	16.3						12-2-19 17:15	0.03	2745	7.92	0.0					
9-17-19 0:30	14.42	1694	8.43	11.6	9-1-19 18:45	16.22	1043	8.25	6.4	9-1-19 18:45	16.19	1161	8.00	17.4						12-2-19 17:30	0.04	2746	7.92	0.0					
9-17-19 0:45	14.35	1691	8.43	11.1	9-1-19 19:00	16.36	1043	8.20	6.4	9-1-19 19:00	16.40	1162	7.99	16.4						12-2-19 17:45	0.04	2740	7.92	0.0					
9-17-19 1:00	14.26	1689	8.43	11.2	9-1-19 19:15	16.36	1045	7.30	6.1	9-1-19 19:15	16.42	1162	7.99	16.6						12-2-19 18:00	0.05	2741	7.92	0.0					
9-17-19 1:15	14.20	1690	8.44	11.2	9-1-19 19:30	16.52	1050	7.87	7.2	9-1-19 19:30	16.57	1161	7.98	16.2						12-2-19 18:15	0.05	2750	7.91	0.0					
9-17-19 1:30	14.10	1687	8.44	10.6	9-1-19 19:45	16.46	1038	8.19	7.1	9-1-19 19:45	16.58	1161	8.00	17.1						12-2-19 18:30	0.05	2741	7.91	0.0					
9-17-19 1:45	14.04	1686	8.44	11.1	9-1-19 20:00	16.58	1039	7.70	6.1	9-1-19 20:00	16.72	1162	8.00	15.8						12-2-19 18:45	0.06	2739	7.91	0.0					
9-17-19 2:00	13.98	1684	8.45	11.3	9-1-19 20:15	16.54	1036	8.27	6.8	9-1-19 20:15	17.00	1162	8.00	17.3						12-2-19 19:00	0.07	2742	7.91	0.0					
9-17-19 2:15	13.93	1683	8.45	10.7	9-1-19 20:30	16.62	1038	8.28	6.7	9-1-19 20:30	17.39	1164	7.99	15.6						12-2-19 19:15	0.07	2755	7.92	0.0					
9-17-19 2:30	13.86	1684	8.45	10.0	9-1-19 20:45	16.69	1038	8.29	6.4	9-1-19 20:45	17.56	1163	7.99	16.6						12-2-19 19:30	0.08	2750	7.92	0.0					
9-17-19 2:45	13.79	1680	8.45	9.4	9-1-19 21:00	16.87	1038	8.07	6.4	9-1-19 21:00	17.89	1165	7.99	15.2						12-2-19 19:45	0.09	2742	7.92	0.0					
9-17-19 3:00	13.71	1674	8.45	10.6	9-1-19 21:15	16.99	1040	7.96	6.1	9-1-19 21:15	17.98	1164	7.99	17.5						12-2-19 20:00	0.11	2738	7.92	0.0					
9-17-19 3:15	13.64	1672	8.45	9.9	9-1-19 21:30	17.07	1039	8.25	8.2	9-1-19 21:30	18.29	1165	7.98	16.1						12-2-19 20:15	0.09	2743	7.91	0.0					
9-17-19 3:30	13.55	1669	8.46	11.3	9-1-19 21:45	16.98	1037	8.24	6.5	9-1-19 21:45	18.45	1163	7.98	16.6						12-2-19 20:30	0.09	2744	7.91	0.0					
9-17-19 3:45	13.48	1668	8.46	10.6	9-1-19 22:00	17.11	1034	8.18	7.3	9-1-19 22:00	18.77	1164	7.98	16.6						12-2-19 20:45	0.08	2734	7.91	0.0					
9-17-19 4:00	13.39	1658	8.46	11.3	9-1-19 22:15	17.28	1042	7.20	5.9	9-1-19 22:15	18.74	1162	7.99	16.9						12-2-19 21:00	0.10	2731	7.92	0.0					
9-17-19 4:15	13.33	1660	8.46	9.9	9-1-19 22:30	17.45	1055	7.18	5.5	9-1-19 22:30	18.83	1162	7.99	15.6						12-2-19 21:15	0.09	2738	7.92	0.0					
9-17-19 4:30	13.29	1658	8.46	10.4	9-1-19 22:45	17.59	1054	7.24	5.6	9-1-19 22:45	18.63	1160	7.99	17.2						12-2-19 21:30	0.09	2763	7.92	0.0					
9-17-19 4:45	13.26	1662	8.46	10.5	9-1-19 23:00	17.73	1054	7.18	5.7	9-1-19 23:00	18.07	1159	7.98	15.6						12-2-19 21:45	0.09	2739	7.92	0.3					
9-17-19 5:00	13.23	1663	8.46	10.2	9-1-19 23:15	17.88	1046	7.25	5.9	9-1-19 23:15	17.90	1163	7.99	17.0						12-2-19 22:00	0.09	2733	7.92	0.0					
9-17-19 5:15	13.10	1644	8.46	10.6	9-1-19 23:30	18.00	1040	7.29	6.1	9-1-19 23:30	17.86	1162	7.95	16.6						12-2-19 22:15	0.08	2764	7.91	0.0					
9-17-19 5:30	13.07	1648	8.46	10.5	9-1-19 23:45	18.07	1055	7.28	5.6	9-1-19 23:45	17.90	1164	7.99	17.5						12-2-19 22:30	-0.01	2738	7.91	3.9					
9-17-19 5:45	13.04	1651	8.46	8.5	9-2-19 0:00	18.24	1052	7.41	6.6	9-2-19 0:00	18.09	1163	7.98	16.7						12-2-19 23:00	-0.10	2737	7.91	0.2					
9-17-19 6:00	12.97	1645	8.46	11.9	9-2-19 0:15	18.20	1052	7.22	5.7	9-2-19 0:15	18.13	1161	7.99	16.0						12-2-19 23:15	-0.11	2739	7.92	0.3					
9-17-19 6:15	12.94	1646	8.46	9.5	9-2-19 0:30	18.20	1050	7.38	5.0	9-2-19 0:30	18.03	1161	7.99	17.1						12-2-19 23:30	-0.12	2732	7.92	0.0					
9-17-19 6:30	12.91	1642	8.46	10.3	9-2-19 0:45	18.20	1045	7.13	4.7	9-2-19 0:45	18.05	1161	8.00	17.5						12-2-19 23:45	-0.12	2732	7.92	0.2					
9-17-19 6:45	12.85	1636	8.46	9.1	9-2-19 1:00	18.19	1045	7.21	5.3	9-2-19 1:00	18.23	1164	8.01	16.4						12-3-19 0:00	-0.13	2732	7.92	0.0					
9-17-19 7:00	12.79	1634	8.46	11.1	9-2-19 1:15	18.12	1042	7.22	5.2	9-2-19 1:15	18.37	1163	8.02	16.1						12-3-19 0:15	-0.13	2736	7.91	0.0					
9-17-19 7:15	12.80	1640	8.46	9.4	9-2-19 1:30	18.14	1043	7.36	5.0	9-2-19 1:30	18.47	1165	8.02	15.1						12-3-19 0:30	-0.13	2735	7.92	0.0					
9-17-19 7:30	12.74	1627	8.46	11.8	9-2-19 1:45	18.13	1041	7.59	5.1	9-2-19 1:45	18.50	1165	8.04	15.9						12-3-19 0:45	-0.13	2735	7.92	0.0					
9-17-19 7:45	12.71	1629	8.46	12.4	9-2-19 2:00	18.12	1039	7.26	5.4	9-2-19 2:00	18.54	1165	8.05	15.4						12-3-19 1:00	-0.13	2734	7.92	0.0					
9-17-19 8:00	12.64	1616	8.46	11.4	9-2-19 2:15	17.86	1040	7.68	5.5	9-2-19 2:15	18.57	1165	8.05	16.2						12-3-19 1:15	-0.13	2732	7.93	0.0					
9-17-19 8:15	12.67	1628	8.46	11.2	9-2-19 2:30	17.61	1030	8.21	6.0	9-2-19 2:30	18.47	1165	8.04	15.5						12-3-19 1:30	-0.13	2729	7.93	0.0					
9-17-19 8:30	12.66	1625	8.46	13.9	9-2-19 2:45	17.36	1030	8.28	6.0	9-2-19 2:45	18.33	1164	8.06	15.5						12-3-19 1:45	-0.13	2734	7.93	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-17-19 8:45	12.65	1627	8.46	9.8	9-2-19 3:00	17.22	1035	8.21	6.4	9-2-19 3:00	18.30	1165	8.06	15.3						12-3-19 2:00	-0.13	2735	7.93	0.0					
9-17-19 9:00	12.63	1627	8.46	10.1	9-2-19 3:15	17.16	1043	7.37	5.9	9-2-19 3:15	18.25	1165	8.07	15.5						12-3-19 2:15	-0.13	2738	7.93	0.0					
9-17-19 9:15	12.63	1630	8.45	13.1	9-2-19 3:30	17.18	1036	7.48	6.7	9-2-19 3:30	18.24	1165	8.06	15.4						12-3-19 2:30	-0.13	2741	7.93	0.0					
9-17-19 9:30	12.61	1625	8.46	10.6	9-2-19 3:45	17.22	1035	7.79	6.3	9-2-19 3:45	18.18	1165	8.07	15.6						12-3-19 2:45	-0.13	2742	7.94	0.0					
9-17-19 9:45	12.61	1628	8.45	8.6	9-2-19 4:00	17.36	1025	8.21	5.6	9-2-19 4:00	18.11	1165	8.07	15.0						12-3-19 3:00	-0.13	2742	7.94	0.0					
9-17-19 10:00	12.60	1629	8.46	9.8	9-2-19 4:15	17.24	1029	7.23	5.9	9-2-19 4:15	18.05	1164	8.08	15.6						12-3-19 3:15	-0.13	2736	7.94	0.0					
9-17-19 10:15	12.59	1631	8.45	10.6	9-2-19 4:30	17.23	1040	7.14	5.5	9-2-19 4:30	17.92	1164	8.09	14.6						12-3-19 3:30	-0.13	2736	7.93	0.0					
9-17-19 10:30	12.59	1632	8.46	10.0	9-2-19 4:45	17.24	1034	7.26	5.6	9-2-19 4:45	17.82	1164	8.09	17.6						12-3-19 3:45	-0.13	2725	7.94	0.0					
9-17-19 10:45	12.52	1616	8.45	9.4	9-2-19 5:00	17.22	1035	7.09	4.9	9-2-19 5:00	17.74	1164	8.08	14.8						12-3-19 4:00	-0.13	2725	7.93	0.0					
9-17-19 11:00	12.53	1621	8.45	13.7	9-2-19 5:15	17.20	1034	7.23	5.5	9-2-19 5:15	17.66	1164	8.09	15.4						12-3-19 4:15	-0.14	2735	7.93	0.0					
9-17-19 11:15	12.52	1621	8.45	11.5	9-2-19 5:30	17.13	1039	7.15	6.2	9-2-19 5:30	17.59	1164	8.09	14.3						12-3-19 4:30	-0.14	2845	7.93	0.0					
9-17-19 11:30	12.48	1613	8.45	9.6	9-2-19 5:45	17.10	1034	7.11	5.1	9-2-19 5:45	17.54	1164	8.09	15.0						12-3-19 4:45	-0.14	2743	7.93	0.0					
9-17-19 11:45	12.41	1599	8.44	8.8	9-2-19 6:00	17.04	1047	7.08	5.1	9-2-19 6:00	17.48	1163	8.08	13.8						12-3-19 5:00	-0.14	2749	7.93	0.0					
9-17-19 12:00	12.42	1604	8.44	9.9	9-2-19 6:15	17.01	1043	7.08	4.8	9-2-19 6:15	17.42	1163	8.08	15.0						12-3-19 5:15	-0.14	2745	7.94	0.0					
9-17-19 12:15	12.40	1600	8.44	12.0	9-2-19 6:30	16.96	1044	7.07	5.0	9-2-19 6:30	17.34	1163	8.09	13.9						12-3-19 5:30	-0.14	2731	7.94	0.0					
9-17-19 12:30	12.41	1600	8.44	8.9	9-2-19 6:45	16.92	1042	7.17	5.0	9-2-19 6:45	17.25	1165	8.09	15.0						12-3-19 5:45	-0.14	2738	7.94	0.0					
9-17-19 12:45	12.35	1598	8.43	8.4	9-2-19 7:00	16.88	1043	7.11	5.1	9-2-19 7:00	17.19	1163	8.08	13.4						12-3-19 6:00	-0.14	2732	7.93	0.0					
9-17-19 13:00	12.38	1599	8.44	8.0	9-2-19 7:15	16.86	1039	7.11	5.6	9-2-19 7:15	17.12	1163	8.08	14.9						12-3-19 6:15	-0.13	2736	7.93	0.0					
9-17-19 13:15	12.38	1603	8.43	9.4	9-2-19 7:30	16.83	1037	7.18	5.6	9-2-19 7:30	17.04	1162	8.08	13.3						12-3-19 6:30	-0.13	2748	7.92	0.0					
9-17-19 13:30	12.41	1612	8.44	8.6	9-2-19 7:45	16.81	1041	7.18	6.1	9-2-19 7:45	17.00	1163	8.08	15.8						12-3-19 6:45	-0.13	2747	7.92	0.0					
9-17-19 13:45	12.35	1600	8.44	8.9	9-2-19 8:00	16.81	1040	7.07	6.3	9-2-19 8:00	16.93	1162	8.08	13.3						12-3-19 7:00	-0.13	2739	7.93	0.0					
9-17-19 14:00	12.31	1592	8.44	11.2	9-2-19 8:15	16.79	1040	7.22	5.5	9-2-19 8:15	16.87	1162	8.09	15.3						12-3-19 7:15	-0.13	2743	7.93	0.0					
9-17-19 14:15	12.23	1581	8.43	7.9	9-2-19 8:30	16.75	1038	7.17	4.9	9-2-19 8:30	16.80	1162	8.08	13.6						12-3-19 7:30	-0.13	2748	7.93	0.0					
9-17-19 14:30	12.25	1589	8.43	8.1	9-2-19 8:45	16.74	1038	7.08	4.8	9-2-19 8:45	16.70	1162	8.08	15.0						12-3-19 7:45	-0.10	2745	7.93	0.0					
9-17-19 14:45	12.24	1592	8.43	7.2	9-2-19 9:00	16.67	1033	7.18	4.8	9-2-19 9:00	16.66	1162	8.08	12.6						12-3-19 8:00	-0.10	2746	7.94	0.0					
9-17-19 15:00	12.17	1567	8.43	8.1	9-2-19 9:15	16.67	1031	7.04	5.0	9-2-19 9:15	16.58	1161	8.08	14.6						12-3-19 8:15	-0.12	2767	7.93	0.0					
9-17-19 15:15	12.13	1563	8.42	8.0	9-2-19 9:30	16.63	1031	7.29	5.3	9-2-19 9:30	16.52	1161	8.07	14.5						12-3-19 8:30	-0.13	2755	7.93	0.0					
9-17-19 15:30	12.13	1566	8.42	8.1	9-2-19 9:45	16.61	1024	7.63	5.8	9-2-19 9:45	16.47	1161	8.07	14.9						12-3-19 8:45	-0.13	2751	7.93	0.0					
9-17-19 15:45	12.17	1576	8.42	7.5	9-2-19 10:00	16.58	1025	7.35	5.4	9-2-19 10:00	16.42	1161	8.07	14.1						12-3-19 9:00	-0.13	2712	7.94	0.0					
9-17-19 16:00	12.20	1581	8.43	8.0	9-2-19 10:15	16.54	1025	7.18	4.9	9-2-19 10:15	16.38	1161	8.07	15.4						12-3-19 9:15	-0.13	2753	7.94	0.0					
9-17-19 16:15	12.14	1567	8.42	7.0	9-2-19 10:30	16.53	1037	7.12	4.8	9-2-19 10:30	16.34	1161	8.07	15.5						12-3-19 9:30	-0.14	2761	7.94	0.0					
9-17-19 16:30	12.16	1571	8.43	7.2	9-2-19 10:45	16.53	1039	7.10	5.0	9-2-19 10:45	16.25	1160	8.07	15.6						12-3-19 9:45	-0.14	2756	7.94	0.0					
9-17-19 16:45	12.15	1571	8.42	7.2	9-2-19 11:00	16.48	1037	7.18	4.3	9-2-19 11:00	16.19	1160	8.06	14.1						12-3-19 10:00	-0.14	2753	7.94	0.0					
9-17-19 17:00	12.16	1569	8.42	7.1	9-2-19 11:15	16.45	1035	7.21	4.5	9-2-19 11:15	16.16	1161	8.06	15.3						12-3-19 10:15	-0.14	2758	7.93	0.0					
9-17-19 17:15	12.16	1561	8.42	8.0	9-2-19 11:30	16.43	1031	7.10	4.1	9-2-19 11:30	16.11	1160	8.05	13.8						12-3-19 10:30	-0.14	2760	7.93	0.0					
9-17-19 17:30	12.20	1564	8.42	6.9	9-2-19 11:45	16.41	1044	7.17	4.4	9-2-19 11:45	16.04	1159	8.05	15.1						12-3-19 10:45	-0.14	2757	7.93	0.0					
9-17-19 17:45	12.23	1562	8.42	6.4	9-2-19 12:00	16.40	1032	7.18	5.2	9-2-19 12:00	16.04	1159	8.04	14.9						12-3-19 11:00	-0.14	2760	7.94	0.0					
9-17-19 18:00	12.32	1565	8.42	7.1	9-2-19 12:15	16.38	1036	7.12	4.2	9-2-19 12:15	15.96	1158	8.03	16.1						12-3-19 11:15	-0.13	2751	7.95	0.0					
9-17-19 18:15	12.32	1568	8.41	6.8	9-2-19 12:30	16.34	1035	7.17	4.0	9-2-19 12:30	15.94	1159	8.03	14.1						12-3-19 11:30	-0.13	2748	7.93	0.0					
9-17-19 18:30	12.39	1567	8.42	7.1	9-2-19 12:45	16.33	1038	7.18	4.2	9-2-19 12:45	15.91	1158	8.03	16.3						12-3-19 11:45	-0.14	2749	7.93	0.0					
9-17-19 18:45	12.62	1566	8.41	6.2	9-2-19 13:00	16.32	1037	7.13	4.0	9-2-19 13:00	15.89	1158	8.03	15.3						12-3-19 12:00	-0.14	2750	7.93	0.0					
9-17-19 19:00	12.68	1556	8.41	6.5	9-2-19 13:15	16.28	1037	7.13	4.2	9-2-19 13:15	15.87	1158	8.02	16.7						12-3-19 12:15	-0.14	2751	7.93	0.0					
9-17-19 19:15	12.75	1554	8.40	6.3	9-2-19 13:30	16.27	1037	7.16	4.5	9-2-19 13:30	15.84	1157	8.01	15.1						12-3-19 12:30	-0.14	2753	7.93	0.0					
9-17-19 19:30	13.01	1559	8.40	6.6	9-2-19 13:45	16.27	1036	7.14	4.5	9-2-19 13:45	15.82	1158	8.01	16.2						12-3-19 12:45	-0.14	2754	7.93	0.0					
9-17-19 19:45	12.97	1537	8.39	6.6	9-2-19 14:00	16.25	1036	7.11	4.2	9-2-19 14:00	15.80	1158	8.01	15.4						12-3-19 13:00	-0.14	2758	7.94	0.0					
9-17-19 20:00	13.01	1523	8.39	6.9	9-2-19 14:15	16.25	1037	7.18	4.4	9-2-19 14:15	15.77	1157	8.01	17.2						12-3-19 13:15	-0.14	2752	7.94	0.0					
9-17-19 20:15	13.40	1541	8.38	6.4	9-2-19 14:30	16.23	1037	7.20	4.2	9-2-19 14:30	15.75	1157	8.01	14.7						12-3-19 13:30	-0.14	2755	7.94	0.0					
9-17-19 20:30	13.41	1535	8.38	6.4	9-2-19 14:45	16.22	1037	7.20	4.5	9-2-19 14:45	15.73	1158	8.01	16.3						12-3-19 13:45	-0.13	2753	7.94	0.0					
9-17-19 20:45	13.54	1537	8.38	5.6	9-2-19 15:00	16.23	1036	7.23	4.8	9-2-19 15:00	15.71	1157	8.01	15.0						12-3-19 14:00	-0.13	2751	7.93	0.0					
9-17-19 20:45	13.54	1537	8.38	5.6	9-2-19 15:15	16.22	1036	7.20	4.5	9-2-19 15:15	15.70	1157	8.01	16.6						12-3-19 14:15	-0.13	2759	7.93	0.0					
9-17-19 21:15	13.83	1535	8.38	6.0	9-2-19 15:30	16.22	1033	7.28	5.1	9-2-19 15:30	15.68	1157	8.00	15.1						12-3-19 14:30	-0.14	2763	7.93	0.0					
9-17-19 21:30	13.98	1536	8.37	5.9	9-2-19 15:45	16.16	1027	7.30	5.1	9-2-19 15:45	15.67	1156	7.99	16.1						12-3-19 14:45	-0.14	2761	7.93	0.0					
9-17-19 21:45	14.09	1535	8.37	6.4	9-2-19 16:00	16.10	1022	7.34	5.6	9-2-19 16:00	15.70	1156	7.98	15.8						12-3-19 15:00	-0.13	2769	7.93	0.0					
9-17-19 22:00	14.14	1537	8.37	5.8	9-2-19 16:15	16.11	1022	7.26	4.9	9-2-19 16:15	15.72	1155	7.97	17.8						12-3-19 15:15	-0.14	2767	7.93	0.0					
9-17-19 22:15	14.28	1535	8.37	5.8	9-2-19 16:30	16.10	1020	7.20	4.6	9-2-19 16:30	15.74	1155	7.97	15.3						12-3-19 15:30	-0.14	2765	7.93	0.0					
9-17-19 22:30	14.47	1537	8.37	5.6	9-2-19 16:45	16.11	1016	7.20	4.8	9-2-19 16:45	15.79	1156	7.98	16.8						12-3-19 15:45	-0.14	2765	7.93	0.0					
9-17-19 22:45	14.48	1538	8.37	5.7	9-2-19 17:00	16.12	1015	7.22	4.3	9-2-19 17:00	15.85	1156	7.98	14.8						12-3-19 16:00	-0.14	2766	7.93	0.0					
9-17-19 23:00	14.67	1527	8.37	5.4	9-2-19 17:15	16.12	1016	7.17	4.7	9-2-19 17:15	15.89	1156	7.98	16.4						12-3-19 16:15	-0.14	2766	7.92	0.0					
9-17-19 23:15	14.65	1529	8.37	5.5	9-2-19 17:30	16.13	1016	7.15	4.6	9-2-19 17:30	15.94	1156	7.98	14.8						12-3-19 16:30	-0.06	2754	7.92	0.1					
9-17-19 23:30	14.68	1513	8.36	5.7	9-2-19 17:45	16.16	1015	7.22	4.9	9-2-19 17:45	16.03	1156	7.98	15.4						12-3-19 16:45	-0.12	2769	7.92	0.0					
9-17-19 23:45	14.65	1508	8.36	6.2	9-2-19 18:00	16.24	1014	7.20	4.5	9-2-19 18:00	16.17	1156	7.97	15.1						12-3-19 17:00	-0.14	2780	7.92	0.3					
9-18-19 0:00	14.68	1508	8.36	5.5	9-2-19 18:15	16.33	1011	7.22	4.5	9-2-19 18:15	16.36	1156	7.97	16.5						12-3-19 17:15	-0.14	2770	7.93	0.0					
9-18-19 0:15	14.72	1505	8.36	5.6	9-2-19 18:30	16.31	1004	8.16	5.2	9-2-19 18:30	16.54	1156	7.98	15.2						12-3-19 17:30	-0.07	2767	7.93	0.2					
9-18-19 0:30	14.71	1500	8.36	7.0	9-2-19 18:45	16.39	1008	8.18	5.6	9-2-19 18:45	16.70	1155	7.96	16.9						12-3-19 17:45	-0.12	2753	7.93	0.9					
9-18-19 0:45	14.63	1501	8.37	5.4	9-2-19 19:00	16.43	1008	8.19	5.1	9-2-19 19:00	16.89	1157	7.98	14.9						12-3-19 18:00	-0.04	2785	7.95	0.0					
9-18-19 1:00	14.56	1499	8.37	5.0	9-2-19 19:15	16.38	1008	8.19	5.4	9-2-19 19:15	17.19	1158	7.98	15.8						12-3-19 18:15	-0.02	2792	7.94	0.0					
9-18-19 1:15	14.40	1496	8.38	5.3	9-2-19 19:30	16.50	1004	8.19	5.3	9-2-19 19:30	17.33	1158	7.96	14.3						12-3-19 18:30	0.00	2777	7.94	0.0					
9-18-19 1:30	14.35	1498	8.37	4.5	9-2-19 19:45	16.60	1004	8.19	7.2	9-2-19 19:45	17.49	1158	7.98	16.1						12-3-19 18:45	0.00	2779	7.94	0.0					
9-18-19 1:45	14.20	1498	8.39	6.0	9-2-19 20:00	16.65	1006	8.20	5.4	9-2-19 20:00	17.72	1158	7.97	14.3						12-3-19 19:00	0.02	2763	7.95	0.0					
9-18-19 2:00	14.12	1495	8.39	5.1	9-2-19 20:15	16.71	1007	8.20	5.2	9-2-19 20:15	18.00	1158	7.97	16.2						12-3-19 19:15	-0.02	2775	7.96	0.0					
9-18-19 2:15	14.00	1486	8.39	6.1	9-2-19 20:30	16.79	1004	8.21	5.2	9-2-19 20:30	18.23	1158	7.97	14.4						12-3-19 19:30	-0.04	2785	7.96	0.0					
9-18-19 2:30	13.90	1486	8.40	4.9	9-2-19 20:45	17.08	1013	8.20	5.2	9-2-19 20:45	18.28	1158	7.97	15.4						12-3-19 19:45	-0.10	2781	7.96	0.0					
9-18-19 2:45	13.70	1480	8.40	5.1	9-2-19 21:00	17.18	1014	8.19	5.7	9-2-19 21:00	18.46	1158	7.95	14.2						12-3-19 20:00	-0.05	2774	7.97	0.0					

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-18-19 3:00	13.59	1481	8.41	5.4	9-2-19 21:15	17.40	1020	8.09	4.9	9-2-19 21:15	19.53	1162	8.01	16.1						12-3-19 20:15	-0.06	2750	7.97	0.0					
9-18-19 3:15	13.41	1469	8.41	5.5	9-2-19 21:30	17.37	1013	8.17	5.5	9-2-19 21:30	19.14	1160	8.00	16.2						12-3-19 20:30	-0.09	2775	7.97	0.0					
9-18-19 3:30	13.35	1475	8.41	5.2	9-2-19 21:45	16.89	1010	8.21	5.6	9-2-19 21:45	19.20	1160	8.00	15.4						12-3-19 20:45	-0.09	2796	7.97	0.0					
9-18-19 3:45	13.25	1465	8.41	5.6	9-2-19 22:00	17.02	1007	8.21	6.4	9-2-19 22:00	19.09	1160	8.00	14.8						12-3-19 21:00	-0.08	2804	7.97	0.0					
9-18-19 4:00	13.15	1473	8.42	5.2	9-2-19 22:15	17.00	1012	8.22	5.0	9-2-19 22:15	19.03	1160	8.01	16.8						12-3-19 21:15	-0.12	2791	7.97	0.0					
9-18-19 4:15	13.17	1489	8.42	5.1	9-2-19 22:30	16.98	1012	8.22	5.0	9-2-19 22:30	18.95	1159	8.01	17.0															
9-18-19 4:30	13.13	1492	8.42	5.0	9-2-19 22:45	16.99	1013	8.22	5.5	9-2-19 22:45	19.00	1160	8.03	17.4															
9-18-19 4:45	13.15	1505	8.43	5.5	9-2-19 23:00	17.00	1011	8.23	5.3	9-2-19 23:00	18.91	1160	8.02	15.8															
9-18-19 5:00	13.10	1495	8.42	5.3	9-2-19 23:15	17.11	1011	8.23	5.4	9-2-19 23:15	18.87	1159	8.02	16.5															
9-18-19 5:15	13.00	1486	8.42	5.5	9-2-19 23:30	17.19	1010	8.24	5.2	9-2-19 23:30	18.98	1161	8.04	15.2															
9-18-19 5:30	12.94	1491	8.43	5.6	9-2-19 23:45	17.13	1008	8.26	6.2	9-2-19 23:45	18.96	1160	8.05	20.0															
9-18-19 5:45	12.90	1486	8.43	5.9	9-3-19 0:00	17.16	1002	8.26	9.0	9-3-19 0:00	18.80	1160	8.04	15.3															
9-18-19 6:00	12.81	1482	8.42	5.0	9-3-19 0:15	17.11	1008	8.26	5.8	9-3-19 0:15	18.62	1158	8.04	16.7															
9-18-19 6:15	12.79	1481	8.42	5.0	9-3-19 0:30	17.08	1006	8.26	5.7	9-3-19 0:30	18.59	1161	8.05	16.8															
9-18-19 6:30	12.75	1479	8.42	5.3	9-3-19 0:45	17.14	1002	8.29	5.9	9-3-19 0:45	18.53	1153	8.06	18.1															
9-18-19 6:45	12.75	1481	8.42	5.5	9-3-19 1:00	17.18	1000	8.29	5.7	9-3-19 1:00	18.46	1158	8.05	15.7															
9-18-19 7:00	12.72	1481	8.42	5.7	9-3-19 1:15	17.21	1001	8.29	6.2	9-3-19 1:15	18.43	1158	8.06	16.3															
9-18-19 7:15	12.64	1480	8.42	5.3	9-3-19 1:30	17.22	998	8.29	6.9	9-3-19 1:30	18.40	1158	8.05	14.1															
9-18-19 7:30	12.63	1482	8.42	4.7	9-3-19 1:45	17.20	997	8.28	6.0	9-3-19 1:45	18.39	1157	8.06	15.7															
9-18-19 7:45	12.61	1482	8.42	6.4	9-3-19 2:00	17.17	981	8.28	6.0	9-3-19 2:00	18.32	1158	8.06	14.6															
9-18-19 8:00	12.58	1482	8.42	4.8	9-3-19 2:15	17.17	999	8.30	6.6	9-3-19 2:15	18.28	1158	8.06	14.8															
9-18-19 8:15	12.57	1482	8.42	5.8	9-3-19 2:30	17.35	1004	8.35	6.4	9-3-19 2:30	18.25	1158	8.06	13.4															
9-18-19 8:30	12.56	1489	8.42	4.6	9-3-19 2:45	17.40	999	8.36	6.0	9-3-19 2:45	18.18	1158	8.06	14.9															
9-18-19 8:45	12.52	1488	8.42	5.6	9-3-19 3:00	17.52	986	8.38	7.6	9-3-19 3:00	18.14	1158	8.07	13.1															
9-18-19 9:00	12.53	1494	8.41	4.1	9-3-19 3:15	17.50	981	8.38	6.8	9-3-19 3:15	18.08	1158	8.06	15.4															
9-18-19 9:15	12.52	1493	8.41	4.5	9-3-19 3:30	17.50	978	8.38	7.6	9-3-19 3:30	17.97	1156	8.07	13.0															
9-18-19 9:30	12.46	1491	8.41	4.7	9-3-19 3:45	17.49	979	8.37	6.9	9-3-19 3:45	17.86	1157	8.07	14.5															
9-18-19 9:45	12.44	1488	8.41	4.5	9-3-19 4:00	17.43	978	8.37	7.8	9-3-19 4:00	17.78	1157	8.07	12.7															
9-18-19 10:00	12.41	1486	8.41	4.4	9-3-19 4:15	17.37	980	8.37	6.8	9-3-19 4:15	17.74	1157	8.06	13.8															
9-18-19 10:15	12.36	1484	8.41	5.1	9-3-19 4:30	17.34	979	8.37	6.5	9-3-19 4:30	17.68	1156	8.06	12.2															
9-18-19 10:30	12.30	1481	8.41	4.0	9-3-19 4:45	17.32	979	8.35	6.4	9-3-19 4:45	17.65	1156	8.06	13.5															
9-18-19 10:45	12.28	1479	8.41	4.8	9-3-19 5:00	17.30	984	8.35	6.1	9-3-19 5:00	17.54	1156	8.06	12.0															
9-18-19 11:00	12.26	1479	8.40	4.4	9-3-19 5:15	17.21	994	8.34	6.0	9-3-19 5:15	17.49	1156	8.07	14.5															
9-18-19 11:15	12.24	1478	8.40	4.8	9-3-19 5:30	17.17	994	8.34	6.0	9-3-19 5:30	17.44	1156	8.06	12.5															
9-18-19 11:30	12.17	1478	8.40	4.3	9-3-19 5:45	17.16	996	8.33	6.0	9-3-19 5:45	17.39	1156	8.07	13.7															
9-18-19 11:45	12.13	1476	8.40	4.6	9-3-19 6:00	17.12	996	8.32	6.3	9-3-19 6:00	17.31	1156	8.07	11.6															
9-18-19 12:00	12.11	1475	8.40	4.5	9-3-19 6:15	17.06	997	8.31	5.5	9-3-19 6:15	17.31	1156	8.07	14.2															
9-18-19 12:15	12.11	1474	8.40	4.4	9-3-19 6:30	17.03	998	8.31	5.3	9-3-19 6:30	17.23	1155	8.07	12.5															
9-18-19 12:30	12.05	1471	8.40	4.2	9-3-19 6:45	16.97	997	8.31	5.5	9-3-19 6:45	17.20	1156	8.07	13.9															
9-18-19 12:45	12.04	1471	8.40	4.7	9-3-19 7:00	16.96	995	8.31	5.5	9-3-19 7:00	17.14	1155	8.07	11.9															
9-18-19 13:00	11.98	1471	8.40	4.7	9-3-19 7:15	16.90	993	8.31	7.0	9-3-19 7:15	17.08	1155	8.08	12.4															
9-18-19 13:15	11.96	1469	8.40	4.5	9-3-19 7:30	16.90	993	8.31	5.3	9-3-19 7:30	17.03	1155	8.08	11.8															
9-18-19 13:30	11.92	1469	8.39	3.9	9-3-19 7:45	16.88	992	8.31	6.0	9-3-19 7:45	16.99	1155	8.08	13.4															
9-18-19 13:45	11.90	1466	8.39	4.9	9-3-19 8:00	16.85	990	8.31	4.7	9-3-19 8:00	16.92	1155	8.08	11.0															
9-18-19 14:00	11.91	1466	8.39	5.3	9-3-19 8:15	16.84	993	8.30	4.9	9-3-19 8:15	16.83	1154	8.07	15.5															
9-18-19 14:15	11.88	1466	8.39	4.4	9-3-19 8:30	16.81	997	8.30	4.2	9-3-19 8:30	16.79	1154	8.07	13.0															
9-18-19 14:30	11.84	1466	8.39	3.9	9-3-19 8:45	16.78	996	8.29	4.6	9-3-19 8:45	16.76	1154	8.06	14.1															
9-18-19 14:45	11.80	1464	8.39	4.3	9-3-19 9:00	16.77	994	8.29	4.9	9-3-19 9:00	16.67	1154	8.06	13.3															
9-18-19 15:00	11.78	1463	8.39	3.8	9-3-19 9:15	16.76	1004	8.29	4.5	9-3-19 9:15	16.64	1153	8.06	13.6															
9-18-19 15:15	11.78	1462	8.39	4.3	9-3-19 9:30	16.72	1003	8.29	4.4	9-3-19 9:30	16.61	1152	8.05	12.4															
9-18-19 15:30	11.77	1461	8.39	3.9	9-3-19 9:45	16.68	1003	8.29	4.5	9-3-19 9:45	16.55	1151	8.04	15.7															
9-18-19 15:45	11.76	1459	8.39	4.2	9-3-19 10:00	16.69	999	8.29	4.7	9-3-19 10:00	16.51	1149	8.03	14.1															
9-18-19 16:00	11.77	1460	8.38	4.1	9-3-19 10:15	16.65	997	8.29	4.3	9-3-19 10:15	16.45	1145	8.01	18.1															
9-18-19 16:15	11.74	1458	8.38	4.0	9-3-19 10:30	16.64	1002	8.29	4.4	9-3-19 10:30	16.43	1146	8.00	15.8															
9-18-19 16:30	11.74	1456	8.38	4.0	9-3-19 10:45	16.61	1003	8.29	4.6	9-3-19 10:45	16.39	1145	8.00	15.9															
9-18-19 16:45	11.76	1456	8.39	4.1	9-3-19 11:00	16.59	1000	8.28	5.1	9-3-19 11:00	16.37	1145	8.00	13.8															
9-18-19 17:00	11.77	1457	8.39	3.9	9-3-19 11:15	16.56	1002	8.28	4.1	9-3-19 11:15	16.31	1145	8.00	18.2															
9-18-19 17:15	11.80	1456	8.39	5.2	9-3-19 11:30	16.54	1002	8.28	3.9	9-3-19 11:30	16.30	1145	8.00	13.5															
9-18-19 17:30	11.83	1455	8.39	3.6	9-3-19 11:45	16.52	1001	8.28	5.2	9-3-19 11:45	16.26	1144	8.00	15.1															
9-18-19 17:45	11.86	1454	8.39	3.7	9-3-19 12:00	16.51	1000	8.28	3.8	9-3-19 12:00	16.20	1144	8.00	15.9															
9-18-19 18:00	11.92	1455	8.38	3.8	9-3-19 12:15	16.46	1001	8.28	4.2	9-3-19 12:15	16.19	1144	8.00	17.1															
9-18-19 18:15	11.95	1452	8.39	3.6	9-3-19 12:30	16.43	1000	8.28	4.1	9-3-19 12:30	16.13	1142	7.98	16.3															
9-18-19 18:30	12.21	1450	8.37	3.8	9-3-19 12:45	16.41	999	8.28	3.9	9-3-19 12:45	16.11	1141	7.98	17.9															
9-18-19 18:45	12.30	1451	8.37	4.0	9-3-19 13:00	16.39	998	8.28	4.0	9-3-19 13:00	16.06	1142	7.98	16.3															
9-18-19 19:00	12.36	1451	8.37	3.8	9-3-19 13:15	16.36	997	8.28	4.1	9-3-19 13:15	16.04	1140	7.97	18.1															
9-18-19 19:15	12.52	1449	8.37	3.8	9-3-19 13:30	16.32	997	8.27	4.2	9-3-19 13:30	16.02	1141	7.98	16.5															
9-18-19 19:30	12.72	1447	8.35	3.4	9-3-19 13:45	16.28	996	8.27	5.6	9-3-19 13:45	15.95	1141	7.98	19.3															
9-18-19 19:45	12.82	1444	8.35	3.6	9-3-19 14:00	16.29	994	8.27	4.5	9-3-19 14:00	15.95	1141	7.98	16.0															
9-18-19 20:00	12.93	1443	8.34	3.3	9-3-19 14:15	16.25	997	8.27	4.8	9-3-19 14:15	15.92	1140	7.98	18.5															
9-18-19 20:15	12.99	1448	8.35	3.7	9-3-19 14:30	16.28	998	8.28	4.3	9-3-19 14:30	15.92	1140	7.98	16.1															
9-18-19 20:30	13.27	1449	8.34	3.4	9-3-19 14:45	16.29	997	8.28	5.3	9-3-19 14:45	15.94	1140	7.97	17.1															
9-18-19 20:45	13.35	1445	8.34	3.3	9-3-19 15:00	16.28	997	8.28	4.2	9-3-19 15:00	15.92	1140	7.97	16.2															
9-18-19 21:00	13.49	1441	8.33	3.2	9-3-19 15:15	16.29	995	8.28	4.5	9-3-19 15:15	15.90	1140	7.97	18.5															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-18-19 21:15	13.59	1443	8.33	3.6	9-3-19 15:30	16.29	995	8.28	4.4	9-3-19 15:30	15.92	1139	7.96	16.2															
9-18-19 21:30	13.89	1448	8.33	3.2	9-3-19 15:45	16.28	990	8.26	5.0	9-3-19 15:45	15.93	1141	7.98	17.8															
9-18-19 21:45	13.98	1446	8.33	3.4	9-3-19 16:00	16.23	982	8.23	5.0	9-3-19 16:00	15.93	1142	7.98	15.6															
9-18-19 22:00	13.91	1442	8.32	3.2	9-3-19 16:15	16.12	980	8.23	5.3	9-3-19 16:15	15.96	1142	7.98	17.9															
9-18-19 22:15	14.00	1443	8.33	3.8	9-3-19 16:30	16.11	980	8.24	5.1	9-3-19 16:30	16.00	1140	7.97	15.9															
9-18-19 22:30	14.26	1446	8.32	3.5	9-3-19 16:45	16.18	981	8.25	5.2	9-3-19 16:45	16.08	1140	7.97	17.4															
9-18-19 22:45	14.25	1431	8.31	3.7	9-3-19 17:00	16.23	978	8.25	4.9	9-3-19 17:00	16.18	1138	7.95	16.4															
9-18-19 23:00	14.53	1443	8.32	3.0	9-3-19 17:15	16.30	972	8.25	5.6	9-3-19 17:15	16.47	1139	7.96	17.6															
9-18-19 23:15	14.15	1432	8.32	3.8	9-3-19 17:30	16.23	970	8.25	5.2	9-3-19 17:30	16.44	1140	7.96	15.2															
9-18-19 23:30	14.10	1439	8.33	3.1	9-3-19 17:45	16.29	973	8.26	5.4	9-3-19 17:45	16.38	1131	7.90	20.1															
9-18-19 23:45	14.09	1444	8.37	3.5	9-3-19 18:00	16.43	973	8.27	4.9	9-3-19 18:00	16.55	1136	7.93	16.4															
9-19-19 0:00	14.72	1446	8.33	3.1	9-3-19 18:15	16.54	971	8.27	5.3	9-3-19 18:15	16.70	1132	7.91	20.2															
9-19-19 0:15	14.37	1437	8.33	3.7	9-3-19 18:30	16.71	972	8.27	4.7	9-3-19 18:30	16.71	1134	7.92	16.9															
9-19-19 0:30	14.38	1435	8.32	2.8	9-3-19 18:45	16.79	977	8.26	4.7	9-3-19 18:45	16.62	1134	7.92	16.7															
9-19-19 0:45	14.56	1449	8.34	2.9	9-3-19 19:00	16.91	978	8.27	4.3	9-3-19 19:00	16.75	1133	7.91	16.1															
9-19-19 1:00	14.50	1446	8.34	3.0	9-3-19 19:15	17.06	980	8.27	4.5	9-3-19 19:15	17.00	1136	7.92	19.4															
9-19-19 1:15	14.40	1451	8.37	3.0	9-3-19 19:30	17.04	978	8.27	5.2	9-3-19 19:30	17.29	1137	7.91	18.9															
9-19-19 1:30	14.28	1455	8.40	2.8	9-3-19 19:45	17.01	976	8.28	4.5	9-3-19 19:45	17.72	1137	7.92	18.3															
9-19-19 1:45	13.80	1439	8.38	3.4	9-3-19 20:00	16.99	975	8.28	4.4	9-3-19 20:00	17.89	1138	7.92	16.4															
9-19-19 2:00	13.70	1446	8.39	3.3	9-3-19 20:15	16.93	965	8.29	4.9	9-3-19 20:15	18.17	1136	7.93	18.3															
9-19-19 2:15	13.74	1441	8.38	3.1	9-3-19 20:30	16.93	979	8.29	5.1	9-3-19 20:30	17.69	1132	7.90	16.1															
9-19-19 2:30	13.61	1450	8.40	3.1	9-3-19 20:45	16.91	978	8.30	5.3	9-3-19 20:45	17.86	1134	7.92	17.1															
9-19-19 2:45	13.43	1452	8.40	3.3	9-3-19 21:00	16.82	975	8.30	5.0	9-3-19 21:00	18.22	1137	7.93	15.8															
9-19-19 3:00	13.38	1455	8.41	3.1	9-3-19 21:15	17.02	976	8.30	5.3	9-3-19 21:15	18.52	1137	7.93	16.6															
9-19-19 3:15	13.32	1451	8.41	3.4	9-3-19 21:30	17.13	975	8.30	5.9	9-3-19 21:30	18.40	1136	7.91	15.8															
9-19-19 3:30	13.21	1447	8.39	3.0	9-3-19 21:45	17.21	979	8.30	5.2	9-3-19 21:45	18.43	1137	7.93	16.4															
9-19-19 3:45	13.13	1449	8.39	3.4	9-3-19 22:00	17.29	977	8.31	4.9	9-3-19 22:00	19.13	1139	7.94	17.3															
9-19-19 4:00	13.07	1451	8.40	3.0	9-3-19 22:15	17.06	974	8.31	5.0	9-3-19 22:15	19.13	1137	7.93	17.6															
9-19-19 4:15	13.02	1451	8.40	3.4	9-3-19 22:30	17.00	974	8.31	4.6	9-3-19 22:30	19.51	1140	7.96	16.3															
9-19-19 4:30	12.95	1452	8.41	3.0	9-3-19 22:45	17.04	971	8.31	5.3	9-3-19 22:45	19.67	1141	7.98	18.4															
9-19-19 4:45	12.87	1451	8.42	3.2	9-3-19 23:00	16.94	974	8.31	4.9	9-3-19 23:00	19.82	1140	7.98	16.7															
9-19-19 5:00	12.74	1432	8.40	3.9	9-3-19 23:15	16.93	975	8.30	5.0	9-3-19 23:15	19.78	1141	7.98	18.6															
9-19-19 5:15	12.68	1435	8.40	3.2	9-3-19 23:30	16.94	972	8.30	6.4	9-3-19 23:30	19.71	1140	7.97	16.7															
9-19-19 5:30	12.69	1451	8.40	3.4	9-3-19 23:45	17.14	974	8.32	5.0	9-3-19 23:45	19.53	1140	7.96	17.2															
9-19-19 5:45	12.65	1454	8.43	3.0	9-4-19 0:00	17.69	966	8.33	5.3	9-4-19 0:00	19.45	1140	7.96	15.6															
9-19-19 6:00	12.56	1454	8.43	2.8	9-4-19 0:15	17.66	953	8.35	5.5	9-4-19 0:15	19.69	1141	8.00	17.4															
9-19-19 6:15	12.50	1453	8.43	3.2	9-4-19 0:30	17.57	965	8.35	5.5	9-4-19 0:30	19.47	1141	7.98	15.1															
9-19-19 6:30	12.45	1454	8.43	2.9	9-4-19 0:45	17.53	957	8.34	5.4	9-4-19 0:45	19.51	1140	7.99	15.8															
9-19-19 6:45	12.45	1453	8.42	3.7	9-4-19 1:00	17.46	955	8.33	5.3	9-4-19 1:00	19.40	1140	7.98	14.9															
9-19-19 7:00	12.42	1447	8.41	2.7	9-4-19 1:15	17.41	971	8.33	5.2	9-4-19 1:15	19.56	1141	8.03	16.3															
9-19-19 7:15	12.39	1450	8.41	3.0	9-4-19 1:30	17.38	970	8.32	5.1	9-4-19 1:30	19.51	1140	8.01	13.9															
9-19-19 7:30	12.35	1447	8.41	3.1	9-4-19 1:45	17.65	973	8.33	5.4	9-4-19 1:45	19.34	1139	7.99	14.3															
9-19-19 7:45	12.32	1447	8.41	3.2	9-4-19 2:00	17.64	970	8.33	5.8	9-4-19 2:00	19.34	1140	8.01	13.4															
9-19-19 8:00	12.30	1448	8.40	2.7	9-4-19 2:15	17.88	968	8.35	4.9	9-4-19 2:15	19.23	1139	8.01	14.3															
9-19-19 8:15	12.28	1450	8.40	2.8	9-4-19 2:30	17.88	967	8.34	4.3	9-4-19 2:30	19.20	1138	8.02	13.9															
9-19-19 8:30	12.25	1451	8.40	2.8	9-4-19 2:45	17.84	978	8.34	4.2	9-4-19 2:45	19.12	1137	8.04	15.1															
9-19-19 8:45	12.23	1451	8.40	3.5	9-4-19 3:00	17.81	973	8.35	4.7	9-4-19 3:00	19.06	1135	8.04	13.7															
9-19-19 9:00	12.22	1456	8.40	2.6	9-4-19 3:15	17.44	973	8.33	5.8	9-4-19 3:15	19.02	1134	8.05	15.2															
9-19-19 9:15	12.22	1454	8.39	2.9	9-4-19 3:30	17.74	969	8.34	4.8	9-4-19 3:30	18.87	1131	8.05	12.9															
9-19-19 9:30	12.19	1454	8.39	2.9	9-4-19 3:45	17.74	972	8.35	5.3	9-4-19 3:45	18.03	1124	7.93	14.9															
9-19-19 9:45	12.15	1454	8.39	2.8	9-4-19 4:00	17.59	975	8.31	5.3	9-4-19 4:00	18.52	1128	8.04	14.6															
9-19-19 10:00	12.13	1451	8.39	2.9	9-4-19 4:15	17.72	969	8.35	5.3	9-4-19 4:15	18.49	1128	8.03	14.0															
9-19-19 10:15	12.11	1450	8.39	2.8	9-4-19 4:30	17.90	964	8.36	4.1	9-4-19 4:30	18.37	1128	8.01	13.7															
9-19-19 10:30	12.10	1451	8.38	2.4	9-4-19 4:45	18.18	941	8.39	4.2	9-4-19 4:45	18.23	1129	7.98	13.9															
9-19-19 10:45	12.09	1452	8.38	2.8	9-4-19 5:00	18.22	930	8.40	4.3	9-4-19 5:00	17.27	1127	7.91	13.4															
9-19-19 11:00	12.09	1455	8.38	2.6	9-4-19 5:15	18.20	933	8.39	4.5	9-4-19 5:15	18.02	1127	7.99	13.4															
9-19-19 11:15	12.05	1455	8.39	3.4	9-4-19 5:30	18.17	930	8.39	4.6	9-4-19 5:30	18.24	1129	8.03	13.4															
9-19-19 11:30	12.04	1456	8.38	2.9	9-4-19 5:45	18.15	937	8.39	4.5	9-4-19 5:45	18.29	1129	8.02	12.7															
9-19-19 11:45	12.05	1456	8.38	2.8	9-4-19 6:00	17.91	957	8.32	4.4	9-4-19 6:00	18.21	1129	8.01	12.4															
9-19-19 12:00	12.04	1457	8.37	2.4	9-4-19 6:15	17.76	967	8.29	4.4	9-4-19 6:15	18.15	1129	8.01	12.5															
9-19-19 12:15	12.01	1457	8.38	2.7	9-4-19 6:30	17.82	964	8.30	3.8	9-4-19 6:30	18.08	1128	8.02	12.0															
9-19-19 12:30	12.01	1460	8.37	2.4	9-4-19 6:45	17.62	973	8.27	4.1	9-4-19 6:45	18.10	1129	8.02	13.6															
9-19-19 12:45	12.00	1462	8.37	2.9	9-4-19 7:00	17.49	970	8.30	3.7	9-4-19 7:00	18.01	1128	8.03	11.7															
9-19-19 13:00	11.98	1462	8.37	2.8	9-4-19 7:15	17.45	974	8.30	3.8	9-4-19 7:15	17.99	1128	8.03	12.0															
9-19-19 13:15	11.96	1462	8.37	3.2	9-4-19 7:30	17.54	972	8.29	4.7	9-4-19 7:30	17.95	1128	8.04	11.5															
9-19-19 13:30	11.92	1465	8.37	3.0	9-4-19 7:45	17.56	966	8.31	4.7	9-4-19 7:45	17.91	1128	8.04	12.5															
9-19-19 13:45	11.93	1469	8.37	2.7	9-4-19 8:00	17.60	956	8.34	8.1	9-4-19 8:00	17.87	1128	8.04	12.8															
9-19-19 14:00	11.94	1474	8.36	2.5	9-4-19 8:15	17.58	955	8.36	3.9	9-4-19 8:15	17.86	1128	8.05	12.6															
9-19-19 14:15	11.94	1472	8.36	2.7	9-4-19 8:30	17.61	957	8.36	4.0	9-4-19 8:30	17.83	1128	8.05	11.3															
9-19-19 14:30	11.90	1470	8.36	2.4	9-4-19 8:45	17.60	957	8.36	3.8	9-4-19 8:45	17.81	1128	8.05	12.5															
9-19-19 14:45	11.90	1470	8.37	2.8	9-4-19 9:00	17.59	953	8.36	4.1	9-4-19 9:00	17.76	1128	8.04	11.2															
9-19-19 15:00	11.92	1476	8.35	2.5	9-4-19 9:15	17.59	953	8.36	4.2	9-4-19 9:15	17.76	1128	8.06	14.6															
9-19-19 15:15	11.96	1480	8.35	2.5	9-4-19 9:30	17.57	950	8.36	4.0	9-4-19 9:30	17.71	1128	8.05	11.1															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-19-19 15:30	11.96	1475	8.35	2.7	9-4-19 9:45	17.56	948	8.36	3.7	9-4-19 9:45	17.69	1127	8.04	11.1															
9-19-19 15:45	12.00	1484	8.34	3.4	9-4-19 10:00	17.55	949	8.36	3.9	9-4-19 10:00	17.69	1127	8.03	10.9															
9-19-19 16:00	12.01	1483	8.34	2.6	9-4-19 10:15	17.53	958	8.36	3.7	9-4-19 10:15	17.68	1127	8.03	11.2															
9-19-19 16:15	12.07	1488	8.34	2.9	9-4-19 10:30	17.54	956	8.36	3.6	9-4-19 10:30	17.67	1127	8.03	10.5															
9-19-19 16:30	12.13	1490	8.33	2.9	9-4-19 10:45	17.52	954	8.36	4.2	9-4-19 10:45	17.65	1127	8.03	12.1															
9-19-19 16:45	12.16	1490	8.33	2.7	9-4-19 11:00	17.49	951	8.35	3.5	9-4-19 11:00	17.63	1127	8.03	10.3															
9-19-19 17:00	12.22	1493	8.33	2.4	9-4-19 11:15	17.50	957	8.35	3.8	9-4-19 11:15	17.61	1127	8.04	10.7															
9-19-19 17:15	12.27	1491	8.33	2.7	9-4-19 11:30	17.49	955	8.35	4.1	9-4-19 11:30	17.56	1127	8.04	10.3															
9-19-19 17:30	12.41	1492	8.33	2.4	9-4-19 11:45	17.46	955	8.35	3.5	9-4-19 11:45	17.53	1127	8.04	12.2															
9-19-19 17:45	12.47	1494	8.33	2.8	9-4-19 12:00	17.42	955	8.35	3.7	9-4-19 12:00	17.48	1127	8.04	10.0															
9-19-19 18:00	12.60	1494	8.32	2.5	9-4-19 12:15	17.26	975	8.23	4.3	9-4-19 12:15	17.45	1126	8.04	11.3															
9-19-19 18:15	12.63	1492	8.32	2.7	9-4-19 12:30	17.19	976	8.23	4.2	9-4-19 12:30	17.40	1127	8.06	10.3															
9-19-19 18:30	12.70	1494	8.31	2.4	9-4-19 12:45	17.15	971	8.26	3.9	9-4-19 12:45	17.35	1127	8.04	11.5															
9-19-19 19:00	12.85	1493	8.32	2.8	9-4-19 13:00	17.15	969	8.27	4.1	9-4-19 13:00	17.33	1126	8.03	10.1															
9-19-19 19:15	12.92	1493	8.32	2.6	9-4-19 13:15	17.16	958	8.28	4.1	9-4-19 13:15	17.28	1127	8.04	11.2															
9-19-19 19:30	13.00	1495	8.32	2.4	9-4-19 13:30	17.20	949	8.32	4.1	9-4-19 13:30	17.24	1126	8.03	10.5															
9-19-19 19:45	13.09	1493	8.32	2.5	9-4-19 13:45	17.18	945	8.32	4.2	9-4-19 13:45	17.21	1125	8.02	11.4															
9-19-19 20:00	13.22	1496	8.32	2.6	9-4-19 14:00	17.14	946	8.31	4.1	9-4-19 14:00	17.19	1125	8.02	9.7															
9-19-19 20:15	13.36	1496	8.32	2.5	9-4-19 14:15	17.12	949	8.31	4.2	9-4-19 14:15	17.13	1125	8.02	10.1															
9-19-19 20:30	13.60	1496	8.32	3.1	9-4-19 14:30	17.11	963	8.26	5.4	9-4-19 14:30	17.10	1124	8.01	10.6															
9-19-19 20:45	13.67	1496	8.32	2.6	9-4-19 14:45	17.07	953	8.26	5.3	9-4-19 14:45	17.07	1123	8.00	11.3															
9-19-19 21:00	13.61	1495	8.31	2.5	9-4-19 15:00	17.02	952	8.24	5.2	9-4-19 15:00	17.04	1122	7.98	12.3															
9-19-19 21:15	13.60	1497	8.32	3.1	9-4-19 15:15	17.01	948	8.24	4.9	9-4-19 15:15	16.99	1122	7.98	11.1															
9-19-19 21:30	13.69	1499	8.32	2.7	9-4-19 15:30	17.03	946	8.27	4.3	9-4-19 15:30	17.00	1122	7.98	10.0															
9-19-19 21:45	13.80	1498	8.31	3.5	9-4-19 15:45	17.02	944	8.27	4.4	9-4-19 15:45	16.98	1122	7.99	11.0															
9-19-19 22:00	13.79	1498	8.32	3.4	9-4-19 16:00	17.02	947	8.25	5.0	9-4-19 16:00	16.97	1123	8.00	9.9															
9-19-19 22:15	13.63	1498	8.32	2.6	9-4-19 16:15	17.05	949	8.23	5.2	9-4-19 16:15	16.96	1123	8.00	11.1															
9-19-19 22:30	13.66	1498	8.33	2.8	9-4-19 16:30	17.03	959	8.18	4.9	9-4-19 16:30	16.96	1122	8.00	9.6															
9-19-19 22:45	13.62	1499	8.33	2.8	9-4-19 16:45	17.05	958	8.12	6.1	9-4-19 16:45	16.95	1122	8.00	10.0															
9-19-19 23:00	13.65	1500	8.34	3.1	9-4-19 17:00	17.06	958	8.14	5.3	9-4-19 17:00	16.93	1119	7.99	10.0															
9-19-19 23:15	13.69	1501	8.33	2.8	9-4-19 17:15	17.02	958	8.15	5.2	9-4-19 17:15	16.90	1112	7.96	10.6															
9-19-19 23:30	13.74	1501	8.34	4.4	9-4-19 17:30	17.01	957	8.15	5.1	9-4-19 17:30	16.89	1113	7.96	11.0															
9-19-19 23:45	13.85	1501	8.33	2.6	9-4-19 17:45	17.00	957	8.16	5.3	9-4-19 17:45	16.87	1112	7.97	12.4															
9-20-19 0:00	13.80	1497	8.34	2.9	9-4-19 18:00	17.03	952	8.17	5.7	9-4-19 18:00	16.88	1113	7.97	11.2															
9-20-19 0:15	13.78	1503	8.34	2.6	9-4-19 18:15	17.02	951	8.17	4.8	9-4-19 18:15	16.86	1111	7.96	12.7															
9-20-19 0:30	13.72	1502	8.34	2.7	9-4-19 18:30	17.06	951	8.18	4.9	9-4-19 18:30	16.87	1110	7.98	11.3															
9-20-19 0:45	13.73	1501	8.34	2.3	9-4-19 18:45	17.09	952	8.19	4.7	9-4-19 18:45	16.87	1110	7.97	12.5															
9-20-19 1:00	13.70	1501	8.34	2.9	9-4-19 19:00	17.11	951	8.21	4.4	9-4-19 19:00	16.87	1109	7.96	10.7															
9-20-19 1:15	13.68	1501	8.34	2.6	9-4-19 19:15	17.10	958	8.22	4.6	9-4-19 19:15	16.85	1104	7.94	13.1															
9-20-19 1:30	13.63	1500	8.35	3.0	9-4-19 19:30	17.10	955	8.23	5.1	9-4-19 19:30	16.90	1105	7.97	13.5															
9-20-19 1:45	13.64	1501	8.35	2.4	9-4-19 19:45	17.11	955	8.25	4.8	9-4-19 19:45	16.89	1104	7.96	13.6															
9-20-19 2:00	13.54	1499	8.35	2.8	9-4-19 20:00	17.16	955	8.26	5.1	9-4-19 20:00	16.93	1106	7.97	12.7															
9-20-19 2:15	13.51	1501	8.35	2.6	9-4-19 20:15	17.21	954	8.27	4.4	9-4-19 20:15	16.95	1105	7.97	13.8															
9-20-19 2:30	13.47	1501	8.36	2.5	9-4-19 20:30	17.24	951	8.29	4.1	9-4-19 20:30	16.99	1105	7.97	11.7															
9-20-19 2:45	13.47	1501	8.35	2.7	9-4-19 20:45	17.24	948	8.29	4.3	9-4-19 20:45	17.01	1103	7.97	13.5															
9-20-19 3:00	13.43	1501	8.36	2.5	9-4-19 21:00	17.28	946	8.29	5.2	9-4-19 21:00	17.08	1101	7.96	14.4															
9-20-19 3:15	13.33	1496	8.36	2.5	9-4-19 21:15	17.31	953	8.29	4.6	9-4-19 21:15	17.08	1099	7.95	15.5															
9-20-19 3:30	13.32	1504	8.37	2.7	9-4-19 21:30	17.34	950	8.32	4.3	9-4-19 21:30	17.12	1097	7.94	15.6															
9-20-19 3:45	13.28	1501	8.36	2.4	9-4-19 21:45	17.38	947	8.33	4.3	9-4-19 21:45	17.18	1096	7.94	16.7															
9-20-19 4:00	13.19	1501	8.37	2.6	9-4-19 22:00	17.49	944	8.34	4.3	9-4-19 22:00	17.23	1095	7.93	16.2															
9-20-19 4:15	13.16	1499	8.37	2.2	9-4-19 22:15	17.60	946	8.34	4.4	9-4-19 22:15	17.43	1096	7.94	16.9															
9-20-19 4:30	13.15	1500	8.37	2.6	9-4-19 22:30	17.52	946	8.36	4.3	9-4-19 22:30	17.59	1095	7.92	15.9															
9-20-19 4:45	13.11	1502	8.36	2.3	9-4-19 22:45	17.49	944	8.37	4.6	9-4-19 22:45	17.59	1095	7.91	15.4															
9-20-19 5:00	13.08	1503	8.37	2.5	9-4-19 23:00	17.54	942	8.37	4.2	9-4-19 23:00	17.80	1097	7.91	16.5															
9-20-19 5:15	13.03	1502	8.37	2.6	9-4-19 23:15	17.64	940	8.38	4.6	9-4-19 23:15	18.02	1094	7.91	17.7															
9-20-19 5:30	13.01	1503	8.37	2.5	9-4-19 23:30	17.61	938	8.41	4.7	9-4-19 23:30	18.15	1095	7.92	16.9															
9-20-19 5:45	13.00	1505	8.36	2.2	9-4-19 23:45	17.61	937	8.42	4.4	9-4-19 23:45	18.11	1095	7.94	17.4															
9-20-19 6:00	12.99	1507	8.37	2.5	9-5-19 0:00	17.54	934	8.42	5.1	9-5-19 0:00	18.00	1095	7.93	16.2															
9-20-19 6:15	12.95	1510	8.37	2.5	9-5-19 0:15	17.62	933	8.42	4.2	9-5-19 0:15	17.93	1095	7.93	17.2															
9-20-19 6:30	12.96	1517	8.38	2.5	9-5-19 0:30	17.64	933	8.43	4.2	9-5-19 0:30	17.98	1096	7.93	14.7															
9-20-19 6:45	12.91	1515	8.37	2.3	9-5-19 0:45	17.66	930	8.43	4.3	9-5-19 0:45	17.98	1095	7.93	15.9															
9-20-19 7:00	12.90	1519	8.38	2.6	9-5-19 1:00	17.68	926	8.44	4.5	9-5-19 1:00	18.05	1097	7.96	13.6															
9-20-19 7:15	12.89	1521	8.38	2.8	9-5-19 1:15	17.69	942	8.43	4.4	9-5-19 1:15	18.04	1097	7.96	14.1															
9-20-19 7:30	12.88	1523	8.38	2.5	9-5-19 1:30	17.67	942	8.43	4.7	9-5-19 1:30	18.03	1097	7.97	13.5															
9-20-19 7:45	12.88	1527	8.38	2.3	9-5-19 1:45	17.65	941	8.43	5.3	9-5-19 1:45	17.95	1095	7.95	14.7															
9-20-19 8:00	12.85	1525	8.39	2.5	9-5-19 2:00	17.61	940	8.44	5.1	9-5-19 2:00	17.88	1095	7.93	14.5															
9-20-19 8:15	12.88	1530	8.38	2.3	9-5-19 2:15	17.57	930	8.44	4.3	9-5-19 2:15	17.82	1096	7.94	14.4															
9-20-19 8:30	12.87	1528	8.39	2.2	9-5-19 2:30	17.55	929	8.44	4.5	9-5-19 2:30	17.77	1095	7.94	13.9															
9-20-19 8:45	12.85	1529	8.38	8.0	9-5-19 2:45	17.51	928	8.44	4.2	9-5-19 2:45	17.71	1093	7.93	14.8															
9-20-19 9:00	12.85	1528	8.38	2.6	9-5-19 3:00	17.48	926	8.44	4.1	9-5-19 3:00	17.69	1095	7.94	14.4															
9-20-19 9:15	12.84	1528	8.38	2.5	9-5-19 3:15	17.47	939	8.44	4.1	9-5-19 3:15	17.64	1094	7.94	13.6															
9-20-19 9:30	12.82	1527	8.38	2.4	9-5-19 3:30	17.44	939	8.44	4.2	9-5-19 3:30	17.59	1094	7.94	13.7															
9-20-19 9:45	12.81	1526	8.37	2.2	9-5-19 3:45	17.43	937	8.44	4.1	9-5-19 3:45	17.55	1094	7.94	13.4															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-20-19 10:00	12.78	1526	8.38	2.3	9-5-19 4:00	17.40	936	8.45	4.0	9-5-19 4:00	17.51	1094	7.94	13.5															
9-20-19 10:15	12.75	1526	8.37	3.4	9-5-19 4:15	17.39	939	8.44	4.5	9-5-19 4:15	17.48	1094	7.94	13.2															
9-20-19 10:30	12.74	1526	8.38	2.5	9-5-19 4:30	17.41	938	8.44	6.1	9-5-19 4:30	17.44	1094	7.94	13.4															
9-20-19 10:45	12.71	1527	8.37	2.4	9-5-19 4:45	17.38	936	8.45	3.8	9-5-19 4:45	17.40	1094	7.94	13.1															
9-20-19 11:00	12.69	1526	8.37	2.4	9-5-19 5:00	17.37	934	8.44	3.8	9-5-19 5:00	17.38	1094	7.93	12.5															
9-20-19 11:15	12.68	1528	8.37	2.5	9-5-19 5:15	17.35	936	8.44	4.1	9-5-19 5:15	17.35	1094	7.94	13.8															
9-20-19 11:30	12.67	1528	8.37	2.3	9-5-19 5:30	17.34	936	8.44	3.9	9-5-19 5:30	17.32	1094	7.94	13.4															
9-20-19 11:45	12.67	1531	8.36	2.4	9-5-19 5:45	17.29	934	8.43	4.3	9-5-19 5:45	17.29	1094	7.93	13.2															
9-20-19 12:00	12.68	1532	8.36	2.5	9-5-19 6:00	17.28	934	8.43	4.9	9-5-19 6:00	17.25	1094	7.93	13.7															
9-20-19 12:15	12.66	1533	8.36	2.4	9-5-19 6:15	17.29	934	8.43	3.6	9-5-19 6:15	17.22	1094	7.94	14.2															
9-20-19 12:30	12.68	1536	8.35	3.2	9-5-19 6:30	17.25	935	8.43	3.7	9-5-19 6:30	17.18	1094	7.93	12.8															
9-20-19 12:45	12.66	1535	8.35	2.3	9-5-19 6:45	17.21	928	8.43	3.5	9-5-19 6:45	17.15	1094	7.93	12.8															
9-20-19 13:00	12.62	1533	8.36	2.4	9-5-19 7:00	17.21	930	8.43	3.6	9-5-19 7:00	17.15	1094	7.93	13.1															
9-20-19 13:15	12.60	1533	8.35	2.6	9-5-19 7:15	17.15	933	8.43	3.3	9-5-19 7:15	17.12	1094	7.93	13.4															
9-20-19 13:30	12.54	1531	8.35	2.3	9-5-19 7:30	17.15	931	8.43	4.8	9-5-19 7:30	17.07	1094	7.94	12.1															
9-20-19 13:45	12.53	1533	8.35	2.1	9-5-19 7:45	17.17	931	8.42	3.6	9-5-19 7:45	17.06	1094	7.94	13.0															
9-20-19 14:00	12.47	1535	8.35	2.5	9-5-19 8:00	17.11	929	8.42	3.4	9-5-19 8:00	17.03	1094	7.94	12.3															
9-20-19 14:15	12.51	1538	8.34	2.5	9-5-19 8:15	17.08	931	8.42	3.8	9-5-19 8:15	17.00	1094	7.94	12.2															
9-20-19 14:30	12.48	1538	8.35	2.5	9-5-19 8:30	17.10	930	8.42	3.2	9-5-19 8:30	16.98	1094	7.94	11.3															
9-20-19 14:45	12.47	1537	8.34	2.3	9-5-19 8:45	17.10	941	8.42	3.3	9-5-19 8:45	16.95	1094	7.94	12.9															
9-20-19 15:00	12.47	1535	8.35	2.6	9-5-19 9:00	17.08	940	8.41	3.6	9-5-19 9:00	16.91	1094	7.94	11.3															
9-20-19 15:15	12.45	1535	8.34	2.3	9-5-19 9:15	17.04	940	8.42	3.0	9-5-19 9:15	16.87	1095	7.94	12.2															
9-20-19 15:30	12.43	1534	8.35	2.4	9-5-19 9:30	16.96	939	8.42	3.2	9-5-19 9:30	16.83	1092	7.94	12.6															
9-20-19 15:45	12.42	1534	8.35	2.2	9-5-19 9:45	16.94	937	8.41	3.2	9-5-19 9:45	16.76	1092	7.96	13.7															
9-20-19 16:00	12.43	1534	8.35	2.3	9-5-19 10:00	16.92	935	8.41	2.8	9-5-19 10:00	16.73	1094	7.96	11.9															
9-20-19 16:15	12.44	1533	8.35	2.3	9-5-19 10:15	16.91	938	8.41	3.0	9-5-19 10:15	16.71	1092	7.95	13.4															
9-20-19 16:30	12.51	1533	8.36	2.3	9-5-19 10:30	16.89	940	8.41	3.2	9-5-19 10:30	16.67	1090	7.94	13.8															
9-20-19 16:45	12.56	1534	8.35	2.2	9-5-19 10:45	16.88	939	8.41	3.1	9-5-19 10:45	16.62	1087	7.93	15.4															
9-20-19 17:00	12.60	1534	8.35	2.4	9-5-19 11:00	16.83	937	8.41	3.2	9-5-19 11:00	16.60	1089	7.94	15.1															
9-20-19 17:15	12.65	1534	8.35	2.5	9-5-19 11:15	16.83	939	8.40	3.0	9-5-19 11:15	16.59	1089	7.94	15.0															
9-20-19 17:30	12.74	1533	8.35	2.7	9-5-19 11:30	16.84	940	8.40	3.2	9-5-19 11:30	16.57	1088	7.93	16.0															
9-20-19 17:45	12.78	1533	8.35	2.6	9-5-19 11:45	16.82	939	8.39	3.7	9-5-19 11:45	16.53	1087	7.93	15.9															
9-20-19 18:00	12.87	1534	8.35	2.1	9-5-19 12:00	16.80	939	8.39	3.3	9-5-19 12:00	16.53	1087	7.93	16.7															
9-20-19 18:15	12.94	1536	8.36	2.4	9-5-19 12:15	16.79	939	8.39	4.3	9-5-19 12:15	16.48	1087	7.93	15.7															
9-20-19 18:30	13.02	1535	8.35	2.5	9-5-19 12:30	16.78	938	8.38	3.6	9-5-19 12:30	16.47	1087	7.93	14.6															
9-20-19 18:45	13.13	1536	8.35	2.2	9-5-19 12:45	16.76	938	8.38	4.1	9-5-19 12:45	16.44	1086	7.93	15.4															
9-20-19 19:00	13.23	1536	8.35	2.6	9-5-19 13:00	16.74	938	8.37	3.9	9-5-19 13:00	16.44	1086	7.93	15.4															
9-20-19 19:15	13.45	1537	8.34	2.1	9-5-19 13:15	16.74	938	8.36	4.6	9-5-19 13:15	16.38	1086	7.93	15.4															
9-20-19 19:30	13.48	1537	8.35	4.1	9-5-19 13:30	16.71	938	8.36	5.3	9-5-19 13:30	16.38	1086	7.93	15.5															
9-20-19 19:45	13.58	1538	8.34	6.6	9-5-19 13:45	16.72	937	8.35	5.8	9-5-19 13:45	16.36	1086	7.93	15.9															
9-20-19 20:00	13.86	1537	8.33	2.6	9-5-19 14:00	16.68	935	8.34	7.1	9-5-19 14:00	16.33	1087	7.93	14.2															
9-20-19 20:15	13.99	1541	8.34	4.9	9-5-19 14:15	16.63	935	8.33	6.1	9-5-19 14:15	16.30	1084	7.93	16.3															
9-20-19 20:30	14.22	1540	8.33	3.5	9-5-19 14:30	16.60	935	8.33	6.5	9-5-19 14:30	16.27	1084	7.93	16.8															
9-20-19 20:45	14.13	1540	8.33	4.1	9-5-19 14:45	16.58	934	8.33	6.3	9-5-19 14:45	16.27	1085	7.93	16.1															
9-20-19 21:00	14.21	1539	8.34	4.2	9-5-19 15:00	16.56	932	8.33	6.8	9-5-19 15:00	16.26	1084	7.92	15.3															
9-20-19 21:30	14.17	1540	8.34	3.7	9-5-19 15:15	16.54	932	8.32	6.7	9-5-19 15:15	16.26	1084	7.93	16.3															
9-20-19 21:45	14.06	1539	8.34	4.5	9-5-19 15:30	16.54	933	8.33	7.2	9-5-19 15:30	16.29	1084	7.93	14.8															
9-20-19 22:00	14.13	1540	8.33	3.8	9-5-19 15:45	16.58	932	8.33	7.1	9-5-19 15:45	16.33	1086	7.93	16.0															
9-20-19 22:15	14.47	1542	8.34	5.2	9-5-19 16:00	16.57	932	8.31	7.0	9-5-19 16:00	16.35	1086	7.93	14.1															
9-20-19 22:30	14.47	1542	8.33	3.9	9-5-19 16:15	16.59	931	8.31	7.2	9-5-19 16:15	16.41	1085	7.93	15.8															
9-20-19 22:45	14.53	1542	8.34	4.2	9-5-19 16:30	16.60	929	8.31	6.8	9-5-19 16:30	16.47	1087	7.93	14.2															
9-20-19 23:00	14.48	1542	8.34	4.0	9-5-19 16:45	16.59	928	8.29	7.9	9-5-19 16:45	16.51	1089	7.93	13.6															
9-20-19 23:15	14.53	1541	8.33	4.5	9-5-19 17:00	16.58	927	8.30	7.9	9-5-19 17:00	16.59	1089	7.93	14.1															
9-20-19 23:30	14.63	1546	8.35	4.3	9-5-19 17:15	16.57	925	8.32	7.9	9-5-19 17:15	16.72	1088	7.94	14.1															
9-20-19 23:45	14.63	1545	8.35	4.4	9-5-19 17:30	16.54	926	8.34	8.5	9-5-19 17:30	16.87	1088	7.95	14.8															
9-21-19 0:00	14.58	1543	8.34	4.1	9-5-19 17:45	16.58	924	8.37	7.4	9-5-19 17:45	16.99	1083	7.93	17.4															
9-21-19 0:15	14.48	1543	8.35	3.9	9-5-19 18:00	16.65	929	8.38	6.7	9-5-19 18:00	17.00	1081	7.92	15.7															
9-21-19 0:30	14.45	1544	8.35	3.8	9-5-19 18:15	16.64	927	8.40	7.6	9-5-19 18:15	17.01	1080	7.92	16.6															
9-21-19 0:45	14.42	1545	8.35	4.2	9-5-19 18:30	16.68	925	8.43	7.1	9-5-19 18:30	17.28	1079	7.95	17.1															
9-21-19 1:00	14.38	1546	8.35	4.1	9-5-19 18:45	16.79	923	8.42	6.5	9-5-19 18:45	17.31	1079	7.94	17.6															
9-21-19 1:15	14.35	1546	8.36	4.2	9-5-19 19:00	16.92	921	8.43	6.9	9-5-19 19:00	17.29	1082	7.92	15.5															
9-21-19 1:30	14.29	1545	8.36	3.7	9-5-19 19:15	17.03	926	8.42	6.7	9-5-19 19:15	17.46	1081	7.93	17.1															
9-21-19 1:45	14.21	1544	8.36	4.5	9-5-19 19:30	17.11	927	8.40	9.5	9-5-19 19:30	17.63	1082	7.93	16.6															
9-21-19 2:00	14.15	1546	8.36	3.9	9-5-19 19:45	17.16	926	8.41	7.2	9-5-19 19:45	17.86	1083	7.94	17.7															
9-21-19 2:15	14.14	1546	8.36	4.0	9-5-19 20:00	17.23	926	8.42	7.1	9-5-19 20:00	18.01	1083	7.93	15.5															
9-21-19 2:30	14.07	1546	8.36	4.4	9-5-19 20:15	17.33	925	8.42	7.0	9-5-19 20:15	18.21	1083	7.93	16.6															
9-21-19 2:45	14.02	1547	8.36	4.6	9-5-19 20:30	17.39	922	8.42	7.0	9-5-19 20:30	18.21	1084	7.92	15.5															
9-21-19 3:00	13.99	1548	8.36	4.0	9-5-19 20:45	17.45	920	8.42	6.9	9-5-19 20:45	18.30	1084	7.92	16.7															
9-21-19 3:15	13.95	1548	8.36	4.5	9-5-19 21:00	17.52	922	8.41	6.6	9-5-19 21:00	18.31	1084	7.92	14.5															
9-21-19 3:30	13.92	1550	8.36	3.8	9-5-19 21:15	17.48	923	8.43	30.2	9-5-19 21:15	18.27	1085	7.91	16.2															
9-21-19 3:45	13.88	1549	8.36	4.8	9-5-19 21:30	17.56	919	8.43	7.0	9-5-19 21:30	18.30	1085	7.90	14.3															
9-21-19 4:00	13.82	1549	8.36	4.5	9-5-19 21:45	17.71	917	8.43	6.6	9-5-19 21:45	18.53	1085	7.94	14.0															
9-21-19 4:15	13.78	1546	8.37	4.5	9-5-19 22:00	17.81	917	8.43	7.2	9-5-19 22:00	18.59	1085	7.94	14.8															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-21-19 4:30	13.72	1546	8.37	4.3	9-5-19 22:15	17.92	919	8.43	6.6	9-5-19 22:15	18.70	1084	7.96	15.0															
9-21-19 4:45	13.66	1546	8.38	4.8	9-5-19 22:30	17.99	916	8.42	6.6	9-5-19 22:30	18.88	1085	7.96	15.1															
9-21-19 5:00	13.62	1546	8.38	4.3	9-5-19 22:45	17.96	923	8.45	7.0	9-5-19 22:45	19.02	1085	7.97	16.1															
9-21-19 5:15	13.58	1545	8.38	4.7	9-5-19 23:00	17.89	923	8.44	7.0	9-5-19 23:00	19.19	1086	7.98	14.6															
9-21-19 5:30	13.55	1546	8.38	4.9	9-5-19 23:15	18.14	926	8.44	7.2	9-5-19 23:15	19.13	1084	7.96	15.0															
9-21-19 5:45	13.50	1546	8.38	4.8	9-5-19 23:30	18.41	928	8.41	6.7	9-5-19 23:30	19.12	1085	7.97	15.2															
9-21-19 6:00	13.47	1546	8.38	3.9	9-5-19 23:45	18.44	922	8.42	6.9	9-5-19 23:45	18.71	1083	7.94	15.6															
9-21-19 6:15	13.45	1547	8.38	5.6	9-6-19 0:00	18.60	923	8.40	6.4	9-6-19 0:00	18.65	1084	7.91	14.4															
9-21-19 6:30	13.41	1547	8.38	3.9	9-6-19 0:15	18.69	924	8.41	7.0	9-6-19 0:15	18.61	1085	7.94	15.0															
9-21-19 6:45	13.38	1547	8.38	4.4	9-6-19 0:30	18.77	923	8.42	6.8	9-6-19 0:30	18.36	1080	7.91	14.7															
9-21-19 7:00	13.36	1547	8.38	4.2	9-6-19 0:45	18.86	917	8.43	6.9	9-6-19 0:45	18.56	1086	7.93	15.5															
9-21-19 7:15	13.32	1548	8.38	4.4	9-6-19 1:00	18.86	922	8.45	7.3	9-6-19 1:00	18.64	1086	7.93	14.2															
9-21-19 7:30	13.28	1547	8.38	4.0	9-6-19 1:15	18.90	917	8.46	7.4	9-6-19 1:15	18.93	1085	7.95	16.7															
9-21-19 7:45	13.26	1547	8.38	4.7	9-6-19 1:30	18.96	916	8.47	7.7	9-6-19 1:30	18.96	1085	7.94	14.5															
9-21-19 8:00	13.23	1548	8.38	4.9	9-6-19 1:45	18.86	915	8.46	8.0	9-6-19 1:45	18.93	1085	7.96	14.8															
9-21-19 8:15	13.19	1547	8.38	4.5	9-6-19 2:00	18.85	921	8.44	8.0	9-6-19 2:00	18.92	1085	7.95	14.1															
9-21-19 8:30	13.14	1547	8.38	4.5	9-6-19 2:15	18.72	917	8.44	7.6	9-6-19 2:15	18.92	1084	7.96	15.2															
9-21-19 8:45	13.12	1548	8.38	5.0	9-6-19 2:30	18.63	915	8.44	7.6	9-6-19 2:30	18.84	1084	7.96	14.6															
9-21-19 9:00	13.06	1550	8.38	5.3	9-6-19 2:45	18.59	911	8.43	8.2	9-6-19 2:45	18.73	1085	7.95	14.6															
9-21-19 9:15	13.02	1551	8.38	5.5	9-6-19 3:00	18.52	910	8.42	7.6	9-6-19 3:00	18.65	1084	7.97	13.8															
9-21-19 9:30	13.01	1553	8.38	4.8	9-6-19 3:15	18.48	917	8.42	7.2	9-6-19 3:15	18.59	1084	7.97	14.7															
9-21-19 9:45	12.97	1553	8.38	4.8	9-6-19 3:30	18.46	915	8.42	7.4	9-6-19 3:30	18.50	1084	7.97	14.2															
9-21-19 10:00	12.92	1555	8.38	5.5	9-6-19 3:45	18.32	914	8.43	7.7	9-6-19 3:45	18.46	1084	7.97	14.6															
9-21-19 10:15	12.89	1555	8.38	4.8	9-6-19 4:00	18.34	910	8.43	7.1	9-6-19 4:00	18.39	1084	7.98	13.9															
9-21-19 10:30	12.84	1556	8.38	4.3	9-6-19 4:15	18.32	915	8.42	6.4	9-6-19 4:15	18.34	1084	7.98	14.4															
9-21-19 10:45	12.81	1560	8.38	5.1	9-6-19 4:30	18.27	915	8.43	6.3	9-6-19 4:30	18.28	1084	7.99	14.0															
9-21-19 11:00	12.77	1564	8.38	4.4	9-6-19 4:45	18.22	914	8.42	6.3	9-6-19 4:45	18.22	1084	7.99	14.8															
9-21-19 11:15	12.74	1562	8.38	5.2	9-6-19 5:00	18.17	920	8.41	6.3	9-6-19 5:00	18.15	1083	7.98	14.3															
9-21-19 11:30	12.72	1564	8.37	4.7	9-6-19 5:15	18.13	921	8.41	7.1	9-6-19 5:15	18.08	1083	7.99	14.1															
9-21-19 11:45	12.70	1568	8.37	5.2	9-6-19 5:30	18.08	920	8.41	6.1	9-6-19 5:30	18.02	1083	7.99	13.7															
9-21-19 12:00	12.67	1569	8.37	4.8	9-6-19 5:45	18.03	919	8.41	6.1	9-6-19 5:45	17.98	1083	8.00	13.5															
9-21-19 12:15	12.66	1572	8.38	6.0	9-6-19 6:00	17.98	917	8.41	5.9	9-6-19 6:00	17.91	1083	8.00	13.5															
9-21-19 12:30	12.63	1575	8.37	5.0	9-6-19 6:15	17.93	921	8.40	6.1	9-6-19 6:15	17.84	1083	8.00	14.2															
9-21-19 12:45	12.62	1581	8.38	5.9	9-6-19 6:30	17.88	921	8.40	5.8	9-6-19 6:30	17.79	1083	7.99	13.6															
9-21-19 13:00	12.59	1577	8.37	5.3	9-6-19 6:45	17.83	920	8.39	5.8	9-6-19 6:45	17.74	1083	7.99	13.7															
9-21-19 13:15	12.58	1581	8.37	6.6	9-6-19 7:00	17.79	919	8.39	5.5	9-6-19 7:00	17.68	1083	7.99	13.4															
9-21-19 13:30	12.57	1582	8.37	5.0	9-6-19 7:15	17.73	920	8.38	6.0	9-6-19 7:15	17.62	1082	7.99	13.7															
9-21-19 13:45	12.58	1597	8.37	6.4	9-6-19 7:30	17.70	919	8.38	5.7	9-6-19 7:30	17.56	1085	7.98	13.4															
9-21-19 14:00	12.65	1610	8.36	5.4	9-6-19 7:45	17.66	918	8.37	5.5	9-6-19 7:45	17.51	1080	7.98	13.7															
9-21-19 14:15	12.66	1614	8.36	6.1	9-6-19 8:00	17.62	918	8.38	5.5	9-6-19 8:00	17.48	1082	7.98	13.0															
9-21-19 14:30	12.63	1610	8.36	6.0	9-6-19 8:15	17.58	921	8.37	6.0	9-6-19 8:15	17.42	1082	7.99	13.8															
9-21-19 14:45	12.68	1623	8.35	6.3	9-6-19 8:30	17.54	921	8.37	5.7	9-6-19 8:30	17.38	1082	7.99	12.8															
9-21-19 15:00	12.78	1630	8.35	6.0	9-6-19 8:45	17.50	921	8.37	5.6	9-6-19 8:45	17.32	1082	7.98	14.9															
9-21-19 15:15	12.71	1618	8.36	6.2	9-6-19 9:00	17.46	921	8.36	5.5	9-6-19 9:00	17.29	1082	7.98	13.0															
9-21-19 15:30	12.79	1620	8.35	5.4	9-6-19 9:15	17.43	919	8.37	5.6	9-6-19 9:15	17.24	1082	7.97	13.2															
9-21-19 15:45	12.80	1616	8.36	5.8	9-6-19 9:30	17.39	921	8.36	5.4	9-6-19 9:30	17.19	1081	7.96	12.8															
9-21-19 16:00	12.85	1636	8.35	5.9	9-6-19 9:45	17.37	920	8.37	5.5	9-6-19 9:45	17.14	1081	7.97	13.1															
9-21-19 16:15	12.96	1654	8.35	6.4	9-6-19 10:00	17.33	917	8.37	5.6	9-6-19 10:00	17.11	1081	7.96	12.6															
9-21-19 16:30	13.11	1657	8.34	6.0	9-6-19 10:15	17.34	917	8.37	5.3	9-6-19 10:15	17.07	1080	7.96	12.9															
9-21-19 16:45	13.27	1666	8.33	6.2	9-6-19 10:30	17.32	917	8.37	5.3	9-6-19 10:30	17.03	1080	7.95	12.2															
9-21-19 17:00	13.24	1672	8.33	5.5	9-6-19 10:45	17.30	914	8.36	5.0	9-6-19 10:45	17.01	1079	7.95	12.6															
9-21-19 17:15	13.23	1673	8.33	5.7	9-6-19 11:00	17.28	914	8.36	5.1	9-6-19 11:00	16.98	1078	7.95	12.1															
9-21-19 17:30	13.23	1669	8.34	6.0	9-6-19 11:15	17.25	916	8.35	5.3	9-6-19 11:15	16.93	1077	7.94	12.3															
9-21-19 17:45	13.26	1670	8.34	5.4	9-6-19 11:30	17.21	916	8.35	18.8	9-6-19 11:30	16.90	1077	7.94	13.0															
9-21-19 18:00	13.31	1672	8.34	6.8	9-6-19 11:45	17.19	914	8.34	5.2	9-6-19 11:45	16.87	1077	7.95	13.4															
9-21-19 18:15	13.33	1672	8.34	5.8	9-6-19 12:00	17.14	913	8.34	4.9	9-6-19 12:00	16.83	1076	7.94	12.2															
9-21-19 18:45	13.36	1672	8.35	5.4	9-6-19 12:15	17.11	912	8.34	5.0	9-6-19 12:15	16.79	1074	7.93	12.8															
9-21-19 19:00	13.39	1672	8.35	8.1	9-6-19 12:30	17.09	916	8.34	4.9	9-6-19 12:30	16.75	1074	7.93	11.8															
9-21-19 19:15	13.42	1674	8.35	5.8	9-6-19 12:45	17.06	914	8.33	5.0	9-6-19 12:45	16.74	1072	7.91	13.3															
9-21-19 19:30	13.45	1674	8.35	6.3	9-6-19 13:00	17.04	913	8.34	7.8	9-6-19 13:00	16.71	1071	7.91	11.6															
9-21-19 19:45	13.50	1674	8.35	5.9	9-6-19 13:15	17.03	918	8.34	4.8	9-6-19 13:15	16.68	1071	7.91	11.9															
9-21-19 20:00	13.63	1672	8.36	6.3	9-6-19 13:30	17.02	913	8.33	5.3	9-6-19 13:30	16.65	1071	7.91	11.2															
9-21-19 20:15	13.67	1672	8.36	5.3	9-6-19 13:45	16.99	912	8.33	4.9	9-6-19 13:45	16.63	1071	7.91	12.0															
9-21-19 20:30	13.64	1673	8.36	5.7	9-6-19 14:00	16.94	911	8.33	5.2	9-6-19 14:00	16.61	1069	7.89	11.5															
9-21-19 20:45	13.68	1673	8.36	5.4	9-6-19 14:15	16.94	912	8.33	5.6	9-6-19 14:15	16.60	1069	7.90	12.6															
9-21-19 21:00	13.70	1673	8.36	5.5	9-6-19 14:30	16.90	912	8.32	4.8	9-6-19 14:30	16.57	1068	7.89	12.5															
9-21-19 21:15	13.74	1674	8.36	5.8	9-6-19 14:45	16.90	912	8.33	4.7	9-6-19 14:45	16.57	1069	7.90	12.4															
9-21-19 21:30	13.81	1675	8.37	5.3	9-6-19 15:00	16.89	910	8.34	5.1	9-6-19 15:00	16.57	1071	7.91	12.0															
9-21-19 21:45	13.84	1674	8.37	5.6	9-6-19 15:15	16.88	911	8.35	5.3	9-6-19 15:15	16.54	1070	7.91	11.7															
9-21-19 22:00	13.89	1675	8.37	5.9	9-6-19 15:30	16.88	909	8.36	5.4	9-6-19 15:30	16.55	1070	7.90	11.9															
9-21-19 22:15	13.92	1674	8.37	5.5	9-6-19 15:45	16.90	909	8.36	4.7	9-6-19 15:45	16.56	1068	7.89	11.9															
9-21-19 22:30	13.92	1673	8.38	5.8	9-6-19 16:00	16.92	909	8.36	6.0	9-6-19 16:00	16.56	1067	7.89	11.3															
9-21-19 22:45	13.84	1674	8.37	5.4	9-6-19 16:15	16.93	907	8.37	4.6	9-6-19 16:15	16.56	1067	7.89	12.4															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-21-19 23:00	13.84	1675	8.38	5.6	9-6-19 16:30	16.91	906	8.40	4.9	9-6-19 16:30	16.59	1067	7.90	11.8															
9-21-19 23:15	13.81	1676	8.38	5.5	9-6-19 16:45	16.95	916	8.42	4.7	9-6-19 16:45	16.60	1067	7.90	12.1															
9-21-19 23:30	13.81	1675	8.39	5.7	9-6-19 17:00	16.97	915	8.42	4.9	9-6-19 17:00	16.63	1066	7.89	11.2															
9-21-19 23:45	13.81	1675	8.39	5.3	9-6-19 17:15	16.96	914	8.43	4.6	9-6-19 17:15	16.64	1067	7.90	11.7															
9-22-19 0:00	13.82	1675	8.39	5.2	9-6-19 17:30	16.99	913	8.42	4.8	9-6-19 17:30	16.66	1067	7.90	11.3															
9-22-19 0:15	13.85	1676	8.39	5.1	9-6-19 17:45	17.01	909	8.47	5.6	9-6-19 17:45	16.70	1067	7.90	12.0															
9-22-19 0:30	13.83	1676	8.40	5.7	9-6-19 18:00	17.03	911	8.50	5.1	9-6-19 18:00	16.73	1067	7.90	11.0															
9-22-19 0:45	13.85	1676	8.40	5.2	9-6-19 18:15	17.06	915	8.43	4.6	9-6-19 18:15	16.76	1067	7.90	12.0															
9-22-19 1:00	13.82	1676	8.40	5.3	9-6-19 18:30	17.07	912	8.48	4.5	9-6-19 18:30	16.78	1059	7.87	11.7															
9-22-19 1:15	13.82	1676	8.40	5.4	9-6-19 18:45	17.09	911	8.43	4.7	9-6-19 18:45	16.80	1053	7.86	12.7															
9-22-19 1:30	13.83	1676	8.40	5.3	9-6-19 19:00	17.14	909	8.51	4.9	9-6-19 19:00	16.93	1066	7.90	11.4															
9-22-19 1:45	13.81	1677	8.40	4.7	9-6-19 19:15	17.17	906	8.53	5.3	9-6-19 19:15	16.99	1063	7.89	11.7															
9-22-19 2:00	13.78	1677	8.40	5.5	9-6-19 19:30	17.21	902	8.53	5.3	9-6-19 19:30	17.04	1062	7.89	11.7															
9-22-19 2:15	13.78	1677	8.41	5.0	9-6-19 19:45	17.28	898	8.52	5.3	9-6-19 19:45	17.17	1066	7.89	12.3															
9-22-19 2:30	13.72	1677	8.41	5.5	9-6-19 20:00	17.32	902	8.51	5.7	9-6-19 20:00	17.48	1056	7.87	12.2															
9-22-19 2:45	13.70	1677	8.41	5.1	9-6-19 20:15	17.30	894	8.53	5.4	9-6-19 20:15	17.83	1063	7.89	13.2															
9-22-19 3:00	13.69	1678	8.41	6.2	9-6-19 20:30	17.35	891	8.55	5.6	9-6-19 20:30	17.91	1062	7.87	11.7															
9-22-19 3:15	13.67	1680	8.41	4.6	9-6-19 20:45	17.44	885	8.57	5.7	9-6-19 20:45	18.10	1062	7.88	12.1															
9-22-19 3:30	13.67	1681	8.42	5.4	9-6-19 21:00	17.47	885	8.56	5.2	9-6-19 21:00	18.26	1058	7.87	12.0															
9-22-19 3:45	13.67	1683	8.42	4.4	9-6-19 21:15	17.47	886	8.58	6.2	9-6-19 21:15	18.36	1057	7.86	12.7															
9-22-19 4:00	13.67	1683	8.42	4.8	9-6-19 21:30	17.48	876	8.63	6.1	9-6-19 21:30	18.42	1052	7.85	12.7															
9-22-19 4:15	13.65	1683	8.42	4.3	9-6-19 21:45	17.51	873	8.64	11.7	9-6-19 21:45	18.63	1053	7.86	13.4															
9-22-19 4:30	13.62	1682	8.42	5.0	9-6-19 22:00	17.54	874	8.59	8.6	9-6-19 22:00	18.85	1056	7.88	12.5															
9-22-19 4:45	13.61	1683	8.42	4.4	9-6-19 22:15	17.66	881	8.60	5.8	9-6-19 22:15	19.09	1054	7.91	13.1															
9-22-19 5:00	13.58	1682	8.42	5.1	9-6-19 22:30	17.74	888	8.59	5.7	9-6-19 22:30	18.78	1055	7.85	12.8															
9-22-19 5:15	13.59	1683	8.42	4.3	9-6-19 22:45	17.84	885	8.59	5.7	9-6-19 22:45	18.65	1053	7.86	12.8															
9-22-19 5:30	13.57	1684	8.42	5.0	9-6-19 23:00	18.13	879	8.51	5.9	9-6-19 23:00	18.25	1059	7.86	11.7															
9-22-19 5:45	13.57	1687	8.42	4.7	9-6-19 23:15	18.14	881	8.70	6.4	9-6-19 23:15	18.75	1055	7.86	13.6															
9-22-19 6:00	13.51	1693	8.42	5.2	9-6-19 23:30	18.11	868	8.72	7.4	9-6-19 23:30	19.34	1057	7.89	12.2															
9-22-19 6:15	13.54	1691	8.42	4.7	9-6-19 23:45	18.02	867	8.71	10.1	9-6-19 23:45	19.65	1057	7.91	12.8															
9-22-19 6:30	13.51	1694	8.43	5.3	9-7-19 0:00	17.88	875	8.64	7.3	9-7-19 0:00	19.63	1058	7.92	11.8															
9-22-19 6:45	13.53	1694	8.43	4.5	9-7-19 0:15	17.86	865	8.64	6.8	9-7-19 0:15	19.61	1057	7.91	13.2															
9-22-19 7:00	13.51	1695	8.43	5.4	9-7-19 0:30	17.83	877	8.66	9.5	9-7-19 0:30	19.63	1059	7.94	12.6															
9-22-19 7:15	13.54	1696	8.42	4.4	9-7-19 0:45	17.79	876	8.65	7.0	9-7-19 0:45	19.67	1061	7.96	13.2															
9-22-19 7:30	13.53	1695	8.42	4.5	9-7-19 1:00	17.55	880	8.58	5.9	9-7-19 1:00	19.61	1059	7.97	13.6															
9-22-19 7:45	13.52	1695	8.42	4.1	9-7-19 1:15	17.62	885	8.54	8.6	9-7-19 1:15	19.54	1058	7.96	13.0															
9-22-19 8:00	13.51	1695	8.42	4.8	9-7-19 1:30	17.65	883	8.53	6.7	9-7-19 1:30	19.44	1057	7.96	12.3															
9-22-19 8:15	13.49	1696	8.42	4.3	9-7-19 1:45	17.61	871	8.53	9.8	9-7-19 1:45	19.32	1057	7.95	12.9															
9-22-19 8:30	13.47	1695	8.42	4.4	9-7-19 2:00	17.57	873	8.50	6.8	9-7-19 2:00	19.24	1057	7.95	12.0															
9-22-19 8:45	13.46	1696	8.41	4.4	9-7-19 2:15	17.52	860	8.49	7.0	9-7-19 2:15	19.17	1057	7.96	12.0															
9-22-19 9:00	13.45	1696	8.41	4.5	9-7-19 2:30	17.49	854	8.49	8.7	9-7-19 2:30	19.09	1056	7.95	11.3															
9-22-19 9:15	13.44	1697	8.41	4.1	9-7-19 2:45	17.47	852	8.49	9.5	9-7-19 2:45	18.99	1057	7.96	12.2															
9-22-19 9:30	13.43	1696	8.41	6.9	9-7-19 3:00	17.46	858	8.46	6.3	9-7-19 3:00	18.92	1056	7.97	11.1															
9-22-19 9:45	13.38	1696	8.41	4.7	9-7-19 3:15	17.42	865	8.49	5.9	9-7-19 3:15	18.84	1056	7.97	11.5															
9-22-19 10:00	13.35	1695	8.42	4.7	9-7-19 3:30	17.41	853	8.49	8.4	9-7-19 3:30	18.77	1056	7.97	11.2															
9-22-19 10:15	13.35	1697	8.41	4.3	9-7-19 3:45	17.39	839	8.50	10.6	9-7-19 3:45	18.68	1056	7.98	11.2															
9-22-19 10:30	13.36	1700	8.41	4.6	9-7-19 4:00	17.38	833	8.50	13.4	9-7-19 4:00	18.60	1056	7.98	11.4															
9-22-19 10:45	13.36	1701	8.40	4.2	9-7-19 4:15	17.37	865	8.49	10.4	9-7-19 4:15	18.53	1056	8.00	10.8															
9-22-19 11:00	13.35	1701	8.40	4.4	9-7-19 4:30	17.37	860	8.48	10.1	9-7-19 4:30	18.45	1056	8.00	10.2															
9-22-19 11:15	13.32	1700	8.40	4.0	9-7-19 4:45	17.36	866	8.47	9.5	9-7-19 4:45	18.33	1056	7.99	10.8															
9-22-19 11:30	13.30	1700	8.41	4.6	9-7-19 5:00	17.36	867	8.46	7.8	9-7-19 5:00	18.24	1056	8.00	9.9															
9-22-19 11:45	13.23	1699	8.41	4.2	9-7-19 5:15	17.34	869	8.45	8.9	9-7-19 5:15	18.22	1056	8.00	11.1															
9-22-19 12:00	13.21	1700	8.41	4.6	9-7-19 5:30	17.32	863	8.45	10.4	9-7-19 5:30	18.15	1056	8.00	10.1															
9-22-19 12:15	13.21	1701	8.40	4.1	9-7-19 5:45	17.31	861	8.44	9.4	9-7-19 5:45	18.08	1056	8.00	10.4															
9-22-19 12:30	13.19	1702	8.40	4.5	9-7-19 6:00	17.27	854	8.44	9.9	9-7-19 6:00	18.00	1055	8.00	9.7															
9-22-19 12:45	13.19	1703	8.40	4.2	9-7-19 6:15	17.26	873	8.43	8.6	9-7-19 6:15	17.93	1055	8.01	10.6															
9-22-19 13:00	13.17	1702	8.40	4.4	9-7-19 6:30	17.26	882	8.43	6.1	9-7-19 6:30	17.88	1055	8.00	9.6															
9-22-19 13:15	13.12	1702	8.40	3.8	9-7-19 6:45	17.23	879	8.44	7.2	9-7-19 6:45	17.84	1055	8.00	10.2															
9-22-19 13:30	13.07	1702	8.40	4.3	9-7-19 7:00	17.24	880	8.43	6.4	9-7-19 7:00	17.80	1055	8.00	9.4															
9-22-19 13:45	13.05	1703	8.40	4.2	9-7-19 7:15	17.25	875	8.43	6.8	9-7-19 7:15	17.76	1055	8.00	9.6															
9-22-19 14:00	13.03	1701	8.40	4.9	9-7-19 7:30	17.25	866	8.43	6.9	9-7-19 7:30	17.69	1054	8.00	9.2															
9-22-19 14:15	12.98	1703	8.40	3.8	9-7-19 7:45	17.45	856	8.44	6.6	9-7-19 7:45	17.67	1054	8.00	9.3															
9-22-19 14:30	12.99	1702	8.40	4.3	9-7-19 8:00	17.38	860	8.43	7.5	9-7-19 8:00	17.61	1050	7.96	10.2															
9-22-19 14:45	12.98	1703	8.39	4.3	9-7-19 8:15	17.38	862	8.43	6.7	9-7-19 8:15	17.57	1052	7.98	9.6															
9-22-19 15:00	12.98	1702	8.39	4.8	9-7-19 8:30	17.37	863	8.42	5.4	9-7-19 8:30	17.54	1052	7.98	9.0															
9-22-19 15:15	12.99	1703	8.39	4.2	9-7-19 8:45	17.36	857	8.42	6.3	9-7-19 8:45	17.49	1050	7.96	10.6															
9-22-19 15:30	13.00	1703	8.39	4.3	9-7-19 9:00	17.35	860	8.42	5.5	9-7-19 9:00	17.47	1050	7.96	10.0															
9-22-19 15:45	13.01	1704	8.39	7.0	9-7-19 9:15	17.32	859	8.41	5.7	9-7-19 9:15	17.44	1050	7.96	10.6															
9-22-19 16:00	13.02	1703	8.40	4.4	9-7-19 9:30	17.29	859	8.41	6.4	9-7-19 9:30	17.39	1052	7.99	9.2															
9-22-19 16:15	13.05	1703	8.40	3.7	9-7-19 9:45	17.24	856	8.41	6.7	9-7-19 9:45	17.36	1052	7.98	10.1															
9-22-19 16:30	13.04	1702	8.41	3.9	9-7-19 10:00	17.23	845	8.40	10.0	9-7-19 10:00	17.35	1050	7.97	9.9															
9-22-19 16:45	13.05	1706	8.41	6.8	9-7-19 10:15	17.20	855	8.39	5.7	9-7-19 10:15	17.32	1051	7.97	10.0															
9-22-19 17:00	13.08	1706	8.40	5.1	9-7-19 10:30	17.19	871	8.39	5.1	9-7-19 10:30	17.28	1049	7.97	9.6															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-22-19 17:15	13.11	1707	8.40	4.1	9-7-19 10:45	17.17	869	8.39	6.3	9-7-19 10:45	17.26	1049	7.97	10.1															
9-22-19 17:30	13.12	1705	8.40	4.1	9-7-19 11:00	17.13	868	8.39	5.7	9-7-19 11:00	17.22	1049	7.97	9.9															
9-22-19 17:45	13.18	1707	8.40	3.6	9-7-19 11:15	17.10	869	8.39	5.9	9-7-19 11:15	17.19	1047	7.96	10.3															
9-22-19 18:00	13.22	1708	8.41	4.0	9-7-19 11:30	17.12	877	8.40	6.5	9-7-19 11:30	17.17	1047	7.96	10.0															
9-22-19 18:15	13.31	1707	8.41	3.9	9-7-19 11:45	17.12	841	8.40	7.7	9-7-19 11:45	17.17	1047	7.96	10.9															
9-22-19 18:30	13.42	1707	8.41	4.5	9-7-19 12:00	17.09	869	8.40	8.2	9-7-19 12:00	17.15	1046	7.95	10.5															
9-22-19 18:45	13.49	1707	8.41	4.3	9-7-19 12:15	17.10	866	8.40	6.2	9-7-19 12:15	17.11	1047	7.95	10.3															
9-22-19 19:00	13.48	1706	8.41	4.2	9-7-19 12:30	17.06	868	8.39	5.0	9-7-19 12:30	17.09	1044	7.94	10.3															
9-22-19 19:15	13.48	1708	8.41	4.5	9-7-19 12:45	17.07	867	8.40	5.1	9-7-19 12:45	17.06	1043	7.94	10.9															
9-22-19 19:30	13.47	1706	8.42	4.5	9-7-19 13:00	17.06	869	8.39	5.3	9-7-19 13:00	17.05	1043	7.93	10.2															
9-22-19 19:45	13.46	1707	8.42	4.2	9-7-19 13:15	17.05	875	8.39	5.8	9-7-19 13:15	17.01	1042	7.93	10.4															
9-22-19 20:00	13.51	1707	8.43	4.3	9-7-19 13:30	17.04	876	8.39	5.8	9-7-19 13:30	16.99	1040	7.92	10.1															
9-22-19 20:15	13.56	1707	8.42	4.3	9-7-19 13:45	17.01	877	8.39	5.7	9-7-19 13:45	16.95	1037	7.90	10.9															
9-22-19 20:30	13.62	1706	8.43	5.6	9-7-19 14:00	16.98	872	8.38	7.3	9-7-19 14:00	16.92	1036	7.90	10.8															
9-22-19 20:45	13.65	1706	8.43	4.1	9-7-19 14:15	16.99	872	8.38	5.2	9-7-19 14:15	16.91	1036	7.90	10.9															
9-22-19 21:00	13.66	1706	8.43	5.5	9-7-19 14:30	16.98	873	8.38	6.0	9-7-19 14:30	16.90	1035	7.90	10.6															
9-22-19 21:15	13.66	1707	8.43	4.5	9-7-19 14:45	16.97	868	8.38	5.6	9-7-19 14:45	16.88	1035	7.90	11.3															
9-22-19 21:30	13.62	1707	8.43	4.7	9-7-19 15:00	16.97	864	8.38	5.7	9-7-19 15:00	16.87	1034	7.90	10.9															
9-22-19 21:45	13.64	1708	8.43	4.2	9-7-19 15:15	16.95	868	8.38	5.6	9-7-19 15:15	16.86	1033	7.90	11.0															
9-22-19 22:00	13.65	1708	8.43	4.4	9-7-19 15:30	16.97	875	8.38	8.2	9-7-19 15:30	16.84	1032	7.89	12.8															
9-22-19 22:15	13.68	1709	8.44	4.4	9-7-19 15:45	16.95	865	8.38	7.6	9-7-19 15:45	16.84	1031	7.89	10.7															
9-22-19 22:30	13.60	1708	8.44	4.8	9-7-19 16:00	16.94	831	8.38	11.9	9-7-19 16:00	16.82	1031	7.89	10.8															
9-22-19 22:45	13.62	1710	8.44	4.2	9-7-19 16:15	16.91	859	8.38	6.2	9-7-19 16:15	16.81	1031	7.89	10.7															
9-22-19 23:00	13.63	1709	8.45	4.4	9-7-19 16:30	16.90	875	8.38	5.0	9-7-19 16:30	16.79	1030	7.89	9.9															
9-22-19 23:15	13.63	1710	8.45	4.0	9-7-19 16:45	16.91	870	8.38	4.8	9-7-19 16:45	16.77	1029	7.89	10.3															
9-22-19 23:30	13.65	1710	8.45	4.3	9-7-19 17:00	16.91	874	8.38	4.8	9-7-19 17:00	16.75	1027	7.88	9.6															
9-22-19 23:45	13.70	1710	8.45	4.5	9-7-19 17:15	16.93	875	8.38	6.7	9-7-19 17:15	16.74	1026	7.88	10.9															
9-23-19 0:00	13.70	1710	8.45	4.6	9-7-19 17:30	16.89	875	8.38	5.7	9-7-19 17:30	16.71	1021	7.87	10.6															
9-23-19 0:15	13.73	1711	8.45	4.6	9-7-19 17:45	16.86	874	8.39	6.9	9-7-19 17:45	16.71	1021	7.86	11.2															
9-23-19 0:30	13.71	1711	8.45	4.7	9-7-19 18:00	16.85	869	8.39	7.2	9-7-19 18:00	16.70	1021	7.87	10.6															
9-23-19 0:45	13.70	1712	8.45	4.4	9-7-19 18:15	16.87	874	8.39	4.8	9-7-19 18:15	16.69	1019	7.87	11.5															
9-23-19 1:00	13.68	1712	8.46	4.4	9-7-19 18:30	16.89	871	8.39	4.7	9-7-19 18:30	16.69	1018	7.87	12.1															
9-23-19 1:15	13.65	1712	8.46	3.9	9-7-19 18:45	16.88	869	8.40	5.1	9-7-19 18:45	16.66	1012	7.85	13.7															
9-23-19 1:30	13.60	1713	8.46	4.9	9-7-19 19:00	16.85	866	8.44	4.8	9-7-19 19:00	16.66	1011	7.84	13.3															
9-23-19 1:45	13.54	1714	8.46	4.3	9-7-19 19:15	16.86	865	8.43	5.9	9-7-19 19:15	16.65	1007	7.85	14.0															
9-23-19 2:00	13.49	1714	8.46	4.6	9-7-19 19:30	16.87	865	8.44	5.8	9-7-19 19:30	16.67	1012	7.85	12.7															
9-23-19 2:15	13.49	1715	8.46	4.0	9-7-19 19:45	16.90	864	8.45	6.1	9-7-19 19:45	16.62	1001	7.83	14.6															
9-23-19 2:30	13.43	1715	8.46	4.2	9-7-19 20:00	16.89	859	8.47	12.5	9-7-19 20:00	16.63	992	7.81	15.6															
9-23-19 2:45	13.41	1717	8.46	4.2	9-7-19 20:15	16.90	862	8.48	4.6	9-7-19 20:15	16.64	990	7.81	15.4															
9-23-19 3:00	13.34	1717	8.46	4.6	9-7-19 20:30	16.91	867	8.49	4.5	9-7-19 20:30	16.64	983	7.80	19.0															
9-23-19 3:15	13.32	1720	8.46	4.7	9-7-19 20:45	16.93	864	8.51	3.9	9-7-19 20:45	16.66	987	7.80	16.5															
9-23-19 3:30	13.28	1719	8.47	4.9	9-7-19 21:00	16.94	866	8.51	5.1	9-7-19 21:00	16.65	978	7.80	16.7															
9-23-19 3:45	13.19	1722	8.48	4.2	9-7-19 21:15	16.95	866	8.49	5.1	9-7-19 21:15	16.66	984	7.80	16.5															
9-23-19 4:00	13.17	1721	8.48	4.8	9-7-19 21:30	16.97	864	8.43	4.7	9-7-19 21:30	16.68	987	7.80	15.4															
9-23-19 4:15	13.10	1727	8.48	4.5	9-7-19 21:45	16.94	853	8.45	4.4	9-7-19 21:45	16.68	988	7.81	17.3															
9-23-19 4:30	13.10	1725	8.48	5.1	9-7-19 22:00	16.92	855	8.43	4.7	9-7-19 22:00	16.66	985	7.81	17.6															
9-23-19 4:45	13.07	1730	8.48	5.7	9-7-19 22:15	16.90	861	8.43	4.5	9-7-19 22:15	16.66	987	7.82	25.6															
9-23-19 5:00	13.17	1768	8.52	5.9	9-7-19 22:30	16.89	858	8.44	4.8	9-7-19 22:30	16.65	991	7.82	17.2															
9-23-19 5:15	13.19	1778	8.54	5.2	9-7-19 22:45	16.85	857	8.43	4.7	9-7-19 22:45	16.65	992	7.82	16.6															
9-23-19 5:30	13.16	1767	8.53	5.7	9-7-19 23:00	16.83	848	8.41	5.1	9-7-19 23:00	16.63	990	7.82	18.3															
9-23-19 5:45	13.12	1767	8.53	5.3	9-7-19 23:15	16.81	848	8.41	4.4	9-7-19 23:15	16.65	995	7.83	15.4															
9-23-19 6:00	13.08	1765	8.52	5.3	9-7-19 23:30	16.79	853	8.42	4.1	9-7-19 23:30	16.64	996	7.83	17.4															
9-23-19 6:15	13.04	1762	8.52	4.7	9-7-19 23:45	16.79	850	8.42	5.2	9-7-19 23:45	16.65	997	7.83	14.8															
9-23-19 6:30	12.99	1759	8.52	5.1	9-8-19 0:00	16.79	851	8.43	4.6	9-8-19 0:00	16.64	995	7.83	15.3															
9-23-19 6:45	12.95	1761	8.51	5.6	9-8-19 0:15	16.78	849	8.46	4.6	9-8-19 0:15	16.64	995	7.84	16.3															
9-23-19 7:00	12.92	1760	8.52	5.7	9-8-19 0:30	16.77	857	8.49	4.9	9-8-19 0:30	16.65	995	7.84	15.3															
9-23-19 7:15	12.92	1760	8.52	5.0	9-8-19 0:45	16.74	854	8.48	4.6	9-8-19 0:45	16.64	996	7.83	15.0															
9-23-19 7:30	12.89	1760	8.52	5.1	9-8-19 1:00	16.72	850	8.50	5.4	9-8-19 1:00	16.64	996	7.83	14.3															
9-23-19 7:45	12.81	1761	8.52	4.7	9-8-19 1:15	16.71	856	8.48	4.8	9-8-19 1:15	16.64	996	7.84	14.7															
9-23-19 8:00	12.78	1760	8.52	5.4	9-8-19 1:30	16.70	851	8.48	6.4	9-8-19 1:30	16.63	995	7.83	15.9															
9-23-19 8:15	12.76	1760	8.51	5.0	9-8-19 1:45	16.68	850	8.48	16.7	9-8-19 1:45	16.60	993	7.84	18.5															
9-23-19 8:30	12.73	1759	8.51	5.1	9-8-19 2:00	16.64	853	8.47	24.1	9-8-19 2:00	16.60	993	7.84	19.8															
9-23-19 8:45	12.70	1760	8.51	4.4	9-8-19 2:15	16.62	853	8.45	6.2	9-8-19 2:15	16.59	993	7.84	18.8															
9-23-19 9:00	12.67	1760	8.51	5.1	9-8-19 2:30	16.59	849	8.46	5.3	9-8-19 2:30	16.57	993	7.84	17.5															
9-23-19 9:15	12.64	1761	8.51	4.5	9-8-19 2:45	16.57	852	8.44	6.3	9-8-19 2:45	16.55	993	7.84	16.5															
9-23-19 9:30	12.60	1761	8.51	5.2	9-8-19 3:00	16.55	853	8.43	7.0	9-8-19 3:00	16.55	993	7.84	17.6															
9-23-19 9:45	12.56	1761	8.51	4.6	9-8-19 3:15	16.54	867	8.42	6.7	9-8-19 3:15	16.54	993	7.84	17.0															
9-23-19 10:00	12.53	1761	8.50	5.0	9-8-19 3:30	16.50	859	8.42	8.5	9-8-19 3:30	16.52	993	7.83	15.1															
9-23-19 10:15	12.49	1761	8.50	4.6	9-8-19 3:45	16.47	863	8.41	9.5	9-8-19 3:45	16.52	994	7.83	15.9															
9-23-19 10:30	12.47	1761	8.50	5.0	9-8-19 4:00	16.44	862	8.41	10.3	9-8-19 4:00	16.51	994	7.83	15.3															
9-23-19 10:45	12.41	1762	8.50	4.6	9-8-19 4:15	16.45	868	8.40	6.1	9-8-19 4:15	16.50	993	7.83	16.6															
9-23-19 11:00	12.36	1760	8.50	5.9	9-8-19 4:30	16.43	851	8.39	6.4	9-8-19 4:30	16.49	993	7.83	15.9															
9-23-19 11:15	12.32	1762	8.50	4.9	9-8-19 4:45	16.40	867	8.40	5.3	9-8-19 4:45	16.49	993	7.83	18.9															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-23-19 11:30	12.33	1762	8.50	5.3	9-8-19 5:00	16.39	861	8.40	7.2	9-8-19 5:00	16.47	993	7.83	17.4															
9-23-19 11:45	12.31	1762	8.50	5.4	9-8-19 5:15	16.37	863	8.39	5.8	9-8-19 5:15	16.46	992	7.83	16.0															
9-23-19 12:00	12.30	1762	8.50	4.9	9-8-19 5:30	16.34	865	8.40	6.2	9-8-19 5:30	16.44	992	7.83	15.7															
9-23-19 12:15	12.25	1762	8.50	4.2	9-8-19 5:45	16.33	864	8.40	5.5	9-8-19 5:45	16.43	992	7.83	16.2															
9-23-19 12:30	12.18	1762	8.50	4.8	9-8-19 6:00	16.31	865	8.40	5.6	9-8-19 6:00	16.42	992	7.83	16.5															
9-23-19 12:45	12.12	1764	8.49	4.1	9-8-19 6:15	16.28	860	8.40	5.5	9-8-19 6:15	16.40	991	7.84	17.2															
9-23-19 13:00	12.12	1764	8.49	5.6	9-8-19 6:30	16.26	869	8.40	4.9	9-8-19 6:30	16.41	992	7.83	15.2															
9-23-19 13:15	12.09	1765	8.49	4.6	9-8-19 6:45	16.27	871	8.40	5.3	9-8-19 6:45	16.40	989	7.83	17.4															
9-23-19 13:30	12.06	1765	8.49	4.9	9-8-19 7:00	16.25	862	8.40	5.1	9-8-19 7:00	16.39	991	7.83	14.9															
9-23-19 13:45	12.01	1765	8.49	4.6	9-8-19 7:15	16.23	867	8.40	5.4	9-8-19 7:15	16.37	991	7.83	15.7															
9-23-19 14:00	11.97	1765	8.49	6.0	9-8-19 7:30	16.21	871	8.40	5.3	9-8-19 7:30	16.38	991	7.83	15.6															
9-23-19 14:15	11.93	1766	8.49	4.1	9-8-19 7:45	16.21	870	8.40	5.5	9-8-19 7:45	16.36	991	7.83	14.6															
9-23-19 14:30	11.87	1765	8.49	4.5	9-8-19 8:00	16.16	866	8.40	5.6	9-8-19 8:00	16.35	991	7.84	15.0															
9-23-19 14:45	11.86	1766	8.48	4.1	9-8-19 8:15	16.14	868	8.40	5.6	9-8-19 8:15	16.35	991	7.84	14.0															
9-23-19 15:00	11.84	1765	8.49	5.0	9-8-19 8:30	16.13	867	8.40	4.7	9-8-19 8:30	16.33	991	7.84	14.3															
9-23-19 15:15	11.82	1765	8.48	4.1	9-8-19 8:45	16.10	868	8.40	4.6	9-8-19 8:45	16.33	991	7.84	14.4															
9-23-19 15:30	11.82	1765	8.49	4.8	9-8-19 9:00	16.11	867	8.40	4.8	9-8-19 9:00	16.32	991	7.83	22.3															
9-23-19 15:45	11.81	1766	8.49	4.1	9-8-19 9:15	16.10	868	8.40	4.7	9-8-19 9:15	16.31	990	7.83	14.3															
9-23-19 16:00	11.82	1765	8.49	4.5	9-8-19 9:30	16.08	870	8.39	4.9	9-8-19 9:30	16.29	990	7.83	13.5															
9-23-19 16:15	11.80	1767	8.48	4.0	9-8-19 9:45	16.04	870	8.40	5.1	9-8-19 9:45	16.29	990	7.84	14.6															
9-23-19 16:30	11.86	1766	8.48	4.3	9-8-19 10:00	16.02	870	8.39	4.7	9-8-19 10:00	16.28	990	7.83	14.3															
9-23-19 16:45	11.90	1766	8.49	4.4	9-8-19 10:15	16.02	871	8.39	4.9	9-8-19 10:15	16.27	990	7.83	15.2															
9-23-19 17:00	11.90	1766	8.49	4.7	9-8-19 10:30	16.00	870	8.39	5.6	9-8-19 10:30	16.26	990	7.84	16.0															
9-23-19 17:15	11.90	1765	8.50	4.3	9-8-19 10:45	15.98	871	8.39	4.5	9-8-19 10:45	16.26	988	7.83	17.7															
9-23-19 17:30	11.87	1768	8.50	4.8	9-8-19 11:00	15.96	870	8.39	4.8	9-8-19 11:00	16.25	989	7.83	16.1															
9-23-19 17:45	11.85	1769	8.50	4.2	9-8-19 11:15	15.93	869	8.38	4.8	9-8-19 11:15	16.24	989	7.83	16.2															
9-23-19 18:00	11.85	1769	8.49	4.5	9-8-19 11:30	15.90	870	8.38	5.4	9-8-19 11:30	16.23	988	7.83	17.1															
9-23-19 18:30	11.93	1772	8.50	4.3	9-8-19 11:45	15.88	871	8.38	4.6	9-8-19 11:45	16.22	987	7.83	18.5															
9-23-19 18:45	11.93	1771	8.51	4.5	9-8-19 12:00	15.86	868	8.38	4.5	9-8-19 12:00	16.20	988	7.83	16.1															
9-23-19 19:00	11.95	1772	8.51	4.2	9-8-19 12:15	15.83	876	8.38	5.1	9-8-19 12:15	16.19	984	7.83	20.0															
9-23-19 19:15	11.98	1773	8.51	4.5	9-8-19 12:30	15.81	875	8.38	4.6	9-8-19 12:30	16.16	980	7.82	24.8															
9-23-19 19:30	12.00	1775	8.51	3.8	9-8-19 12:45	15.80	875	8.38	4.9	9-8-19 12:45	16.15	981	7.82	24.1															
9-23-19 19:45	12.04	1775	8.51	4.5	9-8-19 13:00	15.78	875	8.38	4.7	9-8-19 13:00	16.15	977	7.82	25.9															
9-23-19 20:00	12.10	1775	8.52	4.6	9-8-19 13:15	15.75	876	8.38	5.2	9-8-19 13:15	16.13	975	7.81	25.0															
9-23-19 20:15	12.13	1775	8.52	4.1	9-8-19 13:30	15.71	876	8.38	5.0	9-8-19 13:30	16.13	977	7.81	28.7															
9-23-19 20:30	12.12	1776	8.52	4.6	9-8-19 13:45	15.68	876	8.38	5.5	9-8-19 13:45	16.09	970	7.81	28.7															
9-23-19 20:45	12.13	1778	8.53	4.4	9-8-19 14:00	15.67	876	8.37	5.0	9-8-19 14:00	16.06	975	7.82	28.5															
9-23-19 21:00	12.22	1778	8.52	3.9	9-8-19 14:15	15.63	875	8.38	5.1	9-8-19 14:15	16.04	974	7.82	27.4															
9-23-19 21:15	12.25	1779	8.53	4.2	9-8-19 14:30	15.60	876	8.38	5.1	9-8-19 14:30	16.00	968	7.81	27.2															
9-23-19 21:30	12.33	1778	8.53	4.1	9-8-19 14:45	15.60	874	8.37	4.7	9-8-19 14:45	16.03	966	7.81	30.2															
9-23-19 21:45	12.39	1776	8.53	4.4	9-8-19 15:00	15.57	874	8.38	5.4	9-8-19 15:00	15.99	967	7.81	29.8															
9-23-19 22:00	12.42	1778	8.53	4.2	9-8-19 15:15	15.54	878	8.38	4.9	9-8-19 15:15	15.98	965	7.81	31.1															
9-23-19 22:15	12.43	1778	8.53	4.6	9-8-19 15:30	15.51	879	8.38	5.3	9-8-19 15:30	15.97	965	7.81	32.5															
9-23-19 22:30	12.44	1778	8.53	4.0	9-8-19 15:45	15.49	878	8.39	4.7	9-8-19 15:45	15.94	964	7.81	34.0															
9-23-19 22:45	12.48	1778	8.54	4.0	9-8-19 16:00	15.49	878	8.40	4.8	9-8-19 16:00	15.94	963	7.81	30.9															
9-23-19 23:00	12.51	1778	8.54	4.3	9-8-19 16:15	15.45	881	8.39	4.6	9-8-19 16:15	15.95	963	7.81	30.9															
9-23-19 23:15	12.52	1776	8.55	4.0	9-8-19 16:30	15.43	881	8.40	4.4	9-8-19 16:30	15.90	960	7.81	34.1															
9-23-19 23:30	12.45	1779	8.55	4.7	9-8-19 16:45	15.42	886	8.39	4.2	9-8-19 16:45	15.89	960	7.81	36.1															
9-23-19 23:45	12.45	1779	8.55	4.0	9-8-19 17:00	15.40	887	8.39	5.2	9-8-19 17:00	15.87	959	7.82	33.5															
9-24-19 0:00	12.42	1781	8.56	3.8	9-8-19 17:15	15.39	891	8.40	4.7	9-8-19 17:15	15.86	958	7.82	39.4															
9-24-19 0:15	12.46	1780	8.56	4.2	9-8-19 17:30	15.39	893	8.39	4.8	9-8-19 17:30	15.86	958	7.81	33.3															
9-24-19 0:30	12.48	1779	8.56	3.8	9-8-19 17:45	15.37	893	8.40	5.0	9-8-19 17:45	15.84	956	7.82	38.0															
9-24-19 0:45	12.44	1780	8.56	4.9	9-8-19 18:00	15.37	896	8.40	4.8	9-8-19 18:00	15.81	955	7.82	36.6															
9-24-19 1:00	12.41	1781	8.56	4.3	9-8-19 18:15	15.36	898	8.40	8.0	9-8-19 18:15	15.81	955	7.82	37.4															
9-24-19 1:15	12.40	1782	8.55	4.0	9-8-19 18:30	15.35	900	8.41	5.1	9-8-19 18:30	15.81	955	7.82	37.0															
9-24-19 1:30	12.37	1782	8.57	3.7	9-8-19 18:45	15.33	899	8.41	5.0	9-8-19 18:45	15.79	955	7.83	36.3															
9-24-19 1:45	12.36	1782	8.57	4.2	9-8-19 19:00	15.33	904	8.40	5.2	9-8-19 19:00	15.74	954	7.83	36.5															
9-24-19 2:00	12.32	1783	8.57	4.1	9-8-19 19:15	15.31	907	8.39	4.9	9-8-19 19:15	15.74	953	7.83	37.9															
9-24-19 2:15	12.30	1783	8.57	4.2	9-8-19 19:30	15.29	904	8.39	5.3	9-8-19 19:30	15.73	953	7.83	37.2															
9-24-19 2:30	12.30	1784	8.57	4.4	9-8-19 19:45	15.27	904	8.39	5.2	9-8-19 19:45	15.72	953	7.84	36.2															
9-24-19 2:45	12.27	1784	8.57	4.0	9-8-19 20:00	15.27	906	8.38	5.3	9-8-19 20:00	15.73	953	7.83	36.8															
9-24-19 3:00	12.26	1785	8.57	4.5	9-8-19 20:15	15.26	906	8.38	5.4	9-8-19 20:15	15.73	949	7.83	44.0															
9-24-19 3:15	12.22	1786	8.58	3.9	9-8-19 20:30	15.27	904	8.38	5.3	9-8-19 20:30	15.71	947	7.84	43.5															
9-24-19 3:30	12.20	1796	8.58	3.5	9-8-19 20:45	15.28	916	8.39	4.9	9-8-19 20:45	15.72	945	7.84	45.3															
9-24-19 3:45	12.17	1798	8.58	3.9	9-8-19 21:00	15.25	916	8.39	5.4	9-8-19 21:00	15.70	941	7.84	49.2															
9-24-19 4:00	12.14	1801	8.58	3.4	9-8-19 21:15	15.26	915	8.40	5.1	9-8-19 21:15	15.69	939	7.84	52.4															
9-24-19 4:15	12.13	1799	8.59	3.8	9-8-19 21:30	15.28	915	8.41	5.0	9-8-19 21:30	15.70	939	7.84	51.1															
9-24-19 4:30	12.12	1798	8.58	7.0	9-8-19 21:45	15.30	915	8.42	5.1	9-8-19 21:45	15.74	939	7.84	49.6															
9-24-19 4:45	12.07	1798	8.58	3.8	9-8-19 22:00	15.30	914	8.43	5.0	9-8-19 22:00	15.75	940	7.83	48.3															
9-24-19 5:00	12.05	1796	8.57	3.8	9-8-19 22:15	15.37	916	8.43	4.9	9-8-19 22:15	15.77	935	7.84	49.3															
9-24-19 5:15	12.02	1797	8.58	4.0	9-8-19 22:30	15.40	916	8.44	4.8	9-8-19 22:30	15.86	930	7.85	53.8															
9-24-19 5:30	11.99	1799	8.58	3.5	9-8-19 22:45	15.45	914	8.46	4.8	9-8-19 22:45	15.95	929	7.84	50.4															
9-24-19 5:45	11.96	1798	8.58	3.6	9-8-19 23:00	15.49	922	8.44	4.9	9-8-19 23:00	16.03	931	7.84	50.8															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-24-19 6:00	11.91	1800	8.58	3.6	9-8-19 23:15	15.45	922	8.37	5.3	9-8-19 23:15	16.06	929	7.84	49.6															
9-24-19 6:15	11.88	1800	8.58	4.0	9-8-19 23:30	15.47	923	8.36	5.4	9-8-19 23:30	16.02	931	7.86	50.3															
9-24-19 6:30	11.84	1803	8.58	3.6	9-8-19 23:45	15.51	921	8.43	5.8	9-8-19 23:45	16.03	934	7.86	49.2															
9-24-19 6:45	11.81	1804	8.58	4.3	9-9-19 0:00	15.54	922	8.45	6.2	9-9-19 0:00	15.99	934	7.85	50.6															
9-24-19 7:00	11.79	1803	8.58	3.4	9-9-19 0:15	15.56	938	8.42	5.7	9-9-19 0:15	15.92	934	7.85	51.5															
9-24-19 7:15	11.75	1803	8.57	5.4	9-9-19 0:30	15.55	931	8.42	5.1	9-9-19 0:30	15.84	929	7.85	50.5															
9-24-19 7:30	11.72	1804	8.57	3.2	9-9-19 0:45	15.56	928	8.47	5.3	9-9-19 0:45	15.70	926	7.86	54.0															
9-24-19 7:45	11.70	1803	8.57	3.8	9-9-19 1:00	15.57	949	8.41	6.5	9-9-19 1:00	15.74	933	7.85	50.8															
9-24-19 8:00	11.68	1803	8.57	3.4	9-9-19 1:15	15.57	974	8.39	6.2	9-9-19 1:15	15.69	925	7.85	65.4															
9-24-19 8:15	11.64	1802	8.57	4.4	9-9-19 1:30	15.50	975	8.38	7.2	9-9-19 1:30	15.74	931	7.85	56.7															
9-24-19 8:30	11.62	1804	8.57	3.3	9-9-19 1:45	15.41	968	8.37	6.1	9-9-19 1:45	15.74	935	7.85	55.8															
9-24-19 8:45	11.60	1805	8.57	4.4	9-9-19 2:00	15.36	966	8.36	6.0	9-9-19 2:00	15.75	932	7.86	67.4															
9-24-19 9:00	11.56	1806	8.57	3.3	9-9-19 2:15	15.28	960	8.36	5.8	9-9-19 2:15	15.72	933	7.86	60.8															
9-24-19 9:15	11.50	1803	8.57	3.8	9-9-19 2:30	15.26	958	8.35	5.6	9-9-19 2:30	15.68	930	7.86	71.5															
9-24-19 9:30	11.48	1805	8.57	3.3	9-9-19 2:45	15.22	957	8.36	5.4	9-9-19 2:45	15.65	930	7.86	75.0															
9-24-19 9:45	11.45	1806	8.57	3.7	9-9-19 3:00	15.21	956	8.35	5.1	9-9-19 3:00	15.65	930	7.86	66.6															
9-24-19 10:00	11.44	1807	8.57	3.5	9-9-19 3:15	15.20	956	8.35	5.5	9-9-19 3:15	15.62	925	7.86	76.8															
9-24-19 10:15	11.40	1806	8.57	4.0	9-9-19 3:30	15.19	954	8.35	5.4	9-9-19 3:30	15.59	922	7.85	78.4															
9-24-19 10:30	11.34	1808	8.57	3.4	9-9-19 3:45	15.19	954	8.34	5.1	9-9-19 3:45	15.57	924	7.86	74.8															
9-24-19 10:45	11.31	1808	8.57	3.8	9-9-19 4:00	15.15	953	8.34	4.9	9-9-19 4:00	15.56	926	7.86	76.4															
9-24-19 11:00	11.28	1809	8.57	4.0	9-9-19 4:15	15.11	952	8.34	4.9	9-9-19 4:15	15.55	925	7.86	74.1															
9-24-19 11:15	11.23	1811	8.57	3.7	9-9-19 4:30	15.10	954	8.34	7.8	9-9-19 4:30	15.54	921	7.86	82.0															
9-24-19 11:30	11.20	1812	8.57	3.2	9-9-19 4:45	15.06	956	8.32	4.8	9-9-19 4:45	15.50	914	7.86	88.0															
9-24-19 11:45	11.18	1812	8.57	3.4	9-9-19 5:00	15.05	962	8.33	4.5	9-9-19 5:00	15.49	914	7.86	91.0															
9-24-19 12:00	11.14	1813	8.56	3.3	9-9-19 5:15	15.03	963	8.33	4.8	9-9-19 5:15	15.45	917	7.86	87.0															
9-24-19 12:15	11.08	1814	8.57	3.8	9-9-19 5:30	15.00	967	8.33	4.7	9-9-19 5:30	15.45	915	7.86	86.4															
9-24-19 12:30	11.02	1815	8.56	3.0	9-9-19 5:45	14.96	968	8.34	5.0	9-9-19 5:45	15.43	916	7.86	77.8															
9-24-19 12:45	11.03	1816	8.57	4.2	9-9-19 6:00	14.94	969	8.33	5.2	9-9-19 6:00	15.42	915	7.86	80.6															
9-24-19 13:00	10.98	1815	8.56	3.3	9-9-19 6:15	14.90	971	8.33	4.8	9-9-19 6:15	15.41	917	7.86	76.2															
9-24-19 13:15	10.95	1818	8.56	3.6	9-9-19 6:30	14.89	974	8.32	4.9	9-9-19 6:30	15.39	917	7.85	78.0															
9-24-19 13:30	10.88	1817	8.56	3.6	9-9-19 6:45	14.88	975	8.33	4.5	9-9-19 6:45	15.37	916	7.85	75.8															
9-24-19 13:45	10.88	1819	8.56	3.4	9-9-19 7:00	14.85	977	8.33	4.8	9-9-19 7:00	15.35	916	7.86	75.3															
9-24-19 14:00	10.82	1821	8.56	3.6	9-9-19 7:15	14.97	1041	8.26	5.1	9-9-19 7:15	15.33	917	7.86	72.4															
9-24-19 14:15	10.82	1822	8.56	3.6	9-9-19 7:30	14.78	992	8.32	5.0	9-9-19 7:30	15.31	916	7.86	73.5															
9-24-19 14:30	10.79	1822	8.56	3.2	9-9-19 7:45	15.00	1086	8.22	8.7	9-9-19 7:45	15.28	916	7.86	71.4															
9-24-19 14:45	10.75	1821	8.56	3.4	9-9-19 8:00	14.95	1070	8.22	7.8	9-9-19 8:00	15.26	916	7.86	69.6															
9-24-19 15:00	10.77	1820	8.56	3.3	9-9-19 8:15	14.90	1053	8.22	8.0	9-9-19 8:15	15.25	916	7.86	70.8															
9-24-19 15:15	10.76	1817	8.56	3.5	9-9-19 8:30	14.88	1049	8.23	7.9	9-9-19 8:30	15.23	916	7.86	69.2															
9-24-19 15:30	10.77	1818	8.56	3.1	9-9-19 8:45	14.88	1052	8.22	8.0	9-9-19 8:45	15.21	916	7.86	66.8															
9-24-19 15:45	10.72	1817	8.56	3.3	9-9-19 9:00	14.83	1044	8.24	6.8	9-9-19 9:00	15.18	915	7.86	66.2															
9-24-19 16:00	10.70	1818	8.56	3.6	9-9-19 9:15	14.71	1028	8.25	6.3	9-9-19 9:15	15.16	916	7.86	67.3															
9-24-19 16:15	10.71	1817	8.56	3.6	9-9-19 9:30	14.71	1034	8.24	7.1	9-9-19 9:30	15.15	916	7.86	69.0															
9-24-19 16:30	10.73	1818	8.56	3.2	9-9-19 9:45	14.73	1044	8.24	7.7	9-9-19 9:45	15.14	916	7.86	66.6															
9-24-19 16:45	10.73	1818	8.57	3.6	9-9-19 10:00	14.70	1043	8.24	8.1	9-9-19 10:00	15.12	916	7.86	63.5															
9-24-19 17:00	10.77	1820	8.57	3.2	9-9-19 10:15	14.69	1044	8.24	7.7	9-9-19 10:15	15.12	916	7.87	62.2															
9-24-19 17:15	10.84	1820	8.57	3.5	9-9-19 10:30	14.68	1041	8.22	6.9	9-9-19 10:30	15.08	915	7.87	57.3															
9-24-19 17:30	10.86	1822	8.57	3.1	9-9-19 10:45	14.67	1044	8.23	8.4	9-9-19 10:45	15.08	915	7.87	64.4															
9-24-19 17:45	10.85	1823	8.57	3.4	9-9-19 11:00	14.65	1046	8.23	6.9	9-9-19 11:00	15.04	915	7.87	60.9															
9-24-19 18:00	10.86	1823	8.57	3.2	9-9-19 11:15	14.60	1044	8.23	7.3	9-9-19 11:15	15.06	916	7.87	64.4															
9-24-19 18:15	10.90	1823	8.57	3.0	9-9-19 11:30	14.60	1044	8.23	7.7	9-9-19 11:30	15.08	916	7.87	61.9															
9-24-19 18:30	10.91	1824	8.57	3.4	9-9-19 11:45	14.60	1044	8.23	7.6	9-9-19 11:45	15.04	916	7.87	59.9															
9-24-19 18:45	10.92	1825	8.57	3.5	9-9-19 12:00	14.60	1046	8.23	7.5	9-9-19 12:00	15.04	916	7.87	60.0															
9-24-19 19:00	10.91	1827	8.57	3.1	9-9-19 12:15	14.59	1047	8.22	7.6	9-9-19 12:15	15.01	916	7.87	60.9															
9-24-19 19:15	10.96	1826	8.58	3.5	9-9-19 12:30	14.53	1047	8.21	6.7	9-9-19 12:30	14.99	916	7.87	59.9															
9-24-19 19:30	11.00	1830	8.57	3.7	9-9-19 12:45	14.52	1049	8.21	6.7	9-9-19 12:45	14.99	916	7.87	56.5															
9-24-19 19:45	11.14	1827	8.57	3.3	9-9-19 13:00	14.51	1050	8.22	6.8	9-9-19 13:00	14.98	916	7.87	58.1															
9-24-19 20:00	11.31	1827	8.57	3.7	9-9-19 13:15	14.47	1051	8.22	6.8	9-9-19 13:15	14.96	915	7.87	55.4															
9-24-19 20:15	11.30	1828	8.57	4.1	9-9-19 13:30	14.42	1051	8.22	7.1	9-9-19 13:30	14.95	915	7.86	57.4															
9-24-19 20:30	11.27	1831	8.57	3.4	9-9-19 13:45	14.40	1051	8.22	6.6	9-9-19 13:45	14.91	915	7.87	55.9															
9-24-19 20:45	11.22	1833	8.58	3.4	9-9-19 14:00	14.38	1050	8.22	6.9	9-9-19 14:00	14.92	915	7.87	53.9															
9-24-19 21:00	11.25	1832	8.58	3.2	9-9-19 14:15	14.38	1050	8.22	6.9	9-9-19 14:15	14.91	915	7.87	53.5															
9-24-19 21:15	11.30	1830	8.58	3.8	9-9-19 14:30	14.35	1050	8.22	6.7	9-9-19 14:30	14.87	914	7.87	52.6															
9-24-19 21:30	11.34	1830	8.58	3.3	9-9-19 14:45	14.35	1048	8.22	6.4	9-9-19 14:45	14.87	913	7.86	57.4															
9-24-19 21:45	11.38	1829	8.58	3.6	9-9-19 15:00	14.32	1046	8.20	6.4	9-9-19 15:00	14.87	912	7.87	59.2															
9-24-19 22:00	11.37	1830	8.58	3.5	9-9-19 15:15	14.27	1043	8.21	6.3	9-9-19 15:15	14.78	912	7.87	56.6															
9-24-19 22:15	11.35	1831	8.58	3.5	9-9-19 15:30	14.27	1043	8.21	6.4	9-9-19 15:30	14.83	911	7.86	58.5															
9-24-19 22:30	11.33	1833	8.58	3.2	9-9-19 15:45	14.26	1042	8.21	6.5	9-9-19 15:45	14.82	910	7.86	56.2															
9-24-19 22:45	11.33	1836	8.59	3.3	9-9-19 16:00	14.23	1042	8.21	6.3	9-9-19 16:00	14.80	911	7.87	55.2															
9-24-19 23:00	11.33	1836	8.59	3.7	9-9-19 16:15	14.21	1041	8.21	7.0	9-9-19 16:15	14.79	911	7.87	58.8															
9-24-19 23:15	11.36	1837	8.59	3.7	9-9-19 16:30	14.20	1040	8.23	7.9	9-9-19 16:30	14.79	909	7.86	56.3															
9-24-19 23:30	11.35	1840	8.59	3.2	9-9-19 16:45	14.21	1039	8.24	6.1	9-9-19 16:45	14.80	908	7.86	55.6															
9-24-19 23:45	11.36	1840	8.59	3.8	9-9-19 17:00	14.24	1039	8.25	6.1	9-9-19 17:00	14.80	908	7.85	56.4															
9-25-19 0:00	11.36	1841	8.60	3.3	9-9-19 17:15	14.23	1039	8.26	5.9	9-9-19 17:15	14.79	909	7.86	54.4															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-25-19 0:15	11.35	1841	8.60	3.3	9-9-19 17:30	14.22	1038	8.27	6.0	9-9-19 17:30	14.80	906	7.86	54.3															
9-25-19 0:30	11.34	1842	8.60	3.5	9-9-19 17:45	14.24	1037	8.26	5.8	9-9-19 17:45	14.81	906	7.85	52.1															
9-25-19 0:45	11.30	1841	8.60	4.1	9-9-19 18:00	14.25	1036	8.30	5.9	9-9-19 18:00	14.82	906	7.87	53.6															
9-25-19 1:00	11.33	1840	8.60	3.5	9-9-19 18:15	14.28	1034	8.33	6.1	9-9-19 18:15	14.86	905	7.86	54.0															
9-25-19 1:15	11.31	1838	8.60	3.3	9-9-19 18:30	14.28	1034	8.32	6.0	9-9-19 18:30	14.86	906	7.86	51.8															
9-25-19 1:30	11.27	1842	8.61	3.1	9-9-19 18:45	14.30	1033	8.36	5.5	9-9-19 18:45	14.87	906	7.86	49.0															
9-25-19 1:45	11.25	1843	8.60	3.4	9-9-19 19:00	14.32	1033	8.34	5.4	9-9-19 19:00	14.85	905	7.86	49.4															
9-25-19 2:00	11.23	1850	8.61	3.3	9-9-19 19:15	14.31	1032	8.32	5.2	9-9-19 19:15	14.86	905	7.86	47.1															
9-25-19 2:15	11.21	1847	8.62	3.6	9-9-19 19:30	14.32	1031	8.32	5.6	9-9-19 19:30	14.86	905	7.86	48.9															
9-25-19 2:30	11.16	1850	8.62	3.3	9-9-19 19:45	14.33	1030	8.31	6.3	9-9-19 19:45	14.86	905	7.86	49.3															
9-25-19 2:45	11.13	1851	8.62	3.4	9-9-19 20:00	14.34	1030	8.31	5.5	9-9-19 20:00	14.88	904	7.86	48.3															
9-25-19 3:00	11.11	1854	8.62	3.7	9-9-19 20:15	14.35	1029	8.33	5.9	9-9-19 20:15	14.88	903	7.87	47.7															
9-25-19 3:15	11.07	1856	8.62	3.6	9-9-19 20:30	14.37	1028	8.33	5.8	9-9-19 20:30	14.92	902	7.86	49.3															
9-25-19 3:30	11.04	1858	8.62	3.5	9-9-19 20:45	14.38	1026	8.34	7.0	9-9-19 20:45	14.98	902	7.88	42.0															
9-25-19 3:45	11.04	1860	8.62	4.2	9-9-19 21:00	14.40	1024	8.36	7.1	9-9-19 21:00	14.98	900	7.88	43.4															
9-25-19 4:00	11.04	1861	8.62	3.6	9-9-19 21:15	14.43	1026	8.36	5.7	9-9-19 21:15	14.99	901	7.88	42.6															
9-25-19 4:15	11.04	1862	8.61	3.6	9-9-19 21:30	14.44	1027	8.34	5.4	9-9-19 21:30	14.97	901	7.88	41.8															
9-25-19 4:30	11.03	1864	8.61	4.1	9-9-19 21:45	14.42	1026	8.32	5.3	9-9-19 21:45	14.92	902	7.87	37.7															
9-25-19 4:45	11.00	1865	8.61	3.6	9-9-19 22:00	14.43	1025	8.34	5.5	9-9-19 22:00	14.94	903	7.86	41.7															
9-25-19 5:00	10.99	1868	8.60	3.5	9-9-19 22:15	14.41	1025	8.34	7.3	9-9-19 22:15	14.90	902	7.86	38.8															
9-25-19 5:15	10.95	1865	8.61	3.8	9-9-19 22:30	14.41	1024	8.35	6.8	9-9-19 22:30	14.87	902	7.86	38.6															
9-25-19 5:30	10.91	1866	8.61	3.3	9-9-19 22:45	14.40	1026	8.36	5.6	9-9-19 22:45	14.83	901	7.86	41.8															
9-25-19 5:45	10.88	1867	8.61	3.7	9-9-19 23:00	14.40	1023	8.38	5.3	9-9-19 23:00	14.88	902	7.86	48.3															
9-25-19 6:00	10.87	1868	8.60	3.3	9-9-19 23:15	14.38	1019	8.39	5.4	9-9-19 23:15	14.94	904	7.87	50.3															
9-25-19 6:15	10.83	1868	8.61	3.7	9-9-19 23:30	14.38	1019	8.39	5.2	9-9-19 23:30	14.94	902	7.87	47.5															
9-25-19 6:30	10.81	1867	8.60	3.4	9-9-19 23:45	14.38	1018	8.39	5.2	9-9-19 23:45	14.94	901	7.86	46.4															
9-25-19 6:45	10.78	1867	8.60	3.8	9-10-19 0:00	14.39	1017	8.40	5.1	9-10-19 0:00	14.93	902	7.87	47.6															
9-25-19 7:00	10.75	1867	8.60	3.2	9-10-19 0:15	14.39	1021	8.38	5.4	9-10-19 0:15	14.95	903	7.88	44.5															
9-25-19 7:15	10.70	1868	8.60	3.6	9-10-19 0:30	14.38	1021	8.39	5.1	9-10-19 0:30	14.95	903	7.88	44.3															
9-25-19 7:30	10.69	1871	8.60	3.1	9-10-19 0:45	14.38	1020	8.39	6.5	9-10-19 0:45	14.94	903	7.88	42.4															
9-25-19 7:45	10.66	1870	8.60	3.9	9-10-19 1:00	14.37	1017	8.42	5.3	9-10-19 1:00	14.93	903	7.88	42.4															
9-25-19 8:00	10.63	1871	8.60	3.3	9-10-19 1:15	14.36	1016	8.43	5.7	9-10-19 1:15	14.92	903	7.88	41.1															
9-25-19 8:15	10.63	1876	8.59	3.8	9-10-19 1:30	14.35	1019	8.39	5.9	9-10-19 1:30	14.91	903	7.87	43.5															
9-25-19 8:30	10.61	1879	8.59	3.7	9-10-19 1:45	14.34	1018	8.38	6.0	9-10-19 1:45	14.91	903	7.87	41.3															
9-25-19 8:45	10.60	1878	8.59	4.1	9-10-19 2:00	14.33	1016	8.39	4.8	9-10-19 2:00	14.89	902	7.87	41.8															
9-25-19 9:00	10.55	1878	8.59	3.4	9-10-19 2:15	14.31	1018	8.41	5.4	9-10-19 2:15	14.88	902	7.87	39.6															
9-25-19 9:15	10.54	1878	8.59	4.2	9-10-19 2:30	14.29	1014	8.41	5.7	9-10-19 2:30	14.87	903	7.87	40.2															
9-25-19 9:30	10.52	1880	8.59	3.7	9-10-19 2:45	14.27	1014	8.41	5.9	9-10-19 2:45	14.86	902	7.87	38.8															
9-25-19 9:45	10.48	1878	8.59	4.6	9-10-19 3:00	14.24	1013	8.42	6.1	9-10-19 3:00	14.84	902	7.87	40.2															
9-25-19 10:00	10.43	1879	8.59	3.7	9-10-19 3:15	14.23	1010	8.42	6.4	9-10-19 3:15	14.83	902	7.88	39.1															
9-25-19 10:15	10.42	1880	8.59	3.8	9-10-19 3:30	14.18	1009	8.42	6.0	9-10-19 3:30	14.82	902	7.88	39.8															
9-25-19 10:30	10.42	1881	8.58	9.0	9-10-19 3:45	14.15	1010	8.41	6.2	9-10-19 3:45	14.80	902	7.88	37.9															
9-25-19 10:45	10.41	1882	8.58	4.1	9-10-19 4:00	14.14	1009	8.41	6.1	9-10-19 4:00	14.80	902	7.88	38.9															
9-25-19 11:00	10.39	1881	8.58	3.5	9-10-19 4:15	14.13	1011	8.40	6.6	9-10-19 4:15	14.79	901	7.87	36.7															
9-25-19 11:15	10.40	1882	8.58	4.4	9-10-19 4:30	14.13	1010	8.39	5.8	9-10-19 4:30	14.77	900	7.86	37.7															
9-25-19 11:30	10.40	1884	8.57	3.9	9-10-19 4:45	14.11	1010	8.39	6.1	9-10-19 4:45	14.77	901	7.87	34.7															
9-25-19 11:45	10.38	1884	8.57	4.4	9-10-19 5:00	14.11	1006	8.39	6.1	9-10-19 5:00	14.75	901	7.87	34.9															
9-25-19 12:00	10.38	1886	8.57	3.8	9-10-19 5:15	14.08	1009	8.38	5.7	9-10-19 5:15	14.74	900	7.87	34.8															
9-25-19 12:15	10.36	1887	8.57	4.2	9-10-19 5:30	14.08	1007	8.38	5.7	9-10-19 5:30	14.72	898	7.86	33.3															
9-25-19 12:30	10.33	1887	8.56	3.7	9-10-19 5:45	14.05	1007	8.38	5.7	9-10-19 5:45	14.71	898	7.85	33.5															
9-25-19 12:45	10.30	1888	8.56	4.0	9-10-19 6:00	14.02	1005	8.38	5.4	9-10-19 6:00	14.69	896	7.84	34.7															
9-25-19 13:00	10.27	1888	8.56	4.3	9-10-19 6:15	14.01	1018	8.38	6.0	9-10-19 6:15	14.68	892	7.81	36.4															
9-25-19 13:15	10.26	1889	8.56	4.4	9-10-19 6:30	14.00	1018	8.37	5.4	9-10-19 6:30	14.68	895	7.83	37.3															
9-25-19 13:30	10.23	1890	8.56	3.7	9-10-19 6:45	14.00	1018	8.37	6.3	9-10-19 6:45	14.68	895	7.83	35.6															
9-25-19 13:45	10.22	1889	8.56	3.9	9-10-19 7:00	14.01	1017	8.36	5.3	9-10-19 7:00	14.68	895	7.83	35.8															
9-25-19 14:00	10.20	1888	8.56	3.6	9-10-19 7:15	13.99	1017	8.36	5.5	9-10-19 7:15	14.67	896	7.84	34.2															
9-25-19 14:15	10.17	1888	8.56	4.1	9-10-19 7:30	13.99	1017	8.36	5.3	9-10-19 7:30	14.67	894	7.83	34.4															
9-25-19 14:30	10.14	1888	8.56	4.9	9-10-19 7:45	13.98	1016	8.36	5.3	9-10-19 7:45	14.65	896	7.84	35.4															
9-25-19 14:45	10.13	1888	8.56	4.0	9-10-19 8:00	13.96	1015	8.36	5.7	9-10-19 8:00	14.66	897	7.84	35.2															
9-25-19 15:00	10.12	1888	8.56	3.7	9-10-19 8:15	13.95	1017	8.36	5.9	9-10-19 8:15	14.64	896	7.84	32.2															
9-25-19 15:15	10.12	1888	8.56	4.1	9-10-19 8:30	13.95	1017	8.35	5.4	9-10-19 8:30	14.63	896	7.84	34.6															
9-25-19 15:30	10.11	1888	8.56	4.0	9-10-19 8:45	13.93	1017	8.34	5.4	9-10-19 8:45	14.62	896	7.84	36.2															
9-25-19 15:45	10.11	1888	8.56	4.3	9-10-19 9:00	13.94	1013	8.35	5.3	9-10-19 9:00	14.61	896	7.84	34.2															
9-25-19 16:00	10.14	1891	8.55	3.8	9-10-19 9:15	13.92	1015	8.34	5.3	9-10-19 9:15	14.61	896	7.84	35.0															
9-25-19 16:15	10.10	1890	8.55	4.2	9-10-19 9:30	13.90	1016	8.34	5.1	9-10-19 9:30	14.60	896	7.84	34.4															
9-25-19 16:30	10.09	1891	8.55	4.5	9-10-19 9:45	13.88	1015	8.34	5.6	9-10-19 9:45	14.53	896	7.85	32.0															
9-25-19 16:45	10.10	1894	8.55	7.5	9-10-19 10:00	13.84	1015	8.34	5.6	9-10-19 10:00	14.56	897	7.85	34.0															
9-25-19 17:00	10.14	1889	8.55	3.7	9-10-19 10:15	13.84	1017	8.34	5.2	9-10-19 10:15	14.57	896	7.85	33.0															
9-25-19 17:15	10.15	1891	8.55	5.0	9-10-19 10:30	13.83	1017	8.33	5.1	9-10-19 10:30	14.57	897	7.85	33.3															
9-25-19 17:30	10.16	1892	8.55	3.7	9-10-19 10:45	13.81	1016	8.33	5.3	9-10-19 10:45	14.55	896	7.85	32.8															
9-25-19 17:45	10.18	1891	8.55	4.1	9-10-19 11:00	13.78	1016	8.32	4.9	9-10-19 11:00	14.49	896	7.85	33.0															
9-25-19 18:00	10.20	1891	8.54	3.9	9-10-19 11:15	13.75	1020	8.33	4.4	9-10-19 11:15	14.47	896	7.86	32.8															
9-25-19 18:15	10.25	1892	8.54	4.3	9-10-19 11:30	13.73	1021	8.32	4.3	9-10-19 11:30	14.51	897	7.85	33.3															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-25-19 18:30	10.32	1891	8.54	3.7	9-10-19 11:45	13.73	1022	8.32	4.3	9-10-19 11:45	14.49	897	7.86	33.3															
9-25-19 18:45	10.38	1891	8.54	4.0	9-10-19 12:00	13.73	1022	8.33	4.5	9-10-19 12:00	14.51	897	7.85	33.0															
9-25-19 19:00	10.42	1893	8.54	3.8	9-10-19 12:15	13.70	1023	8.32	4.8	9-10-19 12:15	14.48	897	7.86	33.6															
9-25-19 19:15	10.40	1889	8.54	3.8	9-10-19 12:30	13.66	1024	8.32	5.3	9-10-19 12:30	14.50	897	7.86	38.4															
9-25-19 19:30	10.47	1892	8.54	3.5	9-10-19 12:45	13.66	1026	8.32	4.3	9-10-19 12:45	14.50	897	7.86	36.7															
9-25-19 19:45	10.51	1890	8.54	4.2	9-10-19 13:00	13.64	1023	8.32	4.3	9-10-19 13:00	14.49	897	7.86	37.2															
9-25-19 20:00	10.56	1891	8.54	3.7	9-10-19 13:15	13.61	1025	8.32	4.4	9-10-19 13:15	14.47	896	7.86	38.6															
9-25-19 20:15	10.63	1890	8.54	4.1	9-10-19 13:30	13.61	1025	8.32	4.2	9-10-19 13:30	14.47	896	7.86	41.0															
9-25-19 20:30	10.75	1890	8.54	3.6	9-10-19 13:45	13.61	1024	8.32	4.4	9-10-19 13:45	14.47	896	7.86	38.8															
9-25-19 20:45	10.84	1890	8.54	4.0	9-10-19 14:00	13.62	1024	8.32	4.6	9-10-19 14:00	14.41	895	7.86	43.0															
9-25-19 21:00	10.88	1890	8.54	3.6	9-10-19 14:15	13.60	1025	8.32	4.9	9-10-19 14:15	14.41	895	7.86	41.1															
9-25-19 21:15	10.89	1891	8.53	4.0	9-10-19 14:30	13.58	1024	8.32	4.1	9-10-19 14:30	14.44	895	7.86	39.6															
9-25-19 21:30	10.97	1894	8.53	4.2	9-10-19 14:45	13.58	1024	8.32	4.3	9-10-19 14:45	14.43	895	7.86	40.8															
9-25-19 21:45	10.95	1891	8.53	4.0	9-10-19 15:00	13.58	1024	8.32	5.5	9-10-19 15:00	14.40	895	7.86	39.7															
9-25-19 22:00	11.00	1890	8.53	4.2	9-10-19 15:15	13.57	1024	8.33	4.4	9-10-19 15:15	14.43	894	7.86	41.5															
9-25-19 22:15	10.98	1890	8.53	5.6	9-10-19 15:30	13.57	1024	8.33	4.7	9-10-19 15:30	14.42	894	7.86	41.8															
9-25-19 22:30	10.88	1891	8.54	3.9	9-10-19 15:45	13.58	1024	8.33	4.4	9-10-19 15:45	14.43	894	7.86	42.1															
9-25-19 22:45	10.77	1891	8.54	5.1	9-10-19 16:00	13.58	1024	8.33	4.6	9-10-19 16:00	14.40	892	7.86	44.4															
9-25-19 23:00	10.79	1892	8.54	5.3	9-10-19 16:15	13.58	1024	8.33	4.5	9-10-19 16:15	14.37	891	7.86	43.8															
9-25-19 23:15	10.79	1891	8.54	7.1	9-10-19 16:30	13.60	1024	8.33	4.6	9-10-19 16:30	14.34	891	7.86	43.6															
9-25-19 23:30	10.78	1892	8.54	4.2	9-10-19 16:45	13.58	1023	8.33	4.4	9-10-19 16:45	14.34	891	7.86	43.4															
9-25-19 23:45	10.74	1892	8.54	4.2	9-10-19 17:00	13.58	1024	8.33	4.8	9-10-19 17:00	14.33	890	7.86	42.7															
9-26-19 0:00	10.76	1892	8.54	3.7	9-10-19 17:15	13.57	1024	8.33	5.1	9-10-19 17:15	14.31	890	7.87	44.2															
9-26-19 0:15	10.77	1892	8.54	4.0	9-10-19 17:30	13.57	1024	8.34	4.7	9-10-19 17:30	14.31	891	7.86	39.6															
9-26-19 0:30	10.76	1892	8.54	3.4	9-10-19 17:45	13.58	1024	8.34	4.4	9-10-19 17:45	14.32	890	7.87	44.6															
9-26-19 0:45	10.76	1892	8.54	4.0	9-10-19 18:00	13.57	1024	8.34	4.8	9-10-19 18:00	14.32	890	7.86	44.3															
9-26-19 1:00	10.75	1892	8.54	3.7	9-10-19 18:15	13.60	1024	8.34	4.6	9-10-19 18:15	14.33	891	7.87	41.6															
9-26-19 1:15	10.72	1892	8.54	4.7	9-10-19 18:30	13.61	1023	8.36	4.0	9-10-19 18:30	14.33	891	7.86	38.9															
9-26-19 1:30	10.72	1893	8.54	3.3	9-10-19 18:45	13.62	1023	8.37	4.2	9-10-19 18:45	14.32	891	7.87	44.3															
9-26-19 1:45	10.68	1892	8.54	4.0	9-10-19 19:00	13.64	1021	8.38	4.2	9-10-19 19:00	14.34	890	7.86	42.8															
9-26-19 2:00	10.61	1893	8.54	3.5	9-10-19 19:15	13.64	1022	8.39	3.8	9-10-19 19:15	14.34	890	7.86	44.6															
9-26-19 2:15	10.60	1892	8.54	3.9	9-10-19 19:30	13.62	1019	8.40	3.9	9-10-19 19:30	14.33	889	7.86	48.4															
9-26-19 2:30	10.57	1893	8.54	3.4	9-10-19 19:45	13.62	1018	8.41	3.7	9-10-19 19:45	14.33	889	7.86	47.8															
9-26-19 2:45	10.54	1893	8.54	4.1	9-10-19 20:00	13.66	1016	8.42	3.7	9-10-19 20:00	14.33	889	7.86	44.3															
9-26-19 3:00	10.54	1894	8.54	3.5	9-10-19 20:15	13.69	1018	8.42	3.6	9-10-19 20:15	14.34	888	7.86	46.1															
9-26-19 3:15	10.53	1893	8.54	4.0	9-10-19 20:30	13.68	1020	8.42	3.5	9-10-19 20:30	14.35	888	7.86	43.4															
9-26-19 3:30	10.47	1893	8.54	3.6	9-10-19 20:45	13.68	1022	8.42	3.7	9-10-19 20:45	14.34	888	7.87	44.2															
9-26-19 3:45	10.49	1893	8.54	4.1	9-10-19 21:00	13.68	1021	8.42	3.6	9-10-19 21:00	14.32	888	7.87	40.5															
9-26-19 4:00	10.47	1894	8.54	3.5	9-10-19 21:15	13.68	1016	8.42	3.8	9-10-19 21:15	14.34	888	7.86	43.1															
9-26-19 4:15	10.45	1895	8.53	4.3	9-10-19 21:30	13.69	1014	8.44	3.5	9-10-19 21:30	14.36	888	7.87	40.7															
9-26-19 4:30	10.43	1896	8.53	4.5	9-10-19 21:45	13.71	1014	8.45	3.3	9-10-19 21:45	14.34	887	7.87	42.8															
9-26-19 4:45	10.44	1897	8.52	4.3	9-10-19 22:00	13.72	1016	8.45	3.3	9-10-19 22:00	14.33	887	7.87	42.7															
9-26-19 5:00	10.44	1895	8.52	3.7	9-10-19 22:15	13.72	1020	8.43	3.7	9-10-19 22:15	14.35	887	7.87	42.0															
9-26-19 5:15	10.44	1895	8.52	4.1	9-10-19 22:30	13.70	1017	8.44	3.4	9-10-19 22:30	14.35	887	7.87	40.5															
9-26-19 5:30	10.42	1895	8.52	3.8	9-10-19 22:45	13.71	1016	8.42	3.8	9-10-19 22:45	14.34	887	7.87	42.5															
9-26-19 5:45	10.40	1895	8.52	4.2	9-10-19 23:00	13.71	1015	8.43	3.6	9-10-19 23:00	14.33	886	7.86	38.5															
9-26-19 6:00	10.38	1896	8.52	3.8	9-10-19 23:15	13.73	1016	8.44	3.5	9-10-19 23:15	14.33	886	7.87	44.0															
9-26-19 6:15	10.36	1895	8.52	4.9	9-10-19 23:30	13.73	1017	8.43	3.7	9-10-19 23:30	14.31	886	7.86	39.7															
9-26-19 6:30	10.34	1896	8.52	4.3	9-10-19 23:45	13.73	1015	8.43	3.4	9-10-19 23:45	14.29	885	7.87	42.5															
9-26-19 6:45	10.32	1894	8.52	4.1	9-11-19 0:00	13.72	1015	8.43	3.6	9-11-19 0:00	14.29	885	7.87	42.0															
9-26-19 7:00	10.29	1896	8.52	3.6	9-11-19 0:15	13.71	1018	8.43	3.5	9-11-19 0:15	14.30	885	7.87	44.0															
9-26-19 7:15	10.27	1896	8.52	4.1	9-11-19 0:30	13.71	1018	8.43	4.5	9-11-19 0:30	14.31	885	7.86	39.7															
9-26-19 7:30	10.25	1895	8.52	4.3	9-11-19 0:45	13.70	1018	8.43	3.4	9-11-19 0:45	14.33	885	7.86	40.8															
9-26-19 7:45	10.23	1895	8.52	4.2	9-11-19 1:00	13.70	1015	8.44	3.4	9-11-19 1:00	14.32	884	7.86	40.7															
9-26-19 8:00	10.19	1894	8.51	3.5	9-11-19 1:15	13.70	1017	8.44	3.7	9-11-19 1:15	14.31	884	7.86	46.8															
9-26-19 8:15	10.18	1896	8.52	4.2	9-11-19 1:30	13.70	1015	8.43	3.6	9-11-19 1:30	14.31	884	7.86	41.4															
9-26-19 8:30	10.17	1896	8.51	3.8	9-11-19 1:45	13.70	1016	8.44	3.5	9-11-19 1:45	14.28	883	7.87	41.4															
9-26-19 8:45	10.16	1895	8.51	4.1	9-11-19 2:00	13.69	1015	8.43	3.6	9-11-19 2:00	14.32	884	7.87	42.7															
9-26-19 9:00	10.11	1897	8.51	3.7	9-11-19 2:15	13.67	1016	8.43	3.8	9-11-19 2:15	14.32	884	7.88	41.1															
9-26-19 9:15	10.11	1896	8.51	4.3	9-11-19 2:30	13.62	1016	8.43	3.6	9-11-19 2:30	14.27	884	7.88	42.1															
9-26-19 9:30	10.11	1897	8.51	3.5	9-11-19 2:45	13.61	1017	8.42	4.4	9-11-19 2:45	14.29	884	7.88	41.7															
9-26-19 9:45	10.12	1896	8.51	4.5	9-11-19 3:00	13.58	1017	8.42	3.5	9-11-19 3:00	14.29	884	7.87	41.2															
9-26-19 10:00	10.10	1897	8.51	3.6	9-11-19 3:15	13.57	1018	8.41	3.8	9-11-19 3:15	14.29	884	7.88	40.2															
9-26-19 10:15	10.08	1896	8.50	5.3	9-11-19 3:30	13.53	1014	8.41	3.2	9-11-19 3:30	14.26	884	7.88	40.2															
9-26-19 10:30	10.05	1896	8.50	4.1	9-11-19 3:45	13.54	1014	8.41	3.4	9-11-19 3:45	14.26	884	7.88	40.5															
9-26-19 10:45	10.05	1896	8.50	4.0	9-11-19 4:00	13.56	1014	8.40	3.4	9-11-19 4:00	14.26	884	7.88	39.2															
9-26-19 11:00	10.03	1896	8.50	3.5	9-11-19 4:15	13.55	1019	8.40	3.8	9-11-19 4:15	14.25	884	7.88	39.5															
9-26-19 11:15	10.03	1895	8.50	5.6	9-11-19 4:30	13.55	1019	8.40	3.5	9-11-19 4:30	14.25	884	7.87	39.1															
9-26-19 11:30	10.00	1897	8.50	3.8	9-11-19 4:45	13.56	1019	8.40	3.6	9-11-19 4:45	14.24	884	7.88	38.0															
9-26-19 11:45	9.98	1896	8.50	4.1	9-11-19 5:00	13.57	1020	8.39	3.8	9-11-19 5:00	14.24	884	7.87	39.2															
9-26-19 12:00	9.98	1897	8.50	3.7	9-11-19 5:15	13.57	1020	8.39	3.6	9-11-19 5:15	14.24	884	7.88	37.0															
9-26-19 12:15	9.96	1896	8.50	4.0	9-11-19 5:30	13.55	1020	8.38	3.2	9-11-19 5:30	14.23	884	7.88	38.8															
9-26-19 12:30	9.94	1897	8.50	5.1	9-11-19 5:45	13.56	1020	8.38	3.3	9-11-19 5:45	14.23	884	7.87	37.2															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-26-19 12:45	9.91	1903	8.50	5.2	9-11-19 6:00	13.53	1020	8.38	3.2	9-11-19 6:00	14.22	884	7.88	36.0															
9-26-19 13:00	9.91	1897	8.50	3.9	9-11-19 6:15	13.52	1020	8.38	3.4	9-11-19 6:15	14.22	884	7.88	37.4															
9-26-19 13:15	9.85	1895	8.50	4.4	9-11-19 6:30	13.54	1019	8.38	5.7	9-11-19 6:30	14.22	884	7.87	36.9															
9-26-19 13:30	9.86	1893	8.50	4.6	9-11-19 6:45	13.53	1020	8.38	3.3	9-11-19 6:45	14.21	884	7.88	44.4															
9-26-19 13:45	9.81	1894	8.50	4.1	9-11-19 7:00	13.53	1020	8.37	3.6	9-11-19 7:00	14.21	884	7.88	37.4															
9-26-19 14:00	9.79	1893	8.50	4.2	9-11-19 7:15	13.52	1021	8.37	3.7	9-11-19 7:15	14.20	884	7.88	37.0															
9-26-19 14:15	9.77	1892	8.50	5.5	9-11-19 7:30	13.50	1020	8.36	3.5	9-11-19 7:30	14.15	883	7.88	35.9															
9-26-19 14:30	9.73	1892	8.50	5.1	9-11-19 7:45	13.48	1019	8.36	3.2	9-11-19 7:45	14.15	883	7.88	40.0															
9-26-19 14:45	9.67	1891	8.50	7.7	9-11-19 8:00	13.44	1018	8.36	3.5	9-11-19 8:00	14.15	883	7.88	36.9															
9-26-19 15:00	9.66	1892	8.50	5.1	9-11-19 8:15	13.43	1029	8.35	3.9	9-11-19 8:15	14.12	884	7.89	37.8															
9-26-19 15:15	9.64	1891	8.50	5.4	9-11-19 8:30	13.41	1030	8.36	3.8	9-11-19 8:30	14.12	884	7.89	35.0															
9-26-19 15:30	9.57	1890	8.50	6.7	9-11-19 8:45	13.38	1030	8.36	3.7	9-11-19 8:45	14.11	884	7.89	37.2															
9-26-19 15:45	9.55	1890	8.50	5.6	9-11-19 9:00	13.37	1030	8.36	3.9	9-11-19 9:00	14.12	883	7.89	35.5															
9-26-19 16:00	9.56	1890	8.50	5.5	9-11-19 9:15	13.33	1029	8.36	3.9	9-11-19 9:15	14.11	883	7.89	36.6															
9-26-19 16:15	9.52	1889	8.50	5.7	9-11-19 9:30	13.34	1030	8.36	3.9	9-11-19 9:30	14.09	883	7.89	33.7															
9-26-19 16:30	9.53	1890	8.50	5.4	9-11-19 9:45	13.36	1030	8.36	3.6	9-11-19 9:45	14.12	882	7.88	33.8															
9-26-19 16:45	9.49	1889	8.50	5.7	9-11-19 10:00	13.34	1029	8.36	3.7	9-11-19 10:00	14.07	882	7.89	33.5															
9-26-19 17:00	9.48	1890	8.50	5.5	9-11-19 10:15	13.33	1029	8.35	3.4	9-11-19 10:15	14.08	881	7.89	42.5															
9-26-19 17:15	9.47	1889	8.50	6.4	9-11-19 10:30	13.31	1029	8.36	3.8	9-11-19 10:30	14.05	881	7.89	35.4															
9-26-19 17:30	9.49	1890	8.50	6.1	9-11-19 10:45	13.30	1029	8.35	3.5	9-11-19 10:45	14.04	881	7.89	38.3															
9-26-19 17:45	9.48	1889	8.50	6.1	9-11-19 11:00	13.28	1029	8.35	3.2	9-11-19 11:00	14.02	880	7.90	37.2															
9-26-19 18:00	9.49	1889	8.50	6.3	9-11-19 11:15	13.26	1029	8.35	3.6	9-11-19 11:15	14.03	881	7.89	35.4															
9-26-19 18:15	9.50	1889	8.50	6.4	9-11-19 11:30	13.26	1030	8.35	3.5	9-11-19 11:30	14.02	880	7.89	37.3															
9-26-19 18:30	9.52	1889	8.50	5.8	9-11-19 11:45	13.26	1030	8.35	3.7	9-11-19 11:45	14.06	880	7.89	39.9															
9-26-19 18:45	9.54	1888	8.50	5.7	9-11-19 12:00	13.26	1030	8.35	3.4	9-11-19 12:00	14.01	879	7.89	36.7															
9-26-19 19:00	9.55	1889	8.50	6.0	9-11-19 12:15	13.26	1029	8.34	3.6	9-11-19 12:15	14.03	879	7.89	37.9															
9-26-19 19:15	9.56	1888	8.50	6.3	9-11-19 12:30	13.25	1029	8.34	3.5	9-11-19 12:30	13.99	879	7.89	36.0															
9-26-19 19:30	9.57	1888	8.50	5.6	9-11-19 12:45	13.25	1029	8.34	3.3	9-11-19 12:45	13.97	878	7.90	35.9															
9-26-19 19:45	9.58	1888	8.50	6.6	9-11-19 13:00	13.24	1030	8.34	3.2	9-11-19 13:00	14.01	879	7.89	39.8															
9-26-19 20:00	9.58	1889	8.50	5.5	9-11-19 13:15	13.23	1030	8.34	3.5	9-11-19 13:15	14.00	878	7.89	39.2															
9-26-19 20:15	9.57	1887	8.50	6.1	9-11-19 13:30	13.19	1030	8.34	3.0	9-11-19 13:30	13.98	878	7.89	38.3															
9-26-19 20:30	9.60	1888	8.50	5.8	9-11-19 13:45	13.17	1030	8.34	3.2	9-11-19 13:45	13.95	877	7.90	37.3															
9-26-19 20:45	9.58	1887	8.50	6.3	9-11-19 14:00	13.16	1030	8.34	3.2	9-11-19 14:00	13.96	876	7.90	43.6															
9-26-19 21:00	9.59	1887	8.50	6.6	9-11-19 14:15	13.14	1030	8.34	3.4	9-11-19 14:15	13.91	876	7.90	38.0															
9-26-19 21:15	9.60	1887	8.50	5.7	9-11-19 14:30	13.15	1029	8.34	3.0	9-11-19 14:30	13.95	876	7.90	39.4															
9-26-19 21:30	9.56	1887	8.50	5.9	9-11-19 14:45	13.13	1030	8.34	3.1	9-11-19 14:45	13.92	875	7.90	40.4															
9-26-19 21:45	9.60	1887	8.51	6.4	9-11-19 15:00	13.13	1030	8.34	3.2	9-11-19 15:00	13.93	875	7.90	40.5															
9-26-19 22:00	9.57	1888	8.51	5.2	9-11-19 15:15	13.13	1030	8.34	3.2	9-11-19 15:15	13.94	875	7.90	40.9															
9-26-19 22:15	9.59	1887	8.51	6.7	9-11-19 15:30	13.14	1030	8.34	3.6	9-11-19 15:30	13.93	875	7.89	38.2															
9-26-19 22:30	9.56	1887	8.51	5.5	9-11-19 15:45	13.14	1029	8.34	3.2	9-11-19 15:45	13.94	875	7.90	39.8															
9-26-19 22:45	9.55	1887	8.51	6.7	9-11-19 16:00	13.14	1029	8.35	3.3	9-11-19 16:00	13.92	875	7.90	36.9															
9-26-19 23:00	9.54	1887	8.51	5.4	9-11-19 16:15	13.15	1028	8.35	3.5	9-11-19 16:15	13.92	875	7.90	38.4															
9-26-19 23:15	9.56	1887	8.51	6.1	9-11-19 16:30	13.17	1028	8.36	3.0	9-11-19 16:30	13.92	874	7.90	39.9															
9-26-19 23:30	9.59	1887	8.51	5.1	9-11-19 16:45	13.17	1027	8.37	3.2	9-11-19 16:45	13.92	874	7.90	38.9															
9-26-19 23:45	9.56	1887	8.51	6.3	9-11-19 17:00	13.18	1027	8.38	3.2	9-11-19 17:00	13.93	873	7.90	38.4															
9-27-19 0:00	9.56	1887	8.51	6.2	9-11-19 17:15	13.18	1023	8.39	3.4	9-11-19 17:15	13.93	872	7.91	40.6															
9-27-19 0:15	9.56	1886	8.52	5.5	9-11-19 17:30	13.19	1026	8.38	2.9	9-11-19 17:30	13.98	872	7.90	38.4															
9-27-19 0:30	9.53	1887	8.52	6.0	9-11-19 17:45	13.22	1026	8.39	3.0	9-11-19 17:45	13.99	871	7.90	36.8															
9-27-19 0:45	9.50	1886	8.52	5.7	9-11-19 18:00	13.25	1026	8.40	2.8	9-11-19 18:00	14.00	870	7.90	38.0															
9-27-19 1:00	9.49	1887	8.52	5.8	9-11-19 18:15	13.30	1027	8.41	3.7	9-11-19 18:15	14.02	868	7.91	48.4															
9-27-19 1:15	9.48	1886	8.52	5.5	9-11-19 18:30	13.34	1026	8.42	2.9	9-11-19 18:30	14.05	869	7.90	37.5															
9-27-19 1:30	9.46	1887	8.52	5.3	9-11-19 18:45	13.39	1026	8.42	3.8	9-11-19 18:45	14.08	869	7.91	41.0															
9-27-19 1:45	9.46	1886	8.52	5.8	9-11-19 19:00	13.44	1024	8.44	2.9	9-11-19 19:00	14.06	869	7.91	40.6															
9-27-19 2:00	9.44	1887	8.52	5.1	9-11-19 19:15	13.46	1026	8.43	3.0	9-11-19 19:15	14.02	858	7.92	45.9															
9-27-19 2:15	9.43	1886	8.52	5.8	9-11-19 19:30	13.50	1025	8.43	3.2	9-11-19 19:30	14.04	853	7.92	46.7															
9-27-19 2:30	9.42	1887	8.51	4.9	9-11-19 19:45	13.55	1025	8.44	3.1	9-11-19 19:45	14.07	855	7.92	49.6															
9-27-19 2:45	9.41	1886	8.51	5.6	9-11-19 20:00	13.57	1025	8.43	3.3	9-11-19 20:00	14.12	854	7.92	49.9															
9-27-19 3:00	9.40	1887	8.51	5.2	9-11-19 20:15	13.62	1024	8.44	3.4	9-11-19 20:15	14.16	855	7.93	52.5															
9-27-19 3:15	9.41	1886	8.51	5.5	9-11-19 20:30	13.65	1024	8.45	3.1	9-11-19 20:30	14.20	854	7.92	49.8															
9-27-19 3:30	9.41	1885	8.51	5.0	9-11-19 20:45	13.73	1021	8.46	3.6	9-11-19 20:45	14.23	855	7.93	57.6															
9-27-19 3:45	9.39	1885	8.51	5.7	9-11-19 21:00	13.82	1021	8.47	3.5	9-11-19 21:00	14.27	850	7.93	54.6															
9-27-19 4:00	9.36	1884	8.51	5.2	9-11-19 21:15	13.83	1024	8.47	3.4	9-11-19 21:15	14.31	850	7.93	49.2															
9-27-19 4:15	9.34	1884	8.51	5.5	9-11-19 21:30	13.96	1023	8.47	5.0	9-11-19 21:30	14.35	845	7.94	58.0															
9-27-19 4:30	9.34	1883	8.51	4.8	9-11-19 21:45	14.08	1022	8.48	3.5	9-11-19 21:45	14.43	846	7.94	54.5															
9-27-19 4:45	9.30	1884	8.51	5.5	9-11-19 22:00	14.01	1023	8.47	3.6	9-11-19 22:00	14.50	846	7.94	61.3															
9-27-19 5:00	9.29	1885	8.51	5.1	9-11-19 22:15	14.12	1022	8.49	3.7	9-11-19 22:15	14.54	847	7.94	54.7															
9-27-19 5:15	9.27	1884	8.51	5.7	9-11-19 22:30	14.18	1022	8.48	3.9	9-11-19 22:30	14.59	848	7.94	56.0															
9-27-19 5:30	9.24	1884	8.51	4.9	9-11-19 22:45	14.27	1020	8.50	6.0	9-11-19 22:45	14.63	849	7.94	48.9															
9-27-19 5:45	9.18	1883	8.51	5.7	9-11-19 23:00	14.32	1017	8.52	3.7	9-11-19 23:00	14.70	839	7.95	58.3															
9-27-19 6:00	9.18	1883	8.51	5.1	9-11-19 23:15	14.40	1018	8.51	3.7	9-11-19 23:15	14.79	841	7.95	50.8															
9-27-19 6:15	9.17	1882	8.51	5.7	9-11-19 23:30	14.42	1018	8.50	3.9	9-11-19 23:30	14.88	842	7.95	60.9															
9-27-19 6:30	9.15	1883	8.51	5.4	9-11-19 23:45	14.44	1017	8.51	3.9	9-11-19 23:45	14.89	841	7.95	47.6															
9-27-19 6:45	9.17	1882	8.51	5.5	9-12-19 0:00	14.51	1015	8.52	4.1	9-12-19 0:00	14.97	844	7.96	47.1															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-27-19 7:00	9.14	1883	8.50	4.5	9-12-19 0:15	14.47	1017	8.51	4.6	9-12-19 0:15	14.97	845	7.96	44.7															
9-27-19 7:15	9.12	1881	8.50	5.8	9-12-19 0:30	14.54	1016	8.51	4.0	9-12-19 0:30	15.03	843	7.96	48.3															
9-27-19 7:30	9.14	1881	8.50	4.7	9-12-19 0:45	14.62	1015	8.52	4.7	9-12-19 0:45	15.14	844	7.97	47.1															
9-27-19 7:45	9.10	1881	8.50	5.8	9-12-19 1:00	14.55	1020	8.51	4.9	9-12-19 1:00	15.18	844	7.97	45.7															
9-27-19 8:00	9.09	1881	8.50	4.8	9-12-19 1:15	14.56	1014	8.50	5.0	9-12-19 1:15	15.14	842	7.97	47.5															
9-27-19 8:15	9.08	1880	8.50	6.3	9-12-19 1:30	14.54	1013	8.49	5.1	9-12-19 1:30	15.07	838	7.97	52.0															
9-27-19 8:30	9.07	1881	8.50	5.0	9-12-19 1:45	14.54	1011	8.50	5.3	9-12-19 1:45	15.06	841	7.97	50.0															
9-27-19 8:45	9.06	1880	8.50	5.7	9-12-19 2:00	14.51	1009	8.49	6.3	9-12-19 2:00	15.04	842	7.96	45.7															
9-27-19 9:00	9.03	1882	8.50	5.1	9-12-19 2:15	14.47	1011	8.49	5.8	9-12-19 2:15	15.01	842	7.97	46.4															
9-27-19 9:15	9.03	1879	8.50	5.7	9-12-19 2:30	14.46	1009	8.49	6.0	9-12-19 2:30	14.95	842	7.97	46.6															
9-27-19 9:30	9.01	1879	8.50	4.9	9-12-19 2:45	14.43	1009	8.48	6.0	9-12-19 2:45	14.95	841	7.97	48.5															
9-27-19 9:45	8.99	1878	8.50	5.6	9-12-19 3:00	14.33	1009	8.47	5.7	9-12-19 3:00	14.92	837	7.98	46.9															
9-27-19 10:00	8.97	1880	8.50	5.0	9-12-19 3:15	14.32	1011	8.46	4.9	9-12-19 3:15	14.89	835	7.98	48.2															
9-27-19 10:15	8.96	1880	8.50	5.5	9-12-19 3:30	14.28	1010	8.47	5.4	9-12-19 3:30	14.85	834	7.97	45.9															
9-27-19 10:30	8.93	1880	8.50	4.9	9-12-19 3:45	14.22	1009	8.46	8.0	9-12-19 3:45	14.81	833	7.98	50.9															
9-27-19 10:45	8.91	1879	8.50	5.5	9-12-19 4:00	14.25	1010	8.46	5.4	9-12-19 4:00	14.80	835	7.98	48.5															
9-27-19 11:00	8.88	1881	8.50	5.4	9-12-19 4:15	14.20	1012	8.45	6.2	9-12-19 4:15	14.77	835	7.99	45.6															
9-27-19 11:15	8.88	1879	8.50	5.8	9-12-19 4:30	14.15	1013	8.45	6.9	9-12-19 4:30	14.74	835	7.99	47.6															
9-27-19 11:30	8.88	1879	8.49	4.8	9-12-19 4:45	14.13	1012	8.44	5.9	9-12-19 4:45	14.72	836	7.99	46.2															
9-27-19 11:45	8.84	1878	8.50	5.6	9-12-19 5:00	14.12	1011	8.44	6.4	9-12-19 5:00	14.69	835	7.99	47.7															
9-27-19 12:00	8.82	1880	8.49	5.0	9-12-19 5:15	14.10	1010	8.44	5.1	9-12-19 5:15	14.66	836	7.98	44.9															
9-27-19 12:15	8.82	1879	8.50	5.6	9-12-19 5:30	14.07	1010	8.44	4.8	9-12-19 5:30	14.63	835	7.97	45.5															
9-27-19 12:30	8.75	1877	8.50	5.2	9-12-19 5:45	14.05	1009	8.43	5.0	9-12-19 5:45	14.61	835	7.98	44.0															
9-27-19 12:45	8.76	1878	8.50	5.4	9-12-19 6:00	14.04	1009	8.43	4.8	9-12-19 6:00	14.57	834	7.97	44.8															
9-27-19 13:00	8.73	1879	8.49	4.7	9-12-19 6:15	13.99	1009	8.43	7.0	9-12-19 6:15	14.54	836	7.98	44.2															
9-27-19 13:15	8.73	1880	8.49	5.8	9-12-19 6:30	14.01	969	8.42	5.6	9-12-19 6:30	14.52	836	7.97	45.3															
9-27-19 13:30	8.72	1881	8.49	4.6	9-12-19 6:45	14.00	972	8.42	4.7	9-12-19 6:45	14.50	836	7.98	43.5															
9-27-19 13:45	8.72	1880	8.49	5.3	9-12-19 7:00	13.95	1013	8.42	7.3	9-12-19 7:00	14.47	837	7.98	41.1															
9-27-19 14:00	8.70	1881	8.49	5.1	9-12-19 7:15	13.96	1013	8.41	4.6	9-12-19 7:15	14.45	837	7.98	43.1															
9-27-19 14:15	8.68	1880	8.49	5.4	9-12-19 7:30	13.93	1012	8.41	5.0	9-12-19 7:30	14.43	837	7.98	40.7															
9-27-19 14:30	8.64	1881	8.49	4.8	9-12-19 7:45	13.93	1012	8.41	5.0	9-12-19 7:45	14.41	837	7.97	40.1															
9-27-19 14:45	8.61	1881	8.49	5.2	9-12-19 8:00	13.91	1011	8.40	4.6	9-12-19 8:00	14.40	837	7.98	40.6															
9-27-19 15:00	8.59	1881	8.50	4.8	9-12-19 8:15	13.89	1013	8.40	6.1	9-12-19 8:15	14.37	837	7.97	38.6															
9-27-19 15:15	8.53	1880	8.50	5.7	9-12-19 8:30	13.83	1013	8.40	6.5	9-12-19 8:30	14.35	837	7.98	40.3															
9-27-19 15:30	8.53	1881	8.49	5.0	9-12-19 8:45	13.83	1013	8.39	5.3	9-12-19 8:45	14.33	836	7.98	38.3															
9-27-19 15:45	8.55	1880	8.49	5.6	9-12-19 9:00	13.84	1010	8.39	5.9	9-12-19 9:00	14.30	836	7.98	39.0															
9-27-19 16:00	8.53	1880	8.49	4.8	9-12-19 9:15	13.86	998	8.39	6.6	9-12-19 9:15	14.28	836	7.98	38.0															
9-27-19 16:15	8.52	1880	8.50	5.3	9-12-19 9:30	13.86	1011	8.39	6.2	9-12-19 9:30	14.27	836	7.98	39.0															
9-27-19 16:30	8.49	1881	8.50	5.5	9-12-19 9:45	13.81	1012	8.38	6.1	9-12-19 9:45	14.24	835	7.98	39.3															
9-27-19 16:45	8.48	1880	8.50	5.4	9-12-19 10:00	13.82	1011	8.38	5.3	9-12-19 10:00	14.24	835	7.97	37.2															
9-27-19 17:00	8.49	1881	8.50	5.4	9-12-19 10:15	13.83	1012	8.38	5.6	9-12-19 10:15	14.22	836	7.97	39.9															
9-27-19 17:15	8.47	1880	8.50	5.8	9-12-19 10:30	13.81	1013	8.37	5.6	9-12-19 10:30	14.22	836	7.97	39.5															
9-27-19 17:30	8.45	1881	8.50	4.9	9-12-19 10:45	13.80	1012	8.37	7.0	9-12-19 10:45	14.20	836	7.97	38.4															
9-27-19 17:45	8.47	1877	8.50	5.7	9-12-19 11:00	13.78	1011	8.37	7.0	9-12-19 11:00	14.18	836	7.97	38.8															
9-27-19 18:00	8.46	1880	8.50	4.5	9-12-19 11:15	13.74	1012	8.36	5.4	9-12-19 11:15	14.18	836	7.97	36.9															
9-27-19 18:15	8.48	1880	8.50	4.8	9-12-19 11:30	13.74	1012	8.36	5.9	9-12-19 11:30	14.16	836	7.97	35.6															
9-27-19 18:30	8.47	1880	8.50	4.7	9-12-19 11:45	13.74	1011	8.36	6.8	9-12-19 11:45	14.16	836	7.97	35.1															
9-27-19 18:45	8.48	1880	8.51	5.7	9-12-19 12:00	13.73	1011	8.35	7.4	9-12-19 12:00	14.13	837	7.97	38.0															
9-27-19 19:00	8.48	1880	8.51	5.3	9-12-19 12:15	13.73	1012	8.35	5.7	9-12-19 12:15	14.13	837	7.97	36.9															
9-27-19 19:15	8.49	1880	8.51	5.6	9-12-19 12:30	13.67	1012	8.35	5.6	9-12-19 12:30	14.12	837	7.97	35.9															
9-27-19 19:30	8.45	1880	8.51	5.5	9-12-19 12:45	13.69	1011	8.35	5.9	9-12-19 12:45	14.11	837	7.97	34.7															
9-27-19 19:45	8.44	1879	8.51	5.3	9-12-19 13:00	13.69	1012	8.35	5.9	9-12-19 13:00	14.09	837	7.97	35.9															
9-27-19 20:00	8.46	1880	8.51	5.1	9-12-19 13:15	13.68	1011	8.34	4.2	9-12-19 13:15	14.07	837	7.97	34.8															
9-27-19 20:15	8.45	1880	8.51	5.5	9-12-19 13:30	13.67	1010	8.34	6.8	9-12-19 13:30	14.08	837	7.97	33.9															
9-27-19 20:30	8.42	1881	8.51	5.2	9-12-19 13:45	13.61	1010	8.34	4.3	9-12-19 13:45	14.07	839	7.97	36.6															
9-27-19 20:45	8.42	1881	8.51	5.7	9-12-19 14:00	13.61	1010	8.34	4.5	9-12-19 14:00	14.07	840	7.96	36.2															
9-27-19 21:00	8.42	1881	8.51	5.4	9-12-19 14:15	13.63	1010	8.33	4.9	9-12-19 14:15	14.06	843	7.95	35.7															
9-27-19 21:15	8.45	1884	8.51	5.5	9-12-19 14:30	13.63	1011	8.33	5.0	9-12-19 14:30	14.04	840	7.96	36.9															
9-27-19 21:30	8.44	1881	8.51	5.3	9-12-19 14:45	13.61	1011	8.34	5.2	9-12-19 14:45	14.03	839	7.97	34.4															
9-27-19 21:45	8.42	1881	8.51	5.0	9-12-19 15:00	13.62	1008	8.34	5.4	9-12-19 15:00	14.00	839	7.97	35.5															
9-27-19 22:00	8.44	1881	8.51	5.0	9-12-19 15:15	13.64	1010	8.34	5.1	9-12-19 15:15	14.01	839	7.97	34.5															
9-27-19 22:15	8.43	1881	8.51	5.7	9-12-19 15:30	13.67	1009	8.35	6.0	9-12-19 15:30	14.01	839	7.96	35.4															
9-27-19 22:30	8.42	1881	8.51	4.9	9-12-19 15:45	13.69	1008	8.36	6.0	9-12-19 15:45	14.01	834	7.97	37.5															
9-27-19 22:45	8.42	1881	8.52	5.6	9-12-19 16:00	13.70	1007	8.36	5.7	9-12-19 16:00	14.01	835	7.97	36.1															
9-27-19 23:00	8.44	1882	8.51	4.8	9-12-19 16:15	13.70	1007	8.38	4.7	9-12-19 16:15	14.03	831	7.98	36.7															
9-27-19 23:15	8.47	1881	8.52	5.5	9-12-19 16:30	13.68	1006	8.39	4.8	9-12-19 16:30	14.05	830	7.98	38.2															
9-27-19 23:30	8.45	1881	8.52	5.1	9-12-19 16:45	13.71	1005	8.39	4.4	9-12-19 16:45	14.06	829	7.98	37.5															
9-27-19 23:45	8.42	1882	8.52	5.1	9-12-19 17:00	13.74	1002	8.41	4.7	9-12-19 17:00	14.10	829	7.98	39.1															
9-28-19 0:00	8.39	1883	8.52	4.9	9-12-19 17:15	13.75	1002	8.40	5.2	9-12-19 17:15	14.14	829	7.98	41.5															
9-28-19 0:15	8.36	1882	8.52	5.2	9-12-19 17:30	13.78	1000	8.41	5.4	9-12-19 17:30	14.23	829	7.99	39.4															
9-28-19 0:30	8.34	1883	8.52	5.0	9-12-19 17:45	13.83	1001	8.40	6.7	9-12-19 17:45	14.32	829	7.99	40.5															
9-28-19 0:45	8.27	1882	8.52	5.3	9-12-19 18:00	13.86	1003	8.38	5.5	9-12-19 18:00	14.49	829	7.98	37.4															
9-28-19 1:00	8.31	1884	8.52	5.2	9-12-19 18:15	13.93	1003	8.40	4.6	9-12-19 18:15	14.59	828	7.98	38.9															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-28-19 1:15	8.29	1884	8.52	4.7	9-12-19 18:30	14.00	962	8.43	5.3	9-12-19 18:30	14.51	828	7.97	40.8															
9-28-19 1:30	8.25	1885	8.52	5.5	9-12-19 18:45	14.16	958	8.44	5.1	9-12-19 18:45	14.61	826	7.97	36.8															
9-28-19 1:45	8.22	1884	8.52	4.9	9-12-19 19:00	14.22	1005	8.41	5.4	9-12-19 19:00	14.69	830	7.97	39.0															
9-28-19 2:00	8.20	1885	8.52	5.0	9-12-19 19:15	14.28	1006	8.39	5.3	9-12-19 19:15	14.89	830	7.97	39.3															
9-28-19 2:15	8.18	1885	8.52	5.1	9-12-19 19:30	14.44	1006	8.37	5.1	9-12-19 19:30	14.91	828	7.96	39.6															
9-28-19 2:30	8.16	1886	8.52	4.8	9-12-19 19:45	14.99	1002	8.41	4.9	9-12-19 19:45	15.37	830	7.98	40.0															
9-28-19 2:45	8.12	1885	8.52	5.5	9-12-19 20:00	15.17	997	8.41	9.9	9-12-19 20:00	15.46	829	7.97	49.0															
9-28-19 3:00	8.10	1886	8.52	5.5	9-12-19 20:15	14.98	986	8.47	5.4	9-12-19 20:15	15.76	829	7.98	37.8															
9-28-19 3:15	8.07	1887	8.52	5.5	9-12-19 20:30	15.07	987	8.46	5.0	9-12-19 20:30	16.09	831	7.99	41.8															
9-28-19 3:30	8.05	1887	8.52	4.8	9-12-19 20:45	15.05	994	8.38	5.2	9-12-19 20:45	16.35	832	8.00	37.0															
9-28-19 3:45	8.04	1887	8.53	5.2	9-12-19 21:00	14.95	979	8.47	5.2	9-12-19 21:00	16.52	831	8.02	42.2															
9-28-19 4:00	8.03	1887	8.52	5.0	9-12-19 21:15	14.35	988	8.50	6.2	9-12-19 21:15	16.50	829	8.02	39.5															
9-28-19 4:15	7.99	1887	8.52	5.2	9-12-19 21:30	14.58	982	8.52	6.5	9-12-19 21:30	16.46	827	8.01	44.5															
9-28-19 4:30	7.93	1889	8.52	4.7	9-12-19 21:45	14.75	986	8.46	6.3	9-12-19 21:45	16.56	831	8.04	40.4															
9-28-19 4:45	7.94	1890	8.53	5.0	9-12-19 22:00	14.67	989	8.42	6.1	9-12-19 22:00	16.78	829	8.05	39.8															
9-28-19 5:00	7.90	1890	8.52	4.8	9-12-19 22:15	14.37	983	8.56	8.2	9-12-19 22:15	16.77	830	8.03	42.5															
9-28-19 5:15	7.87	1890	8.52	4.9	9-12-19 22:30	14.36	939	8.56	7.7	9-12-19 22:30	16.80	831	8.03	39.2															
9-28-19 5:30	7.85	1891	8.52	5.4	9-12-19 22:45	14.76	1001	8.43	6.3	9-12-19 22:45	16.80	830	8.03	40.2															
9-28-19 5:45	7.82	1890	8.52	5.4	9-12-19 23:00	14.78	992	8.46	5.9	9-12-19 23:00	16.87	831	8.03	38.4															
9-28-19 6:00	7.79	1891	8.52	5.4	9-12-19 23:15	14.77	992	8.45	5.9	9-12-19 23:15	16.86	831	8.05	41.9															
9-28-19 6:15	7.77	1891	8.52	5.1	9-12-19 23:30	14.78	992	8.44	7.4	9-12-19 23:30	16.87	831	8.05	40.1															
9-28-19 6:30	7.74	1893	8.52	4.9	9-12-19 23:45	14.73	989	8.44	7.6	9-12-19 23:45	16.77	831	8.05	37.6															
9-28-19 6:45	7.74	1891	8.52	4.8	9-13-19 0:00	14.73	983	8.45	9.3	9-13-19 0:00	16.73	831	8.04	37.8															
9-28-19 7:00	7.71	1893	8.52	5.3	9-13-19 0:15	14.70	991	8.44	7.4	9-13-19 0:15	16.70	831	8.04	38.6															
9-28-19 7:15	7.68	1893	8.52	4.9	9-13-19 0:30	14.71	991	8.43	7.2	9-13-19 0:30	16.68	831	8.04	36.1															
9-28-19 7:30	7.68	1893	8.52	4.3	9-13-19 0:45	14.80	991	8.41	8.3	9-13-19 0:45	16.68	831	8.05	34.3															
9-28-19 7:45	7.66	1893	8.52	4.8	9-13-19 1:00	14.78	987	8.42	7.6	9-13-19 1:00	16.64	831	8.06	37.2															
9-28-19 8:00	7.65	1894	8.52	4.6	9-13-19 1:15	14.74	985	8.42	7.7	9-13-19 1:15	16.58	830	8.05	34.5															
9-28-19 8:15	7.63	1891	8.52	5.1	9-13-19 1:30	14.69	986	8.42	7.1	9-13-19 1:30	16.54	830	8.06	34.7															
9-28-19 8:30	7.60	1894	8.51	4.9	9-13-19 1:45	14.64	984	8.43	9.4	9-13-19 1:45	16.47	830	8.07	39.2															
9-28-19 8:45	7.58	1892	8.51	5.3	9-13-19 2:00	14.61	980	8.44	8.5	9-13-19 2:00	16.42	830	8.06	31.4															
9-28-19 9:00	7.59	1895	8.51	5.0	9-13-19 2:15	14.59	939	8.44	7.9	9-13-19 2:15	16.38	830	8.06	35.7															
9-28-19 9:15	7.59	1895	8.51	4.8	9-13-19 2:30	14.59	991	8.43	7.7	9-13-19 2:30	16.36	830	8.07	30.2															
9-28-19 9:30	7.57	1895	8.51	4.4	9-13-19 2:45	14.59	986	8.43	7.6	9-13-19 2:45	16.32	830	8.08	31.3															
9-28-19 9:45	7.57	1895	8.51	5.0	9-13-19 3:00	14.65	991	8.41	6.2	9-13-19 3:00	16.27	830	8.07	30.0															
9-28-19 10:00	7.56	1895	8.51	4.3	9-13-19 3:15	14.67	993	8.40	5.9	9-13-19 3:15	16.24	829	8.07	32.7															
9-28-19 10:15	7.55	1895	8.51	5.3	9-13-19 3:30	14.73	990	8.39	5.7	9-13-19 3:30	16.17	828	8.07	32.7															
9-28-19 10:30	7.53	1896	8.51	4.6	9-13-19 3:45	14.84	995	8.38	8.2	9-13-19 3:45	16.10	829	8.07	31.2															
9-28-19 10:45	7.49	1895	8.51	5.3	9-13-19 4:00	14.86	996	8.38	5.4	9-13-19 4:00	16.06	828	8.07	33.7															
9-28-19 11:00	7.50	1897	8.51	4.2	9-13-19 4:15	14.85	996	8.38	5.0	9-13-19 4:15	16.04	828	8.07	34.6															
9-28-19 11:15	7.52	1897	8.51	5.2	9-13-19 4:30	14.86	998	8.37	6.1	9-13-19 4:30	15.98	828	8.07	31.9															
9-28-19 11:30	7.51	1897	8.50	4.9	9-13-19 4:45	14.85	997	8.37	6.4	9-13-19 4:45	15.88	828	8.08	32.6															
9-28-19 11:45	7.48	1897	8.50	4.8	9-13-19 5:00	14.82	997	8.37	7.0	9-13-19 5:00	15.82	828	8.08	30.1															
9-28-19 12:00	7.49	1898	8.50	4.9	9-13-19 5:15	14.81	990	8.37	5.0	9-13-19 5:15	15.81	827	8.08	33.1															
9-28-19 12:15	7.47	1898	8.50	4.8	9-13-19 5:30	14.80	991	8.37	5.4	9-13-19 5:30	15.72	824	8.06	35.2															
9-28-19 12:30	7.44	1900	8.50	4.7	9-13-19 5:45	14.77	993	8.37	5.2	9-13-19 5:45	15.69	827	8.09	30.9															
9-28-19 12:45	7.43	1898	8.50	4.3	9-13-19 6:00	14.75	991	8.37	6.6	9-13-19 6:00	15.65	826	8.08	32.3															
9-28-19 13:00	7.42	1900	8.50	4.3	9-13-19 6:15	14.73	993	8.37	4.7	9-13-19 6:15	15.62	825	8.08	33.0															
9-28-19 13:15	7.41	1900	8.50	5.0	9-13-19 6:30	14.73	994	8.37	5.1	9-13-19 6:30	15.57	825	8.07	31.6															
9-28-19 13:30	7.40	1901	8.49	4.3	9-13-19 6:45	14.67	994	8.37	4.6	9-13-19 6:45	15.53	824	8.08	31.4															
9-28-19 13:45	7.40	1901	8.49	4.9	9-13-19 7:00	14.67	994	8.37	5.9	9-13-19 7:00	15.50	823	8.06	30.5															
9-28-19 14:00	7.37	1902	8.49	4.3	9-13-19 7:15	14.65	992	8.37	4.8	9-13-19 7:15	15.45	823	8.07	31.0															
9-28-19 14:15	7.33	1901	8.50	4.9	9-13-19 7:30	14.60	992	8.37	5.9	9-13-19 7:30	15.40	823	8.06	31.4															
9-28-19 14:30	7.34	1901	8.49	5.0	9-13-19 7:45	14.57	990	8.37	5.4	9-13-19 7:45	15.35	823	8.07	31.7															
9-28-19 14:45	7.34	1902	8.49	4.9	9-13-19 8:00	14.55	991	8.37	4.8	9-13-19 8:00	15.31	822	8.06	32.6															
9-28-19 15:00	7.32	1903	8.49	4.9	9-13-19 8:15	14.51	994	8.36	4.3	9-13-19 8:15	15.26	823	8.07	31.9															
9-28-19 15:15	7.33	1902	8.49	4.9	9-13-19 8:30	14.47	997	8.36	5.6	9-13-19 8:30	15.24	823	8.07	30.9															
9-28-19 15:30	7.29	1902	8.49	4.2	9-13-19 8:45	14.46	997	8.36	5.1	9-13-19 8:45	15.19	823	8.07	29.3															
9-28-19 15:45	7.31	1902	8.49	4.6	9-13-19 9:00	14.41	996	8.36	4.0	9-13-19 9:00	15.16	823	8.08	29.7															
9-28-19 16:00	7.30	1903	8.49	4.4	9-13-19 9:15	14.41	996	8.36	4.5	9-13-19 9:15	15.10	822	8.06	32.4															
9-28-19 16:15	7.31	1903	8.49	4.7	9-13-19 9:30	14.39	995	8.36	4.4	9-13-19 9:30	15.03	821	8.05	32.2															
9-28-19 16:30	7.31	1903	8.49	4.9	9-13-19 9:45	14.36	994	8.36	4.6	9-13-19 9:45	14.99	821	8.05	32.8															
9-28-19 16:45	7.31	1903	8.49	4.5	9-13-19 10:00	14.33	994	8.35	4.5	9-13-19 10:00	14.96	821	8.05	31.7															
9-28-19 17:00	7.31	1903	8.49	4.3	9-13-19 10:15	14.30	996	8.35	5.7	9-13-19 10:15	14.92	821	8.06	29.9															
9-28-19 17:15	7.30	1903	8.50	4.7	9-13-19 10:30	14.29	995	8.35	6.6	9-13-19 10:30	14.87	822	8.05	30.0															
9-28-19 17:30	7.31	1902	8.49	4.9	9-13-19 10:45	14.29	995	8.35	5.7	9-13-19 10:45	14.83	822	8.07	29.2															
9-28-19 17:45	7.30	1902	8.49	4.4	9-13-19 11:00	14.26	994	8.34	5.3	9-13-19 11:00	14.79	822	8.06	28.4															
9-28-19 18:00	7.31	1904	8.50	4.3	9-13-19 11:15	14.26	994	8.34	4.6	9-13-19 11:15	14.75	822	8.07	29.4															
9-28-19 18:15	7.30	1903	8.50	4.3	9-13-19 11:30	14.23	993	8.34	4.3	9-13-19 11:30	14.73	822	8.06	28.0															
9-28-19 18:30	7.31	1904	8.49	4.4	9-13-19 11:45	14.21	993	8.34	6.9	9-13-19 11:45	14.68	822	8.06	28.8															
9-28-19 18:45	7.33	1904	8.50	5.1	9-13-19 12:00	14.19	992	8.34	7.1	9-13-19 12:00	14.62	822	8.06	28.7															
9-28-19 19:00	7.33	1904	8.49	4.2	9-13-19 12:15	14.17	995	8.33	6.1	9-13-19 12:15	14.59	823	8.06	28.9															
9-28-19 19:15	7.35	1903	8.50	4.8	9-13-19 12:30	14.12	994	8.34	4.0	9-13-19 12:30	14.57	823	8.05	28.7															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-28-19 19:30	7.39	1904	8.49	4.2
9-28-19 19:45	7.42	1903	8.50	3.8
9-28-19 20:00	7.52	1903	8.49	4.8
9-28-19 20:15	7.60	1903	8.50	4.5
9-28-19 20:30	7.76	1902	8.49	4.3
9-28-19 20:45	7.67	1902	8.50	4.5
9-28-19 21:00	7.70	1901	8.49	4.2
9-28-19 21:15	7.85	1900	8.49	4.1
9-28-19 21:30	7.96	1900	8.49	4.2
9-28-19 21:45	7.95	1900	8.49	4.8
9-28-19 22:00	7.96	1902	8.49	4.0
9-28-19 22:15	7.99	1904	8.49	4.7
9-28-19 22:30	7.98	1901	8.49	4.9
9-28-19 22:45	7.90	1901	8.49	4.8
9-28-19 23:00	7.81	1903	8.50	5.3
9-28-19 23:15	7.79	1903	8.50	5.0
9-28-19 23:30	7.80	1904	8.49	5.0
9-28-19 23:45	7.79	1903	8.49	4.6
9-29-19 0:00	7.74	1904	8.50	4.3
9-29-19 0:15	7.71	1904	8.50	4.7
9-29-19 0:30	7.71	1905	8.50	4.2
9-29-19 0:45	7.70	1906	8.50	4.3
9-29-19 1:00	7.70	1904	8.50	4.8
9-29-19 1:15	7.70	1905	8.50	4.2
9-29-19 1:30	7.72	1906	8.50	4.7
9-29-19 1:45	7.69	1906	8.50	4.5
9-29-19 2:00	7.68	1906	8.51	4.0
9-29-19 2:15	7.67	1906	8.51	4.8
9-29-19 2:30	7.67	1906	8.50	4.2
9-29-19 2:45	7.65	1906	8.50	4.1
9-29-19 3:00	7.61	1905	8.50	4.0
9-29-19 3:15	7.62	1905	8.50	4.1
9-29-19 3:30	7.60	1906	8.50	3.9
9-29-19 3:45	7.57	1904	8.50	4.2
9-29-19 4:00	7.55	1904	8.50	3.9
9-29-19 4:15	7.52	1904	8.50	4.3
9-29-19 4:30	7.48	1905	8.50	4.0
9-29-19 4:45	7.47	1904	8.50	4.4
9-29-19 5:00	7.45	1906	8.50	4.1
9-29-19 5:15	7.43	1905	8.50	4.6
9-29-19 5:30	7.42	1902	8.50	3.8
9-29-19 5:45	7.42	1901	8.49	4.5
9-29-19 6:00	7.39	1904	8.49	4.5
9-29-19 6:15	7.35	1901	8.49	4.6
9-29-19 6:30	7.32	1902	8.49	3.8
9-29-19 6:45	7.29	1902	8.49	4.4
9-29-19 7:00	7.27	1903	8.49	3.8
9-29-19 7:15	7.25	1903	8.50	4.5
9-29-19 7:30	7.24	1904	8.50	4.5
9-29-19 7:45	7.21	1903	8.50	4.1
9-29-19 8:00	7.18	1904	8.50	3.8
9-29-19 8:15	7.14	1903	8.50	4.3
9-29-19 8:30	7.10	1903	8.50	3.8
9-29-19 8:45	7.08	1902	8.50	4.3
9-29-19 9:00	7.03	1903	8.50	3.8
9-29-19 9:15	7.03	1902	8.50	4.1
9-29-19 9:30	7.01	1903	8.50	3.6
9-29-19 9:45	7.00	1903	8.50	4.3
9-29-19 10:00	6.96	1903	8.50	3.8
9-29-19 10:15	6.95	1903	8.50	4.3
9-29-19 10:30	6.91	1903	8.50	4.5
9-29-19 10:45	6.88	1903	8.50	4.2
9-29-19 11:00	6.86	1903	8.50	4.2
9-29-19 11:15	6.84	1902	8.50	4.1
9-29-19 11:30	6.82	1901	8.49	3.6
9-29-19 11:45	6.79	1903	8.49	4.3
9-29-19 12:00	6.76	1903	8.49	3.6
9-29-19 12:15	6.70	1903	8.49	4.1
9-29-19 12:30	6.69	1902	8.49	3.6
9-29-19 12:45	6.68	1902	8.49	4.2
9-29-19 13:00	6.66	1902	8.49	3.5
9-29-19 13:15	6.65	1902	8.49	4.4
9-29-19 13:30	6.61	1902	8.49	3.5

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-13-19 12:45	14.10	994	8.33	5.1
9-13-19 13:00	14.04	992	8.34	3.9
9-13-19 13:15	14.03	993	8.33	6.6
9-13-19 13:30	14.00	992	8.33	3.8
9-13-19 13:45	13.97	992	8.33	5.2
9-13-19 14:00	13.94	990	8.33	3.9
9-13-19 14:15	13.95	976	8.33	4.3
9-13-19 14:30	13.92	976	8.33	4.1
9-13-19 14:45	13.94	972	8.32	4.2
9-13-19 15:00	13.95	970	8.33	3.9
9-13-19 15:15	13.95	991	8.33	3.8
9-13-19 15:30	13.99	989	8.33	4.3
9-13-19 15:45	14.02	987	8.33	4.1
9-13-19 16:00	14.07	985	8.35	4.1
9-13-19 16:15	14.10	989	8.36	3.9
9-13-19 16:30	14.12	988	8.38	4.3
9-13-19 16:45	14.19	985	8.39	4.4
9-13-19 17:00	14.21	978	8.39	6.3
9-13-19 17:15	14.21	974	8.38	6.3
9-13-19 17:30	14.30	972	8.41	6.2
9-13-19 17:45	14.33	968	8.40	7.1
9-13-19 18:00	14.27	961	8.42	10.6
9-13-19 18:15	14.20	963	8.36	8.5
9-13-19 18:30	14.28	962	8.35	10.0
9-13-19 18:45	14.41	962	8.35	9.9
9-13-19 19:00	14.46	962	8.37	12.8
9-13-19 19:15	14.47	959	8.39	8.0
9-13-19 19:30	14.54	961	8.40	9.4
9-13-19 19:45	14.64	964	8.41	9.2
9-13-19 20:00	14.70	958	8.42	12.5
9-13-19 20:15	14.63	964	8.43	9.1
9-13-19 20:30	14.67	977	8.44	8.1
9-13-19 20:45	14.74	944	8.45	7.5
9-13-19 21:00	14.75	974	8.46	7.3
9-13-19 21:15	14.81	978	8.44	7.4
9-13-19 21:30	14.87	976	8.45	9.8
9-13-19 21:45	14.88	976	8.45	8.0
9-13-19 22:00	14.96	974	8.46	9.0
9-13-19 22:15	15.00	974	8.46	7.0
9-13-19 22:30	14.93	957	8.45	7.3
9-13-19 22:45	15.00	952	8.47	6.9
9-13-19 23:00	15.09	946	8.48	7.0
9-13-19 23:15	15.04	968	8.48	7.1
9-13-19 23:30	14.97	977	8.48	7.0
9-13-19 23:45	15.09	966	8.50	7.1
9-14-19 0:00	15.14	965	8.49	8.8
9-14-19 0:15	15.11	972	8.50	8.6
9-14-19 0:30	15.08	968	8.50	7.5
9-14-19 0:45	15.08	972	8.50	8.5
9-14-19 1:00	15.06	968	8.50	8.6
9-14-19 1:15	15.05	972	8.49	9.3
9-14-19 1:30	15.07	971	8.49	8.1
9-14-19 1:45	15.05	968	8.49	9.0
9-14-19 2:00	15.03	966	8.48	8.4
9-14-19 2:15	14.99	980	8.48	8.4
9-14-19 2:30	14.98	967	8.48	8.8
9-14-19 2:45	14.99	968	8.48	8.1
9-14-19 3:00	14.92	967	8.47	8.6
9-14-19 3:15	14.95	971	8.45	9.0
9-14-19 3:30	14.95	968	8.45	8.1
9-14-19 3:45	14.91	966	8.45	11.6
9-14-19 4:00	14.86	967	8.45	9.7
9-14-19 4:15	14.82	968	8.45	10.6
9-14-19 4:30	14.86	968	8.40	10.4
9-14-19 4:45	14.87	968	8.42	12.1
9-14-19 5:00	14.88	968	8.41	13.5
9-14-19 5:15	14.87	969	8.43	8.6
9-14-19 5:30	14.86	993	8.43	7.2
9-14-19 5:45	14.85	965	8.43	9.1
9-14-19 6:00	14.83	963	8.43	7.4
9-14-19 6:15	14.80	963	8.42	7.3
9-14-19 6:30	14.81	975	8.42	7.1
9-14-19 6:45	14.78	974	8.42	7.1

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-13-19 12:45	14.49	823	8.07	27.3
9-13-19 13:00	14.46	822	8.07	29.2
9-13-19 13:15	14.42	822	8.07	27.7
9-13-19 13:30	14.34	823	8.07	26.8
9-13-19 13:45	14.30	823	8.07	29.1
9-13-19 14:00	14.25	823	8.07	30.3
9-13-19 14:15	14.22	824	8.07	30.9
9-13-19 14:30	14.21	824	8.06	27.6
9-13-19 14:45	14.17	824	8.06	32.1
9-13-19 15:00	14.14	823	8.06	29.3
9-13-19 15:15	14.13	823	8.07	32.3
9-13-19 15:30	14.17	823	8.05	28.4
9-13-19 15:45	14.18	823	8.05	31.6
9-13-19 16:00	14.22	823	8.05	31.1
9-13-19 16:15	14.26	823	8.06	34.2
9-13-19 16:30	14.33	823	8.06	31.3
9-13-19 16:45	14.40	823	8.01	35.4
9-13-19 17:00	14.55	824	8.01	34.1
9-13-19 17:15	14.69	824	8.00	36.1
9-13-19 17:30	14.91	824	8.01	36.0
9-13-19 17:45	14.99	823	8.02	37.7
9-13-19 18:00	14.99	823	8.04	36.5
9-13-19 18:15	15.12	824	8.03	38.4
9-13-19 18:30	15.03	824	8.04	34.7
9-13-19 18:45	15.37	823	8.05	38.7
9-13-19 19:00	15.29	823	8.04	34.0
9-13-19 19:15	15.45	824	8.05	37.0
9-13-19 19:30	15.52	825	8.06	33.6
9-13-19 19:45	15.56	824	8.06	33.9
9-13-19 20:00	15.64	825	8.06	33.9
9-13-19 20:15	15.50	824	8.06	34.5
9-13-19 20:30	15.53	824	8.07	33.8
9-13-19 20:45	15.57	825	8.07	31.6
9-13-19 21:00	15.55	825	8.07	31.6
9-13-19 21:15	15.58	824	8.07	33.7
9-13-19 21:30	15.59	825	8.07	34.2
9-13-19 21:45	15.59	825	8.08	34.3
9-13-19 22:00	15.67	824	8.08	32.4
9-13-19 22:15	15.69	825	8.09	35.7
9-13-19 22:30	15.77	825	8.10	32.4
9-13-19 22:45	15.69	825	8.10	32.0
9-13-19 23:00	15.71	825	8.10	34.1
9-13-19 23:15	15.72	825	8.10	32.4
9-13-19 23:30	15.69	825	8.10	32.0
9-13-19 23:45	15.73	825	8.10	33.7
9-14-19 0:00	15.77	825	8.10	34.8
9-14-19 0:15	15.77	825	8.10	34.5
9-14-19 0:30	15.73	825	8.10	38.0
9-14-19 0:45	15.72	825	8.11	37.1
9-14-19 1:00	15.71	825	8.10	34.9
9-14-19 1:15	15.68	825	8.10	34.8
9-14-19 1:30	15.65	825	8.10	33.6
9-14-19 1:45	15.60	825	8.10	33.8
9-14-19 2:00	15.59	825	8.09	34.2
9-14-19 2:15	15.55	825	8.10	34.4
9-14-19 2:30	15.51	825	8.09	34.1
9-14-19 2:45	15.47	825	8.10	33.9
9-14-19 3:00	15.43	825	8.08	33.9
9-14-19 3:15	15.41	825	8.10	34.0
9-14-19 3:30	15.39	825	8.06	39.0
9-14-19 3:45	15.38	825	8.06	38.7
9-14-19 4:00	15.32	825	8.06	36.3
9-14-19 4:15	15.31	825	8.07	34.6
9-14-19 4:30	15.29	825	8.07	35.2
9-14-19 4:45	15.26	825	8.07	37.7
9-14-19 5:00	15.26	825	8.06	38.7
9-14-19 5:15	15.25	825	8.07	34.7
9-14-19 5:30	15.23	825	8.06	36.5
9-14-19 5:45	15.22	825	8.08	35.9
9-14-19 6:00	15.21	825	8.07	35.2
9-14-19 6:15	15.20	825	8.07	35.8
9-14-19 6:30	15.20	825	8.06	34.6
9-14-19 6:45	15.18	825	8.06	35.1

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-29-19 13:45	6.60	1902	8.49	4.3	9-14-19 7:00	14.76	974	8.42	6.7	9-14-19 7:00	15.16	825	8.06	37.1															
9-29-19 14:00	6.57	1903	8.49	4.3	9-14-19 7:15	14.74	974	8.42	7.2	9-14-19 7:15	15.15	825	8.06	39.3															
9-29-19 14:15	6.57	1902	8.49	4.2	9-14-19 7:30	14.74	972	8.42	7.3	9-14-19 7:30	15.14	825	8.06	35.1															
9-29-19 14:30	6.59	1903	8.49	3.5	9-14-19 7:45	14.73	973	8.41	7.9	9-14-19 7:45	15.12	825	8.06	34.1															
9-29-19 14:45	6.52	1901	8.49	3.9	9-14-19 8:00	14.72	972	8.41	7.4	9-14-19 8:00	15.11	825	8.07	33.6															
9-29-19 15:00	6.44	1905	8.49	3.8	9-14-19 8:15	14.70	973	8.41	7.8	9-14-19 8:15	15.09	825	8.07	34.7															
9-29-19 15:15	6.45	1903	8.50	3.9	9-14-19 8:30	14.65	975	8.41	7.7	9-14-19 8:30	15.08	825	8.06	34.3															
9-29-19 15:30	6.38	1898	8.49	3.4	9-14-19 8:45	14.64	972	8.40	7.2	9-14-19 8:45	15.06	825	8.06	36.1															
9-29-19 15:45	6.34	1896	8.49	4.0	9-14-19 9:00	14.64	956	8.40	8.0	9-14-19 9:00	15.01	825	8.06	33.9															
9-29-19 16:00	6.32	1899	8.49	3.5	9-14-19 9:15	14.60	971	8.40	7.5	9-14-19 9:15	15.01	825	8.07	35.6															
9-29-19 16:15	6.30	1899	8.49	4.0	9-14-19 9:30	14.57	970	8.40	17.6	9-14-19 9:30	14.98	825	8.05	35.8															
9-29-19 16:30	6.36	1899	8.49	3.5	9-14-19 9:45	14.55	927	8.39	6.7	9-14-19 9:45	14.96	825	8.07	34.2															
9-29-19 16:45	6.39	1899	8.49	3.6	9-14-19 10:00	14.55	920	8.39	6.9	9-14-19 10:00	14.95	825	8.05	33.1															
9-29-19 17:00	6.41	1897	8.49	4.0	9-14-19 10:15	14.56	968	8.39	6.9	9-14-19 10:15	14.92	825	8.08	36.8															
9-29-19 17:15	6.49	1897	8.49	3.8	9-14-19 10:30	14.55	969	8.39	7.3	9-14-19 10:30	14.91	825	8.04	33.8															
9-29-19 17:30	6.49	1898	8.49	3.8	9-14-19 10:45	14.52	968	8.39	6.8	9-14-19 10:45	14.89	825	8.07	31.7															
9-29-19 17:45	6.62	1898	8.49	3.8	9-14-19 11:00	14.49	968	8.39	6.9	9-14-19 11:00	14.88	825	8.05	31.2															
9-29-19 18:00	6.65	1899	8.49	3.4	9-14-19 11:15	14.46	968	8.38	7.4	9-14-19 11:15	14.87	825	8.06	31.9															
9-29-19 18:15	6.75	1898	8.49	3.8	9-14-19 11:30	14.43	967	8.38	6.9	9-14-19 11:30	14.85	825	8.04	33.8															
9-29-19 18:30	6.79	1899	8.49	3.6	9-14-19 11:45	14.39	954	8.38	6.6	9-14-19 11:45	14.82	825	8.04	31.8															
9-29-19 18:45	6.83	1897	8.49	3.4	9-14-19 12:00	14.37	952	8.38	7.3	9-14-19 12:00	14.80	825	8.04	33.6															
9-29-19 19:00	6.89	1895	8.48	4.0	9-14-19 12:15	14.37	968	8.38	6.8	9-14-19 12:15	14.79	825	8.05	32.8															
9-29-19 19:15	6.92	1894	8.48	3.7	9-14-19 12:30	14.37	967	8.37	7.1	9-14-19 12:30	14.76	825	8.04	31.9															
9-29-19 19:30	7.04	1895	8.48	3.6	9-14-19 12:45	14.35	966	8.37	8.4	9-14-19 12:45	14.74	825	8.05	32.1															
9-29-19 19:45	7.17	1894	8.48	3.4	9-14-19 13:00	14.33	965	8.37	8.1	9-14-19 13:00	14.72	825	8.04	32.4															
9-29-19 20:00	7.26	1895	8.48	3.8	9-14-19 13:15	14.27	973	8.37	6.9	9-14-19 13:15	14.70	825	8.05	31.3															
9-29-19 20:15	7.37	1893	8.47	3.8	9-14-19 13:30	14.27	973	8.37	7.3	9-14-19 13:30	14.68	825	8.04	31.4															
9-29-19 20:30	7.36	1892	8.47	4.1	9-14-19 13:45	14.27	972	8.36	6.5	9-14-19 13:45	14.66	825	8.04	32.0															
9-29-19 20:45	7.35	1891	8.48	3.7	9-14-19 14:00	14.25	971	8.36	6.7	9-14-19 14:00	14.61	826	8.03	32.2															
9-29-19 21:00	7.51	1890	8.48	4.0	9-14-19 14:15	14.26	971	8.36	7.1	9-14-19 14:15	14.62	825	8.03	33.1															
9-29-19 21:15	7.57	1889	8.48	4.7	9-14-19 14:30	14.25	968	8.36	6.6	9-14-19 14:30	14.62	825	8.04	33.0															
9-29-19 21:30	7.55	1890	8.48	3.8	9-14-19 14:45	14.25	973	8.36	6.4	9-14-19 14:45	14.61	825	8.05	30.9															
9-29-19 21:45	7.63	1888	8.48	4.4	9-14-19 15:00	14.21	973	8.36	6.4	9-14-19 15:00	14.60	825	8.03	31.8															
9-29-19 22:00	7.60	1888	8.48	4.7	9-14-19 15:15	14.24	973	8.36	6.2	9-14-19 15:15	14.60	825	8.04	30.7															
9-29-19 22:15	7.61	1885	8.48	4.6	9-14-19 15:30	14.25	972	8.36	6.3	9-14-19 15:30	14.59	825	8.03	30.6															
9-29-19 22:30	7.58	1887	8.48	5.6	9-14-19 15:45	14.28	972	8.36	7.3	9-14-19 15:45	14.59	825	8.04	30.3															
9-29-19 22:45	7.56	1886	8.48	5.6	9-14-19 16:00	14.36	965	8.37	6.2	9-14-19 16:00	14.61	825	8.03	31.8															
9-29-19 23:00	7.60	1886	8.48	4.7	9-14-19 16:15	14.36	972	8.38	6.6	9-14-19 16:15	14.69	826	8.04	31.3															
9-29-19 23:15	7.57	1886	8.49	6.1	9-14-19 16:30	14.38	972	8.38	6.4	9-14-19 16:30	14.68	826	8.03	30.8															
9-29-19 23:30	7.57	1888	8.49	4.6	9-14-19 16:45	14.36	971	8.38	6.7	9-14-19 16:45	14.67	825	8.04	31.4															
9-29-19 23:45	7.56	1887	8.49	4.2	9-14-19 17:00	14.41	969	8.39	6.2	9-14-19 17:00	14.74	826	8.03	29.9															
9-30-19 0:00	7.57	1888	8.49	4.6	9-14-19 17:15	14.42	971	8.38	6.0	9-14-19 17:15	14.75	826	8.03	31.8															
9-30-19 0:15	7.57	1886	8.49	5.4	9-14-19 17:30	14.51	968	8.39	6.3	9-14-19 17:30	14.81	826	8.02	33.0															
9-30-19 0:30	7.54	1886	8.49	5.6	9-14-19 17:45	14.49	961	8.25	9.0	9-14-19 17:45	14.99	828	8.01	33.9															
9-30-19 0:45	7.51	1886	8.49	5.2	9-14-19 18:00	14.54	967	8.34	7.1	9-14-19 18:00	15.07	828	8.02	37.3															
9-30-19 1:00	7.50	1886	8.50	4.8	9-14-19 18:15	14.64	966	8.33	8.1	9-14-19 18:15	15.17	828	8.03	37.6															
9-30-19 1:15	7.47	1885	8.50	4.8	9-14-19 18:30	14.80	963	8.34	7.8	9-14-19 18:30	15.46	829	8.04	35.5															
9-30-19 1:30	7.46	1886	8.50	5.0	9-14-19 18:45	14.96	962	8.32	7.8	9-14-19 18:45	15.63	828	8.05	33.5															
9-30-19 1:45	7.42	1885	8.50	5.7	9-14-19 19:00	14.92	965	8.30	7.8	9-14-19 19:00	15.65	827	8.05	33.0															
9-30-19 2:00	7.32	1885	8.50	5.1	9-14-19 19:15	14.92	959	8.31	9.6	9-14-19 19:15	15.68	828	8.05	37.4															
9-30-19 2:15	7.27	1886	8.50	4.9	9-14-19 19:30	14.98	964	8.31	9.4	9-14-19 19:30	15.74	828	8.04	32.5															
9-30-19 2:30	7.25	1886	8.50	4.9	9-14-19 19:45	15.04	964	8.33	10.0	9-14-19 19:45	15.89	829	8.05	34.1															
9-30-19 2:45	7.23	1884	8.50	5.0	9-14-19 20:00	14.97	965	8.35	6.7	9-14-19 20:00	15.91	829	8.05	33.7															
9-30-19 3:00	7.15	1885	8.50	4.7	9-14-19 20:15	15.17	965	8.35	8.9	9-14-19 20:15	15.98	829	8.06	32.7															
9-30-19 3:15	7.24	1885	8.50	4.9	9-14-19 20:30	15.23	963	8.35	8.6	9-14-19 20:30	16.14	829	8.06	32.9															
9-30-19 3:30	7.23	1885	8.50	4.5	9-14-19 20:45	15.33	969	8.36	6.7	9-14-19 20:45	16.16	829	8.07	35.4															
9-30-19 3:45	7.22	1884	8.50	4.9	9-14-19 21:00	15.31	968	8.37	6.8	9-14-19 21:00	16.19	829	8.07	32.7															
9-30-19 4:00	7.20	1884	8.50	4.5	9-14-19 21:15	15.36	968	8.36	7.8	9-14-19 21:15	16.37	830	8.08	34.9															
9-30-19 4:15	7.19	1883	8.50	5.2	9-14-19 21:30	15.41	967	8.38	7.3	9-14-19 21:30	16.27	829	8.07	36.9															
9-30-19 4:30	7.19	1886	8.50	4.4	9-14-19 21:45	15.31	963	8.37	7.6	9-14-19 21:45	16.33	829	8.07	34.3															
9-30-19 4:45	7.16	1886	8.50	5.4	9-14-19 22:00	15.20	963	8.39	7.9	9-14-19 22:00	16.27	830	8.07	32.2															
9-30-19 5:00	7.12	1885	8.50	4.3	9-14-19 22:15	15.20	965	8.39	8.0	9-14-19 22:15	16.24	830	8.08	32.8															
9-30-19 5:15	7.07	1884	8.50	5.4	9-14-19 22:30	15.28	963	8.40	8.9	9-14-19 22:30	16.24	830	8.08	33.6															
9-30-19 5:30	7.04	1884	8.50	4.7	9-14-19 22:45	15.32	963	8.40	7.4	9-14-19 22:45	16.30	829	8.08	31.8															
9-30-19 5:45	7.02	1884	8.50	4.9	9-14-19 23:00	15.31	963	8.40	7.5	9-14-19 23:00	16.24	829	8.08	35.9															
9-30-19 6:00	7.02	1883	8.50	4.5	9-14-19 23:15	15.31	962	8.40	7.1	9-14-19 23:15	16.26	830	8.10	33.7															
9-30-19 6:15	6.97	1883	8.50	4.9	9-14-19 23:30	15.28	964	8.40	7.6	9-14-19 23:30	16.22	830	8.09	30.7															
9-30-19 6:30	6.95	1884	8.50	4.6	9-14-19 23:45	15.30	959	8.40	8.2	9-14-19 23:45	16.20	829	8.10	34.3															
9-30-19 6:45	6.94	1884	8.50	5.6	9-15-19 0:00	15.30	962	8.40	8.6	9-15-19 0:00	16.19	830	8.10	32.1															
9-30-19 7:00	6.89	1880	8.50	4.5	9-15-19 0:15	15.33	965	8.39	7.3	9-15-19 0:15	16.15	829	8.10	32.3															
9-30-19 7:15	6.88	1878	8.50	5.4	9-15-19 0:30	15.29	965	8.38	8.3	9-15-19 0:30	16.19	842	8.11	33.2															
9-30-19 7:30	6.85	1879	8.49	4.9	9-15-19 0:45	15.32	965	8.38	7.6	9-15-19 0:45	16.12	830	8.11	31.2															
9-30-19 7:45	6.82	1877	8.50	5.7	9-15-19 1:00	15.34	965	8.39	7.0	9-15-19 1:00	16.05	829	8.11	31.4															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-30-19 8:00	6.80	1877	8.49	4.6	9-15-19 1:15	15.44	964	8.40	6.7	9-15-19 1:15	16.00	829	8.09	30.9															
9-30-19 8:15	6.77	1876	8.50	5.5	9-15-19 1:30	15.42	960	8.41	7.8	9-15-19 1:30	15.89	829	8.10	32.3															
9-30-19 8:30	6.75	1881	8.50	4.6	9-15-19 1:45	15.36	953	8.41	7.5	9-15-19 1:45	15.92	829	8.10	33.0															
9-30-19 8:45	6.70	1880	8.50	5.3	9-15-19 2:00	15.36	949	8.42	7.9	9-15-19 2:00	15.88	829	8.09	31.4															
9-30-19 9:00	6.58	1881	8.50	4.9	9-15-19 2:15	15.35	953	8.42	7.7	9-15-19 2:15	15.86	829	8.10	32.7															
9-30-19 9:15	6.47	1874	8.50	5.4	9-15-19 2:30	15.26	951	8.42	8.5	9-15-19 2:30	15.83	829	8.09	31.6															
9-30-19 9:30	6.46	1877	8.50	4.9	9-15-19 2:45	15.19	947	8.42	8.2	9-15-19 2:45	15.79	829	8.10	31.7															
9-30-19 9:45	6.55	1877	8.50	5.6	9-15-19 3:00	15.14	952	8.41	8.6	9-15-19 3:00	15.76	829	8.09	32.5															
9-30-19 10:00	6.57	1878	8.49	4.8	9-15-19 3:15	15.13	958	8.40	7.8	9-15-19 3:15	15.73	829	8.10	32.4															
9-30-19 10:15	6.55	1875	8.50	5.2	9-15-19 3:30	15.12	959	8.40	7.1	9-15-19 3:30	15.71	829	8.09	31.7															
9-30-19 10:30	6.53	1874	8.49	5.2	9-15-19 3:45	15.14	960	8.40	7.7	9-15-19 3:45	15.69	829	8.10	31.5															
9-30-19 10:45	6.44	1874	8.49	5.6	9-15-19 4:00	15.12	959	8.39	7.5	9-15-19 4:00	15.65	829	8.09	31.6															
9-30-19 11:00	6.45	1876	8.49	5.3	9-15-19 4:15	15.11	960	8.39	7.5	9-15-19 4:15	15.64	829	8.10	31.6															
9-30-19 11:15	6.38	1874	8.50	6.3	9-15-19 4:30	15.10	959	8.39	7.4	9-15-19 4:30	15.62	829	8.09	31.6															
9-30-19 11:30	6.32	1871	8.49	5.0	9-15-19 4:45	15.07	957	8.39	12.0	9-15-19 4:45	15.59	829	8.09	31.1															
9-30-19 11:45	6.30	1871	8.49	6.1	9-15-19 5:00	15.00	956	8.39	7.6	9-15-19 5:00	15.55	829	8.09	30.9															
9-30-19 12:00	6.28	1871	8.49	5.4	9-15-19 5:15	14.99	953	8.38	7.4	9-15-19 5:15	15.52	829	8.09	30.7															
9-30-19 12:15	6.26	1870	8.49	6.0	9-15-19 5:30	14.97	959	8.38	7.0	9-15-19 5:30	15.50	829	8.09	30.2															
9-30-19 12:30	6.25	1873	8.49	5.0	9-15-19 5:45	14.93	948	8.38	7.1	9-15-19 5:45	15.46	829	8.10	30.7															
9-30-19 12:45	6.25	1875	8.50	5.4	9-15-19 6:00	14.91	946	8.37	7.2	9-15-19 6:00	15.42	829	8.09	30.4															
9-30-19 13:00	6.10	1872	8.50	5.2	9-15-19 6:15	14.93	957	8.38	7.0	9-15-19 6:15	15.39	828	8.09	31.5															
9-30-19 13:15	6.05	1874	8.50	5.9	9-15-19 6:30	14.90	957	8.37	7.1	9-15-19 6:30	15.37	829	8.09	30.3															
9-30-19 13:30	6.06	1870	8.49	5.1	9-15-19 6:45	14.88	957	8.37	7.3	9-15-19 6:45	15.32	828	8.10	29.4															
9-30-19 13:45	5.95	1872	8.50	6.0	9-15-19 7:00	14.80	956	8.37	6.3	9-15-19 7:00	15.28	828	8.09	29.8															
9-30-19 14:00	6.01	1870	8.49	4.9	9-15-19 7:15	14.75	955	8.36	11.2	9-15-19 7:15	15.26	828	8.10	31.8															
9-30-19 14:15	6.03	1872	8.50	5.9	9-15-19 7:30	14.76	953	8.36	6.7	9-15-19 7:30	15.23	828	8.09	31.5															
9-30-19 14:30	5.99	1868	8.49	5.1	9-15-19 7:45	14.77	951	8.36	6.5	9-15-19 7:45	15.19	828	8.10	30.1															
9-30-19 14:45	6.02	1869	8.49	6.6	9-15-19 8:00	14.72	951	8.36	7.1	9-15-19 8:00	15.17	828	8.10	30.4															
9-30-19 15:00	6.01	1870	8.49	6.4	9-15-19 8:15	14.70	955	8.36	9.7	9-15-19 8:15	15.12	828	8.09	30.4															
9-30-19 15:15	6.01	1867	8.49	5.9	9-15-19 8:30	14.66	956	8.36	6.1	9-15-19 8:30	15.10	828	8.09	29.2															
9-30-19 15:30	5.89	1868	8.49	5.4	9-15-19 8:45	14.67	960	8.35	6.1	9-15-19 8:45	15.07	828	8.09	27.9															
9-30-19 15:45	5.87	1868	8.49	5.4	9-15-19 9:00	14.63	961	8.35	8.1	9-15-19 9:00	15.04	828	8.08	29.9															
9-30-19 16:00	5.85	1869	8.49	5.3	9-15-19 9:15	14.59	954	8.35	10.5	9-15-19 9:15	15.00	828	8.08	28.3															
9-30-19 16:30	5.92	1869	8.50	5.4	9-15-19 9:30	14.59	952	8.35	6.4	9-15-19 9:30	14.96	828	8.08	28.0															
9-30-19 16:45	5.94	1869	8.50	4.8	9-15-19 9:45	14.54	952	8.35	6.7	9-15-19 9:45	14.93	828	8.09	29.1															
9-30-19 17:00	6.02	1870	8.50	5.4	9-15-19 10:00	14.54	952	8.35	5.8	9-15-19 10:00	14.90	828	8.08	28.2															
9-30-19 17:15	6.02	1870	8.50	5.0	9-15-19 10:15	14.48	952	8.35	6.2	9-15-19 10:15	14.86	828	8.08	30.2															
9-30-19 17:30	6.08	1867	8.49	6.0	9-15-19 10:30	14.50	954	8.34	5.7	9-15-19 10:30	14.83	828	8.07	29.3															
9-30-19 17:45	6.10	1869	8.49	4.8	9-15-19 10:45	14.46	954	8.34	5.6	9-15-19 10:45	14.80	829	8.06	29.8															
9-30-19 18:00	6.19	1866	8.49	5.3	9-15-19 11:00	14.44	953	8.34	6.0	9-15-19 11:00	14.76	829	8.06	29.8															
9-30-19 18:15	6.25	1862	8.49	5.0	9-15-19 11:15	14.42	953	8.34	6.4	9-15-19 11:15	14.68	828	8.08	28.6															
9-30-19 18:30	6.29	1854	8.49	6.2	9-15-19 11:30	14.40	945	8.34	5.5	9-15-19 11:30	14.65	828	8.08	28.5															
9-30-19 18:45	6.36	1855	8.49	5.2	9-15-19 11:45	14.36	944	8.33	5.9	9-15-19 11:45	14.61	828	8.07	30.5															
9-30-19 19:00	6.43	1861	8.49	6.0	9-15-19 12:00	14.31	944	8.33	5.4	9-15-19 12:00	14.59	828	8.08	29.0															
9-30-19 19:15	6.47	1861	8.48	5.2	9-15-19 12:15	14.33	949	8.33	6.0	9-15-19 12:15	14.53	828	8.07	28.6															
9-30-19 19:30	6.59	1859	8.48	6.0	9-15-19 12:30	14.28	946	8.33	6.1	9-15-19 12:30	14.50	829	8.07	29.6															
9-30-19 19:45	6.68	1860	8.48	5.4	9-15-19 12:45	14.27	941	8.33	5.5	9-15-19 12:45	14.47	829	8.08	29.6															
9-30-19 20:00	6.73	1859	8.48	5.8	9-15-19 13:00	14.25	943	8.32	5.5	9-15-19 13:00	14.45	828	8.06	30.7															
9-30-19 20:15	6.85	1856	8.48	5.7	9-15-19 13:15	14.21	950	8.33	6.4	9-15-19 13:15	14.41	829	8.07	32.5															
9-30-19 20:30	6.85	1847	8.48	6.5	9-15-19 13:30	14.21	949	8.32	5.5	9-15-19 13:30	14.38	829	8.06	31.3															
9-30-19 20:45	6.92	1839	8.47	6.0	9-15-19 13:45	14.18	949	8.32	6.7	9-15-19 13:45	14.36	829	8.06	30.8															
9-30-19 21:00	6.95	1839	8.48	6.8	9-15-19 14:00	14.17	948	8.32	5.6	9-15-19 14:00	14.32	829	8.07	28.6															
9-30-19 21:15	7.06	1842	8.47	7.1	9-15-19 14:15	14.13	948	8.30	7.8	9-15-19 14:15	14.30	829	8.06	31.0															
9-30-19 21:30	7.14	1843	8.47	6.7	9-15-19 14:30	14.10	962	8.30	9.0	9-15-19 14:30	14.27	829	8.06	29.8															
9-30-19 21:45	7.18	1839	8.47	6.4	9-15-19 14:45	14.06	966	8.30	8.4	9-15-19 14:45	14.26	829	8.06	29.2															
9-30-19 22:00	7.19	1832	8.47	6.4	9-15-19 15:00	14.03	960	8.29	7.0	9-15-19 15:00	14.25	829	8.05	30.5															
9-30-19 22:15	7.23	1831	8.47	7.1	9-15-19 15:15	14.04	959	8.28	10.4	9-15-19 15:15	14.23	829	8.05	29.8															
9-30-19 22:30	7.28	1833	8.47	7.0	9-15-19 15:30	14.04	959	8.27	8.9	9-15-19 15:30	14.22	829	8.03	31.3															
9-30-19 22:45	7.30	1828	8.47	6.4	9-15-19 15:45	14.01	958	8.27	9.1	9-15-19 15:45	14.22	829	8.03	31.5															
9-30-19 23:00	7.33	1827	8.47	7.4	9-15-19 16:00	14.02	958	8.27	8.9	9-15-19 16:00	14.23	829	8.04	31.0															
9-30-19 23:15	7.28	1821	8.47	7.1	9-15-19 16:15	14.02	956	8.28	9.0	9-15-19 16:15	14.25	829	8.04	30.0															
9-30-19 23:30	7.25	1820	8.47	6.4	9-15-19 16:30	14.01	956	8.29	8.7	9-15-19 16:30	14.29	829	8.04	29.2															
9-30-19 23:45	7.21	1820	8.48	6.4	9-15-19 16:45	14.00	956	8.30	8.5	9-15-19 16:45	14.30	829	8.04	28.9															
10-1-19 0:00	7.21	1821	8.48	7.5	9-15-19 17:00	13.98	955	8.32	8.4	9-15-19 17:00	14.35	830	8.03	30.4															
10-1-19 0:15	7.26	1823	8.48	6.3	9-15-19 17:15	13.98	955	8.33	8.4	9-15-19 17:15	14.41	830	8.03	29.7															
10-1-19 0:30	7.22	1817	8.48	7.9	9-15-19 17:30	13.98	948	8.33	8.2	9-15-19 17:30	14.48	830	8.02	28.4															
10-1-19 0:45	7.21	1815	8.47	6.8	9-15-19 17:45	13.93	946	8.36	8.0	9-15-19 17:45	14.54	830	8.03	29.4															
10-1-19 1:00	7.19	1815	8.48	7.7	9-15-19 18:00	13.95	944	8.38	11.2	9-15-19 18:00	14.61	830	8.03	30.0															
10-1-19 1:15	7.20	1814	8.48	7.1	9-15-19 18:15	13.94	951	8.40	9.2	9-15-19 18:15	14.75	830	8.03	29.1															
10-1-19 1:30	7.12	1816	8.48	7.7	9-15-19 18:30	13.98	951	8.38	8.1	9-15-19 18:30	14.82	830	8.03	29.4															
10-1-19 1:45	7.12	1811	8.48	6.4	9-15-19 18:45	14.06	953	8.39	8.2	9-15-19 18:45	15.04	830	8.03	32.9															
10-1-19 2:00	7.07	1810	8.48	7.1	9-15-19 19:00	14.13	946	8.44	8.0	9-15-19 19:00	15.37	834	8.03	31.7															
10-1-19 2:15	7.03	1803	8.48	7.7	9-15-19 19:15	14.21	934	8.44	7.5	9-15-19 19:15	15.46	831	8.04	33.0															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-1-19 2:30	7.01	1800	8.48	8.3	9-15-19 19:30	14.30	932	8.42	7.3	9-15-19 19:30	15.54	832	8.02	34.6															
10-1-19 2:45	7.00	1802	8.48	7.3	9-15-19 19:45	14.10	929	8.50	8.2	9-15-19 19:45	15.73	832	8.02	35.1															
10-1-19 3:00	6.98	1798	8.48	8.0	9-15-19 20:00	14.19	924	8.47	8.6	9-15-19 20:00	15.90	832	8.05	34.3															
10-1-19 3:15	6.92	1800	8.48	7.9	9-15-19 20:15	14.21	946	8.46	8.7	9-15-19 20:15	16.07	830	8.03	35.9															
10-1-19 3:30	6.90	1799	8.48	8.6	9-15-19 20:30	14.25	946	8.47	8.7	9-15-19 20:30	16.07	832	8.03	33.8															
10-1-19 3:45	6.91	1787	8.48	7.6	9-15-19 20:45	14.23	941	8.51	8.8	9-15-19 20:45	16.08	831	8.03	32.5															
10-1-19 4:00	6.90	1781	8.48	10.0	9-15-19 21:00	14.29	942	8.44	7.6	9-15-19 21:00	16.11	832	8.04	33.4															
10-1-19 4:15	6.90	1784	8.47	7.3	9-15-19 21:15	14.38	952	8.37	7.6	9-15-19 21:15	16.09	832	8.05	37.3															
10-1-19 4:30	6.89	1784	8.48	8.1	9-15-19 21:30	14.45	953	8.35	8.3	9-15-19 21:30	16.06	832	8.06	32.6															
10-1-19 4:45	6.89	1784	8.47	7.2	9-15-19 21:45	14.47	936	8.34	7.7	9-15-19 21:45	16.02	832	8.05	34.5															
10-1-19 5:00	6.88	1785	8.47	7.8	9-15-19 22:00	14.52	950	8.35	7.1	9-15-19 22:00	16.04	832	8.06	33.5															
10-1-19 5:15	6.88	1787	8.48	7.1	9-15-19 22:15	14.53	954	8.35	6.8	9-15-19 22:15	16.03	832	8.06	33.0															
10-1-19 5:30	6.88	1785	8.47	7.7	9-15-19 22:30	14.54	942	8.35	7.4	9-15-19 22:30	16.00	832	8.06	35.1															
10-1-19 5:45	6.85	1785	8.48	6.7	9-15-19 22:45	14.54	941	8.35	7.5	9-15-19 22:45	15.96	832	8.07	34.7															
10-1-19 6:00	6.86	1785	8.48	7.9	9-15-19 23:00	14.51	942	8.36	7.4	9-15-19 23:00	15.89	832	8.08	32.4															
10-1-19 6:15	6.86	1787	8.48	6.7	9-15-19 23:15	14.49	948	8.41	8.8	9-15-19 23:15	15.87	832	8.08	32.9															
10-1-19 6:30	6.86	1784	8.48	8.0	9-15-19 23:30	14.39	937	8.51	9.9	9-15-19 23:30	15.86	832	8.08	31.3															
10-1-19 6:45	6.85	1779	8.47	6.9	9-15-19 23:45	14.31	937	8.53	9.7	9-15-19 23:45	15.79	832	8.09	31.9															
10-1-19 7:00	6.83	1778	8.47	7.8	9-16-19 0:00	14.27	937	8.51	10.1	9-16-19 0:00	15.76	832	8.09	31.6															
10-1-19 7:15	6.82	1774	8.47	6.9	9-16-19 0:15	14.22	940	8.49	11.2	9-16-19 0:15	15.68	832	8.09	30.3															
10-1-19 7:30	6.80	1771	8.47	8.3	9-16-19 0:30	14.21	939	8.49	10.1	9-16-19 0:30	15.60	831	8.11	29.1															
10-1-19 7:45	6.78	1769	8.47	7.3	9-16-19 0:45	14.22	936	8.48	10.0	9-16-19 0:45	15.50	831	8.11	27.9															
10-1-19 8:00	6.78	1763	8.47	8.6	9-16-19 1:00	14.20	940	8.48	15.1	9-16-19 1:00	15.40	831	8.10	28.4															
10-1-19 8:15	6.78	1762	8.47	7.7	9-16-19 1:15	14.19	938	8.48	12.6	9-16-19 1:15	15.28	831	8.10	29.4															
10-1-19 8:30	6.77	1760	8.47	8.7	9-16-19 1:30	14.18	938	8.47	12.7	9-16-19 1:30	15.32	831	8.10	28.8															
10-1-19 8:45	6.76	1760	8.47	7.6	9-16-19 1:45	14.17	936	8.46	12.1	9-16-19 1:45	15.19	829	8.10	29.6															
10-1-19 9:00	6.76	1760	8.47	9.6	9-16-19 2:00	14.15	933	8.46	16.4	9-16-19 2:00	15.10	824	8.12	28.3															
10-1-19 9:15	6.75	1760	8.47	6.8	9-16-19 2:15	14.13	930	8.45	15.1	9-16-19 2:15	15.01	821	8.11	35.0															
10-1-19 9:30	6.74	1759	8.47	7.9	9-16-19 2:30	14.14	924	8.44	12.1	9-16-19 2:30	14.87	816	8.12	35.2															
10-1-19 9:45	6.73	1759	8.47	7.1	9-16-19 2:45	14.14	920	8.42	12.9	9-16-19 2:45	14.80	815	8.11	34.7															
10-1-19 10:00	6.71	1760	8.47	9.0	9-16-19 3:00	14.16	921	8.41	15.8	9-16-19 3:00	14.79	818	8.09	33.6															
10-1-19 10:15	6.71	1757	8.46	7.3	9-16-19 3:15	14.15	929	8.41	11.8	9-16-19 3:15	14.76	817	8.09	32.3															
10-1-19 10:30	6.67	1746	8.46	8.9	9-16-19 3:30	13.82	1015	8.32	203.8	9-16-19 3:30	14.66	815	8.08	35.4															
10-1-19 10:45	6.67	1746	8.46	7.3	9-16-19 3:45	13.67	980	8.35	208.1	9-16-19 3:45	14.64	813	8.09	33.3															
10-1-19 11:00	6.66	1743	8.46	8.8	9-16-19 4:00	13.61	972	8.35	175.3	9-16-19 4:00	14.62	815	8.08	38.9															
10-1-19 11:15	6.65	1742	8.46	7.5	9-16-19 4:15	13.57	975	8.34	185.4	9-16-19 4:15	14.57	811	8.09	37.2															
10-1-19 11:30	6.63	1735	8.46	8.6	9-16-19 4:30	13.47	982	8.33	168.1	9-16-19 4:30	14.55	815	8.07	37.5															
10-1-19 11:45	6.64	1735	8.46	7.6	9-16-19 4:45	13.43	984	8.34	168.1	9-16-19 4:45	14.52	813	8.08	43.9															
10-1-19 12:00	6.63	1733	8.46	8.7	9-16-19 5:00	13.42	977	8.34	134.1	9-16-19 5:00	14.47	813	8.08	37.2															
10-1-19 12:15	6.61	1733	8.46	6.9	9-16-19 5:15	13.37	970	8.35	123.2	9-16-19 5:15	14.45	811	8.08	44.6															
10-1-19 12:30	6.61	1731	8.46	8.4	9-16-19 5:30	13.35	961	8.35	148.2	9-16-19 5:30	14.38	811	8.08	42.6															
10-1-19 12:45	6.61	1731	8.46	6.7	9-16-19 5:45	13.24	965	8.34	129.5	9-16-19 5:45	14.36	810	8.09	43.5															
10-1-19 13:00	6.58	1727	8.46	8.6	9-16-19 6:00	13.20	959	8.35	132.6	9-16-19 6:00	14.33	811	8.08	50.2															
10-1-19 13:15	6.58	1725	8.46	7.2	9-16-19 6:15	13.10	954	8.36	109.7	9-16-19 6:15	14.27	810	8.09	52.9															
10-1-19 13:30	6.58	1721	8.45	8.8	9-16-19 6:30	13.09	958	8.36	99.9	9-16-19 6:30	14.21	810	8.09	44.9															
10-1-19 13:45	6.56	1719	8.45	7.4	9-16-19 6:45	13.05	960	8.35	91.5	9-16-19 6:45	14.20	810	8.10	57.8															
10-1-19 14:00	6.56	1718	8.45	8.6	9-16-19 7:00	12.99	957	8.36	85.5	9-16-19 7:00	14.17	810	8.10	68.2															
10-1-19 14:15	6.56	1718	8.45	7.9	9-16-19 7:15	12.94	957	8.35	89.0	9-16-19 7:15	14.11	809	8.10	66.1															
10-1-19 14:30	6.54	1716	8.45	8.4	9-16-19 7:30	12.93	958	8.35	92.1	9-16-19 7:30	14.11	809	8.09	91.2															
10-1-19 14:45	6.51	1715	8.45	7.3	9-16-19 7:45	12.92	960	8.35	87.4	9-16-19 7:45	14.05	809	8.10	88.5															
10-1-19 15:00	6.49	1710	8.45	8.7	9-16-19 8:00	12.88	959	8.35	84.7	9-16-19 8:00	14.04	809	8.09	96.7															
10-1-19 15:15	6.50	1708	8.45	7.2	9-16-19 8:15	12.84	959	8.35	90.2	9-16-19 8:15	14.00	808	8.10	102.9															
10-1-19 15:30	6.44	1708	8.45	8.3	9-16-19 8:30	12.82	963	8.34	80.6	9-16-19 8:30	13.96	808	8.10	103.6															
10-1-19 15:45	6.50	1702	8.45	7.8	9-16-19 8:45	12.80	964	8.34	75.1	9-16-19 8:45	13.88	808	8.10	113.6															
10-1-19 16:00	6.50	1698	8.44	8.4	9-16-19 9:00	12.77	962	8.34	77.8	9-16-19 9:00	13.88	807	8.10	112.6															
10-1-19 16:15	6.52	1695	8.44	7.3	9-16-19 9:15	12.75	961	8.34	78.3	9-16-19 9:15	13.82	807	8.10	125.6															
10-1-19 16:30	6.53	1694	8.44	8.3	9-16-19 9:30	12.75	959	8.34	83.5	9-16-19 9:30	13.80	806	8.10	116.2															
10-1-19 16:45	6.54	1693	8.44	7.8	9-16-19 9:45	12.70	955	8.35	75.9	9-16-19 9:45	13.76	807	8.11	132.1															
10-1-19 17:00	6.56	1693	8.44	8.8	9-16-19 10:00	12.68	955	8.35	75.0	9-16-19 10:00	13.70	806	8.11	136.5															
10-1-19 17:15	6.58	1692	8.44	7.0	9-16-19 10:15	12.67	955	8.35	87.1	9-16-19 10:15	13.66	806	8.11	147.2															
10-1-19 17:30	6.62	1693	8.44	8.3	9-16-19 10:30	12.61	953	8.35	73.2	9-16-19 10:30	13.65	806	8.11	140.9															
10-1-19 17:45	6.64	1694	8.44	7.0	9-16-19 10:45	12.58	950	8.36	69.6	9-16-19 10:45	13.61	805	8.11	176.3															
10-1-19 18:00	6.67	1687	8.44	7.9	9-16-19 11:00	12.54	950	8.36	71.4	9-16-19 11:00	13.52	805	8.12	139.7															
10-1-19 18:15	6.74	1684	8.43	7.2	9-16-19 11:15	12.51	950	8.35	69.7	9-16-19 11:15	13.53	805	8.12	165.8															
10-1-19 18:30	6.84	1689	8.44	7.8	9-16-19 11:30	12.48	949	8.35	71.1	9-16-19 11:30	13.50	805	8.12	159.2															
10-1-19 18:45	6.82	1684	8.43	6.9	9-16-19 11:45	12.43	948	8.35	72.7	9-16-19 11:45	13.44	804	8.12	166.0															
10-1-19 19:00	6.92	1686	8.43	7.7	9-16-19 12:00	12.42	947	8.35	67.3	9-16-19 12:00	13.39	803	8.13	175.0															
10-1-19 19:15	7.01	1686	8.43	6.9	9-16-19 12:15	12.38	947	8.35	66.8	9-16-19 12:15	13.41	803	8.13	181.1															
10-1-19 19:30	7.08	1685	8.43	7.8	9-16-19 12:30	12.34	947	8.35	66.8	9-16-19 12:30	13.35	803	8.13	187.4															
10-1-19 19:45	7.15	1688	8.43	6.9	9-16-19 12:45	12.29	947	8.35	74.0	9-16-19 12:45	13.34	803	8.13	195.8															
10-1-19 20:00	7.33	1687	8.42	7.9	9-16-19 13:00	12.26	947	8.35	65.3	9-16-19 13:00	13.34	803	8.13	199.5															
10-1-19 20:15	7.53	1688	8.42	6.6	9-16-19 13:15	12.24	948	8.35	62.1	9-16-19 13:15	13.31	803	8.14	184.5															
10-1-19 20:30	7.56	1686	8.42	7.5	9-16-19 13:30	12.24	948	8.35	62.3	9-16-19 13:30	13.30	802	8.14	190.2															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-1-19 20:45	7.68	1685	8.42	6.6	9-16-19 13:45	12.23	948	8.35	66.3	9-16-19 13:45	13.27	802	8.14	197.9															
10-1-19 21:00	7.71	1686	8.42	7.3	9-16-19 14:00	12.18	948	8.35	64.5	9-16-19 14:00	13.23	802	8.14	198.3															
10-1-19 21:15	7.80	1685	8.42	6.4	9-16-19 14:15	12.14	948	8.35	66.5	9-16-19 14:15	13.19	802	8.14	206.5															
10-1-19 21:30	7.85	1681	8.42	11.6	9-16-19 14:30	12.06	948	8.34	61.0	9-16-19 14:30	13.17	801	8.14	221.8															
10-1-19 21:45	7.93	1678	8.42	7.1	9-16-19 14:45	12.05	949	8.34	59.3	9-16-19 14:45	13.16	801	8.15	213.5															
10-1-19 22:00	8.00	1681	8.42	8.6	9-16-19 15:00	12.05	948	8.35	59.5	9-16-19 15:00	13.15	800	8.14	221.5															
10-1-19 22:15	8.12	1678	8.41	8.0	9-16-19 15:15	12.02	949	8.34	66.0	9-16-19 15:15	13.15	800	8.15	205.6															
10-1-19 22:30	8.13	1678	8.41	10.9	9-16-19 15:30	12.02	949	8.34	57.5	9-16-19 15:30	13.14	800	8.15	221.7															
10-1-19 22:45	8.27	1675	8.41	6.9	9-16-19 15:45	12.02	949	8.34	57.3	9-16-19 15:45	13.13	800	8.15	212.8															
10-1-19 23:00	8.27	1674	8.41	7.1	9-16-19 16:00	11.99	949	8.34	57.4	9-16-19 16:00	13.14	799	8.16	207.9															
10-1-19 23:15	8.58	1678	8.41	6.9	9-16-19 16:15	12.00	949	8.34	59.6	9-16-19 16:15	13.14	799	8.16	216.6															
10-1-19 23:30	8.69	1671	8.41	10.3	9-16-19 16:30	12.00	949	8.34	56.4	9-16-19 16:30	13.14	798	8.16	229.6															
10-1-19 23:45	8.51	1675	8.41	6.6	9-16-19 16:45	11.98	950	8.34	57.0	9-16-19 16:45	13.15	798	8.16	219.8															
10-2-19 0:00	8.49	1672	8.41	8.6	9-16-19 17:00	11.98	950	8.34	55.3	9-16-19 17:00	13.16	798	8.15	203.1															
10-2-19 0:15	8.26	1673	8.42	6.5	9-16-19 17:15	11.99	950	8.34	50.0	9-16-19 17:15	13.18	798	8.16	213.2															
10-2-19 0:30	8.23	1676	8.42	7.6	9-16-19 17:30	11.95	954	8.33	56.1	9-16-19 17:30	13.40	799	8.15	210.3															
10-2-19 0:45	8.14	1674	8.43	11.2	9-16-19 17:45	11.93	952	8.33	51.8	9-16-19 17:45	13.26	799	8.16	212.4															
10-2-19 1:00	8.06	1668	8.43	7.6	9-16-19 18:00	11.95	953	8.33	52.0	9-16-19 18:00	13.47	799	8.15	179.9															
10-2-19 1:15	7.89	1672	8.43	6.3	9-16-19 18:15	11.94	953	8.34	57.5	9-16-19 18:15	13.75	799	8.15	195.8															
10-2-19 1:30	7.81	1673	8.43	7.9	9-16-19 18:30	11.95	953	8.34	56.4	9-16-19 18:30	13.95	801	8.15	186.9															
10-2-19 1:45	7.82	1671	8.43	7.2	9-16-19 18:45	11.99	952	8.34	50.6	9-16-19 18:45	14.09	800	8.14	194.7															
10-2-19 2:00	7.74	1669	8.43	9.0	9-16-19 19:00	11.99	951	8.35	51.3	9-16-19 19:00	14.09	800	8.14	192.2															
10-2-19 2:15	7.70	1673	8.43	7.0	9-16-19 19:15	12.02	950	8.35	52.3	9-16-19 19:15	14.14	800	8.17	176.0															
10-2-19 2:30	7.65	1672	8.43	7.8	9-16-19 19:30	12.17	951	8.34	52.9	9-16-19 19:30	14.21	799	8.15	194.7															
10-2-19 2:45	7.62	1673	8.43	6.6	9-16-19 19:45	12.29	950	8.34	53.4	9-16-19 19:45	13.65	797	8.13	182.0															
10-2-19 3:00	7.57	1671	8.43	7.1	9-16-19 20:00	12.56	950	8.34	48.1	9-16-19 20:00	13.48	798	8.12	178.1															
10-2-19 3:15	7.52	1671	8.43	6.9	9-16-19 20:15	12.71	950	8.34	52.9	9-16-19 20:15	13.47	798	8.13	183.2															
10-2-19 3:30	7.49	1670	8.43	7.9	9-16-19 20:30	12.88	949	8.35	50.6	9-16-19 20:30	13.43	799	8.14	170.7															
10-2-19 3:45	7.42	1670	8.43	6.6	9-16-19 20:45	13.14	950	8.34	46.9	9-16-19 20:45	13.84	799	8.15	180.7															
10-2-19 4:00	7.38	1668	8.44	7.5	9-16-19 21:00	13.21	948	8.36	40.4	9-16-19 21:00	14.16	799	8.14	174.8															
10-2-19 4:15	7.34	1669	8.44	6.4	9-16-19 21:15	13.29	951	8.34	45.3	9-16-19 21:15	14.41	800	8.15	186.9															
10-2-19 4:30	7.31	1669	8.44	7.5	9-16-19 21:30	13.60	951	8.33	43.1	9-16-19 21:30	14.36	799	8.14	160.4															
10-2-19 4:45	7.28	1669	8.44	6.2	9-16-19 21:45	13.65	951	8.33	43.3	9-16-19 21:45	14.40	799	8.16	174.4															
10-2-19 5:00	7.24	1668	8.44	7.5	9-16-19 22:00	13.76	951	8.33	45.1	9-16-19 22:00	14.65	800	8.15	165.5															
10-2-19 5:15	7.24	1670	8.44	7.3	9-16-19 22:15	13.94	951	8.33	40.8	9-16-19 22:15	14.69	801	8.15	174.7															
10-2-19 5:30	7.23	1669	8.44	10.1	9-16-19 22:30	13.99	951	8.33	42.1	9-16-19 22:30	14.51	799	8.14	169.2															
10-2-19 5:45	7.24	1673	8.44	6.2	9-16-19 22:45	14.11	951	8.33	37.7	9-16-19 22:45	14.41	797	8.15	179.3															
10-2-19 6:00	7.24	1670	8.44	7.7	9-16-19 23:00	14.18	950	8.34	38.0	9-16-19 23:00	14.29	798	8.15	183.8															
10-2-19 6:15	7.24	1673	8.44	6.0	9-16-19 23:15	14.02	951	8.33	36.6	9-16-19 23:15	14.75	801	8.17	165.6															
10-2-19 6:30	7.23	1671	8.44	7.0	9-16-19 23:30	14.08	951	8.33	36.6	9-16-19 23:30	14.55	800	8.15	167.3															
10-2-19 6:45	7.22	1671	8.44	5.8	9-16-19 23:45	14.15	951	8.33	34.0	9-16-19 23:45	15.07	798	8.16	178.8															
10-2-19 7:00	7.21	1670	8.44	6.8	9-17-19 0:00	14.12	951	8.33	33.5	9-17-19 0:00	15.36	801	8.17	155.1															
10-2-19 7:15	7.18	1672	8.44	5.4	9-17-19 0:15	14.10	955	8.32	42.6	9-17-19 0:15	15.19	799	8.18	159.0															
10-2-19 7:30	7.18	1671	8.44	6.9	9-17-19 0:30	14.12	954	8.33	37.1	9-17-19 0:30	14.96	799	8.16	155.3															
10-2-19 7:45	7.18	1672	8.44	5.7	9-17-19 0:45	14.14	954	8.33	36.5	9-17-19 0:45	14.95	799	8.18	166.3															
10-2-19 8:00	7.16	1673	8.44	6.1	9-17-19 1:00	14.12	953	8.33	34.0	9-17-19 1:00	14.95	799	8.17	154.6															
10-2-19 8:15	7.17	1677	8.43	5.7	9-17-19 1:15	14.07	953	8.33	31.7	9-17-19 1:15	14.76	798	8.16	159.9															
10-2-19 8:30	7.14	1683	8.44	6.4	9-17-19 1:30	14.03	953	8.33	33.6	9-17-19 1:30	14.49	799	8.16	148.2															
10-2-19 8:45	7.12	1673	8.43	5.8	9-17-19 1:45	14.00	954	8.33	33.1	9-17-19 1:45	14.74	800	8.18	147.9															
10-2-19 9:00	7.09	1672	8.44	6.6	9-17-19 2:00	13.92	954	8.32	32.5	9-17-19 2:00	15.15	800	8.22	146.1															
10-2-19 9:15	7.10	1679	8.43	5.5	9-17-19 2:15	13.79	953	8.32	35.7	9-17-19 2:15	15.17	801	8.22	153.5															
10-2-19 9:30	7.07	1676	8.44	6.9	9-17-19 2:30	13.69	953	8.31	38.2	9-17-19 2:30	15.03	800	8.20	153.5															
10-2-19 9:45	7.05	1677	8.43	5.5	9-17-19 2:45	13.64	953	8.33	32.0	9-17-19 2:45	15.02	800	8.21	144.9															
10-2-19 10:00	7.00	1678	8.44	6.8	9-17-19 3:00	13.59	953	8.33	31.3	9-17-19 3:00	14.91	800	8.21	145.3															
10-2-19 10:15	6.99	1681	8.43	6.4	9-17-19 3:15	13.46	953	8.32	29.4	9-17-19 3:15	14.79	800	8.23	139.8															
10-2-19 10:30	7.10	1684	8.43	6.7	9-17-19 3:30	13.44	953	8.32	31.6	9-17-19 3:30	14.72	800	8.23	141.8															
10-2-19 10:45	7.12	1688	8.43	5.3	9-17-19 3:45	13.38	953	8.32	31.1	9-17-19 3:45	14.65	800	8.23	141.5															
10-2-19 11:00	7.10	1686	8.43	7.9	9-17-19 4:00	13.33	953	8.32	30.2	9-17-19 4:00	14.59	800	8.23	142.3															
10-2-19 11:15	7.05	1686	8.43	5.5	9-17-19 4:15	13.23	953	8.32	29.7	9-17-19 4:15	14.50	800	8.23	146.9															
10-2-19 11:30	7.05	1688	8.43	5.9	9-17-19 4:30	13.20	953	8.32	31.4	9-17-19 4:30	14.39	800	8.21	141.5															
10-2-19 11:45	7.03	1690	8.43	5.5	9-17-19 4:45	13.14	953	8.33	30.4	9-17-19 4:45	14.25	799	8.21	141.3															
10-2-19 12:00	7.02	1690	8.43	6.5	9-17-19 5:00	13.09	953	8.33	30.3	9-17-19 5:00	14.12	799	8.19	131.7															
10-2-19 12:15	7.03	1690	8.43	5.1	9-17-19 5:15	13.06	953	8.32	30.8	9-17-19 5:15	14.04	799	8.21	146.9															
10-2-19 12:30	6.99	1689	8.43	6.0	9-17-19 5:30	13.00	953	8.32	29.0	9-17-19 5:30	13.99	799	8.22	144.9															
10-2-19 12:45	6.94	1693	8.43	7.1	9-17-19 5:45	12.97	953	8.32	29.0	9-17-19 5:45	13.94	799	8.22	142.4															
10-2-19 13:00	6.92	1693	8.43	6.0	9-17-19 6:00	12.91	953	8.32	30.6	9-17-19 6:00	13.89	799	8.20	138.5															
10-2-19 13:15	6.91	1695	8.43	5.7	9-17-19 6:15	12.93	953	8.32	29.1	9-17-19 6:15	13.83	799	8.23	141.9															
10-2-19 13:30	6.88	1689	8.43	6.4	9-17-19 6:30	12.85	953	8.32	28.6	9-17-19 6:30	13.77	799	8.22	131.6															
10-2-19 13:45	6.89	1693	8.43	5.9	9-17-19 6:45	12.71	953	8.32	29.1	9-17-19 6:45	13.70	799	8.22	135.5															
10-2-19 14:00	6.86	1691	8.43	6.5	9-17-19 7:00	12.69	953	8.32	27.9	9-17-19 7:00	13.63	799	8.21	137.7															
10-2-19 14:15	6.80	1695	8.43	6.1	9-17-19 7:15	12.64	951	8.32	27.5	9-17-19 7:15	13.57	798	8.21	136.4															
10-2-19 14:30	6.82	1693	8.43	6.3	9-17-19 7:30	12.51	953	8.32	27.0	9-17-19 7:30	13.49	798	8.21	135.6															
10-2-19 14:45	6.78	1698	8.43	5.7	9-17-19 7:45	12.51	953	8.32	30.7	9-17-19 7:45	13.43	798	8.20	145.2															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-2-19 15:00	6.77	1697	8.43	6.7	9-17-19 8:00	12.46	953	8.32	24.7	9-17-19 8:00	13.36	798	8.19	140.1															
10-2-19 15:15	6.81	1699	8.43	6.1	9-17-19 8:15	12.39	953	8.32	25.1	9-17-19 8:15	13.27	798	8.20	140.1															
10-2-19 15:30	6.85	1696	8.43	6.1	9-17-19 8:30	12.40	953	8.32	23.9	9-17-19 8:30	13.24	798	8.20	143.9															
10-2-19 15:45	6.84	1699	8.42	6.3	9-17-19 8:45	12.37	953	8.32	23.2	9-17-19 8:45	13.24	798	8.20	144.0															
10-2-19 16:00	6.88	1702	8.42	6.1	9-17-19 9:00	12.39	953	8.32	22.4	9-17-19 9:00	13.21	797	8.19	147.8															
10-2-19 16:15	6.90	1705	8.42	5.3	9-17-19 9:15	12.28	953	8.32	29.4	9-17-19 9:15	13.18	797	8.19	150.6															
10-2-19 16:30	6.92	1706	8.42	5.8	9-17-19 9:30	12.30	953	8.32	21.9	9-17-19 9:30	13.15	796	8.19	155.0															
10-2-19 16:45	6.93	1706	8.42	5.3	9-17-19 9:45	12.27	953	8.32	20.8	9-17-19 9:45	13.13	794	8.20	160.2															
10-2-19 17:00	7.00	1709	8.42	5.6	9-17-19 10:00	12.16	953	8.31	21.1	9-17-19 10:00	13.09	794	8.19	152.4															
10-2-19 17:15	7.00	1710	8.42	4.5	9-17-19 10:15	12.18	953	8.31	26.1	9-17-19 10:15	13.06	794	8.20	165.8															
10-2-19 17:30	7.11	1710	8.42	5.0	9-17-19 10:30	12.21	953	8.32	27.0	9-17-19 10:30	13.01	795	8.20	153.2															
10-2-19 17:45	7.13	1711	8.41	4.7	9-17-19 10:45	12.19	953	8.32	19.9	9-17-19 10:45	12.98	793	8.20	160.9															
10-2-19 18:00	7.17	1711	8.41	5.0	9-17-19 11:00	12.18	953	8.32	20.8	9-17-19 11:00	12.97	791	8.21	202.4															
10-2-19 18:15	7.22	1713	8.41	4.7	9-17-19 11:15	12.16	953	8.31	22.2	9-17-19 11:15	12.97	784	8.22	229.8															
10-2-19 18:30	7.34	1713	8.41	5.0	9-17-19 11:30	12.13	953	8.31	20.4	9-17-19 11:30	12.95	785	8.22	210.8															
10-2-19 18:45	7.62	1705	8.41	4.5	9-17-19 11:45	12.10	953	8.31	21.6	9-17-19 11:45	12.93	784	8.23	248.3															
10-2-19 19:15	7.74	1710	8.40	5.1	9-17-19 12:00	12.09	953	8.31	21.7	9-17-19 12:00	12.98	781	8.24	273.5															
10-2-19 19:30	7.90	1708	8.40	4.9	9-17-19 12:15	12.04	953	8.31	19.8	9-17-19 12:15	12.98	781	8.25	286.2															
10-2-19 19:45	8.23	1709	8.39	5.5	9-17-19 12:30	11.94	953	8.31	20.0	9-17-19 12:30	12.98	781	8.25	322.9															
10-2-19 20:00	8.34	1706	8.39	4.6	9-17-19 12:45	11.97	954	8.31	19.7	9-17-19 12:45	13.00	782	8.25	318.1															
10-2-19 20:15	8.63	1710	8.39	4.7	9-17-19 13:00	11.95	954	8.31	19.1	9-17-19 13:00	12.97	782	8.25	295.8															
10-2-19 20:30	8.73	1703	8.39	4.2	9-17-19 13:15	11.93	954	8.30	18.9	9-17-19 13:15	13.01	783	8.24	321.2															
10-2-19 20:45	8.77	1702	8.39	4.5	9-17-19 13:30	11.86	954	8.30	18.2	9-17-19 13:30	12.97	784	8.24	305.0															
10-2-19 21:00	8.89	1711	8.39	4.7	9-17-19 13:45	11.86	954	8.30	19.7	9-17-19 13:45	12.90	784	8.24	298.6															
10-2-19 21:15	9.30	1713	8.38	5.8	9-17-19 14:00	11.84	954	8.30	17.9	9-17-19 14:00	12.84	784	8.23	262.2															
10-2-19 21:30	9.37	1705	8.38	4.2	9-17-19 14:15	11.83	954	8.30	20.4	9-17-19 14:15	12.85	785	8.22	278.2															
10-2-19 21:45	9.47	1709	8.38	4.4	9-17-19 14:30	11.77	955	8.30	18.7	9-17-19 14:30	12.83	786	8.22	271.8															
10-2-19 22:00	9.67	1708	8.38	5.1	9-17-19 14:45	11.77	955	8.29	17.7	9-17-19 14:45	12.79	785	8.23	264.0															
10-2-19 22:15	9.58	1703	8.38	4.8	9-17-19 15:00	11.81	955	8.30	20.1	9-17-19 15:00	12.79	786	8.22	269.4															
10-2-19 22:30	9.51	1707	8.39	5.6	9-17-19 15:15	11.79	955	8.30	19.1	9-17-19 15:15	12.75	786	8.22	266.2															
10-2-19 22:45	9.26	1704	8.39	5.0	9-17-19 15:30	11.79	954	8.30	19.6	9-17-19 15:30	12.76	787	8.22	251.2															
10-2-19 23:00	9.48	1709	8.39	4.3	9-17-19 15:45	11.80	955	8.30	18.7	9-17-19 15:45	12.74	787	8.22	263.3															
10-2-19 23:15	9.57	1701	8.38	5.3	9-17-19 16:00	11.77	955	8.30	16.9	9-17-19 16:00	12.76	786	8.23	264.6															
10-2-19 23:30	9.85	1702	8.38	4.5	9-17-19 16:15	11.82	955	8.30	17.2	9-17-19 16:15	12.77	786	8.22	269.3															
10-2-19 23:45	9.92	1702	8.38	5.0	9-17-19 16:30	11.83	955	8.30	16.5	9-17-19 16:30	12.76	786	8.22	275.6															
10-3-19 0:00	9.60	1694	8.38	4.7	9-17-19 16:45	11.84	955	8.30	16.7	9-17-19 16:45	12.77	787	8.23	278.0															
10-3-19 0:15	9.60	1701	8.38	9.9	9-17-19 17:00	11.87	955	8.29	18.6	9-17-19 17:00	12.80	787	8.23	284.6															
10-3-19 0:30	9.33	1704	8.38	4.4	9-17-19 17:15	11.90	955	8.29	18.6	9-17-19 17:15	12.77	787	8.22	252.3															
10-3-19 0:45	9.48	1700	8.38	6.7	9-17-19 17:30	11.90	955	8.30	17.3	9-17-19 17:30	12.80	787	8.23	239.1															
10-3-19 1:00	9.81	1705	8.38	18.9	9-17-19 17:45	11.93	960	8.27	21.7	9-17-19 17:45	12.81	788	8.22	245.4															
10-3-19 1:15	9.53	1701	8.39	7.0	9-17-19 18:00	11.96	964	8.28	18.9	9-17-19 18:00	12.95	789	8.21	206.9															
10-3-19 1:30	9.64	1710	8.39	4.2	9-17-19 18:15	11.97	970	8.29	20.2	9-17-19 18:15	12.97	791	8.22	193.6															
10-3-19 1:45	9.37	1703	8.40	9.7	9-17-19 18:30	11.90	963	8.28	21.6	9-17-19 18:30	13.17	790	8.21	201.7															
10-3-19 2:00	9.17	1708	8.41	5.2	9-17-19 18:45	11.89	963	8.29	22.4	9-17-19 18:45	13.18	791	8.21	196.7															
10-3-19 2:15	9.01	1719	8.41	4.7	9-17-19 19:00	11.95	958	8.30	24.0	9-17-19 19:00	13.27	792	8.20	181.3															
10-3-19 2:30	9.06	1707	8.41	4.5	9-17-19 19:15	11.94	962	8.30	26.0	9-17-19 19:15	13.52	791	8.20	187.9															
10-3-19 2:45	8.88	1709	8.41	5.9	9-17-19 19:30	11.96	959	8.29	24.2	9-17-19 19:30	13.56	791	8.19	182.8															
10-3-19 3:00	8.80	1709	8.41	4.3	9-17-19 19:45	12.02	958	8.29	23.8	9-17-19 19:45	13.55	791	8.19	179.3															
10-3-19 3:15	8.66	1710	8.42	4.5	9-17-19 20:00	12.17	957	8.33	21.5	9-17-19 20:00	13.47	791	8.19	184.1															
10-3-19 3:30	8.54	1711	8.43	4.3	9-17-19 20:15	12.39	956	8.30	26.6	9-17-19 20:15	13.73	791	8.19	157.7															
10-3-19 3:45	8.42	1711	8.42	6.2	9-17-19 20:30	12.56	953	8.32	25.0	9-17-19 20:30	13.67	788	8.18	174.4															
10-3-19 4:00	8.40	1712	8.43	4.0	9-17-19 20:45	12.38	954	8.37	24.1	9-17-19 20:45	14.61	793	8.20	152.5															
10-3-19 4:15	8.37	1711	8.43	4.3	9-17-19 21:00	12.51	953	8.35	25.1	9-17-19 21:00	16.06	795	8.17	173.1															
10-3-19 4:30	8.27	1711	8.43	4.5	9-17-19 21:15	12.58	952	8.35	23.0	9-17-19 21:15	15.70	793	8.16	175.9															
10-3-19 4:45	8.19	1711	8.43	4.5	9-17-19 21:30	12.70	951	8.36	22.4	9-17-19 21:30	14.69	783	8.17	179.9															
10-3-19 5:00	8.13	1712	8.43	5.4	9-17-19 21:45	13.11	949	8.38	23.6	9-17-19 21:45	14.14	788	8.17	181.0															
10-3-19 5:15	8.07	1713	8.43	5.4	9-17-19 22:00	13.08	955	8.27	21.5	9-17-19 22:00	14.27	789	8.18	167.1															
10-3-19 5:30	8.02	1714	8.43	7.2	9-17-19 22:15	13.40	949	8.35	23.7	9-17-19 22:15	14.17	789	8.17	162.4															
10-3-19 5:45	7.94	1714	8.43	4.4	9-17-19 22:30	13.20	948	8.36	22.7	9-17-19 22:30	15.31	798	8.19	176.8															
10-3-19 6:00	7.88	1716	8.43	3.9	9-17-19 22:45	13.43	947	8.35	22.3	9-17-19 22:45	15.86	792	8.16	179.0															
10-3-19 6:15	7.84	1714	8.43	4.7	9-17-19 23:00	13.17	942	8.41	20.3	9-17-19 23:00	15.70	788	8.17	182.9															
10-3-19 6:30	7.81	1714	8.42	4.1	9-17-19 23:15	13.32	944	8.40	20.2	9-17-19 23:15	15.87	786	8.15	174.2															
10-3-19 6:45	7.81	1718	8.44	5.0	9-17-19 23:30	13.48	944	8.38	20.5	9-17-19 23:30	14.01	783	8.17	190.5															
10-3-19 7:00	7.73	1715	8.43	3.9	9-17-19 23:45	13.43	943	8.42	21.3	9-17-19 23:45	14.56	784	8.21	180.5															
10-3-19 7:15	7.66	1715	8.44	4.7	9-18-19 0:00	13.81	955	8.26	22.5	9-18-19 0:00	16.90	798	8.21	155.2															
10-3-19 7:30	7.62	1716	8.44	4.3	9-18-19 0:15	13.17	944	8.43	21.2	9-18-19 0:15	16.54	791	8.18	159.2															
10-3-19 7:45	7.57	1714	8.44	4.1	9-18-19 0:30	13.00	946	8.45	21.6	9-18-19 0:30	16.67	792	8.21	155.4															
10-3-19 8:00	7.53	1718	8.44	15.5	9-18-19 0:45	13.00	941	8.46	21.1	9-18-19 0:45	16.53	792	8.19	170.9															
10-3-19 8:15	7.53	1722	8.44	4.5	9-18-19 1:00	12.82	947	8.39	22.3	9-18-19 1:00	17.01	797	8.22	150.8															
10-3-19 8:30	7.50	1719	8.44	3.9	9-18-19 1:15	12.93	945	8.42	20.2	9-18-19 1:15	17.10	797	8.22	137.9															
10-3-19 8:45	7.46	1719	8.44	9.5	9-18-19 1:30	13.32	958	8.26	17.2	9-18-19 1:30	17.09	797	8.23	146.5															
10-3-19 9:00	7.42	1720	8.44	4.4	9-18-19 1:45	13.21	949	8.36	20.8	9-18-19 1:45	16.88	797	8.23	150.8															
10-3-19 9:15	7.43	1724	8.45	5.0	9-18-19 2:00	13.64	958	8.26	18.0	9-18-19 2:00	16.87	797	8.24	143.6															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-3-19 9:30	7.47	1735	8.45	4.3	9-18-19 2:15	13.41	949	8.34	23.9	9-18-19 2:15	16.66	796	8.25	141.0															
10-3-19 9:45	7.46	1736	8.45	4.1	9-18-19 2:30	13.48	954	8.34	22.2	9-18-19 2:30	15.94	793	8.23	137.5															
10-3-19 10:00	7.51	1740	8.45	3.6	9-18-19 2:45	13.05	950	8.32	19.8	9-18-19 2:45	16.34	796	8.26	137.5															
10-3-19 10:15	7.52	1745	8.46	4.5	9-18-19 3:00	12.70	953	8.30	19.6	9-18-19 3:00	16.15	796	8.26	141.3															
10-3-19 10:30	7.48	1739	8.45	3.6	9-18-19 3:15	12.89	952	8.34	20.4	9-18-19 3:15	15.94	795	8.26	139.4															
10-3-19 10:45	7.46	1741	8.45	4.1	9-18-19 3:30	12.87	952	8.37	21.5	9-18-19 3:30	15.83	795	8.26	135.4															
10-3-19 11:00	7.46	1745	8.46	3.6	9-18-19 3:45	12.78	951	8.37	18.9	9-18-19 3:45	15.66	795	8.26	137.8															
10-3-19 11:15	7.40	1738	8.45	3.8	9-18-19 4:00	12.73	956	8.27	22.2	9-18-19 4:00	15.23	790	8.26	138.5															
10-3-19 11:30	7.35	1741	8.45	3.8	9-18-19 4:15	12.74	955	8.36	22.3	9-18-19 4:15	15.07	794	8.27	134.1															
10-3-19 11:45	7.26	1743	8.46	4.2	9-18-19 4:30	13.16	952	8.32	22.6	9-18-19 4:30	15.09	795	8.29	133.6															
10-3-19 12:00	7.34	1749	8.46	3.7	9-18-19 4:45	12.91	954	8.38	21.2	9-18-19 4:45	14.99	794	8.29	133.9															
10-3-19 12:15	7.28	1741	8.46	4.2	9-18-19 5:00	12.90	957	8.30	20.8	9-18-19 5:00	14.80	794	8.29	127.3															
10-3-19 12:30	7.22	1742	8.46	3.7	9-18-19 5:15	12.67	956	8.29	19.2	9-18-19 5:15	14.71	794	8.30	135.0															
10-3-19 12:45	7.21	1744	8.46	4.8	9-18-19 5:30	12.43	957	8.27	24.4	9-18-19 5:30	14.54	793	8.29	127.5															
10-3-19 13:00	7.19	1746	8.46	3.7	9-18-19 5:45	12.27	958	8.29	28.9	9-18-19 5:45	14.40	793	8.30	127.7															
10-3-19 13:15	7.17	1745	8.46	3.9	9-18-19 6:00	12.18	959	8.29	21.1	9-18-19 6:00	14.31	793	8.30	120.9															
10-3-19 13:30	7.17	1748	8.46	3.7	9-18-19 6:15	12.14	958	8.31	30.3	9-18-19 6:15	14.15	793	8.30	130.0															
10-3-19 13:45	7.14	1747	8.46	5.0	9-18-19 6:30	12.35	958	8.29	21.3	9-18-19 6:30	14.05	793	8.28	130.4															
10-3-19 14:00	7.15	1749	8.46	4.0	9-18-19 6:45	12.42	956	8.30	21.3	9-18-19 6:45	13.99	793	8.29	139.8															
10-3-19 14:15	7.12	1748	8.46	5.4	9-18-19 7:00	12.46	956	8.30	25.1	9-18-19 7:00	13.91	793	8.28	135.2															
10-3-19 14:30	7.09	1748	8.46	3.7	9-18-19 7:15	12.45	957	8.29	24.2	9-18-19 7:15	13.84	793	8.28	146.9															
10-3-19 14:45	7.06	1748	8.46	4.4	9-18-19 7:30	12.45	957	8.29	24.7	9-18-19 7:30	13.74	793	8.28	132.7															
10-3-19 15:00	7.04	1748	8.46	3.9	9-18-19 7:45	12.33	964	8.29	23.0	9-18-19 7:45	13.64	793	8.28	137.3															
10-3-19 15:15	7.01	1750	8.46	4.0	9-18-19 8:00	12.31	960	8.28	29.2	9-18-19 8:00	13.57	793	8.28	144.7															
10-3-19 15:30	6.99	1751	8.46	3.4	9-18-19 8:15	12.28	960	8.28	24.8	9-18-19 8:15	13.47	793	8.28	143.6															
10-3-19 15:45	7.03	1750	8.46	4.1	9-18-19 8:30	12.22	965	8.30	24.1	9-18-19 8:30	13.39	793	8.28	136.4															
10-3-19 16:00	7.06	1755	8.46	3.7	9-18-19 8:45	12.09	961	8.29	21.6	9-18-19 8:45	13.33	793	8.28	146.8															
10-3-19 16:15	7.07	1755	8.46	3.9	9-18-19 9:00	12.08	961	8.29	21.1	9-18-19 9:00	13.27	793	8.28	140.6															
10-3-19 16:30	7.11	1760	8.46	3.5	9-18-19 9:15	12.02	961	8.29	22.0	9-18-19 9:15	13.20	793	8.28	146.7															
10-3-19 16:45	7.19	1760	8.45	7.8	9-18-19 9:30	11.98	961	8.29	20.2	9-18-19 9:30	13.09	793	8.28	145.2															
10-3-19 17:00	7.25	1769	8.45	3.6	9-18-19 9:45	11.95	961	8.29	22.5	9-18-19 9:45	13.03	793	8.28	150.2															
10-3-19 17:15	7.28	1769	8.45	3.9	9-18-19 10:00	11.93	962	8.29	21.0	9-18-19 10:00	12.99	794	8.27	152.8															
10-3-19 17:30	7.30	1767	8.45	3.8	9-18-19 10:15	11.92	963	8.29	21.9	9-18-19 10:15	12.95	794	8.27	158.2															
10-3-19 17:45	7.38	1772	8.45	3.5	9-18-19 10:30	11.99	963	8.29	30.0	9-18-19 10:30	12.92	795	8.27	149.3															
10-3-19 18:00	7.44	1774	8.44	3.5	9-18-19 10:45	12.00	963	8.29	20.9	9-18-19 10:45	12.89	794	8.27	159.2															
10-3-19 18:15	7.47	1774	8.44	3.5	9-18-19 11:00	12.00	963	8.29	20.4	9-18-19 11:00	12.84	795	8.27	165.0															
10-3-19 18:30	7.55	1777	8.44	3.4	9-18-19 11:15	11.94	965	8.29	24.1	9-18-19 11:15	12.78	795	8.27	163.8															
10-3-19 18:45	7.60	1777	8.44	3.9	9-18-19 11:30	11.89	965	8.29	21.3	9-18-19 11:30	12.72	795	8.27	154.3															
10-3-19 19:00	7.65	1775	8.44	3.8	9-18-19 11:45	11.82	966	8.29	19.4	9-18-19 11:45	12.69	795	8.27	169.0															
10-3-19 19:15	7.78	1777	8.44	5.0	9-18-19 12:00	11.82	966	8.29	20.9	9-18-19 12:00	12.64	795	8.26	157.7															
10-3-19 19:30	7.81	1777	8.44	5.3	9-18-19 12:15	11.81	965	8.29	25.6	9-18-19 12:15	12.59	795	8.26	166.9															
10-3-19 19:45	7.90	1778	8.44	4.3	9-18-19 12:30	11.81	965	8.29	41.4	9-18-19 12:30	12.56	796	8.26	178.9															
10-3-19 20:00	7.97	1774	8.43	3.7	9-18-19 12:45	11.80	965	8.29	19.1	9-18-19 12:45	12.54	796	8.26	179.8															
10-3-19 20:30	8.06	1772	8.43	5.6	9-18-19 13:00	11.76	965	8.28	22.9	9-18-19 13:00	12.48	796	8.26	183.7															
10-3-19 20:45	8.18	1777	8.43	3.1	9-18-19 13:15	11.72	965	8.28	23.1	9-18-19 13:15	12.45	796	8.26	177.0															
10-3-19 21:00	8.22	1772	8.43	3.7	9-18-19 13:30	11.72	964	8.28	21.8	9-18-19 13:30	12.41	796	8.26	178.4															
10-3-19 21:15	8.33	1780	8.43	4.3	9-18-19 13:45	11.70	964	8.28	19.1	9-18-19 13:45	12.38	796	8.26	182.5															
10-3-19 21:30	8.40	1775	8.43	3.7	9-18-19 14:00	11.71	963	8.28	18.8	9-18-19 14:00	12.36	797	8.26	179.3															
10-3-19 21:45	8.44	1775	8.43	3.5	9-18-19 14:15	11.67	963	8.28	19.8	9-18-19 14:15	12.33	797	8.26	175.5															
10-3-19 22:00	8.58	1777	8.43	3.6	9-18-19 14:30	11.67	963	8.28	18.9	9-18-19 14:30	12.32	797	8.25	172.6															
10-3-19 22:15	8.55	1773	8.43	3.3	9-18-19 14:45	11.68	963	8.28	18.7	9-18-19 14:45	12.30	797	8.25	183.2															
10-3-19 22:30	8.58	1773	8.43	4.0	9-18-19 15:00	11.66	963	8.28	17.8	9-18-19 15:00	12.28	797	8.25	176.7															
10-3-19 22:45	8.59	1776	8.43	3.4	9-18-19 15:15	11.66	963	8.28	17.3	9-18-19 15:15	12.26	797	8.25	177.4															
10-3-19 23:00	8.76	1778	8.43	4.2	9-18-19 15:30	11.66	963	8.28	16.8	9-18-19 15:30	12.25	798	8.25	176.6															
10-3-19 23:15	8.81	1776	8.43	3.6	9-18-19 15:45	11.65	963	8.28	16.7	9-18-19 15:45	12.24	798	8.25	176.9															
10-3-19 23:30	8.73	1775	8.43	4.3	9-18-19 16:00	11.68	963	8.28	16.7	9-18-19 16:00	12.23	798	8.24	176.9															
10-3-19 23:45	8.81	1775	8.43	3.7	9-18-19 16:15	11.68	962	8.29	16.5	9-18-19 16:15	12.24	798	8.24	177.2															
10-4-19 0:00	8.74	1776	8.43	5.4	9-18-19 16:30	11.70	962	8.29	16.7	9-18-19 16:30	12.25	799	8.24	179.5															
10-4-19 0:15	8.62	1780	8.43	4.4	9-18-19 16:45	11.72	962	8.30	16.5	9-18-19 16:45	12.26	799	8.24	178.9															
10-4-19 0:30	8.57	1778	8.43	5.8	9-18-19 17:00	11.72	962	8.30	18.0	9-18-19 17:00	12.29	799	8.24	181.6															
10-4-19 0:45	8.65	1776	8.43	3.1	9-18-19 17:15	11.74	962	8.30	15.6	9-18-19 17:15	12.33	799	8.24	178.1															
10-4-19 1:00	8.66	1775	8.43	4.9	9-18-19 17:30	11.75	961	8.31	15.8	9-18-19 17:30	12.37	799	8.24	169.8															
10-4-19 1:15	8.72	1780	8.43	4.2	9-18-19 17:45	11.76	961	8.31	15.2	9-18-19 17:45	12.40	800	8.24	171.1															
10-4-19 1:30	8.68	1786	8.43	7.8	9-18-19 18:00	11.82	961	8.31	15.3	9-18-19 18:00	12.50	799	8.25	163.3															
10-4-19 1:45	8.63	1840	8.42	3.2	9-18-19 18:15	11.89	960	8.34	16.6	9-18-19 18:15	12.71	798	8.24	167.6															
10-4-19 2:00	8.64	1781	8.43	3.4	9-18-19 18:30	11.97	960	8.34	18.7	9-18-19 18:30	12.78	799	8.22	162.0															
10-4-19 2:15	8.58	1795	8.43	3.3	9-18-19 18:45	11.99	960	8.35	17.9	9-18-19 18:45	13.09	800	8.21	164.6															
10-4-19 2:30	8.51	1876	8.41	3.4	9-18-19 19:00	12.04	959	8.37	16.3	9-18-19 19:00	13.37	800	8.22	164.4															
10-4-19 2:45	8.56	1814	8.43	3.3	9-18-19 19:15	12.09	959	8.38	15.9	9-18-19 19:15	13.63	801	8.21	173.1															
10-4-19 3:00	8.52	1844	8.43	3.5	9-18-19 19:30	12.11	958	8.39	18.9	9-18-19 19:30	13.75	802	8.20	166.1															
10-4-19 3:15	8.46	1888	8.41	2.9	9-18-19 19:45	12.11	956	8.41	15.5	9-18-19 19:45	13.83	803	8.19	169.8															
10-4-19 3:30	8.51	1822	8.44	3.5	9-18-19 20:00	12.11	954	8.43	17.6	9-18-19 20:00	14.06	802	8.16	164.4															
10-4-19 3:45	8.43	1784	8.44	3.6	9-18-19 20:15	12.20	953	8.44	16.0	9-18-19 20:15	14.15	801	8.18	164.9															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-4-19 4:00	8.53	1855	8.43	4.6	9-18-19 20:30	12.29	950	8.46	16.4	9-18-19 20:30	14.64	805	8.18	160.4															
10-4-19 4:15	8.59	1913	8.42	3.4	9-18-19 20:45	12.27	949	8.46	15.2	9-18-19 20:45	15.72	803	8.19	158.0															
10-4-19 4:30	8.54	1896	8.41	2.8	9-18-19 21:00	12.37	948	8.47	15.8	9-18-19 21:00	16.27	806	8.18	161.9															
10-4-19 4:45	8.32	1796	8.44	3.1	9-18-19 21:15	12.60	948	8.46	15.9	9-18-19 21:15	16.30	803	8.18	157.9															
10-4-19 5:00	8.31	1801	8.44	3.9	9-18-19 21:30	12.72	947	8.46	14.7	9-18-19 21:30	16.40	804	8.14	162.0															
10-4-19 5:15	8.44	1889	8.43	2.8	9-18-19 21:45	12.81	952	8.38	16.6	9-18-19 21:45	16.19	802	8.17	158.0															
10-4-19 5:30	8.42	1876	8.42	3.0	9-18-19 22:00	12.84	953	8.37	17.6	9-18-19 22:00	17.43	807	8.19	147.9															
10-4-19 5:45	8.32	1893	8.43	2.8	9-18-19 22:15	12.96	952	8.38	17.9	9-18-19 22:15	17.44	803	8.19	161.3															
10-4-19 6:00	8.32	1906	8.42	3.2	9-18-19 22:30	13.02	955	8.32	16.6	9-18-19 22:30	16.65	798	8.18	150.7															
10-4-19 6:15	8.35	1945	8.43	3.1	9-18-19 22:45	13.07	955	8.30	16.7	9-18-19 22:45	14.61	790	8.18	153.0															
10-4-19 6:30	8.32	1920	8.43	3.0	9-18-19 23:00	13.11	955	8.29	17.0	9-18-19 23:00	14.83	799	8.18	154.7															
10-4-19 6:45	8.28	1916	8.42	2.7	9-18-19 23:15	13.25	957	8.29	15.6	9-18-19 23:15	17.86	812	8.21	138.4															
10-4-19 7:00	8.24	1909	8.42	2.9	9-18-19 23:30	13.39	957	8.29	16.0	9-18-19 23:30	16.59	802	8.16	147.8															
10-4-19 7:15	8.32	1919	8.42	2.9	9-18-19 23:45	13.50	954	8.33	15.6	9-18-19 23:45	17.22	806	8.18	142.3															
10-4-19 7:30	8.31	1927	8.43	2.5	9-19-19 0:00	13.44	947	8.41	14.2	9-19-19 0:00	15.19	797	8.19	150.3															
10-4-19 7:45	8.29	1930	8.44	3.1	9-19-19 0:15	13.99	959	8.30	15.5	9-19-19 0:15	14.99	795	8.19	146.7															
10-4-19 8:00	8.13	1905	8.44	2.9	9-19-19 0:30	14.25	959	8.29	16.0	9-19-19 0:30	14.31	799	8.20	150.1															
10-4-19 8:15	8.29	1952	8.44	3.2	9-19-19 0:45	14.35	959	8.29	15.1	9-19-19 0:45	17.32	801	8.24	136.3															
10-4-19 8:30	8.39	1955	8.45	2.4	9-19-19 1:00	14.51	957	8.30	14.8	9-19-19 1:00	16.31	804	8.20	147.5															
10-4-19 8:45	7.86	1884	8.44	2.6	9-19-19 1:15	14.45	953	8.32	14.1	9-19-19 1:15	16.11	806	8.19	150.4															
10-4-19 9:00	7.78	1870	8.45	2.6	9-19-19 1:30	13.76	936	8.54	13.0	9-19-19 1:30	16.59	810	8.18	139.1															
10-4-19 9:15	8.07	1917	8.46	2.7	9-19-19 1:45	14.70	957	8.34	15.2	9-19-19 1:45	14.89	797	8.19	145.0															
10-4-19 9:30	7.81	1897	8.46	2.7	9-19-19 2:00	14.67	956	8.35	16.3	9-19-19 2:00	16.02	813	8.23	127.7															
10-4-19 9:45	7.66	1879	8.46	2.6	9-19-19 2:15	14.62	955	8.35	16.8	9-19-19 2:15	15.27	805	8.18	145.8															
10-4-19 10:00	7.56	1873	8.46	2.7	9-19-19 2:30	14.52	957	8.34	15.4	9-19-19 2:30	15.77	807	8.21	128.4															
10-4-19 10:15	7.67	1887	8.46	3.0	9-19-19 2:45	14.45	955	8.34	15.3	9-19-19 2:45	15.77	806	8.20	138.1															
10-4-19 10:30	7.80	1906	8.45	2.7	9-19-19 3:00	14.35	959	8.31	11.7	9-19-19 3:00	15.50	803	8.21	138.7															
10-4-19 10:45	8.01	1943	8.46	2.4	9-19-19 3:15	14.31	957	8.31	12.1	9-19-19 3:15	14.98	802	8.19	141.7															
10-4-19 11:00	8.21	1951	8.46	2.2	9-19-19 3:30	14.20	954	8.32	16.0	9-19-19 3:30	14.98	804	8.21	133.5															
10-4-19 11:15	8.24	1951	8.46	2.3	9-19-19 3:45	14.20	955	8.32	14.2	9-19-19 3:45	15.29	806	8.25	127.1															
10-4-19 11:30	8.20	1937	8.46	2.6	9-19-19 4:00	13.86	948	8.33	13.7	9-19-19 4:00	15.22	806	8.24	128.2															
10-4-19 11:45	8.26	1948	8.46	2.4	9-19-19 4:15	14.03	958	8.33	13.0	9-19-19 4:15	15.07	806	8.25	120.6															
10-4-19 12:00	8.29	1948	8.46	3.2	9-19-19 4:30	13.89	954	8.33	13.8	9-19-19 4:30	14.88	806	8.25	121.0															
10-4-19 12:15	8.27	1945	8.46	2.4	9-19-19 4:45	13.72	949	8.34	12.9	9-19-19 4:45	14.74	806	8.24	119.9															
10-4-19 12:30	8.27	1943	8.46	2.9	9-19-19 5:00	13.69	950	8.35	11.9	9-19-19 5:00	14.64	807	8.19	126.4															
10-4-19 12:45	8.28	1944	8.46	2.5	9-19-19 5:15	13.58	952	8.41	13.4	9-19-19 5:15	14.57	805	8.26	114.2															
10-4-19 13:00	8.26	1944	8.46	2.5	9-19-19 5:30	13.33	942	8.47	13.4	9-19-19 5:30	14.49	805	8.24	117.8															
10-4-19 13:15	8.23	1945	8.45	2.5	9-19-19 5:45	13.25	943	8.44	13.1	9-19-19 5:45	14.31	805	8.25	112.4															
10-4-19 13:30	8.20	1944	8.46	2.6	9-19-19 6:00	13.13	940	8.52	12.7	9-19-19 6:00	14.20	806	8.26	106.8															
10-4-19 13:45	8.18	1944	8.46	2.4	9-19-19 6:15	12.91	944	8.50	14.4	9-19-19 6:15	14.14	806	8.28	104.8															
10-4-19 14:00	8.15	1947	8.46	2.4	9-19-19 6:30	12.86	951	8.39	12.0	9-19-19 6:30	14.08	807	8.28	102.5															
10-4-19 14:15	8.17	1946	8.46	2.3	9-19-19 6:45	12.97	951	8.38	12.6	9-19-19 6:45	14.03	807	8.27	102.9															
10-4-19 14:30	8.16	1944	8.46	2.6	9-19-19 7:00	12.94	952	8.36	11.9	9-19-19 7:00	13.92	807	8.27	96.2															
10-4-19 14:45	8.16	1943	8.46	2.4	9-19-19 7:15	12.96	956	8.32	13.1	9-19-19 7:15	13.92	806	8.28	101.3															
10-4-19 15:00	8.15	1941	8.46	4.2	9-19-19 7:30	12.87	957	8.36	11.4	9-19-19 7:30	13.84	806	8.28	102.2															
10-4-19 15:15	8.13	1938	8.46	2.5	9-19-19 7:45	12.86	957	8.36	11.5	9-19-19 7:45	13.75	806	8.26	101.6															
10-4-19 15:30	8.14	1937	8.46	2.5	9-19-19 8:00	12.81	957	8.35	13.0	9-19-19 8:00	13.60	806	8.27	96.0															
10-4-19 15:45	8.13	1934	8.46	3.2	9-19-19 8:15	12.78	957	8.36	11.6	9-19-19 8:15	13.51	806	8.27	101.1															
10-4-19 16:00	8.13	1937	8.46	2.7	9-19-19 8:30	12.77	957	8.36	11.7	9-19-19 8:30	13.43	806	8.27	93.8															
10-4-19 16:15	8.14	1938	8.46	2.4	9-19-19 8:45	12.73	957	8.36	11.7	9-19-19 8:45	13.35	805	8.25	97.2															
10-4-19 16:30	8.14	1937	8.46	2.7	9-19-19 9:00	12.68	957	8.35	12.0	9-19-19 9:00	13.34	806	8.27	94.5															
10-4-19 16:45	8.12	1939	8.46	2.4	9-19-19 9:15	12.68	958	8.35	11.8	9-19-19 9:15	13.26	806	8.28	93.5															
10-4-19 17:00	8.13	1937	8.46	2.5	9-19-19 9:30	12.65	958	8.35	10.7	9-19-19 9:30	13.18	805	8.25	93.9															
10-4-19 17:15	8.16	1934	8.46	2.5	9-19-19 9:45	12.58	958	8.35	11.3	9-19-19 9:45	13.16	805	8.27	95.8															
10-4-19 17:30	8.19	1930	8.46	2.6	9-19-19 10:00	12.55	958	8.35	11.7	9-19-19 10:00	13.10	805	8.22	109.6															
10-4-19 17:45	8.22	1927	8.46	2.5	9-19-19 10:15	12.52	958	8.35	11.2	9-19-19 10:15	13.04	806	8.23	102.7															
10-4-19 18:00	8.29	1925	8.46	2.5	9-19-19 10:30	12.50	958	8.35	11.3	9-19-19 10:30	12.99	806	8.23	117.1															
10-4-19 18:15	8.37	1926	8.45	3.3	9-19-19 10:45	12.48	958	8.35	11.8	9-19-19 10:45	12.96	806	8.24	109.7															
10-4-19 18:30	8.45	1929	8.46	2.6	9-19-19 11:00	12.46	957	8.35	11.0	9-19-19 11:00	12.92	808	8.21	117.8															
10-4-19 18:45	8.35	1917	8.46	17.5	9-19-19 11:15	12.43	958	8.35	11.0	9-19-19 11:15	12.88	807	8.21	111.1															
10-4-19 19:00	8.32	1919	8.47	2.8	9-19-19 11:30	12.41	957	8.35	11.6	9-19-19 11:30	12.82	806	8.21	106.8															
10-4-19 19:15	8.35	1921	8.47	2.7	9-19-19 11:45	12.38	957	8.35	11.7	9-19-19 11:45	12.75	805	8.23	106.4															
10-4-19 19:30	8.39	1922	8.46	2.9	9-19-19 12:00	12.35	957	8.35	10.7	9-19-19 12:00	12.70	806	8.22	104.9															
10-4-19 19:45	8.43	1923	8.47	3.1	9-19-19 12:15	12.33	957	8.36	10.1	9-19-19 12:15	12.65	805	8.22	105.6															
10-4-19 20:00	8.46	1910	8.47	2.7	9-19-19 12:30	12.30	957	8.35	10.6	9-19-19 12:30	12.61	805	8.22	103.7															
10-4-19 20:15	8.45	1915	8.47	2.5	9-19-19 12:45	12.23	957	8.35	10.0	9-19-19 12:45	12.58	805	8.22	100.9															
10-4-19 20:30	8.44	1910	8.47	4.4	9-19-19 13:00	12.21	957	8.35	9.7	9-19-19 13:00	12.55	805	8.21	100.9															
10-4-19 20:45	8.43	1903	8.47	3.0	9-19-19 13:15	12.20	957	8.36	9.5	9-19-19 13:15	12.52	805	8.21	103.9															
10-4-19 21:00	8.45	1903	8.47	6.3	9-19-19 13:30	12.18	957	8.36	9.2	9-19-19 13:30	12.49	805	8.20	103.6															
10-4-19 21:15	8.46	1904	8.47	3.2	9-19-19 13:45	12.18	957	8.36	11.3	9-19-19 13:45	12.45	805	8.24	100.2															
10-4-19 21:30	8.47	1905	8.47	4.8	9-19-19 14:00	12.18	957	8.36	9.0	9-19-19 14:00	12.44	805	8.20	110.3															
10-4-19 21:45	8.48	1905	8.48	2.8	9-19-19 14:15	12.19	957	8.36	8.9	9-19-19 14:15	12.44	805	8.21	116.2															
10-4-19 22:00	8.48	1899	8.48	2.9	9-19-19 14:30	12.18	955	8.36	8.8	9-19-19 14:30	12.43	806	8.19	104.8															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-4-19 22:15	8.49	1894	8.48	2.8	9-19-19 14:45	12.19	953	8.36	9.1	9-19-19 14:45	12.42	805	8.21	105.0															
10-4-19 22:30	8.51	1890	8.48	3.0	9-19-19 15:00	12.20	954	8.36	8.3	9-19-19 15:00	12.42	805	8.20	102.6															
10-4-19 22:45	8.53	1888	8.48	3.2	9-19-19 15:15	12.22	957	8.36	9.4	9-19-19 15:15	12.42	805	8.20	102.8															
10-4-19 23:00	8.55	1884	8.48	3.2	9-19-19 15:30	12.23	957	8.36	8.3	9-19-19 15:30	12.43	805	8.20	97.8															
10-4-19 23:15	8.56	1889	8.48	2.9	9-19-19 15:45	12.26	957	8.37	9.3	9-19-19 15:45	12.46	805	8.21	105.9															
10-4-19 23:30	8.56	1884	8.48	2.9	9-19-19 16:00	12.28	959	8.35	9.9	9-19-19 16:00	12.47	806	8.23	99.8															
10-4-19 23:45	8.57	1883	8.49	2.9	9-19-19 16:15	12.28	960	8.35	10.4	9-19-19 16:15	12.51	807	8.22	98.8															
10-5-19 0:00	8.58	1883	8.49	3.0	9-19-19 16:30	12.31	960	8.36	13.5	9-19-19 16:30	12.56	807	8.21	96.5															
10-5-19 0:15	8.59	1883	8.49	2.8	9-19-19 16:45	12.35	959	8.35	9.5	9-19-19 16:45	12.68	808	8.21	105.3															
10-5-19 0:30	8.59	1885	8.49	3.5	9-19-19 17:00	12.36	957	8.36	10.5	9-19-19 17:00	12.77	810	8.21	101.5															
10-5-19 0:45	8.59	1881	8.49	2.9	9-19-19 17:15	12.38	957	8.36	9.4	9-19-19 17:15	12.77	808	8.21	103.2															
10-5-19 1:00	8.59	1881	8.49	3.3	9-19-19 17:30	12.34	957	8.36	8.6	9-19-19 17:30	12.84	809	8.20	101.0															
10-5-19 1:15	8.58	1879	8.49	2.8	9-19-19 17:45	12.44	958	8.37	11.6	9-19-19 17:45	13.00	810	8.21	108.3															
10-5-19 1:30	8.59	1879	8.49	3.5	9-19-19 18:00	12.51	959	8.36	11.6	9-19-19 18:00	13.13	812	8.22	104.8															
10-5-19 1:45	8.58	1875	8.49	2.8	9-19-19 18:15	12.56	961	8.37	11.8	9-19-19 18:15	13.37	813	8.22	109.4															
10-5-19 2:00	8.59	1879	8.49	5.1	9-19-19 18:30	12.65	963	8.37	11.7	9-19-19 18:30	13.60	811	8.22	111.8															
10-5-19 2:15	8.59	1882	8.49	3.8	9-19-19 18:45	12.63	963	8.39	11.0	9-19-19 18:45	13.45	811	8.21	113.2															
10-5-19 2:30	8.59	1881	8.49	2.9	9-19-19 19:00	12.59	962	8.42	10.8	9-19-19 19:00	13.56	811	8.21	104.3															
10-5-19 2:45	8.58	1878	8.49	2.9	9-19-19 19:15	12.59	961	8.42	16.8	9-19-19 19:15	13.52	812	8.21	107.1															
10-5-19 3:00	8.57	1878	8.49	2.6	9-19-19 19:30	12.76	960	8.42	11.6	9-19-19 19:30	13.72	813	8.22	104.2															
10-5-19 3:15	8.57	1878	8.49	2.7	9-19-19 19:45	12.81	958	8.44	10.5	9-19-19 19:45	13.71	812	8.22	107.3															
10-5-19 3:30	8.57	1875	8.49	2.8	9-19-19 20:00	12.90	956	8.46	10.9	9-19-19 20:00	14.03	814	8.23	101.3															
10-5-19 3:45	8.57	1873	8.49	2.5	9-19-19 20:15	12.93	957	8.48	10.3	9-19-19 20:15	13.84	815	8.22	108.5															
10-5-19 4:00	8.56	1872	8.49	3.7	9-19-19 20:30	12.99	957	8.50	10.6	9-19-19 20:30	14.13	813	8.24	99.3															
10-5-19 4:15	8.56	1870	8.49	2.8	9-19-19 20:45	12.86	955	8.52	11.1	9-19-19 20:45	14.16	815	8.24	104.5															
10-5-19 4:30	8.56	1869	8.49	2.8	9-19-19 21:00	12.95	954	8.53	10.1	9-19-19 21:00	14.00	814	8.23	98.2															
10-5-19 4:45	8.56	1867	8.49	2.8	9-19-19 21:15	12.99	954	8.52	11.3	9-19-19 21:15	13.91	815	8.22	99.0															
10-5-19 5:00	8.56	1867	8.49	2.7	9-19-19 21:30	13.08	955	8.52	10.2	9-19-19 21:30	14.13	816	8.22	98.5															
10-5-19 5:15	8.56	1867	8.49	2.9	9-19-19 21:45	13.06	954	8.51	11.6	9-19-19 21:45	14.07	816	8.23	99.8															
10-5-19 5:30	8.55	1867	8.49	2.8	9-19-19 22:00	13.09	954	8.51	10.2	9-19-19 22:00	14.11	816	8.23	92.8															
10-5-19 5:45	8.54	1868	8.49	2.7	9-19-19 22:15	13.13	953	8.52	10.0	9-19-19 22:15	14.13	817	8.24	96.2															
10-5-19 6:00	8.54	1867	8.49	2.9	9-19-19 22:30	13.17	952	8.52	10.2	9-19-19 22:30	14.08	818	8.24	94.4															
10-5-19 6:15	8.54	1868	8.49	3.0	9-19-19 22:45	13.15	952	8.52	9.7	9-19-19 22:45	14.02	818	8.23	97.4															
10-5-19 6:30	8.54	1867	8.49	2.9	9-19-19 23:00	13.12	951	8.53	10.0	9-19-19 23:00	13.98	818	8.23	93.5															
10-5-19 6:45	8.53	1864	8.49	3.2	9-19-19 23:15	13.19	951	8.53	11.1	9-19-19 23:15	13.98	819	8.23	96.9															
10-5-19 7:00	8.52	1863	8.49	3.4	9-19-19 23:30	13.25	950	8.54	10.2	9-19-19 23:30	14.01	819	8.23	93.5															
10-5-19 7:15	8.52	1863	8.49	3.0	9-19-19 23:45	13.24	948	8.53	9.5	9-19-19 23:45	14.04	819	8.24	90.4															
10-5-19 7:30	8.52	1860	8.49	2.8	9-20-19 0:00	13.23	951	8.53	9.4	9-20-19 0:00	14.00	820	8.23	92.2															
10-5-19 7:45	8.52	1863	8.49	2.8	9-20-19 0:15	13.23	951	8.53	10.0	9-20-19 0:15	14.00	821	8.24	98.2															
10-5-19 8:00	8.51	1866	8.49	3.3	9-20-19 0:30	13.27	950	8.53	9.4	9-20-19 0:30	13.98	821	8.23	89.1															
10-5-19 8:15	8.48	1868	8.49	3.3	9-20-19 0:45	13.21	950	8.54	9.6	9-20-19 0:45	13.97	821	8.23	99.2															
10-5-19 8:30	8.49	1865	8.49	2.7	9-20-19 1:00	13.23	949	8.54	9.8	9-20-19 1:00	13.94	822	8.23	92.3															
10-5-19 8:45	8.46	1868	8.49	2.9	9-20-19 1:15	13.23	950	8.53	10.5	9-20-19 1:15	13.92	823	8.23	92.6															
10-5-19 9:00	8.46	1866	8.49	3.1	9-20-19 1:30	13.18	949	8.54	10.3	9-20-19 1:30	13.90	822	8.23	87.5															
10-5-19 9:15	8.46	1862	8.49	2.6	9-20-19 1:45	13.13	945	8.54	9.7	9-20-19 1:45	13.87	823	8.23	92.7															
10-5-19 9:30	8.47	1863	8.49	2.6	9-20-19 2:00	13.12	949	8.53	9.5	9-20-19 2:00	13.83	824	8.22	87.9															
10-5-19 9:45	8.45	1864	8.49	2.6	9-20-19 2:15	13.14	947	8.53	9.1	9-20-19 2:15	13.81	824	8.22	91.1															
10-5-19 10:00	8.46	1863	8.49	3.1	9-20-19 2:30	13.16	944	8.53	8.8	9-20-19 2:30	13.77	824	8.22	86.3															
10-5-19 10:15	8.45	1859	8.48	2.8	9-20-19 2:45	13.15	944	8.53	9.3	9-20-19 2:45	13.73	825	8.22	87.1															
10-5-19 10:30	8.45	1860	8.48	2.5	9-20-19 3:00	13.12	942	8.53	9.6	9-20-19 3:00	13.70	826	8.22	86.4															
10-5-19 10:45	8.42	1860	8.48	2.6	9-20-19 3:15	13.11	948	8.52	9.6	9-20-19 3:15	13.69	828	8.22	90.4															
10-5-19 11:00	8.40	1861	8.48	3.1	9-20-19 3:30	13.08	949	8.52	10.5	9-20-19 3:30	13.64	827	8.22	87.5															
10-5-19 11:15	8.39	1857	8.48	3.6	9-20-19 3:45	13.07	947	8.52	11.9	9-20-19 3:45	13.61	829	8.21	92.4															
10-5-19 11:30	8.40	1854	8.48	2.9	9-20-19 4:00	13.04	946	8.52	9.6	9-20-19 4:00	13.56	830	8.21	83.5															
10-5-19 11:45	8.37	1856	8.48	2.9	9-20-19 4:15	13.02	948	8.52	10.1	9-20-19 4:15	13.54	830	8.22	86.1															
10-5-19 12:00	8.36	1854	8.48	2.6	9-20-19 4:30	13.02	948	8.52	10.0	9-20-19 4:30	13.54	830	8.21	85.1															
10-5-19 12:15	8.34	1854	8.48	2.5	9-20-19 4:45	13.01	948	8.51	9.3	9-20-19 4:45	13.52	831	8.21	88.8															
10-5-19 12:30	8.33	1853	8.48	2.8	9-20-19 5:00	13.00	948	8.51	10.5	9-20-19 5:00	13.51	832	8.20	89.9															
10-5-19 12:45	8.33	1854	8.48	3.5	9-20-19 5:15	13.00	950	8.51	10.5	9-20-19 5:15	13.48	831	8.21	84.2															
10-5-19 13:00	8.33	1852	8.48	3.0	9-20-19 5:30	13.01	948	8.49	9.8	9-20-19 5:30	13.44	830	8.21	81.5															
10-5-19 13:15	8.29	1857	8.48	2.5	9-20-19 5:45	13.00	947	8.50	9.5	9-20-19 5:45	13.42	830	8.21	83.3															
10-5-19 13:30	8.28	1855	8.48	2.5	9-20-19 6:00	12.99	948	8.49	10.5	9-20-19 6:00	13.39	830	8.21	83.9															
10-5-19 13:45	8.26	1854	8.48	2.6	9-20-19 6:15	12.95	948	8.50	10.7	9-20-19 6:15	13.36	830	8.22	81.8															
10-5-19 14:00	8.21	1855	8.48	2.9	9-20-19 6:30	12.93	947	8.49	10.5	9-20-19 6:30	13.35	831	8.21	78.8															
10-5-19 14:15	8.16	1854	8.48	3.2	9-20-19 6:45	12.92	947	8.49	10.9	9-20-19 6:45	13.36	832	8.21	83.5															
10-5-19 14:30	8.15	1851	8.48	2.7	9-20-19 7:00	12.89	946	8.49	10.7	9-20-19 7:00	13.34	832	8.21	78.3															
10-5-19 14:45	8.14	1849	8.48	2.6	9-20-19 7:15	12.88	947	8.48	11.7	9-20-19 7:15	13.31	833	8.21	85.6															
10-5-19 15:00	8.13	1851	8.48	2.7	9-20-19 7:30	12.88	947	8.48	10.7	9-20-19 7:30	13.29	834	8.20	86.2															
10-5-19 15:15	8.16	1852	8.48	2.6	9-20-19 7:45	12.87	947	8.47	11.3	9-20-19 7:45	13.27	834	8.20	86.0															
10-5-19 15:30	8.12	1848	8.48	2.6	9-20-19 8:00	12.87	947	8.47	10.7	9-20-19 8:00	13.25	834	8.20	82.1															
10-5-19 15:45	8.11	1848	8.48	2.6	9-20-19 8:15	12.86	948	8.47	10.5	9-20-19 8:15	13.24	835	8.20	83.0															
10-5-19 16:00	8.13	1846	8.48	5.2	9-20-19 8:30	12.88	948	8.47	11.3	9-20-19 8:30	13.21	836	8.20	88.8															
10-5-19 16:15	8.16	1848	8.48	2.7	9-20-19 8:45	12.86	948	8.46	11.0	9-20-19 8:45	13.22	837	8.19	85.9															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-5-19 16:30	8.12	1847	8.48	2.7
10-5-19 16:45	8.16	1846	8.49	2.8
10-5-19 17:00	8.20	1843	8.49	2.9
10-5-19 17:15	8.21	1844	8.49	2.9
10-5-19 17:30	8.25	1843	8.49	2.6
10-5-19 17:45	8.31	1844	8.49	3.5
10-5-19 18:00	8.34	1841	8.49	2.9
10-5-19 18:15	8.33	1842	8.50	3.0
10-5-19 18:30	8.30	1839	8.49	2.8
10-5-19 18:45	8.32	1838	8.50	3.2
10-5-19 19:00	8.35	1832	8.50	3.1
10-5-19 19:15	8.38	1840	8.50	3.2
10-5-19 19:30	8.44	1838	8.50	2.9
10-5-19 19:45	8.46	1835	8.50	4.4
10-5-19 20:00	8.48	1835	8.50	3.7
10-5-19 20:15	8.51	1834	8.50	2.9
10-5-19 20:30	8.55	1834	8.50	3.0
10-5-19 20:45	8.60	1836	8.51	3.1
10-5-19 21:00	8.60	1835	8.51	5.7
10-5-19 21:15	8.59	1835	8.51	3.1
10-5-19 21:30	8.62	1835	8.51	2.9
10-5-19 21:45	8.62	1833	8.51	3.0
10-5-19 22:00	8.61	1832	8.51	3.0
10-5-19 22:15	8.62	1830	8.51	3.0
10-5-19 22:30	8.62	1825	8.51	3.5
10-5-19 22:45	8.63	1827	8.52	2.9
10-5-19 23:00	8.63	1829	8.52	3.1
10-5-19 23:15	8.64	1831	8.52	3.1
10-5-19 23:30	8.63	1829	8.52	3.1
10-5-19 23:45	8.64	1831	8.52	3.3
10-6-19 0:00	8.65	1831	8.52	3.6
10-6-19 0:15	8.64	1829	8.52	3.7
10-6-19 0:30	8.64	1829	8.52	4.1
10-6-19 0:45	8.60	1831	8.52	2.9
10-6-19 1:00	8.61	1828	8.52	3.0
10-6-19 1:15	8.62	1827	8.52	3.1
10-6-19 1:30	8.61	1827	8.53	2.8
10-6-19 1:45	8.61	1831	8.52	3.0
10-6-19 2:00	8.56	1831	8.53	3.2
10-6-19 2:15	8.56	1831	8.53	3.0
10-6-19 2:30	8.56	1830	8.53	3.1
10-6-19 2:45	8.52	1829	8.53	3.0
10-6-19 3:00	8.54	1830	8.53	3.4
10-6-19 3:15	8.53	1829	8.53	3.2
10-6-19 3:30	8.52	1828	8.53	2.9
10-6-19 3:45	8.49	1829	8.53	3.0
10-6-19 4:00	8.47	1829	8.53	3.2
10-6-19 4:15	8.43	1830	8.53	3.3
10-6-19 4:30	8.41	1829	8.53	3.5
10-6-19 4:45	8.39	1830	8.53	3.3
10-6-19 5:00	8.36	1830	8.53	2.9
10-6-19 5:15	8.34	1831	8.53	2.8
10-6-19 5:30	8.35	1830	8.53	2.9
10-6-19 5:45	8.32	1829	8.53	2.9
10-6-19 6:00	8.26	1831	8.53	3.0
10-6-19 6:15	8.28	1831	8.53	2.9
10-6-19 6:30	8.26	1828	8.53	2.9
10-6-19 6:45	8.21	1828	8.53	3.0
10-6-19 7:00	8.20	1828	8.53	2.6
10-6-19 7:15	8.16	1829	8.53	2.9
10-6-19 7:30	8.16	1829	8.53	2.6
10-6-19 7:45	8.15	1829	8.53	3.1
10-6-19 8:00	8.11	1828	8.53	2.7
10-6-19 8:15	8.09	1827	8.53	3.0
10-6-19 8:30	8.07	1827	8.53	2.5
10-6-19 8:45	8.03	1827	8.53	2.6
10-6-19 9:00	8.02	1827	8.53	2.5
10-6-19 9:15	8.01	1827	8.53	2.8
10-6-19 9:30	7.99	1825	8.53	2.8
10-6-19 9:45	7.98	1824	8.53	2.9
10-6-19 10:00	7.96	1821	8.53	2.6
10-6-19 10:15	7.92	1820	8.53	3.1
10-6-19 10:30	7.90	1815	8.53	2.8

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-20-19 9:00	12.88	948	8.47	9.8
9-20-19 9:15	12.85	948	8.46	10.3
9-20-19 9:30	12.83	948	8.46	10.7
9-20-19 9:45	12.84	949	8.46	10.9
9-20-19 10:00	12.83	949	8.45	11.7
9-20-19 10:15	12.82	949	8.46	10.2
9-20-19 10:30	12.82	949	8.46	9.7
9-20-19 10:45	12.80	949	8.45	9.9
9-20-19 11:00	12.79	949	8.45	9.5
9-20-19 11:15	12.77	949	8.45	12.0
9-20-19 11:30	12.77	949	8.45	11.3
9-20-19 11:45	12.77	949	8.45	9.9
9-20-19 12:00	12.77	950	8.45	10.3
9-20-19 12:15	12.76	950	8.45	10.1
9-20-19 12:30	12.73	950	8.44	12.6
9-20-19 12:45	12.68	950	8.45	10.0
9-20-19 13:00	12.69	950	8.44	9.8
9-20-19 13:15	12.68	950	8.45	10.1
9-20-19 13:30	12.66	950	8.44	10.5
9-20-19 13:45	12.65	950	8.44	9.9
9-20-19 14:00	12.66	951	8.43	10.2
9-20-19 14:15	12.65	952	8.43	9.5
9-20-19 14:30	12.62	953	8.43	11.8
9-20-19 14:45	12.61	953	8.42	10.3
9-20-19 15:00	12.61	953	8.42	9.2
9-20-19 15:15	12.60	954	8.42	10.4
9-20-19 15:30	12.60	955	8.42	10.9
9-20-19 15:45	12.61	956	8.42	11.7
9-20-19 16:00	12.62	956	8.43	10.7
9-20-19 16:15	12.65	956	8.43	10.3
9-20-19 16:30	12.69	955	8.44	10.9
9-20-19 16:45	12.69	955	8.45	11.2
9-20-19 17:00	12.69	952	8.46	14.8
9-20-19 17:15	12.73	955	8.47	15.3
9-20-19 17:30	12.75	955	8.47	11.1
9-20-19 17:45	12.78	955	8.47	11.7
9-20-19 18:00	12.84	955	8.46	11.5
9-20-19 18:15	12.82	954	8.49	13.2
9-20-19 18:30	12.84	954	8.50	11.3
9-20-19 18:45	12.87	953	8.50	12.0
9-20-19 19:00	12.95	953	8.50	12.7
9-20-19 19:15	12.99	953	8.50	12.8
9-20-19 19:30	13.05	953	8.49	12.3
9-20-19 19:45	13.09	951	8.51	12.2
9-20-19 20:00	13.19	950	8.52	12.6
9-20-19 20:15	13.15	948	8.52	11.4
9-20-19 20:30	13.41	954	8.45	10.8
9-20-19 20:45	13.28	947	8.49	11.0
9-20-19 21:00	13.11	947	8.54	11.4
9-20-19 21:15	13.10	944	8.59	16.3
9-20-19 21:30	13.22	943	8.55	15.3
9-20-19 21:45	13.23	948	8.52	13.8
9-20-19 22:00	13.26	942	8.58	15.4
9-20-19 22:15	13.53	951	8.49	11.6
9-20-19 22:30	13.59	944	8.48	12.8
9-20-19 22:45	13.61	944	8.48	11.1
9-20-19 23:00	13.70	943	8.48	11.4
9-20-19 23:15	13.72	940	8.48	10.7
9-20-19 23:30	13.70	951	8.48	12.6
9-20-19 23:45	13.68	950	8.48	13.1
9-21-19 0:00	13.64	950	8.48	12.6
9-21-19 0:15	13.59	960	8.48	11.4
9-21-19 0:30	13.49	950	8.49	10.2
9-21-19 0:45	13.44	948	8.49	11.6
9-21-19 1:00	13.42	947	8.50	9.7
9-21-19 1:15	13.39	943	8.52	12.9
9-21-19 1:30	13.39	942	8.53	13.7
9-21-19 1:45	13.47	943	8.52	14.4
9-21-19 2:00	13.47	944	8.51	11.9
9-21-19 2:15	13.43	944	8.51	12.3
9-21-19 2:30	13.43	943	8.51	11.7
9-21-19 2:45	13.94	950	8.44	11.3
9-21-19 3:00	14.29	950	8.41	19.0

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
9-20-19 9:00	13.22	838	8.19	79.4
9-20-19 9:15	13.20	837	8.19	80.6
9-20-19 9:30	13.19	837	8.19	74.9
9-20-19 9:45	13.18	838	8.19	78.2
9-20-19 10:00	13.15	838	8.19	74.4
9-20-19 10:15	13.16	837	8.18	77.0
9-20-19 10:30	13.14	837	8.20	74.1
9-20-19 10:45	13.13	837	8.19	78.4
9-20-19 11:00	13.10	837	8.19	75.1
9-20-19 11:15	13.10	838	8.19	78.6
9-20-19 11:30	13.09	838	8.18	71.2
9-20-19 11:45	13.02	838	8.19	74.5
9-20-19 12:00	13.02	838	8.18	73.0
9-20-19 12:15	13.01	841	8.18	82.5
9-20-19 12:30	13.00	841	8.18	72.0
9-20-19 12:45	12.97	841	8.18	78.8
9-20-19 13:00	12.98	842	8.17	79.8
9-20-19 13:15	12.92	842	8.17	77.8
9-20-19 13:30	12.91	842	8.17	77.0
9-20-19 13:45	12.86	843	8.17	79.7
9-20-19 14:00	12.86	844	8.16	77.5
9-20-19 14:15	12.88	848	8.14	79.4
9-20-19 14:30	12.87	848	8.14	79.9
9-20-19 14:45	12.84	848	8.14	78.1
9-20-19 15:00	12.83	848	8.15	74.0
9-20-19 15:15	12.81	848	8.15	79.6
9-20-19 15:30	12.81	849	8.15	72.0
9-20-19 15:45	12.83	849	8.14	75.5
9-20-19 16:00	12.85	850	8.14	73.7
9-20-19 16:15	12.89	849	8.14	81.0
9-20-19 16:30	12.96	848	8.14	73.7
9-20-19 16:45	12.99	848	8.15	73.7
9-20-19 17:00	13.14	849	8.15	76.1
9-20-19 17:15	13.20	849	8.16	74.9
9-20-19 17:30	13.32	850	8.15	73.9
9-20-19 17:45	13.38	850	8.15	74.5
9-20-19 18:00	13.58	851	8.14	71.8
9-20-19 18:15	13.60	849	8.14	73.4
9-20-19 18:30	13.54	856	8.12	75.1
9-20-19 18:45	13.91	854	8.12	71.3
9-20-19 19:00	14.17	852	8.13	68.2
9-20-19 19:15	14.21	855	8.13	68.5
9-20-19 19:30	14.38	856	8.14	66.2
9-20-19 19:45	14.81	852	8.12	68.8
9-20-19 20:00	14.70	850	8.11	67.3
9-20-19 20:15	15.22	855	8.14	67.1
9-20-19 20:30	15.37	853	8.14	65.5
9-20-19 20:45	15.54	855	8.15	66.0
9-20-19 21:00	15.51	854	8.15	65.5
9-20-19 21:15	15.58	855	8.16	66.7
9-20-19 21:30	15.63	854	8.16	63.4
9-20-19 21:45	15.62	855	8.17	63.9
9-20-19 22:00	15.63	853	8.15	62.7
9-20-19 22:15	15.52	850	8.16	63.6
9-20-19 22:30	15.77	855	8.16	57.5
9-20-19 22:45	15.58	854	8.16	62.8
9-20-19 23:00	15.81	855	8.17	65.5
9-20-19 23:15	15.68	853	8.16	62.1
9-20-19 23:30	15.64	854	8.17	63.8
9-20-19 23:45	15.56	854	8.17	63.5
9-21-19 0:00	15.47	855	8.17	63.7
9-21-19 0:15	15.27	854	8.18	60.7
9-21-19 0:30	15.14	854	8.19	62.2
9-21-19 0:45	15.14	854	8.21	70.8
9-21-19 1:00	15.10	854	8.20	73.7
9-21-19 1:15	14.93	854	8.20	65.8
9-21-19 1:30	14.86	854	8.20	63.5
9-21-19 1:45	14.76	854	8.21	68.2
9-21-19 2:00	14.61	853	8.20	61.1
9-21-19 2:15	14.53	853	8.20	64.4
9-21-19 2:30	14.18	851	8.18	58.6
9-21-19 2:45	14.33	853	8.22	58.7
9-21-19 3:00	14.33	853	8.22	55.4

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-6-19 10:45	7.91	1820	8.53	2.9	9-21-19 3:15	14.45	947	8.39	28.0	9-21-19 3:15	14.29	853	8.22	60.7															
10-6-19 11:00	7.88	1819	8.53	2.8	9-21-19 3:30	14.41	947	8.39	28.8	9-21-19 3:30	14.20	853	8.22	57.0															
10-6-19 11:15	7.86	1821	8.53	2.9	9-21-19 3:45	14.39	947	8.39	29.3	9-21-19 3:45	14.15	853	8.21	60.4															
10-6-19 11:30	7.86	1820	8.53	2.7	9-21-19 4:00	14.29	947	8.38	28.8	9-21-19 4:00	13.93	853	8.16	60.5															
10-6-19 11:45	7.83	1817	8.53	3.0	9-21-19 4:15	14.26	947	8.40	23.7	9-21-19 4:15	13.94	854	8.18	59.5															
10-6-19 12:00	7.82	1816	8.53	3.7	9-21-19 4:30	14.21	949	8.41	22.2	9-21-19 4:30	13.92	853	8.19	59.3															
10-6-19 12:15	7.79	1814	8.53	3.0	9-21-19 4:45	14.19	949	8.41	22.1	9-21-19 4:45	13.89	854	8.20	59.8															
10-6-19 12:30	7.79	1815	8.53	3.1	9-21-19 5:00	14.17	949	8.39	19.9	9-21-19 5:00	13.88	853	8.20	55.6															
10-6-19 12:45	7.78	1815	8.53	3.1	9-21-19 5:15	14.09	949	8.39	18.8	9-21-19 5:15	13.88	853	8.20	59.7															
10-6-19 13:00	7.76	1813	8.53	3.0	9-21-19 5:30	13.72	947	8.45	9.1	9-21-19 5:30	13.86	853	8.19	55.3															
10-6-19 13:15	7.75	1812	8.53	3.4	9-21-19 5:45	13.65	948	8.45	9.4	9-21-19 5:45	13.77	853	8.19	63.0															
10-6-19 13:30	7.73	1809	8.53	3.1	9-21-19 6:00	13.60	945	8.46	15.4	9-21-19 6:00	13.75	853	8.19	58.4															
10-6-19 13:45	7.74	1809	8.52	3.5	9-21-19 6:15	13.62	947	8.46	10.2	9-21-19 6:15	13.72	853	8.20	59.9															
10-6-19 14:00	7.72	1806	8.52	3.0	9-21-19 6:30	13.52	944	8.45	10.9	9-21-19 6:30	13.70	853	8.19	56.7															
10-6-19 14:15	7.70	1809	8.52	3.6	9-21-19 6:45	13.49	946	8.46	10.6	9-21-19 6:45	13.67	854	8.20	59.5															
10-6-19 14:30	7.69	1810	8.53	3.4	9-21-19 7:00	13.44	944	8.45	13.5	9-21-19 7:00	13.65	854	8.20	53.5															
10-6-19 14:45	7.66	1811	8.53	3.4	9-21-19 7:15	13.40	944	8.44	13.5	9-21-19 7:15	13.62	854	8.19	61.2															
10-6-19 15:00	7.66	1811	8.53	3.1	9-21-19 7:30	13.37	941	8.44	15.4	9-21-19 7:30	13.61	855	8.18	55.5															
10-6-19 15:15	7.65	1811	8.53	3.9	9-21-19 7:45	13.37	940	8.44	12.3	9-21-19 7:45	13.58	854	8.18	54.7															
10-6-19 15:30	7.63	1811	8.53	3.3	9-21-19 8:00	13.38	943	8.44	14.0	9-21-19 8:00	13.56	854	8.18	53.8															
10-6-19 15:45	7.62	1811	8.53	3.1	9-21-19 8:15	13.35	943	8.44	11.7	9-21-19 8:15	13.52	854	8.18	60.5															
10-6-19 16:00	7.62	1810	8.53	3.2	9-21-19 8:30	13.32	942	8.43	11.4	9-21-19 8:30	13.49	855	8.18	50.9															
10-6-19 16:15	7.62	1808	8.52	3.3	9-21-19 8:45	13.33	942	8.43	11.7	9-21-19 8:45	13.47	856	8.17	55.1															
10-6-19 16:30	7.62	1809	8.52	3.3	9-21-19 9:00	13.31	943	8.43	11.5	9-21-19 9:00	13.43	856	8.17	53.0															
10-6-19 16:45	7.61	1805	8.52	4.0	9-21-19 9:15	13.29	943	8.43	12.4	9-21-19 9:15	13.40	857	8.16	58.1															
10-6-19 17:00	7.62	1804	8.52	3.3	9-21-19 9:30	13.30	943	8.43	11.7	9-21-19 9:30	13.35	857	8.15	52.5															
10-6-19 17:15	7.61	1807	8.52	3.9	9-21-19 9:45	13.32	944	8.43	12.1	9-21-19 9:45	13.31	858	8.13	58.9															
10-6-19 17:30	7.60	1808	8.53	3.2	9-21-19 10:00	13.33	944	8.43	12.0	9-21-19 10:00	13.30	861	8.10	56.8															
10-6-19 17:45	7.59	1809	8.53	3.7	9-21-19 10:15	13.34	945	8.43	10.7	9-21-19 10:15	13.27	862	8.10	57.8															
10-6-19 18:00	7.59	1808	8.53	3.1	9-21-19 10:30	13.30	944	8.43	11.4	9-21-19 10:30	13.26	863	8.08	56.0															
10-6-19 18:15	7.58	1808	8.53	3.6	9-21-19 10:45	13.27	944	8.43	10.3	9-21-19 10:45	13.24	863	8.08	56.7															
10-6-19 18:30	7.57	1808	8.53	3.0	9-21-19 11:00	13.29	944	8.42	10.4	9-21-19 11:00	13.20	864	8.07	58.7															
10-6-19 18:45	7.58	1809	8.53	3.4	9-21-19 11:15	13.28	945	8.42	14.3	9-21-19 11:15	13.17	865	8.04	71.1															
10-6-19 19:00	7.59	1807	8.53	2.8	9-21-19 11:30	13.26	945	8.42	13.1	9-21-19 11:30	13.16	867	8.02	55.4															
10-6-19 19:15	7.59	1808	8.53	3.3	9-21-19 11:45	13.27	945	8.42	12.3	9-21-19 11:45	13.15	867	8.02	61.7															
10-6-19 19:45	7.62	1808	8.53	3.1	9-21-19 12:00	13.23	945	8.42	14.9	9-21-19 12:00	13.13	868	8.02	54.6															
10-6-19 20:00	7.64	1808	8.53	3.1	9-21-19 12:15	13.25	945	8.42	10.7	9-21-19 12:15	13.12	867	8.02	56.1															
10-6-19 20:15	7.66	1802	8.53	3.2	9-21-19 12:30	13.24	945	8.41	13.6	9-21-19 12:30	13.08	868	8.01	57.0															
10-6-19 20:30	7.69	1800	8.54	3.5	9-21-19 12:45	13.23	945	8.41	11.8	9-21-19 12:45	13.10	869	8.01	58.9															
10-6-19 20:45	7.74	1799	8.54	3.6	9-21-19 13:00	13.21	945	8.41	11.5	9-21-19 13:00	13.08	868	8.01	59.2															
10-6-19 21:00	7.75	1801	8.54	3.6	9-21-19 13:15	13.21	945	8.41	12.3	9-21-19 13:15	13.07	869	8.00	58.6															
10-6-19 21:15	7.75	1801	8.54	3.1	9-21-19 13:30	13.20	945	8.41	12.6	9-21-19 13:30	13.04	869	8.01	56.1															
10-6-19 21:30	7.77	1803	8.54	3.5	9-21-19 13:45	13.18	946	8.41	9.7	9-21-19 13:45	13.03	869	8.01	58.1															
10-6-19 21:45	7.77	1803	8.54	2.8	9-21-19 14:00	13.19	946	8.41	11.1	9-21-19 14:00	13.02	869	8.01	57.8															
10-6-19 22:00	7.77	1800	8.54	3.5	9-21-19 14:15	13.19	946	8.41	9.2	9-21-19 14:15	13.01	869	8.00	58.2															
10-6-19 22:15	7.80	1800	8.55	3.5	9-21-19 14:30	13.17	946	8.41	9.5	9-21-19 14:30	12.99	870	8.00	54.8															
10-6-19 22:30	7.84	1802	8.55	4.0	9-21-19 14:45	13.18	946	8.40	10.1	9-21-19 14:45	12.99	870	8.00	56.2															
10-6-19 22:45	7.88	1802	8.55	3.0	9-21-19 15:00	13.19	947	8.40	10.9	9-21-19 15:00	13.01	870	7.99	55.1															
10-6-19 23:00	7.90	1801	8.54	3.5	9-21-19 15:15	13.18	946	8.39	12.4	9-21-19 15:15	13.04	871	7.99	58.1															
10-6-19 23:15	7.91	1802	8.55	3.0	9-21-19 15:30	13.21	947	8.39	17.4	9-21-19 15:30	13.09	871	7.98	56.0															
10-6-19 23:30	7.88	1799	8.55	3.3	9-21-19 15:45	13.25	947	8.37	16.7	9-21-19 15:45	13.10	871	7.99	55.1															
10-6-19 23:45	7.88	1796	8.55	3.1	9-21-19 16:00	13.23	948	8.34	18.4	9-21-19 16:00	13.11	871	7.99	58.0															
10-7-19 0:00	7.89	1797	8.55	3.4	9-21-19 16:15	13.22	948	8.28	20.9	9-21-19 16:15	13.15	872	7.98	63.2															
10-7-19 0:15	7.89	1799	8.56	3.3	9-21-19 16:30	13.17	951	8.25	29.0	9-21-19 16:30	13.23	872	7.97	59.4															
10-7-19 0:30	7.87	1799	8.56	3.5	9-21-19 16:45	13.29	950	8.27	23.6	9-21-19 16:45	13.49	876	7.94	61.5															
10-7-19 0:45	7.87	1798	8.56	3.0	9-21-19 17:00	13.31	950	8.30	20.9	9-21-19 17:00	13.49	876	7.96	68.7															
10-7-19 1:00	7.85	1797	8.56	3.4	9-21-19 17:15	13.26	950	8.30	20.5	9-21-19 17:15	13.49	877	7.94	73.2															
10-7-19 1:15	7.85	1793	8.56	3.2	9-21-19 17:30	13.18	952	8.28	23.5	9-21-19 17:30	13.48	878	7.93	65.3															
10-7-19 1:30	7.85	1792	8.56	3.3	9-21-19 17:45	13.21	952	8.28	24.2	9-21-19 17:45	13.49	878	7.93	74.6															
10-7-19 1:45	7.85	1790	8.56	3.4	9-21-19 18:00	13.22	952	8.28	23.5	9-21-19 18:00	13.54	877	7.95	85.2															
10-7-19 2:00	7.84	1788	8.56	3.5	9-21-19 18:15	13.28	952	8.29	21.8	9-21-19 18:15	13.66	878	7.95	92.3															
10-7-19 2:15	7.84	1790	8.56	3.4	9-21-19 18:30	13.27	952	8.29	25.3	9-21-19 18:30	13.65	878	7.96	116.5															
10-7-19 2:30	7.85	1794	8.56	3.3	9-21-19 18:45	13.31	952	8.31	24.3	9-21-19 18:45	13.61	878	7.96	76.9															
10-7-19 2:45	7.79	1787	8.56	3.2	9-21-19 19:00	13.33	952	8.32	23.7	9-21-19 19:00	13.60	878	7.96	71.6															
10-7-19 3:00	7.79	1788	8.56	4.2	9-21-19 19:15	13.33	952	8.32	22.3	9-21-19 19:15	13.64	878	7.98	92.7															
10-7-19 3:15	7.80	1790	8.56	3.0	9-21-19 19:30	13.38	951	8.32	25.8	9-21-19 19:30	13.67	879	7.98	90.8															
10-7-19 3:30	7.81	1788	8.56	3.4	9-21-19 19:45	13.45	951	8.33	23.2	9-21-19 19:45	13.68	879	7.98	78.8															
10-7-19 3:45	7.78	1788	8.56	3.0	9-21-19 20:00	13.56	951	8.33	21.2	9-21-19 20:00	13.73	879	7.98	70.3															
10-7-19 4:00	7.76	1787	8.56	3.8	9-21-19 20:15	13.53	951	8.33	21.9	9-21-19 20:15	13.89	879	7.99	84.2															
10-7-19 4:15	7.75	1785	8.56	3.7	9-21-19 20:30	13.51	951	8.33	18.8	9-21-19 20:30	13.97	879	8.00	84.1															
10-7-19 4:30	7.75	1784	8.56	3.4	9-21-19 20:45	13.51	951	8.34	20.9	9-21-19 20:45	13.94	879	8.01	82.6															
10-7-19 4:45	7.73	1783	8.56	3.5	9-21-19 21:00	13.53	951	8.34	18.8	9-21-19 21:00	13.95	879	8.00	78.5															
10-7-19 5:00	7.71	1784	8.56	3.8	9-21-19 21:15	13.58	951	8.35	18.7	9-21-19 21:15	13.94	879	8.01	79.0															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-7-19 5:15	7.69	1782	8.56	3.5	9-21-19 21:30	13.67	951	8.35	20.4	9-21-19 21:30	13.98	879	8.00	72.7															
10-7-19 5:30	7.69	1784	8.56	3.8	9-21-19 21:45	13.71	951	8.35	19.0	9-21-19 21:45	13.98	879	8.00	73.9															
10-7-19 5:45	7.69	1784	8.56	3.4	9-21-19 22:00	13.73	951	8.35	23.1	9-21-19 22:00	14.03	879	8.00	72.8															
10-7-19 6:00	7.68	1785	8.56	3.2	9-21-19 22:15	13.72	951	8.35	19.5	9-21-19 22:15	14.07	879	8.01	71.6															
10-7-19 6:15	7.68	1784	8.56	3.6	9-21-19 22:30	13.72	951	8.36	18.1	9-21-19 22:30	14.04	880	8.02	74.1															
10-7-19 6:30	7.66	1785	8.55	3.4	9-21-19 22:45	13.71	951	8.36	21.3	9-21-19 22:45	13.99	880	8.01	76.6															
10-7-19 6:45	7.65	1785	8.56	3.3	9-21-19 23:00	13.70	951	8.36	17.4	9-21-19 23:00	13.97	881	8.00	69.2															
10-7-19 7:00	7.58	1786	8.56	3.3	9-21-19 23:15	13.67	951	8.35	23.7	9-21-19 23:15	13.96	881	8.00	75.4															
10-7-19 7:15	7.63	1785	8.56	3.2	9-21-19 23:30	13.68	951	8.35	23.5	9-21-19 23:30	13.98	881	8.01	70.5															
10-7-19 7:30	7.66	1787	8.55	3.6	9-21-19 23:45	13.69	951	8.35	19.7	9-21-19 23:45	14.00	881	8.02	78.0															
10-7-19 7:45	7.66	1786	8.55	3.2	9-22-19 0:00	13.70	951	8.36	21.9	9-22-19 0:00	14.01	881	8.02	67.5															
10-7-19 8:00	7.66	1787	8.55	3.6	9-22-19 0:15	13.73	951	8.36	19.1	9-22-19 0:15	14.02	881	8.03	69.5															
10-7-19 8:15	7.64	1786	8.55	3.1	9-22-19 0:30	13.72	951	8.36	18.9	9-22-19 0:30	14.02	881	8.03	79.5															
10-7-19 8:30	7.61	1785	8.55	3.5	9-22-19 0:45	13.70	951	8.36	23.8	9-22-19 0:45	14.00	881	8.03	72.5															
10-7-19 8:45	7.61	1785	8.55	3.2	9-22-19 1:00	13.69	951	8.36	17.6	9-22-19 1:00	13.97	881	8.03	77.4															
10-7-19 9:00	7.60	1785	8.55	3.9	9-22-19 1:15	13.71	951	8.37	22.1	9-22-19 1:15	13.98	881	8.04	73.5															
10-7-19 9:15	7.58	1783	8.55	3.3	9-22-19 1:30	13.72	951	8.37	18.9	9-22-19 1:30	13.95	881	8.03	78.9															
10-7-19 9:30	7.58	1783	8.55	3.3	9-22-19 1:45	13.72	951	8.37	17.1	9-22-19 1:45	13.94	881	8.04	73.8															
10-7-19 9:45	7.54	1776	8.56	3.8	9-22-19 2:00	13.71	951	8.37	18.1	9-22-19 2:00	13.92	881	8.04	77.4															
10-7-19 10:00	7.52	1775	8.55	3.5	9-22-19 2:15	13.70	951	8.37	17.5	9-22-19 2:15	13.92	881	8.04	78.7															
10-7-19 10:15	7.52	1775	8.56	3.3	9-22-19 2:30	13.70	951	8.37	17.6	9-22-19 2:30	13.87	881	8.05	77.8															
10-7-19 10:30	7.52	1777	8.55	3.6	9-22-19 2:45	13.69	951	8.37	18.1	9-22-19 2:45	13.85	881	8.06	78.2															
10-7-19 10:45	7.48	1776	8.55	3.4	9-22-19 3:00	13.65	951	8.37	15.8	9-22-19 3:00	13.86	882	8.05	77.9															
10-7-19 11:00	7.48	1777	8.55	4.3	9-22-19 3:15	13.65	951	8.37	17.9	9-22-19 3:15	13.84	882	8.05	74.7															
10-7-19 11:15	7.49	1777	8.55	3.3	9-22-19 3:30	13.66	951	8.36	18.4	9-22-19 3:30	13.84	882	8.05	77.3															
10-7-19 11:30	7.48	1780	8.55	3.4	9-22-19 3:45	13.69	952	8.36	24.6	9-22-19 3:45	13.83	882	8.05	74.7															
10-7-19 11:45	7.49	1782	8.55	3.3	9-22-19 4:00	13.68	952	8.36	20.0	9-22-19 4:00	13.83	882	8.05	69.3															
10-7-19 12:00	7.51	1784	8.55	3.5	9-22-19 4:15	13.67	952	8.36	17.4	9-22-19 4:15	13.84	882	8.04	77.8															
10-7-19 12:15	7.49	1774	8.55	3.0	9-22-19 4:30	13.67	952	8.36	18.5	9-22-19 4:30	13.81	882	8.05	73.9															
10-7-19 12:30	7.44	1775	8.56	5.3	9-22-19 4:45	13.64	952	8.36	16.0	9-22-19 4:45	13.79	882	8.05	76.5															
10-7-19 12:45	7.33	1775	8.56	13.0	9-22-19 5:00	13.63	952	8.36	16.4	9-22-19 5:00	13.78	882	8.04	76.3															
10-7-19 13:00	7.33	1771	8.56	9.4	9-22-19 5:15	13.62	952	8.36	16.9	9-22-19 5:15	13.76	882	8.05	74.9															
10-7-19 13:15	7.30	1770	8.56	10.5	9-22-19 5:30	13.61	952	8.35	18.2	9-22-19 5:30	13.74	882	8.04	74.3															
10-7-19 13:30	7.26	1769	8.56	9.4	9-22-19 5:45	13.61	952	8.36	24.5	9-22-19 5:45	13.73	882	8.06	74.6															
10-7-19 13:45	7.24	1770	8.56	10.2	9-22-19 6:00	13.53	952	8.36	24.1	9-22-19 6:00	13.71	882	8.05	72.2															
10-7-19 14:00	7.22	1770	8.56	8.6	9-22-19 6:15	13.50	952	8.36	16.4	9-22-19 6:15	13.71	882	8.05	73.1															
10-7-19 14:15	7.17	1765	8.56	8.2	9-22-19 6:30	13.54	952	8.36	15.9	9-22-19 6:30	13.70	882	8.05	73.4															
10-7-19 14:30	7.15	1765	8.56	7.9	9-22-19 6:45	13.54	952	8.34	15.7	9-22-19 6:45	13.68	882	8.05	70.3															
10-7-19 14:45	7.11	1765	8.56	8.8	9-22-19 7:00	13.51	952	8.36	16.3	9-22-19 7:00	13.67	882	8.05	65.4															
10-7-19 15:00	7.09	1764	8.56	7.5	9-22-19 7:15	13.50	952	8.36	19.5	9-22-19 7:15	13.66	882	8.05	70.7															
10-7-19 15:15	7.08	1764	8.56	8.0	9-22-19 7:30	13.51	952	8.36	18.2	9-22-19 7:30	13.67	882	8.05	63.8															
10-7-19 15:30	7.06	1765	8.56	7.4	9-22-19 7:45	13.51	952	8.36	17.4	9-22-19 7:45	13.66	882	8.05	68.0															
10-7-19 15:45	7.07	1764	8.56	7.1	9-22-19 8:00	13.49	952	8.36	20.4	9-22-19 8:00	13.64	882	8.05	64.4															
10-7-19 16:00	7.01	1764	8.56	8.4	9-22-19 8:15	13.48	952	8.36	16.1	9-22-19 8:15	13.62	882	8.06	70.5															
10-7-19 16:15	7.00	1762	8.56	8.2	9-22-19 8:30	13.47	952	8.35	14.6	9-22-19 8:30	13.61	882	8.05	67.2															
10-7-19 16:30	6.98	1763	8.56	7.7	9-22-19 8:45	13.46	952	8.35	17.0	9-22-19 8:45	13.58	882	8.06	67.8															
10-7-19 16:45	6.97	1761	8.56	7.1	9-22-19 9:00	13.44	953	8.34	15.9	9-22-19 9:00	13.55	882	8.05	69.2															
10-7-19 17:00	6.93	1759	8.56	7.0	9-22-19 9:15	13.45	952	8.35	17.0	9-22-19 9:15	13.51	882	8.05	67.3															
10-7-19 17:15	6.95	1760	8.56	6.8	9-22-19 9:30	13.44	952	8.35	19.5	9-22-19 9:30	13.49	882	8.06	69.6															
10-7-19 17:30	6.90	1760	8.56	7.0	9-22-19 9:45	13.41	952	8.35	17.0	9-22-19 9:45	13.49	882	8.06	72.0															
10-7-19 17:45	6.88	1757	8.57	7.9	9-22-19 10:00	13.41	952	8.35	19.6	9-22-19 10:00	13.44	882	8.06	64.9															
10-7-19 18:00	6.84	1759	8.57	6.8	9-22-19 10:15	13.41	952	8.35	14.9	9-22-19 10:15	13.42	882	8.07	69.7															
10-7-19 18:15	6.86	1759	8.57	7.5	9-22-19 10:30	13.42	952	8.35	15.4	9-22-19 10:30	13.39	882	8.06	67.2															
10-7-19 18:30	6.86	1759	8.57	7.3	9-22-19 10:45	13.40	949	8.34	15.4	9-22-19 10:45	13.38	882	8.07	69.5															
10-7-19 18:45	6.85	1759	8.57	6.9	9-22-19 11:00	13.35	952	8.35	16.3	9-22-19 11:00	13.35	883	8.07	66.6															
10-7-19 19:00	6.84	1758	8.57	7.1	9-22-19 11:15	13.36	952	8.34	18.7	9-22-19 11:15	13.35	883	8.06	70.7															
10-7-19 19:15	6.82	1755	8.57	6.6	9-22-19 11:30	13.34	953	8.34	15.9	9-22-19 11:30	13.32	883	8.08	68.2															
10-7-19 19:30	6.82	1755	8.57	7.3	9-22-19 11:45	13.35	953	8.34	15.2	9-22-19 11:45	13.28	883	8.06	68.2															
10-7-19 19:45	6.78	1753	8.57	6.4	9-22-19 12:00	13.33	953	8.34	16.5	9-22-19 12:00	13.26	883	8.07	73.6															
10-7-19 20:00	6.79	1753	8.57	7.1	9-22-19 12:15	13.29	953	8.34	13.9	9-22-19 12:15	13.22	882	8.07	77.6															
10-7-19 20:15	6.82	1753	8.58	6.1	9-22-19 12:30	13.29	953	8.34	14.4	9-22-19 12:30	13.17	883	8.07	76.5															
10-7-19 20:30	6.80	1752	8.58	6.8	9-22-19 12:45	13.26	953	8.34	14.7	9-22-19 12:45	13.15	882	8.08	73.4															
10-7-19 20:45	6.79	1751	8.58	7.0	9-22-19 13:00	13.28	856	8.34	13.8	9-22-19 13:00	13.11	883	8.08	69.3															
10-7-19 21:00	6.81	1753	8.58	6.9	9-22-19 13:15	13.24	949	8.33	19.4	9-22-19 13:15	13.10	883	8.08	73.1															
10-7-19 21:15	6.83	1753	8.58	6.3	9-22-19 13:30	13.23	948	8.33	13.9	9-22-19 13:30	13.09	883	8.08	66.8															
10-7-19 21:30	6.79	1751	8.58	6.7	9-22-19 13:45	13.22	949	8.33	13.7	9-22-19 13:45	13.07	883	8.08	73.7															
10-7-19 21:45	6.79	1750	8.58	5.9	9-22-19 14:00	13.23	949	8.33	13.6	9-22-19 14:00	13.04	883	8.08	72.6															
10-7-19 22:00	6.78	1749	8.58	6.1	9-22-19 14:15	13.21	954	8.33	14.9	9-22-19 14:15	13.07	884	8.08	75.3															
10-7-19 22:15	6.77	1748	8.58	6.3	9-22-19 14:30	13.21	954	8.33	14.4	9-22-19 14:30	13.06	884	8.08	75.2															
10-7-19 22:30	6.75	1752	8.59	6.7	9-22-19 14:45	13.21	954	8.33	18.7	9-22-19 14:45	13.04	884	8.09	74.5															
10-7-19 22:45	6.74	1752	8.59	6.5	9-22-19 15:00	13.20	954	8.33	13.7	9-22-19 15:00	13.05	884	8.08	78.4															
10-7-19 23:00	6.71	1752	8.59	6.4	9-22-19 15:15	13.18	954	8.32	14.7	9-22-19 15:15	13.05	884	8.09	73.4															
10-7-19 23:15	6.71	1748	8.59	6.1	9-22-19 15:30	13.18	955	8.32	13.4	9-22-19 15:30	13.06	884	8.09	72.5															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-7-19 23:30	6.70	1750	8.59	6.1	9-22-19 15:45	13.16	955	8.30	14.9	9-22-19 15:45	13.07	884	8.09	77.7															
10-7-19 23:45	6.69	1750	8.59	6.3	9-22-19 16:00	13.17	955	8.31	14.3	9-22-19 16:00	13.10	884	8.08	73.8															
10-8-19 0:00	6.67	1751	8.59	6.7	9-22-19 16:15	13.14	954	8.30	18.0	9-22-19 16:15	13.13	884	8.09	73.9															
10-8-19 0:15	6.65	1750	8.60	6.6	9-22-19 16:30	13.14	955	8.29	20.3	9-22-19 16:30	13.21	885	8.09	73.4															
10-8-19 0:30	6.63	1750	8.60	6.0	9-22-19 16:45	13.13	955	8.29	17.5	9-22-19 16:45	13.22	885	8.10	81.3															
10-8-19 0:45	6.60	1749	8.60	5.6	9-22-19 17:00	13.14	954	8.29	17.3	9-22-19 17:00	13.23	884	8.09	77.4															
10-8-19 1:00	6.60	1750	8.60	6.0	9-22-19 17:15	13.15	955	8.29	17.7	9-22-19 17:15	13.26	885	8.09	78.8															
10-8-19 1:15	6.60	1748	8.60	6.0	9-22-19 17:30	13.15	955	8.29	25.5	9-22-19 17:30	13.31	885	8.10	80.2															
10-8-19 1:30	6.52	1748	8.60	5.8	9-22-19 17:45	13.19	955	8.30	18.5	9-22-19 17:45	13.37	886	8.10	80.0															
10-8-19 1:45	6.48	1750	8.60	6.5	9-22-19 18:00	13.21	955	8.30	18.0	9-22-19 18:00	13.44	886	8.10	79.2															
10-8-19 2:00	6.42	1750	8.60	5.9	9-22-19 18:15	13.22	955	8.31	17.6	9-22-19 18:15	13.56	886	8.11	79.3															
10-8-19 2:15	6.37	1750	8.60	5.5	9-22-19 18:30	13.30	955	8.32	16.5	9-22-19 18:30	13.72	886	8.11	75.4															
10-8-19 2:30	6.40	1750	8.60	6.2	9-22-19 18:45	13.35	955	8.32	16.7	9-22-19 18:45	13.80	886	8.11	80.8															
10-8-19 2:45	6.40	1748	8.60	5.6	9-22-19 19:00	13.33	954	8.33	15.6	9-22-19 19:00	13.90	887	8.12	81.7															
10-8-19 3:00	6.34	1746	8.60	6.1	9-22-19 19:15	13.30	955	8.34	15.5	9-22-19 19:15	13.75	887	8.12	74.8															
10-8-19 3:15	6.35	1747	8.60	5.9	9-22-19 19:30	13.27	954	8.36	18.3	9-22-19 19:30	13.75	887	8.11	71.3															
10-8-19 3:30	6.25	1749	8.60	5.5	9-22-19 19:45	13.25	954	8.37	17.2	9-22-19 19:45	13.73	887	8.12	75.2															
10-8-19 3:45	6.27	1748	8.60	5.5	9-22-19 20:00	13.26	954	8.38	15.3	9-22-19 20:00	13.76	887	8.12	74.8															
10-8-19 4:00	6.26	1748	8.60	5.9	9-22-19 20:15	13.30	953	8.39	15.1	9-22-19 20:15	13.76	886	8.12	80.1															
10-8-19 4:15	6.25	1748	8.60	5.7	9-22-19 20:30	13.34	953	8.40	14.5	9-22-19 20:30	13.80	887	8.12	74.4															
10-8-19 4:30	6.18	1749	8.60	5.5	9-22-19 20:45	13.34	953	8.40	15.5	9-22-19 20:45	13.78	887	8.12	74.9															
10-8-19 4:45	6.13	1749	8.60	5.8	9-22-19 21:00	13.34	953	8.40	15.4	9-22-19 21:00	13.77	887	8.12	71.8															
10-8-19 5:00	6.04	1750	8.61	5.8	9-22-19 21:15	13.31	953	8.39	14.8	9-22-19 21:15	13.77	887	8.13	80.2															
10-8-19 5:15	5.98	1749	8.60	5.9	9-22-19 21:30	13.31	953	8.39	15.5	9-22-19 21:30	13.77	887	8.13	74.1															
10-8-19 5:30	5.97	1750	8.60	5.6	9-22-19 21:45	13.33	954	8.39	15.8	9-22-19 21:45	13.78	887	8.12	75.1															
10-8-19 5:45	6.04	1748	8.60	5.4	9-22-19 22:00	13.38	954	8.39	14.1	9-22-19 22:00	13.79	887	8.13	70.6															
10-8-19 6:00	6.01	1749	8.60	5.4	9-22-19 22:15	13.42	953	8.39	15.4	9-22-19 22:15	13.81	887	8.13	78.3															
10-8-19 6:15	5.96	1749	8.60	4.8	9-22-19 22:30	13.42	953	8.40	19.4	9-22-19 22:30	13.80	887	8.13	79.9															
10-8-19 6:30	5.99	1748	8.60	6.0	9-22-19 22:45	13.42	953	8.40	14.2	9-22-19 22:45	13.78	887	8.13	74.4															
10-8-19 6:45	5.95	1747	8.60	5.1	9-22-19 23:00	13.41	953	8.40	13.5	9-22-19 23:00	13.77	888	8.13	68.0															
10-8-19 7:00	5.90	1748	8.60	5.4	9-22-19 23:15	13.40	953	8.40	15.9	9-22-19 23:15	13.76	887	8.14	78.4															
10-8-19 7:15	5.84	1748	8.60	6.1	9-22-19 23:30	13.42	953	8.40	14.6	9-22-19 23:30	13.77	888	8.13	72.2															
10-8-19 7:30	5.80	1748	8.60	5.3	9-22-19 23:45	13.52	953	8.40	13.3	9-22-19 23:45	13.84	888	8.14	76.1															
10-8-19 7:45	5.81	1747	8.60	5.0	9-23-19 0:00	13.58	953	8.40	15.6	9-23-19 0:00	13.91	888	8.13	70.4															
10-8-19 8:00	5.77	1748	8.60	5.1	9-23-19 0:15	13.60	953	8.40	14.0	9-23-19 0:15	13.94	888	8.13	76.1															
10-8-19 8:15	5.73	1749	8.60	5.4	9-23-19 0:30	13.58	952	8.41	14.5	9-23-19 0:30	13.92	888	8.13	72.2															
10-8-19 8:30	5.63	1748	8.60	5.3	9-23-19 0:45	13.47	953	8.41	17.3	9-23-19 0:45	13.86	888	8.14	76.7															
10-8-19 8:45	5.64	1749	8.60	5.0	9-23-19 1:00	13.46	953	8.41	13.5	9-23-19 1:00	13.81	889	8.14	82.0															
10-8-19 9:00	5.63	1749	8.60	5.4	9-23-19 1:15	13.45	953	8.41	15.4	9-23-19 1:15	13.81	889	8.15	79.2															
10-8-19 9:15	5.58	1747	8.60	4.8	9-23-19 1:30	13.42	953	8.41	17.9	9-23-19 1:30	13.79	890	8.15	80.9															
10-8-19 9:30	5.54	1749	8.60	5.3	9-23-19 1:45	13.41	953	8.42	15.5	9-23-19 1:45	13.77	890	8.15	89.3															
10-8-19 9:45	5.49	1749	8.60	5.2	9-23-19 2:00	13.36	953	8.42	16.3	9-23-19 2:00	13.72	890	8.14	89.8															
10-8-19 10:00	5.46	1749	8.60	5.4	9-23-19 2:15	13.31	953	8.42	13.4	9-23-19 2:15	13.68	891	8.15	96.4															
10-8-19 10:15	5.45	1749	8.60	4.8	9-23-19 2:30	13.27	953	8.42	13.2	9-23-19 2:30	13.65	891	8.14	93.8															
10-8-19 10:30	5.42	1750	8.60	5.0	9-23-19 2:45	13.26	953	8.42	12.4	9-23-19 2:45	13.59	890	8.15	85.7															
10-8-19 10:45	5.42	1749	8.60	5.0	9-23-19 3:00	13.24	953	8.42	13.3	9-23-19 3:00	13.55	889	8.14	78.6															
10-8-19 11:00	5.33	1746	8.60	5.2	9-23-19 3:15	13.22	953	8.42	15.0	9-23-19 3:15	13.52	889	8.15	81.3															
10-8-19 11:15	5.29	1748	8.60	5.0	9-23-19 3:30	13.21	953	8.42	14.2	9-23-19 3:30	13.50	890	8.15	81.2															
10-8-19 11:30	5.20	1752	8.60	5.0	9-23-19 3:45	13.20	953	8.42	13.8	9-23-19 3:45	13.50	890	8.15	89.4															
10-8-19 11:45	5.20	1751	8.60	5.2	9-23-19 4:00	13.20	953	8.42	14.4	9-23-19 4:00	13.48	890	8.14	78.3															
10-8-19 12:00	5.19	1752	8.60	5.0	9-23-19 4:15	13.14	953	8.42	13.1	9-23-19 4:15	13.45	892	8.13	97.6															
10-8-19 12:15	5.20	1750	8.60	5.1	9-23-19 4:30	13.12	953	8.42	13.8	9-23-19 4:30	13.41	893	8.13	98.3															
10-8-19 12:30	5.18	1750	8.60	5.1	9-23-19 4:45	13.11	953	8.42	12.5	9-23-19 4:45	13.38	893	8.13	102.0															
10-8-19 12:45	5.16	1750	8.60	4.7	9-23-19 5:00	13.10	953	8.42	13.0	9-23-19 5:00	13.36	893	8.13	106.5															
10-8-19 13:00	5.12	1752	8.60	5.1	9-23-19 5:15	13.07	953	8.42	15.1	9-23-19 5:15	13.31	893	8.13	111.0															
10-8-19 13:15	5.08	1750	8.60	4.8	9-23-19 5:30	13.03	953	8.42	12.1	9-23-19 5:30	13.22	893	8.15	105.5															
10-8-19 13:30	4.98	1751	8.61	5.1	9-23-19 5:45	12.99	952	8.42	17.5	9-23-19 5:45	13.19	893	8.15	108.7															
10-8-19 13:45	4.93	1752	8.61	4.9	9-23-19 6:00	12.98	953	8.42	15.2	9-23-19 6:00	13.18	893	8.14	104.9															
10-8-19 14:00	4.92	1752	8.61	5.0	9-23-19 6:15	12.99	953	8.42	11.9	9-23-19 6:15	13.12	894	8.14	108.2															
10-8-19 14:15	4.90	1753	8.60	4.8	9-23-19 6:30	12.97	953	8.41	11.5	9-23-19 6:30	13.08	894	8.15	102.0															
10-8-19 14:30	4.88	1752	8.60	5.1	9-23-19 6:45	12.96	953	8.42	12.9	9-23-19 6:45	13.04	894	8.15	108.9															
10-8-19 14:45	4.87	1752	8.60	4.3	9-23-19 7:00	12.92	953	8.42	12.3	9-23-19 7:00	13.04	894	8.14	104.9															
10-8-19 15:00	4.83	1753	8.60	4.8	9-23-19 7:15	12.91	953	8.41	13.4	9-23-19 7:15	13.02	896	8.13	117.8															
10-8-19 15:15	4.84	1752	8.60	4.5	9-23-19 7:30	12.87	953	8.41	11.8	9-23-19 7:30	13.00	897	8.13	124.5															
10-8-19 15:30	4.82	1752	8.60	4.9	9-23-19 7:45	12.84	953	8.41	15.6	9-23-19 7:45	12.98	897	8.13	128.6															
10-8-19 15:45	4.75	1752	8.60	5.4	9-23-19 8:00	12.81	953	8.41	12.3	9-23-19 8:00	12.92	898	8.13	122.7															
10-8-19 16:00	4.78	1752	8.60	4.8	9-23-19 8:15	12.81	953	8.41	11.6	9-23-19 8:15	12.92	899	8.12	139.5															
10-8-19 16:15	4.77	1750	8.60	4.8	9-23-19 8:30	12.77	953	8.41	11.1	9-23-19 8:30	12.89	899	8.13	133.5															
10-8-19 16:30	4.77	1751	8.61	4.8	9-23-19 8:45	12.77	953	8.41	11.4	9-23-19 8:45	12.86	899	8.12	139.8															
10-8-19 16:45	4.74	1752	8.61	5.0	9-23-19 9:00	12.74	953	8.41	11.4	9-23-19 9:00	12.79	899	8.12	131.5															
10-8-19 17:00	4.73	1750	8.61	5.1	9-23-19 9:15	12.69	953	8.40	11.8	9-23-19 9:15	12.74	900	8.12	137.3															
10-8-19 17:15	4.70	1751	8.61	4.8	9-23-19 9:30	12.65	953	8.40	11.2	9-23-19 9:30	12.71	900	8.13	131.5															
10-8-19 17:30	4.70	1752	8.61	5.0	9-23-19 9:45	12.65	953	8.40	11.2	9-23-19 9:45	12.63	899	8.13	137.9															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-8-19 17:45	4.74	1751	8.61	4.3	9-23-19 10:00	12.63	953	8.40	11.5	9-23-19 10:00	12.61	899	8.13	137.1															
10-8-19 18:00	4.77	1751	8.61	5.1	9-23-19 10:15	12.62	953	8.40	10.2	9-23-19 10:15	12.59	898	8.14	128.7															
10-8-19 18:15	4.78	1750	8.61	4.6	9-23-19 10:30	12.58	953	8.40	10.7	9-23-19 10:30	12.59	899	8.13	133.5															
10-8-19 18:30	4.84	1750	8.61	5.6	9-23-19 10:45	12.56	953	8.40	10.9	9-23-19 10:45	12.52	898	8.14	131.3															
10-8-19 18:45	4.80	1750	8.61	4.8	9-23-19 11:00	12.55	953	8.40	10.1	9-23-19 11:00	12.49	899	8.13	127.6															
10-8-19 19:00	4.87	1749	8.61	5.8	9-23-19 11:15	12.56	953	8.40	13.6	9-23-19 11:15	12.44	900	8.13	136.0															
10-8-19 19:15	4.95	1750	8.61	5.4	9-23-19 11:30	12.52	953	8.39	15.6	9-23-19 11:30	12.45	900	8.13	134.3															
10-8-19 19:30	5.06	1749	8.61	5.4	9-23-19 11:45	12.47	953	8.40	16.7	9-23-19 11:45	12.40	900	8.13	138.8															
10-8-19 19:45	5.14	1749	8.61	5.0	9-23-19 12:00	12.43	953	8.40	16.7	9-23-19 12:00	12.40	901	8.13	129.0															
10-8-19 20:00	5.14	1748	8.61	5.2	9-23-19 12:15	12.42	953	8.40	10.0	9-23-19 12:15	12.38	901	8.13	139.6															
10-8-19 20:15	5.16	1747	8.61	4.6	9-23-19 12:30	12.39	953	8.40	9.5	9-23-19 12:30	12.35	901	8.13	141.6															
10-8-19 20:30	5.19	1746	8.61	4.8	9-23-19 12:45	12.34	953	8.40	11.8	9-23-19 12:45	12.29	901	8.13	147.7															
10-8-19 20:45	5.16	1749	8.61	5.3	9-23-19 13:00	12.31	953	8.39	10.0	9-23-19 13:00	12.27	901	8.13	137.2															
10-8-19 21:00	5.16	1747	8.61	5.2	9-23-19 13:15	12.32	954	8.39	24.8	9-23-19 13:15	12.19	902	8.13	144.1															
10-8-19 21:15	5.18	1748	8.61	5.0	9-23-19 13:30	12.32	954	8.38	15.2	9-23-19 13:30	12.12	901	8.13	134.0															
10-8-19 21:30	5.20	1748	8.61	5.1	9-23-19 13:45	12.25	954	8.37	15.5	9-23-19 13:45	12.10	902	8.13	150.6															
10-8-19 21:45	5.28	1746	8.61	4.8	9-23-19 14:00	12.17	954	8.37	17.0	9-23-19 14:00	12.08	902	8.13	134.6															
10-8-19 22:00	5.34	1745	8.61	5.0	9-23-19 14:15	12.10	954	8.37	11.7	9-23-19 14:15	12.02	902	8.13	154.7															
10-8-19 22:15	5.32	1743	8.61	4.3	9-23-19 14:30	12.09	954	8.37	11.3	9-23-19 14:30	11.98	903	8.13	141.3															
10-8-19 22:30	5.27	1747	8.61	5.2	9-23-19 14:45	12.07	954	8.37	10.5	9-23-19 14:45	12.00	904	8.13	154.2															
10-8-19 22:45	5.25	1747	8.62	4.8	9-23-19 15:00	12.05	954	8.37	10.7	9-23-19 15:00	11.98	905	8.13	149.8															
10-8-19 23:00	5.19	1747	8.62	5.4	9-23-19 15:15	12.01	954	8.37	13.8	9-23-19 15:15	11.97	904	8.13	153.5															
10-8-19 23:15	5.25	1747	8.62	5.1	9-23-19 15:30	12.03	954	8.37	11.1	9-23-19 15:30	11.97	904	8.13	147.8															
10-8-19 23:30	5.26	1748	8.62	5.6	9-23-19 15:45	12.05	954	8.37	10.8	9-23-19 15:45	11.99	905	8.12	149.1															
10-8-19 23:45	5.27	1746	8.62	4.5	9-23-19 16:00	12.05	954	8.38	11.1	9-23-19 16:00	11.97	905	8.12	138.1															
10-9-19 0:00	5.22	1747	8.62	4.9	9-23-19 16:15	12.05	953	8.39	10.7	9-23-19 16:15	12.03	905	8.12	151.6															
10-9-19 0:15	5.23	1747	8.62	4.6	9-23-19 16:30	12.04	954	8.39	11.1	9-23-19 16:30	12.12	905	8.12	143.9															
10-9-19 0:30	5.24	1748	8.62	4.7	9-23-19 16:45	12.08	953	8.40	9.5	9-23-19 16:45	12.24	905	8.12	150.2															
10-9-19 0:45	5.26	1747	8.62	4.8	9-23-19 17:00	12.05	953	8.41	9.9	9-23-19 17:00	12.30	905	8.12	135.8															
10-9-19 1:00	5.23	1747	8.62	4.6	9-23-19 17:15	11.99	953	8.41	12.8	9-23-19 17:15	12.36	905	8.13	150.2															
10-9-19 1:15	5.18	1747	8.62	4.6	9-23-19 17:30	12.00	953	8.41	10.9	9-23-19 17:30	12.39	905	8.12	146.3															
10-9-19 1:30	5.11	1748	8.62	5.0	9-23-19 17:45	11.93	953	8.43	10.6	9-23-19 17:45	12.36	905	8.13	146.5															
10-9-19 1:45	5.12	1748	8.62	4.6	9-23-19 18:00	11.89	952	8.44	13.1	9-23-19 18:00	12.36	907	8.13	149.4															
10-9-19 2:00	5.08	1748	8.62	4.8	9-23-19 18:15	11.92	952	8.44	10.0	9-23-19 18:15	12.47	907	8.13	156.9															
10-9-19 2:15	4.99	1748	8.62	5.1	9-23-19 18:30	11.73	952	8.45	10.9	9-23-19 18:30	12.48	907	8.14	142.2															
10-9-19 2:30	4.98	1749	8.62	5.2	9-23-19 18:45	11.71	952	8.46	10.7	9-23-19 18:45	12.35	906	8.14	151.1															
10-9-19 2:45	4.91	1747	8.63	4.5	9-23-19 19:00	11.75	952	8.47	10.2	9-23-19 19:00	12.35	907	8.14	140.1															
10-9-19 3:00	4.96	1749	8.62	4.5	9-23-19 19:15	11.76	951	8.48	13.1	9-23-19 19:15	12.34	907	8.14	145.9															
10-9-19 3:15	4.97	1748	8.62	4.5	9-23-19 19:30	11.80	951	8.49	13.0	9-23-19 19:30	12.42	907	8.15	152.8															
10-9-19 3:30	4.97	1749	8.62	4.4	9-23-19 19:45	11.89	950	8.50	11.8	9-23-19 19:45	12.51	908	8.15	147.7															
10-9-19 3:45	4.90	1747	8.62	4.2	9-23-19 20:00	11.98	950	8.50	15.9	9-23-19 20:00	12.58	908	8.15	154.1															
10-9-19 4:00	4.87	1749	8.62	4.6	9-23-19 20:15	12.04	950	8.51	9.6	9-23-19 20:15	12.50	908	8.14	151.2															
10-9-19 4:15	4.89	1748	8.62	4.9	9-23-19 20:30	11.98	950	8.50	10.0	9-23-19 20:30	12.52	909	8.14	142.0															
10-9-19 4:30	4.84	1749	8.62	4.7	9-23-19 20:45	12.00	949	8.51	11.3	9-23-19 20:45	12.55	909	8.16	146.7															
10-9-19 4:45	4.84	1748	8.62	4.4	9-23-19 21:00	12.11	949	8.52	9.6	9-23-19 21:00	12.53	909	8.14	147.4															
10-9-19 5:00	4.79	1749	8.62	4.7	9-23-19 21:15	12.22	949	8.52	14.9	9-23-19 21:15	12.71	910	8.14	156.8															
10-9-19 5:15	4.76	1749	8.62	4.2	9-23-19 21:30	12.28	949	8.52	13.3	9-23-19 21:30	12.76	911	8.14	160.6															
10-9-19 5:30	4.73	1749	8.62	5.1	9-23-19 21:45	12.24	949	8.52	10.2	9-23-19 21:45	12.69	910	8.15	155.1															
10-9-19 5:45	4.62	1750	8.63	4.4	9-23-19 22:00	12.33	949	8.52	10.7	9-23-19 22:00	12.74	910	8.14	159.6															
10-9-19 6:00	4.62	1751	8.62	4.7	9-23-19 22:15	12.27	948	8.53	9.4	9-23-19 22:15	12.80	911	8.15	151.4															
10-9-19 6:15	4.61	1750	8.62	4.4	9-23-19 22:30	12.24	948	8.54	9.0	9-23-19 22:30	12.79	911	8.16	146.5															
10-9-19 6:30	4.58	1750	8.62	4.4	9-23-19 22:45	12.30	948	8.55	9.8	9-23-19 22:45	12.83	911	8.16	148.1															
10-9-19 6:45	4.58	1749	8.62	4.3	9-23-19 23:00	12.30	947	8.55	9.7	9-23-19 23:00	12.84	911	8.16	139.7															
10-9-19 7:00	4.58	1750	8.62	4.5	9-23-19 23:15	12.27	947	8.55	11.7	9-23-19 23:15	12.80	911	8.16	154.7															
10-9-19 7:15	4.53	1750	8.62	4.5	9-23-19 23:30	12.21	946	8.56	9.8	9-23-19 23:30	12.71	911	8.16	144.6															
10-9-19 7:30	4.50	1750	8.62	4.6	9-23-19 23:45	12.18	946	8.57	11.0	9-23-19 23:45	12.74	911	8.16	159.1															
10-9-19 7:45	4.44	1749	8.62	4.4	9-24-19 0:00	12.24	946	8.57	10.7	9-24-19 0:00	12.74	911	8.16	148.0															
10-9-19 8:00	4.43	1751	8.62	4.5	9-24-19 0:15	12.25	946	8.57	8.8	9-24-19 0:15	12.74	911	8.16	149.2															
10-9-19 8:15	4.39	1750	8.63	4.4	9-24-19 0:30	12.26	946	8.58	8.6	9-24-19 0:30	12.74	911	8.16	140.3															
10-9-19 8:30	4.37	1750	8.62	4.7	9-24-19 0:45	12.22	946	8.58	10.0	9-24-19 0:45	12.70	911	8.16	141.9															
10-9-19 8:45	4.36	1750	8.62	4.2	9-24-19 1:00	12.20	946	8.58	9.3	9-24-19 1:00	12.67	911	8.16	146.2															
10-9-19 9:00	4.31	1750	8.63	4.5	9-24-19 1:15	12.16	946	8.57	9.8	9-24-19 1:15	12.60	911	8.17	150.9															
10-9-19 9:15	4.31	1751	8.62	4.1	9-24-19 1:30	12.15	945	8.58	11.0	9-24-19 1:30	12.60	911	8.17	132.3															
10-9-19 9:30	4.28	1751	8.62	4.7	9-24-19 1:45	12.14	946	8.58	10.5	9-24-19 1:45	12.62	911	8.16	141.1															
10-9-19 9:45	4.24	1751	8.62	4.1	9-24-19 2:00	12.15	946	8.58	15.3	9-24-19 2:00	12.60	912	8.16	139.2															
10-9-19 10:00	4.19	1751	8.62	4.5	9-24-19 2:15	12.14	946	8.58	9.4	9-24-19 2:15	12.57	911	8.15	146.0															
10-9-19 10:15	4.16	1751	8.62	4.6	9-24-19 2:30	12.11	946	8.58	9.0	9-24-19 2:30	12.53	912	8.16	145.3															
10-9-19 10:30	4.13	1753	8.63	4.8	9-24-19 2:45	12.13	946	8.58	10.0	9-24-19 2:45	12.50	912	8.16	142.1															
10-9-19 10:45	4.07	1752	8.63	5.8	9-24-19 3:00	12.05	946	8.58	9.2	9-24-19 3:00	12.46	912	8.16	130.6															
10-9-19 11:00	4.04	1753	8.63	4.7	9-24-19 3:15	12.04	946	8.57	13.3	9-24-19 3:15	12.39	912	8.16	148.8															
10-9-19 11:15	3.99	1753	8.63	4.2	9-24-19 3:30	11.93	946	8.57	11.4	9-24-19 3:30	12.35	912	8.16	145.9															
10-9-19 11:30	3.98	1752	8.62	4.6	9-24-19 3:45	12.00	946	8.57	11.7	9-24-19 3:45	12.36	912	8.16	144.5															
10-9-19 11:45	3.93	1753	8.63	4.0	9-24-19 4:00	11.98	946	8.56	14.3	9-24-19 4:00	12.29	912	8.16	147.8															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-9-19 12:00	3.89	1754	8.62	4.5	9-24-19 4:15	11.97	946	8.57	8.8	9-24-19 4:15	12.26	912	8.15	153.0															
10-9-19 12:15	3.86	1753	8.62	4.1	9-24-19 4:30	12.00	946	8.56	8.7	9-24-19 4:30	12.24	912	8.14	139.8															
10-9-19 12:30	3.81	1754	8.62	4.9	9-24-19 4:45	12.01	946	8.56	8.7	9-24-19 4:45	12.22	912	8.14	151.5															
10-9-19 12:45	3.73	1755	8.62	4.1	9-24-19 5:00	11.96	946	8.56	8.6	9-24-19 5:00	12.20	913	8.13	153.0															
10-9-19 13:00	3.67	1753	8.62	4.5	9-24-19 5:15	11.95	946	8.55	14.9	9-24-19 5:15	12.17	913	8.13	161.4															
10-9-19 13:15	3.55	1754	8.62	4.3	9-24-19 5:30	11.92	946	8.55	14.0	9-24-19 5:30	12.14	913	8.13	152.0															
10-9-19 13:30	3.60	1755	8.62	4.5	9-24-19 5:45	11.89	947	8.55	13.3	9-24-19 5:45	12.13	913	8.11	171.8															
10-9-19 13:45	3.53	1755	8.62	4.2	9-24-19 6:00	11.89	946	8.55	14.4	9-24-19 6:00	12.04	912	8.13	151.9															
10-9-19 14:00	3.51	1756	8.62	4.7	9-24-19 6:15	11.89	947	8.55	9.0	9-24-19 6:15	12.01	913	8.12	170.6															
10-9-19 14:15	3.42	1756	8.62	4.1	9-24-19 6:30	11.84	946	8.54	8.1	9-24-19 6:30	11.96	912	8.14	150.4															
10-9-19 14:30	3.38	1758	8.62	5.0	9-24-19 6:45	11.83	946	8.54	8.0	9-24-19 6:45	11.92	912	8.14	145.6															
10-9-19 14:45	3.34	1756	8.62	4.2	9-24-19 7:00	11.79	947	8.52	8.2	9-24-19 7:00	11.90	912	8.14	151.3															
10-9-19 15:00	3.26	1759	8.62	4.6	9-24-19 7:15	11.77	947	8.54	16.4	9-24-19 7:15	11.88	913	8.14	160.3															
10-9-19 15:15	3.27	1759	8.61	4.1	9-24-19 7:30	11.74	947	8.54	12.5	9-24-19 7:30	11.84	912	8.14	151.4															
10-9-19 15:30	3.32	1757	8.61	4.3	9-24-19 7:45	11.74	947	8.54	9.7	9-24-19 7:45	11.83	913	8.14	145.6															
10-9-19 15:45	3.29	1757	8.61	4.0	9-24-19 8:00	11.71	947	8.54	9.9	9-24-19 8:00	11.83	913	8.13	160.0															
10-9-19 16:00	3.26	1756	8.61	4.7	9-24-19 8:15	11.62	947	8.54	9.9	9-24-19 8:15	11.80	913	8.14	156.4															
10-9-19 16:15	3.24	1757	8.61	4.0	9-24-19 8:30	11.55	947	8.54	8.0	9-24-19 8:30	11.72	912	8.14	149.8															
10-9-19 16:30	3.28	1761	8.61	4.3	9-24-19 8:45	11.53	947	8.54	8.4	9-24-19 8:45	11.72	913	8.13	158.1															
10-9-19 16:45	3.26	1760	8.60	4.0	9-24-19 9:00	11.52	947	8.54	7.8	9-24-19 9:00	11.67	913	8.13	144.9															
10-9-19 17:00	3.26	1756	8.60	4.8	9-24-19 9:15	11.50	947	8.53	10.2	9-24-19 9:15	11.66	913	8.13	159.5															
10-9-19 17:15	3.27	1755	8.60	3.9	9-24-19 9:30	11.47	947	8.53	9.5	9-24-19 9:30	11.60	912	8.14	151.6															
10-9-19 17:30	3.31	1756	8.60	4.3	9-24-19 9:45	11.44	947	8.53	10.5	9-24-19 9:45	11.56	913	8.13	157.0															
10-9-19 17:45	3.33	1755	8.60	4.3	9-24-19 10:00	11.42	946	8.53	9.1	9-24-19 10:00	11.55	913	8.13	154.7															
10-9-19 18:00	3.42	1754	8.60	4.4	9-24-19 10:15	11.41	947	8.53	8.8	9-24-19 10:15	11.52	913	8.13	160.6															
10-9-19 18:15	3.39	1753	8.60	4.0	9-24-19 10:30	11.41	948	8.52	8.6	9-24-19 10:30	11.48	913	8.14	156.6															
10-9-19 18:30	3.42	1754	8.60	4.5	9-24-19 10:45	11.35	947	8.52	8.2	9-24-19 10:45	11.44	913	8.14	160.9															
10-9-19 18:45	3.47	1754	8.60	4.0	9-24-19 11:00	11.28	947	8.52	8.1	9-24-19 11:00	11.41	913	8.13	149.5															
10-9-19 19:00	3.55	1752	8.59	4.2	9-24-19 11:15	11.26	947	8.51	10.0	9-24-19 11:15	11.36	913	8.13	163.7															
10-9-19 19:15	3.63	1751	8.59	3.8	9-24-19 11:30	11.21	947	8.51	9.1	9-24-19 11:30	11.36	913	8.13	152.2															
10-9-19 19:30	3.73	1751	8.59	4.5	9-24-19 11:45	11.18	947	8.51	10.4	9-24-19 11:45	11.29	913	8.13	151.1															
10-9-19 19:45	3.80	1748	8.59	3.9	9-24-19 12:00	11.13	947	8.51	11.3	9-24-19 12:00	11.28	913	8.13	143.7															
10-9-19 20:00	3.89	1747	8.59	4.4	9-24-19 12:15	11.12	947	8.51	12.3	9-24-19 12:15	11.26	913	8.13	155.4															
10-9-19 20:15	4.49	1754	8.58	3.8	9-24-19 12:30	11.09	947	8.51	10.3	9-24-19 12:30	11.22	913	8.13	150.7															
10-9-19 20:30	4.84	1744	8.57	4.2	9-24-19 12:45	11.05	947	8.51	7.8	9-24-19 12:45	11.19	913	8.13	157.1															
10-9-19 20:45	4.36	1742	8.58	4.1	9-24-19 13:00	11.02	947	8.51	8.0	9-24-19 13:00	11.17	913	8.13	148.2															
10-9-19 21:00	4.29	1745	8.58	4.3	9-24-19 13:15	10.99	947	8.50	13.5	9-24-19 13:15	11.14	912	8.13	163.6															
10-9-19 21:15	4.24	1746	8.59	4.0	9-24-19 13:30	10.96	947	8.50	13.7	9-24-19 13:30	11.11	913	8.13	141.7															
10-9-19 21:30	4.55	1749	8.58	4.4	9-24-19 13:45	10.88	947	8.50	13.9	9-24-19 13:45	11.08	913	8.13	150.0															
10-9-19 21:45	4.39	1747	8.57	4.5	9-24-19 14:00	10.88	947	8.50	14.8	9-24-19 14:00	11.04	913	8.13	142.1															
10-9-19 22:00	4.48	1746	8.57	4.5	9-24-19 14:15	10.79	947	8.50	12.0	9-24-19 14:15	11.00	913	8.13	151.7															
10-9-19 22:15	4.52	1746	8.57	4.1	9-24-19 14:30	10.78	947	8.50	8.4	9-24-19 14:30	10.97	913	8.13	147.0															
10-9-19 22:30	4.44	1747	8.58	4.9	9-24-19 14:45	10.80	947	8.50	9.1	9-24-19 14:45	10.92	913	8.13	147.9															
10-9-19 22:45	4.37	1747	8.58	4.0	9-24-19 15:00	10.81	947	8.50	7.9	9-24-19 15:00	10.91	913	8.13	152.6															
10-9-19 23:00	4.34	1748	8.58	4.8	9-24-19 15:15	10.82	947	8.49	18.1	9-24-19 15:15	10.92	912	8.13	147.0															
10-9-19 23:15	4.31	1753	8.58	4.0	9-24-19 15:30	10.82	947	8.49	22.1	9-24-19 15:30	10.93	912	8.13	140.9															
10-9-19 23:30	4.29	1752	8.58	4.4	9-24-19 15:45	10.78	947	8.48	30.5	9-24-19 15:45	10.91	913	8.14	146.6															
10-9-19 23:45	4.24	1748	8.57	4.0	9-24-19 16:00	10.73	947	8.48	29.5	9-24-19 16:00	10.94	913	8.14	146.1															
10-10-19 0:00	4.23	1749	8.57	4.3	9-24-19 16:15	10.71	946	8.48	11.5	9-24-19 16:15	11.00	913	8.14	140.3															
10-10-19 0:15	4.15	1749	8.57	4.0	9-24-19 16:30	10.71	947	8.48	10.8	9-24-19 16:30	11.02	913	8.14	133.0															
10-10-19 0:30	4.20	1751	8.56	4.5	9-24-19 16:45	10.70	946	8.48	11.6	9-24-19 16:45	11.07	913	8.15	144.4															
10-10-19 0:45	4.24	1749	8.56	3.9	9-24-19 17:00	10.66	946	8.48	11.0	9-24-19 17:00	11.11	913	8.14	137.0															
10-10-19 1:00	4.23	1751	8.56	4.5	9-24-19 17:15	10.65	946	8.49	29.4	9-24-19 17:15	11.15	913	8.14	140.9															
10-10-19 1:15	4.25	1750	8.56	4.2	9-24-19 17:30	10.71	945	8.48	23.8	9-24-19 17:30	11.25	913	8.12	129.4															
10-10-19 1:30	4.19	1751	8.56	4.4	9-24-19 17:45	10.72	946	8.49	12.6	9-24-19 17:45	11.27	913	8.13	137.5															
10-10-19 1:45	4.14	1752	8.56	4.0	9-24-19 18:00	10.69	946	8.49	12.6	9-24-19 18:00	11.27	913	8.13	137.1															
10-10-19 2:00	4.04	1750	8.57	4.2	9-24-19 18:15	10.67	945	8.50	11.8	9-24-19 18:15	11.38	913	8.15	136.9															
10-10-19 2:15	4.04	1754	8.57	4.0	9-24-19 18:30	10.68	946	8.50	13.4	9-24-19 18:30	11.41	913	8.14	140.7															
10-10-19 2:30	4.06	1752	8.57	4.5	9-24-19 18:45	10.68	946	8.51	13.0	9-24-19 18:45	11.40	913	8.15	141.4															
10-10-19 2:45	4.08	1750	8.57	3.8	9-24-19 19:00	10.69	946	8.51	13.2	9-24-19 19:00	11.38	913	8.15	146.0															
10-10-19 3:00	4.05	1751	8.57	4.4	9-24-19 19:15	10.69	946	8.51	16.5	9-24-19 19:15	11.36	913	8.15	143.5															
10-10-19 3:15	4.06	1752	8.57	3.9	9-24-19 19:30	10.69	946	8.53	32.9	9-24-19 19:30	11.42	913	8.15	135.3															
10-10-19 3:30	3.99	1752	8.57	4.2	9-24-19 19:45	10.80	946	8.53	17.0	9-24-19 19:45	11.55	913	8.16	142.6															
10-10-19 3:45	3.92	1750	8.58	3.9	9-24-19 20:00	10.88	946	8.53	15.1	9-24-19 20:00	11.58	913	8.16	139.9															
10-10-19 4:00	3.88	1750	8.58	4.8	9-24-19 20:15	10.90	945	8.54	14.5	9-24-19 20:15	11.63	913	8.15	139.8															
10-10-19 4:15	3.91	1751	8.58	4.0	9-24-19 20:30	10.96	945	8.54	11.7	9-24-19 20:30	11.65	913	8.15	138.3															
10-10-19 4:30	3.91	1751	8.58	4.5	9-24-19 20:45	10.91	944	8.56	12.0	9-24-19 20:45	11.64	913	8.15	142.8															
10-10-19 4:45	3.81	1752	8.58	3.7	9-24-19 21:00	10.90	944	8.56	11.1	9-24-19 21:00	11.64	913	8.16	131.4															
10-10-19 5:00	3.82	1752	8.58	5.1	9-24-19 21:15	10.92	944	8.57	17.0	9-24-19 21:15	11.63	914	8.16	141.4															
10-10-19 5:15	3.83	1752	8.58	3.8	9-24-19 21:30	10.96	944	8.57	25.1	9-24-19 21:30	11.65	913	8.16	134.6															
10-10-19 5:30	3.76	1753	8.58	4.5	9-24-19 21:45	10.98	943	8.57	20.0	9-24-19 21:45	11.67	914	8.17	134.9															
10-10-19 5:45	3.79	1753	8.58	3.8	9-24-19 22:00	10.99	943	8.58	14.6	9-24-19 22:00	11.66	913	8.17	137.5															
10-10-19 6:00	3.81	1755	8.57	4.2	9-24-19 22:15	11.01	943	8.58	10.9	9-24-19 22:15	11.63	913	8.17	143.1															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-10-19 6:15	3.84	1751	8.56	3.9	9-24-19 22:30	11.04	943	8.58	11.7	9-24-19 22:30	11.67	914	8.17	132.4															
10-10-19 6:30	3.86	1752	8.56	4.3	9-24-19 22:45	11.08	943	8.58	11.0	9-24-19 22:45	11.64	913	8.16	139.1															
10-10-19 6:45	3.87	1751	8.55	3.9	9-24-19 23:00	11.10	943	8.58	10.7	9-24-19 23:00	11.68	913	8.15	132.3															
10-10-19 7:00	3.86	1751	8.55	4.5	9-24-19 23:15	11.15	943	8.58	24.2	9-24-19 23:15	11.76	914	8.17	136.8															
10-10-19 7:15	3.83	1752	8.54	3.9	9-24-19 23:30	11.14	942	8.58	26.9	9-24-19 23:30	11.77	914	8.17	130.8															
10-10-19 7:30	3.49	1757	8.55	4.6	9-24-19 23:45	11.16	942	8.59	22.7	9-24-19 23:45	11.72	914	8.17	129.4															
10-10-19 7:45	3.68	1756	8.54	3.8	9-25-19 0:00	11.16	942	8.59	21.1	9-25-19 0:00	11.72	914	8.17	136.8															
10-10-19 8:00	3.40	1760	8.54	4.4	9-25-19 0:15	11.12	941	8.60	10.8	9-25-19 0:15	11.69	914	8.17	132.1															
10-10-19 8:15	3.48	1759	8.54	3.9	9-25-19 0:30	11.12	941	8.60	14.1	9-25-19 0:30	11.67	914	8.18	121.2															
10-10-19 8:30	3.38	1762	8.53	4.1	9-25-19 0:45	11.12	941	8.60	11.5	9-25-19 0:45	11.64	914	8.17	134.5															
10-10-19 8:45	3.36	1759	8.53	3.8	9-25-19 1:00	11.10	942	8.60	10.5	9-25-19 1:00	11.65	914	8.17	122.9															
10-10-19 9:00	3.45	1758	8.52	4.4	9-25-19 1:15	11.09	942	8.60	12.0	9-25-19 1:15	11.64	914	8.18	128.6															
10-10-19 9:15	3.30	1762	8.53	3.9	9-25-19 1:30	11.07	942	8.60	109.4	9-25-19 1:30	11.58	914	8.17	125.3															
10-10-19 9:30	3.24	1764	8.53	4.5	9-25-19 1:45	11.07	941	8.60	51.8	9-25-19 1:45	11.56	914	8.17	128.3															
10-10-19 9:45	3.12	1758	8.53	3.5	9-25-19 2:00	11.05	941	8.60	34.0	9-25-19 2:00	11.52	914	8.16	117.6															
10-10-19 10:00	3.39	1756	8.51	4.3	9-25-19 2:15	11.04	941	8.60	10.6	9-25-19 2:15	11.53	914	8.16	131.7															
10-10-19 10:15	3.45	1759	8.51	3.5	9-25-19 2:30	11.04	941	8.60	12.1	9-25-19 2:30	11.50	914	8.15	119.3															
10-10-19 10:30	3.46	1760	8.51	4.5	9-25-19 2:45	11.02	941	8.60	9.7	9-25-19 2:45	11.50	913	8.15	129.7															
10-10-19 10:45	3.54	1758	8.49	3.7	9-25-19 3:00	11.03	941	8.60	10.1	9-25-19 3:00	11.50	914	8.16	126.9															
10-10-19 11:00	3.56	1755	8.50	4.2	9-25-19 3:15	11.02	941	8.60	24.0	9-25-19 3:15	11.49	914	8.15	120.8															
10-10-19 11:15	3.52	1753	8.51	3.9	9-25-19 3:30	11.00	941	8.59	12.5	9-25-19 3:30	11.48	914	8.16	123.0															
10-10-19 11:30	3.54	1754	8.50	4.3	9-25-19 3:45	11.00	941	8.59	12.2	9-25-19 3:45	11.47	914	8.15	123.3															
10-10-19 11:45	3.52	1753	8.50	3.9	9-25-19 4:00	10.95	941	8.59	11.5	9-25-19 4:00	11.46	914	8.16	118.4															
10-10-19 12:00	3.47	1754	8.49	4.2	9-25-19 4:15	10.95	941	8.59	9.9	9-25-19 4:15	11.44	914	8.16	123.3															
10-10-19 12:15	3.40	1754	8.50	3.8	9-25-19 4:30	10.93	941	8.59	9.9	9-25-19 4:30	11.40	913	8.16	118.6															
10-10-19 12:30	3.38	1755	8.49	4.7	9-25-19 4:45	10.92	942	8.59	10.5	9-25-19 4:45	11.38	914	8.16	119.2															
10-10-19 12:45	3.29	1754	8.49	3.6	9-25-19 5:00	10.91	942	8.59	10.7	9-25-19 5:00	11.37	913	8.16	117.2															
10-10-19 13:00	3.29	1757	8.49	4.4	9-25-19 5:15	10.89	941	8.58	14.4	9-25-19 5:15	11.35	913	8.17	116.2															
10-10-19 13:15	3.26	1756	8.49	3.7	9-25-19 5:30	10.88	942	8.58	13.8	9-25-19 5:30	11.32	913	8.17	114.3															
10-10-19 13:30	3.23	1757	8.49	4.6	9-25-19 5:45	10.89	942	8.58	15.0	9-25-19 5:45	11.31	914	8.16	113.0															
10-10-19 13:45	3.20	1758	8.49	3.7	9-25-19 6:00	10.85	942	8.58	18.2	9-25-19 6:00	11.30	914	8.17	111.9															
10-10-19 14:00	3.16	1758	8.49	4.3	9-25-19 6:15	10.86	942	8.57	10.8	9-25-19 6:15	11.24	914	8.18	121.0															
10-10-19 14:15	3.13	1758	8.49	3.5	9-25-19 6:30	10.85	942	8.57	10.0	9-25-19 6:30	11.18	914	8.17	117.6															
10-10-19 14:30	3.11	1758	8.49	4.4	9-25-19 6:45	10.86	942	8.57	9.8	9-25-19 6:45	11.13	914	8.17	121.5															
10-10-19 14:45	3.11	1757	8.49	3.6	9-25-19 7:00	10.86	942	8.57	9.7	9-25-19 7:00	11.12	914	8.17	113.7															
10-10-19 15:00	3.06	1759	8.49	4.1	9-25-19 7:15	10.85	942	8.56	42.3	9-25-19 7:15	11.12	914	8.17	116.1															
10-10-19 15:15	3.03	1758	8.49	3.5	9-25-19 7:30	10.81	942	8.56	24.9	9-25-19 7:30	11.12	914	8.16	113.4															
10-10-19 15:30	2.98	1758	8.48	4.1	9-25-19 7:45	10.82	942	8.56	29.6	9-25-19 7:45	11.10	914	8.17	114.7															
10-10-19 15:45	2.92	1758	8.48	3.5	9-25-19 8:00	10.78	942	8.56	35.9	9-25-19 8:00	11.10	915	8.17	120.8															
10-10-19 16:00	3.01	1759	8.48	4.1	9-25-19 8:15	10.70	942	8.56	9.8	9-25-19 8:15	11.08	915	8.17	117.3															
10-10-19 16:15	3.09	1756	8.48	3.6	9-25-19 8:30	10.70	942	8.56	9.6	9-25-19 8:30	11.05	915	8.18	113.6															
10-10-19 16:30	3.14	1756	8.48	4.3	9-25-19 8:45	10.65	942	8.56	10.0	9-25-19 8:45	11.00	915	8.18	116.1															
10-10-19 16:45	3.17	1754	8.48	3.6	9-25-19 9:00	10.67	942	8.55	18.0	9-25-19 9:00	10.95	914	8.18	125.1															
10-10-19 17:00	3.23	1753	8.47	4.1	9-25-19 9:15	10.65	942	8.55	67.9	9-25-19 9:15	10.97	916	8.18	113.2															
10-10-19 17:15	3.28	1748	8.47	3.7	9-25-19 9:30	10.64	943	8.55	80.5	9-25-19 9:30	10.90	915	8.19	110.1															
10-10-19 17:30	3.24	1751	8.47	4.1	9-25-19 9:45	10.55	942	8.55	50.5	9-25-19 9:45	10.93	915	8.19	111.6															
10-10-19 17:45	3.02	1742	8.48	3.5	9-25-19 10:00	10.54	942	8.55	43.2	9-25-19 10:00	10.91	916	8.19	110.6															
10-10-19 18:00	2.85	1759	8.48	4.1	9-25-19 10:15	10.54	943	8.55	9.3	9-25-19 10:15	10.90	915	8.18	112.8															
10-10-19 18:15	3.04	1756	8.47	3.6	9-25-19 10:30	10.53	943	8.55	9.4	9-25-19 10:30	10.87	915	8.18	113.0															
10-10-19 18:30	3.08	1755	8.47	4.7	9-25-19 10:45	10.49	942	8.55	9.0	9-25-19 10:45	10.87	915	8.18	107.4															
10-10-19 18:45	3.17	1755	8.47	3.8	9-25-19 11:00	10.48	942	8.55	8.4	9-25-19 11:00	10.87	915	8.19	103.0															
10-10-19 19:00	3.25	1755	8.47	4.7	9-25-19 11:15	10.47	943	8.55	70.1	9-25-19 11:15	10.85	915	8.18	103.5															
10-10-19 19:15	3.41	1756	8.47	3.8	9-25-19 11:30	10.48	943	8.54	70.0	9-25-19 11:30	10.82	915	8.18	101.1															
10-10-19 19:30	3.66	1751	8.47	4.5	9-25-19 11:45	10.45	943	8.55	69.3	9-25-19 11:45	10.79	915	8.18	103.8															
10-10-19 19:45	3.74	1750	8.47	3.5	9-25-19 12:00	10.45	942	8.54	62.4	9-25-19 12:00	10.78	915	8.18	103.5															
10-10-19 20:00	3.89	1749	8.47	4.7	9-25-19 12:15	10.43	942	8.55	11.6	9-25-19 12:15	10.74	915	8.18	107.1															
10-10-19 20:15	4.03	1747	8.47	4.3	9-25-19 12:30	10.42	942	8.55	9.1	9-25-19 12:30	10.72	915	8.18	105.2															
10-10-19 20:45	4.23	1753	8.48	4.1	9-25-19 12:45	10.41	943	8.55	8.7	9-25-19 12:45	10.71	915	8.19	101.3															
10-10-19 21:00	4.23	1746	8.47	3.7	9-25-19 13:00	10.40	942	8.55	8.7	9-25-19 13:00	10.68	916	8.19	98.6															
10-10-19 21:15	4.10	1749	8.47	4.2	9-25-19 13:15	10.36	943	8.55	85.1	9-25-19 13:15	10.66	916	8.19	104.0															
10-10-19 21:30	4.21	1748	8.47	3.6	9-25-19 13:30	10.34	942	8.54	90.4	9-25-19 13:30	10.62	916	8.19	103.0															
10-10-19 21:45	4.22	1746	8.47	4.2	9-25-19 13:45	10.30	943	8.54	116.6	9-25-19 13:45	10.61	916	8.18	98.9															
10-10-19 22:00	4.44	1742	8.47	3.8	9-25-19 14:00	10.29	942	8.54	61.0	9-25-19 14:00	10.61	916	8.20	101.5															
10-10-19 22:15	4.77	1739	8.46	4.2	9-25-19 14:15	10.26	943	8.55	9.1	9-25-19 14:15	10.58	916	8.19	100.7															
10-10-19 22:30	4.59	1739	8.47	3.6	9-25-19 14:30	10.27	943	8.55	8.6	9-25-19 14:30	10.54	916	8.20	95.0															
10-10-19 22:45	4.71	1743	8.47	4.2	9-25-19 14:45	10.28	943	8.55	8.6	9-25-19 14:45	10.56	916	8.19	97.8															
10-10-19 23:00	4.82	1741	8.47	3.7	9-25-19 15:00	10.27	943	8.54	8.6	9-25-19 15:00	10.56	915	8.19	99.1															
10-10-19 23:15	4.75	1742	8.47	4.2	9-25-19 15:15	10.27	942	8.54	125.2	9-25-19 15:15	10.56	916	8.19	100.8															
10-10-19 23:30	4.69	1742	8.47	3.4	9-25-19 15:30	10.22	942	8.54	138.0	9-25-19 15:30	10.54	916	8.19	92.3															
10-10-19 23:45	4.65	1744	8.47	4.2	9-25-19 15:45	10.24	943	8.54	148.7	9-25-19 15:45	10.54	916	8.19	101.1															
10-11-19 0:00	4.66	1744	8.47	4.3	9-25-19 16:00	10.22	942	8.54	166.3	9-25-19 16:00	10.57	915	8.19	102.8															
10-11-19 0:15	4.64	1742	8.48	4.2	9-25-19 16:15	10.26	942	8.54	8.0	9-25-19 16:15	10.57	915	8.19	98.3															
10-11-19 0:30	4.56	1742	8.48	3.5	9-25-19 16:30	10.27	942	8.55	8.0	9-25-19 16:30	10.60	915	8.19	95.4															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-11-19 0:45	4.50	1743	8.49	4.3	9-25-19 16:45	10.27	942	8.55	7.8	9-25-19 16:45	10.64	915	8.19	103.1															
10-11-19 1:00	4.38	1746	8.49	4.3	9-25-19 17:00	10.30	941	8.55	8.1	9-25-19 17:00	10.65	915	8.18	97.1															
10-11-19 1:15	4.35	1748	8.49	4.2	9-25-19 17:15	10.27	941	8.55	72.4	9-25-19 17:15	10.66	916	8.19	98.2															
10-11-19 1:30	4.32	1748	8.49	3.7	9-25-19 17:30	10.29	941	8.55	217.4	9-25-19 17:30	10.68	915	8.19	94.9															
10-11-19 1:45	4.29	1748	8.49	4.4	9-25-19 17:45	9.95	0	8.47	0.0	9-25-19 17:45	10.69	915	8.19	92.3															
10-11-19 2:00	4.26	1747	8.49	3.7	9-25-19 18:00	9.46	0	7.97	0.0	9-25-19 18:00	10.70	915	8.19	97.2															
10-11-19 2:15	4.25	1748	8.49	4.2	9-25-19 18:15	10.37	942	8.56	7.7	9-25-19 18:15	10.71	916	8.19	92.1															
10-11-19 2:30	4.22	1748	8.49	3.6	9-25-19 18:30	10.44	942	8.56	4.5	9-25-19 18:30	10.79	916	8.19	89.6															
10-11-19 2:45	4.18	1749	8.49	4.5	9-25-19 18:45	10.47	942	8.56	4.1	9-25-19 18:45	10.90	916	8.19	90.6															
10-11-19 3:00	4.21	1748	8.49	3.7	9-25-19 19:00	10.47	941	8.58	4.3	9-25-19 19:00	10.91	915	8.19	92.6															
10-11-19 3:15	4.22	1749	8.49	4.1	9-25-19 19:15	10.50	941	8.58	4.4	9-25-19 19:15	10.91	915	8.18	88.7															
10-11-19 3:30	4.22	1748	8.49	3.6	9-25-19 19:30	10.52	941	8.58	4.1	9-25-19 19:30	11.08	916	8.19	89.2															
10-11-19 3:45	4.19	1749	8.49	4.1	9-25-19 19:45	10.55	940	8.59	4.8	9-25-19 19:45	11.28	916	8.19	87.3															
10-11-19 4:00	4.17	1749	8.49	3.8	9-25-19 20:00	10.53	940	8.60	5.8	9-25-19 20:00	11.46	917	8.20	89.5															
10-11-19 4:15	4.15	1749	8.49	4.0	9-25-19 20:15	10.55	939	8.60	6.0	9-25-19 20:15	11.61	916	8.19	88.6															
10-11-19 4:30	4.16	1749	8.49	3.8	9-25-19 20:30	10.59	939	8.60	6.0	9-25-19 20:30	11.68	917	8.19	89.5															
10-11-19 4:45	4.13	1750	8.49	4.6	9-25-19 20:45	10.72	940	8.60	4.6	9-25-19 20:45	11.91	917	8.20	89.7															
10-11-19 5:00	4.12	1749	8.49	3.7	9-25-19 21:00	10.65	939	8.61	4.9	9-25-19 21:00	11.93	918	8.20	88.0															
10-11-19 5:15	4.12	1749	8.49	4.1	9-25-19 21:15	10.64	939	8.62	5.6	9-25-19 21:15	11.89	918	8.21	86.4															
10-11-19 5:30	4.12	1749	8.49	3.4	9-25-19 21:30	10.55	938	8.64	5.0	9-25-19 21:30	11.83	918	8.20	87.7															
10-11-19 5:45	4.10	1749	8.49	4.2	9-25-19 21:45	10.56	937	8.63	5.8	9-25-19 21:45	11.85	918	8.21	87.3															
10-11-19 6:00	4.08	1747	8.49	3.5	9-25-19 22:00	10.41	937	8.62	4.3	9-25-19 22:00	11.85	918	8.21	83.1															
10-11-19 6:15	4.01	1749	8.49	4.2	9-25-19 22:15	10.46	936	8.63	16.8	9-25-19 22:15	11.86	919	8.22	84.7															
10-11-19 6:30	3.91	1750	8.49	3.4	9-25-19 22:30	10.46	935	8.63	31.4	9-25-19 22:30	11.77	918	8.21	90.0															
10-11-19 6:45	3.97	1751	8.49	4.4	9-25-19 22:45	10.47	934	8.64	8.5	9-25-19 22:45	11.77	918	8.22	84.4															
10-11-19 7:00	3.97	1750	8.49	3.6	9-25-19 23:00	10.51	934	8.64	23.1	9-25-19 23:00	11.73	918	8.22	84.6															
10-11-19 7:15	3.89	1752	8.49	4.1	9-25-19 23:15	10.47	934	8.64	23.6	9-25-19 23:15	11.67	918	8.22	81.6															
10-11-19 7:30	3.88	1751	8.49	3.6	9-25-19 23:30	10.49	934	8.64	21.4	9-25-19 23:30	11.63	918	8.21	78.8															
10-11-19 7:45	3.90	1753	8.49	4.0	9-25-19 23:45	10.48	934	8.63	26.7	9-25-19 23:45	11.58	918	8.22	81.2															
10-11-19 8:00	3.79	1752	8.50	3.6	9-26-19 0:00	10.47	934	8.63	26.1	9-26-19 0:00	11.54	918	8.21	82.1															
10-11-19 8:15	3.72	1753	8.50	4.8	9-26-19 0:15	10.47	934	8.63	26.4	9-26-19 0:15	11.48	918	8.22	80.2															
10-11-19 8:30	3.61	1755	8.50	3.5	9-26-19 0:30	10.46	934	8.63	29.4	9-26-19 0:30	11.40	918	8.21	78.3															
10-11-19 8:45	3.65	1756	8.50	4.3	9-26-19 0:45	10.46	934	8.64	26.7	9-26-19 0:45	11.37	918	8.21	84.3															
10-11-19 9:00	3.57	1755	8.50	3.5	9-26-19 1:00	10.46	934	8.63	24.9	9-26-19 1:00	11.33	918	8.21	85.8															
10-11-19 9:15	3.58	1753	8.50	4.5	9-26-19 1:15	10.45	934	8.63	28.9	9-26-19 1:15	11.23	919	8.21	82.0															
10-11-19 9:30	3.54	1754	8.50	3.7	9-26-19 1:30	10.43	934	8.63	22.5	9-26-19 1:30	11.23	919	8.21	82.1															
10-11-19 9:45	3.55	1754	8.50	4.6	9-26-19 1:45	10.43	934	8.63	21.7	9-26-19 1:45	11.25	919	8.22	84.0															
10-11-19 10:00	3.57	1754	8.50	3.7	9-26-19 2:00	10.42	934	8.63	20.6	9-26-19 2:00	11.17	919	8.20	79.9															
10-11-19 10:15	3.40	1754	8.50	4.1	9-26-19 2:15	10.41	934	8.62	19.3	9-26-19 2:15	11.15	919	8.21	81.4															
10-11-19 10:30	3.46	1757	8.50	3.4	9-26-19 2:30	10.39	935	8.62	17.7	9-26-19 2:30	11.12	919	8.20	78.9															
10-11-19 10:45	3.51	1755	8.50	4.4	9-26-19 2:45	10.41	935	8.63	18.0	9-26-19 2:45	11.12	919	8.20	78.8															
10-11-19 11:00	3.33	1754	8.50	3.6	9-26-19 3:00	10.42	935	8.62	19.3	9-26-19 3:00	11.12	919	8.20	79.4															
10-11-19 11:15	3.41	1755	8.50	4.9	9-26-19 3:15	10.45	935	8.62	18.4	9-26-19 3:15	11.09	919	8.20	85.0															
10-11-19 11:30	3.42	1753	8.50	3.5	9-26-19 3:30	10.43	935	8.62	17.8	9-26-19 3:30	11.08	919	8.19	80.3															
10-11-19 11:45	3.46	1752	8.49	4.1	9-26-19 3:45	10.42	935	8.61	20.7	9-26-19 3:45	11.04	919	8.19	87.2															
10-11-19 12:00	3.43	1750	8.50	3.4	9-26-19 4:00	10.41	935	8.61	19.3	9-26-19 4:00	11.01	919	8.19	82.5															
10-11-19 12:15	3.36	1750	8.50	4.0	9-26-19 4:15	10.38	935	8.61	21.8	9-26-19 4:15	10.98	919	8.20	78.0															
10-11-19 12:30	3.31	1751	8.50	3.6	9-26-19 4:30	10.39	935	8.61	22.8	9-26-19 4:30	10.99	919	8.19	79.9															
10-11-19 12:45	3.37	1754	8.50	3.9	9-26-19 4:45	10.38	935	8.61	16.3	9-26-19 4:45	10.96	919	8.19	79.1															
10-11-19 13:00	3.24	1755	8.50	3.3	9-26-19 5:00	10.36	935	8.61	15.0	9-26-19 5:00	10.95	919	8.19	78.7															
10-11-19 13:15	3.24	1756	8.50	4.1	9-26-19 5:15	10.36	935	8.61	17.1	9-26-19 5:15	10.94	919	8.19	78.3															
10-11-19 13:30	3.26	1754	8.50	3.5	9-26-19 5:30	10.35	935	8.61	13.2	9-26-19 5:30	10.92	919	8.20	75.6															
10-11-19 13:45	3.30	1756	8.50	4.1	9-26-19 5:45	10.34	935	8.60	16.0	9-26-19 5:45	10.88	919	8.19	78.0															
10-11-19 14:00	3.16	1756	8.50	3.4	9-26-19 6:00	10.32	935	8.60	21.9	9-26-19 6:00	10.85	919	8.18	77.1															
10-11-19 14:15	3.27	1754	8.50	4.4	9-26-19 6:15	10.30	935	8.60	14.1	9-26-19 6:15	10.83	919	8.19	75.6															
10-11-19 14:30	3.31	1754	8.50	3.6	9-26-19 6:30	10.30	935	8.60	13.6	9-26-19 6:30	10.80	920	8.18	76.0															
10-11-19 14:45	3.30	1755	8.50	4.4	9-26-19 6:45	10.30	935	8.60	13.9	9-26-19 6:45	10.78	920	8.19	84.4															
10-11-19 15:00	3.23	1753	8.50	3.5	9-26-19 7:00	10.29	935	8.60	13.4	9-26-19 7:00	10.74	920	8.18	77.0															
10-11-19 15:15	3.28	1756	8.50	4.5	9-26-19 7:15	10.26	935	8.60	13.4	9-26-19 7:15	10.72	920	8.19	79.3															
10-11-19 15:30	3.14	1755	8.50	3.5	9-26-19 7:30	10.26	935	8.59	12.4	9-26-19 7:30	10.69	920	8.18	80.7															
10-11-19 15:45	3.17	1754	8.50	4.0	9-26-19 7:45	10.23	935	8.59	13.8	9-26-19 7:45	10.67	920	8.19	81.9															
10-11-19 16:00	3.18	1754	8.50	4.0	9-26-19 8:00	10.22	935	8.59	12.3	9-26-19 8:00	10.63	921	8.19	75.0															
10-11-19 16:15	3.20	1756	8.50	4.1	9-26-19 8:15	10.20	935	8.59	15.7	9-26-19 8:15	10.61	920	8.20	80.4															
10-11-19 16:30	3.29	1757	8.50	3.9	9-26-19 8:30	10.19	935	8.59	15.4	9-26-19 8:30	10.59	921	8.20	73.1															
10-11-19 16:45	3.41	1754	8.50	4.0	9-26-19 8:45	10.14	935	8.59	11.0	9-26-19 8:45	10.57	922	8.20	86.5															
10-11-19 17:00	3.50	1752	8.50	3.6	9-26-19 9:00	10.15	935	8.59	9.9	9-26-19 9:00	10.57	923	8.20	82.6															
10-11-19 17:15	3.48	1753	8.50	4.6	9-26-19 9:15	10.14	935	8.59	12.6	9-26-19 9:15	10.56	922	8.20	83.7															
10-11-19 17:30	3.58	1753	8.50	3.8	9-26-19 9:30	10.12	935	8.58	12.1	9-26-19 9:30	10.55	922	8.20	83.7															
10-11-19 17:45	3.59	1751	8.50	4.2	9-26-19 9:45	10.10	935	8.58	12.7	9-26-19 9:45	10.55	924	8.20	88.0															
10-11-19 18:00	3.64	1752	8.50	3.7	9-26-19 10:00	10.11	935	8.58	13.1	9-26-19 10:00	10.55	924	8.20	90.0															
10-11-19 18:15	3.69	1752	8.50	4.2	9-26-19 10:15	10.07	935	8.58	11.2	9-26-19 10:15	10.55	923	8.20	88.2															
10-11-19 18:30	3.65	1751	8.50	3.9	9-26-19 10:30	10.07	935	8.58	11.4	9-26-19 10:30	10.54	924	8.21	89.2															
10-11-19 18:45	3.78	1751	8.50	4.6	9-26-19 10:45	10.06	935	8.58	8.9	9-26-19 10:45	10.53	924	8.21	87.5															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-11-19 19:00	3.76	1749	8.50	3.7	9-26-19 11:00	10.04	935	8.58	12.1	9-26-19 11:00	10.51	924	8.21	79.8															
10-11-19 19:15	3.79	1748	8.50	4.3	9-26-19 11:15	10.05	935	8.57	10.5	9-26-19 11:15	10.51	925	8.21	93.1															
10-11-19 19:30	3.67	1741	8.51	3.9	9-26-19 11:30	10.03	935	8.57	12.8	9-26-19 11:30	10.49	925	8.21	93.4															
10-11-19 19:45	3.83	1750	8.50	4.4	9-26-19 11:45	10.04	935	8.57	19.1	9-26-19 11:45	10.48	925	8.22	85.4															
10-11-19 20:00	4.18	1749	8.50	4.1	9-26-19 12:00	10.03	935	8.57	11.0	9-26-19 12:00	10.43	924	8.22	89.2															
10-11-19 20:15	4.37	1748	8.49	5.1	9-26-19 12:15	9.99	935	8.57	9.8	9-26-19 12:15	10.38	924	8.22	88.8															
10-11-19 20:30	4.73	1744	8.49	3.7	9-26-19 12:30	9.99	935	8.57	11.6	9-26-19 12:30	10.40	925	8.22	85.4															
10-11-19 20:45	4.60	1740	8.49	4.3	9-26-19 12:45	9.97	935	8.57	9.2	9-26-19 12:45	10.38	924	8.23	87.3															
10-11-19 21:00	4.62	1742	8.50	6.3	9-26-19 13:00	9.96	935	8.57	10.5	9-26-19 13:00	10.39	925	8.23	87.9															
10-11-19 21:15	4.51	1746	8.50	4.2	9-26-19 13:15	9.95	935	8.56	10.4	9-26-19 13:15	10.35	923	8.23	89.6															
10-11-19 21:30	5.02	1735	8.49	9.1	9-26-19 13:30	9.92	935	8.56	10.1	9-26-19 13:30	10.31	925	8.24	102.9															
10-11-19 21:45	5.03	1734	8.49	4.8	9-26-19 13:45	9.91	934	8.56	16.8	9-26-19 13:45	10.30	924	8.24	97.7															
10-11-19 22:00	5.13	1730	8.49	3.9	9-26-19 14:00	9.89	934	8.56	12.2	9-26-19 14:00	10.28	924	8.24	96.4															
10-11-19 22:15	4.73	1742	8.50	4.3	9-26-19 14:15	9.87	934	8.56	11.6	9-26-19 14:15	10.22	925	8.25	92.6															
10-11-19 22:30	4.68	1743	8.51	4.4	9-26-19 14:30	9.83	933	8.55	12.2	9-26-19 14:30	10.18	924	8.26	95.9															
10-11-19 22:45	4.62	1744	8.51	4.6	9-26-19 14:45	9.80	934	8.56	9.8	9-26-19 14:45	10.17	924	8.25	94.1															
10-11-19 23:00	4.57	1746	8.51	3.8	9-26-19 15:00	9.75	933	8.55	10.3	9-26-19 15:00	10.14	923	8.25	95.2															
10-11-19 23:15	4.62	1745	8.51	4.6	9-26-19 15:15	9.74	933	8.56	9.8	9-26-19 15:15	10.08	923	8.26	91.5															
10-11-19 23:30	4.65	1744	8.52	4.6	9-26-19 15:30	9.70	933	8.55	9.0	9-26-19 15:30	10.11	923	8.25	88.1															
10-11-19 23:45	4.69	1746	8.51	4.6	9-26-19 15:45	9.68	932	8.55	10.7	9-26-19 15:45	10.07	924	8.26	92.7															
10-12-19 0:00	4.75	1742	8.51	4.6	9-26-19 16:00	9.64	932	8.55	9.9	9-26-19 16:00	10.05	924	8.26	93.8															
10-12-19 0:15	4.69	1745	8.51	5.5	9-26-19 16:15	9.60	932	8.55	15.6	9-26-19 16:15	10.03	924	8.26	93.4															
10-12-19 0:30	4.69	1743	8.52	6.1	9-26-19 16:30	9.61	932	8.55	9.3	9-26-19 16:30	10.03	925	8.26	90.1															
10-12-19 0:45	4.68	1742	8.52	5.9	9-26-19 16:45	9.59	932	8.56	8.2	9-26-19 16:45	10.01	925	8.27	94.1															
10-12-19 1:00	4.71	1744	8.52	6.4	9-26-19 17:00	9.57	932	8.55	10.7	9-26-19 17:00	10.03	925	8.27	89.4															
10-12-19 1:15	4.71	1743	8.52	5.4	9-26-19 17:15	9.56	932	8.56	9.6	9-26-19 17:15	10.03	926	8.27	92.2															
10-12-19 1:30	4.72	1743	8.52	6.0	9-26-19 17:30	9.57	932	8.56	9.1	9-26-19 17:30	10.06	926	8.27	97.0															
10-12-19 1:45	4.72	1743	8.52	6.2	9-26-19 17:45	9.57	932	8.56	11.9	9-26-19 17:45	10.04	926	8.27	90.4															
10-12-19 2:00	4.72	1743	8.52	4.1	9-26-19 18:00	9.56	932	8.56	12.7	9-26-19 18:00	10.07	926	8.28	90.7															
10-12-19 2:15	4.73	1742	8.52	4.4	9-26-19 18:15	9.58	932	8.56	12.8	9-26-19 18:15	10.08	926	8.27	93.2															
10-12-19 2:30	4.71	1741	8.52	4.5	9-26-19 18:30	9.60	932	8.56	10.8	9-26-19 18:30	10.09	927	8.28	95.0															
10-12-19 2:45	4.70	1743	8.52	4.4	9-26-19 18:45	9.61	932	8.57	9.4	9-26-19 18:45	10.10	928	8.28	91.3															
10-12-19 3:00	4.66	1742	8.52	4.8	9-26-19 19:00	9.62	932	8.57	11.1	9-26-19 19:00	10.10	927	8.28	101.3															
10-12-19 3:15	4.66	1742	8.52	5.2	9-26-19 19:15	9.62	932	8.57	9.6	9-26-19 19:15	10.10	927	8.29	107.2															
10-12-19 3:30	4.66	1743	8.52	4.7	9-26-19 19:30	9.64	931	8.57	10.7	9-26-19 19:30	10.10	927	8.29	104.6															
10-12-19 3:45	4.62	1743	8.52	4.5	9-26-19 19:45	9.66	931	8.58	10.5	9-26-19 19:45	10.11	927	8.28	98.2															
10-12-19 4:00	4.59	1742	8.52	3.8	9-26-19 20:00	9.65	931	8.58	10.3	9-26-19 20:00	10.12	927	8.28	104.7															
10-12-19 4:15	4.61	1744	8.52	4.6	9-26-19 20:15	9.65	931	8.58	11.3	9-26-19 20:15	10.12	927	8.29	99.8															
10-12-19 4:30	4.55	1743	8.52	3.9	9-26-19 20:30	9.66	931	8.58	10.4	9-26-19 20:30	10.10	927	8.29	97.7															
10-12-19 4:45	4.56	1744	8.52	4.7	9-26-19 20:45	9.66	931	8.58	9.1	9-26-19 20:45	10.08	927	8.29	97.1															
10-12-19 5:00	4.55	1744	8.52	3.8	9-26-19 21:00	9.65	931	8.58	8.8	9-26-19 21:00	10.08	927	8.30	103.7															
10-12-19 5:15	4.55	1744	8.52	5.0	9-26-19 21:15	9.66	931	8.59	7.9	9-26-19 21:15	10.07	927	8.29	102.8															
10-12-19 5:30	4.57	1742	8.52	4.4	9-26-19 21:30	9.65	931	8.59	8.0	9-26-19 21:30	10.06	927	8.29	92.3															
10-12-19 5:45	4.58	1745	8.52	4.0	9-26-19 21:45	9.63	931	8.59	9.4	9-26-19 21:45	10.05	928	8.30	97.2															
10-12-19 6:00	4.58	1742	8.52	3.9	9-26-19 22:00	9.63	931	8.59	9.0	9-26-19 22:00	10.04	927	8.30	89.4															
10-12-19 6:15	4.58	1746	8.52	4.4	9-26-19 22:15	9.63	931	8.59	9.1	9-26-19 22:15	10.06	927	8.29	98.1															
10-12-19 6:30	4.59	1746	8.52	4.1	9-26-19 22:30	9.64	931	8.59	8.5	9-26-19 22:30	10.03	928	8.29	95.0															
10-12-19 6:45	4.59	1743	8.52	4.3	9-26-19 22:45	9.64	931	8.60	8.1	9-26-19 22:45	10.04	927	8.29	88.8															
10-12-19 7:00	4.59	1743	8.52	6.1	9-26-19 23:00	9.63	931	8.59	8.1	9-26-19 23:00	10.04	928	8.29	88.2															
10-12-19 7:15	4.57	1744	8.52	5.9	9-26-19 23:15	9.62	931	8.60	7.3	9-26-19 23:15	10.03	927	8.29	89.5															
10-12-19 7:30	4.59	1743	8.52	4.7	9-26-19 23:30	9.62	931	8.60	7.2	9-26-19 23:30	10.05	927	8.29	87.9															
10-12-19 7:45	4.59	1743	8.51	5.9	9-26-19 23:45	9.64	931	8.59	10.8	9-26-19 23:45	10.02	928	8.30	94.1															
10-12-19 8:00	4.59	1743	8.52	5.0	9-27-19 0:00	9.64	930	8.59	8.6	9-27-19 0:00	10.02	928	8.30	87.7															
10-12-19 8:15	4.60	1743	8.51	4.6	9-27-19 0:15	9.64	930	8.60	10.7	9-27-19 0:15	10.01	928	8.30	90.3															
10-12-19 8:30	4.59	1744	8.52	4.1	9-27-19 0:30	9.61	930	8.60	8.0	9-27-19 0:30	10.00	928	8.30	91.2															
10-12-19 8:45	4.60	1743	8.51	4.3	9-27-19 0:45	9.61	931	8.60	8.2	9-27-19 0:45	9.99	928	8.30	88.6															
10-12-19 9:00	4.59	1742	8.52	4.2	9-27-19 1:00	9.60	931	8.60	7.9	9-27-19 1:00	10.01	928	8.30	86.9															
10-12-19 9:15	4.58	1742	8.51	4.2	9-27-19 1:15	9.58	931	8.60	7.5	9-27-19 1:15	9.96	928	8.30	85.0															
10-12-19 9:30	4.59	1742	8.51	5.0	9-27-19 1:30	9.58	931	8.60	7.8	9-27-19 1:30	9.96	928	8.29	84.5															
10-12-19 9:45	4.58	1742	8.51	5.4	9-27-19 1:45	9.55	933	8.59	10.7	9-27-19 1:45	9.95	928	8.29	85.1															
10-12-19 10:00	4.57	1742	8.52	5.7	9-27-19 2:00	9.54	933	8.59	11.9	9-27-19 2:00	9.95	928	8.29	83.2															
10-12-19 10:15	4.56	1745	8.52	4.7	9-27-19 2:15	9.53	933	8.59	9.4	9-27-19 2:15	9.96	928	8.29	92.1															
10-12-19 10:30	4.56	1744	8.51	5.6	9-27-19 2:30	9.53	933	8.59	10.2	9-27-19 2:30	9.94	928	8.30	80.4															
10-12-19 10:45	4.56	1743	8.51	4.7	9-27-19 2:45	9.52	933	8.59	8.3	9-27-19 2:45	9.95	928	8.30	83.5															
10-12-19 11:00	4.57	1742	8.51	4.0	9-27-19 3:00	9.50	933	8.59	8.8	9-27-19 3:00	9.93	929	8.28	74.5															
10-12-19 11:15	4.58	1743	8.51	4.7	9-27-19 3:15	9.48	933	8.58	8.9	9-27-19 3:15	9.91	929	8.29	81.4															
10-12-19 11:30	4.58	1740	8.51	4.5	9-27-19 3:30	9.47	933	8.58	8.7	9-27-19 3:30	9.89	929	8.29	75.3															
10-12-19 11:45	4.57	1744	8.51	5.2	9-27-19 3:45	9.46	933	8.58	14.6	9-27-19 3:45	9.90	929	8.29	83.3															
10-12-19 12:00	4.58	1743	8.51	4.4	9-27-19 4:00	9.45	933	8.58	14.1	9-27-19 4:00	9.87	929	8.30	73.3															
10-12-19 12:15	4.58	1744	8.51	4.2	9-27-19 4:15	9.43	934	8.58	12.9	9-27-19 4:15	9.85	929	8.30	79.3															
10-12-19 12:30	4.58	1743	8.51	4.3	9-27-19 4:30	9.42	933	8.58	13.5	9-27-19 4:30	9.82	929	8.30	82.0															
10-12-19 12:45	4.58	1744	8.51	4.8	9-27-19 4:45	9.41	934	8.58	9.8	9-27-19 4:45	9.81	929	8.30	78.2															
10-12-19 13:00	4.57	1744	8.51	3.9	9-27-19 5:00	9.40	934	8.58	9.9	9-27-19 5:00	9.81	928	8.29	79.2															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-12-19 13:15	4.56	1743	8.51	4.6	9-27-19 5:15	9.39	934	8.57	10.3	9-27-19 5:15	9.80	929	8.30	79.9															
10-12-19 13:30	4.56	1742	8.51	4.1	9-27-19 5:30	9.37	934	8.57	9.4	9-27-19 5:30	9.79	929	8.30	77.0															
10-12-19 13:45	4.57	1744	8.51	5.1	9-27-19 5:45	9.35	934	8.57	10.4	9-27-19 5:45	9.73	929	8.30	75.5															
10-12-19 14:00	4.55	1743	8.51	5.7	9-27-19 6:00	9.34	934	8.57	9.2	9-27-19 6:00	9.75	929	8.30	71.6															
10-12-19 14:15	4.53	1744	8.51	4.7	9-27-19 6:15	9.33	934	8.57	9.3	9-27-19 6:15	9.74	929	8.29	76.6															
10-12-19 14:30	4.51	1744	8.52	5.6	9-27-19 6:30	9.30	934	8.57	11.1	9-27-19 6:30	9.72	929	8.30	72.1															
10-12-19 14:45	4.52	1745	8.51	5.2	9-27-19 6:45	9.28	934	8.57	10.7	9-27-19 6:45	9.68	929	8.30	75.4															
10-12-19 15:00	4.47	1743	8.51	5.0	9-27-19 7:00	9.27	935	8.56	10.3	9-27-19 7:00	9.67	929	8.30	70.9															
10-12-19 15:15	4.50	1744	8.51	5.1	9-27-19 7:15	9.25	934	8.57	10.0	9-27-19 7:15	9.67	929	8.29	78.1															
10-12-19 15:30	4.52	1743	8.51	4.8	9-27-19 7:30	9.25	936	8.56	11.3	9-27-19 7:30	9.67	929	8.29	75.1															
10-12-19 15:45	4.56	1743	8.51	5.0	9-27-19 7:45	9.24	936	8.56	11.3	9-27-19 7:45	9.64	930	8.29	72.4															
10-12-19 16:00	4.59	1742	8.51	4.6	9-27-19 8:00	9.23	936	8.56	11.1	9-27-19 8:00	9.61	930	8.30	76.6															
10-12-19 16:15	4.62	1742	8.51	4.9	9-27-19 8:15	9.22	937	8.55	13.2	9-27-19 8:15	9.61	929	8.30	73.9															
10-12-19 16:30	4.66	1742	8.51	4.2	9-27-19 8:30	9.21	936	8.55	12.1	9-27-19 8:30	9.61	929	8.29	66.6															
10-12-19 16:45	4.71	1741	8.51	4.4	9-27-19 8:45	9.20	936	8.56	11.5	9-27-19 8:45	9.56	929	8.31	73.4															
10-12-19 17:00	4.70	1739	8.51	4.9	9-27-19 9:00	9.18	938	8.55	13.2	9-27-19 9:00	9.56	930	8.30	77.7															
10-12-19 17:15	4.73	1738	8.51	4.2	9-27-19 9:15	9.17	938	8.55	14.4	9-27-19 9:15	9.56	930	8.30	73.6															
10-12-19 17:30	4.78	1738	8.51	3.9	9-27-19 9:30	9.15	938	8.55	11.1	9-27-19 9:30	9.57	930	8.30	69.9															
10-12-19 17:45	4.91	1740	8.51	3.8	9-27-19 9:45	9.14	938	8.54	19.3	9-27-19 9:45	9.56	929	8.30	71.3															
10-12-19 18:00	4.97	1733	8.51	3.7	9-27-19 10:00	9.13	938	8.54	18.4	9-27-19 10:00	9.52	929	8.30	70.3															
10-12-19 18:15	4.99	1739	8.51	5.7	9-27-19 10:15	9.11	939	8.54	20.8	9-27-19 10:15	9.48	929	8.30	72.6															
10-12-19 18:30	5.09	1738	8.51	5.7	9-27-19 10:30	9.09	939	8.54	10.6	9-27-19 10:30	9.49	929	8.30	68.9															
10-12-19 19:00	5.01	1743	8.52	5.2	9-27-19 10:45	9.08	939	8.54	11.9	9-27-19 10:45	9.47	929	8.29	69.9															
10-12-19 19:15	5.20	1738	8.51	4.7	9-27-19 11:00	9.05	939	8.54	11.5	9-27-19 11:00	9.45	929	8.30	69.3															
10-12-19 19:30	5.32	1738	8.51	4.3	9-27-19 11:15	9.03	939	8.54	10.5	9-27-19 11:15	9.43	929	8.30	68.7															
10-12-19 19:45	5.31	1741	8.52	5.5	9-27-19 11:30	9.03	940	8.54	10.6	9-27-19 11:30	9.40	929	8.30	73.4															
10-12-19 20:00	5.31	1737	8.52	4.7	9-27-19 11:45	9.03	940	8.54	11.4	9-27-19 11:45	9.38	930	8.30	68.3															
10-12-19 20:15	5.32	1734	8.52	5.8	9-27-19 12:00	9.01	940	8.53	11.7	9-27-19 12:00	9.36	929	8.30	70.0															
10-12-19 20:30	5.40	1738	8.52	5.5	9-27-19 12:15	9.00	940	8.53	20.8	9-27-19 12:15	9.35	929	8.30	67.3															
10-12-19 20:45	5.51	1737	8.52	4.5	9-27-19 12:30	8.97	940	8.53	19.5	9-27-19 12:30	9.34	929	8.30	68.2															
10-12-19 21:00	5.63	1736	8.52	4.1	9-27-19 12:45	8.96	940	8.53	10.8	9-27-19 12:45	9.33	929	8.30	68.1															
10-12-19 21:15	5.78	1732	8.52	5.8	9-27-19 13:00	8.92	940	8.53	10.4	9-27-19 13:00	9.31	929	8.30	65.6															
10-12-19 21:30	5.75	1731	8.52	4.1	9-27-19 13:15	8.93	940	8.53	10.5	9-27-19 13:15	9.29	930	8.30	67.1															
10-12-19 21:45	5.67	1745	8.53	4.2	9-27-19 13:30	8.91	940	8.53	9.9	9-27-19 13:30	9.28	930	8.30	61.0															
10-12-19 22:00	5.69	1735	8.52	4.7	9-27-19 13:45	8.91	940	8.53	21.0	9-27-19 13:45	9.29	930	8.30	70.5															
10-12-19 22:15	5.91	1745	8.52	4.9	9-27-19 14:00	8.92	941	8.52	21.1	9-27-19 14:00	9.26	930	8.31	65.7															
10-12-19 22:30	5.93	1735	8.52	6.1	9-27-19 14:15	8.90	941	8.52	15.6	9-27-19 14:15	9.26	930	8.31	71.4															
10-12-19 22:45	5.97	1730	8.52	6.3	9-27-19 14:30	8.84	941	8.52	18.6	9-27-19 14:30	9.19	930	8.31	65.7															
10-12-19 23:00	5.96	1734	8.52	6.1	9-27-19 14:45	8.88	940	8.53	31.7	9-27-19 14:45	9.18	930	8.31	69.8															
10-12-19 23:15	5.94	1733	8.53	8.1	9-27-19 15:00	8.85	941	8.52	9.6	9-27-19 15:00	9.20	930	8.31	70.9															
10-12-19 23:30	5.91	1732	8.53	6.0	9-27-19 15:15	8.83	942	8.52	10.2	9-27-19 15:15	9.14	930	8.31	68.5															
10-12-19 23:45	5.94	1741	8.53	6.6	9-27-19 15:30	8.83	942	8.52	22.4	9-27-19 15:30	9.14	930	8.31	66.3															
10-13-19 0:00	5.94	1732	8.53	6.5	9-27-19 15:45	8.80	943	8.51	26.3	9-27-19 15:45	9.14	930	8.31	67.5															
10-13-19 0:15	5.89	1737	8.53	6.6	9-27-19 16:00	8.77	943	8.51	33.2	9-27-19 16:00	9.13	930	8.31	64.2															
10-13-19 0:30	5.87	1739	8.53	5.0	9-27-19 16:15	8.77	943	8.51	33.7	9-27-19 16:15	9.10	930	8.31	65.7															
10-13-19 0:45	5.81	1735	8.54	8.1	9-27-19 16:30	8.74	943	8.51	22.7	9-27-19 16:30	9.10	930	8.31	63.3															
10-13-19 1:00	5.87	1739	8.54	4.3	9-27-19 16:45	8.73	941	8.52	10.2	9-27-19 16:45	9.11	930	8.31	67.9															
10-13-19 1:15	5.91	1737	8.54	3.9	9-27-19 17:00	8.73	944	8.51	10.3	9-27-19 17:00	9.10	931	8.31	62.3															
10-13-19 1:30	5.88	1735	8.54	4.6	9-27-19 17:15	8.72	943	8.51	9.9	9-27-19 17:15	9.08	930	8.31	65.9															
10-13-19 1:45	5.88	1732	8.54	3.9	9-27-19 17:30	8.70	943	8.52	9.6	9-27-19 17:30	9.06	930	8.31	63.3															
10-13-19 2:00	5.85	1732	8.54	4.3	9-27-19 17:45	8.72	943	8.52	38.1	9-27-19 17:45	9.01	930	8.32	66.0															
10-13-19 2:15	5.81	1737	8.54	6.2	9-27-19 18:00	8.69	942	8.52	22.9	9-27-19 18:00	9.01	930	8.32	63.5															
10-13-19 2:30	5.78	1735	8.54	5.5	9-27-19 18:15	8.67	942	8.53	18.1	9-27-19 18:15	9.00	930	8.32	67.5															
10-13-19 2:45	5.77	1736	8.54	6.8	9-27-19 18:30	8.68	942	8.53	28.5	9-27-19 18:30	9.02	930	8.32	67.8															
10-13-19 3:00	5.71	1733	8.54	7.4	9-27-19 18:45	8.68	942	8.53	9.4	9-27-19 18:45	9.02	930	8.32	72.1															
10-13-19 3:15	5.67	1731	8.54	4.7	9-27-19 19:00	8.67	942	8.53	28.3	9-27-19 19:00	9.00	931	8.32	60.4															
10-13-19 3:30	5.62	1733	8.55	5.1	9-27-19 19:15	8.68	943	8.53	9.7	9-27-19 19:15	8.99	931	8.32	62.6															
10-13-19 3:45	5.60	1729	8.55	5.2	9-27-19 19:30	8.67	942	8.54	9.0	9-27-19 19:30	9.01	931	8.32	64.7															
10-13-19 4:00	5.60	1729	8.55	6.6	9-27-19 19:45	8.67	943	8.54	53.5	9-27-19 19:45	9.01	931	8.32	68.0															
10-13-19 4:15	5.58	1730	8.55	5.4	9-27-19 20:00	8.66	944	8.54	32.4	9-27-19 20:00	8.95	931	8.33	60.5															
10-13-19 4:30	5.58	1729	8.55	5.0	9-27-19 20:15	8.66	944	8.54	14.1	9-27-19 20:15	8.98	931	8.33	69.6															
10-13-19 4:45	5.54	1732	8.56	6.2	9-27-19 20:30	8.64	942	8.55	13.6	9-27-19 20:30	8.98	932	8.32	61.7															
10-13-19 5:00	5.52	1734	8.55	6.6	9-27-19 20:45	8.63	943	8.55	8.3	9-27-19 20:45	8.95	932	8.33	64.0															
10-13-19 5:15	5.50	1732	8.55	4.0	9-27-19 21:00	8.61	943	8.55	9.4	9-27-19 21:00	8.92	932	8.33	62.3															
10-13-19 5:30	5.50	1736	8.55	4.2	9-27-19 21:15	8.60	944	8.55	10.2	9-27-19 21:15	8.93	932	8.33	62.0															
10-13-19 5:45	5.47	1733	8.55	5.0	9-27-19 21:30	8.59	945	8.55	10.0	9-27-19 21:30	8.96	933	8.32	62.8															
10-13-19 6:00	5.45	1731	8.55	4.3	9-27-19 21:45	8.60	944	8.55	12.0	9-27-19 21:45	8.96	933	8.32	66.4															
10-13-19 6:15	5.43	1732	8.55	7.5	9-27-19 22:00	8.60	945	8.55	10.8	9-27-19 22:00	8.95	933	8.33	57.8															
10-13-19 6:30	5.39	1730	8.55	4.8	9-27-19 22:15	8.60	945	8.55	12.5	9-27-19 22:15	8.94	933	8.33	64.4															
10-13-19 6:45	5.36	1731	8.55	6.0	9-27-19 22:30	8.60	945	8.55	10.7	9-27-19 22:30	8.95	934	8.33	59.4															
10-13-19 7:00	5.32	1730	8.56	4.2	9-27-19 22:45	8.55	945	8.55	9.6	9-27-19 22:45	8.95	934	8.32	63.7															
10-13-19 7:15	5.32	1739	8.55	5.0	9-27-19 23:00	8.56	945	8.55	10.8	9-27-19 23:00	8.96	935	8.32	64.5															
10-13-19 7:30	5.23	1728	8.56	4.3	9-27-19 23:15	8.55	946	8.55	11.5	9-27-19 23:15	8.93	934	8.33	63.0															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-13-19 7:45	5.25	1728	8.56	5.5	9-27-19 23:30	8.53	947	8.55	10.4	9-27-19 23:30	8.94	934	8.33	59.8															
10-13-19 8:00	5.18	1727	8.56	4.6	9-27-19 23:45	8.52	947	8.55	11.6	9-27-19 23:45	8.93	934	8.33	64.8															
10-13-19 8:15	5.20	1728	8.56	4.5	9-28-19 0:00	8.51	947	8.54	10.7	9-28-19 0:00	8.90	934	8.33	62.0															
10-13-19 8:30	5.12	1730	8.56	3.8	9-28-19 0:15	8.49	948	8.54	10.7	9-28-19 0:15	8.91	935	8.33	62.4															
10-13-19 8:45	5.08	1730	8.56	3.7	9-28-19 0:30	8.46	947	8.55	13.6	9-28-19 0:30	8.90	935	8.33	64.5															
10-13-19 9:00	5.02	1731	8.56	4.3	9-28-19 0:45	8.46	948	8.54	11.7	9-28-19 0:45	8.89	935	8.33	63.5															
10-13-19 9:15	5.02	1729	8.56	4.2	9-28-19 1:00	8.43	949	8.54	11.5	9-28-19 1:00	8.88	935	8.33	63.0															
10-13-19 9:30	4.95	1727	8.56	5.1	9-28-19 1:15	8.40	949	8.54	10.7	9-28-19 1:15	8.85	936	8.33	62.2															
10-13-19 9:45	4.95	1724	8.56	4.4	9-28-19 1:30	8.39	949	8.54	11.0	9-28-19 1:30	8.82	936	8.33	60.4															
10-13-19 10:00	4.94	1724	8.56	4.7	9-28-19 1:45	8.35	948	8.54	12.1	9-28-19 1:45	8.81	936	8.33	65.6															
10-13-19 10:15	4.86	1725	8.57	4.1	9-28-19 2:00	8.37	949	8.54	10.5	9-28-19 2:00	8.77	936	8.33	63.2															
10-13-19 10:30	4.82	1726	8.56	4.3	9-28-19 2:15	8.33	949	8.54	10.7	9-28-19 2:15	8.77	936	8.33	62.8															
10-13-19 10:45	4.80	1725	8.57	4.4	9-28-19 2:30	8.32	949	8.54	11.5	9-28-19 2:30	8.74	937	8.33	60.7															
10-13-19 11:00	4.75	1725	8.57	5.1	9-28-19 2:45	8.26	950	8.53	13.2	9-28-19 2:45	8.73	937	8.33	62.5															
10-13-19 11:15	4.75	1723	8.57	3.8	9-28-19 3:00	8.27	948	8.54	10.0	9-28-19 3:00	8.71	937	8.33	59.7															
10-13-19 11:30	4.66	1722	8.57	6.6	9-28-19 3:15	8.27	948	8.54	12.3	9-28-19 3:15	8.67	937	8.33	59.1															
10-13-19 11:45	4.66	1728	8.57	4.2	9-28-19 3:30	8.21	949	8.54	10.0	9-28-19 3:30	8.64	937	8.33	60.1															
10-13-19 12:00	4.62	1722	8.57	4.1	9-28-19 3:45	8.20	949	8.54	11.0	9-28-19 3:45	8.64	937	8.33	63.6															
10-13-19 12:15	4.59	1722	8.57	4.3	9-28-19 4:00	8.18	949	8.53	14.9	9-28-19 4:00	8.61	937	8.33	62.6															
10-13-19 12:30	4.56	1723	8.57	4.5	9-28-19 4:15	8.18	949	8.53	16.3	9-28-19 4:15	8.58	937	8.33	60.2															
10-13-19 12:45	4.52	1721	8.57	4.8	9-28-19 4:30	8.16	949	8.53	13.2	9-28-19 4:30	8.59	937	8.33	64.6															
10-13-19 13:00	4.48	1721	8.57	5.1	9-28-19 4:45	8.14	949	8.54	10.9	9-28-19 4:45	8.57	938	8.33	63.0															
10-13-19 13:15	4.44	1719	8.57	4.9	9-28-19 5:00	8.10	950	8.53	9.6	9-28-19 5:00	8.52	937	8.33	60.7															
10-13-19 13:30	4.40	1719	8.57	5.1	9-28-19 5:15	8.07	950	8.53	10.4	9-28-19 5:15	8.49	937	8.33	62.8															
10-13-19 13:45	4.39	1717	8.57	5.3	9-28-19 5:30	8.06	950	8.53	10.3	9-28-19 5:30	8.49	937	8.33	59.1															
10-13-19 14:00	4.31	1717	8.57	5.4	9-28-19 5:45	8.05	950	8.53	9.8	9-28-19 5:45	8.48	938	8.33	61.0															
10-13-19 14:15	4.34	1718	8.57	5.6	9-28-19 6:00	8.02	950	8.53	12.5	9-28-19 6:00	8.45	938	8.34	59.7															
10-13-19 14:30	4.29	1720	8.57	5.8	9-28-19 6:15	8.01	950	8.53	17.2	9-28-19 6:15	8.45	938	8.33	58.3															
10-13-19 14:45	4.26	1720	8.57	4.1	9-28-19 6:30	7.98	951	8.52	18.5	9-28-19 6:30	8.43	938	8.33	56.7															
10-13-19 15:00	4.21	1717	8.57	4.7	9-28-19 6:45	7.97	951	8.53	9.4	9-28-19 6:45	8.44	937	8.33	58.5															
10-13-19 15:15	4.21	1713	8.58	4.1	9-28-19 7:00	7.95	950	8.53	8.8	9-28-19 7:00	8.43	938	8.33	54.7															
10-13-19 15:30	4.19	1713	8.58	4.6	9-28-19 7:15	7.90	951	8.52	9.1	9-28-19 7:15	8.38	937	8.33	58.2															
10-13-19 15:45	4.16	1710	8.58	4.1	9-28-19 7:30	7.90	951	8.52	10.3	9-28-19 7:30	8.37	938	8.33	53.3															
10-13-19 16:00	4.16	1710	8.58	5.1	9-28-19 7:45	7.86	951	8.52	15.4	9-28-19 7:45	8.32	938	8.34	55.9															
10-13-19 16:15	4.13	1707	8.58	4.3	9-28-19 8:00	7.83	950	8.52	16.3	9-28-19 8:00	8.35	938	8.33	55.4															
10-13-19 16:30	4.15	1706	8.58	4.6	9-28-19 8:15	7.80	951	8.52	13.8	9-28-19 8:15	8.36	938	8.33	55.3															
10-13-19 16:45	4.18	1706	8.58	4.0	9-28-19 8:30	7.77	950	8.53	15.9	9-28-19 8:30	8.33	938	8.33	58.6															
10-13-19 17:00	4.16	1707	8.58	4.7	9-28-19 8:45	7.76	949	8.54	8.8	9-28-19 8:45	8.30	938	8.33	57.8															
10-13-19 17:15	4.16	1706	8.58	4.1	9-28-19 9:00	7.76	948	8.52	6.8	9-28-19 9:00	8.30	938	8.33	58.0															
10-13-19 17:30	4.15	1706	8.58	4.9	9-28-19 9:15	7.75	948	8.53	7.7	9-28-19 9:15	8.27	938	8.33	56.7															
10-13-19 17:45	4.15	1703	8.58	4.2	9-28-19 9:30	7.75	949	8.51	9.3	9-28-19 9:30	8.18	938	8.34	53.4															
10-13-19 18:00	4.17	1702	8.58	4.8	9-28-19 9:45	7.72	949	8.52	16.2	9-28-19 9:45	8.22	938	8.33	51.5															
10-13-19 18:15	4.21	1701	8.58	4.1	9-28-19 10:00	7.71	949	8.53	14.0	9-28-19 10:00	8.22	938	8.33	59.2															
10-13-19 18:30	4.24	1700	8.58	4.7	9-28-19 10:15	7.69	949	8.53	12.8	9-28-19 10:15	8.25	938	8.34	56.4															
10-13-19 19:00	4.26	1698	8.58	4.3	9-28-19 10:30	7.65	949	8.53	16.1	9-28-19 10:30	8.23	938	8.33	54.9															
10-13-19 19:15	4.30	1696	8.58	4.4	9-28-19 10:45	7.64	950	8.53	8.2	9-28-19 10:45	8.21	938	8.33	53.7															
10-13-19 19:30	4.32	1698	8.59	4.0	9-28-19 11:00	7.64	950	8.53	7.6	9-28-19 11:00	8.20	938	8.33	54.4															
10-13-19 19:45	4.30	1694	8.59	5.0	9-28-19 11:15	7.64	950	8.52	7.7	9-28-19 11:15	8.20	938	8.33	53.9															
10-13-19 20:00	4.39	1696	8.59	4.0	9-28-19 11:30	7.64	950	8.52	8.0	9-28-19 11:30	8.19	938	8.33	53.8															
10-13-19 20:15	4.47	1689	8.59	4.5	9-28-19 11:45	7.62	950	8.52	17.4	9-28-19 11:45	8.19	938	8.33	51.6															
10-13-19 20:30	4.51	1685	8.59	4.2	9-28-19 12:00	7.61	951	8.52	17.1	9-28-19 12:00	8.14	938	8.33	49.1															
10-13-19 20:45	4.62	1692	8.58	4.9	9-28-19 12:15	7.60	951	8.51	17.6	9-28-19 12:15	8.18	938	8.33	52.6															
10-13-19 21:00	4.64	1676	8.59	4.8	9-28-19 12:30	7.57	951	8.52	16.3	9-28-19 12:30	8.16	938	8.33	45.8															
10-13-19 21:15	4.81	1678	8.59	4.9	9-28-19 12:45	7.56	951	8.52	7.7	9-28-19 12:45	8.13	938	8.33	49.1															
10-13-19 21:30	4.78	1679	8.59	6.1	9-28-19 13:00	7.56	951	8.51	8.3	9-28-19 13:00	8.10	938	8.34	46.2															
10-13-19 21:45	4.76	1680	8.59	5.9	9-28-19 13:15	7.54	951	8.51	9.1	9-28-19 13:15	8.10	938	8.33	50.6															
10-13-19 22:00	4.79	1674	8.59	5.1	9-28-19 13:30	7.47	952	8.51	7.0	9-28-19 13:30	8.08	938	8.33	50.4															
10-13-19 22:15	4.65	1663	8.60	5.7	9-28-19 13:45	7.49	951	8.51	9.6	9-28-19 13:45	8.09	938	8.33	50.3															
10-13-19 22:30	4.65	1664	8.60	5.2	9-28-19 14:00	7.51	951	8.51	8.5	9-28-19 14:00	8.08	938	8.33	49.2															
10-13-19 22:45	4.67	1667	8.60	5.9	9-28-19 14:15	7.49	951	8.51	12.6	9-28-19 14:15	8.05	938	8.33	50.1															
10-13-19 23:00	4.70	1670	8.60	5.5	9-28-19 14:30	7.50	951	8.51	8.8	9-28-19 14:30	8.05	938	8.33	45.1															
10-13-19 23:15	4.78	1666	8.60	6.5	9-28-19 14:45	7.49	951	8.52	7.5	9-28-19 14:45	8.02	938	8.33	51.5															
10-13-19 23:30	5.03	1667	8.60	6.9	9-28-19 15:00	7.49	952	8.51	7.6	9-28-19 15:00	7.97	938	8.33	48.3															
10-13-19 23:45	4.85	1651	8.60	5.0	9-28-19 15:15	7.48	952	8.51	8.1	9-28-19 15:15	7.98	939	8.33	49.6															
10-14-19 0:00	4.63	1669	8.61	5.0	9-28-19 15:30	7.48	952	8.51	7.3	9-28-19 15:30	7.98	938	8.33	51.9															
10-14-19 0:15	4.60	1665	8.61	5.0	9-28-19 15:45	7.46	952	8.51	12.7	9-28-19 15:45	7.99	939	8.33	49.7															
10-14-19 0:30	4.67	1665	8.60	4.8	9-28-19 16:00	7.45	952	8.51	12.1	9-28-19 16:00	7.98	938	8.33	46.4															
10-14-19 0:45	4.69	1667	8.60	5.3	9-28-19 16:15	7.45	952	8.51	12.0	9-28-19 16:15	7.99	939	8.33	46.9															
10-14-19 1:00	4.71	1666	8.60	5.6	9-28-19 16:30	7.45	952	8.51	12.8	9-28-19 16:30	7.99	939	8.33	43.1															
10-14-19 1:15	4.70	1666	8.60	5.5	9-28-19 16:45	7.45	952	8.51	9.0	9-28-19 16:45	7.98	939	8.33	47.4															
10-14-19 1:30	4.70	1661	8.61	4.7	9-28-19 17:00	7.48	951	8.49	6.2	9-28-19 17:00	7.98	938	8.33	48.3															
10-14-19 1:45	4.69	1665	8.61	6.5	9-28-19 17:15	7.45	951	8.51	6.7	9-28-19 17:15	7.99	939	8.33	49.7															
10-14-19 2:00	4.67	1669	8.61	4.8	9-28-19 17:30	7.47	951	8.51	5.2	9-28-19 17:30	7.99	939	8.33	45.8															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-14-19 2:15	4.69	1669	8.61	5.7	9-28-19 17:45	7.48	951	8.51	10.9	9-28-19 17:45	8.00	939	8.34	47.8															
10-14-19 2:30	4.70	1667	8.61	4.8	9-28-19 18:00	7.47	951	8.51	7.4	9-28-19 18:00	8.00	938	8.33	45.0															
10-14-19 2:45	4.68	1666	8.61	5.0	9-28-19 18:15	7.48	951	8.52	7.0	9-28-19 18:15	8.02	939	8.34	48.9															
10-14-19 3:00	4.71	1659	8.60	4.8	9-28-19 18:30	7.47	951	8.52	7.4	9-28-19 18:30	8.05	939	8.33	47.0															
10-14-19 3:15	4.69	1654	8.61	5.3	9-28-19 18:45	7.51	952	8.52	7.0	9-28-19 18:45	8.07	939	8.33	47.2															
10-14-19 3:30	4.68	1656	8.61	4.8	9-28-19 19:00	7.54	953	8.51	7.1	9-28-19 19:00	8.10	939	8.33	44.2															
10-14-19 3:45	4.65	1652	8.60	5.5	9-28-19 19:15	7.57	953	8.51	6.9	9-28-19 19:15	8.12	939	8.33	46.7															
10-14-19 4:00	4.66	1654	8.61	4.6	9-28-19 19:30	7.60	953	8.51	7.6	9-28-19 19:30	8.16	939	8.33	42.4															
10-14-19 4:15	4.64	1652	8.60	5.0	9-28-19 19:45	7.62	952	8.52	10.9	9-28-19 19:45	8.17	940	8.32	46.6															
10-14-19 4:30	4.63	1651	8.60	4.3	9-28-19 20:00	7.71	951	8.52	10.9	9-28-19 20:00	8.30	939	8.33	40.7															
10-14-19 4:45	4.62	1654	8.60	5.4	9-28-19 20:15	7.71	952	8.52	9.9	9-28-19 20:15	8.47	939	8.32	41.5															
10-14-19 5:00	4.61	1654	8.60	4.5	9-28-19 20:30	7.74	952	8.52	10.9	9-28-19 20:30	8.63	940	8.33	41.2															
10-14-19 5:15	4.62	1653	8.60	5.5	9-28-19 20:45	7.88	952	8.53	6.5	9-28-19 20:45	8.62	939	8.33	40.4															
10-14-19 5:30	4.61	1647	8.60	4.9	9-28-19 21:00	7.98	951	8.52	6.5	9-28-19 21:00	8.66	939	8.32	39.6															
10-14-19 5:45	4.61	1646	8.60	5.2	9-28-19 21:15	7.94	952	8.52	6.6	9-28-19 21:15	8.77	940	8.34	41.3															
10-14-19 6:00	4.61	1643	8.60	4.6	9-28-19 21:30	8.13	952	8.53	6.3	9-28-19 21:30	8.81	939	8.33	41.6															
10-14-19 6:15	4.61	1644	8.60	5.4	9-28-19 21:45	8.23	951	8.53	9.7	9-28-19 21:45	8.95	939	8.32	43.4															
10-14-19 6:30	4.59	1640	8.60	4.8	9-28-19 22:00	8.12	952	8.52	10.7	9-28-19 22:00	9.03	940	8.33	38.6															
10-14-19 6:45	4.59	1641	8.60	5.1	9-28-19 22:15	8.07	952	8.53	11.2	9-28-19 22:15	9.02	939	8.32	40.1															
10-14-19 7:00	4.57	1635	8.60	5.2	9-28-19 22:30	7.89	950	8.58	12.3	9-28-19 22:30	8.87	939	8.33	41.6															
10-14-19 7:15	4.58	1639	8.60	5.2	9-28-19 22:45	7.83	951	8.58	7.2	9-28-19 22:45	8.74	939	8.33	43.5															
10-14-19 7:30	4.57	1636	8.60	4.8	9-28-19 23:00	7.81	951	8.58	7.4	9-28-19 23:00	8.69	939	8.33	39.0															
10-14-19 7:45	4.57	1636	8.60	5.4	9-28-19 23:15	7.86	952	8.56	7.6	9-28-19 23:15	8.64	939	8.34	42.2															
10-14-19 8:00	4.57	1636	8.60	5.0	9-28-19 23:30	7.94	951	8.56	6.9	9-28-19 23:30	8.71	940	8.34	38.8															
10-14-19 8:15	4.57	1637	8.60	5.0	9-28-19 23:45	7.99	952	8.54	13.8	9-28-19 23:45	8.65	940	8.33	41.8															
10-14-19 8:30	4.57	1635	8.60	5.1	9-29-19 0:00	8.00	952	8.54	18.2	9-29-19 0:00	8.58	940	8.34	40.2															
10-14-19 8:45	4.56	1635	8.60	5.5	9-29-19 0:15	8.01	952	8.54	9.2	9-29-19 0:15	8.59	940	8.34	40.3															
10-14-19 9:00	4.55	1633	8.60	4.8	9-29-19 0:30	7.99	952	8.55	9.5	9-29-19 0:30	8.54	940	8.34	38.2															
10-14-19 9:15	4.54	1632	8.60	5.9	9-29-19 0:45	7.96	952	8.56	7.5	9-29-19 0:45	8.47	940	8.34	38.5															
10-14-19 9:30	4.53	1630	8.60	5.3	9-29-19 1:00	7.95	952	8.55	7.1	9-29-19 1:00	8.44	940	8.34	38.9															
10-14-19 9:45	4.53	1629	8.60	5.6	9-29-19 1:15	7.93	952	8.56	6.8	9-29-19 1:15	8.39	940	8.34	43.2															
10-14-19 10:00	4.53	1627	8.60	5.1	9-29-19 1:30	7.93	952	8.56	7.4	9-29-19 1:30	8.41	940	8.34	41.1															
10-14-19 10:15	4.52	1626	8.60	5.6	9-29-19 1:45	7.92	952	8.55	15.1	9-29-19 1:45	8.35	941	8.33	40.8															
10-14-19 10:30	4.52	1625	8.60	5.3	9-29-19 2:00	7.90	952	8.55	14.2	9-29-19 2:00	8.35	941	8.33	40.2															
10-14-19 10:45	4.50	1624	8.60	5.8	9-29-19 2:15	7.88	951	8.56	6.8	9-29-19 2:15	8.34	940	8.33	40.6															
10-14-19 11:00	4.51	1624	8.60	4.9	9-29-19 2:30	7.87	952	8.55	7.0	9-29-19 2:30	8.32	940	8.33	40.0															
10-14-19 11:15	4.50	1624	8.60	5.4	9-29-19 2:45	7.85	952	8.55	7.3	9-29-19 2:45	8.30	940	8.33	38.0															
10-14-19 11:30	4.48	1624	8.60	4.9	9-29-19 3:00	7.83	952	8.55	6.4	9-29-19 3:00	8.26	940	8.33	38.5															
10-14-19 11:45	4.47	1621	8.60	4.7	9-29-19 3:15	7.82	952	8.55	6.2	9-29-19 3:15	8.25	941	8.32	41.7															
10-14-19 12:00	4.48	1619	8.60	4.9	9-29-19 3:30	7.81	953	8.55	6.4	9-29-19 3:30	8.23	941	8.32	41.8															
10-14-19 12:15	4.48	1619	8.60	5.9	9-29-19 3:45	7.80	953	8.55	6.5	9-29-19 3:45	8.23	940	8.32	41.9															
10-14-19 12:30	4.47	1617	8.60	5.6	9-29-19 4:00	7.77	953	8.54	6.6	9-29-19 4:00	8.21	940	8.32	45.3															
10-14-19 12:45	4.46	1617	8.60	6.0	9-29-19 4:15	7.75	953	8.54	6.5	9-29-19 4:15	8.20	941	8.32	41.5															
10-14-19 13:00	4.46	1616	8.60	5.7	9-29-19 4:30	7.74	953	8.54	6.2	9-29-19 4:30	8.20	941	8.32	43.2															
10-14-19 13:15	4.45	1616	8.60	6.2	9-29-19 4:45	7.72	953	8.54	7.6	9-29-19 4:45	8.17	941	8.32	41.3															
10-14-19 13:30	4.43	1613	8.60	6.5	9-29-19 5:00	7.69	953	8.54	5.9	9-29-19 5:00	8.15	942	8.32	41.2															
10-14-19 13:45	4.43	1611	8.60	6.9	9-29-19 5:15	7.67	953	8.54	6.7	9-29-19 5:15	8.16	941	8.32	43.0															
10-14-19 14:00	4.44	1608	8.60	5.8	9-29-19 5:30	7.65	953	8.54	6.2	9-29-19 5:30	8.13	941	8.32	42.1															
10-14-19 14:15	4.45	1607	8.59	7.0	9-29-19 5:45	7.63	953	8.54	6.4	9-29-19 5:45	8.10	941	8.32	42.7															
10-14-19 14:30	4.43	1608	8.59	5.7	9-29-19 6:00	7.61	953	8.53	6.2	9-29-19 6:00	8.10	941	8.32	44.6															
10-14-19 14:45	4.42	1608	8.59	6.7	9-29-19 6:15	7.58	954	8.53	6.0	9-29-19 6:15	8.08	942	8.32	43.0															
10-14-19 15:00	4.41	1608	8.59	6.1	9-29-19 6:30	7.55	953	8.53	6.8	9-29-19 6:30	8.06	941	8.32	41.2															
10-14-19 15:15	4.41	1608	8.59	6.0	9-29-19 6:45	7.53	954	8.54	6.9	9-29-19 6:45	8.03	941	8.31	40.6															
10-14-19 15:30	4.41	1607	8.59	5.6	9-29-19 7:00	7.52	954	8.53	6.6	9-29-19 7:00	8.01	941	8.32	38.5															
10-14-19 15:45	4.40	1606	8.59	6.0	9-29-19 7:15	7.48	954	8.53	5.7	9-29-19 7:15	7.99	941	8.32	38.8															
10-14-19 16:00	4.42	1603	8.59	5.7	9-29-19 7:30	7.45	954	8.53	6.4	9-29-19 7:30	7.97	941	8.32	41.1															
10-14-19 16:15	4.43	1602	8.59	5.7	9-29-19 7:45	7.44	954	8.53	6.0	9-29-19 7:45	7.94	941	8.32	41.4															
10-14-19 16:30	4.43	1601	8.59	6.1	9-29-19 8:00	7.40	954	8.53	6.0	9-29-19 8:00	7.91	941	8.32	39.8															
10-14-19 16:45	4.42	1602	8.59	6.4	9-29-19 8:15	7.38	954	8.52	6.6	9-29-19 8:15	7.89	941	8.32	40.6															
10-14-19 17:00	4.43	1599	8.59	6.3	9-29-19 8:30	7.36	954	8.53	5.6	9-29-19 8:30	7.87	942	8.32	37.9															
10-14-19 17:15	4.44	1599	8.59	7.2	9-29-19 8:45	7.34	954	8.53	5.7	9-29-19 8:45	7.85	942	8.32	39.2															
10-14-19 17:30	4.45	1597	8.59	5.6	9-29-19 9:00	7.29	954	8.52	5.7	9-29-19 9:00	7.82	942	8.32	41.4															
10-14-19 17:45	4.46	1596	8.59	6.3	9-29-19 9:15	7.26	947	8.52	4.4	9-29-19 9:15	7.80	942	8.32	38.2															
10-14-19 18:15	4.48	1593	8.59	6.0	9-29-19 9:30	7.25	948	8.52	5.8	9-29-19 9:30	7.76	942	8.32	38.8															
10-14-19 18:30	4.49	1593	8.59	5.7	9-29-19 9:45	7.25	948	8.52	5.8	9-29-19 9:45	7.73	942	8.32	41.4															
10-14-19 18:45	4.50	1593	8.59	5.9	9-29-19 10:00	7.15	953	8.52	5.3	9-29-19 10:00	7.71	942	8.32	37.9															
10-14-19 19:00	4.53	1591	8.59	5.7	9-29-19 10:15	7.14	954	8.51	5.7	9-29-19 10:15	7.68	942	8.32	38.3															
10-14-19 19:15	4.54	1587	8.59	5.8	9-29-19 10:30	7.12	954	8.51	6.1	9-29-19 10:30	7.66	942	8.32	33.9															
10-14-19 19:30	4.56	1587	8.59	5.4	9-29-19 10:45	7.12	954	8.51	5.5	9-29-19 10:45	7.63	942	8.32	34.8															
10-14-19 19:45	4.60	1588	8.59	6.2	9-29-19 11:00	7.09	954	8.51	5.2	9-29-19 11:00	7.61	942	8.32	35.5															
10-14-19 20:00	4.66	1588	8.59	5.4	9-29-19 11:15	7.06	927	8.51	4.6	9-29-19 11:15	7.59	942	8.32	38.6															
10-14-19 20:15	4.68	1586	8.59	6.2	9-29-19 11:30	7.03	954	8.51	5.0	9-29-19 11:30	7.58	942	8.32	36.3															
10-14-19 20:30	4.66	1579	8.59	5.5	9-29-19 11:45	6.99	955	8.51	9.6	9-29-19 11:45	7.54	942	8.32	36.9															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-14-19 20:45	4.64	1580	8.59	6.6	9-29-19 12:00	6.97	956	8.51	7.5	9-29-19 12:00	7.50	942	8.32	37.9															
10-14-19 21:00	4.70	1578	8.59	5.8	9-29-19 12:15	6.96	955	8.51	5.9	9-29-19 12:15	7.50	942	8.32	36.2															
10-14-19 21:15	4.72	1579	8.59	6.0	9-29-19 12:30	6.92	956	8.51	6.9	9-29-19 12:30	7.45	942	8.33	34.5															
10-14-19 21:30	4.84	1580	8.59	5.4	9-29-19 12:45	6.89	955	8.51	4.8	9-29-19 12:45	7.44	942	8.32	33.3															
10-14-19 21:45	4.83	1580	8.59	6.1	9-29-19 13:00	6.89	948	8.51	4.8	9-29-19 13:00	7.39	942	8.32	35.2															
10-14-19 22:00	4.82	1580	8.59	5.8	9-29-19 13:15	6.86	948	8.51	4.5	9-29-19 13:15	7.38	942	8.32	35.1															
10-14-19 22:15	4.84	1581	8.59	6.2	9-29-19 13:30	6.84	948	8.50	4.7	9-29-19 13:30	7.36	942	8.32	34.0															
10-14-19 22:30	4.82	1569	8.59	6.0	9-29-19 13:45	6.82	936	8.50	4.2	9-29-19 13:45	7.32	942	8.32	35.6															
10-14-19 22:45	4.76	1567	8.59	6.3	9-29-19 14:00	6.78	954	8.50	4.4	9-29-19 14:00	7.26	942	8.32	37.8															
10-14-19 23:00	4.81	1565	8.59	6.1	9-29-19 14:15	6.78	956	8.50	8.1	9-29-19 14:15	7.20	943	8.32	36.7															
10-14-19 23:15	4.85	1564	8.59	6.8	9-29-19 14:30	6.79	956	8.50	8.6	9-29-19 14:30	7.25	943	8.32	32.3															
10-14-19 23:30	4.83	1561	8.59	6.6	9-29-19 14:45	6.75	956	8.50	4.2	9-29-19 14:45	7.22	942	8.32	34.4															
10-14-19 23:45	4.81	1561	8.59	6.7	9-29-19 15:00	6.72	953	8.50	4.5	9-29-19 15:00	7.20	942	8.32	32.5															
10-15-19 0:00	4.82	1566	8.60	6.1	9-29-19 15:15	6.73	953	8.50	4.1	9-29-19 15:15	7.20	943	8.32	32.9															
10-15-19 0:15	4.79	1563	8.60	6.8	9-29-19 15:30	6.71	953	8.49	3.4	9-29-19 15:30	7.14	942	8.33	31.2															
10-15-19 0:30	4.80	1566	8.60	6.3	9-29-19 15:45	6.70	956	8.48	6.7	9-29-19 15:45	7.14	943	8.32	32.4															
10-15-19 0:45	4.74	1555	8.59	7.1	9-29-19 16:00	6.72	956	8.50	5.0	9-29-19 16:00	7.19	942	8.32	34.2															
10-15-19 1:00	4.73	1561	8.59	5.9	9-29-19 16:15	6.69	956	8.50	5.7	9-29-19 16:15	7.19	943	8.33	35.7															
10-15-19 1:15	4.71	1561	8.59	6.3	9-29-19 16:30	6.69	956	8.50	4.0	9-29-19 16:30	7.21	942	8.32	32.1															
10-15-19 1:30	4.69	1559	8.60	7.1	9-29-19 16:45	6.70	956	8.50	7.5	9-29-19 16:45	7.20	943	8.33	35.6															
10-15-19 1:45	4.68	1561	8.60	6.9	9-29-19 17:00	6.70	954	8.50	4.4	9-29-19 17:00	7.28	942	8.32	27.4															
10-15-19 2:00	4.63	1561	8.60	5.8	9-29-19 17:15	6.74	941	8.50	4.0	9-29-19 17:15	7.33	943	8.32	31.3															
10-15-19 2:15	4.67	1553	8.59	7.1	9-29-19 17:30	6.85	941	8.49	3.4	9-29-19 17:30	7.38	943	8.32	31.9															
10-15-19 2:30	4.66	1551	8.59	6.0	9-29-19 17:45	6.84	956	8.49	3.4	9-29-19 17:45	7.45	942	8.32	33.6															
10-15-19 2:45	4.65	1551	8.59	7.5	9-29-19 18:00	6.89	956	8.50	5.2	9-29-19 18:00	7.50	943	8.32	31.3															
10-15-19 3:00	4.65	1553	8.59	6.2	9-29-19 18:15	6.98	955	8.50	4.1	9-29-19 18:15	7.62	942	8.32	32.7															
10-15-19 3:15	4.65	1553	8.59	6.2	9-29-19 18:30	7.06	955	8.50	4.5	9-29-19 18:30	7.61	941	8.31	30.1															
10-15-19 3:30	4.60	1552	8.59	6.1	9-29-19 18:45	7.01	955	8.51	5.0	9-29-19 18:45	7.86	942	8.32	31.6															
10-15-19 3:45	4.56	1550	8.60	6.2	9-29-19 19:00	7.08	952	8.50	3.9	9-29-19 19:00	8.02	942	8.32	29.1															
10-15-19 4:00	4.56	1549	8.59	6.1	9-29-19 19:15	7.13	952	8.50	4.3	9-29-19 19:15	8.05	941	8.31	27.9															
10-15-19 4:15	4.52	1548	8.59	6.2	9-29-19 19:30	7.16	952	8.50	4.8	9-29-19 19:30	8.30	944	8.32	27.0															
10-15-19 4:30	4.50	1548	8.59	5.7	9-29-19 19:45	7.19	952	8.50	4.2	9-29-19 19:45	8.07	941	8.32	28.4															
10-15-19 4:45	4.46	1554	8.60	6.5	9-29-19 20:00	7.18	953	8.51	4.4	9-29-19 20:00	8.25	942	8.32	28.7															
10-15-19 5:00	4.47	1550	8.60	6.1	9-29-19 20:15	7.32	938	8.51	4.5	9-29-19 20:15	8.46	943	8.33	27.5															
10-15-19 5:15	4.45	1557	8.60	7.7	9-29-19 20:30	7.50	939	8.51	4.1	9-29-19 20:30	8.39	942	8.33	29.5															
10-15-19 5:30	4.44	1556	8.60	5.7	9-29-19 20:45	7.51	938	8.51	4.3	9-29-19 20:45	8.42	944	8.33	30.3															
10-15-19 5:45	4.37	1554	8.60	6.7	9-29-19 21:00	7.58	953	8.51	4.7	9-29-19 21:00	8.66	943	8.32	28.0															
10-15-19 6:00	4.39	1554	8.60	5.9	9-29-19 21:15	7.66	953	8.52	4.4	9-29-19 21:15	8.88	944	8.33	31.0															
10-15-19 6:15	4.39	1556	8.60	8.3	9-29-19 21:30	7.94	954	8.51	4.8	9-29-19 21:30	9.03	943	8.33	26.5															
10-15-19 6:30	4.39	1554	8.60	6.2	9-29-19 21:45	7.98	953	8.51	4.3	9-29-19 21:45	9.09	943	8.33	29.8															
10-15-19 6:45	4.34	1555	8.60	6.8	9-29-19 22:00	7.95	952	8.52	6.0	9-29-19 22:00	9.12	943	8.33	26.1															
10-15-19 7:00	4.31	1554	8.60	6.0	9-29-19 22:15	7.93	953	8.51	4.8	9-29-19 22:15	9.17	943	8.34	26.8															
10-15-19 7:15	4.28	1553	8.60	6.1	9-29-19 22:30	8.08	953	8.52	5.5	9-29-19 22:30	9.16	944	8.33	24.6															
10-15-19 7:30	4.24	1553	8.60	6.4	9-29-19 22:45	8.08	953	8.52	8.0	9-29-19 22:45	9.19	943	8.34	27.2															
10-15-19 7:45	4.26	1554	8.60	7.4	9-29-19 23:00	8.25	953	8.52	10.1	9-29-19 23:00	9.05	943	8.34	27.0															
10-15-19 8:00	4.21	1552	8.60	6.5	9-29-19 23:15	8.12	952	8.53	4.2	9-29-19 23:15	8.97	943	8.34	27.5															
10-15-19 8:15	4.19	1545	8.59	7.8	9-29-19 23:30	8.06	952	8.53	4.2	9-29-19 23:30	8.98	943	8.34	26.4															
10-15-19 8:30	4.18	1545	8.59	6.2	9-29-19 23:45	8.06	952	8.54	4.2	9-29-19 23:45	8.84	943	8.35	28.0															
10-15-19 8:45	4.17	1547	8.59	7.3	9-30-19 0:00	8.11	950	8.54	4.3	9-30-19 0:00	8.86	943	8.34	26.7															
10-15-19 9:00	4.18	1549	8.59	5.6	9-30-19 0:15	8.04	950	8.55	4.2	9-30-19 0:15	8.73	943	8.35	27.6															
10-15-19 9:15	4.20	1550	8.59	7.1	9-30-19 0:30	8.02	950	8.55	3.8	9-30-19 0:30	8.67	943	8.35	26.3															
10-15-19 9:30	4.21	1550	8.59	5.7	9-30-19 0:45	7.94	950	8.55	5.5	9-30-19 0:45	8.55	943	8.35	28.5															
10-15-19 9:45	4.18	1548	8.59	7.7	9-30-19 1:00	7.90	951	8.56	5.7	9-30-19 1:00	8.50	942	8.35	24.1															
10-15-19 10:00	4.18	1548	8.59	6.5	9-30-19 1:15	7.84	949	8.57	4.1	9-30-19 1:15	8.37	942	8.35	27.7															
10-15-19 10:15	4.16	1548	8.59	7.3	9-30-19 1:30	7.81	950	8.57	3.8	9-30-19 1:30	8.34	943	8.35	24.7															
10-15-19 10:30	4.14	1545	8.59	6.7	9-30-19 1:45	7.76	951	8.56	9.3	9-30-19 1:45	8.31	942	8.35	26.6															
10-15-19 10:45	4.15	1546	8.59	6.4	9-30-19 2:00	7.74	947	8.57	3.4	9-30-19 2:00	8.17	943	8.35	24.9															
10-15-19 11:00	4.13	1544	8.59	7.7	9-30-19 2:15	7.68	948	8.57	3.9	9-30-19 2:15	8.14	943	8.35	27.1															
10-15-19 11:15	4.12	1543	8.59	7.1	9-30-19 2:30	7.65	947	8.57	3.6	9-30-19 2:30	8.09	943	8.35	26.4															
10-15-19 11:30	4.11	1543	8.59	6.2	9-30-19 2:45	7.63	947	8.57	3.4	9-30-19 2:45	8.17	943	8.34	26.8															
10-15-19 11:45	4.11	1542	8.59	6.5	9-30-19 3:00	7.62	951	8.57	3.8	9-30-19 3:00	8.13	942	8.34	24.4															
10-15-19 12:00	4.09	1541	8.59	6.3	9-30-19 3:15	7.58	951	8.57	3.6	9-30-19 3:15	8.07	942	8.35	26.5															
10-15-19 12:15	4.09	1542	8.59	7.7	9-30-19 3:30	7.54	951	8.57	3.1	9-30-19 3:30	8.04	942	8.35	24.9															
10-15-19 12:30	4.09	1541	8.59	7.4	9-30-19 3:45	7.51	951	8.57	3.2	9-30-19 3:45	8.00	942	8.34	26.3															
10-15-19 12:45	4.08	1540	8.58	8.7	9-30-19 4:00	7.43	949	8.56	3.6	9-30-19 4:00	7.88	942	8.35	26.3															
10-15-19 13:00	4.06	1539	8.58	7.1	9-30-19 4:15	7.39	949	8.55	3.2	9-30-19 4:15	7.92	942	8.35	25.7															
10-15-19 13:15	4.05	1539	8.58	9.1	9-30-19 4:30	7.33	950	8.55	3.3	9-30-19 4:30	7.87	942	8.35	25.0															
10-15-19 13:30	4.04	1539	8.58	7.6	9-30-19 4:45	7.31	950	8.54	2.7	9-30-19 4:45	7.85	942	8.34	25.8															
10-15-19 13:45	4.04	1539	8.58	7.5	9-30-19 5:00	7.30	951	8.56	3.6	9-30-19 5:00	7.82	942	8.35	25.5															
10-15-19 14:00	4.02	1537	8.58	6.7	9-30-19 5:15	7.26	951	8.56	3.0	9-30-19 5:15	7.78	942	8.35	25.5															
10-15-19 14:15	4.01	1537	8.58	6.9	9-30-19 5:30	7.23	951	8.56	5.2	9-30-19 5:30	7.73	942	8.35	25.3															
10-15-19 14:30	4.00	1536	8.58	8.2	9-30-19 5:45	7.20	951	8.57	3.4	9-30-19 5:45	7.71	943	8.35	24.2															
10-15-19 14:45	4.00	1537	8.58	8.1	9-30-19 6:00	7.17	951	8.57	5.0	9-30-19 6:00	7.71	942	8.34	25.7															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-15-19 15:00	3.98	1535	8.58	7.0	9-30-19 6:15	7.15	951	8.56	3.7	9-30-19 6:15	7.67	942	8.34	27.7															
10-15-19 15:15	3.97	1535	8.58	7.6	9-30-19 6:30	7.13	951	8.56	3.5	9-30-19 6:30	7.66	942	8.34	24.7															
10-15-19 15:30	3.96	1534	8.58	7.8	9-30-19 6:45	7.06	952	8.56	4.0	9-30-19 6:45	7.63	942	8.33	28.8															
10-15-19 15:45	3.95	1535	8.58	7.2	9-30-19 7:00	7.04	951	8.56	3.3	9-30-19 7:00	7.62	941	8.32	29.0															
10-15-19 16:00	3.94	1534	8.58	6.7	9-30-19 7:15	7.02	951	8.56	3.1	9-30-19 7:15	7.60	942	8.32	28.3															
10-15-19 16:15	3.94	1533	8.58	8.3	9-30-19 7:30	7.01	951	8.56	3.2	9-30-19 7:30	7.57	941	8.33	28.5															
10-15-19 16:30	3.94	1533	8.58	7.0	9-30-19 7:45	6.99	939	8.56	2.9	9-30-19 7:45	7.52	941	8.32	30.9															
10-15-19 16:45	3.94	1532	8.58	7.9	9-30-19 8:00	6.97	952	8.56	3.4	9-30-19 8:00	7.51	941	8.32	28.8															
10-15-19 17:00	3.94	1531	8.57	6.9	9-30-19 8:15	6.95	938	8.56	3.1	9-30-19 8:15	7.48	941	8.31	30.2															
10-15-19 17:15	3.94	1531	8.58	8.4	9-30-19 8:30	6.88	938	8.56	2.9	9-30-19 8:30	7.40	941	8.32	27.3															
10-15-19 17:30	3.95	1530	8.57	7.0	9-30-19 8:45	6.86	938	8.56	3.6	9-30-19 8:45	7.44	941	8.31	31.4															
10-15-19 17:45	3.96	1529	8.58	6.2	9-30-19 9:00	6.81	952	8.55	3.1	9-30-19 9:00	7.42	941	8.31	31.7															
10-15-19 18:00	3.97	1528	8.58	6.5	9-30-19 9:15	6.78	952	8.55	2.9	9-30-19 9:15	7.41	940	8.30	29.4															
10-15-19 18:15	3.98	1528	8.58	7.3	9-30-19 9:30	6.76	952	8.55	3.6	9-30-19 9:30	7.38	940	8.30	29.9															
10-15-19 18:30	4.00	1527	8.57	8.8	9-30-19 9:45	6.74	952	8.55	4.2	9-30-19 9:45	7.35	940	8.30	30.1															
10-15-19 18:45	4.02	1527	8.58	7.1	9-30-19 10:00	6.71	938	8.55	3.6	9-30-19 10:00	7.31	940	8.30	33.3															
10-15-19 19:00	4.04	1526	8.58	7.2	9-30-19 10:15	6.67	938	8.55	3.5	9-30-19 10:15	7.32	939	8.28	33.1															
10-15-19 19:15	4.06	1526	8.58	8.1	9-30-19 10:30	6.63	938	8.55	2.8	9-30-19 10:30	7.28	939	8.28	33.6															
10-15-19 19:30	4.09	1524	8.57	8.3	9-30-19 10:45	6.61	938	8.55	2.8	9-30-19 10:45	7.26	939	8.28	32.5															
10-15-19 19:45	4.12	1524	8.57	9.5	9-30-19 11:00	6.58	953	8.55	3.5	9-30-19 11:00	7.22	939	8.28	33.4															
10-15-19 20:00	4.15	1523	8.58	7.6	9-30-19 11:15	6.53	953	8.55	3.2	9-30-19 11:15	7.18	939	8.29	33.7															
10-15-19 20:15	4.18	1524	8.58	7.6	9-30-19 11:30	6.52	953	8.55	3.3	9-30-19 11:30	7.15	939	8.29	33.6															
10-15-19 20:30	4.20	1522	8.58	8.1	9-30-19 11:45	6.50	953	8.55	3.4	9-30-19 11:45	7.11	939	8.29	30.8															
10-15-19 20:45	4.22	1522	8.58	7.6	9-30-19 12:00	6.44	954	8.55	1.8	9-30-19 12:00	7.08	940	8.29	30.2															
10-15-19 21:00	4.24	1521	8.58	8.1	9-30-19 12:15	6.42	954	8.55	1.8	9-30-19 12:15	7.10	939	8.29	32.7															
10-15-19 21:15	4.25	1521	8.58	8.5	9-30-19 12:30	6.40	954	8.54	1.4	9-30-19 12:30	7.07	939	8.29	30.8															
10-15-19 21:30	4.26	1520	8.58	7.4	9-30-19 12:45	6.37	954	8.54	1.7	9-30-19 12:45	7.05	940	8.29	32.2															
10-15-19 21:45	4.27	1519	8.58	9.1	9-30-19 13:00	6.34	954	8.53	6.5	9-30-19 13:00	7.01	940	8.29	30.4															
10-15-19 22:00	4.28	1519	8.58	8.5	9-30-19 13:15	6.31	953	8.53	6.2	9-30-19 13:15	6.96	940	8.29	28.5															
10-15-19 22:15	4.28	1519	8.58	8.8	9-30-19 13:30	6.27	953	8.53	6.2	9-30-19 13:30	6.87	940	8.30	27.7															
10-15-19 22:30	4.28	1517	8.58	7.7	9-30-19 13:45	6.25	953	8.52	6.3	9-30-19 13:45	6.81	940	8.30	28.9															
10-15-19 22:45	4.29	1517	8.58	10.1	9-30-19 14:00	6.24	954	8.54	5.7	9-30-19 14:00	6.78	941	8.30	25.5															
10-15-19 23:00	4.29	1516	8.58	7.6	9-30-19 14:15	6.24	938	8.53	2.3	9-30-19 14:15	6.79	940	8.30	26.5															
10-15-19 23:15	4.30	1516	8.58	8.7	9-30-19 14:30	6.21	938	8.53	2.3	9-30-19 14:30	6.76	940	8.30	28.0															
10-15-19 23:30	4.30	1515	8.58	8.6	9-30-19 14:45	6.19	939	8.53	2.3	9-30-19 14:45	6.73	940	8.30	26.5															
10-15-19 23:45	4.30	1515	8.58	9.7	9-30-19 15:00	6.15	926	8.53	2.2	9-30-19 15:00	6.70	940	8.30	24.8															
10-16-19 0:00	4.30	1513	8.58	6.8	9-30-19 15:15	6.16	937	8.52	2.0	9-30-19 15:15	6.61	941	8.31	28.9															
10-16-19 0:15	4.31	1513	8.57	8.3	9-30-19 15:30	6.17	937	8.52	1.6	9-30-19 15:30	6.58	940	8.31	26.8															
10-16-19 0:30	4.31	1513	8.58	8.7	9-30-19 15:45	6.13	937	8.53	2.5	9-30-19 15:45	6.64	940	8.31	27.2															
10-16-19 0:45	4.31	1513	8.58	9.0	9-30-19 16:00	6.15	944	8.53	2.0	9-30-19 16:00	6.63	940	8.31	27.7															
10-16-19 1:00	4.31	1512	8.58	7.6	9-30-19 16:15	6.18	944	8.53	2.7	9-30-19 16:15	6.70	940	8.31	27.7															
10-16-19 1:15	4.31	1511	8.58	9.7	9-30-19 16:30	6.15	944	8.53	2.3	9-30-19 16:30	6.75	940	8.31	28.1															
10-16-19 1:30	4.31	1510	8.57	7.7	9-30-19 16:45	6.18	944	8.53	2.6	9-30-19 16:45	6.74	940	8.31	30.1															
10-16-19 1:45	4.30	1510	8.57	8.7	9-30-19 17:00	6.20	954	8.53	2.5	9-30-19 17:00	6.78	940	8.31	26.4															
10-16-19 2:00	4.28	1509	8.57	7.9	9-30-19 17:15	6.23	955	8.53	4.1	9-30-19 17:15	6.82	940	8.31	27.8															
10-16-19 2:15	4.25	1508	8.58	7.7	9-30-19 17:30	6.25	903	8.53	2.6	9-30-19 17:30	6.85	940	8.30	26.8															
10-16-19 2:30	4.23	1509	8.57	7.3	9-30-19 17:45	6.26	954	8.54	2.9	9-30-19 17:45	6.88	940	8.31	27.1															
10-16-19 2:45	4.23	1509	8.57	8.2	9-30-19 18:00	6.31	953	8.54	2.6	9-30-19 18:00	6.92	940	8.31	27.4															
10-16-19 3:00	4.26	1507	8.57	7.9	9-30-19 18:15	6.39	952	8.54	2.6	9-30-19 18:15	6.98	940	8.31	28.3															
10-16-19 3:15	4.24	1508	8.57	7.8	9-30-19 18:30	6.40	953	8.54	2.6	9-30-19 18:30	7.07	940	8.30	26.4															
10-16-19 3:30	4.20	1508	8.57	8.4	9-30-19 18:45	6.45	952	8.54	2.6	9-30-19 18:45	7.10	939	8.30	27.0															
10-16-19 3:45	4.18	1508	8.57	8.4	9-30-19 19:00	6.51	952	8.54	7.4	9-30-19 19:00	7.20	940	8.30	23.8															
10-16-19 4:00	4.20	1505	8.57	7.5	9-30-19 19:15	6.59	953	8.55	8.1	9-30-19 19:15	7.34	940	8.30	24.9															
10-16-19 4:15	4.19	1504	8.56	8.7	9-30-19 19:30	6.62	952	8.55	8.1	9-30-19 19:30	7.46	940	8.30	24.5															
10-16-19 4:30	4.16	1502	8.56	7.6	9-30-19 19:45	6.67	954	8.55	8.3	9-30-19 19:45	7.59	940	8.30	24.9															
10-16-19 4:45	4.18	1502	8.56	9.0	9-30-19 20:00	6.77	951	8.54	3.7	9-30-19 20:00	7.61	939	8.30	22.7															
10-16-19 5:00	4.10	1500	8.57	8.4	9-30-19 20:15	6.82	951	8.54	3.4	9-30-19 20:15	7.76	940	8.30	23.2															
10-16-19 5:15	4.11	1502	8.56	8.6	9-30-19 20:30	6.88	952	8.54	3.5	9-30-19 20:30	7.87	940	8.30	23.7															
10-16-19 5:30	4.08	1502	8.57	7.8	9-30-19 20:45	6.97	951	8.52	3.9	9-30-19 20:45	8.00	941	8.30	25.3															
10-16-19 5:45	4.08	1503	8.57	8.4	9-30-19 21:00	6.94	950	8.55	2.5	9-30-19 21:00	8.15	941	8.30	22.2															
10-16-19 6:00	4.05	1502	8.57	7.6	9-30-19 21:15	7.04	951	8.54	3.6	9-30-19 21:15	8.28	940	8.30	22.4															
10-16-19 6:15	4.08	1502	8.56	8.5	9-30-19 21:30	7.12	951	8.54	4.0	9-30-19 21:30	8.33	940	8.30	21.4															
10-16-19 6:30	4.08	1501	8.56	6.8	9-30-19 21:45	7.24	952	8.54	7.8	9-30-19 21:45	8.41	940	8.30	21.5															
10-16-19 6:45	4.06	1502	8.56	8.8	9-30-19 22:00	7.26	951	8.54	11.9	9-30-19 22:00	8.46	940	8.30	21.2															
10-16-19 7:00	4.05	1501	8.56	7.6	9-30-19 22:15	7.23	936	8.55	2.6	9-30-19 22:15	8.56	941	8.31	23.4															
10-16-19 7:15	4.01	1501	8.56	8.5	9-30-19 22:30	7.46	936	8.54	2.4	9-30-19 22:30	8.66	939	8.30	22.0															
10-16-19 7:30	4.01	1502	8.56	7.6	9-30-19 22:45	7.59	934	8.55	2.6	9-30-19 22:45	8.68	940	8.31	23.0															
10-16-19 7:45	3.97	1502	8.56	8.7	9-30-19 23:00	7.50	950	8.56	3.1	9-30-19 23:00	8.67	939	8.31	20.1															
10-16-19 8:00	3.97	1502	8.56	7.6	9-30-19 23:15	7.49	949	8.56	4.0	9-30-19 23:15	8.86	940	8.31	21.6															
10-16-19 8:15	3.96	1502	8.56	8.2	9-30-19 23:30	7.56	915	8.56	2.5	9-30-19 23:30	8.86	940	8.31	19.8															
10-16-19 8:30	3.61	1503	8.57	7.2	9-30-19 23:45	7.59	950	8.56	4.7	9-30-19 23:45	8.83	940	8.32	21.4															
10-16-19 8:45	3.42	1505	8.57	7.9	10-1-19 0:00	7.69	945	8.55	2.0	10-1-19 0:00	8.83	940	8.32	21.7															
10-16-19 9:00	3.81	1504	8.56	7.3	10-1-19 0:15	7.70	945	8.56	2.7	10-1-19 0:15	8.78	941	8.32	20.8															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-16-19 9:15	3.84	1503	8.56	8.1	10-1-19 0:30	7.61	945	8.56	2.3	10-1-19 0:30	8.82	940	8.32	19.5															
10-16-19 9:30	3.83	1502	8.56	7.3	10-1-19 0:45	7.64	945	8.56	2.7	10-1-19 0:45	8.74	940	8.32	20.8															
10-16-19 9:45	3.88	1504	8.56	8.5	10-1-19 1:00	7.53	949	8.57	2.9	10-1-19 1:00	8.79	940	8.33	19.5															
10-16-19 10:00	3.93	1502	8.56	7.5	10-1-19 1:15	7.56	950	8.57	6.7	10-1-19 1:15	8.71	940	8.33	20.6															
10-16-19 10:15	3.93	1502	8.56	9.7	10-1-19 1:30	7.55	950	8.56	7.0	10-1-19 1:30	8.65	940	8.33	19.4															
10-16-19 10:30	3.92	1502	8.56	7.5	10-1-19 1:45	7.58	950	8.56	7.0	10-1-19 1:45	8.59	940	8.33	20.9															
10-16-19 10:45	3.89	1502	8.56	8.4	10-1-19 2:00	7.55	950	8.56	3.5	10-1-19 2:00	8.53	940	8.33	21.0															
10-16-19 11:00	3.88	1502	8.56	7.3	10-1-19 2:15	7.51	949	8.57	3.0	10-1-19 2:15	8.48	940	8.33	20.9															
10-16-19 11:15	3.90	1503	8.56	8.5	10-1-19 2:30	7.47	949	8.57	2.4	10-1-19 2:30	8.40	940	8.33	18.7															
10-16-19 11:30	3.90	1502	8.56	6.9	10-1-19 2:45	7.44	948	8.57	2.1	10-1-19 2:45	8.34	940	8.32	19.5															
10-16-19 11:45	3.87	1503	8.56	8.8	10-1-19 3:00	7.40	949	8.57	2.3	10-1-19 3:00	8.29	941	8.33	18.2															
10-16-19 12:00	3.86	1500	8.56	9.7	10-1-19 3:15	7.39	950	8.56	8.8	10-1-19 3:15	8.27	940	8.34	20.7															
10-16-19 12:15	3.84	1502	8.56	8.6	10-1-19 3:30	7.36	949	8.57	2.2	10-1-19 3:30	8.22	940	8.33	18.3															
10-16-19 12:30	3.82	1501	8.56	7.2	10-1-19 3:45	7.34	949	8.56	8.4	10-1-19 3:45	8.17	940	8.33	19.7															
10-16-19 12:45	3.81	1502	8.55	8.6	10-1-19 4:00	7.30	948	8.57	1.9	10-1-19 4:00	8.12	940	8.33	18.0															
10-16-19 13:00	3.83	1501	8.55	8.2	10-1-19 4:15	7.28	948	8.56	1.9	10-1-19 4:15	8.04	940	8.34	19.7															
10-16-19 13:15	3.80	1502	8.56	9.0	10-1-19 4:30	7.26	947	8.56	1.9	10-1-19 4:30	8.00	940	8.34	19.7															
10-16-19 13:30	3.80	1502	8.55	6.9	10-1-19 4:45	7.23	947	8.55	1.6	10-1-19 4:45	7.97	940	8.33	17.9															
10-16-19 13:45	3.78	1502	8.55	8.6	10-1-19 5:00	7.19	949	8.57	1.8	10-1-19 5:00	7.93	940	8.32	18.0															
10-16-19 14:00	3.78	1501	8.55	7.9	10-1-19 5:15	7.19	949	8.57	2.6	10-1-19 5:15	7.89	940	8.32	18.7															
10-16-19 14:15	3.78	1501	8.55	8.6	10-1-19 5:30	7.20	950	8.56	8.1	10-1-19 5:30	7.85	940	8.32	18.4															
10-16-19 14:30	3.78	1501	8.55	8.5	10-1-19 5:45	7.18	949	8.57	2.0	10-1-19 5:45	7.84	940	8.33	19.0															
10-16-19 14:45	3.78	1501	8.55	8.0	10-1-19 6:00	7.13	949	8.57	2.3	10-1-19 6:00	7.81	940	8.33	17.9															
10-16-19 15:00	3.78	1501	8.55	7.6	10-1-19 6:15	7.11	949	8.57	6.0	10-1-19 6:15	7.80	941	8.33	19.2															
10-16-19 15:15	3.77	1501	8.55	8.3	10-1-19 6:30	7.10	949	8.57	2.5	10-1-19 6:30	7.77	940	8.33	18.4															
10-16-19 15:30	3.76	1501	8.55	7.1	10-1-19 6:45	7.09	947	8.57	1.5	10-1-19 6:45	7.74	940	8.33	20.8															
10-16-19 15:45	3.77	1501	8.55	8.2	10-1-19 7:00	7.09	949	8.58	2.1	10-1-19 7:00	7.70	940	8.33	17.8															
10-16-19 16:00	3.77	1501	8.54	8.1	10-1-19 7:15	7.09	949	8.58	2.4	10-1-19 7:15	7.68	941	8.33	19.5															
10-16-19 16:15	3.77	1501	8.54	8.7	10-1-19 7:30	7.05	949	8.58	2.0	10-1-19 7:30	7.66	940	8.33	17.9															
10-16-19 16:30	3.78	1500	8.54	7.4	10-1-19 7:45	7.07	948	8.57	1.8	10-1-19 7:45	7.64	940	8.33	20.1															
10-16-19 16:45	3.78	1501	8.54	8.4	10-1-19 8:00	7.07	949	8.57	2.6	10-1-19 8:00	7.62	940	8.33	17.8															
10-16-19 17:00	3.79	1500	8.54	7.4	10-1-19 8:15	7.06	947	8.57	1.7	10-1-19 8:15	7.59	941	8.32	18.6															
10-16-19 17:15	3.79	1501	8.54	8.4	10-1-19 8:30	7.06	947	8.56	1.1	10-1-19 8:30	7.57	940	8.33	16.8															
10-16-19 17:30	3.78	1500	8.54	7.6	10-1-19 8:45	7.03	947	8.54	1.7	10-1-19 8:45	7.55	941	8.33	19.7															
10-16-19 17:45	3.79	1501	8.54	9.6	10-1-19 9:00	7.02	949	8.57	2.3	10-1-19 9:00	7.54	940	8.33	16.7															
10-16-19 18:00	3.82	1501	8.54	6.8	10-1-19 9:15	7.02	948	8.57	2.1	10-1-19 9:15	7.52	940	8.33	19.3															
10-16-19 18:30	3.97	1501	8.54	9.2	10-1-19 9:30	7.02	949	8.57	3.1	10-1-19 9:30	7.51	940	8.33	16.5															
10-16-19 18:45	4.04	1499	8.53	7.3	10-1-19 9:45	7.02	949	8.57	2.4	10-1-19 9:45	7.49	940	8.32	19.8															
10-16-19 19:00	4.12	1499	8.53	8.6	10-1-19 10:00	7.00	948	8.56	1.6	10-1-19 10:00	7.49	940	8.33	17.7															
10-16-19 19:15	4.11	1498	8.54	8.1	10-1-19 10:15	6.99	948	8.56	1.8	10-1-19 10:15	7.46	940	8.32	18.9															
10-16-19 19:30	4.14	1500	8.54	8.8	10-1-19 10:30	6.97	948	8.56	1.7	10-1-19 10:30	7.43	940	8.33	18.2															
10-16-19 19:45	4.15	1499	8.54	8.2	10-1-19 10:45	6.97	948	8.55	1.6	10-1-19 10:45	7.42	941	8.32	18.7															
10-16-19 20:00	4.26	1499	8.54	8.1	10-1-19 11:00	6.96	948	8.57	2.0	10-1-19 11:00	7.40	940	8.32	15.7															
10-16-19 20:15	4.35	1496	8.54	8.6	10-1-19 11:15	6.94	948	8.57	1.6	10-1-19 11:15	7.39	940	8.32	19.4															
10-16-19 20:30	4.36	1497	8.53	9.3	10-1-19 11:30	6.93	948	8.57	1.7	10-1-19 11:30	7.38	940	8.32	16.6															
10-16-19 20:45	4.46	1495	8.53	12.5	10-1-19 11:45	6.91	948	8.57	1.7	10-1-19 11:45	7.37	940	8.32	18.5															
10-16-19 21:00	4.48	1497	8.54	9.2	10-1-19 12:00	6.89	949	8.57	2.1	10-1-19 12:00	7.36	941	8.32	18.7															
10-16-19 21:15	4.51	1496	8.54	9.2	10-1-19 12:15	6.88	949	8.56	5.5	10-1-19 12:15	7.35	941	8.32	18.9															
10-16-19 21:30	4.55	1495	8.54	9.5	10-1-19 12:30	6.90	949	8.56	1.7	10-1-19 12:30	7.36	941	8.31	16.8															
10-16-19 21:45	4.58	1496	8.53	8.2	10-1-19 12:45	6.91	950	8.56	2.2	10-1-19 12:45	7.34	941	8.32	18.1															
10-16-19 22:00	4.64	1495	8.53	9.8	10-1-19 13:00	6.90	950	8.56	3.9	10-1-19 13:00	7.34	940	8.32	17.8															
10-16-19 22:15	4.67	1493	8.53	8.6	10-1-19 13:15	6.89	949	8.56	2.5	10-1-19 13:15	7.33	940	8.31	20.0															
10-16-19 22:30	4.70	1495	8.53	9.5	10-1-19 13:30	6.86	950	8.56	5.2	10-1-19 13:30	7.31	940	8.31	18.1															
10-16-19 22:45	4.73	1494	8.54	8.8	10-1-19 13:45	6.87	950	8.56	3.1	10-1-19 13:45	7.30	940	8.31	19.2															
10-16-19 23:00	4.71	1497	8.54	9.3	10-1-19 14:00	6.87	950	8.56	2.0	10-1-19 14:00	7.29	940	8.32	18.0															
10-16-19 23:15	4.73	1494	8.54	8.7	10-1-19 14:15	6.87	950	8.55	6.7	10-1-19 14:15	7.29	941	8.31	20.1															
10-16-19 23:30	4.73	1495	8.54	9.4	10-1-19 14:30	6.84	949	8.56	1.7	10-1-19 14:30	7.29	941	8.31	19.1															
10-16-19 23:45	4.74	1494	8.54	8.8	10-1-19 14:45	6.82	950	8.56	2.3	10-1-19 14:45	7.26	941	8.31	19.5															
10-17-19 0:00	4.74	1495	8.54	9.3	10-1-19 15:00	6.83	949	8.56	2.4	10-1-19 15:00	7.26	941	8.30	19.8															
10-17-19 0:15	4.74	1494	8.54	7.7	10-1-19 15:15	6.81	950	8.56	2.5	10-1-19 15:15	7.27	941	8.30	22.9															
10-17-19 0:30	4.76	1497	8.53	11.2	10-1-19 15:30	6.82	949	8.56	2.6	10-1-19 15:30	7.27	941	8.31	20.0															
10-17-19 0:45	4.78	1496	8.54	8.8	10-1-19 15:45	6.84	948	8.55	1.3	10-1-19 15:45	7.26	941	8.31	21.1															
10-17-19 1:00	4.80	1497	8.54	10.1	10-1-19 16:00	6.85	950	8.55	6.4	10-1-19 16:00	7.24	941	8.31	18.7															
10-17-19 1:15	4.82	1496	8.53	9.4	10-1-19 16:15	6.86	949	8.53	5.7	10-1-19 16:15	7.22	941	8.30	20.6															
10-17-19 1:30	4.82	1496	8.53	11.7	10-1-19 16:30	6.85	949	8.54	5.2	10-1-19 16:30	7.23	940	8.31	17.9															
10-17-19 1:45	4.81	1496	8.54	10.0	10-1-19 16:45	6.86	950	8.54	4.8	10-1-19 16:45	7.25	941	8.30	20.6															
10-17-19 2:00	4.81	1497	8.53	10.1	10-1-19 17:00	6.90	949	8.55	8.6	10-1-19 17:00	7.29	941	8.31	19.7															
10-17-19 2:15	4.81	1496	8.54	10.2	10-1-19 17:15	6.92	949	8.53	8.5	10-1-19 17:15	7.32	941	8.30	21.3															
10-17-19 2:30	4.80	1496	8.53	10.1	10-1-19 17:30	6.96	949	8.52	9.1	10-1-19 17:30	7.35	940	8.30	20.0															
10-17-19 2:45	4.81	1496	8.54	9.4	10-1-19 17:45	6.97	949	8.54	9.0	10-1-19 17:45	7.37	941	8.31	21.8															
10-17-19 3:00	4.82	1497	8.53	10.1	10-1-19 18:00	7.00	921	8.54	1.7	10-1-19 18:00	7.46	941	8.30	20.9															
10-17-19 3:15	4.84	1496	8.53	9.6	10-1-19 18:15	7.06	949	8.55	5.1	10-1-19 18:15	7.52	941	8.31	23.0															
10-17-19 3:30	4.85	1496	8.53	11.6	10-1-19 18:30	7.12	934	8.55	1.4	10-1-19 18:30	7.64	941	8.31	20.1															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-17-19 3:45	4.85	1496	8.53	10.2	10-1-19 18:45	7.18	933	8.55	1.5	10-1-19 18:45	7.75	940	8.31	22.1															
10-17-19 4:00	4.84	1497	8.53	11.8	10-1-19 19:00	7.20	947	8.55	2.0	10-1-19 19:00	7.79	940	8.30	21.0															
10-17-19 4:15	4.83	1497	8.54	10.2	10-1-19 19:15	7.22	930	8.55	2.1	10-1-19 19:15	7.88	940	8.31	22.4															
10-17-19 4:30	4.83	1498	8.54	11.3	10-1-19 19:30	7.30	949	8.55	4.4	10-1-19 19:30	7.94	940	8.31	21.1															
10-17-19 4:45	4.85	1498	8.53	8.5	10-1-19 19:45	7.30	947	8.55	2.4	10-1-19 19:45	7.96	940	8.31	22.6															
10-17-19 5:00	4.86	1496	8.53	10.2	10-1-19 20:00	7.32	946	8.54	2.1	10-1-19 20:00	7.99	939	8.30	20.5															
10-17-19 5:15	4.85	1497	8.54	8.7	10-1-19 20:15	7.33	946	8.53	1.8	10-1-19 20:15	7.97	940	8.29	20.5															
10-17-19 5:30	4.85	1496	8.54	10.8	10-1-19 20:30	7.26	945	8.55	2.5	10-1-19 20:30	8.10	940	8.28	20.4															
10-17-19 5:45	4.87	1496	8.53	11.7	10-1-19 20:45	7.29	945	8.55	2.5	10-1-19 20:45	8.16	940	8.29	21.2															
10-17-19 6:00	4.89	1496	8.53	12.1	10-1-19 21:00	7.31	947	8.57	3.5	10-1-19 21:00	8.30	940	8.29	20.1															
10-17-19 6:15	4.88	1498	8.53	8.1	10-1-19 21:15	7.40	947	8.57	2.8	10-1-19 21:15	8.30	939	8.29	22.9															
10-17-19 6:30	4.88	1499	8.53	10.3	10-1-19 21:30	7.43	945	8.57	1.7	10-1-19 21:30	8.41	939	8.28	20.2															
10-17-19 6:45	4.87	1496	8.53	13.6	10-1-19 21:45	7.48	945	8.57	2.0	10-1-19 21:45	8.55	940	8.29	21.4															
10-17-19 7:00	4.88	1497	8.53	9.0	10-1-19 22:00	7.50	946	8.57	2.5	10-1-19 22:00	8.72	940	8.28	20.8															
10-17-19 7:15	4.89	1495	8.53	10.3	10-1-19 22:15	7.58	945	8.56	2.3	10-1-19 22:15	8.78	939	8.28	20.9															
10-17-19 7:30	4.89	1497	8.52	12.4	10-1-19 22:30	7.59	945	8.56	2.4	10-1-19 22:30	8.83	939	8.27	18.9															
10-17-19 7:45	4.89	1497	8.53	16.3	10-1-19 22:45	7.56	944	8.56	2.5	10-1-19 22:45	8.84	939	8.26	20.6															
10-17-19 8:00	4.86	1498	8.53	12.8	10-1-19 23:00	7.66	948	8.56	4.5	10-1-19 23:00	8.98	940	8.28	20.3															
10-17-19 8:15	4.86	1498	8.53	14.9	10-1-19 23:15	7.61	943	8.58	2.4	10-1-19 23:15	9.15	938	8.30	20.9															
10-17-19 8:30	4.86	1498	8.53	9.7	10-1-19 23:30	7.61	943	8.59	3.6	10-1-19 23:30	9.00	937	8.28	19.5															
10-17-19 8:45	4.85	1497	8.52	11.4	10-1-19 23:45	7.60	930	8.60	2.6	10-1-19 23:45	9.35	934	8.29	21.8															
10-17-19 9:00	4.85	1498	8.52	9.1	10-2-19 0:00	7.59	943	8.60	2.7	10-2-19 0:00	9.66	937	8.30	18.3															
10-17-19 9:15	4.83	1498	8.52	10.7	10-2-19 0:15	7.61	943	8.60	6.1	10-2-19 0:15	9.20	937	8.28	21.4															
10-17-19 9:30	4.84	1498	8.52	11.2	10-2-19 0:30	7.70	942	8.60	2.8	10-2-19 0:30	9.32	936	8.30	18.0															
10-17-19 9:45	4.83	1498	8.52	8.6	10-2-19 0:45	7.93	944	8.58	2.3	10-2-19 0:45	9.30	937	8.30	20.6															
10-17-19 10:00	4.82	1498	8.52	9.7	10-2-19 1:00	8.02	943	8.57	2.0	10-2-19 1:00	9.41	938	8.32	17.5															
10-17-19 10:15	4.83	1498	8.52	9.2	10-2-19 1:15	7.83	911	8.59	2.5	10-2-19 1:15	9.27	940	8.29	22.1															
10-17-19 10:30	4.81	1499	8.52	10.3	10-2-19 1:30	7.77	943	8.59	3.7	10-2-19 1:30	9.27	940	8.30	19.2															
10-17-19 10:45	4.82	1498	8.52	7.8	10-2-19 1:45	7.71	941	8.60	2.5	10-2-19 1:45	9.20	939	8.30	20.7															
10-17-19 11:00	4.79	1499	8.52	9.7	10-2-19 2:00	7.74	940	8.60	3.1	10-2-19 2:00	9.13	940	8.27	18.6															
10-17-19 11:15	4.77	1500	8.52	7.8	10-2-19 2:15	7.68	942	8.61	3.6	10-2-19 2:15	9.13	940	8.29	20.1															
10-17-19 11:30	4.78	1500	8.52	9.8	10-2-19 2:30	7.66	941	8.61	3.7	10-2-19 2:30	9.02	939	8.31	19.0															
10-17-19 11:45	4.78	1500	8.52	9.3	10-2-19 2:45	7.70	941	8.61	2.3	10-2-19 2:45	8.95	940	8.33	20.0															
10-17-19 12:00	4.76	1502	8.52	10.3	10-2-19 3:00	7.73	941	8.60	2.3	10-2-19 3:00	8.91	940	8.33	17.9															
10-17-19 12:15	4.72	1502	8.52	8.2	10-2-19 3:15	7.84	944	8.58	2.5	10-2-19 3:15	8.86	940	8.34	20.4															
10-17-19 12:30	4.73	1501	8.52	8.8	10-2-19 3:30	7.76	942	8.59	2.3	10-2-19 3:30	8.77	940	8.35	18.1															
10-17-19 12:45	4.74	1502	8.51	8.3	10-2-19 3:45	7.65	941	8.60	3.3	10-2-19 3:45	8.72	940	8.34	21.0															
10-17-19 13:00	4.75	1503	8.51	9.2	10-2-19 4:00	7.63	941	8.60	2.5	10-2-19 4:00	8.69	940	8.34	18.0															
10-17-19 13:15	4.73	1501	8.52	10.4	10-2-19 4:15	7.62	940	8.61	3.0	10-2-19 4:15	8.66	941	8.33	21.0															
10-17-19 13:30	4.74	1503	8.51	11.8	10-2-19 4:30	7.62	941	8.59	2.0	10-2-19 4:30	8.60	940	8.33	17.2															
10-17-19 13:45	4.72	1504	8.52	8.2	10-2-19 4:45	7.61	941	8.60	2.1	10-2-19 4:45	8.55	940	8.34	19.7															
10-17-19 14:00	4.70	1504	8.52	8.6	10-2-19 5:00	7.61	933	8.60	1.9	10-2-19 5:00	8.49	940	8.34	18.2															
10-17-19 14:15	4.72	1503	8.51	8.3	10-2-19 5:15	7.59	942	8.60	3.1	10-2-19 5:15	8.43	940	8.34	18.8															
10-17-19 14:30	4.65	1499	8.51	10.1	10-2-19 5:30	7.56	941	8.60	2.1	10-2-19 5:30	8.40	940	8.34	18.2															
10-17-19 14:45	4.61	1503	8.52	8.5	10-2-19 5:45	7.55	941	8.61	2.2	10-2-19 5:45	8.34	940	8.34	20.2															
10-17-19 15:00	4.62	1502	8.52	9.9	10-2-19 6:00	7.54	942	8.60	9.2	10-2-19 6:00	8.29	940	8.34	18.3															
10-17-19 15:15	4.61	1504	8.52	9.1	10-2-19 6:15	7.54	940	8.59	1.9	10-2-19 6:15	8.25	940	8.33	19.8															
10-17-19 15:30	4.62	1505	8.51	9.3	10-2-19 6:30	7.53	940	8.58	1.8	10-2-19 6:30	8.20	940	8.34	18.8															
10-17-19 15:45	4.70	1505	8.51	11.2	10-2-19 6:45	7.50	940	8.58	1.8	10-2-19 6:45	8.16	940	8.33	19.9															
10-17-19 16:00	4.70	1505	8.51	10.0	10-2-19 7:00	7.48	940	8.60	1.7	10-2-19 7:00	8.12	940	8.33	17.9															
10-17-19 16:15	4.71	1505	8.51	8.9	10-2-19 7:15	7.47	942	8.60	3.2	10-2-19 7:15	8.08	941	8.33	19.5															
10-17-19 16:30	4.76	1504	8.50	8.9	10-2-19 7:30	7.50	941	8.59	7.4	10-2-19 7:30	8.04	941	8.33	17.6															
10-17-19 16:45	4.67	1507	8.51	7.8	10-2-19 7:45	7.49	941	8.58	7.2	10-2-19 7:45	8.00	941	8.33	18.6															
10-17-19 17:00	4.71	1507	8.51	9.0	10-2-19 8:00	7.47	941	8.59	1.9	10-2-19 8:00	7.96	941	8.33	18.1															
10-17-19 17:15	4.75	1506	8.51	8.3	10-2-19 8:15	7.46	942	8.58	6.0	10-2-19 8:15	7.93	941	8.33	19.9															
10-17-19 17:30	4.86	1507	8.51	8.8	10-2-19 8:30	7.42	942	8.58	5.8	10-2-19 8:30	7.89	940	8.33	18.5															
10-17-19 17:45	4.87	1505	8.51	9.1	10-2-19 8:45	7.41	942	8.57	5.5	10-2-19 8:45	7.86	941	8.32	21.1															
10-17-19 18:00	4.87	1506	8.51	10.2	10-2-19 9:00	7.40	942	8.58	3.1	10-2-19 9:00	7.82	940	8.33	17.8															
10-17-19 18:30	5.01	1514	8.51	1.4	10-2-19 9:15	7.38	942	8.58	2.5	10-2-19 9:15	7.80	941	8.32	20.1															
10-17-19 18:45	5.04	1515	8.51	1.4	10-2-19 9:30	7.36	942	8.57	6.8	10-2-19 9:30	7.78	940	8.32	18.8															
10-17-19 19:00	5.13	1514	8.51	1.7	10-2-19 9:45	7.34	942	8.58	1.9	10-2-19 9:45	7.73	941	8.32	19.9															
10-17-19 19:15	5.22	1515	8.50	1.4	10-2-19 10:00	7.30	942	8.57	4.3	10-2-19 10:00	7.72	941	8.32	18.8															
10-17-19 19:30	5.35	1513	8.51	1.4	10-2-19 10:15	7.27	942	8.57	6.4	10-2-19 10:15	7.69	941	8.32	20.6															
10-17-19 19:45	5.49	1511	8.50	1.3	10-2-19 10:30	7.24	942	8.58	6.4	10-2-19 10:30	7.66	941	8.32	19.7															
10-17-19 20:00	5.25	1516	8.51	1.7	10-2-19 10:45	7.25	942	8.57	6.4	10-2-19 10:45	7.66	941	8.31	22.0															
10-17-19 20:15	5.27	1517	8.51	1.3	10-2-19 11:00	7.22	942	8.57	2.9	10-2-19 11:00	7.64	942	8.31	22.3															
10-17-19 20:30	5.43	1516	8.51	1.3	10-2-19 11:15	7.21	942	8.57	4.7	10-2-19 11:15	7.63	941	8.32	22.6															
10-17-19 20:45	5.46	1519	8.51	1.3	10-2-19 11:30	7.20	942	8.56	4.7	10-2-19 11:30	7.61	941	8.32	20.9															
10-17-19 21:00	5.54	1515	8.50	1.3	10-2-19 11:45	7.17	942	8.56	4.7	10-2-19 11:45	7.58	941	8.32	21.2															
10-17-19 21:15	5.62	1516	8.51	1.3	10-2-19 12:00	7.15	940	8.57	1.6	10-2-19 12:00	7.54	941	8.32	21.6															
10-17-19 21:30	5.82	1515	8.50	1.2	10-2-19 12:15	7.13	927	8.57	2.2	10-2-19 12:15	7.55	942	8.32	23.0															
10-17-19 21:45	5.97	1515	8.50	1.2	10-2-19 12:30	7.08	927	8.57	2.3	10-2-19 12:30	7.53	942	8.32	22.3															
10-17-19 22:00	6.07	1526	8.50	1.5	10-2-19 12:45	7.05	926	8.55	1.4	10-2-19 12:45	7.52	942	8.32	22.8															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-17-19 22:15	6.13	1513	8.51	1.4	10-2-19 13:00	7.01	941	8.57	1.7	10-2-19 13:00	7.50	942	8.32	24.4															
10-17-19 22:30	6.05	1521	8.51	1.5	10-2-19 13:15	7.00	942	8.56	2.1	10-2-19 13:15	7.45	942	8.31	22.8															
10-17-19 22:45	6.05	1512	8.50	1.3	10-2-19 13:30	6.97	942	8.56	6.9	10-2-19 13:30	7.43	942	8.31	21.6															
10-17-19 23:00	6.06	1514	8.50	1.3	10-2-19 13:45	6.95	941	8.57	1.8	10-2-19 13:45	7.43	942	8.31	24.2															
10-17-19 23:15	6.06	1515	8.50	1.2	10-2-19 14:00	6.90	941	8.57	1.8	10-2-19 14:00	7.40	942	8.32	22.6															
10-17-19 23:30	6.00	1513	8.51	1.2	10-2-19 14:15	6.88	942	8.57	4.2	10-2-19 14:15	7.38	942	8.32	25.2															
10-17-19 23:45	6.03	1515	8.51	1.2	10-2-19 14:30	6.89	940	8.57	1.9	10-2-19 14:30	7.37	942	8.31	22.6															
10-18-19 0:00	6.01	1513	8.50	1.3	10-2-19 14:45	6.86	942	8.56	4.5	10-2-19 14:45	7.34	942	8.31	23.7															
10-18-19 0:15	5.98	1513	8.51	1.1	10-2-19 15:00	6.83	942	8.55	5.4	10-2-19 15:00	7.34	943	8.31	23.5															
10-18-19 0:30	5.95	1512	8.51	1.3	10-2-19 15:15	6.81	941	8.56	1.2	10-2-19 15:15	7.33	943	8.32	24.0															
10-18-19 0:45	5.92	1515	8.51	1.3	10-2-19 15:30	6.81	941	8.57	1.4	10-2-19 15:30	7.34	942	8.32	24.8															
10-18-19 1:00	5.93	1516	8.51	1.3	10-2-19 15:45	6.85	942	8.56	2.2	10-2-19 15:45	7.33	942	8.32	26.0															
10-18-19 1:15	5.89	1516	8.51	1.2	10-2-19 16:00	6.87	942	8.55	3.0	10-2-19 16:00	7.35	942	8.32	22.9															
10-18-19 1:30	5.85	1517	8.52	1.3	10-2-19 16:15	6.94	942	8.55	2.2	10-2-19 16:15	7.39	942	8.31	24.8															
10-18-19 1:45	5.85	1515	8.52	1.1	10-2-19 16:30	7.02	940	8.55	1.0	10-2-19 16:30	7.39	942	8.32	24.2															
10-18-19 2:00	5.87	1514	8.51	1.3	10-2-19 16:45	7.03	940	8.55	1.0	10-2-19 16:45	7.42	943	8.31	23.6															
10-18-19 2:15	5.87	1516	8.52	1.2	10-2-19 17:00	7.09	940	8.56	1.1	10-2-19 17:00	7.47	942	8.31	23.7															
10-18-19 2:30	5.80	1515	8.52	1.2	10-2-19 17:15	7.15	941	8.57	1.4	10-2-19 17:15	7.60	943	8.30	24.8															
10-18-19 2:45	5.77	1516	8.52	1.2	10-2-19 17:30	7.22	942	8.57	1.3	10-2-19 17:30	7.65	942	8.31	24.0															
10-18-19 3:00	5.76	1515	8.52	1.3	10-2-19 17:45	7.29	941	8.56	3.1	10-2-19 17:45	7.73	942	8.31	25.4															
10-18-19 3:15	5.73	1515	8.52	1.2	10-2-19 18:00	7.32	941	8.58	4.9	10-2-19 18:00	7.83	942	8.30	22.3															
10-18-19 3:30	5.73	1515	8.53	1.3	10-2-19 18:15	7.39	941	8.58	4.6	10-2-19 18:15	7.98	942	8.30	24.1															
10-18-19 3:45	5.71	1515	8.52	1.2	10-2-19 18:30	7.42	941	8.58	5.0	10-2-19 18:30	8.09	942	8.29	22.7															
10-18-19 4:00	5.64	1516	8.52	1.3	10-2-19 18:45	7.49	941	8.58	4.9	10-2-19 18:45	8.10	941	8.30	25.0															
10-18-19 4:15	5.62	1516	8.53	1.2	10-2-19 19:00	7.46	940	8.55	8.2	10-2-19 19:00	8.17	941	8.30	21.1															
10-18-19 4:30	5.60	1515	8.52	1.3	10-2-19 19:15	7.49	939	8.56	3.2	10-2-19 19:15	8.39	942	8.29	25.6															
10-18-19 4:45	5.59	1516	8.52	1.2	10-2-19 19:30	7.51	937	8.60	1.6	10-2-19 19:30	8.66	941	8.29	23.8															
10-18-19 5:00	5.55	1516	8.53	1.4	10-2-19 19:45	7.63	938	8.58	1.8	10-2-19 19:45	8.83	940	8.30	23.9															
10-18-19 5:15	5.55	1517	8.53	1.2	10-2-19 20:00	7.86	940	8.57	1.8	10-2-19 20:00	8.90	940	8.30	22.2															
10-18-19 5:30	5.52	1517	8.53	1.3	10-2-19 20:15	7.97	938	8.57	1.7	10-2-19 20:15	8.84	941	8.29	24.3															
10-18-19 5:45	5.45	1518	8.53	1.2	10-2-19 20:30	8.00	937	8.55	1.5	10-2-19 20:30	8.95	942	8.29	22.7															
10-18-19 6:00	5.40	1517	8.53	1.3	10-2-19 20:45	8.00	933	8.54	2.0	10-2-19 20:45	9.33	941	8.28	23.3															
10-18-19 6:15	5.38	1518	8.53	1.3	10-2-19 21:00	7.98	933	8.59	2.1	10-2-19 21:00	9.45	940	8.27	22.6															
10-18-19 6:30	5.37	1517	8.53	1.3	10-2-19 21:15	7.89	934	8.57	2.3	10-2-19 21:15	9.37	939	8.30	23.7															
10-18-19 6:45	5.34	1519	8.53	1.2	10-2-19 21:30	7.92	934	8.57	2.5	10-2-19 21:30	9.39	941	8.30	22.5															
10-18-19 7:00	5.32	1519	8.53	1.5	10-2-19 21:45	8.00	934	8.57	2.3	10-2-19 21:45	9.92	935	8.29	24.9															
10-18-19 7:15	5.34	1521	8.53	1.3	10-2-19 22:00	7.98	920	8.58	2.1	10-2-19 22:00	9.68	936	8.28	23.1															
10-18-19 7:30	5.33	1521	8.53	1.3	10-2-19 22:15	8.03	919	8.57	2.0	10-2-19 22:15	9.60	941	8.29	24.8															
10-18-19 7:45	5.36	1522	8.52	1.3	10-2-19 22:30	8.41	919	8.57	1.8	10-2-19 22:30	9.99	940	8.28	22.6															
10-18-19 8:00	5.35	1522	8.52	1.5	10-2-19 22:45	8.27	919	8.57	1.6	10-2-19 22:45	10.17	941	8.28	23.9															
10-18-19 8:15	5.34	1522	8.53	1.3	10-2-19 23:00	8.24	934	8.57	3.1	10-2-19 23:00	10.07	938	8.27	21.8															
10-18-19 8:30	5.35	1522	8.52	1.5	10-2-19 23:15	8.01	930	8.61	2.4	10-2-19 23:15	10.01	938	8.28	24.6															
10-18-19 8:45	5.35	1524	8.52	1.3	10-2-19 23:30	8.19	932	8.59	2.2	10-2-19 23:30	10.08	940	8.28	22.0															
10-18-19 9:00	5.35	1523	8.52	1.5	10-2-19 23:45	8.80	935	8.57	3.1	10-2-19 23:45	10.27	941	8.28	27.2															
10-18-19 9:15	5.32	1522	8.52	1.3	10-3-19 0:00	8.30	931	8.59	4.1	10-3-19 0:00	10.38	941	8.27	21.9															
10-18-19 9:30	5.31	1522	8.52	1.5	10-3-19 0:15	8.12	932	8.61	4.6	10-3-19 0:15	10.52	939	8.27	23.8															
10-18-19 9:45	5.32	1523	8.52	1.4	10-3-19 0:30	8.53	929	8.59	2.0	10-3-19 0:30	10.74	942	8.28	20.8															
10-18-19 10:00	5.25	1519	8.52	1.3	10-3-19 0:45	8.24	928	8.56	2.1	10-3-19 0:45	10.62	939	8.27	23.4															
10-18-19 10:15	5.25	1522	8.53	1.2	10-3-19 1:00	8.20	932	8.60	1.9	10-3-19 1:00	10.51	939	8.27	22.3															
10-18-19 10:30	5.28	1522	8.52	1.3	10-3-19 1:15	8.16	936	8.58	3.8	10-3-19 1:15	11.09	946	8.32	24.3															
10-18-19 10:45	5.27	1522	8.52	1.1	10-3-19 1:30	8.28	932	8.59	1.9	10-3-19 1:30	11.03	944	8.32	21.1															
10-18-19 11:00	5.25	1522	8.53	1.2	10-3-19 1:45	9.54	938	8.55	1.7	10-3-19 1:45	11.24	945	8.34	24.2															
10-18-19 11:15	5.24	1523	8.52	1.1	10-3-19 2:00	9.11	935	8.57	2.1	10-3-19 2:00	11.00	944	8.34	21.8															
10-18-19 11:30	5.23	1525	8.52	1.2	10-3-19 2:15	8.15	930	8.60	2.6	10-3-19 2:15	10.81	944	8.34	25.1															
10-18-19 11:45	5.25	1524	8.52	1.2	10-3-19 2:30	8.03	930	8.61	2.5	10-3-19 2:30	10.63	943	8.35	21.2															
10-18-19 12:00	5.24	1523	8.52	1.2	10-3-19 2:45	8.14	933	8.60	1.9	10-3-19 2:45	10.25	938	8.33	23.5															
10-18-19 12:15	5.25	1525	8.52	1.1	10-3-19 3:00	8.65	896	8.58	1.4	10-3-19 3:00	9.82	942	8.31	21.8															
10-18-19 12:30	5.26	1526	8.52	1.3	10-3-19 3:15	8.41	895	8.61	1.6	10-3-19 3:15	10.27	944	8.36	22.7															
10-18-19 12:45	5.29	1527	8.51	1.1	10-3-19 3:30	8.19	894	8.61	2.3	10-3-19 3:30	10.22	943	8.36	21.6															
10-18-19 13:00	5.29	1528	8.51	1.3	10-3-19 3:45	8.14	893	8.61	3.1	10-3-19 3:45	10.18	944	8.35	22.1															
10-18-19 13:15	5.30	1529	8.51	1.2	10-3-19 4:00	8.26	931	8.60	2.0	10-3-19 4:00	10.04	944	8.34	20.4															
10-18-19 13:30	5.29	1528	8.51	1.4	10-3-19 4:15	8.66	935	8.58	2.5	10-3-19 4:15	10.04	944	8.36	22.6															
10-18-19 13:45	5.25	1529	8.51	1.2	10-3-19 4:30	8.54	934	8.58	1.3	10-3-19 4:30	9.90	942	8.35	19.8															
10-18-19 14:00	5.22	1528	8.52	1.2	10-3-19 4:45	8.16	930	8.62	3.5	10-3-19 4:45	9.83	943	8.36	21.6															
10-18-19 14:15	5.21	1530	8.52	1.2	10-3-19 5:00	8.05	930	8.63	2.9	10-3-19 5:00	9.75	943	8.35	19.2															
10-18-19 14:30	5.20	1528	8.51	1.3	10-3-19 5:15	7.99	928	8.64	3.4	10-3-19 5:15	9.66	943	8.36	22.2															
10-18-19 14:45	5.18	1529	8.51	1.2	10-3-19 5:30	8.27	933	8.61	1.7	10-3-19 5:30	9.59	943	8.35	20.7															
10-18-19 15:00	5.20	1529	8.51	1.3	10-3-19 5:45	8.20	932	8.61	2.4	10-3-19 5:45	9.57	943	8.35	22.1															
10-18-19 15:15	5.19	1530	8.51	1.1	10-3-19 6:00	8.20	933	8.61	2.5	10-3-19 6:00	9.52	943	8.35	20.1															
10-18-19 15:30	5.14	1530	8.51	1.3	10-3-19 6:15	8.13	931	8.62	3.2	10-3-19 6:15	9.47	943	8.35	20.9															
10-18-19 15:45	5.12	1531	8.51	1.1	10-3-19 6:30	8.21	934	8.60	1.8	10-3-19 6:30	9.39	943	8.34	20.0															
10-18-19 16:00	5.13	1531	8.51	1.3	10-3-19 6:45	8.15	931	8.60	2.9	10-3-19 6:45	9.38	943	8.34	22.3															
10-18-19 16:15	5.14	1533	8.51	1.2	10-3-19 7:00	8.06	930	8.61	2.7	10-3-19 7:00	9.32	943	8.32	20.0															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-18-19 16:30	5.16	1530	8.51	1.2
10-18-19 16:45	5.16	1532	8.51	1.2
10-18-19 17:00	5.17	1532	8.51	1.2
10-18-19 17:15	5.16	1533	8.51	1.2
10-18-19 17:30	5.19	1533	8.51	1.3
10-18-19 17:45	5.23	1534	8.51	1.3
10-18-19 18:00	5.24	1534	8.51	1.2
10-18-19 18:15	5.37	1535	8.51	5.9
10-18-19 18:30	5.32	1534	8.51	1.3
10-18-19 18:45	5.32	1537	8.51	1.2
10-18-19 19:00	5.36	1535	8.52	1.1
10-18-19 19:15	5.41	1534	8.52	1.2
10-18-19 19:30	5.47	1534	8.51	1.3
10-18-19 19:45	5.50	1533	8.51	1.2
10-18-19 20:00	5.54	1532	8.52	1.9
10-18-19 20:30	5.63	1532	8.52	1.3
10-18-19 20:45	5.59	1533	8.52	1.3
10-18-19 21:00	5.65	1534	8.52	1.3
10-18-19 21:15	5.73	1531	8.52	1.3
10-18-19 21:30	5.68	1534	8.52	1.3
10-18-19 21:45	5.75	1535	8.53	1.2
10-18-19 22:00	5.71	1536	8.52	1.3
10-18-19 22:15	5.70	1536	8.53	1.3
10-18-19 22:30	5.73	1537	8.53	1.2
10-18-19 22:45	5.79	1536	8.53	1.2
10-18-19 23:00	5.77	1536	8.53	1.4
10-18-19 23:15	5.75	1534	8.53	1.5
10-18-19 23:30	5.76	1534	8.53	1.4
10-18-19 23:45	5.74	1534	8.53	1.8
10-19-19 0:00	5.79	1535	8.53	1.4
10-19-19 0:15	5.78	1536	8.54	1.4
10-19-19 0:30	5.76	1533	8.54	1.4
10-19-19 0:45	5.75	1532	8.53	1.5
10-19-19 1:00	5.75	1535	8.54	1.2
10-19-19 1:15	5.73	1534	8.54	1.8
10-19-19 1:30	5.75	1535	8.54	1.3
10-19-19 1:45	5.76	1534	8.54	1.6
10-19-19 2:00	5.77	1535	8.54	1.4
10-19-19 2:15	5.75	1534	8.54	1.3
10-19-19 2:30	5.74	1535	8.54	1.4
10-19-19 2:45	5.74	1535	8.54	1.2
10-19-19 3:00	5.74	1536	8.54	1.6
10-19-19 3:15	5.73	1537	8.54	1.4
10-19-19 3:30	5.73	1537	8.53	1.2
10-19-19 3:45	5.72	1536	8.53	1.3
10-19-19 4:00	5.69	1535	8.53	1.3
10-19-19 4:15	5.67	1534	8.54	1.4
10-19-19 4:30	5.68	1535	8.53	1.5
10-19-19 4:45	5.65	1533	8.53	1.5
10-19-19 5:00	5.62	1529	8.54	1.5
10-19-19 5:15	5.61	1533	8.53	1.5
10-19-19 5:30	5.56	1532	8.54	1.4
10-19-19 5:45	5.53	1531	8.53	1.3
10-19-19 6:00	5.52	1533	8.53	1.4
10-19-19 6:15	5.44	1530	8.53	1.3
10-19-19 6:30	5.39	1531	8.54	1.3
10-19-19 6:45	5.50	1531	8.53	1.6
10-19-19 7:00	5.43	1532	8.53	1.4
10-19-19 7:15	5.42	1533	8.53	1.5
10-19-19 7:30	5.41	1531	8.53	1.5
10-19-19 7:45	5.40	1531	8.53	1.6
10-19-19 8:00	5.31	1534	8.53	1.4
10-19-19 8:15	5.24	1527	8.54	1.9
10-19-19 8:30	5.17	1527	8.54	2.2
10-19-19 8:45	5.16	1528	8.53	2.3
10-19-19 9:00	5.17	1529	8.53	2.3
10-19-19 9:15	5.18	1530	8.53	2.1
10-19-19 9:30	5.15	1526	8.53	1.8
10-19-19 9:45	5.13	1529	8.53	1.9
10-19-19 10:00	5.13	1531	8.53	1.8
10-19-19 10:15	5.14	1532	8.53	2.0
10-19-19 10:30	5.14	1530	8.53	1.9
10-19-19 10:45	5.13	1532	8.53	2.2

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-3-19 7:15	8.08	933	8.59	5.6
10-3-19 7:30	8.05	933	8.59	5.2
10-3-19 7:45	8.01	933	8.59	5.6
10-3-19 8:00	7.99	933	8.60	0.7
10-3-19 8:15	7.96	931	8.60	0.6
10-3-19 8:30	7.94	930	8.59	0.6
10-3-19 8:45	7.91	930	8.60	0.7
10-3-19 9:00	7.93	930	8.60	6.1
10-3-19 9:15	7.92	931	8.59	6.2
10-3-19 9:30	7.93	931	8.57	5.9
10-3-19 9:45	7.93	931	8.57	5.7
10-3-19 10:00	7.90	930	8.58	1.6
10-3-19 10:15	7.89	932	8.58	3.0
10-3-19 10:30	7.88	931	8.58	2.1
10-3-19 10:45	7.84	931	8.58	3.8
10-3-19 11:00	7.83	931	8.58	3.3
10-3-19 11:15	7.79	931	8.58	2.0
10-3-19 11:30	7.82	931	8.57	1.9
10-3-19 11:45	7.79	931	8.57	2.0
10-3-19 12:00	7.77	932	8.57	2.2
10-3-19 12:15	7.76	932	8.57	2.1
10-3-19 12:30	7.75	932	8.57	6.8
10-3-19 12:45	7.73	932	8.56	7.0
10-3-19 13:00	7.70	932	8.57	1.0
10-3-19 13:15	7.68	930	8.57	1.9
10-3-19 13:30	7.65	933	8.57	5.4
10-3-19 13:45	7.63	932	8.57	4.8
10-3-19 14:00	7.58	932	8.57	1.9
10-3-19 14:15	7.57	932	8.58	6.6
10-3-19 14:30	7.55	932	8.55	6.1
10-3-19 14:45	7.50	932	8.56	6.4
10-3-19 15:00	7.47	931	8.55	1.2
10-3-19 15:15	7.46	931	8.56	1.1
10-3-19 15:30	7.47	931	8.56	69.2
10-3-19 15:45	7.53	930	8.54	0.9
10-3-19 16:00	7.57	931	8.56	1.9
10-3-19 16:15	7.59	931	8.55	5.9
10-3-19 16:30	7.59	930	8.57	2.4
10-3-19 16:45	7.60	928	8.57	1.5
10-3-19 17:00	7.61	932	8.57	3.1
10-3-19 17:15	7.62	932	8.57	3.9
10-3-19 17:30	7.65	930	8.57	1.3
10-3-19 17:45	7.70	930	8.54	1.2
10-3-19 18:00	7.76	930	8.53	1.3
10-3-19 18:15	7.77	930	8.57	1.4
10-3-19 18:30	7.80	930	8.57	1.8
10-3-19 18:45	7.88	929	8.57	1.7
10-3-19 19:00	7.89	927	8.58	1.8
10-3-19 19:15	7.94	926	8.57	2.0
10-3-19 19:30	7.99	926	8.57	1.7
10-3-19 19:45	8.03	925	8.56	1.7
10-3-19 20:00	8.05	924	8.58	1.9
10-3-19 20:15	8.05	930	8.59	2.3
10-3-19 20:30	8.06	928	8.60	5.9
10-3-19 20:45	8.03	927	8.60	6.2
10-3-19 21:00	8.07	926	8.64	1.9
10-3-19 21:15	8.18	900	8.60	2.4
10-3-19 21:30	8.14	901	8.60	2.1
10-3-19 21:45	8.13	900	8.61	2.7
10-3-19 22:00	8.13	927	8.61	5.7
10-3-19 22:15	8.15	927	8.61	2.7
10-3-19 22:30	8.13	926	8.62	2.6
10-3-19 22:45	8.17	926	8.61	5.3
10-3-19 23:00	8.22	926	8.61	2.8
10-3-19 23:15	8.35	924	8.60	2.5
10-3-19 23:30	8.43	924	8.60	2.3
10-3-19 23:45	8.28	925	8.61	2.5
10-4-19 0:00	8.36	927	8.61	2.6
10-4-19 0:15	8.23	926	8.61	3.0
10-4-19 0:30	8.27	927	8.60	3.4
10-4-19 0:45	8.33	922	8.60	2.8
10-4-19 1:00	8.46	928	8.59	3.8
10-4-19 1:15	8.49	925	8.59	2.1

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-3-19 7:15	9.27	943	8.32	22.9
10-3-19 7:30	9.21	942	8.33	19.8
10-3-19 7:45	9.15	943	8.31	21.4
10-3-19 8:00	9.11	943	8.32	19.5
10-3-19 8:15	9.04	943	8.31	21.8
10-3-19 8:30	8.98	943	8.33	19.6
10-3-19 8:45	8.91	943	8.33	20.8
10-3-19 9:00	8.82	943	8.34	19.5
10-3-19 9:15	8.75	943	8.34	22.3
10-3-19 9:30	8.70	943	8.36	21.4
10-3-19 9:45	8.63	943	8.36	23.4
10-3-19 10:00	8.57	943	8.35	20.2
10-3-19 10:15	8.52	943	8.36	23.2
10-3-19 10:30	8.47	943	8.35	21.8
10-3-19 10:45	8.40	943	8.36	22.6
10-3-19 11:00	8.37	943	8.36	20.7
10-3-19 11:15	8.33	943	8.35	22.3
10-3-19 11:30	8.28	943	8.35	20.5
10-3-19 11:45	8.23	943	8.34	22.6
10-3-19 12:00	8.19	943	8.34	20.7
10-3-19 12:15	8.15	943	8.35	21.6
10-3-19 12:30	8.10	943	8.34	20.6
10-3-19 12:45	8.08	943	8.34	21.8
10-3-19 13:00	8.04	943	8.34	19.0
10-3-19 13:15	8.00	943	8.34	21.6
10-3-19 13:30	7.96	943	8.34	20.6
10-3-19 13:45	7.94	943	8.34	21.9
10-3-19 14:00	7.90	943	8.34	21.0
10-3-19 14:15	7.88	943	8.33	23.8
10-3-19 14:30	7.84	943	8.34	20.9
10-3-19 14:45	7.77	943	8.34	25.1
10-3-19 15:00	7.82	944	8.32	23.1
10-3-19 15:15	7.80	945	8.32	25.1
10-3-19 15:30	7.81	944	8.32	22.2
10-3-19 15:45	7.83	944	8.31	23.9
10-3-19 16:00	7.84	944	8.31	22.4
10-3-19 16:15	7.83	944	8.31	25.4
10-3-19 16:30	7.82	944	8.33	22.9
10-3-19 16:45	7.80	944	8.33	26.7
10-3-19 17:00	7.85	944	8.33	22.3
10-3-19 17:15	7.89	944	8.32	27.2
10-3-19 17:30	7.91	944	8.32	22.4
10-3-19 17:45	7.94	944	8.33	24.7
10-3-19 18:00	8.02	944	8.33	21.2
10-3-19 18:15	8.08	944	8.33	25.3
10-3-19 18:30	8.12	943	8.33	22.3
10-3-19 18:45	8.24	943	8.33	24.6
10-3-19 19:00	8.29	944	8.34	22.7
10-3-19 19:15	8.33	944	8.33	24.9
10-3-19 19:30	8.33	943	8.33	22.5
10-3-19 19:45	8.43	944	8.33	25.6
10-3-19 20:00	8.52	943	8.32	22.7
10-3-19 20:15	8.54	943	8.32	24.6
10-3-19 20:30	8.57	943	8.32	22.3
10-3-19 20:45	8.68	943	8.33	27.1
10-3-19 21:00	8.88	943	8.32	24.9
10-3-19 21:15	8.96	942	8.32	23.1
10-3-19 21:30	8.84	942	8.33	21.8
10-3-19 21:45	8.81	943	8.31	22.7
10-3-19 22:00	8.86	943	8.32	22.6
10-3-19 22:15	9.03	943	8.32	22.6
10-3-19 22:30	9.17	941	8.32	20.8
10-3-19 22:45	9.05	942	8.31	23.1
10-3-19 23:00	9.00	942	8.31	21.3
10-3-19 23:15	9.48	945	8.32	23.9
10-3-19 23:30	9.56	945	8.33	22.3
10-3-19 23:45	9.51	943	8.33	23.0
10-4-19 0:00	9.60	943	8.35	22.6
10-4-19 0:15	9.31	943	8.33	23.8
10-4-19 0:30	9.61	944	8.35	22.3
10-4-19 0:45	9.51	943	8.33	23.8
10-4-19 1:00	9.48	943	8.32	21.1
10-4-19 1:15	9.45	943	8.35	25.7

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-19-19 11:00	5.11	1533	8.52	2.0	10-4-19 1:30	8.33	926	8.60	4.0	10-4-19 1:30	9.43	944	8.35	24.3															
10-19-19 11:15	5.10	1532	8.53	2.1	10-4-19 1:45	8.27	925	8.61	4.4	10-4-19 1:45	9.47	943	8.36	24.0															
10-19-19 11:30	5.01	1532	8.53	1.8	10-4-19 2:00	8.24	925	8.62	5.2	10-4-19 2:00	9.47	944	8.34	21.6															
10-19-19 11:45	5.11	1535	8.52	2.3	10-4-19 2:15	8.23	924	8.62	4.9	10-4-19 2:15	9.33	943	8.35	27.8															
10-19-19 12:00	5.10	1534	8.52	2.2	10-4-19 2:30	8.33	925	8.60	3.0	10-4-19 2:30	9.33	945	8.36	24.2															
10-19-19 12:15	5.07	1534	8.52	2.3	10-4-19 2:45	8.35	924	8.60	3.4	10-4-19 2:45	9.42	944	8.37	24.6															
10-19-19 12:30	5.06	1534	8.52	2.1	10-4-19 3:00	8.37	925	8.59	3.8	10-4-19 3:00	9.37	944	8.36	21.8															
10-19-19 12:45	5.03	1534	8.52	2.4	10-4-19 3:15	8.32	923	8.61	2.9	10-4-19 3:15	9.31	943	8.34	24.2															
10-19-19 13:00	5.03	1534	8.52	2.2	10-4-19 3:30	8.31	923	8.61	2.8	10-4-19 3:30	9.21	947	8.35	25.3															
10-19-19 13:15	5.00	1534	8.52	2.4	10-4-19 3:45	8.26	923	8.61	3.6	10-4-19 3:45	9.21	943	8.38	23.8															
10-19-19 13:30	5.00	1534	8.52	2.2	10-4-19 4:00	8.26	923	8.61	2.1	10-4-19 4:00	9.22	944	8.39	21.7															
10-19-19 13:45	4.98	1533	8.52	2.5	10-4-19 4:15	8.24	923	8.61	3.4	10-4-19 4:15	9.15	944	8.39	24.4															
10-19-19 14:00	4.94	1535	8.52	2.1	10-4-19 4:30	8.27	923	8.61	2.8	10-4-19 4:30	9.11	944	8.38	23.4															
10-19-19 14:15	4.96	1535	8.52	2.7	10-4-19 4:45	8.28	923	8.61	3.1	10-4-19 4:45	9.05	945	8.38	25.0															
10-19-19 14:30	4.98	1536	8.51	2.6	10-4-19 5:00	8.28	924	8.59	4.5	10-4-19 5:00	9.03	945	8.38	24.1															
10-19-19 14:45	4.98	1537	8.51	3.0	10-4-19 5:15	8.30	923	8.59	4.6	10-4-19 5:15	8.98	945	8.38	28.7															
10-19-19 15:00	4.96	1538	8.51	2.7	10-4-19 5:30	8.29	922	8.60	2.8	10-4-19 5:30	8.98	945	8.38	24.0															
10-19-19 15:15	4.99	1538	8.51	3.5	10-4-19 5:45	8.28	921	8.59	2.9	10-4-19 5:45	8.98	945	8.37	28.1															
10-19-19 15:30	5.00	1538	8.51	2.6	10-4-19 6:00	8.28	922	8.59	4.0	10-4-19 6:00	8.96	945	8.37	25.0															
10-19-19 15:45	5.02	1538	8.51	3.7	10-4-19 6:15	8.28	923	8.59	7.9	10-4-19 6:15	8.92	945	8.37	25.9															
10-19-19 16:00	4.98	1539	8.51	3.4	10-4-19 6:30	8.27	923	8.58	4.2	10-4-19 6:30	8.87	945	8.36	22.2															
10-19-19 16:15	4.96	1539	8.51	4.8	10-4-19 6:45	8.27	923	8.58	3.4	10-4-19 6:45	8.86	945	8.37	26.5															
10-19-19 16:30	5.00	1538	8.51	3.2	10-4-19 7:00	8.27	923	8.58	3.1	10-4-19 7:00	8.82	945	8.37	23.3															
10-19-19 16:45	4.96	1536	8.51	3.8	10-4-19 7:15	8.26	923	8.57	8.8	10-4-19 7:15	8.78	945	8.37	26.3															
10-19-19 17:00	5.00	1539	8.51	4.1	10-4-19 7:30	8.24	923	8.58	2.4	10-4-19 7:30	8.76	945	8.38	24.5															
10-19-19 17:15	5.00	1538	8.51	4.4	10-4-19 7:45	8.26	922	8.57	3.1	10-4-19 7:45	8.74	945	8.37	27.2															
10-19-19 17:30	4.99	1538	8.51	3.8	10-4-19 8:00	8.24	924	8.57	3.9	10-4-19 8:00	8.70	945	8.37	23.8															
10-19-19 17:45	4.94	1538	8.51	4.9	10-4-19 8:15	8.21	925	8.58	3.6	10-4-19 8:15	8.67	945	8.37	25.9															
10-19-19 18:00	5.00	1538	8.51	4.3	10-4-19 8:30	8.22	924	8.57	3.7	10-4-19 8:30	8.65	945	8.38	23.2															
10-19-19 18:15	4.99	1537	8.51	6.6	10-4-19 8:45	8.19	924	8.57	4.0	10-4-19 8:45	8.62	945	8.37	25.0															
10-19-19 18:30	5.02	1538	8.51	4.1	10-4-19 9:00	8.20	924	8.56	7.3	10-4-19 9:00	8.57	945	8.36	23.4															
10-19-19 18:45	5.06	1537	8.51	5.1	10-4-19 9:15	8.19	924	8.57	2.8	10-4-19 9:15	8.55	945	8.36	25.5															
10-19-19 19:00	5.06	1537	8.51	4.6	10-4-19 9:30	8.18	924	8.55	9.0	10-4-19 9:30	8.51	945	8.36	23.4															
10-19-19 19:15	5.08	1538	8.51	5.4	10-4-19 9:45	8.17	924	8.57	2.3	10-4-19 9:45	8.49	945	8.37	26.8															
10-19-19 19:30	5.09	1538	8.51	4.7	10-4-19 10:00	8.17	924	8.56	2.5	10-4-19 10:00	8.47	945	8.37	25.0															
10-19-19 19:45	5.08	1539	8.51	6.5	10-4-19 10:15	8.18	924	8.56	1.9	10-4-19 10:15	8.44	945	8.37	26.2															
10-19-19 20:00	5.09	1539	8.51	6.0	10-4-19 10:30	8.15	924	8.56	3.5	10-4-19 10:30	8.41	945	8.36	24.9															
10-19-19 20:15	5.11	1538	8.51	6.8	10-4-19 10:45	8.15	922	8.55	2.4	10-4-19 10:45	8.39	945	8.36	28.9															
10-19-19 20:30	5.13	1539	8.51	5.8	10-4-19 11:00	8.13	924	8.56	2.6	10-4-19 11:00	8.38	945	8.35	26.8															
10-19-19 20:45	5.15	1538	8.51	7.1	10-4-19 11:15	8.13	924	8.56	2.7	10-4-19 11:15	8.36	946	8.35	29.1															
10-19-19 21:00	5.15	1538	8.51	6.4	10-4-19 11:30	8.13	924	8.56	2.3	10-4-19 11:30	8.33	946	8.35	26.5															
10-19-19 21:15	5.15	1539	8.51	7.8	10-4-19 11:45	8.08	924	8.56	2.6	10-4-19 11:45	8.31	945	8.36	30.3															
10-19-19 21:30	5.17	1541	8.51	7.4	10-4-19 12:00	8.05	924	8.57	2.8	10-4-19 12:00	8.27	945	8.36	25.8															
10-19-19 21:45	5.16	1538	8.51	8.0	10-4-19 12:15	8.06	924	8.56	2.7	10-4-19 12:15	8.25	945	8.35	28.3															
10-19-19 22:00	5.18	1537	8.51	6.7	10-4-19 12:30	8.05	924	8.55	3.1	10-4-19 12:30	8.22	945	8.36	22.7															
10-19-19 22:15	5.17	1538	8.50	7.9	10-4-19 12:45	8.03	924	8.56	3.1	10-4-19 12:45	8.18	945	8.36	28.4															
10-19-19 22:30	5.18	1538	8.51	6.9	10-4-19 13:00	7.99	925	8.55	7.2	10-4-19 13:00	8.16	945	8.35	27.0															
10-19-19 22:45	5.18	1538	8.51	8.6	10-4-19 13:15	7.98	924	8.55	2.1	10-4-19 13:15	8.13	945	8.35	28.4															
10-19-19 23:00	5.20	1538	8.50	8.1	10-4-19 13:30	8.00	924	8.56	6.8	10-4-19 13:30	8.10	946	8.36	25.2															
10-19-19 23:15	5.20	1538	8.51	8.3	10-4-19 13:45	8.00	924	8.56	6.6	10-4-19 13:45	8.07	946	8.36	33.0															
10-19-19 23:30	5.22	1538	8.51	8.9	10-4-19 14:00	8.01	925	8.55	4.5	10-4-19 14:00	8.04	946	8.36	28.0															
10-19-19 23:45	5.21	1538	8.51	10.3	10-4-19 14:15	7.97	926	8.55	4.6	10-4-19 14:15	8.03	946	8.35	29.2															
10-20-19 0:00	5.21	1539	8.50	11.9	10-4-19 14:30	7.97	924	8.56	2.6	10-4-19 14:30	8.02	946	8.35	25.0															
10-20-19 0:15	5.19	1537	8.50	9.8	10-4-19 14:45	7.96	924	8.56	2.8	10-4-19 14:45	8.01	947	8.35	32.1															
10-20-19 0:30	5.20	1539	8.50	9.8	10-4-19 15:00	7.92	925	8.55	2.2	10-4-19 15:00	8.02	947	8.35	27.8															
10-20-19 0:45	5.20	1538	8.50	11.7	10-4-19 15:15	7.92	925	8.55	2.8	10-4-19 15:15	8.00	947	8.35	33.2															
10-20-19 1:00	5.20	1538	8.50	10.4	10-4-19 15:30	7.91	925	8.55	2.7	10-4-19 15:30	8.00	947	8.35	27.8															
10-20-19 1:15	5.16	1539	8.51	10.4	10-4-19 15:45	7.90	925	8.55	2.6	10-4-19 15:45	8.02	947	8.35	33.4															
10-20-19 1:30	5.17	1539	8.51	8.2	10-4-19 16:00	7.91	924	8.55	2.0	10-4-19 16:00	8.03	947	8.34	30.5															
10-20-19 1:45	5.14	1539	8.51	9.3	10-4-19 16:15	7.95	925	8.54	3.9	10-4-19 16:15	8.02	947	8.35	35.0															
10-20-19 2:00	5.14	1539	8.51	7.9	10-4-19 16:30	7.96	924	8.53	2.4	10-4-19 16:30	8.01	947	8.35	28.8															
10-20-19 2:15	5.10	1538	8.51	8.7	10-4-19 16:45	7.97	924	8.53	4.2	10-4-19 16:45	8.01	947	8.35	31.4															
10-20-19 2:30	5.12	1539	8.51	8.6	10-4-19 17:00	7.98	923	8.53	4.1	10-4-19 17:00	8.07	947	8.35	30.5															
10-20-19 2:45	5.13	1538	8.50	10.1	10-4-19 17:15	8.01	924	8.53	10.3	10-4-19 17:15	8.14	947	8.34	35.8															
10-20-19 3:00	5.07	1538	8.50	9.6	10-4-19 17:30	8.01	924	8.54	9.7	10-4-19 17:30	8.22	947	8.34	32.9															
10-20-19 3:15	5.07	1539	8.50	12.5	10-4-19 17:45	8.01	923	8.54	3.3	10-4-19 17:45	8.31	947	8.34	41.3															
10-20-19 3:30	5.01	1539	8.50	10.2	10-4-19 18:00	8.02	843	8.54	2.5	10-4-19 18:00	8.41	947	8.34	36.2															
10-20-19 3:45	5.04	1540	8.50	12.9	10-4-19 18:15	8.03	843	8.54	2.9	10-4-19 18:15	8.41	946	8.34	42.2															
10-20-19 4:00	5.07	1539	8.49	11.4	10-4-19 18:30	8.06	843	8.54	4.0	10-4-19 18:30	8.63	947	8.35	43.8															
10-20-19 4:15	5.07	1538	8.50	13.5	10-4-19 18:45	8.14	842	8.54	3.3	10-4-19 18:45	8.63	945	8.35	50.4															
10-20-19 4:30	5.05	1540	8.49	11.2	10-4-19 19:00	8.21	924	8.53	5.6	10-4-19 19:00	8.54	945	8.35	50.8															
10-20-19 4:45	5.02	1539	8.50	12.9	10-4-19 19:15	8.25	921	8.53	4.1	10-4-19 19:15	8.59	945	8.36	52.5															
10-20-19 5:00	5.04	1539	8.50	10.6	10-4-19 19:30	8.25	920	8.54	3.5	10-4-19 19:30	8.68	945	8.36	47.7															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-20-19 5:15	5.01	1539	8.49	12.1	10-4-19 19:45	8.29	919	8.54	4.1	10-4-19 19:45	8.64	945	8.36	56.7															
10-20-19 5:30	4.99	1540	8.49	10.3	10-4-19 20:00	8.31	919	8.53	3.0	10-4-19 20:00	8.70	945	8.37	46.4															
10-20-19 5:45	5.00	1539	8.49	13.1	10-4-19 20:15	8.33	922	8.54	4.0	10-4-19 20:15	8.64	945	8.36	56.4															
10-20-19 6:00	4.97	1541	8.49	10.5	10-4-19 20:30	8.33	886	8.54	3.7	10-4-19 20:30	8.61	946	8.36	46.7															
10-20-19 6:15	4.95	1540	8.49	12.6	10-4-19 20:45	8.36	886	8.54	3.5	10-4-19 20:45	8.69	946	8.37	55.4															
10-20-19 6:30	4.96	1540	8.49	10.2	10-4-19 21:00	8.38	922	8.54	5.8	10-4-19 21:00	8.71	945	8.36	52.6															
10-20-19 6:45	4.96	1540	8.49	13.3	10-4-19 21:15	8.39	920	8.54	3.9	10-4-19 21:15	8.72	945	8.37	54.1															
10-20-19 7:00	4.94	1536	8.49	10.8	10-4-19 21:30	8.39	921	8.54	4.6	10-4-19 21:30	8.74	945	8.36	50.4															
10-20-19 7:15	4.94	1539	8.50	11.5	10-4-19 21:45	8.40	921	8.54	4.8	10-4-19 21:45	8.69	945	8.37	58.2															
10-20-19 7:30	4.92	1540	8.49	11.0	10-4-19 22:00	8.41	920	8.54	4.8	10-4-19 22:00	8.71	945	8.36	50.8															
10-20-19 7:45	4.89	1540	8.49	11.3	10-4-19 22:15	8.42	920	8.53	4.4	10-4-19 22:15	8.71	945	8.37	55.7															
10-20-19 8:00	4.87	1542	8.49	10.5	10-4-19 22:30	8.43	919	8.53	4.2	10-4-19 22:30	8.72	945	8.36	52.5															
10-20-19 8:15	4.86	1541	8.49	12.5	10-4-19 22:45	8.44	919	8.53	4.2	10-4-19 22:45	8.74	944	8.37	61.9															
10-20-19 8:30	4.88	1541	8.49	10.3	10-4-19 23:00	8.45	920	8.53	5.6	10-4-19 23:00	8.73	944	8.36	54.4															
10-20-19 8:45	4.89	1541	8.49	12.2	10-4-19 23:15	8.46	919	8.53	6.0	10-4-19 23:15	8.77	943	8.36	60.9															
10-20-19 9:00	4.86	1541	8.48	11.1	10-4-19 23:30	8.47	919	8.54	4.2	10-4-19 23:30	8.78	943	8.36	54.9															
10-20-19 9:15	4.85	1541	8.48	11.0	10-4-19 23:45	8.48	919	8.53	5.1	10-4-19 23:45	8.78	943	8.35	59.7															
10-20-19 9:30	4.85	1542	8.48	10.8	10-5-19 0:00	8.48	919	8.53	4.5	10-5-19 0:00	8.79	943	8.35	54.0															
10-20-19 9:45	4.82	1542	8.48	12.1	10-5-19 0:15	8.50	920	8.53	6.6	10-5-19 0:15	8.79	943	8.35	60.4															
10-20-19 10:00	4.81	1543	8.48	11.2	10-5-19 0:30	8.50	920	8.53	8.1	10-5-19 0:30	8.80	942	8.35	55.0															
10-20-19 10:15	4.81	1543	8.48	11.6	10-5-19 0:45	8.50	919	8.53	7.0	10-5-19 0:45	8.79	942	8.35	58.6															
10-20-19 10:30	4.83	1544	8.48	13.1	10-5-19 1:00	8.50	915	8.53	5.9	10-5-19 1:00	8.79	942	8.35	53.6															
10-20-19 10:45	4.77	1543	8.48	12.6	10-5-19 1:15	8.50	916	8.52	5.9	10-5-19 1:15	8.78	942	8.34	59.3															
10-20-19 11:00	4.80	1544	8.48	11.5	10-5-19 1:30	8.50	916	8.52	5.3	10-5-19 1:30	8.78	942	8.34	54.4															
10-20-19 11:15	4.80	1544	8.48	17.8	10-5-19 1:45	8.50	916	8.52	5.5	10-5-19 1:45	8.78	941	8.35	60.3															
10-20-19 11:30	4.79	1545	8.48	11.8	10-5-19 2:00	8.50	916	8.52	6.3	10-5-19 2:00	8.77	941	8.34	52.4															
10-20-19 11:45	4.78	1545	8.48	10.9	10-5-19 2:15	8.50	919	8.52	5.8	10-5-19 2:15	8.76	941	8.34	58.2															
10-20-19 12:00	4.79	1546	8.48	10.9	10-5-19 2:30	8.50	919	8.51	6.4	10-5-19 2:30	8.76	941	8.34	51.4															
10-20-19 12:15	4.74	1545	8.47	10.7	10-5-19 2:45	8.50	919	8.51	5.8	10-5-19 2:45	8.76	941	8.34	56.8															
10-20-19 12:30	4.75	1547	8.47	11.6	10-5-19 3:00	8.50	919	8.51	5.2	10-5-19 3:00	8.75	941	8.34	51.3															
10-20-19 12:45	4.76	1546	8.47	11.7	10-5-19 3:15	8.50	919	8.51	5.0	10-5-19 3:15	8.74	941	8.34	53.4															
10-20-19 13:00	4.74	1547	8.47	11.1	10-5-19 3:30	8.50	931	8.52	4.5	10-5-19 3:30	8.73	941	8.34	51.3															
10-20-19 13:15	4.74	1547	8.47	12.1	10-5-19 3:45	8.50	931	8.51	4.8	10-5-19 3:45	8.72	941	8.34	55.2															
10-20-19 13:30	4.75	1548	8.47	10.6	10-5-19 4:00	8.50	931	8.51	4.8	10-5-19 4:00	8.71	939	8.34	49.1															
10-20-19 13:45	4.76	1549	8.47	13.2	10-5-19 4:15	8.49	919	8.51	11.5	10-5-19 4:15	8.71	940	8.35	53.5															
10-20-19 14:00	4.75	1550	8.46	11.2	10-5-19 4:30	8.49	919	8.50	11.9	10-5-19 4:30	8.71	939	8.34	51.7															
10-20-19 14:15	4.73	1549	8.46	14.1	10-5-19 4:45	8.49	919	8.50	11.4	10-5-19 4:45	8.71	940	8.34	56.4															
10-20-19 14:30	4.71	1549	8.46	11.9	10-5-19 5:00	8.49	919	8.50	10.8	10-5-19 5:00	8.70	939	8.34	52.1															
10-20-19 14:45	4.68	1550	8.47	14.5	10-5-19 5:15	8.49	919	8.50	3.7	10-5-19 5:15	8.70	939	8.34	56.2															
10-20-19 15:00	4.69	1551	8.46	11.4	10-5-19 5:30	8.49	919	8.50	4.0	10-5-19 5:30	8.69	939	8.33	51.8															
10-20-19 15:15	4.70	1551	8.46	13.2	10-5-19 5:45	8.49	919	8.50	5.0	10-5-19 5:45	8.70	939	8.33	52.6															
10-20-19 15:30	4.69	1551	8.46	11.1	10-5-19 6:00	8.49	919	8.50	4.4	10-5-19 6:00	8.68	939	8.34	50.8															
10-20-19 15:45	4.69	1552	8.46	13.6	10-5-19 6:15	8.49	917	8.50	4.8	10-5-19 6:15	8.69	939	8.34	52.9															
10-20-19 16:00	4.61	1552	8.46	11.6	10-5-19 6:30	8.49	917	8.50	4.1	10-5-19 6:30	8.67	939	8.34	50.0															
10-20-19 16:15	4.61	1553	8.46	14.3	10-5-19 6:45	8.49	917	8.49	4.6	10-5-19 6:45	8.67	939	8.34	54.6															
10-20-19 16:30	4.66	1554	8.46	11.1	10-5-19 7:00	8.48	917	8.50	4.2	10-5-19 7:00	8.66	939	8.33	47.2															
10-20-19 16:45	4.66	1553	8.46	12.7	10-5-19 7:15	8.48	904	8.49	4.1	10-5-19 7:15	8.67	940	8.33	50.7															
10-20-19 17:00	4.65	1555	8.45	10.4	10-5-19 7:30	8.48	904	8.49	5.4	10-5-19 7:30	8.67	940	8.34	49.1															
10-20-19 17:15	4.66	1554	8.46	11.6	10-5-19 7:45	8.48	904	8.49	4.7	10-5-19 7:45	8.66	940	8.33	52.2															
10-20-19 17:30	4.66	1555	8.46	10.9	10-5-19 8:00	8.47	904	8.49	4.0	10-5-19 8:00	8.63	940	8.33	48.3															
10-20-19 17:45	4.69	1554	8.45	13.1	10-5-19 8:15	8.46	919	8.49	4.8	10-5-19 8:15	8.63	940	8.32	50.7															
10-20-19 18:00	4.68	1555	8.45	11.0	10-5-19 8:30	8.43	919	8.48	4.7	10-5-19 8:30	8.62	940	8.33	46.5															
10-20-19 18:15	4.71	1555	8.45	12.6	10-5-19 8:45	8.44	919	8.47	9.0	10-5-19 8:45	8.60	940	8.33	52.1															
10-20-19 18:30	4.71	1555	8.45	10.9	10-5-19 9:00	8.44	920	8.47	9.8	10-5-19 9:00	8.62	940	8.34	48.6															
10-20-19 18:45	4.70	1554	8.45	12.2	10-5-19 9:15	8.43	920	8.48	4.5	10-5-19 9:15	8.60	940	8.33	53.1															
10-20-19 19:00	4.72	1556	8.45	10.5	10-5-19 9:30	8.42	919	8.49	4.6	10-5-19 9:30	8.61	940	8.33	48.9															
10-20-19 19:15	4.73	1555	8.45	12.7	10-5-19 9:45	8.42	919	8.48	4.2	10-5-19 9:45	8.60	940	8.33	50.2															
10-20-19 19:30	4.73	1556	8.45	11.1	10-5-19 10:00	8.41	920	8.47	4.4	10-5-19 10:00	8.57	940	8.34	46.8															
10-20-19 19:45	4.76	1556	8.45	11.8	10-5-19 10:15	8.41	890	8.48	3.9	10-5-19 10:15	8.56	940	8.33	52.2															
10-20-19 20:00	4.77	1556	8.45	13.2	10-5-19 10:30	8.41	898	8.47	5.3	10-5-19 10:30	8.58	940	8.33	49.2															
10-20-19 20:15	4.78	1556	8.45	12.7	10-5-19 10:45	8.41	898	8.47	3.8	10-5-19 10:45	8.57	940	8.33	52.4															
10-20-19 20:30	4.81	1556	8.45	10.6	10-5-19 11:00	8.41	898	8.47	4.4	10-5-19 11:00	8.58	940	8.33	44.8															
10-20-19 20:45	4.84	1557	8.45	13.5	10-5-19 11:15	8.40	919	8.46	4.2	10-5-19 11:15	8.54	940	8.33	51.2															
10-20-19 21:00	4.86	1557	8.45	10.2	10-5-19 11:30	8.38	919	8.45	4.3	10-5-19 11:30	8.54	940	8.33	47.4															
10-20-19 21:15	4.88	1558	8.45	11.6	10-5-19 11:45	8.36	919	8.45	4.0	10-5-19 11:45	8.53	940	8.33	52.4															
10-20-19 21:30	4.89	1559	8.45	10.9	10-5-19 12:00	8.34	919	8.44	4.5	10-5-19 12:00	8.51	941	8.33	48.2															
10-20-19 21:45	4.88	1562	8.45	11.4	10-5-19 12:15	8.35	920	8.46	4.2	10-5-19 12:15	8.51	941	8.33	50.8															
10-20-19 22:00	4.88	1563	8.45	10.0	10-5-19 12:30	8.33	921	8.47	5.6	10-5-19 12:30	8.49	940	8.32	48.1															
10-20-19 22:15	4.87	1562	8.45	12.2	10-5-19 12:45	8.32	921	8.46	4.8	10-5-19 12:45	8.48	940	8.32	48.5															
10-20-19 22:30	4.89	1564	8.45	11.5	10-5-19 13:00	8.31	920	8.47	4.5	10-5-19 13:00	8.45	941	8.32	48.7															
10-20-19 22:45	4.88	1562	8.45	12.1	10-5-19 13:15	8.32	920	8.48	9.3	10-5-19 13:15	8.43	941	8.33	48.2															
10-20-19 23:00	4.87	1563	8.45	10.3	10-5-19 13:30	8.32	919	8.47	3.6	10-5-19 13:30	8.40	941	8.33	47.5															
10-20-19 23:15	4.87	1564	8.45	12.6	10-5-19 13:45	8.30	919	8.46	3.6	10-5-19 13:45	8.39	941	8.33	51.5															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-20-19 23:30	4.86	1567	8.45	10.0	10-5-19 14:00	8.29	920	8.45	3.9	10-5-19 14:00	8.37	941	8.33	46.8															
10-20-19 23:45	4.81	1566	8.45	11.5	10-5-19 14:15	8.26	921	8.46	5.6	10-5-19 14:15	8.35	940	8.33	49.2															
10-21-19 0:00	4.83	1567	8.45	9.9	10-5-19 14:30	8.27	921	8.46	3.9	10-5-19 14:30	8.34	940	8.33	46.2															
10-21-19 0:15	4.83	1567	8.45	11.2	10-5-19 14:45	8.25	920	8.46	4.3	10-5-19 14:45	8.30	940	8.33	52.9															
10-21-19 0:30	4.82	1569	8.45	10.7	10-5-19 15:00	8.23	920	8.46	4.6	10-5-19 15:00	8.29	941	8.33	48.0															
10-21-19 0:45	4.84	1569	8.45	12.7	10-5-19 15:15	8.22	920	8.46	3.9	10-5-19 15:15	8.29	940	8.33	58.6															
10-21-19 1:00	4.86	1571	8.45	12.3	10-5-19 15:30	8.20	922	8.46	2.8	10-5-19 15:30	8.27	940	8.33	49.3															
10-21-19 1:15	4.81	1570	8.45	11.7	10-5-19 15:45	8.23	921	8.46	5.8	10-5-19 15:45	8.31	940	8.33	48.2															
10-21-19 1:30	4.81	1569	8.44	10.4	10-5-19 16:00	8.25	921	8.46	4.0	10-5-19 16:00	8.33	941	8.32	47.9															
10-21-19 1:45	4.79	1570	8.45	12.1	10-5-19 16:15	8.29	921	8.46	4.8	10-5-19 16:15	8.36	940	8.33	50.9															
10-21-19 2:00	4.82	1570	8.45	10.9	10-5-19 16:30	8.29	921	8.46	5.0	10-5-19 16:30	8.41	940	8.33	44.5															
10-21-19 2:15	4.75	1569	8.45	10.2	10-5-19 16:45	8.35	921	8.46	5.1	10-5-19 16:45	8.45	941	8.33	52.7															
10-21-19 2:30	4.76	1570	8.45	14.9	10-5-19 17:00	8.38	921	8.45	4.7	10-5-19 17:00	8.47	940	8.33	44.3															
10-21-19 2:45	4.76	1571	8.45	12.0	10-5-19 17:15	8.35	921	8.45	5.2	10-5-19 17:15	8.54	940	8.34	49.6															
10-21-19 3:00	4.76	1571	8.44	9.4	10-5-19 17:30	8.38	920	8.46	5.0	10-5-19 17:30	8.59	940	8.33	45.3															
10-21-19 3:15	4.74	1571	8.45	11.0	10-5-19 17:45	8.37	921	8.45	5.2	10-5-19 17:45	8.75	941	8.33	51.2															
10-21-19 3:30	4.77	1572	8.44	9.4	10-5-19 18:00	8.45	922	8.45	5.3	10-5-19 18:00	8.77	939	8.34	43.9															
10-21-19 3:45	4.79	1571	8.44	11.5	10-5-19 18:15	8.48	922	8.46	5.6	10-5-19 18:15	8.69	941	8.35	56.1															
10-21-19 4:00	4.77	1572	8.44	9.0	10-5-19 18:30	8.49	921	8.46	5.5	10-5-19 18:30	8.69	940	8.35	45.8															
10-21-19 4:15	4.77	1572	8.44	10.8	10-5-19 18:45	8.51	921	8.47	4.7	10-5-19 18:45	8.70	941	8.35	51.9															
10-21-19 4:30	4.73	1572	8.44	9.0	10-5-19 19:00	8.52	920	8.47	4.2	10-5-19 19:00	8.74	940	8.35	49.6															
10-21-19 4:45	4.76	1572	8.44	10.9	10-5-19 19:15	8.55	921	8.48	8.1	10-5-19 19:15	8.68	940	8.35	52.8															
10-21-19 5:00	4.76	1572	8.44	9.7	10-5-19 19:30	8.58	921	8.48	8.2	10-5-19 19:30	8.72	940	8.35	46.0															
10-21-19 5:15	4.76	1571	8.44	10.0	10-5-19 19:45	8.60	921	8.49	10.1	10-5-19 19:45	8.73	941	8.35	53.3															
10-21-19 5:30	4.74	1572	8.44	8.4	10-5-19 20:00	8.66	920	8.49	8.2	10-5-19 20:00	8.82	941	8.36	50.3															
10-21-19 5:45	4.73	1572	8.44	10.5	10-5-19 20:15	8.68	920	8.49	4.0	10-5-19 20:15	8.90	940	8.36	56.1															
10-21-19 6:00	4.75	1574	8.44	8.4	10-5-19 20:30	8.69	920	8.49	5.0	10-5-19 20:30	8.87	940	8.36	43.8															
10-21-19 6:15	4.71	1572	8.44	10.6	10-5-19 20:45	8.71	918	8.49	4.3	10-5-19 20:45	8.92	940	8.36	50.3															
10-21-19 6:30	4.70	1574	8.44	8.8	10-5-19 21:00	8.74	919	8.50	6.2	10-5-19 21:00	8.89	940	8.36	55.6															
10-21-19 6:45	4.68	1571	8.44	10.3	10-5-19 21:15	8.74	919	8.50	8.4	10-5-19 21:15	8.90	941	8.37	62.0															
10-21-19 7:00	4.68	1572	8.44	9.0	10-5-19 21:30	8.74	919	8.50	4.8	10-5-19 21:30	8.91	940	8.37	51.9															
10-21-19 7:15	4.63	1569	8.44	10.2	10-5-19 21:45	8.75	920	8.50	4.9	10-5-19 21:45	8.90	940	8.37	51.4															
10-21-19 7:30	4.64	1571	8.44	8.5	10-5-19 22:00	8.75	919	8.50	5.4	10-5-19 22:00	8.90	941	8.37	51.4															
10-21-19 7:45	4.45	1553	8.45	9.7	10-5-19 22:15	8.77	918	8.51	4.3	10-5-19 22:15	8.90	941	8.37	52.2															
10-21-19 8:00	4.50	1564	8.44	8.7	10-5-19 22:30	8.76	919	8.51	4.6	10-5-19 22:30	8.91	941	8.37	50.2															
10-21-19 8:15	4.50	1565	8.44	10.6	10-5-19 22:45	8.75	919	8.51	4.4	10-5-19 22:45	8.89	941	8.38	52.5															
10-21-19 8:30	4.52	1566	8.44	10.9	10-5-19 23:00	8.74	919	8.51	5.1	10-5-19 23:00	8.89	940	8.37	59.5															
10-21-19 8:45	4.51	1568	8.44	9.8	10-5-19 23:15	8.73	918	8.51	5.1	10-5-19 23:15	8.87	940	8.37	54.1															
10-21-19 9:00	4.57	1567	8.44	9.8	10-5-19 23:30	8.73	918	8.51	8.2	10-5-19 23:30	8.86	941	8.38	55.6															
10-21-19 9:15	4.52	1562	8.44	11.4	10-5-19 23:45	8.74	918	8.51	5.7	10-5-19 23:45	8.85	940	8.38	61.8															
10-21-19 9:30	4.40	1557	8.44	12.4	10-6-19 0:00	8.72	918	8.51	8.3	10-6-19 0:00	8.85	941	8.37	51.5															
10-21-19 9:45	4.41	1557	8.44	13.7	10-6-19 0:15	8.71	919	8.51	16.2	10-6-19 0:15	8.84	940	8.37	63.3															
10-21-19 10:00	4.26	1551	8.44	12.5	10-6-19 0:30	8.69	918	8.52	5.5	10-6-19 0:30	8.82	940	8.37	47.1															
10-21-19 10:15	4.24	1555	8.44	13.7	10-6-19 0:45	8.68	919	8.52	5.8	10-6-19 0:45	8.80	941	8.38	58.7															
10-21-19 10:30	4.25	1555	8.44	11.1	10-6-19 1:00	8.68	918	8.52	5.0	10-6-19 1:00	8.79	941	8.37	52.3															
10-21-19 10:45	4.36	1560	8.44	11.7	10-6-19 1:15	8.66	919	8.52	5.0	10-6-19 1:15	8.77	941	8.37	54.6															
10-21-19 11:00	4.43	1563	8.44	10.9	10-6-19 1:30	8.64	919	8.51	6.4	10-6-19 1:30	8.77	941	8.37	47.0															
10-21-19 11:15	4.45	1564	8.44	12.6	10-6-19 1:45	8.63	918	8.51	4.6	10-6-19 1:45	8.76	941	8.37	57.0															
10-21-19 11:30	4.39	1562	8.44	10.9	10-6-19 2:00	8.60	919	8.51	8.8	10-6-19 2:00	8.73	941	8.37	45.7															
10-21-19 11:45	4.32	1558	8.44	12.8	10-6-19 2:15	8.57	919	8.51	8.0	10-6-19 2:15	8.73	941	8.37	57.3															
10-21-19 12:00	4.32	1562	8.44	10.2	10-6-19 2:30	8.55	919	8.51	4.6	10-6-19 2:30	8.69	941	8.37	50.0															
10-21-19 12:15	4.32	1564	8.44	12.6	10-6-19 2:45	8.53	919	8.51	4.5	10-6-19 2:45	8.69	941	8.37	57.3															
10-21-19 12:30	4.34	1563	8.44	10.7	10-6-19 3:00	8.52	919	8.51	5.2	10-6-19 3:00	8.68	941	8.37	46.9															
10-21-19 12:45	4.31	1562	8.44	11.6	10-6-19 3:15	8.50	918	8.50	5.4	10-6-19 3:15	8.65	941	8.38	59.7															
10-21-19 13:00	4.42	1574	8.43	11.0	10-6-19 3:30	8.49	920	8.51	5.8	10-6-19 3:30	8.64	941	8.37	47.7															
10-21-19 13:15	4.54	1591	8.42	10.6	10-6-19 3:45	8.48	920	8.51	2.9	10-6-19 3:45	8.62	941	8.37	52.6															
10-21-19 13:30	4.57	1596	8.41	9.9	10-6-19 4:00	8.47	919	8.51	5.1	10-6-19 4:00	8.62	941	8.37	47.4															
10-21-19 13:45	4.58	1600	8.40	10.5	10-6-19 4:15	8.47	920	8.51	8.0	10-6-19 4:15	8.51	940	8.38	50.3															
10-21-19 14:00	4.57	1599	8.41	8.7	10-6-19 4:30	8.45	919	8.50	3.8	10-6-19 4:30	8.52	941	8.38	48.5															
10-21-19 14:15	4.56	1601	8.41	10.1	10-6-19 4:45	8.43	920	8.50	4.1	10-6-19 4:45	8.49	941	8.38	54.5															
10-21-19 14:30	4.55	1603	8.40	8.4	10-6-19 5:00	8.38	920	8.51	5.1	10-6-19 5:00	8.48	941	8.38	47.1															
10-21-19 14:45	4.56	1604	8.40	9.7	10-6-19 5:15	8.34	919	8.51	3.8	10-6-19 5:15	8.44	941	8.38	58.5															
10-21-19 15:00	4.57	1607	8.40	9.5	10-6-19 5:30	8.33	919	8.51	4.0	10-6-19 5:30	8.47	940	8.38	48.2															
10-21-19 15:15	4.51	1606	8.40	10.1	10-6-19 5:45	8.31	919	8.51	4.3	10-6-19 5:45	8.43	941	8.38	54.4															
10-21-19 15:30	4.49	1608	8.40	8.3	10-6-19 6:00	8.28	919	8.51	4.0	10-6-19 6:00	8.42	941	8.38	50.1															
10-21-19 15:45	4.60	1621	8.39	9.4	10-6-19 6:15	8.26	921	8.51	9.2	10-6-19 6:15	8.41	941	8.38	57.6															
10-21-19 16:00	4.60	1622	8.39	8.4	10-6-19 6:30	8.25	920	8.50	5.2	10-6-19 6:30	8.37	941	8.38	50.0															
10-21-19 16:15	4.51	1600	8.40	10.2	10-6-19 6:45	8.23	920	8.50	4.9	10-6-19 6:45	8.34	941	8.39	55.3															
10-21-19 16:30	4.37	1587	8.42	9.2	10-6-19 7:00	8.20	920	8.50	4.8	10-6-19 7:00	8.30	941	8.38	47.6															
10-21-19 16:45	4.48	1615	8.40	9.3	10-6-19 7:15	8.16	920	8.50	4.6	10-6-19 7:15	8.29	941	8.39	59.2															
10-21-19 17:00	4.50	1615	8.39	8.4	10-6-19 7:30	8.15	920	8.50	4.0	10-6-19 7:30	8.28	941	8.38	48.9															
10-21-19 17:15	4.61	1657	8.38	10.1	10-6-19 7:45	8.15	920	8.50	3.9	10-6-19 7:45	8.22	941	8.39	50.6															
10-21-19 17:30	4.59	1621	8.39	8.9	10-6-19 8:00	8.11	920	8.50	4.1	10-6-19 8:00	8.20	941	8.39	45.8															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-21-19 17:45	4.60	1620	8.39	10.5	10-6-19 8:15	8.09	921	8.49	6.7	10-6-19 8:15	8.17	941	8.39	58.5															
10-21-19 18:00	4.64	1623	8.38	8.3	10-6-19 8:30	8.07	921	8.50	2.1	10-6-19 8:30	8.20	941	8.38	44.8															
10-21-19 18:15	4.58	1613	8.39	10.5	10-6-19 8:45	8.07	921	8.50	2.3	10-6-19 8:45	8.19	941	8.38	55.0															
10-21-19 18:30	4.62	1617	8.39	8.3	10-6-19 9:00	8.07	921	8.49	6.1	10-6-19 9:00	8.16	941	8.38	49.6															
10-21-19 18:45	4.65	1622	8.39	9.9	10-6-19 9:15	8.04	920	8.50	3.5	10-6-19 9:15	8.15	941	8.37	50.9															
10-21-19 19:00	4.66	1622	8.39	8.9	10-6-19 9:30	8.02	921	8.49	5.7	10-6-19 9:30	8.09	941	8.38	44.4															
10-21-19 19:15	4.73	1629	8.38	9.9	10-6-19 9:45	8.01	922	8.49	8.7	10-6-19 9:45	8.09	941	8.38	51.7															
10-21-19 19:30	4.77	1631	8.38	9.5	10-6-19 10:00	7.98	921	8.49	3.8	10-6-19 10:00	8.09	941	8.38	44.6															
10-21-19 19:45	4.79	1631	8.38	10.6	10-6-19 10:15	7.97	921	8.49	4.0	10-6-19 10:15	8.08	941	8.39	54.7															
10-21-19 20:00	4.82	1635	8.37	9.3	10-6-19 10:30	7.95	921	8.49	4.5	10-6-19 10:30	8.07	941	8.39	46.0															
10-21-19 20:15	4.80	1628	8.38	10.0	10-6-19 10:45	7.94	921	8.48	4.5	10-6-19 10:45	8.06	941	8.39	49.9															
10-21-19 20:30	4.75	1623	8.39	8.8	10-6-19 11:00	7.91	922	8.49	4.4	10-6-19 11:00	8.03	941	8.39	50.7															
10-21-19 20:45	4.80	1627	8.39	10.4	10-6-19 11:15	7.92	922	8.49	5.5	10-6-19 11:15	8.05	941	8.39	58.6															
10-21-19 21:00	4.85	1630	8.38	9.3	10-6-19 11:30	7.90	930	8.49	5.6	10-6-19 11:30	8.02	941	8.39	44.9															
10-21-19 21:15	4.87	1633	8.38	10.5	10-6-19 11:45	7.87	930	8.48	3.9	10-6-19 11:45	8.01	941	8.39	55.6															
10-21-19 21:30	4.93	1640	8.38	10.6	10-6-19 12:00	7.85	930	8.49	4.1	10-6-19 12:00	8.02	941	8.39	44.4															
10-21-19 21:45	4.88	1634	8.38	10.9	10-6-19 12:15	7.84	922	8.48	3.3	10-6-19 12:15	7.98	941	8.39	50.9															
10-21-19 22:00	4.92	1640	8.38	10.5	10-6-19 12:30	7.83	923	8.49	4.4	10-6-19 12:30	7.98	941	8.39	48.4															
10-21-19 22:15	4.95	1640	8.38	12.1	10-6-19 12:45	7.81	923	8.48	3.4	10-6-19 12:45	7.98	941	8.39	50.4															
10-21-19 22:30	4.80	1637	8.39	10.1	10-6-19 13:00	7.79	922	8.48	5.7	10-6-19 13:00	7.95	941	8.40	44.9															
10-21-19 22:45	4.85	1638	8.38	10.7	10-6-19 13:15	7.78	921	8.48	6.5	10-6-19 13:15	7.93	941	8.40	57.9															
10-21-19 23:00	4.85	1642	8.37	12.3	10-6-19 13:30	7.76	921	8.48	6.8	10-6-19 13:30	7.93	941	8.40	45.6															
10-21-19 23:15	4.81	1647	8.37	12.5	10-6-19 13:45	7.76	921	8.48	3.7	10-6-19 13:45	7.92	941	8.39	61.9															
10-21-19 23:30	4.84	1648	8.37	12.1	10-6-19 14:00	7.75	921	8.48	3.4	10-6-19 14:00	7.88	941	8.39	47.2															
10-21-19 23:45	4.87	1642	8.37	11.2	10-6-19 14:15	7.74	923	8.48	4.1	10-6-19 14:15	7.89	941	8.39	51.6															
10-22-19 0:00	4.88	1644	8.37	10.2	10-6-19 14:30	7.72	923	8.48	4.4	10-6-19 14:30	7.87	941	8.40	50.5															
10-22-19 0:15	4.86	1648	8.37	12.4	10-6-19 14:45	7.71	923	8.48	4.6	10-6-19 14:45	7.86	941	8.40	52.0															
10-22-19 0:30	4.83	1651	8.37	12.3	10-6-19 15:00	7.68	923	8.48	4.7	10-6-19 15:00	7.85	941	8.40	48.2															
10-22-19 0:45	4.81	1654	8.36	14.5	10-6-19 15:15	7.67	923	8.48	4.4	10-6-19 15:15	7.84	941	8.40	50.0															
10-22-19 1:00	4.79	1656	8.36	13.0	10-6-19 15:30	7.65	923	8.48	6.2	10-6-19 15:30	7.82	941	8.40	53.1															
10-22-19 1:15	4.77	1658	8.36	14.3	10-6-19 15:45	7.64	923	8.48	4.1	10-6-19 15:45	7.82	941	8.40	56.2															
10-22-19 1:30	4.76	1658	8.36	13.1	10-6-19 16:00	7.63	924	8.48	6.5	10-6-19 16:00	7.81	941	8.40	53.3															
10-22-19 1:45	4.75	1659	8.36	14.2	10-6-19 16:15	7.62	923	8.48	5.7	10-6-19 16:15	7.79	941	8.40	55.3															
10-22-19 2:00	4.74	1663	8.35	14.9	10-6-19 16:30	7.62	924	8.48	3.4	10-6-19 16:30	7.79	941	8.40	50.8															
10-22-19 2:15	4.74	1662	8.35	15.4	10-6-19 16:45	7.62	923	8.48	5.4	10-6-19 16:45	7.76	941	8.40	59.7															
10-22-19 2:30	4.73	1665	8.35	14.2	10-6-19 17:00	7.61	924	8.48	7.9	10-6-19 17:00	7.76	941	8.40	45.8															
10-22-19 2:45	4.72	1665	8.35	14.6	10-6-19 17:15	7.60	923	8.48	4.3	10-6-19 17:15	7.76	941	8.41	53.2															
10-22-19 3:00	4.71	1664	8.35	13.6	10-6-19 17:30	7.61	923	8.48	3.3	10-6-19 17:30	7.76	942	8.40	52.3															
10-22-19 3:15	4.70	1664	8.35	14.9	10-6-19 17:45	7.60	923	8.48	3.7	10-6-19 17:45	7.76	942	8.40	62.9															
10-22-19 3:30	4.69	1665	8.35	14.7	10-6-19 18:00	7.60	923	8.48	3.8	10-6-19 18:00	7.77	942	8.40	50.8															
10-22-19 3:45	4.68	1665	8.35	15.2	10-6-19 18:15	7.60	924	8.48	2.2	10-6-19 18:15	7.77	942	8.40	65.9															
10-22-19 4:00	4.67	1667	8.35	14.5	10-6-19 18:30	7.61	924	8.49	6.9	10-6-19 18:30	7.77	942	8.40	52.1															
10-22-19 4:15	4.65	1666	8.35	16.0	10-6-19 18:45	7.60	923	8.48	4.4	10-6-19 18:45	7.76	942	8.41	56.6															
10-22-19 4:30	4.63	1667	8.35	14.1	10-6-19 19:00	7.61	924	8.49	2.7	10-6-19 19:00	7.77	942	8.40	48.6															
10-22-19 4:45	4.64	1668	8.35	15.3	10-6-19 19:15	7.60	924	8.49	4.2	10-6-19 19:15	7.78	942	8.40	53.7															
10-22-19 5:00	4.61	1668	8.35	14.7	10-6-19 19:30	7.62	924	8.48	9.6	10-6-19 19:30	7.80	942	8.40	46.3															
10-22-19 5:15	4.60	1669	8.35	15.8	10-6-19 19:45	7.64	923	8.49	4.5	10-6-19 19:45	7.80	942	8.40	58.3															
10-22-19 5:30	4.60	1669	8.35	14.5	10-6-19 20:00	7.65	924	8.48	9.9	10-6-19 20:00	7.82	942	8.40	50.0															
10-22-19 5:45	4.58	1669	8.35	16.1	10-6-19 20:15	7.67	924	8.49	2.8	10-6-19 20:15	7.84	942	8.41	68.8															
10-22-19 6:00	4.56	1670	8.35	14.3	10-6-19 20:30	7.70	922	8.49	4.5	10-6-19 20:30	7.85	942	8.41	44.0															
10-22-19 6:15	4.56	1670	8.35	14.0	10-6-19 20:45	7.73	922	8.49	5.1	10-6-19 20:45	7.89	942	8.41	53.9															
10-22-19 6:30	4.57	1672	8.35	12.0	10-6-19 21:00	7.76	922	8.50	5.0	10-6-19 21:00	7.90	942	8.41	49.3															
10-22-19 6:45	4.55	1671	8.35	14.1	10-6-19 21:15	7.76	923	8.50	10.2	10-6-19 21:15	7.90	942	8.41	52.0															
10-22-19 7:00	4.54	1672	8.34	12.7	10-6-19 21:30	7.76	923	8.50	8.9	10-6-19 21:30	7.90	942	8.41	50.0															
10-22-19 7:15	4.54	1671	8.34	13.7	10-6-19 21:45	7.78	923	8.50	4.4	10-6-19 21:45	7.91	942	8.41	54.6															
10-22-19 7:30	4.52	1672	8.34	12.8	10-6-19 22:00	7.80	923	8.50	8.7	10-6-19 22:00	7.92	942	8.41	49.7															
10-22-19 7:45	4.52	1672	8.34	14.3	10-6-19 22:15	7.80	923	8.51	4.2	10-6-19 22:15	7.94	942	8.41	55.0															
10-22-19 8:00	4.50	1673	8.34	12.7	10-6-19 22:30	7.85	923	8.51	3.7	10-6-19 22:30	7.98	942	8.41	51.0															
10-22-19 8:15	4.50	1673	8.34	12.6	10-6-19 22:45	7.90	923	8.51	4.6	10-6-19 22:45	7.99	942	8.42	54.1															
10-22-19 8:30	4.50	1674	8.34	13.9	10-6-19 23:00	7.88	923	8.51	4.4	10-6-19 23:00	8.02	942	8.42	49.6															
10-22-19 8:45	4.48	1674	8.34	13.0	10-6-19 23:15	7.90	923	8.51	11.2	10-6-19 23:15	8.01	942	8.42	52.9															
10-22-19 9:00	4.47	1675	8.34	13.4	10-6-19 23:30	7.89	923	8.52	10.8	10-6-19 23:30	8.01	942	8.42	53.3															
10-22-19 9:15	4.47	1675	8.34	13.8	10-6-19 23:45	7.88	921	8.52	4.5	10-6-19 23:45	8.01	943	8.42	57.5															
10-22-19 9:30	4.46	1675	8.34	11.9	10-7-19 0:00	7.88	923	8.52	12.5	10-7-19 0:00	8.02	943	8.42	51.8															
10-22-19 9:45	4.44	1676	8.34	13.5	10-7-19 0:15	7.86	923	8.52	11.0	10-7-19 0:15	8.01	943	8.42	54.9															
10-22-19 10:00	4.43	1677	8.34	12.9	10-7-19 0:30	7.86	923	8.52	11.6	10-7-19 0:30	8.01	943	8.42	51.0															
10-22-19 10:15	4.41	1678	8.34	11.8	10-7-19 0:45	7.85	921	8.52	4.1	10-7-19 0:45	8.00	943	8.42	58.4															
10-22-19 10:30	4.41	1678	8.34	14.3	10-7-19 1:00	7.84	922	8.52	7.6	10-7-19 1:00	7.99	943	8.42	51.6															
10-22-19 10:45	4.39	1678	8.34	13.5	10-7-19 1:15	7.83	921	8.53	4.3	10-7-19 1:15	7.98	943	8.42	55.3															
10-22-19 11:00	4.37	1677	8.34	11.1	10-7-19 1:30	7.83	921	8.53	4.1	10-7-19 1:30	7.97	943	8.41	48.0															
10-22-19 11:15	4.37	1678	8.34	13.9	10-7-19 1:45	7.82	921	8.52	7.5	10-7-19 1:45	7.97	943	8.42	55.2															
10-22-19 11:30	4.36	1678	8.34	12.8	10-7-19 2:00	7.81	921	8.53	3.7	10-7-19 2:00	7.96	943	8.41	46.7															
10-22-19 11:45	4.35	1678	8.34	15.1	10-7-19 2:15	7.78	921	8.52	3.9	10-7-19 2:15	7.91	943	8.42	53.9															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-22-19 12:00	4.34	1679	8.34	15.2	10-7-19 2:30	7.76	921	8.51	3.5	10-7-19 2:30	7.94	943	8.41	44.5															
10-22-19 12:15	4.32	1679	8.34	11.1	10-7-19 2:45	7.72	921	8.50	3.4	10-7-19 2:45	7.95	943	8.41	53.2															
10-22-19 12:30	4.33	1680	8.34	11.4	10-7-19 3:00	7.70	921	8.49	3.3	10-7-19 3:00	7.93	943	8.41	44.1															
10-22-19 12:45	4.32	1679	8.34	12.2	10-7-19 3:15	7.72	923	8.52	6.4	10-7-19 3:15	7.91	943	8.41	53.3															
10-22-19 13:00	4.31	1680	8.34	11.4	10-7-19 3:30	7.70	922	8.53	3.9	10-7-19 3:30	7.91	943	8.41	43.7															
10-22-19 13:15	4.30	1680	8.34	11.8	10-7-19 3:45	7.70	923	8.52	5.0	10-7-19 3:45	7.90	943	8.41	51.9															
10-22-19 13:30	4.29	1681	8.34	12.7	10-7-19 4:00	7.70	921	8.53	3.6	10-7-19 4:00	7.83	943	8.41	47.0															
10-22-19 13:45	4.28	1681	8.34	11.9	10-7-19 4:15	7.68	922	8.52	5.8	10-7-19 4:15	7.86	943	8.41	51.8															
10-22-19 14:00	4.26	1682	8.33	10.4	10-7-19 4:30	7.69	922	8.52	5.5	10-7-19 4:30	7.80	943	8.41	47.2															
10-22-19 14:15	4.24	1683	8.33	11.0	10-7-19 4:45	7.68	923	8.52	5.6	10-7-19 4:45	7.82	943	8.41	51.6															
10-22-19 14:30	4.24	1684	8.33	10.7	10-7-19 5:00	7.68	923	8.52	5.3	10-7-19 5:00	7.84	943	8.41	45.1															
10-22-19 14:45	4.25	1683	8.33	11.4	10-7-19 5:15	7.67	922	8.52	3.7	10-7-19 5:15	7.83	943	8.41	50.2															
10-22-19 15:00	4.23	1684	8.33	10.2	10-7-19 5:30	7.66	922	8.52	4.5	10-7-19 5:30	7.84	943	8.41	43.0															
10-22-19 15:15	4.25	1685	8.33	11.3	10-7-19 5:45	7.64	922	8.52	3.6	10-7-19 5:45	7.83	943	8.40	51.6															
10-22-19 15:30	4.27	1685	8.33	11.1	10-7-19 6:00	7.63	923	8.52	3.7	10-7-19 6:00	7.78	943	8.41	44.9															
10-22-19 15:45	4.28	1684	8.32	11.9	10-7-19 6:15	7.64	923	8.52	9.5	10-7-19 6:15	7.77	943	8.41	52.1															
10-22-19 16:00	4.30	1685	8.32	11.4	10-7-19 6:30	7.63	922	8.52	3.4	10-7-19 6:30	7.81	943	8.41	45.2															
10-22-19 16:15	4.31	1685	8.32	12.6	10-7-19 6:45	7.60	922	8.51	3.7	10-7-19 6:45	7.80	943	8.41	50.8															
10-22-19 16:30	4.30	1685	8.32	11.3	10-7-19 7:00	7.60	922	8.52	4.8	10-7-19 7:00	7.76	943	8.41	43.2															
10-22-19 16:45	4.29	1685	8.32	10.5	10-7-19 7:15	7.58	923	8.52	4.6	10-7-19 7:15	7.76	943	8.41	47.6															
10-22-19 17:00	4.27	1686	8.32	10.5	10-7-19 7:30	7.57	923	8.52	4.6	10-7-19 7:30	7.75	943	8.41	43.3															
10-22-19 17:15	4.23	1684	8.32	10.8	10-7-19 7:45	7.56	923	8.52	3.7	10-7-19 7:45	7.74	943	8.41	50.2															
10-22-19 17:30	4.25	1685	8.33	9.6	10-7-19 8:00	7.56	923	8.52	3.3	10-7-19 8:00	7.74	943	8.41	41.0															
10-22-19 17:45	4.25	1685	8.33	11.8	10-7-19 8:15	7.56	923	8.52	9.7	10-7-19 8:15	7.72	943	8.41	47.1															
10-22-19 18:00	4.24	1686	8.33	11.4	10-7-19 8:30	7.56	923	8.51	4.4	10-7-19 8:30	7.70	943	8.41	45.0															
10-22-19 18:15	4.25	1686	8.33	12.0	10-7-19 8:45	7.54	922	8.51	3.5	10-7-19 8:45	7.70	943	8.41	50.7															
10-22-19 18:30	4.27	1688	8.33	11.1	10-7-19 9:00	7.52	924	8.52	10.2	10-7-19 9:00	7.68	944	8.41	41.7															
10-22-19 18:45	4.30	1690	8.32	12.9	10-7-19 9:15	7.52	923	8.51	3.8	10-7-19 9:15	7.67	943	8.41	42.1															
10-22-19 19:00	4.33	1692	8.32	9.8	10-7-19 9:30	7.49	923	8.51	3.7	10-7-19 9:30	7.66	944	8.41	40.6															
10-22-19 19:15	4.36	1692	8.32	11.6	10-7-19 9:45	7.53	923	8.51	3.8	10-7-19 9:45	7.68	944	8.41	45.1															
10-22-19 19:30	4.44	1689	8.33	9.4	10-7-19 10:00	7.52	923	8.51	4.1	10-7-19 10:00	7.66	943	8.40	39.2															
10-22-19 19:45	4.48	1692	8.32	12.2	10-7-19 10:15	7.50	923	8.51	3.9	10-7-19 10:15	7.62	943	8.41	46.5															
10-22-19 20:00	4.46	1693	8.32	11.8	10-7-19 10:30	7.48	924	8.51	3.3	10-7-19 10:30	7.62	943	8.41	43.0															
10-22-19 20:15	4.50	1693	8.33	12.2	10-7-19 10:45	7.48	924	8.51	3.5	10-7-19 10:45	7.65	944	8.41	47.7															
10-22-19 20:30	4.50	1694	8.33	9.8	10-7-19 11:00	7.47	924	8.51	3.5	10-7-19 11:00	7.67	944	8.40	44.2															
10-22-19 20:45	4.52	1694	8.33	13.6	10-7-19 11:15	7.46	924	8.50	7.2	10-7-19 11:15	7.64	944	8.41	45.9															
10-22-19 21:00	4.55	1694	8.34	9.3	10-7-19 11:30	7.47	922	8.51	2.8	10-7-19 11:30	7.65	943	8.40	40.2															
10-22-19 21:15	4.54	1696	8.34	11.4	10-7-19 11:45	7.49	924	8.50	6.9	10-7-19 11:45	7.63	944	8.41	48.1															
10-22-19 21:30	4.58	1697	8.33	9.9	10-7-19 12:00	7.50	923	8.50	3.1	10-7-19 12:00	7.64	944	8.40	40.6															
10-22-19 21:45	4.56	1698	8.33	12.2	10-7-19 12:15	7.49	924	8.51	5.4	10-7-19 12:15	7.64	944	8.40	44.6															
10-22-19 22:00	4.55	1700	8.33	10.1	10-7-19 12:30	7.48	924	8.50	5.8	10-7-19 12:30	7.62	944	8.42	44.6															
10-22-19 22:15	4.55	1700	8.34	12.7	10-7-19 12:45	7.47	923	8.49	5.6	10-7-19 12:45	7.56	943	8.42	50.9															
10-22-19 22:30	4.55	1700	8.34	10.0	10-7-19 13:00	7.38	923	8.50	8.4	10-7-19 13:00	7.54	941	8.42	47.9															
10-22-19 22:45	4.56	1700	8.34	13.5	10-7-19 13:15	7.37	923	8.50	5.6	10-7-19 13:15	7.50	942	8.42	49.9															
10-22-19 23:00	4.55	1701	8.34	10.1	10-7-19 13:30	7.34	923	8.49	10.4	10-7-19 13:30	7.47	941	8.42	48.8															
10-22-19 23:15	4.56	1700	8.34	13.3	10-7-19 13:45	7.35	923	8.50	4.2	10-7-19 13:45	7.43	941	8.42	59.4															
10-22-19 23:30	4.55	1701	8.34	11.1	10-7-19 14:00	7.33	922	8.49	4.9	10-7-19 14:00	7.45	942	8.41	45.7															
10-22-19 23:45	4.55	1701	8.34	11.9	10-7-19 14:15	7.28	921	8.50	3.2	10-7-19 14:15	7.43	941	8.42	48.9															
10-23-19 0:00	4.55	1701	8.34	10.0	10-7-19 14:30	7.27	920	8.49	3.3	10-7-19 14:30	7.40	941	8.42	48.6															
10-23-19 0:15	4.52	1700	8.34	11.1	10-7-19 14:45	7.22	920	8.49	3.9	10-7-19 14:45	7.33	940	8.42	50.2															
10-23-19 0:30	4.51	1700	8.35	9.5	10-7-19 15:00	7.25	920	8.49	4.0	10-7-19 15:00	7.37	941	8.42	44.5															
10-23-19 0:45	4.49	1700	8.34	10.4	10-7-19 15:15	7.22	921	8.50	3.5	10-7-19 15:15	7.35	941	8.41	49.7															
10-23-19 1:00	4.48	1701	8.35	9.1	10-7-19 15:30	7.21	921	8.49	4.5	10-7-19 15:30	7.30	940	8.41	45.5															
10-23-19 1:15	4.48	1700	8.35	11.1	10-7-19 15:45	7.20	920	8.49	3.4	10-7-19 15:45	7.29	940	8.41	46.2															
10-23-19 1:30	4.45	1702	8.35	9.8	10-7-19 16:00	7.17	921	8.49	4.9	10-7-19 16:00	7.24	940	8.42	42.3															
10-23-19 1:45	4.43	1702	8.35	11.1	10-7-19 16:15	7.16	921	8.49	4.5	10-7-19 16:15	7.21	940	8.42	49.2															
10-23-19 2:00	4.42	1703	8.35	9.5	10-7-19 16:30	7.14	920	8.49	4.5	10-7-19 16:30	7.18	940	8.43	43.1															
10-23-19 2:15	4.37	1702	8.35	10.0	10-7-19 16:45	7.13	921	8.49	8.4	10-7-19 16:45	7.16	940	8.42	50.3															
10-23-19 2:30	4.35	1704	8.35	9.6	10-7-19 17:00	7.10	921	8.49	4.5	10-7-19 17:00	7.11	940	8.42	44.2															
10-23-19 2:45	4.32	1703	8.35	9.9	10-7-19 17:15	7.08	920	8.50	3.8	10-7-19 17:15	7.18	940	8.42	49.5															
10-23-19 3:00	4.29	1704	8.35	9.0	10-7-19 17:30	7.08	920	8.50	3.8	10-7-19 17:30	7.15	941	8.42	44.0															
10-23-19 3:15	4.29	1703	8.35	10.5	10-7-19 17:45	7.06	921	8.50	3.7	10-7-19 17:45	7.11	941	8.43	49.2															
10-23-19 3:30	4.26	1705	8.35	9.8	10-7-19 18:00	7.06	921	8.50	3.9	10-7-19 18:00	7.13	941	8.42	41.5															
10-23-19 3:45	4.17	1706	8.35	11.8	10-7-19 18:15	7.04	919	8.50	3.9	10-7-19 18:15	7.13	940	8.42	51.4															
10-23-19 4:00	4.22	1707	8.35	9.4	10-7-19 18:30	7.02	919	8.49	3.6	10-7-19 18:30	7.14	941	8.42	42.4															
10-23-19 4:15	4.13	1707	8.35	11.1	10-7-19 18:45	7.00	919	8.50	3.7	10-7-19 18:45	7.09	940	8.43	47.5															
10-23-19 4:30	4.13	1711	8.35	9.0	10-7-19 19:00	7.01	919	8.50	4.3	10-7-19 19:00	7.10	941	8.42	42.1															
10-23-19 4:45	4.13	1709	8.35	11.6	10-7-19 19:15	7.00	921	8.51	3.7	10-7-19 19:15	7.11	941	8.43	48.3															
10-23-19 5:00	4.07	1711	8.35	8.1	10-7-19 19:30	7.00	921	8.51	3.8	10-7-19 19:30	7.10	941	8.43	44.9															
10-23-19 5:15	4.06	1711	8.35	10.8	10-7-19 19:45	7.00	921	8.51	9.4	10-7-19 19:45	7.11	940	8.43	47.0															
10-23-19 5:30	3.96	1713	8.35	8.7	10-7-19 20:00	6.99	920	8.51	9.5	10-7-19 20:00	7.12	941	8.43	42.6															
10-23-19 5:45	3.90	1714	8.35	10.3	10-7-19 20:15	7.01	921	8.51	4.8	10-7-19 20:15	7.09	941	8.43	51.3															
10-23-19 6:00	4.00	1713	8.35	9.2	10-7-19 20:30	6.99	921	8.51	9.4	10-7-19 20:30	7.08	941	8.43	42.7															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-23-19 6:15	3.87	1712	8.35	9.7	10-7-19 20:45	7.01	920	8.51	4.6	10-7-19 20:45	7.09	941	8.43	45.8															
10-23-19 6:30	3.82	1713	8.35	7.9	10-7-19 21:00	6.99	921	8.52	5.4	10-7-19 21:00	7.07	941	8.43	42.0															
10-23-19 6:45	3.84	1713	8.34	9.4	10-7-19 21:15	6.97	920	8.52	7.5	10-7-19 21:15	7.10	941	8.43	46.1															
10-23-19 7:00	3.82	1715	8.35	9.3	10-7-19 21:30	6.98	920	8.53	7.0	10-7-19 21:30	7.10	941	8.44	40.3															
10-23-19 7:15	3.72	1716	8.35	9.7	10-7-19 21:45	6.98	921	8.53	2.6	10-7-19 21:45	7.08	941	8.43	46.9															
10-23-19 7:30	3.71	1716	8.36	8.6	10-7-19 22:00	6.99	920	8.53	2.4	10-7-19 22:00	7.08	941	8.43	41.0															
10-23-19 7:45	3.74	1715	8.35	10.1	10-7-19 22:15	6.99	919	8.53	3.9	10-7-19 22:15	7.08	941	8.44	49.0															
10-23-19 8:00	3.69	1713	8.35	8.8	10-7-19 22:30	6.97	937	8.53	4.1	10-7-19 22:30	7.08	941	8.43	40.6															
10-23-19 8:15	3.65	1716	8.35	9.6	10-7-19 22:45	6.93	937	8.52	4.0	10-7-19 22:45	7.06	941	8.44	46.0															
10-23-19 8:30	3.69	1719	8.35	10.5	10-7-19 23:00	6.93	937	8.53	3.9	10-7-19 23:00	7.07	941	8.44	42.6															
10-23-19 8:45	3.74	1715	8.35	10.1	10-7-19 23:15	6.93	920	8.53	2.8	10-7-19 23:15	7.05	941	8.43	46.6															
10-23-19 9:00	3.67	1717	8.35	8.7	10-7-19 23:30	6.91	920	8.53	2.6	10-7-19 23:30	7.05	941	8.44	37.0															
10-23-19 9:15	3.64	1717	8.35	10.3	10-7-19 23:45	6.90	920	8.53	3.2	10-7-19 23:45	7.03	941	8.44	44.4															
10-23-19 9:30	3.61	1716	8.35	8.0	10-8-19 0:00	6.89	920	8.53	2.6	10-8-19 0:00	7.03	941	8.44	40.7															
10-23-19 9:45	3.63	1718	8.35	9.5	10-8-19 0:15	6.87	920	8.54	3.5	10-8-19 0:15	6.97	941	8.44	48.3															
10-23-19 10:00	3.63	1716	8.35	7.9	10-8-19 0:30	6.89	919	8.54	3.5	10-8-19 0:30	6.98	941	8.44	40.8															
10-23-19 10:15	3.63	1717	8.35	9.4	10-8-19 0:45	6.85	919	8.54	4.5	10-8-19 0:45	6.96	941	8.44	43.8															
10-23-19 10:30	3.74	1715	8.35	8.5	10-8-19 1:00	6.82	919	8.54	4.7	10-8-19 1:00	6.94	941	8.44	37.6															
10-23-19 10:45	3.70	1720	8.35	9.5	10-8-19 1:15	6.79	919	8.53	3.9	10-8-19 1:15	6.90	942	8.44	46.0															
10-23-19 11:00	3.64	1721	8.34	7.2	10-8-19 1:30	6.78	919	8.53	3.6	10-8-19 1:30	6.90	941	8.44	41.5															
10-23-19 11:15	3.57	1719	8.34	9.1	10-8-19 1:45	6.75	919	8.54	3.5	10-8-19 1:45	6.84	941	8.44	45.5															
10-23-19 11:30	3.65	1720	8.35	6.9	10-8-19 2:00	6.73	919	8.53	3.4	10-8-19 2:00	6.84	942	8.44	40.5															
10-23-19 11:45	3.61	1720	8.34	8.8	10-8-19 2:15	6.69	920	8.53	9.9	10-8-19 2:15	6.79	942	8.44	48.2															
10-23-19 12:00	3.53	1723	8.35	8.5	10-8-19 2:30	6.64	920	8.54	3.6	10-8-19 2:30	6.76	942	8.44	36.5															
10-23-19 12:15	3.52	1722	8.35	9.5	10-8-19 2:45	6.64	920	8.53	4.7	10-8-19 2:45	6.73	942	8.44	47.6															
10-23-19 12:30	3.55	1725	8.35	8.0	10-8-19 3:00	6.60	921	8.53	9.9	10-8-19 3:00	6.71	942	8.44	39.3															
10-23-19 12:45	3.53	1730	8.34	8.9	10-8-19 3:15	6.59	921	8.53	5.2	10-8-19 3:15	6.68	942	8.44	45.6															
10-23-19 13:00	3.46	1727	8.34	7.7	10-8-19 3:30	6.57	920	8.53	5.0	10-8-19 3:30	6.66	942	8.44	41.0															
10-23-19 13:15	3.30	1726	8.35	9.0	10-8-19 3:45	6.53	919	8.53	4.3	10-8-19 3:45	6.60	942	8.45	45.4															
10-23-19 13:30	3.41	1730	8.35	8.0	10-8-19 4:00	6.51	921	8.54	10.0	10-8-19 4:00	6.58	942	8.45	39.4															
10-23-19 13:45	3.37	1731	8.35	9.1	10-8-19 4:15	6.46	921	8.54	4.2	10-8-19 4:15	6.58	942	8.44	48.0															
10-23-19 14:00	3.35	1736	8.35	8.8	10-8-19 4:30	6.45	921	8.53	4.1	10-8-19 4:30	6.54	942	8.44	39.0															
10-23-19 14:15	3.34	1734	8.35	8.7	10-8-19 4:45	6.41	920	8.53	3.4	10-8-19 4:45	6.51	942	8.45	51.6															
10-23-19 14:30	3.30	1735	8.34	8.2	10-8-19 5:00	6.40	921	8.53	4.3	10-8-19 5:00	6.52	942	8.44	40.6															
10-23-19 14:45	3.24	1733	8.35	8.6	10-8-19 5:15	6.34	921	8.53	3.9	10-8-19 5:15	6.48	942	8.45	41.6															
10-23-19 15:00	3.28	1735	8.35	8.2	10-8-19 5:30	6.33	921	8.53	4.3	10-8-19 5:30	6.46	942	8.44	39.0															
10-23-19 15:15	3.26	1737	8.34	8.8	10-8-19 5:45	6.32	921	8.53	3.8	10-8-19 5:45	6.42	942	8.45	46.7															
10-23-19 15:30	3.23	1740	8.35	8.5	10-8-19 6:00	6.27	921	8.53	3.9	10-8-19 6:00	6.41	942	8.45	37.4															
10-23-19 15:45	3.33	1741	8.34	8.7	10-8-19 6:15	6.25	918	8.53	3.3	10-8-19 6:15	6.36	943	8.44	46.3															
10-23-19 16:00	3.32	1742	8.34	8.9	10-8-19 6:30	6.22	918	8.53	3.3	10-8-19 6:30	6.33	943	8.44	38.1															
10-23-19 16:15	3.34	1743	8.34	8.6	10-8-19 6:45	6.20	918	8.53	3.6	10-8-19 6:45	6.30	942	8.44	43.2															
10-23-19 16:30	3.31	1744	8.35	7.5	10-8-19 7:00	6.15	917	8.53	3.0	10-8-19 7:00	6.25	943	8.45	37.6															
10-23-19 16:45	3.32	1745	8.34	8.8	10-8-19 7:15	6.10	922	8.53	7.2	10-8-19 7:15	6.23	943	8.45	45.8															
10-23-19 17:00	3.40	1747	8.35	7.9	10-8-19 7:30	6.09	921	8.53	3.6	10-8-19 7:30	6.23	943	8.45	40.0															
10-23-19 17:15	3.47	1747	8.34	9.0	10-8-19 7:45	6.09	922	8.53	9.8	10-8-19 7:45	6.22	943	8.45	43.0															
10-23-19 17:30	3.46	1738	8.35	7.6	10-8-19 8:00	6.05	922	8.53	4.1	10-8-19 8:00	6.20	943	8.44	36.1															
10-23-19 17:45	3.23	1728	8.35	8.0	10-8-19 8:15	6.02	922	8.52	8.9	10-8-19 8:15	6.17	943	8.44	44.0															
10-23-19 18:00	3.17	1733	8.36	8.2	10-8-19 8:30	6.00	922	8.53	3.5	10-8-19 8:30	6.10	943	8.44	35.8															
10-23-19 18:15	3.18	1733	8.35	7.5	10-8-19 8:45	5.99	922	8.52	8.9	10-8-19 8:45	6.12	943	8.44	44.6															
10-23-19 18:30	3.07	1732	8.36	7.1	10-8-19 9:00	5.95	922	8.53	4.1	10-8-19 9:00	6.03	943	8.44	34.7															
10-23-19 18:45	3.10	1730	8.36	7.4	10-8-19 9:15	5.92	921	8.53	4.0	10-8-19 9:15	6.01	944	8.44	41.5															
10-23-19 19:00	3.17	1733	8.36	6.8	10-8-19 9:30	5.88	923	8.53	10.6	10-8-19 9:30	5.94	944	8.45	37.8															
10-23-19 19:15	3.42	1739	8.35	8.5	10-8-19 9:45	5.84	922	8.52	4.2	10-8-19 9:45	5.89	944	8.45	40.7															
10-23-19 19:30	3.51	1742	8.35	7.4	10-8-19 10:00	5.80	923	8.53	3.7	10-8-19 10:00	5.90	944	8.44	35.9															
10-23-19 19:45	3.53	1740	8.35	7.8	10-8-19 10:15	5.78	923	8.52	6.7	10-8-19 10:15	5.86	943	8.45	40.8															
10-23-19 20:00	3.44	1735	8.35	6.9	10-8-19 10:30	5.75	922	8.52	3.0	10-8-19 10:30	5.83	944	8.44	36.7															
10-23-19 20:15	3.51	1738	8.35	8.3	10-8-19 10:45	5.72	922	8.52	3.2	10-8-19 10:45	5.77	944	8.44	41.7															
10-23-19 20:30	3.62	1743	8.35	6.5	10-8-19 11:00	5.70	922	8.52	3.0	10-8-19 11:00	5.78	944	8.44	34.5															
10-23-19 20:45	3.68	1744	8.35	8.0	10-8-19 11:15	5.67	922	8.52	3.1	10-8-19 11:15	5.69	944	8.44	39.9															
10-23-19 21:00	3.71	1746	8.35	7.1	10-8-19 11:30	5.66	923	8.52	3.3	10-8-19 11:30	5.68	944	8.44	34.1															
10-23-19 21:15	3.73	1746	8.35	8.0	10-8-19 11:45	5.62	923	8.52	3.7	10-8-19 11:45	5.68	944	8.45	44.2															
10-23-19 21:30	3.72	1748	8.35	7.1	10-8-19 12:00	5.57	922	8.52	3.9	10-8-19 12:00	5.68	944	8.45	34.4															
10-23-19 21:45	3.73	1745	8.35	7.8	10-8-19 12:15	5.55	937	8.52	2.8	10-8-19 12:15	5.63	944	8.45	43.9															
10-23-19 22:00	3.78	1749	8.35	7.1	10-8-19 12:30	5.53	937	8.52	2.7	10-8-19 12:30	5.64	944	8.45	34.3															
10-23-19 22:15	3.79	1749	8.35	7.7	10-8-19 12:45	5.50	937	8.52	2.9	10-8-19 12:45	5.60	944	8.45	40.6															
10-23-19 22:30	3.81	1753	8.35	7.0	10-8-19 13:00	5.48	937	8.52	2.9	10-8-19 13:00	5.54	944	8.45	34.5															
10-23-19 22:45	3.86	1753	8.36	7.4	10-8-19 13:15	5.46	914	8.52	2.9	10-8-19 13:15	5.54	944	8.45	44.1															
10-23-19 23:00	3.85	1755	8.36	7.8	10-8-19 13:30	5.40	914	8.51	2.9	10-8-19 13:30	5.50	944	8.45	36.6															
10-23-19 23:15	3.88	1757	8.36	7.8	10-8-19 13:45	5.36	914	8.52	2.8	10-8-19 13:45	5.45	944	8.45	44.5															
10-23-19 23:30	3.86	1758	8.36	7.2	10-8-19 14:00	5.34	914	8.52	2.9	10-8-19 14:00	5.41	945	8.45	34.4															
10-23-19 23:45	3.86	1759	8.36	7.5	10-8-19 14:15	5.30	924	8.52	4.4	10-8-19 14:15	5.40	945	8.45	42.0															
10-24-19 0:00	3.87	1763	8.36	7.0	10-8-19 14:30	5.26	923	8.52	3.8	10-8-19 14:30	5.34	944	8.45	34.8															
10-24-19 0:15	3.86	1761	8.36	7.7	10-8-19 14:45	5.24	924	8.52	5.0	10-8-19 14:45	5.35	945	8.45	41.5															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-24-19 0:30	3.82	1763	8.37	6.9	10-8-19 15:00	5.24	924	8.52	4.9	10-8-19 15:00	5.32	945	8.45	36.0															
10-24-19 0:45	3.82	1762	8.36	6.0	10-8-19 15:15	5.19	923	8.52	4.4	10-8-19 15:15	5.31	945	8.45	43.8															
10-24-19 1:00	3.77	1765	8.37	6.4	10-8-19 15:30	5.16	923	8.52	3.6	10-8-19 15:30	5.29	945	8.45	33.8															
10-24-19 1:15	3.75	1765	8.36	7.7	10-8-19 15:45	5.16	923	8.52	3.7	10-8-19 15:45	5.24	945	8.45	39.6															
10-24-19 1:30	3.76	1766	8.36	6.1	10-8-19 16:00	5.14	924	8.52	3.8	10-8-19 16:00	5.26	945	8.45	33.9															
10-24-19 1:45	3.78	1767	8.36	6.9	10-8-19 16:15	5.13	925	8.53	4.7	10-8-19 16:15	5.25	945	8.45	42.8															
10-24-19 2:00	3.80	1771	8.37	7.4	10-8-19 16:30	5.10	925	8.52	5.9	10-8-19 16:30	5.28	945	8.45	36.2															
10-24-19 2:15	3.77	1766	8.37	6.8	10-8-19 16:45	5.12	924	8.53	4.9	10-8-19 16:45	5.26	945	8.45	42.3															
10-24-19 2:30	3.77	1767	8.37	7.2	10-8-19 17:00	5.10	924	8.53	4.7	10-8-19 17:00	5.25	945	8.45	37.3															
10-24-19 2:45	3.76	1765	8.37	7.6	10-8-19 17:15	5.09	925	8.54	3.5	10-8-19 17:15	5.22	945	8.46	42.8															
10-24-19 3:00	3.75	1765	8.36	6.6	10-8-19 17:30	5.09	925	8.53	4.0	10-8-19 17:30	5.22	945	8.46	36.9															
10-24-19 3:15	3.73	1766	8.37	7.0	10-8-19 17:45	5.09	924	8.53	5.4	10-8-19 17:45	5.23	945	8.46	42.8															
10-24-19 3:30	3.76	1776	8.38	7.2	10-8-19 18:00	5.15	925	8.54	3.9	10-8-19 18:00	5.28	946	8.46	38.6															
10-24-19 3:45	3.77	1781	8.37	7.3	10-8-19 18:15	5.11	924	8.54	4.1	10-8-19 18:15	5.26	945	8.46	40.4															
10-24-19 4:00	3.73	1773	8.37	6.1	10-8-19 18:30	5.16	924	8.54	8.9	10-8-19 18:30	5.26	945	8.46	35.5															
10-24-19 4:15	3.74	1781	8.37	6.4	10-8-19 18:45	5.11	925	8.54	4.8	10-8-19 18:45	5.27	945	8.46	40.0															
10-24-19 4:30	3.72	1777	8.37	6.4	10-8-19 19:00	5.10	924	8.54	8.1	10-8-19 19:00	5.27	945	8.46	33.2															
10-24-19 4:45	3.71	1772	8.37	6.7	10-8-19 19:15	5.15	924	8.55	4.3	10-8-19 19:15	5.36	946	8.46	41.5															
10-24-19 5:00	3.71	1773	8.36	6.8	10-8-19 19:30	5.18	924	8.55	6.2	10-8-19 19:30	5.37	945	8.46	33.3															
10-24-19 5:15	3.65	1773	8.37	7.1	10-8-19 19:45	5.20	923	8.55	6.2	10-8-19 19:45	5.42	945	8.46	39.7															
10-24-19 5:30	3.62	1774	8.37	5.8	10-8-19 20:00	5.19	924	8.55	6.4	10-8-19 20:00	5.41	946	8.46	32.5															
10-24-19 5:45	3.61	1776	8.37	285.4	10-8-19 20:15	5.25	923	8.55	6.9	10-8-19 20:15	5.60	946	8.46	37.9															
10-24-19 6:00	3.65	1786	8.38	6.4	10-8-19 20:30	5.29	923	8.55	5.9	10-8-19 20:30	5.60	945	8.46	43.8															
10-24-19 6:15	3.62	1784	8.37	6.2	10-8-19 20:45	5.30	923	8.56	6.3	10-8-19 20:45	5.60	945	8.46	35.1															
10-24-19 6:30	3.63	1782	8.37	5.6	10-8-19 21:00	5.39	923	8.56	4.9	10-8-19 21:00	5.62	945	8.46	40.6															
10-24-19 6:45	3.61	1796	8.37	7.1	10-8-19 21:15	5.45	922	8.56	6.1	10-8-19 21:15	5.70	945	8.46	39.4															
10-24-19 7:00	3.70	1807	8.38	6.4	10-8-19 21:30	5.46	923	8.56	5.5	10-8-19 21:30	5.70	945	8.46	40.2															
10-24-19 7:15	3.67	1794	8.38	6.7	10-8-19 21:45	5.51	922	8.55	5.4	10-8-19 21:45	5.72	946	8.46	35.9															
10-24-19 7:30	3.69	1801	8.38	7.0	10-8-19 22:00	5.50	922	8.56	5.8	10-8-19 22:00	5.73	945	8.46	39.1															
10-24-19 7:45	3.74	1818	8.38	7.0	10-8-19 22:15	5.50	922	8.56	5.3	10-8-19 22:15	5.74	946	8.46	32.8															
10-24-19 8:00	3.71	1813	8.38	6.6	10-8-19 22:30	5.48	922	8.57	5.3	10-8-19 22:30	5.75	945	8.46	42.6															
10-24-19 8:15	3.66	1807	8.38	11.8	10-8-19 22:45	5.48	923	8.57	5.1	10-8-19 22:45	5.71	945	8.46	34.1															
10-24-19 8:30	3.71	1827	8.39	6.9	10-8-19 23:00	5.46	922	8.57	5.0	10-8-19 23:00	5.64	946	8.47	39.1															
10-24-19 8:45	3.75	1831	8.38	7.2	10-8-19 23:15	5.48	923	8.58	5.0	10-8-19 23:15	5.60	946	8.47	35.3															
10-24-19 9:00	3.70	1826	8.38	7.1	10-8-19 23:30	5.45	923	8.57	5.0	10-8-19 23:30	5.59	946	8.46	41.5															
10-24-19 9:15	3.74	1835	8.39	7.6	10-8-19 23:45	5.47	922	8.57	5.3	10-8-19 23:45	5.53	946	8.47	44.2															
10-24-19 9:30	3.75	1837	8.39	6.9	10-9-19 0:00	5.48	922	8.57	7.2	10-9-19 0:00	5.59	946	8.46	43.0															
10-24-19 9:45	3.75	1835	8.39	5.9	10-9-19 0:15	5.50	921	8.56	4.4	10-9-19 0:15	5.54	946	8.46	34.8															
10-24-19 10:00	3.76	1839	8.38	6.3	10-9-19 0:30	5.45	920	8.52	4.6	10-9-19 0:30	5.55	946	8.46	40.3															
10-24-19 10:15	3.77	1841	8.39	6.2	10-9-19 0:45	5.42	922	8.54	4.9	10-9-19 0:45	5.52	946	8.46	33.7															
10-24-19 10:30	3.77	1845	8.38	7.3	10-9-19 1:00	5.26	924	8.57	5.3	10-9-19 1:00	5.51	946	8.46	41.6															
10-24-19 10:45	3.77	1846	8.38	6.5	10-9-19 1:15	5.26	924	8.57	4.8	10-9-19 1:15	5.53	946	8.46	33.8															
10-24-19 11:00	3.77	1847	8.38	6.9	10-9-19 1:30	5.17	924	8.57	4.9	10-9-19 1:30	5.36	946	8.46	40.9															
10-24-19 11:15	3.77	1846	8.38	6.0	10-9-19 1:45	5.12	924	8.58	5.5	10-9-19 1:45	5.43	947	8.46	33.1															
10-24-19 11:30	3.77	1847	8.38	6.6	10-9-19 2:00	5.08	924	8.58	4.8	10-9-19 2:00	5.45	946	8.46	36.5															
10-24-19 11:45	3.77	1848	8.38	6.8	10-9-19 2:15	5.07	923	8.57	5.9	10-9-19 2:15	5.42	946	8.46	33.5															
10-24-19 12:00	3.77	1848	8.38	5.9	10-9-19 2:30	5.08	923	8.57	5.4	10-9-19 2:30	5.43	947	8.46	36.2															
10-24-19 12:15	3.76	1849	8.38	5.7	10-9-19 2:45	5.00	924	8.56	4.2	10-9-19 2:45	5.38	946	8.46	33.1															
10-24-19 12:30	3.76	1850	8.38	5.9	10-9-19 3:00	5.01	924	8.54	4.6	10-9-19 3:00	5.37	947	8.45	38.7															
10-24-19 12:45	3.76	1848	8.38	6.8	10-9-19 3:15	4.98	924	8.57	5.4	10-9-19 3:15	5.32	946	8.45	33.8															
10-24-19 13:00	3.76	1849	8.38	5.8	10-9-19 3:30	5.02	924	8.57	5.3	10-9-19 3:30	5.29	947	8.46	37.8															
10-24-19 13:15	3.75	1848	8.37	5.6	10-9-19 3:45	4.96	924	8.57	6.2	10-9-19 3:45	5.27	947	8.46	31.6															
10-24-19 13:30	3.75	1848	8.37	6.1	10-9-19 4:00	4.95	925	8.57	5.1	10-9-19 4:00	5.25	947	8.46	38.4															
10-24-19 13:45	3.75	1848	8.37	6.3	10-9-19 4:15	4.96	925	8.57	5.9	10-9-19 4:15	5.24	947	8.46	34.2															
10-24-19 14:00	3.75	1849	8.37	5.5	10-9-19 4:30	4.89	924	8.57	5.6	10-9-19 4:30	5.18	946	8.46	40.2															
10-24-19 14:15	3.74	1849	8.37	5.7	10-9-19 4:45	4.94	925	8.57	6.1	10-9-19 4:45	5.09	947	8.46	33.5															
10-24-19 14:30	3.73	1848	8.38	5.9	10-9-19 5:00	4.93	924	8.57	5.5	10-9-19 5:00	5.12	947	8.46	38.7															
10-24-19 14:45	3.71	1848	8.37	6.1	10-9-19 5:15	4.95	924	8.57	5.4	10-9-19 5:15	5.15	947	8.46	32.5															
10-24-19 15:00	3.70	1850	8.37	6.1	10-9-19 5:30	4.89	925	8.57	4.9	10-9-19 5:30	5.10	947	8.46	38.2															
10-24-19 15:15	3.71	1849	8.37	5.8	10-9-19 5:45	4.88	924	8.57	5.1	10-9-19 5:45	5.06	947	8.46	33.6															
10-24-19 15:30	3.72	1850	8.38	5.7	10-9-19 6:00	4.83	925	8.57	4.9	10-9-19 6:00	5.03	947	8.46	36.7															
10-24-19 15:45	3.70	1850	8.37	6.3	10-9-19 6:15	4.87	924	8.56	5.5	10-9-19 6:15	4.95	948	8.46	32.0															
10-24-19 16:00	3.70	1852	8.38	6.2	10-9-19 6:30	4.85	925	8.55	4.9	10-9-19 6:30	4.89	947	8.46	37.3															
10-24-19 16:15	3.72	1851	8.37	6.5	10-9-19 6:45	4.80	926	8.56	5.3	10-9-19 6:45	4.92	947	8.46	34.1															
10-24-19 16:30	3.74	1853	8.37	6.7	10-9-19 7:00	4.77	925	8.56	4.7	10-9-19 7:00	4.88	948	8.46	38.2															
10-24-19 16:45	3.75	1853	8.37	6.3	10-9-19 7:15	4.75	925	8.56	5.0	10-9-19 7:15	4.84	947	8.46	31.8															
10-24-19 17:00	3.77	1856	8.37	5.2	10-9-19 7:30	4.72	925	8.56	4.7	10-9-19 7:30	4.78	947	8.47	37.3															
10-24-19 17:15	3.79	1856	8.37	6.8	10-9-19 7:45	4.66	925	8.56	4.9	10-9-19 7:45	4.77	948	8.46	31.0															
10-24-19 17:30	3.79	1856	8.37	5.6	10-9-19 8:00	4.65	925	8.56	5.0	10-9-19 8:00	4.76	947	8.46	37.5															
10-24-19 17:45	3.80	1856	8.37	5.3	10-9-19 8:15	4.60	926	8.56	4.6	10-9-19 8:15	4.70	947	8.46	33.0															
10-24-19 18:00	3.82	1854	8.37	5.0	10-9-19 8:30	4.59	926	8.56	4.6	10-9-19 8:30	4.64	948	8.46	36.7															
10-24-19 18:15	3.85	1853	8.37	5.8	10-9-19 8:45	4.46	925	8.56	4.3	10-9-19 8:45	4.68	947	8.46	32.0															
10-24-19 18:30	3.88	1856	8.37	6.0	10-9-19 9:00	4.45	926	8.56	4.2	10-9-19 9:00	4.56	948	8.46	36.6															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-24-19 18:45	3.95	1856	8.38	5.5	10-9-19 9:15	4.53	926	8.56	4.7	10-9-19 9:15	4.66	948	8.46	32.8															
10-24-19 19:00	3.97	1855	8.37	5.3	10-9-19 9:30	4.52	926	8.56	4.7	10-9-19 9:30	4.57	947	8.46	37.7															
10-24-19 19:15	4.00	1856	8.37	6.8	10-9-19 9:45	4.47	927	8.56	4.1	10-9-19 9:45	4.51	949	8.47	31.2															
10-24-19 19:30	4.07	1855	8.37	5.2	10-9-19 10:00	4.41	926	8.56	4.3	10-9-19 10:00	4.54	949	8.46	36.8															
10-24-19 19:45	4.10	1855	8.37	5.4	10-9-19 10:15	4.42	926	8.56	4.7	10-9-19 10:15	4.46	949	8.46	30.6															
10-24-19 20:00	4.09	1857	8.37	5.1	10-9-19 10:30	4.32	927	8.56	4.2	10-9-19 10:30	4.40	948	8.47	39.2															
10-24-19 20:15	4.15	1857	8.37	5.5	10-9-19 10:45	4.31	926	8.56	5.2	10-9-19 10:45	4.36	948	8.46	31.3															
10-24-19 20:30	4.21	1857	8.37	5.5	10-9-19 11:00	4.28	926	8.56	4.2	10-9-19 11:00	4.38	948	8.46	35.7															
10-24-19 20:45	4.26	1859	8.37	5.2	10-9-19 11:15	4.26	927	8.56	4.1	10-9-19 11:15	4.33	949	8.46	30.4															
10-24-19 21:00	4.31	1859	8.37	5.5	10-9-19 11:30	4.31	927	8.56	4.1	10-9-19 11:30	4.25	949	8.47	38.5															
10-24-19 21:15	4.33	1860	8.37	5.2	10-9-19 11:45	4.25	927	8.56	3.7	10-9-19 11:45	4.17	950	8.47	32.1															
10-24-19 21:30	4.31	1864	8.37	5.4	10-9-19 12:00	4.20	927	8.56	4.5	10-9-19 12:00	4.20	950	8.46	38.3															
10-24-19 21:45	4.24	1877	8.37	5.1	10-9-19 12:15	4.16	925	8.56	4.0	10-9-19 12:15	4.20	950	8.46	31.4															
10-24-19 22:00	4.33	1869	8.38	6.2	10-9-19 12:30	4.14	927	8.55	4.4	10-9-19 12:30	4.16	950	8.46	37.8															
10-24-19 22:15	4.39	1869	8.38	5.5	10-9-19 12:45	4.11	927	8.55	3.9	10-9-19 12:45	4.19	951	8.46	31.3															
10-24-19 22:30	4.41	1871	8.38	6.0	10-9-19 13:00	4.09	927	8.55	3.5	10-9-19 13:00	4.12	950	8.46	37.5															
10-24-19 23:00	4.47	1873	8.38	4.7	10-9-19 13:15	4.03	927	8.56	3.6	10-9-19 13:15	4.09	951	8.45	30.6															
10-24-19 23:15	4.49	1875	8.38	5.4	10-9-19 13:30	3.99	928	8.56	3.8	10-9-19 13:30	4.05	951	8.46	36.9															
10-24-19 23:30	4.45	1878	8.38	5.3	10-9-19 13:45	4.04	928	8.56	4.4	10-9-19 13:45	4.00	953	8.46	31.5															
10-24-19 23:45	4.47	1879	8.38	5.1	10-9-19 14:00	4.03	928	8.56	4.5	10-9-19 14:00	3.90	952	8.46	38.0															
10-25-19 0:00	4.46	1876	8.38	5.3	10-9-19 14:15	3.97	928	8.55	3.8	10-9-19 14:15	3.83	953	8.46	32.0															
10-25-19 0:15	4.45	1878	8.39	5.6	10-9-19 14:30	3.94	928	8.55	5.1	10-9-19 14:30	3.81	954	8.46	40.5															
10-25-19 0:30	4.44	1880	8.38	5.3	10-9-19 14:45	3.82	929	8.55	3.8	10-9-19 14:45	3.88	953	8.45	33.3															
10-25-19 0:45	4.44	1880	8.38	4.9	10-9-19 15:00	3.83	928	8.55	4.3	10-9-19 15:00	3.90	952	8.45	37.0															
10-25-19 1:00	4.45	1880	8.38	5.1	10-9-19 15:15	3.71	929	8.56	3.5	10-9-19 15:15	3.75	953	8.45	29.3															
10-25-19 1:15	4.43	1880	8.38	4.9	10-9-19 15:30	3.75	929	8.55	3.6	10-9-19 15:30	3.68	955	8.45	40.3															
10-25-19 1:30	4.45	1880	8.37	4.9	10-9-19 15:45	3.69	929	8.56	4.5	10-9-19 15:45	3.89	954	8.45	34.4															
10-25-19 1:45	4.47	1881	8.38	4.0	10-9-19 16:00	3.70	929	8.55	4.1	10-9-19 16:00	3.88	955	8.44	33.1															
10-25-19 2:00	4.45	1880	8.37	4.9	10-9-19 16:15	3.78	929	8.55	4.3	10-9-19 16:15	3.77	954	8.44	29.7															
10-25-19 2:15	4.46	1880	8.37	4.7	10-9-19 16:30	3.73	928	8.55	4.1	10-9-19 16:30	3.97	954	8.44	40.1															
10-25-19 2:30	4.44	1881	8.38	5.0	10-9-19 16:45	3.80	929	8.55	5.4	10-9-19 16:45	4.04	954	8.44	31.8															
10-25-19 2:45	4.41	1883	8.38	4.3	10-9-19 17:00	3.73	929	8.55	4.2	10-9-19 17:00	3.94	954	8.44	40.3															
10-25-19 3:00	4.38	1883	8.38	5.1	10-9-19 17:15	3.71	928	8.56	3.6	10-9-19 17:15	3.91	954	8.44	30.0															
10-25-19 3:15	4.38	1884	8.38	4.8	10-9-19 17:30	3.73	929	8.56	3.5	10-9-19 17:30	3.96	955	8.44	39.0															
10-25-19 3:30	4.38	1884	8.38	4.5	10-9-19 17:45	3.76	928	8.56	3.6	10-9-19 17:45	4.01	954	8.44	29.8															
10-25-19 3:45	4.38	1884	8.38	4.1	10-9-19 18:00	3.77	928	8.56	5.4	10-9-19 18:00	4.05	954	8.44	39.0															
10-25-19 4:00	4.38	1883	8.37	5.0	10-9-19 18:15	3.83	928	8.56	4.3	10-9-19 18:15	4.06	954	8.44	30.5															
10-25-19 4:15	4.39	1885	8.38	4.1	10-9-19 18:30	3.87	927	8.56	3.5	10-9-19 18:30	4.10	953	8.44	35.2															
10-25-19 4:30	4.36	1887	8.38	4.8	10-9-19 18:45	3.89	927	8.56	4.2	10-9-19 18:45	4.17	953	8.43	31.5															
10-25-19 4:45	4.36	1888	8.38	4.1	10-9-19 19:00	3.90	927	8.56	4.2	10-9-19 19:00	4.41	955	8.43	35.8															
10-25-19 5:00	4.36	1888	8.37	4.9	10-9-19 19:15	3.95	927	8.56	4.2	10-9-19 19:15	4.42	953	8.43	30.7															
10-25-19 5:15	4.36	1890	8.38	4.7	10-9-19 19:30	4.11	926	8.56	3.5	10-9-19 19:30	4.48	954	8.43	36.0															
10-25-19 5:30	4.35	1889	8.38	4.2	10-9-19 19:45	4.15	926	8.56	3.5	10-9-19 19:45	4.60	954	8.43	29.8															
10-25-19 5:45	4.35	1889	8.38	5.4	10-9-19 20:00	4.19	926	8.56	3.9	10-9-19 20:00	4.64	953	8.43	37.4															
10-25-19 6:00	4.35	1888	8.37	4.7	10-9-19 20:15	4.16	927	8.55	5.0	10-9-19 20:15	4.79	954	8.42	30.6															
10-25-19 6:15	4.34	1889	8.37	3.9	10-9-19 20:30	4.20	928	8.55	4.7	10-9-19 20:30	4.74	953	8.42	34.8															
10-25-19 6:30	4.34	1893	8.37	4.6	10-9-19 20:45	4.26	927	8.55	5.4	10-9-19 20:45	4.96	953	8.42	30.5															
10-25-19 6:45	4.27	1905	8.37	3.8	10-9-19 21:00	4.28	927	8.55	4.8	10-9-19 21:00	5.03	953	8.43	38.3															
10-25-19 7:00	4.28	1906	8.38	4.0	10-9-19 21:15	4.49	925	8.55	4.0	10-9-19 21:15	5.07	953	8.42	31.7															
10-25-19 7:15	4.31	1894	8.37	3.9	10-9-19 21:30	4.65	925	8.55	4.7	10-9-19 21:30	5.19	954	8.43	39.1															
10-25-19 7:30	4.29	1900	8.36	4.4	10-9-19 21:45	4.70	925	8.55	4.1	10-9-19 21:45	5.38	953	8.43	32.2															
10-25-19 7:45	4.30	1898	8.37	4.8	10-9-19 22:00	4.69	925	8.55	4.6	10-9-19 22:00	5.28	952	8.43	40.2															
10-25-19 8:00	4.29	1901	8.36	3.9	10-9-19 22:15	4.61	925	8.55	5.3	10-9-19 22:15	5.27	953	8.43	32.2															
10-25-19 8:15	4.29	1899	8.38	4.4	10-9-19 22:30	4.70	925	8.55	4.7	10-9-19 22:30	5.18	953	8.43	33.9															
10-25-19 8:30	4.28	1902	8.38	4.4	10-9-19 22:45	4.73	925	8.55	4.8	10-9-19 22:45	5.13	953	8.43	28.4															
10-25-19 8:45	4.28	1908	8.37	3.7	10-9-19 23:00	4.76	924	8.55	4.2	10-9-19 23:00	5.05	954	8.44	38.5															
10-25-19 9:00	4.25	1910	8.37	4.3	10-9-19 23:15	4.75	924	8.56	4.2	10-9-19 23:15	5.01	953	8.44	29.5															
10-25-19 9:15	4.24	1913	8.37	4.4	10-9-19 23:30	4.68	924	8.56	4.9	10-9-19 23:30	4.97	954	8.44	36.6															
10-25-19 9:30	4.25	1911	8.37	4.3	10-9-19 23:45	4.66	924	8.57	4.4	10-9-19 23:45	4.88	954	8.44	31.2															
10-25-19 9:45	4.26	1910	8.37	3.9	10-10-19 0:00	4.63	924	8.57	4.6	10-10-19 0:00	4.86	953	8.44	38.6															
10-25-19 10:00	4.26	1867	8.37	4.5	10-10-19 0:15	4.45	925	8.57	5.1	10-10-19 0:15	4.84	954	8.44	30.0															
10-25-19 10:15	4.26	1871	8.37	4.1	10-10-19 0:30	4.43	925	8.57	6.3	10-10-19 0:30	4.80	954	8.43	37.3															
10-25-19 10:30	4.25	1839	8.37	4.6	10-10-19 0:45	4.43	925	8.57	4.8	10-10-19 0:45	4.74	954	8.44	32.4															
10-25-19 10:45	4.26	1880	8.37	4.1	10-10-19 1:00	4.37	925	8.58	4.8	10-10-19 1:00	4.75	954	8.44	38.8															
10-25-19 11:00	4.25	1851	8.36	5.4	10-10-19 1:15	4.29	925	8.58	4.6	10-10-19 1:15	4.64	954	8.44	30.8															
10-25-19 11:15	4.24	1871	8.36	5.0	10-10-19 1:30	4.32	925	8.58	4.5	10-10-19 1:30	4.64	954	8.43	36.9															
10-25-19 11:30	4.23	1878	8.37	4.9	10-10-19 1:45	4.33	925	8.58	4.4	10-10-19 1:45	4.61	955	8.43	31.2															
10-25-19 11:45	4.24	1872	8.37	8.3	10-10-19 2:00	4.30	926	8.58	4.8	10-10-19 2:00	4.55	955	8.43	38.0															
10-25-19 12:00	4.23	1864	8.37	29.3	10-10-19 2:15	4.32	926	8.57	4.5	10-10-19 2:15	4.52	955	8.43	31.1															
10-25-19 12:15	4.24	1896	8.37	16.9	10-10-19 2:30	4.29	926	8.57	4.6	10-10-19 2:30	4.53	955	8.43	36.8															
10-25-19 12:30	4.30	1943	8.36	5.6	10-10-19 2:45	4.27	926	8.57	4.7	10-10-19 2:45	4.50	955	8.43	31.5															
10-25-19 12:45	4.24	1896	8.37	14.3	10-10-19 3:00	4.26	926	8.57	4.5	10-10-19 3:00	4.47	955	8.42	38.0															
10-25-19 13:00	4.25	1904	8.37	21.2	10-10-19 3:15	4.28	926	8.57	5.9	10-10-19 3:15	4.45	955	8.42	31.9															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-25-19 13:15	4.22	1884	8.37	16.9	10-10-19 3:30	4.27	926	8.57	5.1	10-10-19 3:30	4.43	956	8.42	37.4															
10-25-19 13:30	4.19	1883	8.36	33.6	10-10-19 3:45	4.26	926	8.57	5.0	10-10-19 3:45	4.38	955	8.42	31.5															
10-25-19 13:45	4.17	1896	8.36	25.7	10-10-19 4:00	4.20	927	8.57	5.0	10-10-19 4:00	4.31	955	8.41	37.3															
10-25-19 14:00	4.21	1895	8.36	30.0	10-10-19 4:15	4.17	927	8.57	4.6	10-10-19 4:15	4.27	955	8.42	32.4															
10-25-19 14:15	4.20	1890	8.36	39.8	10-10-19 4:30	4.18	927	8.57	4.9	10-10-19 4:30	4.23	956	8.42	37.0															
10-25-19 14:30	4.16	1887	8.36	32.2	10-10-19 4:45	4.17	927	8.57	4.8	10-10-19 4:45	4.26	956	8.42	34.1															
10-25-19 14:45	4.23	1927	8.36	13.7	10-10-19 5:00	4.17	927	8.57	5.0	10-10-19 5:00	4.22	956	8.42	35.2															
10-25-19 15:00	4.23	1925	8.35	16.9	10-10-19 5:15	4.13	927	8.57	5.5	10-10-19 5:15	4.22	957	8.41	34.1															
10-25-19 15:15	4.27	1936	8.35	16.4	10-10-19 5:30	4.12	927	8.57	4.6	10-10-19 5:30	4.23	957	8.40	37.0															
10-25-19 15:30	4.21	1901	8.35	25.5	10-10-19 5:45	4.12	927	8.57	4.4	10-10-19 5:45	4.19	957	8.39	34.4															
10-25-19 15:45	4.03	1885	8.36	32.6	10-10-19 6:00	4.09	927	8.57	4.0	10-10-19 6:00	4.23	958	8.38	40.2															
10-25-19 16:00	3.98	1863	8.35	52.5	10-10-19 6:15	4.06	927	8.56	4.4	10-10-19 6:15	4.19	959	8.38	34.3															
10-25-19 16:15	4.05	1877	8.35	49.8	10-10-19 6:30	4.01	927	8.56	4.0	10-10-19 6:30	4.08	960	8.38	41.2															
10-25-19 16:30	4.11	1893	8.35	40.2	10-10-19 6:45	4.02	927	8.56	4.6	10-10-19 6:45	4.08	960	8.37	34.5															
10-25-19 16:45	4.10	1894	8.36	37.5	10-10-19 7:00	3.97	928	8.56	4.1	10-10-19 7:00	4.08	961	8.37	43.7															
10-25-19 17:00	4.25	1940	8.34	37.1	10-10-19 7:15	3.93	928	8.57	5.2	10-10-19 7:15	4.18	959	8.35	36.9															
10-25-19 17:15	4.25	1931	8.35	31.8	10-10-19 7:30	3.92	928	8.57	4.6	10-10-19 7:30	4.03	958	8.35	41.0															
10-25-19 17:30	4.31	1939	8.34	43.1	10-10-19 7:45	3.88	928	8.56	4.5	10-10-19 7:45	4.03	961	8.35	38.0															
10-25-19 17:45	4.34	1945	8.34	43.6	10-10-19 8:00	3.89	928	8.56	4.4	10-10-19 8:00	4.11	961	8.34	40.1															
10-25-19 18:00	4.42	1945	8.34	62.0	10-10-19 8:15	3.89	928	8.56	4.5	10-10-19 8:15	4.02	960	8.35	36.3															
10-25-19 18:15	4.43	1948	8.34	49.7	10-10-19 8:30	3.84	928	8.56	5.0	10-10-19 8:30	3.94	961	8.35	41.2															
10-25-19 18:30	4.48	1944	8.34	58.0	10-10-19 8:45	3.81	929	8.56	4.6	10-10-19 8:45	3.95	961	8.36	38.2															
10-25-19 18:45	4.51	1944	8.34	58.6	10-10-19 9:00	3.79	928	8.56	4.8	10-10-19 9:00	4.01	960	8.35	41.5															
10-25-19 19:00	4.56	1943	8.34	59.8	10-10-19 9:15	3.80	928	8.56	4.3	10-10-19 9:15	4.03	960	8.35	37.8															
10-25-19 19:15	4.64	1939	8.34	71.2	10-10-19 9:30	3.76	928	8.56	4.4	10-10-19 9:30	3.98	960	8.35	37.5															
10-25-19 19:30	4.72	1936	8.33	78.1	10-10-19 9:45	3.66	928	8.56	3.7	10-10-19 9:45	3.40	962	8.38	37.2															
10-25-19 19:45	4.73	1935	8.34	79.5	10-10-19 10:00	3.60	929	8.56	4.2	10-10-19 10:00	3.56	961	8.37	39.1															
10-25-19 20:00	4.79	1930	8.34	85.7	10-10-19 10:15	3.76	929	8.55	4.9	10-10-19 10:15	3.69	961	8.36	35.6															
10-25-19 20:15	4.76	1922	8.34	85.8	10-10-19 10:30	3.74	929	8.55	4.9	10-10-19 10:30	3.60	962	8.36	39.3															
10-25-19 20:30	4.79	1910	8.34	110.9	10-10-19 10:45	3.77	929	8.55	5.6	10-10-19 10:45	3.61	961	8.36	37.7															
10-25-19 20:45	4.79	1900	8.34	119.2	10-10-19 11:00	3.78	930	8.54	4.8	10-10-19 11:00	3.15	963	8.37	36.2															
10-25-19 21:00	4.79	1897	8.34	112.7	10-10-19 11:15	3.69	929	8.55	4.5	10-10-19 11:15	3.17	963	8.37	36.6															
10-25-19 21:15	4.75	1892	8.34	118.9	10-10-19 11:30	3.61	929	8.55	3.8	10-10-19 11:30	3.27	962	8.36	42.7															
10-25-19 21:30	4.73	1891	8.34	114.8	10-10-19 11:45	3.57	929	8.55	3.4	10-10-19 11:45	3.51	962	8.36	35.5															
10-25-19 21:45	4.74	1892	8.33	105.1	10-10-19 12:00	3.56	929	8.55	3.9	10-10-19 12:00	3.39	963	8.35	44.2															
10-25-19 22:00	4.72	1892	8.34	100.4	10-10-19 12:15	3.63	929	8.55	4.7	10-10-19 12:15	3.45	965	8.35	39.9															
10-25-19 22:30	4.78	1895	8.34	84.6	10-10-19 12:30	3.57	930	8.54	4.5	10-10-19 12:30	3.47	962	8.35	44.6															
10-25-19 22:45	4.74	1894	8.34	84.9	10-10-19 12:45	3.54	931	8.54	4.1	10-10-19 12:45	3.38	965	8.34	41.7															
10-25-19 23:00	4.74	1894	8.34	76.9	10-10-19 13:00	3.51	930	8.54	6.4	10-10-19 13:00	3.42	965	8.34	46.8															
10-25-19 23:15	4.73	1893	8.34	79.6	10-10-19 13:15	3.45	930	8.54	4.3	10-10-19 13:15	3.40	964	8.34	44.0															
10-25-19 23:30	4.74	1894	8.34	66.1	10-10-19 13:30	3.41	931	8.54	3.7	10-10-19 13:30	3.44	964	8.34	49.6															
10-25-19 23:45	4.74	1892	8.34	64.6	10-10-19 13:45	3.41	931	8.54	3.3	10-10-19 13:45	3.40	965	8.33	45.3															
10-26-19 0:00	4.73	1891	8.34	69.5	10-10-19 14:00	3.35	931	8.54	4.1	10-10-19 14:00	3.30	963	8.34	48.5															
10-26-19 0:15	4.72	1889	8.34	57.1	10-10-19 14:15	3.34	931	8.54	4.0	10-10-19 14:15	3.30	965	8.33	43.3															
10-26-19 0:30	4.71	1890	8.34	53.6	10-10-19 14:30	3.33	931	8.54	4.1	10-10-19 14:30	3.27	965	8.34	46.0															
10-26-19 0:45	4.69	1890	8.33	53.6	10-10-19 14:45	3.30	932	8.54	4.7	10-10-19 14:45	3.26	965	8.34	45.7															
10-26-19 1:00	4.69	1891	8.33	50.1	10-10-19 15:00	3.31	932	8.54	4.5	10-10-19 15:00	3.21	964	8.34	49.6															
10-26-19 1:15	4.68	1890	8.33	51.2	10-10-19 15:15	3.34	932	8.54	3.8	10-10-19 15:15	3.10	966	8.34	45.0															
10-26-19 1:30	4.65	1890	8.33	48.2	10-10-19 15:30	3.35	931	8.54	3.7	10-10-19 15:30	3.14	965	8.34	45.4															
10-26-19 1:45	4.64	1888	8.33	50.7	10-10-19 15:45	3.32	932	8.54	3.6	10-10-19 15:45	3.17	966	8.34	43.8															
10-26-19 2:00	4.63	1889	8.33	44.0	10-10-19 16:00	3.40	932	8.53	3.8	10-10-19 16:00	3.19	966	8.34	48.2															
10-26-19 2:15	4.59	1886	8.33	47.3	10-10-19 16:15	3.36	932	8.53	4.3	10-10-19 16:15	3.21	966	8.34	46.3															
10-26-19 2:30	4.58	1887	8.33	35.5	10-10-19 16:30	3.35	932	8.53	4.4	10-10-19 16:30	2.86	966	8.34	47.3															
10-26-19 2:45	4.61	1885	8.33	45.7	10-10-19 16:45	3.37	931	8.54	5.0	10-10-19 16:45	2.97	966	8.34	43.6															
10-26-19 3:00	4.60	1885	8.33	39.3	10-10-19 17:00	3.47	930	8.54	4.0	10-10-19 17:00	3.21	966	8.34	48.7															
10-26-19 3:15	4.60	1885	8.33	42.5	10-10-19 17:15	3.50	930	8.54	3.2	10-10-19 17:15	3.28	964	8.33	46.0															
10-26-19 3:30	4.59	1886	8.33	43.0	10-10-19 17:30	3.53	930	8.54	3.5	10-10-19 17:30	3.32	965	8.34	48.9															
10-26-19 3:45	4.57	1886	8.32	35.7	10-10-19 17:45	3.51	930	8.54	3.4	10-10-19 17:45	3.44	965	8.33	45.0															
10-26-19 4:00	4.57	1886	8.33	34.6	10-10-19 18:00	3.56	930	8.54	3.6	10-10-19 18:00	3.58	964	8.33	49.5															
10-26-19 4:15	4.56	1885	8.33	39.3	10-10-19 18:15	3.56	930	8.53	3.9	10-10-19 18:15	3.73	963	8.33	44.8															
10-26-19 4:30	4.54	1886	8.33	36.4	10-10-19 18:30	3.52	930	8.53	5.2	10-10-19 18:30	3.75	963	8.32	50.1															
10-26-19 4:45	4.52	1884	8.33	37.1	10-10-19 18:45	3.58	930	8.53	4.8	10-10-19 18:45	3.78	963	8.33	45.6															
10-26-19 5:00	4.49	1885	8.33	33.3	10-10-19 19:00	3.66	930	8.53	4.8	10-10-19 19:00	3.80	963	8.33	47.7															
10-26-19 5:15	4.43	1883	8.33	33.5	10-10-19 19:15	3.79	929	8.53	3.4	10-10-19 19:15	3.82	965	8.33	44.0															
10-26-19 5:30	4.44	1883	8.33	33.1	10-10-19 19:30	3.82	930	8.53	3.4	10-10-19 19:30	4.14	964	8.32	48.1															
10-26-19 5:45	4.36	1881	8.33	30.9	10-10-19 19:45	3.90	929	8.52	3.6	10-10-19 19:45	4.30	962	8.32	44.3															
10-26-19 6:00	4.40	1881	8.33	29.6	10-10-19 20:00	3.98	929	8.52	3.4	10-10-19 20:00	4.41	962	8.32	47.6															
10-26-19 6:15	4.37	1880	8.33	30.2	10-10-19 20:15	3.97	929	8.52	4.7	10-10-19 20:15	4.60	961	8.33	48.4															
10-26-19 6:30	4.34	1880	8.33	28.3	10-10-19 20:30	3.96	929	8.52	5.2	10-10-19 20:30	4.50	961	8.32	49.5															
10-26-19 6:45	4.32	1880	8.33	28.0	10-10-19 20:45	4.02	929	8.52	5.8	10-10-19 20:45	4.71	960	8.32	45.2															
10-26-19 7:00	4.35	1881	8.33	30.4	10-10-19 21:00	4.12	928	8.53	4.1	10-10-19 21:00	4.99	960	8.32	55.6															
10-26-19 7:15	4.34	1880	8.33	28.7	10-10-19 21:15	4.20	927	8.54	4.0	10-10-19 21:15	4.70	962	8.32	60.4															
10-26-19 7:30	4.31	1880	8.33	35.6	10-10-19 21:30	4.29	927	8.54	3.6	10-10-19 21:30	4.92	961	8.32	48.1															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-26-19 7:45	4.27	1879	8.33	29.9	10-10-19 21:45	4.42	926	8.54	3.6	10-10-19 21:45	5.04	960	8.32	57.0															
10-26-19 8:00	4.25	1878	8.33	26.8	10-10-19 22:00	4.64	927	8.54	3.7	10-10-19 22:00	5.14	963	8.32	48.6															
10-26-19 8:15	4.17	1877	8.33	26.4	10-10-19 22:15	4.57	925	8.54	3.5	10-10-19 22:15	5.51	960	8.32	51.7															
10-26-19 8:30	4.23	1879	8.33	24.9	10-10-19 22:30	4.62	925	8.54	3.9	10-10-19 22:30	5.45	961	8.32	50.9															
10-26-19 8:45	4.17	1878	8.33	25.6	10-10-19 22:45	4.60	924	8.54	3.5	10-10-19 22:45	5.45	961	8.32	53.6															
10-26-19 9:00	4.17	1877	8.33	21.8	10-10-19 23:00	4.62	924	8.54	4.2	10-10-19 23:00	5.51	960	8.32	49.2															
10-26-19 9:15	4.12	1876	8.33	31.2	10-10-19 23:15	4.54	925	8.55	3.0	10-10-19 23:15	5.36	959	8.32	55.8															
10-26-19 9:30	4.12	1873	8.33	23.8	10-10-19 23:30	4.61	925	8.55	3.1	10-10-19 23:30	5.15	960	8.32	53.3															
10-26-19 9:45	4.10	1872	8.33	26.7	10-10-19 23:45	4.59	924	8.55	3.0	10-10-19 23:45	5.13	961	8.32	55.5															
10-26-19 10:00	4.10	1872	8.33	22.0	10-11-19 0:00	4.52	924	8.56	3.6	10-11-19 0:00	5.28	960	8.33	48.1															
10-26-19 10:15	4.07	1871	8.33	27.6	10-11-19 0:15	4.53	924	8.56	3.4	10-11-19 0:15	5.25	961	8.33	53.6															
10-26-19 10:30	4.07	1869	8.33	21.1	10-11-19 0:30	4.53	924	8.56	3.6	10-11-19 0:30	5.16	960	8.33	54.8															
10-26-19 10:45	4.01	1869	8.32	20.7	10-11-19 0:45	4.51	925	8.55	3.4	10-11-19 0:45	4.99	961	8.32	62.8															
10-26-19 11:00	4.02	1873	8.32	24.0	10-11-19 1:00	4.40	924	8.56	3.7	10-11-19 1:00	4.94	961	8.32	56.3															
10-26-19 11:15	4.03	1872	8.33	22.3	10-11-19 1:15	4.37	925	8.56	3.3	10-11-19 1:15	4.91	962	8.32	61.5															
10-26-19 11:30	4.00	1869	8.33	21.9	10-11-19 1:30	4.34	926	8.56	3.3	10-11-19 1:30	4.81	962	8.33	60.5															
10-26-19 11:45	3.97	1868	8.33	24.0	10-11-19 1:45	4.31	925	8.56	3.0	10-11-19 1:45	4.80	962	8.32	64.3															
10-26-19 12:00	3.95	1868	8.33	20.1	10-11-19 2:00	4.28	925	8.56	3.0	10-11-19 2:00	4.80	962	8.32	61.7															
10-26-19 12:15	3.95	1867	8.33	25.9	10-11-19 2:15	4.27	925	8.55	3.4	10-11-19 2:15	4.77	962	8.32	72.8															
10-26-19 12:30	3.93	1866	8.32	18.7	10-11-19 2:30	4.22	925	8.56	3.6	10-11-19 2:30	4.73	962	8.32	59.4															
10-26-19 12:45	3.91	1864	8.32	24.3	10-11-19 2:45	4.23	925	8.56	3.6	10-11-19 2:45	4.70	962	8.32	64.2															
10-26-19 13:00	3.91	1865	8.32	20.4	10-11-19 3:00	4.22	926	8.55	3.4	10-11-19 3:00	4.67	963	8.32	62.6															
10-26-19 13:15	3.86	1864	8.32	20.4	10-11-19 3:15	4.08	925	8.56	2.8	10-11-19 3:15	4.66	962	8.31	65.4															
10-26-19 13:30	3.91	1864	8.33	20.3	10-11-19 3:30	4.10	926	8.56	2.6	10-11-19 3:30	4.63	962	8.32	59.0															
10-26-19 13:45	3.89	1863	8.33	20.5	10-11-19 3:45	4.11	927	8.56	2.9	10-11-19 3:45	4.62	963	8.32	63.5															
10-26-19 14:00	3.87	1863	8.32	18.9	10-11-19 4:00	4.11	927	8.56	3.2	10-11-19 4:00	4.61	962	8.32	62.0															
10-26-19 14:15	3.83	1861	8.32	18.0	10-11-19 4:15	4.01	926	8.56	3.5	10-11-19 4:15	4.56	963	8.32	65.3															
10-26-19 14:30	3.78	1861	8.32	26.8	10-11-19 4:30	4.06	927	8.55	3.4	10-11-19 4:30	4.55	963	8.32	64.6															
10-26-19 14:45	3.76	1859	8.32	19.6	10-11-19 4:45	3.97	926	8.56	4.9	10-11-19 4:45	4.49	963	8.32	64.3															
10-26-19 15:00	3.79	1858	8.32	23.0	10-11-19 5:00	4.05	927	8.55	5.5	10-11-19 5:00	4.50	963	8.31	61.5															
10-26-19 15:15	3.76	1857	8.32	20.3	10-11-19 5:15	4.01	927	8.56	3.3	10-11-19 5:15	4.51	963	8.31	67.3															
10-26-19 15:30	3.76	1858	8.32	18.1	10-11-19 5:30	3.98	927	8.56	3.2	10-11-19 5:30	4.43	963	8.32	63.1															
10-26-19 15:45	3.73	1856	8.32	16.5	10-11-19 5:45	3.97	927	8.56	4.1	10-11-19 5:45	4.42	963	8.31	68.2															
10-26-19 16:00	3.70	1856	8.32	15.9	10-11-19 6:00	3.93	927	8.56	2.8	10-11-19 6:00	4.39	963	8.31	63.0															
10-26-19 16:15	3.69	1855	8.32	17.0	10-11-19 6:15	3.91	927	8.55	4.3	10-11-19 6:15	4.34	964	8.31	67.7															
10-26-19 16:30	3.71	1854	8.32	19.8	10-11-19 6:30	3.89	927	8.55	3.8	10-11-19 6:30	4.28	963	8.31	59.5															
10-26-19 16:45	3.70	1851	8.32	19.3	10-11-19 6:45	3.89	927	8.55	3.8	10-11-19 6:45	4.28	963	8.31	66.6															
10-26-19 17:00	3.74	1852	8.31	16.0	10-11-19 7:00	3.89	927	8.55	3.9	10-11-19 7:00	4.24	964	8.31	63.6															
10-26-19 17:15	3.80	1851	8.31	15.8	10-11-19 7:15	3.81	928	8.56	2.7	10-11-19 7:15	4.17	963	8.31	63.1															
10-26-19 17:30	3.78	1850	8.32	16.7	10-11-19 7:30	3.80	927	8.56	2.9	10-11-19 7:30	4.06	964	8.31	57.3															
10-26-19 17:45	3.84	1848	8.31	15.9	10-11-19 7:45	3.84	927	8.56	3.4	10-11-19 7:45	3.96	964	8.31	62.6															
10-26-19 18:00	3.84	1850	8.31	15.6	10-11-19 8:00	3.82	928	8.55	2.6	10-11-19 8:00	3.98	965	8.31	57.4															
10-26-19 18:15	3.85	1848	8.32	19.0	10-11-19 8:15	3.78	928	8.55	5.1	10-11-19 8:15	3.94	966	8.32	66.2															
10-26-19 18:30	3.81	1844	8.32	17.0	10-11-19 8:30	3.76	928	8.55	4.1	10-11-19 8:30	3.95	965	8.31	59.7															
10-26-19 18:45	3.85	1843	8.31	15.5	10-11-19 8:45	3.78	927	8.55	5.0	10-11-19 8:45	3.92	966	8.31	64.8															
10-26-19 19:00	3.88	1843	8.31	15.1	10-11-19 9:00	3.75	928	8.55	4.2	10-11-19 9:00	3.83	966	8.31	61.1															
10-26-19 19:15	4.01	1842	8.30	13.3	10-11-19 9:15	3.68	928	8.55	2.7	10-11-19 9:15	3.81	965	8.31	60.8															
10-26-19 19:30	4.06	1841	8.30	11.9	10-11-19 9:30	3.67	928	8.55	2.7	10-11-19 9:30	3.75	966	8.31	60.7															
10-26-19 19:45	4.16	1842	8.31	15.2	10-11-19 9:45	3.54	928	8.55	2.5	10-11-19 9:45	3.74	966	8.32	64.1															
10-26-19 20:00	4.25	1840	8.31	13.3	10-11-19 10:00	3.62	928	8.55	3.1	10-11-19 10:00	3.73	966	8.32	59.3															
10-26-19 20:15	4.27	1837	8.31	14.5	10-11-19 10:15	3.57	928	8.55	3.3	10-11-19 10:15	3.67	967	8.32	66.2															
10-26-19 20:30	4.31	1836	8.31	13.8	10-11-19 10:30	3.56	928	8.55	3.1	10-11-19 10:30	3.68	966	8.32	58.1															
10-26-19 20:45	4.34	1837	8.31	17.3	10-11-19 10:45	3.49	928	8.55	3.6	10-11-19 10:45	3.34	968	8.33	62.6															
10-26-19 21:00	4.38	1836	8.31	13.5	10-11-19 11:00	3.48	928	8.55	3.4	10-11-19 11:00	3.41	969	8.33	58.0															
10-26-19 21:15	4.47	1835	8.30	13.0	10-11-19 11:15	3.45	928	8.55	3.2	10-11-19 11:15	3.09	968	8.33	60.4															
10-26-19 21:45	4.45	1834	8.29	13.7	10-11-19 11:30	3.43	929	8.55	2.5	10-11-19 11:30	3.24	967	8.32	57.0															
10-26-19 22:00	4.47	1831	8.30	14.4	10-11-19 11:45	3.37	929	8.55	2.3	10-11-19 11:45	3.06	967	8.32	60.0															
10-26-19 22:15	4.49	1833	8.30	12.3	10-11-19 12:00	3.40	929	8.55	2.7	10-11-19 12:00	3.21	968	8.32	57.8															
10-26-19 22:30	4.48	1833	8.30	15.2	10-11-19 12:15	3.38	929	8.55	4.0	10-11-19 12:15	3.28	967	8.32	62.2															
10-26-19 22:45	4.46	1834	8.31	15.4	10-11-19 12:30	3.38	929	8.54	3.1	10-11-19 12:30	3.29	967	8.32	55.6															
10-26-19 23:00	4.38	1833	8.31	13.3	10-11-19 12:45	3.22	929	8.55	3.9	10-11-19 12:45	3.01	968	8.33	62.2															
10-26-19 23:15	4.34	1834	8.31	10.4	10-11-19 13:00	3.33	929	8.54	4.4	10-11-19 13:00	3.14	968	8.32	57.7															
10-26-19 23:30	4.33	1834	8.30	11.9	10-11-19 13:15	3.32	929	8.55	2.3	10-11-19 13:15	3.20	968	8.31	59.8															
10-26-19 23:45	4.30	1835	8.30	11.9	10-11-19 13:30	3.27	929	8.55	2.2	10-11-19 13:30	3.23	968	8.31	57.4															
10-27-19 0:00	4.27	1834	8.30	16.4	10-11-19 13:45	3.25	929	8.55	2.3	10-11-19 13:45	3.21	968	8.31	62.2															
10-27-19 0:15	4.23	1835	8.31	10.8	10-11-19 14:00	3.21	929	8.55	2.2	10-11-19 14:00	3.17	968	8.31	57.8															
10-27-19 0:30	4.19	1834	8.29	11.3	10-11-19 14:15	3.09	930	8.55	3.9	10-11-19 14:15	3.11	968	8.31	61.3															
10-27-19 0:45	4.22	1838	8.31	12.0	10-11-19 14:30	3.13	930	8.54	3.7	10-11-19 14:30	3.09	968	8.31	59.1															
10-27-19 1:00	4.17	1833	8.30	11.7	10-11-19 14:45	3.17	930	8.55	3.8	10-11-19 14:45	3.10	969	8.32	62.3															
10-27-19 1:15	4.13	1834	8.31	10.7	10-11-19 15:00	3.13	930	8.54	3.4	10-11-19 15:00	3.20	968	8.31	57.9															
10-27-19 1:30	4.09	1834	8.30	11.9	10-11-19 15:15	3.15	930	8.55	2.3	10-11-19 15:15	3.08	969	8.32	61.7															
10-27-19 1:45	4.10	1835	8.30	12.8	10-11-19 15:30	3.11	930	8.54	2.4	10-11-19 15:30	3.02	970	8.32	56.1															
10-27-19 2:00	4.10	1836	8.30	13.7	10-11-19 15:45	3.14	930	8.54	2.4	10-11-19 15:45	3.10	969	8.32	61.5															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-27-19 2:15	4.04	1835	8.30	11.0	10-11-19 16:00	3.15	929	8.54	3.1	10-11-19 16:00	3.12	969	8.32	59.7															
10-27-19 2:30	4.00	1834	8.30	10.4	10-11-19 16:15	3.13	930	8.54	4.6	10-11-19 16:15	2.98	969	8.32	64.3															
10-27-19 2:45	4.06	1834	8.30	11.4	10-11-19 16:30	3.14	930	8.54	4.2	10-11-19 16:30	2.97	971	8.32	59.7															
10-27-19 3:00	4.06	1832	8.30	11.0	10-11-19 16:45	3.14	931	8.54	3.7	10-11-19 16:45	2.99	971	8.33	61.4															
10-27-19 3:15	4.04	1832	8.30	13.9	10-11-19 17:00	3.15	931	8.53	3.1	10-11-19 17:00	3.08	970	8.32	57.5															
10-27-19 3:30	3.92	1834	8.30	13.2	10-11-19 17:15	3.24	930	8.54	2.5	10-11-19 17:15	3.12	970	8.32	62.8															
10-27-19 3:45	4.00	1832	8.30	11.1	10-11-19 17:30	3.27	923	8.54	1.8	10-11-19 17:30	3.08	969	8.32	60.5															
10-27-19 4:00	3.99	1832	8.29	10.9	10-11-19 17:45	3.35	922	8.53	1.9	10-11-19 17:45	3.18	968	8.32	63.3															
10-27-19 4:15	3.98	1833	8.30	11.5	10-11-19 18:00	3.39	922	8.53	1.6	10-11-19 18:00	3.26	969	8.32	61.3															
10-27-19 4:30	4.02	1833	8.29	10.8	10-11-19 18:15	3.42	930	8.53	4.2	10-11-19 18:15	3.34	968	8.31	64.3															
10-27-19 4:45	3.94	1832	8.29	10.2	10-11-19 18:30	3.47	930	8.53	3.8	10-11-19 18:30	3.44	967	8.32	59.3															
10-27-19 5:00	3.87	1834	8.29	10.7	10-11-19 18:45	3.53	930	8.52	4.3	10-11-19 18:45	3.52	968	8.32	63.7															
10-27-19 5:15	3.90	1833	8.29	12.6	10-11-19 19:00	3.63	930	8.53	4.2	10-11-19 19:00	3.66	967	8.31	56.9															
10-27-19 5:30	3.86	1833	8.29	11.6	10-11-19 19:15	3.66	929	8.53	3.6	10-11-19 19:15	3.71	966	8.31	68.3															
10-27-19 5:45	3.85	1834	8.30	9.5	10-11-19 19:30	3.71	929	8.53	2.6	10-11-19 19:30	3.72	967	8.31	59.1															
10-27-19 6:00	3.88	1833	8.29	10.6	10-11-19 19:45	3.80	929	8.53	2.5	10-11-19 19:45	3.86	967	8.30	64.7															
10-27-19 6:15	3.85	1834	8.30	8.7	10-11-19 20:00	3.97	929	8.52	2.6	10-11-19 20:00	3.98	967	8.31	55.4															
10-27-19 6:30	3.81	1834	8.30	12.3	10-11-19 20:15	3.98	928	8.52	5.0	10-11-19 20:15	4.19	965	8.31	69.4															
10-27-19 6:45	3.80	1834	8.29	9.2	10-11-19 20:30	4.04	929	8.51	4.7	10-11-19 20:30	4.30	964	8.30	63.3															
10-27-19 7:00	3.79	1833	8.29	12.2	10-11-19 20:45	4.28	928	8.52	7.4	10-11-19 20:45	4.50	964	8.30	68.4															
10-27-19 7:15	3.82	1831	8.29	9.8	10-11-19 21:00	4.40	927	8.52	4.3	10-11-19 21:00	4.63	966	8.30	66.4															
10-27-19 7:30	3.80	1832	8.29	11.2	10-11-19 21:15	4.53	926	8.53	3.1	10-11-19 21:15	4.82	964	8.30	70.3															
10-27-19 7:45	3.74	1833	8.29	9.7	10-11-19 21:30	4.59	927	8.53	3.5	10-11-19 21:30	4.89	965	8.29	65.0															
10-27-19 8:00	3.69	1833	8.29	8.5	10-11-19 21:45	4.66	926	8.53	3.4	10-11-19 21:45	4.96	965	8.30	76.4															
10-27-19 8:15	3.63	1834	8.29	8.6	10-11-19 22:00	4.65	926	8.54	3.4	10-11-19 22:00	4.99	965	8.29	64.8															
10-27-19 8:30	3.67	1834	8.30	8.7	10-11-19 22:15	4.60	927	8.53	4.6	10-11-19 22:15	4.97	965	8.30	72.7															
10-27-19 8:45	3.64	1833	8.29	10.9	10-11-19 22:30	4.59	927	8.53	3.9	10-11-19 22:30	5.00	966	8.29	69.2															
10-27-19 9:00	3.68	1832	8.29	9.5	10-11-19 22:45	4.58	926	8.54	4.7	10-11-19 22:45	5.03	966	8.28	80.4															
10-27-19 9:15	3.65	1833	8.29	10.1	10-11-19 23:00	4.55	926	8.54	4.5	10-11-19 23:00	5.06	965	8.30	72.7															
10-27-19 9:30	3.54	1834	8.29	9.9	10-11-19 23:15	4.48	929	8.54	4.5	10-11-19 23:15	5.07	965	8.29	76.6															
10-27-19 9:45	3.59	1831	8.29	8.8	10-11-19 23:30	4.45	929	8.54	5.9	10-11-19 23:30	5.09	966	8.29	75.5															
10-27-19 10:00	3.56	1831	8.29	11.3	10-11-19 23:45	4.47	929	8.55	4.4	10-11-19 23:45	5.06	966	8.29	84.2															
10-27-19 10:15	3.56	1832	8.29	9.1	10-12-19 0:00	4.48	929	8.55	5.2	10-12-19 0:00	5.03	967	8.29	93.4															
10-27-19 10:30	3.53	1831	8.29	9.7	10-12-19 0:15	4.47	928	8.55	5.9	10-12-19 0:15	5.02	968	8.29	92.1															
10-27-19 10:45	3.45	1832	8.29	8.7	10-12-19 0:30	4.46	928	8.55	6.2	10-12-19 0:30	5.03	968	8.29	88.3															
10-27-19 11:00	3.46	1831	8.28	9.2	10-12-19 0:45	4.46	930	8.54	7.4	10-12-19 0:45	5.03	968	8.29	90.9															
10-27-19 11:15	3.46	1831	8.29	9.0	10-12-19 1:00	4.44	930	8.54	4.5	10-12-19 1:00	5.03	968	8.28	85.5															
10-27-19 11:30	3.42	1832	8.29	10.7	10-12-19 1:15	4.43	930	8.55	6.0	10-12-19 1:15	5.03	968	8.28	87.7															
10-27-19 11:45	3.33	1831	8.29	9.6	10-12-19 1:30	4.44	930	8.54	5.3	10-12-19 1:30	5.03	968	8.28	82.6															
10-27-19 12:00	3.35	1833	8.29	10.2	10-12-19 1:45	4.44	930	8.54	6.5	10-12-19 1:45	5.01	968	8.27	91.9															
10-27-19 12:15	3.30	1834	8.28	9.1	10-12-19 2:00	4.45	930	8.54	6.1	10-12-19 2:00	4.99	968	8.29	85.2															
10-27-19 12:30	3.29	1834	8.29	8.9	10-12-19 2:15	4.45	930	8.54	6.2	10-12-19 2:15	4.98	969	8.28	92.5															
10-27-19 12:45	3.29	1834	8.29	8.2	10-12-19 2:30	4.45	931	8.54	15.5	10-12-19 2:30	4.97	969	8.27	81.7															
10-27-19 13:00	3.20	1833	8.28	7.9	10-12-19 2:45	4.45	931	8.54	7.1	10-12-19 2:45	4.96	969	8.29	100.8															
10-27-19 13:15	3.20	1836	8.29	8.6	10-12-19 3:00	4.44	930	8.54	8.5	10-12-19 3:00	4.91	969	8.29	98.5															
10-27-19 13:30	3.17	1835	8.29	7.4	10-12-19 3:15	4.43	930	8.55	4.3	10-12-19 3:15	4.96	972	8.28	127.7															
10-27-19 13:45	3.16	1837	8.28	7.3	10-12-19 3:30	4.44	934	8.54	7.3	10-12-19 3:30	4.93	972	8.28	114.5															
10-27-19 14:00	3.12	1835	8.28	10.2	10-12-19 3:45	4.44	932	8.54	15.7	10-12-19 3:45	4.92	971	8.29	122.3															
10-27-19 14:15	3.11	1836	8.29	8.6	10-12-19 4:00	4.44	936	8.53	6.3	10-12-19 4:00	4.99	974	8.29	139.1															
10-27-19 14:30	3.14	1836	8.29	7.6	10-12-19 4:15	4.44	935	8.53	8.3	10-12-19 4:15	5.01	974	8.29	146.5															
10-27-19 14:45	3.11	1837	8.28	6.8	10-12-19 4:30	4.43	934	8.53	7.2	10-12-19 4:30	4.96	974	8.29	125.0															
10-27-19 15:00	3.07	1838	8.28	7.3	10-12-19 4:45	4.42	933	8.53	8.0	10-12-19 4:45	4.98	974	8.29	136.7															
10-27-19 15:15	3.06	1838	8.29	8.1	10-12-19 5:00	4.41	932	8.53	6.1	10-12-19 5:00	4.99	975	8.29	133.2															
10-27-19 15:30	2.99	1838	8.28	7.1	10-12-19 5:15	4.40	933	8.53	4.9	10-12-19 5:15	4.99	975	8.28	139.1															
10-27-19 15:45	2.99	1839	8.28	8.1	10-12-19 5:30	4.41	936	8.52	7.9	10-12-19 5:30	4.96	975	8.29	130.2															
10-27-19 16:00	3.00	1839	8.28	7.5	10-12-19 5:45	4.43	936	8.53	5.7	10-12-19 5:45	4.97	975	8.29	135.4															
10-27-19 16:15	2.98	1840	8.28	7.6	10-12-19 6:00	4.42	935	8.52	5.6	10-12-19 6:00	4.94	975	8.30	131.7															
10-27-19 16:30	2.96	1839	8.28	7.4	10-12-19 6:15	4.41	935	8.52	7.5	10-12-19 6:15	4.96	975	8.29	133.6															
10-27-19 16:45	3.03	1840	8.29	7.7	10-12-19 6:30	4.42	937	8.52	6.7	10-12-19 6:30	4.97	975	8.28	126.6															
10-27-19 17:00	3.04	1839	8.29	7.1	10-12-19 6:45	4.42	936	8.52	6.2	10-12-19 6:45	4.96	975	8.29	131.5															
10-27-19 17:15	2.86	1840	8.30	9.9	10-12-19 7:00	4.41	938	8.52	6.0	10-12-19 7:00	4.96	975	8.28	129.2															
10-27-19 17:30	2.97	1840	8.30	7.5	10-12-19 7:15	4.40	936	8.53	7.2	10-12-19 7:15	4.92	975	8.29	135.3															
10-27-19 17:45	3.06	1842	8.29	7.1	10-12-19 7:30	4.41	937	8.52	8.3	10-12-19 7:30	4.93	975	8.29	128.2															
10-27-19 18:00	3.10	1841	8.29	7.2	10-12-19 7:45	4.42	936	8.52	5.4	10-12-19 7:45	4.93	975	8.29	133.0															
10-27-19 18:15	3.14	1841	8.29	8.3	10-12-19 8:00	4.41	938	8.52	6.8	10-12-19 8:00	4.94	975	8.29	121.5															
10-27-19 18:30	3.20	1841	8.29	7.3	10-12-19 8:15	4.41	938	8.52	7.2	10-12-19 8:15	4.90	975	8.29	129.5															
10-27-19 18:45	3.23	1842	8.29	7.6	10-12-19 8:30	4.42	938	8.51	6.6	10-12-19 8:30	4.92	975	8.29	117.8															
10-27-19 19:15	3.29	1841	8.29	6.9	10-12-19 8:45	4.42	938	8.51	10.0	10-12-19 8:45	4.93	975	8.29	129.1															
10-27-19 19:30	3.34	1841	8.28	7.3	10-12-19 9:00	4.42	937	8.51	8.0	10-12-19 9:00	4.93	975	8.29	123.0															
10-27-19 19:45	3.33	1840	8.29	8.0	10-12-19 9:15	4.42	937	8.52	5.2	10-12-19 9:15	4.92	975	8.28	130.7															
10-27-19 20:00	3.34	1842	8.29	8.7	10-12-19 9:30	4.41	938	8.51	4.6	10-12-19 9:30	4.92	975	8.29	113.0															
10-27-19 20:15	3.37	1841	8.28	6.1	10-12-19 9:45	4.42	938	8.51	5.9	10-12-19 9:45	4.92	975	8.29	130.6															
10-27-19 20:30	3.36	1842	8.29	6.2	10-12-19 10:00	4.41	937	8.52	5.6	10-12-19 10:00	4.92	975	8.29	118.7															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-27-19 20:45	3.40	1841	8.28	6.5	10-12-19 10:15	4.41	937	8.51	8.1	10-12-19 10:15	4.91	975	8.29	131.0															
10-27-19 21:00	3.40	1841	8.29	7.8	10-12-19 10:30	4.42	937	8.51	8.2	10-12-19 10:30	4.93	976	8.29	134.1															
10-27-19 21:15	3.40	1841	8.29	6.8	10-12-19 10:45	4.41	936	8.51	8.1	10-12-19 10:45	4.93	976	8.29	126.8															
10-27-19 21:30	3.43	1842	8.29	8.4	10-12-19 11:00	4.41	938	8.51	8.9	10-12-19 11:00	4.92	975	8.29	121.2															
10-27-19 21:45	3.40	1841	8.29	6.7	10-12-19 11:15	4.41	937	8.52	4.7	10-12-19 11:15	4.90	976	8.29	125.7															
10-27-19 22:00	3.39	1844	8.30	7.8	10-12-19 11:30	4.41	937	8.52	4.7	10-12-19 11:30	4.92	976	8.29	118.7															
10-27-19 22:15	3.38	1844	8.30	7.5	10-12-19 11:45	4.41	937	8.52	4.7	10-12-19 11:45	4.90	976	8.29	121.6															
10-27-19 22:30	3.38	1844	8.30	7.5	10-12-19 12:00	4.42	938	8.51	4.8	10-12-19 12:00	4.89	976	8.29	118.6															
10-27-19 22:45	3.35	1845	8.30	6.8	10-12-19 12:15	4.41	937	8.51	7.6	10-12-19 12:15	4.89	976	8.29	119.6															
10-27-19 23:00	3.34	1846	8.30	6.7	10-12-19 12:30	4.41	939	8.51	7.0	10-12-19 12:30	4.89	976	8.29	114.7															
10-27-19 23:15	3.33	1846	8.30	6.7	10-12-19 12:45	4.41	938	8.51	6.7	10-12-19 12:45	4.84	976	8.30	119.9															
10-27-19 23:30	3.32	1847	8.30	7.4	10-12-19 13:00	4.41	938	8.51	6.6	10-12-19 13:00	4.80	975	8.30	115.1															
10-27-19 23:45	3.30	1847	8.30	6.8	10-12-19 13:15	4.42	938	8.51	4.4	10-12-19 13:15	4.83	976	8.29	117.9															
10-28-19 0:00	3.28	1847	8.30	5.4	10-12-19 13:30	4.40	938	8.51	4.8	10-12-19 13:30	4.87	976	8.29	112.0															
10-28-19 0:15	3.28	1848	8.30	6.6	10-12-19 13:45	4.39	939	8.51	4.5	10-12-19 13:45	4.85	975	8.29	122.3															
10-28-19 0:30	3.28	1849	8.30	7.3	10-12-19 14:00	4.39	939	8.51	4.8	10-12-19 14:00	4.85	976	8.30	109.3															
10-28-19 0:45	3.25	1848	8.29	5.8	10-12-19 14:15	4.40	939	8.51	6.0	10-12-19 14:15	4.89	976	8.29	127.1															
10-28-19 1:00	3.22	1850	8.30	5.8	10-12-19 14:30	4.39	939	8.50	6.9	10-12-19 14:30	4.89	975	8.29	135.6															
10-28-19 1:15	3.24	1849	8.29	6.1	10-12-19 14:45	4.41	940	8.50	8.3	10-12-19 14:45	4.84	976	8.30	126.9															
10-28-19 1:30	3.18	1849	8.29	6.3	10-12-19 15:00	4.40	940	8.50	8.6	10-12-19 15:00	4.84	976	8.30	114.8															
10-28-19 1:45	3.17	1850	8.29	5.5	10-12-19 15:15	4.41	939	8.51	4.8	10-12-19 15:15	4.86	977	8.30	131.8															
10-28-19 2:00	3.16	1851	8.30	6.9	10-12-19 15:30	4.43	940	8.50	5.1	10-12-19 15:30	4.89	976	8.30	123.7															
10-28-19 2:15	3.17	1850	8.29	6.4	10-12-19 15:45	4.44	940	8.50	5.3	10-12-19 15:45	4.83	976	8.30	130.9															
10-28-19 2:30	3.14	1851	8.30	6.4	10-12-19 16:00	4.42	939	8.50	4.6	10-12-19 16:00	4.86	977	8.30	120.1															
10-28-19 2:45	3.09	1849	8.30	6.2	10-12-19 16:15	4.43	941	8.49	10.7	10-12-19 16:15	4.90	977	8.30	139.7															
10-28-19 3:00	3.07	1851	8.30	5.1	10-12-19 16:30	4.44	941	8.50	13.4	10-12-19 16:30	4.94	976	8.30	128.3															
10-28-19 3:15	3.09	1852	8.29	5.3	10-12-19 16:45	4.44	941	8.50	11.8	10-12-19 16:45	4.95	977	8.30	146.4															
10-28-19 3:30	3.08	1851	8.30	6.2	10-12-19 17:00	4.49	942	8.49	12.2	10-12-19 17:00	5.01	977	8.30	128.6															
10-28-19 3:45	3.02	1852	8.30	5.7	10-12-19 17:15	4.52	942	8.50	5.0	10-12-19 17:15	5.05	977	8.30	139.4															
10-28-19 4:00	3.08	1855	8.30	6.9	10-12-19 17:30	4.55	941	8.50	5.0	10-12-19 17:30	5.13	976	8.30	134.5															
10-28-19 4:15	3.05	1854	8.30	6.0	10-12-19 17:45	4.63	941	8.50	4.8	10-12-19 17:45	5.27	975	8.30	134.4															
10-28-19 4:30	3.07	1857	8.29	7.3	10-12-19 18:00	4.66	944	8.49	5.4	10-12-19 18:00	5.43	977	8.29	128.2															
10-28-19 4:45	3.06	1856	8.29	5.6	10-12-19 18:15	4.73	943	8.49	7.0	10-12-19 18:15	5.63	977	8.30	136.4															
10-28-19 5:00	3.01	1857	8.29	4.9	10-12-19 18:30	4.81	940	8.49	9.6	10-12-19 18:30	5.94	978	8.30	129.7															
10-28-19 5:15	2.94	1859	8.29	4.9	10-12-19 18:45	4.96	940	8.49	10.7	10-12-19 18:45	5.65	977	8.30	150.9															
10-28-19 5:30	2.88	1859	8.29	5.6	10-12-19 19:00	5.02	940	8.49	11.7	10-12-19 19:00	5.75	977	8.30	142.4															
10-28-19 5:45	2.88	1861	8.28	6.2	10-12-19 19:15	5.05	940	8.49	5.5	10-12-19 19:15	5.85	978	8.31	141.4															
10-28-19 6:00	2.88	1857	8.29	5.6	10-12-19 19:30	5.16	940	8.49	5.2	10-12-19 19:30	5.81	977	8.31	135.7															
10-28-19 6:15	2.93	1855	8.29	5.5	10-12-19 19:45	5.19	940	8.49	5.1	10-12-19 19:45	5.72	979	8.31	149.3															
10-28-19 6:30	2.78	1856	8.30	5.9	10-12-19 20:00	5.23	940	8.50	4.9	10-12-19 20:00	5.81	978	8.31	141.0															
10-28-19 6:45	2.79	1859	8.30	5.5	10-12-19 20:15	5.25	940	8.49	6.3	10-12-19 20:15	5.82	978	8.31	149.6															
10-28-19 7:00	2.72	1862	8.30	8.5	10-12-19 20:30	5.28	940	8.49	13.2	10-12-19 20:30	6.04	979	8.31	137.8															
10-28-19 7:15	2.81	1861	8.29	5.0	10-12-19 20:45	5.32	940	8.49	9.3	10-12-19 20:45	6.04	979	8.31	148.4															
10-28-19 7:30	2.80	1861	8.30	5.6	10-12-19 21:00	5.43	939	8.50	26.1	10-12-19 21:00	6.31	979	8.31	146.8															
10-28-19 7:45	2.70	1861	8.29	5.4	10-12-19 21:15	5.44	939	8.50	10.0	10-12-19 21:15	6.29	979	8.32	141.4															
10-28-19 8:00	2.59	1863	8.30	4.9	10-12-19 21:30	5.46	939	8.50	4.8	10-12-19 21:30	6.29	979	8.31	155.2															
10-28-19 8:15	2.40	1865	8.30	4.7	10-12-19 21:45	5.55	939	8.50	5.1	10-12-19 21:45	6.35	981	8.32	158.6															
10-28-19 8:30	2.46	1864	8.30	4.7	10-12-19 22:00	5.60	939	8.51	5.5	10-12-19 22:00	6.37	979	8.31	135.0															
10-28-19 8:45	2.56	1868	8.29	5.3	10-12-19 22:15	5.65	939	8.50	8.6	10-12-19 22:15	6.36	979	8.32	153.5															
10-28-19 9:00	2.63	1867	8.29	6.3	10-12-19 22:30	5.67	939	8.51	14.7	10-12-19 22:30	6.33	981	8.31	129.3															
10-28-19 9:15	2.48	1863	8.29	5.2	10-12-19 22:45	5.69	939	8.51	94.2	10-12-19 22:45	6.42	980	8.32	156.0															
10-28-19 9:30	2.33	1867	8.30	5.6	10-12-19 23:00	5.71	939	8.51	10.5	10-12-19 23:00	6.33	979	8.32	147.6															
10-28-19 9:45	2.47	1867	8.29	5.2	10-12-19 23:15	5.74	938	8.52	7.3	10-12-19 23:15	6.32	979	8.32	147.1															
10-28-19 10:00	2.36	1870	8.29	5.3	10-12-19 23:30	5.73	939	8.52	4.4	10-12-19 23:30	6.34	979	8.32	141.3															
10-28-19 10:15	2.42	1862	8.29	6.2	10-12-19 23:45	5.74	939	8.52	4.8	10-12-19 23:45	6.30	980	8.32	153.3															
10-28-19 10:30	2.15	1872	8.30	5.8	10-13-19 0:00	5.73	939	8.52	4.9	10-13-19 0:00	6.28	980	8.32	144.9															
10-28-19 10:45	2.29	1876	8.30	4.6	10-13-19 0:15	5.72	938	8.52	4.9	10-13-19 0:15	6.27	980	8.32	146.4															
10-28-19 11:00	2.16	1875	8.30	4.9	10-13-19 0:30	5.70	938	8.52	6.0	10-13-19 0:30	6.27	980	8.32	143.9															
10-28-19 11:15	2.28	1887	8.30	4.4	10-13-19 0:45	5.68	939	8.52	8.0	10-13-19 0:45	6.22	980	8.33	156.8															
10-28-19 11:30	2.34	1886	8.29	5.1	10-13-19 1:00	5.65	939	8.52	5.3	10-13-19 1:00	6.19	980	8.32	142.7															
10-28-19 11:45	2.03	1878	8.29	4.7	10-13-19 1:15	5.63	939	8.53	4.7	10-13-19 1:15	6.19	980	8.32	148.2															
10-28-19 12:00	1.94	1881	8.30	5.2	10-13-19 1:30	5.62	939	8.53	4.3	10-13-19 1:30	6.19	980	8.32	145.8															
10-28-19 12:15	1.84	1880	8.30	5.5	10-13-19 1:45	5.60	939	8.53	4.4	10-13-19 1:45	6.15	980	8.32	142.5															
10-28-19 12:30	1.55	1883	8.31	5.4	10-13-19 2:00	5.59	939	8.53	4.5	10-13-19 2:00	6.15	980	8.32	142.4															
10-28-19 12:45	1.70	1891	8.30	4.9	10-13-19 2:15	5.60	939	8.52	4.3	10-13-19 2:15	6.13	981	8.32	148.9															
10-28-19 13:00	1.83	1892	8.30	5.1	10-13-19 2:30	5.58	939	8.52	5.1	10-13-19 2:30	6.12	980	8.32	139.5															
10-28-19 13:15	1.62	1897	8.30	5.7	10-13-19 2:45	5.55	939	8.52	4.1	10-13-19 2:45	6.13	980	8.32	144.6															
10-28-19 13:30	2.02	1909	8.29	4.8	10-13-19 3:00	5.46	939	8.52	4.3	10-13-19 3:00	6.11	980	8.32	141.6															
10-28-19 13:45	2.05	1908	8.28	4.6	10-13-19 3:15	5.48	941	8.53	4.8	10-13-19 3:15	6.06	980	8.32	146.5															
10-28-19 14:00	2.02	1903	8.28	5.0	10-13-19 3:30	5.44	939	8.53	4.3	10-13-19 3:30	6.07	980	8.32	135.7															
10-28-19 14:15	1.45	1893	8.30	4.4	10-13-19 3:45	5.49	940	8.53	4.4	10-13-19 3:45	6.01	981	8.32	143.7															
10-28-19 14:30	1.55	1907	8.30	4.9	10-13-19 4:00	5.48	940	8.53	4.1	10-13-19 4:00	6.02	981	8.32	135.3															
10-28-19 14:45	1.07	1908	8.31	4.8	10-13-19 4:15	5.48	940	8.52	4.8	10-13-19 4:15	6.00	980	8.32	135.3															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-28-19 15:00	1.77	1911	8.29	4.7	10-13-19 4:30	5.47	940	8.53	4.9	10-13-19 4:30	5.96	981	8.33	135.6															
10-28-19 15:15	1.53	1909	8.30	4.4	10-13-19 4:45	5.46	939	8.53	6.2	10-13-19 4:45	5.96	981	8.33	139.5															
10-28-19 15:30	2.29	1955	8.26	5.0	10-13-19 5:00	5.48	940	8.53	5.3	10-13-19 5:00	5.92	981	8.33	128.5															
10-28-19 15:45	2.21	1919	8.27	4.4	10-13-19 5:15	5.47	940	8.53	4.3	10-13-19 5:15	5.91	981	8.33	138.4															
10-28-19 16:00	1.45	1905	8.29	4.5	10-13-19 5:30	5.45	941	8.53	4.2	10-13-19 5:30	5.87	981	8.33	129.2															
10-28-19 16:15	1.99	1937	8.28	4.5	10-13-19 5:45	5.40	941	8.53	4.0	10-13-19 5:45	5.86	980	8.33	139.9															
10-28-19 16:30	2.64	1951	8.26	5.1	10-13-19 6:00	5.38	941	8.52	4.5	10-13-19 6:00	5.80	980	8.33	133.0															
10-28-19 16:45	2.68	1953	8.26	4.1	10-13-19 6:15	5.38	941	8.53	5.8	10-13-19 6:15	5.81	981	8.33	147.2															
10-28-19 17:00	2.32	1944	8.27	4.0	10-13-19 6:30	5.37	942	8.52	5.6	10-13-19 6:30	5.78	981	8.33	133.9															
10-28-19 17:15	2.28	1945	8.26	4.0	10-13-19 6:45	5.35	942	8.52	5.4	10-13-19 6:45	5.76	981	8.33	137.1															
10-28-19 17:30	1.97	1947	8.28	3.9	10-13-19 7:00	5.32	942	8.51	5.3	10-13-19 7:00	5.66	980	8.33	132.5															
10-28-19 17:45	1.94	1946	8.28	4.0	10-13-19 7:15	5.30	912	8.53	3.9	10-13-19 7:15	5.68	981	8.33	136.6															
10-28-19 18:00	2.17	1956	8.27	4.0	10-13-19 7:30	5.27	913	8.52	3.4	10-13-19 7:30	5.64	981	8.33	135.0															
10-28-19 18:30	2.55	1955	8.26	4.5	10-13-19 7:45	5.24	913	8.52	3.5	10-13-19 7:45	5.64	981	8.34	135.8															
10-28-19 18:45	2.07	1951	8.28	4.5	10-13-19 8:00	5.21	913	8.52	3.7	10-13-19 8:00	5.60	981	8.34	134.7															
10-28-19 19:00	2.04	1955	8.27	4.7	10-13-19 8:15	5.20	917	8.52	3.3	10-13-19 8:15	5.47	981	8.34	136.6															
10-28-19 19:15	2.06	1958	8.27	4.7	10-13-19 8:30	5.19	942	8.52	6.3	10-13-19 8:30	5.52	981	8.34	130.4															
10-28-19 19:30	2.38	1958	8.26	4.2	10-13-19 8:45	5.19	932	8.52	3.2	10-13-19 8:45	5.43	981	8.34	138.0															
10-28-19 19:45	2.36	1955	8.26	4.3	10-13-19 9:00	5.17	932	8.51	3.2	10-13-19 9:00	5.34	982	8.34	134.3															
10-28-19 20:00	2.50	1952	8.27	4.0	10-13-19 9:15	5.11	942	8.51	4.2	10-13-19 9:15	5.40	982	8.34	144.8															
10-28-19 20:15	2.24	1960	8.27	3.9	10-13-19 9:30	5.07	942	8.52	5.1	10-13-19 9:30	5.40	982	8.34	136.6															
10-28-19 20:30	2.40	1961	8.27	4.3	10-13-19 9:45	5.02	944	8.52	12.2	10-13-19 9:45	5.28	982	8.35	141.8															
10-28-19 20:45	2.53	1963	8.27	5.0	10-13-19 10:00	5.01	943	8.52	4.2	10-13-19 10:00	5.33	982	8.35	139.1															
10-28-19 21:00	2.51	1964	8.26	3.7	10-13-19 10:15	4.97	943	8.51	4.3	10-13-19 10:15	5.28	981	8.35	142.7															
10-28-19 21:15	2.61	1964	8.26	6.0	10-13-19 10:30	4.94	943	8.52	4.2	10-13-19 10:30	5.24	982	8.35	132.4															
10-28-19 21:30	2.65	1960	8.26	3.8	10-13-19 10:45	4.93	943	8.52	4.1	10-13-19 10:45	5.23	982	8.34	140.7															
10-28-19 21:45	2.62	1967	8.26	4.6	10-13-19 11:00	4.91	944	8.52	4.1	10-13-19 11:00	5.19	982	8.35	136.2															
10-28-19 22:00	2.35	1966	8.26	3.7	10-13-19 11:15	4.89	945	8.52	3.9	10-13-19 11:15	5.12	982	8.35	136.8															
10-28-19 22:15	2.47	1970	8.26	4.2	10-13-19 11:30	4.85	945	8.52	4.1	10-13-19 11:30	5.14	982	8.35	135.8															
10-28-19 22:30	1.80	1975	8.28	3.3	10-13-19 11:45	4.83	945	8.52	3.9	10-13-19 11:45	5.08	983	8.35	140.0															
10-28-19 22:45	1.94	1974	8.28	4.3	10-13-19 12:00	4.79	945	8.52	4.2	10-13-19 12:00	5.05	982	8.35	128.6															
10-28-19 23:00	2.10	1976	8.27	3.7	10-13-19 12:15	4.77	945	8.51	3.8	10-13-19 12:15	4.99	983	8.35	138.6															
10-28-19 23:15	2.16	1972	8.28	4.3	10-13-19 12:30	4.73	945	8.51	4.1	10-13-19 12:30	5.01	983	8.35	127.9															
10-28-19 23:30	2.14	1977	8.27	3.6	10-13-19 12:45	4.70	945	8.52	4.0	10-13-19 12:45	4.98	984	8.36	139.0															
10-28-19 23:45	1.74	1977	8.28	5.1	10-13-19 13:00	4.66	946	8.52	4.2	10-13-19 13:00	4.97	983	8.35	136.5															
10-29-19 0:00	1.73	1976	8.28	3.7	10-13-19 13:15	4.63	945	8.52	3.8	10-13-19 13:15	4.94	983	8.36	139.8															
10-29-19 0:15	2.22	2006	8.28	4.6	10-13-19 13:30	4.62	946	8.52	3.9	10-13-19 13:30	4.91	984	8.35	129.0															
10-29-19 0:30	2.72	1999	8.26	4.2	10-13-19 13:45	4.60	947	8.52	3.8	10-13-19 13:45	4.79	984	8.36	139.7															
10-29-19 0:45	2.71	2009	8.27	4.2	10-13-19 14:00	4.59	947	8.52	3.8	10-13-19 14:00	4.81	982	8.36	132.7															
10-29-19 1:00	2.30	1984	8.28	3.8	10-13-19 14:15	4.58	947	8.51	4.3	10-13-19 14:15	4.85	984	8.36	134.0															
10-29-19 1:15	2.08	2002	8.29	5.0	10-13-19 14:30	4.53	947	8.51	3.9	10-13-19 14:30	4.72	984	8.36	130.3															
10-29-19 1:30	2.15	1987	8.28	3.8	10-13-19 14:45	4.50	947	8.51	5.0	10-13-19 14:45	4.72	985	8.36	144.5															
10-29-19 1:45	1.99	1990	8.28	4.1	10-13-19 15:00	4.48	947	8.51	4.6	10-13-19 15:00	4.75	985	8.36	126.6															
10-29-19 2:00	2.11	2004	8.27	3.4	10-13-19 15:15	4.44	946	8.51	4.5	10-13-19 15:15	4.70	985	8.36	138.5															
10-29-19 2:15	2.17	2011	8.28	4.3	10-13-19 15:30	4.44	946	8.50	5.2	10-13-19 15:30	4.72	985	8.36	134.0															
10-29-19 2:30	1.92	2002	8.28	3.5	10-13-19 15:45	4.43	946	8.51	5.0	10-13-19 15:45	4.64	985	8.36	145.4															
10-29-19 2:45	2.05	2008	8.28	3.9	10-13-19 16:00	4.41	946	8.50	5.4	10-13-19 16:00	4.66	985	8.36	135.7															
10-29-19 3:00	2.01	2012	8.28	3.8	10-13-19 16:15	4.43	958	8.51	4.1	10-13-19 16:15	4.71	985	8.36	135.1															
10-29-19 3:15	2.02	2011	8.28	4.7	10-13-19 16:30	4.42	888	8.51	4.0	10-13-19 16:30	4.76	985	8.36	127.6															
10-29-19 3:30	1.97	2012	8.28	3.7	10-13-19 16:45	4.42	910	8.51	4.0	10-13-19 16:45	4.77	985	8.36	138.1															
10-29-19 3:45	1.95	2016	8.28	4.3	10-13-19 17:00	4.41	913	8.51	4.3	10-13-19 17:00	4.77	985	8.36	134.8															
10-29-19 4:00	1.73	2015	8.28	3.4	10-13-19 17:15	4.41	948	8.51	4.2	10-13-19 17:15	4.77	985	8.36	133.5															
10-29-19 4:15	1.62	2021	8.28	4.3	10-13-19 17:30	4.41	947	8.51	4.1	10-13-19 17:30	4.80	985	8.36	121.0															
10-29-19 4:30	1.81	2025	8.28	3.5	10-13-19 17:45	4.41	947	8.51	4.2	10-13-19 17:45	4.76	985	8.37	132.4															
10-29-19 4:45	1.72	2023	8.28	3.5	10-13-19 18:00	4.44	947	8.51	4.5	10-13-19 18:00	4.80	985	8.36	130.6															
10-29-19 5:00	1.68	2029	8.28	3.4	10-13-19 18:15	4.46	947	8.51	4.6	10-13-19 18:15	5.01	986	8.36	136.0															
10-29-19 5:15	1.59	2029	8.29	3.6	10-13-19 18:30	4.47	947	8.51	4.5	10-13-19 18:30	5.09	985	8.36	127.6															
10-29-19 5:30	1.51	2028	8.28	3.4	10-13-19 18:45	4.50	947	8.51	4.5	10-13-19 18:45	5.01	984	8.36	135.7															
10-29-19 5:45	1.58	2033	8.28	3.5	10-13-19 19:00	4.58	947	8.52	4.2	10-13-19 19:00	4.97	984	8.36	130.1															
10-29-19 6:00	1.48	2032	8.28	3.4	10-13-19 19:15	4.59	947	8.52	5.3	10-13-19 19:15	5.04	985	8.36	127.8															
10-29-19 6:15	1.32	2036	8.29	3.8	10-13-19 19:30	4.59	946	8.51	5.6	10-13-19 19:30	4.98	985	8.36	128.7															
10-29-19 6:30	1.45	2041	8.28	3.7	10-13-19 19:45	4.62	946	8.51	2.7	10-13-19 19:45	4.99	984	8.36	131.0															
10-29-19 6:45	1.40	2039	8.28	3.6	10-13-19 20:00	4.64	945	8.52	3.2	10-13-19 20:00	5.05	985	8.36	130.4															
10-29-19 7:00	1.40	2042	8.28	3.3	10-13-19 20:15	4.77	943	8.51	3.5	10-13-19 20:15	5.18	987	8.36	128.9															
10-29-19 7:15	1.49	2045	8.28	3.8	10-13-19 20:30	4.84	943	8.51	4.6	10-13-19 20:30	5.41	986	8.36	118.4															
10-29-19 7:30	1.54	2042	8.28	3.5	10-13-19 20:45	4.98	944	8.50	7.0	10-13-19 20:45	5.51	984	8.36	133.2															
10-29-19 7:45	1.51	2044	8.28	3.9	10-13-19 21:00	5.18	942	8.51	3.6	10-13-19 21:00	6.29	984	8.35	130.4															
10-29-19 8:00	1.44	2051	8.28	3.5	10-13-19 21:15	5.19	943	8.50	9.1	10-13-19 21:15	5.96	983	8.35	131.5															
10-29-19 8:15	1.56	2050	8.29	3.6	10-13-19 21:30	5.22	943	8.50	6.0	10-13-19 21:30	6.29	987	8.36	115.1															
10-29-19 8:30	1.43	2051	8.28	3.8	10-13-19 21:45	5.16	943	8.51	4.9	10-13-19 21:45	6.00	982	8.35	131.0															
10-29-19 8:45	1.43	2055	8.28	3.6	10-13-19 22:00	5.11	943	8.51	8.3	10-13-19 22:00	5.96	984	8.35	129.6															
10-29-19 9:00	1.49	2057	8.28	3.5	10-13-19 22:15	5.12	943	8.51	10.7	10-13-19 22:15	6.01	983	8.34	127.5															
10-29-19 9:15	1.35	2060	8.29	3.7	10-13-19 22:30	5.08	945	8.52	4.4	10-13-19 22:30	6.04	983	8.34	117.3															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-29-19 9:30	1.54	2057	8.28	3.2	10-13-19 22:45	5.09	947	8.52	7.0	10-13-19 22:45	6.00	982	8.34	128.5															
10-29-19 9:45	1.45	2061	8.28	3.7	10-13-19 23:00	5.13	946	8.52	3.8	10-13-19 23:00	6.03	984	8.35	119.1															
10-29-19 10:00	1.51	2059	8.28	3.2	10-13-19 23:15	5.12	947	8.52	5.5	10-13-19 23:15	6.13	984	8.36	128.5															
10-29-19 10:15	1.47	2063	8.29	3.5	10-13-19 23:30	5.11	947	8.52	11.8	10-13-19 23:30	6.15	983	8.36	121.6															
10-29-19 10:30	1.35	2068	8.29	3.8	10-13-19 23:45	5.09	947	8.52	6.3	10-13-19 23:45	6.13	984	8.35	128.4															
10-29-19 10:45	1.33	2070	8.28	4.0	10-14-19 0:00	5.12	946	8.52	4.6	10-14-19 0:00	6.19	984	8.36	118.7															
10-29-19 11:00	1.46	2065	8.28	3.6	10-14-19 0:15	5.11	946	8.51	9.0	10-14-19 0:15	6.18	984	8.36	123.2															
10-29-19 11:15	1.50	2067	8.29	5.1	10-14-19 0:30	5.07	944	8.52	3.7	10-14-19 0:30	6.18	984	8.37	116.5															
10-29-19 11:30	1.37	2067	8.29	3.2	10-14-19 0:45	5.03	944	8.52	6.5	10-14-19 0:45	6.13	984	8.37	120.9															
10-29-19 11:45	1.35	2070	8.28	5.1	10-14-19 1:00	5.02	943	8.53	3.7	10-14-19 1:00	6.08	984	8.37	117.5															
10-29-19 12:00	1.33	2068	8.28	4.0	10-14-19 1:15	5.00	942	8.52	4.7	10-14-19 1:15	6.05	984	8.37	117.6															
10-29-19 12:15	1.35	2068	8.28	4.2	10-14-19 1:30	4.98	944	8.54	5.9	10-14-19 1:30	5.91	984	8.38	110.6															
10-29-19 12:30	1.34	2074	8.28	3.3	10-14-19 1:45	5.02	945	8.53	6.1	10-14-19 1:45	5.80	984	8.38	136.8															
10-29-19 12:45	1.27	2075	8.28	3.7	10-14-19 2:00	4.98	944	8.54	4.2	10-14-19 2:00	5.80	984	8.39	115.4															
10-29-19 13:00	1.42	2073	8.28	3.2	10-14-19 2:15	4.97	944	8.54	4.5	10-14-19 2:15	5.69	984	8.38	129.9															
10-29-19 13:15	1.15	2075	8.28	4.3	10-14-19 2:30	4.93	943	8.55	16.9	10-14-19 2:30	5.60	985	8.38	126.3															
10-29-19 13:30	1.12	2078	8.28	3.9	10-14-19 2:45	4.93	943	8.54	10.0	10-14-19 2:45	5.54	985	8.38	128.9															
10-29-19 13:45	1.07	2078	8.28	3.7	10-14-19 3:00	4.90	944	8.53	10.5	10-14-19 3:00	5.55	984	8.38	126.7															
10-29-19 14:00	1.04	2077	8.28	3.4	10-14-19 3:15	4.90	943	8.54	4.0	10-14-19 3:15	5.45	985	8.39	132.2															
10-29-19 14:15	1.20	2077	8.28	3.4	10-14-19 3:30	4.91	944	8.54	6.3	10-14-19 3:30	5.34	985	8.38	123.2															
10-29-19 14:30	1.28	2075	8.27	3.7	10-14-19 3:45	4.94	944	8.54	5.3	10-14-19 3:45	5.34	985	8.38	127.6															
10-29-19 14:45	0.89	2085	8.28	3.9	10-14-19 4:00	4.91	943	8.53	3.7	10-14-19 4:00	5.29	985	8.38	126.3															
10-29-19 15:00	0.74	2083	8.27	3.6	10-14-19 4:15	4.89	919	8.54	3.3	10-14-19 4:15	5.28	985	8.37	130.2															
10-29-19 15:15	1.15	2085	8.28	4.7	10-14-19 4:30	4.88	944	8.54	5.0	10-14-19 4:30	5.26	985	8.36	116.3															
10-29-19 15:30	1.11	2077	8.27	3.1	10-14-19 4:45	4.88	945	8.54	8.7	10-14-19 4:45	5.23	985	8.38	123.7															
10-29-19 15:45	0.82	2087	8.28	3.8	10-14-19 5:00	4.88	925	8.53	3.3	10-14-19 5:00	5.25	985	8.38	114.1															
10-29-19 16:00	0.89	2086	8.27	3.3	10-14-19 5:15	4.88	945	8.54	2.4	10-14-19 5:15	5.21	984	8.37	122.9															
10-29-19 16:15	0.88	2086	8.27	3.7	10-14-19 5:30	4.89	943	8.52	3.6	10-14-19 5:30	5.20	985	8.37	119.5															
10-29-19 16:30	0.74	2087	8.27	3.3	10-14-19 5:45	4.87	945	8.52	4.3	10-14-19 5:45	5.18	985	8.38	126.0															
10-29-19 16:45	0.84	2090	8.28	4.0	10-14-19 6:00	4.87	943	8.52	3.0	10-14-19 6:00	5.17	986	8.38	124.3															
10-29-19 17:00	1.14	2086	8.27	3.9	10-14-19 6:15	4.85	923	8.54	4.1	10-14-19 6:15	5.17	985	8.37	124.1															
10-29-19 17:15	1.10	2090	8.27	3.9	10-14-19 6:30	4.86	947	8.54	4.1	10-14-19 6:30	5.16	985	8.37	119.3															
10-29-19 17:30	1.14	2091	8.27	3.4	10-14-19 6:45	4.84	946	8.51	2.5	10-14-19 6:45	5.17	986	8.37	126.8															
10-29-19 17:45	1.13	2094	8.27	4.6	10-14-19 7:00	4.84	945	8.49	2.5	10-14-19 7:00	5.14	985	8.36	111.6															
10-29-19 18:00	1.19	2095	8.27	3.1	10-14-19 7:15	4.85	949	8.51	9.9	10-14-19 7:15	5.11	986	8.37	130.0															
10-29-19 18:30	1.29	2089	8.27	4.9	10-14-19 7:30	4.85	945	8.53	3.7	10-14-19 7:30	5.09	985	8.37	127.3															
10-29-19 18:45	1.29	2090	8.27	4.4	10-14-19 7:45	4.85	943	8.52	9.0	10-14-19 7:45	5.09	985	8.37	127.1															
10-29-19 19:00	1.32	2092	8.27	9.7	10-14-19 8:00	4.82	943	8.53	9.4	10-14-19 8:00	5.09	985	8.38	118.5															
10-29-19 19:15	1.44	2088	8.27	5.1	10-14-19 8:15	4.84	945	8.52	4.2	10-14-19 8:15	5.09	985	8.37	124.2															
10-29-19 19:30	1.41	2093	8.27	7.6	10-14-19 8:30	4.82	947	8.54	5.6	10-14-19 8:30	5.08	984	8.37	124.4															
10-29-19 19:45	1.43	2094	8.27	5.0	10-14-19 8:45	4.80	946	8.54	9.6	10-14-19 8:45	5.07	985	8.38	131.0															
10-29-19 20:00	1.58	2091	8.26	7.0	10-14-19 9:00	4.80	946	8.52	4.1	10-14-19 9:00	5.06	985	8.38	120.1															
10-29-19 20:15	1.62	2088	8.26	3.3	10-14-19 9:15	4.80	947	8.52	6.7	10-14-19 9:15	5.04	984	8.38	128.2															
10-29-19 20:30	1.56	2093	8.27	7.0	10-14-19 9:30	4.80	946	8.53	3.9	10-14-19 9:30	5.01	986	8.37	118.4															
10-29-19 20:45	1.57	2096	8.26	3.3	10-14-19 9:45	4.77	946	8.53	5.4	10-14-19 9:45	5.03	985	8.38	132.2															
10-29-19 21:00	1.53	2095	8.27	5.8	10-14-19 10:00	4.80	947	8.52	7.1	10-14-19 10:00	5.04	985	8.37	124.0															
10-29-19 21:15	1.61	2095	8.26	3.5	10-14-19 10:15	4.81	945	8.53	3.9	10-14-19 10:15	5.04	985	8.36	122.1															
10-29-19 21:30	1.64	2095	8.26	4.2	10-14-19 10:30	4.81	947	8.53	5.7	10-14-19 10:30	5.02	985	8.38	125.5															
10-29-19 21:45	1.65	2095	8.27	3.5	10-14-19 10:45	4.80	945	8.52	3.0	10-14-19 10:45	4.97	985	8.37	123.9															
10-29-19 22:00	1.65	2098	8.27	5.2	10-14-19 11:00	4.78	946	8.50	3.5	10-14-19 11:00	4.98	985	8.37	115.1															
10-29-19 22:15	1.64	2097	8.27	3.0	10-14-19 11:15	4.78	947	8.53	3.6	10-14-19 11:15	4.97	985	8.37	126.0															
10-29-19 22:30	1.62	2100	8.27	4.2	10-14-19 11:30	4.79	945	8.52	2.8	10-14-19 11:30	4.95	985	8.37	119.4															
10-29-19 22:45	1.59	2099	8.27	3.3	10-14-19 11:45	4.78	944	8.50	2.0	10-14-19 11:45	4.96	985	8.37	124.6															
10-29-19 23:00	1.62	2102	8.27	4.0	10-14-19 12:00	4.78	943	8.49	1.3	10-14-19 12:00	4.95	985	8.37	117.3															
10-29-19 23:15	1.60	2101	8.27	3.6	10-14-19 12:15	4.75	946	8.52	3.7	10-14-19 12:15	4.95	985	8.37	117.4															
10-29-19 23:30	1.56	2102	8.27	4.3	10-14-19 12:30	4.72	948	8.52	4.2	10-14-19 12:30	4.92	983	8.37	112.0															
10-29-19 23:45	1.57	2104	8.28	3.4	10-14-19 12:45	4.72	950	8.42	9.0	10-14-19 12:45	4.93	986	8.37	123.6															
10-30-19 0:00	1.56	2104	8.28	4.8	10-14-19 13:00	4.71	905	8.30	7.2	10-14-19 13:00	4.95	985	8.37	113.9															
10-30-19 0:15	1.50	2104	8.28	3.4	10-14-19 13:15	4.71	954	8.23	6.4	10-14-19 13:15	4.94	985	8.37	120.9															
10-30-19 0:30	1.50	2106	8.28	4.2	10-14-19 13:30	4.70	954	8.15	4.4	10-14-19 13:30	4.89	986	8.37	115.1															
10-30-19 0:45	1.47	2106	8.28	3.0	10-14-19 13:45	4.71	937	7.94	4.0	10-14-19 13:45	4.88	986	8.37	120.5															
10-30-19 1:00	1.45	2106	8.28	4.4	10-14-19 14:00	4.70	956	8.06	15.8	10-14-19 14:00	4.91	986	8.37	112.6															
10-30-19 1:15	1.40	2107	8.28	3.1	10-14-19 14:15	4.70	957	7.83	11.2	10-14-19 14:15	4.91	986	8.36	118.1															
10-30-19 1:30	1.42	2107	8.28	4.2	10-14-19 14:30	4.70	959	7.63	9.7	10-14-19 14:30	4.91	986	8.37	117.2															
10-30-19 1:45	1.30	2107	8.28	4.9	10-14-19 14:45	4.69	958	7.74	9.6	10-14-19 14:45	4.88	986	8.38	122.4															
10-30-19 2:00	1.20	2107	8.28	3.8	10-14-19 15:00	4.68	957	7.74	9.6	10-14-19 15:00	4.87	986	8.37	117.1															
10-30-19 2:15	1.12	2104	8.28	3.1	10-14-19 15:15	4.68	957	7.74	6.3	10-14-19 15:15	4.88	986	8.38	122.2															
10-30-19 2:30	1.07	2112	8.27	3.7	10-14-19 15:30	4.68	956	7.79	4.6	10-14-19 15:30	4.90	986	8.37	116.2															
10-30-19 2:45	1.13	2110	8.27	3.1	10-14-19 15:45	4.68	957	7.68	4.1	10-14-19 15:45	4.89	986	8.38	122.5															
10-30-19 3:00	0.94	2111	8.28	4.0	10-14-19 16:00	4.67	958	7.61	9.9	10-14-19 16:00	4.85	986	8.38	111.4															
10-30-19 3:15	0.93	2111	8.28	3.2	10-14-19 16:15	4.68	958	7.61	6.6	10-14-19 16:15	4.87	986	8.38	121.0															
10-30-19 3:30	0.90	2115	8.27	3.5	10-14-19 16:30	4.69	910	7.67	3.1	10-14-19 16:30	4.89	985	8.37	114.9															
10-30-19 3:45	0.84	2114	8.27	3.0	10-14-19 16:45	4.69	958	7.55	4.4	10-14-19 16:45	4.89	986	8.37	117.4															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-30-19 4:00	0.80	2118	8.27	3.7	10-14-19 17:00	4.69	958	7.58	5.4	10-14-19 17:00	4.88	986	8.38	118.3															
10-30-19 4:15	0.80	2117	8.27	2.8	10-14-19 17:15	4.70	958	7.54	5.2	10-14-19 17:15	4.93	986	8.38	116.3															
10-30-19 4:30	0.91	2118	8.27	3.7	10-14-19 17:30	4.71	958	7.46	10.3	10-14-19 17:30	4.94	985	8.37	112.3															
10-30-19 4:45	1.08	2119	8.27	3.2	10-14-19 17:45	4.72	930	7.54	3.4	10-14-19 17:45	4.94	986	8.37	115.8															
10-30-19 5:00	0.97	2121	8.27	3.4	10-14-19 18:00	4.72	958	7.50	11.2	10-14-19 18:00	4.98	986	8.38	116.0															
10-30-19 5:15	0.90	2114	8.27	3.1	10-14-19 18:15	4.74	867	7.43	3.5	10-14-19 18:15	5.04	986	8.37	113.3															
10-30-19 5:30	0.79	2115	8.28	3.7	10-14-19 18:30	4.75	866	7.68	3.4	10-14-19 18:30	5.10	986	8.37	104.0															
10-30-19 5:45	0.89	2115	8.28	3.5	10-14-19 18:45	4.79	865	7.49	3.4	10-14-19 18:45	5.15	986	8.37	115.0															
10-30-19 6:00	0.99	2115	8.27	3.7	10-14-19 19:00	4.82	865	7.64	3.1	10-14-19 19:00	5.15	986	8.37	121.8															
10-30-19 6:15	0.98	2115	8.27	3.0	10-14-19 19:15	4.85	955	7.79	5.5	10-14-19 19:15	5.17	986	8.37	117.2															
10-30-19 6:30	0.96	2116	8.27	3.9	10-14-19 19:30	4.88	955	7.94	5.3	10-14-19 19:30	5.23	985	8.37	106.2															
10-30-19 6:45	0.94	2116	8.26	3.2	10-14-19 19:45	4.89	956	7.82	5.9	10-14-19 19:45	5.29	985	8.37	114.3															
10-30-19 7:00	0.95	2117	8.26	4.0	10-14-19 20:00	4.91	955	8.12	6.1	10-14-19 20:00	5.34	985	8.36	104.9															
10-30-19 7:15	0.93	2120	8.27	3.3	10-14-19 20:15	4.94	954	8.21	3.6	10-14-19 20:15	5.36	985	8.36	112.1															
10-30-19 7:30	0.96	2121	8.27	3.6	10-14-19 20:30	4.96	952	8.33	3.7	10-14-19 20:30	5.43	985	8.37	107.7															
10-30-19 7:45	1.04	2117	8.26	3.4	10-14-19 20:45	4.95	952	8.30	3.8	10-14-19 20:45	5.48	984	8.37	110.0															
10-30-19 8:00	1.14	2122	8.27	3.7	10-14-19 21:00	4.95	952	8.29	3.7	10-14-19 21:00	5.44	985	8.37	104.9															
10-30-19 8:15	1.29	2119	8.27	2.9	10-14-19 21:15	4.97	954	8.30	10.8	10-14-19 21:15	5.50	986	8.37	113.0															
10-30-19 8:30	1.22	2123	8.27	3.7	10-14-19 21:30	5.01	953	8.24	3.5	10-14-19 21:30	5.59	985	8.37	109.4															
10-30-19 8:45	1.21	2120	8.27	3.1	10-14-19 21:45	5.02	954	8.23	5.6	10-14-19 21:45	5.59	985	8.37	110.1															
10-30-19 9:00	1.16	2125	8.27	3.5	10-14-19 22:00	5.10	955	8.07	10.4	10-14-19 22:00	5.63	985	8.38	108.4															
10-30-19 9:15	1.21	2123	8.26	2.9	10-14-19 22:15	5.03	954	8.29	2.1	10-14-19 22:15	5.52	985	8.38	114.9															
10-30-19 9:30	1.21	2126	8.27	3.1	10-14-19 22:30	5.04	954	8.30	2.2	10-14-19 22:30	5.39	984	8.38	105.8															
10-30-19 9:45	1.29	2127	8.27	3.0	10-14-19 22:45	5.06	954	8.28	2.1	10-14-19 22:45	5.34	985	8.37	116.3															
10-30-19 10:00	1.34	2129	8.27	3.8	10-14-19 23:00	5.05	955	8.28	2.1	10-14-19 23:00	5.44	986	8.38	113.8															
10-30-19 10:15	1.29	2130	8.27	2.9	10-14-19 23:15	5.05	954	8.23	17.1	10-14-19 23:15	5.32	985	8.38	115.4															
10-30-19 10:30	1.32	2133	8.28	3.1	10-14-19 23:30	5.06	954	8.26	16.5	10-14-19 23:30	5.20	984	8.38	115.3															
10-30-19 10:45	1.26	2129	8.27	2.8	10-14-19 23:45	5.06	954	8.25	16.7	10-14-19 23:45	5.16	985	8.38	115.8															
10-30-19 11:00	1.32	2140	8.27	4.0	10-15-19 0:00	5.05	954	8.23	16.8	10-15-19 0:00	5.22	986	8.38	109.0															
10-30-19 11:15	1.28	2139	8.27	2.8	10-15-19 0:15	5.06	954	8.22	17.9	10-15-19 0:15	5.15	986	8.38	120.2															
10-30-19 11:30	1.27	2138	8.27	3.6	10-15-19 0:30	5.06	954	8.16	5.8	10-15-19 0:30	5.14	986	8.38	115.0															
10-30-19 11:45	1.25	2137	8.27	3.1	10-15-19 0:45	5.04	953	8.20	4.0	10-15-19 0:45	5.15	985	8.38	117.6															
10-30-19 12:00	1.30	2151	8.28	3.5	10-15-19 1:00	5.06	953	8.15	4.2	10-15-19 1:00	5.12	986	8.38	107.2															
10-30-19 12:15	1.26	2147	8.27	3.1	10-15-19 1:15	5.07	954	8.19	4.6	10-15-19 1:15	5.10	986	8.37	113.3															
10-30-19 12:30	1.28	2156	8.27	3.7	10-15-19 1:30	5.05	954	8.15	5.1	10-15-19 1:30	5.07	986	8.37	103.1															
10-30-19 12:45	1.24	2139	8.26	3.4	10-15-19 1:45	5.05	954	8.21	12.2	10-15-19 1:45	5.03	986	8.37	114.7															
10-30-19 13:00	1.28	2160	8.27	3.6	10-15-19 2:00	5.05	914	8.16	4.1	10-15-19 2:00	5.00	987	8.38	101.2															
10-30-19 13:15	1.27	2165	8.26	2.9	10-15-19 2:15	5.04	953	8.23	4.3	10-15-19 2:15	4.99	987	8.37	111.3															
10-30-19 13:30	1.30	2168	8.26	3.7	10-15-19 2:30	5.03	953	8.23	16.9	10-15-19 2:30	4.93	986	8.37	105.3															
10-30-19 13:45	1.26	2174	8.25	2.9	10-15-19 2:45	5.03	953	8.23	6.3	10-15-19 2:45	4.86	986	8.38	111.7															
10-30-19 14:00	1.32	2165	8.27	3.9	10-15-19 3:00	5.00	952	8.24	4.6	10-15-19 3:00	4.75	987	8.39	111.6															
10-30-19 14:15	1.31	2167	8.26	3.2	10-15-19 3:15	5.01	954	8.23	7.6	10-15-19 3:15	4.75	987	8.39	112.9															
10-30-19 14:30	1.28	2170	8.27	3.2	10-15-19 3:30	4.98	953	8.22	8.0	10-15-19 3:30	4.80	989	8.39	130.3															
10-30-19 14:45	1.29	2173	8.24	3.3	10-15-19 3:45	4.94	954	8.21	7.3	10-15-19 3:45	4.88	988	8.41	123.4															
10-30-19 15:00	1.26	2175	8.25	3.4	10-15-19 4:00	4.94	954	8.22	6.9	10-15-19 4:00	4.85	988	8.39	106.9															
10-30-19 15:15	1.30	2177	8.24	3.1	10-15-19 4:15	4.92	939	8.21	4.2	10-15-19 4:15	4.82	990	8.41	132.1															
10-30-19 15:30	1.26	2180	8.24	3.5	10-15-19 4:30	4.93	939	8.24	4.1	10-15-19 4:30	4.84	992	8.43	135.8															
10-30-19 15:45	1.28	2179	8.23	3.0	10-15-19 4:45	4.93	939	8.24	4.4	10-15-19 4:45	4.98	994	8.45	160.5															
10-30-19 16:00	1.28	2179	8.24	3.1	10-15-19 5:00	4.93	939	8.24	3.9	10-15-19 5:00	5.03	996	8.47	174.3															
10-30-19 16:15	1.27	2179	8.23	2.7	10-15-19 5:15	4.89	950	8.23	4.6	10-15-19 5:15	5.08	996	8.48	186.6															
10-30-19 16:30	1.29	2181	8.24	3.1	10-15-19 5:30	4.88	950	8.24	4.6	10-15-19 5:30	5.16	998	8.50	212.3															
10-30-19 16:45	1.29	2179	8.23	3.1	10-15-19 5:45	4.86	951	8.24	4.7	10-15-19 5:45	5.21	998	8.51	228.5															
10-30-19 17:00	1.30	2181	8.23	3.2	10-15-19 6:00	4.87	951	8.25	5.1	10-15-19 6:00	5.24	998	8.52	232.8															
10-30-19 17:15	1.30	2179	8.23	3.8	10-15-19 6:15	4.83	954	8.25	18.0	10-15-19 6:15	5.05	998	8.52	237.1															
10-30-19 17:30	1.34	2178	8.24	4.0	10-15-19 6:30	4.81	954	8.26	18.1	10-15-19 6:30	5.19	999	8.54	242.6															
10-30-19 17:45	1.37	2175	8.24	3.3	10-15-19 6:45	4.79	954	8.26	18.7	10-15-19 6:45	5.30	999	8.56	289.2															
10-30-19 18:00	1.38	2176	8.24	3.9	10-15-19 7:00	4.78	954	8.26	18.5	10-15-19 7:00	5.29	999	8.57	315.7															
10-30-19 18:15	1.40	2176	8.23	3.2	10-15-19 7:15	4.76	954	8.27	6.4	10-15-19 7:15	5.19	1000	8.58	298.2															
10-30-19 18:30	1.41	2178	8.23	3.6	10-15-19 7:30	4.74	953	8.13	4.7	10-15-19 7:30	4.99	1000	8.58	273.4															
10-30-19 18:45	1.46	2173	8.24	3.3	10-15-19 7:45	4.71	954	8.26	10.8	10-15-19 7:45	5.03	1001	8.58	302.4															
10-30-19 19:00	1.51	2172	8.24	4.4	10-15-19 8:00	4.70	955	8.27	6.6	10-15-19 8:00	5.13	1001	8.60	290.1															
10-30-19 19:15	1.50	2172	8.23	3.0	10-15-19 8:15	4.69	953	8.28	6.0	10-15-19 8:15	5.14	1001	8.58	314.7															
10-30-19 19:30	1.52	2172	8.24	6.9	10-15-19 8:30	4.64	953	8.28	6.1	10-15-19 8:30	5.00	1000	8.60	295.2															
10-30-19 19:45	1.52	2171	8.24	3.3	10-15-19 8:45	4.64	953	8.28	5.7	10-15-19 8:45	4.99	1001	8.62	341.8															
10-30-19 20:00	1.57	2164	8.24	4.0	10-15-19 9:00	4.62	953	8.28	5.7	10-15-19 9:00	5.10	1002	8.64	354.7															
10-30-19 20:15	1.57	2168	8.23	3.7	10-15-19 9:15	4.60	954	8.29	7.3	10-15-19 9:15	5.02	1003	8.64	372.7															
10-30-19 20:30	1.60	2171	8.24	3.9	10-15-19 9:30	4.60	954	8.28	7.4	10-15-19 9:30	5.27	1004	8.67	428.1															
10-30-19 20:45	1.64	2166	8.23	5.1	10-15-19 9:45	4.57	954	8.29	7.5	10-15-19 9:45	5.59	1005	8.71	516.0															
10-30-19 21:00	1.71	2166	8.23	5.5	10-15-19 10:00	4.58	954	8.30	7.0	10-15-19 10:00	5.50	1002	8.70	484.9															
10-30-19 21:15	1.65	2162	8.24	4.2	10-15-19 10:15	4.56	954	8.30	7.7	10-15-19 10:15	5.04	998	8.67	442.0															
10-30-19 21:30	1.66	2164	8.24	4.9	10-15-19 10:30	4.54	955	8.26	8.0	10-15-19 10:30	5.12	1002	8.69	453.6															
10-30-19 21:45	1.61	2162	8.24	3.6	10-15-19 10:45	4.54	955	8.30	8.6	10-15-19 10:45	5.33	1001	8.71	523.7															
10-30-19 22:00	1.62	2168	8.24	4.3	10-15-19 11:00	4.53	955	8.30	7.9	10-15-19 11:00	5.46	1002	8.72	510.9															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-30-19 22:15	1.67	2168	8.24	3.7	10-15-19 11:15	4.51	925	8.31	5.9	10-15-19 11:15	5.87	999	8.76	669.3															
10-30-19 22:30	1.66	2166	8.24	5.3	10-15-19 11:30	4.50	925	8.31	6.1	10-15-19 11:30	5.87	988	8.75	670.3															
10-30-19 22:45	1.65	2165	8.24	3.2	10-15-19 11:45	4.49	925	8.31	6.1	10-15-19 11:45	5.71	987	8.74	660.6															
10-30-19 23:00	1.62	2169	8.24	4.3	10-15-19 12:00	4.48	926	8.30	6.6	10-15-19 12:00	5.71	990	8.76	675.8															
10-30-19 23:15	1.60	2173	8.23	4.1	10-15-19 12:15	4.46	954	8.31	7.2	10-15-19 12:15	5.78	987	8.76	678.5															
10-30-19 23:30	1.53	2176	8.25	3.6	10-15-19 12:30	4.44	956	8.30	10.5	10-15-19 12:30	5.90	986	8.76	687.7															
10-30-19 23:45	1.62	2176	8.24	3.5	10-15-19 12:45	4.43	955	8.31	7.0	10-15-19 12:45	6.00	984	8.77	762.6															
10-31-19 0:00	1.59	2175	8.25	4.4	10-15-19 13:00	4.43	955	8.31	7.5	10-15-19 13:00	6.03	983	8.78	760.6															
10-31-19 0:15	1.41	2167	8.25	3.4	10-15-19 13:15	4.40	957	8.31	9.1	10-15-19 13:15	6.03	982	8.78	791.1															
10-31-19 0:30	1.45	2174	8.25	4.0	10-15-19 13:30	4.41	957	8.32	8.5	10-15-19 13:30	6.08	982	8.78	767.2															
10-31-19 0:45	1.48	2177	8.25	4.1	10-15-19 13:45	4.41	957	8.30	8.1	10-15-19 13:45	6.06	981	8.78	809.9															
10-31-19 1:00	1.42	2174	8.25	3.6	10-15-19 14:00	4.38	957	8.28	8.4	10-15-19 14:00	6.12	979	8.78	816.3															
10-31-19 1:15	1.42	2179	8.26	3.0	10-15-19 14:15	4.38	957	8.32	11.1	10-15-19 14:15	6.33	978	8.79	851.1															
10-31-19 1:30	1.46	2174	8.25	4.8	10-15-19 14:30	4.37	957	8.31	11.7	10-15-19 14:30	6.52	976	8.80	863.6															
10-31-19 1:45	1.53	2178	8.25	4.1	10-15-19 14:45	4.35	957	8.32	11.8	10-15-19 14:45	6.62	974	8.81	888.4															
10-31-19 2:00	1.51	2175	8.25	4.4	10-15-19 15:00	4.34	957	8.32	11.2	10-15-19 15:00	6.61	975	8.81	877.7															
10-31-19 2:15	1.48	2173	8.25	3.5	10-15-19 15:15	4.34	958	8.32	8.3	10-15-19 15:15	6.42	976	8.80	851.1															
10-31-19 2:30	1.54	2176	8.26	4.1	10-15-19 15:30	4.33	958	8.31	8.2	10-15-19 15:30	6.34	976	8.80	812.0															
10-31-19 2:45	1.57	2175	8.25	3.2	10-15-19 15:45	4.33	958	8.32	8.2	10-15-19 15:45	6.28	976	8.80	792.2															
10-31-19 3:00	1.55	2175	8.26	4.5	10-15-19 16:00	4.31	958	8.33	8.9	10-15-19 16:00	5.95	978	8.79	702.3															
10-31-19 3:15	1.55	2174	8.25	3.7	10-15-19 16:15	4.32	958	8.31	12.7	10-15-19 16:15	5.87	979	8.79	742.9															
10-31-19 3:30	1.53	2175	8.25	4.7	10-15-19 16:30	4.32	949	8.31	8.8	10-15-19 16:30	5.83	979	8.79	729.9															
10-31-19 3:45	1.51	2175	8.25	4.1	10-15-19 16:45	4.31	958	8.32	12.7	10-15-19 16:45	5.80	980	8.79	726.9															
10-31-19 4:00	1.47	2176	8.25	3.4	10-15-19 17:00	4.32	936	8.31	9.4	10-15-19 17:00	5.85	979	8.79	710.7															
10-31-19 4:15	1.50	2175	8.25	3.9	10-15-19 17:15	4.32	918	8.31	9.8	10-15-19 17:15	5.95	979	8.80	751.1															
10-31-19 4:30	1.49	2175	8.26	3.9	10-15-19 17:30	4.32	958	8.33	11.4	10-15-19 17:30	5.98	978	8.79	766.6															
10-31-19 4:45	1.49	2177	8.26	3.8	10-15-19 17:45	4.33	959	8.33	15.8	10-15-19 17:45	5.97	978	8.79	739.6															
10-31-19 5:00	1.48	2176	8.26	5.0	10-15-19 18:00	4.35	851	8.33	11.2	10-15-19 18:00	5.95	979	8.79	743.1															
10-31-19 5:15	1.35	2175	8.25	3.8	10-15-19 18:15	4.35	851	8.33	11.2	10-15-19 18:15	5.97	979	8.80	723.7															
10-31-19 5:30	1.34	2178	8.26	4.0	10-15-19 18:30	4.38	959	8.33	17.3	10-15-19 18:30	5.94	979	8.80	742.2															
10-31-19 5:45	1.35	2177	8.25	3.4	10-15-19 18:45	4.39	959	8.32	17.5	10-15-19 18:45	6.01	978	8.81	732.8															
10-31-19 6:00	1.33	2182	8.26	4.8	10-15-19 19:00	4.41	959	8.34	18.7	10-15-19 19:00	6.07	977	8.81	706.6															
10-31-19 6:15	1.30	2178	8.26	3.8	10-15-19 19:15	4.43	959	8.34	23.2	10-15-19 19:15	6.03	978	8.81	720.3															
10-31-19 6:30	1.31	2177	8.25	4.1	10-15-19 19:30	4.46	959	8.35	16.2	10-15-19 19:30	6.02	978	8.81	746.4															
10-31-19 6:45	1.22	2176	8.25	3.4	10-15-19 19:45	4.48	945	8.33	12.4	10-15-19 19:45	6.01	979	8.81	725.3															
10-31-19 7:00	1.23	2180	8.25	5.2	10-15-19 20:00	4.49	945	8.33	12.4	10-15-19 20:00	6.03	979	8.81	678.8															
10-31-19 7:15	1.27	2178	8.26	3.3	10-15-19 20:15	4.52	942	8.35	13.8	10-15-19 20:15	6.01	979	8.81	721.3															
10-31-19 7:30	1.26	2177	8.25	4.4	10-15-19 20:30	4.55	960	8.34	19.1	10-15-19 20:30	6.02	980	8.80	661.4															
10-31-19 7:45	1.18	2179	8.25	4.2	10-15-19 20:45	4.57	959	8.35	13.8	10-15-19 20:45	5.99	980	8.80	682.1															
10-31-19 8:00	1.12	2179	8.25	4.4	10-15-19 21:00	4.59	908	8.35	15.1	10-15-19 21:00	5.97	980	8.80	695.1															
10-31-19 8:15	1.19	2178	8.25	3.5	10-15-19 21:15	4.59	908	8.35	15.1	10-15-19 21:15	5.97	980	8.80	672.4															
10-31-19 8:30	1.25	2183	8.24	3.8	10-15-19 21:30	4.60	961	8.36	22.2	10-15-19 21:30	5.94	980	8.79	662.0															
10-31-19 8:45	1.34	2182	8.23	3.8	10-15-19 21:45	4.61	961	8.35	15.6	10-15-19 21:45	5.92	981	8.79	671.1															
10-31-19 9:00	1.41	2184	8.23	4.6	10-15-19 22:00	4.59	951	8.26	118.6	10-15-19 22:00	5.89	981	8.78	633.9															
10-31-19 9:15	1.25	2168	8.25	3.5	10-15-19 22:15	4.59	960	8.31	26.7	10-15-19 22:15	5.86	982	8.78	619.8															
10-31-19 9:30	1.03	2179	8.26	3.8	10-15-19 22:30	4.60	959	8.32	23.7	10-15-19 22:30	5.81	982	8.77	562.2															
10-31-19 9:45	1.19	2180	8.25	3.7	10-15-19 22:45	4.60	959	8.31	23.6	10-15-19 22:45	5.80	981	8.77	604.9															
10-31-19 10:00	1.29	2182	8.24	4.0	10-15-19 23:00	4.61	959	8.34	56.8	10-15-19 23:00	5.81	981	8.77	587.9															
10-31-19 10:15	1.41	2185	8.23	4.7	10-15-19 23:15	4.61	959	8.34	68.0	10-15-19 23:15	5.84	980	8.78	623.2															
10-31-19 10:30	1.42	2187	8.23	5.3	10-15-19 23:30	4.60	959	8.33	53.5	10-15-19 23:30	5.85	979	8.78	583.0															
10-31-19 10:45	1.36	2186	8.24	4.6	10-15-19 23:45	4.61	959	8.35	73.9	10-15-19 23:45	5.86	979	8.79	579.9															
10-31-19 11:00	1.24	2187	8.25	3.8	10-16-19 0:00	4.62	959	8.36	119.4	10-16-19 0:00	5.84	978	8.78	546.4															
10-31-19 11:15	1.07	2182	8.25	3.6	10-16-19 0:15	4.61	959	8.36	91.6	10-16-19 0:15	5.84	977	8.79	593.4															
10-31-19 11:30	1.15	2182	8.25	4.1	10-16-19 0:30	4.61	945	8.36	99.2	10-16-19 0:30	5.84	977	8.78	561.2															
10-31-19 11:45	1.25	2185	8.25	4.5	10-16-19 0:45	4.62	945	8.37	104.3	10-16-19 0:45	5.82	977	8.78	582.8															
10-31-19 12:00	1.25	2182	8.24	4.4	10-16-19 1:00	4.61	945	8.36	87.4	10-16-19 1:00	5.80	977	8.78	576.8															
10-31-19 12:15	1.19	2181	8.24	4.4	10-16-19 1:15	4.61	946	8.37	132.2	10-16-19 1:15	5.78	977	8.78	569.0															
10-31-19 12:30	1.16	2186	8.24	4.8	10-16-19 1:30	4.61	960	8.36	87.3	10-16-19 1:30	5.77	977	8.78	526.1															
10-31-19 12:45	1.19	2184	8.23	4.8	10-16-19 1:45	4.60	960	8.37	83.6	10-16-19 1:45	5.78	977	8.79	575.6															
10-31-19 13:00	1.23	2185	8.23	5.1	10-16-19 2:00	4.61	961	8.37	107.6	10-16-19 2:00	5.77	977	8.78	563.4															
10-31-19 13:15	1.25	2182	8.23	4.8	10-16-19 2:15	4.60	961	8.37	120.2	10-16-19 2:15	5.73	978	8.79	564.5															
10-31-19 13:30	1.29	2184	8.23	6.1	10-16-19 2:30	4.60	959	8.37	91.1	10-16-19 2:30	5.72	977	8.78	549.2															
10-31-19 13:45	1.23	2184	8.23	5.7	10-16-19 2:45	4.57	960	8.35	84.7	10-16-19 2:45	5.67	978	8.79	554.2															
10-31-19 14:00	1.21	2185	8.23	5.1	10-16-19 3:00	4.56	960	8.29	97.3	10-16-19 3:00	5.71	978	8.79	544.4															
10-31-19 14:15	1.21	2185	8.22	5.1	10-16-19 3:15	4.56	960	8.35	87.3	10-16-19 3:15	5.69	978	8.79	553.6															
10-31-19 14:30	1.27	2185	8.23	5.7	10-16-19 3:30	4.53	931	8.33	70.8	10-16-19 3:30	5.66	979	8.79	538.5															
10-31-19 14:45	1.13	2185	8.23	5.0	10-16-19 3:45	4.53	950	8.36	69.0	10-16-19 3:45	5.66	979	8.79	550.2															
10-31-19 15:00	1.12	2187	8.23	5.2	10-16-19 4:00	4.52	951	8.36	82.0	10-16-19 4:00	5.70	979	8.78	539.3															
10-31-19 15:15	1.13	2185	8.22	5.4	10-16-19 4:15	4.51	951	8.37	65.7	10-16-19 4:15	5.68	979	8.79	537.6															
10-31-19 15:30	1.24	2187	8.23	5.9	10-16-19 4:30	4.47	963	8.33	23.7	10-16-19 4:30	5.66	978	8.79	522.0															
10-31-19 15:45	1.27	2184	8.22	5.5	10-16-19 4:45	4.48	948	8.36	78.8	10-16-19 4:45	5.62	979	8.78	536.0															
10-31-19 16:00	1.23	2184	8.23	5.8	10-16-19 5:00	4.42	948	8.30	78.1	10-16-19 5:00	5.53	979	8.79	530.7															
10-31-19 16:15	1.23	2184	8.22	5.4	10-16-19 5:15	4.42	948	8.37	68.0	10-16-19 5:15	5.55	980	8.79	528.7															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-31-19 16:30	1.21	2185	8.22	5.8	10-16-19 5:30	4.40	963	8.34	76.1	10-16-19 5:30	5.49	979	8.79	528.1															
10-31-19 16:45	1.25	2183	8.22	5.3	10-16-19 5:45	4.37	963	8.33	73.9	10-16-19 5:45	5.45	979	8.79	523.9															
10-31-19 17:00	1.31	2183	8.22	5.7	10-16-19 6:00	4.36	957	8.33	57.4	10-16-19 6:00	5.50	980	8.79	507.4															
10-31-19 17:15	1.39	2181	8.21	6.6	10-16-19 6:15	4.34	957	8.34	57.9	10-16-19 6:15	5.54	980	8.80	516.1															
10-31-19 17:30	1.45	2180	8.22	5.9	10-16-19 6:30	4.31	962	8.33	56.5	10-16-19 6:30	5.62	980	8.79	491.3															
10-31-19 17:45	1.42	2179	8.22	6.6	10-16-19 6:45	4.29	964	8.34	75.5	10-16-19 6:45	5.57	979	8.79	514.2															
10-31-19 18:00	1.40	2181	8.22	6.0	10-16-19 7:00	4.28	963	8.28	58.9	10-16-19 7:00	5.55	980	8.79	506.8															
10-31-19 18:15	1.45	2179	8.22	5.8	10-16-19 7:15	4.28	947	8.32	59.0	10-16-19 7:15	5.52	980	8.79	511.7															
10-31-19 18:30	1.51	2178	8.22	5.4	10-16-19 7:30	4.26	964	8.33	67.5	10-16-19 7:30	5.47	980	8.79	488.7															
10-31-19 18:45	1.54	2177	8.21	6.5	10-16-19 7:45	4.27	964	8.20	57.3	10-16-19 7:45	5.35	980	8.79	493.8															
10-31-19 19:00	1.60	2176	8.22	6.5	10-16-19 8:00	4.22	964	8.30	60.9	10-16-19 8:00	5.35	981	8.79	470.3															
10-31-19 19:15	1.63	2176	8.21	5.8	10-16-19 8:15	4.24	961	8.32	55.6	10-16-19 8:15	5.32	981	8.78	495.9															
10-31-19 19:30	1.68	2174	8.22	6.6	10-16-19 8:30	4.22	963	8.32	56.2	10-16-19 8:30	5.31	981	8.79	471.6															
10-31-19 19:45	1.68	2173	8.22	6.3	10-16-19 8:45	4.19	963	8.28	55.1	10-16-19 8:45	5.24	980	8.79	478.3															
10-31-19 20:00	1.75	2174	8.22	7.8	10-16-19 9:00	4.18	964	8.25	58.1	10-16-19 9:00	5.22	980	8.79	476.5															
10-31-19 20:15	1.84	2172	8.22	5.2	10-16-19 9:15	4.16	964	8.29	55.7	10-16-19 9:15	5.24	980	8.79	486.3															
10-31-19 20:30	1.84	2172	8.22	6.1	10-16-19 9:30	4.17	966	8.22	53.6	10-16-19 9:30	5.22	980	8.79	441.6															
10-31-19 20:45	1.78	2170	8.21	6.1	10-16-19 9:45	4.17	966	8.16	51.8	10-16-19 9:45	5.21	980	8.79	473.2															
10-31-19 21:00	1.86	2172	8.22	6.3	10-16-19 10:00	4.15	966	7.89	52.5	10-16-19 10:00	5.15	980	8.79	451.4															
10-31-19 21:15	1.87	2168	8.21	6.2	10-16-19 10:15	4.15	966	8.30	51.0	10-16-19 10:15	5.16	981	8.79	474.6															
10-31-19 21:30	1.86	2170	8.22	6.3	10-16-19 10:30	4.16	966	8.27	63.4	10-16-19 10:30	5.22	980	8.79	427.8															
10-31-19 21:45	1.90	2172	8.22	6.1	10-16-19 10:45	4.17	966	8.19	53.8	10-16-19 10:45	5.18	980	8.79	459.9															
10-31-19 22:00	1.90	2170	8.22	6.1	10-16-19 11:00	4.17	964	8.21	47.9	10-16-19 11:00	5.20	980	8.79	442.1															
10-31-19 22:15	1.91	2168	8.22	6.4	10-16-19 11:15	4.17	967	8.30	45.5	10-16-19 11:15	5.18	980	8.79	454.6															
10-31-19 22:30	1.91	2169	8.22	7.2	10-16-19 11:30	4.17	967	8.15	48.8	10-16-19 11:30	5.18	981	8.79	439.1															
10-31-19 22:45	1.91	2169	8.22	6.8	10-16-19 11:45	4.18	966	8.14	48.8	10-16-19 11:45	5.14	981	8.79	452.5															
10-31-19 23:00	1.93	2170	8.23	7.2	10-16-19 12:00	4.18	966	8.26	43.6	10-16-19 12:00	5.19	981	8.79	462.0															
10-31-19 23:15	1.88	2171	8.22	6.2	10-16-19 12:15	4.18	965	8.30	55.9	10-16-19 12:15	5.21	981	8.79	456.5															
10-31-19 23:30	1.82	2173	8.23	6.7	10-16-19 12:30	4.18	965	8.30	45.9	10-16-19 12:30	5.15	981	8.79	430.1															
10-31-19 23:45	1.83	2172	8.23	6.7	10-16-19 12:45	4.19	965	8.28	52.8	10-16-19 12:45	5.09	981	8.79	452.0															
11-1-19 0:00	1.81	2173	8.23	7.6	10-16-19 13:00	4.18	965	8.29	56.1	10-16-19 13:00	5.13	981	8.78	402.5															
11-1-19 0:15	1.74	2172	8.23	7.0	10-16-19 13:15	4.19	965	8.20	58.0	10-16-19 13:15	5.10	981	8.78	438.9															
11-1-19 0:30	1.67	2174	8.24	7.2	10-16-19 13:30	4.18	963	8.30	44.7	10-16-19 13:30	5.10	981	8.78	435.9															
11-1-19 0:45	1.68	2176	8.23	6.0	10-16-19 13:45	4.19	963	8.29	45.0	10-16-19 13:45	5.09	981	8.78	432.1															
11-1-19 1:00	1.69	2179	8.23	7.6	10-16-19 14:00	4.17	964	8.26	48.3	10-16-19 14:00	5.07	982	8.79	404.6															
11-1-19 1:15	1.70	2178	8.23	7.3	10-16-19 14:15	4.17	963	8.30	41.4	10-16-19 14:15	5.05	981	8.78	438.2															
11-1-19 1:30	1.73	2177	8.24	9.3	10-16-19 14:30	4.16	966	8.04	46.3	10-16-19 14:30	5.04	982	8.79	425.9															
11-1-19 1:45	1.64	2179	8.23	6.4	10-16-19 14:45	4.15	966	8.13	46.8	10-16-19 14:45	5.05	981	8.78	434.8															
11-1-19 2:00	1.71	2179	8.24	7.2	10-16-19 15:00	4.14	968	7.64	41.3	10-16-19 15:00	5.04	981	8.78	419.6															
11-1-19 2:15	1.67	2174	8.23	6.7	10-16-19 15:15	4.14	964	8.20	39.6	10-16-19 15:15	5.04	981	8.78	428.5															
11-1-19 2:30	1.71	2175	8.24	7.9	10-16-19 15:30	4.14	964	8.08	41.7	10-16-19 15:30	5.06	982	8.78	399.5															
11-1-19 2:45	1.66	2173	8.23	7.0	10-16-19 15:45	4.14	966	7.72	41.5	10-16-19 15:45	5.05	981	8.78	428.6															
11-1-19 3:00	1.64	2175	8.24	7.7	10-16-19 16:00	4.14	963	7.94	40.9	10-16-19 16:00	5.04	981	8.78	407.0															
11-1-19 3:15	1.66	2173	8.24	6.7	10-16-19 16:15	4.14	962	8.09	38.8	10-16-19 16:15	5.06	981	8.78	426.1															
11-1-19 3:30	1.69	2174	8.24	7.6	10-16-19 16:30	4.14	955	8.23	37.9	10-16-19 16:30	5.06	981	8.78	391.6															
11-1-19 3:45	1.64	2174	8.24	6.4	10-16-19 16:45	4.15	954	8.21	37.3	10-16-19 16:45	5.07	980	8.78	405.9															
11-1-19 4:00	1.68	2174	8.23	8.2	10-16-19 17:00	4.15	954	8.27	39.4	10-16-19 17:00	5.05	981	8.78	384.9															
11-1-19 4:15	1.61	2171	8.23	6.9	10-16-19 17:15	4.16	954	8.27	38.4	10-16-19 17:15	5.07	981	8.78	414.0															
11-1-19 4:30	1.66	2175	8.24	7.5	10-16-19 17:30	4.15	962	8.14	35.2	10-16-19 17:30	5.07	981	8.78	400.8															
11-1-19 4:45	1.69	2173	8.24	6.9	10-16-19 17:45	4.17	963	8.21	37.4	10-16-19 17:45	5.09	981	8.78	408.4															
11-1-19 5:00	1.58	2174	8.25	7.5	10-16-19 18:00	4.18	962	8.26	34.6	10-16-19 18:00	5.08	981	8.78	391.6															
11-1-19 5:15	1.55	2175	8.23	6.3	10-16-19 18:15	4.23	961	8.22	34.6	10-16-19 18:15	5.16	981	8.78	397.8															
11-1-19 5:30	1.55	2176	8.24	8.5	10-16-19 18:30	4.25	961	8.29	41.0	10-16-19 18:30	5.20	981	8.78	377.0															
11-1-19 5:45	1.47	2177	8.23	7.1	10-16-19 18:45	4.29	956	8.31	34.5	10-16-19 18:45	5.34	981	8.78	394.0															
11-1-19 6:00	1.68	2175	8.23	7.4	10-16-19 19:00	4.36	955	8.27	35.0	10-16-19 19:00	5.52	980	8.77	371.0															
11-1-19 6:15	1.69	2173	8.22	7.5	10-16-19 19:15	4.41	955	8.29	33.6	10-16-19 19:15	5.61	979	8.77	407.4															
11-1-19 6:30	1.66	2175	8.23	7.8	10-16-19 19:30	4.49	959	8.26	33.7	10-16-19 19:30	5.77	980	8.77	382.0															
11-1-19 6:45	1.62	2175	8.23	7.4	10-16-19 19:45	4.51	959	8.22	41.6	10-16-19 19:45	5.86	980	8.77	396.7															
11-1-19 7:00	1.60	2173	8.24	7.8	10-16-19 20:00	4.59	957	8.23	35.4	10-16-19 20:00	5.92	980	8.77	367.5															
11-1-19 7:15	1.58	2174	8.23	7.5	10-16-19 20:15	4.66	956	8.20	32.2	10-16-19 20:15	6.10	979	8.77	390.0															
11-1-19 7:30	1.59	2174	8.24	7.7	10-16-19 20:30	4.73	940	8.26	27.7	10-16-19 20:30	6.36	977	8.76	362.0															
11-1-19 7:45	1.59	2173	8.24	7.4	10-16-19 20:45	4.79	940	8.25	25.1	10-16-19 20:45	6.32	979	8.76	383.0															
11-1-19 8:00	1.59	2174	8.24	9.1	10-16-19 21:00	4.82	941	8.23	31.0	10-16-19 21:00	6.44	980	8.76	359.2															
11-1-19 8:15	1.52	2173	8.24	6.7	10-16-19 21:15	4.87	939	8.20	26.3	10-16-19 21:15	6.53	980	8.76	375.2															
11-1-19 8:30	1.50	2173	8.24	9.7	10-16-19 21:30	4.89	951	8.21	30.8	10-16-19 21:30	6.75	980	8.75	360.1															
11-1-19 8:45	1.47	2175	8.23	7.7	10-16-19 21:45	4.91	950	8.22	25.9	10-16-19 21:45	6.72	979	8.75	373.7															
11-1-19 9:00	1.48	2176	8.24	7.8	10-16-19 22:00	4.96	950	8.22	29.2	10-16-19 22:00	6.70	978	8.76	368.9															
11-1-19 9:15	1.49	2175	8.23	7.5	10-16-19 22:15	4.99	950	8.20	23.1	10-16-19 22:15	6.66	979	8.76	371.2															
11-1-19 9:30	1.49	2176	8.23	8.5	10-16-19 22:30	5.02	948	8.16	23.7	10-16-19 22:30	6.56	980	8.76	352.2															
11-1-19 9:45	1.45	2175	8.23	7.3	10-16-19 22:45	5.05	948	8.21	33.8	10-16-19 22:45	6.61	979	8.76	372.5															
11-1-19 10:00	1.43	2177	8.23	8.0	10-16-19 23:00	5.06	946	8.17	33.8	10-16-19 23:00	6.68	978	8.76	358.6															
11-1-19 10:15	1.45	2176	8.23	7.4	10-16-19 23:15	5.09	945	8.21	34.1	10-16-19 23:15	6.75	979	8.76	377.1															
11-1-19 10:30	1.37	2176	8.24	7.6	10-16-19 23:30	5.09	946	8.18	23.3	10-16-19 23:30	6.80	978	8.76	357.0															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-1-19 10:45	1.27	2177	8.23	7.6	10-16-19 23:45	5.12	943	8.18	22.1	10-16-19 23:45	6.69	978	8.76	365.9															
11-1-19 11:00	1.32	2179	8.23	7.3	10-17-19 0:00	5.14	943	8.18	22.6	10-17-19 0:00	6.82	979	8.76	352.8															
11-1-19 11:15	1.40	2177	8.23	8.1	10-17-19 0:15	5.16	941	8.19	21.2	10-17-19 0:15	6.79	978	8.76	368.1															
11-1-19 11:30	1.37	2177	8.23	8.1	10-17-19 0:30	5.18	932	8.18	25.1	10-17-19 0:30	6.80	978	8.76	347.9															
11-1-19 11:45	1.37	2176	8.22	6.9	10-17-19 0:45	5.20	930	8.22	21.5	10-17-19 0:45	6.84	979	8.75	352.5															
11-1-19 12:00	1.36	2178	8.22	8.4	10-17-19 1:00	5.22	930	8.21	21.1	10-17-19 1:00	6.79	978	8.75	338.5															
11-1-19 12:15	1.38	2178	8.22	7.6	10-17-19 1:15	5.22	929	8.22	19.2	10-17-19 1:15	6.68	979	8.76	350.9															
11-1-19 12:30	1.35	2177	8.23	8.1	10-17-19 1:30	5.24	941	8.21	21.1	10-17-19 1:30	6.62	979	8.76	356.3															
11-1-19 12:45	1.33	2177	8.23	7.4	10-17-19 1:45	5.25	940	8.21	18.4	10-17-19 1:45	6.63	979	8.75	354.9															
11-1-19 13:00	1.32	2179	8.23	7.5	10-17-19 2:00	5.27	938	8.23	19.1	10-17-19 2:00	6.68	979	8.75	350.6															
11-1-19 13:15	1.31	2179	8.22	8.0	10-17-19 2:15	5.28	937	8.22	20.2	10-17-19 2:15	6.67	979	8.75	343.9															
11-1-19 13:30	1.32	2178	8.23	8.3	10-17-19 2:30	5.29	919	8.24	18.4	10-17-19 2:30	6.62	979	8.76	322.8															
11-1-19 13:45	1.31	2177	8.23	7.5	10-17-19 2:45	5.30	919	8.22	20.1	10-17-19 2:45	6.58	979	8.76	345.2															
11-1-19 14:00	1.34	2177	8.22	8.4	10-17-19 3:00	5.31	918	8.23	19.9	10-17-19 3:00	6.56	980	8.76	329.1															
11-1-19 14:15	1.31	2177	8.23	7.8	10-17-19 3:15	5.33	917	8.23	26.2	10-17-19 3:15	6.48	979	8.76	343.7															
11-1-19 14:30	1.24	2179	8.23	7.1	10-17-19 3:30	5.36	925	8.25	18.8	10-17-19 3:30	6.44	979	8.76	315.8															
11-1-19 14:45	1.26	2179	8.23	7.9	10-17-19 3:45	5.37	927	8.25	24.3	10-17-19 3:45	6.41	980	8.75	334.2															
11-1-19 15:00	1.27	2178	8.23	8.3	10-17-19 4:00	5.39	925	8.27	30.9	10-17-19 4:00	6.41	980	8.75	311.7															
11-1-19 15:15	1.24	2178	8.22	7.5	10-17-19 4:15	5.41	924	8.28	28.4	10-17-19 4:15	6.43	980	8.76	340.1															
11-1-19 15:30	1.04	2174	8.24	7.5	10-17-19 4:30	5.41	922	8.28	31.2	10-17-19 4:30	6.41	980	8.75	309.9															
11-1-19 15:45	1.01	2186	8.23	7.2	10-17-19 4:45	5.44	920	8.31	31.3	10-17-19 4:45	6.34	979	8.76	327.1															
11-1-19 16:00	1.06	2181	8.23	8.3	10-17-19 5:00	5.45	920	8.30	29.2	10-17-19 5:00	6.38	980	8.75	308.0															
11-1-19 16:15	1.08	2180	8.23	7.1	10-17-19 5:15	5.47	919	8.31	30.2	10-17-19 5:15	6.35	980	8.75	330.5															
11-1-19 16:30	0.86	2181	8.24	7.5	10-17-19 5:30	5.47	917	8.31	19.6	10-17-19 5:30	6.33	980	8.75	311.9															
11-1-19 16:45	1.14	2187	8.23	8.0	10-17-19 5:45	5.51	914	8.33	18.3	10-17-19 5:45	6.28	980	8.75	326.6															
11-1-19 17:00	1.41	2180	8.22	10.3	10-17-19 6:00	5.51	913	8.33	21.0	10-17-19 6:00	6.29	980	8.75	313.4															
11-1-19 17:15	1.41	2175	8.22	8.0	10-17-19 6:15	5.52	913	8.33	21.1	10-17-19 6:15	6.25	980	8.75	326.4															
11-1-19 17:30	1.44	2178	8.22	9.1	10-17-19 6:30	5.54	912	8.34	22.7	10-17-19 6:30	6.26	980	8.75	298.0															
11-1-19 17:45	1.39	2175	8.22	7.7	10-17-19 6:45	5.56	914	8.35	22.0	10-17-19 6:45	6.23	980	8.75	323.1															
11-1-19 18:00	1.26	2176	8.23	8.2	10-17-19 7:00	5.57	912	8.36	20.9	10-17-19 7:00	6.21	980	8.75	300.7															
11-1-19 18:15	1.29	2175	8.22	8.8	10-17-19 7:15	5.60	910	8.37	24.3	10-17-19 7:15	6.22	979	8.75	329.5															
11-1-19 18:30	1.34	2176	8.22	9.5	10-17-19 7:30	5.59	908	8.36	23.9	10-17-19 7:30	6.16	979	8.75	317.2															
11-1-19 18:45	1.38	2174	8.21	7.2	10-17-19 7:45	5.62	903	8.38	28.0	10-17-19 7:45	6.12	980	8.75	332.8															
11-1-19 19:00	1.17	2175	8.24	5.3	10-17-19 8:00	5.62	902	8.38	26.4	10-17-19 8:00	6.12	980	8.75	312.2															
11-1-19 19:15	1.16	2175	8.23	5.8	10-17-19 8:15	5.61	902	8.39	26.1	10-17-19 8:15	6.12	980	8.75	326.3															
11-1-19 19:30	1.20	2175	8.23	5.1	10-17-19 8:30	5.62	904	8.39	24.2	10-17-19 8:30	6.11	980	8.74	300.2															
11-1-19 19:45	1.23	2173	8.23	5.8	10-17-19 8:45	5.62	902	8.39	26.5	10-17-19 8:45	6.08	980	8.75	326.3															
11-1-19 20:00	1.29	2176	8.23	5.1	10-17-19 9:00	5.62	901	8.40	28.7	10-17-19 9:00	6.08	980	8.75	306.5															
11-1-19 20:15	1.41	2174	8.21	6.0	10-17-19 9:15	5.64	897	8.40	30.6	10-17-19 9:15	6.07	980	8.75	320.7															
11-1-19 20:30	1.51	2174	8.22	5.7	10-17-19 9:30	5.65	893	8.40	15.3	10-17-19 9:30	6.04	980	8.75	300.5															
11-1-19 20:45	1.63	2169	8.22	6.1	10-17-19 9:45	5.65	892	8.41	341.1	10-17-19 9:45	6.01	980	8.74	313.6															
11-1-19 21:00	1.69	2169	8.23	5.2	10-17-19 10:00	5.66	890	8.41	45.7	10-17-19 10:00	5.99	980	8.74	309.3															
11-1-19 21:15	1.70	2168	8.22	5.8	10-17-19 10:15	5.65	889	8.41	73.2	10-17-19 10:15	6.00	980	8.74	311.3															
11-1-19 21:30	1.80	2167	8.22	5.1	10-17-19 10:30	5.65	892	8.41	36.4	10-17-19 10:30	5.99	980	8.74	290.4															
11-1-19 21:45	1.82	2169	8.22	6.3	10-17-19 10:45	5.64	890	8.41	39.7	10-17-19 10:45	5.98	980	8.74	315.9															
11-1-19 22:00	1.80	2169	8.23	5.3	10-17-19 11:00	5.64	889	8.41	38.7	10-17-19 11:00	5.95	980	8.74	298.5															
11-1-19 22:15	1.76	2169	8.23	6.4	10-17-19 11:15	5.61	888	8.41	36.4	10-17-19 11:15	5.95	980	8.74	312.3															
11-1-19 22:30	1.82	2170	8.23	5.6	10-17-19 11:30	5.54	883	8.35	46.0	10-17-19 11:30	5.93	980	8.73	309.6															
11-1-19 22:45	1.92	2168	8.21	6.0	10-17-19 11:45	5.51	883	8.33	50.0	10-17-19 11:45	5.88	980	8.74	303.3															
11-1-19 23:00	1.90	2169	8.23	5.6	10-17-19 12:00	5.48	882	8.34	36.8	10-17-19 12:00	5.85	980	8.74	287.2															
11-1-19 23:15	1.80	2168	8.23	5.8	10-17-19 12:15	5.42	882	8.33	43.8	10-17-19 12:15	5.84	980	8.74	305.8															
11-1-19 23:30	1.74	2169	8.23	5.0	10-17-19 12:30	5.40	881	8.34	37.4	10-17-19 12:30	5.82	981	8.74	290.2															
11-1-19 23:45	1.72	2168	8.22	6.7	10-17-19 12:45	5.39	880	8.35	34.6	10-17-19 12:45	5.82	980	8.74	305.3															
11-2-19 0:00	1.73	2172	8.23	5.9	10-17-19 13:00	5.39	881	8.27	38.6	10-17-19 13:00	5.82	980	8.75	283.5															
11-2-19 0:15	1.76	2174	8.23	6.8	10-17-19 13:15	5.34	881	8.31	32.3	10-17-19 13:15	5.80	981	8.75	305.4															
11-2-19 0:30	1.69	2174	8.24	6.3	10-17-19 13:30	5.37	881	8.31	40.8	10-17-19 13:30	5.78	980	8.75	293.8															
11-2-19 0:45	1.70	2175	8.23	6.7	10-17-19 13:45	5.36	878	8.31	49.4	10-17-19 13:45	5.77	981	8.74	309.2															
11-2-19 1:00	1.71	2175	8.24	5.7	10-17-19 14:00	5.34	839	8.36	37.2	10-17-19 14:00	5.76	980	8.74	291.9															
11-2-19 1:15	1.70	2175	8.23	6.9	10-17-19 14:15	5.31	876	8.29	37.8	10-17-19 14:15	5.73	981	8.74	299.7															
11-2-19 1:30	1.71	2176	8.24	6.4	10-17-19 14:30	5.23	875	8.29	40.9	10-17-19 14:30	5.73	980	8.75	299.3															
11-2-19 1:45	1.75	2174	8.23	7.2	10-17-19 14:45	5.26	874	8.31	44.2	10-17-19 14:45	5.72	980	8.75	301.9															
11-2-19 2:00	1.71	2175	8.24	5.2	10-17-19 15:00	5.15	873	8.29	43.0	10-17-19 15:00	5.69	981	8.74	287.2															
11-2-19 2:15	1.79	2172	8.24	6.3	10-17-19 15:15	5.11	860	8.35	35.4	10-17-19 15:15	5.66	981	8.74	300.9															
11-2-19 2:30	1.76	2172	8.24	5.7	10-17-19 15:30	5.11	873	8.32	44.4	10-17-19 15:30	5.65	981	8.75	296.2															
11-2-19 2:45	1.67	2173	8.24	6.0	10-17-19 15:45	5.15	855	8.36	38.1	10-17-19 15:45	5.62	981	8.75	297.4															
11-2-19 3:00	1.60	2173	8.25	5.3	10-17-19 16:00	5.24	853	8.38	42.9	10-17-19 16:00	5.61	981	8.74	283.2															
11-2-19 3:15	1.57	2170	8.23	6.1	10-17-19 16:15	5.27	853	8.33	37.6	10-17-19 16:15	5.62	981	8.74	300.6															
11-2-19 3:30	1.50	2173	8.24	5.4	10-17-19 16:30	5.26	868	8.37	20.8	10-17-19 16:30	5.59	981	8.75	278.2															
11-2-19 3:45	1.51	2174	8.24	6.4	10-17-19 16:45	5.28	866	8.40	45.3	10-17-19 16:45	5.59	981	8.74	293.6															
11-2-19 4:00	1.38	2170	8.25	5.0	10-17-19 17:00	5.37	863	8.38	42.0	10-17-19 17:00	5.63	980	8.75	274.8															
11-2-19 4:15	1.42	2176	8.24	6.0	10-17-19 17:15	6.85	0	8.33	0.0	10-17-19 17:15	5.64	955	8.75	289.7															
11-2-19 4:30	1.43	2180	8.25	5.5	10-17-19 17:30	9.38	0	7.74	0.0	10-17-19 17:30	5.62	967	8.74	272.9															
11-2-19 4:45	1.20	2173	8.25	6.6	10-17-19 17:45	10.71	0	7.75	0.3	10-17-19 17:45	5.67	963	8.74	271.9															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-2-19 5:00	1.18	2197	8.26	5.7	10-17-19 18:00	11.06	0	7.81	1.2	10-17-19 18:00	5.83	928	8.74	274.0															
11-2-19 5:15	1.64	2180	8.24	6.0	10-17-19 18:15	12.48	0	7.39	1.1	10-17-19 18:15	6.02	976	8.73	268.0															
11-2-19 5:30	1.35	2178	8.25	4.6	10-17-19 18:30	15.45	0	6.65	1.3	10-17-19 18:30	6.26	976	8.73	265.3															
11-2-19 5:45	1.15	2174	8.25	5.7	10-17-19 18:45	18.48	0	6.53	1.7	10-17-19 18:45	6.22	976	8.73	276.6															
11-2-19 6:00	1.27	2177	8.25	4.9	10-17-19 19:00	19.13	0	6.44	1.9	10-17-19 19:00	6.15	976	8.74	269.2															
11-2-19 6:15	1.52	2185	8.24	6.9	10-17-19 19:15	18.02	0	6.39	2.0	10-17-19 19:15	6.13	974	8.74	278.0															
11-2-19 6:30	1.74	2177	8.25	5.7	10-17-19 19:30	15.63	0	7.11	1.8	10-17-19 19:30	6.31	979	8.75	263.4															
11-2-19 6:45	1.83	2173	8.25	6.7	10-17-19 19:45	13.26	0	6.94	1.9	10-17-19 19:45	7.68	977	8.73	261.3															
11-2-19 7:00	1.83	2173	8.24	6.1	10-17-19 20:00	12.37	0	7.16	1.7	10-17-19 20:00	6.89	971	8.74	266.9															
11-2-19 7:15	1.83	2173	8.24	6.2	10-17-19 20:15	11.86	0	6.97	1.5	10-17-19 20:15	6.92	976	8.74	261.3															
11-2-19 7:30	1.81	2175	8.25	5.7	10-17-19 20:30	11.82	0	6.20	1.8	10-17-19 20:30	7.07	976	8.74	261.6															
11-2-19 7:45	1.62	2181	8.25	6.9	10-17-19 20:45	14.14	0	6.45	1.7	10-17-19 20:45	7.30	978	8.73	273.7															
11-2-19 8:00	0.99	2180	8.27	4.8	10-17-19 21:00	12.64	0	6.37	1.7	10-17-19 21:00	7.32	971	8.73	249.7															
11-2-19 8:15	1.16	2177	8.25	5.7	10-17-19 21:15	14.22	0	4.22	2.0	10-17-19 21:15	7.15	976	8.73	270.2															
11-2-19 8:30	0.93	2171	8.26	4.3	10-17-19 21:30	16.25	0	0.00	2.0	10-17-19 21:30	7.10	976	8.74	265.3															
11-2-19 8:45	1.28	2178	8.25	5.8	10-17-19 21:45	17.10	0	0.00	2.1	10-17-19 21:45	7.49	980	8.73	265.1															
11-2-19 9:00	1.35	2182	8.26	5.5	10-17-19 22:00	16.53	0	0.00	1.9	10-17-19 22:00	7.60	975	8.73	276.8															
11-2-19 9:15	1.66	2178	8.26	6.5	10-17-19 22:15	15.37	0	0.00	2.0	10-17-19 22:15	7.43	977	8.73	266.5															
11-2-19 9:30	1.40	2162	8.25	4.7	10-17-19 22:30	14.81	0	0.00	1.8	10-17-19 22:30	7.43	975	8.73	254.6															
11-2-19 9:45	1.30	2178	8.25	6.1	10-17-19 22:45	14.60	0	0.00	1.8	10-17-19 22:45	7.41	975	8.73	263.4															
11-2-19 10:00	1.09	2176	8.26	4.3	10-17-19 23:00	13.97	0	0.00	1.8	10-17-19 23:00	7.49	977	8.71	232.0															
11-2-19 10:15	1.35	2180	8.26	6.5	10-17-19 23:15	13.84	0	0.00	1.7	10-17-19 23:15	7.46	978	8.72	244.9															
11-2-19 10:30	1.38	2166	8.25	4.4	10-17-19 23:30	13.63	0	0.00	1.6	10-17-19 23:30	7.44	978	8.71	218.6															
11-2-19 10:45	1.24	2181	8.26	5.6	10-17-19 23:45	13.52	0	0.00	1.7	10-17-19 23:45	7.38	978	8.72	255.0															
11-2-19 11:00	1.30	2172	8.25	4.7	10-18-19 0:00	12.52	0	7.68	1.7	10-18-19 0:00	7.32	975	8.72	253.9															
11-2-19 11:15	1.28	2175	8.24	5.2	10-18-19 0:15	11.57	0	7.68	1.7	10-18-19 0:15	7.38	978	8.72	236.6															
11-2-19 11:30	1.44	2184	8.25	5.2	10-18-19 0:30	9.85	1	7.44	1.4	10-18-19 0:30	7.29	975	8.72	241.6															
11-2-19 11:45	1.46	2181	8.25	6.0	10-18-19 0:45	10.01	0	6.85	1.5	10-18-19 0:45	7.27	980	8.72	235.7															
11-2-19 12:00	1.36	2178	8.25	5.1	10-18-19 1:00	10.60	0	6.99	1.5	10-18-19 1:00	7.24	980	8.72	237.8															
11-2-19 12:15	1.19	2174	8.25	5.3	10-18-19 1:15	10.73	0	7.09	1.5	10-18-19 1:15	7.21	980	8.72	233.4															
11-2-19 12:30	1.06	2174	8.26	4.2	10-18-19 1:30	10.54	0	6.99	1.4	10-18-19 1:30	7.24	979	8.72	234.4															
11-2-19 12:45	1.06	2177	8.25	5.3	10-18-19 1:45	10.08	0	7.12	1.5	10-18-19 1:45	7.18	980	8.72	240.5															
11-2-19 13:00	1.17	2176	8.26	4.8	10-18-19 2:00	9.55	0	7.20	1.4	10-18-19 2:00	7.13	979	8.72	231.9															
11-2-19 13:15	1.40	2179	8.26	4.9	10-18-19 2:15	9.68	0	7.12	1.4	10-18-19 2:15	7.13	979	8.72	233.2															
11-2-19 13:30	1.62	2177	8.26	5.4	10-18-19 2:30	9.55	0	6.94	1.4	10-18-19 2:30	7.08	979	8.72	231.4															
11-2-19 13:45	1.18	2172	8.25	5.3	10-18-19 2:45	9.43	0	7.20	1.4	10-18-19 2:45	7.00	980	8.72	226.1															
11-2-19 14:00	1.11	2176	8.25	4.0	10-18-19 3:00	9.34	0	7.23	1.5	10-18-19 3:00	6.97	980	8.72	225.9															
11-2-19 14:15	1.19	2174	8.25	4.8	10-18-19 3:15	9.02	0	7.24	1.4	10-18-19 3:15	6.95	980	8.72	233.1															
11-2-19 14:30	1.27	2174	8.25	4.5	10-18-19 3:30	8.96	0	7.26	1.4	10-18-19 3:30	6.94	980	8.72	222.0															
11-2-19 14:45	1.56	2177	8.26	6.5	10-18-19 3:45	8.96	0	7.23	1.4	10-18-19 3:45	6.82	980	8.72	221.3															
11-2-19 15:00	1.61	2175	8.26	5.6	10-18-19 4:00	8.49	0	7.34	1.4	10-18-19 4:00	6.80	980	8.73	225.9															
11-2-19 15:15	1.45	2173	8.25	5.9	10-18-19 4:15	8.16	0	7.39	1.4	10-18-19 4:15	6.79	980	8.73	230.9															
11-2-19 15:30	1.58	2175	8.26	5.5	10-18-19 4:30	7.82	0	7.47	1.3	10-18-19 4:30	6.76	980	8.73	230.2															
11-2-19 15:45	1.31	2172	8.26	5.1	10-18-19 4:45	7.37	0	7.53	1.2	10-18-19 4:45	6.68	980	8.73	236.1															
11-2-19 16:00	1.32	2173	8.26	4.9	10-18-19 5:00	6.94	0	7.60	1.3	10-18-19 5:00	6.69	980	8.73	225.7															
11-2-19 16:15	1.34	2175	8.25	5.8	10-18-19 5:15	6.52	0	7.62	1.3	10-18-19 5:15	6.61	980	8.73	235.8															
11-2-19 16:30	1.36	2174	8.25	5.0	10-18-19 5:30	5.91	0	7.76	1.2	10-18-19 5:30	6.63	980	8.73	222.6															
11-2-19 16:45	1.35	2173	8.25	6.0	10-18-19 5:45	5.58	0	7.80	1.1	10-18-19 5:45	6.57	980	8.73	225.7															
11-2-19 17:00	1.39	2173	8.26	5.1	10-18-19 6:00	5.02	0	7.96	1.1	10-18-19 6:00	6.56	980	8.73	226.0															
11-2-19 17:15	1.39	2175	8.25	5.3	10-18-19 6:15	4.62	0	8.05	1.0	10-18-19 6:15	6.50	980	8.73	224.4															
11-2-19 17:30	1.56	2177	8.26	5.7	10-18-19 6:30	4.39	0	8.13	42.9	10-18-19 6:30	6.45	980	8.73	219.5															
11-2-19 17:45	1.45	2173	8.25	5.8	10-18-19 6:45	4.34	0	8.16	46.7	10-18-19 6:45	6.44	980	8.73	225.3															
11-2-19 18:00	1.40	2174	8.26	4.7	10-18-19 7:00	4.15	0	8.20	46.2	10-18-19 7:00	6.36	981	8.73	222.0															
11-2-19 18:15	1.38	2171	8.25	5.3	10-18-19 7:15	4.03	0	8.18	36.3	10-18-19 7:15	6.34	980	8.73	230.9															
11-2-19 18:30	1.41	2174	8.26	4.9	10-18-19 7:30	4.20	0	8.24	2.0	10-18-19 7:30	6.31	981	8.73	232.0															
11-2-19 18:45	1.43	2173	8.26	5.1	10-18-19 7:45	4.21	0	8.17	1.1	10-18-19 7:45	6.32	981	8.73	223.3															
11-2-19 19:00	1.46	2174	8.26	4.6	10-18-19 8:00	4.36	0	8.25	1.2	10-18-19 8:00	6.30	981	8.73	226.2															
11-2-19 19:15	1.53	2172	8.25	5.5	10-18-19 8:15	4.31	0	8.36	0.0	10-18-19 8:15	6.27	980	8.73	224.1															
11-2-19 19:30	1.55	2173	8.25	4.7	10-18-19 8:30	4.15	1	8.46	2.1	10-18-19 8:30	6.24	980	8.72	219.3															
11-2-19 19:45	1.58	2171	8.25	5.8	10-18-19 8:45	4.14	1	8.48	1.8	10-18-19 8:45	6.23	981	8.72	226.9															
11-2-19 20:00	1.64	2172	8.25	5.0	10-18-19 9:00	4.12	2	8.39	2.5	10-18-19 9:00	6.24	980	8.71	209.3															
11-2-19 20:15	1.71	2177	8.26	5.8	10-18-19 9:15	4.14	2	8.50	2.1	10-18-19 9:15	6.23	978	8.70	203.3															
11-2-19 20:30	1.92	2173	8.26	6.0	10-18-19 9:30	4.16	2	8.40	0.6	10-18-19 9:30	6.25	979	8.70	212.0															
11-2-19 20:45	1.94	2170	8.26	6.8	10-18-19 9:45	4.31	0	8.30	0.6	10-18-19 9:45	6.27	980	8.70	214.5															
11-2-19 21:00	2.01	2171	8.26	6.1	10-18-19 10:00	4.36	0	8.29	0.7	10-18-19 10:00	6.25	979	8.70	193.1															
11-2-19 21:15	2.05	2170	8.27	6.2	10-18-19 10:15	4.29	1	8.42	0.5	10-18-19 10:15	6.19	977	8.68	182.5															
11-2-19 21:30	2.00	2172	8.28	7.3	10-18-19 10:30	4.20	1	8.45	32.1	10-18-19 10:30	6.18	980	8.69	209.2															
11-2-19 21:45	1.97	2172	8.28	5.8	10-18-19 10:45	4.05	2	8.44	1.9	10-18-19 10:45	6.21	980	8.71	214.2															
11-2-19 22:00	1.96	2172	8.27	6.9	10-18-19 11:00	4.12	1	8.37	2.0	10-18-19 11:00	6.17	979	8.70	179.3															
11-2-19 22:15	1.93	2171	8.27	6.3	10-18-19 11:15	4.14	1	8.38	2.2	10-18-19 11:15	6.08	977	8.68	176.1															
11-2-19 22:30	1.88	2172	8.27	5.7	10-18-19 11:30	4.10	0	8.27	1.2	10-18-19 11:30	6.06	977	8.68	172.1															
11-2-19 22:45	1.92	2171	8.26	6.1	10-18-19 11:45	4.12	0	8.35	0.8	10-18-19 11:45	6.07	979	8.68	189.6															
11-2-19 23:00	1.88	2170	8.28	5.0	10-18-19 12:00	4.15	0	8.31	0.8	10-18-19 12:00	6.07	979	8.69	169.2															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-2-19 23:15	1.83	2174	8.28	6.1	10-18-19 12:15	4.09	0	8.42	1.2	10-18-19 12:15	6.04	979	8.68	177.8															
11-2-19 23:30	1.95	2172	8.27	6.1	10-18-19 12:30	3.94	1	8.45	29.2	10-18-19 12:30	6.03	980	8.68	189.7															
11-2-19 23:45	1.98	2170	8.27	6.7	10-18-19 12:45	3.72	2	8.52	21.3	10-18-19 12:45	5.98	991	8.68	174.4															
11-3-19 0:00	1.97	2173	8.27	5.6	10-18-19 13:00	3.56	2	8.50	34.2	10-18-19 13:00	6.02	981	8.68	199.1															
11-3-19 0:15	1.87	2166	8.28	11.3	10-18-19 13:15	3.53	2	8.59	2.2	10-18-19 13:15	6.01	981	8.69	189.9															
11-3-19 0:30	1.89	2173	8.29	5.1	10-18-19 13:30	3.37	2	8.51	1.3	10-18-19 13:30	6.00	980	8.70	192.1															
11-3-19 0:45	1.89	2166	8.28	5.8	10-18-19 13:45	3.19	2	8.53	1.1	10-18-19 13:45	5.96	980	8.70	186.3															
11-3-19 1:00	1.90	2171	8.28	5.5	10-18-19 14:00	3.00	2	8.56	1.0	10-18-19 14:00	5.93	981	8.70	184.1															
11-3-19 1:15	1.76	2172	8.28	6.0	10-18-19 14:15	3.01	2	8.59	0.9	10-18-19 14:15	5.95	981	8.70	193.6															
11-3-19 1:30	1.50	2163	8.29	4.4	10-18-19 14:30	2.97	2	8.37	1.5	10-18-19 14:30	5.97	981	8.70	192.7															
11-3-19 1:45	1.78	2175	8.28	6.7	10-18-19 14:45	2.86	2	8.52	1.5	10-18-19 14:45	5.94	981	8.70	192.8															
11-3-19 2:00	1.92	2172	8.28	6.4	10-18-19 15:00	2.88	2	8.53	1.4	10-18-19 15:00	5.90	981	8.71	198.9															
11-3-19 2:15	2.00	2172	8.30	6.0	10-18-19 15:15	2.97	2	8.62	0.5	10-18-19 15:15	5.93	981	8.71	198.4															
11-3-19 2:30	2.02	2172	8.30	5.8	10-18-19 15:30	3.99	0	8.03	1.1	10-18-19 15:30	5.91	981	8.70	195.5															
11-3-19 2:45	2.04	2169	8.29	6.3	10-18-19 15:45	4.00	0	8.12	1.0	10-18-19 15:45	5.89	981	8.70	195.6															
11-3-19 3:00	2.05	2170	8.29	5.7	10-18-19 16:00	3.61	0	8.14	1.0	10-18-19 16:00	5.89	981	8.70	186.8															
11-3-19 3:15	1.99	2169	8.29	5.8	10-18-19 16:15	3.34	0	8.24	0.9	10-18-19 16:15	5.87	981	8.70	189.0															
11-3-19 3:30	1.87	2170	8.29	4.9	10-18-19 16:30	3.48	0	8.34	22.8	10-18-19 16:30	5.88	981	8.71	200.2															
11-3-19 3:45	1.95	2169	8.28	5.5	10-18-19 16:45	3.81	0	8.23	1.7	10-18-19 16:45	5.86	981	8.71	197.8															
11-3-19 4:00	1.79	2145	8.29	5.3	10-18-19 17:00	4.87	0	8.13	1.8	10-18-19 17:00	5.93	981	8.71	195.8															
11-3-19 4:15	1.90	2165	8.29	5.6	10-18-19 17:15	4.85	0	8.04	1.9	10-18-19 17:15	5.89	981	8.72	190.5															
11-3-19 4:30	1.94	2167	8.29	5.8	10-18-19 17:30	4.87	0	8.13	1.6	10-18-19 17:30	5.91	981	8.71	185.7															
11-3-19 4:45	1.97	2167	8.29	6.3	10-18-19 17:45	5.93	0	7.96	1.6	10-18-19 17:45	5.91	981	8.71	192.3															
11-3-19 5:00	1.99	2168	8.29	5.3	10-18-19 18:00	6.47	0	7.96	1.6	10-18-19 18:00	5.94	981	8.71	197.4															
11-3-19 5:15	1.98	2168	8.29	6.2	10-18-19 18:15	8.84	0	7.69	1.8	10-18-19 18:15	6.01	981	8.71	191.9															
11-3-19 5:30	1.94	2166	8.29	5.5	10-18-19 18:30	8.86	0	7.74	1.2	10-18-19 18:30	6.15	980	8.71	197.5															
11-3-19 5:45	1.92	2162	8.29	5.6	10-18-19 18:45	8.58	0	7.82	1.3	10-18-19 18:45	6.29	981	8.71	196.7															
11-3-19 6:00	1.81	2156	8.29	4.9	10-18-19 19:00	8.98	0	7.72	1.2	10-18-19 19:00	6.37	979	8.71	199.1															
11-3-19 6:15	1.91	2168	8.29	6.6	10-18-19 19:15	10.34	0	7.65	1.4	10-18-19 19:15	6.40	981	8.70	192.9															
11-3-19 6:30	1.80	2169	8.30	5.3	10-18-19 19:30	10.98	0	7.53	1.6	10-18-19 19:30	6.53	979	8.70	185.6															
11-3-19 6:45	1.93	2168	8.29	5.9	10-18-19 19:45	12.61	0	7.48	1.4	10-18-19 19:45	6.47	980	8.71	190.1															
11-3-19 7:00	1.94	2171	8.30	7.4	10-18-19 20:00	12.46	0	7.43	1.6	10-18-19 20:00	6.48	980	8.71	181.8															
11-3-19 7:15	1.97	2167	8.28	6.4	10-18-19 20:15	13.77	0	7.39	2.5	10-18-19 20:15	6.39	980	8.71	188.1															
11-3-19 7:30	2.00	2167	8.29	5.3	10-18-19 20:30	14.96	0	6.38	1.7	10-18-19 20:30	6.55	978	8.72	191.2															
11-3-19 7:45	1.96	2167	8.28	5.8	10-18-19 20:45	13.67	0	5.96	1.6	10-18-19 20:45	7.25	981	8.71	181.0															
11-3-19 8:00	1.98	2165	8.29	5.8	10-18-19 21:00	13.21	0	5.62	1.5	10-18-19 21:00	7.06	980	8.72	186.6															
11-3-19 8:15	1.98	2163	8.29	6.3	10-18-19 21:15	13.59	0	3.65	1.7	10-18-19 21:15	6.84	981	8.71	199.9															
11-3-19 8:30	1.98	2163	8.29	5.9	10-18-19 21:30	12.94	0	0.00	1.6	10-18-19 21:30	6.82	981	8.71	194.9															
11-3-19 8:45	2.01	2162	8.29	5.4	10-18-19 21:45	14.04	0	0.00	1.7	10-18-19 21:45	6.92	981	8.71	189.5															
11-3-19 9:00	1.96	2157	8.30	5.4	10-18-19 22:00	12.09	0	0.00	1.6	10-18-19 22:00	6.94	981	8.71	184.5															
11-3-19 9:15	1.96	2160	8.29	6.5	10-18-19 22:15	11.49	0	12.70	1.7	10-18-19 22:15	6.93	981	8.71	177.0															
11-3-19 9:30	1.97	2163	8.29	6.0	10-18-19 22:30	12.04	0	5.32	3.2	10-18-19 22:30	6.85	981	8.71	191.2															
11-3-19 9:45	1.93	2160	8.30	6.1	10-18-19 22:45	13.52	0	6.53	3.4	10-18-19 22:45	6.83	981	8.71	193.9															
11-3-19 10:00	1.98	2163	8.29	5.8	10-18-19 23:00	11.64	0	3.92	3.3	10-18-19 23:00	6.86	981	8.72	185.3															
11-3-19 10:15	1.96	2160	8.29	5.9	10-18-19 23:15	10.71	0	2.23	3.1	10-18-19 23:15	6.76	981	8.72	192.8															
11-3-19 10:30	1.96	2158	8.29	5.3	10-18-19 23:30	10.24	0	0.00	1.4	10-18-19 23:30	6.72	981	8.72	180.3															
11-3-19 10:45	1.95	2157	8.28	5.5	10-18-19 23:45	10.02	0	0.00	1.4	10-18-19 23:45	6.68	981	8.72	193.8															
11-3-19 11:00	1.99	2162	8.30	5.7	10-19-19 0:00	9.50	0	9.01	1.3	10-19-19 0:00	6.65	981	8.72	191.1															
11-3-19 11:15	2.00	2160	8.29	6.9	10-19-19 0:15	7.70	0	7.40	1.0	10-19-19 0:15	6.59	980	8.72	193.3															
11-3-19 11:30	1.97	2159	8.30	5.5	10-19-19 0:30	6.41	0	8.52	1.0	10-19-19 0:30	6.50	981	8.72	192.3															
11-3-19 11:45	1.95	2158	8.29	5.1	10-19-19 0:45	5.86	0	9.02	14.7	10-19-19 0:45	6.43	980	8.72	193.9															
11-3-19 12:00	1.92	2156	8.29	5.2	10-19-19 1:00	5.66	0	8.92	0.8	10-19-19 1:00	6.43	980	8.71	187.6															
11-3-19 12:15	1.83	2161	8.30	6.3	10-19-19 1:15	5.83	0	9.00	1.3	10-19-19 1:15	6.42	980	8.71	183.2															
11-3-19 12:30	1.86	2158	8.30	5.3	10-19-19 1:30	6.22	0	7.67	15.2	10-19-19 1:30	6.42	980	8.71	187.8															
11-3-19 12:45	1.91	2159	8.29	6.0	10-19-19 1:45	6.68	0	7.49	2.5	10-19-19 1:45	6.44	979	8.71	181.2															
11-3-19 13:00	1.88	2158	8.30	5.3	10-19-19 2:00	7.11	0	7.43	2.4	10-19-19 2:00	6.41	980	8.72	195.7															
11-3-19 13:15	1.92	2159	8.29	5.9	10-19-19 2:15	7.03	0	7.45	2.3	10-19-19 2:15	6.41	980	8.71	201.8															
11-3-19 13:30	1.93	2159	8.30	5.3	10-19-19 2:30	6.20	0	7.90	1.7	10-19-19 2:30	6.40	980	8.71	172.3															
11-3-19 13:45	1.92	2160	8.29	5.9	10-19-19 2:45	5.67	0	8.07	1.6	10-19-19 2:45	6.37	980	8.72	183.1															
11-3-19 14:00	1.95	2159	8.30	5.8	10-19-19 3:00	5.09	0	8.03	1.7	10-19-19 3:00	6.36	980	8.71	185.9															
11-3-19 14:15	1.96	2158	8.29	5.2	10-19-19 3:15	4.79	0	8.08	1.7	10-19-19 3:15	6.34	979	8.71	199.2															
11-3-19 14:30	1.80	2153	8.30	5.8	10-19-19 3:30	4.57	0	8.20	2.1	10-19-19 3:30	6.33	979	8.71	181.2															
11-3-19 14:45	1.84	2157	8.30	5.6	10-19-19 3:45	4.35	0	8.18	0.0	10-19-19 3:45	6.32	979	8.71	169.0															
11-3-19 15:00	1.91	2159	8.30	6.3	10-19-19 4:00	3.98	0	8.35	0.0	10-19-19 4:00	6.31	978	8.71	169.9															
11-3-19 15:15	1.92	2155	8.30	5.8	10-19-19 4:15	3.54	0	8.43	0.0	10-19-19 4:15	6.28	976	8.70	183.1															
11-3-19 15:30	1.93	2156	8.30	6.0	10-19-19 4:30	3.04	0	8.54	0.0	10-19-19 4:30	6.27	974	8.69	168.1															
11-3-19 15:45	1.94	2155	8.30	6.3	10-19-19 4:45	2.67	0	8.80	0.0	10-19-19 4:45	6.28	975	8.70	182.5															
11-3-19 16:00	1.92	2154	8.30	5.8	10-19-19 5:00	2.32	0	8.84	0.0	10-19-19 5:00	6.23	972	8.70	166.1															
11-3-19 16:15	1.89	2151	8.30	5.4	10-19-19 5:15	2.12	0	9.21	0.0	10-19-19 5:15	6.23	974	8.70	161.7															
11-3-19 16:30	1.88	2154	8.30	6.3	10-19-19 5:30	1.99	1	9.08	0.0	10-19-19 5:30	6.22	974	8.70	176.6															
11-3-19 16:45	1.86	2152	8.30	6.4	10-19-19 5:45	1.73	0	9.02	0.0	10-19-19 5:45	6.20	974	8.70	164.9															
11-3-19 17:00	1.89	2153	8.30	5.2	10-19-19 6:00	1.59	0	8.89	0.0	10-19-19 6:00	6.18	973	8.70	169.6															
11-3-19 17:15	1.85	2152	8.30	6.4	10-19-19 6:15	1.51	0	8.92	0.0	10-19-19 6:15	6.17	973	8.70	173.4															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-3-19 17:30	1.88	2153	8.30	5.4	10-19-19 6:30	1.19	0	8.95	0.0	10-19-19 6:30	6.17	974	8.70	175.4															
11-3-19 17:45	1.85	2150	8.30	5.6	10-19-19 6:45	1.20	0	8.95	0.0	10-19-19 6:45	6.13	973	8.70	179.7															
11-3-19 18:00	1.71	2151	8.30	5.2	10-19-19 7:00	1.18	0	8.94	0.0	10-19-19 7:00	6.13	973	8.70	170.4															
11-3-19 18:15	1.71	2149	8.30	5.6	10-19-19 7:15	1.16	0	8.93	0.0	10-19-19 7:15	6.12	973	8.70	174.1															
11-3-19 18:30	1.88	2152	8.30	5.1	10-19-19 7:30	1.10	0	8.83	0.0	10-19-19 7:30	6.08	972	8.70	173.1															
11-3-19 18:45	1.94	2150	8.30	6.2	10-19-19 7:45	0.94	0	8.91	0.0	10-19-19 7:45	6.05	972	8.70	166.8															
11-3-19 19:00	1.74	2147	8.31	5.2	10-19-19 8:00	0.86	0	8.88	0.0	10-19-19 8:00	6.05	972	8.70	161.9															
11-3-19 19:15	1.78	2153	8.31	5.9	10-19-19 8:15	0.97	0	8.87	0.0	10-19-19 8:15	6.01	971	8.70	168.9															
11-3-19 19:30	1.90	2148	8.30	5.8	10-19-19 8:30	1.08	0	8.74	0.0	10-19-19 8:30	6.02	971	8.70	166.9															
11-3-19 19:45	1.99	2147	8.30	5.9	10-19-19 8:45	1.14	0	8.74	0.0	10-19-19 8:45	6.00	971	8.70	168.0															
11-3-19 20:00	2.04	2147	8.30	5.2	10-19-19 9:00	1.13	0	8.70	0.0	10-19-19 9:00	5.98	971	8.70	170.7															
11-3-19 20:15	1.99	2143	8.30	5.5	10-19-19 9:15	1.18	0	8.64	0.0	10-19-19 9:15	5.98	971	8.70	156.9															
11-3-19 20:30	1.97	2144	8.31	5.3	10-19-19 9:30	1.20	0	8.61	0.0	10-19-19 9:30	5.96	971	8.70	163.4															
11-3-19 20:45	1.99	2141	8.30	5.7	10-19-19 9:45	1.22	0	8.63	0.0	10-19-19 9:45	5.95	971	8.70	165.3															
11-3-19 21:00	2.01	2144	8.31	4.8	10-19-19 10:00	1.27	0	8.60	0.0	10-19-19 10:00	5.94	970	8.69	169.7															
11-3-19 21:15	2.04	2145	8.30	6.1	10-19-19 10:15	1.33	0	8.59	0.0	10-19-19 10:15	5.90	971	8.69	158.8															
11-3-19 21:30	2.00	2143	8.31	4.6	10-19-19 10:30	1.35	0	8.58	0.0	10-19-19 10:30	5.88	970	8.69	167.3															
11-3-19 21:45	2.05	2144	8.31	5.9	10-19-19 10:45	1.33	0	8.60	0.0	10-19-19 10:45	5.87	970	8.70	156.5															
11-3-19 22:00	2.03	2143	8.31	5.2	10-19-19 11:00	1.35	0	8.55	0.0	10-19-19 11:00	5.85	970	8.70	158.0															
11-3-19 22:15	2.06	2144	8.31	5.9	10-19-19 11:15	1.38	0	8.60	0.0	10-19-19 11:15	5.82	970	8.69	175.1															
11-3-19 22:30	2.08	2140	8.31	5.0	10-19-19 11:30	1.38	0	8.56	0.0	10-19-19 11:30	5.82	970	8.69	160.7															
11-3-19 22:45	2.08	2139	8.32	5.4	10-19-19 11:45	1.38	0	8.59	0.0	10-19-19 11:45	5.81	970	8.69	152.2															
11-3-19 23:00	2.06	2136	8.32	5.1	10-19-19 12:00	1.33	0	8.58	0.0	10-19-19 12:00	5.80	969	8.69	161.2															
11-3-19 23:15	1.98	2136	8.32	5.6	10-19-19 12:15	1.35	0	8.55	308.8	10-19-19 12:15	5.79	969	8.70	155.2															
11-3-19 23:30	1.97	2135	8.32	5.0	10-19-19 12:30	1.37	0	8.59	0.0	10-19-19 12:30	5.77	968	8.69	160.7															
11-3-19 23:45	1.99	2134	8.33	5.4	10-19-19 12:45	1.36	0	8.58	0.0	10-19-19 12:45	5.78	968	8.68	154.0															
11-4-19 0:00	2.00	2135	8.33	5.6	10-19-19 13:00	1.33	0	8.57	0.0	10-19-19 13:00	5.76	965	8.68	143.2															
11-4-19 0:15	1.96	2130	8.33	6.4	10-19-19 13:15	1.35	0	8.57	0.0	10-19-19 13:15	5.77	962	8.67	143.8															
11-4-19 0:30	1.94	2132	8.33	4.7	10-19-19 13:30	1.35	0	8.55	26.8	10-19-19 13:30	5.76	965	8.67	152.1															
11-4-19 0:45	1.96	2132	8.33	5.7	10-19-19 13:45	1.39	0	8.58	15.4	10-19-19 13:45	5.73	964	8.67	141.8															
11-4-19 1:00	1.98	2133	8.33	4.9	10-19-19 14:00	1.47	0	8.58	26.2	10-19-19 14:00	5.77	963	8.66	146.0															
11-4-19 1:15	1.92	2128	8.33	5.9	10-19-19 14:15	1.47	0	8.55	42.5	10-19-19 14:15	5.69	959	8.66	136.0															
11-4-19 1:30	1.93	2132	8.32	5.3	10-19-19 14:30	1.45	0	8.55	0.0	10-19-19 14:30	5.73	960	8.66	140.9															
11-4-19 1:45	1.89	2130	8.32	5.7	10-19-19 14:45	1.43	0	8.55	0.0	10-19-19 14:45	5.71	960	8.66	134.7															
11-4-19 2:00	1.85	2130	8.32	4.8	10-19-19 15:00	1.45	0	8.49	0.0	10-19-19 15:00	5.68	959	8.65	139.4															
11-4-19 2:15	1.84	2131	8.33	5.2	10-19-19 15:15	1.51	0	8.49	0.0	10-19-19 15:15	5.67	960	8.66	141.2															
11-4-19 2:30	1.88	2133	8.32	4.9	10-19-19 15:30	1.58	0	8.46	0.0	10-19-19 15:30	5.64	958	8.65	135.5															
11-4-19 2:45	1.78	2125	8.34	5.6	10-19-19 15:45	1.76	0	8.51	0.0	10-19-19 15:45	5.62	959	8.65	134.1															
11-4-19 3:00	1.50	2134	8.34	4.8	10-19-19 16:00	1.88	0	8.46	0.0	10-19-19 16:00	5.64	958	8.65	128.4															
11-4-19 3:15	1.77	2129	8.34	5.0	10-19-19 16:15	2.04	0	8.45	0.0	10-19-19 16:15	5.65	959	8.65	137.1															
11-4-19 3:30	1.83	2128	8.34	4.9	10-19-19 16:30	2.19	0	8.44	0.0	10-19-19 16:30	5.62	959	8.65	134.9															
11-4-19 3:45	1.89	2127	8.34	5.4	10-19-19 16:45	2.46	0	8.44	0.0	10-19-19 16:45	5.65	959	8.65	139.9															
11-4-19 4:00	2.00	2127	8.34	6.5	10-19-19 17:00	2.54	0	8.43	0.0	10-19-19 17:00	5.63	958	8.65	125.9															
11-4-19 4:15	2.06	2125	8.34	5.6	10-19-19 17:15	2.65	0	8.44	0.0	10-19-19 17:15	5.66	958	8.65	132.5															
11-4-19 4:30	2.03	2125	8.34	5.2	10-19-19 17:30	2.82	0	8.37	0.0	10-19-19 17:30	5.65	957	8.65	129.0															
11-4-19 4:45	2.02	2124	8.34	5.9	10-19-19 17:45	2.98	0	8.33	0.0	10-19-19 17:45	5.67	957	8.65	129.8															
11-4-19 5:00	2.02	2122	8.34	5.7	10-19-19 18:00	3.07	0	8.26	0.0	10-19-19 18:00	5.70	956	8.64	131.9															
11-4-19 5:15	1.90	2122	8.34	6.2	10-19-19 18:15	3.23	0	8.28	0.0	10-19-19 18:15	5.78	956	8.64	131.9															
11-4-19 5:30	1.87	2122	8.34	5.6	10-19-19 18:30	3.31	0	8.37	0.0	10-19-19 18:30	5.78	953	8.63	127.0															
11-4-19 5:45	1.82	2121	8.33	4.7	10-19-19 18:45	3.62	0	8.29	0.0	10-19-19 18:45	5.79	955	8.64	119.9															
11-4-19 6:00	1.90	2121	8.35	5.1	10-19-19 19:00	3.62	0	8.26	0.0	10-19-19 19:00	5.80	954	8.63	125.4															
11-4-19 6:15	1.92	2119	8.34	5.4	10-19-19 19:15	3.28	0	8.28	0.0	10-19-19 19:15	5.79	949	8.62	122.3															
11-4-19 6:30	1.93	2120	8.34	4.7	10-19-19 19:30	3.22	0	8.25	0.0	10-19-19 19:30	5.91	946	8.61	112.4															
11-4-19 6:45	1.88	2118	8.34	5.4	10-19-19 19:45	5.85	755	8.41	33.9	10-19-19 19:45	5.91	947	8.61	116.7															
11-4-19 7:00	1.86	2120	8.34	4.8	10-19-19 20:00	5.92	754	8.40	33.1	10-19-19 20:00	5.92	954	8.64	120.4															
11-4-19 7:15	1.85	2116	8.34	5.4	10-19-19 20:15	5.92	756	8.40	34.6	10-19-19 20:15	5.95	952	8.63	122.7															
11-4-19 7:30	1.90	2117	8.34	5.2	10-19-19 20:30	5.93	757	8.39	37.9	10-19-19 20:30	6.02	950	8.62	112.5															
11-4-19 7:45	1.91	2114	8.34	5.4	10-19-19 20:45	5.95	759	8.39	35.9	10-19-19 20:45	6.06	951	8.62	118.8															
11-4-19 8:00	1.96	2115	8.35	5.3	10-19-19 21:00	5.95	761	8.38	39.5	10-19-19 21:00	6.06	946	8.61	105.1															
11-4-19 8:15	1.98	2113	8.35	5.8	10-19-19 21:15	5.93	763	8.38	38.5	10-19-19 21:15	6.08	946	8.61	105.3															
11-4-19 8:30	2.00	2115	8.35	5.9	10-19-19 21:30	5.92	765	8.38	39.5	10-19-19 21:30	6.08	942	8.59	105.2															
11-4-19 8:45	2.02	2113	8.35	5.5	10-19-19 21:45	5.91	768	8.39	45.7	10-19-19 21:45	6.10	942	8.60	104.8															
11-4-19 9:00	2.01	2113	8.35	5.7	10-19-19 22:00	5.90	771	8.38	45.5	10-19-19 22:00	6.12	943	8.60	105.3															
11-4-19 9:15	2.00	2112	8.35	5.7	10-19-19 22:15	5.92	772	8.38	45.5	10-19-19 22:15	6.10	942	8.59	107.2															
11-4-19 9:30	1.98	2111	8.35	5.8	10-19-19 22:30	5.91	772	8.37	51.0	10-19-19 22:30	6.08	940	8.58	101.7															
11-4-19 9:45	1.98	2106	8.35	5.2	10-19-19 22:45	5.91	774	8.37	47.0	10-19-19 22:45	6.16	938	8.58	104.1															
11-4-19 10:00	1.97	2107	8.35	5.4	10-19-19 23:00	5.90	778	8.37	49.2	10-19-19 23:00	6.13	942	8.59	108.0															
11-4-19 10:15	1.94	2109	8.35	5.5	10-19-19 23:15	5.90	782	8.37	49.7	10-19-19 23:15	6.08	944	8.61	116.1															
11-4-19 10:30	1.91	2110	8.35	5.2	10-19-19 23:30	5.87	789	8.37	53.6	10-19-19 23:30	6.16	943	8.60	113.0															
11-4-19 10:45	1.89	2106	8.35	5.4	10-19-19 23:45	5.85	794	8.37	48.4	10-19-19 23:45	6.13	943	8.59	111.4															
11-4-19 11:00	1.96	2101	8.35	5.2	10-20-19 0:00	5.85	796	8.37	47.6	10-20-19 0:00	6.14	942	8.59	108.2															
11-4-19 11:15	1.93	2100	8.34	5.4	10-20-19 0:15	5.84	798	8.37	47.9	10-20-19 0:15	6.15	941	8.59	110.9															
11-4-19 11:30	1.97	2097	8.35	5.0	10-20-19 0:30	5.82	799	8.37	46.1	10-20-19 0:30	6.15	939	8.58	106.9															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-4-19 11:45	1.90	2101	8.35	5.0	10-20-19 0:45	5.81	803	8.37	53.2	10-20-19 0:45	6.13	937	8.58	110.6															
11-4-19 12:00	1.87	2102	8.35	5.1	10-20-19 1:00	5.79	805	8.37	51.3	10-20-19 1:00	6.13	936	8.57	107.9															
11-4-19 12:15	1.87	2101	8.35	5.4	10-20-19 1:15	5.76	806	8.37	48.4	10-20-19 1:15	6.10	936	8.57	107.2															
11-4-19 12:30	1.88	2102	8.35	5.3	10-20-19 1:30	5.73	811	8.37	45.9	10-20-19 1:30	6.09	936	8.57	104.2															
11-4-19 12:45	1.89	2100	8.35	5.0	10-20-19 1:45	5.73	811	8.37	48.7	10-20-19 1:45	6.09	931	8.56	96.5															
11-4-19 13:00	1.90	2101	8.35	5.3	10-20-19 2:00	5.73	813	8.37	45.6	10-20-19 2:00	6.08	930	8.55	100.9															
11-4-19 13:15	1.92	2100	8.36	5.6	10-20-19 2:15	5.72	815	8.37	48.2	10-20-19 2:15	6.08	929	8.54	97.0															
11-4-19 13:30	1.93	2101	8.35	5.1	10-20-19 2:30	5.72	817	8.36	48.8	10-20-19 2:30	6.09	928	8.55	97.9															
11-4-19 13:45	1.95	2100	8.35	5.9	10-20-19 2:45	5.70	819	8.37	47.6	10-20-19 2:45	6.04	928	8.54	96.4															
11-4-19 14:00	1.93	2100	8.35	5.2	10-20-19 3:00	5.68	822	8.37	42.3	10-20-19 3:00	5.99	929	8.54	100.1															
11-4-19 14:15	1.88	2097	8.35	6.0	10-20-19 3:15	5.69	824	8.37	46.9	10-20-19 3:15	5.93	928	8.54	98.5															
11-4-19 14:30	1.94	2099	8.36	6.7	10-20-19 3:30	5.65	824	8.37	42.5	10-20-19 3:30	5.94	928	8.55	99.1															
11-4-19 14:45	1.96	2098	8.35	5.0	10-20-19 3:45	5.63	827	8.38	42.4	10-20-19 3:45	5.93	928	8.55	102.0															
11-4-19 15:00	1.97	2098	8.36	5.8	10-20-19 4:00	5.63	828	8.38	42.8	10-20-19 4:00	5.89	926	8.54	103.4															
11-4-19 15:15	1.91	2096	8.35	4.9	10-20-19 4:15	5.61	828	8.38	37.1	10-20-19 4:15	5.86	927	8.54	97.7															
11-4-19 15:30	1.88	2092	8.36	4.8	10-20-19 4:30	5.60	833	8.37	37.6	10-20-19 4:30	5.84	926	8.54	100.9															
11-4-19 15:45	1.87	2090	8.35	5.8	10-20-19 4:45	5.62	836	8.38	39.7	10-20-19 4:45	5.85	927	8.54	96.9															
11-4-19 16:00	1.88	2089	8.36	4.8	10-20-19 5:00	5.61	836	8.38	38.5	10-20-19 5:00	5.84	927	8.54	97.7															
11-4-19 16:15	1.87	2088	8.35	5.6	10-20-19 5:15	5.58	840	8.38	38.2	10-20-19 5:15	5.84	925	8.54	94.8															
11-4-19 16:30	1.86	2089	8.36	5.8	10-20-19 5:30	5.58	840	8.38	38.9	10-20-19 5:30	5.85	924	8.53	95.2															
11-4-19 16:45	1.86	2087	8.35	5.8	10-20-19 5:45	5.57	841	8.38	39.8	10-20-19 5:45	5.86	925	8.53	94.3															
11-4-19 17:00	1.85	2088	8.36	5.1	10-20-19 6:00	5.55	841	8.38	39.5	10-20-19 6:00	5.85	925	8.54	96.9															
11-4-19 17:15	1.86	2086	8.36	5.2	10-20-19 6:15	5.53	841	8.38	38.5	10-20-19 6:15	5.83	926	8.53	93.4															
11-4-19 17:30	1.86	2085	8.36	5.4	10-20-19 6:30	5.53	843	8.38	34.8	10-20-19 6:30	5.81	926	8.53	96.4															
11-4-19 17:45	1.81	2080	8.36	5.3	10-20-19 6:45	5.52	842	8.38	33.8	10-20-19 6:45	5.77	926	8.54	95.6															
11-4-19 18:00	1.88	2076	8.36	5.3	10-20-19 7:00	5.51	844	8.38	34.8	10-20-19 7:00	5.77	926	8.54	94.2															
11-4-19 18:15	1.91	2075	8.35	5.8	10-20-19 7:15	5.45	838	8.38	32.6	10-20-19 7:15	5.76	926	8.54	94.4															
11-4-19 18:30	1.90	2072	8.36	5.1	10-20-19 7:30	5.43	842	8.39	30.3	10-20-19 7:30	5.74	936	8.54	98.6															
11-4-19 18:45	1.95	2071	8.35	5.7	10-20-19 7:45	5.42	843	8.38	31.7	10-20-19 7:45	5.72	926	8.54	95.8															
11-4-19 19:00	1.93	2073	8.36	4.8	10-20-19 8:00	5.40	844	8.39	31.4	10-20-19 8:00	5.69	926	8.54	93.3															
11-4-19 19:15	1.94	2070	8.36	5.7	10-20-19 8:15	5.40	848	8.39	31.6	10-20-19 8:15	5.69	926	8.54	98.0															
11-4-19 19:30	1.95	2073	8.36	5.1	10-20-19 8:30	5.39	849	8.38	31.6	10-20-19 8:30	5.68	926	8.54	97.9															
11-4-19 19:45	1.98	2069	8.36	5.7	10-20-19 8:45	5.38	850	8.39	31.5	10-20-19 8:45	5.67	926	8.54	94.1															
11-4-19 20:00	2.00	2069	8.35	4.4	10-20-19 9:00	5.35	850	8.39	29.9	10-20-19 9:00	5.65	926	8.54	97.1															
11-4-19 20:15	2.06	2066	8.36	5.6	10-20-19 9:15	5.34	851	8.39	41.0	10-20-19 9:15	5.63	926	8.54	95.4															
11-4-19 20:30	2.09	2066	8.36	4.9	10-20-19 9:30	5.33	853	8.39	31.3	10-20-19 9:30	5.61	926	8.54	91.0															
11-4-19 20:45	2.11	2064	8.36	5.9	10-20-19 9:45	5.33	854	8.39	30.8	10-20-19 9:45	5.59	926	8.54	94.2															
11-4-19 21:00	2.14	2062	8.37	5.0	10-20-19 10:00	5.31	856	8.39	33.9	10-20-19 10:00	5.58	926	8.54	95.5															
11-4-19 21:15	2.14	2060	8.36	5.5	10-20-19 10:15	5.30	857	8.39	34.2	10-20-19 10:15	5.56	926	8.53	92.0															
11-4-19 21:30	2.17	2058	8.37	5.1	10-20-19 10:30	5.28	859	8.39	34.8	10-20-19 10:30	5.54	925	8.54	98.7															
11-4-19 21:45	2.19	2055	8.37	6.1	10-20-19 10:45	5.26	859	8.39	32.3	10-20-19 10:45	5.52	926	8.54	92.1															
11-4-19 22:00	2.18	2055	8.38	5.0	10-20-19 11:00	5.25	859	8.40	31.0	10-20-19 11:00	5.54	924	8.54	112.2															
11-4-19 22:15	2.20	2054	8.38	5.7	10-20-19 11:15	5.23	860	8.40	33.4	10-20-19 11:15	5.54	922	8.56	113.1															
11-4-19 22:30	2.22	2053	8.38	5.1	10-20-19 11:30	5.21	862	8.40	35.8	10-20-19 11:30	5.53	924	8.55	125.7															
11-4-19 22:45	2.18	2052	8.38	5.6	10-20-19 11:45	5.20	863	8.40	34.9	10-20-19 11:45	5.53	923	8.55	115.8															
11-4-19 23:00	2.14	2051	8.39	5.1	10-20-19 12:00	5.22	864	8.40	36.4	10-20-19 12:00	5.62	920	8.56	140.6															
11-4-19 23:15	2.16	2051	8.38	5.6	10-20-19 12:15	5.21	867	8.41	41.4	10-20-19 12:15	5.63	919	8.56	139.4															
11-4-19 23:30	2.10	2049	8.39	4.8	10-20-19 12:30	5.20	866	8.40	41.2	10-20-19 12:30	5.63	919	8.56	140.7															
11-4-19 23:45	2.06	2047	8.39	5.1	10-20-19 12:45	5.17	867	8.40	38.9	10-20-19 12:45	5.65	917	8.57	147.8															
11-5-19 0:00	2.09	2049	8.39	4.8	10-20-19 13:00	5.16	868	8.40	38.7	10-20-19 13:00	5.63	917	8.56	144.1															
11-5-19 0:15	2.11	2048	8.38	6.6	10-20-19 13:15	5.14	868	8.41	37.6	10-20-19 13:15	5.65	918	8.56	148.6															
11-5-19 0:30	2.10	2049	8.38	4.4	10-20-19 13:30	5.13	869	8.41	39.4	10-20-19 13:30	5.60	921	8.57	146.3															
11-5-19 0:45	2.10	2045	8.39	5.0	10-20-19 13:45	5.14	870	8.41	43.1	10-20-19 13:45	5.65	920	8.57	152.3															
11-5-19 1:00	2.09	2046	8.38	4.5	10-20-19 14:00	5.15	872	8.41	46.5	10-20-19 14:00	5.69	916	8.58	158.4															
11-5-19 1:15	2.05	2045	8.38	5.4	10-20-19 14:15	5.13	873	8.41	51.8	10-20-19 14:15	5.66	917	8.58	158.4															
11-5-19 1:30	2.08	2044	8.38	4.4	10-20-19 14:30	5.10	874	8.41	50.7	10-20-19 14:30	5.69	916	8.57	178.6															
11-5-19 1:45	2.10	2039	8.39	5.3	10-20-19 14:45	5.08	874	8.41	49.4	10-20-19 14:45	5.73	916	8.57	176.4															
11-5-19 2:00	2.11	2040	8.39	4.8	10-20-19 15:00	5.09	875	8.41	48.1	10-20-19 15:00	5.70	917	8.58	173.2															
11-5-19 2:15	2.08	2037	8.39	5.5	10-20-19 15:15	5.09	877	8.42	52.0	10-20-19 15:15	5.73	917	8.59	175.1															
11-5-19 2:30	2.00	2040	8.39	4.8	10-20-19 15:30	5.09	878	8.42	51.9	10-20-19 15:30	5.69	916	8.58	181.4															
11-5-19 2:45	2.03	2038	8.38	5.3	10-20-19 15:45	5.07	877	8.42	56.6	10-20-19 15:45	5.66	915	8.58	179.1															
11-5-19 3:00	2.04	2037	8.38	4.3	10-20-19 16:00	5.06	879	8.42	56.6	10-20-19 16:00	5.67	915	8.58	179.4															
11-5-19 3:15	2.12	2034	8.39	5.4	10-20-19 16:15	5.05	880	8.42	61.4	10-20-19 16:15	5.63	915	8.58	179.4															
11-5-19 3:30	2.12	2033	8.39	4.7	10-20-19 16:30	5.05	880	8.42	56.0	10-20-19 16:30	5.70	914	8.59	189.3															
11-5-19 3:45	2.10	2030	8.39	5.0	10-20-19 16:45	5.04	881	8.41	62.4	10-20-19 16:45	5.69	913	8.59	191.8															
11-5-19 4:00	2.14	2029	8.39	4.7	10-20-19 17:00	5.02	881	8.42	56.7	10-20-19 17:00	5.72	913	8.59	186.8															
11-5-19 4:15	2.15	2028	8.38	5.5	10-20-19 17:15	5.03	881	8.42	58.0	10-20-19 17:15	5.89	909	8.59	218.7															
11-5-19 4:30	2.13	2030	8.39	4.8	10-20-19 17:30	2.69	0	7.83	0.0	10-20-19 17:30	5.81	848	8.61	227.2															
11-5-19 4:45	2.16	2026	8.39	5.0	10-20-19 17:45	2.16	0	7.69	0.0	10-20-19 17:45	5.89	904	8.60	227.4															
11-5-19 5:00	2.14	2025	8.40	4.8	10-20-19 18:00	2.04	0	7.49	0.0	10-20-19 18:00	5.91	905	8.60	235.9															
11-5-19 5:15	2.12	2026	8.40	5.2	10-20-19 18:15	2.24	0	7.42	0.0	10-20-19 18:15	5.86	904	8.60	218.7															
11-5-19 5:30	2.07	2024	8.41	5.7	10-20-19 18:30	2.52	0	7.12	0.0	10-20-19 18:30	5.81	907	8.60	215.7															
11-5-19 5:45	2.05	2019	8.41	5.4	10-20-19 18:45	3.06	0	7.31	0.0	10-20-19 18:45	5.87	907	8.60	217.4															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-5-19 6:00	2.08	2019	8.41	5.7	10-20-19 19:00	2.98	0	7.23	0.0	10-20-19 19:00	6.04	902	8.61	266.8															
11-5-19 6:15	2.01	2016	8.41	7.1	10-20-19 19:15	3.06	0	7.40	0.0	10-20-19 19:15	6.15	900	8.61	272.5															
11-5-19 6:30	1.98	2011	8.41	7.2	10-20-19 19:30	3.14	0	7.19	9.5	10-20-19 19:30	6.06	900	8.60	243.6															
11-5-19 6:45	1.96	2009	8.41	5.9	10-20-19 19:45	3.48	0	7.25	23.9	10-20-19 19:45	6.06	901	8.60	252.0															
11-5-19 7:00	1.93	2008	8.41	5.8	10-20-19 20:00	3.55	0	7.57	19.5	10-20-19 20:00	6.24	897	8.60	275.1															
11-5-19 7:15	1.90	2006	8.41	6.3	10-20-19 20:15	3.51	0	7.26	17.8	10-20-19 20:15	6.30	896	8.60	268.5															
11-5-19 7:30	1.86	2008	8.41	6.1	10-20-19 20:30	3.83	0	7.52	0.0	10-20-19 20:30	6.38	896	8.60	277.8															
11-5-19 7:45	1.84	2002	8.41	5.8	10-20-19 20:45	4.07	0	7.23	0.0	10-20-19 20:45	6.41	897	8.59	270.3															
11-5-19 8:00	1.79	2000	8.41	5.2	10-20-19 21:00	3.96	0	7.42	0.0	10-20-19 21:00	6.35	897	8.59	267.1															
11-5-19 8:15	1.80	2002	8.41	6.4	10-20-19 21:15	4.32	0	7.19	0.0	10-20-19 21:15	6.30	898	8.59	256.1															
11-5-19 8:30	1.77	2002	8.41	5.6	10-20-19 21:30	4.57	0	7.67	0.0	10-20-19 21:30	6.42	898	8.59	255.6															
11-5-19 8:45	1.73	2001	8.41	5.5	10-20-19 21:45	3.88	0	7.42	0.0	10-20-19 21:45	6.48	897	8.59	271.0															
11-5-19 9:00	1.71	2002	8.41	5.8	10-20-19 22:00	4.19	0	7.68	0.1	10-20-19 22:00	6.49	897	8.59	261.0															
11-5-19 9:15	1.68	1999	8.41	6.1	10-20-19 22:15	4.36	0	7.59	0.0	10-20-19 22:15	6.44	897	8.59	252.5															
11-5-19 9:30	1.65	2000	8.41	5.5	10-20-19 22:30	4.24	0	7.77	0.0	10-20-19 22:30	6.44	899	8.58	260.1															
11-5-19 9:45	1.66	1995	8.41	5.2	10-20-19 22:45	3.91	0	7.78	0.0	10-20-19 22:45	6.44	900	8.57	261.9															
11-5-19 10:00	1.62	1996	8.41	5.3	10-20-19 23:00	3.84	0	7.93	0.0	10-20-19 23:00	6.48	901	8.57	252.0															
11-5-19 10:15	1.59	1995	8.40	6.1	10-20-19 23:15	3.66	0	7.80	0.1	10-20-19 23:15	6.43	901	8.57	241.8															
11-5-19 10:30	1.60	1996	8.41	5.3	10-20-19 23:30	3.55	0	7.89	0.1	10-20-19 23:30	6.37	904	8.55	228.3															
11-5-19 10:45	1.59	1993	8.41	6.1	10-20-19 23:45	3.39	0	7.81	0.0	10-20-19 23:45	6.34	905	8.54	225.1															
11-5-19 11:00	1.55	1993	8.41	5.3	10-21-19 0:00	3.22	0	7.74	0.0	10-21-19 0:00	6.31	905	8.55	229.7															
11-5-19 11:15	1.57	1992	8.41	6.2	10-21-19 0:15	3.15	0	7.84	0.0	10-21-19 0:15	6.28	905	8.54	221.4															
11-5-19 11:30	1.45	1997	8.41	5.7	10-21-19 0:30	3.04	0	8.09	0.0	10-21-19 0:30	6.24	906	8.54	223.0															
11-5-19 11:45	1.46	1996	8.41	6.6	10-21-19 0:45	2.91	0	8.17	0.0	10-21-19 0:45	6.22	905	8.54	219.0															
11-5-19 12:00	1.41	1996	8.41	5.3	10-21-19 1:00	2.81	0	8.18	0.0	10-21-19 1:00	6.20	904	8.55	227.5															
11-5-19 12:15	1.39	1996	8.41	5.8	10-21-19 1:15	2.71	0	8.17	0.0	10-21-19 1:15	6.18	905	8.55	226.7															
11-5-19 12:30	1.36	1994	8.42	6.5	10-21-19 1:30	2.53	0	8.17	0.0	10-21-19 1:30	6.14	905	8.54	222.1															
11-5-19 12:45	1.33	1992	8.42	5.7	10-21-19 1:45	2.38	0	8.27	0.0	10-21-19 1:45	6.11	905	8.54	224.7															
11-5-19 13:00	1.39	1988	8.42	5.6	10-21-19 2:00	2.18	0	8.29	17.6	10-21-19 2:00	6.10	905	8.55	224.1															
11-5-19 13:15	1.33	1988	8.42	6.0	10-21-19 2:15	2.12	0	8.30	0.0	10-21-19 2:15	6.07	905	8.54	219.7															
11-5-19 13:30	1.27	1990	8.41	6.0	10-21-19 2:30	2.08	0	8.20	0.0	10-21-19 2:30	6.03	905	8.54	223.9															
11-5-19 13:45	1.29	1986	8.42	6.5	10-21-19 2:45	2.05	0	8.23	0.0	10-21-19 2:45	5.98	905	8.54	223.1															
11-5-19 14:00	1.19	1991	8.42	5.3	10-21-19 3:00	2.09	0	8.25	0.0	10-21-19 3:00	5.95	905	8.55	218.6															
11-5-19 14:15	1.16	1991	8.42	5.8	10-21-19 3:15	2.14	0	8.09	0.0	10-21-19 3:15	5.93	905	8.55	223.4															
11-5-19 14:30	1.14	1989	8.42	6.3	10-21-19 3:30	2.19	0	8.41	0.0	10-21-19 3:30	5.90	905	8.55	222.9															
11-5-19 14:45	1.12	1988	8.42	5.9	10-21-19 3:45	2.23	0	8.12	0.0	10-21-19 3:45	5.89	905	8.54	221.8															
11-5-19 15:00	1.09	1989	8.42	5.4	10-21-19 4:00	2.26	0	8.19	0.0	10-21-19 4:00	5.89	905	8.54	227.5															
11-5-19 15:15	1.01	1990	8.42	6.5	10-21-19 4:15	2.20	0	8.23	0.0	10-21-19 4:15	5.89	905	8.54	224.1															
11-5-19 15:30	1.01	1989	8.42	5.4	10-21-19 4:30	2.09	0	8.33	0.0	10-21-19 4:30	5.88	905	8.55	224.3															
11-5-19 15:45	1.08	1983	8.41	5.6	10-21-19 4:45	2.14	0	8.39	0.0	10-21-19 4:45	5.88	905	8.54	224.7															
11-5-19 16:00	0.99	1988	8.42	6.0	10-21-19 5:00	2.19	0	8.43	0.0	10-21-19 5:00	5.87	905	8.54	233.3															
11-5-19 16:15	0.89	1986	8.42	5.9	10-21-19 5:15	2.21	0	8.41	0.0	10-21-19 5:15	5.88	906	8.54	232.3															
11-5-19 16:30	0.84	1988	8.42	5.9	10-21-19 5:30	2.24	0	8.59	0.0	10-21-19 5:30	5.87	906	8.53	226.6															
11-5-19 16:45	0.85	1985	8.42	5.9	10-21-19 5:45	2.24	0	8.61	0.0	10-21-19 5:45	5.87	906	8.53	228.1															
11-5-19 17:00	0.85	1983	8.42	6.0	10-21-19 6:00	2.25	0	8.55	0.0	10-21-19 6:00	5.91	906	8.54	233.7															
11-5-19 17:15	0.85	1983	8.42	5.9	10-21-19 6:15	2.25	0	8.73	0.0	10-21-19 6:15	5.89	905	8.54	231.8															
11-5-19 17:30	0.85	1985	8.42	5.9	10-21-19 6:30	2.28	0	8.51	0.0	10-21-19 6:30	5.88	906	8.54	229.9															
11-5-19 17:45	0.82	1982	8.42	5.5	10-21-19 6:45	2.34	0	8.70	0.0	10-21-19 6:45	5.87	906	8.53	234.7															
11-5-19 18:00	0.71	1983	8.42	6.0	10-21-19 7:00	2.40	0	8.65	0.0	10-21-19 7:00	5.80	903	8.54	221.4															
11-5-19 18:15	0.67	1986	8.43	6.0	10-21-19 7:15	2.38	0	8.65	0.0	10-21-19 7:15	5.84	904	8.54	232.6															
11-5-19 18:30	0.82	1986	8.42	5.6	10-21-19 7:30	2.38	0	8.70	0.0	10-21-19 7:30	5.81	903	8.54	222.3															
11-5-19 18:45	0.87	1980	8.42	5.9	10-21-19 7:45	2.35	0	8.87	0.0	10-21-19 7:45	5.84	904	8.53	229.9															
11-5-19 19:00	0.88	1979	8.42	5.8	10-21-19 8:00	2.30	0	8.65	0.0	10-21-19 8:00	5.81	903	8.53	230.2															
11-5-19 19:15	0.90	1976	8.42	5.7	10-21-19 8:15	2.27	0	8.59	0.0	10-21-19 8:15	5.74	903	8.53	220.3															
11-5-19 19:30	0.82	1980	8.43	6.1	10-21-19 8:30	2.19	0	8.40	0.0	10-21-19 8:30	5.76	901	8.54	218.8															
11-5-19 19:45	0.83	1979	8.43	5.6	10-21-19 8:45	2.03	0	8.38	0.0	10-21-19 8:45	5.73	902	8.53	220.1															
11-5-19 20:00	0.86	1979	8.43	5.5	10-21-19 9:00	1.82	0	8.41	0.0	10-21-19 9:00	5.71	901	8.53	228.0															
11-5-19 20:15	0.95	1977	8.43	5.9	10-21-19 9:15	1.71	0	8.42	0.0	10-21-19 9:15	5.67	900	8.53	222.7															
11-5-19 20:30	0.99	1976	8.42	5.1	10-21-19 9:30	1.52	0	8.39	0.0	10-21-19 9:30	5.65	899	8.53	214.3															
11-5-19 20:45	0.97	1975	8.42	6.0	10-21-19 9:45	1.27	0	8.38	0.0	10-21-19 9:45	5.47	895	8.53	207.4															
11-5-19 21:00	0.97	1977	8.42	4.8	10-21-19 10:00	1.24	0	8.30	0.0	10-21-19 10:00	5.56	900	8.53	227.1															
11-5-19 21:15	0.74	1978	8.43	5.8	10-21-19 10:15	1.25	0	8.37	0.0	10-21-19 10:15	5.55	895	8.53	218.5															
11-5-19 21:30	0.81	1979	8.42	4.6	10-21-19 10:30	1.23	0	8.36	0.0	10-21-19 10:30	5.41	894	8.54	210.9															
11-5-19 21:45	0.94	1976	8.41	5.8	10-21-19 10:45	1.13	0	8.52	0.0	10-21-19 10:45	5.37	894	8.53	212.5															
11-5-19 22:00	0.96	1977	8.42	4.7	10-21-19 11:00	1.15	0	8.39	0.0	10-21-19 11:00	5.48	898	8.53	221.3															
11-5-19 22:15	0.79	1979	8.42	5.8	10-21-19 11:15	1.17	0	8.35	0.0	10-21-19 11:15	5.59	893	8.52	228.7															
11-5-19 22:30	0.86	1975	8.43	5.0	10-21-19 11:30	1.15	0	8.58	0.0	10-21-19 11:30	5.66	899	8.53	236.9															
11-5-19 22:45	0.79	1974	8.42	5.9	10-21-19 11:45	1.19	0	8.29	0.0	10-21-19 11:45	5.59	898	8.53	223.0															
11-5-19 23:00	0.72	1979	8.43	5.1	10-21-19 12:00	1.20	0	8.61	0.0	10-21-19 12:00	5.56	898	8.53	230.1															
11-5-19 23:15	0.83	1974	8.42	5.5	10-21-19 12:15	1.23	0	8.36	0.0	10-21-19 12:15	5.52	895	8.52	206.3															
11-5-19 23:30	0.80	1977	8.43	4.9	10-21-19 12:30	1.21	0	8.15	0.0	10-21-19 12:30	5.50	895	8.52	207.9															
11-5-19 23:45	0.86	1973	8.43	5.8	10-21-19 12:45	1.12	0	8.20	0.0	10-21-19 12:45	5.52	896	8.52	213.0															
11-6-19 0:00	0.77	1979	8.43	5.0	10-21-19 13:00	1.20	0	8.24	0.0	10-21-19 13:00	5.54	898	8.53	218.4															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-6-19 0:15	0.83	1974	8.43	5.8	10-21-19 13:15	1.33	0	8.29	0.0	10-21-19 13:15	5.53	896	8.51	211.7															
11-6-19 0:30	0.79	1977	8.43	5.0	10-21-19 13:30	1.52	0	8.22	0.0	10-21-19 13:30	5.53	896	8.52	204.8															
11-6-19 0:45	0.67	1981	8.43	5.7	10-21-19 13:45	1.63	0	8.20	0.0	10-21-19 13:45	5.43	892	8.52	196.9															
11-6-19 1:00	0.72	1981	8.43	5.0	10-21-19 14:00	1.76	0	8.23	0.0	10-21-19 14:00	5.41	895	8.53	217.2															
11-6-19 1:15	0.74	1980	8.43	5.3	10-21-19 14:15	1.90	0	8.21	0.0	10-21-19 14:15	5.40	894	8.53	215.6															
11-6-19 1:30	0.84	1977	8.43	4.7	10-21-19 14:30	1.91	0	8.23	0.0	10-21-19 14:30	5.39	894	8.52	218.5															
11-6-19 1:45	1.00	1967	8.44	5.7	10-21-19 14:45	1.92	0	8.26	0.0	10-21-19 14:45	5.49	899	8.53	242.7															
11-6-19 2:00	0.98	1968	8.44	4.7	10-21-19 15:00	1.95	0	8.33	0.0	10-21-19 15:00	5.52	897	8.53	226.7															
11-6-19 2:15	1.00	1965	8.44	5.7	10-21-19 15:15	1.91	0	8.27	0.0	10-21-19 15:15	5.52	898	8.53	233.5															
11-6-19 2:30	1.01	1965	8.44	4.8	10-21-19 15:30	1.76	0	8.17	0.0	10-21-19 15:30	5.53	899	8.52	232.9															
11-6-19 2:45	1.00	1965	8.44	5.3	10-21-19 15:45	4.77	878	8.41	26.6	10-21-19 15:45	5.46	898	8.52	218.5															
11-6-19 3:00	1.05	1965	8.45	4.7	10-21-19 16:00	4.86	879	8.41	31.2	10-21-19 16:00	5.29	897	8.52	212.1															
11-6-19 3:15	1.07	1962	8.45	5.8	10-21-19 16:15	4.86	878	8.41	26.3	10-21-19 16:15	5.34	899	8.52	211.5															
11-6-19 3:30	1.09	1962	8.45	4.9	10-21-19 16:30	4.84	878	8.41	27.9	10-21-19 16:30	5.35	897	8.52	205.4															
11-6-19 3:45	1.16	1958	8.45	5.6	10-21-19 16:45	4.87	878	8.41	26.0	10-21-19 16:45	5.33	898	8.52	211.2															
11-6-19 4:00	1.17	1959	8.45	4.7	10-21-19 17:00	4.83	879	8.41	23.9	10-21-19 17:00	5.30	897	8.52	202.1															
11-6-19 4:15	1.16	1959	8.45	5.6	10-21-19 17:15	4.90	879	8.41	25.5	10-21-19 17:15	5.38	900	8.52	217.8															
11-6-19 4:30	1.16	1960	8.45	4.8	10-21-19 17:30	4.92	880	8.41	10.6	10-21-19 17:30	5.45	900	8.52	208.8															
11-6-19 4:45	1.17	1959	8.45	5.8	10-21-19 17:45	4.92	880	8.41	9.6	10-21-19 17:45	5.51	900	8.51	218.2															
11-6-19 5:00	1.27	1955	8.45	4.9	10-21-19 18:00	4.89	880	8.41	10.8	10-21-19 18:00	5.51	901	8.51	218.6															
11-6-19 5:15	1.28	1953	8.44	5.6	10-21-19 18:15	4.94	880	8.41	10.9	10-21-19 18:15	5.54	900	8.52	219.1															
11-6-19 5:30	1.30	1954	8.45	4.8	10-21-19 18:30	4.96	879	8.41	24.0	10-21-19 18:30	5.64	902	8.52	223.2															
11-6-19 5:45	1.29	1953	8.44	6.1	10-21-19 18:45	4.96	879	8.41	30.1	10-21-19 18:45	5.63	901	8.52	231.7															
11-6-19 6:00	1.26	1956	8.45	4.8	10-21-19 19:00	4.98	880	8.41	26.0	10-21-19 19:00	5.75	903	8.51	224.9															
11-6-19 6:15	1.25	1956	8.45	5.7	10-21-19 19:15	4.98	880	8.39	28.8	10-21-19 19:15	5.77	903	8.51	235.9															
11-6-19 6:30	1.25	1956	8.45	5.0	10-21-19 19:30	4.96	884	7.93	25.8	10-21-19 19:30	5.87	904	8.51	221.5															
11-6-19 6:45	1.26	1955	8.45	6.0	10-21-19 19:45	4.96	885	7.87	25.5	10-21-19 19:45	5.96	904	8.51	228.2															
11-6-19 7:00	1.26	1955	8.45	4.7	10-21-19 20:00	4.98	886	7.79	23.6	10-21-19 20:00	5.96	904	8.51	227.9															
11-6-19 7:15	1.26	1955	8.45	6.0	10-21-19 20:15	4.99	885	7.81	27.9	10-21-19 20:15	5.96	903	8.51	211.6															
11-6-19 7:30	1.23	1957	8.45	4.8	10-21-19 20:30	5.00	886	7.89	29.0	10-21-19 20:30	6.04	904	8.51	214.5															
11-6-19 7:45	1.24	1955	8.45	5.6	10-21-19 20:45	5.02	886	7.73	27.6	10-21-19 20:45	6.09	905	8.51	225.9															
11-6-19 8:00	1.24	1957	8.45	4.7	10-21-19 21:00	5.03	886	7.77	29.2	10-21-19 21:00	5.97	904	8.51	218.0															
11-6-19 8:15	1.24	1956	8.45	5.7	10-21-19 21:15	5.03	886	7.72	29.3	10-21-19 21:15	6.05	905	8.51	234.6															
11-6-19 8:30	1.22	1957	8.45	5.1	10-21-19 21:30	5.03	886	7.69	23.0	10-21-19 21:30	6.02	904	8.51	230.7															
11-6-19 8:45	1.23	1956	8.45	5.6	10-21-19 21:45	5.04	886	7.67	24.5	10-21-19 21:45	6.00	904	8.51	226.7															
11-6-19 9:00	1.22	1957	8.45	4.9	10-21-19 22:00	5.05	886	7.69	21.8	10-21-19 22:00	6.07	905	8.50	226.4															
11-6-19 9:15	1.25	1955	8.45	6.2	10-21-19 22:15	5.05	886	7.74	18.8	10-21-19 22:15	6.05	905	8.50	223.4															
11-6-19 9:30	1.22	1956	8.45	4.9	10-21-19 22:30	5.05	884	7.92	25.0	10-21-19 22:30	6.03	905	8.49	219.2															
11-6-19 9:45	1.21	1955	8.45	5.6	10-21-19 22:45	5.07	882	8.24	21.1	10-21-19 22:45	6.00	905	8.50	223.4															
11-6-19 10:00	1.19	1956	8.45	4.8	10-21-19 23:00	5.12	884	8.18	28.9	10-21-19 23:00	6.03	905	8.51	212.4															
11-6-19 10:15	1.25	1953	8.45	5.8	10-21-19 23:15	5.13	886	7.95	21.7	10-21-19 23:15	6.01	905	8.50	211.6															
11-6-19 10:30	1.22	1955	8.45	5.1	10-21-19 23:30	5.16	883	8.08	22.3	10-21-19 23:30	5.99	905	8.50	218.3															
11-6-19 10:45	1.23	1954	8.45	5.6	10-21-19 23:45	5.13	884	8.08	22.4	10-21-19 23:45	5.96	905	8.51	214.9															
11-6-19 11:00	1.20	1955	8.45	4.8	10-22-19 0:00	5.11	884	8.14	22.0	10-22-19 0:00	5.98	904	8.51	213.3															
11-6-19 11:15	1.17	1957	8.45	5.5	10-22-19 0:15	5.12	884	8.14	22.5	10-22-19 0:15	5.95	905	8.51	209.6															
11-6-19 11:30	1.21	1954	8.45	5.0	10-22-19 0:30	5.14	886	8.21	20.0	10-22-19 0:30	5.94	905	8.51	211.3															
11-6-19 11:45	1.21	1954	8.45	5.8	10-22-19 0:45	5.14	887	8.13	24.6	10-22-19 0:45	5.92	905	8.51	234.1															
11-6-19 12:00	1.23	1954	8.45	4.9	10-22-19 1:00	5.13	886	8.21	24.7	10-22-19 1:00	5.90	905	8.50	216.9															
11-6-19 12:15	1.26	1951	8.45	6.2	10-22-19 1:15	5.13	887	8.18	32.6	10-22-19 1:15	5.87	905	8.51	218.9															
11-6-19 12:30	1.27	1951	8.45	4.9	10-22-19 1:30	5.10	888	8.16	28.2	10-22-19 1:30	5.91	906	8.50	217.4															
11-6-19 12:45	1.27	1950	8.45	5.6	10-22-19 1:45	5.11	887	8.20	23.6	10-22-19 1:45	5.94	907	8.50	229.3															
11-6-19 13:00	1.25	1951	8.45	5.3	10-22-19 2:00	5.09	887	8.23	23.1	10-22-19 2:00	5.95	907	8.50	242.4															
11-6-19 13:15	1.25	1951	8.45	6.0	10-22-19 2:15	5.08	887	8.22	25.1	10-22-19 2:15	5.96	908	8.50	230.8															
11-6-19 13:30	1.24	1952	8.45	4.9	10-22-19 2:30	5.06	886	8.23	21.4	10-22-19 2:30	5.96	907	8.50	237.9															
11-6-19 13:45	1.27	1949	8.45	5.9	10-22-19 2:45	5.03	887	8.24	27.9	10-22-19 2:45	5.98	908	8.50	239.0															
11-6-19 14:00	1.27	1950	8.45	4.8	10-22-19 3:00	5.03	886	8.23	22.8	10-22-19 3:00	6.00	909	8.50	252.7															
11-6-19 14:15	1.29	1948	8.45	6.0	10-22-19 3:15	5.02	887	8.27	26.6	10-22-19 3:15	6.02	910	8.50	242.3															
11-6-19 14:30	1.27	1949	8.45	4.7	10-22-19 3:30	5.01	888	8.24	15.3	10-22-19 3:30	5.99	909	8.49	233.1															
11-6-19 14:45	1.26	1949	8.45	5.9	10-22-19 3:45	5.02	889	8.21	17.0	10-22-19 3:45	5.89	908	8.50	229.4															
11-6-19 15:00	1.26	1950	8.45	4.8	10-22-19 4:00	5.01	889	8.19	16.5	10-22-19 4:00	5.87	910	8.51	238.4															
11-6-19 15:15	1.27	1949	8.44	5.6	10-22-19 4:15	5.01	889	8.17	15.1	10-22-19 4:15	5.85	909	8.50	237.7															
11-6-19 15:30	1.28	1949	8.45	5.0	10-22-19 4:30	4.98	888	8.23	21.6	10-22-19 4:30	5.82	909	8.50	237.4															
11-6-19 15:45	1.27	1948	8.45	5.8	10-22-19 4:45	4.96	888	8.24	19.7	10-22-19 4:45	5.84	910	8.50	237.6															
11-6-19 16:00	1.25	1949	8.45	4.8	10-22-19 5:00	4.96	889	8.22	25.1	10-22-19 5:00	5.82	909	8.50	217.7															
11-6-19 16:15	1.26	1948	8.45	5.8	10-22-19 5:15	4.95	888	8.24	20.8	10-22-19 5:15	5.86	910	8.49	231.6															
11-6-19 16:30	1.28	1948	8.45	4.9	10-22-19 5:30	4.94	888	8.23	23.4	10-22-19 5:30	5.85	910	8.50	222.1															
11-6-19 16:45	1.28	1948	8.45	5.8	10-22-19 5:45	4.93	889	8.23	22.9	10-22-19 5:45	5.81	909	8.50	219.3															
11-6-19 17:00	1.28	1949	8.45	4.9	10-22-19 6:00	4.94	890	8.16	22.5	10-22-19 6:00	5.79	909	8.50	218.3															
11-6-19 17:15	1.30	1947	8.45	5.8	10-22-19 6:15	4.90	891	8.27	28.5	10-22-19 6:15	5.80	910	8.50	222.9															
11-6-19 17:30	1.29	1948	8.45	4.9	10-22-19 6:30	4.88	870	8.31	20.7	10-22-19 6:30	5.80	909	8.50	229.8															
11-6-19 17:45	1.33	1946	8.45	5.7	10-22-19 6:45	4.90	871	8.31	21.1	10-22-19 6:45	5.81	909	8.50	228.1															
11-6-19 18:00	1.32	1947	8.45	4.9	10-22-19 7:00	4.88	870	8.32	21.4	10-22-19 7:00	5.81	910	8.49	232.6															
11-6-19 18:30	1.36	1944	8.45	5.5	10-22-19 7:15	4.89	871	8.32	23.9	10-22-19 7:15	5.83	911	8.50	221.2															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-6-19 18:45	1.36	1946	8.45	5.1	10-22-19 7:30	4.85	891	8.33	25.5	10-22-19 7:30	5.82	911	8.50	223.7															
11-6-19 19:00	1.40	1943	8.45	5.8	10-22-19 7:45	4.87	892	8.33	26.2	10-22-19 7:45	5.77	910	8.49	236.6															
11-6-19 19:15	1.41	1943	8.45	4.8	10-22-19 8:00	4.87	892	8.33	22.7	10-22-19 8:00	5.77	910	8.49	221.0															
11-6-19 19:30	1.43	1941	8.45	5.8	10-22-19 8:15	4.86	890	8.34	20.8	10-22-19 8:15	5.74	910	8.49	228.8															
11-6-19 19:45	1.44	1943	8.45	5.3	10-22-19 8:30	4.86	891	8.34	22.2	10-22-19 8:30	5.71	910	8.49	216.2															
11-6-19 20:00	1.43	1943	8.45	5.6	10-22-19 8:45	4.85	891	8.35	20.8	10-22-19 8:45	5.65	910	8.49	224.1															
11-6-19 20:15	1.44	1943	8.46	5.1	10-22-19 9:00	4.85	890	8.36	22.2	10-22-19 9:00	5.71	910	8.49	217.2															
11-6-19 20:30	1.46	1942	8.45	6.2	10-22-19 9:15	4.84	891	8.35	21.0	10-22-19 9:15	5.72	911	8.49	218.2															
11-6-19 20:45	1.45	1942	8.45	5.2	10-22-19 9:30	4.83	891	8.36	12.9	10-22-19 9:30	5.71	910	8.49	215.3															
11-6-19 21:00	1.45	1941	8.46	6.1	10-22-19 9:45	4.83	890	8.36	22.0	10-22-19 9:45	5.72	911	8.50	226.6															
11-6-19 21:15	1.47	1941	8.46	5.0	10-22-19 10:00	4.81	891	8.35	12.3	10-22-19 10:00	5.70	910	8.50	235.4															
11-6-19 21:30	1.47	1941	8.46	5.9	10-22-19 10:15	4.81	890	8.36	24.9	10-22-19 10:15	5.69	911	8.50	229.8															
11-6-19 21:45	1.48	1942	8.46	5.1	10-22-19 10:30	4.81	890	8.35	21.6	10-22-19 10:30	5.66	910	8.50	213.0															
11-6-19 22:00	1.49	1939	8.46	5.6	10-22-19 10:45	4.80	891	8.35	23.5	10-22-19 10:45	5.63	910	8.49	211.2															
11-6-19 22:15	1.49	1940	8.46	5.0	10-22-19 11:00	4.79	889	8.35	17.4	10-22-19 11:00	5.63	909	8.49	211.9															
11-6-19 22:30	1.48	1939	8.47	6.3	10-22-19 11:15	4.78	889	8.35	22.1	10-22-19 11:15	5.59	910	8.50	220.7															
11-6-19 22:45	1.47	1940	8.47	5.0	10-22-19 11:30	4.77	889	8.36	30.0	10-22-19 11:30	5.59	909	8.50	215.4															
11-6-19 23:00	1.47	1939	8.47	7.2	10-22-19 11:45	4.75	888	8.35	25.4	10-22-19 11:45	5.58	910	8.50	208.4															
11-6-19 23:15	1.47	1940	8.47	5.0	10-22-19 12:00	4.74	888	8.35	22.0	10-22-19 12:00	5.57	910	8.50	208.7															
11-6-19 23:30	1.47	1940	8.47	6.0	10-22-19 12:15	4.73	889	8.35	23.2	10-22-19 12:15	5.59	910	8.50	225.0															
11-6-19 23:45	1.47	1939	8.47	4.8	10-22-19 12:30	4.72	888	8.36	17.9	10-22-19 12:30	5.57	910	8.49	203.6															
11-7-19 0:00	1.45	1937	8.47	5.9	10-22-19 12:45	4.72	889	8.35	20.3	10-22-19 12:45	5.56	910	8.49	208.0															
11-7-19 0:15	1.45	1938	8.47	4.9	10-22-19 13:00	4.70	889	8.36	22.5	10-22-19 13:00	5.54	910	8.49	211.4															
11-7-19 0:30	1.45	1936	8.48	5.7	10-22-19 13:15	4.70	888	8.36	20.3	10-22-19 13:15	5.51	909	8.49	212.6															
11-7-19 0:45	1.46	1937	8.47	4.9	10-22-19 13:30	4.68	888	8.36	22.6	10-22-19 13:30	5.50	910	8.49	208.1															
11-7-19 1:00	1.46	1936	8.47	5.6	10-22-19 13:45	4.67	888	8.36	21.8	10-22-19 13:45	5.48	910	8.48	199.8															
11-7-19 1:15	1.45	1937	8.47	4.7	10-22-19 14:00	4.67	888	8.37	22.1	10-22-19 14:00	5.48	910	8.49	205.3															
11-7-19 1:30	1.45	1937	8.47	5.7	10-22-19 14:15	4.66	887	8.37	18.5	10-22-19 14:15	5.49	910	8.49	208.0															
11-7-19 1:45	1.45	1936	8.47	5.2	10-22-19 14:30	4.65	887	8.36	19.2	10-22-19 14:30	5.53	910	8.48	217.6															
11-7-19 2:00	1.45	1936	8.47	5.7	10-22-19 14:45	4.62	887	8.37	16.6	10-22-19 14:45	5.45	909	8.48	197.9															
11-7-19 2:15	1.45	1937	8.47	4.9	10-22-19 15:00	4.65	887	8.37	18.4	10-22-19 15:00	5.48	911	8.47	200.5															
11-7-19 2:30	1.46	1935	8.47	5.7	10-22-19 15:15	4.64	886	8.37	17.1	10-22-19 15:15	5.45	910	8.47	193.8															
11-7-19 2:45	1.46	1935	8.47	5.1	10-22-19 15:30	4.65	886	8.39	23.0	10-22-19 15:30	5.42	910	8.48	194.2															
11-7-19 3:00	1.47	1934	8.47	5.7	10-22-19 15:45	4.65	885	8.39	18.4	10-22-19 15:45	5.42	910	8.48	200.6															
11-7-19 3:15	1.47	1935	8.47	4.8	10-22-19 16:00	4.67	883	8.39	17.7	10-22-19 16:00	5.43	910	8.48	198.8															
11-7-19 3:30	1.47	1933	8.47	5.8	10-22-19 16:15	4.68	883	8.40	17.3	10-22-19 16:15	5.39	910	8.48	185.5															
11-7-19 3:45	1.47	1933	8.47	5.2	10-22-19 16:30	4.68	883	8.40	17.7	10-22-19 16:30	5.39	909	8.48	179.8															
11-7-19 4:00	1.50	1931	8.48	5.9	10-22-19 16:45	4.67	881	8.40	17.8	10-22-19 16:45	5.36	910	8.48	195.6															
11-7-19 4:15	1.49	1933	8.47	5.1	10-22-19 17:00	4.66	881	8.41	16.3	10-22-19 17:00	5.37	910	8.49	185.8															
11-7-19 4:30	1.48	1933	8.47	6.1	10-22-19 17:15	4.64	881	8.41	16.3	10-22-19 17:15	5.38	909	8.49	193.9															
11-7-19 4:45	1.50	1931	8.48	5.2	10-22-19 17:30	4.65	881	8.41	22.0	10-22-19 17:30	5.35	908	8.49	184.3															
11-7-19 5:00	1.49	1931	8.48	5.9	10-22-19 17:45	4.66	881	8.41	22.8	10-22-19 17:45	5.40	910	8.49	191.7															
11-7-19 5:15	1.49	1931	8.48	5.2	10-22-19 18:00	4.68	881	8.41	25.4	10-22-19 18:00	5.35	909	8.49	185.0															
11-7-19 5:30	1.52	1929	8.48	5.8	10-22-19 18:15	4.63	638	8.42	20.3	10-22-19 18:15	5.41	910	8.49	196.2															
11-7-19 5:45	1.52	1930	8.48	5.1	10-22-19 18:30	4.62	709	8.46	22.0	10-22-19 18:30	5.40	910	8.49	199.0															
11-7-19 6:00	1.53	1929	8.48	5.7	10-22-19 18:45	4.55	0	8.24	0.0	10-22-19 18:45	5.41	910	8.49	186.2															
11-7-19 6:15	1.48	1931	8.48	4.9	10-22-19 19:00	4.44	0	7.87	0.0	10-22-19 19:00	5.43	910	8.49	189.5															
11-7-19 6:30	1.51	1928	8.48	5.9	10-22-19 19:15	4.70	0	7.84	0.0	10-22-19 19:15	5.48	910	8.49	195.4															
11-7-19 6:45	1.48	1930	8.48	5.2	10-22-19 19:30	4.85	0	7.61	0.0	10-22-19 19:30	5.57	911	8.49	191.5															
11-7-19 7:00	1.46	1930	8.47	5.6	10-22-19 19:45	4.78	0	7.51	0.6	10-22-19 19:45	5.56	911	8.50	187.9															
11-7-19 7:15	1.46	1931	8.47	4.8	10-22-19 20:00	4.75	0	7.49	1.3	10-22-19 20:00	5.58	910	8.49	189.6															
11-7-19 7:30	1.47	1929	8.47	5.8	10-22-19 20:15	5.25	0	7.45	0.8	10-22-19 20:15	5.60	910	8.49	198.9															
11-7-19 7:45	1.47	1929	8.47	5.1	10-22-19 20:30	5.13	0	7.35	1.7	10-22-19 20:30	5.61	911	8.49	209.9															
11-7-19 8:00	1.45	1930	8.47	5.8	10-22-19 20:45	5.06	0	7.38	1.7	10-22-19 20:45	5.63	911	8.49	180.9															
11-7-19 8:15	1.44	1931	8.47	5.0	10-22-19 21:00	5.06	0	7.31	1.8	10-22-19 21:00	5.65	911	8.50	188.4															
11-7-19 8:30	1.45	1930	8.48	5.6	10-22-19 21:15	4.97	0	6.95	1.8	10-22-19 21:15	5.70	911	8.50	191.3															
11-7-19 8:45	1.45	1930	8.48	5.5	10-22-19 21:30	5.41	0	6.40	14.1	10-22-19 21:30	5.66	911	8.49	190.1															
11-7-19 9:00	1.44	1930	8.47	5.9	10-22-19 21:45	5.33	0	6.43	0.8	10-22-19 21:45	5.68	911	8.50	187.5															
11-7-19 9:15	1.44	1929	8.47	4.8	10-22-19 22:00	5.26	0	6.55	33.5	10-22-19 22:00	5.67	911	8.50	198.5															
11-7-19 9:30	1.43	1930	8.47	5.7	10-22-19 22:15	5.17	870	8.77	28.2	10-22-19 22:15	5.66	911	8.49	186.9															
11-7-19 9:45	1.44	1929	8.47	5.3	10-22-19 22:30	5.09	879	8.47	23.4	10-22-19 22:30	5.65	911	8.50	189.3															
11-7-19 10:00	1.45	1929	8.47	5.9	10-22-19 22:45	5.11	879	8.47	25.0	10-22-19 22:45	5.66	912	8.50	195.3															
11-7-19 10:15	1.44	1928	8.47	4.8	10-22-19 23:00	5.11	878	8.47	22.4	10-22-19 23:00	5.65	912	8.50	182.3															
11-7-19 10:30	1.46	1927	8.47	5.9	10-22-19 23:15	5.11	878	8.47	20.6	10-22-19 23:15	5.63	912	8.50	188.5															
11-7-19 10:45	1.45	1928	8.47	5.0	10-22-19 23:30	5.11	878	8.47	21.4	10-22-19 23:30	5.63	912	8.50	198.5															
11-7-19 11:00	1.48	1927	8.47	5.9	10-22-19 23:45	5.11	879	8.47	7.5	10-22-19 23:45	5.61	912	8.50	190.9															
11-7-19 11:15	1.44	1929	8.47	6.2	10-23-19 0:00	5.04	878	8.48	18.2	10-23-19 0:00	5.62	912	8.50	196.9															
11-7-19 11:30	1.47	1927	8.47	5.6	10-23-19 0:15	4.99	879	8.48	27.6	10-23-19 0:15	5.61	912	8.50	208.3															
11-7-19 11:45	1.45	1928	8.47	4.9	10-23-19 0:30	4.96	877	8.48	15.7	10-23-19 0:30	5.61	912	8.49	199.4															
11-7-19 12:00	1.48	1926	8.47	5.9	10-23-19 0:45	4.96	878	8.48	16.1	10-23-19 0:45	5.56	912	8.49	193.1															
11-7-19 12:15	1.47	1926	8.47	5.0	10-23-19 1:00	4.96	878	8.48	15.1	10-23-19 1:00	5.56	913	8.51	199.0															
11-7-19 12:30	1.48	1925	8.47	5.8	10-23-19 1:15	4.97	880	8.47	12.4	10-23-19 1:15	5.56	912	8.50	187.0															
11-7-19 12:45	1.48	1925	8.47	5.1	10-23-19 1:30	4.86	878	8.47	19.7	10-23-19 1:30	5.52	913	8.50	190.5															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-7-19 13:00	1.43	1925	8.47	5.9	10-23-19 1:45	4.86	878	8.48	16.9	10-23-19 1:45	5.53	913	8.49	191.4															
11-7-19 13:15	1.42	1928	8.47	5.2	10-23-19 2:00	4.86	878	8.48	18.2	10-23-19 2:00	5.51	913	8.50	196.0															
11-7-19 13:30	1.43	1926	8.47	5.9	10-23-19 2:15	4.88	878	8.48	18.2	10-23-19 2:15	5.47	913	8.50	203.1															
11-7-19 13:45	1.43	1926	8.47	5.0	10-23-19 2:30	4.84	879	8.47	17.5	10-23-19 2:30	5.47	913	8.49	199.2															
11-7-19 14:00	1.47	1924	8.47	5.6	10-23-19 2:45	4.80	879	8.47	20.9	10-23-19 2:45	5.43	913	8.49	189.2															
11-7-19 14:15	1.44	1926	8.47	5.2	10-23-19 3:00	4.79	879	8.47	17.2	10-23-19 3:00	5.42	913	8.50	200.6															
11-7-19 14:30	1.45	1923	8.47	6.2	10-23-19 3:15	4.76	879	8.47	16.6	10-23-19 3:15	5.41	913	8.50	196.5															
11-7-19 14:45	1.40	1926	8.47	5.1	10-23-19 3:30	4.77	879	8.49	16.6	10-23-19 3:30	5.37	913	8.50	198.5															
11-7-19 15:00	1.41	1927	8.47	6.0	10-23-19 3:45	4.73	879	8.48	15.2	10-23-19 3:45	5.35	913	8.50	194.7															
11-7-19 15:15	1.42	1925	8.47	4.9	10-23-19 4:00	4.68	878	8.48	12.6	10-23-19 4:00	5.31	913	8.50	202.6															
11-7-19 15:30	1.39	1928	8.47	5.9	10-23-19 4:15	4.64	879	8.48	13.2	10-23-19 4:15	5.30	913	8.50	198.7															
11-7-19 15:45	1.36	1928	8.47	5.0	10-23-19 4:30	4.60	879	8.49	14.0	10-23-19 4:30	5.30	914	8.50	200.7															
11-7-19 16:00	1.37	1927	8.47	5.8	10-23-19 4:45	4.55	880	8.48	15.1	10-23-19 4:45	5.27	914	8.50	193.7															
11-7-19 16:15	1.40	1925	8.47	5.6	10-23-19 5:00	4.56	880	8.47	18.6	10-23-19 5:00	5.27	913	8.50	196.0															
11-7-19 16:30	1.40	1925	8.47	6.1	10-23-19 5:15	4.51	879	8.49	12.3	10-23-19 5:15	5.22	914	8.50	202.2															
11-7-19 16:45	1.40	1926	8.47	4.8	10-23-19 5:30	4.47	879	8.48	12.8	10-23-19 5:30	5.20	914	8.50	196.5															
11-7-19 17:00	1.44	1922	8.47	6.1	10-23-19 5:45	4.40	880	8.49	13.5	10-23-19 5:45	5.15	914	8.50	183.8															
11-7-19 17:15	1.43	1924	8.47	4.9	10-23-19 6:00	4.39	879	8.48	12.9	10-23-19 6:00	5.13	914	8.49	184.9															
11-7-19 17:30	1.43	1924	8.47	5.5	10-23-19 6:15	4.33	881	8.49	6.2	10-23-19 6:15	5.08	914	8.49	191.4															
11-7-19 17:45	1.43	1923	8.47	5.8	10-23-19 6:30	4.38	879	8.49	11.3	10-23-19 6:30	5.07	914	8.49	192.2															
11-7-19 18:00	1.47	1920	8.47	5.4	10-23-19 6:45	4.23	880	8.49	11.5	10-23-19 6:45	5.05	914	8.49	191.2															
11-7-19 18:15	1.47	1922	8.47	5.1	10-23-19 7:00	4.34	880	8.48	11.0	10-23-19 7:00	5.06	914	8.49	183.1															
11-7-19 18:30	1.47	1920	8.47	5.9	10-23-19 7:15	4.05	880	8.49	11.2	10-23-19 7:15	5.06	914	8.50	187.1															
11-7-19 18:45	1.43	1923	8.47	5.0	10-23-19 7:30	4.00	881	8.48	12.1	10-23-19 7:30	5.08	914	8.49	186.8															
11-7-19 19:00	1.42	1924	8.47	5.5	10-23-19 7:45	4.08	881	8.48	11.2	10-23-19 7:45	5.03	914	8.48	183.0															
11-7-19 19:15	1.48	1920	8.47	5.5	10-23-19 8:00	4.09	880	8.48	12.4	10-23-19 8:00	4.98	914	8.48	187.9															
11-7-19 19:30	1.49	1920	8.47	6.1	10-23-19 8:15	4.05	881	8.48	11.2	10-23-19 8:15	4.92	914	8.49	181.5															
11-7-19 19:45	1.43	1921	8.47	5.2	10-23-19 8:30	4.14	881	8.48	11.5	10-23-19 8:30	4.94	914	8.49	187.7															
11-7-19 20:00	1.39	1923	8.47	5.8	10-23-19 8:45	4.16	881	8.48	10.5	10-23-19 8:45	4.91	914	8.49	187.7															
11-7-19 20:15	1.40	1923	8.47	5.5	10-23-19 9:00	4.14	881	8.48	10.6	10-23-19 9:00	4.90	914	8.49	198.4															
11-7-19 20:30	1.40	1923	8.47	5.6	10-23-19 9:15	4.14	881	8.48	9.7	10-23-19 9:15	4.85	914	8.49	184.9															
11-7-19 20:45	1.39	1923	8.47	5.1	10-23-19 9:30	4.10	882	8.48	7.3	10-23-19 9:30	4.84	914	8.49	176.9															
11-7-19 21:00	1.32	1924	8.47	7.0	10-23-19 9:45	4.12	882	8.48	10.1	10-23-19 9:45	4.80	915	8.48	179.6															
11-7-19 21:15	1.36	1924	8.47	5.0	10-23-19 10:00	4.14	882	8.48	10.8	10-23-19 10:00	4.66	913	8.50	174.5															
11-7-19 21:30	1.39	1923	8.47	6.0	10-23-19 10:15	4.07	882	8.48	11.6	10-23-19 10:15	4.68	916	8.50	192.2															
11-7-19 21:45	1.40	1920	8.47	5.2	10-23-19 10:30	4.07	882	8.48	9.4	10-23-19 10:30	4.63	913	8.50	176.2															
11-7-19 22:00	1.40	1922	8.47	5.9	10-23-19 10:45	3.88	882	8.48	11.8	10-23-19 10:45	4.66	917	8.50	185.6															
11-7-19 22:15	1.37	1921	8.48	5.2	10-23-19 11:00	3.83	882	8.49	9.3	10-23-19 11:00	4.61	916	8.50	180.2															
11-7-19 22:30	1.27	1925	8.49	7.0	10-23-19 11:15	3.82	880	8.49	9.4	10-23-19 11:15	4.57	916	8.50	185.8															
11-7-19 22:45					10-23-19 11:30	3.83	883	8.49	11.0	10-23-19 11:30	4.67	916	8.50	180.7															
11-7-19 23:00	0.16	1937	8.49	13.5	10-23-19 11:45	3.84	882	8.48	9.7	10-23-19 11:45	4.36	918	8.50	185.7															
11-7-19 23:15	0.15	1905	8.48	12.4	10-23-19 12:00	3.86	883	8.48	13.8	10-23-19 12:00	4.55	912	8.49	172.7															
11-7-19 23:30	0.15	1904	8.48	14.6	10-23-19 12:15	3.84	882	8.48	9.3	10-23-19 12:15	4.49	914	8.50	180.4															
11-7-19 23:45	0.15	1895	8.46	14.2	10-23-19 12:30	3.84	883	8.48	9.3	10-23-19 12:30	4.44	915	8.49	170.0															
11-8-19 0:00	0.16	1896	8.48	11.5	10-23-19 12:45	3.77	882	8.49	7.5	10-23-19 12:45	4.50	915	8.50	186.6															
11-8-19 0:15	0.15	1890	8.47	10.6	10-23-19 13:00	3.72	884	8.48	8.5	10-23-19 13:00	4.45	915	8.50	179.9															
11-8-19 0:30	0.14	1893	8.48	9.1	10-23-19 13:15	3.75	883	8.47	12.2	10-23-19 13:15	4.41	915	8.50	174.3															
11-8-19 0:45	0.15	1888	8.47	8.8	10-23-19 13:30	3.63	882	8.48	7.8	10-23-19 13:30	4.29	914	8.50	175.9															
11-8-19 1:00	0.16	1890	8.49	7.1	10-23-19 13:45	3.68	884	8.48	10.8	10-23-19 13:45	4.46	917	8.50	181.1															
11-8-19 1:15	0.15	1884	8.47	7.9	10-23-19 14:00	3.70	883	8.48	8.6	10-23-19 14:00	4.26	914	8.50	176.5															
11-8-19 1:30	0.14	1890	8.48	5.7	10-23-19 14:15	3.58	884	8.49	13.8	10-23-19 14:15	4.28	911	8.51	165.6															
11-8-19 1:45	0.15	1878	8.47	7.1	10-23-19 14:30	3.57	884	8.48	12.2	10-23-19 14:30	4.26	919	8.50	183.4															
11-8-19 2:00	0.16	1878	8.48	5.6	10-23-19 14:45	3.55	884	8.48	10.8	10-23-19 14:45	4.34	913	8.50	182.6															
11-8-19 2:15	0.17	1873	8.47	6.0	10-23-19 15:00	3.53	885	8.48	11.3	10-23-19 15:00	4.27	917	8.50	177.1															
11-8-19 2:30	0.16	1873	8.48	4.8	10-23-19 15:15	3.53	884	8.47	10.5	10-23-19 15:15	4.34	917	8.50	178.1															
11-8-19 2:45	0.17	1870	8.47	5.4	10-23-19 15:30	3.54	883	8.48	8.1	10-23-19 15:30	4.14	917	8.50	181.5															
11-8-19 3:00	0.17	1872	8.48	4.2	10-23-19 15:45	3.49	883	8.48	7.4	10-23-19 15:45	4.16	914	8.50	173.9															
11-8-19 3:15	0.17	1868	8.47	5.4	10-23-19 16:00	3.50	883	8.48	7.5	10-23-19 16:00	4.24	911	8.50	189.3															
11-8-19 3:30	0.17	1870	8.48	4.1	10-23-19 16:15	3.48	883	8.48	7.4	10-23-19 16:15	4.22	917	8.50	177.4															
11-8-19 3:45	0.17	1868	8.48	5.0	10-23-19 16:30	3.52	845	8.48	7.4	10-23-19 16:30	4.16	915	8.50	168.9															
11-8-19 4:00	0.17	1867	8.48	5.3	10-23-19 16:45	3.48	846	8.49	7.0	10-23-19 16:45	4.09	919	8.50	184.9															
11-8-19 4:15	0.17	1862	8.48	4.9	10-23-19 17:00	3.53	845	8.48	7.7	10-23-19 17:00	4.28	918	8.50	177.0															
11-8-19 4:30	0.17	1863	8.48	6.1	10-23-19 17:15	3.56	845	8.48	6.7	10-23-19 17:15	4.22	917	8.50	183.7															
11-8-19 4:45	0.17	1858	8.47	4.8	10-23-19 17:30	3.60	884	8.48	7.6	10-23-19 17:30	4.43	917	8.50	178.3															
11-8-19 5:00	0.17	1859	8.48	4.6	10-23-19 17:45	3.55	884	8.49	6.9	10-23-19 17:45	4.43	916	8.50	178.8															
11-8-19 5:15	0.17	1854	8.48	4.4	10-23-19 18:00	3.63	883	8.49	6.9	10-23-19 18:00	4.47	916	8.49	171.7															
11-8-19 5:30	0.18	1856	8.48	3.5	10-23-19 18:15	3.74	883	8.48	7.9	10-23-19 18:15	4.47	917	8.49	170.5															
11-8-19 5:45	0.18	1851	8.48	3.7	10-23-19 18:30	3.77	883	8.49	7.9	10-23-19 18:30	4.46	916	8.48	170.0															
11-8-19 6:00	0.17	1853	8.48	4.7	10-23-19 18:45	3.85	883	8.49	3.7	10-23-19 18:45	4.48	917	8.48	170.4															
11-8-19 6:15	0.17	1847	8.48	3.6	10-23-19 19:00	3.82	883	8.49	8.5	10-23-19 19:00	4.59	917	8.49	171.9															
11-8-19 6:30	0.17	1848	8.48	3.2	10-23-19 19:15	3.90	881	8.48	6.8	10-23-19 19:15	4.60	916	8.50	177.5															
11-8-19 6:45	0.18	1846	8.47	4.0	10-23-19 19:30	3.91	882	8.49	6.7	10-23-19 19:30	4.60	916	8.49	168.6															
11-8-19 7:00	0.19	1845	8.48	3.1	10-23-19 19:45	3.82	883	8.49	10.4	10-23-19 19:45	4.63	916	8.48	168.1															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-8-19 7:15	0.18	1841	8.47	3.8	10-23-19 20:00	3.80	882	8.49	6.7	10-23-19 20:00	4.74	916	8.49	172.9															
11-8-19 7:30	0.19	1845	8.48	3.0	10-23-19 20:30	3.84	882	8.49	8.3	10-23-19 20:30	4.80	916	8.49	169.2															
11-8-19 7:45	0.18	1839	8.47	4.0	10-23-19 20:45	3.86	882	8.50	9.8	10-23-19 20:45	4.79	916	8.49	175.6															
11-8-19 8:00	0.18	1844	8.48	3.1	10-23-19 21:00	3.89	882	8.50	4.8	10-23-19 21:00	4.74	916	8.50	200.9															
11-8-19 8:15	0.18	1835	8.47	4.6	10-23-19 21:15	3.88	882	8.50	7.9	10-23-19 21:15	4.78	916	8.50	176.8															
11-8-19 8:30	0.18	1842	8.48	3.2	10-23-19 21:30	3.88	882	8.50	8.8	10-23-19 21:30	4.85	916	8.49	170.3															
11-8-19 8:45	0.17	1839	8.47	4.6	10-23-19 21:45	3.91	881	8.50	6.6	10-23-19 21:45	4.83	916	8.49	167.5															
11-8-19 9:00	0.18	1839	8.48	3.2	10-23-19 22:00	3.93	882	8.39	6.7	10-23-19 22:00	4.79	916	8.50	178.8															
11-8-19 9:15	0.18	1830	8.48	4.2	10-23-19 22:15	3.95	881	8.48	6.4	10-23-19 22:15	4.69	916	8.49	164.9															
11-8-19 9:30	0.18	1834	8.48	2.9	10-23-19 22:30	3.94	881	8.44	6.9	10-23-19 22:30	4.73	916	8.49	175.2															
11-8-19 9:45	0.18	1825	8.48	3.5	10-23-19 22:45	3.94	881	8.48	7.2	10-23-19 22:45	4.74	917	8.50	181.2															
11-8-19 10:00	0.19	1826	8.48	3.9	10-23-19 23:00	3.93	881	8.21	8.1	10-23-19 23:00	4.72	917	8.49	178.3															
11-8-19 10:15	0.19	1820	8.48	4.4	10-23-19 23:15	3.93	886	8.10	7.2	10-23-19 23:15	4.74	918	8.50	178.4															
11-8-19 10:30	0.20	1830	8.48	4.9	10-23-19 23:30	3.92	886	7.69	6.9	10-23-19 23:30	4.74	918	8.50	192.0															
11-8-19 10:45	0.19	1816	8.48	4.2	10-23-19 23:45	3.90	889	7.60	7.8	10-23-19 23:45	4.75	920	8.51	210.3															
11-8-19 11:00	0.19	1828	8.48	5.1	10-24-19 0:00	3.89	882	7.91	6.9	10-24-19 0:00	4.74	920	8.51	217.2															
11-8-19 11:15	0.17	1818	8.48	5.4	10-24-19 0:15	3.90	887	7.85	6.1	10-24-19 0:15	4.75	920	8.54	226.3															
11-8-19 11:30	0.17	1830	8.48	4.8	10-24-19 0:30	3.88	882	8.37	7.6	10-24-19 0:30	4.73	921	8.53	233.6															
11-8-19 11:45	0.17	1826	8.48	3.9	10-24-19 0:45	3.87	881	8.44	4.6	10-24-19 0:45	4.72	922	8.53	243.9															
11-8-19 12:00	0.17	1846	8.48	4.0	10-24-19 1:00	3.87	880	8.46	7.7	10-24-19 1:00	4.75	922	8.54	256.1															
11-8-19 12:15	0.17	1816	8.47	4.6	10-24-19 1:15	3.92	879	8.35	6.9	10-24-19 1:15	4.64	920	8.54	228.3															
11-8-19 12:30	0.16	1828	8.47	5.4	10-24-19 1:30	3.90	879	8.49	6.4	10-24-19 1:30	4.78	922	8.54	264.0															
11-8-19 12:45	0.15	1817	8.47	4.8	10-24-19 1:45	3.84	880	8.45	9.1	10-24-19 1:45	4.81	923	8.58	295.9															
11-8-19 13:00	0.14	1832	8.48	4.1	10-24-19 2:00	3.86	882	8.09	6.8	10-24-19 2:00	4.81	923	8.57	277.1															
11-8-19 13:15	0.14	1823	8.47	4.0	10-24-19 2:15	3.83	878	8.38	9.9	10-24-19 2:15	4.86	924	8.59	290.1															
11-8-19 13:30	0.14	1835	8.48	4.6	10-24-19 2:30	3.91	877	8.45	7.0	10-24-19 2:30	4.83	925	8.58	308.3															
11-8-19 13:45	0.16	1819	8.47	4.0	10-24-19 2:45	3.91	877	8.43	10.6	10-24-19 2:45	4.88	925	8.59	308.6															
11-8-19 14:00	0.18	1829	8.47	4.3	10-24-19 3:00	3.88	877	8.41	7.8	10-24-19 3:00	4.90	926	8.60	339.2															
11-8-19 14:15	0.18	1817	8.47	4.6	10-24-19 3:15	3.88	877	8.48	12.7	10-24-19 3:15	4.89	926	8.61	317.1															
11-8-19 14:30	0.17	1823	8.47	5.5	10-24-19 3:30	3.87	877	8.49	11.4	10-24-19 3:30	4.85	925	8.60	317.3															
11-8-19 14:45	0.17	1811	8.47	4.2	10-24-19 3:45	3.87	878	8.49	11.8	10-24-19 3:45	4.87	926	8.60	322.2															
11-8-19 15:00	0.17	1822	8.48	3.9	10-24-19 4:00	3.87	877	8.49	11.6	10-24-19 4:00	4.91	928	8.61	329.2															
11-8-19 15:15	0.18	1815	8.47	3.8	10-24-19 4:15	3.85	877	8.49	11.6	10-24-19 4:15	4.94	928	8.62	337.9															
11-8-19 15:30	0.16	1820	8.48	6.1	10-24-19 4:30	3.85	877	8.49	12.2	10-24-19 4:30	4.94	929	8.63	340.0															
11-8-19 15:45	0.15	1812	8.47	4.0	10-24-19 4:45	3.84	878	8.49	8.4	10-24-19 4:45	4.96	930	8.63	364.3															
11-8-19 16:00	0.15	1822	8.48	4.0	10-24-19 5:00	3.83	877	8.48	14.7	10-24-19 5:00	4.96	930	8.63	352.2															
11-8-19 16:15	0.15	1808	8.47	3.7	10-24-19 5:15	3.83	877	8.48	11.3	10-24-19 5:15	5.00	930	8.64	363.8															
11-8-19 16:30	0.16	1815	8.47	4.8	10-24-19 5:30	3.81	876	8.48	11.7	10-24-19 5:30	4.97	931	8.63	369.2															
11-8-19 16:45	0.16	1807	8.47	4.1	10-24-19 5:45	3.81	877	8.48	16.3	10-24-19 5:45	4.97	931	8.64	373.1															
11-8-19 17:00	0.16	1818	8.47	5.1	10-24-19 6:00	3.80	877	8.48	11.3	10-24-19 6:00	5.00	931	8.64	384.0															
11-8-19 17:15	0.17	1805	8.47	3.7	10-24-19 6:15	3.79	877	8.47	16.9	10-24-19 6:15	4.99	932	8.65	373.8															
11-8-19 17:30	0.18	1786	8.47	8.0	10-24-19 6:30	3.78	876	8.48	13.6	10-24-19 6:30	4.95	934	8.65	381.1															
11-8-19 17:45	0.17	1789	8.46	7.6	10-24-19 6:45	3.79	876	8.48	15.0	10-24-19 6:45	4.98	932	8.65	371.0															
11-8-19 18:15	0.21	1805	8.46	9.0	10-24-19 7:00	3.79	876	8.48	14.6	10-24-19 7:00	5.12	934	8.65	402.0															
11-8-19 18:30	0.19	1793	8.45	7.4	10-24-19 7:15	3.80	877	8.48	15.3	10-24-19 7:15	5.12	934	8.66	385.1															
11-8-19 18:45	0.18	1801	8.46	8.9	10-24-19 7:30	3.82	880	8.48	17.5	10-24-19 7:30	4.95	930	8.66	355.0															
11-8-19 19:00	0.18	1789	8.45	6.4	10-24-19 7:45	3.86	884	8.48	21.1	10-24-19 7:45	4.95	933	8.67	402.5															
11-8-19 19:15	0.17	1796	8.45	8.3	10-24-19 8:00	3.90	888	8.48	22.3	10-24-19 8:00	5.00	934	8.67	391.2															
11-8-19 19:30	0.16	1787	8.45	7.6	10-24-19 8:15	3.92	889	8.47	28.6	10-24-19 8:15	5.02	934	8.68	405.7															
11-8-19 19:45	0.16	1797	8.46	8.5	10-24-19 8:30	3.93	890	8.47	26.3	10-24-19 8:30	5.06	934	8.68	388.8															
11-8-19 20:00	0.17	1781	8.45	5.5	10-24-19 8:45	3.95	893	8.48	20.5	10-24-19 8:45	5.08	934	8.68	413.7															
11-8-19 20:15	0.16	1804	8.46	8.1	10-24-19 9:00	3.97	894	8.47	31.0	10-24-19 9:00	5.08	934	8.68	408.2															
11-8-19 20:30	0.16	1800	8.45	6.2	10-24-19 9:15	3.97	895	8.47	24.2	10-24-19 9:15	5.06	934	8.68	423.2															
11-8-19 20:45	0.17	1803	8.46	8.3	10-24-19 9:30	3.99	896	8.47	24.9	10-24-19 9:30	5.10	935	8.69	411.4															
11-8-19 21:00	0.17	1791	8.45	5.4	10-24-19 9:45	4.00	898	8.48	30.2	10-24-19 9:45	5.09	936	8.69	422.4															
11-8-19 21:15	0.17	1807	8.46	7.7	10-24-19 10:00	3.99	894	8.39	24.0	10-24-19 10:00	5.15	936	8.70	432.1															
11-8-19 21:30	0.17	1789	8.45	5.4	10-24-19 10:15	4.02	899	8.47	27.2	10-24-19 10:15	5.19	937	8.69	433.7															
11-8-19 21:45	0.16	1809	8.46	8.1	10-24-19 10:30	4.04	901	8.48	31.4	10-24-19 10:30	5.20	938	8.69	453.7															
11-8-19 22:00	0.18	1797	8.46	5.1	10-24-19 10:45	4.04	901	8.47	28.4	10-24-19 10:45	5.19	938	8.69	459.8															
11-8-19 22:15	0.16	1804	8.46	7.1	10-24-19 11:00	4.05	903	8.48	29.0	10-24-19 11:00	5.18	938	8.69	440.4															
11-8-19 22:30	0.15	1798	8.45	5.1	10-24-19 11:15	4.03	899	8.41	26.0	10-24-19 11:15	5.19	939	8.69	462.6															
11-8-19 22:45	0.15	1808	8.46	5.1	10-24-19 11:30	4.04	901	8.45	26.4	10-24-19 11:30	5.20	940	8.69	454.0															
11-8-19 23:00	1.06	1880	8.49	5.7	10-24-19 11:45	4.04	901	8.41	25.7	10-24-19 11:45	5.20	941	8.68	458.8															
11-8-19 23:15	1.17	1865	8.45	5.7	10-24-19 12:00	4.04	901	8.43	25.5	10-24-19 12:00	5.20	941	8.68	453.4															
11-8-19 23:30	1.19	1863	8.44	6.6	10-24-19 12:15	4.04	901	8.36	24.3	10-24-19 12:15	5.20	942	8.68	453.3															
11-8-19 23:45	1.17	1863	8.45	5.3	10-24-19 12:30	4.04	902	8.38	31.1	10-24-19 12:30	5.21	942	8.67	440.7															
11-9-19 0:00	1.19	1862	8.44	6.9	10-24-19 12:45	4.05	901	8.37	23.6	10-24-19 12:45	5.20	943	8.67	471.0															
11-9-19 0:15	1.16	1862	8.45	5.3	10-24-19 13:00	4.05	902	8.36	28.4	10-24-19 13:00	5.21	943	8.67	456.9															
11-9-19 0:30	1.13	1862	8.45	5.8	10-24-19 13:15	4.05	901	8.37	25.7	10-24-19 13:15	5.21	944	8.67	462.2															
11-9-19 0:45	1.17	1861	8.45	5.3	10-24-19 13:30	4.05	903	8.31	26.2	10-24-19 13:30	5.21	945	8.66	461.5															
11-9-19 1:00	1.13	1860	8.44	6.1	10-24-19 13:45	4.06	902	8.26	20.2	10-24-19 13:45	5.21	945	8.66	450.8															
11-9-19 1:15	1.15	1859	8.45	5.3	10-24-19 14:00	4.07	903	8.29	23.6	10-24-19 14:00	5.21	946	8.66	484.1															
11-9-19 1:30	1.16	1858	8.44	5.6	10-24-19 14:15	4.06	901	8.33	19.8	10-24-19 14:15	5.22	946	8.66	466.6															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-9-19 1:45	1.14	1858	8.45	5.2	10-24-19 14:30	4.06	902	8.37	24.8	10-24-19 14:30	5.20	946	8.65	443.3															
11-9-19 2:00	1.12	1857	8.44	5.7	10-24-19 14:45	4.04	903	8.33	24.1	10-24-19 14:45	5.19	946	8.65	461.7															
11-9-19 2:15	1.14	1856	8.45	5.8	10-24-19 15:00	4.04	901	8.40	24.5	10-24-19 15:00	5.17	946	8.65	443.3															
11-9-19 2:30	1.18	1854	8.44	5.7	10-24-19 15:15	4.03	903	8.35	24.2	10-24-19 15:15	5.15	946	8.66	432.3															
11-9-19 2:45	1.17	1855	8.45	5.6	10-24-19 15:30	4.05	903	8.28	21.6	10-24-19 15:30	5.15	946	8.65	441.6															
11-9-19 3:00	1.17	1853	8.44	5.8	10-24-19 15:45	4.04	903	8.34	19.9	10-24-19 15:45	5.18	946	8.65	440.7															
11-9-19 3:15	1.18	1853	8.45	5.0	10-24-19 16:00	4.06	901	8.40	19.5	10-24-19 16:00	5.16	946	8.65	422.9															
11-9-19 3:30	1.20	1852	8.44	5.0	10-24-19 16:15	4.08	903	8.25	22.7	10-24-19 16:15	5.16	946	8.65	443.0															
11-9-19 3:45	1.22	1852	8.45	6.1	10-24-19 16:30	4.09	901	8.36	18.9	10-24-19 16:30	5.16	946	8.65	423.9															
11-9-19 4:00	1.23	1851	8.44	5.7	10-24-19 16:45	4.10	902	8.27	19.1	10-24-19 16:45	5.17	946	8.65	430.3															
11-9-19 4:15	1.23	1851	8.45	5.4	10-24-19 17:00	4.11	900	8.41	19.2	10-24-19 17:00	5.18	947	8.65	431.0															
11-9-19 4:30	1.22	1849	8.44	5.9	10-24-19 17:15	4.14	901	8.39	24.1	10-24-19 17:15	5.22	947	8.65	437.6															
11-9-19 4:45	1.21	1850	8.45	5.0	10-24-19 17:30	4.16	902	8.22	17.3	10-24-19 17:30	5.26	947	8.64	402.4															
11-9-19 5:00	1.22	1848	8.44	5.7	10-24-19 17:45	4.17	904	8.14	20.0	10-24-19 17:45	5.27	947	8.64	418.5															
11-9-19 5:15	1.25	1846	8.44	5.3	10-24-19 18:00	4.22	901	8.38	16.5	10-24-19 18:00	5.32	947	8.64	409.2															
11-9-19 5:30	1.25	1844	8.43	5.7	10-24-19 18:15	4.25	901	8.35	16.1	10-24-19 18:15	5.32	946	8.65	438.9															
11-9-19 5:45	1.23	1845	8.44	5.6	10-24-19 18:30	4.25	903	8.26	17.5	10-24-19 18:30	5.34	946	8.65	435.6															
11-9-19 6:00	1.26	1844	8.44	6.0	10-24-19 18:45	4.26	904	8.11	19.5	10-24-19 18:45	5.36	946	8.64	433.3															
11-9-19 6:15	1.25	1843	8.44	5.1	10-24-19 19:00	4.31	902	8.28	16.3	10-24-19 19:00	5.38	946	8.64	409.8															
11-9-19 6:30	1.25	1842	8.44	5.0	10-24-19 19:15	4.33	902	8.29	17.2	10-24-19 19:15	5.46	946	8.64	441.1															
11-9-19 6:45	1.26	1841	8.43	5.1	10-24-19 19:30	4.38	905	8.19	18.8	10-24-19 19:30	5.49	946	8.64	411.8															
11-9-19 7:00	1.24	1839	8.44	5.9	10-24-19 19:45	4.41	904	8.18	15.9	10-24-19 19:45	5.47	946	8.64	408.1															
11-9-19 7:15	1.21	1841	8.44	5.1	10-24-19 20:00	4.44	905	8.12	19.6	10-24-19 20:00	5.45	946	8.64	425.5															
11-9-19 7:30	1.25	1839	8.43	6.1	10-24-19 20:15	4.48	904	8.22	21.7	10-24-19 20:15	5.47	946	8.64	409.1															
11-9-19 7:45	1.27	1838	8.44	5.5	10-24-19 20:30	4.50	904	8.20	18.6	10-24-19 20:30	5.51	946	8.64	413.8															
11-9-19 8:00	1.25	1836	8.43	6.0	10-24-19 20:45	4.55	904	8.14	19.7	10-24-19 20:45	5.50	946	8.64	432.6															
11-9-19 8:15	1.23	1836	8.44	5.3	10-24-19 21:00	4.59	903	8.24	18.8	10-24-19 21:00	5.55	947	8.64	411.6															
11-9-19 8:30	1.23	1837	8.44	5.3	10-24-19 21:15	4.66	904	8.23	20.6	10-24-19 21:15	5.62	947	8.64	434.2															
11-9-19 8:45	1.19	1839	8.44	5.2	10-24-19 21:30	4.70	904	8.20	18.1	10-24-19 21:30	5.58	947	8.64	407.2															
11-9-19 9:00	1.17	1840	8.43	5.4	10-24-19 21:45	4.74	904	8.23	20.3	10-24-19 21:45	5.73	946	8.64	417.8															
11-9-19 9:15	1.16	1840	8.44	4.9	10-24-19 22:00	4.77	904	8.17	17.7	10-24-19 22:00	5.76	946	8.64	405.3															
11-9-19 9:30	1.16	1839	8.44	5.7	10-24-19 22:15	4.81	905	8.15	19.2	10-24-19 22:15	5.76	946	8.64	396.1															
11-9-19 9:45	1.15	1839	8.44	5.2	10-24-19 22:30	4.83	903	8.27	16.6	10-24-19 22:30	5.72	946	8.63	404.0															
11-9-19 10:00	1.11	1839	8.43	5.7	10-24-19 22:45	4.82	903	8.28	17.5	10-24-19 22:45	5.76	946	8.64	422.9															
11-9-19 10:15	1.11	1839	8.44	5.2	10-24-19 23:00	4.84	904	8.27	24.3	10-24-19 23:00	5.80	947	8.63	393.9															
11-9-19 10:30	1.11	1840	8.44	5.6	10-24-19 23:15	4.80	906	8.03	18.6	10-24-19 23:15	5.76	947	8.63	396.0															
11-9-19 10:45	1.14	1839	8.44	5.0	10-24-19 23:30	4.82	905	8.11	16.8	10-24-19 23:30	5.77	947	8.63	380.2															
11-9-19 11:00	1.12	1838	8.44	5.5	10-24-19 23:45	4.82	907	7.97	15.2	10-24-19 23:45	5.76	947	8.63	403.2															
11-9-19 11:15	1.11	1839	8.44	4.9	10-25-19 0:00	4.83	907	7.96	15.7	10-25-19 0:00	5.77	947	8.63	401.1															
11-9-19 11:30	1.10	1839	8.44	5.7	10-25-19 0:15	4.83	906	7.97	17.6	10-25-19 0:15	5.75	947	8.63	423.3															
11-9-19 11:45	1.09	1839	8.44	5.2	10-25-19 0:30	4.82	906	8.00	17.4	10-25-19 0:30	5.75	947	8.62	402.2															
11-9-19 12:00	1.09	1840	8.44	5.5	10-25-19 0:45	4.82	903	8.28	15.8	10-25-19 0:45	5.72	947	8.62	394.2															
11-9-19 12:15	1.01	1840	8.44	4.8	10-25-19 1:00	4.79	903	8.28	15.5	10-25-19 1:00	5.72	947	8.62	363.6															
11-9-19 12:30	1.07	1838	8.44	5.4	10-25-19 1:15	4.79	906	8.03	16.1	10-25-19 1:15	5.73	947	8.60	356.3															
11-9-19 12:45	1.05	1837	8.44	5.2	10-25-19 1:30	4.78	905	8.03	13.4	10-25-19 1:30	5.71	947	8.62	380.9															
11-9-19 13:00	1.03	1836	8.44	5.6	10-25-19 1:45	4.79	905	7.88	13.5	10-25-19 1:45	5.70	947	8.62	389.5															
11-9-19 13:15	1.06	1836	8.44	4.8	10-25-19 2:00	4.79	906	7.98	12.7	10-25-19 2:00	5.72	947	8.61	385.4															
11-9-19 13:30	1.09	1831	8.44	5.5	10-25-19 2:15	4.78	908	7.79	13.8	10-25-19 2:15	5.66	947	8.62	365.9															
11-9-19 13:45	1.12	1834	8.44	5.1	10-25-19 2:30	4.79	907	7.92	20.8	10-25-19 2:30	5.66	947	8.62	367.9															
11-9-19 14:00	1.09	1829	8.44	5.7	10-25-19 2:45	4.78	908	7.84	19.4	10-25-19 2:45	5.65	947	8.62	368.4															
11-9-19 14:15	1.12	1830	8.43	5.0	10-25-19 3:00	4.78	905	8.10	20.1	10-25-19 3:00	5.65	948	8.62	351.5															
11-9-19 14:30	1.03	1829	8.43	5.8	10-25-19 3:15	4.77	906	8.12	20.4	10-25-19 3:15	5.66	948	8.62	377.2															
11-9-19 14:45	1.07	1831	8.44	5.3	10-25-19 3:30	4.77	906	8.08	14.9	10-25-19 3:30	5.67	948	8.62	378.7															
11-9-19 15:00	1.06	1830	8.43	5.9	10-25-19 3:45	4.78	905	8.00	12.2	10-25-19 3:45	5.67	947	8.63	381.2															
11-9-19 15:15	1.06	1830	8.44	5.1	10-25-19 4:00	4.78	906	8.05	14.3	10-25-19 4:00	5.67	947	8.62	376.6															
11-9-19 15:30	1.04	1830	8.43	5.9	10-25-19 4:15	4.77	905	8.07	13.5	10-25-19 4:15	5.68	948	8.62	376.5															
11-9-19 15:45	1.00	1833	8.44	5.8	10-25-19 4:30	4.78	906	8.15	16.8	10-25-19 4:30	5.68	948	8.62	374.4															
11-9-19 16:00	0.98	1832	8.43	5.6	10-25-19 4:45	4.78	906	8.10	16.8	10-25-19 4:45	5.69	948	8.62	369.8															
11-9-19 16:15	0.96	1834	8.43	4.9	10-25-19 5:00	4.78	906	8.16	17.4	10-25-19 5:00	5.68	948	8.62	367.7															
11-9-19 16:30	0.96	1832	8.43	5.6	10-25-19 5:15	4.78	908	8.01	21.0	10-25-19 5:15	5.68	948	8.62	364.0															
11-9-19 16:45	0.96	1834	8.43	4.9	10-25-19 5:30	4.77	908	7.92	15.0	10-25-19 5:30	5.66	948	8.61	343.2															
11-9-19 17:00	0.98	1832	8.43	5.4	10-25-19 5:45	4.78	907	7.92	14.8	10-25-19 5:45	5.65	948	8.62	349.3															
11-9-19 17:15	0.97	1832	8.43	4.9	10-25-19 6:00	4.78	908	7.82	15.4	10-25-19 6:00	5.65	948	8.61	351.7															
11-9-19 17:30	0.99	1832	8.43	5.6	10-25-19 6:15	4.78	908	7.80	14.6	10-25-19 6:15	5.65	948	8.60	357.7															
11-9-19 17:45	1.04	1831	8.43	4.9	10-25-19 6:30	4.78	908	7.81	17.3	10-25-19 6:30	5.62	949	8.61	347.0															
11-9-19 18:00	1.07	1827	8.42	5.7	10-25-19 6:45	4.78	908	7.89	16.5	10-25-19 6:45	5.62	948	8.61	350.5															
11-9-19 18:15	1.07	1827	8.43	5.1	10-25-19 7:00	4.78	908	7.86	16.2	10-25-19 7:00	5.58	948	8.61	331.1															
11-9-19 18:30	1.05	1825	8.42	5.5	10-25-19 7:15	4.78	908	7.83	17.3	10-25-19 7:15	5.64	948	8.60	349.4															
11-9-19 18:45	0.97	1827	8.43	5.1	10-25-19 7:30	4.77	907	7.93	10.4	10-25-19 7:30	5.64	948	8.59	345.1															
11-9-19 19:00	0.99	1823	8.42	5.6	10-25-19 7:45	4.77	905	8.23	13.5	10-25-19 7:45	5.62	948	8.60	336.6															
11-9-19 19:15	1.00	1824	8.42	4.6	10-25-19 8:00	4.77	904	8.18	10.9	10-25-19 8:00	5.60	948	8.59	326.8															
11-9-19 19:30	1.05	1822	8.42	5.5	10-25-19 8:15	4.77	905	8.14	13.9	10-25-19 8:15	5.54	946	8.60	318.4															
11-9-19 19:45	1.02	1823	8.43	4.9	10-25-19 8:30	4.77	904	8.07	11.0	10-25-19 8:30	5.57	945	8.59	313.1															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-9-19 20:00	0.98	1823	8.42	4.7	10-25-19 8:45	4.78	905	7.95	12.1	10-25-19 8:45	5.57	946	8.59	331.7															
11-9-19 20:15	1.01	1821	8.43	4.9	10-25-19 9:00	4.78	905	8.01	13.5	10-25-19 9:00	5.53	939	8.60	314.4															
11-9-19 20:30	1.02	1820	8.42	5.3	10-25-19 9:15	4.78	905	8.06	12.1	10-25-19 9:15	5.51	939	8.60	321.8															
11-9-19 20:45	1.10	1819	8.42	5.1	10-25-19 9:30	4.76	895	8.16	10.1	10-25-19 9:30	5.56	943	8.59	331.2															
11-9-19 21:00	1.06	1817	8.41	5.6	10-25-19 9:45	4.75	896	8.22	14.3	10-25-19 9:45	5.58	944	8.59	327.6															
11-9-19 21:15	1.03	1820	8.42	4.8	10-25-19 10:00	4.76	904	8.25	9.3	10-25-19 10:00	5.60	947	8.57	330.9															
11-9-19 21:30	0.96	1819	8.41	5.0	10-25-19 10:15	4.75	897	8.27	9.7	10-25-19 10:15	5.55	938	8.59	317.2															
11-9-19 21:45	0.99	1819	8.42	4.7	10-25-19 10:30	4.75	890	8.24	16.5	10-25-19 10:30	5.55	938	8.59	311.1															
11-9-19 22:00	1.03	1817	8.41	5.2	10-25-19 10:45	4.75	895	8.18	12.9	10-25-19 10:45	5.52	935	8.60	312.0															
11-9-19 22:15	1.01	1818	8.42	4.8	10-25-19 11:00	4.75	895	8.19	11.1	10-25-19 11:00	5.51	935	8.60	321.1															
11-9-19 22:30	0.95	1817	8.41	5.3	10-25-19 11:15	4.74	897	8.16	12.1	10-25-19 11:15	5.51	930	8.60	308.9															
11-9-19 22:45	0.91	1818	8.42	4.5	10-25-19 11:30	4.74	896	8.19	11.7	10-25-19 11:30	5.46	922	8.60	309.3															
11-9-19 23:00	0.93	1818	8.41	5.2	10-25-19 11:45	4.74	897	8.17	14.8	10-25-19 11:45	5.48	929	8.59	312.5															
11-9-19 23:15	0.97	1818	8.42	4.8	10-25-19 12:00	4.74	897	8.15	13.8	10-25-19 12:00	5.53	937	8.60	322.2															
11-9-19 23:30	0.99	1816	8.41	5.4	10-25-19 12:15	4.74	896	8.19	12.7	10-25-19 12:15	5.51	935	8.59	321.7															
11-9-19 23:45	0.91	1815	8.42	4.5	10-25-19 12:30	4.76	900	8.21	8.6	10-25-19 12:30	5.50	934	8.59	318.1															
11-10-19 0:00	0.89	1816	8.41	5.1	10-25-19 12:45	4.75	901	8.22	6.9	10-25-19 12:45	5.57	941	8.59	329.7															
11-10-19 0:15	0.96	1815	8.42	4.5	10-25-19 13:00	4.78	903	8.21	8.4	10-25-19 13:00	5.56	936	8.60	319.9															
11-10-19 0:30	0.98	1813	8.41	5.1	10-25-19 13:15	4.78	903	8.19	5.1	10-25-19 13:15	5.47	933	8.60	314.0															
11-10-19 0:45	0.92	1814	8.42	4.7	10-25-19 13:30	4.78	902	8.20	13.0	10-25-19 13:30	5.51	938	8.60	326.1															
11-10-19 1:00	0.88	1813	8.41	5.2	10-25-19 13:45	4.77	902	8.18	14.2	10-25-19 13:45	5.55	940	8.60	334.6															
11-10-19 1:15	0.88	1813	8.41	4.6	10-25-19 14:00	4.77	903	8.19	14.8	10-25-19 14:00	5.51	937	8.59	318.8															
11-10-19 1:30	0.94	1811	8.41	5.9	10-25-19 14:15	4.76	903	8.06	17.1	10-25-19 14:15	5.46	934	8.59	324.5															
11-10-19 1:45	1.01	1808	8.41	4.7	10-25-19 14:30	4.74	902	7.89	20.8	10-25-19 14:30	5.37	928	8.61	315.6															
11-10-19 2:00	1.01	1805	8.40	5.3	10-25-19 14:45	4.75	905	7.98	18.4	10-25-19 14:45	5.40	931	8.60	313.3															
11-10-19 2:15	0.97	1807	8.41	4.7	10-25-19 15:00	4.77	905	8.02	21.7	10-25-19 15:00	5.40	931	8.59	319.7															
11-10-19 2:30	0.99	1806	8.40	5.2	10-25-19 15:15	4.75	904	7.94	28.8	10-25-19 15:15	5.38	931	8.59	317.9															
11-10-19 2:45	0.96	1807	8.41	4.8	10-25-19 15:30	4.65	898	8.11	17.6	10-25-19 15:30	5.30	929	8.58	311.6															
11-10-19 3:00	0.98	1805	8.41	5.1	10-25-19 15:45	4.65	898	8.17	13.1	10-25-19 15:45	5.40	933	8.58	318.9															
11-10-19 3:15	0.97	1805	8.41	4.6	10-25-19 16:00	4.62	898	8.14	17.6	10-25-19 16:00	5.33	930	8.58	307.7															
11-10-19 3:30	1.00	1803	8.40	5.1	10-25-19 16:15	4.60	896	8.13	12.4	10-25-19 16:15	5.28	931	8.58	306.7															
11-10-19 3:45	1.01	1803	8.41	4.7	10-25-19 16:30	4.62	898	8.09	16.9	10-25-19 16:30	5.14	914	8.59	324.3															
11-10-19 4:00	1.03	1800	8.40	5.3	10-25-19 16:45	4.66	903	8.27	21.9	10-25-19 16:45	5.21	928	8.59	319.6															
11-10-19 4:15	1.03	1800	8.41	4.8	10-25-19 17:00	4.73	907	8.28	49.0	10-25-19 17:00	5.31	932	8.60	310.2															
11-10-19 4:30	1.03	1798	8.40	5.5	10-25-19 17:15	4.76	908	8.29	34.9	10-25-19 17:15	5.30	932	8.60	308.1															
11-10-19 4:45	1.03	1798	8.40	4.5	10-25-19 17:30	4.77	909	8.16	39.7	10-25-19 17:30	5.34	934	8.59	323.9															
11-10-19 5:00	1.03	1797	8.40	5.2	10-25-19 17:45	4.79	809	7.97	47.5	10-25-19 17:45	5.34	935	8.60	321.1															
11-10-19 5:15	1.04	1797	8.40	4.7	10-25-19 18:00	4.82	811	8.26	50.2	10-25-19 18:00	5.37	936	8.59	311.9															
11-10-19 5:30	1.03	1795	8.40	5.5	10-25-19 18:15	4.85	812	8.25	40.1	10-25-19 18:15	5.38	936	8.59	300.6															
11-10-19 5:45	1.03	1795	8.40	4.9	10-25-19 18:30	4.85	915	8.05	35.9	10-25-19 18:30	5.45	936	8.59	321.9															
11-10-19 6:00	1.03	1794	8.39	4.8	10-25-19 18:45	4.86	914	8.15	44.3	10-25-19 18:45	5.48	937	8.59	324.0															
11-10-19 6:15	1.04	1792	8.40	4.7	10-25-19 19:00	4.87	915	8.00	34.0	10-25-19 19:00	5.50	937	8.59	292.7															
11-10-19 6:30	1.03	1792	8.40	5.4	10-25-19 19:15	4.90	916	8.19	35.9	10-25-19 19:15	5.54	938	8.59	315.3															
11-10-19 6:45	1.05	1793	8.40	4.9	10-25-19 19:30	4.92	915	8.16	34.3	10-25-19 19:30	5.60	938	8.59	307.7															
11-10-19 7:00	1.04	1791	8.40	5.4	10-25-19 19:45	4.93	898	8.19	37.1	10-25-19 19:45	5.62	938	8.59	304.1															
11-10-19 7:15	1.05	1792	8.40	5.0	10-25-19 20:00	4.96	898	8.05	32.8	10-25-19 20:00	5.64	940	8.58	314.4															
11-10-19 7:30	1.06	1789	8.39	5.3	10-25-19 20:15	5.00	897	8.20	34.5	10-25-19 20:15	5.69	940	8.59	305.1															
11-10-19 7:45	1.05	1790	8.40	5.5	10-25-19 20:30	5.05	918	7.79	34.3	10-25-19 20:30	5.71	940	8.59	307.8															
11-10-19 8:00	1.03	1789	8.40	5.3	10-25-19 20:45	5.10	918	7.89	32.4	10-25-19 20:45	5.78	939	8.58	311.9															
11-10-19 8:15	1.04	1788	8.40	4.8	10-25-19 21:00	5.12	918	8.00	33.9	10-25-19 21:00	5.76	940	8.58	308.9															
11-10-19 8:30	1.05	1788	8.39	4.7	10-25-19 21:15	5.13	920	7.87	30.5	10-25-19 21:15	5.80	940	8.58	316.3															
11-10-19 8:45	1.04	1787	8.39	4.6	10-25-19 21:30	5.13	921	8.19	39.1	10-25-19 21:30	5.80	940	8.58	323.3															
11-10-19 9:00	1.02	1787	8.40	5.0	10-25-19 21:45	5.14	906	8.02	29.5	10-25-19 21:45	5.75	941	8.58	322.5															
11-10-19 9:15	1.00	1789	8.40	4.7	10-25-19 22:00	5.15	906	8.34	37.8	10-25-19 22:00	5.76	941	8.57	299.2															
11-10-19 9:30	1.01	1788	8.39	4.4	10-25-19 22:15	5.16	907	8.32	41.8	10-25-19 22:15	5.77	940	8.58	296.2															
11-10-19 9:45	1.00	1788	8.39	4.5	10-25-19 22:30	5.16	923	8.28	33.2	10-25-19 22:30	5.75	940	8.57	309.9															
11-10-19 10:00	0.99	1787	8.39	5.2	10-25-19 22:45	5.16	922	8.33	33.4	10-25-19 22:45	5.74	941	8.57	307.0															
11-10-19 10:15	1.01	1787	8.40	4.5	10-25-19 23:00	5.16	924	8.21	29.7	10-25-19 23:00	5.71	940	8.57	308.0															
11-10-19 10:30	1.02	1786	8.39	4.5	10-25-19 23:15	5.14	921	8.18	29.0	10-25-19 23:15	5.71	941	8.58	321.6															
11-10-19 10:45	1.00	1785	8.39	4.4	10-25-19 23:30	5.14	922	8.30	39.1	10-25-19 23:30	5.69	940	8.58	295.0															
11-10-19 11:00	0.99	1784	8.39	5.1	10-25-19 23:45	5.15	923	8.34	41.8	10-25-19 23:45	5.69	941	8.57	309.7															
11-10-19 11:15	0.99	1785	8.39	4.8	10-26-19 0:00	5.15	924	8.30	41.9	10-26-19 0:00	5.69	941	8.56	302.9															
11-10-19 11:30	1.00	1784	8.38	4.5	10-26-19 0:15	5.15	926	8.20	38.7	10-26-19 0:15	5.65	941	8.56	299.0															
11-10-19 11:45	1.00	1782	8.39	4.9	10-26-19 0:30	5.14	923	8.20	37.7	10-26-19 0:30	5.65	941	8.57	295.3															
11-10-19 12:00	1.01	1783	8.39	5.2	10-26-19 0:45	5.12	925	7.98	30.0	10-26-19 0:45	5.63	941	8.57	299.6															
11-10-19 12:15	1.02	1781	8.39	4.9	10-26-19 1:00	5.12	922	8.38	36.3	10-26-19 1:00	5.65	941	8.57	285.6															
11-10-19 12:30	1.00	1781	8.38	4.4	10-26-19 1:15	5.09	923	8.20	29.3	10-26-19 1:15	5.62	941	8.58	301.8															
11-10-19 12:45	0.98	1782	8.39	4.6	10-26-19 1:30	5.09	908	8.32	29.0	10-26-19 1:30	5.62	941	8.57	318.4															
11-10-19 13:00	0.98	1782	8.38	5.3	10-26-19 1:45	5.07	925	8.32	26.6	10-26-19 1:45	5.54	941	8.57	293.9															
11-10-19 13:15	0.96	1782	8.39	4.9	10-26-19 2:00	5.07	927	8.20	39.3	10-26-19 2:00	5.59	941	8.56	297.3															
11-10-19 13:30	0.97	1782	8.39	5.3	10-26-19 2:15	5.07	928	8.33	49.5	10-26-19 2:15	5.58	941	8.56	293.5															
11-10-19 13:45	0.98	1783	8.39	4.7	10-26-19 2:30	5.07	927	8.39	38.0	10-26-19 2:30	5.59	941	8.56	290.8															
11-10-19 14:00	0.96	1782	8.39	4.8	10-26-19 2:45	5.06	929	8.25	33.8	10-26-19 2:45	5.56	942	8.54	287.6															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-10-19 14:15	0.96	1781	8.39	4.7	10-26-19 3:00	5.06	928	8.35	31.0	10-26-19 3:00	5.56	941	8.56	299.8															
11-10-19 14:30	0.96	1782	8.38	5.2	10-26-19 3:15	5.06	925	8.37	29.7	10-26-19 3:15	5.56	942	8.55	292.3															
11-10-19 14:45	0.97	1782	8.39	4.6	10-26-19 3:30	5.05	929	8.02	29.6	10-26-19 3:30	5.51	942	8.56	288.1															
11-10-19 15:00	0.97	1781	8.39	5.2	10-26-19 3:45	5.05	927	8.34	32.6	10-26-19 3:45	5.51	941	8.56	291.2															
11-10-19 15:15	0.97	1781	8.39	4.5	10-26-19 4:00	5.04	929	8.03	34.9	10-26-19 4:00	5.51	941	8.57	291.7															
11-10-19 15:30	0.96	1780	8.38	4.2	10-26-19 4:15	5.04	929	8.28	26.2	10-26-19 4:15	5.49	941	8.57	279.5															
11-10-19 15:45	0.94	1781	8.38	4.8	10-26-19 4:30	5.03	928	8.38	36.9	10-26-19 4:30	5.45	941	8.57	290.8															
11-10-19 16:00	0.94	1781	8.39	5.2	10-26-19 4:45	5.00	927	8.28	33.0	10-26-19 4:45	5.44	941	8.57	291.0															
11-10-19 16:15	0.94	1781	8.39	4.6	10-26-19 5:00	4.99	928	8.33	39.1	10-26-19 5:00	5.43	942	8.57	291.6															
11-10-19 16:30	0.94	1780	8.38	5.4	10-26-19 5:15	4.95	929	8.20	30.6	10-26-19 5:15	5.44	941	8.57	277.1															
11-10-19 16:45	0.95	1780	8.39	4.4	10-26-19 5:30	4.95	929	8.33	30.7	10-26-19 5:30	5.40	939	8.56	280.4															
11-10-19 17:00	0.93	1780	8.38	5.0	10-26-19 5:45	4.91	930	8.14	28.9	10-26-19 5:45	5.38	942	8.57	305.6															
11-10-19 17:15	0.93	1781	8.39	4.4	10-26-19 6:00	4.89	925	8.00	27.0	10-26-19 6:00	5.38	941	8.57	284.9															
11-10-19 17:30	0.94	1779	8.38	4.6	10-26-19 6:15	4.88	926	7.93	22.4	10-26-19 6:15	5.33	941	8.56	283.1															
11-10-19 17:45	0.95	1778	8.38	5.0	10-26-19 6:30	4.86	932	7.86	25.5	10-26-19 6:30	5.29	942	8.56	281.0															
11-10-19 18:00	0.95	1777	8.38	5.0	10-26-19 6:45	4.83	932	7.87	34.9	10-26-19 6:45	5.25	942	8.56	285.0															
11-10-19 18:15	0.97	1777	8.39	4.5	10-26-19 7:00	4.84	930	8.35	31.1	10-26-19 7:00	5.32	941	8.56	287.5															
11-10-19 18:30	0.98	1776	8.38	5.1	10-26-19 7:15	4.83	932	8.36	22.4	10-26-19 7:15	5.28	942	8.56	290.4															
11-10-19 18:45	0.98	1776	8.38	4.4	10-26-19 7:30	4.81	935	7.99	32.8	10-26-19 7:30	5.23	941	8.56	293.1															
11-10-19 19:00	0.99	1775	8.37	4.4	10-26-19 7:45	4.79	931	8.18	24.7	10-26-19 7:45	5.21	942	8.56	284.0															
11-10-19 19:15	0.97	1775	8.38	4.5	10-26-19 8:00	4.77	933	8.15	23.6	10-26-19 8:00	5.17	941	8.56	287.8															
11-10-19 19:30	0.97	1776	8.38	5.1	10-26-19 8:15	4.75	931	8.30	27.9	10-26-19 8:15	5.18	942	8.57	280.2															
11-10-19 19:45	0.98	1776	8.38	4.3	10-26-19 8:30	4.70	932	8.26	25.7	10-26-19 8:30	5.14	942	8.56	291.9															
11-10-19 20:00	0.97	1775	8.37	5.1	10-26-19 8:45	4.72	936	7.95	28.1	10-26-19 8:45	5.11	942	8.56	300.7															
11-10-19 20:15	0.99	1776	8.38	4.4	10-26-19 9:00	4.69	934	8.02	19.1	10-26-19 9:00	5.06	942	8.56	272.6															
11-10-19 20:30	1.00	1774	8.38	5.0	10-26-19 9:15	4.68	932	8.17	26.4	10-26-19 9:15	5.10	942	8.57	267.6															
11-10-19 20:45	1.02	1773	8.38	4.4	10-26-19 9:30	4.66	934	7.91	28.9	10-26-19 9:30	5.10	942	8.57	274.9															
11-10-19 21:00	1.02	1772	8.37	5.0	10-26-19 9:45	4.64	925	8.30	24.5	10-26-19 9:45	5.08	942	8.57	290.4															
11-10-19 21:15	1.02	1771	8.38	4.7	10-26-19 10:00	4.63	927	7.91	25.9	10-26-19 10:00	5.06	942	8.57	263.2															
11-10-19 21:30	1.03	1770	8.38	4.8	10-26-19 10:15	4.63	928	7.85	23.9	10-26-19 10:15	5.04	942	8.56	295.8															
11-10-19 21:45	1.03	1771	8.38	4.6	10-26-19 10:30	4.59	935	7.82	26.8	10-26-19 10:30	5.04	942	8.57	295.5															
11-10-19 22:00	1.02	1770	8.38	5.2	10-26-19 10:45	4.57	935	7.71	25.5	10-26-19 10:45	5.03	942	8.57	275.7															
11-10-19 22:15	1.02	1770	8.39	4.3	10-26-19 11:00	4.56	934	7.77	24.7	10-26-19 11:00	4.96	942	8.56	272.4															
11-10-19 22:30	1.00	1769	8.38	4.8	10-26-19 11:15	4.54	936	7.68	27.3	10-26-19 11:15	4.98	942	8.57	270.8															
11-10-19 22:45	1.01	1770	8.39	4.2	10-26-19 11:30	4.57	935	7.83	32.5	10-26-19 11:30	4.96	942	8.56	265.8															
11-10-19 23:00	0.98	1770	8.38	4.8	10-26-19 11:45	4.56	934	7.81	22.5	10-26-19 11:45	4.93	942	8.56	271.4															
11-10-19 23:15	0.97	1771	8.39	4.2	10-26-19 12:00	4.55	935	7.71	40.2	10-26-19 12:00	4.92	942	8.56	269.0															
11-10-19 23:30	0.97	1770	8.38	4.8	10-26-19 12:15	4.52	935	7.73	26.5	10-26-19 12:15	4.91	942	8.57	263.8															
11-10-19 23:45	0.95	1771	8.39	4.9	10-26-19 12:30	4.51	935	7.81	24.1	10-26-19 12:30	4.90	942	8.56	266.6															
11-11-19 0:00	0.95	1770	8.39	4.7	10-26-19 12:45	4.50	936	7.88	23.9	10-26-19 12:45	4.85	942	8.55	270.4															
11-11-19 0:15	0.94	1771	8.39	4.2	10-26-19 13:00	4.49	934	7.76	21.6	10-26-19 13:00	4.84	942	8.56	263.3															
11-11-19 0:30	0.93	1770	8.39	5.0	10-26-19 13:15	4.47	935	8.10	24.7	10-26-19 13:15	4.86	942	8.56	277.2															
11-11-19 0:45	0.93	1770	8.39	4.7	10-26-19 13:30	4.47	923	8.19	23.8	10-26-19 13:30	4.81	942	8.56	278.2															
11-11-19 1:00	0.91	1769	8.38	5.0	10-26-19 13:45	4.43	937	7.96	29.8	10-26-19 13:45	4.80	942	8.56	278.3															
11-11-19 1:15	0.89	1769	8.38	4.3	10-26-19 14:00	4.43	941	8.06	20.0	10-26-19 14:00	4.82	942	8.56	254.6															
11-11-19 1:30	0.91	1768	8.38	5.3	10-26-19 14:15	4.43	940	8.31	19.8	10-26-19 14:15	4.82	942	8.56	264.6															
11-11-19 1:45	0.90	1768	8.38	4.8	10-26-19 14:30	4.40	937	8.28	26.3	10-26-19 14:30	4.76	942	8.56	273.0															
11-11-19 2:00	0.93	1766	8.38	5.0	10-26-19 14:45	4.37	935	8.24	19.5	10-26-19 14:45	4.70	942	8.56	269.7															
11-11-19 2:15	0.91	1766	8.39	4.7	10-26-19 15:00	4.33	937	7.84	13.7	10-26-19 15:00	4.77	942	8.56	273.8															
11-11-19 2:30	0.90	1765	8.38	5.1	10-26-19 15:15	4.35	936	7.86	20.9	10-26-19 15:15	4.73	942	8.56	262.0															
11-11-19 2:45	0.94	1764	8.38	4.5	10-26-19 15:30	4.35	895	7.75	25.3	10-26-19 15:30	4.69	942	8.56	266.6															
11-11-19 3:00	0.92	1764	8.38	4.4	10-26-19 15:45	4.35	937	7.80	26.7	10-26-19 15:45	4.65	943	8.56	264.7															
11-11-19 3:15	0.92	1763	8.38	4.4	10-26-19 16:00	4.35	936	7.79	23.2	10-26-19 16:00	4.66	942	8.56	271.7															
11-11-19 3:30	0.93	1761	8.38	5.3	10-26-19 16:15	4.35	937	7.71	22.5	10-26-19 16:15	4.65	942	8.56	271.2															
11-11-19 3:45	0.94	1762	8.38	4.7	10-26-19 16:30	4.34	937	7.80	21.6	10-26-19 16:30	4.64	942	8.56	272.2															
11-11-19 4:00	0.90	1764	8.38	5.3	10-26-19 16:45	4.32	937	7.75	17.8	10-26-19 16:45	4.66	942	8.55	263.8															
11-11-19 4:15	0.93	1764	8.39	4.7	10-26-19 17:00	4.32	938	7.86	23.3	10-26-19 17:00	4.67	942	8.55	273.0															
11-11-19 4:30	0.93	1761	8.38	5.2	10-26-19 17:15	4.33	937	8.24	21.7	10-26-19 17:15	4.66	942	8.56	274.2															
11-11-19 4:45	0.92	1761	8.38	5.0	10-26-19 17:30	4.35	892	8.25	17.8	10-26-19 17:30	4.74	943	8.55	259.9															
11-11-19 5:00	0.92	1759	8.38	5.7	10-26-19 17:45	4.37	887	8.27	16.6	10-26-19 17:45	4.73	942	8.56	281.6															
11-11-19 5:15	0.91	1761	8.38	4.6	10-26-19 18:00	4.38	938	8.18	28.3	10-26-19 18:00	4.83	942	8.56	265.8															
11-11-19 5:30	0.91	1761	8.38	5.2	10-26-19 18:15	4.41	936	8.29	19.9	10-26-19 18:15	4.99	942	8.55	276.3															
11-11-19 5:45	0.95	1758	8.38	4.7	10-26-19 18:30	4.44	934	8.28	17.4	10-26-19 18:30	5.04	941	8.55	267.2															
11-11-19 6:00	0.93	1759	8.38	5.3	10-26-19 18:45	4.48	935	8.20	15.5	10-26-19 18:45	5.30	943	8.54	260.4															
11-11-19 6:15	0.92	1758	8.38	4.5	10-26-19 19:00	4.51	938	7.86	17.0	10-26-19 19:00	5.53	942	8.55	262.7															
11-11-19 6:30	0.90	1758	8.37	5.0	10-26-19 19:15	4.53	933	8.20	16.0	10-26-19 19:15	5.67	942	8.54	269.1															
11-11-19 6:45	0.93	1758	8.38	4.5	10-26-19 19:30	4.57	934	8.37	18.6	10-26-19 19:30	5.63	941	8.55	266.0															
11-11-19 7:00	0.93	1757	8.38	5.0	10-26-19 19:45	4.62	934	8.34	26.7	10-26-19 19:45	5.99	943	8.55	275.0															
11-11-19 7:15	0.96	1756	8.38	4.5	10-26-19 20:00	4.65	935	8.22	17.2	10-26-19 20:00	5.76	941	8.55	266.2															
11-11-19 7:30	0.93	1754	8.37	4.9	10-26-19 20:15	4.68	937	8.00	17.5	10-26-19 20:15	5.81	940	8.55	282.0															
11-11-19 7:45	0.92	1756	8.38	4.5	10-26-19 20:30	4.71	933	8.30	18.7	10-26-19 20:30	5.44	940	8.55	273.7															
11-11-19 8:00	0.94	1754	8.37	5.0	10-26-19 20:45	4.75	934	8.26	17.2	10-26-19 20:45	5.75	943	8.55	277.7															
11-11-19 8:15	0.95	1755	8.38	4.5	10-26-19 21:00	4.77	933	8.25	16.0	10-26-19 21:00	5.69	940	8.54	266.5															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-11-19 8:30	0.93	1755	8.38	5.2	10-26-19 21:15	4.82	937	7.92	19.9	10-26-19 21:15	5.79	943	8.55	260.5															
11-11-19 8:45	0.94	1754	8.38	4.6	10-26-19 21:30	4.84	901	8.19	15.8	10-26-19 21:30	6.04	943	8.54	259.8															
11-11-19 9:00	0.94	1753	8.37	4.6	10-26-19 21:45	4.85	889	8.38	17.8	10-26-19 21:45	6.22	941	8.54	261.3															
11-11-19 9:15	0.92	1752	8.37	4.7	10-26-19 22:00	4.88	890	8.35	23.2	10-26-19 22:00	5.96	939	8.54	260.3															
11-11-19 9:30	0.91	1753	8.37	5.5	10-26-19 22:15	4.88	932	8.39	19.4	10-26-19 22:15	5.88	939	8.54	258.3															
11-11-19 9:45	0.94	1751	8.38	4.8	10-26-19 22:30	4.86	936	7.91	17.9	10-26-19 22:30	5.88	942	8.55	262.6															
11-11-19 10:00	0.92	1752	8.37	5.2	10-26-19 22:45	4.89	935	7.98	14.0	10-26-19 22:45	5.80	941	8.55	266.0															
11-11-19 10:15	0.93	1752	8.37	4.5	10-26-19 23:00	4.88	936	7.89	14.7	10-26-19 23:00	5.59	941	8.56	265.3															
11-11-19 10:30	0.92	1751	8.37	4.3	10-26-19 23:15	4.88	936	7.81	15.3	10-26-19 23:15	5.52	942	8.55	273.6															
11-11-19 10:45	0.92	1751	8.37	5.1	10-26-19 23:30	4.85	935	7.91	18.1	10-26-19 23:30	5.45	943	8.55	265.1															
11-11-19 11:00	0.91	1751	8.37	5.3	10-26-19 23:45	4.80	936	7.81	22.3	10-26-19 23:45	5.42	942	8.56	275.5															
11-11-19 11:15	0.91	1750	8.37	4.6	10-27-19 0:00	4.75	934	8.17	14.6	10-27-19 0:00	5.27	942	8.56	254.9															
11-11-19 11:30	0.91	1750	8.37	5.0	10-27-19 0:15	4.74	926	8.29	14.8	10-27-19 0:15	5.17	941	8.56	274.3															
11-11-19 11:45	0.89	1752	8.37	5.0	10-27-19 0:30	4.67	934	8.32	22.8	10-27-19 0:30	4.98	942	8.55	258.0															
11-11-19 12:00	0.90	1750	8.37	5.1	10-27-19 0:45	4.67	932	8.37	13.5	10-27-19 0:45	4.91	942	8.55	274.6															
11-11-19 12:15	0.91	1750	8.37	4.8	10-27-19 1:00	4.65	931	8.40	18.4	10-27-19 1:00	4.92	943	8.55	270.8															
11-11-19 12:30	0.92	1748	8.37	4.4	10-27-19 1:15	4.64	932	8.42	14.0	10-27-19 1:15	4.82	943	8.55	273.1															
11-11-19 12:45	0.91	1748	8.37	4.7	10-27-19 1:30	4.61	919	8.43	15.1	10-27-19 1:30	4.78	943	8.55	270.5															
11-11-19 13:00	0.90	1748	8.36	5.2	10-27-19 1:45	4.63	933	8.44	19.6	10-27-19 1:45	4.74	943	8.55	271.8															
11-11-19 13:15	0.94	1745	8.37	4.9	10-27-19 2:00	4.61	933	8.44	17.7	10-27-19 2:00	4.47	945	8.56	267.7															
11-11-19 13:30	0.95	1744	8.37	5.6	10-27-19 2:15	4.59	934	8.43	19.7	10-27-19 2:15	4.68	944	8.55	273.7															
11-11-19 13:45	0.96	1744	8.37	4.6	10-27-19 2:30	4.63	933	8.44	16.7	10-27-19 2:30	4.67	940	8.55	270.4															
11-11-19 14:00	0.97	1743	8.37	5.3	10-27-19 2:45	4.60	933	8.44	15.1	10-27-19 2:45	4.33	938	8.55	260.5															
11-11-19 14:15	0.98	1742	8.37	4.7	10-27-19 3:00	4.60	933	8.44	22.4	10-27-19 3:00	4.50	944	8.56	277.2															
11-11-19 14:30	0.96	1743	8.36	5.2	10-27-19 3:15	4.60	934	8.44	17.0	10-27-19 3:15	4.35	942	8.56	290.0															
11-11-19 14:45	0.99	1741	8.37	5.1	10-27-19 3:30	4.58	934	8.43	14.3	10-27-19 3:30	4.45	944	8.56	289.6															
11-11-19 15:00	0.99	1740	8.37	6.2	10-27-19 3:45	4.57	920	8.44	15.2	10-27-19 3:45	4.46	943	8.55	295.7															
11-11-19 15:15	0.97	1741	8.36	4.6	10-27-19 4:00	4.56	931	8.43	15.0	10-27-19 4:00	4.20	945	8.57	294.1															
11-11-19 15:30	0.95	1742	8.36	5.0	10-27-19 4:15	4.54	931	8.39	14.9	10-27-19 4:15	4.42	943	8.56	301.1															
11-11-19 15:45	0.98	1740	8.36	4.7	10-27-19 4:30	4.53	935	8.43	23.1	10-27-19 4:30	3.83	948	8.58	304.8															
11-11-19 16:00	0.98	1739	8.36	5.3	10-27-19 4:45	4.51	935	8.38	20.4	10-27-19 4:45	4.20	942	8.56	278.6															
11-11-19 16:15	0.99	1739	8.36	4.5	10-27-19 5:00	4.48	936	8.43	18.5	10-27-19 5:00	4.01	942	8.57	294.7															
11-11-19 16:30	0.96	1739	8.36	4.5	10-27-19 5:15	4.47	935	8.43	15.3	10-27-19 5:15	4.33	944	8.57	360.4															
11-11-19 16:45	1.00	1736	8.36	4.7	10-27-19 5:30	4.45	936	8.34	14.0	10-27-19 5:30	4.01	949	8.57	346.5															
11-11-19 17:00	1.00	1736	8.36	5.3	10-27-19 5:45	4.45	870	8.42	16.6	10-27-19 5:45	4.50	942	8.58	373.5															
11-11-19 17:15	1.02	1734	8.36	5.0	10-27-19 6:00	4.44	871	8.42	18.3	10-27-19 6:00	4.47	942	8.58	376.4															
11-11-19 17:30	1.01	1734	8.36	4.9	10-27-19 6:15	4.42	871	8.42	18.0	10-27-19 6:15	4.32	942	8.59	376.5															
11-11-19 17:45	0.98	1735	8.36	4.6	10-27-19 6:30	4.39	940	8.36	21.2	10-27-19 6:30	4.30	943	8.60	373.8															
11-11-19 18:00	1.00	1733	8.36	4.6	10-27-19 6:45	4.38	938	8.42	22.7	10-27-19 6:45	4.33	943	8.59	391.3															
11-11-19 18:15	1.02	1732	8.35	4.7	10-27-19 7:00	4.36	939	8.42	22.2	10-27-19 7:00	4.30	943	8.59	388.2															
11-11-19 18:30	0.99	1731	8.35	5.2	10-27-19 7:15	4.35	939	8.41	22.1	10-27-19 7:15	4.32	943	8.60	424.6															
11-11-19 18:45	0.97	1734	8.36	4.8	10-27-19 7:30	4.34	906	8.38	17.6	10-27-19 7:30	4.39	941	8.59	401.4															
11-11-19 19:00	0.97	1732	8.35	5.3	10-27-19 7:45	4.30	921	8.25	18.4	10-27-19 7:45	4.33	941	8.60	414.7															
11-11-19 19:15	0.98	1732	8.36	4.6	10-27-19 8:00	4.30	926	8.41	20.3	10-27-19 8:00	4.23	942	8.60	419.4															
11-11-19 19:30	0.99	1730	8.35	5.1	10-27-19 8:15	4.28	922	8.40	21.0	10-27-19 8:15	4.26	941	8.60	421.4															
11-11-19 19:45	0.96	1732	8.36	5.1	10-27-19 8:30	4.25	941	8.42	29.1	10-27-19 8:30	4.14	942	8.60	414.6															
11-11-19 20:00	0.98	1730	8.36	5.3	10-27-19 8:45	4.23	942	8.42	19.9	10-27-19 8:45	3.87	940	8.62	437.1															
11-11-19 20:15	1.00	1729	8.36	4.6	10-27-19 9:00	4.22	941	8.40	26.1	10-27-19 9:00	4.06	942	8.62	436.7															
11-11-19 20:30	0.98	1729	8.35	5.2	10-27-19 9:15	4.19	943	8.35	34.0	10-27-19 9:15	4.10	941	8.62	457.1															
11-11-19 20:45	0.97	1730	8.35	4.5	10-27-19 9:30	4.16	925	8.41	27.5	10-27-19 9:30	4.13	941	8.62	453.4															
11-11-19 21:00	1.00	1726	8.35	5.1	10-27-19 9:45	4.16	943	8.41	28.7	10-27-19 9:45	4.17	938	8.62	440.6															
11-11-19 21:15	1.04	1725	8.36	4.8	10-27-19 10:00	4.13	942	8.41	27.5	10-27-19 10:00	3.75	942	8.63	450.5															
11-11-19 21:30	1.04	1726	8.36	4.5	10-27-19 10:15	4.14	929	8.40	30.7	10-27-19 10:15	3.94	939	8.63	474.1															
11-11-19 21:45	1.02	1725	8.35	4.8	10-27-19 10:30	4.12	945	8.22	34.8	10-27-19 10:30	4.15	940	8.65	499.3															
11-11-19 22:00	1.00	1725	8.36	5.4	10-27-19 10:45	4.10	945	8.41	39.9	10-27-19 10:45	4.25	939	8.65	514.1															
11-11-19 22:15	0.99	1726	8.36	4.8	10-27-19 11:00	4.10	946	8.41	43.6	10-27-19 11:00	4.03	941	8.65	491.3															
11-11-19 22:30	0.99	1725	8.36	5.3	10-27-19 11:15	4.10	946	8.40	40.7	10-27-19 11:15	3.71	937	8.66	504.0															
11-11-19 22:45	0.97	1725	8.36	4.8	10-27-19 11:30	4.05	945	8.40	35.6	10-27-19 11:30	3.52	940	8.65	475.0															
11-11-19 23:00	0.94	1725	8.35	4.3	10-27-19 11:45	4.03	947	8.37	41.2	10-27-19 11:45	3.71	937	8.66	535.5															
11-11-19 23:15	0.95	1725	8.35	4.5	10-27-19 12:00	4.01	939	8.40	34.7	10-27-19 12:00	3.45	939	8.67	492.5															
11-11-19 23:30	0.94	1725	8.35	5.2	10-27-19 12:15	3.99	943	8.11	35.6	10-27-19 12:15	3.65	939	8.66	541.0															
11-11-19 23:45	0.94	1726	8.36	5.1	10-27-19 12:30	3.93	948	8.32	35.5	10-27-19 12:30	3.43	939	8.67	496.1															
11-12-19 0:00	0.92	1725	8.36	5.1	10-27-19 12:45	3.92	952	8.09	33.3	10-27-19 12:45	3.69	937	8.67	530.2															
11-12-19 0:15	0.92	1725	8.36	4.7	10-27-19 13:00	3.87	952	8.05	35.0	10-27-19 13:00	3.53	936	8.67	525.6															
11-12-19 0:30	0.91	1725	8.35	5.2	10-27-19 13:15	3.88	949	8.39	34.2	10-27-19 13:15	3.53	938	8.67	523.3															
11-12-19 0:45	0.93	1724	8.36	5.3	10-27-19 13:30	3.85	950	8.18	38.6	10-27-19 13:30	3.28	937	8.68	499.2															
11-12-19 1:00	0.98	1719	8.36	5.0	10-27-19 13:45	3.79	952	8.15	34.6	10-27-19 13:45	3.42	941	8.66	501.6															
11-12-19 1:15	0.98	1719	8.36	4.7	10-27-19 14:00	3.86	951	8.11	38.3	10-27-19 14:00	3.02	933	8.67	497.7															
11-12-19 1:30	0.96	1719	8.35	4.6	10-27-19 14:15	3.83	953	8.30	36.8	10-27-19 14:15	3.20	935	8.68	494.5															
11-12-19 1:45	0.93	1719	8.35	4.6	10-27-19 14:30	3.80	956	7.79	40.6	10-27-19 14:30	3.32	939	8.68	514.1															
11-12-19 2:00	0.92	1718	8.35	5.1	10-27-19 14:45	3.77	953	8.09	37.8	10-27-19 14:45	3.07	935	8.69	520.3															
11-12-19 2:15	0.96	1716	8.36	5.0	10-27-19 15:00	3.73	956	7.82	41.2	10-27-19 15:00	3.32	943	8.68	509.5															
11-12-19 2:30	1.00	1714	8.36	5.0	10-27-19 15:15	3.73	923	7.72	36.4	10-27-19 15:15	3.38	940	8.69	556.2															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-12-19 2:45	0.99	1715	8.36	4.8
11-12-19 3:00	0.97	1714	8.36	4.5
11-12-19 3:15	0.96	1714	8.35	4.9
11-12-19 3:30	0.93	1715	8.35	5.3
11-12-19 3:45	0.91	1716	8.36	5.0
11-12-19 4:00	0.90	1715	8.36	5.1
11-12-19 4:15	0.87	1717	8.36	4.7
11-12-19 4:30	0.86	1715	8.35	5.1
11-12-19 4:45	0.85	1715	8.36	5.0
11-12-19 5:00	0.85	1714	8.35	5.2
11-12-19 5:15	0.84	1714	8.36	4.7
11-12-19 5:30	0.85	1713	8.35	5.5
11-12-19 5:45	0.81	1714	8.36	4.7
11-12-19 6:00	0.83	1712	8.35	4.4
11-12-19 6:15	0.84	1712	8.35	4.8
11-12-19 6:30	0.86	1710	8.35	5.3
11-12-19 6:45	0.88	1708	8.35	4.7
11-12-19 7:00	0.87	1709	8.35	5.1
11-12-19 7:15	0.86	1709	8.35	4.8
11-12-19 7:30	0.87	1707	8.35	4.6
11-12-19 7:45	0.87	1707	8.35	4.8
11-12-19 8:00	0.93	1702	8.35	5.8
11-12-19 8:15	0.94	1701	8.35	5.0
11-12-19 8:30	0.99	1698	8.34	4.7
11-12-19 8:45	0.99	1697	8.34	5.0
11-12-19 9:00	0.99	1696	8.34	5.3
11-12-19 9:15	0.99	1695	8.35	4.8
11-12-19 9:30	0.95	1696	8.34	4.5
11-12-19 9:45	0.97	1695	8.34	5.0
11-12-19 10:00	0.97	1694	8.34	5.5
11-12-19 10:15	0.98	1694	8.34	4.9
11-12-19 10:30	0.96	1693	8.34	4.7
11-12-19 10:45	0.92	1694	8.34	4.8
11-12-19 11:00	0.91	1694	8.34	5.3
11-12-19 11:15	0.92	1694	8.35	4.8
11-12-19 11:30	0.94	1692	8.34	5.4
11-12-19 11:45	0.95	1691	8.34	4.8
11-12-19 12:00	0.94	1689	8.33	5.7
11-12-19 12:15	0.94	1688	8.34	4.6
11-12-19 12:30	0.95	1687	8.33	4.6
11-12-19 12:45	0.92	1687	8.33	4.9
11-12-19 13:00	0.93	1685	8.33	5.6
11-12-19 13:15	0.95	1684	8.33	4.9
11-12-19 13:30	0.94	1683	8.33	4.6
11-12-19 13:45	0.93	1684	8.33	4.9
11-12-19 14:00	0.92	1683	8.33	5.5
11-12-19 14:15	0.92	1683	8.33	4.7
11-12-19 14:30	0.93	1682	8.33	5.3
11-12-19 14:45	0.91	1682	8.33	4.7
11-12-19 15:00	0.92	1680	8.32	4.4
11-12-19 15:15	0.91	1679	8.32	4.8
11-12-19 15:30	0.93	1677	8.32	5.3
11-12-19 15:45	0.92	1676	8.33	4.8
11-12-19 16:00	0.92	1676	8.32	5.1
11-12-19 16:15	0.89	1677	8.32	4.4
11-12-19 16:30	0.89	1677	8.32	5.2
11-12-19 16:45	0.88	1678	8.32	4.7
11-12-19 17:00	0.88	1676	8.32	5.4
11-12-19 17:15	0.87	1676	8.32	4.4
11-12-19 17:30	0.85	1676	8.32	4.9
11-12-19 17:45	0.81	1677	8.32	4.4
11-12-19 18:00	0.80	1677	8.32	4.8
11-12-19 18:15	0.77	1675	8.33	4.5
11-12-19 18:30	0.79	1675	8.32	5.5
11-12-19 18:45	0.80	1675	8.32	4.6
11-12-19 19:00	0.81	1673	8.31	5.4
11-12-19 19:15	0.80	1674	8.32	4.7
11-12-19 19:30	0.82	1672	8.31	4.4
11-12-19 19:45	0.82	1672	8.32	4.8
11-12-19 20:00	0.83	1670	8.31	4.9
11-12-19 20:15	0.82	1670	8.32	4.9
11-12-19 20:30	0.82	1669	8.31	5.1
11-12-19 20:45	0.80	1670	8.32	4.9

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-27-19 15:30	3.72	958	7.70	30.5
10-27-19 15:45	3.67	955	7.99	37.8
10-27-19 16:00	3.66	955	7.92	37.8
10-27-19 16:15	3.66	956	7.76	38.0
10-27-19 16:30	3.63	956	7.88	43.9
10-27-19 16:45	3.64	956	7.90	47.5
10-27-19 17:00	3.65	958	7.76	37.6
10-27-19 17:15	3.64	961	7.63	38.6
10-27-19 17:30	3.65	957	7.79	38.0
10-27-19 17:45	3.66	958	7.76	44.1
10-27-19 18:00	3.68	959	7.67	39.6
10-27-19 18:15	3.71	958	7.77	37.9
10-27-19 18:30	3.73	958	7.95	50.1
10-27-19 18:45	3.75	957	8.05	35.5
10-27-19 19:00	3.82	918	7.62	30.2
10-27-19 19:15	3.83	958	7.80	39.1
10-27-19 19:45	3.87	956	8.27	39.7
10-27-19 20:00	3.87	957	8.31	25.3
10-27-19 20:15	3.90	957	7.89	33.3
10-27-19 20:30	3.93	957	7.84	35.6
10-27-19 20:45	3.96	959	7.85	35.8
10-27-19 21:00	3.94	957	8.08	33.8
10-27-19 21:15	3.94	958	7.96	30.7
10-27-19 21:30	3.94	957	8.08	34.3
10-27-19 21:45	3.96	923	7.80	30.5
10-27-19 22:00	3.96	922	8.03	30.1
10-27-19 22:15	3.96	923	7.83	31.7
10-27-19 22:30	3.96	923	7.70	25.7
10-27-19 22:45	3.95	958	7.76	35.5
10-27-19 23:00	3.98	957	7.73	30.0
10-27-19 23:15	3.99	957	7.67	33.3
10-27-19 23:30	3.97	907	7.68	23.3
10-27-19 23:45	3.91	959	7.74	28.8
10-28-19 0:00	3.88	961	7.84	22.9
10-28-19 0:15	3.87	961	7.89	26.0
10-28-19 0:30	3.84	961	7.79	24.6
10-28-19 0:45	3.82	962	7.86	24.3
10-28-19 1:00	3.80	961	8.02	26.7
10-28-19 1:15	3.77	965	7.82	22.2
10-28-19 1:30	3.77	965	7.74	24.5
10-28-19 1:45	3.78	956	8.24	21.6
10-28-19 2:00	3.80	955	8.33	25.5
10-28-19 2:15	3.82	955	8.39	28.1
10-28-19 2:30	3.83	956	8.34	27.3
10-28-19 2:45	3.82	957	8.10	27.3
10-28-19 3:00	3.79	959	7.96	25.1
10-28-19 3:15	3.79	959	8.01	24.4
10-28-19 3:30	3.77	960	7.94	38.0
10-28-19 3:45	3.75	960	7.94	26.7
10-28-19 4:00	3.73	959	8.18	22.4
10-28-19 4:15	3.73	962	7.80	34.5
10-28-19 4:30	3.70	960	8.01	23.5
10-28-19 4:45	3.69	960	8.17	21.7
10-28-19 5:00	3.65	962	7.87	19.0
10-28-19 5:15	3.64	960	8.14	18.3
10-28-19 5:30	3.62	963	7.87	18.7
10-28-19 5:45	3.59	963	7.80	26.3
10-28-19 6:00	3.55	959	8.09	24.6
10-28-19 6:15	3.55	962	7.84	17.2
10-28-19 6:30	3.53	961	7.84	18.1
10-28-19 6:45	3.51	963	7.91	26.7
10-28-19 7:00	3.54	962	7.78	19.4
10-28-19 7:15	3.52	951	7.82	18.1
10-28-19 7:30	3.51	963	7.76	19.7
10-28-19 7:45	3.51	963	7.83	21.3
10-28-19 8:00	3.51	961	7.80	18.0
10-28-19 8:15	3.42	962	7.95	18.8
10-28-19 8:30	3.41	964	7.74	15.2
10-28-19 8:45	3.40	964	7.82	24.5
10-28-19 9:00	3.36	945	7.86	15.8
10-28-19 9:15	3.36	961	8.25	20.2
10-28-19 9:30	3.33	964	7.89	19.8
10-28-19 9:45	3.31	963	7.95	22.8

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
10-27-19 15:30	3.44	937	8.68	532.4
10-27-19 15:45	3.26	939	8.69	550.1
10-27-19 16:00	3.40	939	8.69	538.5
10-27-19 16:15	3.43	938	8.69	553.4
10-27-19 16:30	3.58	938	8.69	565.6
10-27-19 16:45	3.64	938	8.69	559.1
10-27-19 17:00	3.70	937	8.69	552.6
10-27-19 17:15	3.73	937	8.70	536.0
10-27-19 17:30	3.84	936	8.71	536.7
10-27-19 17:45	3.85	937	8.71	609.7
10-27-19 18:00	3.99	935	8.71	545.2
10-27-19 18:15	4.03	936	8.72	592.8
10-27-19 18:30	4.02	935	8.71	550.2
10-27-19 18:45	4.14	936	8.71	589.4
10-27-19 19:00	4.38	935	8.72	613.9
10-27-19 19:15	4.41	936	8.72	614.2
10-27-19 19:45	4.46	934	8.72	590.1
10-27-19 20:00	4.45	934	8.72	627.0
10-27-19 20:15	4.58	934	8.72	593.0
10-27-19 20:30	4.56	934	8.73	624.1
10-27-19 20:45	4.55	933	8.73	596.7
10-27-19 21:00	4.57	934	8.73	597.1
10-27-19 21:15	4.62	933	8.73	564.4
10-27-19 21:30	4.51	934	8.73	606.8
10-27-19 21:45	4.51	933	8.73	566.5
10-27-19 22:00	4.44	933	8.73	601.0
10-27-19 22:15	4.42	934	8.73	603.2
10-27-19 22:30	4.39	934	8.73	622.3
10-27-19 22:45	4.37	934	8.73	586.0
10-27-19 23:00	4.37	934	8.73	625.4
10-27-19 23:15	4.36	934	8.73	607.8
10-27-19 23:30	4.36	934	8.73	586.2
10-27-19 23:45	4.34	934	8.72	610.2
10-28-19 0:00	4.35	934	8.71	614.5
10-28-19 0:15	4.31	934	8.72	614.8
10-28-19 0:30	4.27	934	8.72	607.4
10-28-19 0:45	4.19	934	8.72	598.3
10-28-19 1:00	4.14	932	8.72	593.9
10-28-19 1:15	4.15	934	8.73	604.1
10-28-19 1:30	4.19	934	8.73	602.5
10-28-19 1:45	4.21	934	8.73	620.4
10-28-19 2:00	4.21	935	8.73	608.1
10-28-19 2:15	4.22	934	8.72	593.0
10-28-19 2:30	4.24	934	8.71	620.4
10-28-19 2:45	4.20	934	8.71	595.8
10-28-19 3:00	4.16	934	8.72	612.8
10-28-19 3:15	4.17	934	8.73	596.6
10-28-19 3:30	4.16	934	8.73	632.1
10-28-19 3:45	4.07	934	8.73	607.0
10-28-19 4:00	4.02	934	8.73	608.4
10-28-19 4:15	3.97	934	8.73	588.4
10-28-19 4:30	3.94	935	8.73	583.9
10-28-19 4:45	3.92	934	8.72	565.6
10-28-19 5:00	3.94	935	8.72	599.2
10-28-19 5:15	3.93	934	8.73	592.0
10-28-19 5:30	3.92	935	8.72	578.6
10-28-19 5:45	3.90	935	8.72	607.2
10-28-19 6:00	3.82	935	8.73	587.4
10-28-19 6:15	3.84	935	8.73	586.6
10-28-19 6:30	3.84	935	8.73	571.7
10-28-19 6:45	3.80	934	8.73	589.2
10-28-19 7:00	3.79	935	8.73	577.4
10-28-19 7:15	3.78	935	8.73	550.8
10-28-19 7:30	3.75	935	8.73	578.2
10-28-19 7:45	3.78	934	8.73	598.8
10-28-19 8:00	3.78	935	8.73	604.0
10-28-19 8:15	3.71	935	8.73	580.4
10-28-19 8:30	3.78	935	8.73	610.8
10-28-19 8:45	3.74	935	8.71	579.9
10-28-19 9:00	3.69	936	8.71	583.3
10-28-19 9:15	3.62	935	8.73	562.6
10-28-19 9:30	3.62	935	8.73	561.1
10-28-19 9:45	3.55	935	8.73	551.0

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-12-19 21:00	0.79	1670	8.31	4.7	10-28-19 10:00	3.31	962	7.94	17.3	10-28-19 10:00	3.56	935	8.73	614.8															
11-12-19 21:15	0.78	1670	8.32	5.0	10-28-19 10:15	3.24	963	8.25	9.8	10-28-19 10:15	3.46	936	8.73	599.4															
11-12-19 21:30	0.79	1669	8.31	5.1	10-28-19 10:30	3.29	964	7.92	10.3	10-28-19 10:30	3.49	935	8.73	561.3															
11-12-19 21:45	0.78	1670	8.32	4.5	10-28-19 10:45	3.26	979	7.81	16.9	10-28-19 10:45	3.51	935	8.73	574.6															
11-12-19 22:00	0.80	1668	8.31	5.1	10-28-19 11:00	3.26	977	7.90	15.4	10-28-19 11:00	3.47	936	8.72	587.8															
11-12-19 22:15	0.79	1668	8.32	4.5	10-28-19 11:15	3.19	977	7.89	13.4	10-28-19 11:15	3.39	936	8.73	555.7															
11-12-19 22:30	0.80	1666	8.31	4.6	10-28-19 11:30	3.09	977	8.08	15.5	10-28-19 11:30	3.26	937	8.71	580.5															
11-12-19 22:45	0.79	1667	8.32	4.7	10-28-19 11:45	3.13	961	8.36	16.9	10-28-19 11:45	3.20	937	8.73	575.9															
11-12-19 23:00	0.80	1666	8.31	5.0	10-28-19 12:00	3.06	964	8.01	17.4	10-28-19 12:00	3.07	937	8.72	587.7															
11-12-19 23:15	0.79	1666	8.32	4.8	10-28-19 12:15	3.05	964	7.98	16.6	10-28-19 12:15	3.05	938	8.72	545.3															
11-12-19 23:30	0.79	1665	8.31	4.4	10-28-19 12:30	3.04	964	7.77	14.2	10-28-19 12:30	2.96	937	8.74	574.6															
11-12-19 23:45	0.78	1665	8.31	4.9	10-28-19 12:45	3.02	895	7.75	14.7	10-28-19 12:45	3.01	937	8.73	589.9															
11-13-19 0:00	0.78	1664	8.31	5.2	10-28-19 13:00	3.00	895	7.80	18.9	10-28-19 13:00	2.90	937	8.73	571.7															
11-13-19 0:15	0.77	1666	8.31	4.7	10-28-19 13:15	2.96	895	7.83	15.1	10-28-19 13:15	2.68	937	8.73	565.8															
11-13-19 0:30	0.76	1666	8.31	4.2	10-28-19 13:30	2.79	891	8.38	16.6	10-28-19 13:30	2.59	938	8.74	576.7															
11-13-19 0:45	0.76	1666	8.31	4.8	10-28-19 13:45	2.75	962	8.39	18.4	10-28-19 13:45	2.59	938	8.73	567.3															
11-13-19 1:00	0.77	1664	8.31	5.2	10-28-19 14:00	2.94	970	8.41	15.1	10-28-19 14:00	2.58	939	8.72	578.3															
11-13-19 1:15	0.78	1665	8.31	5.0	10-28-19 14:15	2.92	974	7.93	13.3	10-28-19 14:15	2.66	942	8.73	575.9															
11-13-19 1:30	0.79	1662	8.30	4.6	10-28-19 14:30	2.77	974	8.07	17.3	10-28-19 14:30	2.66	937	8.72	567.8															
11-13-19 1:45	0.78	1662	8.31	4.6	10-28-19 14:45	2.88	964	8.14	26.4	10-28-19 14:45	2.33	939	8.72	562.4															
11-13-19 2:00	0.79	1662	8.31	5.0	10-28-19 15:00	2.64	965	7.80	16.0	10-28-19 15:00	2.05	944	8.73	564.9															
11-13-19 2:15	0.79	1662	8.31	4.7	10-28-19 15:15	2.47	964	7.97	22.8	10-28-19 15:15	1.88	940	8.74	549.4															
11-13-19 2:30	0.78	1661	8.30	5.0	10-28-19 15:30	2.43	962	7.91	15.0	10-28-19 15:30	1.68	944	8.74	577.2															
11-13-19 2:45	0.78	1661	8.31	4.5	10-28-19 15:45	2.28	974	7.83	12.0	10-28-19 15:45	1.90	942	8.74	566.2															
11-13-19 3:00	0.77	1661	8.30	4.4	10-28-19 16:00	2.28	973	8.28	14.8	10-28-19 16:00	1.87	942	8.74	567.6															
11-13-19 3:15	0.77	1661	8.31	4.6	10-28-19 16:15	2.36	975	8.04	13.3	10-28-19 16:15	1.93	942	8.74	565.9															
11-13-19 3:30	0.77	1660	8.31	5.1	10-28-19 16:30	2.45	975	7.91	13.5	10-28-19 16:30	1.79	942	8.73	560.5															
11-13-19 3:45	0.76	1660	8.31	4.4	10-28-19 16:45	2.51	966	7.74	16.0	10-28-19 16:45	1.70	946	8.74	553.4															
11-13-19 4:00	0.76	1660	8.31	4.2	10-28-19 17:00	2.52	967	7.70	21.2	10-28-19 17:00	1.75	945	8.73	546.4															
11-13-19 4:15	0.75	1660	8.31	5.1	10-28-19 17:15	2.52	966	7.76	18.2	10-28-19 17:15	1.65	953	8.73	548.4															
11-13-19 4:30	0.75	1659	8.31	5.2	10-28-19 17:30	2.61	966	7.62	14.4	10-28-19 17:30	1.67	956	8.73	549.3															
11-13-19 4:45	0.75	1660	8.31	4.5	10-28-19 17:45	2.54	965	7.79	22.2	10-28-19 17:45	1.64	957	8.73	540.0															
11-13-19 5:00	0.75	1658	8.30	5.0	10-28-19 18:00	2.42	966	7.88	16.2	10-28-19 18:00	1.63	956	8.72	545.4															
11-13-19 5:15	0.74	1660	8.31	4.6	10-28-19 18:15	2.56	967	7.69	14.7	10-28-19 18:15	1.71	956	8.72	539.9															
11-13-19 5:30	0.73	1659	8.30	4.9	10-28-19 18:30	2.56	964	7.72	12.4	10-28-19 18:30	1.89	954	8.73	560.7															
11-13-19 5:45	0.74	1660	8.31	4.4	10-28-19 18:45	2.58	965	8.04	13.5	10-28-19 18:45	2.07	950	8.72	542.1															
11-13-19 6:00	0.74	1658	8.31	4.1	10-28-19 19:00	2.85	963	8.34	15.9	10-28-19 19:00	2.22	949	8.71	546.3															
11-13-19 6:15	0.72	1659	8.31	4.4	10-28-19 19:15	2.94	963	8.37	22.2	10-28-19 19:15	2.39	947	8.70	525.6															
11-13-19 6:30	0.72	1659	8.30	5.2	10-28-19 19:30	2.89	961	8.34	16.1	10-28-19 19:30	2.44	948	8.70	545.9															
11-13-19 6:45	0.71	1659	8.31	4.5	10-28-19 19:45	2.78	963	8.35	20.3	10-28-19 19:45	2.42	947	8.71	551.4															
11-13-19 7:00	0.73	1658	8.31	5.0	10-28-19 20:00	2.58	968	7.93	12.7	10-28-19 20:00	2.40	946	8.71	552.6															
11-13-19 7:15	0.70	1658	8.31	4.6	10-28-19 20:15	2.50	969	8.14	11.2	10-28-19 20:15	2.49	946	8.70	535.3															
11-13-19 7:30	0.70	1659	8.30	4.2	10-28-19 20:30	2.56	969	8.26	11.4	10-28-19 20:30	2.54	945	8.71	541.0															
11-13-19 7:45	0.70	1659	8.31	4.7	10-28-19 20:45	2.62	941	7.87	11.2	10-28-19 20:45	2.55	944	8.73	531.3															
11-13-19 8:00	0.70	1657	8.31	5.0	10-28-19 21:00	2.58	941	7.73	12.0	10-28-19 21:00	2.65	943	8.72	535.2															
11-13-19 8:15	0.70	1658	8.31	4.6	10-28-19 21:15	2.59	941	7.83	13.0	10-28-19 21:15	2.73	943	8.72	529.9															
11-13-19 8:30	0.70	1657	8.31	4.3	10-28-19 21:30	2.58	940	7.83	10.8	10-28-19 21:30	2.79	942	8.72	530.7															
11-13-19 8:45	0.69	1658	8.31	4.7	10-28-19 21:45	2.63	968	7.68	6.9	10-28-19 21:45	2.81	942	8.72	544.1															
11-13-19 9:00	0.70	1655	8.30	5.0	10-28-19 22:00	2.56	965	8.13	6.9	10-28-19 22:00	2.84	943	8.70	536.4															
11-13-19 9:15	0.69	1657	8.31	4.3	10-28-19 22:15	2.67	965	7.98	5.8	10-28-19 22:15	2.86	943	8.71	542.5															
11-13-19 9:30	0.69	1657	8.30	4.9	10-28-19 22:30	2.50	965	8.28	7.0	10-28-19 22:30	2.90	942	8.71	529.0															
11-13-19 9:45	0.69	1657	8.31	4.7	10-28-19 22:45	2.70	967	7.83	16.0	10-28-19 22:45	2.95	942	8.72	542.3															
11-13-19 10:00	0.69	1656	8.30	5.1	10-28-19 23:00	2.59	966	8.02	14.7	10-28-19 23:00	3.02	942	8.70	536.7															
11-13-19 10:15	0.68	1657	8.31	4.6	10-28-19 23:15	2.75	966	7.96	11.9	10-28-19 23:15	3.02	941	8.72	538.8															
11-13-19 10:30	0.69	1655	8.30	4.1	10-28-19 23:30	2.43	960	8.38	11.0	10-28-19 23:30	3.06	941	8.70	532.0															
11-13-19 10:45	0.68	1656	8.31	4.7	10-28-19 23:45	2.51	966	8.06	6.9	10-28-19 23:45	3.00	942	8.72	532.5															
11-13-19 11:00	0.69	1655	8.30	4.8	10-29-19 0:00	2.65	964	8.14	13.3	10-29-19 0:00	2.97	943	8.71	547.2															
11-13-19 11:15	0.69	1656	8.32	4.6	10-29-19 0:15	2.63	962	8.43	18.2	10-29-19 0:15	2.95	943	8.72	534.9															
11-13-19 11:30	0.69	1654	8.30	5.0	10-29-19 0:30	2.55	963	8.19	12.4	10-29-19 0:30	2.88	943	8.71	526.4															
11-13-19 11:45	0.69	1654	8.31	4.8	10-29-19 0:45	2.58	962	8.39	15.8	10-29-19 0:45	2.82	943	8.72	536.7															
11-13-19 12:00	0.70	1653	8.30	5.2	10-29-19 1:00	2.54	956	8.16	13.2	10-29-19 1:00	2.82	943	8.72	528.3															
11-13-19 12:15	0.70	1654	8.31	4.8	10-29-19 1:15	2.56	955	8.42	11.5	10-29-19 1:15	2.80	943	8.72	529.8															
11-13-19 12:30	0.71	1652	8.30	5.0	10-29-19 1:30	2.49	954	8.42	11.7	10-29-19 1:30	2.74	944	8.71	523.9															
11-13-19 12:45	0.70	1653	8.31	4.7	10-29-19 1:45	2.47	961	8.42	12.0	10-29-19 1:45	2.75	944	8.72	533.1															
11-13-19 13:00	0.71	1651	8.30	4.9	10-29-19 2:00	2.50	964	8.26	11.1	10-29-19 2:00	2.74	944	8.70	533.9															
11-13-19 13:15	0.71	1652	8.31	4.4	10-29-19 2:15	2.38	965	8.09	16.7	10-29-19 2:15	2.81	944	8.71	528.4															
11-13-19 13:30	0.72	1650	8.30	4.8	10-29-19 2:30	2.37	962	8.38	12.0	10-29-19 2:30	2.67	946	8.72	518.4															
11-13-19 13:45	0.73	1651	8.31	4.6	10-29-19 2:45	2.40	962	8.37	11.3	10-29-19 2:45	2.66	947	8.72	533.6															
11-13-19 14:00	0.74	1649	8.30	5.0	10-29-19 3:00	2.33	964	8.36	11.1	10-29-19 3:00	2.68	947	8.72	528.3															
11-13-19 14:15	0.74	1650	8.31	4.7	10-29-19 3:15	2.29	913	8.31	11.5	10-29-19 3:15	2.60	947	8.72	522.6															
11-13-19 14:30	0.75	1648	8.30	4.8	10-29-19 3:30	2.24	966	7.98	10.2	10-29-19 3:30	2.52	949	8.72	516.4															
11-13-19 14:45	0.75	1649	8.31	4.5	10-29-19 3:45	2.24	960	8.33	11.3	10-29-19 3:45	2.57	949	8.72	529.2															
11-13-19 15:00	0.75	1647	8.30	4.4	10-29-19 4:00	2.22	962	8.05	10.4	10-29-19 4:00	2.46	950	8.71	516.1															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-13-19 15:15	0.75	1648	8.31	4.4	10-29-19 4:15	2.26	959	8.33	13.3	10-29-19 4:15	2.49	951	8.72	536.1															
11-13-19 15:30	0.76	1647	8.30	4.8	10-29-19 4:30	2.21	960	8.27	11.5	10-29-19 4:30	2.41	953	8.72	536.0															
11-13-19 15:45	0.76	1647	8.31	4.9	10-29-19 4:45	2.15	965	8.22	17.5	10-29-19 4:45	2.46	953	8.72	525.8															
11-13-19 16:00	0.77	1645	8.30	5.0	10-29-19 5:00	2.11	965	8.34	14.8	10-29-19 5:00	2.42	954	8.72	532.3															
11-13-19 16:15	0.77	1646	8.30	4.6	10-29-19 5:15	2.12	965	8.34	17.2	10-29-19 5:15	2.41	954	8.73	524.0															
11-13-19 16:30	0.78	1644	8.30	6.7	10-29-19 5:30	2.05	966	8.12	15.1	10-29-19 5:30	2.41	954	8.72	510.1															
11-13-19 16:45	0.78	1645	8.30	5.6	10-29-19 5:45	2.01	966	8.29	5.3	10-29-19 5:45	2.47	953	8.73	527.1															
11-13-19 17:00	0.79	1644	8.30	5.0	10-29-19 6:00	1.91	967	7.97	4.5	10-29-19 6:00	2.43	954	8.72	527.1															
11-13-19 17:15	0.79	1644	8.30	4.9	10-29-19 6:15	1.85	967	8.24	4.6	10-29-19 6:15	2.46	953	8.73	541.0															
11-13-19 17:30	0.80	1643	8.29	5.0	10-29-19 6:30	1.76	967	8.25	5.0	10-29-19 6:30	2.44	953	8.72	525.8															
11-13-19 17:45	0.80	1644	8.30	4.7	10-29-19 6:45	1.74	965	8.19	11.1	10-29-19 6:45	2.41	954	8.73	532.7															
11-13-19 18:00	0.82	1643	8.30	5.3	10-29-19 7:00	1.64	966	8.27	10.8	10-29-19 7:00	2.51	954	8.73	518.6															
11-13-19 18:15	0.80	1643	8.30	4.4	10-29-19 7:15	1.56	966	8.21	10.4	10-29-19 7:15	2.42	956	8.73	524.0															
11-13-19 18:30	0.81	1642	8.29	4.3	10-29-19 7:30	1.51	966	8.26	11.8	10-29-19 7:30	2.45	957	8.72	517.6															
11-13-19 19:00	0.80	1643	8.29	4.7	10-29-19 7:45	1.45	968	8.21	12.7	10-29-19 7:45	2.50	955	8.73	532.6															
11-13-19 19:15	0.81	1641	8.29	5.2	10-29-19 8:00	1.47	969	8.19	15.4	10-29-19 8:00	2.51	954	8.73	520.5															
11-13-19 19:30	0.81	1642	8.30	4.8	10-29-19 8:15	1.42	968	8.21	15.1	10-29-19 8:15	2.50	954	8.73	533.1															
11-13-19 19:45	0.82	1641	8.29	4.5	10-29-19 8:30	1.37	968	8.28	13.4	10-29-19 8:30	2.49	955	8.72	525.3															
11-13-19 20:00	0.81	1641	8.29	4.8	10-29-19 8:45	1.30	969	8.02	9.6	10-29-19 8:45	2.44	955	8.73	528.6															
11-13-19 20:15	0.82	1641	8.29	5.0	10-29-19 9:00	1.22	970	8.18	9.6	10-29-19 9:00	2.39	955	8.72	530.8															
11-13-19 20:30	0.82	1642	8.30	4.9	10-29-19 9:15	1.08	969	8.19	9.1	10-29-19 9:15	2.38	956	8.72	522.3															
11-13-19 20:45	0.83	1640	8.29	5.3	10-29-19 9:30	1.09	968	8.23	10.0	10-29-19 9:30	2.32	957	8.72	509.4															
11-13-19 21:00	0.83	1641	8.30	4.9	10-29-19 9:45	1.06	969	8.30	10.1	10-29-19 9:45	2.29	957	8.72	512.9															
11-13-19 21:15	0.83	1640	8.29	5.1	10-29-19 10:00	0.95	970	8.08	9.6	10-29-19 10:00	2.25	958	8.73	513.8															
11-13-19 21:30	0.82	1641	8.30	5.4	10-29-19 10:15	0.91	972	7.80	9.2	10-29-19 10:15	2.17	958	8.73	514.8															
11-13-19 21:45	0.82	1641	8.29	4.5	10-29-19 10:30	0.87	971	7.87	9.5	10-29-19 10:30	2.15	960	8.73	508.7															
11-13-19 22:00	0.81	1641	8.29	5.2	10-29-19 10:45	0.87	972	8.17	16.9	10-29-19 10:45	2.19	958	8.73	508.9															
11-13-19 22:15	0.80	1641	8.29	5.0	10-29-19 11:00	0.84	976	8.18	18.0	10-29-19 11:00	2.20	959	8.72	523.8															
11-13-19 22:30	0.79	1643	8.30	4.9	10-29-19 11:15	0.74	974	8.20	14.7	10-29-19 11:15	2.18	959	8.73	525.2															
11-13-19 22:45	0.79	1642	8.29	5.4	10-29-19 11:30	0.79	973	8.25	14.3	10-29-19 11:30	2.13	959	8.72	502.8															
11-13-19 23:00	0.78	1644	8.30	4.9	10-29-19 11:45	0.55	971	8.28	8.6	10-29-19 11:45	2.06	961	8.73	518.5															
11-13-19 23:15	0.81	1642	8.29	6.3	10-29-19 12:00	0.56	974	8.27	12.1	10-29-19 12:00	2.07	961	8.72	503.7															
11-13-19 23:30	0.81	1643	8.29	4.8	10-29-19 12:15	0.68	974	8.15	16.9	10-29-19 12:15	1.99	962	8.73	508.7															
11-13-19 23:45	0.81	1642	8.29	5.1	10-29-19 12:30	0.68	977	8.06	13.4	10-29-19 12:30	2.02	962	8.72	501.1															
11-14-19 0:00	0.80	1642	8.29	5.0	10-29-19 12:45	0.69	978	7.68	8.3	10-29-19 12:45	1.88	965	8.73	503.8															
11-14-19 0:15	0.81	1640	8.29	4.9	10-29-19 13:00	0.63	980	8.10	9.6	10-29-19 13:00	1.96	964	8.72	501.2															
11-14-19 0:30	0.81	1641	8.29	4.9	10-29-19 13:15	0.56	980	8.10	14.0	10-29-19 13:15	1.92	964	8.73	503.9															
11-14-19 0:45	0.83	1640	8.30	5.3	10-29-19 13:30	0.69	958	8.16	7.3	10-29-19 13:30	1.84	966	8.73	512.6															
11-14-19 1:00	0.81	1641	8.30	4.9	10-29-19 13:45	0.66	981	7.81	5.2	10-29-19 13:45	1.85	966	8.73	504.5															
11-14-19 1:15	0.82	1640	8.29	5.2	10-29-19 14:00	0.63	981	8.07	6.7	10-29-19 14:00	1.77	968	8.72	500.5															
11-14-19 1:30	0.82	1641	8.29	4.7	10-29-19 14:15	0.67	966	8.13	9.1	10-29-19 14:15	1.80	968	8.73	493.9															
11-14-19 1:45	0.82	1640	8.29	4.4	10-29-19 14:30	0.70	967	8.14	9.1	10-29-19 14:30	1.69	969	8.73	488.5															
11-14-19 2:00	0.81	1641	8.29	5.2	10-29-19 14:45	0.76	978	8.06	8.5	10-29-19 14:45	1.64	972	8.73	488.5															
11-14-19 2:15	0.81	1640	8.29	5.3	10-29-19 15:00	0.78	980	8.02	12.0	10-29-19 15:00	1.57	976	8.73	499.5															
11-14-19 2:30	0.80	1641	8.29	5.3	10-29-19 15:15	0.77	981	8.06	12.1	10-29-19 15:15	1.67	971	8.73	503.8															
11-14-19 2:45	0.81	1640	8.29	5.4	10-29-19 15:30	0.83	981	7.69	11.4	10-29-19 15:30	1.51	976	8.72	486.5															
11-14-19 3:00	0.82	1641	8.29	4.7	10-29-19 15:45	0.85	981	7.91	10.5	10-29-19 15:45	1.54	976	8.73	495.8															
11-14-19 3:15	0.83	1639	8.28	4.6	10-29-19 16:00	0.92	977	7.98	8.2	10-29-19 16:00	1.49	976	8.72	487.7															
11-14-19 3:30	0.82	1639	8.28	4.9	10-29-19 16:15	0.92	967	8.05	6.8	10-29-19 16:15	1.49	976	8.73	489.0															
11-14-19 3:45	0.82	1639	8.29	4.9	10-29-19 16:30	0.94	967	7.92	6.7	10-29-19 16:30	1.53	976	8.72	485.7															
11-14-19 4:00	0.81	1640	8.29	4.9	10-29-19 16:45	0.98	985	7.82	7.7	10-29-19 16:45	1.51	977	8.73	488.9															
11-14-19 4:15	0.84	1639	8.29	5.3	10-29-19 17:00	0.99	968	7.76	6.2	10-29-19 17:00	1.55	977	8.72	488.4															
11-14-19 4:30	0.81	1640	8.29	5.4	10-29-19 17:15	1.00	968	7.61	7.2	10-29-19 17:15	1.53	976	8.73	482.9															
11-14-19 4:45	0.82	1639	8.29	5.1	10-29-19 17:30	1.08	968	7.72	6.7	10-29-19 17:30	1.54	978	8.72	487.8															
11-14-19 5:00	0.81	1640	8.29	5.2	10-29-19 17:45	1.11	983	7.93	8.9	10-29-19 17:45	1.50	979	8.73	487.1															
11-14-19 5:15	0.84	1640	8.29	5.3	10-29-19 18:00	1.27	943	7.69	7.7	10-29-19 18:00	1.57	979	8.72	485.4															
11-14-19 5:30	0.81	1640	8.30	5.1	10-29-19 18:15	1.45	975	8.01	9.3	10-29-19 18:15	1.59	978	8.73	485.1															
11-14-19 5:45	0.81	1639	8.29	5.1	10-29-19 18:45	1.48	978	8.01	12.5	10-29-19 18:45	1.69	978	8.72	474.1															
11-14-19 6:00	0.79	1640	8.29	4.9	10-29-19 19:00	1.68	969	8.34	17.3	10-29-19 19:00	1.76	976	8.73	483.0															
11-14-19 6:15	0.79	1639	8.29	4.1	10-29-19 19:15	1.73	959	8.35	11.1	10-29-19 19:15	1.82	976	8.72	483.2															
11-14-19 6:30	0.79	1641	8.29	5.1	10-29-19 19:30	1.81	967	8.13	9.0	10-29-19 19:30	1.88	976	8.72	483.9															
11-14-19 6:45	0.78	1640	8.29	4.9	10-29-19 19:45	1.82	971	8.08	16.7	10-29-19 19:45	2.01	971	8.72	485.2															
11-14-19 7:00	0.75	1642	8.30	5.7	10-29-19 20:00	1.87	968	8.16	15.2	10-29-19 20:00	2.07	971	8.72	486.3															
11-14-19 7:15	0.74	1644	8.29	4.2	10-29-19 20:15	1.90	969	8.31	14.9	10-29-19 20:15	2.12	970	8.71	483.0															
11-14-19 7:30	0.73	1645	8.29	4.7	10-29-19 20:30	1.99	965	8.24	14.8	10-29-19 20:30	2.24	967	8.71	490.9															
11-14-19 7:45	0.73	1646	8.29	4.2	10-29-19 20:45	2.01	960	8.17	9.0	10-29-19 20:45	2.28	966	8.70	485.2															
11-14-19 8:00	0.71	1648	8.30	4.9	10-29-19 21:00	2.05	973	8.33	10.4	10-29-19 21:00	2.33	965	8.71	493.5															
11-14-19 8:15	0.70	1648	8.29	4.1	10-29-19 21:15	2.10	971	8.37	9.8	10-29-19 21:15	2.36	965	8.70	496.7															
11-14-19 8:30	0.68	1649	8.30	4.9	10-29-19 21:30	2.12	969	8.41	9.8	10-29-19 21:30	2.41	964	8.70	486.3															
11-14-19 8:45	0.69	1649	8.30	4.2	10-29-19 21:45	2.12	963	8.31	12.4	10-29-19 21:45	2.44	963	8.69	485.9															
11-14-19 9:00	0.69	1649	8.30	5.2	10-29-19 22:00	2.15	961	8.41	10.4	10-29-19 22:00	2.48	963	8.69	497.5															
11-14-19 9:15	0.70	1648	8.30	4.8	10-29-19 22:15	2.15	963	8.37	9.4	10-29-19 22:15	2.49	963	8.69	489.8															
11-14-19 9:30	0.70	1648	8.30	4.8	10-29-19 22:30	2.16	962	8.41	10.9	10-29-19 22:30	2.50	963	8.69	485.0															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-14-19 9:45	0.72	1646	8.30	5.1	10-29-19 22:45	2.17	961	8.41	10.1	10-29-19 22:45	2.50	963	8.69	490.7															
11-14-19 10:00	0.72	1647	8.30	5.0	10-29-19 23:00	2.18	962	8.39	9.0	10-29-19 23:00	2.50	963	8.70	502.0															
11-14-19 10:15	0.74	1645	8.30	5.2	10-29-19 23:15	2.19	959	8.38	8.5	10-29-19 23:15	2.52	961	8.70	483.8															
11-14-19 10:30	0.72	1645	8.30	4.7	10-29-19 23:30	2.14	961	8.33	8.0	10-29-19 23:30	2.53	960	8.70	477.0															
11-14-19 10:45	0.73	1644	8.30	4.3	10-29-19 23:45	2.17	917	8.41	8.8	10-29-19 23:45	2.52	960	8.69	483.4															
11-14-19 11:00	0.72	1644	8.30	5.2	10-30-19 0:00	2.19	961	8.41	11.8	10-30-19 0:00	2.50	962	8.69	468.4															
11-14-19 11:15	0.73	1643	8.29	4.8	10-30-19 0:15	2.18	958	8.28	8.5	10-30-19 0:15	2.51	962	8.69	478.0															
11-14-19 11:30	0.73	1644	8.30	5.0	10-30-19 0:30	2.17	959	8.38	8.0	10-30-19 0:30	2.48	959	8.71	477.1															
11-14-19 11:45	0.73	1642	8.29	5.2	10-30-19 0:45	2.14	962	8.37	5.9	10-30-19 0:45	2.42	959	8.71	469.0															
11-14-19 12:00	0.72	1644	8.30	5.3	10-30-19 1:00	2.15	962	8.33	6.1	10-30-19 1:00	2.42	959	8.72	478.8															
11-14-19 12:15	0.72	1643	8.29	5.1	10-30-19 1:15	2.05	966	7.69	5.5	10-30-19 1:15	2.43	959	8.72	472.4															
11-14-19 12:30	0.72	1644	8.30	4.8	10-30-19 1:30	2.19	960	8.32	5.5	10-30-19 1:30	2.41	960	8.72	466.2															
11-14-19 12:45	0.72	1644	8.30	4.9	10-30-19 1:45	2.19	960	8.32	5.5	10-30-19 1:45	2.39	960	8.72	463.1															
11-14-19 13:00	0.71	1644	8.30	4.7	10-30-19 2:00	2.15	955	8.09	7.7	10-30-19 2:00	2.39	959	8.72	476.0															
11-14-19 13:15	0.71	1644	8.29	5.0	10-30-19 2:15	2.22	953	8.38	8.3	10-30-19 2:15	2.38	959	8.72	466.7															
11-14-19 13:30	0.70	1645	8.30	5.7	10-30-19 2:30	2.21	954	8.27	8.2	10-30-19 2:30	2.36	959	8.72	478.2															
11-14-19 13:45	0.71	1644	8.30	4.8	10-30-19 2:45	2.19	953	8.38	8.4	10-30-19 2:45	2.22	959	8.72	475.8															
11-14-19 14:00	0.70	1645	8.30	5.1	10-30-19 3:00	2.22	960	8.37	15.3	10-30-19 3:00	2.21	960	8.72	471.5															
11-14-19 14:15	0.70	1644	8.29	5.2	10-30-19 3:15	2.22	959	8.37	7.9	10-30-19 3:15	2.27	960	8.71	461.5															
11-14-19 14:30	0.70	1645	8.30	4.6	10-30-19 3:30	2.22	960	8.37	12.5	10-30-19 3:30	2.18	960	8.72	466.4															
11-14-19 14:45	0.70	1645	8.30	5.0	10-30-19 3:45	2.21	960	8.37	12.8	10-30-19 3:45	2.22	962	8.71	461.7															
11-14-19 15:00	0.68	1646	8.30	5.3	10-30-19 4:00	2.24	960	8.37	12.3	10-30-19 4:00	2.05	961	8.72	463.9															
11-14-19 15:15	0.68	1646	8.30	5.0	10-30-19 4:15	2.23	960	8.37	11.4	10-30-19 4:15	2.12	961	8.71	462.6															
11-14-19 15:30	0.67	1647	8.30	4.6	10-30-19 4:30	2.26	960	8.37	12.5	10-30-19 4:30	2.11	960	8.72	464.1															
11-14-19 15:45	0.67	1646	8.29	4.9	10-30-19 4:45	2.25	960	8.37	12.0	10-30-19 4:45	2.08	960	8.71	468.7															
11-14-19 16:00	0.67	1647	8.30	4.7	10-30-19 5:00	2.23	973	8.37	8.4	10-30-19 5:00	2.03	961	8.72	460.0															
11-14-19 16:15	0.68	1645	8.30	4.9	10-30-19 5:15	2.23	973	8.37	7.7	10-30-19 5:15	1.99	961	8.71	456.4															
11-14-19 16:30	0.69	1645	8.30	5.0	10-30-19 5:30	2.19	974	8.00	9.5	10-30-19 5:30	2.05	960	8.73	463.8															
11-14-19 16:45	0.71	1642	8.30	5.3	10-30-19 5:45	2.25	973	8.37	8.1	10-30-19 5:45	1.96	961	8.72	464.2															
11-14-19 17:00	0.71	1643	8.30	5.0	10-30-19 6:00	2.22	962	8.32	11.8	10-30-19 6:00	1.97	962	8.72	456.0															
11-14-19 17:15	0.73	1641	8.30	5.0	10-30-19 6:15	2.27	961	8.38	12.6	10-30-19 6:15	1.99	962	8.71	463.4															
11-14-19 17:30	0.73	1641	8.30	5.0	10-30-19 6:30	2.25	961	8.37	12.3	10-30-19 6:30	1.97	962	8.73	465.1															
11-14-19 17:45	0.73	1639	8.29	4.7	10-30-19 6:45	2.27	960	8.38	12.7	10-30-19 6:45	1.97	962	8.71	463.5															
11-14-19 18:00	0.73	1640	8.30	5.3	10-30-19 7:00	2.29	960	8.38	20.1	10-30-19 7:00	1.96	963	8.71	460.9															
11-14-19 18:15	0.74	1639	8.30	5.2	10-30-19 7:15	2.27	961	8.30	19.8	10-30-19 7:15	1.95	963	8.70	467.5															
11-14-19 18:30	0.74	1640	8.30	5.0	10-30-19 7:30	2.24	962	8.39	19.0	10-30-19 7:30	1.94	963	8.70	454.8															
11-14-19 18:45	0.74	1639	8.30	4.5	10-30-19 7:45	2.22	962	8.39	20.3	10-30-19 7:45	1.95	962	8.70	466.9															
11-14-19 19:00	0.74	1640	8.30	4.9	10-30-19 8:00	2.19	962	8.40	5.1	10-30-19 8:00	1.94	962	8.71	464.3															
11-14-19 19:15	0.74	1639	8.29	5.1	10-30-19 8:15	2.21	962	8.40	6.1	10-30-19 8:15	1.92	962	8.70	469.0															
11-14-19 19:30	0.74	1640	8.30	5.1	10-30-19 8:30	2.23	963	8.39	5.5	10-30-19 8:30	1.92	962	8.71	453.9															
11-14-19 19:45	0.74	1639	8.29	4.5	10-30-19 8:45	2.24	961	8.40	5.9	10-30-19 8:45	1.90	962	8.70	472.9															
11-14-19 20:00	0.74	1640	8.29	5.4	10-30-19 9:00	2.23	960	8.39	9.5	10-30-19 9:00	1.89	962	8.70	457.7															
11-14-19 20:15	0.74	1639	8.29	5.3	10-30-19 9:15	2.21	961	8.40	9.9	10-30-19 9:15	1.88	962	8.70	467.4															
11-14-19 20:30	0.74	1640	8.30	4.6	10-30-19 9:30	2.15	962	8.39	7.9	10-30-19 9:30	1.86	962	8.70	454.6															
11-14-19 20:45	0.75	1639	8.29	5.2	10-30-19 9:45	2.23	961	8.38	9.2	10-30-19 9:45	1.85	962	8.70	459.6															
11-14-19 21:00	0.74	1639	8.30	5.8	10-30-19 10:00	2.19	934	8.39	7.0	10-30-19 10:00	1.84	962	8.70	461.5															
11-14-19 21:15	0.75	1638	8.29	5.5	10-30-19 10:15	2.15	963	8.39	8.7	10-30-19 10:15	1.83	963	8.70	455.5															
11-14-19 21:30	0.74	1639	8.30	4.8	10-30-19 10:30	2.16	966	8.05	9.7	10-30-19 10:30	1.82	963	8.70	454.1															
11-14-19 21:45	0.74	1639	8.29	5.2	10-30-19 10:45	2.22	962	8.38	15.3	10-30-19 10:45	1.82	963	8.69	451.4															
11-14-19 22:00	0.74	1639	8.30	5.1	10-30-19 11:00	2.25	960	8.38	7.5	10-30-19 11:00	1.81	963	8.70	445.9															
11-14-19 22:15	0.75	1638	8.29	4.7	10-30-19 11:15	2.14	963	8.39	8.2	10-30-19 11:15	1.78	962	8.69	455.9															
11-14-19 22:30	0.75	1639	8.30	4.8	10-30-19 11:30	2.25	962	8.37	10.3	10-30-19 11:30	1.76	962	8.70	451.0															
11-14-19 22:45	0.73	1637	8.29	5.4	10-30-19 11:45	2.25	962	8.37	16.6	10-30-19 11:45	1.75	962	8.71	466.9															
11-14-19 23:00	0.67	1639	8.30	5.3	10-30-19 12:00	2.20	962	8.37	8.3	10-30-19 12:00	1.74	962	8.71	441.8															
11-14-19 23:15	0.71	1639	8.30	4.6	10-30-19 12:15	2.22	964	8.36	14.4	10-30-19 12:15	1.74	963	8.71	462.2															
11-14-19 23:30	0.75	1639	8.29	6.1	10-30-19 12:30	2.22	962	8.37	7.1	10-30-19 12:30	1.75	965	8.70	437.5															
11-14-19 23:45	0.74	1638	8.29	5.1	10-30-19 12:45	2.18	963	8.37	11.3	10-30-19 12:45	1.73	968	8.70	444.4															
11-15-19 0:00	0.72	1639	8.30	5.6	10-30-19 13:00	2.25	972	8.37	7.9	10-30-19 13:00	1.71	969	8.69	431.5															
11-15-19 0:15	0.70	1638	8.29	4.5	10-30-19 13:15	2.23	972	8.37	7.6	10-30-19 13:15	1.69	970	8.69	441.2															
11-15-19 0:30	0.67	1639	8.29	4.7	10-30-19 13:30	2.20	973	8.36	8.0	10-30-19 13:30	1.69	970	8.70	429.0															
11-15-19 0:45	0.68	1638	8.29	4.9	10-30-19 13:45	2.23	972	8.36	7.5	10-30-19 13:45	1.68	969	8.70	440.6															
11-15-19 1:00	0.69	1638	8.30	5.1	10-30-19 14:00	2.11	956	8.31	8.2	10-30-19 14:00	1.67	969	8.70	433.1															
11-15-19 1:15	0.71	1637	8.29	5.1	10-30-19 14:15	2.14	955	8.24	7.5	10-30-19 14:15	1.66	969	8.69	444.7															
11-15-19 1:30	0.72	1637	8.30	5.0	10-30-19 14:30	2.15	956	8.09	7.4	10-30-19 14:30	1.65	970	8.71	433.7															
11-15-19 1:45	0.73	1637	8.29	4.6	10-30-19 14:45	2.17	954	8.06	7.8	10-30-19 14:45	1.63	970	8.70	440.6															
11-15-19 2:00	0.71	1638	8.29	5.0	10-30-19 15:00	2.11	969	8.27	7.2	10-30-19 15:00	1.63	970	8.70	414.3															
11-15-19 2:15	0.70	1639	8.29	4.7	10-30-19 15:15	2.17	968	8.34	7.3	10-30-19 15:15	1.62	971	8.70	436.4															
11-15-19 2:30	0.68	1641	8.29	4.5	10-30-19 15:30	2.18	967	8.36	6.9	10-30-19 15:30	1.61	972	8.70	416.2															
11-15-19 2:45	0.69	1640	8.29	4.4	10-30-19 15:45	2.16	968	8.34	7.1	10-30-19 15:45	1.60	972	8.70	440.1															
11-15-19 3:00	0.70	1640	8.29	4.6	10-30-19 16:00	2.14	949	8.34	7.1	10-30-19 16:00	1.59	973	8.70	427.9															
11-15-19 3:15	0.71	1638	8.29	4.5	10-30-19 16:15	2.22	946	8.38	7.3	10-30-19 16:15	1.56	974	8.71	423.6															
11-15-19 3:30	0.73	1637	8.30	5.2	10-30-19 16:30	2.18	947	8.39	8.0	10-30-19 16:30	1.54	974	8.70	427.1															
11-15-19 3:45	0.74	1635	8.29	5.0	10-30-19 16:45	2.19	946	8.38	6.8	10-30-19 16:45	1.52	974	8.69	431.0															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-15-19 4:00	0.74	1635	8.30	4.7	10-30-19 17:00	2.21	920	8.28	7.0	10-30-19 17:00	1.52	974	8.69	420.5															
11-15-19 4:15	0.75	1632	8.29	5.4	10-30-19 17:15	2.28	961	8.39	8.3	10-30-19 17:15	1.55	973	8.69	444.8															
11-15-19 4:30	0.74	1632	8.29	5.0	10-30-19 17:30	2.28	962	8.39	10.5	10-30-19 17:30	1.59	973	8.70	418.7															
11-15-19 4:45	0.73	1632	8.29	5.2	10-30-19 17:45	2.24	964	8.34	11.8	10-30-19 17:45	1.61	972	8.70	437.9															
11-15-19 5:00	0.72	1632	8.29	4.9	10-30-19 18:00	2.31	963	8.38	9.4	10-30-19 18:00	1.66	971	8.70	427.0															
11-15-19 5:15	0.76	1627	8.28	4.8	10-30-19 18:15	2.30	962	8.39	10.3	10-30-19 18:15	1.70	971	8.69	432.0															
11-15-19 5:30	0.77	1627	8.28	5.9	10-30-19 18:30	2.33	962	8.39	9.4	10-30-19 18:30	1.75	970	8.70	429.2															
11-15-19 5:45	0.77	1627	8.28	5.1	10-30-19 18:45	2.41	948	8.40	7.3	10-30-19 18:45	1.79	970	8.69	432.6															
11-15-19 6:00	0.76	1626	8.28	5.0	10-30-19 19:00	2.40	938	8.28	7.6	10-30-19 19:00	1.85	970	8.70	430.6															
11-15-19 6:15	0.75	1625	8.28	4.5	10-30-19 19:15	2.48	936	8.38	7.9	10-30-19 19:15	1.91	970	8.70	412.4															
11-15-19 6:30	0.75	1625	8.28	4.7	10-30-19 19:30	2.48	936	8.35	7.9	10-30-19 19:30	1.97	970	8.69	424.6															
11-15-19 6:45	0.84	1623	8.28	5.4	10-30-19 19:45	2.50	939	8.04	6.3	10-30-19 19:45	2.04	969	8.69	427.7															
11-15-19 7:00	1.07	1611	8.29	5.3	10-30-19 20:00	2.53	964	7.70	13.7	10-30-19 20:00	2.08	969	8.69	410.0															
11-15-19 7:15	1.00	1611	8.28	5.4	10-30-19 20:15	2.61	965	7.78	11.9	10-30-19 20:15	2.14	969	8.69	419.7															
11-15-19 7:30	1.15	1603	8.28	6.0	10-30-19 20:30	2.66	962	7.81	11.0	10-30-19 20:30	2.25	967	8.69	418.5															
11-15-19 7:45	1.15	1600	8.28	6.1	10-30-19 20:45	2.63	960	8.12	5.1	10-30-19 20:45	2.29	967	8.68	424.3															
11-15-19 8:00	1.13	1600	8.28	5.5	10-30-19 21:00	2.69	958	8.01	14.3	10-30-19 21:00	2.32	966	8.68	423.4															
11-15-19 8:15	1.12	1600	8.27	5.2	10-30-19 21:15	2.73	959	8.29	7.3	10-30-19 21:15	2.38	966	8.69	438.9															
11-15-19 8:30	1.14	1597	8.28	5.3	10-30-19 21:30	2.72	960	8.34	9.3	10-30-19 21:30	2.28	968	8.71	406.3															
11-15-19 8:45	1.12	1596	8.27	5.9	10-30-19 21:45	2.78	960	8.16	10.0	10-30-19 21:45	2.31	965	8.71	408.6															
11-15-19 9:00	1.13	1596	8.28	5.3	10-30-19 22:00	2.79	961	7.74	4.5	10-30-19 22:00	2.57	966	8.70	406.9															
11-15-19 9:15	1.12	1595	8.27	5.2	10-30-19 22:15	2.77	961	7.88	7.6	10-30-19 22:15	2.46	963	8.71	398.3															
11-15-19 9:30	1.15	1592	8.27	5.7	10-30-19 22:30	2.83	959	8.21	13.1	10-30-19 22:30	2.58	962	8.70	392.1															
11-15-19 9:45	1.13	1592	8.27	6.3	10-30-19 22:45	2.73	959	8.24	7.6	10-30-19 22:45	2.52	961	8.71	411.8															
11-15-19 10:00	1.12	1594	8.27	6.4	10-30-19 23:00	2.68	903	7.88	7.0	10-30-19 23:00	2.55	960	8.71	415.1															
11-15-19 10:15	1.13	1591	8.27	5.6	10-30-19 23:15	2.81	901	8.41	6.5	10-30-19 23:15	2.48	959	8.71	403.5															
11-15-19 10:30	1.11	1587	8.27	6.1	10-30-19 23:30	2.77	900	8.42	6.9	10-30-19 23:30	2.47	960	8.71	408.8															
11-15-19 10:45	1.10	1588	8.27	5.0	10-30-19 23:45	2.72	901	8.18	6.2	10-30-19 23:45	2.41	960	8.70	404.6															
11-15-19 11:00	1.15	1585	8.27	6.3	10-31-19 0:00	2.75	968	8.41	6.2	10-31-19 0:00	2.36	960	8.70	407.0															
11-15-19 11:15	1.11	1585	8.27	5.9	10-31-19 0:15	2.71	967	8.42	6.8	10-31-19 0:15	2.34	960	8.70	408.5															
11-15-19 11:30	1.12	1583	8.27	5.6	10-31-19 0:30	2.72	967	8.42	6.5	10-31-19 0:30	2.32	960	8.70	400.8															
11-15-19 11:45	1.13	1584	8.27	5.8	10-31-19 0:45	2.65	968	8.42	6.8	10-31-19 0:45	2.29	960	8.70	410.4															
11-15-19 12:00	1.16	1580	8.27	6.0	10-31-19 1:00	2.59	960	8.19	10.4	10-31-19 1:00	2.29	960	8.71	421.9															
11-15-19 12:15	1.16	1578	8.27	5.8	10-31-19 1:15	2.54	959	8.03	7.3	10-31-19 1:15	2.37	960	8.72	417.4															
11-15-19 12:30	1.14	1580	8.27	5.6	10-31-19 1:30	2.70	964	7.73	4.9	10-31-19 1:30	2.41	958	8.71	406.3															
11-15-19 12:45	1.13	1578	8.26	5.6	10-31-19 1:45	2.74	960	7.59	6.8	10-31-19 1:45	2.39	959	8.72	409.2															
11-15-19 13:00	1.07	1577	8.26	5.4	10-31-19 2:00	2.83	951	7.93	12.9	10-31-19 2:00	2.26	955	8.71	400.9															
11-15-19 13:15	1.08	1576	8.26	6.1	10-31-19 2:15	2.76	960	7.66	6.7	10-31-19 2:15	2.36	957	8.72	422.0															
11-15-19 13:30	1.13	1571	8.26	5.8	10-31-19 2:30	2.68	912	7.53	5.6	10-31-19 2:30	2.16	953	8.72	396.7															
11-15-19 13:45	1.13	1569	8.26	5.9	10-31-19 2:45	2.59	961	7.72	7.4	10-31-19 2:45	2.24	956	8.72	410.5															
11-15-19 14:00	1.12	1571	8.26	5.6	10-31-19 3:00	2.66	961	7.83	6.6	10-31-19 3:00	2.19	959	8.71	406.8															
11-15-19 14:15	1.10	1569	8.26	5.7	10-31-19 3:15	2.65	958	7.73	6.4	10-31-19 3:15	2.27	957	8.70	422.7															
11-15-19 14:30	1.11	1570	8.26	6.2	10-31-19 3:30	2.63	958	7.70	7.1	10-31-19 3:30	1.96	955	8.72	406.9															
11-15-19 14:45	1.10	1568	8.25	6.1	10-31-19 3:45	2.67	959	8.18	6.7	10-31-19 3:45	2.08	957	8.71	417.7															
11-15-19 15:00	1.10	1567	8.26	5.9	10-31-19 4:00	2.66	949	8.05	6.4	10-31-19 4:00	1.94	949	8.72	395.2															
11-15-19 15:15	1.06	1566	8.25	5.8	10-31-19 4:15	2.60	959	8.28	6.7	10-31-19 4:15	1.91	951	8.71	391.0															
11-15-19 15:30	1.05	1566	8.26	6.1	10-31-19 4:30	2.60	962	7.90	5.9	10-31-19 4:30	1.93	955	8.71	394.5															
11-15-19 15:45	1.03	1566	8.25	5.9	10-31-19 4:45	2.56	963	7.77	7.1	10-31-19 4:45	2.01	956	8.71	416.7															
11-15-19 16:00	1.03	1565	8.25	6.0	10-31-19 5:00	2.58	960	7.77	10.9	10-31-19 5:00	1.95	952	8.71	375.5															
11-15-19 16:15	1.00	1565	8.25	5.8	10-31-19 5:15	2.52	963	7.77	11.2	10-31-19 5:15	1.76	950	8.72	388.3															
11-15-19 16:30	0.99	1564	8.25	6.5	10-31-19 5:30	2.58	963	7.73	10.9	10-31-19 5:30	1.84	948	8.71	390.5															
11-15-19 16:45	0.99	1563	8.25	5.7	10-31-19 5:45	2.59	963	7.73	10.5	10-31-19 5:45	1.66	946	8.72	388.5															
11-15-19 17:00	1.01	1561	8.25	5.6	10-31-19 6:00	2.58	961	8.17	12.8	10-31-19 6:00	1.77	948	8.71	376.3															
11-15-19 17:15	1.00	1560	8.25	6.3	10-31-19 6:15	2.59	962	7.97	6.6	10-31-19 6:15	1.74	949	8.71	386.6															
11-15-19 17:30	1.00	1559	8.25	6.7	10-31-19 6:30	2.52	962	7.77	7.3	10-31-19 6:30	1.76	950	8.71	388.4															
11-15-19 17:45	0.97	1557	8.24	6.0	10-31-19 6:45	2.67	960	8.01	14.6	10-31-19 6:45	1.88	954	8.71	400.4															
11-15-19 18:00	0.98	1557	8.25	6.6	10-31-19 7:00	2.59	964	8.32	6.6	10-31-19 7:00	1.96	952	8.70	397.0															
11-15-19 18:15	0.95	1557	8.25	5.7	10-31-19 7:15	2.64	965	8.21	6.7	10-31-19 7:15	1.82	949	8.71	409.4															
11-15-19 18:45	0.96	1556	8.25	6.2	10-31-19 7:30	2.56	966	8.31	7.3	10-31-19 7:30	1.71	947	8.71	390.8															
11-15-19 19:00	0.97	1554	8.24	6.0	10-31-19 7:45	2.47	966	8.19	6.3	10-31-19 7:45	1.85	954	8.69	406.6															
11-15-19 19:15	1.01	1552	8.25	6.0	10-31-19 8:00	2.45	962	7.75	9.6	10-31-19 8:00	1.93	955	8.70	401.6															
11-15-19 19:30	1.02	1549	8.24	5.6	10-31-19 8:15	2.56	959	7.76	6.8	10-31-19 8:15	1.82	950	8.70	399.0															
11-15-19 19:45	1.05	1547	8.24	6.2	10-31-19 8:30	2.53	958	8.10	6.6	10-31-19 8:30	1.71	953	8.70	396.1															
11-15-19 20:00	1.05	1546	8.24	6.1	10-31-19 8:45	2.54	958	8.24	6.7	10-31-19 8:45	1.72	955	8.69	407.7															
11-15-19 20:15	1.07	1545	8.24	6.2	10-31-19 9:00	2.53	963	7.66	10.6	10-31-19 9:00	1.71	952	8.71	402.4															
11-15-19 20:30	1.04	1545	8.24	5.6	10-31-19 9:15	2.56	959	8.31	11.5	10-31-19 9:15	1.76	955	8.70	404.3															
11-15-19 20:45	1.04	1544	8.24	6.3	10-31-19 9:30	2.61	958	8.21	10.6	10-31-19 9:30	1.78	953	8.70	397.0															
11-15-19 21:00	1.02	1544	8.23	6.0	10-31-19 9:45	2.63	957	8.30	9.8	10-31-19 9:45	1.64	955	8.68	415.0															
11-15-19 21:15	1.01	1543	8.24	6.0	10-31-19 10:00	2.60	957	8.38	6.5	10-31-19 10:00	1.69	955	8.69	399.3															
11-15-19 21:30	0.97	1542	8.24	6.0	10-31-19 10:15	2.53	956	8.39	11.4	10-31-19 10:15	1.74	955	8.68	409.3															
11-15-19 21:45	0.97	1542	8.24	6.3	10-31-19 10:30	2.54	959	8.19	11.5	10-31-19 10:30	1.74	955	8.69	400.0															
11-15-19 22:00	0.92	1542	8.24	5.6	10-31-19 10:45	2.49	960	7.72	11.7	10-31-19 10:45	1.71	956	8.68	408.6															
11-15-19 22:15	0.92	1539	8.24	6.1	10-31-19 11:00	2.47	959	8.41	9.0	10-31-19 11:00	1.69	956	8.70	393.3															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-15-19 22:30	0.95	1536	8.24	6.4	10-31-19 11:15	2.51	960	8.40	6.4	10-31-19 11:15	1.60	954	8.71	402.7															
11-15-19 22:45	1.01	1532	8.24	7.4	10-31-19 11:30	2.46	958	8.39	8.1	10-31-19 11:30	1.62	955	8.70	393.6															
11-15-19 23:00	0.99	1532	8.24	5.3	10-31-19 11:45	2.43	958	8.25	6.3	10-31-19 11:45	1.72	956	8.69	401.6															
11-15-19 23:15	0.98	1531	8.24	6.0	10-31-19 12:00	2.49	945	8.35	6.4	10-31-19 12:00	1.56	953	8.71	383.4															
11-15-19 23:30	0.95	1530	8.24	6.1	10-31-19 12:15	2.43	962	8.37	6.7	10-31-19 12:15	1.42	954	8.71	397.8															
11-15-19 23:45	0.94	1529	8.24	6.4	10-31-19 12:30	2.37	961	8.38	6.3	10-31-19 12:30	1.41	952	8.71	376.7															
11-16-19 0:00	0.92	1530	8.24	5.4	10-31-19 12:45	2.40	962	8.38	6.4	10-31-19 12:45	1.34	953	8.71	387.1															
11-16-19 0:15	0.94	1528	8.24	6.6	10-31-19 13:00	2.50	959	8.34	10.9	10-31-19 13:00	1.29	953	8.72	378.5															
11-16-19 0:30	0.92	1525	8.24	5.8	10-31-19 13:15	2.37	958	8.35	10.2	10-31-19 13:15	1.22	953	8.71	388.3															
11-16-19 0:45	0.93	1526	8.24	6.6	10-31-19 13:30	2.38	959	8.31	10.6	10-31-19 13:30	1.30	952	8.71	384.1															
11-16-19 1:00	0.90	1525	8.24	5.9	10-31-19 13:45	2.42	959	8.15	10.6	10-31-19 13:45	1.25	953	8.71	381.4															
11-16-19 1:15	0.91	1523	8.24	6.5	10-31-19 14:00	2.39	958	8.35	7.4	10-31-19 14:00	1.20	952	8.70	375.3															
11-16-19 1:30	0.90	1521	8.24	6.1	10-31-19 14:15	2.38	958	8.32	8.2	10-31-19 14:15	1.24	953	8.70	386.8															
11-16-19 1:45	0.88	1521	8.24	6.2	10-31-19 14:30	2.50	945	8.36	7.4	10-31-19 14:30	1.32	954	8.69	380.6															
11-16-19 2:00	0.88	1514	8.24	5.9	10-31-19 14:45	2.51	957	8.34	7.6	10-31-19 14:45	1.22	951	8.71	374.6															
11-16-19 2:15	0.85	1513	8.24	5.9	10-31-19 15:00	2.31	952	7.76	6.8	10-31-19 15:00	1.22	953	8.72	389.3															
11-16-19 2:30	0.86	1509	8.24	5.9	10-31-19 15:15	2.47	950	8.34	6.9	10-31-19 15:15	1.34	954	8.70	382.6															
11-16-19 2:45	0.87	1506	8.24	6.0	10-31-19 15:30	2.31	950	8.33	6.7	10-31-19 15:30	1.22	954	8.71	384.9															
11-16-19 3:00	0.87	1504	8.24	6.0	10-31-19 15:45	2.20	950	8.15	7.1	10-31-19 15:45	1.27	954	8.70	384.0															
11-16-19 3:15	0.88	1500	8.24	6.5	10-31-19 16:00	2.21	955	8.23	7.5	10-31-19 16:00	1.18	953	8.72	392.9															
11-16-19 3:30	0.84	1500	8.24	5.9	10-31-19 16:15	2.21	958	8.20	6.8	10-31-19 16:15	1.18	953	8.71	385.0															
11-16-19 3:45	0.85	1500	8.24	5.8	10-31-19 16:30	2.33	958	8.27	7.7	10-31-19 16:30	1.31	954	8.72	384.9															
11-16-19 4:00	0.85	1499	8.24	5.3	10-31-19 16:45	2.33	956	8.35	7.5	10-31-19 16:45	1.30	954	8.71	378.6															
11-16-19 4:15	0.86	1498	8.23	6.2	10-31-19 17:00	2.35	957	8.09	18.4	10-31-19 17:00	1.27	952	8.70	377.3															
11-16-19 4:30	0.82	1496	8.23	6.0	10-31-19 17:15	2.53	956	8.37	11.3	10-31-19 17:15	1.28	953	8.71	389.8															
11-16-19 4:45	0.85	1493	8.24	5.9	10-31-19 17:30	2.59	942	8.26	7.6	10-31-19 17:30	1.39	953	8.71	368.9															
11-16-19 5:00	0.82	1491	8.23	7.1	10-31-19 17:45	2.64	943	8.36	7.2	10-31-19 17:45	1.47	954	8.70	382.4															
11-16-19 5:15	0.80	1491	8.24	7.6	10-31-19 18:00	2.65	939	8.36	7.0	10-31-19 18:00	1.56	953	8.71	384.0															
11-16-19 5:30	0.79	1490	8.23	6.7	10-31-19 18:15	2.67	940	8.34	6.8	10-31-19 18:15	1.63	953	8.69	387.4															
11-16-19 5:45	0.79	1489	8.24	6.5	10-31-19 18:30	2.71	941	8.29	7.0	10-31-19 18:30	1.61	953	8.71	371.0															
11-16-19 6:00	0.79	1484	8.24	7.6	10-31-19 18:45	2.76	939	8.38	7.1	10-31-19 18:45	1.68	952	8.70	380.3															
11-16-19 6:15	0.79	1482	8.24	6.7	10-31-19 19:00	2.80	956	8.33	17.8	10-31-19 19:00	1.78	952	8.70	376.2															
11-16-19 6:30	0.76	1482	8.23	5.6	10-31-19 19:15	2.86	956	8.38	19.3	10-31-19 19:15	1.88	952	8.69	380.8															
11-16-19 6:45	0.78	1480	8.23	6.7	10-31-19 19:30	2.84	954	8.37	18.3	10-31-19 19:30	1.94	953	8.69	378.8															
11-16-19 7:00	0.77	1478	8.23	6.0	10-31-19 19:45	2.84	956	7.75	18.3	10-31-19 19:45	2.01	953	8.69	388.6															
11-16-19 7:15	0.76	1478	8.24	6.0	10-31-19 20:00	2.87	953	8.34	7.5	10-31-19 20:00	2.00	953	8.69	391.9															
11-16-19 7:30	0.75	1476	8.23	6.0	10-31-19 20:15	2.94	954	8.38	7.1	10-31-19 20:15	2.01	953	8.69	395.4															
11-16-19 7:45	0.76	1474	8.23	5.8	10-31-19 20:30	2.92	907	8.39	7.5	10-31-19 20:30	2.06	952	8.69	386.4															
11-16-19 8:00	0.75	1472	8.23	5.8	10-31-19 20:45	2.94	952	8.38	8.1	10-31-19 20:45	2.13	952	8.68	395.8															
11-16-19 8:15	0.71	1470	8.23	5.9	10-31-19 21:00	3.00	953	7.88	10.0	10-31-19 21:00	2.18	952	8.68	392.4															
11-16-19 8:30	0.73	1469	8.23	6.0	10-31-19 21:15	3.02	952	8.39	7.1	10-31-19 21:15	2.25	952	8.67	401.0															
11-16-19 8:45	0.75	1466	8.23	5.7	10-31-19 21:30	3.06	951	8.37	7.0	10-31-19 21:30	2.28	952	8.67	383.7															
11-16-19 9:00	0.73	1460	8.23	6.1	10-31-19 21:45	3.10	951	8.39	6.9	10-31-19 21:45	2.30	952	8.67	393.3															
11-16-19 9:15	0.75	1459	8.24	6.4	10-31-19 22:00	3.06	952	8.41	6.9	10-31-19 22:00	2.30	952	8.68	384.9															
11-16-19 9:30	0.74	1457	8.23	5.2	10-31-19 22:15	3.09	953	8.41	6.3	10-31-19 22:15	2.32	952	8.68	394.7															
11-16-19 9:45	0.75	1456	8.23	6.6	10-31-19 22:30	3.06	951	8.38	6.6	10-31-19 22:30	2.30	952	8.67	395.2															
11-16-19 10:00	0.73	1455	8.23	6.0	10-31-19 22:45	3.08	952	8.42	6.8	10-31-19 22:45	2.29	953	8.67	397.2															
11-16-19 10:15	0.71	1454	8.23	6.7	10-31-19 23:00	3.09	951	8.37	11.9	10-31-19 23:00	2.29	953	8.67	388.9															
11-16-19 10:30	0.71	1452	8.23	7.2	10-31-19 23:15	3.10	951	8.44	9.8	10-31-19 23:15	2.28	953	8.68	394.1															
11-16-19 10:45	0.69	1451	8.23	6.2	10-31-19 23:30	3.09	950	8.43	8.7	10-31-19 23:30	2.29	953	8.69	386.1															
11-16-19 11:00	0.71	1447	8.23	6.4	10-31-19 23:45	3.11	951	8.44	10.0	10-31-19 23:45	2.31	953	8.69	391.6															
11-16-19 11:15	0.68	1446	8.23	5.6	11-1-19 0:00	3.07	951	8.45	8.8	11-1-19 0:00	2.35	952	8.69	387.4															
11-16-19 11:30	0.67	1445	8.23	5.4	11-1-19 0:15	3.08	953	8.45	6.3	11-1-19 0:15	2.32	953	8.67	394.2															
11-16-19 11:45	0.68	1442	8.22	6.7	11-1-19 0:30	3.09	950	8.44	6.8	11-1-19 0:30	2.30	953	8.68	389.3															
11-16-19 12:00	0.66	1442	8.22	6.1	11-1-19 0:45	3.07	950	8.42	9.7	11-1-19 0:45	2.28	953	8.68	393.6															
11-16-19 12:15	0.67	1440	8.23	6.4	11-1-19 1:00	3.06	948	8.42	6.7	11-1-19 1:00	2.24	954	8.69	384.7															
11-16-19 12:30	0.67	1437	8.22	6.5	11-1-19 1:15	3.04	951	8.43	14.7	11-1-19 1:15	2.15	954	8.69	390.1															
11-16-19 12:45	0.70	1433	8.22	6.9	11-1-19 1:30	3.03	950	8.42	8.5	11-1-19 1:30	2.12	951	8.70	380.3															
11-16-19 13:00	0.71	1431	8.22	6.7	11-1-19 1:45	3.02	949	8.42	7.2	11-1-19 1:45	2.13	949	8.71	373.5															
11-16-19 13:15	0.70	1430	8.23	7.5	11-1-19 2:00	3.03	944	8.42	7.0	11-1-19 2:00	2.13	952	8.71	374.1															
11-16-19 13:30	0.67	1430	8.22	5.4	11-1-19 2:15	2.96	943	8.41	7.0	11-1-19 2:15	2.04	951	8.70	385.4															
11-16-19 13:45	0.63	1430	8.22	6.0	11-1-19 2:30	3.01	945	8.40	7.4	11-1-19 2:30	2.03	953	8.69	364.9															
11-16-19 14:00	0.62	1429	8.22	6.1	11-1-19 2:45	2.98	945	8.39	7.8	11-1-19 2:45	1.85	952	8.69	379.6															
11-16-19 14:15	0.62	1428	8.22	6.2	11-1-19 3:00	3.00	950	8.38	11.6	11-1-19 3:00	1.97	951	8.71	374.1															
11-16-19 14:30	0.59	1427	8.22	5.4	11-1-19 3:15	2.95	948	8.40	7.0	11-1-19 3:15	1.87	948	8.71	379.4															
11-16-19 14:45	0.56	1427	8.22	6.4	11-1-19 3:30	3.02	950	8.41	8.4	11-1-19 3:30	1.89	950	8.70	361.5															
11-16-19 15:00	0.59	1425	8.22	5.7	11-1-19 3:45	2.96	946	8.40	7.4	11-1-19 3:45	1.92	952	8.70	372.2															
11-16-19 15:15	0.61	1423	8.22	6.5	11-1-19 4:00	2.97	950	8.41	9.7	11-1-19 4:00	1.95	952	8.70	370.5															
11-16-19 15:30	0.61	1421	8.22	5.6	11-1-19 4:15	3.01	949	8.40	12.1	11-1-19 4:15	2.01	954	8.69	384.7															
11-16-19 15:45	0.60	1420	8.22	6.1	11-1-19 4:30	3.03	950	8.40	12.2	11-1-19 4:30	2.01	954	8.71	372.8															
11-16-19 16:00	0.60	1418	8.22	6.1	11-1-19 4:45	3.07	951	8.41	12.2	11-1-19 4:45	1.96	955	8.69	372.1															
11-16-19 16:15	0.58	1418	8.22	7.7	11-1-19 5:00	3.01	949	8.33	8.2	11-1-19 5:00	1.91	954	8.69	373.1															
11-16-19 16:30	0.56	1417	8.21	5.6	11-1-19 5:15	3.02	948	8.15	6.9	11-1-19 5:15	1.79	953	8.68	374.9															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-16-19 16:45	0.54	1417	8.22	5.9	11-1-19 5:30	3.03	948	8.40	7.7	11-1-19 5:30	1.61	949	8.71	346.1															
11-16-19 17:00	0.52	1417	8.21	5.8	11-1-19 5:45	2.86	941	8.41	7.2	11-1-19 5:45	1.74	953	8.70	367.7															
11-16-19 17:15	0.51	1416	8.22	5.6	11-1-19 6:00	2.99	948	8.43	6.7	11-1-19 6:00	1.79	955	8.71	360.8															
11-16-19 17:30	0.53	1415	8.21	5.8	11-1-19 6:15	2.99	949	8.43	13.4	11-1-19 6:15	1.75	952	8.69	364.9															
11-16-19 17:45	0.50	1414	8.22	6.2	11-1-19 6:30	2.98	948	8.44	10.8	11-1-19 6:30	1.56	952	8.70	355.9															
11-16-19 18:00	0.50	1413	8.21	5.4	11-1-19 6:45	3.00	949	8.42	8.3	11-1-19 6:45	1.48	953	8.70	364.3															
11-16-19 18:15	0.48	1414	8.21	5.8	11-1-19 7:00	2.93	946	8.42	7.2	11-1-19 7:00	1.43	954	8.71	359.8															
11-16-19 18:30	0.47	1412	8.21	4.9	11-1-19 7:15	2.93	948	8.42	7.6	11-1-19 7:15	1.56	953	8.70	354.4															
11-16-19 18:45	0.49	1411	8.21	5.8	11-1-19 7:30	3.00	948	8.42	7.6	11-1-19 7:30	1.45	955	8.70	356.1															
11-16-19 19:00	0.50	1410	8.20	5.5	11-1-19 7:45	2.81	943	8.43	8.7	11-1-19 7:45	1.55	953	8.69	358.1															
11-16-19 19:15	0.50	1410	8.21	6.1	11-1-19 8:00	2.94	953	8.41	14.4	11-1-19 8:00	1.55	954	8.71	361.7															
11-16-19 19:30	0.47	1409	8.21	5.0	11-1-19 8:15	2.90	936	8.43	7.2	11-1-19 8:15	1.57	953	8.68	362.4															
11-16-19 19:45	0.46	1410	8.21	5.5	11-1-19 8:30	2.92	940	8.42	7.8	11-1-19 8:30	1.53	954	8.70	360.4															
11-16-19 20:00	0.45	1410	8.21	5.4	11-1-19 8:45	2.92	940	8.42	8.1	11-1-19 8:45	1.55	954	8.70	358.9															
11-16-19 20:15	0.43	1411	8.22	7.8	11-1-19 9:00	2.99	941	8.40	6.8	11-1-19 9:00	1.49	956	8.71	364.8															
11-16-19 20:30	0.41	1415	8.21	4.8	11-1-19 9:15	2.91	941	8.41	7.3	11-1-19 9:15	1.36	955	8.70	355.8															
11-16-19 20:45	0.34	1418	8.22	5.5	11-1-19 9:30	2.91	941	8.39	7.1	11-1-19 9:30	1.43	956	8.71	354.4															
11-16-19 21:00	0.33	1418	8.21	5.9	11-1-19 9:45	2.89	941	8.38	7.6	11-1-19 9:45	1.33	956	8.69	359.3															
11-16-19 21:15	0.33	1417	8.22	6.8	11-1-19 10:00	2.96	864	8.37	7.1	11-1-19 10:00	1.33	957	8.70	359.4															
11-16-19 21:30	0.34	1414	8.21	5.0	11-1-19 10:15	2.94	864	8.38	7.0	11-1-19 10:15	1.30	958	8.70	361.0															
11-16-19 21:45	0.35	1415	8.22	6.1	11-1-19 10:30	2.94	865	8.37	6.9	11-1-19 10:30	1.29	959	8.71	356.3															
11-16-19 22:00	0.37	1412	8.22	5.3	11-1-19 10:45	2.93	865	8.34	7.2	11-1-19 10:45	1.38	958	8.69	365.6															
11-16-19 22:15	0.38	1410	8.22	5.8	11-1-19 11:00	2.86	947	8.37	7.8	11-1-19 11:00	1.31	959	8.71	355.9															
11-16-19 22:30	0.40	1406	8.21	5.4	11-1-19 11:15	2.90	934	8.35	7.3	11-1-19 11:15	1.18	963	8.70	355.5															
11-16-19 22:45	0.44	1402	8.22	5.5	11-1-19 11:30	2.94	949	8.35	7.5	11-1-19 11:30	1.29	961	8.71	355.4															
11-16-19 23:00	0.44	1399	8.21	4.8	11-1-19 11:45	2.91	948	8.37	7.4	11-1-19 11:45	1.38	961	8.72	356.5															
11-16-19 23:15	0.45	1397	8.22	5.7	11-1-19 12:00	2.92	898	8.37	6.8	11-1-19 12:00	1.41	961	8.72	365.5															
11-16-19 23:30	0.44	1399	8.21	5.8	11-1-19 12:15	2.90	946	8.35	12.0	11-1-19 12:15	1.45	961	8.72	355.4															
11-16-19 23:45	0.43	1401	8.22	5.7	11-1-19 12:30	2.90	948	8.36	12.0	11-1-19 12:30	1.47	960	8.72	354.8															
11-17-19 0:00	0.40	1395	8.21	5.6	11-1-19 12:45	2.89	944	8.35	12.0	11-1-19 12:45	1.47	961	8.70	365.2															
11-17-19 0:15	0.40	1396	8.22	5.4	11-1-19 13:00	2.92	947	8.36	10.5	11-1-19 13:00	1.60	960	8.70	350.4															
11-17-19 0:30	0.39	1398	8.22	5.5	11-1-19 13:15	2.78	944	8.36	7.9	11-1-19 13:15	1.69	959	8.69	370.0															
11-17-19 0:45	0.37	1402	8.22	5.5	11-1-19 13:30	2.92	947	8.36	10.5	11-1-19 13:30	1.63	959	8.70	355.4															
11-17-19 1:00	0.38	1399	8.22	5.5	11-1-19 13:45	2.91	948	8.37	6.9	11-1-19 13:45	1.56	960	8.70	367.0															
11-17-19 1:15	0.43	1404	8.23	5.0	11-1-19 14:00	2.91	947	8.38	10.6	11-1-19 14:00	1.62	962	8.70	369.7															
11-17-19 1:30	0.53	1406	8.23	5.3	11-1-19 14:15	2.83	945	8.37	8.6	11-1-19 14:15	1.72	960	8.71	376.7															
11-17-19 1:45	0.61	1406	8.23	5.1	11-1-19 14:30	2.89	949	8.38	7.6	11-1-19 14:30	1.76	961	8.72	369.8															
11-17-19 2:00	0.66	1407	8.23	5.5	11-1-19 14:45	2.87	948	8.36	7.6	11-1-19 14:45	1.75	963	8.73	395.0															
11-17-19 2:15	0.65	1407	8.24	6.3	11-1-19 15:00	2.82	947	8.36	12.2	11-1-19 15:00	1.75	965	8.75	387.4															
11-17-19 2:30	0.64	1405	8.23	5.0	11-1-19 15:15	2.86	944	8.37	7.6	11-1-19 15:15	1.74	966	8.76	401.7															
11-17-19 2:45	0.65	1408	8.24	5.0	11-1-19 15:30	2.86	948	8.37	10.1	11-1-19 15:30	1.76	965	8.77	394.8															
11-17-19 3:00	0.65	1408	8.23	4.9	11-1-19 15:45	2.83	946	8.34	13.2	11-1-19 15:45	1.76	967	8.78	408.1															
11-17-19 3:15	0.65	1410	8.24	5.8	11-1-19 16:00	2.86	946	8.32	10.9	11-1-19 16:00	1.80	969	8.79	393.6															
11-17-19 3:30	0.65	1409	8.24	4.9	11-1-19 16:15	2.86	939	8.34	9.0	11-1-19 16:15	1.81	969	8.80	403.3															
11-17-19 3:45	0.63	1409	8.24	5.6	11-1-19 16:30	2.87	939	8.34	9.3	11-1-19 16:30	1.80	970	8.80	398.1															
11-17-19 4:00	0.63	1410	8.24	5.0	11-1-19 16:45	2.91	939	8.35	9.7	11-1-19 16:45	1.79	970	8.81	412.4															
11-17-19 4:15	0.59	1410	8.24	5.4	11-1-19 17:00	2.85	940	8.38	11.3	11-1-19 17:00	1.80	970	8.81	407.1															
11-17-19 4:30	0.54	1408	8.23	4.9	11-1-19 17:15	2.83	941	8.39	14.3	11-1-19 17:15	1.71	971	8.81	403.5															
11-17-19 4:45	0.56	1410	8.23	5.7	11-1-19 17:30	2.86	941	8.38	17.9	11-1-19 17:30	1.75	965	8.79	378.0															
11-17-19 5:00	0.53	1407	8.23	5.1	11-1-19 17:45	2.84	940	8.40	16.5	11-1-19 17:45	1.74	967	8.79	388.5															
11-17-19 5:15	0.53	1409	8.23	5.8	11-1-19 18:00	2.85	938	8.38	20.8	11-1-19 18:00	1.67	967	8.80	377.8															
11-17-19 5:30	0.51	1409	8.23	4.5	11-1-19 18:15	2.78	934	8.39	27.7	11-1-19 18:15	1.73	971	8.80	400.9															
11-17-19 5:45	0.55	1408	8.23	5.4	11-1-19 18:30	2.78	934	8.39	26.9	11-1-19 18:30	1.83	971	8.82	391.0															
11-17-19 6:00	0.51	1409	8.23	5.4	11-1-19 18:45	2.82	937	8.37	23.6	11-1-19 18:45	1.91	972	8.83	408.1															
11-17-19 6:15	0.47	1409	8.23	5.5	11-1-19 19:00	2.79	936	8.39	30.2	11-1-19 19:00	1.88	974	8.83	405.4															
11-17-19 6:30	0.46	1408	8.22	5.2	11-1-19 19:30	2.74	933	8.40	30.2	11-1-19 19:30	1.93	975	8.82	404.1															
11-17-19 6:45	0.47	1408	8.23	6.1	11-1-19 19:45	2.78	935	8.38	37.8	11-1-19 19:45	1.99	972	8.83	403.9															
11-17-19 7:00	0.46	1408	8.23	4.6	11-1-19 20:00	2.79	935	8.39	34.0	11-1-19 20:00	2.02	973	8.83	419.0															
11-17-19 7:15	0.43	1405	8.23	6.5	11-1-19 20:15	2.81	937	8.39	37.6	11-1-19 20:15	2.04	976	8.83	409.3															
11-17-19 7:30	0.42	1398	8.22	5.1	11-1-19 20:30	2.75	933	8.41	27.0	11-1-19 20:30	2.07	976	8.84	416.8															
11-17-19 7:45	0.40	1397	8.21	5.8	11-1-19 20:45	2.83	936	8.40	41.4	11-1-19 20:45	2.14	976	8.83	413.4															
11-17-19 8:00	0.40	1393	8.21	4.9	11-1-19 21:00	2.79	922	8.40	39.7	11-1-19 21:00	2.23	974	8.83	411.5															
11-17-19 8:15	0.39	1390	8.21	4.9	11-1-19 21:15	2.84	937	8.42	48.6	11-1-19 21:15	2.32	973	8.83	412.0															
11-17-19 8:30	0.37	1391	8.21	5.1	11-1-19 21:30	2.85	938	8.41	40.1	11-1-19 21:30	2.43	972	8.81	409.1															
11-17-19 8:45	0.37	1397	8.21	5.6	11-1-19 21:45	2.85	938	8.40	41.5	11-1-19 21:45	2.52	971	8.81	401.9															
11-17-19 9:00	0.38	1400	8.21	4.9	11-1-19 22:15	2.86	847	8.41	37.1	11-1-19 22:15	2.60	967	8.81	394.1															
11-17-19 9:15	0.37	1402	8.22	5.0	11-1-19 22:30	2.85	846	8.42	39.8	11-1-19 22:30	2.63	967	8.82	390.0															
11-17-19 9:30	0.37	1404	8.21	5.4	11-1-19 22:45	2.87	846	8.41	47.5	11-1-19 22:45	2.70	970	8.81	394.0															
11-17-19 9:45	0.37	1405	8.22	5.8	11-1-19 23:00	2.88	858	8.42	45.8	11-1-19 23:00	2.75	970	8.82	386.2															
11-17-19 10:00	0.39	1406	8.22	5.1	11-1-19 23:15	2.89	859	8.42	49.4	11-1-19 23:15	2.76	973	8.80	384.6															
11-17-19 10:15	0.41	1406	8.22	5.6	11-1-19 23:30	2.89	858	8.42	44.7	11-1-19 23:30	2.74	972	8.81	378.8															
11-17-19 10:30	0.43	1407	8.22	4.7	11-1-19 23:45	2.88	859	8.42	51.2	11-1-19 23:45	2.74	972	8.81	393.8															
11-17-19 10:45	0.43	1408	8.23	6.1	11-2-19 0:00	2.90	892	8.42	42.3	11-2-19 0:00	2.69	973	8.81	399.5															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-17-19 11:00	0.45	1408	8.22	4.9	11-2-19 0:15	2.88	893	8.42	47.0	11-2-19 0:15	2.65	974	8.80	394.4															
11-17-19 11:15	0.45	1408	8.23	5.5	11-2-19 0:30	2.86	893	8.43	54.7	11-2-19 0:30	2.62	974	8.82	388.8															
11-17-19 11:30	0.47	1409	8.23	5.3	11-2-19 0:45	2.85	892	8.43	54.0	11-2-19 0:45	2.52	974	8.82	386.1															
11-17-19 11:45	0.46	1408	8.23	6.3	11-2-19 1:00	2.86	900	8.43	48.4	11-2-19 1:00	2.55	973	8.83	383.2															
11-17-19 12:00	0.46	1408	8.22	5.1	11-2-19 1:15	2.85	897	8.43	53.4	11-2-19 1:15	2.39	972	8.83	382.6															
11-17-19 12:15	0.48	1408	8.23	5.4	11-2-19 1:30	2.84	897	8.43	52.5	11-2-19 1:30	2.23	972	8.84	373.0															
11-17-19 12:30	0.48	1409	8.22	5.0	11-2-19 1:45	2.83	898	8.43	64.2	11-2-19 1:45	2.44	977	8.82	386.8															
11-17-19 12:45	0.48	1409	8.23	7.8	11-2-19 2:00	2.82	933	8.43	67.9	11-2-19 2:00	2.39	978	8.82	374.5															
11-17-19 13:00	0.49	1409	8.23	5.4	11-2-19 2:15	2.82	930	8.43	63.6	11-2-19 2:15	2.42	978	8.82	389.3															
11-17-19 13:15	0.49	1410	8.23	7.4	11-2-19 2:30	2.79	931	8.44	74.6	11-2-19 2:30	2.41	979	8.83	382.5															
11-17-19 13:30	0.48	1409	8.23	6.2	11-2-19 2:45	2.79	930	8.42	64.8	11-2-19 2:45	2.35	978	8.81	385.9															
11-17-19 13:45	0.48	1410	8.23	5.8	11-2-19 3:00	2.79	937	8.41	74.8	11-2-19 3:00	2.29	977	8.81	381.0															
11-17-19 14:00	0.49	1410	8.23	5.4	11-2-19 3:15	2.79	939	8.42	80.3	11-2-19 3:15	2.30	978	8.82	387.1															
11-17-19 14:15	0.50	1413	8.23	7.4	11-2-19 3:30	2.79	940	8.42	80.9	11-2-19 3:30	2.34	978	8.82	385.6															
11-17-19 14:30	0.50	1412	8.23	5.2	11-2-19 3:45	2.78	938	8.44	70.3	11-2-19 3:45	2.35	979	8.81	385.6															
11-17-19 14:45	0.51	1414	8.23	5.5	11-2-19 4:00	2.78	941	8.43	97.9	11-2-19 4:00	2.36	978	8.82	385.0															
11-17-19 15:00	0.50	1413	8.23	5.9	11-2-19 4:15	2.78	939	8.44	85.0	11-2-19 4:15	2.37	980	8.81	389.7															
11-17-19 15:15	0.49	1413	8.24	7.4	11-2-19 4:30	2.77	940	8.44	106.0	11-2-19 4:30	2.36	980	8.82	371.1															
11-17-19 15:30	0.51	1414	8.23	5.8	11-2-19 4:45	2.76	939	8.44	92.2	11-2-19 4:45	2.40	979	8.81	391.7															
11-17-19 15:45	0.49	1413	8.24	8.4	11-2-19 5:00	2.77	940	8.43	95.7	11-2-19 5:00	2.43	978	8.81	383.0															
11-17-19 16:00	0.49	1413	8.23	5.4	11-2-19 5:15	2.78	942	8.46	99.8	11-2-19 5:15	2.35	978	8.80	383.9															
11-17-19 16:15	0.51	1416	8.24	8.7	11-2-19 5:30	2.76	945	8.45	104.9	11-2-19 5:30	2.35	979	8.81	376.5															
11-17-19 16:30	0.51	1418	8.23	5.6	11-2-19 5:45	2.76	943	8.46	90.3	11-2-19 5:45	2.35	981	8.81	383.4															
11-17-19 16:45	0.48	1413	8.24	8.5	11-2-19 6:00	2.75	941	8.46	97.5	11-2-19 6:00	2.40	982	8.82	374.8															
11-17-19 17:00	0.50	1418	8.23	5.4	11-2-19 6:15	2.78	942	8.48	107.2	11-2-19 6:15	2.43	981	8.80	378.1															
11-17-19 17:15	0.50	1418	8.24	5.9	11-2-19 6:30	2.77	941	8.47	100.8	11-2-19 6:30	2.43	981	8.79	369.9															
11-17-19 17:30	0.50	1418	8.23	5.2	11-2-19 6:45	2.77	943	8.47	104.2	11-2-19 6:45	2.39	981	8.79	387.3															
11-17-19 17:45	0.49	1418	8.24	5.8	11-2-19 7:00	2.77	943	8.48	117.5	11-2-19 7:00	2.41	982	8.81	383.3															
11-17-19 18:00	0.50	1421	8.23	5.3	11-2-19 7:15	2.78	941	8.49	111.4	11-2-19 7:15	2.42	982	8.79	383.7															
11-17-19 18:15	0.51	1423	8.24	6.7	11-2-19 7:30	2.79	945	8.49	121.6	11-2-19 7:30	2.40	981	8.76	368.4															
11-17-19 18:30	0.50	1422	8.23	5.3	11-2-19 7:45	2.79	942	8.48	114.3	11-2-19 7:45	2.33	980	8.79	379.4															
11-17-19 18:45	0.52	1425	8.24	8.5	11-2-19 8:00	2.78	941	8.49	103.8	11-2-19 8:00	2.37	980	8.81	379.6															
11-17-19 19:00	0.51	1424	8.23	5.4	11-2-19 8:15	2.78	941	8.49	112.1	11-2-19 8:15	2.33	980	8.81	380.0															
11-17-19 19:15	0.52	1427	8.23	6.3	11-2-19 8:30	2.78	943	8.50	122.1	11-2-19 8:30	2.40	981	8.79	373.7															
11-17-19 19:45	0.51	1432	8.22	5.5	11-2-19 8:45	2.77	941	8.49	109.9	11-2-19 8:45	2.46	982	8.76	371.6															
11-17-19 20:00	0.50	1434	8.23	6.0	11-2-19 9:00	2.77	905	8.49	112.0	11-2-19 9:00	2.60	984	8.70	365.7															
11-17-19 20:15	0.49	1433	8.22	5.4	11-2-19 9:15	2.77	945	8.50	131.7	11-2-19 9:15	2.58	983	8.69	372.5															
11-17-19 20:30	0.53	1437	8.23	5.6	11-2-19 9:30	2.76	933	8.50	106.7	11-2-19 9:30	2.63	984	8.67	373.0															
11-17-19 20:45	0.54	1439	8.22	4.6	11-2-19 9:45	2.75	933	8.51	116.2	11-2-19 9:45	2.58	984	8.69	369.2															
11-17-19 21:00	0.52	1439	8.23	5.9	11-2-19 10:00	2.75	945	8.50	117.3	11-2-19 10:00	2.74	982	8.62	364.0															
11-17-19 21:15	0.54	1442	8.23	5.6	11-2-19 10:15	2.75	945	8.51	112.2	11-2-19 10:15	2.70	982	8.60	364.5															
11-17-19 21:30	0.55	1443	8.23	6.8	11-2-19 10:30	2.70	942	8.51	102.5	11-2-19 10:30	2.78	983	8.62	367.6															
11-17-19 21:45	0.56	1445	8.22	5.4	11-2-19 10:45	2.74	942	8.51	126.7	11-2-19 10:45	2.75	983	8.61	370.8															
11-17-19 22:00	0.52	1445	8.23	6.7	11-2-19 11:00	2.73	944	8.51	122.8	11-2-19 11:00	2.71	983	8.65	367.0															
11-17-19 22:15	0.52	1444	8.22	5.3	11-2-19 11:15	2.74	942	8.51	112.2	11-2-19 11:15	2.82	983	8.63	367.1															
11-17-19 22:30	0.49	1441	8.23	6.1	11-2-19 11:30	2.73	942	8.52	121.9	11-2-19 11:30	2.82	982	8.56	349.4															
11-17-19 22:45	0.50	1442	8.23	5.3	11-2-19 11:45	2.72	941	8.52	116.8	11-2-19 11:45	2.70	983	8.56	355.5															
11-17-19 23:00	0.50	1444	8.24	7.7	11-2-19 12:00	2.72	940	8.51	117.9	11-2-19 12:00	2.78	983	8.56	355.3															
11-17-19 23:15	0.48	1443	8.22	4.8	11-2-19 12:15	2.71	939	8.52	109.3	11-2-19 12:15	2.70	984	8.59	356.4															
11-17-19 23:30	0.49	1445	8.23	5.4	11-2-19 12:30	2.72	941	8.52	125.8	11-2-19 12:30	2.85	984	8.50	346.5															
11-17-19 23:45	0.51	1444	8.22	4.9	11-2-19 12:45	2.71	941	8.52	126.8	11-2-19 12:45	2.87	983	8.50	357.1															
11-18-19 0:00	0.53	1449	8.23	8.5	11-2-19 13:00	2.71	938	8.52	117.3	11-2-19 13:00	2.85	983	8.55	351.9															
11-18-19 0:15	0.53	1447	8.22	5.0	11-2-19 13:15	2.69	920	8.52	117.6	11-2-19 13:15	2.83	983	8.60	358.0															
11-18-19 0:30	0.51	1452	8.23	5.7	11-2-19 13:30	2.70	921	8.53	115.2	11-2-19 13:30	2.82	984	8.58	354.6															
11-18-19 0:45	0.51	1447	8.23	5.4	11-2-19 13:45	2.68	939	8.52	112.1	11-2-19 13:45	2.87	984	8.60	360.8															
11-18-19 1:00	0.48	1444	8.22	7.7	11-2-19 14:00	2.70	924	8.52	121.3	11-2-19 14:00	2.84	984	8.60	352.5															
11-18-19 1:15	0.51	1449	8.22	6.3	11-2-19 14:15	2.69	938	8.52	105.0	11-2-19 14:15	2.82	984	8.60	362.9															
11-18-19 1:30	0.49	1444	8.23	7.8	11-2-19 14:30	2.68	939	8.53	117.5	11-2-19 14:30	2.89	985	8.62	368.4															
11-18-19 1:45	0.48	1443	8.22	4.8	11-2-19 14:45	2.70	939	8.53	126.6	11-2-19 14:45	2.94	985	8.63	367.1															
11-18-19 2:00	0.48	1444	8.22	5.1	11-2-19 15:00	2.68	939	8.52	113.5	11-2-19 15:00	3.01	987	8.63	368.9															
11-18-19 2:15	0.49	1445	8.22	5.3	11-2-19 15:15	2.68	924	8.52	98.2	11-2-19 15:15	2.95	987	8.62	364.4															
11-18-19 2:30	0.48	1444	8.22	5.9	11-2-19 15:30	2.70	926	8.53	105.4	11-2-19 15:30	3.01	988	8.59	362.5															
11-18-19 2:45	0.49	1444	8.22	5.9	11-2-19 15:45	2.70	919	8.53	122.4	11-2-19 15:45	3.06	987	8.56	356.8															
11-18-19 3:00	0.50	1443	8.23	11.0	11-2-19 16:00	2.71	938	8.53	118.0	11-2-19 16:00	3.12	987	8.54	355.7															
11-18-19 3:15	0.54	1450	8.23	7.3	11-2-19 16:15	2.71	937	8.53	109.9	11-2-19 16:15	3.04	988	8.55	356.1															
11-18-19 3:30	0.55	1452	8.22	8.8	11-2-19 16:30	2.71	935	8.53	93.3	11-2-19 16:30	2.95	987	8.55	354.6															
11-18-19 3:45	0.61	1485	8.22	7.0	11-2-19 16:45	2.72	938	8.53	115.6	11-2-19 16:45	2.92	987	8.57	365.1															
11-18-19 4:00	0.58	1457	8.23	9.9	11-2-19 17:00	2.72	936	8.51	114.2	11-2-19 17:00	2.93	988	8.56	350.5															
11-18-19 4:15	0.63	1498	8.23	5.8	11-2-19 17:15	2.71	935	8.51	107.3	11-2-19 17:15	2.94	988	8.55	361.1															
11-18-19 4:30	0.62	1486	8.24	9.7	11-2-19 17:30	2.72	937	8.53	107.0	11-2-19 17:30	2.93	987	8.57	346.8															
11-18-19 4:45	0.63	1482	8.24	6.1	11-2-19 17:45	2.71	937	8.53	101.9	11-2-19 17:45	2.95	988	8.58	367.5															
11-18-19 5:00	0.59	1455	8.23	10.0	11-2-19 18:00	2.73	935	8.53	96.9	11-2-19 18:00	2.99	988	8.58	347.0															
11-18-19 5:15	0.55	1449	8.23	9.0	11-2-19 18:15	2.75	935	8.53	98.6	11-2-19 18:15	2.95	987	8.60	359.1															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-18-19 5:30	0.58	1485	8.23	7.5	11-2-19 18:30	2.77	936	8.53	100.1	11-2-19 18:30	2.98	993	8.64	354.5															
11-18-19 5:45	0.62	1498	8.24	5.8	11-2-19 18:45	2.76	932	8.53	95.0	11-2-19 18:45	3.02	987	8.61	358.7															
11-18-19 6:00	0.58	1474	8.23	6.9	11-2-19 19:00	2.78	922	8.53	94.8	11-2-19 19:00	3.01	985	8.62	344.0															
11-18-19 6:15	0.59	1485	8.23	6.8	11-2-19 19:15	2.79	935	8.53	94.8	11-2-19 19:15	3.16	986	8.60	351.8															
11-18-19 6:30	0.49	1457	8.23	9.0	11-2-19 19:30	2.80	926	8.53	89.8	11-2-19 19:30	3.30	991	8.61	350.8															
11-18-19 6:45	0.56	1487	8.23	7.4	11-2-19 19:45	2.82	927	8.53	90.7	11-2-19 19:45	3.26	992	8.62	371.5															
11-18-19 7:00	0.50	1440	8.23	9.5	11-2-19 20:00	2.83	937	8.53	104.0	11-2-19 20:00	3.29	990	8.61	349.1															
11-18-19 7:15	0.48	1450	8.22	8.5	11-2-19 20:15	2.85	935	8.52	88.0	11-2-19 20:15	3.36	992	8.60	361.4															
11-18-19 7:30	0.50	1454	8.23	11.0	11-2-19 20:30	2.86	937	8.52	96.0	11-2-19 20:30	3.37	990	8.61	349.9															
11-18-19 7:45	0.58	1484	8.23	9.0	11-2-19 20:45	2.87	936	8.53	86.9	11-2-19 20:45	3.46	991	8.59	365.5															
11-18-19 8:00	0.50	1463	8.23	6.7	11-2-19 21:00	2.91	921	8.53	92.6	11-2-19 21:00	3.56	991	8.61	352.6															
11-18-19 8:15	0.58	1498	8.22	6.4	11-2-19 21:15	2.91	935	8.53	85.2	11-2-19 21:15	3.59	995	8.61	358.1															
11-18-19 8:30	0.65	1505	8.23	8.1	11-2-19 21:30	2.90	935	8.53	96.4	11-2-19 21:30	3.64	994	8.63	364.0															
11-18-19 8:45	0.67	1505	8.22	7.8	11-2-19 21:45	2.92	933	8.53	83.3	11-2-19 21:45	3.77	991	8.60	364.9															
11-18-19 9:00	0.64	1504	8.23	8.4	11-2-19 22:00	2.93	934	8.53	99.6	11-2-19 22:00	3.82	991	8.59	347.0															
11-18-19 9:15	0.68	1502	8.23	8.0	11-2-19 22:15	2.95	935	8.52	96.2	11-2-19 22:15	3.78	993	8.59	358.9															
11-18-19 9:30	0.68	1506	8.23	9.9	11-2-19 22:30	2.95	935	8.52	98.7	11-2-19 22:30	3.78	993	8.60	354.9															
11-18-19 9:45	0.67	1504	8.22	8.7	11-2-19 22:45	2.95	935	8.52	93.7	11-2-19 22:45	3.67	988	8.58	346.1															
11-18-19 10:00	0.66	1505	8.23	11.5	11-2-19 23:00	2.97	925	8.53	83.2	11-2-19 23:00	3.57	990	8.61	349.8															
11-18-19 10:15	0.66	1502	8.22	8.9	11-2-19 23:15	2.98	915	8.53	74.6	11-2-19 23:15	3.47	988	8.60	356.0															
11-18-19 10:30	0.67	1503	8.23	11.2	11-2-19 23:30	2.98	916	8.52	80.7	11-2-19 23:30	3.49	989	8.61	343.1															
11-18-19 10:45	0.70	1505	8.22	9.1	11-2-19 23:45	2.97	916	8.53	79.2	11-2-19 23:45	3.32	986	8.61	346.5															
11-18-19 11:00	0.69	1503	8.23	9.8	11-3-19 0:00	2.94	935	8.52	63.6	11-3-19 0:00	3.39	989	8.61	344.5															
11-18-19 11:15	0.72	1503	8.22	10.0	11-3-19 0:15	2.95	935	8.53	83.6	11-3-19 0:15	3.46	990	8.60	351.2															
11-18-19 11:30	0.70	1502	8.22	10.5	11-3-19 0:30	2.94	935	8.53	84.2	11-3-19 0:30	3.43	990	8.60	344.4															
11-18-19 11:45	0.68	1500	8.22	10.2	11-3-19 0:45	2.93	933	8.52	74.2	11-3-19 0:45	3.39	989	8.59	346.2															
11-18-19 12:00	0.70	1502	8.22	12.2	11-3-19 1:00	2.93	936	8.53	76.5	11-3-19 1:00	3.39	989	8.57	331.3															
11-18-19 12:15	0.69	1502	8.21	10.0	11-3-19 1:15	2.94	934	8.53	75.3	11-3-19 1:15	3.31	989	8.56	338.1															
11-18-19 12:30	0.71	1502	8.22	12.8	11-3-19 1:30	2.93	917	8.53	76.0	11-3-19 1:30	3.36	991	8.58	340.8															
11-18-19 12:45	0.72	1502	8.21	11.2	11-3-19 1:45	2.94	935	8.53	74.2	11-3-19 1:45	3.40	991	8.58	346.5															
11-18-19 13:00	0.70	1502	8.22	11.9	11-3-19 2:00	2.94	935	8.53	76.7	11-3-19 2:00	3.33	988	8.58	342.0															
11-18-19 13:15	0.70	1500	8.21	10.9	11-3-19 2:15	2.91	934	8.52	74.4	11-3-19 2:15	2.96	985	8.61	332.2															
11-18-19 13:30	0.71	1500	8.22	13.0	11-3-19 2:30	2.90	935	8.53	57.3	11-3-19 2:30	2.60	983	8.60	303.3															
11-18-19 13:45	0.72	1500	8.21	12.1	11-3-19 2:45	2.92	934	8.53	66.9	11-3-19 2:45	3.04	985	8.60	342.8															
11-18-19 14:00	0.74	1502	8.22	13.6	11-3-19 3:00	2.93	890	8.53	67.5	11-3-19 3:00	3.23	989	8.63	338.4															
11-18-19 14:15	0.71	1499	8.21	12.3	11-3-19 3:15	2.93	931	8.53	70.7	11-3-19 3:15	3.12	989	8.62	343.4															
11-18-19 14:30	0.71	1499	8.22	12.6	11-3-19 3:30	2.92	929	8.53	67.4	11-3-19 3:30	2.98	986	8.62	330.9															
11-18-19 14:45	0.71	1500	8.22	13.0	11-3-19 3:45	2.93	929	8.53	66.9	11-3-19 3:45	3.09	990	8.61	337.2															
11-18-19 15:00	0.71	1497	8.22	14.4	11-3-19 4:00	2.94	931	8.51	64.2	11-3-19 4:00	3.18	991	8.61	334.9															
11-18-19 15:15	0.72	1498	8.21	14.0	11-3-19 4:15	2.93	932	8.52	63.6	11-3-19 4:15	3.03	990	8.59	342.6															
11-18-19 15:30	0.74	1499	8.22	15.3	11-3-19 4:30	2.92	933	8.52	64.5	11-3-19 4:30	3.03	991	8.60	329.5															
11-18-19 15:45	0.73	1497	8.22	13.4	11-3-19 4:45	2.94	936	8.52	66.4	11-3-19 4:45	2.96	991	8.59	339.9															
11-18-19 16:00	0.74	1499	8.22	14.8	11-3-19 5:00	2.81	918	8.52	46.5	11-3-19 5:00	2.94	991	8.59	328.0															
11-18-19 16:15	0.73	1499	8.21	14.7	11-3-19 5:15	2.70	870	8.52	32.4	11-3-19 5:15	2.92	989	8.60	340.0															
11-18-19 16:30	0.73	1498	8.22	14.7	11-3-19 5:30	2.76	925	8.52	54.1	11-3-19 5:30	3.01	991	8.61	326.3															
11-18-19 16:45	0.74	1498	8.21	14.0	11-3-19 5:45	2.88	930	8.52	53.6	11-3-19 5:45	2.96	990	8.60	338.2															
11-18-19 17:00	0.73	1497	8.22	18.4	11-3-19 6:00	2.72	921	8.49	46.1	11-3-19 6:00	3.06	992	8.61	333.0															
11-18-19 17:15	0.74	1498	8.21	15.5	11-3-19 6:15	2.92	957	8.51	66.0	11-3-19 6:15	2.95	989	8.62	333.0															
11-18-19 17:30	0.72	1497	8.22	17.7	11-3-19 6:30	2.84	948	8.51	66.3	11-3-19 6:30	2.74	985	8.61	302.8															
11-18-19 17:45	0.74	1497	8.21	14.8	11-3-19 6:45	2.89	942	8.51	66.6	11-3-19 6:45	2.82	989	8.61	332.6															
11-18-19 18:00	0.74	1498	8.22	16.3	11-3-19 7:00	2.67	930	8.50	40.9	11-3-19 7:00	2.95	990	8.61	328.9															
11-18-19 18:15	0.75	1496	8.21	16.9	11-3-19 7:15	2.57	908	8.50	33.0	11-3-19 7:15	2.88	988	8.61	336.7															
11-18-19 18:30	0.76	1497	8.22	26.8	11-3-19 7:30	2.71	928	8.50	40.7	11-3-19 7:30	2.84	985	8.61	325.1															
11-18-19 18:45	0.75	1494	8.21	17.1	11-3-19 7:45	2.77	915	8.51	47.8	11-3-19 7:45	2.89	987	8.61	327.6															
11-18-19 19:00	0.73	1496	8.22	15.3	11-3-19 8:00	2.54	915	8.51	40.2	11-3-19 8:00	2.81	987	8.61	312.4															
11-18-19 19:30	0.75	1494	8.22	16.1	11-3-19 8:15	2.62	923	8.49	43.1	11-3-19 8:15	2.68	984	8.60	333.0															
11-18-19 19:45	0.75	1493	8.22	17.5	11-3-19 8:30	2.62	928	8.51	35.2	11-3-19 8:30	2.59	982	8.60	295.2															
11-18-19 20:00	0.78	1495	8.21	15.9	11-3-19 8:45	2.58	924	8.50	41.7	11-3-19 8:45	2.40	976	8.60	322.3															
11-18-19 20:15	0.79	1493	8.22	17.2	11-3-19 9:00	2.53	941	8.49	37.9	11-3-19 9:00	2.06	971	8.62	302.2															
11-18-19 20:30	0.79	1491	8.21	16.0	11-3-19 9:15	2.44	944	8.49	27.2	11-3-19 9:15	2.29	974	8.61	310.0															
11-18-19 20:45	0.78	1492	8.22	16.2	11-3-19 9:30	2.39	949	8.49	29.7	11-3-19 9:30	2.36	977	8.60	295.6															
11-18-19 21:00	0.79	1491	8.21	16.9	11-3-19 9:45	2.35	937	8.48	28.3	11-3-19 9:45	2.40	979	8.59	324.7															
11-18-19 21:15	0.77	1492	8.22	18.4	11-3-19 10:00	2.62	1433	8.43	38.8	11-3-19 10:00	2.20	970	8.61	299.0															
11-18-19 21:30	0.75	1488	8.22	16.4	11-3-19 10:15	2.49	1642	8.39	31.5	11-3-19 10:15	2.04	961	8.61	292.4															
11-18-19 21:45	0.72	1489	8.22	16.6	11-3-19 10:30	2.65	1307	8.41	40.8	11-3-19 10:30	2.06	961	8.60	287.6															
11-18-19 22:00	0.71	1482	8.21	15.5	11-3-19 10:45	2.59	1246	8.39	23.2	11-3-19 10:45	2.20	965	8.59	295.7															
11-18-19 22:15	0.68	1487	8.22	18.4	11-3-19 11:00	2.77	1664	8.33	46.8	11-3-19 11:00	2.39	967	8.60	290.9															
11-18-19 22:30	0.69	1485	8.21	15.1	11-3-19 11:15	2.80	1842	8.32	31.2	11-3-19 11:15	2.34	969	8.59	303.4															
11-18-19 22:45	0.66	1484	8.22	14.2	11-3-19 11:30	2.92	1870	8.27	39.5	11-3-19 11:30	2.00	942	8.61	283.7															
11-18-19 23:00	0.69	1483	8.22	14.8	11-3-19 11:45	2.83	1932	8.31	38.9	11-3-19 11:45	2.19	956	8.60	292.5															
11-18-19 23:15	0.67	1480	8.22	14.1	11-3-19 12:00	2.85	1677	8.33	28.1	11-3-19 12:00	2.19	965	8.60	290.0															
11-18-19 23:30	0.68	1481	8.21	13.9	11-3-19 12:15	2.83	1775	8.33	30.6	11-3-19 12:15	2.21	958	8.59	291.8															
11-18-19 23:45	0.67	1480	8.22	14.6	11-3-19 12:30	2.88	1756	8.29	32.9	11-3-19 12:30	2.44	970	8.58	303.1															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-19-19 0:00	0.67	1483	8.21	14.5	11-3-19 12:45	2.86	1697	8.35	31.3	11-3-19 12:45	2.46	973	8.57	309.3															
11-19-19 0:15	0.69	1484	8.22	14.8	11-3-19 13:00	2.84	1704	8.31	26.4	11-3-19 13:00	2.39	968	8.59	285.7															
11-19-19 0:30	0.68	1485	8.21	15.8	11-3-19 13:15	2.82	1875	8.35	26.4	11-3-19 13:15	2.29	963	8.59	302.1															
11-19-19 0:45	0.69	1485	8.22	17.8	11-3-19 13:30	2.85	1797	8.31	36.0	11-3-19 13:30	2.26	962	8.59	289.0															
11-19-19 1:00	0.69	1485	8.21	15.3	11-3-19 13:45	2.76	1708	8.34	26.3	11-3-19 13:45	2.22	964	8.58	298.7															
11-19-19 1:15	0.72	1490	8.22	17.5	11-3-19 14:00	2.92	2053	8.28	32.6	11-3-19 14:00	2.31	966	8.59	293.8															
11-19-19 1:30	0.68	1485	8.21	14.2	11-3-19 14:15	3.00	2120	8.27	39.7	11-3-19 14:15	2.11	960	8.59	293.6															
11-19-19 1:45	0.68	1486	8.22	16.0	11-3-19 14:30	2.98	1976	8.28	36.6	11-3-19 14:30	2.02	957	8.58	279.2															
11-19-19 2:00	0.71	1486	8.21	16.2	11-3-19 14:45	3.07	2190	8.25	37.5	11-3-19 14:45	2.00	954	8.59	290.2															
11-19-19 2:15	0.68	1484	8.22	15.3	11-3-19 15:00	3.06	2186	8.25	31.7	11-3-19 15:00	2.07	951	8.56	258.9															
11-19-19 2:30	0.66	1483	8.21	14.8	11-3-19 15:15	3.14	2196	8.25	30.5	11-3-19 15:15	1.77	935	8.59	288.5															
11-19-19 2:45	0.71	1487	8.22	17.9	11-3-19 15:30	3.13	2233	8.24	35.9	11-3-19 15:30	1.71	940	8.59	257.9															
11-19-19 3:00	0.73	1485	8.21	16.3	11-3-19 15:45	3.13	2185	8.25	33.6	11-3-19 15:45	1.97	948	8.59	287.7															
11-19-19 3:15	0.75	1486	8.22	18.9	11-3-19 16:00	3.12	2121	8.26	36.3	11-3-19 16:00	1.99	953	8.58	274.7															
11-19-19 3:30	0.82	1485	8.21	20.5	11-3-19 16:15	3.14	2090	8.25	29.8	11-3-19 16:15	1.97	952	8.58	287.1															
11-19-19 3:45	0.82	1486	8.22	19.9	11-3-19 16:30	3.11	2058	8.26	32.3	11-3-19 16:30	1.89	947	8.58	260.2															
11-19-19 4:00	0.82	1485	8.21	18.3	11-3-19 16:45	2.98	1903	8.29	25.6	11-3-19 16:45	1.94	958	8.56	276.1															
11-19-19 4:15	0.83	1486	8.22	20.7	11-3-19 17:00	3.07	2001	8.27	28.3	11-3-19 17:00	2.06	962	8.56	279.4															
11-19-19 4:30	0.84	1485	8.21	20.1	11-3-19 17:15	3.14	2107	8.25	27.5	11-3-19 17:15	2.08	959	8.56	274.3															
11-19-19 4:45	0.82	1485	8.22	19.8	11-3-19 17:30	1.66	1	7.50	0.0	11-3-19 17:30	2.11	960	8.55	277.4															
11-19-19 5:00	0.84	1486	8.21	20.6	11-3-19 17:45	1.17	0	7.94	0.0	11-3-19 17:45	2.01	957	8.57	279.7															
11-19-19 5:15	0.83	1486	8.21	18.6	11-3-19 18:00	0.74	0	8.08	0.0	11-3-19 18:00	2.04	958	8.54	266.2															
11-19-19 5:30	0.81	1485	8.20	17.6	11-3-19 18:15	0.70	0	7.52	0.0	11-3-19 18:15	2.07	960	8.55	280.5															
11-19-19 5:45	0.82	1486	8.22	19.6	11-3-19 18:30	0.80	0	7.21	0.0	11-3-19 18:30	2.11	960	8.56	267.6															
11-19-19 6:00	0.83	1485	8.20	17.7	11-3-19 18:45	0.73	0	6.70	0.0	11-3-19 18:45	2.11	959	8.55	281.9															
11-19-19 6:15	0.82	1486	8.21	20.1	11-3-19 19:00	0.63	0	7.49	0.0	11-3-19 19:00	2.12	958	8.55	272.5															
11-19-19 6:30	0.84	1485	8.20	19.5	11-3-19 19:15	0.65	0	6.40	0.0	11-3-19 19:15	2.17	958	8.55	278.4															
11-19-19 6:45	0.83	1485	8.21	21.2	11-3-19 19:30	0.81	0	6.22	0.0	11-3-19 19:30	2.24	958	8.56	272.7															
11-19-19 7:00	0.80	1485	8.20	18.2	11-3-19 19:45	0.79	0	6.14	0.0	11-3-19 19:45	2.25	959	8.55	277.0															
11-19-19 7:15	0.82	1486	8.21	20.0	11-3-19 20:00	0.84	0	8.18	0.0	11-3-19 20:00	2.23	958	8.54	273.8															
11-19-19 7:30	0.80	1485	8.20	17.2	11-3-19 20:15	1.10	0	7.41	0.0	11-3-19 20:15	2.29	958	8.55	279.1															
11-19-19 7:45	0.81	1486	8.21	18.0	11-3-19 20:30	3.18	1885	8.28	32.1	11-3-19 20:30	2.30	956	8.55	266.1															
11-19-19 8:00	0.81	1485	8.20	17.2	11-3-19 20:45	3.19	1827	8.29	23.3	11-3-19 20:45	2.28	958	8.54	275.2															
11-19-19 8:15	0.80	1486	8.21	17.7	11-3-19 21:00	3.22	1827	8.29	26.5	11-3-19 21:00	2.30	960	8.55	272.3															
11-19-19 8:30	0.78	1485	8.19	16.6	11-3-19 21:15	3.25	1817	8.30	12.4	11-3-19 21:15	2.27	962	8.54	280.2															
11-19-19 8:45	0.77	1485	8.21	17.0	11-3-19 21:30	3.28	1858	8.28	12.4	11-3-19 21:30	2.34	963	8.53	269.4															
11-19-19 9:00	0.78	1484	8.20	16.7	11-3-19 21:45	3.26	1884	7.40	13.2	11-3-19 21:45	2.41	963	8.55	284.0															
11-19-19 9:15	0.77	1485	8.21	17.2	11-3-19 22:00	3.26	1891	7.39	10.1	11-3-19 22:00	2.39	954	8.55	266.3															
11-19-19 9:30	0.75	1485	8.20	16.7	11-3-19 22:15	3.26	1892	7.38	24.5	11-3-19 22:15	2.52	963	8.55	268.2															
11-19-19 9:45	0.73	1486	8.21	15.8	11-3-19 22:30	3.27	1670	7.31	22.5	11-3-19 22:30	2.53	964	8.54	270.2															
11-19-19 10:00	0.74	1485	8.20	16.2	11-3-19 22:45	3.25	1670	7.27	21.0	11-3-19 22:45	2.54	965	8.53	275.1															
11-19-19 10:15	0.74	1486	8.20	16.3	11-3-19 23:00	3.25	1671	7.27	17.3	11-3-19 23:00	2.51	966	8.55	270.4															
11-19-19 10:30	0.75	1485	8.20	15.6	11-3-19 23:15	3.23	1894	7.16	21.0	11-3-19 23:15	2.48	970	8.55	265.8															
11-19-19 10:45	0.74	1485	8.21	15.3	11-3-19 23:30	3.23	1893	7.17	15.7	11-3-19 23:30	2.53	974	8.52	254.8															
11-19-19 11:00	0.75	1484	8.20	16.6	11-3-19 23:45	3.22	1894	7.17	15.4	11-3-19 23:45	2.53	975	8.53	275.2															
11-19-19 11:15	0.75	1486	8.20	17.2	11-4-19 0:00	3.20	1895	7.16	14.7	11-4-19 0:00	2.43	972	8.54	265.8															
11-19-19 11:30	0.75	1486	8.20	15.6	11-4-19 0:15	3.18	1871	7.10	16.7	11-4-19 0:15	2.53	985	8.52	273.3															
11-19-19 11:45	0.75	1487	8.21	17.3	11-4-19 0:30	3.15	1871	7.05	16.0	11-4-19 0:30	2.64	984	8.52	282.8															
11-19-19 12:00	0.75	1486	8.20	14.6	11-4-19 0:45	3.12	1872	7.03	14.5	11-4-19 0:45	2.60	982	8.50	273.7															
11-19-19 12:15	0.75	1487	8.20	15.5	11-4-19 1:00	3.10	1870	7.03	18.1	11-4-19 1:00	2.58	981	8.52	274.5															
11-19-19 12:30	0.76	1486	8.19	14.8	11-4-19 1:15	3.07	1885	6.99	21.1	11-4-19 1:15	2.56	982	8.50	271.2															
11-19-19 12:45	0.77	1487	8.21	15.7	11-4-19 1:30	3.06	1885	7.00	16.2	11-4-19 1:30	2.55	983	8.51	267.3															
11-19-19 13:00	0.76	1487	8.19	17.3	11-4-19 1:45	3.05	1882	7.00	13.3	11-4-19 1:45	2.56	986	8.51	272.8															
11-19-19 13:15	0.76	1487	8.20	15.9	11-4-19 2:00	2.99	1877	7.00	13.0	11-4-19 2:00	2.54	985	8.51	263.8															
11-19-19 13:30	0.77	1487	8.20	15.9	11-4-19 2:15	2.98	1876	6.95	24.2	11-4-19 2:15	2.51	982	8.50	271.0															
11-19-19 13:45	0.76	1488	8.21	15.1	11-4-19 2:30	2.97	1884	6.94	16.4	11-4-19 2:30	2.49	986	8.50	266.5															
11-19-19 14:00	0.76	1487	8.20	15.9	11-4-19 2:45	2.95	1879	6.93	16.6	11-4-19 2:45	2.43	984	8.49	268.9															
11-19-19 14:15	0.76	1488	8.21	16.4	11-4-19 3:00	2.92	1876	6.93	17.8	11-4-19 3:00	2.45	983	8.50	269.5															
11-19-19 14:30	0.76	1487	8.20	16.4	11-4-19 3:15	2.91	1858	6.93	18.5	11-4-19 3:15	2.50	986	8.49	273.9															
11-19-19 14:45	0.76	1488	8.20	16.9	11-4-19 3:30	2.92	1852	6.94	16.0	11-4-19 3:30	2.50	982	8.49	265.0															
11-19-19 15:00	0.76	1488	8.19	15.2	11-4-19 3:45	2.93	1849	6.98	16.4	11-4-19 3:45	2.49	984	8.51	267.0															
11-19-19 15:15	0.75	1488	8.19	16.9	11-4-19 4:00	2.95	1826	7.06	16.1	11-4-19 4:00	2.51	985	8.51	265.6															
11-19-19 15:30	0.75	1488	8.19	16.6	11-4-19 4:15	2.98	1802	7.07	17.7	11-4-19 4:15	2.50	992	8.50	267.3															
11-19-19 15:45	0.74	1488	8.20	15.3	11-4-19 4:30	2.98	1817	7.11	18.0	11-4-19 4:30	2.52	997	8.49	256.5															
11-19-19 16:00	0.74	1487	8.19	15.8	11-4-19 4:45	2.94	1782	7.08	17.1	11-4-19 4:45	2.57	1002	8.48	254.6															
11-19-19 16:15	0.74	1488	8.20	16.2	11-4-19 5:00	2.92	1787	7.09	16.4	11-4-19 5:00	2.62	1001	8.49	259.6															
11-19-19 16:30	0.74	1487	8.19	16.1	11-4-19 5:15	2.98	1787	7.16	15.9	11-4-19 5:15	2.72	1005	8.49	266.3															
11-19-19 16:45	0.75	1488	8.20	15.9	11-4-19 5:30	3.03	1787	7.35	22.2	11-4-19 5:30	2.66	1009	8.48	241.8															
11-19-19 17:00	0.76	1487	8.19	16.1	11-4-19 5:45	3.07	1767	7.54	18.0	11-4-19 5:45	2.65	1009	8.49	266.0															
11-19-19 17:15	0.77	1488	8.20	15.3	11-4-19 6:00	3.05	1777	7.40	27.5	11-4-19 6:00	2.68	1008	8.51	267.1															
11-19-19 17:30	0.77	1487	8.19	16.1	11-4-19 6:15	3.05	1766	7.64	17.8	11-4-19 6:15	2.69	1007	8.50	257.7															
11-19-19 17:45	0.79	1487	8.20	17.9	11-4-19 6:30	2.99	1701	7.53	17.8	11-4-19 6:30	2.66	1009	8.51	249.3															
11-19-19 18:00	0.80	1487	8.19	16.4	11-4-19 6:45	3.11	1753	8.02	17.0	11-4-19 6:45	2.80	1006	8.52	285.8															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-19-19 18:15	0.82	1487	8.20	16.7	11-4-19 7:00	3.10	1761	7.96	25.7	11-4-19 7:00	2.70	1007	8.52	252.0															
11-19-19 18:30	0.83	1487	8.19	16.8	11-4-19 7:15	3.13	1742	8.15	19.0	11-4-19 7:15	2.59	1007	8.50	250.6															
11-19-19 18:45	0.85	1487	8.20	17.6	11-4-19 7:30	3.18	1764	8.16	30.2	11-4-19 7:30	2.51	1007	8.50	242.4															
11-19-19 19:00	0.88	1486	8.20	18.8	11-4-19 7:45	3.19	1768	8.21	23.7	11-4-19 7:45	2.37	1010	8.51	244.0															
11-19-19 19:15	0.88	1486	8.20	17.3	11-4-19 8:00	3.19	1738	8.22	23.0	11-4-19 8:00	2.42	1001	8.50	245.6															
11-19-19 19:30					11-4-19 8:15	3.19	1733	8.24	26.8	11-4-19 8:15	2.46	1005	8.50	250.4															
11-19-19 19:45	0.52	1470	8.21	19.8	11-4-19 8:30	3.17	1722	8.25	22.3	11-4-19 8:30	2.33	1024	8.50	221.4															
11-19-19 20:00	0.50	1474	8.20	16.8	11-4-19 8:45	3.16	1698	8.26	23.3	11-4-19 8:45	2.56	1017	8.50	252.8															
11-19-19 20:15	0.49	1477	8.20	15.8	11-4-19 9:00	3.16	1670	8.26	24.9	11-4-19 9:00	2.69	1025	8.49	236.0															
11-19-19 20:30	0.49	1477	8.19	16.6	11-4-19 9:15	3.15	1662	8.27	23.9	11-4-19 9:15	2.76	1030	8.49	238.9															
11-19-19 20:45	0.49	1483	8.20	16.0	11-4-19 9:30	3.16	1680	8.28	18.5	11-4-19 9:30	2.75	1033	8.50	232.8															
11-19-19 21:00	0.50	1479	8.20	14.6	11-4-19 9:45	3.14	1640	8.28	19.4	11-4-19 9:45	2.82	1042	8.49	238.6															
11-19-19 21:15	0.48	1485	8.20	15.0	11-4-19 10:00	3.14	1620	8.28	19.0	11-4-19 10:00	2.86	1041	8.50	236.7															
11-19-19 21:30	0.48	1486	8.19	13.8	11-4-19 10:15	3.13	1566	8.29	18.1	11-4-19 10:15	2.91	1055	8.48	228.1															
11-19-19 21:45	0.48	1488	8.19	12.5	11-4-19 10:30	3.11	1571	8.28	18.9	11-4-19 10:30	2.77	1054	8.49	203.3															
11-19-19 22:00	0.49	1486	8.19	12.9	11-4-19 10:45	3.11	1557	8.29	17.5	11-4-19 10:45	2.69	1048	8.47	215.7															
11-19-19 22:15	0.49	1489	8.19	12.1	11-4-19 11:00	3.10	1539	8.30	18.6	11-4-19 11:00	2.68	1035	8.47	228.0															
11-19-19 22:30	0.49	1486	8.19	10.5	11-4-19 11:15	3.06	1535	8.31	17.6	11-4-19 11:15	2.70	1046	8.48	221.8															
11-19-19 22:45	0.49	1487	8.19	12.3	11-4-19 11:30	3.08	1521	8.30	16.9	11-4-19 11:30	2.49	1040	8.49	217.9															
11-19-19 23:00	0.49	1487	8.19	11.4	11-4-19 11:45	3.08	1524	8.31	18.6	11-4-19 11:45	2.42	1035	8.48	225.4															
11-19-19 23:15	0.49	1490	8.19	11.7	11-4-19 12:00	2.99	1491	8.32	17.6	11-4-19 12:00	2.41	1033	8.48	221.9															
11-19-19 23:30	0.48	1489	8.19	8.9	11-4-19 12:15	3.01	1458	8.33	20.7	11-4-19 12:15	2.66	1036	8.48	224.4															
11-19-19 23:45	0.46	1489	8.19	10.7	11-4-19 12:30	2.99	1413	8.33	17.8	11-4-19 12:30	2.69	1049	8.48	212.2															
11-20-19 0:00	0.45	1490	8.19	9.2	11-4-19 12:45	2.99	1433	8.33	17.7	11-4-19 12:45	2.57	1047	8.48	218.2															
11-20-19 0:15	0.44	1492	8.20	10.6	11-4-19 13:00	2.95	1440	8.33	17.5	11-4-19 13:00	2.55	1048	8.50	209.4															
11-20-19 0:30	0.42	1491	8.19	9.5	11-4-19 13:15	2.93	1406	8.34	29.2	11-4-19 13:15	2.53	1048	8.49	212.7															
11-20-19 0:45	0.42	1493	8.19	10.2	11-4-19 13:30	2.97	1425	8.34	18.5	11-4-19 13:30	2.60	1054	8.49	211.9															
11-20-19 1:00	0.41	1491	8.19	9.4	11-4-19 13:45	2.97	1417	8.33	18.8	11-4-19 13:45	2.68	1057	8.49	206.9															
11-20-19 1:15	0.40	1492	8.19	10.3	11-4-19 14:00	2.99	1419	8.33	14.5	11-4-19 14:00	2.78	1070	8.49	197.1															
11-20-19 1:30	0.39	1491	8.19	9.6	11-4-19 14:15	2.93	1406	8.34	18.5	11-4-19 14:15	2.73	1066	8.48	202.5															
11-20-19 1:45	0.38	1493	8.20	9.1	11-4-19 14:30	3.00	1402	8.34	16.0	11-4-19 14:30	2.53	1047	8.49	192.4															
11-20-19 2:00	0.37	1492	8.19	9.3	11-4-19 14:45	3.02	1381	8.34	16.7	11-4-19 14:45	2.82	1083	8.48	194.4															
11-20-19 2:15	0.36	1494	8.20	8.5	11-4-19 15:00	3.01	1423	8.34	17.8	11-4-19 15:00	2.60	1058	8.50	196.1															
11-20-19 2:30	0.36	1493	8.19	9.2	11-4-19 15:15	3.00	1382	8.34	17.4	11-4-19 15:15	2.82	1070	8.48	196.5															
11-20-19 2:45	0.35	1495	8.19	9.5	11-4-19 15:30	2.97	1395	8.34	16.4	11-4-19 15:30	2.74	1077	8.48	187.4															
11-20-19 3:00	0.34	1494	8.19	8.3	11-4-19 15:45	2.99	1399	8.35	17.7	11-4-19 15:45	2.66	1067	8.49	194.7															
11-20-19 3:15	0.33	1495	8.18	8.0	11-4-19 16:00	3.00	1369	8.34	16.1	11-4-19 16:00	2.73	1063	8.49	194.8															
11-20-19 3:30	0.33	1494	8.19	9.4	11-4-19 16:15	2.95	1387	8.34	18.5	11-4-19 16:15	2.68	1068	8.49	192.9															
11-20-19 3:45	0.32	1496	8.20	9.4	11-4-19 16:30	2.97	1324	8.35	15.9	11-4-19 16:30	2.66	1076	8.49	179.1															
11-20-19 4:00	0.33	1495	8.20	9.8	11-4-19 16:45	2.97	1346	8.35	20.0	11-4-19 16:45	2.50	1070	8.49	188.6															
11-20-19 4:15	0.32	1496	8.20	8.4	11-4-19 17:00	2.87	1343	8.36	16.6	11-4-19 17:00	2.48	1077	8.49	178.9															
11-20-19 4:30	0.33	1496	8.20	9.0	11-4-19 17:15	2.94	1358	8.34	17.3	11-4-19 17:15	2.62	1079	8.49	178.8															
11-20-19 4:45	0.31	1497	8.20	8.8	11-4-19 17:30	2.98	1358	8.34	23.3	11-4-19 17:30	2.42	1071	8.50	176.1															
11-20-19 5:00	0.31	1497	8.19	9.7	11-4-19 17:45	3.04	1387	8.34	18.7	11-4-19 17:45	2.61	1081	8.48	172.9															
11-20-19 5:15	0.31	1498	8.20	8.2	11-4-19 18:00	3.06	1391	8.33	17.0	11-4-19 18:00	2.79	1092	8.48	170.9															
11-20-19 5:30	0.31	1496	8.19	10.0	11-4-19 18:15	3.03	1352	8.35	15.4	11-4-19 18:15	2.78	1097	8.47	164.2															
11-20-19 5:45	0.31	1498	8.20	8.4	11-4-19 18:30	3.06	1386	8.33	16.9	11-4-19 18:30	2.83	1099	8.46	159.6															
11-20-19 6:00	0.31	1496	8.19	9.2	11-4-19 18:45	3.01	1333	8.35	15.7	11-4-19 18:45	2.86	1114	8.46	158.3															
11-20-19 6:15	0.30	1498	8.19	7.6	11-4-19 19:00	3.06	1342	8.34	15.4	11-4-19 19:00	2.95	1129	8.47	155.9															
11-20-19 6:30	0.31	1497	8.19	9.9	11-4-19 19:15	3.03	1315	8.35	17.5	11-4-19 19:15	2.95	1122	8.46	151.3															
11-20-19 6:45	0.31	1498	8.20	6.6	11-4-19 19:30	3.08	1339	8.34	15.3	11-4-19 19:30	2.98	1128	8.48	156.6															
11-20-19 7:00	0.30	1497	8.19	8.8	11-4-19 19:45	3.08	1331	8.35	18.3	11-4-19 19:45	2.94	1104	8.48	160.1															
11-20-19 7:15	0.30	1498	8.18	7.4	11-4-19 20:00	3.09	1340	8.34	14.9	11-4-19 20:00	2.88	1109	8.48	153.7															
11-20-19 7:30	0.31	1496	8.19	7.7	11-4-19 20:15	3.12	1341	8.34	15.4	11-4-19 20:15	3.12	1127	8.46	156.3															
11-20-19 7:45	0.30	1498	8.19	6.1	11-4-19 20:30	3.10	1333	8.35	16.4	11-4-19 20:30	3.11	1110	8.45	149.7															
11-20-19 8:00	0.31	1497	8.19	8.6	11-4-19 20:45	3.09	1338	8.35	16.6	11-4-19 20:45	3.29	1121	8.46	155.9															
11-20-19 8:15	0.30	1498	8.19	7.5	11-4-19 21:00	3.07	1323	8.35	15.6	11-4-19 21:00	3.30	1125	8.47	148.5															
11-20-19 8:30	0.30	1498	8.19	8.5	11-4-19 21:15	3.10	1329	8.35	12.4	11-4-19 21:15	3.20	1116	8.47	149.0															
11-20-19 8:45	0.30	1499	8.19	6.8	11-4-19 21:30	3.07	1305	8.35	21.6	11-4-19 21:30	3.19	1111	8.47	147.8															
11-20-19 9:00	0.30	1497	8.18	9.6	11-4-19 21:45	3.13	1330	8.34	37.9	11-4-19 21:45	3.21	1113	8.46	142.4															
11-20-19 9:15	0.30	1499	8.19	6.3	11-4-19 22:00	3.13	1314	8.35	51.6	11-4-19 22:00	3.20	1115	8.46	143.5															
11-20-19 9:30	0.29	1498	8.19	7.9	11-4-19 22:15	3.10	1309	8.35	15.3	11-4-19 22:15	3.19	1116	8.46	139.0															
11-20-19 9:45	0.29	1499	8.19	8.1	11-4-19 22:30	3.14	1324	8.34	16.1	11-4-19 22:30	3.20	1118	8.46	133.9															
11-20-19 10:00	0.30	1499	8.19	11.0	11-4-19 22:45	3.13	1291	8.36	17.4	11-4-19 22:45	3.30	1119	8.47	141.2															
11-20-19 10:15	0.30	1500	8.20	6.8	11-4-19 23:00	3.10	1304	8.35	14.3	11-4-19 23:00	3.32	1122	8.47	136.8															
11-20-19 10:30	0.29	1499	8.19	9.3	11-4-19 23:15	3.10	1300	8.35	15.0	11-4-19 23:15	3.30	1119	8.46	136.8															
11-20-19 10:45	0.28	1501	8.20	6.5	11-4-19 23:30	3.14	1308	8.35	14.7	11-4-19 23:30	3.30	1122	8.47	135.4															
11-20-19 11:00	0.30	1501	8.20	10.6	11-4-19 23:45	3.14	1324	8.34	21.9	11-4-19 23:45	3.33	1126	8.46	134.3															
11-20-19 11:15	0.29	1502	8.20	8.0	11-5-19 0:00	3.14	1318	8.34	14.2	11-5-19 0:00	3.31	1134	8.46	124.3															
11-20-19 11:30	0.30	1501	8.19	8.6	11-5-19 0:15	3.16	1317	8.35	14.2	11-5-19 0:15	3.34	1134	8.45	126.8															
11-20-19 11:45	0.29	1501	8.19	7.4	11-5-19 0:30	3.15	1296	8.35	14.5	11-5-19 0:30	3.37	1136	8.45	127.8															
11-20-19 12:00	0.28	1501	8.19	9.5	11-5-19 0:45	3.16	1319	8.35	13.5	11-5-19 0:45	3.35	1138	8.45	126.0															
11-20-19 12:15	0.29	1502	8.20	6.8	11-5-19 1:00	3.14	1326	8.34	15.0	11-5-19 1:00	3.36	1140	8.44	127.5															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-20-19 12:30	0.31	1501	8.20	10.0	11-5-19 1:15	3.15	1290	8.35	12.8	11-5-19 1:15	3.35	1140	8.45	122.7															
11-20-19 12:45	0.30	1502	8.20	8.2	11-5-19 1:30	3.13	1289	8.35	13.4	11-5-19 1:30	3.31	1140	8.45	123.4															
11-20-19 13:00	0.31	1501	8.20	10.0	11-5-19 1:45	3.13	1288	8.35	14.6	11-5-19 1:45	3.35	1138	8.45	126.7															
11-20-19 13:15	0.30	1501	8.20	6.9	11-5-19 2:00	3.14	1287	8.35	14.0	11-5-19 2:00	3.36	1139	8.45	114.7															
11-20-19 13:30	0.30	1500	8.20	10.0	11-5-19 2:15	3.12	1264	8.35	13.4	11-5-19 2:15	3.37	1139	8.45	118.7															
11-20-19 13:45	0.29	1501	8.21	8.6	11-5-19 2:30	3.11	1260	8.35	12.9	11-5-19 2:30	3.36	1139	8.45	122.7															
11-20-19 14:00	0.29	1501	8.20	8.6	11-5-19 2:45	3.12	1271	8.35	14.4	11-5-19 2:45	3.39	1147	8.44	113.5															
11-20-19 14:15	0.30	1502	8.21	8.1	11-5-19 3:00	3.12	1261	8.35	12.8	11-5-19 3:00	3.38	1142	8.46	119.5															
11-20-19 14:30	0.29	1500	8.20	9.2	11-5-19 3:15	3.09	1257	8.36	13.5	11-5-19 3:15	3.29	1145	8.46	118.1															
11-20-19 14:45	0.29	1502	8.21	6.9	11-5-19 3:30	3.08	1263	8.35	13.0	11-5-19 3:30	3.09	1138	8.46	114.9															
11-20-19 15:00	0.30	1501	8.20	8.4	11-5-19 3:45	3.14	1271	8.35	13.1	11-5-19 3:45	3.09	1134	8.46	117.2															
11-20-19 15:15	0.30	1502	8.21	7.8	11-5-19 4:00	3.10	1253	8.35	12.3	11-5-19 4:00	3.11	1139	8.46	107.2															
11-20-19 15:30	0.31	1500	8.21	9.3	11-5-19 4:15	3.09	1261	8.35	16.2	11-5-19 4:15	2.98	1138	8.45	109.6															
11-20-19 15:45	0.32	1500	8.22	7.6	11-5-19 4:30	3.09	1263	8.35	13.6	11-5-19 4:30	3.01	1132	8.46	108.3															
11-20-19 16:00	0.31	1500	8.20	8.6	11-5-19 4:45	3.08	1254	8.36	13.0	11-5-19 4:45	2.87	1129	8.47	112.9															
11-20-19 16:15	0.30	1501	8.20	8.3	11-5-19 5:00	3.09	1210	8.36	12.7	11-5-19 5:00	2.86	1143	8.47	108.3															
11-20-19 16:30	0.31	1501	8.20	8.8	11-5-19 5:15	3.08	1266	8.36	11.6	11-5-19 5:15	2.82	1133	8.46	98.9															
11-20-19 16:45	0.31	1502	8.21	7.5	11-5-19 5:30	3.09	1275	8.36	13.2	11-5-19 5:30	2.33	1115	8.48	99.9															
11-20-19 17:00	0.31	1501	8.20	7.7	11-5-19 5:45	3.04	1276	8.36	11.7	11-5-19 5:45	2.59	1145	8.47	95.5															
11-20-19 17:15	0.30	1502	8.20	8.5	11-5-19 6:00	3.01	1278	8.35	12.2	11-5-19 6:00	2.73	1160	8.46	103.2															
11-20-19 17:30	0.31	1501	8.20	9.5	11-5-19 6:15	2.96	1249	8.36	14.9	11-5-19 6:15	2.75	1160	8.46	103.2															
11-20-19 17:45	0.31	1502	8.21	7.4	11-5-19 6:30	2.91	1245	8.37	14.6	11-5-19 6:30	2.68	1159	8.46	99.1															
11-20-19 18:15	0.55	1486	8.21	15.8	11-5-19 6:45	2.84	1217	8.37	11.9	11-5-19 6:45	2.63	1162	8.46	100.3															
11-20-19 18:30	0.49	1491	8.20	11.5	11-5-19 7:00	2.80	1221	8.38	12.8	11-5-19 7:00	2.63	1168	8.46	89.6															
11-20-19 18:45	0.47	1496	8.21	10.7	11-5-19 7:15	2.91	1239	8.37	11.9	11-5-19 7:15	2.65	1172	8.45	88.7															
11-20-19 19:00	0.48	1497	8.21	12.8	11-5-19 7:30	2.91	1229	8.37	14.1	11-5-19 7:30	2.65	1176	8.46	84.8															
11-20-19 19:15	0.47	1498	8.21	11.8	11-5-19 7:45	2.88	1238	8.37	12.4	11-5-19 7:45	2.61	1180	8.46	90.4															
11-20-19 19:30	0.48	1495	8.20	9.2	11-5-19 8:00	2.92	1228	8.37	12.8	11-5-19 8:00	2.52	1182	8.46	81.1															
11-20-19 19:45	0.49	1495	8.20	10.8	11-5-19 8:15	2.97	1237	8.36	9.5	11-5-19 8:15	2.47	1179	8.46	81.6															
11-20-19 20:00	0.49	1403	8.21	11.3	11-5-19 8:30	2.98	1238	8.36	12.8	11-5-19 8:30	2.49	1182	8.46	80.9															
11-20-19 20:15	0.72	1464	8.21	11.3	11-5-19 8:45	2.98	1236	8.36	15.9	11-5-19 8:45	2.36	1188	8.46	82.3															
11-20-19 20:30	0.51	1473	8.21	10.2	11-5-19 9:00	2.93	1220	8.36	21.0	11-5-19 9:00	2.37	1195	8.46	72.5															
11-20-19 20:45	0.45	1481	8.20	10.8	11-5-19 9:15	2.93	1235	8.36	14.7	11-5-19 9:15	2.42	1189	8.46	89.7															
11-20-19 21:00	0.41	1485	8.21	8.6	11-5-19 9:30	2.97	1219	8.36	12.5	11-5-19 9:30	2.46	1200	8.45	68.9															
11-20-19 21:15	0.41	1483	8.20	8.8	11-5-19 9:45	2.97	1218	8.36	13.4	11-5-19 9:45	2.37	1198	8.45	73.7															
11-20-19 21:30	0.40	1486	8.20	8.7	11-5-19 10:00	2.96	1213	8.36	10.5	11-5-19 10:00	2.37	1205	8.45	67.7															
11-20-19 21:45	0.38	1487	8.20	9.9	11-5-19 10:15	2.96	1230	8.36	17.3	11-5-19 10:15	2.29	1196	8.46	74.6															
11-20-19 22:00	0.37	1490	8.21	9.4	11-5-19 10:30	2.97	1227	8.36	13.5	11-5-19 10:30	2.22	1199	8.45	64.9															
11-20-19 22:15	0.34	1493	8.21	9.7	11-5-19 10:45	2.95	1225	8.36	17.7	11-5-19 10:45	2.25	1204	8.45	73.4															
11-20-19 22:30	0.32	1497	8.21	9.5	11-5-19 11:00	2.97	1219	8.36	11.1	11-5-19 11:00	2.32	1218	8.44	65.8															
11-20-19 22:45	0.31	1490	8.20	11.6	11-5-19 11:15	2.94	1216	8.36	11.2	11-5-19 11:15	2.02	1208	8.46	65.4															
11-20-19 23:00	0.30	1496	8.21	13.1	11-5-19 11:30	2.94	1220	8.36	12.1	11-5-19 11:30	2.07	1216	8.45	58.4															
11-20-19 23:15	0.29	1491	8.20	11.7	11-5-19 11:45	2.95	1217	8.37	11.4	11-5-19 11:45	2.00	1211	8.45	69.0															
11-20-19 23:30	0.29	1494	8.21	11.9	11-5-19 12:00	2.92	1227	8.37	12.2	11-5-19 12:00	1.94	1210	8.45	62.3															
11-20-19 23:45	0.28	1492	8.20	11.0	11-5-19 12:15	2.94	1215	8.37	10.4	11-5-19 12:15	1.90	1219	8.45	57.1															
11-21-19 0:00	0.28	1491	8.21	12.1	11-5-19 12:30	2.88	1224	8.36	19.1	11-5-19 12:30	1.88	1219	8.45	58.1															
11-21-19 0:15	0.27	1487	8.20	11.2	11-5-19 12:45	2.89	1225	8.36	11.7	11-5-19 12:45	1.96	1230	8.44	56.1															
11-21-19 0:30	0.26	1492	8.21	12.1	11-5-19 13:00	2.86	1218	8.36	11.9	11-5-19 13:00	2.02	1231	8.44	51.7															
11-21-19 0:45	0.26	1490	8.20	10.2	11-5-19 13:15	2.87	1217	8.36	12.3	11-5-19 13:15	1.94	1237	8.44	54.8															
11-21-19 1:00	0.25	1493	8.20	11.0	11-5-19 13:30	2.84	1173	8.36	10.6	11-5-19 13:30	2.02	1240	8.44	56.6															
11-21-19 1:15	0.25	1487	8.20	9.3	11-5-19 13:45	2.80	1217	8.37	13.5	11-5-19 13:45	2.00	1253	8.44	53.7															
11-21-19 1:30	0.24	1489	8.20	9.6	11-5-19 14:00	2.80	1224	8.36	10.1	11-5-19 14:00	2.00	1255	8.43	46.8															
11-21-19 1:45	0.23	1486	8.20	8.6	11-5-19 14:15	2.79	1224	8.36	11.6	11-5-19 14:15	1.97	1257	8.43	48.9															
11-21-19 2:00	0.22	1492	8.20	9.4	11-5-19 14:30	2.76	1214	8.37	11.2	11-5-19 14:30	1.97	1262	8.43	44.5															
11-21-19 2:15	0.23	1488	8.20	8.4	11-5-19 14:45	2.71	1199	8.37	12.3	11-5-19 14:45	1.90	1263	8.42	43.3															
11-21-19 2:30	0.22	1491	8.20	8.2	11-5-19 15:00	2.54	1178	8.38	11.0	11-5-19 15:00	1.91	1263	8.42	42.2															
11-21-19 2:45	0.21	1484	8.20	7.8	11-5-19 15:15	2.60	1190	8.37	12.1	11-5-19 15:15	1.75	1267	8.43	44.5															
11-21-19 3:00	0.21	1487	8.21	8.2	11-5-19 15:30	2.54	1181	8.37	9.0	11-5-19 15:30	1.62	1263	8.43	41.9															
11-21-19 3:15	0.20	1487	8.19	8.0	11-5-19 15:45	2.54	1180	8.38	11.5	11-5-19 15:45	1.54	1265	8.43	41.8															
11-21-19 3:30	0.20	1491	8.20	8.5	11-5-19 16:00	2.53	1169	8.37	10.3	11-5-19 16:00	1.72	1268	8.42	36.6															
11-21-19 3:45	0.19	1484	8.19	7.5	11-5-19 16:15	2.52	1181	8.37	15.9	11-5-19 16:15	1.69	1269	8.42	40.0															
11-21-19 4:00	0.19	1487	8.20	7.2	11-5-19 16:30	2.67	1198	8.37	12.6	11-5-19 16:30	1.65	1269	8.42	41.9															
11-21-19 4:15	0.18	1483	8.19	7.2	11-5-19 16:45	2.69	1194	8.37	10.5	11-5-19 16:45	1.69	1265	8.42	39.0															
11-21-19 4:30	0.18	1487	8.20	7.5	11-5-19 17:00	2.74	1197	8.37	10.3	11-5-19 17:00	1.72	1269	8.42	39.8															
11-21-19 4:45	0.17	1479	8.19	7.2	11-5-19 17:15	2.76	1196	8.37	10.0	11-5-19 17:15	1.81	1266	8.41	40.6															
11-21-19 5:00	0.17	1484	8.20	7.2	11-5-19 17:30	2.67	1185	8.37	10.8	11-5-19 17:30	2.04	1280	8.41	37.6															
11-21-19 5:15	0.17	1481	8.19	6.9	11-5-19 17:45	2.72	1189	8.37	9.5	11-5-19 17:45	2.05	1272	8.41	37.8															
11-21-19 5:30	0.17	1482	8.20	7.6	11-5-19 18:00	2.79	1203	8.37	10.4	11-5-19 18:00	2.03	1304	8.39	31.8															
11-21-19 5:45	0.17	1480	8.19	6.7	11-5-19 18:15	2.78	1191	8.37	9.5	11-5-19 18:15	2.07	1313	8.38	31.5															
11-21-19 6:00	0.17	1483	8.20	7.0	11-5-19 18:30	2.69	1182	8.37	9.1	11-5-19 18:30	1.96	1295	8.40	32.6															
11-21-19 6:15	0.17	1474	8.19	5.9	11-5-19 18:45	2.73	1196	8.36	10.8	11-5-19 18:45	1.86	1307	8.40	32.8															
11-21-19 6:30	0.16	1479	8.19	6.3	11-5-19 19:00	2.77	1201	8.36	8.3	11-5-19 19:00	2.11	1307	8.39	31.9															
11-21-19 6:45	0.17	1480	8.19	5.7	11-5-19 19:15	2.81	1206	8.36	10.3	11-5-19 19:15	2.22	1302	8.39	35.0															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-21-19 7:00	0.18	1478	8.20	7.0	11-5-19 19:30	2.83	1206	8.36	10.2	11-5-19 19:30	2.22	1318	8.39	33.1															
11-21-19 7:15	0.17	1472	8.19	5.3	11-5-19 19:45	2.85	1152	8.37	9.1	11-5-19 19:45	2.20	1316	8.38	27.5															
11-21-19 7:30	0.17	1475	8.19	6.1	11-5-19 20:00	2.78	1184	8.37	10.5	11-5-19 20:00	2.26	1318	8.38	29.3															
11-21-19 7:45	0.18	1474	8.18	6.1	11-5-19 20:15	2.81	1189	8.36	9.7	11-5-19 20:15	1.89	1311	8.40	29.6															
11-21-19 8:00	0.18	1475	8.19	6.9	11-5-19 20:30	2.81	1182	8.37	7.8	11-5-19 20:30	2.02	1314	8.39	26.1															
11-21-19 8:15	0.20	1475	8.19	6.0	11-5-19 20:45	2.86	1189	8.36	9.4	11-5-19 20:45	1.99	1315	8.39	26.4															
11-21-19 8:30	0.19	1473	8.19	6.6	11-5-19 21:00	2.87	1192	8.36	7.3	11-5-19 21:00	2.08	1314	8.40	26.9															
11-21-19 8:45	0.20	1465	8.18	6.1	11-5-19 21:30	2.89	1206	8.36	9.9	11-5-19 21:30	2.16	1320	8.37	25.0															
11-21-19 9:00	0.20	1470	8.19	6.8	11-5-19 21:45	2.85	1194	8.37	14.1	11-5-19 21:45	2.06	1319	8.39	25.0															
11-21-19 9:15	0.22	1466	8.19	6.1	11-5-19 22:00	2.71	1186	8.37	8.1	11-5-19 22:00	1.93	1320	8.39	23.9															
11-21-19 9:30	0.22	1459	8.20	7.3	11-5-19 22:15	2.65	1174	8.37	9.6	11-5-19 22:15	1.88	1325	8.39	24.0															
11-21-19 9:45	0.22	1464	8.18	5.2	11-5-19 22:30	2.66	1184	8.37	8.9	11-5-19 22:30	2.03	1326	8.39	24.3															
11-21-19 10:00	0.21	1464	8.19	6.5	11-5-19 22:45	2.70	1180	8.37	7.6	11-5-19 22:45	1.88	1330	8.39	24.3															
11-21-19 10:15	0.22	1459	8.18	6.0	11-5-19 23:00	2.71	1178	8.36	11.4	11-5-19 23:00	1.94	1327	8.38	23.6															
11-21-19 10:30	0.23	1464	8.18	6.7	11-5-19 23:15	2.73	1181	8.36	10.3	11-5-19 23:15	1.99	1326	8.38	22.7															
11-21-19 10:45	0.23	1460	8.18	5.1	11-5-19 23:30	2.69	1172	8.37	12.3	11-5-19 23:30	2.07	1326	8.38	23.4															
11-21-19 11:00	0.23	1466	8.18	6.3	11-5-19 23:45	2.63	1174	8.37	10.4	11-5-19 23:45	2.03	1328	8.38	21.6															
11-21-19 11:15	0.23	1457	8.17	5.7	11-6-19 0:00	2.67	1170	8.37	10.5	11-6-19 0:00	2.04	1328	8.38	22.0															
11-21-19 11:30	0.23	1458	8.18	7.0	11-6-19 0:15	2.64	1161	8.37	8.8	11-6-19 0:15	2.01	1331	8.38	21.4															
11-21-19 11:45	0.23	1456	8.17	6.0	11-6-19 0:30	2.59	1147	8.37	8.5	11-6-19 0:30	2.01	1333	8.38	20.8															
11-21-19 12:00	0.23	1463	8.18	7.7	11-6-19 0:45	2.59	1153	8.37	7.7	11-6-19 0:45	1.99	1334	8.37	21.7															
11-21-19 12:15	0.23	1454	8.17	6.1	11-6-19 1:00	2.60	1158	8.38	8.3	11-6-19 1:00	2.02	1336	8.38	20.7															
11-21-19 12:30	0.22	1458	8.17	7.8	11-6-19 1:15	2.58	1155	8.38	9.0	11-6-19 1:15	2.04	1337	8.37	19.2															
11-21-19 12:45	0.21	1452	8.18	10.8	11-6-19 1:30	2.58	1150	8.38	7.7	11-6-19 1:30	2.05	1339	8.36	20.8															
11-21-19 13:00	0.20	1462	8.20	8.7	11-6-19 1:45	2.60	1146	8.38	8.4	11-6-19 1:45	2.09	1340	8.37	20.9															
11-21-19 13:15	0.20	1444	8.19	10.7	11-6-19 2:00	2.62	1156	8.38	9.9	11-6-19 2:00	2.03	1347	8.37	19.1															
11-21-19 13:30	0.20	1456	8.19	6.9	11-6-19 2:15	2.60	1155	8.38	15.2	11-6-19 2:15	1.98	1351	8.37	19.9															
11-21-19 13:45	0.20	1443	8.19	6.8	11-6-19 2:30	2.59	1155	8.38	10.2	11-6-19 2:30	1.95	1355	8.37	17.9															
11-21-19 14:00	0.21	1453	8.19	7.9	11-6-19 2:45	2.62	1154	8.38	9.4	11-6-19 2:45	1.92	1360	8.36	18.0															
11-21-19 14:15	0.22	1445	8.19	7.6	11-6-19 3:00	2.61	1152	8.38	9.2	11-6-19 3:00	1.89	1364	8.36	17.2															
11-21-19 14:30	0.22	1445	8.19	7.6	11-6-19 3:15	2.60	1151	8.38	10.2	11-6-19 3:15	1.87	1365	8.36	17.4															
11-21-19 14:45	0.23	1435	8.23	10.3	11-6-19 3:30	2.62	1153	8.38	8.2	11-6-19 3:30	1.85	1366	8.36	17.9															
11-21-19 15:00	0.23	1452	8.21	9.6	11-6-19 3:45	2.59	1111	8.39	7.6	11-6-19 3:45	1.83	1368	8.37	17.4															
11-21-19 15:15	0.23	1443	8.22	9.1	11-6-19 4:00	2.55	1153	8.39	11.0	11-6-19 4:00	1.82	1370	8.36	18.0															
11-21-19 15:30	0.22	1434	8.20	7.5	11-6-19 4:15	2.52	1149	8.39	14.6	11-6-19 4:15	1.80	1373	8.36	17.9															
11-21-19 15:45	0.22	1449	8.19	8.6	11-6-19 4:30	2.51	1147	8.39	9.0	11-6-19 4:30	1.76	1377	8.36	16.7															
11-21-19 16:00	0.22	1435	8.19	9.1	11-6-19 4:45	2.51	1114	8.39	8.4	11-6-19 4:45	1.74	1379	8.36	16.5															
11-21-19 16:15	0.21	1445	8.21	9.4	11-6-19 5:00	2.52	1115	8.38	8.6	11-6-19 5:00	1.74	1379	8.36	15.2															
11-21-19 16:30	0.21	1432	8.19	7.3	11-6-19 5:15	2.49	1141	8.39	8.9	11-6-19 5:15	1.75	1377	8.36	17.0															
11-21-19 16:45	0.21	1439	8.19	8.5	11-6-19 5:30	2.45	1139	8.39	8.5	11-6-19 5:30	1.74	1378	8.36	15.7															
11-21-19 17:00	0.21	1431	8.18	7.2	11-6-19 5:45	2.44	1141	8.39	9.8	11-6-19 5:45	1.74	1378	8.36	17.7															
11-21-19 17:15	0.22	1439	8.19	7.9	11-6-19 6:00	2.43	1136	8.39	7.6	11-6-19 6:00	1.72	1382	8.36	15.9															
11-21-19 17:30	0.22	1439	8.19	7.9	11-6-19 6:15	2.42	1138	8.39	10.8	11-6-19 6:15	1.72	1383	8.36	15.8															
11-21-19 17:45	0.22	1425	8.20	7.7	11-6-19 6:30	2.43	1127	8.40	8.5	11-6-19 6:30	1.73	1383	8.36	16.3															
11-21-19 18:00	0.23	1435	8.20	9.1	11-6-19 6:45	2.45	1124	8.40	8.8	11-6-19 6:45	1.67	1387	8.36	15.6															
11-21-19 18:15	0.24	1427	8.20	7.8	11-6-19 7:00	2.45	1127	8.39	8.4	11-6-19 7:00	1.66	1388	8.36	15.1															
11-21-19 18:30	0.23	1431	8.20	8.8	11-6-19 7:15	2.44	1135	8.40	8.4	11-6-19 7:15	1.64	1390	8.36	15.0															
11-21-19 18:45	0.24	1422	8.20	8.7	11-6-19 7:30	2.45	1134	8.39	7.4	11-6-19 7:30	1.65	1391	8.35	14.7															
11-21-19 19:00	0.24	1427	8.21	9.3	11-6-19 7:45	2.46	1130	8.40	9.0	11-6-19 7:45	1.64	1393	8.35	14.6															
11-21-19 19:15	0.25	1418	8.20	7.1	11-6-19 8:00	2.48	1128	8.39	9.6	11-6-19 8:00	1.63	1394	8.35	14.6															
11-21-19 19:30	0.25	1430	8.20	8.2	11-6-19 8:15	2.50	1128	8.40	7.8	11-6-19 8:15	1.60	1395	8.35	15.3															
11-21-19 19:45	0.26	1422	8.20	7.7	11-6-19 8:30	2.49	1109	8.40	8.6	11-6-19 8:30	1.59	1396	8.35	13.6															
11-21-19 20:00	0.27	1429	8.19	7.8	11-6-19 8:45	2.46	1119	8.40	8.9	11-6-19 8:45	1.59	1397	8.35	14.5															
11-21-19 20:15	0.28	1426	8.18	6.1	11-6-19 9:00	2.45	1120	8.40	7.1	11-6-19 9:00	1.60	1397	8.36	14.1															
11-21-19 20:30	0.28	1427	8.18	7.8	11-6-19 9:15	2.41	1128	8.40	15.0	11-6-19 9:15	1.62	1397	8.36	13.5															
11-21-19 20:45	0.28	1415	8.18	5.5	11-6-19 9:30	2.37	1124	8.40	8.4	11-6-19 9:30	1.63	1399	8.35	13.9															
11-21-19 21:00	0.28	1437	8.17	7.1	11-6-19 9:45	2.35	1128	8.40	7.5	11-6-19 9:45	1.65	1398	8.36	13.4															
11-21-19 21:15	0.28	1437	8.17	7.1	11-6-19 10:00	2.34	1126	8.40	8.1	11-6-19 10:00	1.60	1402	8.35	13.0															
11-21-19 21:30	0.29	1415	8.17	6.3	11-6-19 10:15	2.31	1126	8.40	7.8	11-6-19 10:15	1.54	1404	8.36	12.5															
11-21-19 21:45	0.29	1429	8.18	7.8	11-6-19 10:30	2.33	1125	8.40	7.8	11-6-19 10:30	1.52	1404	8.35	12.7															
11-21-19 22:00	0.30	1429	8.16	6.0	11-6-19 10:45	2.30	1105	8.40	8.0	11-6-19 10:45	1.52	1406	8.35	13.8															
11-21-19 22:15	0.30	1422	8.17	6.4	11-6-19 11:00	2.29	1106	8.40	7.3	11-6-19 11:00	1.50	1407	8.35	12.7															
11-21-19 22:30	0.30	1422	8.17	6.4	11-6-19 11:15	2.27	1125	8.40	12.1	11-6-19 11:15	1.49	1408	8.35	14.3															
11-21-19 22:45	0.32	1420	8.17	7.8	11-6-19 11:30	2.27	1125	8.40	12.2	11-6-19 11:30	1.49	1410	8.35	12.5															
11-21-19 23:00	0.32	1417	8.16	7.2	11-6-19 11:45	2.29	1128	8.40	12.9	11-6-19 11:45	1.47	1410	8.36	12.7															
11-21-19 23:15	0.32	1415	8.16	6.5	11-6-19 12:00	2.27	1126	8.41	7.6	11-6-19 12:00	1.46	1411	8.35	12.6															
11-21-19 23:30	0.31	1426	8.15	7.4	11-6-19 12:15	2.26	1125	8.40	7.8	11-6-19 12:15	1.47	1413	8.35	11.5															
11-21-19 23:45	0.31	1418	8.15	5.9	11-6-19 12:30	2.23	1124	8.41	7.4	11-6-19 12:30	1.48	1413	8.36	12.2															
11-22-19 0:00	0.30	1427	8.15	5.7	11-6-19 12:45	2.23	1124	8.40	7.5	11-6-19 12:45	1.44	1414	8.36	12.4															
11-22-19 0:15	0.29	1424	8.15	5.8	11-6-19 13:00	2.25	1124	8.40	8.5	11-6-19 13:00	1.40	1416	8.36	12.2															
11-22-19 0:30	0.28	1426	8.16	6.6	11-6-19 13:15	2.23	1123	8.40	16.1	11-6-19 13:15	1.39	1417	8.35	12.2															
11-22-19 0:45	0.28	1423	8.15	8.0	11-6-19 13:30	2.22	1124	8.41	7.9	11-6-19 13:30	1.41	1416	8.35	11.7															
11-22-19 1:00	0.28	1423	8.15	8.0	11-6-19 13:45	2.19	1122	8.41	7.4	11-6-19 13:45	1.40	1417	8.35	11.6															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-22-19 1:15	0.29	1409	8.20	9.6	11-6-19 14:00	2.15	1123	8.41	8.3	11-6-19 14:00	1.40	1418	8.35	11.6															
11-22-19 1:30	0.29	1407	8.18	8.6	11-6-19 14:15	2.14	1125	8.41	8.3	11-6-19 14:15	1.39	1418	8.35	11.6															
11-22-19 1:45	0.29	1430	8.18	9.5	11-6-19 14:30	2.12	1125	8.41	9.9	11-6-19 14:30	1.38	1418	8.35	11.2															
11-22-19 2:00	0.29	1420	8.18	8.1	11-6-19 14:45	2.11	1126	8.41	9.4	11-6-19 14:45	1.39	1419	8.35	11.6															
11-22-19 2:15	0.29	1409	8.19	9.7	11-6-19 15:00	2.09	1127	8.41	13.9	11-6-19 15:00	1.39	1419	8.35	11.7															
11-22-19 2:30	0.29	1411	8.18	8.5	11-6-19 15:15	2.08	1126	8.41	12.5	11-6-19 15:15	1.38	1420	8.35	11.9															
11-22-19 2:45	0.29	1420	8.18	9.3	11-6-19 15:30	2.08	1126	8.41	11.9	11-6-19 15:30	1.37	1420	8.35	11.5															
11-22-19 3:00	0.30	1391	8.17	7.6	11-6-19 15:45	2.07	1125	8.41	13.1	11-6-19 15:45	1.35	1420	8.36	10.9															
11-22-19 3:15	0.30	1401	8.17	8.7	11-6-19 16:00	2.06	1125	8.41	12.6	11-6-19 16:00	1.37	1420	8.36	10.8															
11-22-19 3:30	0.30	1381	8.17	8.2	11-6-19 16:15	2.05	1112	8.41	7.9	11-6-19 16:15	1.34	1424	8.35	10.9															
11-22-19 3:45	0.30	1382	8.17	9.0	11-6-19 16:30	2.05	1113	8.41	6.7	11-6-19 16:30	1.33	1426	8.36	11.2															
11-22-19 4:00	0.31	1388	8.19	7.9	11-6-19 16:45	2.03	1114	8.41	8.2	11-6-19 16:45	1.33	1427	8.35	11.4															
11-22-19 4:15	0.31	1396	8.19	9.2	11-6-19 17:00	2.04	1115	8.41	6.8	11-6-19 17:00	1.35	1426	8.35	10.7															
11-22-19 4:30	0.32	1382	8.18	7.5	11-6-19 17:15	2.04	1128	8.41	9.8	11-6-19 17:15	1.38	1425	8.35	11.9															
11-22-19 4:45	0.32	1391	8.19	8.8	11-6-19 17:30	2.06	1130	8.41	9.4	11-6-19 17:30	1.39	1425	8.36	12.9															
11-22-19 5:00	0.32	1386	8.17	7.0	11-6-19 17:45	2.06	1131	8.41	8.4	11-6-19 17:45	1.42	1424	8.35	11.3															
11-22-19 5:15	0.32	1386	8.17	7.0	11-6-19 18:00	2.06	1131	8.41	9.3	11-6-19 18:00	1.45	1423	8.36	11.9															
11-22-19 5:30	0.32	1389	8.21	7.5	11-6-19 18:15	2.07	1129	8.41	7.2	11-6-19 18:15	1.46	1421	8.36	10.8															
11-22-19 5:45					11-6-19 18:30	2.09	1132	8.41	7.7	11-6-19 18:30	1.46	1421	8.36	11.7															
11-22-19 6:00	0.31	1391	8.20	8.5	11-6-19 18:45	2.10	1131	8.41	7.9	11-6-19 18:45	1.47	1423	8.35	11.8															
11-22-19 6:15	0.31	1374	8.22	7.5	11-6-19 19:00	2.11	1131	8.42	8.3	11-6-19 19:00	1.57	1419	8.36	11.0															
11-22-19 6:30	0.31	1403	8.21	8.5	11-6-19 19:15	2.13	1116	8.41	6.6	11-6-19 19:15	1.57	1421	8.36	11.1															
11-22-19 6:45	0.32	1401	8.21	7.4	11-6-19 19:45	2.13	1119	8.41	6.7	11-6-19 19:45	1.64	1422	8.35	11.0															
11-22-19 7:00	0.33	1396	8.21	8.1	11-6-19 20:00	2.13	1117	8.41	7.1	11-6-19 20:00	1.66	1421	8.36	10.8															
11-22-19 7:15	0.35	1399	8.21	7.0	11-6-19 20:15	2.15	1133	8.41	6.3	11-6-19 20:15	1.71	1419	8.36	12.1															
11-22-19 7:30	0.35	1399	8.21	7.0	11-6-19 20:30	2.14	1130	8.41	6.4	11-6-19 20:30	1.75	1419	8.36	10.8															
11-22-19 7:45	0.36	1398	8.21	9.3	11-6-19 20:45	2.14	1137	8.41	12.2	11-6-19 20:45	1.83	1416	8.36	11.6															
11-22-19 8:00	0.35	1391	8.20	7.0	11-6-19 21:00	2.12	1137	8.42	8.7	11-6-19 21:00	1.86	1414	8.36	10.9															
11-22-19 8:15	0.35	1414	8.20	7.9	11-6-19 21:15	2.12	1137	8.41	6.2	11-6-19 21:15	1.88	1412	8.36	10.5															
11-22-19 8:30	0.35	1404	8.20	6.7	11-6-19 21:30	2.12	1135	8.42	5.7	11-6-19 21:30	1.86	1412	8.36	11.1															
11-22-19 8:45	0.35	1408	8.20	7.9	11-6-19 21:45	2.10	1138	8.41	6.4	11-6-19 21:45	1.85	1410	8.36	10.5															
11-22-19 9:00	0.35	1411	8.20	6.6	11-6-19 22:00	2.09	1136	8.42	7.4	11-6-19 22:00	1.87	1409	8.37	11.0															
11-22-19 9:15	0.35	1429	8.20	7.5	11-6-19 22:15	2.08	1138	8.42	6.7	11-6-19 22:15	1.91	1408	8.36	11.0															
11-22-19 9:30	0.35	1411	8.21	6.8	11-6-19 22:30	2.06	1139	8.42	5.8	11-6-19 22:30	1.99	1402	8.36	10.8															
11-22-19 9:45	0.34	1426	8.19	8.7	11-6-19 22:45	2.04	1140	8.42	5.8	11-6-19 22:45	2.00	1400	8.36	11.5															
11-22-19 10:00	0.35	1410	8.20	7.4	11-6-19 23:00	2.02	1142	8.42	6.7	11-6-19 23:00	2.12	1396	8.37	10.7															
11-22-19 10:15	0.36	1424	8.21	7.1	11-6-19 23:15	2.02	1142	8.41	9.4	11-6-19 23:15	2.14	1391	8.37	12.0															
11-22-19 10:30	0.36	1417	8.20	6.9	11-6-19 23:30	1.99	1140	8.41	8.9	11-6-19 23:30	2.08	1395	8.37	11.0															
11-22-19 10:45	0.35	1419	8.20	8.0	11-6-19 23:45	1.99	1142	8.42	9.6	11-6-19 23:45	2.02	1397	8.37	11.5															
11-22-19 11:00	0.35	1421	8.20	6.6	11-7-19 0:00	1.96	1142	8.41	8.7	11-7-19 0:00	2.01	1400	8.36	10.2															
11-22-19 11:15	0.34	1421	8.21	7.7	11-7-19 0:15	1.96	1139	8.41	7.3	11-7-19 0:15	2.04	1396	8.36	11.2															
11-22-19 11:30	0.34	1418	8.19	7.1	11-7-19 0:30	1.93	1138	8.42	6.7	11-7-19 0:30	1.99	1397	8.36	11.0															
11-22-19 11:45	0.35	1443	8.20	8.2	11-7-19 0:45	1.94	1141	8.42	6.8	11-7-19 0:45	2.10	1395	8.36	11.2															
11-22-19 12:00	0.36	1415	8.20	7.5	11-7-19 1:00	1.91	1138	8.41	5.8	11-7-19 1:00	2.08	1392	8.37	9.9															
11-22-19 12:15	0.35	1439	8.20	8.7	11-7-19 1:15	1.93	1143	8.42	9.5	11-7-19 1:15	2.04	1393	8.37	10.9															
11-22-19 12:30	0.34	1401	8.20	6.9	11-7-19 1:30	1.93	1143	8.42	9.7	11-7-19 1:30	1.98	1392	8.36	10.3															
11-22-19 12:45	0.34	1433	8.21	8.6	11-7-19 1:45	1.94	1144	8.42	8.6	11-7-19 1:45	1.96	1394	8.37	9.9															
11-22-19 13:00	0.33	1440	8.21	6.6	11-7-19 2:00	1.92	1143	8.41	10.1	11-7-19 2:00	2.00	1393	8.37	10.0															
11-22-19 13:15	0.33	1442	8.21	7.2	11-7-19 2:15	1.89	1134	8.42	7.7	11-7-19 2:15	1.93	1395	8.37	10.6															
11-22-19 13:30	0.34	1406	8.21	6.5	11-7-19 2:30	1.92	1137	8.42	6.5	11-7-19 2:30	1.98	1395	8.36	10.5															
11-22-19 13:45	0.31	1393	8.20	6.9	11-7-19 2:45	1.92	1137	8.42	5.7	11-7-19 2:45	1.95	1394	8.37	10.4															
11-22-19 14:00	0.29	1443	8.22	6.1	11-7-19 3:00	1.91	1137	8.42	5.6	11-7-19 3:00	1.92	1393	8.36	10.3															
11-22-19 14:15	0.30	1455	8.22	6.7	11-7-19 3:15	1.88	1139	8.41	5.7	11-7-19 3:15	1.93	1393	8.37	9.9															
11-22-19 14:30	0.31	1429	8.20	5.9	11-7-19 3:30	1.90	1138	8.42	6.1	11-7-19 3:30	2.00	1391	8.36	10.1															
11-22-19 14:45	0.31	1453	8.21	6.5	11-7-19 3:45	1.90	1141	8.41	6.9	11-7-19 3:45	2.05	1388	8.37	10.8															
11-22-19 15:00	0.31	1420	8.21	5.6	11-7-19 4:00	1.89	1141	8.42	8.0	11-7-19 4:00	2.04	1388	8.37	10.6															
11-22-19 15:15	0.31	1439	8.22	7.0	11-7-19 4:15	1.88	1138	8.41	5.1	11-7-19 4:15	1.98	1391	8.37	10.4															
11-22-19 15:30	0.30	1435	8.21	5.7	11-7-19 4:30	1.86	1135	8.41	6.1	11-7-19 4:30	1.99	1391	8.37	11.1															
11-22-19 15:45	0.30	1454	8.20	6.9	11-7-19 4:45	1.89	1142	8.41	6.1	11-7-19 4:45	1.96	1389	8.37	11.2															
11-22-19 16:00	0.30	1457	8.20	5.7	11-7-19 5:00	1.86	1138	8.42	5.2	11-7-19 5:00	1.98	1389	8.37	10.9															
11-22-19 16:15	0.30	1460	8.21	6.3	11-7-19 5:15	1.86	1129	8.42	6.2	11-7-19 5:15	1.96	1389	8.37	10.4															
11-22-19 16:30	0.29	1454	8.21	5.2	11-7-19 5:30	1.84	1109	8.42	5.5	11-7-19 5:30	1.92	1391	8.37	10.4															
11-22-19 16:45	0.30	1473	8.21	6.4	11-7-19 5:45	1.83	1113	8.42	5.4	11-7-19 5:45	2.02	1389	8.37	10.6															
11-22-19 17:00	0.30	1448	8.21	5.9	11-7-19 6:00	1.80	1114	8.42	5.3	11-7-19 6:00	2.06	1388	8.36	11.3															
11-22-19 17:15	0.32	1455	8.22	6.3	11-7-19 6:15	1.84	1133	8.42	5.5	11-7-19 6:15	2.07	1387	8.37	10.7															
11-22-19 17:30	0.32	1426	8.21	5.6	11-7-19 6:30	1.84	1129	8.42	5.5	11-7-19 6:30	2.07	1390	8.36	10.5															
11-22-19 17:45	0.33	1470	8.21	6.4	11-7-19 6:45	1.84	1127	8.42	4.7	11-7-19 6:45	2.05	1389	8.36	10.3															
11-22-19 18:00	0.34	1446	8.21	6.0	11-7-19 7:00	1.88	1126	8.41	5.2	11-7-19 7:00	1.98	1389	8.36	10.4															
11-22-19 18:15	0.36	1469	8.21	6.4	11-7-19 7:15	1.89	1134	8.41	4.4	11-7-19 7:15	1.95	1390	8.36	10.0															
11-22-19 18:30	0.36	1452	8.20	5.7	11-7-19 7:30	1.87	1136	8.42	4.7	11-7-19 7:30	1.93	1392	8.37	10.8															
11-22-19 18:45	0.37	1460	8.20	6.2	11-7-19 7:45	1.90	1139	8.41	4.3	11-7-19 7:45	1.92	1394	8.37	10.0															
11-22-19 19:00	0.37	1451	8.19	5.5	11-7-19 8:00	1.90	1134	8.41	4.5	11-7-19 8:00	1.93	1393	8.36	10.0															
11-22-19 19:15	0.38	1470	8.21	6.1	11-7-19 8:15	1.92	1133	8.41	9.3	11-7-19 8:15	1.91	1395	8.36	10.0															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-22-19 19:30	0.39	1464	8.20	5.7	11-7-19 8:30	1.91	1137	8.41	9.6	11-7-19 8:30	1.89	1396	8.36	10.4															
11-22-19 19:45	0.39	1477	8.21	6.0	11-7-19 8:45	1.91	1142	8.41	10.2	11-7-19 8:45	1.87	1397	8.36	9.7															
11-22-19 20:00	0.40	1461	8.20	5.7	11-7-19 9:00	1.89	1132	8.41	9.7	11-7-19 9:00	1.85	1399	8.36	9.7															
11-22-19 20:15	0.40	1474	8.21	6.2	11-7-19 9:15	1.88	1111	8.41	5.4	11-7-19 9:15	1.84	1401	8.36	9.2															
11-22-19 20:30	0.44	1464	8.20	5.7	11-7-19 9:30	1.87	1115	8.41	6.0	11-7-19 9:30	1.85	1403	8.35	9.7															
11-22-19 20:45	0.45	1470	8.21	6.3	11-7-19 9:45	1.86	1111	8.41	4.2	11-7-19 9:45	1.84	1404	8.35	10.2															
11-22-19 21:00	0.47	1461	8.20	5.7	11-7-19 10:00	1.86	1104	8.41	4.4	11-7-19 10:00	1.80	1406	8.35	9.1															
11-22-19 21:15	0.48	1471	8.21	6.1	11-7-19 10:15	1.82	1127	8.41	3.9	11-7-19 10:15	1.79	1406	8.35	9.2															
11-22-19 21:30	0.48	1465	8.20	5.4	11-7-19 10:30	1.86	1135	8.41	5.5	11-7-19 10:30	1.78	1408	8.35	8.9															
11-22-19 21:45	0.49	1473	8.20	6.2	11-7-19 10:45	1.81	1125	8.41	4.5	11-7-19 10:45	1.78	1408	8.35	8.7															
11-22-19 22:00	0.48	1468	8.20	5.1	11-7-19 11:00	1.79	1133	8.41	4.2	11-7-19 11:00	1.79	1410	8.36	8.7															
11-22-19 22:15	0.47	1473	8.21	5.1	11-7-19 11:15	1.79	1125	8.41	9.2	11-7-19 11:15	1.80	1410	8.35	8.8															
11-22-19 22:30	0.48	1472	8.21	5.4	11-7-19 11:30	1.82	1095	8.41	3.4	11-7-19 11:30	1.78	1411	8.35	10.2															
11-22-19 22:45	0.48	1458	8.20	6.8	11-7-19 11:45	1.86	1101	8.41	4.1	11-7-19 11:45	1.75	1412	8.35	9.5															
11-22-19 23:00	0.50	1455	8.21	5.5	11-7-19 12:00	1.84	1102	8.41	4.3	11-7-19 12:00	1.73	1413	8.35	9.5															
11-22-19 23:15	0.49	1483	8.21	6.0	11-7-19 12:15	1.82	1142	8.40	12.7	11-7-19 12:15	1.71	1415	8.34	8.6															
11-22-19 23:30	0.48	1458	8.21	6.0	11-7-19 12:30	1.81	1151	8.41	10.7	11-7-19 12:30	1.69	1417	8.34	8.7															
11-22-19 23:45	0.45	1477	8.21	6.3	11-7-19 12:45	1.74	1146	8.42	5.4	11-7-19 12:45	1.71	1417	8.34	8.9															
11-23-19 0:00	0.42	1469	8.21	6.1	11-7-19 13:00	1.76	1153	8.42	3.9	11-7-19 13:00	1.71	1417	8.34	9.4															
11-23-19 0:15	0.44	1489	8.22	6.4	11-7-19 13:15	1.77	1143	8.41	4.5	11-7-19 13:15	1.71	1419	8.34	9.0															
11-23-19 0:30	0.44	1469	8.22	5.7	11-7-19 13:30	1.77	1134	8.42	4.4	11-7-19 13:30	1.78	1418	8.34	9.3															
11-23-19 0:45	0.69	1491	8.24	7.1	11-7-19 13:45	1.80	1144	8.41	4.7	11-7-19 13:45	1.69	1419	8.34	8.3															
11-23-19 1:00	0.68	1496	8.25	7.5	11-7-19 14:00	1.78	1143	8.41	4.7	11-7-19 14:00	1.71	1419	8.34	9.6															
11-23-19 1:15	0.72	1496	8.25	7.1	11-7-19 14:15	1.75	1105	8.42	4.5	11-7-19 14:15	1.72	1419	8.34	9.1															
11-23-19 1:30	0.69	1494	8.26	7.6	11-7-19 14:30	1.79	1162	8.41	8.1	11-7-19 14:30	1.71	1420	8.34	8.8															
11-23-19 1:45	0.69	1501	8.26	7.3	11-7-19 14:45	1.81	1153	8.42	4.9	11-7-19 14:45	1.73	1420	8.34	9.0															
11-23-19 2:00	0.67	1499	8.27	6.9	11-7-19 15:00	1.84	1142	8.42	4.3	11-7-19 15:00	1.70	1421	8.34	8.6															
11-23-19 2:15	0.65	1497	8.27	8.7	11-7-19 15:15	1.77	1146	8.42	5.3	11-7-19 15:15	1.71	1420	8.34	9.7															
11-23-19 2:30	0.66	1493	8.27	7.0	11-7-19 15:30	1.79	1152	8.41	4.5	11-7-19 15:30	1.78	1421	8.34	8.8															
11-23-19 2:45	0.68	1499	8.27	8.2	11-7-19 15:45	1.80	1157	8.42	5.9	11-7-19 15:45	1.76	1421	8.33	8.1															
11-23-19 3:00	0.72	1492	8.27	7.1	11-7-19 16:00	1.81	1162	8.42	4.4	11-7-19 16:00	1.68	1423	8.33	8.2															
11-23-19 3:15	0.69	1496	8.27	7.5	11-7-19 16:15	1.88	1139	8.41	4.7	11-7-19 16:15	1.67	1423	8.33	8.1															
11-23-19 3:30	0.67	1495	8.27	7.0	11-7-19 16:30	1.89	1136	8.41	4.9	11-7-19 16:30	1.71	1423	8.33	7.8															
11-23-19 3:45	0.69	1493	8.27	7.7	11-7-19 16:45	1.94	1146	8.41	5.2	11-7-19 16:45	1.71	1424	8.33	8.3															
11-23-19 4:00	0.68	1493	8.26	7.2	11-7-19 17:00	1.94	1144	8.41	5.9	11-7-19 17:00	1.72	1425	8.33	7.7															
11-23-19 4:15	0.67	1492	8.27	8.0	11-7-19 17:15	1.90	1175	8.41	4.4	11-7-19 17:15	1.71	1426	8.33	8.1															
11-23-19 4:30	0.62	1494	8.26	7.1	11-7-19 17:30	1.96	1180	8.41	4.8	11-7-19 17:30	1.69	1426	8.33	7.1															
11-23-19 4:45	0.63	1492	8.27	7.8	11-7-19 17:45	2.00	1182	8.41	5.4	11-7-19 17:45	1.68	1427	8.33	8.0															
11-23-19 5:00	0.62	1488	8.27	7.2	11-7-19 18:00	2.03	1188	8.41	4.8	11-7-19 18:00	1.70	1427	8.33	7.4															
11-23-19 5:15	0.64	1493	8.26	8.1	11-7-19 18:15	2.02	1169	8.41	4.0	11-7-19 18:15	1.72	1427	8.33	7.9															
11-23-19 5:30	0.64	1500	8.26	5.7	11-7-19 18:30	1.98	1161	8.42	9.7	11-7-19 18:30	1.74	1427	8.33	7.8															
11-23-19 5:45	0.63	1493	8.24	6.1	11-7-19 18:45	2.04	1182	8.41	5.1	11-7-19 18:45	1.76	1428	8.33	7.9															
11-23-19 6:00	0.55	1497	8.24	5.5	11-7-19 19:00	2.04	1162	8.41	4.8	11-7-19 19:00	1.78	1427	8.33	7.8															
11-23-19 6:15	0.79	1480	8.27	7.7	11-7-19 19:15	2.04	1169	8.41	6.6	11-7-19 19:15	1.79	1427	8.33	8.1															
11-23-19 6:30	0.83	1471	8.27	8.3	11-7-19 19:30	2.07	1171	8.42	4.8	11-7-19 19:30	1.80	1428	8.33	7.6															
11-23-19 6:45	0.82	1472	8.26	8.3	11-7-19 19:45	2.12	1191	8.41	4.8	11-7-19 19:45	1.83	1428	8.33	7.9															
11-23-19 7:00	0.80	1472	8.27	7.8	11-7-19 20:00	2.13	1179	8.41	5.6	11-7-19 20:00	1.85	1427	8.33	8.2															
11-23-19 7:15	0.78	1469	8.27	8.2	11-7-19 20:15	2.15	1180	8.40	4.5	11-7-19 20:15	1.85	1427	8.33	7.6															
11-23-19 7:30	0.82	1478	8.27	7.9	11-7-19 20:30	2.16	1185	8.41	3.5	11-7-19 20:30	1.85	1427	8.33	7.1															
11-23-19 7:45	0.79	1474	8.27	8.3	11-7-19 20:45	2.15	1184	8.41	5.8	11-7-19 20:45	1.87	1427	8.33	7.7															
11-23-19 8:00	0.80	1473	8.26	7.4	11-7-19 21:00	2.16	1188	8.41	4.9	11-7-19 21:00	1.87	1427	8.32	7.9															
11-23-19 8:15	0.79	1474	8.26	7.5	11-7-19 21:15	2.16	1191	8.41	4.8	11-7-19 21:15	1.87	1427	8.32	8.1															
11-23-19 8:30	0.76	1469	8.26	7.3	11-7-19 21:30	2.17	1196	8.42	4.6	11-7-19 21:30	1.87	1427	8.33	7.3															
11-23-19 8:45	0.79	1473	8.26	7.7	11-7-19 21:45	2.17	1189	8.42	5.0	11-7-19 21:45	1.88	1427	8.32	7.9															
11-23-19 9:00	0.77	1473	8.26	7.8	11-7-19 22:00	2.17	1192	8.42	5.2	11-7-19 22:00	1.89	1427	8.32	7.2															
11-23-19 9:15	0.76	1471	8.26	7.3	11-7-19 22:15	2.14	1192	8.42	7.8	11-7-19 22:15	1.89	1427	8.32	7.7															
11-23-19 9:30	0.76	1475	8.26	7.4	11-7-19 22:30	2.16	1191	8.42	10.9	11-7-19 22:30	1.87	1427	8.32	7.6															
11-23-19 9:45	0.75	1475	8.26	7.1	11-7-19 22:45	2.14	1205	8.42	11.2	11-7-19 22:45	1.87	1427	8.32	8.5															
11-23-19 10:00	0.76	1475	8.26	7.0	11-7-19 23:00	2.14	1201	8.42	11.0	11-7-19 23:00	1.89	1427	8.32	8.2															
11-23-19 10:15	0.74	1477	8.26	7.4	11-7-19 23:15	2.09	1128	8.42	4.7	11-7-19 23:15	1.83	1427	8.33	11.0															
11-23-19 10:30	0.73	1475	8.25	7.2	11-7-19 23:30	2.14	1200	8.42	5.0	11-7-19 23:30	1.85	1427	8.32	11.0															
11-23-19 10:45	0.73	1476	8.26	7.9	11-7-19 23:45	2.14	1199	8.42	4.9	11-7-19 23:45	1.87	1427	8.32	8.5															
11-23-19 11:00	0.70	1474	8.25	7.3	11-8-19 0:00	2.14	1203	8.42	5.7	11-8-19 0:00	1.86	1427	8.32	8.5															
11-23-19 11:15	0.69	1476	8.26	7.3	11-8-19 0:15	2.13	1201	8.41	4.6	11-8-19 0:15	1.86	1427	8.32	7.9															
11-23-19 11:30	0.71	1476	8.25	8.0	11-8-19 0:30	2.12	1200	8.42	4.5	11-8-19 0:30	1.85	1426	8.32	8.2															
11-23-19 11:45	0.71	1481	8.27	7.8	11-8-19 0:45	2.11	1198	8.42	6.0	11-8-19 0:45	1.83	1427	8.32	7.7															
11-23-19 12:00	0.69	1483	8.26	7.3	11-8-19 1:00	2.09	1208	8.42	5.4	11-8-19 1:00	1.82	1427	8.31	7.4															
11-23-19 12:15	0.68	1486	8.26	7.7	11-8-19 1:15	2.06	1202	8.42	4.5	11-8-19 1:15	1.81	1426	8.31	7.6															
11-23-19 12:30	0.68	1489	8.26	7.1	11-8-19 1:30	2.09	1205	8.42	4.6	11-8-19 1:30	1.80	1426	8.31	7.6															
11-23-19 12:45	0.68	1492	8.27	7.7	11-8-19 1:45	2.09	1205	8.42	4.6	11-8-19 1:45	1.78	1427	8.31	7.4															
11-23-19 13:00	0.67	1490	8.26	7.2	11-8-19 2:00	2.10	1197	8.42	4.6	11-8-19 2:00	1.76	1426	8.32	8.2															
11-23-19 13:15	0.69	1498	8.26	7.6	11-8-19 2:15	2.13	1198	8.41	4.5	11-8-19 2:15	1.75	1426	8.32	7.8															
11-23-19 13:30	0.69	1497	8.26	7.3	11-8-19 2:30	2.11	1201	8.42	4.3	11-8-19 2:30	1.73	1426	8.32	7.3															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-23-19 13:45	0.69	1498	8.27	7.4	11-8-19 2:45	2.12	1200	8.42	6.0	11-8-19 2:45	1.71	1427	8.31	7.5															
11-23-19 14:00	0.60	1479	8.27	6.9	11-8-19 3:00	2.11	1203	8.41	5.3	11-8-19 3:00	1.68	1427	8.31	7.5															
11-23-19 14:15	0.59	1491	8.26	6.9	11-8-19 3:15	2.11	1202	8.42	5.1	11-8-19 3:15	1.66	1427	8.32	7.3															
11-23-19 14:30	0.62	1493	8.26	6.9	11-8-19 3:30	2.10	1197	8.42	4.5	11-8-19 3:30	1.65	1427	8.31	7.3															
11-23-19 14:45	0.64	1498	8.27	7.8	11-8-19 3:45	2.11	1195	8.42	4.5	11-8-19 3:45	1.64	1427	8.31	7.1															
11-23-19 15:00	0.67	1498	8.26	7.7	11-8-19 4:00	2.14	1201	8.41	4.4	11-8-19 4:00	1.62	1426	8.31	7.0															
11-23-19 15:15	0.66	1496	8.27	7.5	11-8-19 4:15	2.14	1197	8.41	5.0	11-8-19 4:15	1.61	1426	8.31	7.4															
11-23-19 15:30	0.66	1493	8.26	7.0	11-8-19 4:30	2.14	1209	8.41	6.2	11-8-19 4:30	1.58	1426	8.32	7.0															
11-23-19 15:45	0.65	1493	8.26	8.6	11-8-19 4:45	2.13	1203	8.41	5.6	11-8-19 4:45	1.55	1426	8.31	7.3															
11-23-19 16:00	0.65	1494	8.25	6.1	11-8-19 5:00	2.13	1205	8.41	6.1	11-8-19 5:00	1.53	1426	8.32	7.8															
11-23-19 16:15	0.64	1493	8.26	7.0	11-8-19 5:15	2.10	1192	8.41	4.6	11-8-19 5:15	1.50	1426	8.32	6.8															
11-23-19 16:30	0.64	1491	8.25	6.9	11-8-19 5:30	2.11	1200	8.41	5.0	11-8-19 5:30	1.47	1426	8.32	6.8															
11-23-19 16:45	0.68	1491	8.27	7.6	11-8-19 5:45	2.12	1201	8.41	5.2	11-8-19 5:45	1.45	1426	8.32	6.6															
11-23-19 17:00	0.67	1489	8.26	7.1	11-8-19 6:00	2.11	1197	8.41	5.0	11-8-19 6:00	1.44	1426	8.32	6.6															
11-23-19 17:15	0.66	1488	8.28	7.7	11-8-19 6:15	2.09	1192	8.41	4.4	11-8-19 6:15	1.42	1426	8.32	6.4															
11-23-19 17:30	0.67	1490	8.27	7.0	11-8-19 6:30	2.10	1203	8.41	4.2	11-8-19 6:30	1.41	1426	8.32	6.4															
11-23-19 17:45	0.67	1494	8.27	7.5	11-8-19 6:45	2.10	1204	8.41	3.9	11-8-19 6:45	1.40	1426	8.32	6.2															
11-23-19 18:00	0.69	1495	8.27	7.2	11-8-19 7:00	2.09	1199	8.41	4.9	11-8-19 7:00	1.39	1423	8.32	6.5															
11-23-19 18:15	0.71	1494	8.27	7.1	11-8-19 7:15	2.09	1202	8.41	9.2	11-8-19 7:15	1.37	1423	8.32	6.0															
11-23-19 18:30	0.73	1499	8.27	6.4	11-8-19 7:30	2.08	1204	8.41	4.6	11-8-19 7:30	1.34	1423	8.32	6.2															
11-23-19 18:45	0.70	1493	8.27	7.7	11-8-19 7:45	2.07	1200	8.41	4.3	11-8-19 7:45	1.33	1423	8.32	5.8															
11-23-19 19:00	0.70	1492	8.26	6.8	11-8-19 8:00	2.08	1205	8.41	4.5	11-8-19 8:00	1.31	1424	8.32	5.9															
11-23-19 19:15	0.69	1494	8.26	6.8	11-8-19 8:15	2.09	1208	8.41	5.1	11-8-19 8:15	1.32	1423	8.32	6.0															
11-23-19 19:30	0.67	1491	8.25	6.3	11-8-19 8:30	2.10	1197	8.41	3.6	11-8-19 8:30	1.32	1421	8.32	5.7															
11-23-19 19:45	0.65	1491	8.25	7.4	11-8-19 8:45	2.11	1216	8.40	10.7	11-8-19 8:45	1.32	1421	8.32	5.9															
11-23-19 20:00	0.67	1492	8.25	6.5	11-8-19 9:00	2.10	1194	8.41	4.2	11-8-19 9:00	1.31	1419	8.33	5.7															
11-23-19 20:15	0.67	1493	8.25	7.8	11-8-19 9:15	2.10	1192	8.41	7.4	11-8-19 9:15	1.31	1418	8.33	5.7															
11-23-19 20:30	0.66	1492	8.25	6.9	11-8-19 9:30	2.11	1206	8.41	3.4	11-8-19 9:30	1.28	1419	8.33	5.7															
11-23-19 20:45	0.66	1495	8.26	7.3	11-8-19 9:45	2.12	1204	8.41	5.3	11-8-19 9:45	1.28	1419	8.32	5.4															
11-23-19 21:00	0.66	1494	8.25	7.0	11-8-19 10:00	2.12	1207	8.41	4.5	11-8-19 10:00	1.27	1419	8.33	5.8															
11-23-19 21:15	0.65	1495	8.26	7.1	11-8-19 10:15	2.06	1196	8.41	3.9	11-8-19 10:15	1.28	1418	8.33	5.9															
11-23-19 21:30	0.69	1496	8.25	7.2	11-8-19 10:30	2.11	1200	8.41	5.7	11-8-19 10:30	1.26	1419	8.33	6.2															
11-23-19 21:45	0.68	1497	8.27	7.4	11-8-19 10:45	2.06	1172	8.41	4.5	11-8-19 10:45	1.21	1418	8.33	5.2															
11-23-19 22:00	0.72	1497	8.26	7.4	11-8-19 11:00	2.04	1174	8.41	4.3	11-8-19 11:00	1.08	1420	8.33	5.1															
11-23-19 22:15	0.70	1499	8.26	7.6	11-8-19 11:15	2.02	1187	8.41	4.0	11-8-19 11:15	1.07	1422	8.33	5.1															
11-23-19 22:30	0.73	1497	8.25	7.5	11-8-19 11:30	2.01	1176	8.41	3.8	11-8-19 11:30	1.03	1422	8.33	5.1															
11-23-19 22:45	0.75	1497	8.26	8.3	11-8-19 11:45	1.97	1176	8.41	4.0	11-8-19 11:45	1.03	1424	8.33	5.1															
11-23-19 23:00	0.79	1487	8.26	8.6	11-8-19 12:00	1.82	1172	8.41	4.5	11-8-19 12:00	1.00	1424	8.33	5.3															
11-23-19 23:15	0.82	1487	8.27	9.3	11-8-19 12:15	1.90	1201	8.41	4.2	11-8-19 12:15	0.96	1425	8.33	5.0															
11-23-19 23:30	0.83	1485	8.27	9.3	11-8-19 12:30	1.80	1189	8.41	8.9	11-8-19 12:30	0.92	1425	8.33	5.1															
11-23-19 23:45	0.85	1488	8.28	9.8	11-8-19 12:45	1.95	1197	8.41	4.1	11-8-19 12:45	0.89	1425	8.33	4.8															
11-24-19 0:00	0.86	1487	8.28	9.0	11-8-19 13:00	1.92	1198	8.41	4.1	11-8-19 13:00	0.95	1420	8.34	4.4															
11-24-19 0:15	0.83	1488	8.28	9.1	11-8-19 13:15	1.96	1193	8.41	4.4	11-8-19 13:15	1.00	1416	8.33	5.1															
11-24-19 0:30	0.84	1487	8.27	9.4	11-8-19 13:30	2.00	1199	8.41	3.7	11-8-19 13:30	1.02	1414	8.33	6.0															
11-24-19 0:45	0.83	1488	8.27	10.0	11-8-19 13:45	2.00	1185	8.41	3.7	11-8-19 13:45	1.02	1412	8.32	5.9															
11-24-19 1:00	0.84	1487	8.27	9.9	11-8-19 14:00	2.00	1199	8.41	5.4	11-8-19 14:00	1.02	1413	8.33	5.7															
11-24-19 1:15	0.84	1490	8.28	9.4	11-8-19 14:15	1.96	1202	8.41	5.2	11-8-19 14:15	1.01	1415	8.32	5.3															
11-24-19 1:30	0.84	1489	8.27	9.5	11-8-19 14:30	2.04	1209	8.41	4.9	11-8-19 14:30	1.02	1414	8.32	5.4															
11-24-19 1:45	0.84	1492	8.28	9.7	11-8-19 14:45	1.99	1198	8.41	3.6	11-8-19 14:45	1.04	1413	8.32	5.3															
11-24-19 2:00	0.82	1489	8.27	10.1	11-8-19 15:00	2.00	1200	8.41	3.8	11-8-19 15:00	1.03	1412	8.32	4.8															
11-24-19 2:15	0.82	1491	8.28	10.1	11-8-19 15:15	1.70	1191	8.42	3.7	11-8-19 15:15	1.02	1412	8.33	5.8															
11-24-19 2:30	0.79	1487	8.27	9.2	11-8-19 15:30	1.94	1206	8.40	8.5	11-8-19 15:30	1.01	1410	8.33	5.3															
11-24-19 2:45	0.82	1487	8.28	9.8	11-8-19 15:45	1.88	1160	8.42	3.6	11-8-19 15:45	1.00	1411	8.32	5.6															
11-24-19 3:00	0.80	1487	8.27	9.2	11-8-19 16:00	1.96	1169	8.41	4.3	11-8-19 16:00	0.99	1411	8.32	5.6															
11-24-19 3:15	0.81	1488	8.28	9.5	11-8-19 16:15	1.78	1181	8.41	8.4	11-8-19 16:15	0.99	1410	8.32	5.5															
11-24-19 3:30	0.80	1488	8.27	8.5	11-8-19 16:30	2.01	1211	8.41	4.0	11-8-19 16:30	0.99	1409	8.32	5.4															
11-24-19 3:45	0.80	1491	8.27	9.2	11-8-19 16:45	2.08	1216	8.41	4.3	11-8-19 16:45	0.98	1408	8.32	5.3															
11-24-19 4:00	0.80	1480	8.26	9.3	11-8-19 17:00	2.06	1195	8.41	3.9	11-8-19 17:00	0.96	1411	8.32	5.3															
11-24-19 4:15	0.80	1489	8.28	11.4	11-8-19 17:15	2.10	1185	8.41	4.0	11-8-19 17:15	0.94	1414	8.32	4.6															
11-24-19 4:30	0.77	1489	8.27	8.7	11-8-19 17:30	2.08	1179	8.41	4.5	11-8-19 17:30	0.93	1414	8.32	4.9															
11-24-19 4:45	0.77	1489	8.27	9.1	11-8-19 17:45	2.11	1179	8.41	4.8	11-8-19 17:45	0.92	1415	8.32	4.4															
11-24-19 5:00	0.76	1489	8.26	8.4	11-8-19 18:00	2.12	1180	8.41	4.4	11-8-19 18:00	0.92	1415	8.33	4.4															
11-24-19 5:15	0.74	1491	8.27	8.6	11-8-19 18:15	2.14	1216	8.41	4.2	11-8-19 18:15	0.93	1414	8.32	4.7															
11-24-19 5:30	0.75	1493	8.26	8.5	11-8-19 18:30	2.13	1212	8.41	6.6	11-8-19 18:30	0.92	1414	8.33	4.8															
11-24-19 5:45	0.73	1489	8.27	8.5	11-8-19 18:45	2.15	1206	8.41	3.9	11-8-19 18:45	0.93	1413	8.33	4.8															
11-24-19 6:00	0.74	1485	8.26	8.9	11-8-19 19:00	2.15	1199	8.41	3.7	11-8-19 19:00	0.94	1412	8.33	5.1															
11-24-19 6:15	0.71	1491	8.28	8.6	11-8-19 19:15	2.16	1207	8.41	4.2	11-8-19 19:15	0.95	1411	8.33	4.5															
11-24-19 6:30	0.73	1494	8.28	9.7	11-8-19 19:30	2.17	1201	8.41	4.1	11-8-19 19:30	-2.16	0	6.44	15.9															
11-24-19 6:45	0.73	1495	8.29	10.1	11-8-19 19:45	2.17	1204	8.41	3.3	11-8-19 19:45	-0.09	1322	8.46	43.5															
11-24-19 7:00	0.73	1497	8.27	8.9	11-8-19 20:00	2.18	1209	8.41	4.1	11-8-19 20:00	-0.08	1281	8.41	6.5															
11-24-19 7:15	0.70	1491	8.30	9.3	11-8-19 20:15	2.16	1211	8.41	4.7	11-8-19 20:15	-0.07	1379	8.39	16.3															
11-24-19 7:30	0.73	1493	8.29	9.2	11-8-19 20:30	2.16	1216	8.41	5.5	11-8-19 20:30	-0.07	1375	8.37	6.2															
11-24-19 7:45	0.75	1498	8.29	9.9	11-8-19 20:45	2.16	1219	8.41	5.0	11-8-19 20:45	-0.07	1339	8.37	5.9															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-24-19 8:00	0.75	1497	8.28	9.6	11-8-19 21:00	2.17	1220	8.41	5.9	11-8-19 21:00	-0.07	1374	8.37	4.6															
11-24-19 8:15	0.73	1494	8.29	9.6	11-8-19 21:15	2.15	1218	8.42	5.7	11-8-19 21:15	-0.07	1370	8.37	14.6															
11-24-19 8:30	0.73	1490	8.29	9.6	11-8-19 21:30	2.15	1216	8.41	5.5	11-8-19 21:30	-0.07	1370	8.37	6.2															
11-24-19 8:45	0.78	1489	8.29	10.5	11-8-19 21:45	2.17	1221	8.42	3.3	11-8-19 21:45	-0.07	1379	8.37	4.2															
11-24-19 9:00	0.76	1491	8.29	9.8	11-8-19 22:00	2.16	1220	8.41	4.8	11-8-19 22:00	-0.07	1373	8.37	3.9															
11-24-19 9:15	0.77	1492	8.30	10.2	11-8-19 22:15	2.16	1222	8.42	4.1	11-8-19 22:15																			
11-24-19 9:30	0.74	1492	8.29	10.0	11-8-19 22:30	2.15	1221	8.41	3.8	11-8-19 22:30																			
11-24-19 9:45	0.75	1480	8.30	10.0	11-8-19 22:45	2.15	1226	8.41	4.8	11-8-19 22:45																			
11-24-19 10:00	0.78	1499	8.28	9.7	11-8-19 23:00	2.15	1215	8.41	3.2	11-8-19 23:00																			
11-24-19 10:15	0.75	1499	8.29	10.0	11-8-19 23:15	2.15	1216	8.41	14.9	11-8-19 23:15																			
11-24-19 10:30	0.75	1492	8.29	9.9	11-8-19 23:30	2.16	1221	8.41	3.9	11-8-19 23:30																			
11-24-19 10:45	0.75	1497	8.30	9.4	11-8-19 23:45	2.17	1218	8.41	4.5	11-8-19 23:45																			
11-24-19 11:00	0.74	1495	8.29	9.8	11-9-19 0:00	2.14	1213	8.41	6.0	11-9-19 0:00																			
11-24-19 11:15	0.76	1500	8.29	9.6	11-9-19 0:15	2.14	1208	8.41	3.4	11-9-19 0:15																			
11-24-19 11:30	0.77	1497	8.29	9.3	11-9-19 0:30	2.16	1220	8.40	9.8	11-9-19 0:30																			
11-24-19 11:45	0.74	1495	8.30	10.1	11-9-19 0:45	2.15	1214	8.41	4.7	11-9-19 0:45																			
11-24-19 12:00	0.76	1496	8.29	10.0	11-9-19 1:00	2.15	1207	8.41	3.8	11-9-19 1:00																			
11-24-19 12:15	0.74	1499	8.29	10.3	11-9-19 1:15	2.15	1209	8.41	7.9	11-9-19 1:15																			
11-24-19 12:30	0.76	1500	8.28	9.6	11-9-19 1:30	2.14	1204	8.41	3.6	11-9-19 1:30																			
11-24-19 12:45	0.74	1498	8.29	9.6	11-9-19 1:45	2.15	1216	8.41	7.9	11-9-19 1:45																			
11-24-19 13:00	0.74	1494	8.28	9.7	11-9-19 2:00	2.14	1207	8.41	3.8	11-9-19 2:00																			
11-24-19 13:15	0.76	1503	8.29	10.9	11-9-19 2:15	2.14	1205	8.41	3.3	11-9-19 2:15																			
11-24-19 13:30	0.76	1504	8.28	10.4	11-9-19 2:30	2.17	1216	8.40	9.8	11-9-19 2:30																			
11-24-19 13:45	0.72	1500	8.29	9.6	11-9-19 2:45	2.16	1214	8.41	5.3	11-9-19 2:45																			
11-24-19 14:00	0.76	1502	8.29	9.0	11-9-19 3:00	2.17	1223	8.41	4.6	11-9-19 3:00																			
11-24-19 14:15	0.73	1502	8.29	10.2	11-9-19 3:15	2.17	1217	8.41	3.8	11-9-19 3:15																			
11-24-19 14:30	0.77	1499	8.29	10.0	11-9-19 3:30	2.17	1217	8.41	9.6	11-9-19 3:30																			
11-24-19 14:45	0.73	1502	8.29	10.3	11-9-19 3:45	2.15	1205	8.41	3.5	11-9-19 3:45																			
11-24-19 15:00	0.73	1500	8.28	10.1	11-9-19 4:00	2.16	1202	8.40	3.3	11-9-19 4:00																			
11-24-19 15:15	0.73	1507	8.29	10.1	11-9-19 4:15	2.10	1186	8.41	3.0	11-9-19 4:15																			
11-24-19 15:30	0.73	1506	8.29	9.8	11-9-19 4:30	2.10	1176	8.41	2.8	11-9-19 4:30																			
11-24-19 15:45	0.74	1502	8.29	10.7	11-9-19 4:45	2.12	1206	8.41	4.1	11-9-19 4:45																			
11-24-19 16:00	0.77	1503	8.29	10.2	11-9-19 5:00	2.12	1213	8.41	4.3	11-9-19 5:00																			
11-24-19 16:15	0.76	1505	8.29	10.8	11-9-19 5:15	2.11	1202	8.41	3.4	11-9-19 5:15																			
11-24-19 16:30	0.75	1502	8.29	10.3	11-9-19 5:30	2.09	1194	8.41	3.0	11-9-19 5:30																			
11-24-19 16:45	0.75	1508	8.28	10.8	11-9-19 5:45	2.09	1189	8.40	2.8	11-9-19 5:45																			
11-24-19 17:00	0.75	1507	8.28	9.7	11-9-19 6:00	2.12	1197	8.40	2.5	11-9-19 6:00																			
11-24-19 17:15	0.76	1510	8.29	11.1	11-9-19 6:15	2.09	1193	8.40	2.7	11-9-19 6:15																			
11-24-19 17:30	0.78	1508	8.28	9.6	11-9-19 6:30	2.10	1164	8.41	3.0	11-9-19 6:30																			
11-24-19 17:45	0.79	1509	8.29	10.8	11-9-19 6:45	2.10	1159	8.40	2.5	11-9-19 6:45																			
11-24-19 18:00	0.79	1506	8.28	10.6	11-9-19 7:00	2.11	1164	8.41	3.0	11-9-19 7:00																			
11-24-19 18:15	0.77	1511	8.29	11.0	11-9-19 7:15	2.13	1205	8.40	6.0	11-9-19 7:15																			
11-24-19 18:30	0.81	1511	8.29	10.7	11-9-19 7:30	2.10	1199	8.40	3.1	11-9-19 7:30																			
11-24-19 18:45	0.79	1512	8.29	11.5	11-9-19 7:45	2.10	1205	8.41	6.2	11-9-19 7:45																			
11-24-19 19:00	0.79	1510	8.27	10.9	11-9-19 8:00	2.10	1196	8.41	6.1	11-9-19 8:00																			
11-24-19 19:15	0.82	1514	8.28	11.3	11-9-19 8:15	2.13	1166	8.41	2.8	11-9-19 8:15																			
11-24-19 19:30	0.81	1511	8.27	10.8	11-9-19 8:30	2.10	1200	8.41	7.5	11-9-19 8:30																			
11-24-19 19:45	0.79	1513	8.28	11.1	11-9-19 8:45	2.12	1205	8.41	7.7	11-9-19 8:45																			
11-24-19 20:00	0.81	1513	8.27	11.5	11-9-19 9:00	2.09	1201	8.41	8.2	11-9-19 9:00																			
11-24-19 20:15	0.80	1497	8.27	11.3	11-9-19 9:15	2.13	1208	8.41	3.0	11-9-19 9:15																			
11-24-19 20:30	0.81	1516	8.28	11.0	11-9-19 9:30	2.13	1157	8.40	2.9	11-9-19 9:30																			
11-24-19 20:45	0.81	1518	8.28	11.2	11-9-19 9:45	2.12	1204	8.41	3.6	11-9-19 9:45																			
11-24-19 21:00	0.83	1517	8.27	11.2	11-9-19 10:00	2.10	1191	8.41	2.7	11-9-19 10:00																			
11-24-19 21:15	0.84	1521	8.27	11.9	11-9-19 10:15	2.10	1054	8.41	3.9	11-9-19 10:15																			
11-24-19 21:30	0.83	1520	8.27	11.5	11-9-19 10:30	2.09	1049	8.41	3.0	11-9-19 10:30																			
11-24-19 21:45	0.84	1523	8.28	11.6	11-9-19 10:45	2.08	1046	8.40	2.5	11-9-19 10:45																			
11-24-19 22:00					11-9-19 11:00	2.10	1049	8.40	2.5	11-9-19 11:00																			
11-24-19 22:15					11-9-19 11:15	2.10	1196	8.40	3.7	11-9-19 11:15																			
11-24-19 22:30					11-9-19 11:30	2.10	1179	8.40	2.7	11-9-19 11:30																			
11-24-19 22:45					11-9-19 11:45	2.09	1173	8.40	2.9	11-9-19 11:45																			
11-24-19 23:00					11-9-19 12:00	2.10	1173	8.40	3.2	11-9-19 12:00																			
11-24-19 23:15					11-9-19 12:15	2.08	1194	8.40	2.6	11-9-19 12:15																			
11-24-19 23:30					11-9-19 12:30	2.10	1208	8.40	3.0	11-9-19 12:30																			
11-24-19 23:45					11-9-19 12:45	2.09	1208	8.40	3.1	11-9-19 12:45																			
11-25-19 0:00					11-9-19 13:00	2.09	1213	8.40	3.3	11-9-19 13:00																			
11-25-19 0:15					11-9-19 13:15	2.08	1192	8.40	3.3	11-9-19 13:15																			
11-25-19 0:30					11-9-19 13:30	2.08	1200	8.40	2.9	11-9-19 13:30																			
11-25-19 0:45					11-9-19 13:45	2.08	1202	8.40	5.9	11-9-19 13:45																			
11-25-19 1:00					11-9-19 14:00	2.08	1199	8.41	4.3	11-9-19 14:00																			
11-25-19 1:15					11-9-19 14:15	2.09	1190	8.40	2.7	11-9-19 14:15																			
11-25-19 1:30					11-9-19 14:30	2.08	1188	8.41	3.2	11-9-19 14:30																			
11-25-19 1:45					11-9-19 14:45	2.07	1180	8.40	3.2	11-9-19 14:45																			
11-25-19 2:00					11-9-19 15:00	2.09	1178	8.40	2.4	11-9-19 15:00																			

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-25-19 2:15					11-9-19 15:15	2.10	1187	8.40	2.5	11-9-19 15:15																			
11-25-19 2:30					11-9-19 15:30	2.10	1198	8.41	7.6	11-9-19 15:30																			
11-25-19 2:45					11-9-19 15:45	2.06	1188	8.40	7.0	11-9-19 15:45																			
11-25-19 3:00					11-9-19 16:00	2.10	1199	8.40	6.7	11-9-19 16:00																			
11-25-19 3:15					11-9-19 16:15	2.09	1160	8.40	2.7	11-9-19 16:15																			
11-25-19 3:30					11-9-19 16:30	2.09	1154	8.40	2.5	11-9-19 16:30																			
11-25-19 3:45					11-9-19 16:45	2.07	1160	8.40	2.2	11-9-19 16:45																			
11-25-19 4:00					11-9-19 17:00	2.03	1145	8.40	2.7	11-9-19 17:00																			
11-25-19 4:15					11-9-19 17:15	2.08	1206	8.40	3.6	11-9-19 17:15																			
11-25-19 4:30					11-9-19 17:30	2.08	1187	8.40	2.2	11-9-19 17:30																			
11-25-19 4:45					11-9-19 17:45	2.08	1190	8.40	2.6	11-9-19 17:45																			
11-25-19 5:00					11-9-19 18:00	2.14	1205	8.40	7.0	11-9-19 18:00																			
11-25-19 5:15					11-9-19 18:15	2.11	1057	8.40	2.2	11-9-19 18:15																			
11-25-19 5:30					11-9-19 18:30	2.11	1063	8.40	2.5	11-9-19 18:30																			
11-25-19 5:45					11-9-19 18:45	2.09	1053	8.40	2.6	11-9-19 18:45																			
11-25-19 6:00					11-9-19 19:00	2.14	1065	8.40	2.1	11-9-19 19:00																			
11-25-19 6:15					11-9-19 19:15	2.12	1200	8.40	5.8	11-9-19 19:15																			
11-25-19 6:30					11-9-19 19:30	2.09	1176	8.40	2.0	11-9-19 19:30																			
11-25-19 6:45					11-9-19 19:45	2.12	1197	8.40	2.5	11-9-19 19:45																			
11-25-19 7:00					11-9-19 20:00	2.13	1195	8.40	2.8	11-9-19 20:00																			
11-25-19 7:15					11-9-19 20:15	2.11	1195	8.41	9.8	11-9-19 20:15																			
11-25-19 7:30					11-9-19 20:30	2.12	1186	8.40	2.0	11-9-19 20:30																			
11-25-19 7:45					11-9-19 20:45	2.13	1191	8.40	1.8	11-9-19 20:45																			
11-25-19 8:00					11-9-19 21:00	2.09	1185	8.40	2.7	11-9-19 21:00																			
11-25-19 8:15					11-9-19 21:15	2.07	1167	8.41	2.1	11-9-19 21:15																			
11-25-19 8:30					11-9-19 21:30	2.06	1149	8.40	2.2	11-9-19 21:30																			
11-25-19 8:45					11-9-19 21:45	2.06	1149	8.40	2.7	11-9-19 21:45																			
11-25-19 9:00					11-9-19 22:00	2.08	1152	8.40	2.6	11-9-19 22:00																			
11-25-19 9:15					11-9-19 22:15	2.07	1185	8.40	3.1	11-9-19 22:15																			
11-25-19 9:30					11-9-19 22:30	2.06	1186	8.40	2.2	11-9-19 22:30																			
11-25-19 9:45					11-9-19 22:45	2.06	1182	8.40	2.5	11-9-19 22:45																			
11-25-19 10:00					11-9-19 23:00	2.08	1193	8.40	2.8	11-9-19 23:00																			
11-25-19 10:15					11-9-19 23:15	2.07	1195	8.40	3.5	11-9-19 23:15																			
11-25-19 10:30					11-9-19 23:30	2.07	1199	8.40	2.8	11-9-19 23:30																			
11-25-19 10:45					11-9-19 23:45	2.11	1196	8.40	6.4	11-9-19 23:45																			
11-25-19 11:00					11-10-19 0:00	2.05	1188	8.40	2.4	11-10-19 0:00																			
11-25-19 11:15					11-10-19 0:15	2.08	1198	8.40	3.6	11-10-19 0:15																			
11-25-19 11:30					11-10-19 0:30	2.10	1198	8.41	3.2	11-10-19 0:30																			
11-25-19 11:45					11-10-19 0:45	2.14	1202	8.41	3.9	11-10-19 0:45																			
11-25-19 12:00					11-10-19 1:00	2.08	1192	8.40	3.8	11-10-19 1:00																			
11-25-19 12:15					11-10-19 1:15	2.08	1199	8.40	5.8	11-10-19 1:15																			
11-25-19 12:30					11-10-19 1:30	2.07	1195	8.40	11.3	11-10-19 1:30																			
11-25-19 12:45					11-10-19 1:45	2.05	1148	8.40	1.9	11-10-19 1:45																			
11-25-19 13:00					11-10-19 2:00	2.06	1195	8.40	5.8	11-10-19 2:00																			
11-25-19 13:15					11-10-19 2:15	2.05	1188	8.40	2.6	11-10-19 2:15																			
11-25-19 13:30					11-10-19 2:30	2.01	1168	8.39	2.2	11-10-19 2:30																			
11-25-19 13:45					11-10-19 2:45	2.06	1193	8.39	2.2	11-10-19 2:45																			
11-25-19 14:00					11-10-19 3:00	2.05	1189	8.39	2.1	11-10-19 3:00																			
11-25-19 14:15					11-10-19 3:15	2.06	1197	8.39	3.9	11-10-19 3:15																			
11-25-19 14:30					11-10-19 3:30	2.05	1187	8.40	3.7	11-10-19 3:30																			
11-25-19 14:45					11-10-19 3:45	2.04	1197	8.40	2.4	11-10-19 3:45																			
11-25-19 15:00					11-10-19 4:00	2.09	1203	8.40	2.0	11-10-19 4:00																			
11-25-19 15:15					11-10-19 4:15	2.02	1189	8.40	2.1	11-10-19 4:15																			
11-25-19 15:30					11-10-19 4:30	2.06	1198	8.40	3.1	11-10-19 4:30																			
11-25-19 15:45					11-10-19 4:45	2.08	1208	8.40	4.9	11-10-19 4:45																			
11-25-19 16:00					11-10-19 5:00	2.06	1204	8.40	9.9	11-10-19 5:00																			
11-25-19 16:15					11-10-19 5:15	2.08	1205	8.40	8.3	11-10-19 5:15																			
11-25-19 16:30					11-10-19 5:30	2.09	1207	8.40	5.9	11-10-19 5:30																			
11-25-19 16:45					11-10-19 5:45	2.10	1206	8.40	6.5	11-10-19 5:45																			
11-25-19 17:00					11-10-19 6:00	2.08	1210	8.40	6.4	11-10-19 6:00																			
11-25-19 17:15					11-10-19 6:15	2.09	1201	8.39	2.5	11-10-19 6:15																			
11-25-19 17:30					11-10-19 6:30	2.08	1205	8.40	7.5	11-10-19 6:30																			
11-25-19 17:45					11-10-19 6:45	2.08	1207	8.40	2.1	11-10-19 6:45																			
11-25-19 18:00					11-10-19 7:00	2.07	1197	8.40	2.3	11-10-19 7:00																			
11-25-19 18:15					11-10-19 7:15	2.07	1201	8.39	7.7	11-10-19 7:15																			
11-25-19 18:30					11-10-19 7:30	2.06	1195	8.39	5.5	11-10-19 7:30																			
11-25-19 18:45					11-10-19 7:45	2.09	1203	8.39	5.4	11-10-19 7:45																			
11-25-19 19:00					11-10-19 8:00	2.10	1198	8.40	4.8	11-10-19 8:00																			
11-25-19 19:15					11-10-19 8:15	2.06	1198	8.40	2.1	11-10-19 8:15																			
11-25-19 19:30					11-10-19 8:30	2.11	1198	8.40	1.6	11-10-19 8:30																			
11-25-19 19:45					11-10-19 8:45	2.08	1197	8.40	2.3	11-10-19 8:45																			
11-25-19 20:00					11-10-19 9:00	2.06	1195	8.40	1.7	11-10-19 9:00																			
11-25-19 20:15					11-10-19 9:15	2.06	1208	8.40	3.8	11-10-19 9:15																			

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-25-19 20:30					11-10-19 9:30	2.08	1206	8.40	4.7	11-10-19 9:30																			
11-25-19 20:45					11-10-19 9:45	2.06	1196	8.40	3.9	11-10-19 9:45																			
11-25-19 21:00					11-10-19 10:00	2.09	1214	8.40	4.5	11-10-19 10:00																			
11-25-19 21:15					11-10-19 10:15	2.08	1168	8.40	1.9	11-10-19 10:15																			
11-25-19 21:30					11-10-19 10:30	2.09	1203	8.40	2.3	11-10-19 10:30																			
11-25-19 21:45					11-10-19 10:45	2.09	1204	8.40	2.9	11-10-19 10:45																			
11-25-19 22:00					11-10-19 11:00	2.08	1195	8.40	2.7	11-10-19 11:00																			
11-25-19 22:15					11-10-19 11:15	2.10	1202	8.40	2.7	11-10-19 11:15																			
11-25-19 22:30					11-10-19 11:30	2.10	1209	8.40	3.3	11-10-19 11:30																			
11-25-19 22:45					11-10-19 11:45	2.10	1213	8.40	8.3	11-10-19 11:45																			
11-25-19 23:00					11-10-19 12:00	2.11	1202	8.40	2.2	11-10-19 12:00																			
11-25-19 23:15					11-10-19 12:15	2.06	1198	8.40	2.2	11-10-19 12:15																			
11-25-19 23:30					11-10-19 12:30	2.05	1183	8.40	2.3	11-10-19 12:30																			
11-25-19 23:45					11-10-19 12:45	2.07	1180	8.40	1.8	11-10-19 12:45																			
11-26-19 0:00					11-10-19 13:00	2.09	1183	8.40	2.2	11-10-19 13:00																			
11-26-19 0:15					11-10-19 13:15	2.10	1200	8.39	11.3	11-10-19 13:15																			
11-26-19 0:30					11-10-19 13:30	2.10	1216	8.40	2.5	11-10-19 13:30																			
11-26-19 0:45					11-10-19 13:45	2.14	1219	8.40	2.3	11-10-19 13:45																			
11-26-19 1:00					11-10-19 14:00	2.09	1207	8.40	2.7	11-10-19 14:00																			
11-26-19 1:15					11-10-19 14:15	2.10	1209	8.40	1.9	11-10-19 14:15																			
11-26-19 1:30					11-10-19 14:30	2.09	1200	8.40	2.1	11-10-19 14:30																			
11-26-19 1:45					11-10-19 14:45	2.10	1204	8.40	2.7	11-10-19 14:45																			
11-26-19 2:00					11-10-19 15:00	2.10	1193	8.40	4.1	11-10-19 15:00																			
11-26-19 2:15					11-10-19 15:15	2.13	1204	8.40	6.6	11-10-19 15:15																			
11-26-19 2:30					11-10-19 15:30	2.14	1204	8.40	1.4	11-10-19 15:30																			
11-26-19 2:45					11-10-19 15:45	2.12	1197	8.40	1.9	11-10-19 15:45																			
11-26-19 3:00					11-10-19 16:00	2.10	1194	8.40	1.9	11-10-19 16:00																			
11-26-19 3:15					11-10-19 16:15	2.12	1196	8.40	2.2	11-10-19 16:15																			
11-26-19 3:30					11-10-19 16:30	2.15	1207	8.40	3.2	11-10-19 16:30																			
11-26-19 3:45					11-10-19 16:45	2.12	1197	8.40	2.6	11-10-19 16:45																			
11-26-19 4:00					11-10-19 17:00	2.16	1212	8.40	2.1	11-10-19 17:00																			
11-26-19 4:15					11-10-19 17:15	2.13	1201	8.39	2.1	11-10-19 17:15																			
11-26-19 4:30					11-10-19 17:30	2.20	1221	8.40	2.1	11-10-19 17:30																			
11-26-19 4:45					11-10-19 17:45	2.17	1203	8.40	1.8	11-10-19 17:45																			
11-26-19 5:00					11-10-19 18:00	2.19	1200	8.40	2.2	11-10-19 18:00																			
11-26-19 5:15					11-10-19 18:15	2.18	1204	8.40	1.6	11-10-19 18:15																			
11-26-19 5:30					11-10-19 18:30	2.18	1197	8.40	4.1	11-10-19 18:30																			
11-26-19 5:45					11-10-19 18:45	2.17	1197	8.40	2.0	11-10-19 18:45																			
11-26-19 6:00					11-10-19 19:00	2.20	1216	8.40	1.6	11-10-19 19:00																			
11-26-19 6:15					11-10-19 19:15	2.24	1213	8.40	2.3	11-10-19 19:15																			
11-26-19 6:30					11-10-19 19:30	2.18	1188	8.40	1.5	11-10-19 19:30																			
11-26-19 6:45					11-10-19 19:45	2.18	1183	8.40	1.9	11-10-19 19:45																			
11-26-19 7:00					11-10-19 20:00	2.18	1185	8.40	1.0	11-10-19 20:00																			
11-26-19 7:15					11-10-19 20:15	2.18	1179	8.40	1.9	11-10-19 20:15																			
11-26-19 7:30					11-10-19 20:30	2.23	1201	8.40	2.3	11-10-19 20:30																			
11-26-19 7:45					11-10-19 20:45	2.22	1205	8.41	1.9	11-10-19 20:45																			
11-26-19 8:00					11-10-19 21:00	2.21	1199	8.41	2.0	11-10-19 21:00																			
11-26-19 8:15					11-10-19 21:15	2.25	1207	8.41	1.6	11-10-19 21:15																			
11-26-19 8:30					11-10-19 21:30	2.25	1207	8.41	5.0	11-10-19 21:30																			
11-26-19 8:45					11-10-19 21:45	2.28	1210	8.41	2.2	11-10-19 21:45																			
11-26-19 9:00					11-10-19 22:00	2.26	1210	8.41	3.0	11-10-19 22:00																			
11-26-19 9:15					11-10-19 22:15	2.26	1203	8.41	2.3	11-10-19 22:15																			
11-26-19 9:30					11-10-19 22:30	2.27	1208	8.40	2.2	11-10-19 22:30																			
11-26-19 9:45					11-10-19 22:45	2.21	1182	8.40	3.6	11-10-19 22:45																			
11-26-19 10:00					11-10-19 23:00	2.27	1200	8.41	2.0	11-10-19 23:00																			
11-26-19 10:15					11-10-19 23:15	2.24	1184	8.40	3.9	11-10-19 23:15																			
11-26-19 10:30					11-10-19 23:30	2.23	1205	8.40	2.0	11-10-19 23:30																			
11-26-19 10:45					11-10-19 23:45	2.23	1198	8.40	1.9	11-10-19 23:45																			
11-26-19 11:00					11-11-19 0:00	2.26	1201	8.40	1.4	11-11-19 0:00																			
11-26-19 11:15					11-11-19 0:15	2.23	1203	8.40	1.7	11-11-19 0:15																			
11-26-19 11:30					11-11-19 0:30	2.25	1157	8.40	1.9	11-11-19 0:30																			
11-26-19 11:45					11-11-19 0:45	2.21	1206	8.40	3.2	11-11-19 0:45																			
11-26-19 12:00					11-11-19 1:00	2.25	1215	8.40	2.1	11-11-19 1:00																			
11-26-19 12:15					11-11-19 1:15	2.28	1213	8.40	2.3	11-11-19 1:15																			
11-26-19 12:30					11-11-19 1:30	2.23	1160	8.40	1.9	11-11-19 1:30																			
11-26-19 12:45					11-11-19 1:45	2.27	1212	8.40	2.2	11-11-19 1:45																			
11-26-19 13:00					11-11-19 2:00	2.27	1223	8.40	2.8	11-11-19 2:00																			
11-26-19 13:15					11-11-19 2:15	2.26	1146	8.40	1.5	11-11-19 2:15																			
11-26-19 13:30					11-11-19 2:30	2.20	1200	8.40	1.6	11-11-19 2:30																			
11-26-19 13:45					11-11-19 2:45	2.26	1214	8.40	2.3	11-11-19 2:45																			
11-26-19 14:00					11-11-19 3:00	2.24	1200	8.40	1.8	11-11-19 3:00																			
11-26-19 14:15					11-11-19 3:15	2.27	1215	8.40	2.0	11-11-19 3:15																			
11-26-19 14:30					11-11-19 3:30	2.21	1163	8.40	1.8	11-11-19 3:30																			

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-26-19 14:45					11-11-19 3:45	2.23	1168	8.40	1.9	11-11-19 3:45																			
11-26-19 15:00					11-11-19 4:00	2.24	1164	8.40	1.9	11-11-19 4:00																			
11-26-19 15:15					11-11-19 4:15	2.24	1172	8.40	2.4	11-11-19 4:15																			
11-26-19 15:30					11-11-19 4:30	2.25	1220	8.40	7.8	11-11-19 4:30																			
11-26-19 15:45					11-11-19 4:45	2.20	1205	8.40	3.3	11-11-19 4:45																			
11-26-19 16:00					11-11-19 5:00	2.23	1211	8.39	2.3	11-11-19 5:00																			
11-26-19 16:15					11-11-19 5:15	2.24	1206	8.39	1.9	11-11-19 5:15																			
11-26-19 16:30					11-11-19 5:30	2.20	1177	8.39	2.0	11-11-19 5:30																			
11-26-19 16:45					11-11-19 5:45	2.26	1190	8.39	2.3	11-11-19 5:45																			
11-26-19 17:00					11-11-19 6:00	2.23	1182	8.39	1.7	11-11-19 6:00																			
11-26-19 17:15					11-11-19 6:15	2.21	1182	8.39	2.1	11-11-19 6:15																			
11-26-19 17:30					11-11-19 6:30	2.27	1221	8.39	6.9	11-11-19 6:30																			
11-26-19 17:45					11-11-19 6:45	2.24	1211	8.39	2.0	11-11-19 6:45																			
11-26-19 18:00					11-11-19 7:00	2.21	1204	8.39	1.7	11-11-19 7:00																			
11-26-19 18:15					11-11-19 7:15	2.23	1214	8.39	2.1	11-11-19 7:15																			
11-26-19 18:30					11-11-19 7:30	2.21	1177	8.39	1.6	11-11-19 7:30																			
11-26-19 18:45					11-11-19 7:45	2.22	1182	8.39	1.7	11-11-19 7:45																			
11-26-19 19:00					11-11-19 8:00	2.21	1179	8.39	1.2	11-11-19 8:00																			
11-26-19 19:15					11-11-19 8:15	2.22	1181	8.39	2.0	11-11-19 8:15																			
11-26-19 19:30					11-11-19 8:30	2.27	1221	8.38	1.9	11-11-19 8:30																			
11-26-19 19:45					11-11-19 8:45	2.22	1209	8.39	2.2	11-11-19 8:45																			
11-26-19 20:00					11-11-19 9:00	2.22	1213	8.39	4.0	11-11-19 9:00																			
11-26-19 20:15					11-11-19 9:15	2.25	1213	8.39	9.0	11-11-19 9:15																			
11-26-19 20:30					11-11-19 9:30	2.25	1214	8.39	2.0	11-11-19 9:30																			
11-26-19 20:45					11-11-19 9:45	2.23	1205	8.39	1.6	11-11-19 9:45																			
11-26-19 21:00					11-11-19 10:00	2.21	1200	8.39	1.2	11-11-19 10:00																			
11-26-19 21:15					11-11-19 10:15	2.24	1196	8.39	1.6	11-11-19 10:15																			
11-26-19 21:30					11-11-19 10:30	2.24	1210	8.39	2.4	11-11-19 10:30																			
11-26-19 21:45					11-11-19 10:45	2.20	1192	8.39	1.7	11-11-19 10:45																			
11-26-19 22:00					11-11-19 11:00	2.22	1196	8.39	1.4	11-11-19 11:00																			
11-26-19 22:15					11-11-19 11:15	2.21	1193	8.39	1.3	11-11-19 11:15																			
11-26-19 22:30					11-11-19 11:30	2.28	1193	8.39	1.1	11-11-19 11:30																			
11-26-19 22:45					11-11-19 11:45	2.24	1211	8.38	4.8	11-11-19 11:45																			
11-26-19 23:00					11-11-19 12:00	2.24	1201	8.39	2.2	11-11-19 12:00																			
11-26-19 23:15					11-11-19 12:15	2.24	1206	8.39	1.3	11-11-19 12:15																			
11-26-19 23:30					11-11-19 12:30	2.18	1204	8.39	6.8	11-11-19 12:30																			
11-26-19 23:45					11-11-19 12:45	2.24	1217	8.39	1.8	11-11-19 12:45																			
11-27-19 0:00					11-11-19 13:00	2.18	1186	8.39	1.6	11-11-19 13:00																			
11-27-19 0:15					11-11-19 13:15	2.25	1210	8.39	1.7	11-11-19 13:15																			
11-27-19 0:30					11-11-19 13:30	2.24	1213	8.39	1.6	11-11-19 13:30																			
11-27-19 0:45					11-11-19 13:45	2.23	1160	8.39	1.5	11-11-19 13:45																			
11-27-19 1:00					11-11-19 14:00	2.24	1167	8.39	1.6	11-11-19 14:00																			
11-27-19 1:15					11-11-19 14:15	2.24	1171	8.39	1.6	11-11-19 14:15																			
11-27-19 1:30					11-11-19 14:30	2.21	1213	8.39	3.7	11-11-19 14:30																			
11-27-19 1:45					11-11-19 14:45	2.25	1217	8.39	2.4	11-11-19 14:45																			
11-27-19 2:00					11-11-19 15:00	2.28	1217	8.39	2.3	11-11-19 15:00																			
11-27-19 2:15					11-11-19 15:15	2.24	1211	8.39	2.4	11-11-19 15:15																			
11-27-19 2:30					11-11-19 15:30	2.22	1217	8.39	1.7	11-11-19 15:30																			
11-27-19 2:45					11-11-19 15:45	2.22	1165	8.39	1.8	11-11-19 15:45																			
11-27-19 3:00					11-11-19 16:00	2.22	1209	8.39	5.1	11-11-19 16:00																			
11-27-19 3:15					11-11-19 16:15	2.22	1211	8.39	5.5	11-11-19 16:15																			
11-27-19 3:30					11-11-19 16:30	2.27	1208	8.39	3.2	11-11-19 16:30																			
11-27-19 3:45					11-11-19 16:45	2.22	1211	8.39	2.2	11-11-19 16:45																			
11-27-19 4:00					11-11-19 17:00	2.20	1201	8.39	3.2	11-11-19 17:00																			
11-27-19 4:15					11-11-19 17:15	2.19	1205	8.39	1.6	11-11-19 17:15																			
11-27-19 4:30					11-11-19 17:30	2.28	1212	8.39	4.5	11-11-19 17:30																			
11-27-19 4:45					11-11-19 17:45	2.20	1195	8.39	4.5	11-11-19 17:45																			
11-27-19 5:00					11-11-19 18:00	2.18	1205	8.39	3.9	11-11-19 18:00																			
11-27-19 5:15					11-11-19 18:15	2.26	1209	8.38	5.1	11-11-19 18:15																			
11-27-19 5:30					11-11-19 18:30	2.25	1108	8.39	1.4	11-11-19 18:30																			
11-27-19 5:45					11-11-19 18:45	1.57	1031	8.39	2.6	11-11-19 18:45	-0.07	1252	8.49	25.1															
11-27-19 6:00					11-11-19 19:00	0.35	977	8.39	291.2	11-11-19 19:00	-0.07	1204	8.45	13.4															
11-27-19 6:15					11-11-19 19:15	0.58	874	8.40	326.3	11-11-19 19:15	-0.07	1162	8.44	13.2															
11-27-19 6:30					11-11-19 19:30	0.76	1100	8.39	2.2	11-11-19 19:30	-0.07	1252	8.44	6.2															
11-27-19 6:45					11-11-19 19:45	1.00	1127	8.39	1.9	11-11-19 19:45	-0.06	1255	8.44	7.8															
11-27-19 7:00					11-11-19 20:00	1.01	1121	8.39	0.0	11-11-19 20:00	-0.06	1249	8.44	5.3															
11-27-19 7:15					11-11-19 20:15	1.01	1118	8.39	1.0	11-11-19 20:15	-0.06	1259	8.43	4.5															
11-27-19 7:30					11-11-19 20:30	1.05	1110	8.39	0.0	11-11-19 20:30	-0.06	1256	8.43	27.3															
11-27-19 7:45					11-11-19 20:45	1.06	1111	8.40	0.4	11-11-19 20:45	-0.06	1258	8.43	3.3															
11-27-19 8:00					11-11-19 21:00	1.02	1102	8.39	0.0	11-11-19 21:00	-0.06	1252	8.42	8.1															
11-27-19 8:15					11-11-19 21:15	1.06	1117	8.39	0.0	11-11-19 21:15	-0.06	1262	8.42	2.7															
11-27-19 8:30					11-11-19 21:30	1.13	1112	8.39	0.1	11-11-19 21:30	-0.06	1253	8.42	2.6															
11-27-19 8:45					11-11-19 21:45	1.02	1099	8.39	0.0	11-11-19 21:45	-0.06	1259	8.43	3.0															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-27-19 9:00					11-11-19 22:00	0.99	1097	8.39	0.0	11-11-19 22:00	-0.06	1251	8.42	3.1																
11-27-19 9:15					11-11-19 22:15	1.14	1102	8.39	0.4	11-11-19 22:15	-0.05	1176	8.42	3.4																
11-27-19 9:30					11-11-19 22:30	1.11	1118	8.39	0.0	11-11-19 22:30	-0.06	1206	8.42	1.8																
11-27-19 9:45					11-11-19 22:45	1.10	1117	8.40	3.1	11-11-19 22:45	-0.06	1249	8.43	1.3																
11-27-19 10:00					11-11-19 23:00	1.19	1114	8.39	0.0	11-11-19 23:00	-0.06	1247	8.42	2.3																
11-27-19 10:15					11-11-19 23:15	1.18	1120	8.39	0.0	11-11-19 23:15	-0.06	1261	8.43	1.9																
11-27-19 10:30					11-11-19 23:30	1.26	1116	8.39	4.4	11-11-19 23:30	-0.06	1145	8.43	2.1																
11-27-19 10:45					11-11-19 23:45	1.15	1066	8.39	0.0	11-11-19 23:45	-0.06	1247	8.43	2.6																
11-27-19 11:00					11-12-19 0:00	1.21	1110	8.39	0.0	11-12-19 0:00	-0.06	1146	8.42	88.5																
11-27-19 11:15					11-12-19 0:15	1.29	1113	8.40	0.1	11-12-19 0:15	-0.05	1254	8.43	3.7																
11-27-19 11:30					11-12-19 0:30	1.26	1113	8.39	2.0	11-12-19 0:30	-0.05	1231	8.43	2.2																
11-27-19 11:45					11-12-19 0:45	1.13	1100	8.39	1.7	11-12-19 0:45	-0.05	1256	8.44	2.2																
11-27-19 12:00					11-12-19 1:00	1.20	1099	8.39	1.3	11-12-19 1:00	-0.05	1212	8.42	1.9																
11-27-19 12:15					11-12-19 1:15	1.16	1097	8.39	1.3	11-12-19 1:15	-0.05	1255	8.43	1.6																
11-27-19 12:30					11-12-19 1:30	1.22	1135	8.39	0.0	11-12-19 1:30	-0.05	1189	8.42	1.7																
11-27-19 12:45					11-12-19 1:45	1.23	1111	8.39	0.0	11-12-19 1:45	-0.05	1254	8.44	1.4																
11-27-19 13:00					11-12-19 2:00	1.20	1127	8.39	0.3	11-12-19 2:00	-0.05	1212	8.43	1.6																
11-27-19 13:15					11-12-19 2:15	1.26	1088	8.38	0.0	11-12-19 2:15	-0.06	1254	8.44	1.3																
11-27-19 13:30					11-12-19 2:30	1.25	1132	8.39	4.2	11-12-19 2:30	-0.05	1250	8.43	1.5																
11-27-19 13:45					11-12-19 2:45	1.33	1092	8.39	0.0	11-12-19 2:45	-0.06	1097	8.44	2.1																
11-27-19 14:00					11-12-19 3:00	1.28	1123	8.39	0.0	11-12-19 3:00	-0.05	1255	8.44	3.4																
11-27-19 14:15					11-12-19 3:15	1.21	1102	8.39	0.0	11-12-19 3:15	-0.05	1253	8.44	2.5																
11-27-19 14:30					11-12-19 3:30	1.27	1125	8.39	3.3	11-12-19 3:30	-0.05	1261	8.43	1.8																
11-27-19 14:45					11-12-19 3:45	1.31	1130	8.39	0.0	11-12-19 3:45	-0.04	1256	8.43	0.8																
11-27-19 15:00					11-12-19 4:00	1.33	1124	8.39	0.0	11-12-19 4:00	-0.04	1256	8.43	1.3																
11-27-19 15:15					11-12-19 4:15	1.26	1128	8.39	0.0	11-12-19 4:15	-0.04	1255	8.43	0.8																
11-27-19 15:30					11-12-19 4:30	1.25	1115	8.39	0.0	11-12-19 4:30	-0.04	1254	8.43	1.4																
11-27-19 15:45					11-12-19 4:45	1.19	1106	8.39	0.0	11-12-19 4:45	-0.04	1256	8.43	0.8																
11-27-19 16:00					11-12-19 5:00	1.23	1104	8.39	0.0	11-12-19 5:00	-0.04	1255	8.43	1.1																
11-27-19 16:15					11-12-19 5:15	1.20	1099	8.38	0.0	11-12-19 5:15	-0.04	1256	8.44	0.7																
11-27-19 16:30					11-12-19 5:30	1.28	1096	8.39	0.0	11-12-19 5:30	-0.04	1257	8.43	0.8																
11-27-19 16:45					11-12-19 5:45	1.33	1102	8.38	0.0	11-12-19 5:45	-0.04	1257	8.44	0.9																
11-27-19 17:00					11-12-19 6:00	1.29	1104	8.38	0.0	11-12-19 6:00	-0.04	1256	8.43	1.0																
11-27-19 17:15					11-12-19 6:15	1.25	1103	8.38	0.0	11-12-19 6:15	-0.04	1257	8.44	0.5																
11-27-19 17:30					11-12-19 6:30	1.24	1120	8.38	0.0	11-12-19 6:30	-0.04	1257	8.44	0.9																
11-27-19 17:45					11-12-19 6:45	1.25	1114	8.38	0.0	11-12-19 6:45	-0.04	1258	8.44	0.5																
11-27-19 18:00					11-12-19 7:00	1.28	1129	8.38	5.8	11-12-19 7:00	-0.04	1259	8.43	0.7																
11-27-19 18:15					11-12-19 7:15	1.18	1102	8.39	0.0	11-12-19 7:15	-0.04	1260	8.44	0.5																
11-27-19 18:30					11-12-19 7:30	1.30	1120	8.39	0.0	11-12-19 7:30	-0.04	1261	8.43	0.8																
11-27-19 18:45					11-12-19 7:45	1.36	1127	8.38	0.0	11-12-19 7:45	-0.04	1262	8.43	0.7																
11-27-19 19:00					11-12-19 8:00	1.44	1111	8.38	0.0	11-12-19 8:00	-0.04	1263	8.43	0.7																
11-27-19 19:15					11-12-19 8:15	1.38	1132	8.38	0.0	11-12-19 8:15	-0.04	1265	8.43	0.5																
11-27-19 19:30					11-12-19 8:30	1.40	1125	8.39	0.0	11-12-19 8:30	-0.04	1267	8.43	0.6																
11-27-19 19:45					11-12-19 8:45	1.19	1110	8.39	0.0	11-12-19 8:45	-0.04	1272	8.43	0.5																
11-27-19 20:00					11-12-19 9:00	1.31	1120	8.38	3.1	11-12-19 9:00	-0.03	1280	8.42	0.6																
11-27-19 20:15					11-12-19 9:15	1.33	1116	8.38	2.0	11-12-19 9:15	-0.04	1284	8.42	0.4																
11-27-19 20:30					11-12-19 9:30	1.25	1128	8.39	0.0	11-12-19 9:30	-0.04	1285	8.43	0.6																
11-27-19 20:45					11-12-19 9:45	1.45	1151	8.38	3.5	11-12-19 9:45	-0.04	1285	8.43	0.3																
11-27-19 21:00					11-12-19 10:00	1.40	1126	8.38	0.0	11-12-19 10:00	-0.04	1285	8.42	0.6																
11-27-19 21:15					11-12-19 10:15	1.48	1114	8.38	0.0	11-12-19 10:15	-0.04	1285	8.42	0.2																
11-27-19 21:30					11-12-19 10:30	1.63	1156	8.38	0.0	11-12-19 10:30	-0.04	1286	8.42	0.6																
11-27-19 21:45					11-12-19 10:45	1.59	1185	8.38	0.0	11-12-19 10:45	-0.04	1288	8.42	0.5																
11-27-19 22:00					11-12-19 11:00	1.50	1132	8.38	0.0	11-12-19 11:00	-0.04	1287	8.42	0.5																
11-27-19 22:15					11-12-19 11:15	1.44	1125	8.38	0.0	11-12-19 11:15	-0.04	1287	8.42	0.4																
11-27-19 22:30					11-12-19 11:30	1.42	1149	8.38	0.0	11-12-19 11:30	-0.04	1286	8.42	0.4																
11-27-19 22:45					11-12-19 11:45	1.40	1132	8.38	0.0	11-12-19 11:45	-0.04	1286	8.42	0.2																
11-27-19 23:00	0.16	1675	8.06	0.9	11-12-19 12:00	1.43	1121	8.38	0.0	11-12-19 12:00	-0.04	1286	8.42	0.4																
11-27-19 23:15	0.25	1705	8.05	0.9	11-12-19 12:15	1.42	1116	8.38	0.0	11-12-19 12:15	-0.04	1286	8.42	0.2																
11-27-19 23:30	0.26	1713	8.00	0.9	11-12-19 12:30	1.49	1132	8.38	2.9	11-12-19 12:30	-0.04	1286	8.42	0.4																
11-27-19 23:45	0.28	1718	7.95	0.6	11-12-19 12:45	1.46	1096	8.39	0.0	11-12-19 12:45	-0.04	1287	8.42	0.1																
11-28-19 0:00	0.30	1815	7.90	1.1	11-12-19 13:00	1.44	1142	8.38	0.0	11-12-19 13:00	-0.04	1286	8.42	0.3																
11-28-19 0:15	0.30	1800	7.98	0.7	11-12-19 13:15	1.46	1128	8.39	0.0	11-12-19 13:15	-0.04	1286	8.42	0.2																
11-28-19 0:30	0.30	1801	7.93	0.6	11-12-19 13:30	1.42	1121	8.38	0.0	11-12-19 13:30	-0.04	1285	8.42	0.3																
11-28-19 0:45	0.30	1801	7.87	0.5	11-12-19 13:45	1.44	1136	8.38	0.0	11-12-19 13:45	-0.04	1285	8.42	0.1																
11-28-19 1:00	0.33	1818	7.92	0.6	11-12-19 14:00	1.58	1161	8.38	0.0	11-12-19 14:00	-0.04	1285	8.42	0.3																
11-28-19 1:15	0.32	1779	7.92	0.9	11-12-19 14:15	1.56	1140	8.38	0.0	11-12-19 14:15	-0.04	1285	8.42	0.1																
11-28-19 1:30	0.31	1787	7.88	0.7	11-12-19 14:30	1.55	1153	8.38	0.0	11-12-19 14:30	-0.04	1284	8.43	0.3																
11-28-19 1:45	0.32	1792	7.83	0.6	11-12-19 14:45	1.59	1157	8.38	3.1	11-12-19 14:45	-0.04	1284	8.42	0.1																
11-28-19 2:00	0.33	1806	7.87	1.0	11-12-19 15:00	1.43	1135	8.39	0.0	11-12-19 15:00	-0.04	1284	8.42	0.2																
11-28-19 2:15	0.32	1796	7.89	0.7	11-12-19 15:15	1.44	1126	8.38	0.0	11-12-19 15:15	-0.04	1284	8.43	0.2																
11-28-19 2:30	0.32	1763	7.88	0.5	11-12-19 15:30	1.40	1111	8.38	0.0	11-12-19 15:30	-0.04	1283	8.42	0.1																
11-28-19 2:45	0.32	1786	7.89	0.5	11-12-19 15:45	1.41	1138	8.38	0.0	11-12-19 15:45	-0.04	1283	8.43	0.2																
11-28-19 3:00	0.33	1811	7.93	0.8	11-12-19 16:00	1.27	1122	8.38	0.0	11-12-19 16:00	-0.04	1283	8.43	0.2																

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-28-19 3:15	0.32	1788	7.95	0.5	11-12-19 16:15	1.41	1140	8.38	2.1	11-12-19 16:15	-0.04	1282	8.43	0.1															
11-28-19 3:30	0.31	1789	7.91	0.5	11-12-19 16:30	1.38	1135	8.38	0.0	11-12-19 16:30	-0.04	1282	8.43	0.2															
11-28-19 3:45	0.31	1793	7.86	0.4	11-12-19 16:45	1.28	1120	8.39	0.0	11-12-19 16:45	-0.04	1282	8.44	0.0															
11-28-19 4:00	0.32	1828	7.84	1.1	11-12-19 17:00	1.57	1158	8.38	0.0	11-12-19 17:00	-0.04	1282	8.43	0.2															
11-28-19 4:15	0.30	1807	7.94	0.6	11-12-19 17:15	1.47	1116	8.38	0.0	11-12-19 17:15	-0.04	1281	8.43	0.1															
11-28-19 4:30	0.30	1809	7.95	0.5	11-12-19 17:30	1.48	1125	8.38	0.0	11-12-19 17:30	-0.04	1281	8.43	0.1															
11-28-19 4:45	0.29	1815	7.95	0.5	11-12-19 17:45	1.42	1131	8.38	0.0	11-12-19 17:45	-0.04	1281	8.43	0.1															
11-28-19 5:00	0.31	1840	7.86	1.0	11-12-19 18:00	1.37	1132	8.38	0.2	11-12-19 18:00	-0.04	1280	8.43	0.2															
11-28-19 5:15	0.30	1806	7.91	0.4	11-12-19 18:15	1.38	1125	8.38	0.0	11-12-19 18:15	-0.04	1280	8.43	0.3															
11-28-19 5:30	0.30	1815	7.92	0.5	11-12-19 18:30	1.46	1133	8.38	7.2	11-12-19 18:30	-0.04	1280	8.44	0.2															
11-28-19 5:45	0.29	1818	7.89	0.4	11-12-19 18:45	1.62	1163	8.38	6.8	11-12-19 18:45	-0.04	1280	8.43	0.1															
11-28-19 6:00	0.31	1849	7.89	1.0	11-12-19 19:00	1.52	1134	8.38	7.3	11-12-19 19:00	-0.03	1279	8.43	0.1															
11-28-19 6:15	0.29	1831	7.97	0.6	11-12-19 19:15	1.54	1143	8.37	7.5	11-12-19 19:15	-0.03	1279	8.43	0.2															
11-28-19 6:30	0.29	1828	7.95	0.5	11-12-19 19:30	1.50	1148	8.38	3.6	11-12-19 19:30	-0.03	1279	8.43	0.2															
11-28-19 6:45	0.29	1831	7.96	0.4	11-12-19 19:45	1.49	1135	8.38	3.0	11-12-19 19:45	-0.03	1279	8.43	0.1															
11-28-19 7:00	0.31	1858	7.92	0.9	11-12-19 20:00	1.49	1128	8.38	3.1	11-12-19 20:00	-0.03	1278	8.43	0.1															
11-28-19 7:15	0.30	1829	7.96	0.5	11-12-19 20:15	1.49	1125	8.38	3.3	11-12-19 20:15	-0.03	1279	8.43	0.1															
11-28-19 7:30	0.30	1834	7.96	0.5	11-12-19 20:30	1.55	1141	8.38	0.0	11-12-19 20:30	-0.03	1278	8.43	0.1															
11-28-19 7:45	0.30	1837	7.94	0.5	11-12-19 20:45	1.48	1155	8.39	2.6	11-12-19 20:45	-0.03	1278	8.43	0.1															
11-28-19 8:00	0.32	1860	7.91	0.9	11-12-19 21:00	1.60	1147	8.38	0.2	11-12-19 21:00	-0.03	1278	8.43	0.2															
11-28-19 8:15	0.30	1846	7.94	0.5	11-12-19 21:15	1.60	1161	8.38	0.0	11-12-19 21:15	-0.03	1278	8.43	0.0															
11-28-19 8:30	0.30	1849	7.93	0.5	11-12-19 21:30	1.54	1148	8.39	0.0	11-12-19 21:30	-0.03	1277	8.43	0.2															
11-28-19 8:45	0.30	1852	7.92	0.5	11-12-19 21:45	1.58	1130	8.38	0.0	11-12-19 21:45	-0.03	1278	8.43	0.1															
11-28-19 9:00	0.32	1868	7.88	1.0	11-12-19 22:00	1.56	1134	8.38	0.0	11-12-19 22:00	-0.03	1277	8.43	0.2															
11-28-19 9:15	0.31	1843	7.92	0.5	11-12-19 22:15	1.77	1138	8.38	0.0	11-12-19 22:15	-0.03	1277	8.43	0.1															
11-28-19 9:30	0.31	1848	7.92	0.5	11-12-19 22:30	1.83	1165	8.38	0.6	11-12-19 22:30	-0.03	1277	8.43	0.1															
11-28-19 9:45	0.31	1851	7.89	0.5	11-12-19 22:45	1.93	1161	8.38	0.4	11-12-19 22:45	-0.03	1277	8.43	0.0															
11-28-19 10:00	0.33	1870	7.88	0.9	11-12-19 23:00	1.79	1152	8.38	0.0	11-12-19 23:00	-0.03	1277	8.43	0.1															
11-28-19 10:15	0.31	1864	8.09	0.5	11-12-19 23:15	1.80	1158	8.38	0.0	11-12-19 23:15	-0.03	1277	8.43	0.1															
11-28-19 10:30	0.31	1865	8.09	0.4	11-12-19 23:30	1.87	1189	8.38	0.0	11-12-19 23:30	-0.03	1277	8.43	0.2															
11-28-19 10:45	0.32	1866	8.07	0.5	11-12-19 23:45	1.83	1163	8.38	0.0	11-12-19 23:45	-0.03	1277	8.43	0.1															
11-28-19 11:00	0.34	1880	7.96	0.5	11-13-19 0:00	1.83	1173	8.38	0.2	11-13-19 0:00	-0.03	1276	8.43	0.2															
11-28-19 11:15	0.32	1859	8.00	0.7	11-13-19 0:15	2.07	1180	8.38	1.0	11-13-19 0:15	-0.04	1276	8.43	0.1															
11-28-19 11:30	0.32	1863	7.96	0.6	11-13-19 0:30	1.87	1176	8.38	0.5	11-13-19 0:30	-0.03	1276	8.43	0.2															
11-28-19 11:45	0.32	1865	7.93	0.5	11-13-19 0:45	1.90	1198	8.39	0.5	11-13-19 0:45	-0.03	1276	8.43	0.1															
11-28-19 12:00	0.34	1878	7.88	0.8	11-13-19 1:00	1.86	1155	8.39	3.2	11-13-19 1:00	-0.03	1276	8.43	0.3															
11-28-19 12:15	0.33	1871	8.07	0.5	11-13-19 1:15	2.04	1200	8.37	1.1	11-13-19 1:15	-0.03	1276	8.43	0.1															
11-28-19 12:30	0.33	1872	8.06	0.5	11-13-19 1:30	1.92	1188	8.38	5.7	11-13-19 1:30	-0.03	1276	8.43	0.1															
11-28-19 12:45	0.34	1873	8.04	0.5	11-13-19 1:45	1.83	1179	8.38	5.6	11-13-19 1:45	-0.03	1277	8.43	0.1															
11-28-19 13:00	0.36	1891	7.94	0.4	11-13-19 2:00	1.73	1160	8.38	5.0	11-13-19 2:00	-0.03	1276	8.43	0.2															
11-28-19 13:15	0.34	1864	7.97	0.5	11-13-19 2:15	1.78	1153	8.38	4.9	11-13-19 2:15	-0.03	1276	8.43	0.0															
11-28-19 13:30	0.34	1867	7.95	0.5	11-13-19 2:30	1.78	1161	8.38	0.3	11-13-19 2:30	-0.03	1276	8.43	0.2															
11-28-19 13:45	0.34	1870	7.92	0.5	11-13-19 2:45	1.79	1149	8.39	0.3	11-13-19 2:45	-0.03	1276	8.43	0.0															
11-28-19 14:00	0.36	1889	7.86	0.8	11-13-19 3:00	1.83	1152	8.38	0.0	11-13-19 3:00	-0.03	1276	8.43	0.1															
11-28-19 14:15	0.34	1880	8.05	0.5	11-13-19 3:15	1.72	1139	8.38	0.0	11-13-19 3:15	-0.03	1276	8.43	0.1															
11-28-19 14:30	0.33	1881	8.05	0.5	11-13-19 3:30	1.69	1156	8.38	0.0	11-13-19 3:30	-0.03	1276	8.43	0.2															
11-28-19 14:45	0.33	1882	8.04	0.4	11-13-19 3:45	1.74	1164	8.39	1.8	11-13-19 3:45	-0.03	1277	8.43	0.1															
11-28-19 15:00	0.35	1905	7.96	0.6	11-13-19 4:00	1.78	1145	8.39	3.2	11-13-19 4:00	-0.03	1277	8.43	0.1															
11-28-19 15:15	0.32	1878	7.96	0.5	11-13-19 4:30	1.76	1127	8.38	0.5	11-13-19 4:30	-0.03	1277	8.43	0.1															
11-28-19 15:30	0.32	1881	7.94	0.4	11-13-19 4:45	1.86	1144	8.38	0.6	11-13-19 4:45	-0.03	1277	8.43	0.2															
11-28-19 15:45	0.31	1883	7.92	0.5	11-13-19 5:00	1.89	1156	8.38	0.4	11-13-19 5:00	-0.03	1276	8.43	0.1															
11-28-19 16:00	0.32	1904	7.88	0.9	11-13-19 5:15	1.92	1160	8.39	0.0	11-13-19 5:15	-0.03	1276	8.44	0.1															
11-28-19 16:15	0.30	1889	7.95	0.5	11-13-19 5:30	1.86	1136	8.38	0.0	11-13-19 5:30	-0.03	1275	8.44	0.1															
11-28-19 16:30	0.30	1891	7.93	0.5	11-13-19 5:45	1.64	1138	8.39	0.0	11-13-19 5:45	-0.03	1275	8.43	0.1															
11-28-19 16:45	0.30	1893	7.91	0.5	11-13-19 6:00	1.85	1170	8.38	3.5	11-13-19 6:00	-0.03	1275	8.43	0.1															
11-28-19 17:00	0.32	1913	7.92	0.9	11-13-19 6:15	1.79	1145	8.38	3.1	11-13-19 6:15	-0.03	1275	8.43	0.2															
11-28-19 17:15	0.30	1889	7.96	0.6	11-13-19 6:30	1.77	1176	8.38	0.5	11-13-19 6:30	-0.03	1274	8.43	0.1															
11-28-19 17:30	0.30	1892	7.94	0.5	11-13-19 6:45	1.82	1181	8.38	0.0	11-13-19 6:45	-0.03	1275	8.43	0.2															
11-28-19 17:45	0.31	1895	7.92	0.5	11-13-19 7:00	1.96	1191	8.38	0.0	11-13-19 7:00	-0.03	1274	8.43	0.0															
11-28-19 18:00	0.33	1913	7.88	1.1	11-13-19 7:15	1.72	1171	8.38	0.3	11-13-19 7:15	-0.03	1275	8.43	0.3															
11-28-19 18:15	0.32	1903	7.96	0.6	11-13-19 7:30	1.76	1168	8.38	2.2	11-13-19 7:30	-0.03	1275	8.43	0.0															
11-28-19 18:30	0.41	1878	8.10	1.1	11-13-19 7:45	1.85	1173	8.39	2.9	11-13-19 7:45	-0.03	1274	8.44	0.3															
11-28-19 18:45	0.36	1888	8.09	0.9	11-13-19 8:00	1.62	1136	8.38	1.5	11-13-19 8:00	-0.03	1274	8.44	0.2															
11-28-19 19:00	0.39	1921	8.06	1.5	11-13-19 8:15	1.82	1163	8.38	2.9	11-13-19 8:15	-0.03	1274	8.44	0.3															
11-28-19 19:15	0.38	1899	8.04	0.9	11-13-19 8:30	1.82	1154	8.39	0.0	11-13-19 8:30	-0.03	1274	8.44	0.1															
11-28-19 19:30	0.38	1902	8.02	0.8	11-13-19 8:45	1.65	1148	8.39	0.3	11-13-19 8:45	-0.03	1273	8.43	0.2															
11-28-19 19:45	0.38	1904	8.00	0.7	11-13-19 9:00	1.79	1181	8.38	0.0	11-13-19 9:00	-0.03	1273	8.43	0.1															
11-28-19 20:00	0.40	1926	7.97	1.2	11-13-19 9:15	1.98	1142	8.38	0.8	11-13-19 9:15	-0.03	1273	8.44	0.3															
11-28-19 20:15	0.37	1914	8.01	0.9	11-13-19 9:30	1.84	1174	8.39	0.0	11-13-19 9:30	-0.03	1273	8.43	0.0															
11-28-19 20:30	0.37	1916	8.00	0.7	11-13-19 9:45	1.97	1213	8.38	0.0	11-13-19 9:45	-0.03	1273	8.44	0.3															
11-28-19 20:45	0.37	1918	7.99	0.7	11-13-19 10:00	1.86	1184	8.38	0.0	11-13-19 10:00	-0.03	1273	8.44	0.1															
11-28-19 21:00	0.38	1932	7.94	1.0	11-13-19 10:15	1.94	1180	8.38	0.0	11-13-19 10:15	-0.03	1273	8.44	0.2															
11-28-19 21:15	0.36	1911	7.96	0.7	11-13-19 10:30	1.81	1183	8.38	0.2	11-13-19 10:30	-0.03	1273	8.44	0.0															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-28-19 21:30	0.35	1915	7.94	0.7	11-13-19 10:45	1.82	1150	8.39	0.7	11-13-19 10:45	-0.03	1273	8.44	0.3															
11-28-19 21:45	0.18	1700	8.06	0.3	11-13-19 11:00	1.62	1167	8.39	0.9	11-13-19 11:00	-0.03	1273	8.43	0.2															
11-28-19 22:00	0.15	1703	8.00	0.5	11-13-19 11:15	1.57	1141	8.38	0.0	11-13-19 11:15	-0.03	1273	8.44	0.3															
11-28-19 22:15	0.15	1691	7.99	0.3	11-13-19 11:30	1.65	1096	8.39	0.0	11-13-19 11:30	-0.03	1273	8.44	0.1															
11-28-19 22:30	0.16	1689	7.98	0.3	11-13-19 11:45	1.68	1125	8.38	0.1	11-13-19 11:45	-0.03	1273	8.44	0.4															
11-28-19 22:45	0.16	1689	7.96	0.3	11-13-19 12:00	1.59	1115	8.38	0.0	11-13-19 12:00	-0.03	1272	8.44	0.1															
11-28-19 23:00	0.17	1697	7.93	0.5	11-13-19 12:15	1.70	1128	8.38	0.0	11-13-19 12:15	-0.03	1272	8.44	0.4															
11-28-19 23:15	0.16	1690	7.94	0.3	11-13-19 12:30	1.77	1174	8.38	3.2	11-13-19 12:30	-0.03	1272	8.44	0.1															
11-28-19 23:30	0.15	1690	7.92	0.4	11-13-19 12:45	1.82	1161	8.38	3.5	11-13-19 12:45	-0.03	1272	8.44	0.3															
11-28-19 23:45	0.15	1691	7.91	0.4	11-13-19 13:00	1.71	1142	8.38	2.7	11-13-19 13:00	-0.03	1272	8.44	0.1															
11-29-19 0:00	0.16	1707	7.87	0.4	11-13-19 13:15	1.77	1166	8.38	3.3	11-13-19 13:15	-0.03	1272	8.44	0.4															
11-29-19 0:15	0.16	1721	7.93	0.3	11-13-19 13:30	1.77	1177	8.38	0.0	11-13-19 13:30	-0.03	1271	8.44	0.2															
11-29-19 0:30	0.15	1718	7.95	0.3	11-13-19 13:45	1.76	1159	8.38	4.6	11-13-19 13:45	-0.03	1272	8.44	0.3															
11-29-19 0:45	0.15	1716	7.95	0.4	11-13-19 14:00	1.79	1170	8.38	5.4	11-13-19 14:00	-0.03	1271	8.44	0.1															
11-29-19 1:00	0.16	1699	7.93	0.3	11-13-19 14:15	1.81	1167	8.39	4.2	11-13-19 14:15	-0.03	1272	8.44	0.4															
11-29-19 1:15	0.14	1691	7.95	0.3	11-13-19 14:30	1.86	1164	8.38	0.0	11-13-19 14:30	-0.03	1271	8.44	0.2															
11-29-19 1:30	0.13	1692	7.95	0.4	11-13-19 14:45	1.61	1141	8.39	0.0	11-13-19 14:45	-0.03	1271	8.44	0.4															
11-29-19 1:45	0.13	1692	7.95	0.4	11-13-19 15:00	2.04	1204	8.38	0.5	11-13-19 15:00	-0.03	1271	8.44	0.3															
11-29-19 2:00	0.13	1700	7.91	0.3	11-13-19 15:15	1.77	1180	8.39	0.0	11-13-19 15:15	-0.03	1271	8.44	0.4															
11-29-19 2:15	0.12	1687	7.93	0.2	11-13-19 15:30	1.73	1184	8.38	0.0	11-13-19 15:30	-0.03	1271	8.44	0.3															
11-29-19 2:30	0.12	1686	7.93	0.3	11-13-19 15:45	1.93	1144	8.38	0.0	11-13-19 15:45	-0.03	1271	8.44	0.4															
11-29-19 2:45	0.12	1686	7.93	0.3	11-13-19 16:00	1.90	1156	8.39	0.0	11-13-19 16:00	-0.03	1270	8.44	0.1															
11-29-19 3:00	0.13	1698	7.92	0.3	11-13-19 16:15	1.86	1178	8.38	0.0	11-13-19 16:15	-0.03	1270	8.44	0.4															
11-29-19 3:15	0.12	1687	7.94	0.4	11-13-19 16:30	1.89	1122	8.39	0.0	11-13-19 16:30	-0.03	1270	8.44	0.3															
11-29-19 3:30	0.11	1686	7.94	0.3	11-13-19 16:45	1.92	1185	8.38	0.4	11-13-19 16:45	-0.03	1270	8.44	0.4															
11-29-19 3:45	0.11	1687	7.94	0.3	11-13-19 17:00	2.02	1199	8.38	0.2	11-13-19 17:00	-0.03	1270	8.44	0.2															
11-29-19 4:00	0.12	1690	7.89	0.3	11-13-19 17:15	1.65	1174	8.39	0.0	11-13-19 17:15	-0.02	1270	8.45	0.4															
11-29-19 4:15	0.11	1687	7.92	0.2	11-13-19 17:30	1.94	1176	8.38	2.6	11-13-19 17:30	-0.03	1270	8.44	0.4															
11-29-19 4:30	0.11	1685	7.93	0.3	11-13-19 17:45	1.77	1179	8.38	0.5	11-13-19 17:45	-0.02	1270	8.44	0.4															
11-29-19 4:45	0.10	1684	7.93	0.3	11-13-19 18:00	1.86	1188	8.38	4.4	11-13-19 18:00	-0.03	1269	8.45	0.3															
11-29-19 5:00	0.11	1680	7.91	0.3	11-13-19 18:15	1.82	1166	8.38	4.6	11-13-19 18:15	-0.02	1269	8.45	0.4															
11-29-19 5:15	0.10	1675	7.95	0.2	11-13-19 18:30	1.74	1173	8.38	4.4	11-13-19 18:30	-0.02	1269	8.45	0.2															
11-29-19 5:30	0.09	1673	7.95	0.3	11-13-19 18:45	1.67	1182	8.38	0.0	11-13-19 18:45	-0.02	1269	8.45	0.4															
11-29-19 5:45	0.09	1673	7.94	0.4	11-13-19 19:00	1.79	1135	8.38	0.0	11-13-19 19:00	-0.02	1269	8.45	0.2															
11-29-19 6:00	0.10	1670	7.90	8.7	11-13-19 19:15	1.66	1122	8.38	0.0	11-13-19 19:15	-0.02	1269	8.45	0.4															
11-29-19 6:15	0.10	1670	7.92	9.4	11-13-19 19:30	1.83	1168	8.38	4.7	11-13-19 19:30	0.00	1022	8.48	4.9															
11-29-19 6:30	0.10	1668	7.93	10.0	11-13-19 19:45	2.17	1160	8.38	0.8	11-13-19 19:45	-0.03	1269	8.47	3.5															
11-29-19 6:45	0.10	1668	7.93	10.5	11-13-19 20:00	2.14	1198	8.38	0.5	11-13-19 20:00	-0.03	1270	8.47	2.5															
11-29-19 7:00	0.11	1671	7.92	0.5	11-13-19 20:15	2.22	1204	8.38	0.7	11-13-19 20:15	-0.02	1270	8.47	3.8															
11-29-19 7:15	0.10	1666	7.93	1.0	11-13-19 20:30	2.17	1202	8.38	0.2	11-13-19 20:30	-0.03	1270	8.47	2.9															
11-29-19 7:30	0.09	1666	7.93	0.6	11-13-19 20:45	2.20	1201	8.38	0.5	11-13-19 20:45	-0.02	1270	8.47	4.0															
11-29-19 7:45	0.09	1663	7.92	0.7	11-13-19 21:00	2.22	1191	8.38	0.3	11-13-19 21:00	-0.02	1270	8.47	2.5															
11-29-19 8:00	0.11	1663	7.88	0.4	11-13-19 21:15	2.25	1202	8.38	0.2	11-13-19 21:15	-0.02	1270	8.47	3.1															
11-29-19 8:15	0.10	1660	7.92	0.3	11-13-19 21:30	2.26	1202	8.38	0.9	11-13-19 21:30	-0.02	1270	8.47	2.0															
11-29-19 8:30	0.10	1660	7.92	0.3	11-13-19 21:45	2.25	1151	8.38	0.7	11-13-19 21:45	-0.02	1270	8.47	3.3															
11-29-19 8:45	0.10	1659	7.92	0.2	11-13-19 22:00	2.18	1189	8.38	0.4	11-13-19 22:00	-0.02	1271	8.47	1.9															
11-29-19 9:00	0.11	1662	7.89	0.3	11-13-19 22:15	2.24	1188	8.38	0.7	11-13-19 22:15	-0.03	1270	8.47	2.3															
11-29-19 9:15	0.10	1656	7.93	0.3	11-13-19 22:30	2.25	1204	8.38	1.4	11-13-19 22:30	-0.03	1270	8.47	1.9															
11-29-19 9:30	0.10	1655	7.92	0.3	11-13-19 22:45	2.22	1204	8.38	5.1	11-13-19 22:45	-0.02	1270	8.47	2.3															
11-29-19 9:45	0.10	1654	7.92	0.3	11-13-19 23:00	2.22	1203	8.38	0.2	11-13-19 23:00	-0.03	1271	8.46	1.5															
11-29-19 10:00	0.10	1661	7.88	0.4	11-13-19 23:15	2.24	1199	8.38	0.9	11-13-19 23:15	-0.03	1270	8.47	2.1															
11-29-19 10:15	0.09	1655	7.92	0.3	11-13-19 23:30	2.25	1204	8.38	0.8	11-13-19 23:30	-0.02	1270	8.46	1.8															
11-29-19 10:30	0.08	1655	7.92	0.3	11-13-19 23:45	2.29	1205	8.37	5.2	11-13-19 23:45	-0.02	1269	8.46	2.0															
11-29-19 10:45	0.07	1655	7.92	0.3	11-14-19 0:00	2.27	1201	8.38	0.9	11-14-19 0:00	-0.02	1270	8.46	1.1															
11-29-19 11:00	0.09	1654	7.88	0.4	11-14-19 0:15	2.21	1198	8.38	0.6	11-14-19 0:15	-0.03	1269	8.46	1.7															
11-29-19 11:15	0.07	1653	7.91	0.3	11-14-19 0:30	2.30	1203	8.38	1.4	11-14-19 0:30	-0.02	1269	8.46	1.2															
11-29-19 11:30	0.05	1652	7.91	0.3	11-14-19 0:45	2.31	1186	8.38	0.7	11-14-19 0:45	-0.02	1269	8.46	1.7															
11-29-19 11:45	0.05	1652	7.91	0.3	11-14-19 1:00	2.27	1194	8.38	0.8	11-14-19 1:00	-0.02	1269	8.46	1.1															
11-29-19 12:00	0.05	1653	7.84	0.3	11-14-19 1:15	2.28	1149	8.38	0.6	11-14-19 1:15	-0.02	1269	8.46	1.5															
11-29-19 12:15	0.03	1650	7.87	0.3	11-14-19 1:30	2.27	1201	8.38	0.7	11-14-19 1:30	-0.02	1269	8.46	1.1															
11-29-19 12:30	0.03	1650	7.89	0.3	11-14-19 1:45	2.31	1201	8.38	0.6	11-14-19 1:45	-0.02	1269	8.47	1.5															
11-29-19 12:45	0.01	1649	7.90	0.2	11-14-19 2:00	2.30	1203	8.37	0.1	11-14-19 2:00	-0.02	1268	8.46	1.1															
11-29-19 13:00	0.02	1652	7.86	0.4	11-14-19 2:15	2.32	1200	8.37	0.8	11-14-19 2:15	-0.02	1268	8.46	1.4															
11-29-19 13:15	0.00	1649	7.87	0.3	11-14-19 2:30	2.32	1202	8.38	0.7	11-14-19 2:30	-0.02	1268	8.46	1.0															
11-29-19 13:30	0.00	1650	7.87	0.4	11-14-19 2:45	2.34	1203	8.38	0.8	11-14-19 2:45	-0.02	1268	8.46	1.3															
11-29-19 13:45	-0.01	1649	7.86	0.3	11-14-19 3:00	2.28	1193	8.38	0.7	11-14-19 3:00	-0.02	1267	8.46	1.3															
11-29-19 14:00	0.00	1651	7.83	0.4	11-14-19 3:15	2.28	1202	8.38	0.7	11-14-19 3:15	-0.02	1267	8.46	1.6															
11-29-19 14:15	-0.01	1646	7.87	0.4	11-14-19 3:30	2.28	1198	8.38	2.6	11-14-19 3:30	-0.02	1267	8.46	1.0															
11-29-19 14:30	-0.01	1646	7.88	0.4	11-14-19 3:45	2.27	1195	8.38	0.7	11-14-19 3:45	-0.02	1267	8.46	1.6															
11-29-19 14:45	-0.01	1645	7.88	0.4	11-14-19 4:00	2.31	1197	8.38	2.5	11-14-19 4:00	-0.02	1267	8.46	1.4															
11-29-19 15:00	0.00	1648	7.85	0.5	11-14-19 4:15	2.30	1190	8.38	0.6	11-14-19 4:15	-0.02	1266	8.46	1.4															
11-29-19 15:15	-0.01	1646	7.88	0.5	11-14-19 4:30	2.29	1202	8.38	1.1	11-14-19 4:30	-0.02	1266	8.46	1.2															
11-29-19 15:30	-0.01	1646	7.88	0.6	11-14-19 4:45	2.24	1199	8.38	2.4	11-14-19 4:45	-0.02	1266	8.46	1.5															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-29-19 15:45	-0.02	1646	7.87	0.6	11-14-19 5:00	2.25	1192	8.39	6.1	11-14-19 5:00	-0.02	1266	8.46	1.0															
11-29-19 16:00	-0.01	1652	7.85	0.5	11-14-19 5:15	2.34	1203	8.38	0.7	11-14-19 5:15	-0.02	1266	8.46	1.4															
11-29-19 16:15	-0.02	1649	7.87	0.3	11-14-19 5:30	2.25	1198	8.38	1.1	11-14-19 5:30	-0.02	1266	8.46	1.0															
11-29-19 16:30	-0.03	1648	7.87	0.3	11-14-19 5:45	2.33	1204	8.38	1.2	11-14-19 5:45	-0.02	1266	8.45	1.4															
11-29-19 16:45	-0.03	1649	7.87	0.3	11-14-19 6:00	2.33	1202	8.39	0.9	11-14-19 6:00	-0.02	1265	8.46	1.1															
11-29-19 17:00	-0.01	1663	7.86	0.4	11-14-19 6:15	2.26	1199	8.39	0.6	11-14-19 6:15	-0.02	1265	8.46	1.3															
11-29-19 17:15	-0.02	1662	7.88	0.4	11-14-19 6:30	2.38	1203	8.39	0.9	11-14-19 6:30	-0.02	1266	8.46	1.1															
11-29-19 17:30	-0.03	1662	7.88	0.3	11-14-19 6:45	2.32	1202	8.38	0.5	11-14-19 6:45	-0.02	1265	8.46	1.3															
11-29-19 17:45	-0.02	1663	7.88	0.3	11-14-19 7:00	2.26	1196	8.38	0.4	11-14-19 7:00	-0.02	1266	8.46	0.9															
11-29-19 18:00	-0.01	1654	7.86	0.4	11-14-19 7:15	2.33	1203	8.37	0.5	11-14-19 7:15	-0.02	1265	8.46	3.1															
11-29-19 18:15	-0.02	1651	7.89	0.4	11-14-19 7:30	2.32	1201	8.38	0.7	11-14-19 7:30	-0.02	1265	8.46	1.2															
11-29-19 18:30	-0.02	1652	7.90	0.3	11-14-19 7:45	2.26	1145	8.39	0.3	11-14-19 7:45	-0.02	1265	8.46	1.2															
11-29-19 18:45	-0.04	1666	7.99	0.5	11-14-19 8:00	2.26	1199	8.39	1.0	11-14-19 8:00	-0.02	1265	8.46	1.0															
11-29-19 19:00	0.01	1788	8.00	0.5	11-14-19 8:15	2.29	1189	8.39	0.5	11-14-19 8:15	-0.02	1265	8.46	1.3															
11-29-19 19:15	-0.01	1780	8.00	0.4	11-14-19 8:30	2.26	1200	8.38	0.7	11-14-19 8:30	-0.02	1265	8.46	1.1															
11-29-19 19:30	-0.02	1779	7.97	0.4	11-14-19 8:45	2.24	1192	8.38	0.4	11-14-19 8:45	-0.02	1265	8.46	1.3															
11-29-19 19:45	-0.02	1778	7.95	0.3	11-14-19 9:00	2.27	1194	8.37	0.3	11-14-19 9:00	-0.02	1264	8.47	1.0															
11-29-19 20:00	-0.01	1643	7.94	0.4	11-14-19 9:15	2.32	1200	8.36	0.5	11-14-19 9:15	-0.02	1265	8.46	1.3															
11-29-19 20:15	-0.02	1640	8.03	0.4	11-14-19 9:30	2.26	1178	8.38	2.7	11-14-19 9:30	-0.02	1264	8.46	1.1															
11-29-19 20:30	-0.02	1639	8.00	0.3	11-14-19 9:45	2.30	1203	8.38	0.7	11-14-19 9:45	-0.02	1264	8.45	1.2															
11-29-19 20:45	-0.02	1638	7.97	0.3	11-14-19 10:00	2.30	1187	8.39	0.4	11-14-19 10:00	-0.02	1264	8.46	1.0															
11-29-19 21:00	-0.02	1641	7.96	0.3	11-14-19 10:15	2.26	1183	8.38	0.4	11-14-19 10:15	-0.02	1264	8.46	1.3															
11-29-19 21:15	-0.03	1639	7.99	0.3	11-14-19 10:30	2.29	1198	8.38	4.8	11-14-19 10:30	-0.02	1264	8.46	1.0															
11-29-19 21:30	-0.04	1639	7.98	0.3	11-14-19 10:45	2.24	1195	8.38	0.3	11-14-19 10:45	-0.02	1264	8.46	1.3															
11-29-19 21:45	-0.04	1638	7.97	0.3	11-14-19 11:00	2.29	1200	8.37	0.4	11-14-19 11:00	-0.02	1263	8.46	1.0															
11-29-19 22:00	-0.03	1638	7.95	0.4	11-14-19 11:15	2.23	1198	8.36	0.4	11-14-19 11:15	-0.02	1263	8.45	1.2															
11-29-19 22:15	-0.02	1633	8.03	0.3	11-14-19 11:30	2.29	1197	8.39	0.4	11-14-19 11:30	-0.02	1263	8.46	1.0															
11-29-19 22:30	-0.01	1631	8.01	0.4	11-14-19 11:45	2.35	1206	8.38	5.0	11-14-19 11:45	-0.02	1263	8.46	1.2															
11-29-19 22:45	0.00	1629	8.00	0.4	11-14-19 12:00	2.27	1192	8.39	0.4	11-14-19 12:00	-0.02	1262	8.46	1.2															
11-29-19 23:00	0.01	1642	8.03	0.5	11-14-19 12:15	2.25	1196	8.39	0.9	11-14-19 12:15	-0.02	1263	8.46	1.2															
11-29-19 23:15	0.01	1637	8.04	0.5	11-14-19 12:30	2.24	1198	8.38	0.6	11-14-19 12:30	-0.02	1262	8.46	1.0															
11-29-19 23:30	0.02	1631	8.02	0.4	11-14-19 12:45	2.27	1195	8.38	1.2	11-14-19 12:45	-0.02	1262	8.45	1.3															
11-29-19 23:45	0.10	4	8.01	69.6	11-14-19 13:00	2.23	1192	8.38	1.0	11-14-19 13:00	-0.02	1262	8.46	1.2															
11-30-19 0:00	0.08	1664	8.02	0.5	11-14-19 13:15	2.29	1198	8.39	0.7	11-14-19 13:15	-0.01	1260	8.46	1.7															
11-30-19 0:15	0.13	1658	8.02	0.4	11-14-19 13:30	2.29	1198	8.38	3.2	11-14-19 13:30	-0.02	1259	8.46	1.3															
11-30-19 0:30	0.12	1659	8.02	0.3	11-14-19 13:45	2.20	1195	8.39	0.6	11-14-19 13:45	-0.02	1259	8.46	1.5															
11-30-19 0:45	0.11	1659	8.01	0.3	11-14-19 14:00	2.29	1199	8.38	0.8	11-14-19 14:00	-0.02	1259	8.46	0.9															
11-30-19 1:00	0.10	1696	8.00	0.4	11-14-19 14:15	2.24	1189	8.38	4.7	11-14-19 14:15	-0.02	1260	8.46	1.5															
11-30-19 1:15	0.10	1666	8.00	0.3	11-14-19 14:30	2.29	1190	8.38	0.1	11-14-19 14:30	-0.02	1259	8.46	1.1															
11-30-19 1:30	0.11	1660	7.97	0.4	11-14-19 14:45	2.27	1188	8.37	0.3	11-14-19 14:45	-0.02	1260	8.46	1.5															
11-30-19 1:45	0.11	1660	7.95	0.4	11-14-19 15:00	2.33	1200	8.36	0.5	11-14-19 15:00	-0.02	1259	8.46	0.9															
11-30-19 2:00	0.11	1666	7.95	0.7	11-14-19 15:15	2.19	1195	8.36	0.2	11-14-19 15:15	-0.02	1260	8.46	1.4															
11-30-19 2:15	0.10	1661	8.06	0.4	11-14-19 15:30	2.27	1199	8.38	0.7	11-14-19 15:30	-0.02	1260	8.46	1.0															
11-30-19 2:30	0.09	1662	8.03	0.4	11-14-19 15:45	2.24	1199	8.39	0.4	11-14-19 15:45	-0.02	1260	8.46	1.2															
11-30-19 2:45	0.09	1661	8.02	0.4	11-14-19 16:00	2.27	1153	8.39	0.4	11-14-19 16:00	-0.02	1260	8.46	0.7															
11-30-19 3:00	0.10	1666	8.00	0.6	11-14-19 16:15	2.28	1197	8.38	1.5	11-14-19 16:15	-0.02	1259	8.46	1.3															
11-30-19 3:15	0.10	1659	8.02	0.4	11-14-19 16:30	2.32	1198	8.38	0.1	11-14-19 16:30	-0.02	1259	8.46	0.8															
11-30-19 3:30	0.09	1660	8.00	0.4	11-14-19 16:45	2.33	1200	8.38	0.6	11-14-19 16:45	-0.02	1259	8.46	1.2															
11-30-19 3:45	0.09	1660	7.99	0.4	11-14-19 17:00	2.23	1188	8.38	0.9	11-14-19 17:00	-0.02	1259	8.46	0.7															
11-30-19 4:00	0.10	1670	7.97	0.4	11-14-19 17:15	2.31	1195	8.38	0.2	11-14-19 17:15	-0.02	1259	8.47	1.1															
11-30-19 4:15	0.09	1667	8.03	0.5	11-14-19 17:30	2.36	1199	8.38	0.7	11-14-19 17:30	-0.02	1259	8.47	1.0															
11-30-19 4:30	0.09	1668	8.02	0.3	11-14-19 17:45	2.30	1197	8.38	0.4	11-14-19 17:45	-0.02	1259	8.47	1.1															
11-30-19 4:45	0.09	1668	8.01	0.3	11-14-19 18:00	2.32	1197	8.38	0.3	11-14-19 18:00	-0.02	1258	8.47	0.8															
11-30-19 5:00	0.10	1668	7.99	0.5	11-14-19 18:15	2.32	1196	8.38	0.4	11-14-19 18:15	-0.02	1258	8.46	1.1															
11-30-19 5:15	0.10	1664	8.00	0.3	11-14-19 18:30	2.32	1195	8.38	0.2	11-14-19 18:30	-0.02	1258	8.47	0.7															
11-30-19 5:30	0.10	1665	7.99	0.4	11-14-19 18:45	2.31	1196	8.37	0.1	11-14-19 18:45	-0.02	1258	8.47	1.1															
11-30-19 5:45	0.10	1665	7.98	0.4	11-14-19 19:00	2.29	1192	8.36	0.3	11-14-19 19:00	-0.02	1258	8.46	0.8															
11-30-19 6:00	0.11	1668	7.95	0.5	11-14-19 19:15	2.34	1196	8.36	0.4	11-14-19 19:15	-0.01	1258	8.47	1.2															
11-30-19 6:15	0.10	1664	7.99	0.4	11-14-19 19:30	2.34	1141	8.38	0.3	11-14-19 19:30	-0.02	1257	8.47	0.8															
11-30-19 6:30	0.09	1663	8.00	0.3	11-14-19 19:45	2.34	1185	8.38	0.3	11-14-19 19:45	-0.01	1257	8.47	1.1															
11-30-19 6:45	0.09	1663	7.99	0.3	11-14-19 20:00	2.30	1187	8.38	0.4	11-14-19 20:00	-0.02	1257	8.47	0.8															
11-30-19 7:00	0.10	1683	8.02	0.5	11-14-19 20:15	2.31	1173	8.38	0.4	11-14-19 20:15	-0.02	1257	8.47	1.0															
11-30-19 7:15	0.08	1677	8.01	0.3	11-14-19 20:30	2.35	1197	8.38	0.2	11-14-19 20:30	-0.02	1257	8.47	0.9															
11-30-19 7:30	0.08	1679	7.99	0.4	11-14-19 20:45	2.35	1185	8.38	0.4	11-14-19 20:45	-0.01	1256	8.47	1.1															
11-30-19 7:45	0.07	1679	7.98	0.4	11-14-19 21:00	2.33	1180	8.38	0.2	11-14-19 21:00	-0.01	1256	8.47	0.8															
11-30-19 8:00	0.08	1672	7.98	0.4	11-14-19 21:15	2.34	1184	8.38	0.3	11-14-19 21:15	-0.01	1256	8.47	1.0															
11-30-19 8:15	0.07	1669	8.03	0.4	11-14-19 21:30	2.28	1191	8.38	0.2	11-14-19 21:30	-0.02	1256	8.47	0.9															
11-30-19 8:30	0.07	1668	8.02	0.3	11-14-19 21:45	2.35	1192	8.38	0.4	11-14-19 21:45	-0.02	1256	8.47	1.1															
11-30-19 8:45	0.07	1668	8.00	0.3	11-14-19 22:00	2.32	1187	8.38	0.3	11-14-19 22:00	-0.01	1255	8.47	0.6															
11-30-19 9:00	0.08	1673	7.96	5.2	11-14-19 22:15	2.31	1199	8.38	0.4	11-14-19 22:15	-0.01	1256	8.47	1.2															
11-30-19 9:15	0.07	1668	8.01	6.1	11-14-19 22:30	2.23	1188	8.38	0.3	11-14-19 22:30	-0.01	1255	8.47	0.7															
11-30-19 9:30	0.06	1668	7.98	6.8	11-14-19 22:45	2.30	1194	8.38	0.2	11-14-19 22:45	-0.01	1255	8.47	1.1															
11-30-19 9:45	0.06	1668	7.97	7.4	11-14-19 23:00	2.30	1197	8.37	0.4	11-14-19 23:00	-0.02	1255	8.47	0.8															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-30-19 10:00	0.07	1674	7.96	0.5	11-14-19 23:15	2.32	1198	8.36	0.4	11-14-19 23:15	-0.01	1255	8.47	1.0															
11-30-19 10:15	0.06	1669	8.04	0.6	11-14-19 23:30	2.26	1197	8.37	8.5	11-14-19 23:30	-0.02	1254	8.47	0.6															
11-30-19 10:30	0.06	1668	8.04	0.5	11-14-19 23:45	2.27	1189	8.38	0.3	11-14-19 23:45	-0.02	1255	8.47	1.1															
11-30-19 10:45	0.05	1667	8.03	0.7	11-15-19 0:00	2.29	1195	8.38	0.5	11-15-19 0:00	-0.01	1255	8.47	0.7															
11-30-19 11:00	0.07	1683	7.97	0.4	11-15-19 0:15	2.27	1195	8.38	0.3	11-15-19 0:15	-0.02	1254	8.47	1.2															
11-30-19 11:15	0.05	1676	7.99	0.4	11-15-19 0:30	2.28	1193	8.38	1.2	11-15-19 0:30	-0.02	1254	8.47	0.7															
11-30-19 11:30	0.05	1677	7.97	0.3	11-15-19 0:45	2.29	1185	8.38	0.4	11-15-19 0:45	-0.02	1254	8.47	1.1															
11-30-19 11:45	0.05	1678	7.98	0.4	11-15-19 1:00	2.29	1178	8.38	0.2	11-15-19 1:00	-0.02	1254	8.47	0.8															
11-30-19 12:00	0.06	1682	7.96	0.5	11-15-19 1:15	2.27	1180	8.38	0.2	11-15-19 1:15	-0.01	1254	8.47	1.2															
11-30-19 12:15	0.05	1678	8.04	0.4	11-15-19 1:30	2.28	1194	8.38	1.7	11-15-19 1:30	-0.02	1253	8.47	0.6															
11-30-19 12:30	0.05	1678	8.05	0.4	11-15-19 1:45	2.22	1192	8.38	2.7	11-15-19 1:45	-0.01	1253	8.47	1.2															
11-30-19 12:45	0.04	1678	8.05	0.4	11-15-19 2:00	2.23	1185	8.38	2.9	11-15-19 2:00	-0.02	1253	8.47	0.7															
11-30-19 13:00	0.05	1700	7.98	0.5	11-15-19 2:15	2.32	1198	8.38	2.8	11-15-19 2:15	-0.01	1253	8.47	1.2															
11-30-19 13:15	0.04	1697	8.01	0.5	11-15-19 2:30	2.35	1196	8.37	0.0	11-15-19 2:30	-0.01	1253	8.47	0.7															
11-30-19 13:30	0.04	1698	8.00	0.5	11-15-19 2:45	2.33	1193	8.37	0.2	11-15-19 2:45	-0.01	1253	8.47	1.2															
11-30-19 13:45	0.04	1699	8.00	0.5	11-15-19 3:00	2.34	1198	8.38	0.4	11-15-19 3:00	-0.01	1252	8.47	0.9															
11-30-19 14:00	0.05	1716	7.97	0.5	11-15-19 3:15	2.33	1195	8.38	0.6	11-15-19 3:15	-0.01	1253	8.47	1.2															
11-30-19 14:15	0.04	1713	8.04	0.4	11-15-19 3:30	2.28	1189	8.38	0.2	11-15-19 3:30	-0.02	1252	8.47	0.6															
11-30-19 14:30	0.03	1713	8.04	0.4	11-15-19 3:45	2.32	1196	8.37	1.9	11-15-19 3:45	-0.01	1252	8.47	1.5															
11-30-19 14:45	0.03	1714	8.02	0.4	11-15-19 4:00	2.25	1190	8.38	3.2	11-15-19 4:00	-0.01	1252	8.47	0.9															
11-30-19 15:00	0.04	1691	7.98	0.5	11-15-19 4:15	2.27	1187	8.38	3.1	11-15-19 4:15	-0.01	1253	8.47	1.2															
11-30-19 15:15	0.03	1687	8.02	0.4	11-15-19 4:30	2.33	1189	8.38	4.2	11-15-19 4:30	-0.02	1252	8.47	1.2															
11-30-19 15:30	0.03	1687	8.01	0.4	11-15-19 4:45	2.31	1185	8.38	5.4	11-15-19 4:45	-0.01	1253	8.47	1.3															
11-30-19 15:45	0.03	1687	8.01	0.4	11-15-19 5:00	2.20	1181	8.38	5.8	11-15-19 5:00	-0.01	1252	8.47	0.8															
11-30-19 16:00	0.03	1689	7.97	0.5	11-15-19 5:15	2.30	1178	8.38	5.6	11-15-19 5:15	-0.01	1253	8.47	1.2															
11-30-19 16:15	0.02	1685	8.06	0.4	11-15-19 5:30	2.29	1170	8.39	0.1	11-15-19 5:30	-0.02	1252	8.47	0.9															
11-30-19 16:30	0.03	1684	8.06	0.4	11-15-19 5:45	2.25	1188	8.39	0.1	11-15-19 5:45	-0.01	1252	8.47	1.1															
11-30-19 16:45	0.03	1683	8.06	0.5	11-15-19 6:00	2.23	1187	8.38	0.2	11-15-19 6:00	-0.01	1252	8.47	0.7															
11-30-19 17:00	0.04	1704	8.01	0.5	11-15-19 6:15	2.26	1191	8.38	0.4	11-15-19 6:15	-0.01	1252	8.47	1.2															
11-30-19 17:15	0.03	1698	8.02	0.4	11-15-19 6:30	2.23	1187	8.38	0.3	11-15-19 6:30	-0.01	1252	8.47	0.8															
11-30-19 17:30	0.03	1698	8.00	0.4	11-15-19 6:45	2.28	1190	8.38	0.3	11-15-19 6:45	-0.01	1252	8.47	1.2															
11-30-19 17:45	0.03	1699	8.00	0.4	11-15-19 7:00	2.27	1191	8.38	0.4	11-15-19 7:00	-0.01	1251	8.47	0.8															
11-30-19 18:00	0.04	1704	7.98	2.7	11-15-19 7:15	2.26	1188	8.38	0.2	11-15-19 7:15	-0.01	1252	8.47	1.4															
11-30-19 18:15	0.03	1702	8.07	5.9	11-15-19 7:30	2.27	1190	8.38	4.9	11-15-19 7:30	-0.01	1251	8.47	0.8															
11-30-19 18:30	0.03	1702	8.06	12.6	11-15-19 7:45	2.32	1197	8.38	0.3	11-15-19 7:45	-0.01	1251	8.47	1.3															
11-30-19 18:45	0.03	1702	8.06	21.4	11-15-19 8:00	2.22	1183	8.37	0.3	11-15-19 8:00	-0.01	1251	8.47	0.8															
11-30-19 19:00	0.04	1707	8.01	0.5	11-15-19 8:15	2.26	1178	8.38	3.6	11-15-19 8:15	-0.01	1251	8.47	1.3															
11-30-19 19:15	0.03	1702	8.05	0.4	11-15-19 8:30	2.32	1192	8.38	0.9	11-15-19 8:30	-0.01	1251	8.47	0.8															
11-30-19 19:30	0.04	1880	8.02	0.5	11-15-19 8:45	2.20	1178	8.38	2.2	11-15-19 8:45	-0.01	1251	8.47	1.5															
11-30-19 19:45	0.03	1660	8.09	0.9	11-15-19 9:00	2.32	1188	8.37	7.6	11-15-19 9:00	-0.01	1251	8.47	0.7															
11-30-19 20:00	0.04	1659	8.08	0.7	11-15-19 9:15	2.27	1189	8.38	1.2	11-15-19 9:15	-0.01	1251	8.47	1.4															
11-30-19 20:15	0.06	1715	8.05	0.6	11-15-19 9:30	2.32	1186	8.37	0.2	11-15-19 9:30	-0.01	1251	8.47	0.8															
11-30-19 20:30	0.07	1714	8.04	0.7	11-15-19 9:45	2.25	1182	8.38	0.1	11-15-19 9:45	-0.01	1251	8.47	1.2															
11-30-19 20:45	0.07	1713	8.04	0.7	11-15-19 10:00	2.24	1182	8.38	0.0	11-15-19 10:00	-0.01	1250	8.47	0.9															
11-30-19 21:00	0.06	1713	8.02	1.0	11-15-19 10:15	2.28	1183	8.38	0.0	11-15-19 10:15	-0.01	1250	8.48	1.5															
11-30-19 21:15	0.06	1715	8.05	1.1	11-15-19 10:30	2.25	1188	8.38	0.3	11-15-19 10:30	-0.01	1251	8.47	0.9															
11-30-19 21:30	0.05	1715	8.04	1.5	11-15-19 10:45	2.29	1183	8.38	0.1	11-15-19 10:45	-0.01	1250	8.47	1.3															
11-30-19 21:45	0.05	1714	8.03	1.7	11-15-19 11:00	2.34	1194	8.38	0.9	11-15-19 11:00	-0.01	1250	8.47	0.9															
11-30-19 22:00	0.05	1700	8.00	0.6	11-15-19 11:15	2.25	1185	8.38	4.4	11-15-19 11:15	-0.01	1250	8.47	1.5															
11-30-19 22:15	0.04	1699	8.07	0.6	11-15-19 11:30	2.35	1193	8.37	0.2	11-15-19 11:30	-0.01	1250	8.47	0.9															
11-30-19 22:30	0.04	1699	8.06	0.4	11-15-19 11:45	2.28	1190	8.37	0.3	11-15-19 11:45	-0.01	1250	8.48	1.4															
11-30-19 22:45	0.03	1698	8.04	0.5	11-15-19 12:00	2.23	1173	8.38	0.2	11-15-19 12:00	-0.01	1250	8.47	1.1															
11-30-19 23:00	0.03	1725	8.03	0.8	11-15-19 12:15	2.30	1188	8.38	2.9	11-15-19 12:15	-0.01	1250	8.47	1.4															
11-30-19 23:15	0.02	1721	8.05	0.5	11-15-19 12:30	2.25	1189	8.38	0.3	11-15-19 12:30	-0.01	1249	8.47	1.0															
11-30-19 23:30	0.02	1722	8.04	0.4	11-15-19 12:45	2.29	1186	8.38	0.9	11-15-19 12:45	-0.01	1250	8.48	1.4															
11-30-19 23:45	0.01	1722	8.03	0.5	11-15-19 13:00	2.32	1192	8.38	4.6	11-15-19 13:00	-0.01	1250	8.47	1.1															
12-1-19 0:00	0.02	1722	8.01	0.5	11-15-19 13:15	2.28	1184	8.37	0.0	11-15-19 13:15	-0.01	1250	8.48	1.3															
12-1-19 0:15	0.01	1719	8.07	0.4	11-15-19 13:30	2.28	1188	8.38	0.3	11-15-19 13:30	-0.01	1250	8.48	1.0															
12-1-19 0:30	0.01	1718	8.08	0.4	11-15-19 13:45	2.27	1191	8.38	2.8	11-15-19 13:45	-0.01	1250	8.48	1.5															
12-1-19 0:45	0.01	1718	8.07	0.4	11-15-19 14:00	2.27	1190	8.38	3.1	11-15-19 14:00	-0.01	1250	8.47	0.8															
12-1-19 1:00	0.02	1733	8.03	0.6	11-15-19 14:15	2.25	1184	8.38	2.7	11-15-19 14:15	-0.01	1249	8.48	1.5															
12-1-19 1:15	0.01	1730	8.05	0.5	11-15-19 14:30	2.35	1189	8.37	1.7	11-15-19 14:30	-0.01	1249	8.47	1.0															
12-1-19 1:30	0.01	1730	8.03	0.5	11-15-19 14:45	2.28	1188	8.38	0.0	11-15-19 14:45	-0.01	1249	8.47	1.6															
12-1-19 1:45	0.01	1730	8.02	0.5	11-15-19 15:00	2.30	1177	8.38	0.5	11-15-19 15:00	-0.01	1249	8.47	1.1															
12-1-19 2:00	0.02	1716	8.01	0.5	11-15-19 15:15	2.29	1190	8.39	0.0	11-15-19 15:15	-0.01	1249	8.47	1.5															
12-1-19 2:15	0.02	1714	8.08	0.5	11-15-19 15:30	2.31	1185	8.39	6.4	11-15-19 15:30	-0.01	1249	8.47	1.1															
12-1-19 2:30	0.02	1713	8.08	0.5	11-15-19 15:45	2.31	1189	8.38	0.1	11-15-19 15:45	-0.01	1249	8.48	1.5															
12-1-19 2:45	0.01	1713	8.06	0.8	11-15-19 16:00	2.29	1183	8.37	0.0	11-15-19 16:00	-0.01	1249	8.47	1.2															
12-1-19 3:00	0.03	1729	8.02	0.7	11-15-19 16:15	2.27	1185	8.36	0.0	11-15-19 16:15	-0.01	1249	8.47	1.4															
12-1-19 3:15	0.02	1724	8.05	0.6	11-15-19 16:30	2.27	1140	8.38	0.0	11-15-19 16:30	-0.01	1249	8.47	1.2															
12-1-19 3:30	0.02	1724	8.04	0.6	11-15-19 16:45	2.23	1135	8.38	0.0	11-15-19 16:45	-0.01	1249	8.47	1.6															
12-1-19 3:45	0.02	1724	8.03	0.6	11-15-19 17:00	2.25	1128	8.38	0.1	11-15-19 17:00	-0.01	1249	8.47	1.1															
12-1-19 4:00	0.03	1729	8.02	0.6	11-15-19 17:15	2.32	1133	8.39	0.2	11-15-19 17:15	-0.01	1249	8.47	1.5															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-1-19 4:15	0.02	1728	8.06	0.6	11-15-19 17:30	2.29	1187	8.38	0.1	11-15-19 17:30	-0.01	1249	8.47	1.1															
12-1-19 4:30	0.02	1726	8.06	0.5	11-15-19 17:45	2.20	1179	8.38	0.0	11-15-19 17:45	-0.01	1249	8.47	1.5															
12-1-19 4:45	0.02	1727	8.05	0.5	11-15-19 18:00	2.27	1183	8.37	0.0	11-15-19 18:00	-0.01	1249	8.47	1.2															
12-1-19 5:00	0.02	1734	8.02	0.6	11-15-19 18:15	2.27	1184	8.36	0.0	11-15-19 18:15	-0.01	1248	8.47	1.6															
12-1-19 5:15	0.02	1732	8.06	0.5	11-15-19 18:30	2.28	1185	8.38	0.0	11-15-19 18:30	-0.01	1249	8.47	1.2															
12-1-19 5:30	0.02	1731	8.04	0.6	11-15-19 18:45	2.28	1189	8.38	0.7	11-15-19 18:45	0.00	1248	8.47	1.5															
12-1-19 5:45	0.01	1732	8.03	0.5	11-15-19 19:00	2.29	1186	8.38	7.6	11-15-19 19:00	0.05	1274	8.49	12.6															
12-1-19 6:00	0.02	1736	8.01	0.6	11-15-19 19:15	2.28	1185	8.38	0.0	11-15-19 19:15	0.00	1270	8.48	6.9															
12-1-19 6:15	0.01	1735	8.05	0.5	11-15-19 19:30	2.27	1179	8.38	0.0	11-15-19 19:30	-0.02	1271	8.48	6.9															
12-1-19 6:30	0.02	1734	8.05	0.5	11-15-19 19:45	2.26	1180	8.38	0.0	11-15-19 19:45	-0.03	1270	8.48	5.8															
12-1-19 6:45	0.01	1734	8.04	0.4	11-15-19 20:00	2.36	1188	8.37	0.0	11-15-19 20:00	-0.03	1270	8.48	5.8															
12-1-19 7:00	0.02	1734	8.03	0.7	11-15-19 20:15	2.25	1181	8.37	0.0	11-15-19 20:15	-0.04	1269	8.48	5.4															
12-1-19 7:15	0.01	1731	8.05	0.5	11-15-19 20:30	2.25	1181	8.37	0.0	11-15-19 20:30	-0.04	1269	8.48	5.3															
12-1-19 7:30	0.01	1732	8.04	0.6	11-15-19 20:45	2.29	1181	8.38	0.9	11-15-19 20:45	-0.04	1268	8.48	4.8															
12-1-19 7:45	0.01	1732	8.04	0.6	11-15-19 21:00	2.30	1186	8.38	0.9	11-15-19 21:00	-0.04	1268	8.49	4.9															
12-1-19 8:00	0.02	1741	8.03	0.8	11-15-19 21:15	2.27	1185	8.38	0.8	11-15-19 21:15	-0.04	1267	8.48	4.6															
12-1-19 8:15	0.01	1739	8.06	0.6	11-15-19 21:30	2.36	1190	8.38	1.1	11-15-19 21:30	-0.04	1267	8.48	4.9															
12-1-19 8:30	0.01	1739	8.06	0.6	11-15-19 21:45	2.31	1126	8.38	0.0	11-15-19 21:45	-0.04	1266	8.48	4.7															
12-1-19 8:45	0.01	1739	8.05	0.6	11-15-19 22:00	2.30	1176	8.38	1.5	11-15-19 22:00	-0.04	1266	8.49	4.6															
12-1-19 9:00	0.01	1747	8.02	0.7	11-15-19 22:15	2.36	1193	8.38	1.3	11-15-19 22:15	-0.04	1265	8.48	4.2															
12-1-19 9:15	0.01	1744	8.05	0.6	11-15-19 22:30	2.31	1183	8.38	0.2	11-15-19 22:30	-0.04	1265	8.49	4.3															
12-1-19 9:30	0.00	1744	8.04	0.7	11-15-19 22:45	2.30	1175	8.38	0.0	11-15-19 22:45	-0.04	1264	8.48	4.2															
12-1-19 9:45	0.00	1743	8.04	0.7	11-15-19 23:00	2.30	1177	8.38	0.0	11-15-19 23:00	-0.04	1264	8.49	4.2															
12-1-19 10:00	0.01	1741	8.03	0.8	11-15-19 23:15	2.26	1173	8.38	0.0	11-15-19 23:15	-0.04	1263	8.48	3.9															
12-1-19 10:15	0.00	1739	8.04	0.7	11-15-19 23:30	2.26	1173	8.38	0.0	11-15-19 23:30	-0.04	1263	8.49	4.2															
12-1-19 10:30	0.00	1737	8.05	0.7	11-15-19 23:45	2.33	1182	8.38	6.4	11-15-19 23:45	-0.04	1263	8.48	3.8															
12-1-19 10:45	0.00	1738	8.05	0.7	11-16-19 0:00	2.31	1183	8.38	0.4	11-16-19 0:00	-0.04	1263	8.49	4.1															
12-1-19 11:00	0.00	1757	8.03	0.8	11-16-19 0:15	2.32	1170	8.38	0.0	11-16-19 0:15	-0.04	1262	8.48	3.7															
12-1-19 11:15	0.00	1753	8.06	0.7	11-16-19 0:30	2.34	1187	8.37	4.0	11-16-19 0:30	-0.04	1262	8.48	4.0															
12-1-19 11:30	0.00	1753	8.05	0.7	11-16-19 0:45	2.31	1176	8.38	0.3	11-16-19 0:45	-0.04	1262	8.48	3.9															
12-1-19 11:45	0.00	1753	8.05	0.7	11-16-19 1:00	2.30	1182	8.38	0.1	11-16-19 1:00	-0.04	1262	8.48	3.7															
12-1-19 12:00	0.00	1751	8.02	0.8	11-16-19 1:15	2.28	1179	8.38	0.0	11-16-19 1:15	-0.04	1262	8.48	3.3															
12-1-19 12:15	0.00	1748	8.08	0.8	11-16-19 1:30	2.28	1178	8.38	0.0	11-16-19 1:30	-0.04	1262	8.48	3.4															
12-1-19 12:30	-0.01	1747	8.09	0.8	11-16-19 1:45	2.28	1179	8.38	0.0	11-16-19 1:45	-0.04	1261	8.48	3.2															
12-1-19 12:45	-0.01	1744	8.08	0.7	11-16-19 2:00	2.24	1179	8.38	0.0	11-16-19 2:00	-0.04	1261	8.48	3.4															
12-1-19 13:00	0.00	1769	8.06	0.9	11-16-19 2:15	2.30	1188	8.37	4.3	11-16-19 2:15	-0.04	1260	8.48	3.1															
12-1-19 13:15	-0.01	1766	8.07	0.6	11-16-19 2:30	2.29	1176	8.38	7.2	11-16-19 2:30	-0.04	1261	8.49	3.3															
12-1-19 13:30	-0.01	1766	8.05	0.7	11-16-19 2:45	2.26	1180	8.38	4.3	11-16-19 2:45	-0.04	1260	8.48	3.0															
12-1-19 13:45	-0.01	1766	8.04	0.7	11-16-19 3:00	2.24	1175	8.38	3.8	11-16-19 3:00	-0.04	1261	8.49	3.3															
12-1-19 14:00	0.00	1766	8.01	0.8	11-16-19 3:15	2.28	1176	8.38	3.6	11-16-19 3:15	-0.04	1260	8.48	2.7															
12-1-19 14:15	0.00	1763	8.09	0.7	11-16-19 3:30	2.28	1175	8.38	2.6	11-16-19 3:30	-0.04	1260	8.48	3.1															
12-1-19 14:30	-0.01	1763	8.08	0.7	11-16-19 3:45	2.26	1170	8.38	0.0	11-16-19 3:45	-0.04	1260	8.48	2.9															
12-1-19 14:45	-0.01	1762	8.08	0.8	11-16-19 4:00	2.24	1176	8.38	3.2	11-16-19 4:00	-0.04	1260	8.49	3.1															
12-1-19 15:00	0.00	1773	8.05	0.8	11-16-19 4:15	2.28	1179	8.38	3.0	11-16-19 4:15	-0.04	1260	8.48	2.7															
12-1-19 15:15	-0.01	1769	8.07	0.6	11-16-19 4:30	2.22	1171	8.38	3.0	11-16-19 4:30	-0.04	1260	8.48	3.1															
12-1-19 15:30	-0.01	1769	8.06	0.7	11-16-19 4:45	2.26	1176	8.38	0.2	11-16-19 4:45	-0.04	1260	8.48	2.6															
12-1-19 15:45	-0.01	1769	8.05	0.9	11-16-19 5:00	2.37	1185	8.38	0.1	11-16-19 5:00	-0.04	1260	8.49	2.9															
12-1-19 16:00	0.00	1772	8.02	0.8	11-16-19 5:15	2.29	1177	8.38	2.7	11-16-19 5:15	-0.04	1260	8.48	2.5															
12-1-19 16:15	-0.01	1769	8.08	0.8	11-16-19 5:30	2.29	1176	8.38	2.9	11-16-19 5:30	-0.04	1260	8.49	3.0															
12-1-19 16:30	-0.01	1769	8.08	0.8	11-16-19 5:45	2.24	1170	8.38	0.0	11-16-19 5:45	-0.04	1259	8.48	2.8															
12-1-19 16:45	-0.01	1767	8.08	0.9	11-16-19 6:00	2.29	1174	8.37	0.0	11-16-19 6:00	-0.04	1260	8.48	3.0															
12-1-19 17:00	0.00	1781	8.05	0.8	11-16-19 6:15	2.24	1174	8.37	0.0	11-16-19 6:15	-0.04	1259	8.48	3.0															
12-1-19 17:15	-0.01	1778	8.07	0.6	11-16-19 6:30	2.28	1177	8.37	0.0	11-16-19 6:30	-0.04	1260	8.48	2.9															
12-1-19 17:30	-0.01	1779	8.06	0.8	11-16-19 6:45	2.27	1163	8.38	0.0	11-16-19 6:45	-0.04	1259	8.48	2.5															
12-1-19 17:45	-0.01	1779	8.05	0.7	11-16-19 7:00	2.25	1149	8.38	0.0	11-16-19 7:00	-0.04	1260	8.48	2.7															
12-1-19 18:00	-0.01	1780	8.02	0.8	11-16-19 7:15	2.25	1147	8.38	0.0	11-16-19 7:15	-0.04	1259	8.48	2.9															
12-1-19 18:15	-0.01	1777	8.08	0.8	11-16-19 7:30	2.24	1144	8.38	0.0	11-16-19 7:30	-0.04	1260	8.48	2.7															
12-1-19 18:30	-0.01	1781	8.08	0.9	11-16-19 7:45	2.21	1169	8.38	0.0	11-16-19 7:45	-0.04	1259	8.48	2.9															
12-1-19 18:45	-0.02	1781	8.08	1.0	11-16-19 8:00	2.26	1171	8.38	0.0	11-16-19 8:00	-0.04	1260	8.48	2.7															
12-1-19 19:00	-0.04	1800	8.09	0.4	11-16-19 8:15	2.22	1168	8.38	0.0	11-16-19 8:15	-0.04	1259	8.48	2.6															
12-1-19 19:15	0.00	1795	8.08	0.4	11-16-19 8:30	2.29	1171	8.38	0.0	11-16-19 8:30	-0.04	1260	8.48	2.7															
12-1-19 19:30	0.01	1794	8.07	0.4	11-16-19 8:45	2.27	1175	8.37	9.2	11-16-19 8:45	-0.04	1259	8.48	2.5															
12-1-19 19:45	0.02	1793	8.08	0.4	11-16-19 9:00	2.24	1167	8.38	0.0	11-16-19 9:00	-0.04	1260	8.48	2.5															
12-1-19 20:00	0.03	1795	8.09	0.5	11-16-19 9:15	2.31	1175	8.38	0.2	11-16-19 9:15	-0.04	1259	8.48	2.6															
12-1-19 20:15	0.03	1793	8.10	0.4	11-16-19 9:30	2.28	1176	8.38	0.9	11-16-19 9:30	-0.04	1260	8.48	2.6															
12-1-19 20:30	0.03	1792	8.08	0.4	11-16-19 9:45	2.35	1161	8.37	2.4	11-16-19 9:45	-0.04	1259	8.47	2.7															
12-1-19 20:45	0.03	1791	8.08	0.5	11-16-19 10:00	2.35	1132	8.38	0.0	11-16-19 10:00	-0.04	1260	8.48	2.5															
12-1-19 21:00	0.04	1793	8.05	0.5	11-16-19 10:15	2.30	1131	8.38	0.0	11-16-19 10:15	-0.04	1259	8.47	2.7															
12-1-19 21:15	0.03	1791	8.07	0.5	11-16-19 10:30	2.28	1171	8.38	4.0	11-16-19 10:30	-0.04	1260	8.48	2.5															
12-1-19 21:30	0.03	1790	8.06	0.4	11-16-19 10:45	2.24	1176	8.38	0.0	11-16-19 10:45	-0.04	1259	8.47	2.6															
12-1-19 21:45	0.03	1790	8.05	0.5	11-16-19 11:00	2.28	1179	8.38	1.7	11-16-19 11:00	-0.04	1260	8.48	2.5															
12-1-19 22:00	0.04	1789	8.04	0.5	11-16-19 11:15	2.26	1179	8.38	1.6	11-16-19 11:15	-0.04	1259	8.47	2.3															
12-1-19 22:15	0.03	1787	8.07	0.4	11-16-19 11:30	2.32	1175	8.38	0.0	11-16-19 11:30	-0.04	1260	8.47	2.6															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-1-19 22:30	0.03	1786	8.06	0.4	11-16-19 11:45	2.31	1182	8.38	0.1	11-16-19 11:45	-0.04	1259	8.47	2.5															
12-1-19 22:45	0.03	1784	8.05	0.4	11-16-19 12:00	2.24	1173	8.38	0.9	11-16-19 12:00	-0.04	1260	8.48	2.4															
12-1-19 23:00	0.03	1792	8.05	0.7	11-16-19 12:15	2.24	1177	8.37	4.0	11-16-19 12:15	-0.04	1259	8.47	2.5															
12-1-19 23:15	0.02	1790	8.07	0.6	11-16-19 12:30	2.30	1177	8.38	3.6	11-16-19 12:30	-0.04	1260	8.48	2.5															
12-1-19 23:30	0.02	1790	8.05	0.6	11-16-19 12:45	2.30	1186	8.38	1.1	11-16-19 12:45	-0.04	1259	8.47	2.5															
12-1-19 23:45	0.01	1789	8.05	0.6	11-16-19 13:00	2.28	1176	8.38	0.0	11-16-19 13:00	-0.04	1260	8.47	2.4															
12-2-19 0:00	0.02	1795	8.04	0.4	11-16-19 13:15	2.27	1179	8.38	0.5	11-16-19 13:15	-0.04	1260	8.47	2.5															
12-2-19 0:15	0.01	1793	8.08	0.4	11-16-19 13:30	2.29	1171	8.38	0.2	11-16-19 13:30	-0.04	1260	8.47	2.5															
12-2-19 0:30	0.00	1793	8.07	0.4	11-16-19 13:45	2.24	1173	8.38	0.0	11-16-19 13:45	-0.04	1260	8.47	2.5															
12-2-19 0:45	0.00	1792	8.05	0.4	11-16-19 14:00	2.22	1174	8.38	0.7	11-16-19 14:00	-0.04	1261	8.47	2.3															
12-2-19 1:00	0.00	1792	8.05	0.5	11-16-19 14:15	2.24	1175	8.38	0.9	11-16-19 14:15	-0.04	1260	8.47	2.4															
12-2-19 1:15	0.00	1791	8.07	0.5	11-16-19 14:30	2.32	1179	8.38	0.3	11-16-19 14:30	-0.04	1261	8.47	2.4															
12-2-19 1:30	0.00	1791	8.06	0.5	11-16-19 14:45	2.28	1153	8.38	0.0	11-16-19 14:45	-0.04	1260	8.47	2.5															
12-2-19 1:45	0.00	1790	8.06	0.4	11-16-19 15:00	2.27	1152	8.38	0.0	11-16-19 15:00	-0.04	1261	8.47	2.3															
12-2-19 2:00	0.00	1787	8.06	0.6	11-16-19 15:15	2.26	1151	8.38	0.0	11-16-19 15:15	-0.04	1261	8.46	2.4															
12-2-19 2:15	0.00	1786	8.12	0.5	11-16-19 15:30	2.30	1151	8.38	0.0	11-16-19 15:30	-0.04	1261	8.47	2.4															
12-2-19 2:30	0.00	1785	8.10	0.4	11-16-19 15:45	2.22	1165	8.37	0.0	11-16-19 15:45	-0.04	1261	8.47	2.5															
12-2-19 2:45	0.00	1784	8.09	0.3	11-16-19 16:00	2.34	1178	8.38	0.0	11-16-19 16:00	-0.04	1261	8.47	2.3															
12-2-19 3:00	0.00	1789	8.07	5.6	11-16-19 16:15	2.30	1168	8.38	0.0	11-16-19 16:15	-0.04	1261	8.46	2.4															
12-2-19 3:15	0.00	1788	8.09	5.5	11-16-19 16:30	2.23	1176	8.38	0.0	11-16-19 16:30	-0.04	1262	8.47	2.3															
12-2-19 3:30	0.00	1788	8.08	5.9	11-16-19 16:45	2.29	1165	8.38	0.0	11-16-19 16:45	-0.04	1261	8.46	2.4															
12-2-19 3:45	0.00	1787	8.08	6.1	11-16-19 17:00	2.31	1177	8.38	2.8	11-16-19 17:00	-0.04	1262	8.46	2.2															
12-2-19 4:00	0.00	1785	8.06	0.6	11-16-19 17:15	2.26	1173	8.38	2.6	11-16-19 17:15	-0.04	1261	8.46	2.4															
12-2-19 4:15	0.00	1783	8.08	0.5	11-16-19 17:30	2.30	1172	8.38	2.7	11-16-19 17:30	-0.04	1262	8.46	2.2															
12-2-19 4:30	0.00	1782	8.06	0.4	11-16-19 17:45	2.27	1170	8.38	0.0	11-16-19 17:45	-0.04	1261	8.46	2.1															
12-2-19 4:45	0.00	1781	8.07	0.5	11-16-19 18:00	2.25	1172	8.38	0.0	11-16-19 18:00	-0.04	1263	8.46	2.1															
12-2-19 5:00	0.01	1785	8.07	0.5	11-16-19 18:15	2.24	1170	8.38	0.0	11-16-19 18:15	-0.04	1262	8.46	2.0															
12-2-19 5:15	0.00	1784	8.08	0.5	11-16-19 18:30	2.23	1164	8.38	0.0	11-16-19 18:30	-0.04	1263	8.47	2.1															
12-2-19 5:30	0.00	1784	8.08	0.4	11-16-19 18:45	2.30	1175	8.38	0.6	11-16-19 18:45	-0.04	1262	8.46	2.1															
12-2-19 5:45	0.00	1783	8.08	0.5	11-16-19 19:00	2.26	1172	8.38	0.5	11-16-19 19:00	-0.04	1264	8.46	2.0															
12-2-19 6:00	0.01	1781	8.07	1.3	11-16-19 19:15	2.29	1171	8.38	0.7	11-16-19 19:15	-0.04	1263	8.46	2.0															
12-2-19 6:15	0.01	1780	8.10	0.6	11-16-19 19:30	2.29	1172	8.38	0.6	11-16-19 19:30	-0.04	1264	8.46	2.1															
12-2-19 6:30	0.01	1779	8.10	0.6	11-16-19 19:45	2.26	1172	8.38	0.3	11-16-19 19:45	-0.04	1263	8.46	2.0															
12-2-19 6:45	0.01	1778	8.09	0.5	11-16-19 20:00	2.35	1178	8.37	4.4	11-16-19 20:00	-0.04	1264	8.46	2.0															
12-2-19 7:00	0.02	1787	8.06	0.8	11-16-19 20:15	2.35	1179	8.37	1.9	11-16-19 20:15	-0.04	1264	8.46	2.2															
12-2-19 7:15	0.01	1786	8.10	0.8	11-16-19 20:30	2.34	1172	8.38	0.1	11-16-19 20:30	-0.04	1264	8.46	2.0															
12-2-19 7:30	0.01	1785	8.08	0.9	11-16-19 20:45	2.32	1168	8.38	0.0	11-16-19 20:45	-0.04	1264	8.46	2.0															
12-2-19 7:45	0.01	1786	8.09	0.9	11-16-19 21:00	2.31	1172	8.37	0.0	11-16-19 21:00	-0.04	1265	8.46	1.9															
12-2-19 8:00	0.02	1784	8.06	0.7	11-16-19 21:15	2.26	1167	8.37	0.0	11-16-19 21:15	-0.04	1264	8.46	2.0															
12-2-19 8:15	0.01	1784	8.21	0.5	11-16-19 21:30	2.30	1172	8.37	0.0	11-16-19 21:30	-0.04	1265	8.46	1.9															
12-2-19 8:30	0.01	1784	8.29	0.6	11-16-19 21:45	2.29	1173	8.38	0.0	11-16-19 21:45	-0.04	1264	8.46	2.0															
12-2-19 8:45	0.01	1784	8.19	0.5	11-16-19 22:00	2.26	1145	8.38	0.0	11-16-19 22:00	-0.04	1266	8.46	1.9															
12-2-19 9:00	0.01	1781	8.23	0.7	11-16-19 22:15	2.34	1178	8.37	4.1	11-16-19 22:15	-0.04	1265	8.46	1.9															
12-2-19 9:15	0.01	1780	8.24	0.6	11-16-19 22:30	2.32	1174	8.38	0.2	11-16-19 22:30	-0.04	1266	8.46	1.8															
12-2-19 9:30	0.01	1780	8.24	0.5	11-16-19 22:45	2.28	1171	8.38	0.1	11-16-19 22:45	-0.04	1265	8.46	2.0															
12-2-19 9:45	0.01	1780	8.24	0.5	11-16-19 23:00	2.24	1113	8.38	0.0	11-16-19 23:00	-0.04	1266	8.46	1.9															
12-2-19 10:00	0.02	1783	8.19	0.7	11-16-19 23:15	2.29	1174	8.38	2.6	11-16-19 23:15	-0.04	1265	8.46	1.9															
12-2-19 10:15	0.01	1783	8.25	0.6	11-16-19 23:30	2.30	1173	8.38	2.4	11-16-19 23:30	-0.04	1267	8.46	1.8															
12-2-19 10:30	0.02	1783	8.20	0.5	11-16-19 23:45	2.32	1170	8.38	0.0	11-16-19 23:45	-0.04	1266	8.45	1.9															
12-2-19 10:45	0.02	1783	8.17	0.5	11-17-19 0:00	2.34	1171	8.38	0.0	11-17-19 0:00	-0.04	1267	8.45	1.8															
12-2-19 11:00	0.02	1792	8.25	0.6	11-17-19 0:15	2.32	1168	8.37	0.0	11-17-19 0:15	-0.04	1266	8.45	1.9															
12-2-19 11:15	0.01	1791	8.22	0.5	11-17-19 0:30	2.28	1168	8.37	0.0	11-17-19 0:30	-0.04	1267	8.46	1.9															
12-2-19 11:30	0.01	1791	8.21	0.5	11-17-19 0:45	2.28	1170	8.37	5.9	11-17-19 0:45	-0.04	1266	8.45	1.9															
12-2-19 11:45	0.01	1793	8.22	0.6	11-17-19 1:00	2.31	1176	8.37	4.2	11-17-19 1:00	-0.04	1267	8.46	1.8															
12-2-19 12:00	0.02	1782	8.27	0.8	11-17-19 1:15	2.29	1174	8.37	3.8	11-17-19 1:15	-0.04	1266	8.45	1.9															
12-2-19 12:15	0.00	1783	8.18	0.6	11-17-19 1:30	2.24	1165	8.38	0.1	11-17-19 1:30	-0.04	1267	8.45	1.9															
12-2-19 12:30	0.00	1783	8.16	0.6	11-17-19 1:45	2.28	1172	8.38	2.9	11-17-19 1:45	-0.04	1266	8.45	1.9															
12-2-19 12:45	0.01	1783	8.16	0.6	11-17-19 2:00	2.26	1170	8.38	0.5	11-17-19 2:00	-0.04	1267	8.46	1.7															
12-2-19 13:00	0.01	1817	8.19	0.7	11-17-19 2:15	2.32	1170	8.38	3.1	11-17-19 2:15	-0.04	1266	8.45	2.0															
12-2-19 13:15	0.00	1816	8.19	0.5	11-17-19 2:30	2.36	1173	8.38	0.6	11-17-19 2:30	-0.04	1268	8.45	1.8															
12-2-19 13:30	0.01	1817	8.19	0.5	11-17-19 2:45	2.20	1163	8.38	0.1	11-17-19 2:45	-0.04	1266	8.45	1.9															
12-2-19 13:45	0.01	1817	8.20	0.5	11-17-19 3:00	2.31	1170	8.38	0.8	11-17-19 3:00	-0.04	1267	8.45	1.8															
12-2-19 14:00	0.01	1802	8.16	0.7	11-17-19 3:15	2.34	1170	8.38	3.8	11-17-19 3:15	-0.04	1266	8.45	1.9															
12-2-19 14:15	0.01	1802	8.32	0.7	11-17-19 3:30	2.32	1169	8.38	4.0	11-17-19 3:30	-0.04	1267	8.45	1.8															
12-2-19 14:30	0.01	1802	8.24	0.5	11-17-19 3:45	2.31	1159	8.38	0.0	11-17-19 3:45	-0.04	1266	8.45	1.9															
12-2-19 14:45	0.01	1802	8.21	0.6	11-17-19 4:00	2.31	1160	8.38	0.0	11-17-19 4:00	-0.04	1267	8.45	1.8															
12-2-19 15:00	0.03	1810	8.16	0.7	11-17-19 4:15	2.25	1159	8.38	0.0	11-17-19 4:15	-0.04	1266	8.45	1.9															
12-2-19 15:15	0.02	1808	8.18	0.5	11-17-19 4:30	2.30	1159	8.38	0.0	11-17-19 4:30	-0.04	1267	8.45	1.8															
12-2-19 15:30	0.02	1807	8.18	0.6	11-17-19 4:45	2.29	1179	8.38	0.0	11-17-19 4:45	-0.04	1266	8.45	1.8															
12-2-19 15:45	0.02	1807	8.17	0.6	11-17-19 5:00	2.29	1177	8.38	0.0	11-17-19 5:00	-0.04	1267	8.45	1.8															
12-2-19 16:00	0.03	1803	8.13	0.8	11-17-19 5:15	2.29	1176	8.38	0.0	11-17-19 5:15	-0.04	1266	8.45	1.9															
12-2-19 16:15	0.03	1804	8.15	0.6	11-17-19 5:30	2.26	1174	8.38	0.0	11-17-19 5:30	-0.04	1266	8.45	1.8															
12-2-19 16:30	0.03	1804	8.13	0.5	11-17-19 5:45	2.28	1168	8.38	0.0	11-17-19 5:45	-0.04	1265	8.45	1.8															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-2-19 16:45	0.03	1804	8.12	0.5	11-17-19 6:00	2.35	1171	8.38	0.2	11-17-19 6:00	-0.04	1266	8.45	1.8															
12-2-19 17:00	0.03	1814	8.13	0.7	11-17-19 6:15	2.27	1170	8.38	1.4	11-17-19 6:15	-0.04	1265	8.45	1.9															
12-2-19 17:15	0.03	1812	8.14	0.6	11-17-19 6:30	2.29	1170	8.38	3.9	11-17-19 6:30	-0.04	1266	8.45	2.0															
12-2-19 17:30	0.03	1812	8.13	0.7	11-17-19 6:45	2.35	1170	8.38	0.5	11-17-19 6:45	-0.04	1265	8.45	1.7															
12-2-19 17:45	0.02	1812	8.12	0.6	11-17-19 7:00	2.31	1163	8.38	0.0	11-17-19 7:00	-0.04	1266	8.45	1.8															
12-2-19 18:00	0.03	1813	8.09	0.7	11-17-19 7:15	2.26	1160	8.38	0.0	11-17-19 7:15	-0.04	1265	8.45	1.9															
12-2-19 18:15	0.02	1813	8.13	0.6	11-17-19 7:30	2.28	1160	8.38	0.0	11-17-19 7:30	-0.04	1265	8.45	1.7															
12-2-19 18:30	0.02	1813	8.11	0.6	11-17-19 7:45	2.28	1141	8.38	0.0	11-17-19 7:45	-0.04	1264	8.45	1.8															
12-2-19 18:45	0.02	1813	8.11	0.6	11-17-19 8:00	2.31	1169	8.38	0.0	11-17-19 8:00	-0.04	1265	8.45	1.8															
12-2-19 19:00	0.02	1818	8.10	0.8	11-17-19 8:15	2.32	1165	8.37	3.6	11-17-19 8:15	-0.04	1265	8.45	1.8															
12-2-19 19:15	0.02	1815	8.11	0.7	11-17-19 8:30	2.30	1160	8.38	0.0	11-17-19 8:30	-0.04	1265	8.45	1.7															
12-2-19 19:30	0.02	1815	8.11	0.6	11-17-19 8:45	2.30	1169	8.38	0.2	11-17-19 8:45	-0.04	1265	8.45	1.8															
12-2-19 20:00	-0.01	1817	8.10	0.6	11-17-19 9:00	2.28	1122	8.37	0.0	11-17-19 9:00	-0.04	1266	8.45	1.7															
12-2-19 20:15	-0.02	1816	8.11	0.5	11-17-19 9:15	2.32	1169	8.38	0.0	11-17-19 9:15	-0.04	1266	8.45	1.7															
12-2-19 20:30	-0.02	1814	8.11	0.5	11-17-19 9:30	2.28	1165	8.38	0.0	11-17-19 9:30	-0.04	1266	8.45	1.7															
12-2-19 20:45	-0.02	1813	8.10	0.4	11-17-19 9:45	2.30	1129	8.38	0.0	11-17-19 9:45	-0.04	1266	8.44	1.8															
12-2-19 21:00	-0.02	1812	8.10	0.6	11-17-19 10:00	2.26	1117	8.38	0.0	11-17-19 10:00	-0.04	1267	8.44	1.7															
12-2-19 21:15	-0.02	1798	8.11	0.5	11-17-19 10:15	2.28	1160	8.37	1.5	11-17-19 10:15	-0.04	1267	8.44	1.8															
12-2-19 21:30	-0.02	1797	8.12	0.4	11-17-19 10:30	2.29	1168	8.38	0.4	11-17-19 10:30	-0.04	1267	8.44	1.6															
12-2-19 21:45	-0.02	1797	8.12	0.4	11-17-19 10:45	2.28	1163	8.38	0.0	11-17-19 10:45	-0.04	1267	8.44	1.7															
12-2-19 22:00	-0.02	1831	8.11	0.5	11-17-19 11:00	2.31	1164	8.38	0.0	11-17-19 11:00	-0.04	1269	8.44	1.7															
12-2-19 22:15	-0.02	1829	8.14	0.4	11-17-19 11:15	2.31	1163	8.38	0.0	11-17-19 11:15	-0.04	1268	8.44	1.7															
12-2-19 22:30	-0.02	1829	8.14	0.5	11-17-19 11:30	2.30	1163	8.38	0.0	11-17-19 11:30	-0.04	1270	8.44	1.7															
12-2-19 22:45	-0.02	1829	8.13	0.4	11-17-19 11:45	2.32	1166	8.38	3.9	11-17-19 11:45	-0.04	1269	8.44	1.7															
12-2-19 23:00	-0.02	1827	8.11	0.6	11-17-19 12:00	2.26	1123	8.38	0.0	11-17-19 12:00	-0.04	1270	8.44	1.7															
12-2-19 23:15	-0.02	1824	8.11	0.5	11-17-19 12:15	2.27	1164	8.38	0.0	11-17-19 12:15	-0.04	1270	8.44	1.6															
12-2-19 23:30	-0.02	1824	8.10	0.4	11-17-19 12:30	2.31	1165	8.38	0.0	11-17-19 12:30	-0.04	1271	8.44	1.5															
12-2-19 23:45	-0.02	1824	8.09	0.5	11-17-19 12:45	2.26	1163	8.38	0.0	11-17-19 12:45	-0.04	1271	8.44	1.5															
12-3-19 0:00	-0.02	1882	8.07	0.5	11-17-19 13:00	2.26	1164	8.38	0.0	11-17-19 13:00	-0.04	1272	8.44	1.5															
12-3-19 0:15	-0.02	1905	8.15	0.5	11-17-19 13:15	2.26	1162	8.38	0.0	11-17-19 13:15	-0.04	1272	8.44	1.7															
12-3-19 0:30	-0.02	1909	8.13	0.4	11-17-19 13:30	2.28	1162	8.38	0.0	11-17-19 13:30	-0.04	1273	8.44	1.5															
12-3-19 0:45	-0.02	1912	8.12	0.4	11-17-19 13:45	2.31	1166	8.38	0.0	11-17-19 13:45	-0.04	1273	8.44	1.4															
12-3-19 1:00	-0.02	1827	8.09	0.5	11-17-19 14:00	2.30	1151	8.38	1.4	11-17-19 14:00	-0.04	1274	8.44	1.4															
12-3-19 1:15	-0.02	1825	8.10	0.4	11-17-19 14:15	2.32	1148	8.37	6.0	11-17-19 14:15	-0.04	1274	8.44	1.5															
12-3-19 1:30	-0.02	1825	8.09	0.5	11-17-19 14:30	2.32	1130	8.38	0.0	11-17-19 14:30	-0.04	1275	8.44	1.5															
12-3-19 1:45	-0.02	1825	8.09	0.3	11-17-19 14:45	2.30	1164	8.38	0.0	11-17-19 14:45	-0.04	1275	8.43	1.4															
12-3-19 2:00	-0.01	1796	8.07	0.5	11-17-19 15:00	2.32	1168	8.38	2.9	11-17-19 15:00	-0.04	1276	8.43	1.4															
12-3-19 2:15	-0.02	1793	8.16	0.5	11-17-19 15:15	2.27	1164	8.38	2.9	11-17-19 15:15	-0.04	1276	8.43	1.4															
12-3-19 2:30	-0.02	1793	8.14	0.4	11-17-19 15:30	2.30	1164	8.38	0.5	11-17-19 15:30	-0.04	1277	8.43	1.4															
12-3-19 2:45	-0.01	1793	8.13	0.4	11-17-19 15:45	2.30	1146	8.38	0.5	11-17-19 15:45	-0.04	1277	8.43	1.5															
12-3-19 3:00	-0.01	1825	8.10	1.2	11-17-19 16:00	2.21	1136	8.38	0.0	11-17-19 16:00	-0.04	1278	8.43	1.3															
12-3-19 3:15	-0.01	1823	8.11	1.8	11-17-19 16:15	2.31	1138	8.38	0.0	11-17-19 16:15	-0.04	1278	8.43	1.5															
12-3-19 3:30	-0.01	1822	8.10	2.2	11-17-19 16:30	2.23	1119	8.38	0.0	11-17-19 16:30	-0.04	1278	8.44	1.3															
12-3-19 3:45	-0.01	1823	8.10	3.1	11-17-19 16:45	2.24	1118	8.38	2.3	11-17-19 16:45	-0.04	1277	8.43	1.4															
12-3-19 4:00	-0.01	1823	8.08	0.5	11-17-19 17:00	2.26	1118	8.38	2.3	11-17-19 17:00	-0.04	1276	8.44	1.4															
12-3-19 4:15	-0.01	1823	8.21	0.4	11-17-19 17:15	2.24	1119	8.38	2.2	11-17-19 17:15	-0.04	1274	8.44	1.6															
12-3-19 4:30	-0.01	1823	8.18	0.4	11-17-19 17:30	2.21	1118	8.38	2.1	11-17-19 17:30	-0.04	1272	8.44	1.6															
12-3-19 4:45	-0.01	1823	8.15	0.4	11-17-19 17:45	2.20	1094	8.38	0.0	11-17-19 17:45	-0.05	1268	8.45	1.5															
12-3-19 5:00	-0.01	1827	8.09	0.4	11-17-19 18:00	2.26	1067	8.38	0.0	11-17-19 18:00	-0.04	1265	8.46	1.5															
12-3-19 5:15	-0.02	1825	8.10	0.4	11-17-19 18:15	2.23	1092	8.38	0.0	11-17-19 18:15	-0.04	1260	8.45	1.3															
12-3-19 5:30	-0.01	1825	8.09	0.4	11-17-19 18:30	2.26	1103	8.38	0.4	11-17-19 18:30	-0.04	1259	8.46	1.3															
12-3-19 5:45	-0.01	1825	8.09	0.3	11-17-19 18:45	2.28	1161	8.38	12.9	11-17-19 18:45	-0.04	1255	8.45	1.1															
12-3-19 6:00	-0.01	1826	8.07	0.5	11-17-19 19:00	2.26	1162	8.38	0.0	11-17-19 19:00	-0.03	1253	8.46	1.2															
12-3-19 6:15	-0.01	1825	8.14	0.4	11-17-19 19:15	2.26	1163	8.38	0.0	11-17-19 19:15	0.10	994	8.56	11.3															
12-3-19 6:30	-0.01	1825	8.12	0.3	11-17-19 19:30	2.27	1162	8.38	3.7	11-17-19 19:30	0.03	1028	8.53	11.5															
12-3-19 6:45	-0.01	1825	8.11	0.4	11-17-19 19:45	2.33	1165	8.38	0.0	11-17-19 19:45	0.00	1065	8.51	9.0															
12-3-19 7:00	-0.01	1830	8.08	0.5	11-17-19 20:15	2.23	1153	8.38	0.0	11-17-19 20:15	-0.01	1120	8.45	6.4															
12-3-19 7:15	-0.01	1827	8.09	0.4	11-17-19 20:30	2.16	1096	8.38	0.0	11-17-19 20:30	-0.02	1097	8.46	7.2															
12-3-19 7:30	-0.01	1827	8.09	0.4	11-17-19 20:45	2.05	1155	8.38	0.3	11-17-19 20:45	-0.02	1093	8.47	7.2															
12-3-19 7:45	-0.01	1828	8.08	0.4	11-17-19 21:00	2.03	1152	8.37	0.2	11-17-19 21:00	-0.01	1080	8.49	7.4															
12-3-19 8:00	0.00	1829	8.06	0.4	11-17-19 21:15	1.90	1151	8.37	4.2	11-17-19 21:15	-0.01	1060	8.50	6.8															
12-3-19 8:15	-0.01	1828	8.12	0.4	11-17-19 21:30	1.80	1144	8.36	0.0	11-17-19 21:30	-0.01	1036	8.49	7.2															
12-3-19 8:30	-0.01	1828	8.11	0.4	11-17-19 21:45	1.82	1144	8.36	0.6	11-17-19 21:45	0.00	1025	8.50	6.6															
12-3-19 8:45	-0.01	1828	8.10	0.4	11-17-19 22:00	1.96	1148	8.37	4.9	11-17-19 22:00	-0.01	999	8.50	5.4															
12-3-19 9:00	0.00	1839	8.07	0.4	11-17-19 22:15	1.94	1092	8.38	0.4	11-17-19 22:15	-0.01	971	8.51	5.4															
12-3-19 9:15	-0.01	1832	8.08	0.4	11-17-19 22:30	2.00	1047	8.38	2.0	11-17-19 22:30	-0.02	939	8.51	5.3															
12-3-19 9:30	-0.01	1833	8.07	0.4	11-17-19 22:45	1.81	1093	8.39	6.9	11-17-19 22:45	-0.03	916	8.52	4.3															
12-3-19 9:45	-0.01	1833	8.07	0.4	11-17-19 23:00	1.62	1095	8.38	6.2	11-17-19 23:00	-0.03	878	8.51	3.2															
12-3-19 10:00	0.00	1838	8.04	0.5	11-17-19 23:15	1.70	1110	8.38	13.9	11-17-19 23:15	-0.03	838	8.53	4.0															
12-3-19 10:15	-0.01	1837	8.09	0.4	11-17-19 23:30	1.72	1111	8.37	17.5	11-17-19 23:30	-0.03	799	8.54	3.0															
12-3-19 10:30	-0.01	1837	8.09	0.5	11-17-19 23:45	1.70	1087	8.37	25.0	11-17-19 23:45	-0.03	751	8.53	6.6															
12-3-19 10:45	-0.01	1837	8.08	0.6	11-18-19 0:00	1.67	1085	8.37	22.6	11-18-19 0:00	-0.01	713	8.55	3.5															
12-3-19 11:00	0.00	1843	8.07	0.5	11-18-19 0:15	1.61	1085	8.37	23.1	11-18-19 0:15	-0.01	680	8.54	9.2															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-3-19 11:15	-0.01	1838	8.08	0.4
12-3-19 11:30	-0.01	1837	8.07	0.4
12-3-19 11:45	-0.01	1838	8.07	0.4
12-3-19 12:00	-0.01	1844	8.04	0.7
12-3-19 12:15	-0.01	1843	8.09	0.5
12-3-19 12:30	-0.01	1843	8.09	0.5
12-3-19 12:45	-0.01	1843	8.09	0.4
12-3-19 13:00	-0.01	1850	8.06	0.5
12-3-19 13:15	-0.02	1845	8.08	0.5
12-3-19 13:30	-0.02	1845	8.08	0.5
12-3-19 13:45	-0.02	1845	8.07	0.4
12-3-19 14:00	-0.02	1848	8.05	0.7
12-3-19 14:15	-0.02	1847	8.09	0.6
12-3-19 14:30	-0.03	1847	8.09	0.5
12-3-19 14:45	-0.03	1847	8.09	0.4
12-3-19 15:00	-0.02	1858	8.07	0.6
12-3-19 15:15	-0.03	1853	8.07	0.6
12-3-19 15:30	-0.03	1853	8.06	0.5
12-3-19 15:45	-0.03	1853	8.06	0.5
12-3-19 16:00	-0.03	1857	8.04	0.7
12-3-19 16:15	-0.03	1856	8.08	0.6
12-3-19 16:30	-0.03	1856	8.08	0.6
12-3-19 16:45	-0.03	1856	8.07	0.6
12-3-19 17:00	-0.03	1863	8.06	0.6
12-3-19 17:15	-0.03	1858	8.07	0.5
12-3-19 17:30	-0.03	1858	8.06	0.5
12-3-19 17:45	-0.03	1859	8.05	0.5
12-3-19 18:00	-0.03	1870	8.03	0.6
12-3-19 18:15	-0.03	1873	8.08	0.5
12-3-19 18:30	-0.03	1875	8.08	0.5
12-3-19 18:45	-0.03	1878	8.08	0.5
12-3-19 19:15	-0.03	1878	8.05	0.5
12-3-19 19:30	-0.03	1872	8.06	0.5
12-3-19 19:45	-0.03	1872	8.05	0.5
12-3-19 20:00	-0.03	1872	8.04	0.5
12-3-19 20:15	-0.03	1872	8.04	0.6
12-3-19 20:30	-0.03	1874	8.08	0.5
12-3-19 20:45	-0.03	1874	8.07	0.5
12-3-19 21:00	-0.03	1874	8.07	0.5
12-3-19 21:15	-0.03	1874	8.05	0.5
12-3-19 21:30	-0.03	1876	8.06	0.5
12-3-19 21:45	-0.03	1876	8.05	0.5
12-3-19 22:00	-0.03	1876	8.04	0.5
12-3-19 22:15	-0.03	1879	8.03	0.6
12-3-19 22:30	-0.03	1878	8.08	0.5
12-3-19 22:45	-0.03	1878	8.07	0.4
12-3-19 23:00	-0.03	1878	8.07	0.4
12-3-19 23:15	-0.03	1878	8.04	0.6
12-3-19 23:30	-0.03	1880	8.06	0.6
12-3-19 23:45	-0.03	1880	8.05	0.7
12-4-19 0:00	-0.32	0	7.76	0.5
12-4-19 0:15	-0.08	1923	8.08	1.2
12-4-19 0:30	-0.12	1910	8.09	0.5
12-4-19 0:45	-0.11	1906	8.09	0.4
12-4-19 1:00	-0.11	1898	8.09	0.4
12-4-19 1:15	-0.10	1916	8.09	0.5
12-4-19 1:30	-0.10	1901	8.09	0.4
12-4-19 1:45	-0.10	1894	8.08	0.5
12-4-19 2:00	-0.10	1895	8.07	0.4
12-4-19 2:15	-0.09	1903	8.07	0.5
12-4-19 2:30	-0.08	1904	8.10	0.4
12-4-19 2:45	-0.07	1907	8.09	0.4
12-4-19 3:00	-0.07	1909	8.08	0.4
12-4-19 3:15	-0.05	1925	8.06	0.7
12-4-19 3:30	-0.05	1916	8.07	0.4
12-4-19 3:45	-0.05	1917	8.06	0.4
12-4-19 4:00	-0.04	1917	8.05	0.4
12-4-19 4:15	-0.04	1919	8.04	0.6
12-4-19 4:30	-0.04	1916	8.10	0.3
12-4-19 4:45	-0.04	1916	8.09	0.4
12-4-19 5:00	-0.04	1916	8.08	0.3
12-4-19 5:15	-0.03	1926	8.05	0.7
12-4-19 5:30	-0.04	1919	8.05	0.4

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-18-19 0:30	1.70	1110	8.36	28.1
11-18-19 0:45	1.76	1185	8.37	32.2
11-18-19 1:00	1.80	1196	8.37	42.1
11-18-19 1:15	1.86	1205	8.37	43.9
11-18-19 1:30	1.84	1210	8.37	44.0
11-18-19 1:45	1.92	1225	8.37	43.7
11-18-19 2:00	1.89	1227	8.37	47.0
11-18-19 2:15	1.83	1224	8.37	49.0
11-18-19 2:30	1.80	1228	8.37	40.1
11-18-19 2:45	1.83	1242	8.37	54.8
11-18-19 3:00	1.81	1250	8.37	65.2
11-18-19 3:15	1.79	1249	8.37	64.8
11-18-19 3:30	1.80	1253	8.37	44.4
11-18-19 3:45	1.80	1254	8.37	57.6
11-18-19 4:00	1.79	1251	8.37	51.6
11-18-19 4:15	1.82	1255	8.37	50.2
11-18-19 4:30	1.84	1251	8.37	48.6
11-18-19 4:45	1.85	1252	8.37	34.8
11-18-19 5:00	1.84	1257	8.36	39.2
11-18-19 5:15	1.83	1255	8.37	48.6
11-18-19 5:30	1.82	1256	8.37	39.3
11-18-19 5:45	1.78	1249	8.36	44.2
11-18-19 6:00	1.77	1261	8.37	53.6
11-18-19 6:15	1.75	1257	8.38	43.2
11-18-19 6:30	1.74	1258	8.37	46.7
11-18-19 6:45	1.74	1259	8.38	43.1
11-18-19 7:00	1.71	1254	8.38	33.6
11-18-19 7:15	1.73	1252	8.37	39.4
11-18-19 7:30	1.79	1250	8.37	35.8
11-18-19 7:45	1.80	1248	8.37	31.2
11-18-19 8:00	1.75	1245	8.37	31.3
11-18-19 8:15	1.72	1253	8.37	28.8
11-18-19 8:30	1.66	1251	8.37	37.0
11-18-19 8:45	1.65	1252	8.38	38.3
11-18-19 9:00	1.63	1253	8.38	36.4
11-18-19 9:15	1.62	1246	8.38	40.5
11-18-19 9:30	1.61	1247	8.37	41.8
11-18-19 9:45	1.62	1242	8.38	29.6
11-18-19 10:00	1.61	1247	8.37	35.9
11-18-19 10:15	1.61	1249	8.37	30.7
11-18-19 10:30	1.57	1242	8.37	32.4
11-18-19 10:45	1.57	1245	8.37	19.8
11-18-19 11:00	1.60	1243	8.37	26.9
11-18-19 11:15	1.60	1239	8.37	27.5
11-18-19 11:30	1.57	1232	8.37	24.5
11-18-19 11:45	1.60	1156	8.37	18.7
11-18-19 12:00	1.60	1155	8.37	19.7
11-18-19 12:15	1.59	1153	8.37	24.8
11-18-19 12:30	1.57	1151	8.37	20.4
11-18-19 12:45	1.58	1237	8.37	21.7
11-18-19 13:00	1.57	1233	8.37	14.4
11-18-19 13:15	1.60	1243	8.37	15.5
11-18-19 13:30	1.59	1240	8.36	22.2
11-18-19 13:45	1.58	1243	8.37	21.5
11-18-19 14:00	1.58	1238	8.37	20.8
11-18-19 14:15	1.55	1238	8.37	25.3
11-18-19 14:30	1.50	1232	8.37	29.1
11-18-19 14:45	1.53	1173	8.37	21.0
11-18-19 15:00	1.53	1246	8.37	21.8
11-18-19 15:15	1.52	1246	8.37	21.1
11-18-19 15:30	1.52	1244	8.37	18.2
11-18-19 15:45	1.51	1244	8.37	21.9
11-18-19 16:00	1.51	1244	8.37	23.1
11-18-19 16:15	1.50	1238	8.37	19.4
11-18-19 16:30	1.52	1240	8.37	18.3
11-18-19 16:45	1.55	1238	8.37	16.9
11-18-19 17:00	1.55	1177	8.37	18.2
11-18-19 17:15	1.54	1240	8.37	21.4
11-18-19 17:30	1.54	1237	8.37	16.5
11-18-19 17:45	1.55	1239	8.37	16.1
11-18-19 18:00	1.56	1241	8.37	21.9
11-18-19 18:15	1.57	1243	8.37	27.3
11-18-19 18:30	1.58	1242	8.37	18.3

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-18-19 0:30	-0.01	647	8.51	19.2
11-18-19 0:45	-0.01	634	8.46	19.1
11-18-19 1:00	-0.02	624	8.44	12.9
11-18-19 1:15	-0.01	605	8.46	18.0
11-18-19 1:30	-0.01	599	8.44	15.6
11-18-19 1:45	-0.01	595	8.42	15.4
11-18-19 2:00	-0.02	586	8.40	12.0
11-18-19 2:15	-0.02	585	8.40	14.1
11-18-19 2:30	-0.02	582	8.41	13.0
11-18-19 2:45	-0.02	578	8.37	12.6
11-18-19 3:00	-0.02	578	8.35	11.5
11-18-19 3:15	-0.02	575	8.37	12.8
11-18-19 3:30	-0.02	572	8.38	12.2
11-18-19 3:45	-0.02	573	8.37	12.5
11-18-19 4:00	-0.02	573	8.38	10.8
11-18-19 4:15	-0.02	574	8.37	11.8
11-18-19 4:30	-0.02	570	8.39	8.1
11-18-19 4:45	-0.02	568	8.38	9.2
11-18-19 5:00	-0.03	562	8.35	6.9
11-18-19 5:15	-0.03	560	8.36	7.0
11-18-19 5:30	-0.03	552	8.40	4.4
11-18-19 5:45	-0.03	542	8.43	5.6
11-18-19 6:00	-0.02	539	8.41	6.1
11-18-19 6:15	-0.03	539	8.41	5.6
11-18-19 6:30	-0.02	536	8.40	5.0
11-18-19 6:45	-0.03	540	8.41	5.9
11-18-19 7:00	-0.03	527	8.45	2.7
11-18-19 7:15	-0.02	524	8.48	3.1
11-18-19 7:30	-0.02	520	8.47	3.4
11-18-19 7:45	-0.02	520	8.46	3.7
11-18-19 8:00	-0.02	520	8.44	3.5
11-18-19 8:15	-0.03	518	8.38	4.0
11-18-19 8:30	-0.02	517	8.39	3.3
11-18-19 8:45	-0.03	517	8.37	3.9
11-18-19 9:00	-0.03	515	8.39	3.1
11-18-19 9:15	-0.03	518	8.38	3.9
11-18-19 9:30	-0.03	518	8.38	3.0
11-18-19 9:45	-0.03	517	8.39	3.7
11-18-19 10:00	-0.03	516	8.40	3.0
11-18-19 10:15	-0.03	519	8.40	3.5
11-18-19 10:30	-0.02	518	8.39	3.0
11-18-19 10:45	-0.03	521	8.38	3.5
11-18-19 11:00	-0.02	521	8.38	3.0
11-18-19 11:15	-0.02	523	8.38	3.5
11-18-19 11:30	-0.02	523	8.38	3.1
11-18-19 11:45	-0.02	524	8.37	3.2
11-18-19 12:00	-0.02	523	8.39	2.6
11-18-19 12:15	-0.02	523	8.39	3.2
11-18-19 12:30	-0.02	524	8.39	2.4
11-18-19 12:45	-0.02	520	8.40	2.3
11-18-19 13:00	-0.02	520	8.42	1.7
11-18-19 13:15	-0.02	520	8.40	2.1
11-18-19 13:30	-0.02	518	8.39	1.5
11-18-19 13:45	-0.02	518	8.40	1.9
11-18-19 14:00	-0.02	516	8.42	1.3
11-18-19 14:15	-0.02	517	8.41	1.6
11-18-19 14:30	-0.02	516	8.39	1.2
11-18-19 14:45	-0.02	518	8.39	1.6
11-18-19 15:00	-0.02	517	8.39	1.3
11-18-19 15:15	-0.02	519	8.38	1.6
11-18-19 15:30	-0.02	518	8.39	1.3
11-18-19 15:45	-0.03	519	8.39	1.5
11-18-19 16:00	-0.02	518	8.39	1.1
11-18-19 16:15	-0.03	520	8.40	1.4
11-18-19 16:30	-0.02	519	8.39	1.1
11-18-19 16:45	-0.02	521	8.39	1.4
11-18-19 17:00	-0.02	520	8.40	1.2
11-18-19 17:15	-0.02	521	8.40	1.3
11-18-19 17:30	-0.01	521	8.42	1.0
11-18-19 17:45	0.00	521	8.43	1.3
11-18-19 18:00	0.00	522	8.44	1.1
11-18-19 18:15	0.01	522	8.42	1.3
11-18-19 18:30	0.01	521	8.42	0.9

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-4-19 5:45	-0.04	1920	8.05	0.4	11-18-19 18:45	1.58	1244	8.37	18.8	11-18-19 18:45	0.01	522	8.43	1.2															
12-4-19 6:00	-0.04	1920	8.04	0.4	11-18-19 19:00	1.60	1246	8.37	19.8	11-18-19 19:00	0.02	522	8.44	1.0															
12-4-19 6:15	-0.04	1920	8.04	0.6	11-18-19 19:15	1.61	1250	8.37	21.5	11-18-19 19:15	0.02	522	8.43	1.2															
12-4-19 6:30	-0.04	1918	8.10	0.4	11-18-19 19:30	1.65	1247	8.37	21.5	11-18-19 19:30	0.03	522	8.45	1.0															
12-4-19 6:45	-0.04	1918	8.09	0.4	11-18-19 19:45	1.68	1245	8.38	25.0	11-18-19 19:45	0.04	521	8.44	1.1															
12-4-19 7:00	-0.04	1919	8.08	0.4	11-18-19 20:00	1.70	1241	8.38	27.6	11-18-19 20:00	0.04	521	8.44	0.8															
12-4-19 7:15	-0.04	1934	8.05	0.4	11-18-19 20:15	1.72	1241	8.37	15.3	11-18-19 20:15	0.03	528	8.45	1.4															
12-4-19 7:30	-0.05	1925	8.06	0.4	11-18-19 20:30	1.73	1240	8.37	18.0	11-18-19 20:30	0.04	523	8.44	1.3															
12-4-19 7:45	-0.05	1926	8.05	0.4	11-18-19 20:45	1.74	1243	8.38	17.2	11-18-19 20:45	0.04	523	8.45	1.8															
12-4-19 8:00	-0.05	1926	8.05	0.4	11-18-19 21:00	1.72	1239	8.38	17.5	11-18-19 21:00	0.05	522	8.46	1.0															
12-4-19 8:15	-0.04	1930	8.04	0.7	11-18-19 21:15	1.74	1243	8.38	18.1	11-18-19 21:15	0.05	523	8.46	1.1															
12-4-19 8:30	-0.05	1928	8.10	0.4	11-18-19 21:30	1.73	1241	8.38	17.0	11-18-19 21:30	0.05	522	8.46	0.9															
12-4-19 8:45	-0.05	1928	8.09	0.4	11-18-19 21:45	1.72	1241	8.38	10.4	11-18-19 21:45	0.05	523	8.47	1.3															
12-4-19 9:00	-0.05	1927	8.08	0.3	11-18-19 22:00	1.73	1241	8.38	17.0	11-18-19 22:00	0.05	522	8.46	1.1															
12-4-19 9:15	-0.04	1940	8.06	0.4	11-18-19 22:15	1.72	1240	8.38	22.9	11-18-19 22:15	0.05	523	8.45	1.1															
12-4-19 9:30	-0.05	1929	8.06	0.4	11-18-19 22:30	1.72	1240	8.36	15.5	11-18-19 22:30	0.05	523	8.45	0.9															
12-4-19 9:45	-0.05	1931	8.05	0.3	11-18-19 22:45	1.71	1243	8.37	16.0	11-18-19 22:45	0.04	523	8.45	1.2															
12-4-19 10:00	-0.05	1931	8.04	0.3	11-18-19 23:00	1.71	1243	8.37	16.6	11-18-19 23:00	0.04	523	8.45	1.0															
12-4-19 10:15	-0.04	1937	8.03	0.5	11-18-19 23:15	1.72	1246	8.37	14.9	11-18-19 23:15	0.03	523	8.44	0.9															
12-4-19 10:30	-0.05	1933	8.08	0.4	11-18-19 23:30	1.72	1249	8.37	15.3	11-18-19 23:30	0.03	523	8.46	0.7															
12-4-19 10:45	-0.05	1933	8.07	0.3	11-18-19 23:45	1.70	1249	8.38	21.5	11-18-19 23:45	0.02	524	8.44	1.0															
12-4-19 11:00	-0.05	1933	8.07	0.3	11-19-19 0:00	1.68	1250	8.38	20.5	11-19-19 0:00	0.02	523	8.45	1.1															
12-4-19 11:15	-0.04	1945	8.05	0.4	11-19-19 0:15	1.67	1248	8.37	18.7	11-19-19 0:15	0.01	523	8.43	1.1															
12-4-19 11:30	-0.05	1936	8.05	0.4	11-19-19 0:30	1.65	1250	8.37	19.2	11-19-19 0:30	0.01	523	8.45	0.9															
12-4-19 11:45	-0.05	1937	8.05	0.3	11-19-19 0:45	1.64	1244	8.37	19.2	11-19-19 0:45	0.01	523	8.44	1.2															
12-4-19 12:00	-0.05	1938	8.04	0.3	11-19-19 1:00	1.64	1245	8.37	17.9	11-19-19 1:00	0.00	524	8.45	0.7															
12-4-19 12:15	-0.05	1941	8.07	0.4	11-19-19 1:15	1.65	1246	8.37	14.3	11-19-19 1:15	0.00	524	8.43	1.1															
12-4-19 12:30	-0.05	1938	8.08	0.3	11-19-19 1:30	1.66	1252	8.27	17.8	11-19-19 1:30	-0.01	516	8.48	1.1															
12-4-19 12:45	-0.05	1939	8.06	0.4	11-19-19 1:45	1.67	1251	8.29	19.0	11-19-19 1:45	-0.01	511	8.47	0.6															
12-4-19 13:00	-0.05	1939	8.07	0.3	11-19-19 2:00	1.67	1248	8.35	15.8	11-19-19 2:00	-0.01	509	8.45	0.6															
12-4-19 13:15	-0.05	1952	8.07	0.3	11-19-19 2:15	1.66	1249	8.36	15.8	11-19-19 2:15	-0.01	510	8.44	1.0															
12-4-19 13:30	-0.05	1941	8.07	0.3	11-19-19 2:30	1.69	1251	8.36	16.6	11-19-19 2:30	-0.01	507	8.43	0.9															
12-4-19 13:45	-0.05	1942	8.06	0.3	11-19-19 2:45	1.69	1191	8.36	17.2	11-19-19 2:45	-0.01	509	8.45	0.9															
12-4-19 14:00	-0.05	1944	8.05	0.3	11-19-19 3:00	1.71	1219	8.37	15.4	11-19-19 3:00	-0.01	507	8.44	0.8															
12-4-19 14:15	-0.04	1952	8.04	0.4	11-19-19 3:15	1.69	1216	8.37	14.6	11-19-19 3:15	-0.02	501	8.44	0.8															
12-4-19 14:30	-0.05	1949	8.07	0.3	11-19-19 3:30	1.65	1218	8.37	13.4	11-19-19 3:30	-0.01	500	8.44	0.9															
12-4-19 14:45	-0.05	1950	8.07	0.4	11-19-19 3:45	1.63	1243	8.38	15.0	11-19-19 3:45	-0.01	500	8.42	1.0															
12-4-19 15:00	-0.04	1951	8.06	0.3	11-19-19 4:00	1.65	1262	8.38	21.3	11-19-19 4:00	-0.01	498	8.43	0.9															
12-4-19 15:15	-0.04	1965	8.05	0.5	11-19-19 4:15	1.65	1263	8.38	20.4	11-19-19 4:15	-0.01	495	8.40	1.1															
12-4-19 15:30	-0.04	1954	8.05	0.4	11-19-19 4:30	1.65	1266	8.38	21.6	11-19-19 4:30	-0.01	493	8.42	0.8															
12-4-19 15:45	-0.04	1955	8.04	0.5	11-19-19 4:45	1.63	1212	8.38	17.3	11-19-19 4:45	0.00	493	8.43	0.9															
12-4-19 16:00	-0.04	1952	8.04	0.6	11-19-19 5:00	1.61	1253	8.38	16.2	11-19-19 5:00	0.00	492	8.42	0.8															
12-4-19 16:15	-0.04	1952	8.05	0.4	11-19-19 5:15	1.61	1274	8.37	24.4	11-19-19 5:15	0.01	491	8.43	1.0															
12-4-19 16:30	-0.04	1948	8.07	0.2	11-19-19 5:30	1.60	1275	8.38	19.0	11-19-19 5:30	0.01	491	8.41	1.0															
12-4-19 16:45	-0.04	1949	8.07	0.3	11-19-19 5:45	1.61	1278	8.38	19.7	11-19-19 5:45	0.01	491	8.40	1.1															
12-4-19 17:00	-0.04	1950	8.07	0.3	11-19-19 6:00	1.60	1262	8.38	16.4	11-19-19 6:00	0.01	492	8.40	1.4															
12-4-19 17:15	-0.03	1976	8.05	0.3	11-19-19 6:15	1.59	1261	8.38	17.6	11-19-19 6:15	0.02	492	8.39	1.2															
12-4-19 17:30	-0.04	1966	8.05	0.3	11-19-19 6:30	1.61	1265	8.37	16.0	11-19-19 6:30	0.02	491	8.40	1.5															
12-4-19 17:45	-0.04	1967	8.05	0.3	11-19-19 6:45	1.60	1282	8.37	24.4	11-19-19 6:45	0.02	491	8.39	1.2															
12-4-19 18:00	-0.04	1968	8.04	0.2	11-19-19 7:00	1.60	1287	8.38	16.6	11-19-19 7:00	0.02	491	8.41	1.2															
12-4-19 18:15	-0.03	1978	8.02	0.4	11-19-19 7:15	1.59	1283	8.38	14.4	11-19-19 7:15	0.02	491	8.40	1.2															
12-4-19 18:30	-0.03	1975	8.07	0.3	11-19-19 7:30	1.57	1226	8.38	15.8	11-19-19 7:30	0.02	492	8.40	1.6															
12-4-19 18:45	-0.04	1975	8.07	0.3	11-19-19 7:45	1.56	1284	8.38	16.3	11-19-19 7:45	0.02	491	8.38	1.2															
12-4-19 19:00	-0.04	1976	8.06	0.2	11-19-19 8:00	1.54	1281	8.38	16.6	11-19-19 8:00	0.02	492	8.40	1.5															
12-4-19 19:15	-0.03	1991	8.05	0.3	11-19-19 8:15	1.54	1285	8.37	17.0	11-19-19 8:15	0.02	492	8.39	1.3															
12-4-19 19:30	-0.03	1983	8.05	0.3	11-19-19 8:30	1.54	1285	8.38	16.6	11-19-19 8:30	0.03	492	8.40	1.7															
12-4-19 19:45	-0.03	1983	8.04	0.3	11-19-19 8:45	1.54	1264	8.38	15.8	11-19-19 8:45	0.03	492	8.38	1.3															
12-4-19 20:00	-0.03	1984	8.04	0.2	11-19-19 9:00	1.55	1260	8.38	16.0	11-19-19 9:00	0.03	493	8.41	1.6															
12-4-19 20:15	-0.03	1987	8.02	0.5	11-19-19 9:15	1.54	1258	8.37	16.0	11-19-19 9:15	0.03	492	8.39	1.4															
12-4-19 20:30	-0.03	1984	8.06	0.3	11-19-19 9:30	1.53	1257	8.38	14.2	11-19-19 9:30	0.03	493	8.42	1.4															
12-4-19 20:45	-0.03	1985	8.07	0.3	11-19-19 9:45	1.54	1290	8.38	23.4	11-19-19 9:45	0.03	493	8.40	1.3															
12-4-19 21:00	-0.03	1985	8.06	0.3	11-19-19 10:00	1.53	1289	8.37	22.5	11-19-19 10:00	0.03	492	8.42	1.3															
12-4-19 21:15	-0.03	2022	8.04	0.3	11-19-19 10:15	1.53	1294	8.38	21.7	11-19-19 10:15	0.03	492	8.40	1.4															
12-4-19 21:30	-0.03	2017	8.04	0.3	11-19-19 10:30	1.52	1292	8.38	21.2	11-19-19 10:30	0.03	493	8.40	1.2															
12-4-19 21:45	-0.03	2018	8.04	0.3	11-19-19 10:45	1.51	1272	8.38	15.5	11-19-19 10:45	0.03	493	8.40	1.3															
12-4-19 22:00	-0.04	2020	8.03	0.3	11-19-19 11:00	1.50	1274	8.38	16.7	11-19-19 11:00	0.03	493	8.41	1.4															
12-4-19 22:15	-0.03	2002	8.01	0.5	11-19-19 11:15	1.50	1277	8.38	17.9	11-19-19 11:15	0.04	493	8.41	1.4															
12-4-19 22:30	-0.04	1999	8.04	0.3	11-19-19 11:30	1.50	1279	8.38	16.2	11-19-19 11:30	0.03	494	8.40	1.3															
12-4-19 22:45	-0.04	1999	8.04	0.3	11-19-19 11:45	1.48	1274	8.38	16.0	11-19-19 11:45	0.03	494	8.40	1.3															
12-4-19 23:00	-0.04	2000	8.03	0.3	11-19-19 12:00	1.48	1271	8.38	15.2	11-19-19 12:00	0.03	494	8.41	1.3															
12-4-19 23:15	-0.03	2016	8.02	0.5	11-19-19 12:15	1.47	1272	8.38	15.3	11-19-19 12:15	0.04	494	8.39	1.4															
12-4-19 23:30	-0.04	2008	8.03	0.3	11-19-19 12:30	1.46	1273	8.38	16.7	11-19-19 12:30	0.03	494	8.40	1.2															
12-4-19 23:45	-0.04	2009	8.03	0.3	11-19-19 12:45	1.46	1284	8.38	16.6	11-19-19 12:45	0.03	494	8.40	1.4															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-5-19 0:00	-0.04	2010	8.03	0.3	11-19-19 13:00	1.44	1282	8.38	15.5	11-19-19 13:00	0.03	494	8.42	1.4															
12-5-19 0:15	-0.03	2057	8.01	0.4	11-19-19 13:15	1.44	1282	8.38	17.7	11-19-19 13:15	0.03	494	8.40	1.3															
12-5-19 0:30	-0.04	2054	8.03	0.3	11-19-19 13:30	1.43	1281	8.38	14.8	11-19-19 13:30	0.03	494	8.41	1.4															
12-5-19 0:45	-0.04	2054	8.02	0.3	11-19-19 13:45	1.43	1293	8.38	17.2	11-19-19 13:45	0.03	494	8.40	1.4															
12-5-19 1:00	-0.04	2056	8.02	0.3	11-19-19 14:00	1.42	1288	8.38	18.1	11-19-19 14:00	0.03	494	8.42	1.1															
12-5-19 1:15	-0.03	2027	8.02	0.6	11-19-19 14:15	1.41	1296	8.38	17.4	11-19-19 14:15	0.03	494	8.40	1.2															
12-5-19 1:30	-0.04	2021	8.03	0.4	11-19-19 14:30	1.41	1294	8.38	16.2	11-19-19 14:30	0.03	495	8.40	1.1															
12-5-19 1:45	-0.04	2023	8.03	0.5	11-19-19 14:45	1.39	1291	8.39	15.2	11-19-19 14:45	0.04	495	8.41	1.2															
12-5-19 2:00	-0.04	2025	8.03	0.5	11-19-19 15:00	1.40	1295	8.38	15.5	11-19-19 15:00	0.03	495	8.41	1.1															
12-5-19 2:15	-0.03	2031	8.00	0.5	11-19-19 15:15	1.40	1296	8.39	19.0	11-19-19 15:15	0.04	496	8.40	1.3															
12-5-19 2:30	-0.04	2028	8.02	0.4	11-19-19 15:30	1.40	1299	8.39	12.5	11-19-19 15:30	0.04	496	8.41	1.1															
12-5-19 2:45	-0.04	2029	8.03	0.4	11-19-19 15:45	1.38	1296	8.39	23.5	11-19-19 15:45	0.04	495	8.40	1.2															
12-5-19 3:00	-0.04	2030	8.03	0.4	11-19-19 16:00	1.37	1296	8.39	16.7	11-19-19 16:00	0.04	496	8.42	0.9															
12-5-19 3:15	-0.03	2045	8.02	0.5	11-19-19 16:15	1.37	1296	8.38	16.6	11-19-19 16:15	0.10	590	8.29	2.1															
12-5-19 3:30	-0.04	2037	8.03	0.4	11-19-19 16:30	1.37	1250	8.39	15.1	11-19-19 16:30	0.11	622	8.23	2.2															
12-5-19 3:45	-0.04	2038	8.03	0.3	11-19-19 16:45	1.27	1294	8.39	18.6	11-19-19 16:45	0.11	646	8.20	2.5															
12-5-19 4:00	-0.04	2040	8.03	0.4	11-19-19 17:00	1.33	1269	8.39	16.1	11-19-19 17:00	0.09	616	8.21	2.1															
12-5-19 4:15	-0.03	2040	8.01	0.5	11-19-19 17:15	1.31	1263	8.39	15.9	11-19-19 17:15	0.11	618	8.22	2.2															
12-5-19 4:30	-0.04	2037	8.05	0.3	11-19-19 17:30	1.31	1256	8.39	14.9	11-19-19 17:30	0.12	607	8.22	1.8															
12-5-19 4:45	-0.04	2039	8.06	0.3	11-19-19 17:45	1.35	1291	8.39	15.2	11-19-19 17:45	0.18	819	8.19	3.3															
12-5-19 5:00	-0.04	2040	8.05	0.3	11-19-19 18:00	1.35	1294	8.40	16.3	11-19-19 18:00	0.22	1028	8.24	2.2															
12-5-19 5:15	-0.03	2067	8.03	0.4	11-19-19 18:15	1.34	1291	8.40	18.2	11-19-19 18:15	0.21	1047	8.30	6.6															
12-5-19 5:30	-0.04	2057	8.04	0.4	11-19-19 18:30	1.33	1237	8.40	16.6	11-19-19 18:30	0.27	1239	8.32	13.3															
12-5-19 5:45	-0.04	2058	8.03	0.4	11-19-19 18:45	1.34	1285	8.40	26.6	11-19-19 18:45	0.39	1277	8.47	56.2															
12-5-19 6:00	-0.03	2060	8.03	0.4	11-19-19 19:00	1.35	1291	8.40	20.1	11-19-19 19:00	0.49	1279	8.56	63.5															
12-5-19 6:15	-0.03	2073	8.01	0.5	11-19-19 19:15	1.36	1291	8.40	18.9	11-19-19 19:15	0.45	1278	8.59	60.3															
12-5-19 6:30	-0.03	2070	8.05	0.4	11-19-19 19:30	1.39	1293	8.40	19.5	11-19-19 19:30	0.28	1271	8.57	45.6															
12-5-19 6:45	-0.03	2070	8.05	0.4	11-19-19 19:45	1.42	1302	8.40	24.7	11-19-19 19:45	0.25	1262	8.57	50.9															
12-5-19 7:00	-0.03	2071	8.05	0.4	11-19-19 20:00	1.40	1294	8.40	22.8	11-19-19 20:00	0.25	1251	8.56	47.5															
12-5-19 7:15	-0.03	2089	8.03	0.3	11-19-19 20:15	1.42	1235	8.41	18.5	11-19-19 20:15	0.46	1267	8.58	62.5															
12-5-19 7:30	-0.03	2080	8.03	0.4	11-19-19 20:30	1.46	1288	8.41	17.3	11-19-19 20:30	0.45	1256	8.59	57.0															
12-5-19 7:45	-0.03	2081	8.03	0.3	11-19-19 20:45	1.47	1305	8.41	29.0	11-19-19 20:45	0.45	1236	8.60	56.8															
12-5-19 8:00	-0.03	2082	8.02	0.4	11-19-19 21:00	1.48	1305	8.41	19.2	11-19-19 21:00	0.94	1250	8.66	82.7															
12-5-19 8:15	-0.02	2088	8.01	0.4	11-19-19 21:15	1.49	1306	8.41	16.6	11-19-19 21:15	1.69	1188	8.75	126.6															
12-5-19 8:30	-0.03	2085	8.05	0.4	11-19-19 21:30	1.51	1306	8.41	19.8	11-19-19 21:30	2.12	1243	8.73	122.0															
12-5-19 8:45	-0.03	2085	8.05	0.5	11-19-19 21:45	1.51	1305	8.41	21.3	11-19-19 21:45	2.54	1242	8.74	128.0															
12-5-19 9:00	-0.03	2055	8.04	0.6	11-19-19 22:00	1.50	1303	8.41	19.9	11-19-19 22:00	1.40	1233	8.75	116.0															
12-5-19 9:15	-0.02	2107	8.02	0.4	11-19-19 22:15	1.49	1304	8.41	19.4	11-19-19 22:15	1.23	1235	8.76	120.3															
12-5-19 9:30	-0.03	2097	8.02	0.4	11-19-19 22:30	1.49	1306	8.41	24.6	11-19-19 22:30	1.28	1242	8.76	129.4															
12-5-19 9:45	-0.03	2098	8.02	0.5	11-19-19 22:45	1.49	1295	8.41	19.6	11-19-19 22:45	1.21	1233	8.76	123.6															
12-5-19 10:00	-0.03	2099	8.02	0.6	11-19-19 23:00	1.48	1296	8.41	23.5	11-19-19 23:00	1.89	1239	8.75	114.7															
12-5-19 10:15	-0.02	2102	8.00	0.4	11-19-19 23:15	1.46	1286	8.40	25.5	11-19-19 23:15	1.67	1224	8.76	119.0															
12-5-19 10:30	-0.03	2099	8.05	0.3	11-19-19 23:30	1.40	1276	8.39	22.5	11-19-19 23:30	1.85	1240	8.75	116.3															
12-5-19 10:45	-0.03	2099	8.05	0.3	11-19-19 23:45	1.42	1274	8.40	19.2	11-19-19 23:45	1.14	1237	8.77	117.1															
12-5-19 11:00	-0.03	2101	8.05	0.4	11-20-19 0:00	1.46	1300	8.40	24.0	11-20-19 0:00	0.86	1228	8.77	112.9															
12-5-19 11:15	-0.02	2133	8.03	0.4	11-20-19 0:15	1.42	1294	8.40	22.3	11-20-19 0:15	1.04	1244	8.76	116.1															
12-5-19 11:30	-0.03	2125	8.03	0.4	11-20-19 0:30	1.43	1297	8.40	22.2	11-20-19 0:30	1.17	1244	8.75	113.3															
12-5-19 11:45	-0.03	2127	8.03	0.4	11-20-19 0:45	1.40	1293	8.40	21.5	11-20-19 0:45	1.05	1242	8.76	116.6															
12-5-19 12:00	-0.03	2129	8.02	0.5	11-20-19 1:00	1.37	1273	8.38	25.5	11-20-19 1:00	0.91	1234	8.76	117.1															
12-5-19 12:15	-0.03	2127	8.01	0.4	11-20-19 1:15	1.33	1264	8.39	17.4	11-20-19 1:15	0.84	1243	8.77	117.9															
12-5-19 12:30	-0.03	2125	8.05	0.3	11-20-19 1:30	1.41	1289	8.40	21.8	11-20-19 1:30	0.93	1239	8.76	115.9															
12-5-19 12:45	-0.03	2125	8.05	0.4	11-20-19 1:45	1.35	1273	8.40	6.8	11-20-19 1:45	0.74	1239	8.77	117.6															
12-5-19 13:00	-0.03	2125	8.05	0.5	11-20-19 2:00	1.41	1290	8.40	22.5	11-20-19 2:00	0.73	1241	8.76	117.5															
12-5-19 13:15	-0.03	2125	8.03	0.3	11-20-19 2:15	1.43	1298	8.40	20.2	11-20-19 2:15	0.70	1243	8.76	115.5															
12-5-19 13:30	-0.04	2114	8.04	0.3	11-20-19 2:30	1.37	1274	8.40	17.3	11-20-19 2:30	0.68	1242	8.76	106.9															
12-5-19 13:45	-0.04	2115	8.03	0.4	11-20-19 2:45	1.35	1276	8.39	27.9	11-20-19 2:45	0.69	1244	8.76	113.5															
12-5-19 14:00	-0.04	2116	8.03	0.4	11-20-19 3:00	1.38	1280	8.39	22.1	11-20-19 3:00	0.67	1243	8.76	110.9															
12-5-19 14:15	-0.03	2144	8.01	0.6	11-20-19 3:15	1.39	1284	8.40	19.0	11-20-19 3:15	0.69	1244	8.76	114.8															
12-5-19 14:30	-0.04	2140	8.05	0.3	11-20-19 3:30	1.45	1304	8.40	20.4	11-20-19 3:30	0.62	1241	8.76	109.7															
12-5-19 14:45	-0.04	2140	8.05	0.4	11-20-19 3:45	1.45	1307	8.40	22.0	11-20-19 3:45	0.62	1244	8.77	113.2															
12-5-19 15:00	-0.04	2141	8.05	0.4	11-20-19 4:00	1.47	1310	8.40	26.3	11-20-19 4:00	0.53	1243	8.77	102.2															
12-5-19 15:15	-0.04	2158	8.03	0.6	11-20-19 4:15	1.48	1308	8.40	20.4	11-20-19 4:15	0.56	1245	8.77	114.0															
12-5-19 15:30	-0.04	2151	8.03	0.6	11-20-19 4:30	1.42	1302	8.40	21.9	11-20-19 4:30	0.53	1244	8.76	107.3															
12-5-19 15:45	-0.04	2151	8.03	0.7	11-20-19 4:45	1.43	1249	8.39	20.9	11-20-19 4:45	0.55	1248	8.76	107.3															
12-5-19 16:00	-0.04	2151	8.03	0.7	11-20-19 5:00	1.44	1297	8.39	24.1	11-20-19 5:00	0.49	1245	8.76	100.2															
12-5-19 16:15	-0.04	2168	8.01	0.5	11-20-19 5:15	1.47	1297	8.39	21.4	11-20-19 5:15	0.53	1245	8.76	103.8															
12-5-19 16:30	-0.05	2166	8.05	0.4	11-20-19 5:30	1.45	1301	8.39	24.2	11-20-19 5:30	0.51	1244	8.75	103.6															
12-5-19 16:45	-0.04	2166	8.05	0.5	11-20-19 5:45	1.50	1305	8.40	28.2	11-20-19 5:45	0.51	1246	8.75	105.6															
12-5-19 17:00	-0.05	2167	8.05	0.5	11-20-19 6:00	1.49	1303	8.40	20.0	11-20-19 6:00	0.47	1246	8.75	101.6															
12-5-19 17:15	-0.04	2176	8.03	1.2	11-20-19 6:15	1.50	1304	8.39	20.4	11-20-19 6:15	0.49	1247	8.75	104.0															
12-5-19 17:30	-0.05	2098	8.03	0.4	11-20-19 6:30	1.44	1296	8.39	20.0	11-20-19 6:30	0.46	1246	8.75	96.8															
12-5-19 17:45	-0.05	2097	8.03	0.4	11-20-19 6:45	1.51	1307	8.40	21.0	11-20-19 6:45	0.46	1247	8.75	105.9															
12-5-19 18:00	-0.05	2094	8.02	0.4	11-20-19 7:00	1.47	1286	8.40	18.6	11-20-19 7:00	0.44	1246	8.75	98.7															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-5-19 18:15	-0.04	2171	8.01	0.4	11-20-19 7:15	1.47	1287	8.40	17.2	11-20-19 7:15	0.45	1247	8.75	106.6															
12-5-19 18:30	-0.05	2169	8.05	0.4	11-20-19 7:30	1.46	1289	8.39	20.0	11-20-19 7:30	0.43	1247	8.75	101.4															
12-5-19 18:45	-0.05	2170	8.05	0.3	11-20-19 7:45	1.43	1300	8.39	22.0	11-20-19 7:45	0.43	1249	8.75	101.0															
12-5-19 19:00	-0.05	2165	8.05	0.4	11-20-19 8:00	1.45	1245	8.39	17.6	11-20-19 8:00	0.42	1248	8.75	98.8															
12-5-19 19:15	-0.04	2185	8.03	8.1	11-20-19 8:15	1.46	1304	8.39	21.2	11-20-19 8:15	0.43	1251	8.75	97.3															
12-5-19 19:30	-0.05	2178	8.03	10.7	11-20-19 8:30	1.49	1309	8.40	20.5	11-20-19 8:30	0.42	1248	8.74	96.5															
12-5-19 19:45	-0.05	2179	8.02	12.8	11-20-19 8:45	1.50	1311	8.40	24.7	11-20-19 8:45	0.42	1251	8.74	98.3															
12-5-19 20:00	-0.05	2180	8.02	17.2	11-20-19 9:00	1.53	1314	8.40	21.7	11-20-19 9:00	0.40	1249	8.73	93.9															
12-5-19 20:15	-0.04	2180	8.00	0.4	11-20-19 9:15	1.52	1314	8.40	22.4	11-20-19 9:15	0.42	1252	8.74	98.0															
12-5-19 20:30	-0.05	2178	8.05	0.4	11-20-19 9:30	1.47	1310	8.40	20.8	11-20-19 9:30	0.40	1250	8.73	85.1															
12-5-19 20:45	-0.05	2238	8.05	0.8	11-20-19 9:45	1.51	1310	8.41	19.3	11-20-19 9:45	0.42	1252	8.73	96.2															
12-5-19 21:00	-0.04	2195	8.04	0.2	11-20-19 10:00	1.49	1315	8.40	20.5	11-20-19 10:00	0.40	1251	8.73	86.4															
12-5-19 21:15	-0.06	2205	8.05	0.6	11-20-19 10:15	1.48	1313	8.40	18.9	11-20-19 10:15	0.43	1253	8.73	95.1															
12-5-19 21:30	-0.07	2201	8.05	0.4	11-20-19 10:30	1.50	1316	8.40	19.3	11-20-19 10:30	0.40	1251	8.73	85.3															
12-5-19 21:45	-0.08	2200	8.04	0.5	11-20-19 10:45	1.52	1318	8.40	22.2	11-20-19 10:45	0.41	1252	8.73	95.6															
12-5-19 22:00	-0.08	2199	8.04	0.7	11-20-19 11:00	1.51	1315	8.40	19.6	11-20-19 11:00	0.40	1252	8.73	89.9															
12-5-19 22:15	-0.08	2214	8.03	1.7	11-20-19 11:15	1.52	1318	8.40	22.0	11-20-19 11:15	0.41	1252	8.73	93.6															
12-5-19 22:30	-0.08	2212	8.05	2.7	11-20-19 11:30	1.52	1318	8.40	20.7	11-20-19 11:30	0.40	1252	8.73	88.9															
12-5-19 22:45	-0.08	2211	8.04	4.2	11-20-19 11:45	1.52	1318	8.40	20.7	11-20-19 11:45	0.41	1253	8.73	94.4															
12-5-19 23:00	-0.09	2210	8.04	5.6	11-20-19 12:00	1.55	1318	8.40	20.2	11-20-19 12:00	0.40	1252	8.73	85.7															
12-5-19 23:15	-0.09	2216	8.03	0.5	11-20-19 12:15	1.55	1318	8.40	19.2	11-20-19 12:15	0.42	1253	8.72	94.4															
12-5-19 23:30	-0.09	2212	8.04	0.6	11-20-19 12:30	1.53	1318	8.40	19.0	11-20-19 12:30	0.40	1252	8.72	85.4															
12-5-19 23:45	-0.09	2212	8.04	0.8	11-20-19 12:45	1.53	1316	8.40	19.4	11-20-19 12:45	0.43	1254	8.73	94.0															
12-6-19 0:00	-0.10	2211	8.03	1.0	11-20-19 13:00	1.53	1317	8.39	19.5	11-20-19 13:00	0.41	1253	8.72	85.6															
12-6-19 0:15	-0.09	2206	8.02	0.4	11-20-19 13:15	1.55	1319	8.40	19.5	11-20-19 13:15	0.43	1253	8.72	94.4															
12-6-19 0:30	-0.10	2204	8.05	0.3	11-20-19 13:30	1.56	1320	8.40	25.5	11-20-19 13:30	0.42	1253	8.73	85.7															
12-6-19 0:45	-0.10	2202	8.05	0.3	11-20-19 13:45	1.55	1297	8.40	19.1	11-20-19 13:45	0.42	1253	8.72	92.5															
12-6-19 1:00	-0.10	2201	8.05	0.4	11-20-19 14:00	1.56	1320	8.40	21.1	11-20-19 14:00	0.40	1253	8.72	86.6															
12-6-19 1:15	-0.10	2210	8.03	0.3	11-20-19 14:15	1.56	1265	8.40	19.1	11-20-19 14:15	0.42	1254	8.72	92.0															
12-6-19 1:30	-0.10	2205	8.04	0.4	11-20-19 14:30	1.55	1323	8.40	23.3	11-20-19 14:30	0.41	1253	8.72	85.0															
12-6-19 1:45	-0.10	2205	8.03	0.5	11-20-19 14:45	1.57	1324	8.40	23.4	11-20-19 14:45	0.43	1254	8.72	90.7															
12-6-19 2:00	-0.10	2206	8.03	0.7	11-20-19 15:00	1.57	1323	8.40	19.4	11-20-19 15:00	0.42	1253	8.72	84.6															
12-6-19 2:15	-0.10	2208	8.02	0.4	11-20-19 15:15	1.56	1321	8.40	19.4	11-20-19 15:15	0.43	1254	8.72	89.1															
12-6-19 2:30	-0.10	2206	8.05	0.3	11-20-19 15:30	1.56	1322	8.40	19.7	11-20-19 15:30	0.41	1253	8.72	85.5															
12-6-19 2:45	-0.10	2205	8.05	0.4	11-20-19 15:45	1.57	1323	8.40	18.4	11-20-19 15:45	0.42	1254	8.72	90.6															
12-6-19 3:00	-0.10	2204	8.05	0.4	11-20-19 16:00	1.57	1323	8.40	23.5	11-20-19 16:00	0.42	1253	8.72	87.2															
12-6-19 3:15	-0.10	2214	8.03	0.3	11-20-19 16:15	1.57	1323	8.40	23.3	11-20-19 16:15	0.43	1253	8.72	91.2															
12-6-19 3:30	-0.10	2209	8.03	0.5	11-20-19 16:30	1.57	1325	8.40	25.4	11-20-19 16:30	0.41	1252	8.72	82.9															
12-6-19 3:45	-0.10	2210	8.03	0.9	11-20-19 16:45	1.57	1324	8.40	20.6	11-20-19 16:45	0.43	1253	8.72	91.0															
12-6-19 4:00	-0.10	2209	8.03	1.4	11-20-19 17:00	1.59	1322	8.40	18.3	11-20-19 17:00	0.42	1252	8.72	83.7															
12-6-19 4:15	-0.09	2212	8.01	0.5	11-20-19 17:15	1.59	1312	8.40	19.0	11-20-19 17:15	0.43	1253	8.72	88.6															
12-6-19 4:30	-0.09	2209	8.04	0.5	11-20-19 17:30	1.60	1312	8.40	19.5	11-20-19 17:30	0.42	1252	8.72	84.6															
12-6-19 4:45	-0.09	2208	8.03	0.5	11-20-19 17:45	1.61	1312	8.40	17.0	11-20-19 17:45	0.44	1253	8.72	90.4															
12-6-19 5:00	-0.09	2206	8.03	0.7	11-20-19 18:00	1.61	1323	8.40	17.3	11-20-19 18:00	0.44	1252	8.72	80.8															
12-6-19 5:15	-0.08	2190	8.03	1.2	11-20-19 18:15	1.62	1323	8.40	17.4	11-20-19 18:15	0.45	1253	8.72	90.6															
12-6-19 5:30	-0.09	2186	8.03	1.8	11-20-19 18:30	1.63	1323	8.40	18.0	11-20-19 18:30	0.46	1252	8.72	81.6															
12-6-19 5:45	-0.09	2185	8.03	2.5	11-20-19 18:45	1.64	1322	8.40	15.4	11-20-19 18:45	0.47	1253	8.72	88.4															
12-6-19 6:00	-0.09	2184	8.02	3.0	11-20-19 19:00	1.64	1322	8.40	18.8	11-20-19 19:00	0.46	1252	8.72	83.2															
12-6-19 6:15	-0.08	2223	8.01	0.3	11-20-19 19:15	1.66	1322	8.40	18.4	11-20-19 19:15	0.48	1254	8.72	88.5															
12-6-19 6:30	-0.09	2222	8.04	0.4	11-20-19 19:30	1.67	1289	8.40	18.0	11-20-19 19:30	0.47	1254	8.72	82.0															
12-6-19 6:45	-0.09	2223	8.04	0.4	11-20-19 19:45	1.67	1288	8.40	18.1	11-20-19 19:45																			
12-6-19 7:00	-0.09	2223	8.03	0.4	11-20-19 20:00	1.69	1322	8.40	19.0	11-20-19 20:00	0.50	1254	8.72	83.2															
12-6-19 7:15	-0.09	2230	8.02	0.4	11-20-19 20:15	1.69	1320	8.40	16.2	11-20-19 20:15	0.52	1256	8.72	87.9															
12-6-19 7:30	-0.09	2227	8.03	0.5	11-20-19 20:30	1.71	1322	8.40	17.3	11-20-19 20:30	0.66	1237	8.72	82.8															
12-6-19 7:45	-0.09	2226	8.02	0.6	11-20-19 20:45	1.71	1321	8.40	18.1	11-20-19 20:45	0.65	1244	8.71	84.3															
12-6-19 8:00	-0.09	2226	8.02	0.9	11-20-19 21:00	1.72	1269	8.40	16.2	11-20-19 21:00	0.60	1247	8.72	83.5															
12-6-19 8:15	-0.09	2230	8.00	1.3	11-20-19 21:15	1.72	1267	8.40	17.1	11-20-19 21:15																			
12-6-19 8:30	-0.09	2227	8.04	0.4	11-20-19 21:30	1.72	1268	8.40	16.6	11-20-19 21:30	0.59	1252	8.72	81.1															
12-6-19 8:45	-0.09	2227	8.03	0.4	11-20-19 21:45	1.74	1270	8.40	16.9	11-20-19 21:45	0.59	1254	8.72	83.7															
12-6-19 9:00	-0.09	2227	8.03	0.4	11-20-19 22:00	1.73	1323	8.40	19.9	11-20-19 22:00	0.55	1253	8.72	81.0															
12-6-19 9:15	-0.08	2234	8.02	0.6	11-20-19 22:15	1.73	1320	8.40	17.3	11-20-19 22:15																			
12-6-19 9:30	-0.09	2231	8.03	0.6	11-20-19 22:30	1.73	1321	8.41	23.4	11-20-19 22:30	0.53	1254	8.72	79.1															
12-6-19 9:45	-0.09	2231	8.02	0.6	11-20-19 22:45	1.73	1321	8.40	16.2	11-20-19 22:45	0.54	1256	8.72	82.6															
12-6-19 10:00	-0.09	2231	8.02	0.8	11-20-19 23:00	1.72	1320	8.40	15.8	11-20-19 23:00	0.50	1254	8.72	82.9															
12-6-19 10:15	-0.08	2234	8.00	0.5	11-20-19 23:15	1.73	1312	8.40	16.6	11-20-19 23:15	0.52	1256	8.71	81.7															
12-6-19 10:30	-0.09	2233	8.02	0.4	11-20-19 23:30	1.72	1322	8.40	18.9	11-20-19 23:30																			
12-6-19 10:45	-0.09	2232	8.02	0.4	11-20-19 23:45	1.72	1321	8.40	16.8	11-20-19 23:45	0.50	1254	8.72	82.3															
12-6-19 11:00	-0.09	2232	8.02	0.5	11-21-19 0:00	1.71	1321	8.40	16.2	11-21-19 0:00	0.48	1253	8.72	79.5															
12-6-19 11:15	-0.09	2235	8.01	0.5	11-21-19 0:15	1.73	1324	8.40	17.5	11-21-19 0:15	0.49	1254	8.72	82.7															
12-6-19 11:30	-0.09	2236	8.02	0.4	11-21-19 0:30	1.71	1322	8.40	15.7	11-21-19 0:30	0.47	1253	8.72	80.1															
12-6-19 11:45	-0.10	2236	8.02	0.4	11-21-19 0:45	1.70	1323	8.40	12.0	11-21-19 0:45																			
12-6-19 12:00	-0.10	2235	8.02	0.4	11-21-19 1:00	1.71	1321	8.40	17.1	11-21-19 1:00	0.44	1253	8.72	77.1															
12-6-19 12:15	-0.10	2235	8.00	0.5	11-21-19 1:15	1.71	1294	8.40	16.3	11-21-19 1:15	0.44	1254	8.73	81.3															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-6-19 12:30	-0.10	2249	8.03	0.4	11-21-19 1:30	1.71	1294	8.40	18.0	11-21-19 1:30																			
12-6-19 12:45	-0.10	2240	8.03	0.4	11-21-19 1:45	1.69	1293	8.40	16.3	11-21-19 1:45																			
12-6-19 13:00	-0.10	2240	8.03	0.5	11-21-19 2:00	1.69	1324	8.40	24.1	11-21-19 2:00	0.39	1254	8.71	75.4															
12-6-19 13:15	-0.10	2267	8.02	0.5	11-21-19 2:15	1.72	1324	8.40	16.0	11-21-19 2:15	0.39	1257	8.71	81.8															
12-6-19 13:30	-0.10	2264	8.02	0.4	11-21-19 2:30	1.72	1324	8.40	15.8	11-21-19 2:30																			
12-6-19 13:45	-0.10	2263	8.02	0.5	11-21-19 2:45	1.72	1325	8.40	19.0	11-21-19 2:45	0.37	1257	8.72	80.6															
12-6-19 14:00	-0.10	2262	8.02	0.5	11-21-19 3:00	1.72	1323	8.40	15.9	11-21-19 3:00																			
12-6-19 14:15	-0.09	2268	8.00	0.5	11-21-19 3:15	1.72	1325	8.39	19.8	11-21-19 3:15	0.36	1258	8.72	79.0															
12-6-19 14:30	-0.10	2268	8.03	0.4	11-21-19 3:30	1.73	1324	8.40	15.5	11-21-19 3:30	0.35	1256	8.72	77.7															
12-6-19 14:45	-0.10	2268	8.03	0.4	11-21-19 3:45	1.73	1323	8.40	16.8	11-21-19 3:45	0.35	1259	8.71	79.0															
12-6-19 15:00	-0.10	2269	8.03	0.4	11-21-19 4:00	1.73	1326	8.40	16.3	11-21-19 4:00	0.33	1257	8.72	77.0															
12-6-19 15:15	-0.10	2274	8.02	0.5	11-21-19 4:15	1.74	1327	8.40	15.5	11-21-19 4:15	0.34	1260	8.72	79.5															
12-6-19 15:30	-0.10	2270	8.02	0.5	11-21-19 4:30	1.74	1327	8.40	15.0	11-21-19 4:30	0.33	1258	8.72	78.4															
12-6-19 15:45	-0.10	2268	8.02	0.4	11-21-19 4:45	1.75	1326	8.39	16.0	11-21-19 4:45	0.33	1260	8.72	77.9															
12-6-19 16:00	-0.10	2267	8.01	1.5	11-21-19 5:00	1.75	1328	8.40	17.5	11-21-19 5:00	0.32	1258	8.72	79.1															
12-6-19 16:15	-0.10	2272	8.00	0.6	11-21-19 5:15	1.76	1328	8.40	15.6	11-21-19 5:15	0.33	1260	8.72	80.2															
12-6-19 16:30	-0.10	2270	8.02	0.4	11-21-19 5:30	1.76	1314	8.40	16.7	11-21-19 5:30																			
12-6-19 16:45	-0.10	2270	8.02	0.5	11-21-19 5:45	1.75	1328	8.39	20.4	11-21-19 5:45	0.33	1260	8.73	79.8															
12-6-19 17:00	-0.10	2270	8.02	0.4	11-21-19 6:00	1.77	1329	8.40	14.4	11-21-19 6:00	0.32	1258	8.71	77.0															
12-6-19 17:15	-0.09	2287	8.01	0.5	11-21-19 6:15	1.77	1328	8.40	14.8	11-21-19 6:15	0.32	1260	8.71	79.6															
12-6-19 17:30	-0.09	2284	8.02	0.6	11-21-19 6:30	1.76	1329	8.40	13.3	11-21-19 6:30	0.31	1258	8.71	73.6															
12-6-19 17:45	-0.09	2282	8.01	0.8	11-21-19 6:45	1.75	1329	8.40	13.5	11-21-19 6:45	0.33	1261	8.71	80.3															
12-6-19 18:00	-0.09	2282	8.01	1.1	11-21-19 7:00	1.76	1329	8.38	22.5	11-21-19 7:00	0.32	1259	8.71	78.7															
12-6-19 18:15	-0.09	2288	7.99	0.6	11-21-19 7:15	1.77	1329	8.40	14.5	11-21-19 7:15	0.32	1260	8.71	77.7															
12-6-19 18:30	-0.09	2286	8.02	0.5	11-21-19 7:30	1.77	1330	8.39	20.2	11-21-19 7:30	0.32	1258	8.71	80.1															
12-6-19 18:45	-0.09	2286	8.02	0.5	11-21-19 7:45	1.76	1330	8.40	14.3	11-21-19 7:45	0.33	1260	8.71	77.4															
12-6-19 19:00	-0.09	2287	8.02	0.7	11-21-19 8:00	1.77	1331	8.40	17.2	11-21-19 8:00	0.32	1258	8.71	80.4															
12-6-19 19:15	-0.04	2328	8.01	0.5	11-21-19 8:15	1.77	1329	8.40	14.9	11-21-19 8:15	0.33	1259	8.71	78.4															
12-6-19 19:30	-0.08	2321	8.01	0.4	11-21-19 8:30	1.75	1330	8.39	15.0	11-21-19 8:30	0.32	1258	8.72	79.2															
12-6-19 19:45	-0.08	2318	8.01	0.3	11-21-19 8:45	1.74	1331	8.39	17.9	11-21-19 8:45	0.33	1259	8.71	76.6															
12-6-19 20:00	-0.07	2318	8.01	0.5	11-21-19 9:00	1.74	1330	8.39	16.6	11-21-19 9:00	0.33	1258	8.71	74.4															
12-6-19 20:15	-0.07	2321	8.00	0.5	11-21-19 9:15	1.75	1331	8.40	16.0	11-21-19 9:15	0.34	1257	8.72	76.7															
12-6-19 20:30	-0.07	2319	8.01	0.4	11-21-19 9:30	1.78	1333	8.39	20.5	11-21-19 9:30	0.33	1257	8.71	74.6															
12-6-19 20:45	0.07	2330	8.00	0.6	11-21-19 9:45	1.78	1332	8.39	16.9	11-21-19 9:45	0.35	1257	8.72	75.9															
12-6-19 21:00	0.00	2319	8.00	0.5	11-21-19 10:00	1.77	1331	8.40	16.3	11-21-19 10:00																			
12-6-19 21:15	0.02	2332	8.00	0.5	11-21-19 10:15	1.78	1321	8.40	15.0	11-21-19 10:15	0.34	1257	8.71	75.6															
12-6-19 21:30	0.03	2329	8.00	0.5	11-21-19 10:30	1.78	1331	8.40	14.5	11-21-19 10:30	0.33	1257	8.71	76.8															
12-6-19 21:45	0.03	2329	7.99	0.5	11-21-19 10:45	1.65	1322	8.39	14.6	11-21-19 10:45	0.34	1257	8.71	75.8															
12-6-19 22:00	0.03	2330	7.99	0.4	11-21-19 11:00	1.55	1312	8.39	13.5	11-21-19 11:00																			
12-6-19 22:15	0.04	2331	7.98	0.7	11-21-19 11:15	1.74	1324	8.39	17.8	11-21-19 11:15	0.34	1257	8.71	75.9															
12-6-19 22:30	0.03	2331	7.99	0.5	11-21-19 11:30	1.79	1332	8.39	15.9	11-21-19 11:30	0.32	1256	8.71	73.3															
12-6-19 22:45	0.04	2348	8.00	0.5	11-21-19 11:45	1.79	1333	8.39	17.9	11-21-19 11:45	0.33	1257	8.71	76.2															
12-6-19 23:00	-0.02	2336	8.00	0.4	11-21-19 12:00	1.78	1331	8.39	13.9	11-21-19 12:00	0.31	1257	8.71	77.3															
12-6-19 23:15	-0.01	2338	8.00	0.5	11-21-19 12:15	1.81	1331	8.39	14.4	11-21-19 12:15	0.32	1257	8.71	74.6															
12-6-19 23:30	0.00	2336	8.00	0.4	11-21-19 12:30	1.78	1332	8.39	13.4	11-21-19 12:30	0.31	1256	8.71	72.1															
12-6-19 23:45	0.01	2336	7.99	0.5	11-21-19 12:45	1.77	1331	8.38	13.3	11-21-19 12:45																			
12-7-19 0:00	0.01	2335	7.99	0.5	11-21-19 13:00	1.79	1332	8.39	15.0	11-21-19 13:00	0.30	1257	8.71	73.8															
12-7-19 0:15	0.01	2336	7.98	0.6	11-21-19 13:15	1.80	1332	8.39	13.1	11-21-19 13:15	0.31	1258	8.71	73.2															
12-7-19 0:30	0.00	2335	8.00	0.4	11-21-19 13:30	1.64	1318	8.39	10.5	11-21-19 13:30	0.30	1257	8.71	73.5															
12-7-19 0:45	-0.01	2334	7.99	0.5	11-21-19 13:45	1.76	1328	8.39	13.0	11-21-19 13:45	0.31	1257	8.71	72.9															
12-7-19 1:00	-0.02	2334	7.99	0.4	11-21-19 14:00	1.75	1294	8.39	13.5	11-21-19 14:00																			
12-7-19 1:15	-0.02	2334	7.98	0.5	11-21-19 14:15	1.65	1282	8.38	13.4	11-21-19 14:15	0.30	1258	8.71	71.9															
12-7-19 1:30	-0.04	2333	7.99	0.5	11-21-19 14:30	1.65	1284	8.38	10.5	11-21-19 14:30	0.29	1257	8.71	72.0															
12-7-19 1:45	-0.05	2334	7.99	0.5	11-21-19 14:45	1.76	1287	8.38	12.9	11-21-19 14:45	0.29	1259	8.71	70.9															
12-7-19 2:00	-0.06	2334	7.98	0.5	11-21-19 15:00	1.82	1333	8.39	12.4	11-21-19 15:00	0.28	1258	8.70	69.8															
12-7-19 2:15	0.04	2340	7.99	0.6	11-21-19 15:15	1.83	1334	8.39	19.9	11-21-19 15:15																			
12-7-19 2:30	-0.01	2334	7.99	0.5	11-21-19 15:30	1.83	1333	8.39	13.2	11-21-19 15:30	0.26	1259	8.70	71.6															
12-7-19 2:45	-0.04	2333	7.99	0.5	11-21-19 15:45	1.83	1334	8.39	14.4	11-21-19 15:45	0.26	1260	8.71	70.7															
12-7-19 3:00	-0.06	2333	7.98	0.4	11-21-19 16:00	1.82	1333	8.39	13.4	11-21-19 16:00	0.25	1260	8.71	67.6															
12-7-19 3:15	-0.07	2336	7.98	0.5	11-21-19 16:15	1.81	1332	8.39	12.6	11-21-19 16:15	0.26	1260	8.71	71.6															
12-7-19 3:30	-0.08	2334	7.99	0.5	11-21-19 16:30	1.83	1334	8.39	17.1	11-21-19 16:30	0.24	1260	8.70	68.4															
12-7-19 3:45	-0.08	2333	7.98	0.4	11-21-19 16:45	1.82	1334	8.39	13.7	11-21-19 16:45																			
12-7-19 4:00	-0.08	2332	7.99	0.4	11-21-19 17:00	1.84	1332	8.39	16.8	11-21-19 17:00	0.24	1260	8.71	69.6															
12-7-19 4:15	-0.08	2339	7.97	0.6	11-21-19 17:15	1.85	1331	8.39	14.1	11-21-19 17:15	0.26	1261	8.70	71.1															
12-7-19 4:30	-0.08	2333	8.00	0.4	11-21-19 17:30	1.85	1331	8.39	12.8	11-21-19 17:30	0.26	1261	8.70	64.5															
12-7-19 4:45	-0.08	2333	8.00	0.4	11-21-19 17:45	1.86	1331	8.39	12.4	11-21-19 17:45	0.27	1261	8.71	69.3															
12-7-19 5:00	-0.08	2332	8.00	0.4	11-21-19 18:00	1.85	1332	8.39	10.9	11-21-19 18:00	0.27	1261	8.70	67.9															
12-7-19 5:15	-0.08	2337	7.99	0.5	11-21-19 18:15	1.85	1331	8.39	13.0	11-21-19 18:15	0.28	1261	8.71	67.5															
12-7-19 5:30	-0.08	2333	8.00	0.4	11-21-19 18:30	1.86	1333	8.39	12.9	11-21-19 18:30	0.27	1262	8.70	66.3															
12-7-19 5:45	-0.08	2333	8.00	0.5	11-21-19 18:45	1.87	1333	8.39	13.8	11-21-19 18:45	0.27	1263	8.70	67.6															
12-7-19 6:00	-0.09	2333	8.00	0.4	11-21-19 19:00	1.89	1329	8.39	11.4	11-21-19 19:00	0.26	1264	8.70	68.5															
12-7-19 6:15	-0.08	2335	7.98	0.7	11-21-19 19:15	1.91	1315	8.39	11.7	11-21-19 19:15	0.29	1265	8.70	66.8															
12-7-19 6:30	-0.09	2332	8.00	0.5	11-21-19 19:30	1.91	1314	8.39	9.8	11-21-19 19:30	0.29	1264	8.70	63.5															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-7-19 6:45	-0.09	2331	8.00	0.5	11-21-19 19:45	1.91	1314	8.38	7.4	11-21-19 19:45	0.29	1265	8.70	66.3															
12-7-19 7:00	-0.08	2330	8.00	0.5	11-21-19 20:00	1.90	1329	8.39	11.6	11-21-19 20:00	0.27	1266	8.70	60.5															
12-7-19 7:15	-0.08	2333	7.99	0.6	11-21-19 20:15	1.90	1326	8.39	11.1	11-21-19 20:15	0.29	1267	8.70	63.6															
12-7-19 7:30	-0.08	2328	8.00	0.5	11-21-19 20:30	1.90	1328	8.39	7.8	11-21-19 20:30	0.28	1267	8.70	58.9															
12-7-19 7:45	-0.08	2329	8.00	0.4	11-21-19 20:45	1.89	1328	8.39	7.8	11-21-19 20:45	0.28	1268	8.70	64.1															
12-7-19 8:00	-0.08	2327	7.99	0.5	11-21-19 21:00	1.89	1329	8.38	15.7	11-21-19 21:00	0.28	1268	8.70	59.5															
12-7-19 8:15	-0.08	2340	7.98	0.7	11-21-19 21:15	1.88	1327	8.39	10.8	11-21-19 21:15	0.28	1269	8.70	62.4															
12-7-19 8:30	-0.08	2336	8.00	0.4	11-21-19 21:30	1.86	1327	8.38	18.0	11-21-19 21:30	0.26	1268	8.70	58.7															
12-7-19 8:45	-0.08	2337	8.00	0.5	11-21-19 21:45	1.86	1323	8.39	10.8	11-21-19 21:45	0.27	1269	8.70	62.0															
12-7-19 9:00	-0.08	2336	7.99	0.5	11-21-19 22:00	1.86	1322	8.38	10.3	11-21-19 22:00	0.26	1268	8.70	58.9															
12-7-19 9:15	-0.08	2331	7.98	0.6	11-21-19 22:15	1.85	1322	8.38	9.8	11-21-19 22:15	0.27	1269	8.70	62.9															
12-7-19 9:30	-0.08	2327	7.99	0.5	11-21-19 22:30	1.85	1321	8.38	10.0	11-21-19 22:30	0.25	1267	8.70	55.8															
12-7-19 9:45	-0.08	2326	7.99	0.4	11-21-19 22:45	1.85	1322	8.38	9.2	11-21-19 22:45	0.26	1268	8.70	60.1															
12-7-19 10:00	-0.08	2325	7.99	0.5	11-21-19 23:00	1.83	1231	8.39	9.3	11-21-19 23:00	0.25	1268	8.70	56.6															
12-7-19 10:15	-0.08	2342	7.98	0.8	11-21-19 23:15	1.83	1230	8.38	11.2	11-21-19 23:15																			
12-7-19 10:30	-0.08	2340	7.99	0.5	11-21-19 23:30	1.82	1228	8.38	9.4	11-21-19 23:30	0.24	1268	8.70	58.6															
12-7-19 10:45	-0.08	2340	7.99	0.5	11-21-19 23:45	1.82	1227	8.38	8.2	11-21-19 23:45	0.24	1268	8.70	59.9															
12-7-19 11:00	-0.08	2340	7.98	0.5	11-22-19 0:00	1.82	1320	8.38	10.9	11-22-19 0:00																			
12-7-19 11:15	-0.08	2345	7.98	0.9	11-22-19 0:15	1.80	1319	8.38	15.7	11-22-19 0:15	0.24	1268	8.70	60.8															
12-7-19 11:30	-0.08	2342	7.99	1.2	11-22-19 0:30	1.82	1319	8.38	16.9	11-22-19 0:30	0.23	1267	8.69	56.3															
12-7-19 11:45	-0.08	2343	7.99	1.7	11-22-19 0:45	1.82	1320	8.38	11.1	11-22-19 0:45	0.23	1268	8.70	58.3															
12-7-19 12:00	-0.08	2344	7.98	2.6	11-22-19 1:00	1.84	1324	8.38	10.3	11-22-19 1:00	0.23	1267	8.69	56.5															
12-7-19 12:15	-0.08	2352	7.97	0.7	11-22-19 1:15	1.81	1318	8.38	10.4	11-22-19 1:15	0.23	1268	8.70	60.1															
12-7-19 12:30	-0.08	2347	7.98	0.4	11-22-19 1:30	1.81	1289	8.39	10.1	11-22-19 1:30	0.22	1267	8.70	53.9															
12-7-19 12:45	-0.08	2347	7.99	0.4	11-22-19 1:45	1.83	1319	8.39	9.7	11-22-19 1:45	0.23	1267	8.70	60.8															
12-7-19 13:00	-0.08	2348	7.99	0.4	11-22-19 2:00	1.80	1318	8.38	10.1	11-22-19 2:00	0.22	1267	8.70	56.1															
12-7-19 13:15	-0.07	2354	7.98	0.6	11-22-19 2:15	1.82	1319	8.38	15.0	11-22-19 2:15	0.23	1267	8.70	58.8															
12-7-19 13:30	-0.07	2351	7.99	0.4	11-22-19 2:30	1.84	1320	8.38	9.5	11-22-19 2:30	0.22	1267	8.70	51.8															
12-7-19 13:45	-0.08	2352	7.98	0.5	11-22-19 2:45	1.84	1320	8.38	11.6	11-22-19 2:45	0.23	1267	8.70	58.3															
12-7-19 14:00	-0.08	2351	7.98	0.5	11-22-19 3:00	1.84	1321	8.38	10.2	11-22-19 3:00	0.23	1267	8.69	53.8															
12-7-19 14:15	-0.07	2366	7.97	0.7	11-22-19 3:15	1.85	1321	8.38	9.8	11-22-19 3:15																			
12-7-19 14:30	-0.07	2361	7.98	0.5	11-22-19 3:30	1.86	1322	8.38	11.3	11-22-19 3:30	0.23	1266	8.69	53.8															
12-7-19 14:45	-0.07	2362	7.98	0.5	11-22-19 3:45	1.87	1322	8.38	11.4	11-22-19 3:45																			
12-7-19 15:00	-0.07	2363	7.98	0.5	11-22-19 4:00	1.84	1320	8.37	9.0	11-22-19 4:00	0.22	1267	8.69	53.5															
12-7-19 15:15	-0.07	2365	7.97	0.5	11-22-19 4:15	1.85	1323	8.38	9.4	11-22-19 4:15	0.23	1267	8.70	56.9															
12-7-19 15:30	-0.07	2362	7.99	0.5	11-22-19 4:30	1.84	1321	8.38	16.6	11-22-19 4:30	0.22	1267	8.69	54.0															
12-7-19 15:45	-0.07	2363	7.98	0.5	11-22-19 4:45	1.84	1324	8.38	9.4	11-22-19 4:45	0.23	1267	8.70	57.0															
12-7-19 16:00	-0.07	2363	7.97	0.5	11-22-19 5:00	1.79	1318	8.38	10.0	11-22-19 5:00	0.22	1266	8.69	51.9															
12-7-19 16:15	-0.07	2367	7.96	0.7	11-22-19 5:15	1.87	1324	8.38	9.1	11-22-19 5:15	0.23	1267	8.70	56.1															
12-7-19 16:30	-0.07	2365	7.98	0.5	11-22-19 5:30	1.83	1319	8.38	8.4	11-22-19 5:30	0.22	1267	8.69	51.6															
12-7-19 16:45	-0.07	2365	7.98	0.4	11-22-19 5:45	1.87	1324	8.38	10.6	11-22-19 5:45																			
12-7-19 17:00	-0.07	2365	7.98	0.5	11-22-19 6:00	1.86	1323	8.38	10.5	11-22-19 6:00	0.21	1267	8.69	51.5															
12-7-19 17:15	-0.07	2374	7.97	0.6	11-22-19 6:15	1.85	1322	8.38	8.8	11-22-19 6:15	0.22	1267	8.70	54.7															
12-7-19 17:30	-0.07	2372	7.98	0.5	11-22-19 6:30	1.79	1320	8.38	14.3	11-22-19 6:30	0.21	1266	8.69	52.7															
12-7-19 17:45	-0.07	2373	7.98	0.4	11-22-19 6:45	1.76	1315	8.38	9.9	11-22-19 6:45	0.21	1267	8.69	55.1															
12-7-19 18:00	-0.08	2374	7.98	0.5	11-22-19 7:00	1.77	1308	8.37	9.2	11-22-19 7:00	0.20	1267	8.70	49.0															
12-7-19 18:15	-0.08	2378	7.96	0.7	11-22-19 7:15	1.77	1306	8.38	8.7	11-22-19 7:15	0.21	1267	8.69	56.5															
12-7-19 18:30	-0.08	2376	7.98	0.5	11-22-19 7:30	1.76	1305	8.37	8.5	11-22-19 7:30	0.20	1266	8.69	47.7															
12-7-19 18:45	-0.09	2377	7.98	0.5	11-22-19 7:45	1.82	1307	8.38	8.2	11-22-19 7:45	0.21	1266	8.69	53.8															
12-7-19 19:00	-0.09	2377	7.97	0.5	11-22-19 8:00	1.76	1312	8.37	8.0	11-22-19 8:00	0.20	1266	8.69	49.2															
12-7-19 19:15	-0.09	2383	7.97	0.7	11-22-19 8:15	1.81	1320	8.37	8.1	11-22-19 8:15	0.21	1266	8.69	54.8															
12-7-19 19:30	-0.06	2368	7.98	0.8	11-22-19 8:30	1.82	1321	8.38	12.0	11-22-19 8:30	0.20	1266	8.69	50.5															
12-7-19 19:45	-0.08	2372	7.98	0.8	11-22-19 8:45	1.85	1323	8.38	18.7	11-22-19 8:45	0.20	1266	8.69	52.5															
12-7-19 20:00	-0.08	2373	7.97	0.8	11-22-19 9:00	1.91	1326	8.38	10.4	11-22-19 9:00	0.20	1265	8.69	47.7															
12-7-19 20:15	-0.08	2387	7.96	0.6	11-22-19 9:15	1.83	1261	8.38	9.0	11-22-19 9:15	0.20	1265	8.70	54.2															
12-7-19 20:30	-0.09	2385	7.99	0.4	11-22-19 9:30	1.78	1258	8.37	8.0	11-22-19 9:30	0.19	1265	8.69	53.4															
12-7-19 20:45	-0.10	2385	7.98	0.5	11-22-19 9:45	1.76	1251	8.37	6.8	11-22-19 9:45	0.19	1265	8.70	53.7															
12-7-19 21:00	-0.10	2385	7.98	0.4	11-22-19 10:00	1.74	1316	8.38	9.5	11-22-19 10:00	0.19	1265	8.69	50.2															
12-7-19 21:15	-0.10	2385	7.97	0.6	11-22-19 10:15	1.79	1320	8.37	8.1	11-22-19 10:15	0.19	1265	8.70	53.6															
12-7-19 21:30	-0.10	2391	7.98	0.5	11-22-19 10:30	1.76	1320	8.38	9.4	11-22-19 10:30	0.19	1264	8.69	47.8															
12-7-19 21:45	-0.10	2391	7.98	0.5	11-22-19 10:45	1.81	1322	8.38	7.6	11-22-19 10:45	0.19	1265	8.69	53.0															
12-7-19 22:00	-0.10	2392	7.98	0.5	11-22-19 11:00	1.87	1326	8.37	12.7	11-22-19 11:00	0.19	1264	8.69	45.2															
12-7-19 22:15	-0.10	2382	7.97	0.7	11-22-19 11:15	1.82	1321	8.37	12.3	11-22-19 11:15	0.18	1265	8.69	50.9															
12-7-19 22:30	-0.10	2379	7.97	0.5	11-22-19 11:30	1.72	1318	8.37	11.3	11-22-19 11:30	0.18	1264	8.69	46.2															
12-7-19 22:45	-0.11	2378	7.98	0.5	11-22-19 11:45	1.77	1314	8.37	11.4	11-22-19 11:45	0.17	1265	8.69	51.5															
12-7-19 23:00	-0.11	2378	7.97	0.5	11-22-19 12:00	1.81	1321	8.37	12.2	11-22-19 12:00	0.17	1264	8.69	43.0															
12-7-19 23:15	-0.10	2401	7.97	0.6	11-22-19 12:15	1.82	1323	8.37	13.2	11-22-19 12:15	0.17	1264	8.70	51.0															
12-7-19 23:30	-0.10	2396	7.98	0.5	11-22-19 12:30	1.82	1323	8.37	12.3	11-22-19 12:30																			
12-7-19 23:45	-0.09	2395	7.97	0.5	11-22-19 12:45	1.88	1325	8.37	12.5	11-22-19 12:45	0.16	1264	8.69	48.5															
12-8-19 0:00	-0.09	2394	7.97	0.4	11-22-19 13:00	1.85	1282	8.37	7.3	11-22-19 13:00																			
12-8-19 0:15	-0.09	2398	7.96	0.8	11-22-19 13:15	1.86	1282	8.37	8.4	11-22-19 13:15	0.16	1264	8.69	49.3															
12-8-19 0:30	-0.09	2397	7.97	0.5	11-22-19 13:30	1.82	1279	8.37	7.4	11-22-19 13:30	0.15	1263	8.69	42.5															
12-8-19 0:45	-0.09	2396	7.96	0.4	11-22-19 13:45	1.71	1271	8.36	7.5	11-22-19 13:45	0.15	1263	8.69	49.7															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-8-19 1:00	-0.09	2396	7.97	0.5	11-22-19 14:00	1.59	1308	8.36	12.1	11-22-19 14:00	0.15	1262	8.69	42.4															
12-8-19 1:15	-0.07	2399	7.97	0.7	11-22-19 14:15	1.67	1317	8.36	12.7	11-22-19 14:15	0.15	1263	8.69	49.2															
12-8-19 1:30	-0.05	2390	7.97	0.4	11-22-19 14:30	1.72	1318	8.36	12.3	11-22-19 14:30	0.15	1263	8.69	44.0															
12-8-19 1:45	-0.05	2390	7.97	0.5	11-22-19 14:45	1.67	1317	8.36	11.7	11-22-19 14:45	0.15	1263	8.69	49.9															
12-8-19 2:00	-0.05	2389	7.97	0.5	11-22-19 15:00	1.70	1316	8.35	7.4	11-22-19 15:00	0.14	1264	8.68	43.7															
12-8-19 2:15	-0.06	2384	7.96	0.6	11-22-19 15:15	1.79	1320	8.36	8.2	11-22-19 15:15	0.14	1264	8.69	48.8															
12-8-19 2:30	-0.06	2375	7.97	0.5	11-22-19 15:30	1.88	1327	8.37	9.2	11-22-19 15:30	0.14	1263	8.69	42.5															
12-8-19 2:45	-0.03	2369	7.97	0.5	11-22-19 15:45	1.88	1321	8.37	6.9	11-22-19 15:45	0.14	1264	8.69	48.3															
12-8-19 3:00	0.00	2362	7.97	0.5	11-22-19 16:00	1.88	1274	8.37	7.4	11-22-19 16:00	0.14	1263	8.69	40.7															
12-8-19 3:15	0.01	2366	7.97	0.6	11-22-19 16:15	1.77	1318	8.36	9.6	11-22-19 16:15	0.15	1264	8.69	45.2															
12-8-19 3:30	-0.01	2362	7.98	0.5	11-22-19 16:30	1.73	1312	8.36	8.3	11-22-19 16:30	0.15	1261	8.69	38.4															
12-8-19 3:45	-0.02	2361	7.97	0.4	11-22-19 16:45	1.68	1299	8.36	6.1	11-22-19 16:45	0.16	1262	8.69	44.3															
12-8-19 4:00	-0.03	2363	7.97	0.5	11-22-19 17:00	1.73	1309	8.36	9.3	11-22-19 17:00	0.15	1260	8.69	37.2															
12-8-19 4:15	-0.04	2374	7.96	0.7	11-22-19 17:15	1.77	1307	8.35	6.8	11-22-19 17:15	0.16	1261	8.69	43.9															
12-8-19 4:30	-0.06	2374	7.98	0.5	11-22-19 17:30	1.86	1316	8.36	8.1	11-22-19 17:30	0.15	1260	8.69	38.4															
12-8-19 4:45	-0.06	2373	7.97	0.4	11-22-19 17:45	1.87	1318	8.36	7.2	11-22-19 17:45	0.16	1261	8.68	44.0															
12-8-19 5:00	-0.07	2375	7.97	0.4	11-22-19 18:00	1.87	1299	8.36	7.9	11-22-19 18:00	0.16	1258	8.68	39.4															
12-8-19 5:15	-0.07	2388	7.96	0.5	11-22-19 18:15	1.92	1320	8.36	11.7	11-22-19 18:15	0.17	1260	8.69	45.4															
12-8-19 5:30	-0.08	2386	7.98	0.4	11-22-19 18:30	1.90	1317	8.37	9.8	11-22-19 18:30	0.18	1260	8.68	40.2															
12-8-19 5:45	-0.08	2386	7.97	0.4	11-22-19 18:45	1.87	1313	8.37	7.7	11-22-19 18:45	0.18	1260	8.69	42.7															
12-8-19 6:00	-0.08	2387	7.98	0.5	11-22-19 19:00	1.91	1317	8.36	8.5	11-22-19 19:00	0.20	1260	8.68	39.2															
12-8-19 6:15	-0.07	2368	7.96	0.7	11-22-19 19:15	1.92	1321	8.36	7.7	11-22-19 19:15	0.21	1259	8.68	42.8															
12-8-19 6:30	-0.08	2363	7.98	0.5	11-22-19 19:30	1.89	1312	8.36	6.7	11-22-19 19:30	0.21	1259	8.68	36.6															
12-8-19 6:45	-0.08	2364	7.97	0.5	11-22-19 19:45	1.85	1303	8.36	8.3	11-22-19 19:45	0.21	1260	8.68	43.8															
12-8-19 7:00	-0.09	2365	7.97	0.4	11-22-19 20:00	1.92	1316	8.36	8.7	11-22-19 20:00	0.21	1261	8.68	38.9															
12-8-19 7:15	-0.08	2369	7.96	0.6	11-22-19 20:15	1.94	1317	8.36	9.2	11-22-19 20:15	0.23	1260	8.68	44.7															
12-8-19 7:30	-0.08	2364	7.98	0.5	11-22-19 20:30	1.96	1316	8.36	8.7	11-22-19 20:30	0.25	1260	8.69	39.5															
12-8-19 7:45	-0.09	2364	7.97	0.5	11-22-19 20:45	1.96	1313	8.36	8.8	11-22-19 20:45	0.28	1258	8.69	40.7															
12-8-19 8:00	-0.09	2364	7.97	0.5	11-22-19 21:00	1.96	1305	8.35	7.2	11-22-19 21:00	0.29	1256	8.68	36.0															
12-8-19 8:15	-0.08	2368	7.96	0.7	11-22-19 21:15	1.97	1299	8.36	7.1	11-22-19 21:15	0.30	1255	8.69	37.0															
12-8-19 8:30	-0.09	2368	7.98	0.5	11-22-19 21:30	1.99	1316	8.36	7.6	11-22-19 21:30	0.30	1254	8.68	29.2															
12-8-19 8:45	-0.09	2367	7.97	0.5	11-22-19 21:45	1.96	1274	8.36	6.9	11-22-19 21:45	0.28	1254	8.68	37.0															
12-8-19 9:00	-0.09	2367	7.98	0.5	11-22-19 22:00	1.98	1303	8.36	7.8	11-22-19 22:00	0.26	1256	8.67	35.1															
12-8-19 9:15	-0.09	2387	7.98	0.6	11-22-19 22:15	1.96	1310	8.37	5.3	11-22-19 22:15	0.25	1256	8.67	33.4															
12-8-19 9:30	-0.09	2383	7.98	0.5	11-22-19 22:30	1.99	1300	8.37	8.3	11-22-19 22:30	0.23	1253	8.67	27.3															
12-8-19 9:45	-0.10	2384	7.97	0.5	11-22-19 22:45	1.95	1298	8.35	6.4	11-22-19 22:45	0.20	1255	8.67	32.3															
12-8-19 10:00	-0.10	2384	7.96	0.5	11-22-19 23:00	1.90	1268	8.36	6.6	11-22-19 23:00	0.18	1250	8.67	24.9															
12-8-19 10:15	-0.09	2370	7.97	0.7	11-22-19 23:15	1.92	1258	8.36	6.9	11-22-19 23:15	0.14	1247	8.67	31.3															
12-8-19 10:30	-0.09	2369	7.98	0.5	11-22-19 23:30	1.92	1259	8.36	6.7	11-22-19 23:30	0.14	1238	8.67	18.6															
12-8-19 10:45	-0.09	2367	7.98	0.4	11-22-19 23:45	1.91	1264	8.36	7.0	11-22-19 23:45	0.15	1248	8.67	35.7															
12-8-19 11:00	-0.10	2368	7.98	0.4	11-23-19 0:00	1.87	1285	8.35	8.4	11-23-19 0:00	0.12	1227	8.66	19.2															
12-8-19 11:15	-0.09	2374	7.97	0.5	11-23-19 0:15	1.91	1302	8.36	11.8	11-23-19 0:15	0.15	1234	8.66	28.7															
12-8-19 11:30	-0.09	2368	7.98	0.5	11-23-19 0:30	1.89	1287	8.35	16.3	11-23-19 0:30	0.13	1216	8.66	24.0															
12-8-19 11:45	-0.10	2369	7.98	0.5	11-23-19 0:45	1.87	1286	8.35	7.3	11-23-19 0:45	0.15	1218	8.66	24.4															
12-8-19 12:00	-0.10	2368	7.97	0.4	11-23-19 1:00	1.84	1277	8.35	6.8	11-23-19 1:00	0.14	1211	8.66	22.2															
12-8-19 12:15	-0.10	2372	7.96	0.7	11-23-19 1:15	1.83	1289	8.34	7.8	11-23-19 1:15	0.14	1196	8.65	23.9															
12-8-19 12:30	-0.10	2371	7.98	0.5	11-23-19 1:30	1.75	1212	8.34	6.4	11-23-19 1:30	0.17	1202	8.64	16.2															
12-8-19 12:45	-0.10	2370	7.98	0.4	11-23-19 1:45	1.72	1272	8.34	5.7	11-23-19 1:45	0.13	1181	8.64	18.5															
12-8-19 13:00	-0.10	2369	7.97	0.4	11-23-19 2:00	1.86	1308	8.35	10.1	11-23-19 2:00	0.13	1181	8.64	18.5															
12-8-19 13:15	-0.10	2376	7.97	0.6	11-23-19 2:15	1.77	1255	8.34	7.0	11-23-19 2:15																			
12-8-19 13:30	-0.10	2373	7.98	0.4	11-23-19 2:30	1.77	1269	8.34	7.0	11-23-19 2:30	0.10	1174	8.64	18.9															
12-8-19 13:45	-0.10	2373	7.97	0.4	11-23-19 2:45	1.80	1294	8.35	8.6	11-23-19 2:45	0.10	1138	8.64	16.0															
12-8-19 14:00	-0.10	2372	7.97	0.5	11-23-19 3:00	1.84	1291	8.34	6.6	11-23-19 3:00	0.10	1138	8.64	16.0															
12-8-19 14:15	-0.10	2379	7.96	0.6	11-23-19 3:15	1.71	1251	8.33	5.6	11-23-19 3:15																			
12-8-19 14:30	-0.10	2377	7.98	0.4	11-23-19 3:30	1.81	1278	8.34	6.2	11-23-19 3:30																			
12-8-19 14:45	-0.10	2377	7.98	0.4	11-23-19 3:45	1.76	1263	8.33	6.5	11-23-19 3:45	0.12	1110	8.63	16.1															
12-8-19 15:00	-0.10	2377	7.98	0.4	11-23-19 4:00	1.81	1274	8.33	10.2	11-23-19 4:00	0.12	1110	8.63	16.1															
12-8-19 15:15	-0.09	2383	7.98	0.6	11-23-19 4:15	1.78	1267	8.33	6.1	11-23-19 4:15																			
12-8-19 15:30	-0.09	2378	7.99	0.5	11-23-19 4:30	1.84	1260	8.33	6.1	11-23-19 4:30	0.10	1074	8.64	15.3															
12-8-19 15:45	-0.09	2378	7.98	0.4	11-23-19 4:45	1.78	1250	8.33	6.0	11-23-19 4:45	0.12	1057	8.63	17.9															
12-8-19 16:00	-0.09	2378	7.97	0.4	11-23-19 5:00	1.87	1280	8.34	12.5	11-23-19 5:00	0.12	1057	8.63	17.9															
12-8-19 16:15	-0.09	2381	7.96	0.6	11-23-19 5:15	1.83	1295	8.34	12.8	11-23-19 5:15																			
12-8-19 16:30	-0.08	2378	7.99	0.5	11-23-19 5:30	1.81	1279	8.33	13.0	11-23-19 5:30																			
12-8-19 16:45	-0.09	2378	7.99	0.4	11-23-19 5:45	1.81	1284	8.33	13.1	11-23-19 5:45	0.15	1029	8.62	15.3															
12-8-19 17:00	-0.09	2377	7.99	0.4	11-23-19 6:00	1.79	1291	8.34	6.4	11-23-19 6:00	0.15	1030	8.61	13.4															
12-8-19 17:15	-0.08	2379	7.98	0.5	11-23-19 6:15	1.79	1294	8.33	8.9	11-23-19 6:15	0.15	1019	8.62	19.3															
12-8-19 17:30	-0.09	2376	7.99	0.4	11-23-19 6:30	1.77	1275	8.33	5.9	11-23-19 6:30	0.14	995	8.62	13.9															
12-8-19 17:45	-0.09	2375	7.98	0.5	11-23-19 6:45	1.74	1285	8.33	6.3	11-23-19 6:45	0.14	1005	8.61	18.0															
12-8-19 18:00	-0.09	2374	7.97	0.5	11-23-19 7:00	1.80	1284	8.33	5.9	11-23-19 7:00	0.14	1005	8.61	18.0															
12-8-19 18:15	-0.08	2377	7.98	0.6	11-23-19 7:15	1.76	1288	8.34	6.0	11-23-19 7:15																			
12-8-19 18:30	-0.09	2375	7.98	0.5	11-23-19 7:30	1.79	1285	8.34	4.6	11-23-19 7:30	0.14	1001	8.61	18.4															
12-8-19 18:45	-0.02	2392	7.99	0.8	11-23-19 7:45	1.78	1277	8.33	5.8	11-23-19 7:45	0.14	975	8.61	13.9															
12-8-19 19:00	-0.04	2376	7.98	0.5	11-23-19 8:00	1.75	1242	8.33	5.3	11-23-19 8:00	0.15	996	8.62	15.4															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-8-19 19:15	-0.07	2362	7.98	0.8	11-23-19 8:15	1.77	1251	8.33	5.6	11-23-19 8:15	0.15	980	8.62	14.4															
12-8-19 19:30	-0.07	2283	7.99	0.5	11-23-19 8:30	1.79	1257	8.33	4.8	11-23-19 8:30	0.15	979	8.61	17.3															
12-8-19 19:45	-0.07	2309	7.98	0.5	11-23-19 8:45	1.80	1260	8.33	5.5	11-23-19 8:45	0.15	972	8.60	19.3															
12-8-19 20:00	-0.08	2321	7.97	0.5	11-23-19 9:00	1.80	1296	8.34	6.3	11-23-19 9:00	0.15	972	8.60	19.3															
12-8-19 20:15	-0.08	2378	7.98	0.6	11-23-19 9:15	1.80	1296	8.34	6.1	11-23-19 9:15	0.15	1023	8.61	22.3															
12-8-19 20:30	-0.08	2376	8.00	0.4	11-23-19 9:30	1.80	1297	8.34	6.1	11-23-19 9:30	0.14	1015	8.61	18.2															
12-8-19 20:45	-0.08	2376	7.99	0.3	11-23-19 9:45	1.85	1299	8.33	6.1	11-23-19 9:45	0.14	1027	8.62	22.9															
12-8-19 21:00	-0.09	2376	7.99	0.3	11-23-19 10:00	1.83	1301	8.34	5.1	11-23-19 10:00	0.13	1023	8.61	20.0															
12-8-19 21:15	-0.09	2379	7.99	0.5	11-23-19 10:15	1.82	1254	8.34	5.1	11-23-19 10:15	0.13	1034	8.62	21.8															
12-8-19 21:30	-0.09	2375	8.00	0.4	11-23-19 10:30	1.82	1254	8.34	4.8	11-23-19 10:30	0.12	1019	8.61	20.7															
12-8-19 21:45	-0.08	2374	7.98	0.4	11-23-19 10:45	1.80	1302	8.34	6.6	11-23-19 10:45	0.12	1036	8.62	20.5															
12-8-19 22:00	-0.08	2372	7.97	0.4	11-23-19 11:00	1.80	1299	8.34	4.4	11-23-19 11:00	0.11	1021	8.61	17.3															
12-8-19 22:15	-0.07	2379	7.98	0.6	11-23-19 11:15	1.80	1297	8.34	4.1	11-23-19 11:15	0.11	1037	8.62	18.9															
12-8-19 22:30	-0.07	2370	8.00	0.4	11-23-19 11:30	1.80	1299	8.34	4.4	11-23-19 11:30	0.11	1027	8.61	14.6															
12-8-19 22:45	-0.06	2370	8.00	0.3	11-23-19 11:45	1.82	1298	8.33	4.8	11-23-19 11:45	0.11	1031	8.62	18.0															
12-8-19 23:00	-0.05	2368	7.99	0.3	11-23-19 12:00	1.81	1298	8.34	5.2	11-23-19 12:00	0.10	1025	8.62	15.5															
12-8-19 23:15	-0.05	2374	7.98	0.5	11-23-19 12:15	1.77	1239	8.34	4.6	11-23-19 12:15	0.10	1033	8.62	17.4															
12-8-19 23:30	-0.06	2365	7.98	0.4	11-23-19 12:30	1.69	1283	8.33	5.8	11-23-19 12:30	0.10	1032	8.61	15.9															
12-8-19 23:45	-0.07	2366	7.98	0.3	11-23-19 12:45	1.71	1279	8.33	4.2	11-23-19 12:45	0.11	1046	8.62	20.2															
12-9-19 0:00	-0.07	2366	7.98	0.3	11-23-19 13:00	1.74	1261	8.33	4.4	11-23-19 13:00	0.12	1019	8.62	18.5															
12-9-19 0:15	-0.07	2367	7.98	0.5	11-23-19 13:15	1.76	1296	8.34	14.1	11-23-19 13:15	0.13	1041	8.63	19.9															
12-9-19 0:30	-0.08	2362	7.99	0.4	11-23-19 13:30	1.72	1292	8.32	4.5	11-23-19 13:30	0.13	1016	8.62	15.0															
12-9-19 0:45	-0.08	2362	7.98	0.4	11-23-19 13:45	1.65	1280	8.32	6.1	11-23-19 13:45	0.15	1033	8.63	21.4															
12-9-19 1:00	-0.09	2363	7.98	0.3	11-23-19 14:00	1.69	1222	8.33	5.0	11-23-19 14:00	0.16	1019	8.62	14.6															
12-9-19 1:15	-0.09	2370	7.98	0.5	11-23-19 14:15	1.63	1220	8.33	3.7	11-23-19 14:15	0.17	1035	8.63	21.9															
12-9-19 1:30	-0.09	2362	7.99	0.3	11-23-19 14:30	1.66	1275	8.32	3.4	11-23-19 14:30	0.17	1018	8.62	15.1															
12-9-19 1:45	-0.09	2362	7.98	0.4	11-23-19 14:45	1.68	1275	8.33	3.5	11-23-19 14:45	0.18	1034	8.63	19.5															
12-9-19 2:00	-0.09	2362	7.98	0.4	11-23-19 15:00	1.66	1275	8.32	3.9	11-23-19 15:00	0.18	1028	8.62	14.8															
12-9-19 2:15	-0.08	2364	7.98	0.5	11-23-19 15:15	1.69	1282	8.33	3.9	11-23-19 15:15	0.19	1037	8.62	22.2															
12-9-19 2:30	-0.08	2361	7.99	0.4	11-23-19 15:30	1.67	1277	8.32	4.7	11-23-19 15:30	0.19	1025	8.61	16.9															
12-9-19 2:45	-0.09	2359	7.99	0.3	11-23-19 15:45	1.67	1269	8.31	4.6	11-23-19 15:45	0.19	1030	8.62	20.0															
12-9-19 3:00	-0.09	2359	7.99	0.3	11-23-19 16:00	1.72	1293	8.33	2.0	11-23-19 16:00	0.19	1020	8.62	16.4															
12-9-19 3:15	-0.09	2366	7.98	0.4	11-23-19 16:15	1.73	1294	8.32	2.2	11-23-19 16:15	0.19	1036	8.62	21.0															
12-9-19 3:30	-0.09	2359	7.99	0.3	11-23-19 16:30	1.77	1292	8.32	2.0	11-23-19 16:30	0.19	1021	8.61	16.1															
12-9-19 3:45	-0.10	2359	7.99	0.3	11-23-19 16:45	1.81	1293	8.32	2.4	11-23-19 16:45	0.20	1035	8.62	18.9															
12-9-19 4:00	-0.10	2360	7.98	0.3	11-23-19 17:00	1.73	1292	8.32	7.8	11-23-19 17:00	0.21	1026	8.60	16.1															
12-9-19 4:15	-0.09	2365	7.98	0.6	11-23-19 17:15	1.71	1274	8.32	4.2	11-23-19 17:15	0.23	1039	8.62	19.0															
12-9-19 4:30	-0.09	2362	7.99	0.3	11-23-19 17:30	1.64	1262	8.32	4.5	11-23-19 17:30	0.24	1033	8.61	16.1															
12-9-19 4:45	-0.09	2361	7.99	0.3	11-23-19 17:45	1.64	1253	8.31	4.7	11-23-19 17:45	0.25	1038	8.62	19.3															
12-9-19 5:00	-0.09	2358	7.99	0.3	11-23-19 18:00	1.62	1215	8.30	8.3	11-23-19 18:00	0.27	1036	8.62	16.3															
12-9-19 5:15	-0.08	2359	7.99	0.4	11-23-19 18:15	1.70	1250	8.31	4.3	11-23-19 18:15	0.28	1051	8.62	18.2															
12-9-19 5:30	-0.09	2353	7.99	0.3	11-23-19 18:30	1.78	1252	8.31	4.9	11-23-19 18:30	0.29	1041	8.61	16.0															
12-9-19 5:45	-0.09	2353	7.99	0.4	11-23-19 18:45	1.72	1255	8.31	3.7	11-23-19 18:45	0.31	1053	8.63	25.0															
12-9-19 6:00	-0.09	2353	7.99	0.4	11-23-19 19:00	1.83	1264	8.32	4.3	11-23-19 19:00	0.31	1053	8.63	25.0															
12-9-19 6:15	-0.08	2357	7.97	0.5	11-23-19 19:15	1.82	1269	8.32	3.9	11-23-19 19:15	0.33	1036	8.62	17.1															
12-9-19 6:30	-0.09	2355	7.99	0.3	11-23-19 19:30	1.84	1270	8.31	4.7	11-23-19 19:30	0.35	1061	8.63	27.0															
12-9-19 6:45	-0.09	2353	7.99	0.3	11-23-19 19:45	1.79	1265	8.32	3.9	11-23-19 19:45	0.36	1053	8.63	16.9															
12-9-19 7:00	-0.07	2351	7.99	0.4	11-23-19 20:00	1.87	1224	8.32	4.4	11-23-19 20:00	0.38	1062	8.63	22.4															
12-9-19 7:15	-0.05	2349	7.99	0.4	11-23-19 20:15	1.83	1279	8.32	5.7	11-23-19 20:15	0.39	1057	8.62	16.4															
12-9-19 7:30	-0.06	2342	7.99	0.3	11-23-19 20:30	1.79	1260	8.32	3.7	11-23-19 20:30	0.40	1059	8.64	20.8															
12-9-19 7:45	-0.07	2342	7.99	0.3	11-23-19 20:45	1.82	1259	8.32	4.1	11-23-19 20:45	0.40	1060	8.63	17.1															
12-9-19 8:00	-0.06	2339	7.99	0.3	11-23-19 21:00	1.84	1280	8.32	4.6	11-23-19 21:00	0.40	1060	8.63	17.1															
12-9-19 8:15	-0.04	2332	7.98	0.5	11-23-19 21:15	1.84	1264	8.32	4.8	11-23-19 21:15																			
12-9-19 8:30	-0.04	2328	7.99	0.3	11-23-19 21:30	1.84	1267	8.32	4.8	11-23-19 21:30	0.41	1065	8.63	19.6															
12-9-19 8:45	-0.05	2325	7.99	0.3	11-23-19 21:45	1.84	1267	8.32	4.5	11-23-19 21:45	0.41	1070	8.64	26.8															
12-9-19 9:00	-0.05	2323	7.99	0.3	11-23-19 22:00	1.82	1278	8.33	4.2	11-23-19 22:00	0.41	1063	8.63	19.3															
12-9-19 9:15	-0.05	2328	7.99	0.5	11-23-19 22:15	1.85	1288	8.32	5.5	11-23-19 22:15	0.41	1073	8.64	23.2															
12-9-19 9:30	-0.04	2317	7.99	0.3	11-23-19 22:30	1.86	1256	8.32	4.1	11-23-19 22:30	0.37	1072	8.63	25.7															
12-9-19 9:45	-0.05	2317	7.99	0.3	11-23-19 22:45	1.86	1256	8.32	4.4	11-23-19 22:45	0.38	1078	8.64	31.3															
12-9-19 10:00	-0.04	2314	7.99	0.3	11-23-19 23:00	1.89	1288	8.32	4.8	11-23-19 23:00	0.39	1069	8.64	21.4															
12-9-19 10:15	-0.04	2311	7.98	0.5	11-23-19 23:15	1.90	1288	8.32	3.3	11-23-19 23:15	0.39	1077	8.65	30.9															
12-9-19 10:30	-0.04	2305	7.99	0.4	11-23-19 23:30	1.82	1282	8.32	4.0	11-23-19 23:30	0.39	1069	8.64	20.6															
12-9-19 10:45	-0.05	2302	8.00	0.3	11-23-19 23:45	1.88	1284	8.31	4.4	11-23-19 23:45	0.39	1078	8.64	29.3															
12-9-19 11:00	-0.05	2300	7.99	0.3	11-24-19 0:00	1.91	1293	8.32	5.8	11-24-19 0:00	0.39	1068	8.63	21.6															
12-9-19 11:15	-0.05	2306	7.99	0.4	11-24-19 0:15	1.84	1251	8.33	3.8	11-24-19 0:15	0.38	1079	8.64	26.8															
12-9-19 11:30	-0.05	2297	8.00	0.3	11-24-19 0:30	1.84	1250	8.32	4.5	11-24-19 0:30	0.38	1071	8.63	20.3															
12-9-19 11:45	-0.06	2295	8.00	0.3	11-24-19 0:45	1.84	1248	8.32	4.3	11-24-19 0:45	0.37	1078	8.64	27.5															
12-9-19 12:00	-0.06	2292	8.00	0.3	11-24-19 1:00	1.84	1282	8.32	3.5	11-24-19 1:00	0.37	1073	8.64	18.2															
12-9-19 12:15	-0.06	2290	8.00	0.5	11-24-19 1:15	1.79	1282	8.31	3.1	11-24-19 1:15	0.37	1079	8.64	25.5															
12-9-19 12:30	-0.06	2284	8.01	0.3	11-24-19 1:30	1.79	1280	8.32	3.8	11-24-19 1:30	0.36	1072	8.64	19.6															
12-9-19 12:45	-0.06	2282	8.01	0.3	11-24-19 1:45	1.82	1275	8.31	3.7	11-24-19 1:45	0.36	1076	8.64	26.6															
12-9-19 13:00	-0.07	2280	8.01	0.4	11-24-19 2:00	1.78	1278	8.31	7.1	11-24-19 2:00	0.36	1075	8.63	19.8															
12-9-19 13:15	-0.07	2283	8.01	0.4	11-24-19 2:15	1.77	1211	8.31	3.4	11-24-19 2:15	0.36	1082	8.64	26.0															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-9-19 13:30	-0.06	2274	8.01	0.3	11-24-19 2:30	1.79	1211	8.31	5.5	11-24-19 2:30	0.36	1074	8.64	22.1															
12-9-19 13:45	-0.07	2273	8.01	0.3	11-24-19 2:45	1.78	1210	8.30	4.6	11-24-19 2:45	0.36	1080	8.65	25.5															
12-9-19 14:00	-0.07	2271	8.00	0.4	11-24-19 3:00	1.80	1276	8.31	6.0	11-24-19 3:00	0.36	1078	8.64	18.8															
12-9-19 14:15	-0.07	2270	8.00	0.5	11-24-19 3:15	1.83	1278	8.30	4.2	11-24-19 3:15	0.35	1085	8.64	27.5															
12-9-19 14:30	-0.07	2266	8.01	0.3	11-24-19 3:30	1.82	1277	8.31	4.8	11-24-19 3:30	0.34	1078	8.63	19.8															
12-9-19 14:45	-0.08	2264	8.01	0.4	11-24-19 3:45	1.78	1276	8.31	9.7	11-24-19 3:45	0.34	1082	8.64	26.4															
12-9-19 15:00	-0.08	2261	8.01	0.4	11-24-19 4:00	1.81	1276	8.31	5.6	11-24-19 4:00	0.34	1080	8.63	17.0															
12-9-19 15:15	-0.08	2263	8.01	0.4	11-24-19 4:15	1.80	1274	8.29	6.2	11-24-19 4:15	0.35	1089	8.65	25.9															
12-9-19 15:30	-0.08	2255	8.01	0.3	11-24-19 4:30	1.86	1251	8.31	4.5	11-24-19 4:30	0.34	1082	8.63	17.0															
12-9-19 15:45	-0.08	2254	8.01	0.3	11-24-19 4:45	1.90	1254	8.31	4.9	11-24-19 4:45	0.35	1087	8.64	24.8															
12-9-19 16:00	-0.08	2251	8.01	0.3	11-24-19 5:00	1.90	1278	8.30	11.9	11-24-19 5:00	0.35	1082	8.63	17.9															
12-9-19 16:15	-0.08	2248	8.01	0.5	11-24-19 5:15	1.91	1282	8.30	5.2	11-24-19 5:15	0.35	1085	8.64	25.9															
12-9-19 16:30	-0.08	2245	8.02	0.3	11-24-19 5:30	1.92	1282	8.30	4.1	11-24-19 5:30	0.35	1083	8.63	19.3															
12-9-19 16:45	-0.09	2241	8.02	0.3	11-24-19 5:45	1.90	1280	8.30	6.2	11-24-19 5:45	0.34	1087	8.63	24.1															
12-9-19 17:00	-0.09	2240	8.02	0.4	11-24-19 6:00	1.87	1278	8.29	7.3	11-24-19 6:00	0.34	1083	8.63	17.9															
12-9-19 17:15	-0.09	2242	8.02	0.4	11-24-19 6:15	1.86	1277	8.30	9.3	11-24-19 6:15	0.34	1088	8.63	22.8															
12-9-19 17:30	-0.09	2236	8.02	0.3	11-24-19 6:30	1.86	1258	8.31	4.2	11-24-19 6:30	0.34	1088	8.63	17.0															
12-9-19 17:45	-0.09	2234	8.02	0.3	11-24-19 6:45	1.91	1265	8.31	5.0	11-24-19 6:45	0.34	1092	8.63	25.0															
12-9-19 18:00	-0.09	2233	8.02	0.3	11-24-19 7:00	1.95	1283	8.31	5.4	11-24-19 7:00	0.34	1087	8.64	18.4															
12-9-19 18:15	-0.09	2230	8.01	0.4	11-24-19 7:15	1.89	1281	8.31	6.3	11-24-19 7:15	0.34	1093	8.63	24.6															
12-9-19 18:30	-0.06	2202	8.03	0.3	11-24-19 7:30	1.95	1288	8.31	5.2	11-24-19 7:30	0.33	1089	8.63	20.6															
12-9-19 18:45	-0.07	2198	8.03	0.3	11-24-19 7:45	1.91	1282	8.31	9.7	11-24-19 7:45	0.33	1093	8.64	24.3															
12-9-19 19:00	-0.07	2196	8.03	0.3	11-24-19 8:00	1.95	1282	8.31	5.0	11-24-19 8:00	0.33	1090	8.63	16.6															
12-9-19 19:15	-0.07	2224	8.04	0.4	11-24-19 8:15	1.91	1283	8.30	7.4	11-24-19 8:15	0.33	1090	8.64	24.6															
12-9-19 19:30	-0.08	2221	8.04	0.3	11-24-19 8:30	1.92	1280	8.30	7.2	11-24-19 8:30	0.33	1092	8.63	16.5															
12-9-19 19:45	-0.08	2220	8.03	0.3	11-24-19 8:45	1.91	1281	8.30	7.6	11-24-19 8:45	0.32	1095	8.63	22.6															
12-9-19 20:00	-0.08	2220	8.03	0.3	11-24-19 9:00	1.83	1274	8.30	7.7	11-24-19 9:00	0.32	1092	8.63	18.9															
12-9-19 20:15	-0.08	2222	8.04	0.5	11-24-19 9:15	1.80	1251	8.28	8.3	11-24-19 9:15	0.32	1099	8.63	23.4															
12-9-19 20:30	-0.08	2220	8.05	0.3	11-24-19 9:30	1.79	1267	8.30	7.1	11-24-19 9:30	0.32	1094	8.63	18.9															
12-9-19 20:45	-0.08	2218	8.04	0.3	11-24-19 9:45	1.77	1271	8.30	6.2	11-24-19 9:45	0.31	1100	8.63	24.1															
12-9-19 21:00	-0.09	2218	8.03	0.3	11-24-19 10:00	1.82	1267	8.30	10.0	11-24-19 10:00	0.31	1095	8.63	19.4															
12-9-19 21:15	-0.09	2219	8.04	0.4	11-24-19 10:15	1.81	1264	8.29	11.9	11-24-19 10:15	0.31	1102	8.63	23.2															
12-9-19 21:30	-0.09	2217	8.04	0.3	11-24-19 10:30	1.75	1263	8.29	10.6	11-24-19 10:30	0.31	1097	8.63	18.0															
12-9-19 21:45	-0.09	2215	8.04	0.2	11-24-19 10:45	1.78	1256	8.29	3.2	11-24-19 10:45	0.31	1103	8.63	23.4															
12-9-19 22:00	-0.09	2214	8.03	0.3	11-24-19 11:00	1.77	1162	8.30	3.8	11-24-19 11:00	0.31	1097	8.63	16.3															
12-9-19 22:15	-0.09	2215	8.04	0.5	11-24-19 11:15	1.80	1162	8.29	3.6	11-24-19 11:15	0.31	1102	8.63	23.0															
12-9-19 22:30	-0.09	2211	8.04	0.3	11-24-19 11:30	1.78	1160	8.29	3.3	11-24-19 11:30	0.30	1099	8.63	17.5															
12-9-19 22:45	-0.09	2210	8.03	0.3	11-24-19 11:45	1.81	1161	8.29	4.0	11-24-19 11:45	0.30	1103	8.63	22.5															
12-9-19 23:00	-0.09	2209	8.03	0.3	11-24-19 12:00	1.73	1264	8.29	5.3	11-24-19 12:00	0.30	1098	8.63	18.0															
12-9-19 23:15	-0.09	2213	8.03	0.4	11-24-19 12:15	1.65	1255	8.29	5.7	11-24-19 12:15	0.30	1104	8.63	23.0															
12-9-19 23:30	-0.09	2208	8.03	0.3	11-24-19 12:30	1.66	1258	8.29	3.3	11-24-19 12:30	0.29	1101	8.63	18.2															
12-9-19 23:45	-0.09	2206	8.03	0.3	11-24-19 12:45	1.71	1259	8.29	4.5	11-24-19 12:45	0.30	1106	8.63	23.3															
12-10-19 0:00	-0.09	2205	8.03	0.3	11-24-19 13:00	1.72	1265	8.29	7.2	11-24-19 13:00	0.29	1100	8.62	19.0															
12-10-19 0:15	-0.09	2211	8.02	0.5	11-24-19 13:15	1.75	1259	8.29	8.0	11-24-19 13:15	0.29	1103	8.63	23.2															
12-10-19 0:30	-0.09	2209	8.03	0.3	11-24-19 13:30	1.78	1265	8.29	6.8	11-24-19 13:30	0.29	1100	8.62	16.5															
12-10-19 0:45	-0.09	2209	8.03	0.3	11-24-19 13:45	1.81	1266	8.29	7.4	11-24-19 13:45	0.29	1104	8.64	23.8															
12-10-19 1:00	-0.09	2209	8.02	0.3	11-24-19 14:00	1.88	1275	8.29	5.9	11-24-19 14:00	0.28	1101	8.62	20.5															
12-10-19 1:15	-0.09	2213	8.02	0.4	11-24-19 14:15	1.91	1272	8.29	6.3	11-24-19 14:15	0.28	1106	8.63	22.6															
12-10-19 1:30	-0.09	2206	8.03	0.3	11-24-19 14:30	1.89	1269	8.29	8.1	11-24-19 14:30	0.28	1099	8.62	16.6															
12-10-19 1:45	-0.10	2205	8.03	0.3	11-24-19 14:45	1.92	1275	8.29	4.1	11-24-19 14:45	0.29	1106	8.62	22.3															
12-10-19 2:00	-0.10	2205	8.03	0.3	11-24-19 15:00	1.88	1269	8.29	8.0	11-24-19 15:00	0.28	1100	8.62	17.1															
12-10-19 2:15	-0.10	2207	8.01	0.5	11-24-19 15:15	1.91	1270	8.29	7.2	11-24-19 15:15	0.28	1107	8.63	21.8															
12-10-19 2:30	-0.10	2203	8.03	0.3	11-24-19 15:30	1.97	1270	8.29	7.3	11-24-19 15:30	0.28	1102	8.63	14.0															
12-10-19 2:45	-0.10	2203	8.02	0.3	11-24-19 15:45	1.88	1267	8.29	5.7	11-24-19 15:45	0.28	1108	8.62	21.8															
12-10-19 3:00	-0.10	2203	8.02	0.3	11-24-19 16:00	1.85	1265	8.29	3.9	11-24-19 16:00	0.28	1103	8.62	17.1															
12-10-19 3:15	-0.09	2211	8.01	0.4	11-24-19 16:15	1.87	1270	8.28	6.9	11-24-19 16:15	0.28	1109	8.63	21.2															
12-10-19 3:30	-0.09	2204	8.02	0.3	11-24-19 16:30	1.85	1264	8.29	3.7	11-24-19 16:30	0.28	1103	8.62	12.3															
12-10-19 3:45	-0.09	2202	8.02	0.3	11-24-19 16:45	1.88	1261	8.29	4.3	11-24-19 16:45	0.28	1107	8.62	20.6															
12-10-19 4:00	-0.09	2202	8.02	0.3	11-24-19 17:00	1.89	1269	8.29	9.9	11-24-19 17:00	0.29	1104	8.62	12.6															
12-10-19 4:15	-0.09	2208	8.00	0.5	11-24-19 17:15	1.94	1269	8.29	9.2	11-24-19 17:15	0.29	1109	8.62	22.1															
12-10-19 4:30	-0.09	2206	8.02	0.3	11-24-19 17:30	1.88	1264	8.29	9.0	11-24-19 17:30	0.29	1106	8.62	14.1															
12-10-19 4:45	-0.09	2205	8.01	0.4	11-24-19 17:45	1.88	1246	8.29	3.6	11-24-19 17:45	0.29	1109	8.63	22.1															
12-10-19 5:00	-0.10	2203	8.02	0.4	11-24-19 18:00	1.86	1262	8.29	4.5	11-24-19 18:00	0.29	1103	8.62	12.5															
12-10-19 5:15	-0.10	2207	8.01	0.4	11-24-19 18:15	1.89	1259	8.29	4.3	11-24-19 18:15	0.30	1113	8.63	22.0															
12-10-19 5:30	-0.10	2204	8.02	0.4	11-24-19 18:30	1.88	1256	8.29	4.0	11-24-19 18:30	0.30	1108	8.62	13.0															
12-10-19 5:45	-0.11	2204	8.01	0.3	11-24-19 18:45	1.89	1262	8.29	5.6	11-24-19 18:45	0.31	1114	8.63	20.8															
12-10-19 6:00	-0.11	2204	8.01	0.3	11-24-19 19:00	1.86	1242	8.28	4.3	11-24-19 19:00	0.31	1108	8.62	12.8															
12-10-19 6:15	-0.10	2234	8.00	0.5	11-24-19 19:15	1.88	1242	8.29	4.1	11-24-19 19:15	0.31	1113	8.63	20.9															
12-10-19 6:30	-0.10	2232	8.02	0.3	11-24-19 19:30	1.89	1242	8.28	4.2	11-24-19 19:30	0.32	1110	8.62	10.8															
12-10-19 6:45	-0.10	2231	8.01	0.3	11-24-19 19:45	1.87	1242	8.28	3.4	11-24-19 19:45	0.32	1116	8.62	19.8															
12-10-19 7:00	-0.10	2233	8.01	0.3	11-24-19 20:00	1.86	1253	8.28	4.8	11-24-19 20:00	0.33	1111	8.63	12.8															
12-10-19 7:15	-0.10	2213	8.01	0.4	11-24-19 20:15	1.85	1255	8.28	6.2	11-24-19 20:15	0.34	1114	8.63	20.5															
12-10-19 7:30	-0.10	2207	8.01	0.3	11-24-19 20:30	1.84	1252	8.28	6.3	11-24-19 20:30	0.35	1111	8.62	10.6															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-10-19 7:45	-0.10	2205	8.00	0.3	11-24-19 20:45	1.89	1255	8.28	6.2	11-24-19 20:45	0.37	1114	8.63	22.1															
12-10-19 8:00	-0.10	2206	8.00	0.3	11-24-19 21:00	1.91	1254	8.28	3.9	11-24-19 21:00	0.40	1113	8.62	11.3															
12-10-19 8:15	-0.10	2210	8.00	0.5	11-24-19 21:15	1.89	1246	8.28	4.8	11-24-19 21:15	0.45	1112	8.63	22.2															
12-10-19 8:30	-0.10	2208	8.00	0.3	11-24-19 21:30	1.89	1251	8.28	8.9	11-24-19 21:30	0.50	1107	8.62	11.8															
12-10-19 8:45	-0.10	2208	8.00	0.3	11-24-19 21:45	1.94	1254	8.28	4.9	11-24-19 21:45	0.54	1108	8.63	22.0															
12-10-19 9:00	-0.10	2207	8.00	0.3	11-24-19 22:00	1.87	1217	8.28	3.5	11-24-19 22:00	0.57	1102	8.62	13.0															
12-10-19 9:15	-0.10	2216	7.99	0.4	11-24-19 22:15	1.86	1218	8.28	3.6	11-24-19 22:15	0.57	1104	8.62	19.5															
12-10-19 9:30	-0.10	2204	8.00	0.3	11-24-19 22:30	1.87	1216	8.28	3.9	11-24-19 22:30	0.55	1102	8.62	12.2															
12-10-19 9:45	-0.10	2204	8.00	0.4	11-24-19 22:45	1.83	1214	8.27	3.5	11-24-19 22:45	0.53	1108	8.62	19.3															
12-10-19 10:00	-0.10	2204	7.99	0.3	11-24-19 23:00	1.85	1246	8.27	5.9	11-24-19 23:00	0.50	1105	8.63	13.3															
12-10-19 10:15	-0.10	2213	7.98	0.5	11-24-19 23:15	1.81	1230	8.27	5.0	11-24-19 23:15	0.48	1112	8.62	20.9															
12-10-19 10:30	-0.10	2209	7.98	0.4	11-24-19 23:30	1.84	1243	8.27	3.9	11-24-19 23:30	0.46	1108	8.62	11.2															
12-10-19 10:45	-0.10	2208	7.98	0.3	11-24-19 23:45	1.85	1241	8.27	4.1	11-24-19 23:45	0.44	1112	8.63	21.1															
12-10-19 11:00	-0.10	2208	7.98	0.3	11-25-19 0:00	1.77	1239	8.27	5.6	11-25-19 0:00	0.43	1110	8.63	10.4															
12-10-19 11:15	-0.10	2218	7.98	0.4	11-25-19 0:15	1.78	1239	8.26	3.3	11-25-19 0:15	0.42	1115	8.63	19.2															
12-10-19 11:30	-0.10	2212	7.98	0.3	11-25-19 0:30	1.77	1238	8.26	3.5	11-25-19 0:30	0.41	1108	8.63	9.7															
12-10-19 11:45	-0.10	2212	7.97	0.3	11-25-19 0:45	1.75	1237	8.26	3.8	11-25-19 0:45	0.42	1113	8.63	19.2															
12-10-19 12:00	-0.10	2213	7.97	0.3	11-25-19 1:00	1.74	1235	8.26	4.0	11-25-19 1:00	0.42	1111	8.62	9.7															
12-10-19 12:15	-0.10	2215	7.96	0.5	11-25-19 1:15	1.72	1236	8.26	3.5	11-25-19 1:15	0.42	1114	8.63	18.8															
12-10-19 12:30	-0.10	2211	7.98	0.3	11-25-19 1:30	1.74	1238	8.27	3.9	11-25-19 1:30	0.41	1110	8.62	15.0															
12-10-19 12:45	-0.10	2210	7.97	0.3	11-25-19 1:45	1.76	1238	8.27	3.7	11-25-19 1:45	0.41	1112	8.62	19.5															
12-10-19 13:00	-0.11	2210	7.97	0.3	11-25-19 2:00	1.75	1214	8.26	4.0	11-25-19 2:00	0.41	1108	8.62	9.3															
12-10-19 13:15	-0.10	2220	7.97	0.4	11-25-19 2:15	1.75	1241	8.27	12.5	11-25-19 2:15	0.41	1113	8.62	20.4															
12-10-19 13:30	-0.10	2214	7.97	0.3	11-25-19 2:30	1.76	1243	8.27	10.2	11-25-19 2:30	0.40	1109	8.62	9.4															
12-10-19 13:45	-0.10	2213	7.96	0.3	11-25-19 2:45	1.75	1241	8.27	9.5	11-25-19 2:45	0.40	1114	8.63	20.1															
12-10-19 14:00	-0.10	2212	7.96	0.3	11-25-19 3:00	1.76	1242	8.26	3.9	11-25-19 3:00	0.40	1110	8.62	9.6															
12-10-19 14:15	-0.10	2220	7.95	0.7	11-25-19 3:15	1.77	1242	8.26	5.4	11-25-19 3:15	0.40	1112	8.63	18.7															
12-10-19 14:30	-0.10	2215	7.96	0.5	11-25-19 3:30	1.75	1235	8.27	3.8	11-25-19 3:30	0.39	1110	8.62	13.4															
12-10-19 14:45	-0.10	2213	7.96	0.5	11-25-19 3:45	1.80	1242	8.26	4.6	11-25-19 3:45	0.39	1114	8.64	18.6															
12-10-19 15:00	-0.10	2212	7.96	0.5	11-25-19 4:00	1.78	1242	8.27	5.2	11-25-19 4:00	0.38	1111	8.62	14.6															
12-10-19 15:15	-0.10	2219	7.96	0.4	11-25-19 4:15	1.80	1244	8.27	4.4	11-25-19 4:15	0.38	1114	8.63	19.1															
12-10-19 15:30	-0.10	2214	7.96	0.3	11-25-19 4:30	1.76	1225	8.27	3.4	11-25-19 4:30	0.37	1113	8.62	8.4															
12-10-19 15:45	-0.10	2212	7.96	0.3	11-25-19 4:45	1.78	1224	8.26	3.0	11-25-19 4:45	0.37	1115	8.63	19.8															
12-10-19 16:00	-0.09	2212	7.95	0.3	11-25-19 5:00	1.81	1244	8.26	4.0	11-25-19 5:00	0.36	1114	8.63	10.3															
12-10-19 16:15	-0.10	2214	7.95	0.5	11-25-19 5:15	1.81	1242	8.26	3.8	11-25-19 5:15	0.36	1117	8.63	17.8															
12-10-19 16:30	-0.10	2210	7.96	0.3	11-25-19 5:30	1.80	1242	8.26	3.4	11-25-19 5:30	0.35	1114	8.63	9.5															
12-10-19 16:45	-0.09	2209	7.96	0.2	11-25-19 5:45	1.84	1243	8.26	3.4	11-25-19 5:45	0.35	1119	8.63	18.8															
12-10-19 17:00	-0.09	2209	7.95	0.3	11-25-19 6:00	1.85	1243	8.25	3.6	11-25-19 6:00	0.34	1116	8.63	8.6															
12-10-19 17:15	-0.09	2213	7.95	0.4	11-25-19 6:15	1.84	1229	8.27	4.2	11-25-19 6:15	0.35	1118	8.63	18.5															
12-10-19 17:30	-0.09	2209	7.96	0.3	11-25-19 6:30	1.83	1225	8.26	2.8	11-25-19 6:30	0.34	1116	8.63	11.7															
12-10-19 17:45	-0.09	2207	7.95	0.4	11-25-19 6:45	1.88	1222	8.26	4.4	11-25-19 6:45	0.35	1119	8.64	19.7															
12-10-19 18:00	-0.10	2207	7.95	0.3	11-25-19 7:00	1.88	1247	8.26	8.2	11-25-19 7:00	0.34	1116	8.63	14.1															
12-10-19 18:15	-0.09	2212	7.94	0.5	11-25-19 7:15	1.87	1244	8.26	9.9	11-25-19 7:15	0.34	1119	8.63	20.1															
12-10-19 18:30	-0.09	2208	7.95	0.3	11-25-19 7:30	1.92	1256	8.26	9.8	11-25-19 7:30	0.34	1119	8.63	10.6															
12-10-19 18:45	-0.09	2207	7.95	0.3	11-25-19 7:45	1.84	1244	8.27	3.9	11-25-19 7:45	0.33	1122	8.64	17.8															
12-10-19 19:00	-0.04	2212	7.96	0.3	11-25-19 8:00	1.92	1252	8.27	9.7	11-25-19 8:00	0.33	1120	8.63	13.3															
12-10-19 19:15	-0.06	2211	7.96	0.5	11-25-19 8:15	1.92	1248	8.27	10.9	11-25-19 8:15	0.33	1122	8.64	20.3															
12-10-19 19:30	-0.06	2209	7.98	0.3	11-25-19 8:30	1.94	1250	8.27	5.5	11-25-19 8:30	0.32	1120	8.64	17.6															
12-10-19 19:45	-0.06	2208	7.96	0.3	11-25-19 8:45	1.88	1240	8.27	4.1	11-25-19 8:45	0.31	1123	8.65	21.6															
12-10-19 20:00	-0.07	2208	7.97	0.3	11-25-19 9:00	1.91	1245	8.26	8.3	11-25-19 9:00	0.31	1121	8.64	13.4															
12-10-19 20:15	-0.08	2208	7.97	0.4	11-25-19 9:15	1.88	1245	8.26	7.0	11-25-19 9:15	0.30	1129	8.66	22.4															
12-10-19 20:30	-0.09	2207	7.99	0.3	11-25-19 9:30	1.91	1244	8.26	7.8	11-25-19 9:30	0.30	1127	8.66	13.8															
12-10-19 20:45	-0.10	2206	7.98	0.3	11-25-19 9:45	1.91	1243	8.26	7.0	11-25-19 9:45	0.30	1127	8.66	22.2															
12-10-19 21:00	-0.10	2206	7.98	0.3	11-25-19 10:00	2.00	1252	8.27	5.2	11-25-19 10:00	0.29	1124	8.67	19.2															
12-10-19 21:15	-0.09	2209	7.97	0.5	11-25-19 10:15	1.97	1247	8.27	4.3	11-25-19 10:15	0.27	1130	8.68	20.3															
12-10-19 21:30	-0.09	2206	7.98	0.3	11-25-19 10:30	1.98	1247	8.26	4.0	11-25-19 10:30	0.26	1126	8.68	17.4															
12-10-19 21:45	-0.10	2205	7.97	0.3	11-25-19 10:45	1.96	1247	8.26	4.4	11-25-19 10:45	0.25	1135	8.70	18.7															
12-10-19 22:00	-0.10	2205	7.96	0.2	11-25-19 11:00	1.93	1246	8.26	5.6	11-25-19 11:00	0.23	1140	8.67	16.5															
12-10-19 22:15	-0.10	2209	7.95	0.4	11-25-19 11:15	1.93	1228	8.27	3.7	11-25-19 11:15	0.22	1140	8.65	19.0															
12-10-19 22:30	-0.10	2207	7.95	0.2	11-25-19 11:30	1.97	1227	8.27	3.7	11-25-19 11:30	0.22	1134	8.66	20.6															
12-10-19 22:45	-0.10	2205	7.95	0.3	11-25-19 11:45	1.95	1226	8.26	3.6	11-25-19 11:45	0.22	1135	8.71	20.2															
12-10-19 23:00	-0.09	2204	7.95	0.2	11-25-19 12:00	2.01	1244	8.27	3.8	11-25-19 12:00	0.23	1134	8.72	15.8															
12-10-19 23:15	-0.08	2210	7.95	0.3	11-25-19 12:15	2.02	1255	8.27	4.9	11-25-19 12:15	0.23	1134	8.74	20.2															
12-10-19 23:30	-0.07	2207	7.95	0.3	11-25-19 12:30	2.00	1252	8.27	6.8	11-25-19 12:30	0.23	1130	8.72	14.6															
12-10-19 23:45	-0.07	2207	7.95	0.3	11-25-19 12:45	2.05	1255	8.27	11.3	11-25-19 12:45	0.23	1133	8.73	21.0															
12-11-19 0:00	-0.08	2207	7.95	0.3	11-25-19 13:00	1.98	1247	8.27	4.2	11-25-19 13:00	0.23	1132	8.73	14.9															
12-11-19 0:15	-0.07	2203	7.98	0.4	11-25-19 13:15	2.03	1250	8.27	4.2	11-25-19 13:15	0.23	1133	8.75	22.1															
12-11-19 0:30	-0.07	2203	8.05	0.3	11-25-19 13:30	1.98	1248	8.27	4.2	11-25-19 13:30	0.23	1131	8.74	18.7															
12-11-19 0:45	-0.06	2203	8.03	0.3	11-25-19 13:45	2.03	1251	8.27	3.8	11-25-19 13:45	0.22	1131	8.75	20.9															
12-11-19 1:00	-0.06	2201	7.98	0.2	11-25-19 14:00	2.04	1252	8.26	3.5	11-25-19 14:00	0.22	1131	8.73	19.2															
12-11-19 1:15	-0.06	2200	8.02	0.4	11-25-19 14:15	2.02	1253	8.26	4.0	11-25-19 14:15	0.23	1135	8.74	20.5															
12-11-19 1:30	-0.07	2199	8.01	0.3	11-25-19 14:30	2.07	1253	8.26	4.1	11-25-19 14:30	0.21	1133	8.73	17.8															
12-11-19 1:45	-0.07	2199	8.00	0.3	11-25-19 14:45	2.01	1249	8.26	3.5	11-25-19 14:45	0.21	1134	8.73	21.2															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-11-19 2:00	-0.07	2199	8.00	0.2	11-25-19 15:00	2.07	1255	8.27	6.4	11-25-19 15:00	0.21	1134	8.73	18.1															
12-11-19 2:15	-0.08	2200	7.98	0.4	11-25-19 15:15	2.04	1250	8.27	5.6	11-25-19 15:15	0.22	1140	8.74	18.6															
12-11-19 2:30	-0.08	2200	7.95	0.3	11-25-19 15:30	2.08	1261	8.27	6.5	11-25-19 15:30	0.23	1142	8.71	14.1															
12-11-19 2:45	-0.08	2199	7.96	0.3	11-25-19 15:45	2.05	1254	8.27	5.9	11-25-19 15:45	0.23	1142	8.70	18.8															
12-11-19 3:00	-0.08	2197	7.95	0.2	11-25-19 16:00	2.05	1250	8.27	3.5	11-25-19 16:00	0.23	1144	8.69	18.7															
12-11-19 3:15	-0.08	2200	7.94	0.3	11-25-19 16:15	2.04	1237	8.27	3.7	11-25-19 16:15	0.21	1143	8.71	20.7															
12-11-19 3:30	-0.09	2199	7.95	0.3	11-25-19 16:30	2.08	1237	8.27	4.1	11-25-19 16:30	0.22	1142	8.72	18.1															
12-11-19 3:45	-0.10	2199	7.95	0.2	11-25-19 16:45	2.09	1237	8.27	4.1	11-25-19 16:45	0.24	1145	8.73	20.3															
12-11-19 4:00	-0.10	2198	7.95	0.2	11-25-19 17:00	2.08	1253	8.27	10.4	11-25-19 17:00	0.24	1144	8.72	16.1															
12-11-19 4:15	-0.10	2200	7.93	0.4	11-25-19 17:15	2.10	1256	8.27	7.1	11-25-19 17:15	0.26	1145	8.71	20.0															
12-11-19 4:30	-0.10	2199	7.94	0.3	11-25-19 17:30	2.06	1252	8.27	4.5	11-25-19 17:30	0.28	1145	8.70	18.9															
12-11-19 4:45	-0.10	2199	7.94	0.3	11-25-19 17:45	2.12	1190	8.27	3.5	11-25-19 17:45	0.30	1146	8.72	19.9															
12-11-19 5:00	-0.10	2199	7.95	0.3	11-25-19 18:00	2.12	1238	8.27	3.9	11-25-19 18:00	0.30	1145	8.72	17.7															
12-11-19 5:15	-0.10	2201	7.94	0.4	11-25-19 18:15	2.13	1236	8.27	4.8	11-25-19 18:15	0.31	1145	8.73	20.0															
12-11-19 5:30	-0.10	2197	7.94	0.2	11-25-19 18:30	2.11	1235	8.27	3.7	11-25-19 18:30	0.33	1144	8.73	16.1															
12-11-19 5:45	-0.10	2197	7.94	0.3	11-25-19 18:45	2.13	1237	8.27	3.7	11-25-19 18:45	0.36	1144	8.72	20.4															
12-11-19 6:00	-0.10	2198	7.94	0.2	11-25-19 19:00	2.13	1249	8.28	4.5	11-25-19 19:00	0.39	1144	8.71	21.2															
12-11-19 6:15	-0.10	2203	7.93	0.4	11-25-19 19:15	2.16	1248	8.27	4.0	11-25-19 19:15	0.41	1144	8.72	19.9															
12-11-19 6:30	-0.10	2198	7.94	0.2	11-25-19 19:30	2.17	1249	8.27	4.3	11-25-19 19:30	0.43	1144	8.72	20.2															
12-11-19 6:45	-0.10	2197	7.94	0.2	11-25-19 19:45	2.18	1249	8.27	3.9	11-25-19 19:45	0.45	1145	8.73	19.2															
12-11-19 7:00	-0.09	2197	7.93	0.3	11-25-19 20:00	2.16	1247	8.27	3.9	11-25-19 20:00	0.45	1147	8.72	19.6															
12-11-19 7:15	-0.09	2198	7.93	0.4	11-25-19 20:15	2.20	1227	8.27	3.6	11-25-19 20:15	0.45	1150	8.72	19.9															
12-11-19 7:30	-0.09	2196	7.93	0.3	11-25-19 20:30	2.22	1230	8.27	3.4	11-25-19 20:30	0.45	1153	8.72	18.5															
12-11-19 7:45	-0.09	2195	7.93	0.2	11-25-19 20:45	2.27	1230	8.27	4.2	11-25-19 20:45	0.50	1150	8.73	19.1															
12-11-19 8:00	-0.09	2195	7.93	0.2	11-25-19 21:00	2.27	1247	8.26	8.9	11-25-19 21:00	0.54	1148	8.72	18.3															
12-11-19 8:15	-0.09	2200	7.92	0.4	11-25-19 21:15	2.23	1244	8.27	8.3	11-25-19 21:15	0.58	1147	8.73	19.1															
12-11-19 8:30	-0.09	2196	7.93	0.3	11-25-19 21:30	2.23	1249	8.27	8.2	11-25-19 21:30	0.55	1147	8.73	18.8															
12-11-19 8:45	-0.09	2196	7.93	0.2	11-25-19 21:45	2.23	1245	8.27	8.3	11-25-19 21:45	0.54	1147	8.74	19.6															
12-11-19 9:00	-0.09	2196	7.93	0.3	11-25-19 22:00	2.20	1190	8.26	3.8	11-25-19 22:00	0.51	1151	8.73	16.2															
12-11-19 9:15	-0.09	2200	7.92	0.4	11-25-19 22:15	2.20	1248	8.28	11.9	11-25-19 22:15	0.46	1144	8.73	20.7															
12-11-19 9:30	-0.09	2196	7.93	0.3	11-25-19 22:30	2.21	1247	8.28	3.7	11-25-19 22:30	0.44	1149	8.74	20.9															
12-11-19 9:45	-0.10	2197	7.93	0.3	11-25-19 22:45	2.18	1244	8.27	3.8	11-25-19 22:45	0.44	1152	8.75	22.0															
12-11-19 10:00	-0.10	2198	7.93	0.2	11-25-19 23:00	2.18	1252	8.27	3.5	11-25-19 23:00	0.42	1152	8.74	13.1															
12-11-19 10:15	-0.10	2203	7.92	0.4	11-25-19 23:15	2.21	1248	8.28	11.0	11-25-19 23:15	0.42	1151	8.75	22.9															
12-11-19 10:30	-0.10	2200	7.93	0.3	11-25-19 23:30	2.19	1248	8.27	5.4	11-25-19 23:30	0.45	1151	8.75	22.7															
12-11-19 10:45	-0.10	2199	7.92	0.3	11-25-19 23:45	2.13	1240	8.27	4.4	11-25-19 23:45	0.44	1152	8.75	22.9															
12-11-19 11:00	-0.10	2199	7.92	0.3	11-26-19 0:00	2.14	1230	8.27	3.5	11-26-19 0:00	0.46	1152	8.76	24.6															
12-11-19 11:15	-0.10	2206	7.92	0.4	11-26-19 0:15	2.12	1226	8.27	3.2	11-26-19 0:15	0.42	1155	8.75	23.6															
12-11-19 11:30	-0.10	2199	7.92	0.2	11-26-19 0:30	2.12	1231	8.27	4.0	11-26-19 0:30	0.40	1157	8.74	24.2															
12-11-19 11:45	-0.10	2200	7.93	0.2	11-26-19 0:45	2.12	1228	8.27	3.5	11-26-19 0:45	0.37	1159	8.75	24.8															
12-11-19 12:00	-0.10	2200	7.93	0.2	11-26-19 1:00	2.14	1241	8.27	4.8	11-26-19 1:00	0.36	1164	8.74	24.3															
12-11-19 12:15	-0.10	2206	7.91	0.4	11-26-19 1:15	2.03	1230	8.26	4.4	11-26-19 1:15	0.36	1164	8.75	25.8															
12-11-19 12:30	-0.10	2202	7.93	0.2	11-26-19 1:30	2.02	1197	8.25	3.0	11-26-19 1:30	0.34	1164	8.75	22.5															
12-11-19 12:45	-0.10	2201	7.92	0.3	11-26-19 1:45	1.96	1190	8.25	2.7	11-26-19 1:45	0.37	1162	8.76	27.1															
12-11-19 13:00	-0.10	2202	7.92	0.2	11-26-19 2:00	1.86	1211	8.23	3.2	11-26-19 2:00	0.36	1162	8.76	23.7															
12-11-19 13:15	-0.10	2209	7.92	0.3	11-26-19 2:15	1.82	1208	8.23	4.1	11-26-19 2:15	0.35	1164	8.77	26.0															
12-11-19 13:30	-0.10	2204	7.92	0.2	11-26-19 2:30	1.77	1199	8.22	8.1	11-26-19 2:30	0.34	1165	8.76	23.0															
12-11-19 13:45	-0.10	2205	7.92	0.2	11-26-19 2:45	1.64	1194	8.22	3.3	11-26-19 2:45	0.34	1167	8.75	26.5															
12-11-19 14:00	-0.10	2205	7.92	0.3	11-26-19 3:00	1.68	1196	8.22	7.1	11-26-19 3:00	0.34	1169	8.75	25.2															
12-11-19 14:15	-0.10	2218	7.90	0.4	11-26-19 3:15	1.57	1186	8.22	6.6	11-26-19 3:15	0.35	1169	8.76	27.4															
12-11-19 14:30	-0.10	2215	7.92	0.3	11-26-19 3:30	1.51	1177	8.21	7.1	11-26-19 3:30	0.35	1169	8.75	22.8															
12-11-19 14:45	-0.10	2215	7.92	0.2	11-26-19 3:45	1.53	1177	8.21	7.4	11-26-19 3:45	0.39	1168	8.75	28.4															
12-11-19 15:00	-0.10	2215	7.92	0.2	11-26-19 4:00	1.44	1174	8.21	3.3	11-26-19 4:00	0.39	1165	8.75	16.2															
12-11-19 15:15	-0.10	2213	7.92	0.3	11-26-19 4:15	1.44	1176	8.21	4.6	11-26-19 4:15	0.41	1161	8.76	32.3															
12-11-19 15:30	-0.10	2207	7.92	0.2	11-26-19 4:30	1.33	1161	8.20	4.0	11-26-19 4:30	0.42	1161	8.76	31.0															
12-11-19 15:45	-0.10	2207	7.92	0.2	11-26-19 4:45	1.34	1144	8.20	3.6	11-26-19 4:45	0.44	1158	8.77	35.4															
12-11-19 16:00	-0.10	2207	7.92	0.2	11-26-19 5:00	1.28	1155	8.19	7.6	11-26-19 5:00	0.43	1160	8.76	26.0															
12-11-19 16:15	-0.10	2213	7.91	0.4	11-26-19 5:15	1.22	1140	8.20	3.2	11-26-19 5:15	0.45	1159	8.78	32.9															
12-11-19 16:30	-0.10	2208	7.92	0.3	11-26-19 5:30	1.23	1148	8.19	3.9	11-26-19 5:30	0.42	1157	8.75	12.2															
12-11-19 16:45	-0.10	2208	7.92	0.2	11-26-19 5:45	1.24	1139	8.19	3.1	11-26-19 5:45	0.47	1152	8.78	38.4															
12-11-19 17:00	-0.10	2208	7.92	0.3	11-26-19 6:00	1.24	1132	8.19	3.2	11-26-19 6:00	0.47	1152	8.78	32.3															
12-11-19 17:15	-0.10	2211	7.91	0.3	11-26-19 6:15	1.24	1136	8.19	3.2	11-26-19 6:15	0.50	1147	8.80	43.2															
12-11-19 17:30	-0.10	2207	7.92	0.3	11-26-19 6:30	1.29	1139	8.19	3.4	11-26-19 6:30	0.51	1147	8.78	25.9															
12-11-19 17:45	-0.10	2206	7.91	0.3	11-26-19 6:45	1.38	1153	8.20	3.1	11-26-19 6:45	0.52	1141	8.81	43.9															
12-11-19 18:00	-0.10	2205	7.91	0.2	11-26-19 7:00	1.38	1140	8.20	3.3	11-26-19 7:00	0.51	1142	8.79	25.2															
12-11-19 18:15	-0.09	2211	7.90	0.3	11-26-19 7:15	1.38	1153	8.20	3.8	11-26-19 7:15	0.54	1142	8.80	42.9															
12-11-19 18:30	-0.09	2209	7.92	0.2	11-26-19 7:30	1.42	1158	8.20	7.5	11-26-19 7:30	0.54	1143	8.78	21.2															
12-11-19 18:45	-0.08	2207	7.91	0.2	11-26-19 7:45	1.44	1151	8.20	7.6	11-26-19 7:45	0.57	1141	8.81	39.5															
12-11-19 19:00	-0.06	2204	7.91	0.3	11-26-19 8:00	1.55	1166	8.21	4.3	11-26-19 8:00	0.54	1140	8.77	25.6															
12-11-19 19:15	-0.02	2200	7.91	0.3	11-26-19 8:15	1.53	1170	8.21	7.9	11-26-19 8:15	0.58	1136	8.80	45.9															
12-11-19 19:30	-0.03	2200	7.92	0.2	11-26-19 8:30	1.47	1158	8.20	3.9	11-26-19 8:30	0.56	1134	8.81	26.8															
12-11-19 19:45	-0.05	2201	7.92	0.2	11-26-19 8:45	1.52	1154	8.20	4.0	11-26-19 8:45	0.60	1129	8.82	47.2															
12-11-19 20:00	-0.05	2201	7.91	0.3	11-26-19 9:00	1.70	1176	8.22	3.2	11-26-19 9:00	0.61	1127	8.83	39.1															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-11-19 20:15	-0.04	2202	7.90	0.5	11-26-19 9:15	1.75	1172	8.22	4.2	11-26-19 9:15	0.60	1126	8.83	49.1															
12-11-19 20:30	-0.05	2202	7.93	0.2	11-26-19 9:30	1.66	1181	8.22	8.1	11-26-19 9:30	0.59	1124	8.83	37.5															
12-11-19 20:45	-0.05	2202	7.93	0.3	11-26-19 9:45	1.63	1172	8.21	7.8	11-26-19 9:45	0.64	1124	8.84	50.9															
12-11-19 21:00	-0.14	2246	7.94	1.0	11-26-19 10:00	1.55	1152	8.22	5.1	11-26-19 10:00	0.61	1121	8.84	46.3															
12-11-19 21:15	-0.13	2311	7.92	0.9	11-26-19 10:15	1.66	1182	8.22	4.8	11-26-19 10:15	0.64	1120	8.84	51.7															
12-11-19 21:30	-0.12	2278	7.92	0.7	11-26-19 10:30	1.69	1182	8.22	3.7	11-26-19 10:30	0.61	1120	8.84	41.9															
12-11-19 21:45	-0.12	2244	7.91	0.6	11-26-19 10:45	1.72	1183	8.22	3.4	11-26-19 10:45	0.64	1116	8.86	54.2															
12-11-19 22:00	-0.12	2237	7.91	0.6	11-26-19 11:00	1.59	1167	8.21	4.3	11-26-19 11:00	0.63	1114	8.85	46.2															
12-11-19 22:15	-0.12	2213	7.91	0.7	11-26-19 11:15	1.66	1178	8.22	4.0	11-26-19 11:15	0.64	1115	8.86	54.4															
12-11-19 22:30	-0.11	2205	7.92	0.6	11-26-19 11:30	1.78	1176	8.22	3.7	11-26-19 11:30	0.64	1113	8.85	41.4															
12-11-19 22:45	-0.11	2198	7.91	0.7	11-26-19 11:45	1.73	1161	8.22	3.6	11-26-19 11:45	0.63	1113	8.86	52.2															
12-11-19 23:00	-0.11	2202	7.91	0.6	11-26-19 12:00	1.76	1172	8.23	3.8	11-26-19 12:00	0.64	1111	8.85	39.3															
12-11-19 23:15	-0.10	2209	7.91	0.5	11-26-19 12:15	1.73	1170	8.22	3.3	11-26-19 12:15	0.68	1111	8.86	54.1															
12-11-19 23:30	-0.11	2208	7.91	0.5	11-26-19 12:30	1.75	1172	8.22	3.6	11-26-19 12:30	0.65	1109	8.85	40.0															
12-11-19 23:45	-0.11	2207	7.92	0.4	11-26-19 12:45	1.78	1173	8.22	4.3	11-26-19 12:45	0.71	1106	8.87	56.1															
12-12-19 0:00	-0.10	2207	7.91	0.3	11-26-19 13:00	1.79	1189	8.23	6.0	11-26-19 13:00	0.68	1106	8.86	41.0															
12-12-19 0:15	-0.09	2132	7.94	0.4	11-26-19 13:15	1.75	1186	8.23	4.3	11-26-19 13:15	0.68	1106	8.87	53.9															
12-12-19 0:30	-0.11	2078	7.96	0.3	11-26-19 13:30	1.82	1192	8.23	5.0	11-26-19 13:30	0.67	1105	8.86	43.7															
12-12-19 0:45	-0.09	2098	7.95	0.3	11-26-19 13:45	1.81	1189	8.22	4.4	11-26-19 13:45	0.69	1107	8.86	53.6															
12-12-19 1:00	-0.07	2173	7.93	0.3	11-26-19 14:00	1.76	1186	8.22	10.5	11-26-19 14:00	0.67	1107	8.86	46.1															
12-12-19 1:15	-0.05	2203	7.94	0.3	11-26-19 14:15	1.83	1165	8.23	4.2	11-26-19 14:15	0.70	1107	8.86	55.5															
12-12-19 1:30	-0.06	2201	7.96	0.2	11-26-19 14:30	1.75	1160	8.23	4.5	11-26-19 14:30	0.66	1106	8.86	52.7															
12-12-19 1:45	-0.01	2198	7.93	0.2	11-26-19 14:45	1.81	1164	8.23	5.1	11-26-19 14:45	0.66	1107	8.87	55.0															
12-12-19 2:00	-0.01	2194	7.92	0.3	11-26-19 15:00	1.74	1184	8.23	3.8	11-26-19 15:00	0.67	1106	8.86	45.4															
12-12-19 2:15	-0.02	2199	7.93	0.6	11-26-19 15:15	1.78	1131	8.23	4.3	11-26-19 15:15	0.72	1106	8.86	51.6															
12-12-19 2:30	-0.04	2199	7.97	0.4	11-26-19 15:30	1.78	1130	8.24	4.4	11-26-19 15:30	0.66	1107	8.86	47.5															
12-12-19 2:45	-0.04	2198	7.95	0.4	11-26-19 15:45	1.80	1132	8.24	4.7	11-26-19 15:45	0.67	1107	8.86	54.5															
12-12-19 3:00	-0.04	2198	7.93	0.5	11-26-19 16:00	1.78	1188	8.24	5.3	11-26-19 16:00	0.62	1107	8.86	50.7															
12-12-19 3:15	-0.04	2198	7.92	0.3	11-26-19 16:15	1.75	1129	8.24	4.8	11-26-19 16:15	0.66	1108	8.86	53.6															
12-12-19 3:30	-0.05	2198	7.93	0.3	11-26-19 16:30	1.77	1129	8.24	4.6	11-26-19 16:30	0.65	1106	8.86	49.2															
12-12-19 3:45	-0.06	2199	7.92	0.2	11-26-19 16:45	1.84	1131	8.24	4.6	11-26-19 16:45	0.68	1108	8.87	52.1															
12-12-19 4:00	-0.06	2200	7.92	0.2	11-26-19 17:00	1.80	1188	8.24	6.4	11-26-19 17:00	0.66	1109	8.85	51.0															
12-12-19 4:15	-0.06	2201	7.91	0.4	11-26-19 17:15	1.77	1187	8.24	3.8	11-26-19 17:15	0.67	1109	8.86	51.9															
12-12-19 4:30	-0.07	2201	7.94	0.3	11-26-19 17:30	1.81	1186	8.24	4.4	11-26-19 17:30	0.64	1109	8.86	45.0															
12-12-19 4:45	-0.07	2201	7.92	0.3	11-26-19 17:45	1.81	1188	8.24	5.1	11-26-19 17:45	0.72	1106	8.86	53.9															
12-12-19 5:00	-0.08	2200	7.91	0.2	11-26-19 18:00	1.80	1188	8.24	5.3	11-26-19 18:00	0.70	1108	8.86	50.1															
12-12-19 5:15	-0.08	2202	7.91	0.2	11-26-19 18:15	1.79	1184	8.24	4.9	11-26-19 18:15	0.72	1103	8.86	53.1															
12-12-19 5:30	-0.08	2201	7.92	0.2	11-26-19 18:30	1.80	1185	8.25	6.3	11-26-19 18:30	0.72	1105	8.86	49.8															
12-12-19 5:45	-0.08	2200	7.92	0.3	11-26-19 18:45	1.79	1185	8.25	5.4	11-26-19 18:45	0.78	1103	8.86	56.8															
12-12-19 6:00	-0.08	2201	7.92	0.2	11-26-19 19:00	1.77	1183	8.25	5.9	11-26-19 19:00	0.76	1101	8.87	51.1															
12-12-19 6:15	-0.08	2205	7.91	0.4	11-26-19 19:15	1.79	1159	8.26	6.3	11-26-19 19:15	0.78	1102	8.87	54.0															
12-12-19 6:30	-0.09	2204	7.92	0.2	11-26-19 19:30	1.76	1181	8.25	16.0	11-26-19 19:30	0.43	1080	8.91	71.2															
12-12-19 6:45	-0.09	2204	7.92	0.2	11-26-19 19:45	1.78	1182	8.26	6.5	11-26-19 19:45	0.43	1080	8.91	71.2															
12-12-19 7:00	-0.09	2203	7.91	0.3	11-26-19 20:00	1.75	1180	8.26	6.7	11-26-19 20:00	-0.09	1079	8.86	42.3															
12-12-19 7:15	-0.09	2209	7.91	0.3	11-26-19 20:15	1.76	1181	8.26	7.1	11-26-19 20:15	-0.09	1082	8.86	42.5															
12-12-19 7:30	-0.09	2206	7.92	0.2	11-26-19 20:30	1.79	1185	8.27	7.6	11-26-19 20:30	-0.09	1075	8.87	31.5															
12-12-19 7:45	-0.09	2206	7.91	0.2	11-26-19 20:45	1.76	1183	8.27	11.9	11-26-19 20:45	-0.08	1058	8.86	27.8															
12-12-19 8:00	-0.10	2206	7.91	0.2	11-26-19 21:00	1.77	1182	8.26	10.0	11-26-19 21:00	-0.09	1045	8.87	33.3															
12-12-19 8:15	-0.10	2212	7.90	0.4	11-26-19 21:15	1.76	1166	8.28	7.2	11-26-19 21:15	-0.09	1032	8.87	24.6															
12-12-19 8:30	-0.10	2209	7.92	0.2	11-26-19 21:30	1.73	1164	8.27	8.1	11-26-19 21:30	-0.09	1019	8.87	31.0															
12-12-19 8:45	-0.09	2208	7.92	0.3	11-26-19 21:45	1.69	1162	8.27	8.1	11-26-19 21:45	-0.10	1006	8.86	22.2															
12-12-19 9:00	-0.09	2207	7.92	0.2	11-26-19 22:00	1.70	1177	8.27	8.3	11-26-19 22:00	-0.10	998	8.87	27.0															
12-12-19 9:15	-0.08	2207	7.91	0.3	11-26-19 22:15	1.65	1171	8.27	8.3	11-26-19 22:15	-0.10	982	8.85	22.9															
12-12-19 9:30	-0.09	2205	7.91	0.3	11-26-19 22:30	1.66	1172	8.28	9.4	11-26-19 22:30	-0.11	979	8.85	22.9															
12-12-19 9:45	-0.09	2204	7.92	0.2	11-26-19 22:45	1.68	1174	8.28	9.4	11-26-19 22:45	-0.11	974	8.85	19.0															
12-12-19 10:00	-0.09	2204	7.91	0.2	11-26-19 23:00	1.66	1164	8.29	9.7	11-26-19 23:00	-0.12	965	8.85	19.4															
12-12-19 10:15	-0.08	2202	7.90	0.4	11-26-19 23:15	1.63	1161	8.28	10.0	11-26-19 23:15	-0.12	959	8.84	16.8															
12-12-19 10:30	-0.09	2202	7.91	0.2	11-26-19 23:30	1.61	1157	8.28	10.1	11-26-19 23:30	-0.13	949	8.83	18.3															
12-12-19 10:45	-0.09	2201	7.91	0.2	11-26-19 23:45	1.60	1160	8.29	10.5	11-26-19 23:45	-0.13	941	8.83	13.8															
12-12-19 11:00	-0.10	2200	7.91	0.2	11-27-19 0:00	1.60	1171	8.29	11.2	11-27-19 0:00	-0.13	938	8.83	17.3															
12-12-19 11:15	-0.09	2207	7.91	0.3	11-27-19 0:15	1.60	1169	8.29	10.2	11-27-19 0:15	-0.12	931	8.81	13.1															
12-12-19 11:30	-0.10	2204	7.91	0.2	11-27-19 0:30	1.59	1155	8.29	10.7	11-27-19 0:30	-0.09	915	8.82	17.2															
12-12-19 11:45	-0.10	2203	7.91	0.2	11-27-19 0:45	1.59	1154	8.29	12.3	11-27-19 0:45	-0.09	857	8.81	15.3															
12-12-19 12:00	-0.10	2203	7.90	0.3	11-27-19 1:00	1.61	1172	8.29	13.4	11-27-19 1:00	-0.09	906	8.81	15.4															
12-12-19 12:15	-0.10	2210	7.90	0.4	11-27-19 1:15	1.57	1170	8.29	11.3	11-27-19 1:15	-0.09	867	8.81	13.3															
12-12-19 12:30	-0.10	2206	7.91	0.3	11-27-19 1:30	1.55	1116	8.30	12.8	11-27-19 1:30	-0.09	839	8.80	14.6															
12-12-19 12:45	-0.10	2206	7.90	0.3	11-27-19 1:45	1.52	1115	8.30	12.5	11-27-19 1:45	-0.09	676	8.85	10.1															
12-12-19 13:00	-0.10	2205	7.91	0.3	11-27-19 2:00	1.52	1165	8.31	14.6	11-27-19 2:00	-0.09	875	8.86	11.8															
12-12-19 13:15	-0.09	2208	7.91	0.3	11-27-19 2:15	1.51	1165	8.32	13.7	11-27-19 2:15	-0.09	503	8.85	12.8															
12-12-19 13:30	-0.09	2205	7.91	0.2	11-27-19 2:30	1.50	1165	8.32	15.4	11-27-19 2:30	-0.10	467	8.84	9.8															
12-12-19 13:45	-0.09	2205	7.91	0.3	11-27-19 2:45	1.49	1164	8.33	16.8	11-27-19 2:45	-0.09	338	8.84	8.7															
12-12-19 14:00	-0.09	2205	7.90	0.2	11-27-19 3:00	1.47	1108	8.33	16.3	11-27-19 3:00	-0.09	150	8.83	8.6															
12-12-19 14:15	-0.09	2209	7.90	0.4	11-27-19 3:15	1.49	1166	8.33	17.4	11-27-19 3:15	-0.09	169	8.83	9.1															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-12-19 14:30	-0.10	2207	7.91	0.3	11-27-19 3:30	1.46	1164	8.33	20.2	11-27-19 3:30	-0.10	151	8.82	10.7															
12-12-19 14:45	-0.10	2206	7.90	0.3	11-27-19 3:45	1.43	1164	8.33	21.8	11-27-19 3:45	-0.10	143	8.82	13.3															
12-12-19 15:00	-0.10	2205	7.90	0.2	11-27-19 4:00	1.46	1164	8.33	18.0	11-27-19 4:00	-0.10	145	8.82	16.3															
12-12-19 15:15	-0.09	2216	7.90	0.4	11-27-19 4:15	1.44	1163	8.33	17.2	11-27-19 4:15	-0.10	171	8.82	18.3															
12-12-19 15:30	-0.10	2211	7.91	0.4	11-27-19 4:30	1.43	1163	8.34	19.9	11-27-19 4:30	-0.10	125	8.82	17.4															
12-12-19 15:45	-0.10	2211	7.91	0.3	11-27-19 4:45	1.42	1160	8.34	18.4	11-27-19 4:45	-0.10	153	8.81	21.2															
12-12-19 16:00	-0.10	2211	7.91	0.3	11-27-19 5:00	1.43	1162	8.35	18.5	11-27-19 5:00	-0.10	93	8.81	23.0															
12-12-19 16:15	-0.10	2211	7.90	0.4	11-27-19 5:15	1.44	1164	8.35	24.5	11-27-19 5:15	-0.11	73	8.80	24.2															
12-12-19 16:30	-0.10	2208	7.91	0.2	11-27-19 5:30	1.44	1164	8.35	23.5	11-27-19 5:30	-0.11	62	8.79	26.1															
12-12-19 16:45	-0.10	2208	7.90	0.3	11-27-19 5:45	1.41	1163	8.36	24.2	11-27-19 5:45	-0.11	56	8.79	28.2															
12-12-19 17:00	-0.10	2207	7.90	0.3	11-27-19 6:00	1.39	1161	8.36	23.1	11-27-19 6:00	-0.11	56	8.78	28.8															
12-12-19 17:15	-0.09	2210	7.90	0.3	11-27-19 6:15	1.40	1162	8.37	23.7	11-27-19 6:15	-0.11	43	8.77	30.7															
12-12-19 17:30	-0.10	2206	7.91	0.3	11-27-19 6:30	1.41	1162	8.37	22.4	11-27-19 6:30	-0.11	33	8.77	30.6															
12-12-19 17:45	-0.10	2206	7.91	0.3	11-27-19 6:45	1.42	1162	8.36	20.2	11-27-19 6:45	-0.11	26	8.75	32.9															
12-12-19 18:00	-0.10	2206	7.91	0.2	11-27-19 7:00	1.40	1162	8.36	21.2	11-27-19 7:00	-0.11	20	8.75	34.8															
12-12-19 18:15	-0.09	2211	7.90	0.4	11-27-19 7:15	1.40	1162	8.35	26.5	11-27-19 7:15	-0.11	17	8.75	36.4															
12-12-19 18:30	-0.09	2208	7.91	0.2	11-27-19 7:30	1.36	1162	8.37	28.8	11-27-19 7:30	-0.11	14	8.74	33.8															
12-12-19 18:45	-0.09	2207	7.90	0.3	11-27-19 7:45	1.31	1162	8.37	30.3	11-27-19 7:45	-0.12	11	8.72	29.9															
12-12-19 19:00	-0.09	2207	7.90	0.3	11-27-19 8:00	1.30	1162	8.38	25.4	11-27-19 8:00	-0.12	9	8.72	26.1															
12-12-19 19:15	-0.07	2208	7.90	0.3	11-27-19 8:15	1.29	1145	8.38	22.7	11-27-19 8:15	-0.12	8	8.71	24.2															
12-12-19 19:30	-0.11	2161	7.92	0.4	11-27-19 8:30	1.28	1146	8.38	24.0	11-27-19 8:30	-0.12	7	8.70	22.1															
12-12-19 19:45	-0.05	2189	7.92	0.2	11-27-19 8:45	1.26	1144	8.38	20.1	11-27-19 8:45	-0.12	6	8.70	21.0															
12-12-19 20:00	-0.04	2189	7.91	0.2	11-27-19 9:00	1.26	1163	8.38	32.1	11-27-19 9:00	-0.12	3	8.56	7324.3															
12-12-19 20:15	-0.04	2194	7.91	0.3	11-27-19 9:15	1.25	1165	8.39	23.2	11-27-19 9:15	-0.13	2	8.51	7352.4															
12-12-19 20:30	-0.06	2192	7.92	0.2	11-27-19 9:30	1.25	1164	8.39	22.3	11-27-19 9:30	-0.14	2	8.48	7389.4															
12-12-19 20:45	-0.07	2193	7.91	0.3	11-27-19 9:45	1.24	1162	8.39	25.5	11-27-19 9:45	-0.14	2	8.48	7421.0															
12-12-19 21:00	-0.08	2193	7.91	0.2	11-27-19 10:00	1.22	1160	8.40	24.3	11-27-19 10:00																			
12-12-19 21:15	-0.08	2199	7.91	0.4	11-27-19 10:15	1.22	1162	8.39	27.9	11-27-19 10:15																			
12-12-19 21:30	-0.09	2195	7.91	0.2	11-27-19 10:30	1.17	1158	8.40	27.1	11-27-19 10:30																			
12-12-19 21:45	-0.09	2195	7.91	0.2	11-27-19 10:45	1.23	1162	8.39	37.8	11-27-19 10:45																			
12-12-19 22:00	-0.09	2195	7.90	0.2	11-27-19 11:00	1.25	1164	8.40	35.2	11-27-19 11:00																			
12-12-19 22:15	-0.08	2197	7.90	0.3	11-27-19 11:15	1.26	1165	8.39	27.1	11-27-19 11:15																			
12-12-19 22:30	-0.07	2193	7.91	0.2	11-27-19 11:30	1.26	1165	8.40	28.0	11-27-19 11:30																			
12-12-19 22:45	-0.07	2193	7.91	0.7	11-27-19 11:45	1.25	1170	8.40	28.5	11-27-19 11:45																			
12-12-19 23:00	-0.06	2190	7.91	0.2	11-27-19 12:00	1.21	1159	8.40	24.9	11-27-19 12:00																			
12-12-19 23:15	-0.05	2202	7.91	0.2	11-27-19 12:15	1.22	1163	8.41	27.4	11-27-19 12:15																			
12-12-19 23:30	-0.06	2203	7.92	0.3	11-27-19 12:30	1.13	1157	8.39	23.4	11-27-19 12:30																			
12-12-19 23:45	-0.05	2201	8.02	0.2	11-27-19 12:45	1.10	1158	8.39	25.5	11-27-19 12:45																			
12-13-19 0:00	-0.04	2200	7.99	0.2	11-27-19 13:00	1.14	1160	8.40	25.4	11-27-19 13:00																			
12-13-19 0:15	-0.03	2185	8.00	0.4	11-27-19 13:15	1.07	1155	8.37	22.2	11-27-19 13:15																			
12-13-19 0:30	-0.04	2185	7.97	0.2	11-27-19 13:30	1.11	1159	8.40	26.3	11-27-19 13:30																			
12-13-19 0:45	-0.05	2184	7.98	0.2	11-27-19 13:45	1.08	1159	8.40	26.9	11-27-19 13:45																			
12-13-19 1:00	0.02	2174	7.97	0.3	11-27-19 14:00	1.08	1159	8.40	26.9	11-27-19 14:00																			
12-13-19 1:15	0.00	2175	7.94	0.4	11-27-19 14:15	1.10	1104	8.39	23.5	11-27-19 14:15																			
12-13-19 1:30	-0.03	2176	7.95	0.3	11-27-19 14:30	1.11	1104	8.39	23.5	11-27-19 14:30																			
12-13-19 1:45	-0.04	2175	7.95	0.1	11-27-19 14:45	1.09	1103	8.38	21.5	11-27-19 14:45	-0.08	537	8.35	37.3															
12-13-19 2:00	-0.05	2176	7.95	0.2	11-27-19 15:00	1.08	1106	8.38	22.1	11-27-19 15:00	-0.04	1252	8.41	43.0															
12-13-19 2:15	-0.05	2174	7.96	0.4	11-27-19 15:15	1.08	1156	8.37	20.1	11-27-19 15:15	0.01	1093	8.41	39.3															
12-13-19 2:30	-0.05	2173	7.94	0.2	11-27-19 15:30	1.09	1157	8.37	20.1	11-27-19 15:30	-0.18	1	7.36	114.2															
12-13-19 2:45	-0.05	2171	7.92	0.2	11-27-19 15:45	1.09	1156	8.36	19.2	11-27-19 15:45	-2.24	1	7.39	101.7															
12-13-19 3:00	-0.06	2172	7.92	0.2	11-27-19 16:00	1.11	1158	8.36	27.6	11-27-19 16:00	-0.08	3	8.09	8591.4															
12-13-19 3:15	-0.06	2176	7.93	0.2	11-27-19 16:15	1.12	1158	8.35	20.3	11-27-19 16:15	-0.07	1020	8.45	44.1															
12-13-19 3:30	-0.06	2174	7.97	0.2	11-27-19 16:30	1.11	1157	8.35	21.7	11-27-19 16:30	-0.05	1088	8.44	39.9															
12-13-19 3:45	-0.05	2170	7.93	0.3	11-27-19 16:45	1.09	1155	8.33	19.4	11-27-19 16:45	-0.03	1152	8.45	53.3															
12-13-19 4:00	-0.04	2169	7.95	0.2	11-27-19 17:00	1.11	1153	8.32	13.7	11-27-19 17:00	0.00	1131	8.45	41.3															
12-13-19 4:15	-0.05	2167	7.95	0.4	11-27-19 17:15	1.12	1153	8.32	15.0	11-27-19 17:15	-0.01	1161	8.44	41.3															
12-13-19 4:30	-0.05	2166	7.94	0.3	11-27-19 17:30	1.13	1154	8.32	21.9	11-27-19 17:30	-0.01	1125	8.44	38.5															
12-13-19 4:45	-0.05	2163	7.93	0.2	11-27-19 17:45	1.15	1153	8.32	15.0	11-27-19 17:45	-0.01	1168	8.43	39.8															
12-13-19 5:00	-0.05	2161	7.95	0.2	11-27-19 18:15	1.15	1156	8.34	19.8	11-27-19 18:15	-0.01	1139	8.42	40.7															
12-13-19 5:15	-0.04	2161	7.94	0.4	11-27-19 18:30	1.15	1156	8.34	19.8	11-27-19 18:30	0.00	1167	8.41	40.2															
12-13-19 5:30	-0.04	2157	7.92	0.3	11-27-19 18:45	1.14	1156	8.33	19.7	11-27-19 18:45	0.00	1142	8.41	39.8															
12-13-19 5:45	-0.04	2155	7.94	0.3	11-27-19 19:00	1.17	1157	8.34	18.1	11-27-19 19:00	0.00	1169	8.41	41.6															
12-13-19 6:00	-0.02	2153	7.92	0.3	11-27-19 19:15	1.16	1156	8.33	15.4	11-27-19 19:15	0.00	1149	8.40	41.7															
12-13-19 6:15	-0.03	2154	7.93	0.4	11-27-19 19:30	1.21	1156	8.34	16.0	11-27-19 19:30	0.00	1168	8.40	41.8															
12-13-19 6:30	-0.04	2151	7.93	0.3	11-27-19 19:45	1.21	1156	8.34	15.5	11-27-19 19:45	-0.01	1149	8.40	41.7															
12-13-19 6:45	-0.05	2152	7.94	0.3	11-27-19 20:00	1.22	1156	8.34	15.5	11-27-19 20:00	-0.01	1170	8.40	42.0															
12-13-19 7:00	-0.04	2150	7.93	0.2	11-27-19 20:15	1.20	1157	8.33	20.6	11-27-19 20:15	-0.01	1149	8.40	42.6															
12-13-19 7:15	-0.03	2149	7.93	0.3	11-27-19 20:30	1.23	1158	8.33	18.9	11-27-19 20:30	-0.01	1172	8.39	41.4															
12-13-19 7:30	-0.03	2145	7.93	0.3	11-27-19 20:45	1.22	1158	8.34	19.0	11-27-19 20:45	-0.02	1147	8.39	40.0															
12-13-19 7:45	-0.03	2142	7.93	0.3	11-27-19 21:00	1.23	1159	8.34	20.3	11-27-19 21:00	-0.02	1172	8.39	42.5															
12-13-19 8:00	-0.04	2143	7.92	0.3	11-27-19 21:15	1.24	1160	8.35	9.1	11-27-19 21:15	-0.02	1153	8.39	42.9															
12-13-19 8:15	-0.04	2144	7.92	0.7	11-27-19 21:30	1.24	1159	8.35	23.6	11-27-19 21:30	-0.03	1173	8.40	41.5															
12-13-19 8:30	-0.05	2141	7.93	0.3	11-27-19 21:45	1.24	1159	8.35	16.6	11-27-19 21:45	-0.03	1155	8.40	43.1															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-13-19 8:45	-0.06	2141	7.93	0.3	11-27-19 22:00	1.24	1158	8.35	15.6	11-27-19 22:00	-0.03	1179	8.41	43.0															
12-13-19 9:00	-0.06	2138	7.92	0.3	11-27-19 22:15	1.25	1160	8.33	25.6	11-27-19 22:15	-0.03	1155	8.41	40.8															
12-13-19 9:15	-0.05	2140	7.92	0.4	11-27-19 22:30	1.24	1161	8.34	20.4	11-27-19 22:30	-0.03	1180	8.41	42.3															
12-13-19 9:30	-0.05	2135	7.92	0.3	11-27-19 22:45	1.25	1161	8.35	20.8	11-27-19 22:45	-0.04	1155	8.42	42.9															
12-13-19 9:45	-0.05	2135	7.92	0.2	11-27-19 23:00	1.26	1162	8.35	22.2	11-27-19 23:00	-0.04	1182	8.42	39.5															
12-13-19 10:00	-0.05	2134	7.92	0.3	11-27-19 23:15	1.28	1162	8.35	19.5	11-27-19 23:15	-0.04	1157	8.42	40.1															
12-13-19 10:15	-0.05	2134	7.92	0.5	11-27-19 23:30	1.28	1162	8.35	21.2	11-27-19 23:30	-0.04	1182	8.42	42.2															
12-13-19 10:30	-0.06	2131	7.93	0.3	11-27-19 23:45	1.29	1163	8.36	20.1	11-27-19 23:45	-0.04	1160	8.43	40.1															
12-13-19 10:45	-0.07	2131	7.92	0.3	11-28-19 0:00	1.28	1163	8.36	20.1	11-28-19 0:00	-0.04	1180	8.43	42.4															
12-13-19 11:00	-0.07	2131	7.92	0.3	11-28-19 0:15	1.24	1112	8.36	18.1	11-28-19 0:15	-0.03	1160	8.43	43.8															
12-13-19 11:15	-0.07	2134	7.91	0.3	11-28-19 0:30	1.26	1157	8.36	17.0	11-28-19 0:30	-0.03	1183	8.44	41.6															
12-13-19 11:30	-0.07	2132	7.92	0.4	11-28-19 0:45	1.25	1157	8.36	13.4	11-28-19 0:45	-0.04	1163	8.44	43.0															
12-13-19 11:45	-0.07	2132	7.92	0.3	11-28-19 1:00	1.25	1157	8.35	17.1	11-28-19 1:00	-0.04	1184	8.45	43.4															
12-13-19 12:00	-0.07	2132	7.92	0.3	11-28-19 1:15	1.26	1152	8.35	18.3	11-28-19 1:15	-0.04	1162	8.45	42.3															
12-13-19 12:15	-0.07	2134	7.91	0.4	11-28-19 1:30	1.26	1152	8.36	18.1	11-28-19 1:30	-0.04	1184	8.45	42.4															
12-13-19 12:30	-0.08	2132	7.93	0.3	11-28-19 1:45	1.29	1153	8.36	16.4	11-28-19 1:45	-0.04	1163	8.45	41.1															
12-13-19 12:45	-0.07	2132	7.92	0.3	11-28-19 2:00	1.30	1154	8.37	19.3	11-28-19 2:00	-0.04	1186	8.45	43.7															
12-13-19 13:00	-0.07	2131	7.92	0.3	11-28-19 2:15	1.26	1166	8.36	19.9	11-28-19 2:15	-0.04	1166	8.46	42.5															
12-13-19 13:15	-0.07	2129	7.92	0.3	11-28-19 2:30	1.26	1164	8.36	17.6	11-28-19 2:30	-0.04	1186	8.46	42.0															
12-13-19 13:30	-0.07	2127	7.92	0.3	11-28-19 2:45	1.25	1160	8.36	16.8	11-28-19 2:45	-0.04	1167	8.46	43.6															
12-13-19 13:45	-0.06	2127	7.92	0.3	11-28-19 3:00	1.24	1161	8.36	18.2	11-28-19 3:00	-0.04	1189	8.46	42.8															
12-13-19 14:00	-0.05	2126	7.92	0.4	11-28-19 3:15	1.24	1167	8.36	17.1	11-28-19 3:15	-0.04	1169	8.47	42.7															
12-13-19 14:15	-0.04	2127	7.91	0.5	11-28-19 3:30	1.26	1166	8.36	17.7	11-28-19 3:30	-0.04	1191	8.47	42.2															
12-13-19 14:30	-0.05	2123	7.92	0.3	11-28-19 3:45	1.26	1164	8.36	15.3	11-28-19 3:45	-0.04	1170	8.47	42.7															
12-13-19 14:45	-0.06	2123	7.92	0.3	11-28-19 4:00	1.24	1165	8.36	16.9	11-28-19 4:00	-0.04	1189	8.47	42.2															
12-13-19 15:00	-0.03	2119	7.92	0.2	11-28-19 4:15	1.23	1110	8.34	16.8	11-28-19 4:15	-0.04	1170	8.47	43.2															
12-13-19 15:15	-0.02	2118	7.92	0.4	11-28-19 4:30	1.20	1107	8.35	14.5	11-28-19 4:30	-0.04	1191	8.48	44.1															
12-13-19 15:30	-0.02	2116	7.92	0.3	11-28-19 4:45	1.22	1107	8.34	12.5	11-28-19 4:45	-0.04	1172	8.48	42.5															
12-13-19 15:45	-0.03	2115	7.91	0.4	11-28-19 5:00	1.22	1107	8.35	9.5	11-28-19 5:00	-0.04	1191	8.48	42.4															
12-13-19 16:00	-0.04	2114	7.91	0.3	11-28-19 5:15	1.22	1018	8.35	16.3	11-28-19 5:15	-0.04	1172	8.49	42.3															
12-13-19 16:15	-0.04	2114	7.91	0.5	11-28-19 5:30	1.23	1018	8.36	15.7	11-28-19 5:30	-0.04	1194	8.49	42.4															
12-13-19 16:30	-0.05	2109	7.92	0.4	11-28-19 5:45	1.20	1018	8.35	11.8	11-28-19 5:45	-0.04	1173	8.49	41.5															
12-13-19 16:45	-0.05	2109	7.91	0.4	11-28-19 6:00	1.19	1018	8.34	12.0	11-28-19 6:00	-0.04	1197	8.49	42.3															
12-13-19 17:00	-0.06	2108	7.91	0.3	11-28-19 6:15	1.22	1166	8.35	12.6	11-28-19 6:15	-0.05	1174	8.50	43.5															
12-13-19 17:15	-0.06	2113	7.91	1.6	11-28-19 6:30	1.22	1168	8.35	17.7	11-28-19 6:30	-0.04	1196	8.50	42.0															
12-13-19 17:30	-0.07	2110	7.92	1.4	11-28-19 6:45	1.20	1169	8.35	15.3	11-28-19 6:45	-0.05	1176	8.50	40.7															
12-13-19 17:45	-0.07	2109	7.91	1.4	11-28-19 7:00	1.23	1169	8.35	18.8	11-28-19 7:00	-0.05	1198	8.50	41.6															
12-13-19 18:00	-0.08	2109	7.91	1.4	11-28-19 7:15	1.21	1169	8.35	15.9	11-28-19 7:15	-0.05	1177	8.50	42.4															
12-13-19 18:15	-0.07	2107	7.91	0.5	11-28-19 7:30	1.20	1136	8.35	15.7	11-28-19 7:30	-0.05	1201	8.50	41.6															
12-13-19 18:30	-0.07	2102	7.92	0.3	11-28-19 7:45	1.20	1169	8.35	17.8	11-28-19 7:45	-0.06	1179	8.51	40.8															
12-13-19 18:45	-0.07	2102	7.91	0.3	11-28-19 8:00	1.19	1169	8.35	15.7	11-28-19 8:00	-0.05	1201	8.51	41.0															
12-13-19 19:00	-0.07	2101	7.91	0.3	11-28-19 8:15	1.19	1171	8.35	19.2	11-28-19 8:15	-0.05	1181	8.51	41.9															
12-13-19 19:15	-0.06	2105	7.91	0.5	11-28-19 8:30	1.20	1171	8.35	16.6	11-28-19 8:30	-0.05	1203	8.51	41.7															
12-13-19 19:30	-0.06	2100	7.92	0.5	11-28-19 8:45	1.21	1170	8.35	15.7	11-28-19 8:45	-0.06	1182	8.52	42.2															
12-13-19 19:45	-0.07	2099	7.91	0.4	11-28-19 9:00	1.20	1170	8.35	14.3	11-28-19 9:00	-0.06	1203	8.52	41.2															
12-13-19 20:00	-0.07	2098	7.91	0.4	11-28-19 9:15	1.18	1172	8.35	15.4	11-28-19 9:15	-0.06	1181	8.52	41.0															
12-13-19 20:15	-0.06	2095	7.90	0.5	11-28-19 9:30	1.23	1172	8.35	17.0	11-28-19 9:30	-0.06	1207	8.52	41.8															
12-13-19 20:30	-0.07	2090	7.92	0.4	11-28-19 9:45	1.21	1115	8.36	13.3	11-28-19 9:45	-0.06	1186	8.52	38.4															
12-13-19 20:45	-0.13	2040	7.93	280.5	11-28-19 10:00	1.19	1115	8.36	11.7	11-28-19 10:00	-0.06	1207	8.52	40.8															
12-13-19 21:00	-0.12	2105	7.93	274.7	11-28-19 10:15	1.19	1173	8.36	15.5	11-28-19 10:15	-0.06	1188	8.52	41.7															
12-13-19 21:15	-0.09	2096	7.92	1.1	11-28-19 10:30	1.20	1175	8.35	16.9	11-28-19 10:30	-0.06	1209	8.52	41.4															
12-13-19 21:30	-0.05	2080	7.92	1.0	11-28-19 10:45	1.19	1175	8.35	13.7	11-28-19 10:45	-0.06	1188	8.52	39.2															
12-13-19 21:45	-0.05	2080	7.91	1.0	11-28-19 11:00	1.18	1174	8.34	14.7	11-28-19 11:00	-0.05	1207	8.51	40.4															
12-13-19 22:00	-0.05	2079	7.92	1.0	11-28-19 11:15	1.20	1175	8.36	17.9	11-28-19 11:15	-0.06	1191	8.51	42.0															
12-13-19 22:15	-0.05	2081	7.91	1.2	11-28-19 11:30	1.20	1118	8.36	16.4	11-28-19 11:30	-0.05	1208	8.51	40.8															
12-13-19 22:30	-0.06	2078	7.92	1.0	11-28-19 11:45	1.19	1165	8.36	14.8	11-28-19 11:45	-0.06	1192	8.51	41.7															
12-13-19 22:45	-0.06	2079	7.92	1.0	11-28-19 12:00	1.20	1165	8.36	13.3	11-28-19 12:00	-0.06	1210	8.51	41.0															
12-13-19 23:00	-0.07	2079	7.92	0.9	11-28-19 12:15	1.19	1175	8.36	17.5	11-28-19 12:15	-0.06	1195	8.51	40.0															
12-13-19 23:15	-0.06	2088	7.93	1.1	11-28-19 12:30	1.19	1174	8.35	13.9	11-28-19 12:30	-0.06	1213	8.51	40.6															
12-13-19 23:30	-0.05	2085	7.95	1.0	11-28-19 12:45	1.20	1174	8.35	13.2	11-28-19 12:45	-0.06	1196	8.51	40.8															
12-13-19 23:45	-0.04	2083	8.04	1.0	11-28-19 13:00	1.19	1174	8.35	14.8	11-28-19 13:00	-0.06	1215	8.51	40.4															
12-14-19 0:00	-0.01	2080	8.07	0.9	11-28-19 13:15	1.21	1176	8.35	17.4	11-28-19 13:15	0.15	1184	8.51	43.0															
12-14-19 0:15	-0.02	2074	8.00	1.2	11-28-19 13:30	1.20	1179	8.36	15.8	11-28-19 13:30	0.05	1197	8.52	41.3															
12-14-19 0:30	-0.04	2074	7.97	1.0	11-28-19 13:45	1.22	1178	8.36	16.4	11-28-19 13:45	0.01	1188	8.52	40.0															
12-14-19 0:45	-0.02	2070	7.96	1.0	11-28-19 14:00	1.22	1179	8.36	16.3	11-28-19 14:00	0.00	1202	8.52	39.9															
12-14-19 1:00	-0.03	2071	7.98	1.0	11-28-19 14:15	1.21	1179	8.37	20.3	11-28-19 14:15	-0.01	1192	8.53	40.4															
12-14-19 1:15	-0.04	2076	7.95	1.1	11-28-19 14:30	1.22	1164	8.36	16.2	11-28-19 14:30	-0.02	1208	8.54	41.1															
12-14-19 1:30	-0.06	2076	7.96	1.0	11-28-19 14:45	1.22	1179	8.36	17.0	11-28-19 14:45	-0.03	1199	8.53	38.0															
12-14-19 1:45	-0.05	2074	7.96	0.9	11-28-19 15:00	1.23	1156	8.37	14.4	11-28-19 15:00	-0.03	1213	8.53	41.3															
12-14-19 2:00	-0.06	2073	7.95	1.0	11-28-19 15:15	1.24	1177	8.36	15.2	11-28-19 15:15	-0.03	1195	8.53	41.3															
12-14-19 2:15	-0.05	2070	7.93	1.2	11-28-19 15:30	1.26	1179	8.36	16.4	11-28-19 15:30	-0.03	1211	8.53	41.4															
12-14-19 2:30	-0.06	2069	7.93	1.1	11-28-19 15:45	1.27	1179	8.37	17.7	11-28-19 15:45	-0.03	1197	8.53	39.7															
12-14-19 2:45	-0.06	2068	7.93	1.0	11-28-19 16:00	1.27	1180	8.37	13.4	11-28-19 16:00	-0.03	1211	8.53	39.9															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-14-19 3:00	-0.05	2066	7.94	1.1	11-28-19 16:15	1.26	1180	8.36	20.2	11-28-19 16:15	-0.02	1176	8.53	39.3															
12-14-19 3:15	-0.05	2070	7.94	1.2	11-28-19 16:30	1.16	1176	8.36	22.8	11-28-19 16:30	-0.03	1214	8.52	40.5															
12-14-19 3:30	-0.05	2070	7.95	1.1	11-28-19 16:45	1.32	1163	8.37	20.2	11-28-19 16:45	-0.03	1196	8.52	40.7															
12-14-19 3:45	-0.04	2068	7.95	1.0	11-28-19 17:00	1.26	1164	8.36	19.9	11-28-19 17:00	-0.03	1214	8.52	40.4															
12-14-19 4:00	-0.02	2063	7.93	0.9	11-28-19 17:15	1.28	1163	8.36	19.0	11-28-19 17:15	-0.03	1198	8.52	38.9															
12-14-19 4:15	-0.03	2061	7.92	1.4	11-28-19 17:30	1.32	1165	8.37	17.0	11-28-19 17:30	-0.03	1216	8.52	39.9															
12-14-19 4:30	-0.03	2061	7.93	1.1	11-28-19 17:45	1.31	1166	8.36	16.9	11-28-19 17:45	-0.03	1199	8.52	39.0															
12-14-19 4:45	-0.04	2059	7.92	1.0	11-28-19 18:00	1.32	1166	8.36	15.9	11-28-19 18:00	-0.03	1218	8.52	40.3															
12-14-19 5:00	-0.05	2058	7.93	1.1	11-28-19 18:15	1.36	1182	8.37	23.2	11-28-19 18:15	-0.03	1200	8.52	39.9															
12-14-19 5:15	-0.05	2061	7.92	1.2	11-28-19 18:30	1.31	1126	8.36	16.0	11-28-19 18:30	-0.03	1221	8.51	40.5															
12-14-19 5:30	-0.05	2059	7.93	1.1	11-28-19 18:45	1.34	1125	8.36	23.0	11-28-19 18:45	-0.04	1201	8.51	38.0															
12-14-19 5:45	-0.05	2056	7.94	1.0	11-28-19 19:00	1.34	1126	8.37	17.3	11-28-19 19:00	-0.04	1223	8.51	40.2															
12-14-19 6:00	-0.05	2056	7.93	1.1	11-28-19 19:15	1.34	1184	8.36	23.7	11-28-19 19:15	-0.04	1203	8.51	39.9															
12-14-19 6:15	-0.06	2055	7.92	1.5	11-28-19 19:30	1.38	1184	8.38	22.8	11-28-19 19:30	-0.04	1219	8.51	39.1															
12-14-19 6:30	-0.06	2054	7.93	1.1	11-28-19 19:45	1.35	1185	8.37	11.3	11-28-19 19:45	-0.04	1205	8.51	38.9															
12-14-19 6:45	-0.07	2054	7.92	1.1	11-28-19 20:00	1.39	1168	8.38	17.9	11-28-19 20:00	-0.04	1222	8.51	39.1															
12-14-19 7:00	-0.07	2054	7.92	1.1	11-28-19 20:15	-2.41	0	0.00	17.7	11-28-19 20:15	-0.04	1206	8.51	40.0															
12-14-19 7:15	-0.07	2057	7.92	1.7	11-28-19 20:30	1.39	1167	8.37	16.2	11-28-19 20:30	-0.04	1224	8.51	39.9															
12-14-19 7:30	-0.07	2055	7.93	1.2	11-28-19 20:45	1.46	1166	8.38	17.7	11-28-19 20:45	-0.04	1207	8.51	38.7															
12-14-19 7:45	-0.07	2054	7.92	1.0	11-28-19 21:00	1.33	1166	8.37	18.2	11-28-19 21:00	-0.04	1226	8.51	40.7															
12-14-19 8:00	-0.08	2055	7.91	1.1	11-28-19 21:15	1.33	1166	8.37	18.2	11-28-19 21:15	-0.05	1208	8.51	40.4															
12-14-19 8:15	-0.08	2059	7.91	1.5	11-28-19 21:30	1.41	1179	8.37	16.1	11-28-19 21:30	-0.05	1228	8.50	40.4															
12-14-19 8:30	-0.09	2058	7.93	1.2	11-28-19 21:45	1.41	1179	8.37	16.3	11-28-19 21:45	-0.05	1212	8.50	41.3															
12-14-19 8:45	-0.09	2058	7.92	1.1	11-28-19 22:00	1.41	1179	8.37	16.9	11-28-19 22:00	-0.05	1229	8.50	40.1															
12-14-19 9:00	-0.09	2057	7.92	1.0	11-28-19 22:15	1.42	1179	8.37	16.0	11-28-19 22:15	-0.06	1213	8.50	36.9															
12-14-19 9:15	-0.10	2060	7.91	1.2	11-28-19 22:30	1.38	1187	8.37	17.7	11-28-19 22:30	-0.06	1230	8.50	40.4															
12-14-19 9:30	-0.10	2060	7.92	1.1	11-28-19 22:45	1.41	1186	8.37	16.4	11-28-19 22:45	-0.06	1212	8.50	39.2															
12-14-19 9:45	-0.10	2060	7.92	1.1	11-28-19 23:00	-0.14	1	7.80	0.0	11-28-19 23:00	-0.06	1234	8.50	40.1															
12-14-19 10:00	-0.09	2059	7.92	1.2	11-28-19 23:15					11-28-19 23:15	-0.06	1215	8.50	40.9															
12-14-19 10:15	-0.08	2056	7.91	1.4	11-28-19 23:30					11-28-19 23:30	-0.06	1235	8.49	39.9															
12-14-19 10:30	-0.07	2054	7.92	1.3	11-28-19 23:45					11-28-19 23:45	-0.06	1213	8.49	39.1															
12-14-19 10:45	-0.07	2053	7.91	1.1	11-29-19 0:00					11-29-19 0:00	-0.06	1236	8.49	39.5															
12-14-19 11:00	-0.07	2052	7.92	1.3	11-29-19 0:15					11-29-19 0:15	-0.07	1218	8.49	39.0															
12-14-19 11:15	-0.07	2056	7.91	1.3	11-29-19 0:30					11-29-19 0:30	-0.06	1237	8.49	39.8															
12-14-19 11:30	-0.08	2055	7.92	1.2	11-29-19 0:45	0.71	1039	7.82	14.5	11-29-19 0:45	-0.07	1218	8.49	37.2															
12-14-19 11:45	-0.09	2054	7.92	1.1	11-29-19 1:00	0.66	1045	7.87	12.5	11-29-19 1:00	-0.06	1237	8.49	39.5															
12-14-19 12:00	-0.09	2055	7.91	1.2	11-29-19 1:15	0.56	1051	7.92	12.9	11-29-19 1:15	-0.07	1219	8.49	39.5															
12-14-19 12:15	-0.09	2054	7.90	1.4	11-29-19 1:30	0.52	1055	7.95	12.6	11-29-19 1:30	-0.06	1239	8.48	39.6															
12-14-19 12:30	-0.10	2053	7.92	1.1	11-29-19 1:45	0.50	1055	7.98	12.3	11-29-19 1:45	-0.07	1219	8.48	37.1															
12-14-19 12:45	-0.10	2052	7.91	1.2	11-29-19 2:00	0.56	1052	7.99	12.5	11-29-19 2:00	-0.07	1241	8.48	38.9															
12-14-19 13:00	-0.10	2052	7.92	1.2	11-29-19 2:15	0.52	1053	8.01	12.1	11-29-19 2:15	-0.07	1220	8.48	38.5															
12-14-19 13:15	-0.10	2058	7.91	1.5	11-29-19 2:30	0.49	1057	8.02	12.5	11-29-19 2:30	-0.07	1245	8.48	38.3															
12-14-19 13:30	-0.10	2055	7.92	1.2	11-29-19 2:45	0.53	1056	8.02	12.0	11-29-19 2:45	-0.07	1225	8.48	36.8															
12-14-19 13:45	-0.10	2055	7.91	1.3	11-29-19 3:00	0.49	1056	8.03	12.3	11-29-19 3:00	-0.07	1243	8.48	39.9															
12-14-19 14:00	-0.11	2055	7.91	1.3	11-29-19 3:15	0.44	1058	8.03	11.0	11-29-19 3:15	-0.07	1223	8.48	35.4															
12-14-19 14:15	-0.10	2057	7.90	1.5	11-29-19 3:30	0.40	1061	8.03	11.1	11-29-19 3:30	-0.07	1244	8.48	39.2															
12-14-19 14:30	-0.10	2054	7.92	1.2	11-29-19 3:45	0.41	1058	8.03	11.2	11-29-19 3:45	-0.07	1225	8.48	37.9															
12-14-19 14:45	-0.09	2054	7.92	1.2	11-29-19 4:00	0.47	1057	8.03	11.1	11-29-19 4:00	-0.07	1246	8.47	39.0															
12-14-19 15:00	-0.09	2052	7.91	1.2	11-29-19 4:15	0.46	1057	8.03	11.3	11-29-19 4:15	-0.07	1226	8.47	39.2															
12-14-19 15:15	-0.09	2057	7.91	1.3	11-29-19 4:30	0.42	1058	8.03	11.2	11-29-19 4:30	-0.07	1245	8.47	39.4															
12-14-19 15:30	-0.09	2052	7.91	1.2	11-29-19 4:45	0.40	1058	8.03	11.2	11-29-19 4:45	-0.07	1227	8.47	38.0															
12-14-19 15:45	-0.09	2051	7.91	1.1	11-29-19 5:00	0.40	1057	8.03	11.1	11-29-19 5:00	-0.07	1245	8.47	39.1															
12-14-19 16:00	-0.09	2050	7.91	1.2	11-29-19 5:15	0.40	1051	8.03	11.8	11-29-19 5:15	-0.07	1227	8.47	37.6															
12-14-19 16:15	-0.08	2053	7.90	1.6	11-29-19 5:30	0.41	1057	8.03	11.5	11-29-19 5:30	-0.07	1248	8.47	39.0															
12-14-19 16:30	-0.08	2049	7.92	1.2	11-29-19 5:45	0.40	1057	8.03	11.5	11-29-19 5:45	-0.07	1228	8.47	38.6															
12-14-19 16:45	-0.08	2048	7.92	1.1	11-29-19 6:00	0.39	1058	8.03	11.8	11-29-19 6:00	-0.07	1249	8.47	38.8															
12-14-19 17:00	-0.08	2048	7.91	1.1	11-29-19 6:15	0.36	1058	8.03	11.6	11-29-19 6:15	-0.07	1229	8.47	36.1															
12-14-19 17:15	-0.08	2054	7.91	1.3	11-29-19 6:30	0.43	1055	8.03	12.3	11-29-19 6:30	-0.07	1250	8.47	37.9															
12-14-19 17:30	-0.08	2049	7.91	1.1	11-29-19 6:45	0.40	1055	8.03	12.0	11-29-19 6:45	-0.07	1229	8.47	36.6															
12-14-19 17:45	-0.07	2048	7.91	1.1	11-29-19 7:00	0.37	1059	8.03	11.6	11-29-19 7:00	-0.07	1249	8.47	38.8															
12-14-19 18:00	-0.07	2048	7.91	1.1	11-29-19 7:15	0.37	1057	8.02	11.9	11-29-19 7:15	-0.08	1231	8.47	37.5															
12-14-19 18:15	-0.07	2049	7.90	1.5	11-29-19 7:30	0.37	1056	8.02	11.7	11-29-19 7:30	-0.07	1248	8.47	38.3															
12-14-19 18:30	-0.07	2048	7.91	1.1	11-29-19 7:45	0.38	1056	8.02	11.7	11-29-19 7:45	-0.08	1233	8.47	37.4															
12-14-19 18:45	-0.08	2047	7.91	1.0	11-29-19 8:00	0.40	1054	8.02	11.8	11-29-19 8:00	-0.08	1253	8.47	37.9															
12-14-19 19:00	-0.08	2047	7.92	1.1	11-29-19 8:15	0.34	1056	8.02	11.7	11-29-19 8:15	-0.08	1233	8.47	36.4															
12-14-19 19:15	-0.08	2049	7.91	1.3	11-29-19 8:30	0.35	1053	8.02	12.0	11-29-19 8:30	-0.08	1253	8.47	38.2															
12-14-19 19:30	-0.16	2029	7.92	1.2	11-29-19 8:45	0.33	1054	8.02	11.9	11-29-19 8:45	-0.08	1235	8.47	37.6															
12-14-19 19:45	-0.13	1925	7.92	1.1	11-29-19 9:00	0.35	1053	8.02	11.7	11-29-19 9:00	-0.08	1252	8.47	37.8															
12-14-19 20:00	-0.12	1930	7.92	1.3	11-29-19 9:15	0.34	1055	8.02	12.0	11-29-19 9:15	-0.08	1235	8.47	35.8															
12-14-19 20:15	-0.12	2049	7.91	1.4	11-29-19 9:30	0.31	1053	8.02	11.7	11-29-19 9:30	-0.08	1255	8.47	38.4															
12-14-19 20:30	-0.11	2050	7.92	1.1	11-29-19 9:45	0.30	1054	8.02	11.9	11-29-19 9:45	-0.08	1235	8.47	36.4															
12-14-19 20:45	-0.10	2044	7.92	1.2	11-29-19 10:00	0.33	1053	8.02	12.4	11-29-19 10:00	-0.08	1255	8.46	37.9															
12-14-19 21:00	-0.10	2042	7.91	1.1	11-29-19 10:15	0.27	1054	8.02	12.7	11-29-19 10:15	-0.08	1236	8.46	37.2															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-14-19 21:15	-0.10	2032	7.91	1.4	11-29-19 10:30	0.24	1054	8.02	11.6	11-29-19 10:30	-0.04	1245	8.45	40.0															
12-14-19 21:30	-0.10	2055	7.91	1.0	11-29-19 10:45	0.28	1053	8.02	12.0	11-29-19 10:45	0.00	1220	8.46	36.6															
12-14-19 21:45	-0.10	1972	7.91	0.9	11-29-19 11:00	0.31	1052	8.02	11.9	11-29-19 11:00	-0.01	1240	8.46	38.0															
12-14-19 22:00	-0.10	2015	7.91	1.0	11-29-19 11:15	0.31	1054	8.01	12.1	11-29-19 11:15	-0.02	1230	8.46	37.9															
12-14-19 22:15	-0.09	2035	7.92	1.2	11-29-19 11:30	0.30	1053	8.02	12.4	11-29-19 11:30	-0.03	1243	8.47	37.9															
12-14-19 22:30	-0.07	2033	7.95	1.1	11-29-19 11:45	0.33	1052	8.01	12.4	11-29-19 11:45	-0.03	1231	8.47	38.0															
12-14-19 22:45	-0.07	2031	7.96	1.3	11-29-19 12:00	0.28	1054	8.01	12.0	11-29-19 12:00	-0.03	1244	8.47	37.1															
12-14-19 23:00	-0.07	2027	7.93	1.1	11-29-19 12:15	0.31	1052	8.01	11.8	11-29-19 12:15	-0.03	1231	8.47	36.5															
12-14-19 23:15	-0.06	2024	7.94	1.2	11-29-19 12:30	0.27	1056	8.01	11.4	11-29-19 12:30	-0.03	1244	8.48	36.5															
12-14-19 23:30	-0.08	2023	7.94	1.1	11-29-19 12:45	0.31	1049	8.01	12.0	11-29-19 12:45	-0.04	1232	8.48	35.6															
12-14-19 23:45	-0.08	2022	7.96	1.2	11-29-19 13:00	0.28	1052	8.01	11.9	11-29-19 13:00	-0.04	1245	8.48	36.5															
12-15-19 0:00	-0.07	2020	7.95	1.0	11-29-19 13:15	0.27	1052	8.01	11.6	11-29-19 13:15	-0.05	1236	8.48	33.8															
12-15-19 0:15	-0.07	2018	7.95	1.4	11-29-19 13:30	0.30	1053	8.01	11.6	11-29-19 13:30	-0.05	1251	8.48	37.0															
12-15-19 0:30	-0.07	2015	7.94	1.1	11-29-19 13:45	0.30	1052	8.01	12.3	11-29-19 13:45	-0.06	1236	8.48	36.3															
12-15-19 0:45	-0.07	2014	7.94	1.1	11-29-19 14:00	0.29	1051	8.01	12.4	11-29-19 14:00	-0.06	1252	8.48	35.8															
12-15-19 1:00	-0.07	2013	7.96	1.0	11-29-19 14:15	0.22	1053	8.01	12.0	11-29-19 14:15	-0.06	1238	8.48	36.3															
12-15-19 1:15	-0.07	2013	7.93	1.3	11-29-19 14:30	0.18	1053	8.02	12.4	11-29-19 14:30	-0.06	1253	8.48	36.7															
12-15-19 1:30	-0.07	2012	7.93	1.1	11-29-19 14:45	0.19	1052	8.01	11.4	11-29-19 14:45	-0.06	1238	8.48	35.1															
12-15-19 1:45	-0.07	2012	7.93	1.1	11-29-19 15:00	0.22	1052	8.01	11.7	11-29-19 15:00	-0.06	1254	8.48	36.2															
12-15-19 2:00	-0.07	2011	7.92	1.1	11-29-19 15:15	0.22	1050	8.01	11.8	11-29-19 15:15	-0.06	1239	8.48	36.2															
12-15-19 2:15	-0.07	2013	7.92	1.4	11-29-19 15:30	0.25	1049	8.01	12.2	11-29-19 15:30	-0.06	1255	8.48	35.9															
12-15-19 2:30	-0.08	2013	7.94	1.1	11-29-19 15:45	0.20	1050	8.01	11.9	11-29-19 15:45	-0.06	1239	8.48	34.2															
12-15-19 2:45	-0.08	2013	7.94	1.0	11-29-19 16:00	0.22	1037	8.01	14.3	11-29-19 16:00	-0.07	1256	8.47	35.5															
12-15-19 3:00	-0.08	2013	7.93	0.9	11-29-19 16:15	0.18	1049	8.01	11.5	11-29-19 16:15	-0.92	52	8.55	38.1															
12-15-19 3:15	-0.08	2015	7.92	1.2	11-29-19 16:30	0.14	1052	8.01	11.2	11-29-19 16:30	-0.08	895	8.47	42.3															
12-15-19 3:30	-0.08	2015	7.94	1.0	11-29-19 16:45	0.15	1052	8.01	11.5	11-29-19 16:45	-0.08	1315	8.46	40.3															
12-15-19 3:45	-0.09	2015	7.93	1.0	11-29-19 17:00	0.18	1049	8.01	12.0	11-29-19 17:00	-0.08	1199	8.44	35.0															
12-15-19 4:00	-0.09	2015	7.93	1.0	11-29-19 17:15	0.89	1041	8.02	13.1	11-29-19 17:15	-0.08	1333	8.42	38.0															
12-15-19 4:15	-0.09	2017	7.92	1.4	11-29-19 17:30	0.05	1041	8.02	13.7	11-29-19 17:30	-0.08	1226	8.41	33.0															
12-15-19 4:30	-0.09	2016	7.94	1.1	11-29-19 17:45	0.00	1041	8.02	12.9	11-29-19 17:45	-0.08	1343	8.39	36.1															
12-15-19 4:45	-0.09	2018	7.93	1.0	11-29-19 18:00	0.64	1051	8.01	11.4	11-29-19 18:00	-0.08	1297	8.38	33.1															
12-15-19 5:00	-0.09	2017	7.93	1.0	11-29-19 18:15	0.10	1051	8.01	11.4	11-29-19 18:15	-0.08	1346	8.37	35.4															
12-15-19 5:15	-0.09	2019	7.93	1.1	11-29-19 18:30	0.02	1052	8.01	11.5	11-29-19 18:30	-0.08	1169	8.36	43.0															
12-15-19 5:30	-0.07	2017	7.93	1.2	11-29-19 18:45	0.00	1055	8.01	10.6	11-29-19 18:45	-0.08	1370	8.35	38.1															
12-15-19 5:45	-0.05	2014	7.93	1.1	11-29-19 19:00	0.00	1056	8.01	10.7	11-29-19 19:00	-0.08	1306	8.35	37.4															
12-15-19 6:00	-0.04	2012	7.93	1.1	11-29-19 19:15	0.00	1059	8.01	10.7	11-29-19 19:15	-0.08	1343	8.34	36.8															
12-15-19 6:15	-0.04	2016	7.92	1.5	11-29-19 19:30	0.00	1061	8.01	10.4	11-29-19 19:30	-0.08	1332	8.34	35.1															
12-15-19 6:30	-0.02	2009	7.93	1.2	11-29-19 19:45	-0.02	1064	8.01	10.5	11-29-19 19:45	-0.08	1336	8.34	34.5															
12-15-19 6:45	-0.02	2009	7.92	1.1	11-29-19 20:00	-0.02	1067	8.01	10.3	11-29-19 20:00	-0.08	1272	8.34	35.9															
12-15-19 7:00	-0.03	2008	7.91	1.1	11-29-19 20:15	-0.03	1069	8.01	9.7	11-29-19 20:15	-0.08	1318	8.34	33.6															
12-15-19 7:15	-0.02	2006	7.92	1.4	11-29-19 20:30	-0.02	1070	8.01	9.9	11-29-19 20:30	-0.08	1278	8.34	34.4															
12-15-19 7:30	-0.02	2002	7.93	1.2	11-29-19 20:45	-0.03	1071	8.01	9.9	11-29-19 20:45	-0.08	1297	8.34	35.5															
12-15-19 7:45	-0.03	2001	7.93	1.2	11-29-19 21:00	-0.03	1072	8.01	10.2	11-29-19 21:00	-0.08	1294	8.35	36.0															
12-15-19 8:00	-0.05	2002	7.92	1.1	11-29-19 21:15	-0.05	1072	8.01	9.7	11-29-19 21:15	-0.08	1229	8.35	35.2															
12-15-19 8:15	-0.05	2003	7.92	1.5	11-29-19 21:30	-0.04	1071	8.01	10.0	11-29-19 21:30	-0.08	1298	8.36	35.0															
12-15-19 8:30	-0.04	1999	7.93	1.2	11-29-19 21:45	-0.04	1070	8.01	10.1	11-29-19 21:45	-0.08	1267	8.36	34.5															
12-15-19 8:45	-0.03	1997	7.93	1.3	11-29-19 22:00	-0.04	1070	8.01	9.8	11-29-19 22:00	-0.08	1252	8.37	34.7															
12-15-19 9:00	-0.03	1996	7.93	1.3	11-29-19 22:15	-0.05	1069	8.01	10.1	11-29-19 22:15	-0.08	1269	8.38	34.7															
12-15-19 9:15	-0.03	1999	7.93	1.4	11-29-19 22:30	-0.03	1066	8.01	9.8	11-29-19 22:30	-0.08	1253	8.39	36.7															
12-15-19 9:30	-0.04	1996	7.93	1.2	11-29-19 22:45	-0.06	1067	8.01	9.9	11-29-19 22:45	-0.08	1270	8.39	35.1															
12-15-19 9:45	-0.03	1993	7.93	1.2	11-29-19 23:00	-0.05	1065	8.01	9.9	11-29-19 23:00	-0.08	1254	8.40	34.8															
12-15-19 10:00	-0.03	1991	7.93	1.1	11-29-19 23:15	-0.06	1063	8.01	9.6	11-29-19 23:15	-0.08	1273	8.41	35.1															
12-15-19 10:15	-0.03	1994	7.92	1.5	11-29-19 23:30	0.40	1050	8.01	10.7	11-29-19 23:30	-0.08	1253	8.42	36.2															
12-15-19 10:30	-0.03	1991	7.93	1.3	11-29-19 23:45	0.12	1061	8.01	10.7	11-29-19 23:45	-0.08	1273	8.43	35.9															
12-15-19 10:45	-0.03	1988	7.93	1.2	11-30-19 0:00	0.05	1064	8.01	10.3	11-30-19 0:00	-0.08	1255	8.43	33.8															
12-15-19 11:00	-0.05	1989	7.93	1.1	11-30-19 0:15	0.02	1066	8.01	10.2	11-30-19 0:15	-0.08	1273	8.44	35.5															
12-15-19 11:15	-0.05	1990	7.92	1.4	11-30-19 0:30	0.02	1070	8.01	10.2	11-30-19 0:30	-0.08	1254	8.44	34.0															
12-15-19 11:30	-0.04	1985	7.93	1.3	11-30-19 0:45	-0.01	1070	8.01	10.0	11-30-19 0:45	-0.08	1275	8.45	35.8															
12-15-19 11:45	-0.04	1985	7.92	1.2	11-30-19 1:00	0.01	1069	8.01	9.8	11-30-19 1:00	-0.09	1257	8.46	36.0															
12-15-19 12:00	-0.03	1984	7.92	1.2	11-30-19 1:15	0.00	1069	8.01	10.0	11-30-19 1:15	-0.09	1278	8.46	36.1															
12-15-19 12:15	-0.03	1986	7.92	1.6	11-30-19 1:30	0.01	1067	8.01	9.6	11-30-19 1:30	-0.09	1260	8.46	36.0															
12-15-19 12:30	-0.04	1985	7.93	1.3	11-30-19 1:45	-0.01	1068	8.01	9.6	11-30-19 1:45	-0.09	1278	8.47	35.4															
12-15-19 12:45	-0.03	1984	7.94	1.2	11-30-19 2:00	0.01	1066	8.01	9.7	11-30-19 2:00	-0.09	1260	8.47	35.2															
12-15-19 13:00	-0.04	1982	7.94	1.1	11-30-19 2:15	-0.01	1065	8.01	9.8	11-30-19 2:15	-0.09	1279	8.47	36.3															
12-15-19 13:15	-0.04	1982	7.93	1.4	11-30-19 2:30	-0.04	1067	8.01	9.7	11-30-19 2:30	-0.09	1258	8.47	36.4															
12-15-19 13:30	-0.04	1980	7.94	1.2	11-30-19 2:45	-0.02	1063	8.01	9.9	11-30-19 2:45	-0.09	1281	8.47	36.2															
12-15-19 13:45	-0.04	1979	7.94	1.1	11-30-19 3:00	-0.02	1064	8.01	10.0	11-30-19 3:00	-0.09	1260	8.47	35.4															
12-15-19 14:00	-0.04	1979	7.94	1.1	11-30-19 3:15	-0.03	1062	8.01	9.7	11-30-19 3:15	-0.09	1279	8.47	34.1															
12-15-19 14:15	-0.04	1979	7.93	1.6	11-30-19 3:30	-0.02	1061	8.01	10.0	11-30-19 3:30	-0.09	1262	8.47	36.1															
12-15-19 14:30	-0.05	1978	7.94	1.2	11-30-19 3:45	-0.02	1060	8.01	10.1	11-30-19 3:45	-0.09	1282	8.47	34.6															
12-15-19 14:45	-0.04	1977	7.94	1.1	11-30-19 4:00	-0.04	1060	8.01	9.7	11-30-19 4:00	-0.10	1263	8.47	35.1															
12-15-19 15:00	-0.03	1974	7.94	1.2	11-30-19 4:15	-0.04	1058	8.01	9.8	11-30-19 4:15	-0.09	1282	8.47	34.5															
12-15-19 15:15	-0.03	1975	7.93	1.3	11-30-19 4:30	-0.05	1060	8.01	10.0	11-30-19 4:30	-0.10	1265	8.47	35.5															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-15-19 15:30	-0.05	1974	7.94	1.2
12-15-19 15:45	-0.04	1974	7.93	1.1
12-15-19 16:00	-0.06	1973	7.93	1.0
12-15-19 16:15	-0.05	1979	7.92	1.6
12-15-19 16:30	-0.05	1975	7.94	1.2
12-15-19 16:45	-0.05	1975	7.94	1.2
12-15-19 17:00	-0.06	1975	7.94	1.1
12-15-19 17:15	-0.05	1970	7.93	1.3
12-15-19 17:30	-0.05	1967	7.94	1.2
12-15-19 17:45	-0.05	1966	7.94	1.2
12-15-19 18:00	-0.05	1965	7.92	1.1
12-15-19 18:15	-0.04	1965	7.93	1.6
12-15-19 18:30	-0.04	1961	7.94	1.1
12-15-19 18:45	-0.05	1960	7.94	1.2
12-15-19 19:00	-0.05	1960	7.94	1.2
12-15-19 19:15	-0.14	1926	7.95	2.0
12-15-19 19:30	-0.12	1871	7.95	2.6
12-15-19 19:45	-0.12	1831	7.95	1.7
12-15-19 20:00	-0.12	1772	7.96	1.2
12-15-19 20:15	-0.11	1995	7.95	1.4
12-15-19 20:30	-0.11	1974	7.96	1.3
12-15-19 20:45	-0.08	1941	7.96	1.3
12-15-19 21:00	-0.06	1945	7.96	1.3
12-15-19 21:15	-0.04	1949	7.94	1.7
12-15-19 21:30	-0.05	1948	7.96	1.2
12-15-19 21:45	-0.06	1948	7.95	1.2
12-15-19 22:00	-0.06	1947	7.95	1.2
12-15-19 22:15	-0.03	1945	7.96	1.7
12-15-19 22:30	-0.04	1943	7.96	1.2
12-15-19 22:45	-0.05	1944	7.97	1.2
12-15-19 23:00	-0.05	1944	7.97	1.3
12-15-19 23:15	-0.06	1945	7.96	1.5
12-15-19 23:30	-0.05	1943	7.97	1.2
12-15-19 23:45	-0.04	1942	8.02	1.2
12-16-19 0:00	-0.04	1939	8.00	1.3
12-16-19 0:15	-0.05	1941	7.98	1.8
12-16-19 0:30	-0.03	1937	7.98	1.3
12-16-19 0:45	-0.01	1935	7.99	1.2
12-16-19 1:00	-0.05	1935	8.04	1.2
12-16-19 1:15	-0.02	1932	8.00	1.5
12-16-19 1:30	-0.02	1929	7.97	1.3
12-16-19 1:45	-0.03	1928	8.01	1.2
12-16-19 2:00	-0.04	1925	8.04	1.3
12-16-19 2:15	-0.05	1933	8.01	1.7
12-16-19 2:30	-0.07	1928	8.03	1.2
12-16-19 2:45	-0.05	1922	8.03	1.3
12-16-19 3:00	-0.07	1923	8.01	1.2
12-16-19 3:15	-0.08	1926	7.99	1.4
12-16-19 3:30	-0.09	1926	7.99	1.2
12-16-19 3:45	-0.09	1924	7.99	1.2
12-16-19 4:00	-0.08	1924	7.98	1.2
12-16-19 4:15	-0.08	1929	7.97	1.7
12-16-19 4:30	-0.07	1923	8.03	1.3
12-16-19 4:45	-0.06	1920	8.06	1.2
12-16-19 5:00	-0.07	1920	8.03	1.2
12-16-19 5:15	-0.07	1920	7.98	1.4
12-16-19 5:30	-0.07	1919	7.98	1.2
12-16-19 5:45	-0.05	1915	8.00	1.2
12-16-19 6:00	-0.07	1916	8.00	1.1
12-16-19 6:15	-0.07	1920	7.99	1.7
12-16-19 6:30	-0.08	1914	7.98	1.2
12-16-19 6:45	-0.06	1910	7.99	1.2
12-16-19 7:00	-0.07	1911	7.99	1.2
12-16-19 7:15	-0.06	1910	7.97	1.5
12-16-19 7:30	-0.06	1909	7.98	1.2
12-16-19 7:45	-0.07	1907	7.98	1.2
12-16-19 8:00	-0.03	1899	7.97	1.2
12-16-19 8:15	-0.02	1903	7.96	1.7
12-16-19 8:30	-0.04	1900	7.96	1.3
12-16-19 8:45	-0.06	1899	7.97	1.2
12-16-19 9:00	-0.07	1898	7.97	1.1
12-16-19 9:15	-0.07	1900	7.96	1.3
12-16-19 9:30	-0.08	1897	7.96	1.2

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-30-19 4:45	-0.07	1058	8.01	10.1
11-30-19 5:00	-0.06	1057	8.01	10.1
11-30-19 5:15	-0.04	1053	8.01	10.2
11-30-19 5:30	-0.08	1054	8.01	9.4
11-30-19 5:45	-0.08	1054	8.01	10.0
11-30-19 6:00	-0.09	1053	8.01	10.1
11-30-19 6:15	-0.09	1051	8.02	10.2
11-30-19 6:30	-0.11	1051	8.01	10.1
11-30-19 6:45	-0.08	1047	8.01	10.1
11-30-19 7:00	-0.08	1045	8.00	10.0
11-30-19 7:15	-0.09	1044	8.00	10.6
11-30-19 7:30	-0.12	1044	8.00	10.4
11-30-19 7:45	-0.08	1041	8.00	10.5
11-30-19 8:00	-0.10	1041	8.00	10.3
11-30-19 8:15	-0.10	1041	8.00	10.5
11-30-19 8:30	-0.09	1039	8.00	10.7
11-30-19 8:45	-0.11	1039	7.99	10.4
11-30-19 9:00	-0.11	1034	7.97	32.8
11-30-19 9:15	-0.13	1036	7.97	11.1
11-30-19 9:30	-0.12	1035	7.96	11.2
11-30-19 9:45	-0.11	1028	7.96	10.4
11-30-19 10:00	-0.12	1029	7.96	10.3
11-30-19 10:15	-0.10	1028	7.97	11.8
11-30-19 10:30	-0.13	1025	7.96	12.5
11-30-19 10:45	-0.10	1018	7.94	12.0
11-30-19 11:00	-0.13	1001	7.93	11.2
11-30-19 11:15	-0.14	566	7.93	13.0
11-30-19 11:30	-0.14	511	7.92	15.6
11-30-19 11:45	-0.15	491	7.89	14.4
11-30-19 12:00	-0.18	10	7.86	15.6
11-30-19 12:15	-0.18	4	7.84	14.3
11-30-19 12:30	-0.19	3	7.85	14.1
11-30-19 12:45	-0.21	2	7.83	13.4
11-30-19 13:00	-0.21	2	7.82	12.6
11-30-19 13:15	-0.22	2	7.80	11.8
11-30-19 13:30	-0.27	2	7.78	11.2
11-30-19 13:45	-0.28	1	7.73	10.0
11-30-19 14:00	-0.28	1	7.70	9.0
11-30-19 14:15	-0.30	1	7.65	9.2
11-30-19 14:30	-0.36	1	7.64	8.7
11-30-19 14:45	-0.36	1	7.54	7.8
11-30-19 15:00	-0.34	1	7.46	6.8
11-30-19 15:15	-0.37	1	7.41	6.4
11-30-19 15:30	-0.47	0	7.43	6.1
11-30-19 15:45	-0.54	0	7.47	5.7
11-30-19 16:00	-0.55	0	7.52	5.4
11-30-19 16:15	-0.55	0	7.69	5.3
11-30-19 16:30	-0.63	0	7.89	5.1
11-30-19 16:45	-0.62	0	8.04	5.0
11-30-19 17:00	-0.60	0	8.16	5.0
11-30-19 17:15	-0.62	0	8.21	4.8
11-30-19 17:30	-0.63	0	8.23	4.6
11-30-19 17:45	-0.62	0	8.23	4.5
11-30-19 18:00	-0.64	0	8.26	4.4
11-30-19 18:15	-0.66	0	8.21	4.3
11-30-19 18:30	-0.71	0	8.02	4.3
11-30-19 18:45	-0.69	0	7.60	4.2
11-30-19 19:00	-0.63	0	7.56	4.1
11-30-19 19:15	-0.64	0	7.53	4.0
11-30-19 19:30	-0.66	0	7.51	4.0
11-30-19 19:45	-0.66	0	7.52	4.0
11-30-19 20:00	-0.70	0	7.48	4.0
11-30-19 20:15	-0.72	0	7.47	4.0
11-30-19 20:30	-0.71	0	7.45	4.0
11-30-19 20:45	-0.75	0	7.43	4.0
11-30-19 21:00	-0.17	0	7.84	5.1
11-30-19 21:15	-0.09	1	7.87	5.4
11-30-19 21:30	-0.07	2	7.80	6.5
11-30-19 21:45	-0.07	8	7.79	8.0
11-30-19 22:00	-0.07	16	7.76	7.9
11-30-19 22:15	-0.07	22	7.73	8.2
11-30-19 22:30	-0.07	28	7.70	8.4
11-30-19 22:45	-0.07	33	7.68	8.5

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
11-30-19 4:45	-0.10	1284	8.47	34.8
11-30-19 5:00	-0.10	1264	8.47	34.6
11-30-19 5:15	-0.10	1287	8.47	34.9
11-30-19 5:30	-0.10	1265	8.46	34.9
11-30-19 5:45	-0.10	1285	8.46	34.2
11-30-19 6:00	-0.10	1268	8.46	34.0
11-30-19 6:15	-0.10	1288	8.46	34.0
11-30-19 6:30	-0.10	1266	8.46	32.4
11-30-19 6:45	-0.10	1286	8.46	34.1
11-30-19 7:00	-0.10	1265	8.46	33.9
11-30-19 7:15	-0.10	1286	8.46	33.5
11-30-19 7:30	-0.11	1266	8.46	34.2
11-30-19 7:45	-0.10	1289	8.46	33.1
11-30-19 8:00	-0.11	1268	8.46	34.5
11-30-19 8:15	-0.11	1283	8.46	33.5
11-30-19 8:30	-0.11	1266	8.46	33.0
11-30-19 8:45	-0.11	1284	8.46	33.7
11-30-19 9:00	-0.11	1269	8.46	33.6
11-30-19 9:15	-0.11	1281	8.46	33.7
11-30-19 9:30	-0.11	1269	8.46	32.3
11-30-19 9:45	-0.11	1282	8.46	33.1
11-30-19 10:00	-0.12	1265	8.46	30.6
11-30-19 10:15	-0.11	1278	8.46	33.4
11-30-19 10:30	-0.12	1267	8.46	32.9
11-30-19 10:45	-0.12	1275	8.47	33.7
11-30-19 11:00	-0.12	1264	8.46	30.9
11-30-19 11:15	-0.11	1273	8.47	33.0
11-30-19 11:30	-0.11	1263	8.47	32.1
11-30-19 11:45	-0.11	1269	8.47	33.8
11-30-19 12:00	-0.11	1259	8.47	32.5
11-30-19 12:15	-0.10	1268	8.47	33.8
11-30-19 12:30	-0.11	1261	8.47	33.6
11-30-19 12:45	-0.11	1269	8.47	33.5
11-30-19 13:00	-0.11	1259	8.47	33.0
11-30-19 13:15	-0.11	1267	8.47	34.1
11-30-19 13:30	-0.21	2	8.05	1.7
11-30-19 13:45	-0.07	1261	8.47	33.7
11-30-19 14:00	-0.06	1243	8.48	34.2
11-30-19 14:15	-0.06	1264	8.48	32.7
11-30-19 14:30	-0.06	1272	8.48	31.3
11-30-19 14:45	-0.06	1264	8.49	32.4
11-30-19 15:00	-0.06	1253	8.48	33.2
11-30-19 15:15	-0.06	1265	8.49	32.1
11-30-19 15:30	-0.06	1254	8.48	32.0
11-30-19 15:45	-0.07	1268	8.49	32.2
11-30-19 16:00	-0.07	1257	8.48	31.5
11-30-19 16:15	-0.07	1270	8.48	31.6
11-30-19 16:30	-0.07	1259	8.48	31.9
11-30-19 16:45	-0.07	1271	8.48	32.0
11-30-19 17:00	-0.07	1259	8.48	32.3
11-30-19 17:15	-0.07	1270	8.48	30.9
11-30-19 17:30	-0.07	1258	8.47	31.6
11-30-19 17:45	-0.07	1271	8.47	32.5
11-30-19 18:00	-0.07	1262	8.47	32.8
11-30-19 18:15	-0.07	1276	8.47	32.2
11-30-19 18:30	-0.07	1262	8.46	32.5
11-30-19 18:45	-0.07	1280	8.46	32.0
11-30-19 19:00	-0.08	1266	8.46	32.4
11-30-19 19:15	-0.07	1278	8.46	31.6
11-30-19 19:30	-0.07	1259	8.44	30.3
11-30-19 19:45	-0.07	1272	8.44	31.5
11-30-19 20:00	-0.06	1253	8.43	31.2
11-30-19 20:15	-0.05	1266	8.43	31.0
11-30-19 20:30	-0.04	1247	8.43	30.7
11-30-19 20:45	-0.03	1260	8.43	31.4
11-30-19 21:00	-0.03	1244	8.42	30.4
11-30-19 21:15	-0.03	1257	8.42	31.0
11-30-19 21:30	-0.04	1246	8.42	30.2
11-30-19 21:45	-0.04	1260	8.42	31.3
11-30-19 22:00	-0.05	1246	8.42	31.1
11-30-19 22:15	-0.05	1260	8.42	30.6
11-30-19 22:30	-0.05	1248	8.42	31.1
11-30-19 22:45	-0.06	1262	8.42	30.6

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-16-19 9:45	-0.08	1898	7.95	1.2	11-30-19 23:00	-0.06	37	7.66	8.7	11-30-19 23:00	-0.06	1250	8.41	30.2															
12-16-19 10:00	-0.08	1896	7.95	1.2	11-30-19 23:15	-0.06	42	7.63	8.9	11-30-19 23:15	-0.06	1265	8.42	30.8															
12-16-19 10:15	-0.08	1899	7.95	1.6	11-30-19 23:30	-0.06	45	7.62	9.2	11-30-19 23:30	-0.07	1255	8.42	30.0															
12-16-19 10:30	-0.08	1896	7.96	1.1	11-30-19 23:45	-0.06	47	7.60	9.3	11-30-19 23:45	-0.07	1265	8.42	31.1															
12-16-19 10:45	-0.08	1895	7.96	1.1	12-1-19 0:00	-0.06	49	7.59	9.6	12-1-19 0:00	-0.07	1254	8.42	28.3															
12-16-19 11:00	-0.09	1895	7.96	1.1	12-1-19 0:15	-0.06	51	7.58	9.8	12-1-19 0:15	-0.07	1270	8.42	30.6															
12-16-19 11:15	-0.09	1899	7.95	1.3	12-1-19 0:30	-0.06	53	7.58	9.8	12-1-19 0:30	-0.07	1260	8.42	30.5															
12-16-19 11:30	-0.09	1895	7.96	1.1	12-1-19 0:45	-0.06	54	7.57	9.9	12-1-19 0:45	-0.07	1276	8.42	30.9															
12-16-19 11:45	-0.09	1893	7.95	1.1	12-1-19 1:00	-0.06	55	7.57	10.1	12-1-19 1:00	-0.08	1263	8.42	31.3															
12-16-19 12:00	-0.09	1893	7.94	1.0	12-1-19 1:15	-0.06	56	7.56	10.3	12-1-19 1:15	-0.08	1279	8.42	31.0															
12-16-19 12:15	-0.08	1894	7.94	1.5	12-1-19 1:30	-0.06	57	7.56	10.5	12-1-19 1:30	-0.08	1265	8.42	29.6															
12-16-19 12:30	-0.07	1888	7.96	1.2	12-1-19 1:45	-0.06	57	7.55	10.5	12-1-19 1:45	-0.07	1280	8.43	31.0															
12-16-19 12:45	-0.07	1885	7.96	1.0	12-1-19 2:00	-0.06	58	7.55	10.6	12-1-19 2:00	-0.08	1264	8.42	29.8															
12-16-19 13:00	-0.08	1885	7.96	1.1	12-1-19 2:15	-0.06	58	7.54	10.6	12-1-19 2:15	-0.08	1279	8.43	30.9															
12-16-19 13:15	-0.08	1891	7.96	1.2	12-1-19 2:30	-0.07	58	7.54	10.6	12-1-19 2:30	-0.08	1265	8.42	30.8															
12-16-19 13:30	-0.07	1884	7.95	1.1	12-1-19 2:45	-0.07	58	7.53	10.8	12-1-19 2:45	-0.08	1281	8.43	30.7															
12-16-19 13:45	-0.06	1884	7.96	1.1	12-1-19 3:00	-0.07	58	7.52	10.8	12-1-19 3:00	-0.08	1266	8.42	29.3															
12-16-19 14:00	-0.06	1882	7.96	1.0	12-1-19 3:15	-0.07	59	7.51	11.0	12-1-19 3:15	-0.08	1283	8.43	30.4															
12-16-19 14:15	-0.07	1887	7.95	1.4	12-1-19 3:30	-0.07	59	7.50	11.4	12-1-19 3:30	-0.08	1266	8.42	30.9															
12-16-19 14:30	-0.07	1881	7.96	1.1	12-1-19 3:45	-0.07	59	7.50	11.7	12-1-19 3:45	-0.08	1283	8.43	30.4															
12-16-19 14:45	-0.07	1880	7.96	1.1	12-1-19 4:00	-0.07	60	7.49	12.2	12-1-19 4:00	-0.08	1267	8.42	29.0															
12-16-19 15:00	-0.07	1879	7.96	0.9	12-1-19 4:15	-0.07	59	7.48	12.4	12-1-19 4:15	-0.08	1284	8.43	30.9															
12-16-19 15:15	-0.07	1885	7.95	1.3	12-1-19 4:30	-0.08	59	7.47	12.4	12-1-19 4:30	-0.08	1269	8.43	30.9															
12-16-19 15:30	-0.08	1883	7.96	1.1	12-1-19 4:45	-0.08	59	7.46	12.4	12-1-19 4:45	-0.08	1287	8.43	31.3															
12-16-19 15:45	-0.08	1883	7.96	1.1	12-1-19 5:00	-0.08	60	7.45	12.2	12-1-19 5:00	-0.09	1269	8.43	30.4															
12-16-19 16:00	-0.08	1883	7.96	1.0	12-1-19 5:15	-0.08	61	7.44	11.9	12-1-19 5:15	-0.09	1287	8.43	31.0															
12-16-19 16:15	-0.08	1886	7.95	1.4	12-1-19 5:30	-0.09	62	7.43	11.1	12-1-19 5:30	-0.09	1268	8.43	31.1															
12-16-19 16:30	-0.09	1884	7.96	1.1	12-1-19 5:45	-0.09	65	7.42	10.5	12-1-19 5:45	-0.09	1288	8.43	30.7															
12-16-19 16:45	-0.09	1883	7.96	1.1	12-1-19 6:00	-0.09	67	7.41	10.2	12-1-19 6:00	-0.09	1271	8.43	28.1															
12-16-19 17:00	-0.09	1884	7.96	1.1	12-1-19 6:15	-0.10	56	7.40	10.1	12-1-19 6:15	-0.09	1289	8.43	31.1															
12-16-19 17:15	-0.08	1887	7.96	1.2	12-1-19 6:30	-0.10	51	7.39	9.9	12-1-19 6:30	-0.09	1272	8.43	29.3															
12-16-19 17:30	-0.08	1885	7.96	1.1	12-1-19 6:45	-0.10	46	7.38	9.8	12-1-19 6:45	-0.09	1291	8.43	31.2															
12-16-19 17:45	-0.08	1885	7.96	1.1	12-1-19 7:00	-0.11	37	7.37	9.5	12-1-19 7:00	-0.10	1274	8.43	31.0															
12-16-19 18:00	-0.08	1884	7.96	1.1	12-1-19 7:15	-0.11	31	7.37	9.4	12-1-19 7:15	-0.10	1292	8.43	30.8															
12-16-19 18:15	-0.08	1883	7.96	1.4	12-1-19 7:30	-0.12	26	7.36	9.2	12-1-19 7:30	-0.10	1276	8.43	30.4															
12-16-19 18:30	-0.07	1880	7.97	1.0	12-1-19 7:45	-0.12	24	7.35	9.0	12-1-19 7:45	-0.10	1291	8.43	29.1															
12-16-19 18:45	-0.06	1877	7.97	1.1	12-1-19 8:00	-0.13	20	7.34	8.8	12-1-19 8:00	-0.10	1277	8.43	29.0															
12-16-19 19:00	-0.06	1876	7.97	1.0	12-1-19 8:15	-0.13	16	7.33	8.6	12-1-19 8:15	-0.10	1294	8.43	30.5															
12-16-19 19:15	-0.07	1878	7.96	1.2	12-1-19 8:30	-0.14	13	7.32	8.2	12-1-19 8:30	-0.10	1277	8.43	30.1															
12-16-19 19:30	-0.07	1877	7.96	1.0	12-1-19 8:45	-0.14	10	7.31	8.0	12-1-19 8:45	-0.10	1297	8.43	31.1															
12-16-19 19:45	-0.07	1876	7.97	1.0	12-1-19 9:00	-0.15	8	7.30	7.8	12-1-19 9:00	-0.10	1278	8.43	30.3															
12-16-19 20:00	-0.07	1876	7.96	1.0	12-1-19 9:15	-0.15	7	7.29	7.7	12-1-19 9:15	-0.10	1298	8.43	30.8															
12-16-19 20:15	-0.07	1875	7.96	1.4	12-1-19 9:30	-0.16	6	7.28	7.7	12-1-19 9:30	-0.10	1278	8.43	29.7															
12-16-19 20:30	-0.06	1872	7.96	1.1	12-1-19 9:45	-0.16	6	7.27	7.8	12-1-19 9:45	-0.10	1298	8.43	29.8															
12-16-19 20:45	-0.06	1871	7.96	0.9	12-1-19 10:00	-0.17	5	7.26	7.9	12-1-19 10:00	-0.10	1280	8.42	30.3															
12-16-19 21:00	-0.06	1871	7.97	1.0	12-1-19 10:15	-0.17	5	7.25	7.7	12-1-19 10:15	-0.10	1298	8.42	29.6															
12-16-19 21:15	-0.06	1869	7.97	1.1	12-1-19 10:30	-0.17	4	7.24	7.6	12-1-19 10:30	-0.09	1278	8.42	29.4															
12-16-19 21:30	-0.06	1867	7.97	1.0	12-1-19 10:45	-0.18	5	7.23	7.4	12-1-19 10:45	-0.08	1360	8.42	34.4															
12-16-19 21:45	-0.06	1867	7.97	1.0	12-1-19 11:00	-0.19	6	7.23	7.3	12-1-19 11:00	-0.07	1291	8.42	30.3															
12-16-19 22:00	-0.05	1866	7.98	1.0	12-1-19 11:15	-0.19	6	7.22	7.2	12-1-19 11:15	-0.06	1280	8.43	29.4															
12-16-19 22:15	-0.06	1863	8.01	1.3	12-1-19 11:30	-0.20	6	7.21	7.0	12-1-19 11:30	-0.06	1270	8.43	30.9															
12-16-19 22:30	-0.06	1863	7.97	0.9	12-1-19 11:45	-0.20	6	7.20	7.1	12-1-19 11:45	-0.06	1284	8.43	30.2															
12-16-19 22:45	-0.05	1859	7.98	0.8	12-1-19 12:00	-0.21	6	7.20	6.9	12-1-19 12:00	-0.05	1273	8.43	29.4															
12-16-19 23:00	-0.04	1857	7.99	0.9	12-1-19 12:15	-0.22	6	7.19	7.0	12-1-19 12:15	-0.05	1284	8.43	29.8															
12-16-19 23:15	-0.04	1858	7.99	1.0	12-1-19 12:30	-0.22	5	7.17	6.9	12-1-19 12:30	-0.05	1275	8.43	28.6															
12-16-19 23:30	-0.06	1858	7.98	0.7	12-1-19 12:45	-0.22	5	7.18	7.0	12-1-19 12:45	-0.05	1287	8.44	29.8															
12-16-19 23:45	-0.06	1856	8.00	0.9	12-1-19 13:00	-0.23	4	7.19	7.2	12-1-19 13:00	-0.06	1271	8.43	29.2															
12-17-19 0:00	-0.04	1854	7.98	0.9	12-1-19 13:15	-0.23	4	7.19	7.3	12-1-19 13:15	-0.06	1288	8.43	29.9															
12-17-19 0:15	-0.05	1854	7.99	1.2	12-1-19 13:30	-0.23	3	7.19	6.9	12-1-19 13:30	-0.06	1273	8.43	28.0															
12-17-19 0:30	-0.08	1956	7.98	5.7	12-1-19 13:45	-0.23	3	7.18	6.4	12-1-19 13:45	-0.06	1288	8.43	29.3															
12-17-19 0:45	-0.07	1784	7.98	150.0	12-1-19 14:00	-0.23	2	7.19	6.1	12-1-19 14:00	-0.06	1276	8.43	28.8															
12-17-19 1:00	-0.07	1764	7.98	202.4	12-1-19 14:15	-0.23	1	7.18	6.1	12-1-19 14:15	-0.14	1	8.37	0.7															
12-17-19 1:15	-0.08	1850	7.97	1.6	12-1-19 14:30	-0.23	1	7.17	6.0	12-1-19 14:30	-0.01	1272	8.40	32.2															
12-17-19 1:30	-0.07	1849	7.99	1.2	12-1-19 14:45	-0.23	1	7.16	6.0	12-1-19 14:45	-0.17	1	8.28	175.1															
12-17-19 1:45	-0.07	1849	7.97	1.1	12-1-19 15:00	-0.24	1	7.15	5.9	12-1-19 15:00	-0.06	1253	8.38	38.3															
12-17-19 2:00	-0.04	1843	7.98	1.2	12-1-19 15:15	-0.24	1	7.14	5.9	12-1-19 15:15	0.03	1295	8.40	35.0															
12-17-19 2:15	-0.03	1841	7.98	1.6	12-1-19 15:30	-0.24	1	7.14	5.9	12-1-19 15:30	0.01	1265	8.47	37.7															
12-17-19 2:30	-0.03	1838	7.98	1.2	12-1-19 15:45	-0.25	1	7.14	5.8	12-1-19 15:45	0.00	1287	8.55	32.3															
12-17-19 2:45	-0.04	1837	7.98	1.1	12-1-19 16:00	-0.25	1	7.14	5.8	12-1-19 16:00	0.03	1278	8.56	31.6															
12-17-19 3:00	-0.03	1835	7.98	1.1	12-1-19 16:15	-0.24	1	7.16	5.8	12-1-19 16:15	0.02	1298	8.50	29.9															
12-17-19 3:15	-0.03	1833	7.97	1.4	12-1-19 16:30	-0.24	1	7.18	5.8	12-1-19 16:30	0.00	1283	8.56	28.8															
12-17-19 3:30	-0.04	1833	8.00	1.1	12-1-19 16:45	-0.24	1	7.20	5.9	12-1-19 16:45	-0.03	1294	8.65	33.0															
12-17-19 3:45	-0.06	1833	7.98	1.2	12-1-19 17:00	-0.23	0	7.22	5.9	12-1-19 17:00	-0.01	1282	8.60	30.1															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-17-19 4:00	-0.06	1833	7.98	1.1	12-1-19 17:15	-0.23	0	7.22	5.9	12-1-19 17:15	-0.02	1291	8.63	32.3															
12-17-19 4:15	-0.07	1834	7.99	1.8	12-1-19 17:30	-0.23	0	7.20	5.9	12-1-19 17:30	-0.02	1277	8.64	31.7															
12-17-19 4:30	-0.08	1834	8.03	1.4	12-1-19 17:45	-0.22	0	7.19	6.0	12-1-19 17:45	-0.01	1291	8.66	31.7															
12-17-19 4:45	-0.08	1835	8.02	1.3	12-1-19 18:00	-0.09	20	7.28	34.2	12-1-19 18:00	-0.02	1277	8.60	31.6															
12-17-19 5:00	-0.08	1835	8.01	1.2	12-1-19 18:15	-0.03	27	7.25	33.4	12-1-19 18:15	-0.03	1290	8.65	32.6															
12-17-19 5:15	-0.09	1836	8.00	1.3	12-1-19 18:30	0.03	30	7.26	44.2	12-1-19 18:30	-0.03	1278	8.65	31.5															
12-17-19 5:30	-0.09	1835	8.01	1.1	12-1-19 18:45	0.06	28	7.26	39.6	12-1-19 18:45	-0.03	1290	8.73	32.0															
12-17-19 5:45	-0.08	1835	8.00	1.2	12-1-19 19:00	0.08	24	7.35	24.2	12-1-19 19:00	-0.03	1278	8.74	30.2															
12-17-19 6:00	-0.05	1833	8.01	1.2	12-1-19 19:15	0.10	23	7.38	16.8	12-1-19 19:15	-0.03	1289	8.71	32.3															
12-17-19 6:15	-0.04	1829	8.00	1.4	12-1-19 19:30	0.12	30	7.31	10.8	12-1-19 19:30	-0.03	1277	8.65	28.9															
12-17-19 6:30	-0.04	1827	8.01	1.1	12-1-19 19:45	0.15	50	7.43	8.3	12-1-19 19:45	-0.03	1289	8.72	32.1															
12-17-19 6:45	-0.05	1825	8.00	1.1	12-1-19 20:00	0.17	88	7.65	66.2	12-1-19 20:00	-0.04	1280	8.74	32.0															
12-17-19 7:00	-0.05	1825	8.00	1.1	12-1-19 20:15	0.21	133	7.81	18.1	12-1-19 20:15	-0.03	1289	8.74	30.4															
12-17-19 7:15	-0.07	1825	7.98	1.3	12-1-19 20:30	0.24	187	7.99	15.4	12-1-19 20:30	-0.03	1274	8.72	28.8															
12-17-19 7:30	-0.07	1824	7.99	1.1	12-1-19 20:45	0.26	231	8.11	28.8	12-1-19 20:45	-0.03	1288	8.71	32.1															
12-17-19 7:45	-0.07	1823	7.98	1.1	12-1-19 21:00	0.29	287	8.03	93.3	12-1-19 21:00	-0.04	1275	8.68	29.0															
12-17-19 8:00	-0.07	1822	7.98	1.1	12-1-19 21:15	0.33	367	7.98	70.4	12-1-19 21:15	-0.04	1288	8.74	30.4															
12-17-19 8:15	-0.08	1823	7.97	1.5	12-1-19 21:30	0.37	454	7.89	73.4	12-1-19 21:30	-0.04	1278	8.74	34.1															
12-17-19 8:30	-0.08	1824	7.99	1.1	12-1-19 21:45	0.40	548	8.03	30.0	12-1-19 21:45	-0.04	1287	8.82	30.0															
12-17-19 8:45	-0.08	1823	7.99	1.1	12-1-19 22:00	0.47	663	8.16	26.4	12-1-19 22:00	-0.04	1276	8.71	31.3															
12-17-19 9:00	-0.08	1822	7.98	1.1	12-1-19 22:15	0.54	769	8.20	31.2	12-1-19 22:15	-0.04	1287	8.75	31.1															
12-17-19 9:15	-0.07	1822	7.98	1.2	12-1-19 22:30	0.63	874	8.24	16.9	12-1-19 22:30	-0.03	1274	8.72	34.3															
12-17-19 9:30	-0.08	1821	7.98	1.1	12-1-19 22:45	1.14	1075	7.98	8.1	12-1-19 22:45	-0.03	1285	8.70	28.6															
12-17-19 9:45	-0.08	1820	7.98	1.1	12-1-19 23:00	1.24	1075	7.98	8.6	12-1-19 23:00	-0.03	1273	8.72	31.0															
12-17-19 10:00	-0.08	1820	7.97	1.1	12-1-19 23:15	1.31	1074	7.99	8.7	12-1-19 23:15	-0.03	1285	8.74	29.4															
12-17-19 10:15	-0.08	1821	7.96	1.3	12-1-19 23:30	1.37	1072	7.99	8.9	12-1-19 23:30	-0.03	1272	8.72	28.2															
12-17-19 10:30	-0.08	1820	7.98	1.1	12-1-19 23:45	1.38	1073	7.99	9.1	12-1-19 23:45	-0.03	1285	8.71	28.7															
12-17-19 10:45	-0.08	1820	7.98	1.1	12-2-19 0:00	1.26	1075	7.99	9.1	12-2-19 0:00	-0.03	1275	8.72	28.6															
12-17-19 11:00	-0.08	1820	7.97	1.0	12-2-19 0:15	1.21	1075	7.99	8.2	12-2-19 0:15	-0.03	1285	8.71	29.9															
12-17-19 11:15	-0.08	1820	7.97	1.3	12-2-19 0:30	1.27	1074	7.99	8.5	12-2-19 0:30	-0.03	1273	8.74	28.7															
12-17-19 11:30	-0.08	1819	7.97	1.2	12-2-19 0:45	1.28	1072	8.00	9.7	12-2-19 0:45	-0.03	1282	8.68	28.5															
12-17-19 11:45	-0.09	1819	7.97	1.2	12-2-19 1:00	1.28	1072	8.00	9.1	12-2-19 1:00	-0.03	1270	8.71	28.5															
12-17-19 12:00	-0.09	1819	7.96	1.1	12-2-19 1:15	1.28	1074	8.00	10.1	12-2-19 1:15	-0.03	1280	8.76	29.5															
12-17-19 12:15	-0.08	1819	7.96	1.3	12-2-19 1:30	1.25	1073	8.00	9.1	12-2-19 1:30	-0.03	1269	8.76	27.0															
12-17-19 12:30	-0.07	1816	7.98	1.1	12-2-19 1:45	1.31	1073	8.00	8.9	12-2-19 1:45	-0.03	1277	8.77	28.7															
12-17-19 12:45	-0.07	1816	7.97	1.0	12-2-19 2:00	1.24	1074	8.00	8.2	12-2-19 2:00	-0.04	1263	8.71	28.5															
12-17-19 13:00	-0.07	1815	7.96	1.1	12-2-19 2:15	1.19	1075	7.99	8.9	12-2-19 2:15	-0.04	1272	8.77	28.0															
12-17-19 13:15	-0.07	1815	7.96	1.2	12-2-19 2:30	1.19	1074	8.00	8.6	12-2-19 2:30	-0.04	1259	8.75	28.3															
12-17-19 13:30	-0.07	1812	7.96	1.0	12-2-19 2:45	1.15	1075	7.99	8.1	12-2-19 2:45	-0.04	1269	8.74	27.6															
12-17-19 13:45	-0.07	1812	7.96	1.1	12-2-19 3:00	1.12	1075	7.99	8.2	12-2-19 3:00	-0.04	1258	8.68	28.1															
12-17-19 14:00	-0.07	1811	7.95	1.1	12-2-19 3:15	1.24	1077	7.99	8.3	12-2-19 3:15	-0.04	1268	8.70	28.6															
12-17-19 14:15	-0.07	1812	7.96	1.4	12-2-19 3:30	1.24	1075	8.00	8.3	12-2-19 3:30	-0.03	1255	8.65	29.9															
12-17-19 14:30	-0.06	1810	7.97	1.0	12-2-19 3:45	1.17	1075	7.99	8.3	12-2-19 3:45	-0.04	1263	8.73	27.9															
12-17-19 14:45	-0.06	1809	7.96	1.1	12-2-19 4:00	1.22	1075	8.00	8.2	12-2-19 4:00	-0.04	1249	8.67	25.2															
12-17-19 15:00	-0.07	1808	7.96	1.0	12-2-19 4:15	1.27	1075	8.00	8.9	12-2-19 4:15	-0.04	1259	8.70	27.0															
12-17-19 15:15	-0.07	1810	7.96	1.2	12-2-19 4:30	1.29	1074	8.00	8.3	12-2-19 4:30	-0.04	1248	8.65	28.3															
12-17-19 15:30	-0.08	1808	7.96	1.1	12-2-19 4:45	1.19	1075	7.99	7.9	12-2-19 4:45	-0.03	1255	8.63	27.0															
12-17-19 15:45	-0.08	1807	7.95	1.0	12-2-19 5:00	1.26	1074	8.00	8.4	12-2-19 5:00	-0.04	1244	8.58	29.2															
12-17-19 16:00	-0.08	1807	7.94	1.0	12-2-19 5:15	1.22	1075	7.99	10.1	12-2-19 5:15	-0.03	1253	8.65	27.8															
12-17-19 16:15	-0.07	1808	7.95	1.2	12-2-19 5:30	1.20	1075	7.99	8.1	12-2-19 5:30	-0.03	1239	8.57	27.8															
12-17-19 16:30	-0.08	1807	7.96	1.1	12-2-19 5:45	1.24	1074	8.00	8.3	12-2-19 5:45	-0.03	1249	8.62	27.0															
12-17-19 16:45	-0.07	1806	7.96	1.0	12-2-19 6:00	1.32	1074	8.00	8.3	12-2-19 6:00	-0.03	1239	8.59	27.7															
12-17-19 17:00	-0.07	1804	7.95	1.0	12-2-19 6:15	1.24	1074	8.00	7.9	12-2-19 6:15	-0.03	1249	8.64	27.1															
12-17-19 17:15	-0.07	1807	7.95	1.2	12-2-19 6:30	1.28	1074	8.00	8.1	12-2-19 6:30	-0.03	1237	8.58	25.2															
12-17-19 17:30	-0.08	1804	7.95	1.1	12-2-19 6:45	1.26	1080	8.00	8.3	12-2-19 6:45	-0.03	1247	8.59	26.7															
12-17-19 17:45	-0.08	1804	7.95	1.0	12-2-19 7:00	1.27	1083	8.00	7.8	12-2-19 7:00	-0.03	1237	8.58	24.3															
12-17-19 18:00	-0.07	1803	7.95	1.1	12-2-19 7:15	1.25	1082	8.00	8.0	12-2-19 7:15	-0.03	1246	8.57	26.4															
12-17-19 18:15	-0.07	1804	7.95	1.3	12-2-19 7:30	1.24	1081	8.00	7.0	12-2-19 7:30	-0.03	1234	8.57	24.8															
12-17-19 18:30	-0.07	1803	7.95	1.1	12-2-19 7:45	1.31	1080	8.01	7.9	12-2-19 7:45	-0.02	1245	8.58	26.9															
12-17-19 18:45	-0.06	1800	7.95	1.0	12-2-19 8:00	1.35	1081	8.00	8.7	12-2-19 8:00	-0.03	1233	8.55	24.6															
12-17-19 19:00	-0.07	1799	7.95	1.1	12-2-19 8:15	1.27	1080	8.00	8.1	12-2-19 8:15	-0.02	1244	8.56	26.6															
12-17-19 19:15	-0.06	1799	7.95	1.1	12-2-19 8:30	1.32	1080	8.00	8.1	12-2-19 8:30	-0.02	1235	8.57	26.4															
12-17-19 19:30	-0.07	1797	7.95	1.1	12-2-19 8:45	1.27	1080	8.00	7.9	12-2-19 8:45	-0.02	1243	8.59	25.6															
12-17-19 19:45	-0.07	1797	7.95	1.1	12-2-19 9:00	1.30	1080	8.00	7.9	12-2-19 9:00	-0.02	1230	8.55	24.0															
12-17-19 20:00	-0.08	1797	7.94	1.1	12-2-19 9:15	1.29	1080	8.00	8.0	12-2-19 9:15	-0.02	1244	8.57	26.0															
12-17-19 20:15	-0.08	1799	7.94	1.4	12-2-19 9:30	1.31	1081	8.00	7.9	12-2-19 9:30	-0.02	1234	8.54	26.7															
12-17-19 20:30	-0.06	934	7.96	1.0	12-2-19 9:45	1.30	1075	8.00	8.3	12-2-19 9:45	-0.02	1243	8.58	25.9															
12-17-19 20:45	-0.05	935	7.95	1.0	12-2-19 10:00	1.29	1082	8.01	8.2	12-2-19 10:00	-0.02	1234	8.54	26.6															
12-17-19 21:00	-0.07	934	7.95	1.0	12-2-19 10:15	1.30	1081	8.00	7.9	12-2-19 10:15	-0.02	1244	8.58	26.2															
12-17-19 21:15	-0.06	935	7.95	1.1	12-2-19 10:30	1.31	1081	8.01	7.9	12-2-19 10:30	-0.02	1234	8.56	24.8															
12-17-19 21:30	-0.07	934	7.96	0.9	12-2-19 10:45	1.34	1079	8.00	8.2	12-2-19 10:45	-0.02	1244	8.54	26.1															
12-17-19 21:45	-0.07	934	7.96	0.9	12-2-19 11:00	1.33	1081	8.01	8.1	12-2-19 11:00	-0.02	1234	8.53	24.6															
12-17-19 22:00	-0.05	934	7.95	0.9	12-2-19 11:15	1.36	1080	8.01	8.2	12-2-19 11:15	-0.01	1243	8.53	25.4															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-17-19 22:15	-0.06	935	7.95	1.1	12-2-19 11:30	1.32	1082	8.01	8.2	12-2-19 11:30	-0.01	1233	8.52	25.8															
12-17-19 22:30	-0.07	934	7.96	1.0	12-2-19 11:45	1.30	1081	8.01	8.3	12-2-19 11:45	-0.01	1244	8.54	24.8															
12-17-19 22:45	-0.06	933	7.96	0.9	12-2-19 12:00	1.32	1086	8.01	7.4	12-2-19 12:00	-0.01	1234	8.52	25.5															
12-17-19 23:00	-0.06	932	7.95	0.9	12-2-19 12:15	1.32	1083	8.01	8.1	12-2-19 12:15	0.00	1243	8.53	25.4															
12-17-19 23:15	-0.06	932	7.94	1.0	12-2-19 12:30	1.34	1084	8.01	8.3	12-2-19 12:30	0.00	1234	8.55	25.2															
12-17-19 23:30	-0.07	932	7.95	0.9	12-2-19 12:45	1.31	1082	8.01	8.0	12-2-19 12:45	0.00	1244	8.52	24.9															
12-17-19 23:45	-0.07	931	7.95	0.8	12-2-19 13:00	1.32	1082	8.01	8.0	12-2-19 13:00	-0.06	15	8.34	41.2															
12-18-19 0:00	-0.06	931	7.95	0.8	12-2-19 13:15	1.33	1083	8.01	8.1	12-2-19 13:15	0.00	1230	8.32	40.6															
12-18-19 0:15	-0.06	931	7.95	1.0	12-2-19 13:30	1.34	1083	8.01	8.0	12-2-19 13:30	-0.02	1247	8.33	25.3															
12-18-19 0:30	-0.07	930	7.97	0.8	12-2-19 13:45	1.32	1083	8.01	8.1	12-2-19 13:45	-0.04	1236	8.32	22.2															
12-18-19 0:45	-0.08	930	7.97	0.8	12-2-19 14:00	1.34	1083	8.01	8.6	12-2-19 14:00	-0.05	1248	8.33	27.0															
12-18-19 1:00	-0.08	930	7.96	0.7	12-2-19 14:15	1.33	1083	8.01	8.2	12-2-19 14:15	-0.05	1235	8.32	25.3															
12-18-19 1:15	-0.08	930	7.94	0.9	12-2-19 14:30	1.28	1084	8.01	8.0	12-2-19 14:30	-0.06	1248	8.33	26.0															
12-18-19 1:30	-0.08	930	7.95	0.8	12-2-19 14:45	1.31	1084	8.01	8.0	12-2-19 14:45	-0.06	1237	8.31	25.8															
12-18-19 1:45	-0.09	930	7.96	0.8	12-2-19 15:00	1.35	1084	8.01	8.4	12-2-19 15:00	-0.05	1246	8.33	25.1															
12-18-19 2:00	-0.06	928	7.94	0.7	12-2-19 15:15	1.33	1084	8.01	8.0	12-2-19 15:15	-0.06	1237	8.32	26.4															
12-18-19 2:15	-0.08	929	7.94	1.1	12-2-19 15:30	1.30	1082	8.01	7.8	12-2-19 15:30	-0.06	1248	8.33	25.5															
12-18-19 2:30	-0.08	928	7.95	0.8	12-2-19 15:45	1.34	1083	8.01	7.9	12-2-19 15:45	-0.06	1237	8.32	23.1															
12-18-19 2:45	-0.09	928	7.95	0.8	12-2-19 16:00	1.31	1083	8.01	7.7	12-2-19 16:00	-0.06	1248	8.34	24.3															
12-18-19 3:00	-0.09	928	7.95	0.7	12-2-19 16:15	1.32	1083	8.01	8.0	12-2-19 16:15	-0.07	1235	8.33	23.0															
12-18-19 3:15	-0.08	927	7.94	0.8	12-2-19 16:30	1.32	1083	8.01	7.7	12-2-19 16:30	-0.07	1247	8.34	23.4															
12-18-19 3:30	-0.08	927	7.94	0.9	12-2-19 16:45	1.37	1084	8.01	8.0	12-2-19 16:45	-0.07	1236	8.33	23.5															
12-18-19 3:45	-0.08	926	7.94	0.7	12-2-19 17:00	1.32	1083	8.01	8.1	12-2-19 17:00	-0.07	1248	8.34	23.0															
12-18-19 4:00	-0.09	926	7.94	0.8	12-2-19 17:15	1.29	1083	8.01	8.0	12-2-19 17:15	-0.07	1236	8.33	22.8															
12-18-19 4:15	-0.09	926	7.94	1.1	12-2-19 17:30	1.26	1087	8.01	7.6	12-2-19 17:30	-0.07	1246	8.34	23.2															
12-18-19 4:30	-0.09	926	7.94	0.8	12-2-19 17:45	1.28	1084	8.01	7.8	12-2-19 17:45	-0.07	1234	8.33	22.9															
12-18-19 4:45	-0.09	926	7.94	0.8	12-2-19 18:00	1.20	1084	8.01	7.7	12-2-19 18:00	-0.07	1247	8.34	23.5															
12-18-19 5:00	-0.09	926	7.94	0.6	12-2-19 18:15	1.19	1083	8.01	7.9	12-2-19 18:15	-0.07	1235	8.34	23.6															
12-18-19 5:15	-0.09	926	7.94	0.7	12-2-19 18:30	1.25	1086	8.01	7.7	12-2-19 18:30	-0.07	1246	8.34	23.7															
12-18-19 5:30	-0.10	926	7.94	0.6	12-2-19 18:45	1.19	1084	8.01	7.9	12-2-19 18:45	-0.07	1233	8.33	22.3															
12-18-19 5:45	-0.10	926	7.94	0.6	12-2-19 19:00	1.17	1084	8.01	7.7	12-2-19 19:00	-0.07	1246	8.34	23.6															
12-18-19 6:00	-0.10	926	7.94	0.5	12-2-19 19:15	1.18	1085	8.01	7.8	12-2-19 19:15	-0.07	1237	8.33	22.3															
12-18-19 6:15	-0.10	926	7.93	0.9	12-2-19 19:30	1.12	1084	8.01	7.4	12-2-19 19:30	-0.07	1246	8.34	22.9															
12-18-19 6:30	-0.11	926	7.95	0.6	12-2-19 19:45	1.11	1084	8.01	7.6	12-2-19 19:45	-0.07	1235	8.34	21.7															
12-18-19 6:45	-0.11	925	7.95	0.5	12-2-19 20:00	1.11	1084	8.01	7.6	12-2-19 20:00	-0.07	1244	8.34	23.2															
12-18-19 7:00	-0.11	926	7.96	0.6	12-2-19 20:15	1.15	1082	8.01	8.4	12-2-19 20:15	-0.07	1233	8.34	22.8															
12-18-19 7:15	-0.11	927	7.95	0.6	12-2-19 20:30	0.53	1092	8.04	7.2	12-2-19 20:30	-0.07	1244	8.33	22.3															
12-18-19 7:30	-0.11	926	7.96	0.5	12-2-19 20:45	0.38	1094	8.05	7.6	12-2-19 20:45	-0.07	1234	8.33	23.1															
12-18-19 7:45	-0.09	925	7.96	0.5	12-2-19 21:00	0.47	1093	8.04	7.7	12-2-19 21:00	-0.07	1243	8.33	22.7															
12-18-19 8:00	-0.09	924	7.95	0.6	12-2-19 21:15	0.61	1089	8.04	7.9	12-2-19 21:15	-0.07	1233	8.33	23.4															
12-18-19 8:15	-0.09	926	7.94	0.9	12-2-19 21:30	0.48	1094	8.04	7.5	12-2-19 21:30	-0.06	1242	8.33	21.8															
12-18-19 8:30	-0.10	925	7.95	0.6	12-2-19 21:45	0.49	1090	8.05	7.1	12-2-19 21:45	-0.07	1230	8.33	22.1															
12-18-19 8:45	-0.10	924	7.95	0.6	12-2-19 22:00	0.53	1090	8.04	7.9	12-2-19 22:00	-0.07	1241	8.33	22.6															
12-18-19 9:00	-0.09	922	7.95	0.5	12-2-19 22:15	0.62	1085	8.03	7.6	12-2-19 22:15	-0.07	1231	8.33	22.1															
12-18-19 9:15	-0.09	924	7.94	0.7	12-2-19 22:30	0.79	1090	8.03	7.5	12-2-19 22:30	-0.07	1241	8.32	22.4															
12-18-19 9:30	-0.09	923	7.94	0.6	12-2-19 22:45	0.67	1088	8.04	7.8	12-2-19 22:45	-0.07	1227	8.33	22.5															
12-18-19 9:45	-0.09	922	7.94	0.5	12-2-19 23:00	0.61	1089	8.04	7.7	12-2-19 23:00	-0.07	1241	8.33	22.3															
12-18-19 10:00	-0.09	922	7.94	0.6	12-2-19 23:15	0.50	1089	8.04	7.2	12-2-19 23:15	-0.07	1230	8.33	21.7															
12-18-19 10:15	-0.09	923	7.93	0.8	12-2-19 23:30	0.65	1088	8.03	7.3	12-2-19 23:30	-0.07	1240	8.33	22.2															
12-18-19 10:30	-0.10	922	7.94	0.5	12-2-19 23:45	0.57	1090	8.04	7.6	12-2-19 23:45	-0.07	1230	8.33	21.9															
12-18-19 10:45	-0.10	922	7.94	0.5	12-3-19 0:00	0.78	1088	8.03	7.8	12-3-19 0:00	-0.07	1239	8.33	22.2															
12-18-19 11:00	-0.10	922	7.94	0.5	12-3-19 0:15	0.62	1085	8.04	7.3	12-3-19 0:15	-0.07	1229	8.33	22.1															
12-18-19 11:15	-0.10	922	7.93	0.6	12-3-19 0:30	0.55	1087	8.04	7.1	12-3-19 0:30	-0.07	1240	8.34	22.6															
12-18-19 11:30	-0.10	922	7.94	0.6	12-3-19 0:45	0.35	1087	8.05	7.2	12-3-19 0:45	-0.07	1230	8.33	20.4															
12-18-19 11:45	-0.11	922	7.94	0.5	12-3-19 1:00	0.59	1086	8.03	7.0	12-3-19 1:00	-0.07	1239	8.33	23.4															
12-18-19 12:00	-0.11	922	7.94	0.5	12-3-19 1:15	0.45	1086	8.04	7.1	12-3-19 1:15	-0.07	1226	8.32	21.7															
12-18-19 12:15	-0.11	924	7.93	0.8	12-3-19 1:30	0.48	1084	8.04	7.1	12-3-19 1:30	-0.07	1241	8.32	22.8															
12-18-19 12:30	-0.11	923	7.94	0.5	12-3-19 1:45	0.43	1088	8.04	7.2	12-3-19 1:45	-0.07	1228	8.33	21.5															
12-18-19 12:45	-0.11	922	7.94	0.5	12-3-19 2:00	0.43	1086	8.04	6.8	12-3-19 2:00	-0.07	1240	8.33	21.6															
12-18-19 13:00	-0.11	922	7.93	0.5	12-3-19 2:15	0.34	1086	8.05	7.1	12-3-19 2:15	-0.07	1227	8.32	23.1															
12-18-19 13:15	-0.11	924	7.93	0.6	12-3-19 2:30	0.55	1087	8.03	7.1	12-3-19 2:30	-0.07	1238	8.32	23.0															
12-18-19 13:30	-0.11	923	7.94	0.5	12-3-19 2:45	0.56	1086	8.03	6.8	12-3-19 2:45	-0.07	1226	8.32	21.2															
12-18-19 13:45	-0.11	923	7.94	0.5	12-3-19 3:00	0.52	1084	8.03	6.9	12-3-19 3:00	-0.07	1240	8.33	22.7															
12-18-19 14:00	-0.11	923	7.93	0.5	12-3-19 3:15	0.59	1086	8.02	6.6	12-3-19 3:15	-0.08	1230	8.33	21.6															
12-18-19 14:15	-0.11	924	7.92	0.7	12-3-19 3:30	0.58	1087	8.02	7.0	12-3-19 3:30	-0.08	1241	8.34	22.4															
12-18-19 14:30	-0.11	923	7.94	0.6	12-3-19 3:45	0.60	1087	8.02	6.8	12-3-19 3:45	-0.08	1230	8.34	21.8															
12-18-19 14:45	-0.11	923	7.93	0.5	12-3-19 4:00	0.62	1090	8.02	6.7	12-3-19 4:00	-0.08	1243	8.34	22.0															
12-18-19 15:00	-0.11	923	7.93	0.5	12-3-19 4:15	0.51	1084	8.03	6.2	12-3-19 4:15	-0.08	1230	8.33	22.3															
12-18-19 15:15	-0.11	924	7.93	0.6	12-3-19 4:30	0.62	1086	8.02	6.9	12-3-19 4:30	-0.08	1245	8.34	22.4															
12-18-19 15:30	-0.11	923	7.93	0.5	12-3-19 4:45	0.62	1084	8.02	6.7	12-3-19 4:45	-0.08	1231	8.33	20.7															
12-18-19 15:45	-0.11	922	7.93	0.6	12-3-19 5:00	0.50	1085	8.02	6.3	12-3-19 5:00	-0.08	1244	8.33	21.8															
12-18-19 16:00	-0.11	922	7.92	0.5	12-3-19 5:15	0.51	1085	8.02	6.5	12-3-19 5:15	-0.08	1232	8.32	21.1															
12-18-19 16:15	-0.11	924	7.91	0.7	12-3-19 5:30	0.60	1086	8.02	6.1	12-3-19 5:30	-0.08	1242	8.32	22.6															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-18-19 16:30	-0.11	923	7.93	0.5	12-3-19 5:45	0.62	1087	8.01	6.2	12-3-19 5:45	-0.08	1231	8.33	21.4															
12-18-19 16:45	-0.11	923	7.93	0.6	12-3-19 6:00	0.44	1083	8.02	6.0	12-3-19 6:00	-0.08	1243	8.32	22.4															
12-18-19 17:00	-0.10	922	7.93	0.6	12-3-19 6:15	0.60	1087	8.01	6.1	12-3-19 6:15	-0.08	1231	8.32	22.5															
12-18-19 17:15	-0.10	924	7.92	0.7	12-3-19 6:30	0.59	1086	8.02	6.3	12-3-19 6:30	-0.08	1243	8.32	21.8															
12-18-19 17:30	-0.10	921	7.93	0.5	12-3-19 6:45	0.51	1085	8.02	6.2	12-3-19 6:45	-0.08	1230	8.32	20.6															
12-18-19 17:45	-0.10	921	7.92	0.4	12-3-19 7:00	0.57	1087	8.01	5.9	12-3-19 7:00	-0.08	1242	8.33	21.9															
12-18-19 18:00	-0.10	921	7.92	0.4	12-3-19 7:15	0.57	1086	8.01	7.0	12-3-19 7:15	-0.08	1232	8.32	20.6															
12-18-19 18:15	-0.09	922	7.92	0.8	12-3-19 7:30	0.52	1085	8.02	6.0	12-3-19 7:30	-0.08	1243	8.32	20.5															
12-18-19 18:30	-0.10	922	7.93	0.5	12-3-19 7:45	0.58	1085	8.01	6.0	12-3-19 7:45	-0.08	1231	8.32	20.4															
12-18-19 18:45	-0.10	922	7.92	0.5	12-3-19 8:00	0.50	1084	8.02	6.0	12-3-19 8:00	-0.08	1244	8.32	21.8															
12-18-19 19:00	-0.10	922	7.92	0.5	12-3-19 8:15	0.53	1086	8.01	6.1	12-3-19 8:15	-0.08	1233	8.32	19.3															
12-18-19 19:15	-0.10	924	7.92	0.6	12-3-19 8:30	0.54	1086	8.01	6.0	12-3-19 8:30	-0.08	1244	8.32	21.0															
12-18-19 19:30	-0.10	922	7.92	0.5	12-3-19 8:45	0.62	1087	8.01	6.2	12-3-19 8:45	-0.08	1233	8.32	21.0															
12-18-19 19:45	-0.10	922	7.92	0.5	12-3-19 9:00	0.56	1084	8.01	6.0	12-3-19 9:00	-0.08	1244	8.32	21.1															
12-18-19 20:00	-0.10	922	7.91	0.5	12-3-19 9:15	0.52	1085	8.01	6.1	12-3-19 9:15	-0.08	1230	8.32	20.2															
12-18-19 20:15	-0.09	924	7.91	0.7	12-3-19 9:30	0.58	1087	8.01	5.8	12-3-19 9:30	-0.08	1245	8.32	21.7															
12-18-19 20:30	-0.09	923	7.92	0.5	12-3-19 9:45	0.60	1087	8.01	6.2	12-3-19 9:45	-0.08	1231	8.32	21.0															
12-18-19 20:45	-0.09	923	7.92	0.5	12-3-19 10:00	0.52	1086	8.01	5.8	12-3-19 10:00	-0.07	1246	8.32	20.8															
12-18-19 21:00	-0.09	923	7.92	0.4	12-3-19 10:15	0.56	1087	8.01	5.5	12-3-19 10:15	-0.08	1233	8.32	19.8															
12-18-19 21:15	-0.09	924	7.91	0.6	12-3-19 10:30	0.59	1089	8.01	6.1	12-3-19 10:30	-0.07	1247	8.32	21.3															
12-18-19 21:30	-0.09	924	7.92	0.4	12-3-19 10:45	0.53	1087	8.01	5.9	12-3-19 10:45	-0.07	1235	8.32	20.3															
12-18-19 21:45	-0.09	924	7.92	0.4	12-3-19 11:00	0.64	1088	8.01	5.9	12-3-19 11:00	-0.07	1247	8.32	20.9															
12-18-19 22:00	-0.09	924	7.92	0.4	12-3-19 11:15	0.60	1087	8.01	5.8	12-3-19 11:15	-0.07	1233	8.31	19.3															
12-18-19 22:15	-0.09	924	7.91	0.7	12-3-19 11:30	0.57	1090	8.01	6.3	12-3-19 11:30	-0.07	1246	8.31	20.6															
12-18-19 22:30	-0.09	924	7.92	0.5	12-3-19 11:45	0.56	1089	8.01	5.9	12-3-19 11:45	-0.07	1236	8.31	20.3															
12-18-19 22:45	-0.09	924	7.92	0.4	12-3-19 12:00	0.63	1090	8.01	6.1	12-3-19 12:00	-0.06	1246	8.32	20.9															
12-18-19 23:00	-0.06	924	7.92	0.3	12-3-19 12:15	0.56	1088	8.01	5.8	12-3-19 12:15	-0.06	1237	8.31	21.3															
12-18-19 23:15	-0.03	923	7.91	0.6	12-3-19 12:30	0.58	1089	8.01	5.9	12-3-19 12:30	-0.05	1247	8.31	21.3															
12-18-19 23:30	-0.04	921	7.92	0.5	12-3-19 12:45	0.57	1090	8.01	5.8	12-3-19 12:45	-0.04	1234	8.32	20.9															
12-18-19 23:45	-0.06	921	7.92	0.5	12-3-19 13:00	0.56	1090	8.01	6.0	12-3-19 13:00	-0.02	1246	8.33	21.5															
12-19-19 0:00	-0.07	920	7.91	0.5	12-3-19 13:15	0.47	1090	8.01	5.9	12-3-19 13:15	-0.01	1232	8.33	20.8															
12-19-19 0:15	-0.07	921	7.90	0.8	12-3-19 13:30	0.61	1091	8.01	5.9	12-3-19 13:30	0.01	1244	8.33	21.6															
12-19-19 0:30	-0.08	921	7.91	0.5	12-3-19 13:45	0.54	1091	8.01	6.0	12-3-19 13:45	0.00	1233	8.33	20.6															
12-19-19 0:45	-0.08	920	7.91	0.5	12-3-19 14:00	0.63	1093	8.01	6.2	12-3-19 14:00	-0.01	1244	8.33	21.9															
12-19-19 1:00	-0.08	921	7.90	0.4	12-3-19 14:15	0.65	1091	8.01	5.8	12-3-19 14:15	-0.02	1235	8.32	21.2															
12-19-19 1:15	-0.09	921	7.90	0.6	12-3-19 14:30	0.62	1091	8.01	6.0	12-3-19 14:30	-0.03	1246	8.32	20.8															
12-19-19 1:30	-0.09	921	7.91	0.4	12-3-19 14:45	0.66	1094	8.00	6.2	12-3-19 14:45	-0.03	1234	8.32	20.7															
12-19-19 1:45	-0.07	921	7.91	0.5	12-3-19 15:00	0.64	1092	8.01	5.8	12-3-19 15:00	-0.04	1246	8.32	20.6															
12-19-19 2:00	-0.07	921	7.92	0.6	12-3-19 15:15	0.72	1092	8.00	6.4	12-3-19 15:15	-0.05	1237	8.32	19.8															
12-19-19 2:15	-0.06	920	7.91	0.8	12-3-19 15:30	0.69	1092	8.00	6.1	12-3-19 15:30	-0.05	1247	8.32	20.7															
12-19-19 2:30	-0.05	918	7.92	0.6	12-3-19 15:45	0.70	1092	8.00	5.9	12-3-19 15:45	-0.05	1237	8.32	20.8															
12-19-19 2:45	-0.05	916	7.92	0.6	12-3-19 16:00	0.64	1095	8.01	6.5	12-3-19 16:00	-0.05	1248	8.32	21.1															
12-19-19 3:00	-0.07	915	7.92	0.6	12-3-19 16:15	0.67	1095	8.01	5.6	12-3-19 16:15	-0.05	1236	8.33	21.4															
12-19-19 3:15	-0.07	916	7.91	0.6	12-3-19 16:30	0.67	1093	8.01	6.2	12-3-19 16:30	-0.06	1248	8.33	20.6															
12-19-19 3:30	-0.07	915	7.92	0.4	12-3-19 16:45	0.64	1092	8.01	6.0	12-3-19 16:45	-0.06	1238	8.33	20.2															
12-19-19 3:45	-0.07	915	7.91	0.6	12-3-19 17:00	0.67	1093	8.01	6.2	12-3-19 17:00	-0.06	1249	8.33	20.5															
12-19-19 4:00	-0.07	914	7.91	0.6	12-3-19 17:15	0.74	1094	8.00	6.0	12-3-19 17:15	-0.06	1240	8.33	21.4															
12-19-19 4:15	-0.08	915	7.90	0.8	12-3-19 17:30	0.62	1095	8.01	6.7	12-3-19 17:30	-0.06	1249	8.33	20.6															
12-19-19 4:30	-0.08	914	7.91	0.5	12-3-19 17:45	0.77	1095	8.00	6.7	12-3-19 17:45	-0.07	1239	8.33	18.9															
12-19-19 4:45	-0.09	914	7.91	0.5	12-3-19 18:00	0.66	1094	8.01	6.2	12-3-19 18:00	-0.07	1250	8.32	19.6															
12-19-19 5:00	-0.09	914	7.91	0.5	12-3-19 18:15	0.68	1095	8.00	6.4	12-3-19 18:15	-0.07	1239	8.33	20.1															
12-19-19 5:15	-0.08	914	7.91	0.6	12-3-19 18:30	0.71	1093	8.00	6.4	12-3-19 18:30	-0.07	1250	8.33	20.3															
12-19-19 5:30	-0.08	912	7.91	0.5	12-3-19 18:45	0.60	1094	8.01	6.5	12-3-19 18:45	-0.07	1241	8.34	21.6															
12-19-19 5:45	-0.07	911	7.91	0.6	12-3-19 19:00	0.67	1096	8.00	8.3	12-3-19 19:00	-0.07	1252	8.33	20.8															
12-19-19 6:00	-0.07	911	7.91	0.5	12-3-19 19:15	0.67	1094	8.01	6.7	12-3-19 19:15	-0.08	1241	8.33	20.6															
12-19-19 6:15	-0.07	911	7.91	0.9	12-3-19 19:30	0.80	1095	8.00	6.8	12-3-19 19:30	-0.08	1253	8.33	20.3															
12-19-19 6:30	-0.08	910	7.91	0.6	12-3-19 19:45	0.83	1094	8.00	7.4	12-3-19 19:45	-0.08	1243	8.32	20.8															
12-19-19 6:45	-0.07	910	7.91	0.5	12-3-19 20:00	0.80	1094	8.00	7.2	12-3-19 20:00	-0.08	1254	8.32	20.6															
12-19-19 7:00	-0.07	910	7.91	0.5	12-3-19 20:15	0.76	1091	8.01	6.6	12-3-19 20:15	-0.08	1244	8.32	20.8															
12-19-19 7:15	-0.07	910	7.91	0.6	12-3-19 20:30	0.80	1094	8.00	7.7	12-3-19 20:30	-0.08	1254	8.32	20.0															
12-19-19 7:30	-0.08	909	7.91	0.6	12-3-19 20:45	0.71	1093	8.01	6.9	12-3-19 20:45	-0.08	1243	8.32	19.9															
12-19-19 7:45	-0.08	908	7.91	0.5	12-3-19 21:00	0.89	1093	7.99	7.4	12-3-19 21:00	-0.08	1255	8.32	20.8															
12-19-19 8:00	-0.08	907	7.91	0.5	12-3-19 21:15	0.85	1092	8.00	7.7	12-3-19 21:15	-0.08	1245	8.32	18.6															
12-19-19 8:15	-0.07	908	7.90	0.8	12-3-19 21:30	1.21	1090	7.98	8.4	12-3-19 21:30	-0.08	1257	8.32	20.7															
12-19-19 8:30	-0.08	907	7.91	0.6	12-3-19 21:45	1.19	1093	7.98	8.5	12-3-19 21:45	-0.08	1246	8.32	20.1															
12-19-19 8:45	-0.08	906	7.91	0.5	12-3-19 22:00	1.29	1091	7.98	8.3	12-3-19 22:00	-0.08	1258	8.32	20.5															
12-19-19 9:00	-0.07	906	7.91	0.5	12-3-19 22:15	1.19	1091	7.98	7.8	12-3-19 22:15	-0.08	1246	8.31	18.4															
12-19-19 9:15	-0.07	904	7.90	0.7	12-3-19 22:30	1.23	1093	7.98	7.8	12-3-19 22:30	-0.08	1258	8.32	20.2															
12-19-19 9:30	-0.07	904	7.91	0.6	12-3-19 22:45	1.33	1092	7.98	7.6	12-3-19 22:45	-0.08	1248	8.31	19.7															
12-19-19 9:45	-0.07	903	7.91	0.6	12-3-19 23:00	1.26	1091	7.98	8.3	12-3-19 23:00	-0.08	1259	8.31	20.4															
12-19-19 10:00	-0.07	902	7.91	0.6	12-3-19 23:15	1.26	1089	7.98	8.3	12-3-19 23:15	-0.08	1245	8.31	20.5															
12-19-19 10:15	-0.06	902	7.90	0.9	12-3-19 23:30	1.20	1087	7.98	7.4	12-3-19 23:30	-0.08	1259	8.31	20.3															
12-19-19 10:30	-0.06	901	7.91	0.5	12-3-19 23:45	1.13	1091	7.99	7.7	12-3-19 23:45	-0.08	1245	8.31	19.0															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-19-19 10:45	-0.07	899	7.91	0.5	12-4-19 0:00	0.83	1092	8.01	8.0	12-4-19 0:00	-0.08	1260	8.31	20.3															
12-19-19 11:00	-0.07	899	7.91	0.5	12-4-19 0:15	1.06	1090	7.99	7.8	12-4-19 0:15	-0.08	1247	8.31	19.4															
12-19-19 11:15	-0.07	899	7.90	0.6	12-4-19 0:30	0.92	1088	8.01	7.2	12-4-19 0:30	-0.08	1260	8.31	20.1															
12-19-19 11:30	-0.07	898	7.91	0.6	12-4-19 0:45	1.27	1091	7.98	8.5	12-4-19 0:45	-0.08	1250	8.31	19.8															
12-19-19 11:45	-0.06	897	7.91	0.5	12-4-19 1:00	1.09	1089	7.99	7.8	12-4-19 1:00	-0.08	1261	8.31	20.6															
12-19-19 12:00	-0.06	896	7.91	0.6	12-4-19 1:15	1.23	1092	7.98	7.6	12-4-19 1:15	-0.08	1249	8.31	19.7															
12-19-19 12:15	-0.06	896	7.90	0.9	12-4-19 1:30	1.15	1095	7.99	8.5	12-4-19 1:30	-0.08	1263	8.31	21.0															
12-19-19 12:30	-0.07	895	7.91	0.6	12-4-19 1:45	1.14	1092	7.99	7.3	12-4-19 1:45	-0.08	1249	8.31	19.7															
12-19-19 12:45	-0.07	894	7.91	0.5	12-4-19 2:00	0.87	1087	8.01	7.6	12-4-19 2:00	-0.08	1263	8.31	20.4															
12-19-19 13:00	-0.07	894	7.91	0.5	12-4-19 2:15	1.03	1093	8.00	7.2	12-4-19 2:15	-0.08	1250	8.31	19.8															
12-19-19 13:15	-0.07	894	7.90	0.6	12-4-19 2:30	0.98	1082	8.00	7.0	12-4-19 2:30	-0.08	1264	8.31	20.6															
12-19-19 13:30	-0.07	893	7.91	0.5	12-4-19 2:45	1.03	1090	7.99	7.5	12-4-19 2:45	-0.08	1252	8.31	19.8															
12-19-19 13:45	-0.07	892	7.91	0.5	12-4-19 3:00	0.86	1085	8.01	6.5	12-4-19 3:00	-0.08	1264	8.31	20.6															
12-19-19 14:00	-0.08	892	7.90	0.4	12-4-19 3:15	1.10	1093	7.99	6.6	12-4-19 3:15	-0.08	1251	8.31	20.0															
12-19-19 14:15	-0.09	892	7.90	0.9	12-4-19 3:30	0.90	1091	8.01	7.3	12-4-19 3:30	-0.08	1265	8.31	20.4															
12-19-19 14:30	-0.08	891	7.91	0.6	12-4-19 3:45	0.77	1094	8.01	6.5	12-4-19 3:45	-0.08	1253	8.31	20.8															
12-19-19 14:45	-0.07	890	7.90	0.6	12-4-19 4:00	0.71	1090	8.02	6.3	12-4-19 4:00	-0.08	1266	8.31	20.6															
12-19-19 15:00	-0.07	889	7.90	0.5	12-4-19 4:15	0.83	1093	8.01	6.8	12-4-19 4:15	-0.08	1253	8.31	21.2															
12-19-19 15:15	-0.07	889	7.90	0.7	12-4-19 4:30	0.87	1094	8.01	6.5	12-4-19 4:30	-0.08	1267	8.30	20.6															
12-19-19 15:30	-0.08	889	7.90	0.6	12-4-19 4:45	0.98	1098	8.00	6.9	12-4-19 4:45	-0.08	1254	8.30	19.8															
12-19-19 15:45	-0.07	888	7.90	0.5	12-4-19 5:00	0.93	1092	8.01	6.7	12-4-19 5:00	-0.08	1267	8.31	20.8															
12-19-19 16:00	-0.07	887	7.90	0.6	12-4-19 5:15	1.03	1085	8.00	6.5	12-4-19 5:15	-0.08	1257	8.31	21.1															
12-19-19 16:15	-0.07	887	7.89	0.9	12-4-19 5:30	1.01	1094	8.00	6.6	12-4-19 5:30	-0.08	1270	8.31	21.4															
12-19-19 16:30	-0.08	886	7.90	0.6	12-4-19 5:45	1.03	1097	8.00	7.1	12-4-19 5:45	-0.08	1255	8.30	18.7															
12-19-19 16:45	-0.08	886	7.90	0.5	12-4-19 6:00	1.03	1093	8.00	6.6	12-4-19 6:00	-0.08	1271	8.30	21.0															
12-19-19 17:00	-0.08	886	7.90	0.5	12-4-19 6:15	0.97	1095	8.00	7.0	12-4-19 6:15	-0.08	1257	8.30	20.3															
12-19-19 17:15	-0.07	885	7.89	0.6	12-4-19 6:30	0.99	1098	8.00	7.1	12-4-19 6:30	-0.08	1274	8.30	21.3															
12-19-19 17:30	-0.07	885	7.90	0.5	12-4-19 6:45	0.99	1097	8.00	7.1	12-4-19 6:45	-0.08	1260	8.30	19.5															
12-19-19 17:45	-0.06	883	7.90	0.5	12-4-19 7:00	1.05	1094	8.00	6.7	12-4-19 7:00	-0.08	1274	8.30	21.0															
12-19-19 18:00	-0.07	883	7.90	0.5	12-4-19 7:15	0.99	1098	8.00	7.2	12-4-19 7:15	-0.08	1261	8.30	20.5															
12-19-19 18:15	-0.06	883	7.89	0.8	12-4-19 7:30	1.11	1098	7.99	6.8	12-4-19 7:30	-0.08	1276	8.30	21.1															
12-19-19 18:30	-0.08	882	7.90	0.5	12-4-19 7:45	0.99	1097	8.00	6.7	12-4-19 7:45	-0.08	1262	8.30	20.1															
12-19-19 18:45	-0.08	881	7.90	0.5	12-4-19 8:00	1.00	1099	8.00	6.5	12-4-19 8:00	-0.08	1276	8.30	21.5															
12-19-19 19:00	-0.08	880	7.90	0.5	12-4-19 8:15	0.92	1096	8.00	6.5	12-4-19 8:15	-0.08	1261	8.30	19.3															
12-19-19 19:15	-0.07	880	7.89	0.7	12-4-19 8:30	0.89	1101	8.00	7.0	12-4-19 8:30	-0.08	1277	8.30	21.8															
12-19-19 19:30	-0.07	879	7.90	0.5	12-4-19 8:45	1.01	1095	7.99	6.8	12-4-19 8:45	-0.08	1265	8.30	20.3															
12-19-19 19:45	-0.05	878	7.91	1968.3	12-4-19 9:00	1.11	1098	7.99	7.1	12-4-19 9:00	-0.08	1278	8.31	21.2															
12-19-19 20:00	-0.06	877	7.91	1403.9	12-4-19 9:15	1.07	1099	7.99	6.9	12-4-19 9:15	-0.08	1267	8.30	21.0															
12-19-19 20:15	-0.07	864	7.90	14.2	12-4-19 9:30	1.07	1100	7.99	7.4	12-4-19 9:30	-0.08	1281	8.31	21.8															
12-19-19 20:30	-0.08	874	7.90	1.3	12-4-19 9:45	1.01	1099	7.99	6.9	12-4-19 9:45	-0.08	1268	8.30	20.9															
12-19-19 20:45	-0.07	876	7.90	1.1	12-4-19 10:00	1.11	1099	7.99	7.4	12-4-19 10:00	-0.08	1283	8.31	21.7															
12-19-19 21:00	-0.07	876	7.90	1.1	12-4-19 10:15	1.02	1096	7.99	6.7	12-4-19 10:15	-0.08	1270	8.31	21.3															
12-19-19 21:15	-0.07	876	7.89	4.1	12-4-19 10:30	1.10	1100	7.99	7.7	12-4-19 10:30	-0.08	1285	8.31	22.0															
12-19-19 21:30	-0.07	875	7.90	4.1	12-4-19 10:45	1.05	1099	7.99	7.1	12-4-19 10:45	-0.08	1271	8.31	19.6															
12-19-19 21:45	-0.07	875	7.90	4.3	12-4-19 11:00	1.08	1100	7.99	7.1	12-4-19 11:00	-0.08	1287	8.31	22.0															
12-19-19 22:00	-0.06	874	7.89	4.2	12-4-19 11:15	1.05	1100	7.99	7.1	12-4-19 11:15	-0.07	1273	8.31	21.0															
12-19-19 22:15	-0.06	875	7.89	1.3	12-4-19 11:30	0.98	1099	7.99	6.7	12-4-19 11:30	-0.07	1287	8.32	22.3															
12-19-19 22:30	-0.06	874	7.90	1.1	12-4-19 11:45	1.11	1103	7.98	7.2	12-4-19 11:45	-0.07	1274	8.31	21.6															
12-19-19 22:45	-0.06	873	7.89	1.0	12-4-19 12:00	1.00	1100	7.99	7.3	12-4-19 12:00	-0.07	1287	8.32	22.1															
12-19-19 23:00	-0.07	873	7.89	1.1	12-4-19 12:15	0.80	1099	8.00	7.1	12-4-19 12:15	-0.07	1274	8.31	21.0															
12-19-19 23:15	-0.07	872	7.89	1.3	12-4-19 12:30	0.93	1098	7.99	7.0	12-4-19 12:30	-0.06	1288	8.32	22.0															
12-19-19 23:30	-0.07	871	7.90	1.1	12-4-19 12:45	0.89	1098	7.99	6.8	12-4-19 12:45	-0.06	1274	8.31	20.8															
12-19-19 23:45	-0.08	871	7.89	1.1	12-4-19 13:00	0.87	1102	8.00	6.7	12-4-19 13:00	-0.05	1286	8.32	22.6															
12-20-19 0:00	-0.08	870	7.89	1.1	12-4-19 13:15	0.84	1101	8.00	7.2	12-4-19 13:15	-0.05	1273	8.32	21.2															
12-20-19 0:15	-0.07	871	7.88	1.4	12-4-19 13:30	0.84	1104	8.00	6.7	12-4-19 13:30	-0.04	1286	8.32	22.1															
12-20-19 0:30	-0.06	868	7.89	1.1	12-4-19 13:45	0.99	1104	7.98	7.3	12-4-19 13:45	0.05	1271	8.31	21.4															
12-20-19 0:45	-0.06	868	7.89	1.1	12-4-19 14:00	0.95	1099	7.99	6.9	12-4-19 14:00	0.00	1284	8.32	23.4															
12-20-19 1:00	-0.07	867	7.89	1.0	12-4-19 14:15	0.86	1100	7.99	6.8	12-4-19 14:15	-0.03	1274	8.32	20.7															
12-20-19 1:15	-0.07	867	7.89	1.2	12-4-19 14:30	0.84	1104	7.99	7.1	12-4-19 14:30	-0.05	1286	8.32	22.8															
12-20-19 1:30	-0.07	867	7.90	1.1	12-4-19 14:45	0.82	1103	7.99	7.0	12-4-19 14:45	-0.06	1275	8.33	21.9															
12-20-19 1:45	-0.07	866	7.89	1.1	12-4-19 15:00	0.77	1097	8.00	6.9	12-4-19 15:00	-0.07	1288	8.33	22.5															
12-20-19 2:00	-0.07	866	7.88	1.1	12-4-19 15:15	0.74	1099	8.00	6.6	12-4-19 15:15	-0.08	1278	8.32	21.5															
12-20-19 2:15	-0.07	866	7.88	1.4	12-4-19 15:30	0.88	1103	7.99	6.6	12-4-19 15:30	-0.08	1293	8.32	22.7															
12-20-19 2:30	-0.07	864	7.89	1.2	12-4-19 15:45	0.96	1101	7.98	6.9	12-4-19 15:45	-0.08	1279	8.32	20.8															
12-20-19 2:45	-0.07	864	7.89	1.1	12-4-19 16:00	0.87	1100	7.99	6.7	12-4-19 16:00	-0.08	1293	8.33	22.0															
12-20-19 3:00	-0.07	863	7.88	1.1	12-4-19 16:15	0.85	1101	7.99	7.1	12-4-19 16:15	-0.09	1280	8.32	20.2															
12-20-19 3:15	-0.06	863	7.89	1.2	12-4-19 16:30	1.01	1105	7.98	7.7	12-4-19 16:30	-0.09	1295	8.32	22.3															
12-20-19 3:30	-0.07	862	7.89	1.1	12-4-19 16:45	0.83	1105	7.99	7.5	12-4-19 16:45	-0.09	1282	8.32	21.8															
12-20-19 3:45	-0.07	862	7.89	1.1	12-4-19 17:00	0.95	1103	7.99	6.9	12-4-19 17:00	-0.09	1297	8.32	22.3															
12-20-19 4:00	-0.07	861	7.88	1.1	12-4-19 17:15	0.97	1102	7.99	6.5	12-4-19 17:15	-0.09	1283	8.32	19.9															
12-20-19 4:15	-0.07	862	7.89	1.4	12-4-19 17:30	0.93	1104	7.99	6.3	12-4-19 17:30	-0.09	1298	8.32	22.3															
12-20-19 4:30	-0.07	860	7.89	1.1	12-4-19 17:45	1.03	1103	7.98	6.7	12-4-19 17:45	-0.09	1284	8.32	19.4															
12-20-19 4:45	-0.07	859	7.89	1.1	12-4-19 18:00	0.95	1104	7.98	6.6	12-4-19 18:00	-0.09	1301	8.32	22.8															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-20-19 5:00	-0.07	858	7.89	1.0	12-4-19 18:15	0.95	1106	7.99	6.6	12-4-19 18:15	-0.09	1286	8.32	21.6															
12-20-19 5:15	-0.07	859	7.89	1.2	12-4-19 18:30	0.97	1105	7.98	6.8	12-4-19 18:30	-0.09	1302	8.32	22.4															
12-20-19 5:30	-0.07	857	7.89	1.2	12-4-19 18:45	0.94	1106	7.98	6.6	12-4-19 18:45	-0.09	1283	8.32	20.5															
12-20-19 5:45	-0.07	857	7.89	1.1	12-4-19 19:00	1.03	1106	7.98	6.6	12-4-19 19:00	-0.09	1302	8.32	22.2															
12-20-19 6:00	-0.06	856	7.88	1.1	12-4-19 19:15	1.03	1103	7.98	6.7	12-4-19 19:15	-0.09	1287	8.32	20.4															
12-20-19 6:15	-0.07	856	7.88	1.4	12-4-19 19:30	1.03	1105	7.98	6.7	12-4-19 19:30	-0.09	1302	8.32	22.2															
12-20-19 6:30	-0.07	856	7.89	1.1	12-4-19 19:45	1.03	1105	7.98	6.9	12-4-19 19:45	-0.09	1288	8.32	19.9															
12-20-19 6:45	-0.07	855	7.89	1.1	12-4-19 20:00	1.03	1104	7.98	6.6	12-4-19 20:00	-0.09	1305	8.32	22.2															
12-20-19 7:00	-0.07	854	7.89	1.0	12-4-19 20:15	0.96	1105	7.98	7.1	12-4-19 20:15	-0.09	1290	8.32	21.3															
12-20-19 7:15	-0.07	856	7.89	1.2	12-4-19 20:30	0.97	1106	7.98	7.1	12-4-19 20:30	-0.09	1306	8.32	22.3															
12-20-19 7:30	-0.08	854	7.89	1.1	12-4-19 20:45	0.98	1106	7.98	7.3	12-4-19 20:45	-0.09	1290	8.32	22.4															
12-20-19 7:45	-0.08	854	7.89	1.1	12-4-19 21:00	0.95	1105	7.98	7.1	12-4-19 21:00	-0.09	1307	8.32	22.2															
12-20-19 8:00	-0.08	853	7.89	1.1	12-4-19 21:15	1.03	1105	7.98	7.4	12-4-19 21:15	-0.09	1292	8.32	20.6															
12-20-19 8:15	-0.08	854	7.88	1.4	12-4-19 21:30	1.06	1105	7.97	7.1	12-4-19 21:30	-0.09	1309	8.32	22.1															
12-20-19 8:30	-0.08	853	7.89	1.1	12-4-19 21:45	1.09	1105	7.97	7.4	12-4-19 21:45	-0.09	1291	8.32	21.2															
12-20-19 8:45	-0.08	853	7.89	1.1	12-4-19 22:00	1.03	1105	7.97	7.5	12-4-19 22:00	-0.09	1310	8.32	22.1															
12-20-19 9:00	-0.07	853	7.88	1.2	12-4-19 22:15	0.83	1104	7.99	6.8	12-4-19 22:15	-0.09	1295	8.32	20.9															
12-20-19 9:15	-0.07	852	7.89	1.2	12-4-19 22:30	0.90	1107	7.98	7.2	12-4-19 22:30	-0.09	1313	8.32	22.4															
12-20-19 9:30	-0.07	851	7.89	1.1	12-4-19 22:45	0.92	1107	7.98	7.0	12-4-19 22:45	-0.09	1294	8.32	20.2															
12-20-19 9:45	-0.07	851	7.89	1.1	12-4-19 23:00	0.84	1105	7.98	6.7	12-4-19 23:00	-0.09	1311	8.32	22.0															
12-20-19 10:00	-0.07	850	7.88	1.1	12-4-19 23:15	0.89	1104	7.98	6.9	12-4-19 23:15	-0.09	1296	8.32	20.8															
12-20-19 10:15	-0.07	851	7.88	1.4	12-4-19 23:30	0.77	1107	7.98	7.0	12-4-19 23:30	-0.09	1313	8.32	22.3															
12-20-19 10:30	-0.07	850	7.89	1.1	12-4-19 23:45	0.80	1107	7.98	6.9	12-4-19 23:45	-0.09	1296	8.32	20.8															
12-20-19 10:45	-0.07	849	7.89	1.0	12-5-19 0:00	0.91	1105	7.98	6.9	12-5-19 0:00	-0.09	1314	8.32	22.3															
12-20-19 11:00	-0.07	849	7.88	1.2	12-5-19 0:15	0.84	1104	7.98	7.1	12-5-19 0:15	-0.10	1299	8.32	22.0															
12-20-19 11:15	-0.07	849	7.89	1.2	12-5-19 0:30	0.91	1105	7.98	6.8	12-5-19 0:30	-0.10	1317	8.32	22.4															
12-20-19 11:30	-0.08	848	7.89	1.1	12-5-19 0:45	0.99	1104	7.97	7.0	12-5-19 0:45	-0.10	1299	8.32	21.3															
12-20-19 11:45	-0.07	848	7.89	1.1	12-5-19 1:00	0.86	1105	7.98	6.9	12-5-19 1:00	-0.09	1316	8.32	22.3															
12-20-19 12:00	-0.06	847	7.88	1.1	12-5-19 1:15	0.95	1106	7.97	6.9	12-5-19 1:15	-0.10	1298	8.32	21.3															
12-20-19 12:15	-0.06	846	7.89	1.4	12-5-19 1:30	0.94	1107	7.97	6.6	12-5-19 1:30	-0.10	1317	8.32	21.9															
12-20-19 12:30	-0.06	845	7.89	1.2	12-5-19 1:45	0.85	1107	7.97	6.5	12-5-19 1:45	-0.10	1297	8.32	20.0															
12-20-19 12:45	-0.06	844	7.89	1.2	12-5-19 2:00	0.87	1108	7.97	6.9	12-5-19 2:00	-0.10	1317	8.32	22.2															
12-20-19 13:00	-0.06	844	7.88	1.1	12-5-19 2:15	0.94	1107	7.97	7.4	12-5-19 2:15	-0.10	1298	8.32	21.7															
12-20-19 13:15	-0.06	844	7.89	1.3	12-5-19 2:30	1.01	1106	7.96	8.0	12-5-19 2:30	-0.10	1319	8.32	22.2															
12-20-19 13:30	-0.07	843	7.89	1.1	12-5-19 2:45	0.97	1103	7.96	7.5	12-5-19 2:45	-0.10	1299	8.32	22.0															
12-20-19 13:45	-0.07	842	7.89	1.1	12-5-19 3:00	1.03	1107	7.96	7.4	12-5-19 3:00	-0.10	1321	8.32	22.2															
12-20-19 14:00	-0.07	842	7.88	1.0	12-5-19 3:15	1.06	1105	7.96	7.3	12-5-19 3:15	-0.10	1304	8.32	20.8															
12-20-19 14:15	-0.07	842	7.88	1.4	12-5-19 3:30	1.05	1106	7.96	7.2	12-5-19 3:30	-0.10	1320	8.32	22.2															
12-20-19 14:30	-0.08	841	7.89	1.1	12-5-19 3:45	1.02	1106	7.96	6.7	12-5-19 3:45	-0.10	1304	8.32	20.6															
12-20-19 14:45	-0.07	841	7.89	1.1	12-5-19 4:00	1.09	1106	7.96	7.4	12-5-19 4:00	-0.10	1321	8.32	22.1															
12-20-19 15:00	-0.07	840	7.88	1.1	12-5-19 4:15	1.04	1107	7.96	7.8	12-5-19 4:15	-0.10	1304	8.32	21.9															
12-20-19 15:15	-0.07	839	7.89	1.2	12-5-19 4:30	1.07	1108	7.96	6.8	12-5-19 4:30	-0.10	1321	8.32	22.0															
12-20-19 15:30	-0.07	838	7.89	1.1	12-5-19 4:45	1.15	1108	7.96	7.2	12-5-19 4:45	-0.10	1302	8.32	21.0															
12-20-19 15:45	-0.07	838	7.89	1.1	12-5-19 5:00	1.05	1108	7.96	7.2	12-5-19 5:00	-0.10	1320	8.32	22.3															
12-20-19 16:00	-0.07	837	7.89	1.1	12-5-19 5:15	0.97	1107	7.96	6.8	12-5-19 5:15	-0.10	1307	8.32	20.7															
12-20-19 16:15	-0.08	838	7.88	1.4	12-5-19 5:30	1.10	1109	7.96	6.8	12-5-19 5:30	-0.10	1324	8.32	22.7															
12-20-19 16:30	-0.08	837	7.89	1.1	12-5-19 5:45	1.02	1109	7.96	7.1	12-5-19 5:45	-0.10	1304	8.32	21.6															
12-20-19 16:45	-0.07	837	7.89	1.1	12-5-19 6:00	1.07	1108	7.96	6.9	12-5-19 6:00	-0.10	1324	8.32	22.5															
12-20-19 17:00	-0.07	835	7.89	1.1	12-5-19 6:15	0.93	1109	7.96	7.0	12-5-19 6:15	-0.10	1302	8.31	20.8															
12-20-19 17:15	-0.07	835	7.89	1.3	12-5-19 6:30	1.08	1108	7.96	7.3	12-5-19 6:30	-0.10	1324	8.32	22.1															
12-20-19 17:30	-0.07	834	7.89	1.0	12-5-19 6:45	0.99	1109	7.96	7.1	12-5-19 6:45	-0.10	1306	8.31	19.4															
12-20-19 17:45	-0.08	834	7.89	1.1	12-5-19 7:00	0.98	1106	7.96	7.8	12-5-19 7:00	-0.10	1324	8.32	22.3															
12-20-19 18:00	-0.08	833	7.88	1.1	12-5-19 7:15	1.04	1107	7.96	7.0	12-5-19 7:15	-3.58	1	6.96	1.9															
12-20-19 18:15	-0.08	834	7.88	1.3	12-5-19 7:30	0.93	1110	7.95	7.3	12-5-19 7:30	-0.10	338	8.35	24.3															
12-20-19 18:30	-0.08	832	7.89	1.1	12-5-19 7:45	0.97	1106	7.95	7.1	12-5-19 7:45	-0.09	398	8.34	25.6															
12-20-19 18:45	-0.09	832	7.89	1.1	12-5-19 8:00	0.82	1109	7.95	7.0	12-5-19 8:00	-0.09	385	8.29	23.2															
12-20-19 19:00	-0.09	832	7.89	1.1	12-5-19 8:15	0.86	1109	7.95	7.1	12-5-19 8:15	-0.09	485	8.31	25.4															
12-20-19 19:15	-0.08	832	7.89	1.3	12-5-19 8:30	1.08	1109	7.95	7.7	12-5-19 8:30	-0.09	464	8.31	27.9															
12-20-19 19:30	-0.07	831	7.90	1.1	12-5-19 8:45	1.02	1110	7.95	7.7	12-5-19 8:45	-0.09	484	8.32	21.7															
12-20-19 19:45	-0.08	830	7.90	1.1	12-5-19 9:00	0.94	1109	7.95	7.3	12-5-19 9:00	-0.09	460	8.31	22.0															
12-20-19 20:00	-0.09	830	7.90	1.0	12-5-19 9:15	0.82	1110	7.95	7.0	12-5-19 9:15	-0.09	496	8.32	22.3															
12-20-19 20:15	-0.09	830	7.89	1.4	12-5-19 9:30	0.94	1108	7.95	7.2	12-5-19 9:30	-0.09	479	8.31	20.9															
12-20-19 20:30	-0.09	829	7.90	1.0	12-5-19 9:45	0.99	1107	7.95	7.1	12-5-19 9:45	-0.09	525	8.32	23.7															
12-20-19 20:45	-0.09	829	7.90	0.9	12-5-19 10:00	0.98	1108	7.94	7.3	12-5-19 10:00	-0.09	517	8.31	21.3															
12-20-19 21:00	-0.10	828	7.90	1.0	12-5-19 10:15	0.94	1105	7.95	7.3	12-5-19 10:15	-0.09	584	8.32	22.4															
12-20-19 21:15	-0.10	827	7.89	1.2	12-5-19 10:30	1.00	1108	7.95	7.5	12-5-19 10:30	-0.09	555	8.31	22.4															
12-20-19 21:30	-0.09	826	7.90	1.0	12-5-19 10:45	1.07	1106	7.95	7.8	12-5-19 10:45	-0.09	638	8.32	20.2															
12-20-19 21:45	-0.09	826	7.89	1.0	12-5-19 11:00	0.97	1107	7.95	6.9	12-5-19 11:00	-0.09	535	8.31	20.9															
12-20-19 22:00	-0.09	826	7.88	1.1	12-5-19 11:15	1.00	1107	7.94	7.1	12-5-19 11:15	-0.09	648	8.32	20.4															
12-20-19 22:15	-0.08	826	7.89	1.3	12-5-19 11:30	0.89	1110	7.94	7.2	12-5-19 11:30	-0.09	571	8.31	19.9															
12-20-19 22:30	-0.09	824	7.90	1.1	12-5-19 11:45	1.00	1109	7.94	7.6	12-5-19 11:45	-0.09	654	8.32	20.0															
12-20-19 22:45	-0.09	823	7.90	1.1	12-5-19 12:00	1.04	1105	7.94	7.0	12-5-19 12:00	-0.09	594	8.31	19.2															
12-20-19 23:00	-0.09	822	7.90	1.0	12-5-19 12:15	1.07	1108	7.94	7.2	12-5-19 12:15	-0.09	662	8.32	22.1															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-20-19 23:15	-0.09	823	7.89	1.2	12-5-19 12:30	1.01	1109	7.94	7.0	12-5-19 12:30	-0.09	634	8.31	21.3															
12-20-19 23:30	-0.09	822	7.90	1.0	12-5-19 12:45	1.03	1107	7.94	7.3	12-5-19 12:45	-0.09	663	8.32	22.4															
12-20-19 23:45	-0.09	822	7.89	1.0	12-5-19 13:00	0.94	1106	7.93	7.3	12-5-19 13:00	-0.09	660	8.31	21.6															
12-21-19 0:00	-0.08	820	7.89	1.0	12-5-19 13:15	0.86	1109	7.93	7.3	12-5-19 13:15	-0.09	669	8.32	22.1															
12-21-19 0:15	-0.07	820	7.89	1.4	12-5-19 13:30	0.96	1107	7.93	7.3	12-5-19 13:30	-0.09	662	8.31	19.7															
12-21-19 0:30	-0.08	819	7.90	1.1	12-5-19 13:45	1.00	1107	7.93	7.5	12-5-19 13:45	-0.09	686	8.32	20.4															
12-21-19 0:45	-0.08	819	7.90	1.0	12-5-19 14:00	0.90	1107	7.93	7.2	12-5-19 14:00	-0.09	687	8.31	21.9															
12-21-19 1:00	-0.08	818	7.90	1.0	12-5-19 14:15	0.86	1106	7.93	7.9	12-5-19 14:15	-0.08	724	8.32	22.2															
12-21-19 1:15	-0.08	818	7.89	1.2	12-5-19 14:30	0.90	1108	7.92	6.9	12-5-19 14:30	-0.08	800	8.31	21.8															
12-21-19 1:30	-0.09	817	7.90	1.0	12-5-19 14:45	0.97	1105	7.93	7.1	12-5-19 14:45	-0.08	871	8.32	21.7															
12-21-19 1:45	-0.09	817	7.90	1.0	12-5-19 15:00	0.96	1110	7.93	7.2	12-5-19 15:00	-0.09	894	8.31	21.5															
12-21-19 2:00	-0.09	816	7.89	1.0	12-5-19 15:15	1.00	1107	7.93	8.0	12-5-19 15:15	-0.08	927	8.32	20.6															
12-21-19 2:15	-0.08	815	7.89	1.3	12-5-19 15:30	1.08	1106	7.93	7.3	12-5-19 15:30	-0.09	935	8.31	21.0															
12-21-19 2:30	-0.07	814	7.90	1.0	12-5-19 15:45	1.00	1106	7.93	7.3	12-5-19 15:45	-0.09	976	8.32	21.3															
12-21-19 2:45	-0.08	813	7.90	1.0	12-5-19 16:00	0.94	1108	7.93	7.5	12-5-19 16:00	-0.09	970	8.31	21.6															
12-21-19 3:00	-0.08	813	7.90	1.0	12-5-19 16:15	1.08	1097	7.93	7.1	12-5-19 16:15	-0.09	981	8.32	21.5															
12-21-19 3:15	-0.08	814	7.89	1.1	12-5-19 16:30	1.03	1107	7.93	7.8	12-5-19 16:30	-0.09	969	8.31	21.9															
12-21-19 3:30	-0.09	813	7.90	1.0	12-5-19 16:45	0.89	1107	7.92	7.0	12-5-19 16:45	-0.09	982	8.31	20.7															
12-21-19 3:45	-0.08	813	7.89	1.0	12-5-19 17:00	1.10	1106	7.93	7.5	12-5-19 17:00	-0.09	974	8.31	21.3															
12-21-19 4:00	-0.08	812	7.89	1.0	12-5-19 17:15	1.05	1106	7.93	7.4	12-5-19 17:15	-0.09	976	8.32	22.6															
12-21-19 4:15	-0.08	813	7.89	1.4	12-5-19 17:30	1.11	1107	7.93	7.1	12-5-19 17:30	-0.09	957	8.31	20.3															
12-21-19 4:30	-0.08	812	7.90	1.0	12-5-19 17:45	1.11	1108	7.93	7.3	12-5-19 17:45	-0.09	980	8.31	21.5															
12-21-19 4:45	-0.08	811	7.90	1.0	12-5-19 18:00	1.10	1109	7.93	7.0	12-5-19 18:00	-0.09	960	8.31	20.1															
12-21-19 5:00	-0.08	811	7.90	1.0	12-5-19 18:15	1.11	1107	7.93	7.2	12-5-19 18:15	-0.09	953	8.31	21.2															
12-21-19 5:15	-0.08	811	7.89	1.2	12-5-19 18:30	1.10	1108	7.93	7.2	12-5-19 18:30	-0.10	932	8.31	20.7															
12-21-19 5:30	-0.08	810	7.90	1.0	12-5-19 18:45	1.15	1107	7.93	7.8	12-5-19 18:45	-0.09	936	8.31	20.9															
12-21-19 5:45	-0.09	810	7.90	1.0	12-5-19 19:00	1.08	1109	7.93	7.2	12-5-19 19:00	-0.09	918	8.31	21.0															
12-21-19 6:00	-0.09	809	7.89	0.9	12-5-19 19:15	1.13	1108	7.93	7.4	12-5-19 19:15	-0.09	924	8.31	20.7															
12-21-19 6:15	-0.09	810	7.89	1.3	12-5-19 19:30	1.23	1107	7.93	7.5	12-5-19 19:30	-0.10	916	8.31	21.8															
12-21-19 6:30	-0.10	809	7.90	1.0	12-5-19 19:45	1.06	1107	7.93	7.7	12-5-19 19:45	-0.09	918	8.31	20.1															
12-21-19 6:45	-0.10	809	7.89	1.0	12-5-19 20:00	1.14	1107	7.93	7.4	12-5-19 20:00	-0.10	901	8.31	21.6															
12-21-19 7:00	-0.09	808	7.89	1.1	12-5-19 20:15	1.17	1107	7.92	7.5	12-5-19 20:15	-0.10	899	8.31	21.2															
12-21-19 7:15	-0.09	808	7.89	1.2	12-5-19 20:30	1.15	1107	7.93	7.7	12-5-19 20:30	-0.10	885	8.31	21.5															
12-21-19 7:30	-0.09	806	7.90	1.1	12-5-19 20:45	1.12	1106	7.92	7.5	12-5-19 20:45	-0.09	889	8.31	20.6															
12-21-19 7:45	-0.09	806	7.90	1.0	12-5-19 21:00	1.15	1106	7.92	7.5	12-5-19 21:00	-0.09	862	8.30	20.8															
12-21-19 8:00	-0.09	806	7.89	0.9	12-5-19 21:15	1.08	1099	7.92	7.4	12-5-19 21:15	-0.09	890	8.31	20.6															
12-21-19 8:15	-0.09	807	7.89	1.4	12-5-19 21:30	1.15	1107	7.93	7.5	12-5-19 21:30	-0.09	879	8.30	20.5															
12-21-19 8:30	-0.10	806	7.90	1.0	12-5-19 21:45	1.14	1106	7.92	7.7	12-5-19 21:45	-0.09	885	8.31	20.3															
12-21-19 8:45	-0.10	805	7.90	1.1	12-5-19 22:00	1.11	1107	7.92	7.9	12-5-19 22:00	-0.09	865	8.30	20.4															
12-21-19 9:00	-0.10	805	7.89	1.1	12-5-19 22:15	1.13	1107	7.92	7.4	12-5-19 22:15	-0.09	868	8.31	21.3															
12-21-19 9:15	-0.09	805	7.89	1.2	12-5-19 22:30	1.09	1108	7.92	8.2	12-5-19 22:30	-0.10	844	8.30	21.9															
12-21-19 9:30	-0.09	804	7.89	1.0	12-5-19 22:45	1.18	1107	7.92	7.4	12-5-19 22:45	-0.10	839	8.31	22.5															
12-21-19 9:45	-0.09	804	7.89	1.0	12-5-19 23:00	1.14	1106	7.92	8.1	12-5-19 23:00	-0.10	807	8.30	21.8															
12-21-19 10:00	-0.09	803	7.89	1.0	12-5-19 23:15	1.12	1105	7.92	7.7	12-5-19 23:15	-0.10	794	8.31	20.6															
12-21-19 10:15	-0.09	804	7.89	1.3	12-5-19 23:30	1.03	1106	7.92	7.2	12-5-19 23:30	-0.10	772	8.30	20.6															
12-21-19 10:30	-0.10	802	7.90	1.1	12-5-19 23:45	1.10	1107	7.92	8.2	12-5-19 23:45	-0.10	771	8.31	20.1															
12-21-19 10:45	-0.09	802	7.90	1.0	12-6-19 0:00	1.13	1106	7.92	7.5	12-6-19 0:00	-0.10	742	8.30	21.3															
12-21-19 11:00	-0.10	802	7.89	1.0	12-6-19 0:15	1.14	1107	7.92	7.4	12-6-19 0:15	-0.10	740	8.31	20.5															
12-21-19 11:15	-0.09	802	7.89	1.1	12-6-19 0:30	1.13	1108	7.92	7.3	12-6-19 0:30	-0.10	719	8.30	19.9															
12-21-19 11:30	-0.10	801	7.90	1.0	12-6-19 0:45	1.13	1106	7.92	7.6	12-6-19 0:45	-0.10	724	8.31	22.3															
12-21-19 11:45	-0.10	801	7.89	1.0	12-6-19 1:00	1.11	1109	7.92	7.4	12-6-19 1:00	-0.10	704	8.30	21.5															
12-21-19 12:00	-0.09	801	7.89	0.9	12-6-19 1:15	1.21	1107	7.92	7.9	12-6-19 1:15	-0.10	718	8.31	21.3															
12-21-19 12:15	-0.08	801	7.89	1.3	12-6-19 1:30	1.18	1108	7.93	7.4	12-6-19 1:30	-0.10	697	8.30	20.4															
12-21-19 12:30	-0.08	800	7.90	1.1	12-6-19 1:45	1.14	1107	7.92	7.9	12-6-19 1:45	-0.10	700	8.31	21.9															
12-21-19 12:45	-0.08	799	7.90	1.1	12-6-19 2:00	1.10	1109	7.93	7.3	12-6-19 2:00	-0.10	671	8.30	21.5															
12-21-19 13:00	-0.08	799	7.90	1.0	12-6-19 2:15	1.11	1108	7.92	7.5	12-6-19 2:15	-0.11	681	8.31	22.3															
12-21-19 13:15	-0.08	799	7.89	1.2	12-6-19 2:30	1.09	1107	7.92	7.8	12-6-19 2:30	-0.11	646	8.30	20.3															
12-21-19 13:30	-0.09	798	7.90	1.0	12-6-19 2:45	1.11	1109	7.93	7.2	12-6-19 2:45	-0.11	649	8.31	22.1															
12-21-19 13:45	-0.09	798	7.89	1.0	12-6-19 3:00	1.13	1109	7.93	7.4	12-6-19 3:00	-0.11	600	8.30	20.6															
12-21-19 14:00	-0.09	798	7.89	1.0	12-6-19 3:15	1.17	1109	7.92	7.5	12-6-19 3:15	-0.11	605	8.30	20.6															
12-21-19 14:15	-0.09	799	7.89	1.3	12-6-19 3:30	1.14	1108	7.92	7.7	12-6-19 3:30	-0.11	563	8.30	20.5															
12-21-19 14:30	-0.09	798	7.90	1.0	12-6-19 3:45	1.16	1108	7.92	7.7	12-6-19 3:45	-0.11	598	8.30	22.3															
12-21-19 14:45	-0.09	798	7.89	1.1	12-6-19 4:00	1.21	1108	7.92	7.6	12-6-19 4:00	-0.11	502	8.30	22.6															
12-21-19 15:00	-0.09	796	7.89	1.0	12-6-19 4:15	1.16	1110	7.92	7.5	12-6-19 4:15	-0.11	462	8.30	22.8															
12-21-19 15:15	-0.09	798	7.89	1.2	12-6-19 4:30	1.18	1110	7.92	7.5	12-6-19 4:30	-0.12	406	8.30	21.1															
12-21-19 15:30	-0.09	796	7.90	1.0	12-6-19 4:45	1.11	1113	7.93	7.3	12-6-19 4:45	-0.12	406	8.30	22.6															
12-21-19 15:45	-0.09	796	7.89	1.0	12-6-19 5:00	1.15	1110	7.92	7.4	12-6-19 5:00	-0.12	371	8.30	20.8															
12-21-19 16:00	-0.09	796	7.89	1.0	12-6-19 5:15	1.20	1109	7.92	7.5	12-6-19 5:15	-0.12	368	8.30	22.1															
12-21-19 16:15	-0.09	798	7.88	1.3	12-6-19 5:30	1.16	1110	7.92	7.3	12-6-19 5:30	-0.12	320	8.30	21.7															
12-21-19 16:30	-0.10	797	7.90	1.0	12-6-19 5:45	1.14	1110	7.92	7.5	12-6-19 5:45	-0.12	301	8.30	22.3															
12-21-19 16:45	-0.09	796	7.89	1.0	12-6-19 6:00	1.12	1110	7.92	7.4	12-6-19 6:00	-0.12	275	8.30	21.4															
12-21-19 17:00	-0.10	795	7.89	1.1	12-6-19 6:15	1.09	1111	7.92	7.5	12-6-19 6:15	-0.12	286	8.30	21.8															
12-21-19 17:15	-0.10	797	7.89	1.2	12-6-19 6:30	1.18	1109	7.92	7.0	12-6-19 6:30	-0.13	256	8.30	20.4															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-21-19 17:30	-0.10	795	7.90	1.0
12-21-19 17:45	-0.10	795	7.89	1.0
12-21-19 18:00	-0.10	795	7.89	1.0
12-21-19 18:15	-0.09	797	7.88	1.3
12-21-19 18:30	-0.09	795	7.90	1.0
12-21-19 18:45	-0.09	795	7.90	1.0
12-21-19 19:00	-0.09	794	7.89	1.1
12-21-19 19:15	-0.09	796	7.89	1.2
12-21-19 19:30	-0.09	794	7.90	1.0
12-21-19 19:45	-0.09	794	7.90	1.0
12-21-19 20:00	-0.10	793	7.89	1.0
12-21-19 20:15	-0.10	795	7.89	1.3
12-21-19 20:45	-0.09	794	7.90	0.8
12-21-19 21:00	-0.10	794	7.90	0.8
12-21-19 21:15	-0.10	793	7.89	1.0
12-21-19 21:30	-0.10	792	7.90	0.9
12-21-19 21:45	-0.10	792	7.90	0.9
12-21-19 22:00	-0.09	792	7.89	0.9
12-21-19 22:15	-0.09	791	7.89	1.1
12-21-19 22:30	-0.10	791	7.90	0.9
12-21-19 22:45	-0.10	790	7.90	0.9
12-21-19 23:00	-0.10	790	7.90	0.9
12-21-19 23:15	-0.10	792	7.89	1.0
12-21-19 23:30	-0.10	791	7.90	0.9
12-21-19 23:45	-0.10	791	7.89	0.9
12-22-19 0:00	-0.10	791	7.89	0.8
12-22-19 0:15	-0.09	790	7.89	1.1
12-22-19 0:30	-0.10	790	7.90	0.9
12-22-19 0:45	-0.10	789	7.90	0.8
12-22-19 1:00	-0.10	789	7.90	0.8
12-22-19 1:15	-0.09	791	7.89	0.9
12-22-19 1:30	-0.10	790	7.89	0.9
12-22-19 1:45	-0.10	790	7.89	0.9
12-22-19 2:00	-0.10	790	7.89	0.8
12-22-19 2:15	-0.10	791	7.88	1.1
12-22-19 2:30	-0.10	790	7.89	0.9
12-22-19 2:45	-0.10	790	7.89	0.8
12-22-19 3:00	-0.10	790	7.89	0.9
12-22-19 3:15	-0.10	790	7.89	0.9
12-22-19 3:30	-0.10	789	7.89	0.8
12-22-19 3:45	-0.10	789	7.89	0.8
12-22-19 4:00	-0.10	789	7.89	0.8
12-22-19 4:15	-0.09	791	7.88	1.1
12-22-19 4:30	-0.10	789	7.89	0.8
12-22-19 4:45	-0.09	789	7.89	0.8
12-22-19 5:00	-0.08	788	7.89	0.8
12-22-19 5:15	-0.07	789	7.89	1.0
12-22-19 5:30	-0.07	787	7.89	0.8
12-22-19 5:45	-0.07	787	7.89	0.8
12-22-19 6:00	-0.07	787	7.89	0.8
12-22-19 6:15	-0.07	788	7.88	1.2
12-22-19 6:30	-0.07	787	7.89	0.9
12-22-19 6:45	-0.07	786	7.89	0.7
12-22-19 7:00	-0.08	786	7.89	0.7
12-22-19 7:15	-0.08	787	7.88	0.9
12-22-19 7:30	-0.08	785	7.89	0.7
12-22-19 7:45	-0.08	785	7.89	0.8
12-22-19 8:00	-0.08	785	7.89	0.8
12-22-19 8:15	-0.07	786	7.88	1.1
12-22-19 8:30	-0.07	786	7.89	0.8
12-22-19 8:45	-0.08	784	7.89	0.7
12-22-19 9:00	-0.08	784	7.89	0.7
12-22-19 9:15	-0.08	786	7.88	0.8
12-22-19 9:30	-0.07	784	7.89	0.8
12-22-19 9:45	-0.07	784	7.89	0.7
12-22-19 10:00	-0.06	783	7.89	0.7
12-22-19 10:15	-0.06	785	7.88	1.1
12-22-19 10:30	-0.07	783	7.89	0.7
12-22-19 10:45	-0.07	782	7.89	0.7
12-22-19 11:00	-0.08	783	7.89	0.7
12-22-19 11:15	-0.07	785	7.88	0.8
12-22-19 11:30	-0.08	782	7.89	0.7
12-22-19 11:45	-0.08	782	7.89	0.7

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-6-19 6:45	1.12	1110	7.92	6.9
12-6-19 7:00	1.10	1110	7.91	7.4
12-6-19 7:15	1.17	1110	7.91	7.3
12-6-19 7:30	1.07	1110	7.91	7.2
12-6-19 7:45	1.11	1110	7.92	7.4
12-6-19 8:00	1.17	1110	7.91	7.2
12-6-19 8:15	1.10	1109	7.91	7.1
12-6-19 8:30	1.07	1108	7.90	7.4
12-6-19 8:45	1.16	1108	7.91	7.2
12-6-19 9:00	1.12	1107	7.91	7.3
12-6-19 9:15	1.13	1108	7.91	7.8
12-6-19 9:30	1.13	1108	7.91	7.5
12-6-19 9:45	1.11	1107	7.91	7.3
12-6-19 10:00	1.15	1108	7.91	6.8
12-6-19 10:15	1.07	1110	7.91	7.5
12-6-19 10:30	1.12	1113	7.91	7.1
12-6-19 10:45	1.05	1109	7.91	7.0
12-6-19 11:00	1.12	1108	7.91	7.1
12-6-19 11:15	1.11	1110	7.91	7.5
12-6-19 11:30	1.15	1110	7.91	8.5
12-6-19 11:45	1.08	1108	7.91	7.4
12-6-19 12:00	1.10	1110	7.91	6.8
12-6-19 12:15	1.09	1111	7.91	7.2
12-6-19 12:30	1.10	1109	7.91	7.3
12-6-19 12:45	1.10	1110	7.91	7.7
12-6-19 13:00	1.08	1111	7.92	7.4
12-6-19 13:15	1.10	1112	7.92	7.5
12-6-19 13:30	1.09	1113	7.91	7.2
12-6-19 13:45	1.07	1112	7.91	7.6
12-6-19 14:00	1.04	1113	7.91	7.5
12-6-19 14:15	1.04	1113	7.92	7.1
12-6-19 14:30	1.05	1114	7.91	7.3
12-6-19 14:45	1.06	1114	7.91	7.1
12-6-19 15:00	1.06	1113	7.91	7.1
12-6-19 15:15	1.08	1113	7.91	7.3
12-6-19 15:30	1.13	1113	7.91	7.2
12-6-19 15:45	1.08	1114	7.91	7.5
12-6-19 16:00	1.16	1119	7.91	7.3
12-6-19 16:15	1.00	1114	7.91	7.0
12-6-19 16:30	1.12	1113	7.91	7.5
12-6-19 16:45	1.04	1114	7.90	7.8
12-6-19 17:00	0.99	1114	7.90	7.3
12-6-19 17:15	0.99	1111	7.90	6.9
12-6-19 17:30	1.00	1113	7.89	7.4
12-6-19 17:45	1.03	1111	7.89	7.3
12-6-19 18:00	1.01	1110	7.89	6.9
12-6-19 18:15	0.99	1109	7.89	7.4
12-6-19 18:30	1.01	1109	7.89	7.3
12-6-19 18:45	0.96	1111	7.89	7.3
12-6-19 19:00	1.01	1108	7.88	7.6
12-6-19 19:15	0.99	1107	7.89	7.3
12-6-19 19:30	0.95	1111	7.89	7.6
12-6-19 19:45	1.04	1111	7.89	7.6
12-6-19 20:00	1.00	1108	7.89	8.7
12-6-19 20:15	0.97	1100	7.89	7.8
12-6-19 20:30	0.93	1112	7.89	8.1
12-6-19 20:45	0.90	1112	7.89	7.3
12-6-19 21:00	0.96	1112	7.88	7.1
12-6-19 21:15	0.91	1111	7.89	7.3
12-6-19 21:30	0.93	1112	7.89	7.3
12-6-19 21:45	1.01	1110	7.89	7.4
12-6-19 22:00	0.85	1110	7.88	7.0
12-6-19 22:15	0.89	1111	7.89	7.5
12-6-19 22:30	0.92	1109	7.89	7.4
12-6-19 22:45	0.88	1110	7.88	7.4
12-6-19 23:00	0.93	1111	7.88	7.4
12-6-19 23:15	0.93	1111	7.88	7.2
12-6-19 23:30	0.89	1109	7.88	7.1
12-6-19 23:45	0.94	1111	7.89	7.2
12-7-19 0:00	0.93	1112	7.89	6.7
12-7-19 0:15	0.89	1110	7.89	6.9
12-7-19 0:30	0.93	1112	7.89	7.0
12-7-19 0:45	0.88	1111	7.88	7.2

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-6-19 6:45	-0.13	270	8.30	21.1
12-6-19 7:00	-0.13	270	8.30	20.3
12-6-19 7:15	-0.14	299	8.30	22.1
12-6-19 7:30	-0.14	293	8.30	20.1
12-6-19 7:45	-0.14	337	8.30	22.3
12-6-19 8:00	-0.15	310	8.30	20.2
12-6-19 8:15	-0.15	296	8.31	19.9
12-6-19 8:30	-0.15	439	8.31	21.6
12-6-19 8:45	-0.15	683	8.32	20.8
12-6-19 9:00	-0.15	284	8.32	21.0
12-6-19 9:15	-0.16	196	8.32	20.5
12-6-19 9:30	-0.16	149	8.32	19.7
12-6-19 9:45	-0.16	126	8.32	19.7
12-6-19 10:00	-0.16	110	8.33	12.8
12-6-19 10:15	-0.16	87	8.33	14.0
12-6-19 10:30	-0.16	71	8.34	16.3
12-6-19 10:45	-0.16	55	8.34	15.5
12-6-19 11:00	-0.16	53	8.34	19.1
12-6-19 11:15	-0.16	44	8.35	15.1
12-6-19 11:30	-0.16	41	8.35	17.3
12-6-19 11:45	-0.16	38	8.35	14.9
12-6-19 12:00	-0.16	36	8.35	24.7
12-6-19 12:15	-0.16	34	8.35	15.6
12-6-19 12:30	-0.16	32	8.36	37.3
12-6-19 12:45	-0.12	28	8.33	45.7
12-6-19 13:00	-0.10	24	8.33	41.0
12-6-19 13:15	-0.09	23	8.33	24.4
12-6-19 13:30	-0.09	22	8.32	37.6
12-6-19 13:45	-0.09	22	8.32	32.8
12-6-19 14:00	-0.09	23	8.31	42.5
12-6-19 14:15	-0.09	22	8.31	33.0
12-6-19 14:30	-0.09	24	8.31	20.4
12-6-19 14:45	-0.09	22	8.31	26.2
12-6-19 15:00	-0.09	24	8.31	21.0
12-6-19 15:15	-0.09	23	8.31	22.0
12-6-19 15:30	-0.09	26	8.31	21.8
12-6-19 15:45	-0.09	25	8.31	21.0
12-6-19 16:00	-0.09	27	8.31	56.1
12-6-19 16:15	-0.09	26	8.31	21.9
12-6-19 16:30	-0.09	28	8.31	52.0
12-6-19 16:45	-0.09	26	8.31	22.3
12-6-19 17:00	-0.09	29	8.31	38.8
12-6-19 17:15	-0.09	27	8.31	21.9
12-6-19 17:30	-0.09	29	8.31	43.4
12-6-19 17:45	-0.09	28	8.31	22.0
12-6-19 18:00	-0.09	29	8.31	35.9
12-6-19 18:15	-0.09	28	8.31	21.3
12-6-19 18:30	-0.09	29	8.30	48.8
12-6-19 18:45	-0.10	29	8.30	20.9
12-6-19 19:00	-0.10	29	8.30	43.1
12-6-19 19:15	-0.10	29	8.30	20.4
12-6-19 19:30	-0.10	29	8.30	42.8
12-6-19 19:45	-0.10	28	8.30	20.2
12-6-19 20:00	-0.10	28	8.30	41.3
12-6-19 20:15	-0.10	27	8.30	19.3
12-6-19 20:30	-0.10	27	8.30	39.5
12-6-19 20:45	-0.10	27	8.30	19.8
12-6-19 21:00	-0.10	27	8.31	63.4
12-6-19 21:15	-0.11	27	8.30	20.6
12-6-19 21:30	-0.11	27	8.31	61.2
12-6-19 21:45	-0.11	28	8.30	21.1
12-6-19 22:00	-0.11	30	8.31	53.3
12-6-19 22:15	-0.11	32	8.30	21.0
12-6-19 22:30	-0.12	35	8.31	51.3
12-6-19 22:45	-0.12	39	8.31	21.7
12-6-19 23:00	-0.12	42	8.31	43.3
12-6-19 23:15	-0.12	47	8.31	23.3
12-6-19 23:30	-0.13	51	8.31	24.3
12-6-19 23:45	-0.13	62	8.31	24.3
12-7-19 0:00	-0.13	78	8.31	24.6
12-7-19 0:15	-0.13	92	8.31	24.7
12-7-19 0:30	-0.13	109	8.31	24.9
12-7-19 0:45	-0.13	123	8.31	25.6

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-22-19 12:00	-0.08	782	7.89	0.6	12-7-19 1:00	0.99	1110	7.89	6.9	12-7-19 1:00	-0.14	90	8.31	26.2															
12-22-19 12:15	-0.08	784	7.88	1.0	12-7-19 1:15	0.97	1113	7.88	6.8	12-7-19 1:15	-0.14	60	8.31	27.3															
12-22-19 12:30	-0.09	783	7.89	0.7	12-7-19 1:30	0.91	1113	7.89	6.9	12-7-19 1:30	-0.15	69	8.31	51.0															
12-22-19 12:45	-0.09	783	7.89	0.7	12-7-19 1:45	0.99	1109	7.88	7.3	12-7-19 1:45	-0.15	99	8.31	28.9															
12-22-19 13:00	-0.09	782	7.88	0.6	12-7-19 2:00	0.96	1107	7.88	7.1	12-7-19 2:00	-0.15	78	8.32	31.9															
12-22-19 13:15	-0.09	784	7.89	0.8	12-7-19 2:15	1.04	1110	7.89	7.7	12-7-19 2:15	-0.15	80	8.32	32.0															
12-22-19 13:30	-0.09	782	7.89	0.6	12-7-19 2:30	1.00	1113	7.89	7.2	12-7-19 2:30	-0.16	71	8.32	36.3															
12-22-19 13:45	-0.09	782	7.89	0.6	12-7-19 2:45	0.91	1113	7.88	7.5	12-7-19 2:45	-0.16	66	8.32	32.7															
12-22-19 14:00	-0.10	782	7.89	0.6	12-7-19 3:00	1.08	1111	7.89	7.3	12-7-19 3:00	-0.16	65	8.32	32.9															
12-22-19 14:15	-0.09	785	7.88	0.9	12-7-19 3:15	1.02	1111	7.89	7.1	12-7-19 3:15	-0.17	64	8.32	31.3															
12-22-19 14:30	-0.09	784	7.89	0.7	12-7-19 3:30	0.99	1112	7.89	7.3	12-7-19 3:30	-0.17	82	8.33	49.0															
12-22-19 14:45	-0.09	784	7.89	0.6	12-7-19 3:45	0.96	1115	7.89	6.7	12-7-19 3:45	-0.17	114	8.33	31.2															
12-22-19 15:00	-0.09	783	7.89	0.7	12-7-19 4:00	1.03	1112	7.89	7.1	12-7-19 4:00	-0.17	121	8.34	41.3															
12-22-19 15:15	-0.09	786	7.88	0.7	12-7-19 4:15	1.06	1109	7.89	7.4	12-7-19 4:15	-0.17	121	8.34	30.7															
12-22-19 15:30	-0.09	784	7.89	0.6	12-7-19 4:30	0.97	1111	7.89	6.6	12-7-19 4:30	-0.17	110	8.34	35.0															
12-22-19 15:45	-0.09	784	7.89	0.6	12-7-19 4:45	0.85	1111	7.88	7.0	12-7-19 4:45	-0.17	57	8.34	28.3															
12-22-19 16:00	-0.09	784	7.89	0.5	12-7-19 5:00	0.92	1110	7.88	7.1	12-7-19 5:00	-0.18	28	8.34	33.0															
12-22-19 16:15	-0.08	786	7.88	0.8	12-7-19 5:15	0.93	1111	7.88	6.9	12-7-19 5:15	-0.19	25	8.34	27.2															
12-22-19 16:30	-0.08	784	7.89	0.6	12-7-19 5:30	0.93	1109	7.88	7.2	12-7-19 5:30	-0.19	25	8.34	30.4															
12-22-19 16:45	-0.08	784	7.89	0.6	12-7-19 5:45	0.89	1109	7.88	7.4	12-7-19 5:45	-0.20	25	8.34	31.1															
12-22-19 17:00	-0.08	783	7.89	0.5	12-7-19 6:00	0.90	1109	7.88	7.6	12-7-19 6:00	-0.20	32	8.35	34.0															
12-22-19 17:15	-0.08	785	7.88	0.7	12-7-19 6:15	0.86	1106	7.87	7.0	12-7-19 6:15	-0.20	47	8.35	34.5															
12-22-19 17:30	-0.08	783	7.89	0.5	12-7-19 6:30	0.90	1108	7.87	7.4	12-7-19 6:30	-0.20	53	8.36	36.3															
12-22-19 17:45	-0.08	782	7.88	0.5	12-7-19 6:45	0.91	1109	7.88	7.3	12-7-19 6:45	-0.20	47	8.36	27.4															
12-22-19 18:00	-0.09	783	7.88	0.5	12-7-19 7:00	0.95	1108	7.88	7.5	12-7-19 7:00	-0.21	40	8.36	24.7															
12-22-19 18:15	-0.08	784	7.88	0.8	12-7-19 7:15	0.87	1110	7.87	7.3	12-7-19 7:15	-0.21	37	8.36	24.2															
12-22-19 18:30	-0.08	782	7.89	0.5	12-7-19 7:30	0.88	1113	7.88	7.4	12-7-19 7:30	-0.21	34	8.36	26.3															
12-22-19 18:45	-0.09	565	7.90	165.3	12-7-19 7:45	0.89	1108	7.88	7.5	12-7-19 7:45	-0.21	26	8.36	28.0															
12-22-19 19:00	-0.09	562	7.89	232.9	12-7-19 8:00	0.86	1114	7.88	7.4	12-7-19 8:00	-0.22	17	8.35	29.8															
12-22-19 19:15	-0.10	616	7.88	0.9	12-7-19 8:15	0.81	1112	7.87	7.9	12-7-19 8:15	-0.22	14	8.35	24.6															
12-22-19 19:30	-0.10	597	7.89	0.6	12-7-19 8:30	0.87	1109	7.88	7.4	12-7-19 8:30	-0.23	13	8.35	21.4															
12-22-19 19:45	-0.11	587	7.88	0.5	12-7-19 8:45	0.89	1113	7.88	7.5	12-7-19 8:45	-0.23	13	8.34	19.9															
12-22-19 20:00	-0.10	577	7.88	0.5	12-7-19 9:00	0.87	1115	7.88	7.1	12-7-19 9:00	-0.23	13	8.34	20.0															
12-22-19 20:15	-0.10	778	7.88	63.9	12-7-19 9:15	0.98	1114	7.88	7.1	12-7-19 9:15	-0.24	13	8.33	19.4															
12-22-19 20:30	-0.09	778	7.89	50.4	12-7-19 9:30	1.00	1110	7.88	7.4	12-7-19 9:30	-0.24	11	8.33	20.4															
12-22-19 20:45	-0.09	778	7.89	49.6	12-7-19 9:45	1.01	1114	7.88	7.8	12-7-19 9:45	-0.24	11	8.32	19.7															
12-22-19 21:00	-0.09	778	7.89	46.9	12-7-19 10:00	1.01	1114	7.88	7.5	12-7-19 10:00	-0.24	14	8.32	20.0															
12-22-19 21:15	-0.09	726	7.88	1.0	12-7-19 10:15	0.91	1115	7.88	7.1	12-7-19 10:15	-0.25	14	8.31	18.8															
12-22-19 21:30	-0.10	723	7.89	0.5	12-7-19 10:30	1.01	1111	7.88	7.5	12-7-19 10:30	-0.25	16	8.31	18.8															
12-22-19 21:45	-0.10	722	7.89	0.5	12-7-19 10:45	0.98	1113	7.88	7.5	12-7-19 10:45	-0.25	16	8.31	18.3															
12-22-19 22:00	-0.09	721	7.88	0.4	12-7-19 11:00	0.98	1112	7.88	7.8	12-7-19 11:00	-0.26	12	8.29	19.3															
12-22-19 22:15	-0.09	778	7.88	0.8	12-7-19 11:15	1.01	1115	7.88	7.9	12-7-19 11:15	-0.26	10	8.29	18.9															
12-22-19 22:30	-0.09	778	7.89	0.6	12-7-19 11:30	1.00	1113	7.88	7.5	12-7-19 11:30	-0.26	10	8.28	19.1															
12-22-19 22:45	-0.09	777	7.89	0.6	12-7-19 11:45	0.94	1114	7.88	7.1	12-7-19 11:45	-0.26	10	8.27	19.0															
12-22-19 23:00	-0.09	777	7.89	0.6	12-7-19 12:00	0.92	1115	7.88	7.8	12-7-19 12:00	-0.26	12	8.27	19.0															
12-22-19 23:15	-0.08	730	7.88	0.9	12-7-19 12:15	0.95	1113	7.88	7.5	12-7-19 12:15	-0.26	14	8.27	19.0															
12-22-19 23:30	-0.09	729	7.89	0.5	12-7-19 12:30	0.89	1118	7.88	7.1	12-7-19 12:30	-0.26	13	8.26	18.6															
12-22-19 23:45	-0.10	729	7.88	0.5	12-7-19 12:45	0.94	1115	7.88	7.2	12-7-19 12:45	-0.26	12	8.26	18.8															
12-23-19 0:00	-0.10	732	7.87	0.4	12-7-19 13:00	0.97	1113	7.87	7.0	12-7-19 13:00	-0.26	0	8.25	19.9															
12-23-19 0:15	-0.09	778	7.87	0.7	12-7-19 13:15	0.94	1115	7.88	7.4	12-7-19 13:15	-0.26	0	8.25	19.0															
12-23-19 0:30	-0.09	777	7.89	0.6	12-7-19 13:30	0.98	1115	7.88	7.4	12-7-19 13:30	-0.12	4	8.30	18.5															
12-23-19 0:45	-0.08	776	7.89	0.6	12-7-19 13:45	0.88	1118	7.88	7.2	12-7-19 13:45	-0.10	4	8.29	18.3															
12-23-19 1:00	-0.08	776	7.89	0.5	12-7-19 14:00	0.91	1117	7.87	6.9	12-7-19 14:00	-0.10	5	8.28	18.5															
12-23-19 1:15	-0.08	744	7.87	1.1	12-7-19 14:15	0.93	1117	7.88	7.2	12-7-19 14:15	-0.09	5	8.29	18.7															
12-23-19 1:30	-0.09	744	7.88	0.5	12-7-19 14:30	0.88	1118	7.88	7.0	12-7-19 14:30	-0.09	5	8.28	18.7															
12-23-19 1:45	-0.09	744	7.88	0.5	12-7-19 14:45	0.92	1116	7.88	6.9	12-7-19 14:45	-0.09	5	8.27	18.7															
12-23-19 2:00	-0.08	745	7.87	0.5	12-7-19 15:00	0.90	1118	7.87	7.3	12-7-19 15:00	-0.09	5	8.26	18.7															
12-23-19 2:15	-0.08	777	7.88	0.7	12-7-19 15:15	0.97	1117	7.87	6.9	12-7-19 15:15	-0.09	5	8.25	18.7															
12-23-19 2:30	-0.08	774	7.89	0.5	12-7-19 15:30	1.01	1117	7.88	6.8	12-7-19 15:30	-0.09	5	8.24	18.5															
12-23-19 2:45	-0.08	774	7.89	0.6	12-7-19 15:45	0.87	1118	7.87	6.4	12-7-19 15:45	-0.09	5	8.23	18.2															
12-23-19 3:00	-0.08	774	7.88	0.6	12-7-19 16:00	1.02	1116	7.87	6.7	12-7-19 16:00	-0.09	6	8.22	18.8															
12-23-19 3:15	-0.08	695	7.88	0.9	12-7-19 16:15	0.98	1117	7.88	6.9	12-7-19 16:15	-0.09	5	8.21	17.8															
12-23-19 3:30	-0.09	696	7.88	0.5	12-7-19 16:30	0.93	1117	7.87	7.0	12-7-19 16:30	-0.09	6	8.21	18.8															
12-23-19 3:45	-0.09	701	7.88	0.4	12-7-19 16:45	0.95	1118	7.87	7.0	12-7-19 16:45	-0.09	5	8.20	17.7															
12-23-19 4:00	-0.09	696	7.87	0.5	12-7-19 17:00	0.96	1118	7.87	6.5	12-7-19 17:00	-0.09	6	8.20	19.1															
12-23-19 4:15	-0.09	774	7.87	0.9	12-7-19 17:15	0.94	1119	7.87	6.6	12-7-19 17:15	-0.09	5	8.19	17.7															
12-23-19 4:30	-0.09	773	7.88	0.6	12-7-19 17:30	0.97	1118	7.87	6.3	12-7-19 17:30	-0.09	6	8.19	19.1															
12-23-19 4:45	-0.09	773	7.88	0.6	12-7-19 17:45	0.95	1118	7.87	6.2	12-7-19 17:45	-0.09	5	8.19	17.6															
12-23-19 5:00	-0.09	773	7.88	0.5	12-7-19 18:00	0.95	1121	7.88	6.4	12-7-19 18:00	-0.09	5	8.18	19.1															
12-23-19 5:15	-0.09	762	7.87	0.6	12-7-19 18:15	0.93	1119	7.87	6.5	12-7-19 18:15	-0.09	5	8.18	18.9															
12-23-19 5:30	-0.10	762	7.88	0.5	12-7-19 18:30	0.97	1119	7.87	6.7	12-7-19 18:30	-0.09	5	8.18	18.9															
12-23-19 5:45	-0.10	761	7.88	0.4	12-7-19 18:45	0.81	1121	7.87	6.5	12-7-19 18:45	-0.09	5	8.18	18.7															
12-23-19 6:00	-0.10	761	7.87	0.5	12-7-19 19:00	0.85	1122	7.87	6.4	12-7-19 19:00	-0.09	6	8.17	18.3															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-23-19 6:15	-0.09	775	7.87	0.7	12-7-19 19:15	0.95	1119	7.87	6.5	12-7-19 19:15	-0.09	6	8.17	18.7															
12-23-19 6:30	-0.10	774	7.88	0.5	12-7-19 19:30	0.90	1120	7.87	6.5	12-7-19 19:30	-0.09	6	8.17	18.5															
12-23-19 6:45	-0.10	774	7.88	0.5	12-7-19 19:45	0.98	1122	7.87	6.7	12-7-19 19:45	-0.09	6	8.17	17.8															
12-23-19 7:00	-0.10	774	7.88	0.5	12-7-19 20:00	0.95	1121	7.87	7.1	12-7-19 20:00	-0.09	6	8.17	18.6															
12-23-19 7:15	-0.10	776	7.87	0.7	12-7-19 20:15	1.05	1120	7.87	7.3	12-7-19 20:15	-0.09	6	8.17	17.4															
12-23-19 7:30	-0.10	772	7.88	0.5	12-7-19 20:30	0.93	1121	7.87	6.5	12-7-19 20:30	-0.09	6	8.17	18.8															
12-23-19 7:45	-0.10	771	7.87	0.5	12-7-19 20:45	0.98	1122	7.87	6.8	12-7-19 20:45	-0.09	6	8.16	17.3															
12-23-19 8:00	-0.10	770	7.87	0.4	12-7-19 21:00	0.98	1122	7.87	6.5	12-7-19 21:00	-0.09	6	8.17	18.9															
12-23-19 8:15	-0.09	775	7.86	0.8	12-7-19 21:15	0.91	1124	7.87	6.5	12-7-19 21:15	-0.09	6	8.16	17.2															
12-23-19 8:30	-0.09	774	7.88	0.6	12-7-19 21:30	0.96	1121	7.87	6.5	12-7-19 21:30	-0.10	6	8.17	18.9															
12-23-19 8:45	-0.08	773	7.88	0.5	12-7-19 21:45	1.00	1120	7.87	6.7	12-7-19 21:45	-0.10	7	8.15	17.1															
12-23-19 9:00	-0.09	773	7.88	0.4	12-7-19 22:00	0.98	1115	7.87	6.9	12-7-19 22:00	-0.10	7	8.17	18.9															
12-23-19 9:15	-0.09	773	7.87	0.8	12-7-19 22:15	1.00	1121	7.87	7.4	12-7-19 22:15	-0.10	7	8.16	17.2															
12-23-19 9:30	-0.09	773	7.88	0.5	12-7-19 22:30	1.03	1120	7.87	7.1	12-7-19 22:30	-0.10	7	8.16	18.8															
12-23-19 9:45	-0.09	772	7.88	0.6	12-7-19 22:45	1.00	1121	7.87	6.5	12-7-19 22:45	-0.10	7	8.16	17.1															
12-23-19 10:00	-0.09	772	7.87	0.5	12-7-19 23:00	0.98	1122	7.87	6.5	12-7-19 23:00	-0.10	7	8.16	18.8															
12-23-19 10:15	-0.09	773	7.87	0.8	12-7-19 23:15	0.98	1122	7.87	6.8	12-7-19 23:15	-0.10	8	8.16	17.2															
12-23-19 10:30	-0.09	772	7.88	0.5	12-7-19 23:30	0.98	1123	7.87	6.7	12-7-19 23:30	-0.10	8	8.16	18.9															
12-23-19 10:45	-0.09	772	7.88	0.5	12-7-19 23:45	0.96	1122	7.87	6.6	12-7-19 23:45	-0.10	8	8.16	17.7															
12-23-19 11:00	-0.09	771	7.88	0.5	12-8-19 0:00	0.95	1121	7.87	6.6	12-8-19 0:00	-0.10	8	8.16	18.7															
12-23-19 11:15	-0.08	772	7.87	0.8	12-8-19 0:15	1.00	1122	7.87	6.6	12-8-19 0:15	-0.10	9	8.16	18.5															
12-23-19 11:30	-0.08	771	7.88	0.5	12-8-19 0:30	0.96	1129	7.87	6.9	12-8-19 0:30	-0.10	9	8.16	18.6															
12-23-19 11:45	-0.08	771	7.88	0.6	12-8-19 0:45	0.98	1123	7.87	6.4	12-8-19 0:45	-0.10	9	8.16	18.4															
12-23-19 12:00	-0.08	770	7.88	0.6	12-8-19 1:00	0.95	1124	7.87	6.6	12-8-19 1:00	-0.10	8	8.16	17.8															
12-23-19 12:15	-0.08	772	7.87	0.9	12-8-19 1:15	0.97	1124	7.87	6.6	12-8-19 1:15	-0.10	9	8.16	18.3															
12-23-19 12:30	-0.08	771	7.88	0.6	12-8-19 1:30	0.91	1123	7.87	6.6	12-8-19 1:30	-0.11	8	8.16	18.1															
12-23-19 12:45	-0.08	770	7.88	0.5	12-8-19 1:45	0.94	1124	7.87	6.4	12-8-19 1:45	-0.11	9	8.15	18.3															
12-23-19 13:00	-0.08	770	7.87	0.5	12-8-19 2:00	0.96	1123	7.87	6.3	12-8-19 2:00	-0.11	8	8.15	18.2															
12-23-19 13:15	-0.07	771	7.86	0.7	12-8-19 2:15	0.97	1122	7.87	6.7	12-8-19 2:15	-0.11	10	8.15	17.8															
12-23-19 13:30	-0.08	770	7.87	0.5	12-8-19 2:30	0.94	1123	7.87	7.0	12-8-19 2:30	-0.11	9	8.15	18.5															
12-23-19 13:45	-0.08	770	7.87	0.5	12-8-19 2:45	0.99	1123	7.87	6.7	12-8-19 2:45	-0.11	10	8.15	17.6															
12-23-19 14:00	-0.08	769	7.87	0.5	12-8-19 3:00	0.97	1121	7.87	6.4	12-8-19 3:00	-0.11	9	8.15	18.9															
12-23-19 14:15	-0.07	771	7.86	0.9	12-8-19 3:15	0.97	1121	7.87	6.7	12-8-19 3:15	-0.12	10	8.15	17.8															
12-23-19 14:30	-0.07	770	7.87	0.6	12-8-19 3:30	0.98	1123	7.87	6.6	12-8-19 3:30	-0.12	9	8.15	18.9															
12-23-19 14:45	-0.08	769	7.87	0.5	12-8-19 3:45	0.86	1124	7.87	6.4	12-8-19 3:45	-0.12	10	8.14	17.7															
12-23-19 15:00	-0.08	769	7.87	0.5	12-8-19 4:00	1.00	1121	7.87	6.2	12-8-19 4:00	-0.12	9	8.14	18.8															
12-23-19 15:15	-0.07	770	7.86	0.7	12-8-19 4:15	0.92	1125	7.87	6.4	12-8-19 4:15	-0.12	10	8.14	17.6															
12-23-19 15:30	-0.08	769	7.87	0.6	12-8-19 4:30	0.96	1124	7.87	6.6	12-8-19 4:30	-0.12	10	8.14	18.6															
12-23-19 15:45	-0.08	769	7.87	0.5	12-8-19 4:45	1.04	1122	7.87	6.6	12-8-19 4:45	-0.12	10	8.14	17.6															
12-23-19 16:00	-0.09	769	7.87	0.6	12-8-19 5:00	0.93	1125	7.87	6.2	12-8-19 5:00	-0.13	10	8.14	18.7															
12-23-19 16:15	-0.08	771	7.85	0.9	12-8-19 5:15	0.95	1124	7.87	6.4	12-8-19 5:15	-0.13	10	8.14	17.7															
12-23-19 16:30	-0.09	769	7.87	0.5	12-8-19 5:30	0.97	1125	7.87	7.0	12-8-19 5:30	-0.13	9	8.14	18.7															
12-23-19 16:45	-0.09	769	7.87	0.5	12-8-19 5:45	0.90	1127	7.87	6.3	12-8-19 5:45	-0.13	10	8.14	18.0															
12-23-19 17:00	-0.09	768	7.87	0.5	12-8-19 6:00	0.88	1126	7.87	6.3	12-8-19 6:00	-0.14	10	8.14	18.8															
12-23-19 17:15	-0.08	771	7.86	0.7	12-8-19 6:15	1.00	1124	7.86	7.3	12-8-19 6:15	-0.14	10	8.13	18.2															
12-23-19 17:30	-0.12	812	7.89	6.0	12-8-19 6:30	0.86	1125	7.87	6.4	12-8-19 6:30	-0.14	10	8.14	18.7															
12-23-19 17:45	-0.12	786	7.89	1.4	12-8-19 6:45	0.93	1125	7.87	6.4	12-8-19 6:45	-0.14	10	8.13	18.4															
12-23-19 18:00	-0.11	761	7.88	2.1	12-8-19 7:00	0.89	1126	7.87	7.2	12-8-19 7:00	-0.15	10	8.13	18.6															
12-23-19 18:15	-0.11	757	7.88	1.6	12-8-19 7:15	0.90	1125	7.87	6.5	12-8-19 7:15	-0.15	11	8.13	18.2															
12-23-19 18:30	-0.11	759	7.88	0.9	12-8-19 7:30	0.84	1126	7.87	6.1	12-8-19 7:30	-0.15	11	8.13	18.6															
12-23-19 18:45	-0.11	731	7.88	1.0	12-8-19 7:45	0.81	1127	7.86	6.5	12-8-19 7:45	-0.15	12	8.13	18.2															
12-23-19 19:00	-0.11	719	7.88	0.9	12-8-19 8:00	0.89	1125	7.86	6.4	12-8-19 8:00	-0.16	11	8.13	18.6															
12-23-19 19:15	-0.11	764	7.87	1.1	12-8-19 8:15	0.84	1126	7.87	6.6	12-8-19 8:15	-0.16	11	8.13	18.2															
12-23-19 19:30	-0.11	765	7.88	1.0	12-8-19 8:30	0.92	1125	7.87	6.7	12-8-19 8:30	-0.16	10	8.13	18.5															
12-23-19 19:45	-0.11	765	7.87	1.0	12-8-19 8:45	0.83	1127	7.87	6.2	12-8-19 8:45	-0.17	10	8.13	18.3															
12-23-19 20:00	-0.11	764	7.87	0.9	12-8-19 9:00	0.83	1126	7.86	6.6	12-8-19 9:00	-0.17	9	8.13	18.7															
12-23-19 20:15	-0.11	768	7.87	1.3	12-8-19 9:15	0.79	1128	7.87	6.2	12-8-19 9:15	-0.17	9	8.13	18.5															
12-23-19 20:30	-0.11	767	7.87	1.0	12-8-19 9:30	0.80	1129	7.86	6.4	12-8-19 9:30	-0.18	10	8.13	18.6															
12-23-19 20:45	-0.11	767	7.87	1.0	12-8-19 9:45	0.84	1127	7.86	6.7	12-8-19 9:45	-0.18	10	8.13	18.5															
12-23-19 21:00	-0.11	767	7.87	0.9	12-8-19 10:00	0.88	1126	7.86	6.9	12-8-19 10:00	-0.18	11	8.13	18.5															
12-23-19 21:15	-0.11	768	7.87	1.2	12-8-19 10:15	0.76	1130	7.87	6.5	12-8-19 10:15	-0.18	11	8.13	18.5															
12-23-19 21:30	-0.11	767	7.87	0.9	12-8-19 10:30	0.76	1128	7.86	6.9	12-8-19 10:30	-0.18	11	8.13	18.1															
12-23-19 21:45	-0.11	766	7.87	0.9	12-8-19 10:45	0.79	1128	7.86	6.5	12-8-19 10:45	-0.18	12	8.13	18.5															
12-23-19 22:00	-0.11	766	7.87	0.9	12-8-19 11:00	0.81	1128	7.86	6.5	12-8-19 11:00	-0.19	12	8.13	18.0															
12-23-19 22:15	-0.11	771	7.86	1.3	12-8-19 11:15	0.90	1126	7.86	6.9	12-8-19 11:15	-0.19	13	8.13	18.5															
12-23-19 22:30	-0.11	770	7.87	1.0	12-8-19 11:30	0.78	1128	7.87	6.3	12-8-19 11:30	-0.18	14	8.13	18.1															
12-23-19 22:45	-0.11	770	7.87	0.9	12-8-19 11:45	0.72	1128	7.86	6.7	12-8-19 11:45	-0.18	12	8.13	18.3															
12-23-19 23:00	-0.11	770	7.87	0.8	12-8-19 12:00	0.90	1126	7.86	6.7	12-8-19 12:00	-0.15	7	8.27	19.9															
12-23-19 23:15	-0.11	759	7.86	1.2	12-8-19 12:15	0.78	1127	7.86	6.6	12-8-19 12:15	-0.10	6	8.27	19.9															
12-23-19 23:30	-0.11	759	7.87	0.9	12-8-19 12:30	0.76	1126	7.85	6.5	12-8-19 12:30	-0.10	5	8.29	18.8															
12-23-19 23:45	-0.11	759	7.87	0.8	12-8-19 12:45	0.82	1128	7.86	6.7	12-8-19 12:45	-0.10	5	8.27	17.9															
12-24-19 0:00	-0.11	759	7.87	0.9	12-8-19 13:00	0.67	1130	7.86	6.3	12-8-19 13:00	-0.09	5	8.25	18.9															
12-24-19 0:15	-0.11	771	7.86	1.2	12-8-19 13:15	0.69	1130	7.86	6.7	12-8-19 13:15	-0.09	5	8.24	18.0															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-24-19 0:30	-0.11	771	7.87	0.9	12-8-19 13:30	0.70	1131	7.86	6.5	12-8-19 13:30	-0.09	5	8.23	18.9															
12-24-19 0:45	-0.11	771	7.87	0.8	12-8-19 13:45	0.75	1129	7.86	6.8	12-8-19 13:45	-0.09	5	8.22	17.9															
12-24-19 1:00	-0.11	770	7.87	0.9	12-8-19 14:00	0.75	1129	7.86	6.6	12-8-19 14:00	-0.09	5	8.21	18.9															
12-24-19 1:15	-0.11	771	7.86	1.1	12-8-19 14:15	0.79	1131	7.86	6.4	12-8-19 14:15	-0.09	6	8.21	17.9															
12-24-19 1:30	-0.11	771	7.87	0.9	12-8-19 14:30	0.77	1130	7.86	6.8	12-8-19 14:30	-0.09	5	8.20	18.8															
12-24-19 1:45	-0.11	771	7.87	0.9	12-8-19 14:45	0.88	1129	7.86	6.4	12-8-19 14:45	-0.09	6	8.19	17.8															
12-24-19 2:00	-0.11	771	7.86	0.9	12-8-19 15:00	0.81	1131	7.86	6.8	12-8-19 15:00	-0.09	5	8.19	18.8															
12-24-19 2:15	-0.10	751	7.85	1.1	12-8-19 15:15	0.83	1130	7.86	6.7	12-8-19 15:15	-0.09	6	8.18	17.5															
12-24-19 2:30	-0.10	770	7.86	0.9	12-8-19 15:30	0.91	1130	7.86	6.7	12-8-19 15:30	-0.09	5	8.18	18.8															
12-24-19 2:45	-0.09	770	7.86	0.9	12-8-19 15:45	0.88	1129	7.86	7.0	12-8-19 15:45	-0.09	6	8.17	17.5															
12-24-19 3:00	-0.09	769	7.86	0.9	12-8-19 16:00	0.94	1128	7.85	7.1	12-8-19 16:00	-0.09	5	8.16	18.7															
12-24-19 3:15	-0.10	770	7.86	1.1	12-8-19 16:15	0.94	1128	7.86	7.0	12-8-19 16:15	-0.09	6	8.16	17.4															
12-24-19 3:30	-0.10	770	7.86	0.9	12-8-19 16:30	0.93	1128	7.85	6.9	12-8-19 16:30	-0.09	5	8.15	18.6															
12-24-19 3:45	-0.10	770	7.86	0.9	12-8-19 16:45	0.94	1127	7.86	6.9	12-8-19 16:45	-0.09	6	8.15	17.3															
12-24-19 4:00	-0.10	770	7.86	0.8	12-8-19 17:00	0.92	1128	7.86	7.0	12-8-19 17:00	-0.09	5	8.14	18.6															
12-24-19 4:15	-0.10	771	7.85	1.3	12-8-19 17:15	1.01	1127	7.85	7.7	12-8-19 17:15	-0.09	6	8.14	18.0															
12-24-19 4:30	-0.10	770	7.86	0.9	12-8-19 17:30	0.89	1130	7.85	6.6	12-8-19 17:30	-0.09	5	8.13	18.5															
12-24-19 4:45	-0.10	770	7.86	0.9	12-8-19 17:45	0.90	1129	7.85	6.7	12-8-19 17:45	-0.09	6	8.13	17.7															
12-24-19 5:00	-0.10	770	7.86	0.9	12-8-19 18:00	0.92	1127	7.85	7.5	12-8-19 18:00	-0.09	5	8.13	18.4															
12-24-19 5:15	-0.10	771	7.86	1.1	12-8-19 18:15	0.89	1129	7.85	6.7	12-8-19 18:15	-0.09	6	8.13	17.4															
12-24-19 5:30	-0.10	769	7.86	0.8	12-8-19 18:30	0.84	1130	7.85	6.4	12-8-19 18:30	-0.09	5	8.12	18.4															
12-24-19 5:45	-0.10	769	7.86	1.0	12-8-19 18:45	0.89	1128	7.85	6.8	12-8-19 18:45	-0.09	6	8.12	18.1															
12-24-19 6:00	-0.10	768	7.85	0.8	12-8-19 19:00	0.85	1130	7.85	6.7	12-8-19 19:00	-0.09	5	8.11	18.4															
12-24-19 6:15	-0.10	772	7.85	1.3	12-8-19 19:15	0.86	1130	7.85	6.6	12-8-19 19:15	-0.09	6	8.10	18.3															
12-24-19 6:30	-0.10	770	7.87	0.9	12-8-19 19:30	0.92	1130	7.85	6.7	12-8-19 19:30	-0.09	6	8.09	17.4															
12-24-19 6:45	-0.10	769	7.87	1.0	12-8-19 19:45	0.89	1131	7.85	6.4	12-8-19 19:45	-0.09	6	8.08	18.3															
12-24-19 7:00	-0.10	768	7.87	0.9	12-8-19 20:00	0.84	1132	7.85	7.2	12-8-19 20:00	-0.09	7	8.08	17.8															
12-24-19 7:15	-0.10	771	7.86	1.1	12-8-19 20:15	0.77	1133	7.85	6.4	12-8-19 20:15	-0.09	6	8.09	17.8															
12-24-19 7:30	-0.11	769	7.86	0.9	12-8-19 20:30	0.83	1130	7.85	7.0	12-8-19 20:30	-0.09	7	8.08	18.3															
12-24-19 7:45	-0.11	769	7.86	0.9	12-8-19 20:45	0.85	1130	7.85	6.8	12-8-19 20:45	-0.09	6	8.09	17.1															
12-24-19 8:00	-0.11	770	7.86	0.9	12-8-19 21:00	0.89	1130	7.85	7.0	12-8-19 21:00	-0.09	6	8.08	18.4															
12-24-19 8:15	-0.10	771	7.85	1.3	12-8-19 21:15	0.84	1132	7.85	6.6	12-8-19 21:15	-0.09	7	8.09	16.7															
12-24-19 8:30	-0.10	769	7.87	0.9	12-8-19 21:30	0.77	1132	7.85	6.5	12-8-19 21:30	-0.09	7	8.08	18.4															
12-24-19 8:45	-0.11	769	7.86	0.9	12-8-19 21:45	0.71	1133	7.85	7.0	12-8-19 21:45	-0.09	7	8.09	16.8															
12-24-19 9:00	-0.11	769	7.86	0.9	12-8-19 22:00	0.74	1133	7.85	7.0	12-8-19 22:00	-0.09	7	8.07	18.5															
12-24-19 9:15	-0.10	772	7.86	1.1	12-8-19 22:15	0.78	1133	7.85	6.8	12-8-19 22:15	-0.09	7	8.08	16.9															
12-24-19 9:30	-0.11	770	7.86	0.9	12-8-19 22:30	0.85	1130	7.85	6.6	12-8-19 22:30	-0.09	7	8.07	18.5															
12-24-19 9:45	-0.11	770	7.87	1.0	12-8-19 22:45	0.78	1134	7.85	6.9	12-8-19 22:45	-0.09	7	8.07	16.9															
12-24-19 10:00	-0.11	769	7.86	0.9	12-8-19 23:00	0.80	1130	7.85	7.0	12-8-19 23:00	-0.09	7	8.07	18.4															
12-24-19 10:15	-0.11	772	7.86	1.3	12-8-19 23:15	0.79	1130	7.85	6.8	12-8-19 23:15	-0.09	7	8.08	16.8															
12-24-19 10:30	-0.11	771	7.87	0.9	12-8-19 23:30	0.83	1131	7.85	6.3	12-8-19 23:30	-0.09	8	8.07	18.3															
12-24-19 10:45	-0.11	770	7.86	0.9	12-8-19 23:45	0.88	1130	7.85	7.0	12-8-19 23:45	-0.09	8	8.07	16.8															
12-24-19 11:00	-0.11	770	7.86	1.0	12-9-19 0:00	0.86	1130	7.85	6.7	12-9-19 0:00	-0.09	8	8.06	18.2															
12-24-19 11:15	-0.11	770	7.86	1.0	12-9-19 0:15	0.79	1131	7.85	7.2	12-9-19 0:15	-0.09	8	8.07	16.8															
12-24-19 11:30	-0.11	770	7.86	0.9	12-9-19 0:30	0.74	1131	7.85	6.8	12-9-19 0:30	-0.09	8	8.06	18.2															
12-24-19 11:45	-0.11	769	7.86	0.9	12-9-19 0:45	0.84	1129	7.85	6.6	12-9-19 0:45	-0.09	8	8.06	17.2															
12-24-19 12:00	-0.11	769	7.86	0.9	12-9-19 1:00	0.83	1133	7.85	6.7	12-9-19 1:00	-0.09	8	8.06	18.2															
12-24-19 12:15	-0.10	772	7.85	1.3	12-9-19 1:15	0.75	1133	7.85	6.4	12-9-19 1:15	-0.09	8	8.06	18.0															
12-24-19 12:30	-0.11	770	7.87	0.9	12-9-19 1:30	0.73	1129	7.85	6.7	12-9-19 1:30	-0.09	8	8.05	17.1															
12-24-19 12:45	-0.11	769	7.86	0.9	12-9-19 1:45	0.84	1131	7.85	6.5	12-9-19 1:45	-0.09	9	8.05	17.8															
12-24-19 13:00	-0.11	770	7.86	0.9	12-9-19 2:00	0.79	1130	7.85	7.0	12-9-19 2:00	-0.09	8	8.05	17.4															
12-24-19 13:15	-0.11	771	7.86	1.1	12-9-19 2:15	0.87	1132	7.85	6.9	12-9-19 2:15	-0.09	9	8.04	17.3															
12-24-19 13:30	-0.11	770	7.87	1.0	12-9-19 2:30	0.74	1135	7.86	6.4	12-9-19 2:30	-0.09	8	8.04	17.9															
12-24-19 13:45	-0.11	770	7.86	0.9	12-9-19 2:45	0.72	1139	7.86	6.0	12-9-19 2:45	-0.09	8	8.06	16.5															
12-24-19 14:00	-0.11	769	7.86	0.9	12-9-19 3:00	0.68	1139	7.86	6.3	12-9-19 3:00	-0.09	9	8.05	17.9															
12-24-19 14:15	-0.11	772	7.86	1.3	12-9-19 3:15	0.76	1137	7.86	6.5	12-9-19 3:15	-0.09	8	8.06	16.5															
12-24-19 14:30	-0.11	771	7.86	1.0	12-9-19 3:30	0.82	1131	7.85	6.8	12-9-19 3:30	-0.09	9	8.04	17.6															
12-24-19 14:45	-0.11	771	7.86	1.0	12-9-19 3:45	0.72	1133	7.86	6.5	12-9-19 3:45	-0.09	8	8.06	16.6															
12-24-19 15:00	-0.11	770	7.85	0.9	12-9-19 4:00	0.69	1140	7.86	6.3	12-9-19 4:00	-0.09	9	8.05	17.9															
12-24-19 15:15	-0.11	771	7.86	1.1	12-9-19 4:15	0.78	1136	7.85	6.2	12-9-19 4:15	-0.09	9	8.06	16.7															
12-24-19 15:30	-0.11	770	7.87	1.0	12-9-19 4:30	0.75	1133	7.85	6.7	12-9-19 4:30	-0.09	9	8.05	17.9															
12-24-19 15:45	-0.11	770	7.86	0.9	12-9-19 4:45	0.77	1129	7.85	7.1	12-9-19 4:45	-0.09	9	8.06	16.6															
12-24-19 16:00	-0.11	770	7.86	0.9	12-9-19 5:00	0.77	1133	7.85	6.7	12-9-19 5:00	-0.09	9	8.05	17.7															
12-24-19 16:15	-0.09	771	7.85	1.2	12-9-19 5:15	0.83	1131	7.85	6.5	12-9-19 5:15	-0.09	10	8.05	17.0															
12-24-19 16:30	-0.09	768	7.86	1.0	12-9-19 5:30	0.76	1132	7.85	6.5	12-9-19 5:30	-0.09	9	8.05	17.8															
12-24-19 16:45	-0.09	767	7.85	0.9	12-9-19 5:45	0.73	1130	7.85	6.8	12-9-19 5:45	-0.09	9	8.05	17.9															
12-24-19 17:00	-0.09	766	7.85	0.9	12-9-19 6:00	0.81	1130	7.85	7.3	12-9-19 6:00	-0.09	8	8.04	17.2															
12-24-19 17:15	-0.09	768	7.85	1.0	12-9-19 6:15	0.73	1131	7.85	7.1	12-9-19 6:15	-0.09	9	8.05	17.6															
12-24-19 17:30	-0.10	766	7.85	0.9	12-9-19 6:30	0.79	1132	7.85	6.6	12-9-19 6:30	-0.09	8	8.04	17.3															
12-24-19 17:45	-0.10	766	7.85	0.8	12-9-19 6:45	0.72	1133	7.85	6.1	12-9-19 6:45	-0.09	10	8.05	16.5															
12-24-19 18:00	-0.10	766	7.85	0.9	12-9-19 7:00	0.70	1138	7.85	6.2	12-9-19 7:00	-0.09	10	8.04	17.4															
12-24-19 18:15	-0.10	768	7.84	1.2	12-9-19 7:15	0.74	1133	7.85	6.7	12-9-19 7:15	-0.09	10	8.05	16.5															
12-24-19 18:30	-0.10	767	7.85	1.0	12-9-19 7:30	0.83	1131	7.84	7.4	12-9-19 7:30	-0.09	9	8.04	17.6															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-24-19 18:45	-0.10	766	7.85	0.9
12-24-19 19:00	-0.10	765	7.85	0.9
12-24-19 19:15	-0.10	767	7.84	1.1
12-24-19 19:30	-0.10	766	7.85	0.9
12-24-19 19:45	-0.10	766	7.85	0.9
12-24-19 20:00	-0.10	765	7.84	0.9
12-24-19 20:15	-0.10	768	7.84	1.2
12-24-19 20:30	-0.10	766	7.85	0.9
12-24-19 20:45	-0.11	766	7.84	0.9
12-24-19 21:00	-0.11	766	7.84	0.9
12-24-19 21:15	-0.10	767	7.84	1.0
12-24-19 21:30	-0.09	764	7.85	0.9
12-24-19 21:45	-0.09	764	7.85	1.0
12-24-19 22:00	-0.09	764	7.84	0.9
12-24-19 22:15	-0.09	766	7.84	1.2
12-24-19 22:30	-0.10	765	7.84	1.0
12-24-19 22:45	-0.10	764	7.84	0.9
12-24-19 23:00	-0.10	764	7.83	1.3
12-24-19 23:15	-0.12	644	7.91	1.7
12-24-19 23:30	-0.12	640	7.87	0.5
12-24-19 23:45	-0.12	641	7.86	0.6
12-25-19 0:00	-0.12	642	7.85	0.6
12-25-19 0:15	-0.12	758	7.85	0.7
12-25-19 0:30	-0.12	751	7.86	0.5
12-25-19 0:45	-0.12	751	7.87	0.4
12-25-19 1:00	-0.12	751	7.88	0.4
12-25-19 1:15	-0.11	763	7.85	0.7
12-25-19 1:30	-0.12	758	7.86	0.5
12-25-19 1:45	-0.12	756	7.86	0.5
12-25-19 2:00	-0.11	754	7.86	0.5
12-25-19 2:15	-0.11	764	7.85	0.8
12-25-19 2:30	-0.11	756	7.85	0.5
12-25-19 2:45	-0.11	755	7.85	0.4
12-25-19 3:00	-0.11	755	7.85	0.5
12-25-19 3:15	-0.11	758	7.85	0.7
12-25-19 3:30	-0.11	753	7.86	0.5
12-25-19 3:45	-0.11	753	7.86	0.5
12-25-19 4:00	-0.12	753	7.86	0.5
12-25-19 4:15	-0.11	754	7.85	0.6
12-25-19 4:30	-0.11	755	7.86	0.5
12-25-19 4:45	-0.12	755	7.86	0.4
12-25-19 5:00	-0.11	754	7.85	0.5
12-25-19 5:15	-0.11	756	7.85	0.8
12-25-19 5:30	-0.12	756	7.86	0.5
12-25-19 5:45	-0.11	755	7.86	0.5
12-25-19 6:00	-0.12	755	7.86	0.5
12-25-19 6:15	-0.11	755	7.85	0.7
12-25-19 6:30	-0.12	755	7.85	0.5
12-25-19 6:45	-0.12	755	7.85	0.5
12-25-19 7:00	-0.12	754	7.85	0.5
12-25-19 7:15	-0.11	757	7.85	0.7
12-25-19 7:30	-0.11	756	7.85	0.5
12-25-19 7:45	-0.12	756	7.85	0.5
12-25-19 8:00	-0.11	754	7.85	0.5
12-25-19 8:15	-0.11	755	7.85	0.5
12-25-19 8:30	-0.11	758	7.86	0.5
12-25-19 8:45	-0.12	757	7.85	0.5
12-25-19 9:00	-0.12	761	7.85	0.4
12-25-19 9:15	-0.11	757	7.84	0.9
12-25-19 9:30	-0.11	755	7.84	0.4
12-25-19 9:45	-0.12	755	7.84	0.5
12-25-19 10:00	-0.11	755	7.84	0.5
12-25-19 10:15	-0.11	753	7.84	0.7
12-25-19 10:30	-0.11	752	7.84	0.5
12-25-19 10:45	-0.12	752	7.84	0.5
12-25-19 11:00	-0.12	750	7.84	0.4
12-25-19 11:15	-0.11	738	7.84	0.5
12-25-19 11:30	-0.12	736	7.84	0.5
12-25-19 11:45	-0.12	730	7.84	0.5
12-25-19 12:00	-0.11	730	7.84	0.5
12-25-19 12:15	-0.11	758	7.83	0.7
12-25-19 12:30	-0.12	757	7.84	0.5
12-25-19 12:45	-0.12	756	7.84	0.5

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-9-19 7:45	0.81	1132	7.84	7.0
12-9-19 8:00	0.83	1130	7.84	7.2
12-9-19 8:15	0.81	1131	7.84	6.2
12-9-19 8:30	0.78	1132	7.85	6.8
12-9-19 8:45	0.80	1131	7.85	6.7
12-9-19 9:00	0.73	1133	7.85	6.3
12-9-19 9:15	0.63	1136	7.85	6.1
12-9-19 9:30	0.76	1133	7.85	6.2
12-9-19 9:45	0.80	1132	7.84	6.6
12-9-19 10:00	0.82	1133	7.84	6.6
12-9-19 10:15	0.76	1133	7.85	6.4
12-9-19 10:30	0.75	1133	7.85	6.2
12-9-19 10:45	0.78	1135	7.85	6.3
12-9-19 11:00	0.85	1133	7.84	7.1
12-9-19 11:15	0.75	1133	7.84	6.6
12-9-19 11:30	0.77	1133	7.84	6.5
12-9-19 11:45	0.79	1133	7.84	7.0
12-9-19 12:00	0.70	1134	7.84	6.6
12-9-19 12:15	0.76	1135	7.84	6.4
12-9-19 12:30	0.74	1132	7.84	6.4
12-9-19 12:45	0.68	1136	7.84	6.1
12-9-19 13:00	0.67	1137	7.85	6.0
12-9-19 13:15	0.64	1135	7.84	6.7
12-9-19 13:30	0.65	1129	7.84	6.1
12-9-19 13:45	0.57	1131	7.84	6.0
12-9-19 14:00	0.75	1133	7.84	6.6
12-9-19 14:15	0.79	1137	7.84	7.1
12-9-19 14:30	0.74	1138	7.84	6.6
12-9-19 14:45	0.62	1143	7.85	5.6
12-9-19 15:00	0.69	1140	7.84	6.1
12-9-19 15:15	0.75	1140	7.84	6.1
12-9-19 15:30	0.81	1137	7.84	6.9
12-9-19 15:45	0.75	1140	7.84	7.0
12-9-19 16:00	0.72	1138	7.84	6.3
12-9-19 16:15	0.73	1140	7.84	6.8
12-9-19 16:30	0.67	1140	7.84	5.9
12-9-19 16:45	0.78	1135	7.83	6.6
12-9-19 17:00	0.73	1138	7.83	6.2
12-9-19 17:15	0.69	1140	7.84	6.5
12-9-19 17:30	0.66	1141	7.84	5.6
12-9-19 17:45	0.75	1138	7.83	6.5
12-9-19 18:00	0.82	1137	7.83	6.9
12-9-19 18:15	0.76	1139	7.84	6.0
12-9-19 18:30	0.63	1142	7.84	7.3
12-9-19 18:45	0.71	1138	7.83	6.2
12-9-19 19:00	0.83	1137	7.83	6.7
12-9-19 19:15	0.78	1137	7.83	6.5
12-9-19 19:30	0.76	1140	7.84	5.7
12-9-19 19:45	0.65	1140	7.84	6.8
12-9-19 20:00	0.70	1136	7.83	6.2
12-9-19 20:15	0.76	1136	7.82	6.6
12-9-19 20:30	0.81	1133	7.82	6.4
12-9-19 20:45	0.67	1140	7.83	5.7
12-9-19 21:00	0.73	1140	7.83	6.6
12-9-19 21:15	0.79	1139	7.83	6.8
12-9-19 21:30	0.86	1136	7.83	6.8
12-9-19 21:45	0.85	1137	7.83	6.3
12-9-19 22:00	0.86	1137	7.83	6.3
12-9-19 22:15	0.85	1137	7.83	6.8
12-9-19 22:30	0.90	1137	7.83	6.4
12-9-19 22:45	0.86	1138	7.83	6.1
12-9-19 23:00	0.86	1137	7.83	6.7
12-9-19 23:15	0.82	1138	7.83	6.5
12-9-19 23:30	0.86	1136	7.83	6.3
12-9-19 23:45	0.86	1136	7.83	5.9
12-10-19 0:00	0.87	1138	7.83	5.8
12-10-19 0:15	0.86	1136	7.82	6.1
12-10-19 0:30	0.82	1137	7.83	5.9
12-10-19 0:45	0.83	1137	7.83	5.9
12-10-19 1:00	0.81	1136	7.83	6.1
12-10-19 1:15	0.93	1134	7.82	6.2
12-10-19 1:30	0.87	1134	7.82	6.3
12-10-19 1:45	0.79	1137	7.83	6.0

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-9-19 7:45	-0.09	10	8.05	16.6
12-9-19 8:00	-0.09	9	8.05	17.5
12-9-19 8:15	-0.09	10	8.05	16.6
12-9-19 8:30	-0.09	9	8.06	17.6
12-9-19 8:45	-0.09	10	8.05	16.6
12-9-19 9:00	-0.09	9	8.05	17.6
12-9-19 9:15	-0.09	10	8.05	16.7
12-9-19 9:30	-0.09	9	8.05	17.6
12-9-19 9:45	-0.09	10	8.05	16.7
12-9-19 10:00	-0.09	9	8.06	17.6
12-9-19 10:15	-0.09	11	8.05	16.7
12-9-19 10:30	-0.09	10	8.06	17.6
12-9-19 10:45	-0.09	10	8.05	16.7
12-9-19 11:00	-0.09	10	8.06	17.5
12-9-19 11:15	-0.09	10	8.05	16.7
12-9-19 11:30	-0.09	10	8.05	17.5
12-9-19 11:45	-0.09	10	8.30	20.2
12-9-19 12:00	-0.09	10	8.25	19.7
12-9-19 12:15	-0.09	10	8.21	19.9
12-9-19 12:30	-0.09	10	8.19	19.5
12-9-19 12:45	-0.09	10	8.17	18.2
12-9-19 13:00	-0.09	10	8.17	19.5
12-9-19 13:15	-0.09	10	8.15	18.3
12-9-19 13:30	-0.09	10	8.14	19.4
12-9-19 13:45	-0.09	10	8.13	18.5
12-9-19 14:00	-0.09	10	8.12	19.3
12-9-19 14:15	-0.09	11	8.11	18.4
12-9-19 14:30	-0.09	11	8.10	19.3
12-9-19 14:45	-0.09	11	8.10	18.3
12-9-19 15:00	-0.09	11	8.09	19.2
12-9-19 15:15	-0.09	11	8.08	18.2
12-9-19 15:30	-0.09	11	8.08	19.1
12-9-19 15:45	-0.08	11	8.08	18.4
12-9-19 16:00	-0.09	11	8.08	19.2
12-9-19 16:15	-0.09	11	8.08	19.5
12-9-19 16:30	-0.09	11	8.10	18.3
12-9-19 16:45	-0.08	11	8.08	19.0
12-9-19 17:00	-0.08	11	8.09	18.6
12-9-19 17:15	-0.09	11	8.06	17.9
12-9-19 17:30	-0.09	11	8.05	18.8
12-9-19 17:45	-0.08	11	8.04	18.0
12-9-19 18:00	-0.09	11	8.04	19.0
12-9-19 18:15	-0.09	11	8.04	18.0
12-9-19 18:30	-0.09	11	8.05	19.1
12-9-19 18:45	-0.09	11	8.05	18.8
12-9-19 19:00	-0.09	10	8.08	18.3
12-9-19 19:15	-0.09	11	8.04	18.6
12-9-19 19:30	-0.09	10	8.05	18.6
12-9-19 19:45	-0.09	11	8.03	17.7
12-9-19 20:00	-0.09	11	8.03	18.9
12-9-19 20:15	-0.09	11	8.02	17.9
12-9-19 20:30	-0.09	11	8.02	19.0
12-9-19 20:45	-0.09	11	8.02	17.9
12-9-19 21:00	-0.09	11	8.03	18.9
12-9-19 21:15	-0.09	10	8.04	18.7
12-9-19 21:30	-0.09	10	8.06	18.2
12-9-19 21:45	-0.09	11	8.03	18.4
12-9-19 22:00	-0.09	10	8.05	18.5
12-9-19 22:15	-0.09	11	8.01	17.7
12-9-19 22:30	-0.09	10	8.02	18.6
12-9-19 22:45	-0.09	11	8.00	17.7
12-9-19 23:00	-0.09	11	8.01	18.5
12-9-19 23:15	-0.09	11	8.03	18.3
12-9-19 23:30	-0.09	10	8.04	18.0
12-9-19 23:45	-0.09	11	8.00	18.1
12-10-19 0:00	-0.09	11	8.01	18.5
12-10-19 0:15	-0.09	11	7.98	17.6
12-10-19 0:30	-0.09	11	8.00	18.3
12-10-19 0:45	-0.09	11	7.98	17.6
12-10-19 1:00	-0.09	11	7.98	18.2
12-10-19 1:15	-0.09	11	8.00	18.1
12-10-19 1:30	-0.09	11	8.02	17.7
12-10-19 1:45	-0.09	11	8.00	18.0

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-25-19 13:00	-0.12	756	7.84	0.5
12-25-19 13:15	-0.11	738	7.84	0.9
12-25-19 13:30	-0.11	734	7.84	0.5
12-25-19 13:45	-0.12	734	7.84	0.5
12-25-19 14:00	-0.12	733	7.83	0.5
12-25-19 14:15	-0.11	756	7.82	3.0
12-25-19 14:30	-0.11	752	7.84	3.6
12-25-19 14:45	-0.12	752	7.83	4.5
12-25-19 15:00	-0.11	752	7.83	4.4
12-25-19 15:15	-0.11	753	7.83	0.8
12-25-19 15:30	-0.11	752	7.83	0.5
12-25-19 15:45	-0.11	749	7.83	0.5
12-25-19 16:00	-0.11	748	7.83	0.5
12-25-19 16:15	-0.11	744	7.83	0.6
12-25-19 16:30	-0.12	742	7.84	0.5
12-25-19 16:45	-0.11	743	7.83	0.4
12-25-19 17:00	-0.12	741	7.83	0.4
12-25-19 17:15	-0.11	754	7.83	0.7
12-25-19 17:30	-0.11	753	7.84	0.5
12-25-19 17:45	-0.11	753	7.83	0.5
12-25-19 18:00	-0.12	754	7.82	0.5
12-25-19 18:15	-0.11	754	7.81	0.8
12-25-19 18:30	-0.12	753	7.84	0.7
12-25-19 18:45	-0.12	752	7.84	0.8
12-25-19 19:00	-0.12	752	7.84	0.9
12-25-19 19:15	-0.11	737	7.83	0.7
12-25-19 19:30	-0.12	735	7.84	0.4
12-25-19 19:45	-0.12	734	7.83	0.5
12-25-19 20:00	-0.12	732	7.84	0.5
12-25-19 20:15	-0.11	753	7.83	0.8
12-25-19 20:30	-0.12	752	7.84	0.5
12-25-19 20:45	-0.12	752	7.84	0.5
12-25-19 21:00	-0.12	752	7.84	0.5
12-25-19 21:15	-0.11	751	7.83	0.8
12-25-19 21:30	-0.12	750	7.84	0.5
12-25-19 21:45	-0.12	750	7.84	0.5
12-25-19 22:00	-0.12	749	7.83	0.5
12-25-19 22:15	-0.11	755	7.83	0.8
12-25-19 22:30	-0.11	755	7.84	0.5
12-25-19 22:45	-0.12	754	7.84	0.4
12-25-19 23:00	-0.11	754	7.83	0.5
12-25-19 23:15	-0.11	754	7.83	0.8
12-25-19 23:30	-0.12	753	7.84	0.5
12-25-19 23:45	-0.12	753	7.84	0.5
12-26-19 0:00	-0.12	753	7.84	0.5
12-26-19 0:15	-0.11	754	7.83	0.8
12-26-19 0:30	-0.12	753	7.84	0.5
12-26-19 0:45	-0.12	751	7.84	0.5
12-26-19 1:00	-0.12	750	7.83	0.5
12-26-19 1:15	-0.11	753	7.82	0.6
12-26-19 1:30	-0.12	752	7.84	0.5
12-26-19 1:45	-0.12	752	7.84	0.5
12-26-19 2:00	-0.12	752	7.83	0.5
12-26-19 2:15	-0.11	753	7.83	0.7
12-26-19 2:30	-0.12	751	7.84	0.4
12-26-19 2:45	-0.12	751	7.84	0.5
12-26-19 3:00	-0.12	751	7.84	0.5
12-26-19 3:15	-0.12	752	7.82	0.7
12-26-19 3:30	-0.12	751	7.84	0.6
12-26-19 3:45	-0.12	751	7.84	0.5
12-26-19 4:00	-0.12	751	7.84	0.5
12-26-19 4:15	-0.11	753	7.83	0.8
12-26-19 4:30	-0.12	752	7.84	0.5
12-26-19 4:45	-0.12	751	7.84	0.5
12-26-19 5:00	-0.12	751	7.84	0.5
12-26-19 5:15	-0.11	752	7.82	0.8
12-26-19 5:30	-0.12	751	7.83	0.6
12-26-19 5:45	-0.12	751	7.83	0.6
12-26-19 6:00	-0.12	750	7.83	0.6
12-26-19 6:15	-0.11	751	7.83	0.6
12-26-19 6:30	-0.12	751	7.84	0.6
12-26-19 6:45	-0.12	749	7.84	0.6
12-26-19 7:00	-0.12	749	7.83	0.5

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-10-19 2:00	0.80	1137	7.83	5.9
12-10-19 2:15	0.83	1136	7.82	5.8
12-10-19 2:30	0.86	1137	7.82	6.0
12-10-19 2:45	0.93	1135	7.82	5.7
12-10-19 3:00	0.89	1136	7.83	6.3
12-10-19 3:15	0.95	1135	7.82	6.5
12-10-19 3:30	0.89	1139	7.82	5.9
12-10-19 3:45	0.98	1135	7.82	6.2
12-10-19 4:00	0.86	1138	7.82	5.5
12-10-19 4:15	0.92	1135	7.82	5.7
12-10-19 4:30	0.97	1134	7.82	5.6
12-10-19 4:45	0.95	1136	7.82	6.0
12-10-19 5:00	0.84	1137	7.82	5.7
12-10-19 5:15	0.83	1138	7.83	5.6
12-10-19 5:30	0.79	1138	7.82	5.9
12-10-19 5:45	0.83	1137	7.82	6.4
12-10-19 6:00	0.86	1137	7.82	6.6
12-10-19 6:15	0.79	1139	7.82	5.9
12-10-19 6:30	0.64	1142	7.83	5.4
12-10-19 6:45	0.74	1138	7.82	5.9
12-10-19 7:00	0.76	1138	7.82	5.8
12-10-19 7:15	0.70	1139	7.82	5.8
12-10-19 7:30	0.67	1140	7.82	5.9
12-10-19 7:45	0.66	1139	7.82	5.5
12-10-19 8:00	0.67	1141	7.82	5.5
12-10-19 8:15	0.72	1137	7.82	5.9
12-10-19 8:30	0.66	1138	7.82	5.7
12-10-19 8:45	0.63	1140	7.82	5.6
12-10-19 9:00	0.64	1141	7.82	6.2
12-10-19 9:15	0.67	1138	7.82	6.7
12-10-19 9:30	0.70	1140	7.81	6.3
12-10-19 9:45	0.69	1138	7.82	6.0
12-10-19 10:00	0.62	1141	7.82	6.5
12-10-19 10:15	0.84	1139	7.81	6.2
12-10-19 10:30	0.73	1137	7.81	6.5
12-10-19 10:45	0.88	1138	7.81	6.3
12-10-19 11:00	0.66	1142	7.82	5.8
12-10-19 11:15	0.70	1142	7.82	5.8
12-10-19 11:30	0.74	1139	7.82	6.4
12-10-19 11:45	0.67	1142	7.82	6.1
12-10-19 12:00	0.77	1139	7.81	5.7
12-10-19 12:15	0.72	1140	7.81	5.5
12-10-19 12:30	0.69	1139	7.81	6.1
12-10-19 12:45	0.68	1142	7.82	6.6
12-10-19 13:00	0.72	1141	7.81	6.1
12-10-19 13:15	0.62	1144	7.82	5.7
12-10-19 13:30	0.78	1140	7.81	6.6
12-10-19 13:45	0.79	1139	7.80	6.4
12-10-19 14:00	0.71	1141	7.81	6.0
12-10-19 14:15	0.84	1139	7.80	5.9
12-10-19 14:30	0.73	1142	7.81	6.2
12-10-19 14:45	0.69	1143	7.81	5.4
12-10-19 15:00	0.90	1138	7.80	6.2
12-10-19 15:15	0.76	1143	7.81	5.3
12-10-19 15:30	0.76	1143	7.81	5.8
12-10-19 15:45	0.75	1142	7.81	6.0
12-10-19 16:00	0.80	1143	7.81	5.8
12-10-19 16:15	0.77	1144	7.81	5.7
12-10-19 16:30	0.93	1141	7.80	6.1
12-10-19 16:45	0.91	1141	7.80	6.1
12-10-19 17:00	0.89	1141	7.80	7.6
12-10-19 17:15	0.89	1142	7.80	5.6
12-10-19 17:30	0.90	1142	7.80	5.8
12-10-19 17:45	0.82	1140	7.80	5.1
12-10-19 18:00	0.90	1141	7.80	6.1
12-10-19 18:15	0.86	1141	7.80	5.7
12-10-19 18:30	0.84	1143	7.80	5.6
12-10-19 18:45	0.89	1143	7.80	5.4
12-10-19 19:00	0.97	1141	7.79	5.9
12-10-19 19:15	0.87	1142	7.80	5.7
12-10-19 19:30	0.90	1141	7.80	5.9
12-10-19 19:45	0.87	1142	7.80	5.6
12-10-19 20:00	0.89	1141	7.79	5.8

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-10-19 2:00	-0.09	12	8.00	18.3
12-10-19 2:15	-0.09	11	7.97	17.4
12-10-19 2:30	-0.09	11	7.99	17.7
12-10-19 2:45	-0.09	11	7.96	17.3
12-10-19 3:00	-0.09	11	7.99	17.7
12-10-19 3:15	-0.09	11	7.95	17.5
12-10-19 3:30	-0.09	11	7.97	17.8
12-10-19 3:45	-0.09	11	7.95	17.4
12-10-19 4:00	-0.09	11	7.95	17.9
12-10-19 4:15	-0.09	11	7.97	17.8
12-10-19 4:30	-0.09	11	7.98	17.6
12-10-19 4:45	-0.09	11	7.98	17.7
12-10-19 5:00	-0.09	11	7.97	17.8
12-10-19 5:15	-0.09	11	7.95	17.2
12-10-19 5:30	-0.09	13	7.98	18.2
12-10-19 5:45	-0.09	11	7.95	17.1
12-10-19 6:00	-0.09	12	7.98	17.3
12-10-19 6:15	-0.09	12	7.94	17.2
12-10-19 6:30	-0.09	12	7.98	17.2
12-10-19 6:45	-0.09	12	7.94	17.2
12-10-19 7:00	-0.09	12	7.95	17.4
12-10-19 7:15	-0.09	11	7.94	17.2
12-10-19 7:30	-0.09	12	7.95	17.6
12-10-19 7:45	-0.09	12	7.94	17.2
12-10-19 8:00	-0.09	12	7.94	17.7
12-10-19 8:15	-0.09	11	7.96	17.6
12-10-19 8:30	-0.09	11	7.97	17.4
12-10-19 8:45	-0.09	12	7.97	17.5
12-10-19 9:00	-0.09	12	7.98	17.7
12-10-19 9:15	-0.09	12	7.96	17.0
12-10-19 9:30	-0.09	13	8.00	17.2
12-10-19 9:45	-0.09	12	7.96	17.0
12-10-19 10:00	-0.09	12	9.11	17.3
12-10-19 10:15	-0.09	11	8.89	17.2
12-10-19 10:30	-0.09	11	8.92	17.7
12-10-19 10:45	-0.09	11	8.92	17.8
12-10-19 11:00	-0.09	11	9.02	17.7
12-10-19 11:15	-0.08	12	8.94	18.0
12-10-19 11:30	-0.08	12	8.94	18.1
12-10-19 11:45	-0.09	12	8.65	17.2
12-10-19 12:00	-0.08	12	8.94	17.6
12-10-19 12:15	-0.08	12	8.70	17.3
12-10-19 12:30	-0.08	12	8.71	17.7
12-10-19 12:45	-0.08	12	8.76	17.4
12-10-19 13:00	-0.08	12	8.29	17.3
12-10-19 13:15	-0.08	11	8.45	17.6
12-10-19 13:30	-0.08	12	8.44	17.6
12-10-19 13:45	-0.08	12	8.24	17.6
12-10-19 14:00	-0.08	12	8.40	17.4
12-10-19 14:15	-0.08	12	8.31	17.5
12-10-19 14:30	-0.08	12	8.24	17.3
12-10-19 14:45	-0.08	12	8.31	17.5
12-10-19 15:00	-0.08	12	8.28	17.4
12-10-19 15:15	-0.08	12	8.23	17.4
12-10-19 15:30	-0.08	12	8.30	17.1
12-10-19 15:45	-0.08	13	8.13	17.3
12-10-19 16:00	-0.08	12	8.26	17.5
12-10-19 16:15	-0.08	13	8.28	17.1
12-10-19 16:30	-0.08	13	8.22	17.3
12-10-19 16:45	-0.08	13	8.26	17.1
12-10-19 17:00	-0.08	13	8.28	16.9
12-10-19 17:15	-0.08	14	8.21	17.0
12-10-19 17:30	-0.08	14	8.27	16.9
12-10-19 17:45	-0.08	14	8.28	16.9
12-10-19 18:00	-0.08	14	8.23	17.3
12-10-19 18:15	-0.08	15	8.29	17.3
12-10-19 18:30	-0.08	15	8.30	17.3
12-10-19 18:45	-0.08	16	8.26	17.3
12-10-19 19:00	-0.08	16	8.27	17.3
12-10-19 19:15	-0.08	16	8.24	16.8
12-10-19 19:30	-0.08	17	8.26	16.7
12-10-19 19:45	-0.08	17	8.25	16.8
12-10-19 20:00	-0.08	16	8.28	17.6

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-26-19 7:15	-0.12	752	7.82	0.8	12-10-19 20:15	0.96	1139	7.79	6.0	12-10-19 20:15	-0.08	17	8.26	17.3															
12-26-19 7:30	-0.12	750	7.83	0.5	12-10-19 20:30	0.97	1139	7.79	5.9	12-10-19 20:30	-0.08	17	8.28	17.6															
12-26-19 7:45	-0.12	749	7.82	0.5	12-10-19 20:45	0.88	1140	7.79	5.7	12-10-19 20:45	-0.08	18	8.23	16.9															
12-26-19 8:00	-0.12	749	7.83	0.6	12-10-19 21:00	0.94	1139	7.79	5.9	12-10-19 21:00	-0.08	18	8.25	16.5															
12-26-19 8:15	-0.11	751	7.82	0.7	12-10-19 21:15	0.93	1139	7.79	5.9	12-10-19 21:15	-0.08	19	8.23	16.9															
12-26-19 8:30	-0.12	750	7.84	0.5	12-10-19 21:30	0.94	1138	7.79	6.0	12-10-19 21:30	-0.08	18	8.28	17.7															
12-26-19 8:45	-0.12	750	7.84	0.6	12-10-19 21:45	0.99	1139	7.78	6.0	12-10-19 21:45	-0.08	20	8.23	16.4															
12-26-19 9:00	-0.12	750	7.84	0.5	12-10-19 22:00	0.93	1138	7.79	6.6	12-10-19 22:00	-0.08	19	8.26	17.4															
12-26-19 9:15	-0.12	751	7.83	0.9	12-10-19 22:15	0.92	1139	7.79	5.9	12-10-19 22:15	-0.08	20	8.22	16.7															
12-26-19 9:30	-0.12	750	7.83	0.6	12-10-19 22:30	0.98	1137	7.78	6.0	12-10-19 22:30	-0.08	20	8.23	16.5															
12-26-19 9:45	-0.12	749	7.83	0.6	12-10-19 22:45	0.97	1138	7.79	5.8	12-10-19 22:45	-0.08	20	8.21	16.6															
12-26-19 10:00	-0.12	749	7.83	0.6	12-10-19 23:00	0.96	1138	7.79	5.8	12-10-19 23:00	-0.08	21	8.21	16.5															
12-26-19 10:15	-0.11	750	7.83	0.7	12-10-19 23:15	0.92	1138	7.79	6.0	12-10-19 23:15	-0.08	21	8.21	16.6															
12-26-19 10:30	-0.12	750	7.84	0.6	12-10-19 23:30	0.88	1138	7.79	6.1	12-10-19 23:30	-0.08	22	8.21	16.8															
12-26-19 10:45	-0.12	748	7.84	0.6	12-10-19 23:45	0.95	1137	7.79	6.4	12-10-19 23:45	-0.08	21	8.24	17.3															
12-26-19 11:00	-0.12	747	7.84	0.6	12-11-19 0:00	0.91	1138	7.79	5.7	12-11-19 0:00	-0.08	20	8.26	17.4															
12-26-19 11:15	-0.11	751	7.83	0.9	12-11-19 0:15	0.98	1138	7.79	5.5	12-11-19 0:15	-0.08	23	8.20	16.6															
12-26-19 11:30	-0.12	748	7.84	0.7	12-11-19 0:30	0.95	1137	7.79	5.5	12-11-19 0:30	-0.08	21	8.25	17.6															
12-26-19 11:45	-0.12	747	7.83	0.6	12-11-19 0:45	0.95	1138	7.79	5.9	12-11-19 0:45	-0.08	22	8.19	16.5															
12-26-19 12:00	-0.12	748	7.83	0.6	12-11-19 1:00	0.96	1138	7.79	5.8	12-11-19 1:00	-0.08	23	8.21	16.4															
12-26-19 12:15	-0.11	750	7.83	0.9	12-11-19 1:15	0.93	1138	7.79	5.8	12-11-19 1:15	-0.08	22	8.14	16.2															
12-26-19 12:30	-0.12	748	7.84	0.5	12-11-19 1:30	0.94	1138	7.79	5.7	12-11-19 1:30	-0.08	22	8.19	16.2															
12-26-19 12:45	-0.12	748	7.83	0.6	12-11-19 1:45	0.94	1139	7.79	6.1	12-11-19 1:45	-0.08	22	8.17	16.6															
12-26-19 13:00	-0.12	747	7.83	0.5	12-11-19 2:00	0.97	1138	7.79	5.7	12-11-19 2:00	-0.08	22	8.23	17.7															
12-26-19 13:15	-0.12	744	7.83	0.9	12-11-19 2:15	0.89	1138	7.79	5.5	12-11-19 2:15	-0.08	23	8.21	16.6															
12-26-19 13:30	-0.12	744	7.83	0.6	12-11-19 2:30	0.93	1139	7.79	5.7	12-11-19 2:30	-0.08	23	8.19	16.4															
12-26-19 13:45	-0.12	743	7.83	0.6	12-11-19 2:45	0.84	1139	7.79	5.3	12-11-19 2:45	-0.08	22	8.18	16.4															
12-26-19 14:00	-0.12	742	7.83	0.6	12-11-19 3:00	0.90	1139	7.79	5.4	12-11-19 3:00	-0.08	24	8.22	17.8															
12-26-19 14:15	-0.11	747	7.83	0.8	12-11-19 3:15	0.87	1139	7.79	5.5	12-11-19 3:15	-0.08	24	8.22	17.1															
12-26-19 14:30	-0.11	745	7.84	0.5	12-11-19 3:30	0.85	1137	7.79	5.7	12-11-19 3:30	-0.08	24	8.23	17.5															
12-26-19 14:45	-0.12	744	7.84	0.4	12-11-19 3:45	0.91	1139	7.79	6.1	12-11-19 3:45	-0.08	24	8.23	17.5															
12-26-19 15:00	-0.12	744	7.83	0.6	12-11-19 4:00	0.89	1139	7.79	5.2	12-11-19 4:00	-0.08	25	8.24	17.7															
12-26-19 15:15	-0.11	745	7.83	0.7	12-11-19 4:15	0.85	1139	7.79	6.1	12-11-19 4:15	-0.08	25	8.24	16.8															
12-26-19 15:30	-0.12	743	7.83	0.5	12-11-19 4:30	0.89	1140	7.79	5.6	12-11-19 4:30	-0.08	25	8.24	17.7															
12-26-19 15:45	-0.12	743	7.83	0.5	12-11-19 4:45	0.90	1140	7.79	5.3	12-11-19 4:45	-0.08	25	8.23	16.2															
12-26-19 16:00	-0.12	743	7.83	0.5	12-11-19 5:00	0.80	1134	7.79	5.1	12-11-19 5:00	-0.08	26	8.24	17.6															
12-26-19 16:15	-0.11	745	7.83	0.8	12-11-19 5:15	0.76	1139	7.79	5.2	12-11-19 5:15	-0.08	25	8.22	15.7															
12-26-19 16:30	-0.12	744	7.84	0.6	12-11-19 5:30	0.75	1139	7.79	5.1	12-11-19 5:30	-0.08	26	8.23	17.5															
12-26-19 16:45	-0.12	744	7.84	0.5	12-11-19 5:45	0.78	1132	7.78	5.5	12-11-19 5:45	-0.08	25	8.17	15.8															
12-26-19 17:00	-0.12	744	7.84	0.4	12-11-19 6:00	0.87	1136	7.78	5.7	12-11-19 6:00	-0.08	26	8.18	26.1															
12-26-19 17:15	-0.12	739	7.83	0.8	12-11-19 6:15	0.71	1138	7.79	5.4	12-11-19 6:15	-0.08	25	8.17	15.9															
12-26-19 17:30	-0.12	742	7.84	0.5	12-11-19 6:30	0.68	1137	7.78	5.8	12-11-19 6:30	-0.08	25	8.18	18.1															
12-26-19 17:45	-0.12	742	7.84	0.6	12-11-19 6:45	0.80	1136	7.78	5.4	12-11-19 6:45	-0.08	25	8.18	15.7															
12-26-19 18:00	-0.12	742	7.84	0.5	12-11-19 7:00	0.81	1137	7.78	5.5	12-11-19 7:00	-0.08	26	8.19	23.9															
12-26-19 18:15	-0.12	719	7.83	0.8	12-11-19 7:15	0.83	1139	7.79	5.9	12-11-19 7:15	-0.08	25	8.18	16.0															
12-26-19 18:30	-0.12	721	7.84	0.6	12-11-19 7:30	0.74	1139	7.78	5.4	12-11-19 7:30	-0.08	27	8.19	17.7															
12-26-19 18:45	-0.12	720	7.84	0.5	12-11-19 7:45	0.77	1139	7.78	5.4	12-11-19 7:45	-0.08	26	8.20	16.2															
12-26-19 19:00	-0.12	720	7.84	0.5	12-11-19 8:00	0.78	1138	7.78	5.4	12-11-19 8:00	-0.08	28	8.22	17.3															
12-26-19 19:15	-0.12	746	7.83	0.8	12-11-19 8:15	0.76	1139	7.78	5.5	12-11-19 8:15	-0.08	26	8.21	16.0															
12-26-19 19:30	-0.12	745	7.84	0.6	12-11-19 8:30	0.74	1141	7.78	5.3	12-11-19 8:30	-0.08	30	8.26	17.4															
12-26-19 19:45	-0.12	744	7.84	0.5	12-11-19 8:45	0.78	1137	7.78	5.3	12-11-19 8:45	-0.08	30	8.27	18.0															
12-26-19 20:00	-0.12	395	7.85	0.6	12-11-19 9:00	0.79	1139	7.78	5.7	12-11-19 9:00	-0.08	32	8.28	17.4															
12-26-19 20:15	-0.11	747	7.84	0.9	12-11-19 9:15	0.77	1139	7.78	5.5	12-11-19 9:15	-0.08	32	8.27	16.4															
12-26-19 20:30	-0.12	746	7.85	0.6	12-11-19 9:30	0.73	1136	7.78	5.2	12-11-19 9:30	-0.08	29	8.24	15.6															
12-26-19 20:45	-0.12	745	7.85	0.6	12-11-19 9:45	0.72	1136	7.78	5.5	12-11-19 9:45	-0.08	29	8.24	16.2															
12-26-19 21:00	-0.12	745	7.84	0.5	12-11-19 10:00	0.78	1136	7.77	5.8	12-11-19 10:00	-0.08	34	8.36	17.6															
12-26-19 21:15	-0.11	747	7.83	0.7	12-11-19 10:15	0.79	1139	7.78	5.2	12-11-19 10:15	-0.08	33	8.31	16.1															
12-26-19 21:30	-0.12	745	7.84	0.5	12-11-19 10:30	0.77	1135	7.78	6.1	12-11-19 10:30	-0.08	35	8.37	17.4															
12-26-19 21:45	-0.12	745	7.84	0.5	12-11-19 10:45	0.77	1136	7.77	5.4	12-11-19 10:45	-0.08	32	8.28	15.8															
12-26-19 22:00	-0.12	745	7.84	0.6	12-11-19 11:00	0.79	1135	7.78	6.4	12-11-19 11:00	-0.08	33	8.29	17.8															
12-26-19 22:15	-0.12	746	7.83	266.9	12-11-19 11:15	0.78	1137	7.78	5.7	12-11-19 11:15	-0.08	35	8.32	15.3															
12-26-19 22:30	-0.12	745	7.84	232.7	12-11-19 11:30	0.79	1135	7.77	6.1	12-11-19 11:30	-0.08	38	8.35	17.6															
12-26-19 22:45	-0.12	745	7.84	198.3	12-11-19 11:45	0.80	1135	7.77	5.5	12-11-19 11:45	-0.08	38	8.34	16.5															
12-26-19 23:00	-0.12	744	7.84	160.7	12-11-19 12:00	0.77	1134	7.77	6.0	12-11-19 12:00	-0.09	143	8.44	29.8															
12-26-19 23:15	-0.12	746	7.83	0.8	12-11-19 12:15	0.71	1132	7.77	5.2	12-11-19 12:15	-0.09	146	8.42	34.9															
12-26-19 23:30	-0.12	744	7.84	0.5	12-11-19 12:30	0.76	1133	7.77	5.5	12-11-19 12:30	-0.08	132	8.41	22.5															
12-26-19 23:45	-0.12	744	7.84	0.6	12-11-19 12:45	0.83	1133	7.77	5.5	12-11-19 12:45	-0.09	146	8.41	26.6															
12-27-19 0:00	-0.12	744	7.84	0.6	12-11-19 13:00	0.72	1134	7.76	5.3	12-11-19 13:00	-0.08	125	8.41	20.2															
12-27-19 0:15	-0.12	747	7.83	0.8	12-11-19 13:15	0.67	1135	7.77	5.2	12-11-19 13:15	-0.08	145	8.43	28.5															
12-27-19 0:30	-0.12	748	7.84	0.5	12-11-19 13:30	0.67	1133	7.77	5.8	12-11-19 13:30	-0.08	132	8.42	20.1															
12-27-19 0:45	-0.12	747	7.84	0.5	12-11-19 13:45	0.76	1130	7.77	5.6	12-11-19 13:45	-0.08	159	8.43	30.3															
12-27-19 1:00	-0.12	745	7.84	0.5	12-11-19 14:00	0.76	1132	7.76	6.0	12-11-19 14:00	-0.08	132	8.43	21.4															
12-27-19 1:15	-0.12	746	7.83	0.9	12-11-19 14:15	0.75	1132	7.77	5.7	12-11-19 14:15	-0.08	157	8.44	30.2															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-27-19 1:30	-0.12	745	7.84	0.5	12-11-19 14:30	0.77	1134	7.77	5.5	12-11-19 14:30	-0.08	124	8.45	18.5															
12-27-19 1:45	-0.12	745	7.84	0.5	12-11-19 14:45	0.90	1134	7.77	5.7	12-11-19 14:45	-0.08	153	8.47	30.5															
12-27-19 2:00	-0.12	745	7.84	0.5	12-11-19 15:00	0.73	1135	7.77	5.4	12-11-19 15:00	-0.08	136	8.49	19.4															
12-27-19 2:15	-0.12	746	7.84	0.8	12-11-19 15:15	0.79	1136	7.77	5.3	12-11-19 15:15	-0.08	152	8.51	50.9															
12-27-19 2:30	-0.12	745	7.84	0.6	12-11-19 15:30	0.79	1138	7.78	5.4	12-11-19 15:30	-0.08	132	8.52	19.4															
12-27-19 2:45	-0.12	744	7.84	0.6	12-11-19 15:45	0.85	1139	7.78	5.5	12-11-19 15:45	-0.08	154	8.54	48.2															
12-27-19 3:00	-0.12	744	7.84	0.5	12-11-19 16:00	0.85	1138	7.78	5.6	12-11-19 16:00	-0.08	126	8.56	62.4															
12-27-19 3:15	-0.12	743	7.83	0.9	12-11-19 16:15	0.92	1136	7.78	5.8	12-11-19 16:15	-0.08	154	8.56	34.2															
12-27-19 3:30	-0.12	743	7.84	0.6	12-11-19 16:30	0.80	1136	7.76	5.5	12-11-19 16:30	-0.08	128	8.58	33.3															
12-27-19 3:45	-0.12	742	7.84	0.6	12-11-19 16:45	0.90	1134	7.77	6.0	12-11-19 16:45	-0.08	159	8.58	34.5															
12-27-19 4:00	-0.12	742	7.84	0.5	12-11-19 17:00	0.87	1135	7.77	5.7	12-11-19 17:00	-0.08	127	8.58	26.0															
12-27-19 4:15	-0.12	744	7.83	0.8	12-11-19 17:15	0.88	1133	7.77	5.7	12-11-19 17:15	-0.08	153	8.59	29.2															
12-27-19 4:30	-0.12	742	7.84	0.6	12-11-19 17:30	0.76	1131	7.76	5.3	12-11-19 17:30	-0.08	117	8.61	32.6															
12-27-19 4:45	-0.12	740	7.84	0.6	12-11-19 17:45	0.90	1134	7.77	5.3	12-11-19 17:45	-0.08	160	8.59	31.2															
12-27-19 5:00	-0.12	739	7.84	0.6	12-11-19 18:00	0.86	1135	7.77	5.7	12-11-19 18:00	-0.08	130	8.63	28.9															
12-27-19 5:15	-0.12	740	7.83	0.9	12-11-19 18:15	0.89	1134	7.77	5.5	12-11-19 18:15	-0.08	163	8.64	64.9															
12-27-19 5:30	-0.12	738	7.84	0.4	12-11-19 18:30	0.86	1133	7.77	5.5	12-11-19 18:30	-0.08	133	8.63	31.6															
12-27-19 5:45	-0.12	737	7.84	0.5	12-11-19 18:45	0.88	1134	7.77	5.1	12-11-19 18:45	-0.08	166	8.64	83.1															
12-27-19 6:00	-0.12	737	7.84	0.5	12-11-19 19:00	0.87	1132	7.77	5.5	12-11-19 19:00	-0.08	139	8.62	26.8															
12-27-19 6:15	-0.12	738	7.83	0.8	12-11-19 19:15	0.91	1133	7.76	6.2	12-11-19 19:15	-0.08	169	8.62	94.6															
12-27-19 6:30	-0.12	738	7.84	0.4	12-11-19 19:30	0.85	1134	7.76	5.8	12-11-19 19:30	-0.08	148	8.61	30.9															
12-27-19 6:45	-0.12	737	7.84	0.5	12-11-19 19:45	0.92	1132	7.76	5.8	12-11-19 19:45	-0.08	172	8.61	32.5															
12-27-19 7:00	-0.12	736	7.84	0.5	12-11-19 20:00	0.86	1128	7.76	5.5	12-11-19 20:00	-0.08	151	8.60	33.3															
12-27-19 7:15	-0.12	737	7.83	0.8	12-11-19 20:15	0.91	1133	7.76	5.7	12-11-19 20:15	-0.08	172	8.59	50.4															
12-27-19 7:30	-0.12	735	7.84	0.5	12-11-19 20:30	0.93	1134	7.76	5.4	12-11-19 20:30	-0.08	160	8.57	32.4															
12-27-19 7:45	-0.12	735	7.84	0.5	12-11-19 20:45	0.94	1133	7.76	5.7	12-11-19 20:45	-0.08	183	8.58	32.9															
12-27-19 8:00	-0.12	735	7.84	0.5	12-11-19 21:00	0.92	1133	7.76	5.7	12-11-19 21:00	-0.08	165	8.55	48.8															
12-27-19 8:15	-0.12	738	7.83	0.8	12-11-19 21:15	0.96	1134	7.76	5.7	12-11-19 21:15	-0.08	186	8.56	29.5															
12-27-19 8:30	-0.12	736	7.84	0.5	12-11-19 21:30	0.95	1134	7.76	5.6	12-11-19 21:30	-0.08	169	8.53	67.4															
12-27-19 8:45	-0.12	735	7.84	0.6	12-11-19 21:45	0.93	1133	7.76	5.9	12-11-19 21:45	-0.08	192	8.54	132.1															
12-27-19 9:00	-0.12	734	7.84	0.5	12-11-19 22:00	0.89	1128	7.76	5.6	12-11-19 22:00	-0.08	175	8.51	54.1															
12-27-19 9:15	-0.12	734	7.83	0.8	12-11-19 22:15	0.92	1129	7.76	6.1	12-11-19 22:15	-0.08	199	8.51	39.5															
12-27-19 9:30	-0.12	733	7.84	0.5	12-11-19 22:30	0.90	1133	7.76	6.2	12-11-19 22:30	-0.08	177	8.50	84.8															
12-27-19 9:45	-0.12	732	7.83	0.6	12-11-19 22:45	0.84	1130	7.75	6.0	12-11-19 22:45	-0.08	208	8.52	304.8															
12-27-19 10:00	-0.12	732	7.83	0.5	12-11-19 23:00	0.88	1133	7.76	5.8	12-11-19 23:00	-0.08	189	8.50	93.5															
12-27-19 10:15	-0.12	734	7.83	0.7	12-11-19 23:15	0.92	1134	7.76	5.8	12-11-19 23:15	-0.08	216	8.53	244.3															
12-27-19 10:30	-0.12	732	7.85	0.5	12-11-19 23:30	0.88	1134	7.76	5.8	12-11-19 23:30	-0.08	196	8.51	65.6															
12-27-19 10:45	-0.12	731	7.84	0.5	12-11-19 23:45	0.89	1133	7.76	5.8	12-11-19 23:45	-0.08	217	8.55	78.1															
12-27-19 11:00	-0.12	731	7.84	0.5	12-12-19 0:00	0.82	1131	7.75	5.6	12-12-19 0:00	-0.08	210	8.54	66.3															
12-27-19 11:15	-0.12	732	7.83	0.8	12-12-19 0:15	0.93	1130	7.75	5.6	12-12-19 0:15	-0.08	239	8.59	188.7															
12-27-19 11:30	-0.12	731	7.84	0.5	12-12-19 0:30	0.88	1132	7.76	6.3	12-12-19 0:30	-0.08	212	8.57	122.7															
12-27-19 11:45	-0.12	730	7.84	0.5	12-12-19 0:45	0.87	1131	7.76	5.4	12-12-19 0:45	-0.08	244	8.60	296.5															
12-27-19 12:00	-0.12	729	7.84	0.5	12-12-19 1:00	0.88	1133	7.76	5.8	12-12-19 1:00	-0.08	214	8.59	69.6															
12-27-19 12:15	-0.12	730	7.83	0.7	12-12-19 1:15	0.79	1131	7.75	5.9	12-12-19 1:15	-0.09	249	8.63	109.7															
12-27-19 12:30	-0.12	729	7.85	0.5	12-12-19 1:30	0.83	1128	7.75	5.2	12-12-19 1:30	-0.09	215	8.61	64.5															
12-27-19 12:45	-0.12	728	7.84	0.5	12-12-19 1:45	0.86	1130	7.75	5.7	12-12-19 1:45	-0.09	254	8.64	164.8															
12-27-19 13:00	-0.12	728	7.84	0.5	12-12-19 2:00	0.85	1130	7.76	5.6	12-12-19 2:00	-0.09	218	8.56	121.4															
12-27-19 13:15	-0.12	729	7.83	0.7	12-12-19 2:15	0.88	1126	7.75	5.2	12-12-19 2:15	-0.09	257	8.59	136.4															
12-27-19 13:30	-0.12	728	7.84	0.5	12-12-19 2:30	0.91	1133	7.76	5.2	12-12-19 2:30	-0.09	231	8.56	137.5															
12-27-19 13:45	-0.12	727	7.84	0.6	12-12-19 2:45	0.83	1128	7.75	5.5	12-12-19 2:45	-0.08	259	8.54	169.8															
12-27-19 14:00	-0.12	727	7.84	0.5	12-12-19 3:00	0.91	1133	7.76	5.4	12-12-19 3:00	-0.08	234	8.50	134.6															
12-27-19 14:15	-0.12	728	7.84	0.8	12-12-19 3:15	0.86	1134	7.76	5.1	12-12-19 3:15	-0.09	264	8.49	114.4															
12-27-19 14:30	-0.12	726	7.84	0.5	12-12-19 3:30	0.84	1135	7.76	5.8	12-12-19 3:30	-0.09	239	8.47	133.0															
12-27-19 14:45	-0.12	725	7.84	0.5	12-12-19 3:45	0.94	1134	7.76	5.4	12-12-19 3:45	-0.09	266	8.47	115.8															
12-27-19 15:00	-0.12	724	7.84	0.5	12-12-19 4:00	0.84	1132	7.76	5.6	12-12-19 4:00	-0.09	241	8.44	126.9															
12-27-19 15:15	-0.12	726	7.84	0.8	12-12-19 4:15	0.82	1119	7.75	5.4	12-12-19 4:15	-0.09	269	8.44	86.4															
12-27-19 15:30	-0.12	725	7.84	0.5	12-12-19 4:30	0.83	1134	7.76	5.1	12-12-19 4:30	-0.09	244	8.42	145.3															
12-27-19 15:45	-0.12	724	7.84	0.6	12-12-19 4:45	0.98	1132	7.75	5.5	12-12-19 4:45	-0.09	272	8.42	90.9															
12-27-19 16:00	-0.12	724	7.84	0.5	12-12-19 5:00	0.86	1132	7.76	5.3	12-12-19 5:00	-0.09	247	8.40	136.0															
12-27-19 16:15	-0.12	724	7.83	0.8	12-12-19 5:15	0.79	1128	7.75	5.2	12-12-19 5:15	-0.09	274	8.40	63.4															
12-27-19 16:30	-0.12	722	7.85	0.5	12-12-19 5:30	0.84	1129	7.75	5.4	12-12-19 5:30	-0.09	249	8.39	125.4															
12-27-19 16:45	-0.12	722	7.85	0.5	12-12-19 5:45	0.79	1123	7.74	5.5	12-12-19 5:45	-0.08	277	8.40	98.0															
12-27-19 17:00	-0.12	721	7.84	0.5	12-12-19 6:00	0.84	1118	7.74	5.5	12-12-19 6:00	-0.09	251	8.38	132.7															
12-27-19 17:15	-0.12	722	7.83	0.6	12-12-19 6:15	0.86	1126	7.75	5.4	12-12-19 6:15	-0.09	279	8.39	146.6															
12-27-19 17:30	-0.12	720	7.84	0.6	12-12-19 6:30	0.79	1123	7.73	6.1	12-12-19 6:30	-0.09	254	8.38	126.5															
12-27-19 17:45	-0.12	719	7.84	0.5	12-12-19 6:45	0.77	1117	7.72	5.4	12-12-19 6:45	-0.09	284	8.39	52.4															
12-27-19 18:00	-0.12	719	7.84	0.5	12-12-19 7:00	0.85	1121	7.73	5.8	12-12-19 7:00	-0.09	257	8.38	122.1															
12-27-19 18:15	-0.12	721	7.83	0.8	12-12-19 7:15	0.80	1121	7.73	5.2	12-12-19 7:15	-0.09	283	8.38	123.5															
12-27-19 18:30	-0.12	720	7.84	0.5	12-12-19 7:30	0.82	1124	7.74	5.3	12-12-19 7:30	-0.09	259	8.37	129.6															
12-27-19 18:45	-0.12	718	7.84	0.5	12-12-19 7:45	0.86	1123	7.74	5.7	12-12-19 7:45	-0.09	286	8.38	67.3															
12-27-19 19:00	-0.12	717	7.84	0.5	12-12-19 8:00	0.84	1123	7.74	5.4	12-12-19 8:00	-0.09	265	8.37	136.2															
12-27-19 19:15	-0.12	717	7.83	0.7	12-12-19 8:15	0.82	1117	7.73	5.5	12-12-19 8:15	-0.09	288	8.37	86.8															
12-27-19 19:30	-0.12	716	7.84	0.6	12-12-19 8:30	0.90	1126	7.74	5.6	12-12-19 8:30	-0.08	268	8.36	118.7															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-27-19 19:45	-0.12	715	7.84	0.5	12-12-19 8:45	0.79	1122	7.73	5.7	12-12-19 8:45	-0.09	291	8.37	41.9															
12-27-19 20:00	-0.12	713	7.84	0.5	12-12-19 9:00	0.78	1124	7.74	5.1	12-12-19 9:00	-0.08	271	8.36	124.4															
12-27-19 20:15	-0.12	714	7.83	0.8	12-12-19 9:15	0.82	1124	7.74	5.5	12-12-19 9:15	-0.09	351	8.36	32.4															
12-27-19 20:30	-0.12	712	7.85	0.6	12-12-19 9:30	0.81	1124	7.74	5.6	12-12-19 9:30	-0.09	353	8.35	101.0															
12-27-19 20:45	-0.12	711	7.85	0.5	12-12-19 9:45	0.81	1122	7.74	5.8	12-12-19 9:45	-0.09	374	8.36	29.6															
12-27-19 21:00	-0.12	709	7.85	0.5	12-12-19 10:00	0.81	1121	7.74	5.4	12-12-19 10:00	-0.09	374	8.35	111.3															
12-27-19 21:15	-0.12	709	7.84	0.8	12-12-19 10:15	0.86	1122	7.74	6.3	12-12-19 10:15	-0.08	383	8.35	29.7															
12-27-19 21:30	-0.12	706	7.84	0.5	12-12-19 10:30	0.82	1121	7.74	5.3	12-12-19 10:30	-0.09	378	8.34	97.1															
12-27-19 21:45	-0.12	705	7.84	0.5	12-12-19 10:45	0.86	1123	7.74	5.3	12-12-19 10:45	-0.09	388	8.34	26.0															
12-27-19 22:00	-0.12	702	7.85	0.6	12-12-19 11:00	0.87	1124	7.74	5.7	12-12-19 11:00	-0.09	399	8.34	93.5															
12-27-19 22:15	-0.12	704	7.84	0.8	12-12-19 11:15	0.85	1123	7.74	5.4	12-12-19 11:15	-0.09	390	8.34	26.0															
12-27-19 22:30	-0.12	704	7.85	0.5	12-12-19 11:30	0.80	1121	7.73	5.2	12-12-19 11:30	-0.09	395	8.33	81.0															
12-27-19 22:45	-0.12	704	7.85	0.5	12-12-19 11:45	0.85	1117	7.73	5.6	12-12-19 11:45	-0.09	393	8.33	25.8															
12-27-19 23:00	-0.12	704	7.84	0.5	12-12-19 12:00	0.76	1113	7.72	5.1	12-12-19 12:00	-0.09	393	8.32	91.3															
12-27-19 23:15	-0.12	705	7.84	0.7	12-12-19 12:15	0.76	1115	7.72	5.8	12-12-19 12:15	-0.09	397	8.32	25.1															
12-27-19 23:30	-0.12	704	7.85	0.5	12-12-19 12:30	0.77	1114	7.72	5.7	12-12-19 12:30	-0.09	392	8.32	101.2															
12-27-19 23:45	-0.11	702	7.84	0.6	12-12-19 12:45	0.83	1115	7.73	5.6	12-12-19 12:45	-0.09	396	8.31	25.8															
12-28-19 0:00	-0.11	702	7.84	0.5	12-12-19 13:00	0.85	1118	7.73	5.5	12-12-19 13:00	-0.09	396	8.31	100.4															
12-28-19 0:15	-0.11	707	7.84	0.8	12-12-19 13:15	0.80	1110	7.72	5.3	12-12-19 13:15	-0.09	397	8.31	26.3															
12-28-19 0:30	-0.11	708	7.85	0.5	12-12-19 13:30	0.81	1118	7.73	5.3	12-12-19 13:30	-0.09	400	8.31	91.7															
12-28-19 0:45	-0.11	708	7.84	0.5	12-12-19 13:45	0.80	1117	7.73	5.9	12-12-19 13:45	-0.09	407	8.23	58.4															
12-28-19 1:00	-0.11	709	7.84	0.4	12-12-19 14:00	0.85	1116	7.73	5.8	12-12-19 14:00	-0.08	453	8.25	86.7															
12-28-19 1:15	-0.11	710	7.84	0.7	12-12-19 14:15	0.82	1115	7.72	5.7	12-12-19 14:15	-0.08	408	8.24	27.2															
12-28-19 1:30	-0.11	710	7.85	0.6	12-12-19 14:30	0.83	1115	7.73	5.8	12-12-19 14:30	-0.08	478	8.25	96.5															
12-28-19 1:45	-0.11	710	7.85	0.5	12-12-19 14:45	0.86	1113	7.73	5.5	12-12-19 14:45	-0.08	427	8.26	19.5															
12-28-19 2:00	-0.11	710	7.84	0.5	12-12-19 15:00	0.80	1114	7.73	5.4	12-12-19 15:00	-0.08	481	8.27	94.9															
12-28-19 2:15	-0.11	712	7.84	0.7	12-12-19 15:15	0.81	1125	7.73	6.1	12-12-19 15:15	-0.08	454	8.28	24.5															
12-28-19 2:30	-0.11	711	7.86	0.6	12-12-19 15:30	0.85	1123	7.74	5.1	12-12-19 15:30	-0.08	487	8.28	91.9															
12-28-19 2:45	-0.12	711	7.85	0.5	12-12-19 15:45	0.78	1114	7.72	5.1	12-12-19 15:45	-0.08	476	8.30	22.6															
12-28-19 3:00	-0.11	711	7.86	0.5	12-12-19 16:00	0.82	1124	7.73	5.3	12-12-19 16:00	-0.08	497	8.31	75.2															
12-28-19 3:15	-0.11	711	7.84	0.7	12-12-19 16:15	0.86	1125	7.74	5.8	12-12-19 16:15	-0.08	497	8.32	19.4															
12-28-19 3:30	-0.11	710	7.86	0.6	12-12-19 16:30	0.87	1126	7.74	5.3	12-12-19 16:30	-0.08	511	8.32	70.0															
12-28-19 3:45	-0.12	710	7.86	0.5	12-12-19 16:45	0.75	1120	7.72	5.7	12-12-19 16:45	-0.08	527	8.33	18.9															
12-28-19 4:00	-0.12	710	7.85	0.5	12-12-19 17:00	0.84	1119	7.73	5.6	12-12-19 17:00	-0.08	514	8.36	68.2															
12-28-19 4:15	-0.12	711	7.84	0.8	12-12-19 17:15	0.84	1118	7.72	5.1	12-12-19 17:15	-0.08	548	8.37	17.0															
12-28-19 4:30	-0.12	711	7.86	0.6	12-12-19 17:30	0.83	1124	7.73	6.0	12-12-19 17:30	-0.08	523	8.37	62.6															
12-28-19 4:45	-0.12	711	7.86	0.5	12-12-19 17:45	0.84	1120	7.73	5.2	12-12-19 17:45	-0.08	570	8.38	16.1															
12-28-19 5:00	-0.12	710	7.86	0.5	12-12-19 18:00	0.91	1123	7.73	5.6	12-12-19 18:00	-0.08	555	8.37	64.7															
12-28-19 5:15	-0.12	712	7.85	0.7	12-12-19 18:15	0.88	1124	7.73	5.8	12-12-19 18:15	-0.08	586	8.37	15.8															
12-28-19 5:30	-0.12	711	7.86	0.5	12-12-19 18:30	0.79	1121	7.73	5.3	12-12-19 18:30	-0.08	559	8.35	62.7															
12-28-19 5:45	-0.12	710	7.85	0.5	12-12-19 18:45	0.83	1122	7.73	5.7	12-12-19 18:45	-0.08	600	8.35	15.5															
12-28-19 6:00	-0.12	710	7.85	0.5	12-12-19 19:00	0.78	1116	7.72	5.8	12-12-19 19:00	-0.09	568	8.33	51.9															
12-28-19 6:15	-0.12	712	7.85	0.8	12-12-19 19:15	0.91	1122	7.73	5.5	12-12-19 19:15	-0.09	613	8.35	15.1															
12-28-19 6:30	-0.12	711	7.85	0.5	12-12-19 19:30	0.76	1111	7.71	5.7	12-12-19 19:30	-0.08	570	8.34	60.9															
12-28-19 6:45	-0.12	711	7.85	0.5	12-12-19 19:45	0.94	1122	7.73	5.3	12-12-19 19:45	-0.09	625	8.36	16.0															
12-28-19 7:00	-0.12	711	7.85	0.5	12-12-19 20:00	0.90	1119	7.73	5.4	12-12-19 20:00	-0.09	574	8.35	53.9															
12-28-19 7:15	-0.12	712	7.84	0.6	12-12-19 20:15	0.84	1115	7.72	5.6	12-12-19 20:15	-0.08	634	8.38	15.5															
12-28-19 7:30	-0.12	711	7.85	0.4	12-12-19 20:30	0.84	1115	7.72	5.2	12-12-19 20:30	-0.09	575	8.38	56.6															
12-28-19 7:45	-0.12	710	7.85	0.5	12-12-19 20:45	0.88	1119	7.72	6.0	12-12-19 20:45	-0.08	644	8.40	15.4															
12-28-19 8:00	-0.12	710	7.85	0.5	12-12-19 21:00	0.86	1117	7.72	5.9	12-12-19 21:00	-0.09	575	8.40	49.2															
12-28-19 8:15	-0.12	742	7.84	0.8	12-12-19 21:15	0.92	1120	7.72	6.3	12-12-19 21:15	-0.09	652	8.41	15.4															
12-28-19 8:30	-0.12	742	7.85	0.5	12-12-19 21:30	0.89	1120	7.73	5.2	12-12-19 21:30	-0.09	574	8.42	53.3															
12-28-19 8:45	-0.12	741	7.86	0.5	12-12-19 21:45	0.83	1120	7.72	5.4	12-12-19 21:45	-0.09	658	8.43	15.5															
12-28-19 9:00	-0.12	741	7.86	0.5	12-12-19 22:00	0.86	1120	7.72	5.7	12-12-19 22:00	-0.09	575	8.42	49.8															
12-28-19 9:15	-0.12	743	7.84	1.1	12-12-19 22:15	0.92	1120	7.72	5.3	12-12-19 22:15	-0.09	666	8.42	16.9															
12-28-19 9:30	-0.12	741	7.86	0.6	12-12-19 22:30	0.89	1120	7.72	5.3	12-12-19 22:30	-0.09	576	8.41	50.3															
12-28-19 9:45	-0.12	741	7.86	0.6	12-12-19 22:45	0.89	1121	7.73	5.2	12-12-19 22:45	-0.09	671	8.40	16.7															
12-28-19 10:00	-0.12	741	7.86	0.5	12-12-19 23:00	0.83	1121	7.72	5.3	12-12-19 23:00	-0.09	577	8.39	50.2															
12-28-19 10:15	-0.12	743	7.84	0.8	12-12-19 23:15	0.93	1122	7.73	5.3	12-12-19 23:15	-0.09	678	8.38	16.6															
12-28-19 10:30	-0.12	741	7.85	0.5	12-12-19 23:30	0.84	1122	7.73	7.1	12-12-19 23:30	-0.09	578	8.37	46.1															
12-28-19 10:45	-0.12	741	7.85	0.5	12-12-19 23:45	0.92	1121	7.72	5.0	12-12-19 23:45	-0.09	686	8.36	16.4															
12-28-19 11:00	-0.12	741	7.85	0.5	12-13-19 0:00	0.85	1115	7.72	5.2	12-13-19 0:00	-0.09	579	8.35	44.7															
12-28-19 11:15	-0.12	743	7.84	0.7	12-13-19 0:15	0.85	1117	7.73	5.1	12-13-19 0:15	-0.09	691	8.34	17.2															
12-28-19 11:30	-0.12	742	7.85	0.5	12-13-19 0:30	0.82	1122	7.73	5.2	12-13-19 0:30	-0.09	578	8.34	48.6															
12-28-19 11:45	-0.12	741	7.85	0.6	12-13-19 0:45	0.90	1124	7.73	4.8	12-13-19 0:45	-0.09	697	8.33	18.1															
12-28-19 12:00	-0.12	741	7.85	0.5	12-13-19 1:00	0.75	1116	7.71	5.6	12-13-19 1:00	-0.09	582	8.32	48.1															
12-28-19 12:15	-0.12	743	7.84	0.8	12-13-19 1:15	0.85	1119	7.73	5.0	12-13-19 1:15	-0.09	702	8.31	16.9															
12-28-19 12:30	-0.12	742	7.86	0.5	12-13-19 1:30	0.86	1120	7.73	5.1	12-13-19 1:30	-0.09	585	8.31	48.6															
12-28-19 12:45	-0.12	741	7.86	0.5	12-13-19 1:45	0.83	1119	7.72	5.7	12-13-19 1:45	-0.09	707	8.30	16.8															
12-28-19 13:00	-0.12	741	7.86	0.5	12-13-19 2:00	0.88	1121	7.73	5.5	12-13-19 2:00	-0.09	587	8.31	46.3															
12-28-19 13:15	-0.12	743	7.84	0.7	12-13-19 2:15	0.90	1121	7.73	5.4	12-13-19 2:15	-0.09	712	8.30	17.5															
12-28-19 13:30	-0.12	741	7.86	0.5	12-13-19 2:30	0.90	1120	7.73	5.3	12-13-19 2:30	-0.09	590	8.30	43.7															
12-28-19 13:45	-0.12	741	7.86	0.6	12-13-19 2:45	0.91	1124	7.73	5.1	12-13-19 2:45	-0.09	717	8.29	17.5															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-28-19 14:00	-0.12	741	7.85	0.5	12-13-19 3:00	0.95	1124	7.73	5.3	12-13-19 3:00	-0.09	594	8.29	42.7															
12-28-19 14:15	-0.12	743	7.84	0.7	12-13-19 3:15	0.89	1124	7.73	5.3	12-13-19 3:15	-0.09	723	8.29	16.8															
12-28-19 14:30	-0.12	742	7.85	0.5	12-13-19 3:30	0.76	1121	7.73	5.2	12-13-19 3:30	-0.09	586	8.29	43.8															
12-28-19 14:45	-0.12	742	7.85	0.5	12-13-19 3:45	0.80	1119	7.73	5.3	12-13-19 3:45	-0.09	728	8.28	16.8															
12-28-19 15:00	-0.12	742	7.85	0.6	12-13-19 4:00	0.78	1120	7.73	5.0	12-13-19 4:00	-0.09	596	8.28	55.3															
12-28-19 15:15	-0.12	744	7.85	0.7	12-13-19 4:15	0.72	1120	7.73	5.1	12-13-19 4:15	-0.09	732	8.28	18.3															
12-28-19 15:30	-0.12	742	7.85	0.5	12-13-19 4:30	0.85	1120	7.73	5.0	12-13-19 4:30	-0.09	598	8.28	44.1															
12-28-19 15:45	-0.12	741	7.86	0.5	12-13-19 4:45	0.81	1119	7.73	5.2	12-13-19 4:45	-0.09	737	8.27	18.9															
12-28-19 16:00	-0.12	739	7.86	0.4	12-13-19 5:00	0.85	1117	7.73	5.0	12-13-19 5:00	-0.09	601	8.27	43.7															
12-28-19 16:15	-0.12	740	7.86	0.7	12-13-19 5:15	0.83	1112	7.72	5.0	12-13-19 5:15	-0.09	741	8.27	16.4															
12-28-19 16:30	-0.12	739	7.87	0.5	12-13-19 5:30	0.97	1119	7.73	5.4	12-13-19 5:30	-0.09	605	8.27	37.6															
12-28-19 16:45	-0.12	738	7.87	0.5	12-13-19 5:45	0.83	1115	7.72	4.9	12-13-19 5:45	-0.09	745	8.27	20.1															
12-28-19 17:00	-0.12	737	7.87	0.6	12-13-19 6:00	0.81	1117	7.72	4.7	12-13-19 6:00	-0.09	610	8.26	45.8															
12-28-19 17:15	-0.12	739	7.86	0.7	12-13-19 6:15	0.84	1116	7.72	4.8	12-13-19 6:15	-0.09	751	8.27	19.3															
12-28-19 17:30	-0.12	738	7.87	0.5	12-13-19 6:30	0.84	1111	7.72	5.3	12-13-19 6:30	-0.09	614	8.27	34.4															
12-28-19 17:45	-0.12	737	7.87	0.5	12-13-19 6:45	0.77	1107	7.71	4.9	12-13-19 6:45	-0.09	756	8.26	17.7															
12-28-19 18:00	-0.12	737	7.87	0.4	12-13-19 7:00	0.81	1111	7.71	5.2	12-13-19 7:00	-0.09	618	8.26	36.9															
12-28-19 18:15	-0.12	739	7.86	0.7	12-13-19 7:15	0.85	1112	7.72	4.8	12-13-19 7:15	-0.09	761	8.26	18.8															
12-28-19 18:30	-0.12	738	7.87	0.5	12-13-19 7:30	0.75	1104	7.71	4.9	12-13-19 7:30	-0.09	621	8.26	42.6															
12-28-19 18:45	-0.12	737	7.87	0.4	12-13-19 7:45	0.78	1104	7.71	5.2	12-13-19 7:45	-0.09	764	8.26	18.2															
12-28-19 19:00	-0.12	737	7.87	0.5	12-13-19 8:00	0.75	1101	7.71	4.7	12-13-19 8:00	-0.09	625	8.25	45.6															
12-28-19 19:15	-0.12	739	7.86	0.7	12-13-19 8:15	0.79	1105	7.71	4.8	12-13-19 8:15	-0.09	768	8.26	19.9															
12-28-19 19:30	-0.12	737	7.87	0.5	12-13-19 8:30	0.76	1108	7.71	5.0	12-13-19 8:30	-0.09	629	8.25	46.2															
12-28-19 19:45	-0.12	737	7.87	0.4	12-13-19 8:45	0.76	1106	7.71	5.5	12-13-19 8:45	-0.09	773	8.26	19.0															
12-28-19 20:00	-0.11	736	7.86	0.5	12-13-19 9:00	0.78	1108	7.71	5.3	12-13-19 9:00	-0.09	632	8.25	42.4															
12-28-19 20:15	-0.10	736	7.86	0.8	12-13-19 9:15	0.74	1106	7.71	4.8	12-13-19 9:15	-0.09	778	8.26	18.2															
12-28-19 20:30	-0.11	736	7.86	0.5	12-13-19 9:30	0.77	1107	7.71	5.1	12-13-19 9:30	-0.09	636	8.25	47.3															
12-28-19 20:45	-0.11	736	7.86	0.5	12-13-19 9:45	0.77	1107	7.70	5.0	12-13-19 9:45	-0.09	783	8.25	18.8															
12-28-19 21:00	-0.11	735	7.85	0.5	12-13-19 10:00	0.75	1104	7.71	4.7	12-13-19 10:00	-0.09	640	8.25	42.0															
12-28-19 21:15	-0.11	736	7.85	0.7	12-13-19 10:15	0.77	1111	7.71	5.1	12-13-19 10:15	-0.09	789	8.25	17.7															
12-28-19 21:30	-0.11	735	7.86	0.6	12-13-19 10:30	0.82	1115	7.71	4.8	12-13-19 10:30	-0.09	644	8.24	47.0															
12-28-19 21:45	-0.11	735	7.86	0.5	12-13-19 10:45	0.77	1110	7.71	4.9	12-13-19 10:45	-0.09	794	8.24	17.9															
12-28-19 22:00	-0.11	735	7.86	0.6	12-13-19 11:00	0.79	1111	7.71	4.8	12-13-19 11:00	-0.08	650	8.23	47.4															
12-28-19 22:15	-0.11	737	7.85	0.8	12-13-19 11:15	0.75	1110	7.72	5.0	12-13-19 11:15	-0.09	798	8.23	17.5															
12-28-19 22:30	-0.12	736	7.86	0.7	12-13-19 11:30	0.79	1114	7.72	5.1	12-13-19 11:30	-0.09	656	8.23	44.0															
12-28-19 22:45	-0.12	736	7.86	0.5	12-13-19 11:45	0.79	1113	7.72	4.7	12-13-19 11:45	-0.08	804	8.22	17.1															
12-28-19 23:00	-0.12	736	7.86	0.6	12-13-19 12:00	0.86	1114	7.72	5.0	12-13-19 12:00	-0.09	661	8.22	42.7															
12-28-19 23:15	-0.11	736	7.85	0.7	12-13-19 12:15	0.82	1113	7.72	5.1	12-13-19 12:15	-0.09	731	8.21	138.8															
12-28-19 23:30	-0.12	736	7.86	0.5	12-13-19 12:30	0.77	1106	7.72	4.6	12-13-19 12:30	-0.09	712	8.20	71.8															
12-28-19 23:45	-0.12	736	7.86	0.6	12-13-19 12:45	0.85	1114	7.72	5.0	12-13-19 12:45	-0.09	713	8.21	391.7															
12-29-19 0:00	-0.12	736	7.86	0.5	12-13-19 13:00	0.86	1112	7.72	4.6	12-13-19 13:00	-0.09	708	8.21	77.1															
12-29-19 0:15	-0.11	739	7.86	0.7	12-13-19 13:15	0.78	1106	7.71	4.7	12-13-19 13:15	-0.09	730	8.21	201.6															
12-29-19 0:30	-0.12	737	7.86	0.5	12-13-19 13:30	0.83	1110	7.72	4.9	12-13-19 13:30	-0.09	702	8.22	63.6															
12-29-19 0:45	-0.12	736	7.86	0.5	12-13-19 13:45	0.85	1109	7.71	4.8	12-13-19 13:45	-0.09	731	8.22	107.7															
12-29-19 1:00	-0.12	736	7.86	0.5	12-13-19 14:00	0.86	1108	7.71	5.1	12-13-19 14:00	-0.09	697	8.23	50.2															
12-29-19 1:15	-0.11	737	7.85	0.7	12-13-19 14:15	0.88	1112	7.72	5.0	12-13-19 14:15	-0.09	734	8.25	56.8															
12-29-19 1:30	-0.12	737	7.86	0.5	12-13-19 14:30	0.85	1111	7.72	4.9	12-13-19 14:30	-0.09	695	8.25	35.9															
12-29-19 1:45	-0.12	737	7.86	0.5	12-13-19 14:45	0.88	1109	7.72	4.7	12-13-19 14:45	-0.09	733	8.26	38.9															
12-29-19 2:00	-0.12	737	7.86	0.5	12-13-19 15:00	0.90	1113	7.72	4.9	12-13-19 15:00	-0.09	699	8.26	24.7															
12-29-19 2:15	-0.11	740	7.85	0.7	12-13-19 15:15	0.90	1114	7.72	4.6	12-13-19 15:15	-0.09	738	8.27	24.3															
12-29-19 2:30	-0.11	734	7.87	0.4	12-13-19 15:30	0.94	1115	7.73	4.9	12-13-19 15:30	-0.09	700	8.27	20.6															
12-29-19 2:45	-0.11	733	7.86	0.4	12-13-19 15:45	0.87	1115	7.72	5.1	12-13-19 15:45	-0.09	738	8.27	24.0															
12-29-19 3:00	-0.10	732	7.86	0.5	12-13-19 16:00	0.91	1114	7.72	5.0	12-13-19 16:00	-0.09	699	8.27	18.5															
12-29-19 3:15	-0.10	733	7.86	0.6	12-13-19 16:15	0.90	1115	7.72	4.8	12-13-19 16:15	-0.09	739	8.28	22.9															
12-29-19 3:30	-0.11	731	7.88	0.5	12-13-19 16:30	0.87	1114	7.72	4.8	12-13-19 16:30	-0.09	700	8.28	16.2															
12-29-19 3:45	-0.11	731	7.87	0.5	12-13-19 16:45	0.87	1116	7.72	4.8	12-13-19 16:45	-0.09	740	8.29	21.8															
12-29-19 4:00	-0.11	731	7.87	0.5	12-13-19 17:00	0.88	1117	7.72	5.1	12-13-19 17:00	-0.09	701	8.30	16.0															
12-29-19 4:15	-0.11	732	7.86	0.7	12-13-19 17:15	0.81	1117	7.72	4.5	12-13-19 17:15	-0.09	740	8.32	19.2															
12-29-19 4:30	-0.11	731	7.88	0.5	12-13-19 17:30	0.94	1113	7.72	5.2	12-13-19 17:30	-0.09	704	8.32	16.8															
12-29-19 4:45	-0.11	731	7.87	0.5	12-13-19 17:45	0.86	1110	7.72	4.8	12-13-19 17:45	-0.09	743	8.33	19.8															
12-29-19 5:00	-0.11	730	7.87	0.5	12-13-19 18:00	0.89	1112	7.72	5.2	12-13-19 18:00	-0.09	700	8.34	20.5															
12-29-19 5:15	-0.10	731	7.87	0.6	12-13-19 18:15	0.98	1115	7.72	5.3	12-13-19 18:15	-0.09	744	8.35	20.0															
12-29-19 5:30	-0.11	730	7.88	0.4	12-13-19 18:30	0.91	1112	7.72	5.0	12-13-19 18:30	-0.09	707	8.35	74.9															
12-29-19 5:45	-0.11	730	7.87	0.5	12-13-19 18:45	0.90	1111	7.71	4.9	12-13-19 18:45	-0.09	745	8.36	19.3															
12-29-19 6:00	-0.11	729	7.87	0.5	12-13-19 19:00	0.91	1110	7.71	5.0	12-13-19 19:00	-0.09	709	8.37	59.7															
12-29-19 6:15	-0.11	730	7.87	0.7	12-13-19 19:15	0.86	1084	7.70	4.8	12-13-19 19:15	-0.09	750	8.37	19.7															
12-29-19 6:30	-0.11	729	7.88	0.5	12-13-19 19:30	0.84	1105	7.71	4.7	12-13-19 19:30	-0.09	711	8.37	56.3															
12-29-19 6:45	-0.11	728	7.88	0.5	12-13-19 19:45	0.89	1108	7.71	5.1	12-13-19 19:45	-0.09	753	8.38	18.4															
12-29-19 7:00	-0.11	728	7.88	0.5	12-13-19 20:00	0.93	1112	7.71	5.3	12-13-19 20:00	-0.09	704	8.38	69.3															
12-29-19 7:15	-0.11	728	7.88	0.6	12-13-19 20:15	0.97	1114	7.71	4.8	12-13-19 20:15	-0.09	750	8.37	17.4															
12-29-19 7:30	-0.11	727	7.88	0.5	12-13-19 20:30	0.93	1112	7.71	5.1	12-13-19 20:30	-0.09	711	8.37	54.7															
12-29-19 7:45	-0.11	727	7.88	0.5	12-13-19 20:45	0.85	1110	7.71	5.1	12-13-19 20:45	-0.09	744	8.35	20.7															
12-29-19 8:00	-0.11	726	7.88	0.4	12-13-19 21:00	0.83	1109	7.71	4.4	12-13-19 21:00	-0.09	709	8.35	45.2															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-29-19 8:15	-0.11	728	7.87	0.7	12-13-19 21:15	0.95	1111	7.71	4.9	12-13-19 21:15	-0.09	752	8.34	20.4															
12-29-19 8:30	-0.11	727	7.89	0.5	12-13-19 21:30	0.87	1110	7.71	4.9	12-13-19 21:30	-0.09	718	8.34	44.4															
12-29-19 8:45	-0.12	727	7.88	0.4	12-13-19 21:45	0.84	1109	7.71	4.6	12-13-19 21:45	-0.09	754	8.33	18.4															
12-29-19 9:00	-0.12	727	7.88	0.5	12-13-19 22:00	0.90	1110	7.71	4.8	12-13-19 22:00	-0.09	712	8.32	60.1															
12-29-19 9:15	-0.11	727	7.88	0.7	12-13-19 22:15	0.86	1111	7.71	5.0	12-13-19 22:15	-0.09	755	8.32	19.0															
12-29-19 9:30	-0.12	727	7.89	0.4	12-13-19 22:30	0.92	1111	7.71	4.7	12-13-19 22:30	-0.09	719	8.31	54.3															
12-29-19 9:45	-0.12	727	7.89	0.5	12-13-19 22:45	0.91	1110	7.71	4.4	12-13-19 22:45	-0.09	757	8.31	18.1															
12-29-19 10:00	-0.12	727	7.89	0.5	12-13-19 23:00	0.97	1112	7.71	4.9	12-13-19 23:00	-0.09	722	8.30	46.4															
12-29-19 10:15	-0.12	728	7.88	0.7	12-13-19 23:15	0.96	1112	7.71	5.1	12-13-19 23:15	-0.09	757	8.29	17.8															
12-29-19 10:30	-0.12	727	7.89	0.5	12-13-19 23:30	0.98	1109	7.71	4.7	12-13-19 23:30	-0.09	716	8.29	57.3															
12-29-19 10:45	-0.12	727	7.89	0.5	12-13-19 23:45	0.92	1106	7.71	4.8	12-13-19 23:45	-0.09	763	8.28	20.5															
12-29-19 11:00	-0.12	727	7.89	0.5	12-14-19 0:00	0.89	1106	7.71	4.7	12-14-19 0:00	-0.09	718	8.28	55.1															
12-29-19 11:15	-0.12	728	7.88	0.6	12-14-19 0:15	0.93	1106	7.71	4.9	12-14-19 0:15	-0.09	761	8.28	20.0															
12-29-19 11:30	-0.12	728	7.89	0.5	12-14-19 0:30	0.85	1109	7.71	4.8	12-14-19 0:30	-0.09	720	8.28	52.6															
12-29-19 11:45	-0.12	727	7.89	0.6	12-14-19 0:45	0.86	1105	7.71	4.9	12-14-19 0:45	-0.09	762	8.27	18.7															
12-29-19 12:00	-0.12	727	7.89	0.5	12-14-19 1:00	0.85	1107	7.70	4.8	12-14-19 1:00	-0.09	723	8.27	50.3															
12-29-19 12:15	-0.12	729	7.88	0.8	12-14-19 1:15	0.80	1102	7.70	4.7	12-14-19 1:15	-0.09	763	8.26	18.4															
12-29-19 12:30	-0.12	728	7.89	0.4	12-14-19 1:30	0.84	1106	7.70	4.6	12-14-19 1:30	-0.09	726	8.26	49.8															
12-29-19 12:45	-0.12	728	7.89	0.5	12-14-19 1:45	0.93	1106	7.70	4.7	12-14-19 1:45	-0.09	763	8.26	17.6															
12-29-19 13:00	-0.12	727	7.89	0.4	12-14-19 2:00	0.94	1107	7.71	4.8	12-14-19 2:00	-0.09	731	8.25	52.9															
12-29-19 13:15	-0.12	729	7.88	0.6	12-14-19 2:15	0.85	1106	7.71	4.8	12-14-19 2:15	-0.09	765	8.25	18.5															
12-29-19 13:30	-0.12	728	7.89	0.5	12-14-19 2:30	0.86	1108	7.71	4.9	12-14-19 2:30	-0.09	729	8.25	51.1															
12-29-19 13:45	-0.12	727	7.89	0.5	12-14-19 2:45	0.72	1103	7.70	4.0	12-14-19 2:45	-0.09	765	8.25	18.4															
12-29-19 14:00	-0.12	726	7.88	0.5	12-14-19 3:00	0.81	1106	7.70	4.5	12-14-19 3:00	-0.09	730	8.25	52.9															
12-29-19 14:15	-0.11	728	7.87	0.7	12-14-19 3:15	0.82	1102	7.70	5.0	12-14-19 3:15	-0.09	764	8.25	17.9															
12-29-19 14:30	-0.12	726	7.89	0.5	12-14-19 3:30	0.81	1098	7.70	4.5	12-14-19 3:30	-0.09	732	8.25	48.2															
12-29-19 14:45	-0.12	725	7.88	0.6	12-14-19 3:45	0.78	1096	7.69	4.1	12-14-19 3:45	-0.09	765	8.25	18.9															
12-29-19 15:00	-0.12	725	7.88	0.5	12-14-19 4:00	0.81	1097	7.69	4.4	12-14-19 4:00	-0.09	732	8.25	48.3															
12-29-19 15:15	-0.12	726	7.88	0.6	12-14-19 4:15	0.77	1098	7.69	4.3	12-14-19 4:15	-0.09	763	8.24	18.1															
12-29-19 15:30	-0.12	725	7.88	0.4	12-14-19 4:30	0.80	1099	7.69	4.4	12-14-19 4:30	-0.09	731	8.24	44.6															
12-29-19 15:45	-0.12	725	7.88	0.4	12-14-19 4:45	0.77	1100	7.69	4.1	12-14-19 4:45	-0.09	764	8.24	17.9															
12-29-19 16:00	-0.12	725	7.88	0.5	12-14-19 5:00	0.77	1103	7.70	5.3	12-14-19 5:00	-0.09	731	8.24	45.5															
12-29-19 16:15	-0.12	726	7.87	0.7	12-14-19 5:15	0.87	1100	7.69	4.6	12-14-19 5:15	-0.09	764	8.24	18.3															
12-29-19 16:30	-0.12	725	7.89	0.5	12-14-19 5:30	0.87	1101	7.70	4.6	12-14-19 5:30	-0.09	733	8.23	44.5															
12-29-19 16:45	-0.12	725	7.88	0.5	12-14-19 5:45	0.83	1095	7.69	4.7	12-14-19 5:45	-0.09	765	8.24	18.2															
12-29-19 17:00	-0.12	725	7.88	0.4	12-14-19 6:00	0.90	1097	7.69	4.7	12-14-19 6:00	-0.09	737	8.24	43.7															
12-29-19 17:15	-0.12	725	7.88	0.7	12-14-19 6:15	0.84	1097	7.69	4.9	12-14-19 6:15	-0.09	766	8.24	18.1															
12-29-19 17:30	-0.12	725	7.89	0.5	12-14-19 6:30	0.82	1098	7.69	4.2	12-14-19 6:30	-0.09	737	8.24	45.4															
12-29-19 17:45	-0.12	725	7.89	0.4	12-14-19 6:45	0.78	1094	7.68	4.4	12-14-19 6:45	-0.09	768	8.24	20.2															
12-29-19 18:00	-0.12	725	7.89	0.4	12-14-19 7:00	0.80	1096	7.69	4.2	12-14-19 7:00	-0.09	739	8.24	42.4															
12-29-19 18:15	-0.12	727	7.88	0.7	12-14-19 7:15	0.80	1093	7.68	4.2	12-14-19 7:15	-0.09	770	8.24	19.5															
12-29-19 18:30	-0.12	725	7.89	0.4	12-14-19 7:30	0.83	1097	7.68	4.5	12-14-19 7:30	-0.09	741	8.24	40.4															
12-29-19 18:45	-0.12	725	7.89	0.4	12-14-19 7:45	0.82	1094	7.68	4.3	12-14-19 7:45	-0.09	773	8.23	19.7															
12-29-19 19:00	-0.12	724	7.89	0.5	12-14-19 8:00	0.84	1095	7.68	4.4	12-14-19 8:00	-0.09	743	8.23	42.3															
12-29-19 19:15	-0.11	725	7.88	0.6	12-14-19 8:15	0.68	1085	7.67	4.4	12-14-19 8:15	-0.09	775	8.23	19.5															
12-29-19 19:30	-0.11	724	7.89	0.4	12-14-19 8:30	0.71	1090	7.67	4.3	12-14-19 8:30	-0.09	744	8.23	42.8															
12-29-19 19:45	-0.11	723	7.88	0.5	12-14-19 8:45	0.76	1089	7.67	4.2	12-14-19 8:45	-0.09	776	8.23	20.2															
12-29-19 20:00	-0.11	723	7.88	0.5	12-14-19 9:00	0.81	1092	7.68	4.2	12-14-19 9:00	-0.09	747	8.23	42.1															
12-29-19 20:15	-0.10	725	7.88	0.7	12-14-19 9:15	0.75	1090	7.68	4.1	12-14-19 9:15	-0.09	778	8.23	21.0															
12-29-19 20:30	-0.10	725	7.90	0.4	12-14-19 9:30	0.84	1098	7.68	4.4	12-14-19 9:30	-0.09	749	8.22	43.5															
12-29-19 20:45	-0.10	722	7.89	0.5	12-14-19 9:45	0.72	1088	7.67	4.2	12-14-19 9:45	-0.09	775	8.23	21.3															
12-29-19 21:00	-0.10	721	7.89	0.5	12-14-19 10:00	0.74	1091	7.67	3.7	12-14-19 10:00	-0.09	747	8.22	37.1															
12-29-19 21:15	-0.10	722	7.88	0.7	12-14-19 10:15	0.76	1087	7.67	4.2	12-14-19 10:15	-0.09	777	8.23	20.6															
12-29-19 21:30	-0.10	722	7.89	0.4	12-14-19 10:30	0.81	1098	7.68	4.5	12-14-19 10:30	-0.09	743	8.22	36.3															
12-29-19 21:45	-0.11	722	7.89	0.4	12-14-19 10:45	0.84	1093	7.68	4.1	12-14-19 10:45	-0.09	778	8.22	20.4															
12-29-19 22:00	-0.11	722	7.89	0.5	12-14-19 11:00	0.81	1091	7.68	4.5	12-14-19 11:00	-0.09	745	8.22	41.0															
12-29-19 22:15	-0.11	723	7.88	0.7	12-14-19 11:15	0.75	1088	7.67	4.6	12-14-19 11:15	-0.09	778	8.22	19.8															
12-29-19 22:30	-0.11	722	7.90	0.5	12-14-19 11:30	0.78	1084	7.67	4.4	12-14-19 11:30	-0.09	747	8.21	39.2															
12-29-19 22:45	-0.11	722	7.89	0.5	12-14-19 11:45	0.77	1084	7.67	4.8	12-14-19 11:45	-0.09	777	8.22	20.9															
12-29-19 23:00	-0.11	722	7.89	0.5	12-14-19 12:00	0.75	1085	7.67	4.3	12-14-19 12:00	-0.09	749	8.21	38.4															
12-29-19 23:15	-0.11	723	7.88	0.6	12-14-19 12:15	0.76	1085	7.67	4.4	12-14-19 12:15	-0.09	781	8.21	21.2															
12-29-19 23:30	-0.11	722	7.90	0.4	12-14-19 12:30	0.79	1085	7.67	4.3	12-14-19 12:30	-0.09	751	8.21	36.3															
12-29-19 23:45	-0.11	722	7.89	0.5	12-14-19 12:45	0.77	1089	7.67	4.2	12-14-19 12:45	-0.09	805	8.19	396.4															
12-30-19 0:00	-0.11	722	7.89	0.5	12-14-19 13:00	0.76	1087	7.67	4.1	12-14-19 13:00	-0.09	811	8.18	23.0															
12-30-19 0:15	-0.11	722	7.88	0.6	12-14-19 13:15	0.72	1080	7.66	4.1	12-14-19 13:15	-0.09	797	8.18	132.1															
12-30-19 0:30	-0.11	722	7.90	0.5	12-14-19 13:30	0.69	1081	7.66	4.3	12-14-19 13:30	-0.09	798	8.18	18.1															
12-30-19 0:45	-0.11	722	7.89	0.4	12-14-19 13:45	0.74	1084	7.66	4.5	12-14-19 13:45	-0.09	794	8.19	54.0															
12-30-19 1:00	-0.11	722	7.89	0.5	12-14-19 14:00	0.80	1088	7.67	4.2	12-14-19 14:00	-0.09	796	8.19	15.1															
12-30-19 1:15	-0.11	723	7.89	0.6	12-14-19 14:15	0.89	1089	7.67	4.8	12-14-19 14:15	-0.09	788	8.20	36.4															
12-30-19 1:30	-0.11	722	7.90	0.4	12-14-19 14:30	0.88	1093	7.68	4.5	12-14-19 14:30	-0.09	791	8.20	12.7															
12-30-19 1:45	-0.12	722	7.90	0.5	12-14-19 14:45	0.89	1092	7.67	4.7	12-14-19 14:45	-0.09	786	8.21	31.4															
12-30-19 2:00	-0.11	722	7.89	0.4	12-14-19 15:00	0.83	1090	7.67	4.6	12-14-19 15:00	-0.09	790	8.22	11.6															
12-30-19 2:15	-0.11	724	7.88	0.8	12-14-19 15:15	0.92	1095	7.68	4.7	12-14-19 15:15	-0.09	775	8.23	30.8															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-30-19 2:30	-0.11	722	7.90	0.4	12-14-19 15:30	0.94	1091	7.67	4.5	12-14-19 15:30	-0.09	790	8.23	10.7															
12-30-19 2:45	-0.11	721	7.89	0.4	12-14-19 15:45	0.86	1088	7.67	4.5	12-14-19 15:45	-0.09	770	8.24	29.2															
12-30-19 3:00	-0.11	721	7.89	0.5	12-14-19 16:00	1.01	1095	7.68	5.2	12-14-19 16:00	-0.09	793	8.24	9.9															
12-30-19 3:15	-0.11	722	7.89	0.6	12-14-19 16:15	0.93	1086	7.67	4.8	12-14-19 16:15	-0.09	770	8.25	29.3															
12-30-19 3:30	-0.11	721	7.90	0.4	12-14-19 16:30	1.10	1097	7.68	5.0	12-14-19 16:30	-0.09	792	8.25	9.1															
12-30-19 3:45	-0.11	721	7.89	0.5	12-14-19 16:45	0.91	1086	7.67	4.3	12-14-19 16:45	-0.09	767	8.26	27.5															
12-30-19 4:00	-0.11	720	7.89	0.5	12-14-19 17:00	0.98	1091	7.67	4.5	12-14-19 17:00	-0.09	796	8.26	8.8															
12-30-19 4:15	-0.11	722	7.88	0.6	12-14-19 17:15	0.91	1085	7.67	4.4	12-14-19 17:15	-0.09	765	8.27	29.3															
12-30-19 4:30	-0.11	721	7.90	0.6	12-14-19 17:30	1.04	1094	7.67	4.9	12-14-19 17:30	-0.09	793	8.27	12.5															
12-30-19 4:45	-0.11	720	7.89	0.5	12-14-19 17:45	0.94	1087	7.67	4.7	12-14-19 17:45	-0.09	763	8.28	26.4															
12-30-19 5:00	-0.11	720	7.89	0.5	12-14-19 18:00	0.97	1089	7.67	4.7	12-14-19 18:00	-0.09	792	8.29	9.7															
12-30-19 5:15	-0.11	721	7.89	0.6	12-14-19 18:15	0.96	1087	7.67	4.2	12-14-19 18:15	-0.09	761	8.30	23.3															
12-30-19 5:30	-0.11	720	7.90	0.4	12-14-19 18:30	0.91	1086	7.66	4.3	12-14-19 18:30	-0.09	790	8.30	10.5															
12-30-19 5:45	-0.11	720	7.90	0.4	12-14-19 18:45	0.91	1083	7.66	4.1	12-14-19 18:45	-0.09	761	8.31	24.7															
12-30-19 6:00	-0.11	720	7.90	0.4	12-14-19 19:00	0.96	1088	7.67	4.7	12-14-19 19:00	-0.09	792	8.31	8.6															
12-30-19 6:15	-0.11	722	7.89	0.6	12-14-19 19:15	0.96	1089	7.67	4.4	12-14-19 19:15	-0.09	761	8.32	24.1															
12-30-19 6:30	-0.12	721	7.90	0.4	12-14-19 19:30	0.93	1086	7.67	4.0	12-14-19 19:30	-0.09	791	8.32	8.6															
12-30-19 6:45	-0.12	720	7.90	0.4	12-14-19 19:45	0.93	1083	7.66	4.4	12-14-19 19:45	-0.09	763	8.33	23.1															
12-30-19 7:00	-0.12	721	7.91	0.4	12-14-19 20:00	0.92	1087	7.67	4.6	12-14-19 20:00	-0.09	794	8.33	8.7															
12-30-19 7:15	-0.12	722	7.89	0.6	12-14-19 20:15	0.92	1083	7.66	4.1	12-14-19 20:15	-0.09	762	8.33	21.3															
12-30-19 7:30	-0.12	721	7.91	0.4	12-14-19 20:30	0.92	1084	7.66	4.4	12-14-19 20:30	-0.09	794	8.34	9.2															
12-30-19 7:45	-0.12	721	7.91	0.4	12-14-19 20:45	0.93	1082	7.66	4.4	12-14-19 20:45	-0.09	764	8.34	22.8															
12-30-19 8:00	-0.12	721	7.91	0.4	12-14-19 21:00	0.97	1087	7.66	4.7	12-14-19 21:00	-0.09	793	8.34	8.3															
12-30-19 8:15	-0.12	723	7.89	0.7	12-14-19 21:15	0.93	1085	7.66	4.5	12-14-19 21:15	-0.09	763	8.33	22.4															
12-30-19 8:30	-0.12	722	7.91	0.4	12-14-19 21:30	0.91	1084	7.66	4.4	12-14-19 21:30	-0.09	794	8.33	8.3															
12-30-19 8:45	-0.12	722	7.91	0.4	12-14-19 21:45	0.94	1086	7.66	4.9	12-14-19 21:45	-0.09	765	8.32	21.7															
12-30-19 9:00	-0.12	722	7.91	0.4	12-14-19 22:00	0.93	1084	7.66	4.4	12-14-19 22:00	-0.09	795	8.33	9.2															
12-30-19 9:15	-0.12	723	7.89	0.6	12-14-19 22:15	0.98	1087	7.66	4.9	12-14-19 22:15	-0.09	765	8.32	21.0															
12-30-19 9:30	-0.12	722	7.91	0.4	12-14-19 22:30	0.88	1084	7.65	4.2	12-14-19 22:30	-0.09	796	8.32	9.2															
12-30-19 9:45	-0.12	722	7.91	0.4	12-14-19 22:45	0.89	1081	7.65	4.8	12-14-19 22:45	-0.09	766	8.31	20.5															
12-30-19 10:00	-0.12	722	7.91	0.5	12-14-19 23:00	0.95	1087	7.66	4.5	12-14-19 23:00	-0.09	798	8.32	12.2															
12-30-19 10:15	-0.12	725	7.89	0.7	12-14-19 23:15	0.92	1086	7.66	4.4	12-14-19 23:15	-0.09	768	8.30	20.8															
12-30-19 10:30	-0.12	723	7.90	0.5	12-14-19 23:30	0.96	1088	7.66	5.0	12-14-19 23:30	-0.09	800	8.31	11.2															
12-30-19 10:45	-0.12	723	7.90	0.5	12-14-19 23:45	0.95	1084	7.66	4.3	12-14-19 23:45	-0.09	771	8.30	21.1															
12-30-19 11:00	-0.12	723	7.91	0.5	12-15-19 0:00	0.92	1083	7.66	4.1	12-15-19 0:00	-0.09	805	8.31	12.1															
12-30-19 11:15	-0.12	723	7.89	0.7	12-15-19 0:15	1.00	1088	7.66	4.2	12-15-19 0:15	-0.09	775	8.31	23.5															
12-30-19 11:30	-0.12	722	7.91	0.4	12-15-19 0:30	0.94	1087	7.66	3.9	12-15-19 0:30	-0.09	804	8.32	13.2															
12-30-19 11:45	-0.12	721	7.91	0.5	12-15-19 0:45	0.98	1087	7.66	5.0	12-15-19 0:45	-0.09	777	8.30	21.5															
12-30-19 12:00	-0.12	721	7.90	0.5	12-15-19 1:00	0.88	1081	7.65	4.2	12-15-19 1:00	-0.09	803	8.30	13.1															
12-30-19 12:15	-0.12	723	7.89	0.7	12-15-19 1:15	0.87	1082	7.65	4.3	12-15-19 1:15	-0.09	778	8.28	21.6															
12-30-19 12:30	-0.12	722	7.90	0.5	12-15-19 1:30	0.94	1083	7.66	5.0	12-15-19 1:30	-0.09	811	8.28	8.6															
12-30-19 12:45	-0.12	721	7.90	0.5	12-15-19 1:45	0.94	1082	7.65	4.6	12-15-19 1:45	-0.09	781	8.25	28.0															
12-30-19 13:00	-0.12	721	7.90	0.4	12-15-19 2:00	1.00	1083	7.66	4.5	12-15-19 2:00	-0.09	810	8.25	15.8															
12-30-19 13:15	-0.12	722	7.89	0.6	12-15-19 2:15	1.01	1086	7.66	4.6	12-15-19 2:15	-0.09	790	8.22	23.0															
12-30-19 13:30	-0.12	720	7.90	0.5	12-15-19 2:30	0.88	1080	7.65	3.8	12-15-19 2:30	-0.09	809	8.23	13.0															
12-30-19 13:45	-0.12	720	7.90	0.4	12-15-19 2:45	0.83	1081	7.66	4.1	12-15-19 2:45	-0.09	787	8.21	22.4															
12-30-19 14:00	-0.12	720	7.90	0.5	12-15-19 3:00	0.83	1083	7.66	3.8	12-15-19 3:00	-0.09	808	8.21	11.2															
12-30-19 14:15	-0.12	722	7.89	0.7	12-15-19 3:15	0.90	1085	7.66	4.2	12-15-19 3:15	-0.09	787	8.21	22.5															
12-30-19 14:30	-0.12	721	7.90	0.5	12-15-19 3:30	0.92	1080	7.65	4.5	12-15-19 3:30	-0.09	806	8.21	11.1															
12-30-19 14:45	-0.12	720	7.90	0.4	12-15-19 3:45	0.92	1080	7.65	4.1	12-15-19 3:45	-0.09	788	8.21	24.9															
12-30-19 15:00	-0.12	720	7.90	0.5	12-15-19 4:00	0.87	1079	7.64	4.0	12-15-19 4:00	-0.09	806	8.22	15.2															
12-30-19 15:15	-0.12	722	7.89	0.6	12-15-19 4:15	0.94	1080	7.65	4.1	12-15-19 4:15	-0.09	790	8.21	22.7															
12-30-19 15:30	-0.12	721	7.90	0.5	12-15-19 4:30	1.04	1093	7.65	4.9	12-15-19 4:30	-0.09	807	8.21	22.4															
12-30-19 15:45	-0.12	720	7.90	0.5	12-15-19 4:45	0.91	1078	7.65	4.3	12-15-19 4:45	-0.09	794	8.20	22.9															
12-30-19 16:00	-0.12	720	7.90	0.4	12-15-19 5:00	0.97	1080	7.65	4.6	12-15-19 5:00	-0.09	817	8.21	9.0															
12-30-19 16:15	-0.12	722	7.89	0.7	12-15-19 5:15	0.93	1082	7.65	4.2	12-15-19 5:15	-0.09	794	8.20	29.2															
12-30-19 16:30	-0.12	720	7.90	0.5	12-15-19 5:30	0.89	1080	7.65	4.4	12-15-19 5:30	-0.09	808	8.20	17.4															
12-30-19 16:45	-0.12	720	7.90	0.4	12-15-19 5:45	0.92	1079	7.65	4.5	12-15-19 5:45	-0.09	796	8.20	21.5															
12-30-19 17:00	-0.12	720	7.90	0.4	12-15-19 6:00	0.81	1074	7.64	3.9	12-15-19 6:00	-0.09	808	8.20	13.5															
12-30-19 17:15	-0.12	721	7.89	0.5	12-15-19 6:15	1.02	1084	7.66	4.8	12-15-19 6:15	-0.09	802	8.19	22.0															
12-30-19 17:30	-0.12	720	7.90	0.5	12-15-19 6:30	0.88	1077	7.65	4.3	12-15-19 6:30	-0.09	808	8.20	15.2															
12-30-19 17:45	-0.12	720	7.90	0.5	12-15-19 6:45	0.90	1074	7.65	4.1	12-15-19 6:45	-0.09	801	8.19	22.2															
12-30-19 18:00	-0.13	720	7.90	0.5	12-15-19 7:00	0.84	1080	7.64	4.1	12-15-19 7:00	-0.09	808	8.20	20.6															
12-30-19 18:15	-0.12	722	7.89	0.6	12-15-19 7:15	0.87	1074	7.64	4.2	12-15-19 7:15	-0.09	802	8.19	22.1															
12-30-19 18:30	-0.12	721	7.90	0.5	12-15-19 7:30	0.90	1077	7.64	4.5	12-15-19 7:30	-0.09	810	8.20	21.7															
12-30-19 18:45	-0.13	721	7.90	0.5	12-15-19 7:45	0.88	1073	7.64	4.4	12-15-19 7:45	-0.09	807	8.19	22.2															
12-30-19 19:00	-0.12	720	7.90	0.5	12-15-19 8:00	0.91	1075	7.64	4.3	12-15-19 8:00	-0.09	811	8.20	21.7															
12-30-19 19:15	-0.12	722	7.89	0.8	12-15-19 8:15	0.81	1073	7.64	4.1	12-15-19 8:15	-0.09	808	8.19	22.4															
12-30-19 19:30	-0.12	720	7.90	0.5	12-15-19 8:30	0.85	1074	7.64	4.6	12-15-19 8:30	-0.09	811	8.20	20.8															
12-30-19 19:45	-0.13	720	7.90	0.5	12-15-19 8:45	0.85	1072	7.64	4.4	12-15-19 8:45	-0.09	811	8.19	22.2															
12-30-19 20:00	-0.12	720	7.90	0.4	12-15-19 9:00	0.87	1073	7.64	4.0	12-15-19 9:00	-0.09	809	8.20	24.0															
12-30-19 20:15	-0.12	722	7.89	0.6	12-15-19 9:15	0.79	1073	7.63	3.9	12-15-19 9:15	-0.09	812	8.19	22.8															
12-30-19 20:30	-0.12	721	7.90	0.5	12-15-19 9:30	0.77	1068	7.62	4.5	12-15-19 9:30	-0.09	810	8.20	20.2															

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-30-19 20:45	-0.12	720	7.90	0.5
12-30-19 21:00	-0.12	720	7.90	0.4
12-30-19 21:15	-0.12	722	7.89	0.5
12-30-19 21:30	-0.12	720	7.90	0.5
12-30-19 21:45	-0.12	720	7.90	0.4
12-30-19 22:00	-0.12	721	7.90	0.4
12-30-19 22:15	-0.12	722	7.89	0.7
12-30-19 22:30	-0.12	721	7.90	0.4
12-30-19 22:45	-0.12	720	7.90	0.5
12-30-19 23:00	-0.11	720	7.90	0.4
12-30-19 23:15	-0.11	720	7.90	0.6
12-30-19 23:30	-0.12	720	7.90	0.5
12-30-19 23:45	-0.12	720	7.91	0.5
12-31-19 0:00	-0.11	720	7.91	0.4
12-31-19 0:15	-0.11	720	7.90	0.6
12-31-19 0:30	-0.11	720	7.92	0.5
12-31-19 0:45	-0.12	719	7.92	0.4
12-31-19 1:00	-0.12	719	7.91	0.4
12-31-19 1:15	-0.12	718	7.90	0.6
12-31-19 1:30	-0.11	717	7.90	0.4
12-31-19 1:45	-0.11	717	7.90	0.5
12-31-19 2:00	-0.11	717	7.90	0.4
12-31-19 2:15	-0.11	717	7.89	0.7
12-31-19 2:30	-0.11	716	7.90	0.4
12-31-19 2:45	-0.11	716	7.89	0.5
12-31-19 3:00	-0.11	716	7.89	0.4
12-31-19 3:15	-0.11	716	7.89	0.6
12-31-19 3:30	-0.11	715	7.90	0.5
12-31-19 3:45	-0.11	715	7.89	0.4
12-31-19 4:00	-0.11	715	7.89	0.4
12-31-19 4:15	-0.11	715	7.89	0.7
12-31-19 4:30	-0.12	714	7.90	0.5
12-31-19 4:45	-0.12	713	7.90	0.5
12-31-19 5:00	-0.12	713	7.90	0.4
12-31-19 5:15	-0.12	713	7.91	0.6
12-31-19 5:30	-0.12	713	7.91	0.4
12-31-19 5:45	-0.12	712	7.92	0.4
12-31-19 6:00	-0.12	711	7.92	0.4
12-31-19 6:15	-0.11	712	7.91	0.7
12-31-19 6:30	-0.12	711	7.92	0.4
12-31-19 6:45	-0.12	710	7.93	0.4
12-31-19 7:00	-0.11	710	7.93	0.4
12-31-19 7:15	-0.11	711	7.91	0.6
12-31-19 7:30	-0.11	710	7.92	0.4
12-31-19 7:45	-0.12	710	7.92	0.4
12-31-19 8:00	-0.11	709	7.92	0.4
12-31-19 8:15	-0.11	709	7.91	0.6
12-31-19 8:30	-0.11	708	7.92	0.4
12-31-19 8:45	-0.11	708	7.92	0.4
12-31-19 9:00	-0.11	708	7.92	0.4
12-31-19 9:15	-0.11	708	7.91	0.7
12-31-19 9:30	-0.12	707	7.92	0.4
12-31-19 9:45	-0.12	707	7.92	0.4
12-31-19 10:00	-0.12	706	7.92	0.4
12-31-19 10:15	-0.11	707	7.91	0.6
12-31-19 10:30	-0.12	706	7.92	0.4
12-31-19 10:45	-0.12	706	7.92	0.4
12-31-19 11:00	-0.12	706	7.92	0.4
12-31-19 11:15	-0.11	706	7.91	0.5
12-31-19 11:30	-0.11	705	7.92	0.4
12-31-19 11:45	-0.11	705	7.92	0.4
12-31-19 12:00	-0.12	705	7.92	0.4
12-31-19 12:15	-0.11	705	7.91	0.6
12-31-19 12:30	-0.11	704	7.92	0.3
12-31-19 12:45	-0.11	704	7.93	0.4
12-31-19 13:00	-0.11	704	7.93	0.4
12-31-19 13:15	-0.11	703	7.92	0.5
12-31-19 13:30	-0.11	703	7.93	0.4
12-31-19 13:45	-0.11	703	7.93	0.3
12-31-19 14:00	-0.11	702	7.93	0.4
12-31-19 14:15	-0.11	702	7.91	0.5
12-31-19 14:30	-0.11	701	7.92	0.4
12-31-19 14:45	-0.11	701	7.93	0.3

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-15-19 9:45	0.88	1073	7.63	4.1
12-15-19 10:00	0.76	1072	7.63	4.0
12-15-19 10:15	0.75	1071	7.63	4.0
12-15-19 10:30	0.73	1071	7.63	4.0
12-15-19 10:45	0.70	1067	7.63	4.2
12-15-19 11:00	0.72	1068	7.62	4.2
12-15-19 11:15	0.67	1065	7.62	3.8
12-15-19 11:30	0.63	1065	7.62	3.6
12-15-19 11:45	0.65	1066	7.62	4.1
12-15-19 12:00	0.60	1061	7.62	3.9
12-15-19 12:15	0.68	1061	7.62	4.0
12-15-19 12:30	0.73	1066	7.63	4.1
12-15-19 12:45	0.68	1058	7.62	3.8
12-15-19 13:00	0.68	1067	7.62	4.1
12-15-19 13:15	0.76	1070	7.63	3.9
12-15-19 13:30	0.74	1067	7.62	4.1
12-15-19 13:45	0.65	1060	7.61	3.6
12-15-19 14:00	0.75	1065	7.62	3.8
12-15-19 14:15	0.83	1070	7.63	4.0
12-15-19 14:30	0.80	1069	7.63	4.6
12-15-19 14:45	0.84	1071	7.62	4.4
12-15-19 15:00	0.89	1067	7.63	4.6
12-15-19 15:15	0.88	1071	7.63	4.5
12-15-19 15:30	0.93	1071	7.63	4.1
12-15-19 15:45	0.92	1070	7.63	4.1
12-15-19 16:00	0.85	1069	7.63	3.7
12-15-19 16:15	0.84	1071	7.63	4.6
12-15-19 16:30	0.89	1073	7.63	4.3
12-15-19 16:45	0.92	1070	7.63	4.3
12-15-19 17:00	0.91	1067	7.63	4.6
12-15-19 17:15	0.83	1067	7.62	3.8
12-15-19 17:30	0.88	1068	7.62	4.0
12-15-19 17:45	0.90	1067	7.62	5.2
12-15-19 18:00	0.88	1066	7.62	4.5
12-15-19 18:15	0.88	1066	7.62	4.5
12-15-19 18:30	0.85	1065	7.62	4.7
12-15-19 18:45	0.81	1060	7.61	4.8
12-15-19 19:00	0.91	1067	7.62	4.2
12-15-19 19:15	0.89	1068	7.62	4.1
12-15-19 19:30	0.89	1066	7.62	4.1
12-15-19 19:45	0.98	1071	7.62	4.5
12-15-19 20:00	0.97	1070	7.62	4.3
12-15-19 20:15	0.92	1067	7.62	4.1
12-15-19 20:30	0.90	1066	7.62	5.3
12-15-19 20:45	0.94	1067	7.62	4.3
12-15-19 21:00	0.98	1068	7.61	4.7
12-15-19 21:15	0.96	1066	7.62	5.0
12-15-19 21:30	0.99	1064	7.61	4.5
12-15-19 21:45	1.02	1068	7.62	4.2
12-15-19 22:00	0.96	1070	7.62	4.3
12-15-19 22:15	0.97	1070	7.62	4.3
12-15-19 22:30	0.99	1067	7.62	4.1
12-15-19 22:45	0.95	1068	7.61	4.3
12-15-19 23:00	0.87	1061	7.60	4.3
12-15-19 23:15	1.02	1067	7.61	4.2
12-15-19 23:30	0.93	1063	7.61	4.5
12-15-19 23:45	0.93	1060	7.61	4.2
12-16-19 0:00	0.93	1063	7.61	4.0
12-16-19 0:15	0.90	1064	7.61	4.5
12-16-19 0:30	0.86	1061	7.61	4.2
12-16-19 0:45	0.89	1064	7.61	4.0
12-16-19 1:00	0.87	1059	7.60	4.1
12-16-19 1:15	0.89	1062	7.61	4.7
12-16-19 1:30	0.91	1065	7.61	4.3
12-16-19 1:45	0.88	1057	7.61	4.7
12-16-19 2:00	0.90	1061	7.61	4.4
12-16-19 2:15	0.89	1060	7.61	4.1
12-16-19 2:30	0.87	1061	7.62	4.2
12-16-19 2:45	0.89	1066	7.62	4.4
12-16-19 3:00	0.96	1068	7.62	4.3
12-16-19 3:15	0.95	1065	7.61	4.1
12-16-19 3:30	0.93	1061	7.61	4.8
12-16-19 3:45	0.97	1061	7.61	4.4

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-15-19 9:45	-0.09	815	8.19	22.1
12-15-19 10:00	-0.09	811	8.20	19.9
12-15-19 10:15	-0.09	815	8.19	22.6
12-15-19 10:30	-0.09	810	8.20	21.6
12-15-19 10:45	-0.09	818	8.19	22.7
12-15-19 11:00	-0.09	811	8.20	19.2
12-15-19 11:15	-0.09	821	8.19	22.5
12-15-19 11:30	-0.09	810	8.19	18.0
12-15-19 11:45	-0.09	825	8.18	22.9
12-15-19 12:00	-0.09	809	8.19	18.5
12-15-19 12:15	-0.09	826	8.18	22.9
12-15-19 12:30	-0.09	809	8.19	18.7
12-15-19 12:45	-0.09	826	8.19	22.6
12-15-19 13:00	-0.09	807	8.19	14.1
12-15-19 13:15	-0.09	824	8.18	23.1
12-15-19 13:30	-0.09	803	8.18	14.1
12-15-19 13:45	-0.09	823	8.18	23.0
12-15-19 14:00	-0.09	800	8.19	15.9
12-15-19 14:15	-0.09	827	8.18	23.6
12-15-19 14:30	-0.09	802	8.18	16.9
12-15-19 14:45	-0.09	830	8.18	23.2
12-15-19 15:00	-0.17	2	7.91	14.2
12-15-19 15:15	-0.09	893	8.18	32.0
12-15-19 15:30	-0.09	887	8.18	25.7
12-15-19 15:45	-0.09	881	8.18	42.4
12-15-19 16:00	-0.09	880	8.18	22.5
12-15-19 16:15	-0.09	870	8.18	84.7
12-15-19 16:30	-0.09	877	8.18	33.8
12-15-19 16:45	-0.09	860	8.17	187.3
12-15-19 17:00	-0.09	875	8.18	27.8
12-15-19 17:15	-0.09	849	8.17	46.7
12-15-19 17:30	-0.09	874	8.18	22.7
12-15-19 17:45	-0.09	844	8.18	46.8
12-15-19 18:00	-0.09	873	8.18	19.2
12-15-19 18:15	-0.09	840	8.18	36.2
12-15-19 18:30	-0.09	874	8.18	21.8
12-15-19 18:45	-0.09	840	8.18	39.0
12-15-19 19:00	-0.09	875	8.18	19.6
12-15-19 19:15	-0.09	840	8.18	53.4
12-15-19 19:30	-0.09	876	8.18	20.8
12-15-19 19:45	-0.09	842	8.17	40.9
12-15-19 20:00	-0.09	878	8.18	21.5
12-15-19 20:15	-0.09	844	8.17	45.2
12-15-19 20:30	-0.09	882	8.17	18.9
12-15-19 20:45	-0.09	844	8.17	51.3
12-15-19 21:00	-0.09	883	8.17	19.1
12-15-19 21:15	-0.09	844	8.17	46.3
12-15-19 21:30	-0.09	878	8.17	16.0
12-15-19 21:45	-0.09	842	8.17	37.0
12-15-19 22:00	-0.09	879	8.17	15.8
12-15-19 22:15	-0.09	843	8.17	51.4
12-15-19 22:30	-0.09	880	8.17	15.1
12-15-19 22:45	-0.09	844	8.16	59.7
12-15-19 23:00	-0.09	882	8.16	14.9
12-15-19 23:15	-0.09	844	8.16	168.4
12-15-19 23:30	-0.09	880	8.16	15.3
12-15-19 23:45	-0.09	843	8.16	35.9
12-16-19 0:00	-0.09	882	8.16	16.4
12-16-19 0:15	-0.09	841	8.16	50.3
12-16-19 0:30	-0.09	880	8.16	17.5
12-16-19 0:45	-0.09	844	8.16	36.7
12-16-19 1:00	-0.09	881	8.16	11.4
12-16-19 1:15	-0.09	843	8.16	34.3
12-16-19 1:30	-0.09	882	8.16	10.6
12-16-19 1:45	-0.09	843	8.16	36.7
12-16-19 2:00	-0.09	883	8.17	6.6
12-16-19 2:15	-0.09	842	8.17	359.8
12-16-19 2:30	-0.09	881	8.17	12.1
12-16-19 2:45	-0.09	841	8.17	36.2
12-16-19 3:00	-0.09	881	8.17	10.0
12-16-19 3:15	-0.09	840	8.17	31.5
12-16-19 3:30	-0.09	879	8.17	9.7
12-16-19 3:45	-0.09	839	8.17	34.6

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-31-19 15:00	-0.11	701	7.94	0.3
12-31-19 15:15	-0.11	700	7.92	0.5
12-31-19 15:30	-0.11	700	7.93	0.4
12-31-19 15:45	-0.11	700	7.93	0.3
12-31-19 16:00	-0.11	699	7.93	0.3
12-31-19 16:15	-0.11	700	7.92	0.5
12-31-19 16:30	-0.11	699	7.93	0.4
12-31-19 16:45	-0.11	699	7.93	0.3
12-31-19 17:00	-0.11	699	7.94	0.4
12-31-19 17:15	-0.11	698	7.92	0.5
12-31-19 17:30	-0.11	698	7.93	0.4
12-31-19 17:45	-0.11	698	7.93	0.4
12-31-19 18:00	-0.11	697	7.93	0.4
12-31-19 18:15	-0.11	697	7.93	0.6
12-31-19 18:30	-0.11	697	7.93	0.3
12-31-19 18:45	-0.11	697	7.94	0.3
12-31-19 19:00	-0.11	696	7.94	0.4
12-31-19 19:15	-0.11	697	7.92	0.5
12-31-19 19:30	-0.11	696	7.93	0.4
12-31-19 19:45	-0.11	696	7.93	0.4
12-31-19 20:00	-0.11	696	7.93	0.5
12-31-19 20:15	-0.11	696	7.92	0.5
12-31-19 20:30	-0.11	696	7.93	0.4
12-31-19 20:45	-0.11	696	7.93	0.4
12-31-19 21:00	-0.11	696	7.93	0.4
12-31-19 21:15	-0.11	696	7.92	0.5
12-31-19 21:30	-0.11	695	7.93	0.4
12-31-19 21:45	-0.11	695	7.94	0.4
12-31-19 22:00	-0.11	695	7.94	0.3
12-31-19 22:15	-0.11	699	7.92	1.0
12-31-19 22:30	-0.11	696	7.92	0.4
12-31-19 22:45	-0.11	696	7.92	0.4
12-31-19 23:00	-0.11	695	7.92	0.4
12-31-19 23:15	-0.11	695	7.91	0.6
12-31-19 23:30	-0.11	695	7.92	0.4
12-31-19 23:45	-0.11	695	7.92	0.4

RSEM-R6E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-16-19 4:00	0.97	1056	7.61	4.7
12-16-19 4:15	0.85	1055	7.60	4.8
12-16-19 4:30	0.77	1050	7.60	3.8
12-16-19 4:45	0.75	1051	7.60	3.4
12-16-19 5:00	0.79	1056	7.60	3.5
12-16-19 5:15	0.89	1060	7.61	3.8
12-16-19 5:30	0.85	1063	7.61	3.8
12-16-19 5:45	0.91	1063	7.61	4.3
12-16-19 6:00	0.82	1055	7.60	3.6
12-16-19 6:15	0.84	1059	7.60	4.3
12-16-19 6:30	0.87	1060	7.61	4.0
12-16-19 6:45	0.78	1057	7.60	3.4
12-16-19 7:00	0.75	1055	7.60	3.6
12-16-19 7:15	0.89	1064	7.60	4.5
12-16-19 7:30	0.78	1060	7.60	4.3
12-16-19 7:45	0.81	1058	7.60	3.4
12-16-19 8:00	0.71	1040	7.59	3.3
12-16-19 8:15	0.75	1061	7.59	4.8
12-16-19 8:30	0.76	1051	7.59	3.6
12-16-19 8:45	0.77	1054	7.59	3.5
12-16-19 9:00	0.80	1062	7.60	4.0
12-16-19 9:15	0.86	1061	7.60	4.5
12-16-19 9:30	0.82	1057	7.60	4.1
12-16-19 9:45	0.82	1063	7.60	3.9
12-16-19 10:00	0.80	1062	7.60	4.5
12-16-19 10:15	0.86	1061	7.60	4.1
12-16-19 10:30	0.86	1060	7.60	4.2
12-16-19 10:45	0.90	1058	7.60	4.0
12-16-19 11:00	0.88	1060	7.60	4.3
12-16-19 11:15	0.78	1059	7.60	3.9
12-16-19 11:30	0.66	1049	7.59	3.2
12-16-19 11:45	0.85	1062	7.60	3.9
12-16-19 12:00	0.77	1056	7.59	4.1
12-16-19 12:15	0.73	1053	7.59	3.6
12-16-19 12:30	0.80	1054	7.59	3.8
12-16-19 12:45	0.74	1052	7.59	4.2
12-16-19 13:00	0.88	1058	7.59	4.0
12-16-19 13:15	0.87	1058	7.59	3.7
12-16-19 13:30	0.77	1052	7.59	3.7
12-16-19 13:45	0.75	1049	7.59	3.7
12-16-19 14:00	0.86	1058	7.59	4.6
12-16-19 14:15	0.80	1051	7.59	4.2
12-16-19 14:30	0.84	1055	7.59	4.2
12-16-19 14:45	0.84	1055	7.60	3.7
12-16-19 15:00	0.89	1059	7.60	4.6
12-16-19 15:15	0.92	1061	7.60	3.7
12-16-19 15:30	0.88	1058	7.60	4.4
12-16-19 15:45	0.83	1062	7.60	4.2
12-16-19 16:00	0.79	1055	7.59	3.4
12-16-19 16:15	0.83	1055	7.59	3.9
12-16-19 16:30	0.80	1052	7.59	3.9
12-16-19 16:45	0.91	1053	7.59	3.9
12-16-19 17:00	0.79	1046	7.58	4.1
12-16-19 17:15	0.85	1055	7.59	4.3
12-16-19 17:30	0.91	1054	7.60	4.3
12-16-19 17:45	0.85	1057	7.59	4.2
12-16-19 18:00	0.91	1058	7.59	4.4
12-16-19 18:15	0.89	1055	7.59	4.1
12-16-19 18:30	0.85	1051	7.59	3.7
12-16-19 18:45	0.78	1052	7.59	4.0
12-16-19 19:00	0.89	1055	7.59	4.2
12-16-19 19:15	0.82	1050	7.59	3.9
12-16-19 19:30	0.88	1052	7.59	4.3
12-16-19 19:45	0.87	1050	7.59	4.1
12-16-19 20:00	0.86	1049	7.59	3.9
12-16-19 20:15	0.90	1053	7.59	3.9
12-16-19 20:30	0.81	1050	7.59	4.1
12-16-19 20:45	0.90	1050	7.59	3.7
12-16-19 21:00	0.91	1052	7.59	3.9
12-16-19 21:15	0.91	1047	7.59	4.4
12-16-19 21:30	0.99	1050	7.59	4.2
12-16-19 21:45	1.02	1052	7.59	4.8
12-16-19 22:00	0.99	1053	7.59	4.1

RSEM-R6W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
12-16-19 4:00	-0.09	879	8.17	11.1
12-16-19 4:15	-0.09	839	8.17	34.8
12-16-19 4:30	-0.09	879	8.17	12.1
12-16-19 4:45	-0.09	838	8.17	35.4
12-16-19 5:00	-0.09	878	8.17	11.9
12-16-19 5:15	-0.09	837	8.17	34.8
12-16-19 5:30	-0.09	878	8.17	10.7
12-16-19 5:45	-0.09	838	8.17	54.8
12-16-19 6:00	-0.09	877	8.17	11.2
12-16-19 6:15	-0.09	838	8.17	33.1
12-16-19 6:30	-0.09	876	8.17	12.4
12-16-19 6:45	-0.09	838	8.16	35.1
12-16-19 7:00	-0.09	877	8.17	12.3
12-16-19 7:15	-0.09	838	8.16	30.0
12-16-19 7:30	-0.09	878	8.17	10.6
12-16-19 7:45	-0.09	839	8.16	30.4
12-16-19 8:00	-0.09	877	8.17	11.6
12-16-19 8:15	-0.09	842	8.16	28.3
12-16-19 8:30	-0.09	879	8.17	12.3
12-16-19 8:45	-0.09	849	8.16	31.3
12-16-19 9:00	-0.09	880	8.16	12.3
12-16-19 9:15	-0.09	851	8.16	31.9
12-16-19 9:30	-0.09	880	8.16	12.1
12-16-19 9:45	-0.09	854	8.16	28.8
12-16-19 10:00	-0.09	882	8.17	11.2
12-16-19 10:15	-0.09	854	8.16	26.4
12-16-19 10:30	-0.09	881	8.16	10.3
12-16-19 10:45	-0.09	859	8.16	28.4
12-16-19 11:00	-0.09	884	8.16	12.3
12-16-19 11:15	-0.09	861	8.16	26.5
12-16-19 11:30	-0.09	886	8.16	12.4
12-16-19 11:45	-0.09	863	8.16	27.5
12-16-19 12:00	-0.09	887	8.16	12.4
12-16-19 12:15	-0.09	865	8.16	27.7
12-16-19 12:30	-0.09	888	8.16	13.1
12-16-19 12:45	-0.09	867	8.16	26.8
12-16-19 13:00	-0.09	889	8.16	14.8
12-16-19 13:15	-0.09	868	8.16	26.8
12-16-19 13:30	-0.09	889	8.16	14.7
12-16-19 13:45	-0.09	870	8.16	30.6
12-16-19 14:00	-0.09	890	8.16	16.7
12-16-19 14:15	-0.09	871	8.16	27.5
12-16-19 14:30	-0.09	892	8.16	18.5
12-16-19 14:45	-0.09	872	8.16	29.1
12-16-19 15:00	-0.09	849	8.16	26.5
12-16-19 15:15	-0.09	850	8.16	28.6
12-16-19 15:30	-0.09	855	8.16	13.6
12-16-19 15:45	-0.09	852	8.16	27.9
12-16-19 16:00	-0.09	863	8.16	12.1
12-16-19 16:15	-0.09	849	8.16	27.7
12-16-19 16:30	-0.09	866	8.16	11.6
12-16-19 16:45	-0.09	848	8.16	28.1
12-16-19 17:00	-0.09	867	8.16	11.6
12-16-19 17:15	-0.09	847	8.16	28.1
12-16-19 17:30	-0.09	868	8.16	11.5
12-16-19 17:45	-0.09	847	8.16	28.6
12-16-19 18:00	-0.09	870	8.16	10.5
12-16-19 18:15	-0.09	845	8.16	28.4
12-16-19 18:30	-0.09	869	8.17	10.0
12-16-19 18:45	-0.09	842	8.17	28.7
12-16-19 19:00	-0.09	875	8.17	8.8
12-16-19 19:15	-0.09	840	8.17	51.1
12-16-19 19:30	-0.09	871	8.17	10.0
12-16-19 19:45	-0.09	839	8.18	27.5
12-16-19 20:00	-0.09	873	8.18	9.1
12-16-19 20:15	-0.09	838	8.18	28.7
12-16-19 20:30	-0.09	874	8.18	10.0
12-16-19 20:45	-0.09	840	8.18	30.3
12-16-19 21:00	-0.09	881	8.18	8.1
12-16-19 21:15	-0.09	842	8.18	37.6
12-16-19 21:30	-0.09	879	8.17	9.2
12-16-19 21:45	-0.09	843	8.18	30.0
12-16-19 22:00	-0.09	879	8.17	8.8

RSEM-L6				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5E				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-16-19 22:15	0.90	1047	7.59	3.7	12-16-19 22:15	-0.09	841	8.17	29.4																
					12-16-19 22:30	0.97	1053	7.59	4.2	12-16-19 22:30	-0.09	878	8.16	9.1																
					12-16-19 22:45	0.89	1048	7.59	3.8	12-16-19 22:45	-0.09	842	8.17	28.7																
					12-16-19 23:00	0.93	1052	7.59	3.7	12-16-19 23:00	-0.09	877	8.16	9.3																
					12-16-19 23:15	0.92	1050	7.59	3.6	12-16-19 23:15	-0.09	842	8.16	29.8																
					12-16-19 23:30	0.95	1056	7.59	4.4	12-16-19 23:30	-0.09	874	8.16	9.8																
					12-16-19 23:45	1.00	1055	7.60	4.5	12-16-19 23:45	-0.09	841	8.16	29.6																
					12-17-19 0:00	1.00	1055	7.60	4.0	12-17-19 0:00	-0.09	872	8.16	9.8																
					12-17-19 0:15	0.93	1046	7.59	4.0	12-17-19 0:15	-0.09	838	8.16	29.5																
					12-17-19 0:30	0.93	1048	7.59	4.1	12-17-19 0:30	-0.09	869	8.16	9.4																
					12-17-19 0:45	0.94	1053	7.59	4.0	12-17-19 0:45	-0.09	835	8.16	29.6																
					12-17-19 1:00	0.99	1049	7.59	4.2	12-17-19 1:00	-0.09	866	8.16	9.3																
					12-17-19 1:15	0.88	1047	7.59	4.8	12-17-19 1:15	-0.09	833	8.16	30.4																
					12-17-19 1:30	0.87	1050	7.59	3.8	12-17-19 1:30	-0.09	862	8.15	10.7																
					12-17-19 1:45	0.93	1051	7.59	4.6	12-17-19 1:45	-0.09	829	8.15	30.0																
					12-17-19 2:00	0.95	1050	7.59	4.6	12-17-19 2:00	-0.09	857	8.15	12.3																
					12-17-19 2:15	0.97	1055	7.59	4.3	12-17-19 2:15	-0.09	825	8.15	30.0																
					12-17-19 2:30	0.96	1048	7.59	4.3	12-17-19 2:30	-0.09	852	8.15	12.2																
					12-17-19 2:45	1.07	1054	7.60	3.9	12-17-19 2:45	-0.09	821	8.15	29.8																
					12-17-19 3:00	1.00	1051	7.59	4.2	12-17-19 3:00	-0.09	848	8.15	12.5																
					12-17-19 3:15	0.95	1051	7.59	3.9	12-17-19 3:15	-0.09	817	8.15	29.9																
					12-17-19 3:30	0.93	1054	7.59	4.0	12-17-19 3:30	-0.09	843	8.14	10.5																
					12-17-19 3:45	1.04	1050	7.60	3.6	12-17-19 3:45	-0.09	812	8.15	30.1																
					12-17-19 4:00	0.92	1046	7.59	3.9	12-17-19 4:00	-0.09	838	8.14	10.1																
					12-17-19 4:15	1.01	1053	7.59	4.2	12-17-19 4:15	-0.09	807	8.15	30.2																
					12-17-19 4:30	0.92	1050	7.59	3.9	12-17-19 4:30	-0.09	833	8.15	12.6																
					12-17-19 4:45	0.94	1049	7.59	4.2	12-17-19 4:45	-0.09	802	8.15	30.1																
					12-17-19 5:00	0.97	1051	7.59	4.1	12-17-19 5:00	-0.09	829	8.15	11.2																
					12-17-19 5:15	0.92	1047	7.59	4.1	12-17-19 5:15	-0.09	798	8.15	29.9																
					12-17-19 5:30	0.94	1050	7.59	4.0	12-17-19 5:30	-0.09	825	8.15	12.8																
					12-17-19 5:45	0.86	1047	7.59	3.7	12-17-19 5:45	-0.09	793	8.15	29.5																
					12-17-19 6:00	0.93	1051	7.59	3.8	12-17-19 6:00	-0.09	821	8.14	10.3																
					12-17-19 6:15	0.89	1049	7.59	4.2	12-17-19 6:15	-0.09	790	8.15	29.2																
					12-17-19 6:30	0.91	1054	7.59	4.0	12-17-19 6:30	-0.09	818	8.14	10.0																
					12-17-19 6:45	0.91	1051	7.59	4.1	12-17-19 6:45	-0.09	792	8.14	29.4																
					12-17-19 7:00	0.94	1052	7.59	4.4	12-17-19 7:00	-0.09	815	8.14	12.9																
					12-17-19 7:15	0.91	1046	7.59	3.9	12-17-19 7:15	-0.09	792	8.14	29.2																
					12-17-19 7:30	0.89	1047	7.58	3.9	12-17-19 7:30	-0.09	814	8.14	12.5																
					12-17-19 7:45	0.88	1042	7.58	4.2	12-17-19 7:45	-0.09	792	8.14	29.4																
					12-17-19 8:00	0.84	1040	7.58	3.8	12-17-19 8:00	-0.09	815	8.13	9.0																
					12-17-19 8:15	0.92	1050	7.58	3.7	12-17-19 8:15	-0.09	790	8.14	29.6																
					12-17-19 8:30	0.87	1048	7.58	3.5	12-17-19 8:30	-0.09	810	8.13	11.4																
					12-17-19 8:45	0.72	1041	7.57	4.4	12-17-19 8:45	-0.09	791	8.13	28.9																
					12-17-19 9:00	0.71	1039	7.57	3.4	12-17-19 9:00	-0.09	809	8.12	13.3																
					12-17-19 9:15	0.74	1038	7.57	3.4	12-17-19 9:15	-0.09	790	8.13	29.3																
					12-17-19 9:30	0.71	1042	7.57	3.0	12-17-19 9:30	-0.09	808	8.12	10.8																
					12-17-19 9:45	0.86	1045	7.58	4.0	12-17-19 9:45	-0.09	790	8.13	29.3																
					12-17-19 10:00	0.79	1045	7.58	3.6	12-17-19 10:00	-0.09	805	8.12	13.2																
					12-17-19 10:15	0.74	1044	7.57	3.4	12-17-19 10:15	-0.09	787	8.13	29.1																
					12-17-19 10:30	0.81	1047	7.58	3.3	12-17-19 10:30	-0.09	802	8.13	13.1																
					12-17-19 10:45	0.79	1043	7.57	3.8	12-17-19 10:45	-0.09	786	8.12	30.0																
					12-17-19 11:00	0.78	1043	7.57	3.7	12-17-19 11:00	-0.09	800	8.12	14.6																
					12-17-19 11:15	0.71	1034	7.56	3.4	12-17-19 11:15	-0.09	785	8.12	30.4																
					12-17-19 11:30	0.74	1039	7.56	3.5	12-17-19 11:30	-0.09	798	8.11	11.5																
					12-17-19 11:45	0.75	1042	7.57	4.0	12-17-19 11:45	-0.09	781	8.11	30.1																
					12-17-19 12:00	0.70	1038	7.56	3.1	12-17-19 12:00	-0.09	796	8.10	11.1																
					12-17-19 12:15	0.73	1043	7.57	3.1	12-17-19 12:15	-0.09	778	8.10	30.5																
					12-17-19 12:30	0.69	1045	7.56	3.6	12-17-19 12:30	-0.09	793	8.09	14.7																
					12-17-19 12:45	0.68	1039	7.56	3.2	12-17-19 12:45	-0.09	777	8.09	31.0																
					12-17-19 13:00	0.71	1043	7.57	3.3	12-17-19 13:00	-0.09	791	8.09	13.5																
					12-17-19 13:15	0.72	1040	7.57	3.0	12-17-19 13:15	-0.09	777	8.08	30.9																
					12-17-19 13:30	0.79	1047	7.57	3.9	12-17-19 13:30	-0.09	791	8.08	15.2																
					12-17-19 13:45	0.73	1044	7.57	3.0	12-17-19 13:45	-0.09	779	8.08	31.1																
					12-17-19 14:00	0.75	1043	7.57	3.0	12-17-19 14:00	-0.08	711	8.12	29.6																
					12-17-19 14:15	0.67	1042	7.56	3.4	12-17-19 14:15	-0.09	710	8.11	32.6																
					12-17-19 14:30	0.67	1041	7.56	4.5	12-17-19 14:30	-0.09	708	8.10	31.5																
					12-17-19 14:45	0.67	1040	7.56	3.7	12-17-19 14:45	-0.09	695	8.09	388.5																
					12-17-19 15:00	0.79	1048	7.57	4.0	12-17-19 15:00	-0.09	694	8.10	31.1																
					12-17-19 15:15	0.81	1042	7.57	2.9																				
					12-17-19 15:30	0.68	1035	7.56	3.5																				
					12-17-19 15:45	0.69	1042	7.56	3.2																				
					12-17-19 16:00	0.81	1043	7.57	3.4																				
					12-17-19 16:15	0.86	1047	7.57	3.8																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-17-19 16:30	0.74	1043	7.57	2.9																				
					12-17-19 16:45	0.82	1044	7.57	3.7																				
					12-17-19 17:00	0.80	1044	7.57	3.6																				
					12-17-19 17:15	0.76	1042	7.57	3.4																				
					12-17-19 17:30	0.90	1048	7.57	3.8																				
					12-17-19 17:45	0.78	1036	7.57	3.7																				
					12-17-19 18:00	0.86	1041	7.57	3.8																				
					12-17-19 18:15	0.79	1042	7.57	3.3																				
					12-17-19 18:30	0.74	1034	7.56	3.4																				
					12-17-19 18:45	0.88	1047	7.57	4.0																				
					12-17-19 19:00	0.76	1041	7.57	3.4																				
					12-17-19 19:15	0.90	1049	7.57	3.6																				
					12-17-19 19:30	0.82	1043	7.57	3.6																				
					12-17-19 19:45	0.81	1045	7.57	3.6																				
					12-17-19 20:00	0.77	1042	7.56	3.2																				
					12-17-19 20:15	0.76	1040	7.56	3.7																				
					12-17-19 20:30	0.80	1041	7.57	3.5																				
					12-17-19 20:45	0.79	1042	7.56	3.3																				
					12-17-19 21:00	0.86	1039	7.57	3.6																				
					12-17-19 21:15	0.91	1041	7.57	3.5																				
					12-17-19 21:30	0.91	1045	7.57	3.9																				
					12-17-19 21:45	0.84	1043	7.57	3.6																				
					12-17-19 22:00	0.86	1043	7.56	3.7																				
					12-17-19 22:15	0.88	1036	7.56	3.7																				
					12-17-19 22:30	0.88	1038	7.57	3.6																				
					12-17-19 22:45	1.07	1052	7.57	4.5																				
					12-17-19 23:00	0.90	1040	7.57	3.6																				
					12-17-19 23:15	0.98	1041	7.57	3.4																				
					12-17-19 23:30	0.91	1041	7.57	3.5																				
					12-17-19 23:45	0.86	1045	7.57	3.7																				
					12-18-19 0:00	0.90	1046	7.57	3.7																				
					12-18-19 0:15	0.88	1043	7.57	3.4																				
					12-18-19 0:30	0.94	1044	7.58	3.4																				
					12-18-19 0:45	0.84	1041	7.57	3.4																				
					12-18-19 1:00	0.92	1041	7.57	3.0																				
					12-18-19 1:15	0.93	1045	7.57	3.7																				
					12-18-19 1:30	0.86	1043	7.57	3.0																				
					12-18-19 1:45	0.94	1039	7.57	3.0																				
					12-18-19 2:00	0.94	1043	7.57	4.2																				
					12-18-19 2:15	0.92	1041	7.57	3.2																				
					12-18-19 2:30	0.95	1041	7.57	3.4																				
					12-18-19 2:45	0.91	1043	7.57	4.4																				
					12-18-19 3:00	1.00	1043	7.57	3.5																				
					12-18-19 3:15	0.88	1037	7.57	3.4																				
					12-18-19 3:30	1.02	1043	7.57	3.6																				
					12-18-19 3:45	0.95	1040	7.56	4.0																				
					12-18-19 4:00	1.05	1038	7.57	3.6																				
					12-18-19 4:15	0.90	1035	7.56	3.7																				
					12-18-19 4:30	0.77	1030	7.56	3.9																				
					12-18-19 4:45	0.83	1035	7.56	2.9																				
					12-18-19 5:00	0.81	1040	7.56	3.1																				
					12-18-19 5:15	0.84	1038	7.56	3.5																				
					12-18-19 5:30	0.96	1045	7.57	4.5																				
					12-18-19 5:45	0.89	1041	7.57	3.3																				
					12-18-19 6:00	0.80	1038	7.56	3.1																				
					12-18-19 6:15	0.76	1039	7.56	3.3																				
					12-18-19 6:30	0.84	1037	7.56	2.8																				
					12-18-19 6:45	0.76	1037	7.56	3.3																				
					12-18-19 7:00	0.76	1032	7.56	2.7																				
					12-18-19 7:15	0.76	1032	7.55	3.1																				
					12-18-19 7:30	0.73	1029	7.55	2.8																				
					12-18-19 7:45	0.83	1034	7.56	3.1																				
					12-18-19 8:00	0.86	1034	7.56	2.6																				
					12-18-19 8:15	0.84	1034	7.56	3.3																				
					12-18-19 8:30	0.84	1038	7.56	3.8																				
					12-18-19 8:45	0.82	1037	7.56	3.6																				
					12-18-19 9:00	0.77	1033	7.55	3.2																				
					12-18-19 9:15	0.68	1025	7.55	2.4																				
					12-18-19 9:30	0.74	1028	7.55	3.2																				
					12-18-19 9:45	0.70	1027	7.55	2.2																				
					12-18-19 10:00	0.76	1030	7.55	2.9																				
					12-18-19 10:15	0.69	1021	7.54	2.6																				
					12-18-19 10:30	0.75	1028	7.55	3.3																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-18-19 10:45	0.75	1027	7.55	3.0																				
					12-18-19 11:00	0.72	1030	7.55	3.4																				
					12-18-19 11:15	0.72	1023	7.54	2.9																				
					12-18-19 11:30	0.64	1018	7.54	3.4																				
					12-18-19 11:45	0.73	1023	7.54	2.8																				
					12-18-19 12:00	0.72	1021	7.54	2.7																				
					12-18-19 12:15	0.75	1026	7.55	2.9																				
					12-18-19 12:30	0.75	1025	7.54	3.0																				
					12-18-19 12:45	0.73	1026	7.54	3.0																				
					12-18-19 13:00	0.73	1025	7.54	3.0																				
					12-18-19 13:15	0.73	1023	7.54	2.5																				
					12-18-19 13:30	0.78	1029	7.55	3.4																				
					12-18-19 13:45	0.79	1031	7.54	3.9																				
					12-18-19 14:00	0.78	1023	7.54	2.7																				
					12-18-19 14:15	0.78	1022	7.54	3.2																				
					12-18-19 14:30	0.75	1023	7.54	3.1																				
					12-18-19 14:45	0.77	1027	7.55	3.2																				
					12-18-19 15:00	0.79	1025	7.55	3.1																				
					12-18-19 15:15	0.78	1025	7.55	3.0																				
					12-18-19 15:30	0.79	1015	7.55	3.2																				
					12-18-19 15:45	0.74	1021	7.54	3.0																				
					12-18-19 16:00	0.77	1029	7.55	3.4																				
					12-18-19 16:15	0.83	1030	7.55	3.3																				
					12-18-19 16:30	0.81	1029	7.55	3.2																				
					12-18-19 16:45	0.86	1025	7.55	3.3																				
					12-18-19 17:00	0.82	1024	7.55	3.5																				
					12-18-19 17:15	0.84	1024	7.55	3.4																				
					12-18-19 17:30	0.78	1025	7.54	3.3																				
					12-18-19 17:45	0.84	1026	7.55	3.2																				
					12-18-19 18:00	0.81	1021	7.54	3.3																				
					12-18-19 18:15	0.80	1020	7.54	3.6																				
					12-18-19 18:30	0.84	1025	7.55	3.4																				
					12-18-19 18:45	0.90	1030	7.55	3.8																				
					12-18-19 19:00	0.92	1033	7.55	3.9																				
					12-18-19 19:15	0.84	1027	7.55	3.5																				
					12-18-19 19:30	0.93	1026	7.55	3.7																				
					12-18-19 19:45	0.84	1026	7.55	3.7																				
					12-18-19 20:00	0.81	1026	7.55	3.5																				
					12-18-19 20:15	0.86	1028	7.55	3.1																				
					12-18-19 20:30	0.90	1032	7.55	3.5																				
					12-18-19 20:45	0.81	1025	7.55	3.7																				
					12-18-19 21:00	0.84	1029	7.55	3.3																				
					12-18-19 21:15	0.93	1034	7.55	4.6																				
					12-18-19 21:30	0.86	1024	7.55	3.4																				
					12-18-19 21:45	0.87	1032	7.55	3.8																				
					12-18-19 22:00	0.86	1023	7.55	3.7																				
					12-18-19 22:15	0.90	1030	7.55	3.9																				
					12-18-19 22:30	0.98	1034	7.56	3.9																				
					12-18-19 22:45	0.90	1030	7.55	3.9																				
					12-18-19 23:00	0.94	1031	7.55	3.8																				
					12-18-19 23:15	0.87	1029	7.55	4.4																				
					12-18-19 23:30	0.88	1030	7.55	4.0																				
					12-18-19 23:45	1.00	1035	7.55	4.3																				
					12-19-19 0:00	0.82	1024	7.55	3.2																				
					12-19-19 0:15	0.80	1024	7.54	3.3																				
					12-19-19 0:30	0.91	1031	7.55	4.1																				
					12-19-19 0:45	0.85	1031	7.54	3.5																				
					12-19-19 1:00	0.81	1022	7.54	3.2																				
					12-19-19 1:15	0.78	1015	7.54	3.4																				
					12-19-19 1:30	0.78	1024	7.54	3.0																				
					12-19-19 1:45	0.85	1026	7.54	3.9																				
					12-19-19 2:00	0.95	1029	7.55	3.7																				
					12-19-19 2:15	0.92	1030	7.54	3.8																				
					12-19-19 2:30	0.84	1017	7.54	3.5																				
					12-19-19 2:45	0.81	1023	7.54	3.4																				
					12-19-19 3:00	0.90	1025	7.55	4.2																				
					12-19-19 3:15	0.89	1026	7.54	3.6																				
					12-19-19 3:30	0.92	1025	7.55	4.0																				
					12-19-19 3:45	1.05	1023	7.55	4.0																				
					12-19-19 4:00	0.99	1027	7.55	3.9																				
					12-19-19 4:15	0.92	1025	7.55	3.8																				
					12-19-19 4:30	0.97	1024	7.55	4.0																				
					12-19-19 4:45	0.92	1019	7.54	3.8																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-19-19 5:00	0.82	1019	7.54	3.5																				
					12-19-19 5:15	0.84	1021	7.54	3.2																				
					12-19-19 5:30	0.77	1020	7.54	3.6																				
					12-19-19 5:45	0.93	1021	7.55	3.1																				
					12-19-19 6:00	0.86	1021	7.54	4.0																				
					12-19-19 6:15	0.89	1028	7.54	4.4																				
					12-19-19 6:30	0.87	1021	7.54	3.9																				
					12-19-19 6:45	0.87	1019	7.54	3.7																				
					12-19-19 7:00	0.87	1026	7.54	4.3																				
					12-19-19 7:15	0.83	1019	7.54	3.8																				
					12-19-19 7:30	0.78	1021	7.54	3.3																				
					12-19-19 7:45	0.80	1022	7.54	3.3																				
					12-19-19 8:00	0.85	1020	7.54	3.2																				
					12-19-19 8:15	0.70	1017	7.53	3.8																				
					12-19-19 8:30	0.84	1021	7.54	2.7																				
					12-19-19 8:45	0.82	1022	7.54	3.9																				
					12-19-19 9:00	0.88	1024	7.54	3.7																				
					12-19-19 9:15	0.87	1022	7.54	3.7																				
					12-19-19 9:30	0.81	1019	7.54	3.8																				
					12-19-19 9:45	0.88	1021	7.54	3.5																				
					12-19-19 10:00	0.90	1021	7.54	3.8																				
					12-19-19 10:15	0.81	1019	7.54	3.6																				
					12-19-19 10:30	0.76	1017	7.53	3.7																				
					12-19-19 10:45	0.71	1018	7.53	3.7																				
					12-19-19 11:00	0.80	1019	7.54	2.9																				
					12-19-19 11:15	0.74	1020	7.53	3.0																				
					12-19-19 11:30	0.73	1021	7.53	3.5																				
					12-19-19 11:45	0.86	1026	7.54	2.9																				
					12-19-19 12:00	0.69	1016	7.53	2.8																				
					12-19-19 12:15	0.68	1017	7.53	2.3																				
					12-19-19 12:30	0.73	1022	7.53	2.7																				
					12-19-19 12:45	0.76	1019	7.54	3.5																				
					12-19-19 13:00	0.76	1023	7.54	3.9																				
					12-19-19 13:15	0.74	1016	7.53	2.9																				
					12-19-19 13:30	0.82	1020	7.54	3.5																				
					12-19-19 13:45	0.89	1027	7.54	4.4																				
					12-19-19 14:00	0.76	1017	7.54	3.2																				
					12-19-19 14:15	0.82	1016	7.54	3.6																				
					12-19-19 14:30	0.92	1026	7.54	4.3																				
					12-19-19 14:45	0.89	1024	7.54	4.1																				
					12-19-19 15:00	0.87	1018	7.54	3.7																				
					12-19-19 15:15	0.97	1021	7.54	4.1																				
					12-19-19 15:30	1.10	1024	7.55	4.8																				
					12-19-19 15:45	0.94	1014	7.54	4.0																				
					12-19-19 16:00	0.96	1017	7.54	3.8																				
					12-19-19 16:15	1.05	1025	7.55	4.4																				
					12-19-19 16:30	0.97	1017	7.54	4.1																				
					12-19-19 16:45	1.07	1022	7.55	5.0																				
					12-19-19 17:00	1.04	1023	7.55	4.1																				
					12-19-19 17:15	1.06	1026	7.55	4.5																				
					12-19-19 17:30	0.98	1020	7.54	4.2																				
					12-19-19 17:45	1.02	1021	7.55	4.3																				
					12-19-19 18:00	1.05	1020	7.55	4.4																				
					12-19-19 18:15	1.11	1020	7.55	4.4																				
					12-19-19 18:30	0.99	1016	7.54	4.4																				
					12-19-19 18:45	1.02	1019	7.54	4.4																				
					12-19-19 19:00	1.09	1020	7.55	4.2																				
					12-19-19 19:15	1.00	1019	7.55	4.3																				
					12-19-19 19:30	1.12	1019	7.55	4.0																				
					12-19-19 19:45	1.05	1019	7.55	4.6																				
					12-19-19 20:00	1.07	1019	7.55	4.8																				
					12-19-19 20:15	1.07	1014	7.55	4.2																				
					12-19-19 20:30	1.06	1021	7.54	4.3																				
					12-19-19 20:45	1.03	1018	7.54	5.1																				
					12-19-19 21:00	1.08	1016	7.54	4.7																				
					12-19-19 21:15	1.06	1022	7.54	4.8																				
					12-19-19 21:30	1.09	1017	7.55	4.6																				
					12-19-19 21:45	1.08	1017	7.55	4.3																				
					12-19-19 22:00	1.12	1019	7.55	4.4																				
					12-19-19 22:15	1.04	1016	7.55	3.8																				
					12-19-19 22:30	1.15	1021	7.55	4.6																				
					12-19-19 22:45	1.06	1017	7.55	4.3																				
					12-19-19 23:00	1.11	1020	7.55	4.3																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-19-19 23:15	1.03	1020	7.55	4.3																				
					12-19-19 23:30	1.05	1017	7.55	4.6																				
					12-19-19 23:45	1.05	1017	7.55	4.6																				
					12-20-19 0:00	1.14	1021	7.55	4.2																				
					12-20-19 0:15	1.03	1018	7.55	4.5																				
					12-20-19 0:30	1.05	1018	7.55	4.6																				
					12-20-19 0:45	1.01	1016	7.54	4.4																				
					12-20-19 1:00	1.00	1016	7.54	4.6																				
					12-20-19 1:15	0.95	1017	7.54	3.2																				
					12-20-19 1:30	0.85	1016	7.54	2.8																				
					12-20-19 1:45	0.83	1014	7.54	3.7																				
					12-20-19 2:00	0.93	1017	7.54	4.0																				
					12-20-19 2:15	0.95	1013	7.54	3.7																				
					12-20-19 2:30	0.92	1018	7.54	4.5																				
					12-20-19 2:45	0.99	1018	7.54	4.0																				
					12-20-19 3:00	0.93	1019	7.54	3.6																				
					12-20-19 3:15	1.01	1018	7.54	4.5																				
					12-20-19 3:30	1.08	1024	7.55	5.0																				
					12-20-19 3:45	0.94	1013	7.54	3.7																				
					12-20-19 4:00	0.93	1012	7.54	3.6																				
					12-20-19 4:15	0.96	1018	7.54	4.1																				
					12-20-19 4:30	0.94	1020	7.54	3.7																				
					12-20-19 4:45	0.90	1017	7.54	3.6																				
					12-20-19 5:00	0.94	1017	7.54	3.4																				
					12-20-19 5:15	0.88	1016	7.54	3.1																				
					12-20-19 5:30	0.88	1014	7.54	3.5																				
					12-20-19 5:45	0.93	1013	7.54	3.8																				
					12-20-19 6:00	0.87	1016	7.54	3.8																				
					12-20-19 6:15	0.88	1016	7.54	3.5																				
					12-20-19 6:30	0.82	1016	7.54	3.2																				
					12-20-19 6:45	0.77	1014	7.54	3.4																				
					12-20-19 7:00	0.84	1014	7.54	3.2																				
					12-20-19 7:15	0.80	1015	7.54	3.1																				
					12-20-19 7:30	0.82	1013	7.54	3.3																				
					12-20-19 7:45	0.76	1015	7.53	3.3																				
					12-20-19 8:00	0.82	1018	7.54	3.6																				
					12-20-19 8:15	0.81	1015	7.53	2.7																				
					12-20-19 8:30	0.66	1015	7.53	3.0																				
					12-20-19 8:45	0.74	1019	7.53	3.3																				
					12-20-19 9:00	0.71	1018	7.53	3.0																				
					12-20-19 9:15	0.65	1016	7.53	3.4																				
					12-20-19 9:30	0.83	1017	7.53	3.1																				
					12-20-19 9:45	0.73	1015	7.53	2.7																				
					12-20-19 10:00	0.74	1015	7.53	3.6																				
					12-20-19 10:15	0.81	1015	7.53	3.4																				
					12-20-19 10:30	0.70	1013	7.53	3.1																				
					12-20-19 10:45	0.79	1016	7.53	3.0																				
					12-20-19 11:00	0.78	1016	7.53	3.5																				
					12-20-19 11:15	0.70	1012	7.53	2.5																				
					12-20-19 11:30	0.76	1017	7.53	2.9																				
					12-20-19 11:45	0.74	1017	7.53	3.3																				
					12-20-19 12:00	0.75	1014	7.53	2.8																				
					12-20-19 12:15	0.80	1016	7.54	3.3																				
					12-20-19 12:30	0.71	1016	7.53	3.4																				
					12-20-19 12:45	0.75	1015	7.53	3.0																				
					12-20-19 13:00	0.82	1018	7.54	3.2																				
					12-20-19 13:15	0.75	1019	7.53	3.3																				
					12-20-19 13:30	0.77	1017	7.53	3.1																				
					12-20-19 13:45	0.63	1016	7.53	2.8																				
					12-20-19 14:00	0.68	1019	7.53	3.0																				
					12-20-19 14:15	0.74	1018	7.53	3.2																				
					12-20-19 14:30	0.82	1015	7.53	3.4																				
					12-20-19 14:45	0.88	1023	7.54	3.7																				
					12-20-19 15:00	0.89	1020	7.54	3.5																				
					12-20-19 15:15	0.81	1017	7.53	3.2																				
					12-20-19 15:30	0.87	1019	7.54	3.2																				
					12-20-19 15:45	0.96	1018	7.54	3.5																				
					12-20-19 16:00	0.86	1016	7.53	3.1																				
					12-20-19 16:15	0.99	1018	7.54	3.6																				
					12-20-19 16:30	0.97	1017	7.54	3.7																				
					12-20-19 16:45	0.99	1016	7.54	3.5																				
					12-20-19 17:00	1.04	1023	7.54	3.6																				
					12-20-19 17:15	1.07	1021	7.54	4.1																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-20-19 17:30	1.06	1019	7.54	3.7																				
					12-20-19 17:45	1.04	1020	7.54	3.7																				
					12-20-19 18:00	1.03	1016	7.54	4.1																				
					12-20-19 18:15	1.08	1017	7.54	3.5																				
					12-20-19 18:30	1.14	1026	7.54	4.2																				
					12-20-19 18:45	1.07	1019	7.54	3.9																				
					12-20-19 19:00	1.08	1018	7.54	3.7																				
					12-20-19 19:15	0.93	1018	7.54	3.6																				
					12-20-19 19:30	1.13	1021	7.55	4.8																				
					12-20-19 19:45	1.06	1018	7.55	5.1																				
					12-20-19 20:00	1.00	1018	7.54	3.9																				
					12-20-19 20:15	0.94	1016	7.54	4.2																				
					12-20-19 20:30	0.93	1017	7.54	3.8																				
					12-20-19 20:45	0.91	1016	7.54	3.8																				
					12-20-19 21:00	0.87	1014	7.54	3.5																				
					12-20-19 21:15	0.80	1014	7.54	3.6																				
					12-20-19 21:30	0.81	1018	7.54	3.6																				
					12-20-19 21:45	0.84	1017	7.54	3.6																				
					12-20-19 22:00	0.83	1015	7.54	3.5																				
					12-20-19 22:15	0.90	1015	7.54	4.0																				
					12-20-19 22:30	0.85	1016	7.54	3.6																				
					12-20-19 22:45	0.73	1015	7.54	3.0																				
					12-20-19 23:00	0.83	1018	7.54	3.3																				
					12-20-19 23:15	0.82	1019	7.54	3.7																				
					12-20-19 23:30	0.70	1019	7.53	3.3																				
					12-20-19 23:45	0.83	1016	7.54	3.3																				
					12-21-19 0:00	0.81	1017	7.54	3.4																				
					12-21-19 0:15	0.82	1017	7.54	3.7																				
					12-21-19 0:30	0.78	1017	7.53	3.4																				
					12-21-19 0:45	0.87	1016	7.54	3.3																				
					12-21-19 1:00	0.86	1016	7.54	3.2																				
					12-21-19 1:15	0.72	1014	7.53	2.9																				
					12-21-19 1:30	0.70	1015	7.53	2.4																				
					12-21-19 1:45	0.66	1014	7.53	2.6																				
					12-21-19 2:00	0.76	1014	7.53	3.4																				
					12-21-19 2:15	0.72	1014	7.53	3.0																				
					12-21-19 2:30	0.75	1017	7.53	3.7																				
					12-21-19 2:45	0.90	1015	7.53	3.0																				
					12-21-19 3:00	0.87	1015	7.53	3.1																				
					12-21-19 3:15	0.92	1015	7.54	3.9																				
					12-21-19 3:30	0.95	1013	7.53	3.4																				
					12-21-19 3:45	0.92	1013	7.54	3.1																				
					12-21-19 4:00	0.83	1014	7.53	4.1																				
					12-21-19 4:15	0.94	1016	7.54	3.3																				
					12-21-19 4:30	0.85	1013	7.54	3.3																				
					12-21-19 4:45	0.92	1015	7.54	4.5																				
					12-21-19 5:00	0.88	1015	7.54	3.8																				
					12-21-19 5:15	0.85	1014	7.54	3.7																				
					12-21-19 5:30	0.88	1015	7.54	3.3																				
					12-21-19 5:45	0.95	1013	7.54	3.7																				
					12-21-19 6:00	0.89	1015	7.54	3.5																				
					12-21-19 6:15	0.76	1013	7.54	3.4																				
					12-21-19 6:30	0.65	1017	7.53	3.1																				
					12-21-19 6:45	0.86	1012	7.54	3.3																				
					12-21-19 7:00	0.79	1013	7.54	3.6																				
					12-21-19 7:15	0.88	1014	7.54	3.4																				
					12-21-19 7:30	0.76	1016	7.54	3.4																				
					12-21-19 7:45	0.77	1014	7.54	3.2																				
					12-21-19 8:00	0.69	1015	7.53	3.1																				
					12-21-19 8:15	0.81	1015	7.54	3.2																				
					12-21-19 8:30	0.75	1014	7.54	3.0																				
					12-21-19 8:45	0.82	1014	7.54	3.2																				
					12-21-19 9:00	0.80	1015	7.54	3.4																				
					12-21-19 9:15	0.83	1016	7.54	3.5																				
					12-21-19 9:30	0.81	1013	7.54	3.1																				
					12-21-19 9:45	0.90	1016	7.54	3.5																				
					12-21-19 10:00	0.75	1013	7.54	3.1																				
					12-21-19 10:15	0.91	1013	7.54	3.7																				
					12-21-19 10:30	0.65	1013	7.53	3.1																				
					12-21-19 10:45	0.79	1014	7.54	3.5																				
					12-21-19 11:00	0.73	1014	7.54	3.0																				
					12-21-19 11:15	0.71	1017	7.54	3.2																				
					12-21-19 11:30	0.72	1016	7.54	3.1																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-21-19 11:45	0.71	1016	7.54	3.3																				
					12-21-19 12:00	0.71	1015	7.54	3.1																				
					12-21-19 12:15	0.71	1014	7.54	3.0																				
					12-21-19 12:30	0.73	1014	7.54	2.8																				
					12-21-19 12:45	0.69	1013	7.53	3.0																				
					12-21-19 13:00	0.72	1013	7.54	3.2																				
					12-21-19 13:15	0.63	1013	7.53	3.0																				
					12-21-19 13:30	0.71	1014	7.54	3.2																				
					12-21-19 13:45	0.80	1015	7.54	3.6																				
					12-21-19 14:00	0.84	1016	7.54	3.8																				
					12-21-19 14:15	0.66	1013	7.53	3.2																				
					12-21-19 14:30	0.77	1017	7.54	3.3																				
					12-21-19 14:45	0.82	1015	7.54	3.3																				
					12-21-19 15:00	0.97	1014	7.54	3.8																				
					12-21-19 15:15	1.01	1013	7.55	3.8																				
					12-21-19 15:30	0.99	1013	7.55	3.8																				
					12-21-19 15:45	1.02	1012	7.55	3.6																				
					12-21-19 16:00	1.11	1014	7.55	4.2																				
					12-21-19 16:15	1.11	1014	7.55	4.2																				
					12-21-19 16:30	1.01	1010	7.55	4.0																				
					12-21-19 16:45	1.02	1011	7.55	4.2																				
					12-21-19 17:00	1.05	1011	7.55	4.2																				
					12-21-19 17:15	1.01	1010	7.55	3.9																				
					12-21-19 17:30	1.03	1012	7.55	3.8																				
					12-21-19 17:45	1.03	1012	7.55	3.8																				
					12-21-19 18:00	0.99	1009	7.55	4.1																				
					12-21-19 18:15	1.09	1011	7.55	3.9																				
					12-21-19 18:30	1.09	1010	7.55	4.5																				
					12-21-19 18:45	1.11	1012	7.55	4.2																				
					12-21-19 19:00	1.02	1010	7.55	4.0																				
					12-21-19 19:15	1.09	1012	7.55	3.8																				
					12-21-19 19:30	1.14	1012	7.56	4.1																				
					12-21-19 19:45	1.04	1012	7.55	4.3																				
					12-21-19 20:00	1.12	1015	7.56	4.4																				
					12-21-19 20:15	1.02	1011	7.55	4.1																				
					12-21-19 20:30	1.01	1010	7.55	4.1																				
					12-21-19 20:45	0.99	1011	7.55	4.1																				
					12-21-19 21:15																								
					12-21-19 21:30	1.03	1009	7.56	3.9																				
					12-21-19 21:45	0.99	1011	7.55	3.4																				
					12-21-19 22:00	0.97	1010	7.55	3.5																				
					12-21-19 22:15	1.00	1012	7.55	4.2																				
					12-21-19 22:30	1.02	1009	7.56	3.7																				
					12-21-19 22:45	0.99	1009	7.55	3.9																				
					12-21-19 23:00	0.94	1010	7.55	3.7																				
					12-21-19 23:15	0.96	1010	7.55	4.0																				
					12-21-19 23:30	1.01	1010	7.55	3.7																				
					12-21-19 23:45	1.02	1008	7.56	3.6																				
					12-22-19 0:00	1.04	1009	7.55	4.3																				
					12-22-19 0:15	1.05	1008	7.55	4.2																				
					12-22-19 0:30	1.09	1009	7.56	4.7																				
					12-22-19 0:45	0.98	1011	7.55	3.9																				
					12-22-19 1:00	0.92	1007	7.55	3.7																				
					12-22-19 1:15	0.91	1010	7.55	3.8																				
					12-22-19 1:30	0.87	1009	7.55	3.5																				
					12-22-19 1:45	0.86	1008	7.56	3.7																				
					12-22-19 2:00	0.89	1012	7.55	3.6																				
					12-22-19 2:15	0.94	1010	7.56	3.9																				
					12-22-19 2:30	0.94	1010	7.55	3.9																				
					12-22-19 2:45	0.89	1008	7.55	3.5																				
					12-22-19 3:00	0.99	1009	7.55	4.1																				
					12-22-19 3:15	1.00	1009	7.55	3.8																				
					12-22-19 3:30	0.98	1006	7.56	3.8																				
					12-22-19 3:45	1.06	1007	7.55	3.8																				
					12-22-19 4:00	1.13	1010	7.56	4.2																				
					12-22-19 4:15	1.02	1008	7.56	4.2																				
					12-22-19 4:30	0.99	1004	7.56	4.1																				
					12-22-19 4:45	1.06	1007	7.56	3.7																				
					12-22-19 5:00	1.03	1006	7.55	4.3																				
					12-22-19 5:15	1.02	1010	7.56	4.0																				
					12-22-19 5:30	1.01	1008	7.55	3.9																				
					12-22-19 5:45	1.01	1007	7.56	3.9																				
					12-22-19 6:00	1.07	1008	7.56	3.6																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-22-19 6:15	0.98	1008	7.56	3.6																				
					12-22-19 6:30	1.06	1008	7.55	3.7																				
					12-22-19 6:45	0.99	1008	7.56	3.8																				
					12-22-19 7:00	1.00	1006	7.55	3.6																				
					12-22-19 7:15	0.96	1007	7.56	3.4																				
					12-22-19 7:30	0.99	1009	7.55	3.8																				
					12-22-19 7:45	0.90	1008	7.55	3.4																				
					12-22-19 8:00	0.83	1009	7.55	3.2																				
					12-22-19 8:15	0.85	1009	7.55	3.5																				
					12-22-19 8:30	0.80	1008	7.55	3.0																				
					12-22-19 8:45	0.67	1010	7.55	2.9																				
					12-22-19 9:00	0.72	1010	7.55	2.9																				
					12-22-19 9:15	0.72	1011	7.55	3.3																				
					12-22-19 9:30	0.70	1014	7.55	3.3																				
					12-22-19 9:45	0.76	1012	7.55	3.1																				
					12-22-19 10:00	0.65	1013	7.55	2.7																				
					12-22-19 10:15	0.72	1011	7.55	2.9																				
					12-22-19 10:30	0.77	1010	7.55	3.1																				
					12-22-19 10:45	0.70	1011	7.54	2.8																				
					12-22-19 11:00	0.70	1011	7.54	2.8																				
					12-22-19 11:15	0.80	1010	7.54	3.2																				
					12-22-19 11:30	0.69	1010	7.54	2.9																				
					12-22-19 11:45	0.77	1011	7.55	3.0																				
					12-22-19 12:00	0.79	1012	7.55	3.3																				
					12-22-19 12:15	0.67	1011	7.54	3.0																				
					12-22-19 12:30	0.87	1011	7.55	2.7																				
					12-22-19 12:45	0.70	1011	7.54	2.8																				
					12-22-19 13:00	0.72	1009	7.54	2.6																				
					12-22-19 13:15	0.76	1010	7.55	2.8																				
					12-22-19 13:30	0.70	1011	7.54	2.5																				
					12-22-19 13:45	0.68	1010	7.55	2.7																				
					12-22-19 14:00	0.70	1015	7.55	3.2																				
					12-22-19 14:15	0.70	1010	7.54	2.9																				
					12-22-19 14:30	0.75	1011	7.55	2.9																				
					12-22-19 14:45	0.85	1011	7.55	3.7																				
					12-22-19 15:00	0.76	1011	7.55	2.9																				
					12-22-19 15:15	0.85	1010	7.55	3.2																				
					12-22-19 15:30	0.85	1010	7.55	3.2																				
					12-22-19 15:45	0.96	1009	7.55	3.5																				
					12-22-19 16:00	0.88	1009	7.55	3.9																				
					12-22-19 16:15	1.06	1006	7.56	3.7																				
					12-22-19 16:30	0.95	1007	7.56	3.5																				
					12-22-19 16:45	0.95	1007	7.56	3.5																				
					12-22-19 17:00	1.00	1008	7.56	3.8																				
					12-22-19 17:15	1.00	1008	7.56	3.8																				
					12-22-19 17:30	1.04	1007	7.56	4.0																				
					12-22-19 17:45	0.98	1006	7.56	3.4																				
					12-22-19 18:00	1.05	1007	7.56	3.7																				
					12-22-19 18:15	1.08	1007	7.56	3.8																				
					12-22-19 18:30	1.02	1007	7.56	3.4																				
					12-22-19 18:45	1.02	1009	7.56	3.7																				
					12-22-19 19:00	1.05	1008	7.57	4.0																				
					12-22-19 19:15	1.10	1008	7.56	3.6																				
					12-22-19 19:30	1.09	1009	7.56	4.4																				
					12-22-19 19:45	1.08	1008	7.56	3.7																				
					12-22-19 20:00	1.07	1006	7.57	3.7																				
					12-22-19 20:15	0.98	1008	7.56	3.3																				
					12-22-19 20:30	1.07	1004	7.57	4.2																				
					12-22-19 20:45	1.11	1006	7.56	3.5																				
					12-22-19 21:00	1.13	1007	7.57	3.9																				
					12-22-19 21:15	1.13	1009	7.57	3.8																				
					12-22-19 21:30	1.04	1010	7.57	3.8																				
					12-22-19 21:45	1.02	1008	7.57	3.5																				
					12-22-19 22:00	0.98	1009	7.57	3.7																				
					12-22-19 22:15	0.89	1009	7.56	3.6																				
					12-22-19 22:30	0.88	1008	7.56	3.9																				
					12-22-19 22:45	0.97	1007	7.57	3.7																				
					12-22-19 23:00	0.95	1009	7.57	3.6																				
					12-22-19 23:15	0.96	1008	7.57	3.4																				
					12-22-19 23:30	0.83	1009	7.56	3.4																				
					12-22-19 23:45	0.88	1009	7.56	3.5																				
					12-23-19 0:00	0.86	1009	7.56	3.3																				
					12-23-19 0:15	0.86	1009	7.56	3.3																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (˚C)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-23-19 0:30	0.89	1009	7.56	3.6																				
					12-23-19 0:45	0.84	1009	7.56	3.5																				
					12-23-19 1:00	0.86	1009	7.56	2.6																				
					12-23-19 1:15	0.89	1009	7.56	3.2																				
					12-23-19 1:30	0.81	1010	7.56	3.4																				
					12-23-19 1:45	0.73	1010	7.56	3.1																				
					12-23-19 2:00	0.84	1010	7.56	3.2																				
					12-23-19 2:15	0.70	1012	7.55	3.0																				
					12-23-19 2:30	0.81	1009	7.56	2.8																				
					12-23-19 2:45	0.87	1010	7.56	3.3																				
					12-23-19 3:00	0.88	1010	7.56	3.4																				
					12-23-19 3:15	0.91	1010	7.56	3.4																				
					12-23-19 3:30	0.91	1010	7.56	3.2																				
					12-23-19 3:45	0.92	1010	7.56	3.7																				
					12-23-19 4:00	0.87	1008	7.56	3.2																				
					12-23-19 4:15	0.81	1009	7.56	3.3																				
					12-23-19 4:30	0.95	1010	7.57	3.7																				
					12-23-19 4:45	0.90	1010	7.57	3.4																				
					12-23-19 5:00	0.81	1012	7.56	3.9																				
					12-23-19 5:15	0.85	1008	7.56	3.5																				
					12-23-19 5:30	0.85	1009	7.56	3.5																				
					12-23-19 5:45	0.77	1009	7.56	2.9																				
					12-23-19 6:00	0.74	1011	7.56	2.8																				
					12-23-19 6:15	0.86	1013	7.56	3.5																				
					12-23-19 6:30	0.76	1011	7.56	2.7																				
					12-23-19 6:45	0.76	1011	7.56	2.7																				
					12-23-19 7:00	0.72	1011	7.56	2.6																				
					12-23-19 7:15	0.75	1011	7.56	2.9																				
					12-23-19 7:30	0.67	1012	7.55	2.5																				
					12-23-19 7:45	0.73	1011	7.55	2.6																				
					12-23-19 8:00	0.76	1012	7.55	2.7																				
					12-23-19 8:15	0.73	1012	7.55	2.8																				
					12-23-19 8:30	0.67	1012	7.55	3.0																				
					12-23-19 8:45	0.68	1013	7.56	2.7																				
					12-23-19 9:00	0.73	1012	7.56	2.6																				
					12-23-19 9:15	0.79	1013	7.56	3.1																				
					12-23-19 9:30	0.67	1013	7.55	2.7																				
					12-23-19 9:45	0.67	1013	7.55	2.7																				
					12-23-19 10:00	0.75	1011	7.56	3.0																				
					12-23-19 10:15	0.71	1012	7.56	3.1																				
					12-23-19 10:30	0.65	1013	7.55	2.8																				
					12-23-19 10:45	0.72	1014	7.55	3.2																				
					12-23-19 11:00	0.75	1013	7.55	2.8																				
					12-23-19 11:15	0.68	1014	7.56	2.9																				
					12-23-19 11:30	0.71	1011	7.56	3.0																				
					12-23-19 11:45	0.83	1011	7.56	2.9																				
					12-23-19 12:00	0.85	1012	7.56	3.0																				
					12-23-19 12:15	0.70	1014	7.56	2.8																				
					12-23-19 12:30	0.70	1014	7.56	3.3																				
					12-23-19 12:45	0.78	1012	7.56	2.9																				
					12-23-19 13:00	0.84	1011	7.56	3.3																				
					12-23-19 13:15	0.78	1013	7.56	3.2																				
					12-23-19 13:30	0.69	1013	7.56	2.9																				
					12-23-19 13:45	0.76	1013	7.56	3.0																				
					12-23-19 14:00	0.74	1012	7.56	3.0																				
					12-23-19 14:15	0.86	1014	7.56	3.1																				
					12-23-19 14:30	0.70	1014	7.56	2.8																				
					12-23-19 14:45	0.66	1013	7.56	2.7																				
					12-23-19 15:00	0.77	1013	7.56	3.3																				
					12-23-19 15:15	0.73	1011	7.56	2.5																				
					12-23-19 15:30	0.91	1011	7.57	3.6																				
					12-23-19 15:45	0.92	1010	7.56	3.4																				
					12-23-19 16:00	0.95	1010	7.56	3.3																				
					12-23-19 16:15	1.02	1009	7.56	3.6																				
					12-23-19 16:45	0.93	1009	7.57	3.3																				
					12-23-19 17:00	0.99	1010	7.57	3.1																				
					12-23-19 17:15	0.92	1009	7.57	3.4																				
					12-23-19 17:30	0.99	1009	7.57	3.8																				
					12-23-19 17:45	0.91	1009	7.57	3.2																				
					12-23-19 18:00	0.91	1009	7.57	3.1																				
					12-23-19 18:15	1.03	1009	7.58	3.5																				
					12-23-19 18:30	1.00	1008	7.58	3.5																				
					12-23-19 18:45	1.03	1008	7.57	3.6																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-23-19 19:00	1.00	1010	7.57	3.7																				
					12-23-19 19:15	1.06	1008	7.58	3.6																				
					12-23-19 19:30	1.04	1008	7.57	3.8																				
					12-23-19 19:45	1.01	1008	7.58	3.6																				
					12-23-19 20:00	1.09	1011	7.58	3.9																				
					12-23-19 20:15	0.99	1008	7.58	3.7																				
					12-23-19 20:30	1.01	1008	7.57	3.5																				
					12-23-19 20:45	1.06	1007	7.58	3.6																				
					12-23-19 21:00	1.13	1007	7.58	3.8																				
					12-23-19 21:15	1.06	1007	7.58	3.3																				
					12-23-19 21:30	1.04	1007	7.58	3.3																				
					12-23-19 21:45	1.06	1008	7.58	3.6																				
					12-23-19 22:00	1.01	1009	7.58	3.4																				
					12-23-19 22:15	1.01	1007	7.58	3.8																				
					12-23-19 22:30	1.01	1007	7.58	3.4																				
					12-23-19 22:45	1.07	1003	7.58	3.0																				
					12-23-19 23:00	0.98	1007	7.58	3.3																				
					12-23-19 23:15	0.92	1008	7.58	3.4																				
					12-23-19 23:30	1.00	1005	7.58	3.7																				
					12-23-19 23:45	1.07	1007	7.58	3.8																				
					12-24-19 0:00	0.98	1006	7.58	3.5																				
					12-24-19 0:15	1.05	1008	7.58	4.0																				
					12-24-19 0:30	0.98	1005	7.58	3.8																				
					12-24-19 0:45	1.06	1005	7.58	3.6																				
					12-24-19 1:00	0.95	1006	7.58	3.5																				
					12-24-19 1:15	0.91	1006	7.58	3.6																				
					12-24-19 1:30	0.85	1006	7.58	3.2																				
					12-24-19 1:45	0.97	1005	7.59	3.6																				
					12-24-19 2:00	0.93	1006	7.58	3.7																				
					12-24-19 2:15	0.96	1005	7.58	3.0																				
					12-24-19 2:30	0.92	1008	7.58	3.4																				
					12-24-19 2:45	0.91	1007	7.59	3.7																				
					12-24-19 3:00	0.95	1005	7.58	3.2																				
					12-24-19 3:15	1.07	1006	7.58	3.8																				
					12-24-19 3:30	0.97	1004	7.58	3.4																				
					12-24-19 3:45	0.89	1003	7.58	3.3																				
					12-24-19 4:00	1.06	1004	7.59	4.0																				
					12-24-19 4:15	0.91	1005	7.59	3.4																				
					12-24-19 4:30	1.02	1003	7.59	4.1																				
					12-24-19 4:45	0.99	1007	7.59	3.6																				
					12-24-19 5:00	0.89	1005	7.58	3.3																				
					12-24-19 5:15	0.97	1005	7.58	3.5																				
					12-24-19 5:30	0.99	1005	7.58	3.1																				
					12-24-19 5:45	1.04	1006	7.59	3.3																				
					12-24-19 6:00	0.92	1004	7.58	3.2																				
					12-24-19 6:15	0.92	1004	7.58	3.2																				
					12-24-19 6:30	0.82	1006	7.58	3.2																				
					12-24-19 6:45	0.86	1002	7.59	3.1																				
					12-24-19 7:00	0.83	1001	7.59	3.3																				
					12-24-19 7:15	0.76	1006	7.58	3.2																				
					12-24-19 7:30	0.79	1004	7.58	3.1																				
					12-24-19 7:45	0.83	1008	7.58	3.0																				
					12-24-19 8:00	0.77	1004	7.59	3.0																				
					12-24-19 8:15	0.81	1007	7.58	2.9																				
					12-24-19 8:30	0.73	1004	7.58	2.6																				
					12-24-19 8:45	0.74	1006	7.58	3.0																				
					12-24-19 9:00	0.65	1006	7.58	2.9																				
					12-24-19 9:15	0.72	1005	7.59	2.7																				
					12-24-19 9:30	0.72	1006	7.58	2.5																				
					12-24-19 9:45	0.71	1006	7.58	2.9																				
					12-24-19 10:00	0.64	1006	7.59	2.8																				
					12-24-19 10:15	0.65	1006	7.58	3.2																				
					12-24-19 10:30	0.64	1006	7.58	2.6																				
					12-24-19 10:45	0.55	1005	7.58	2.6																				
					12-24-19 11:00	0.55	1005	7.58	2.6																				
					12-24-19 11:15	0.59	1006	7.58	2.6																				
					12-24-19 11:30	0.63	1005	7.58	3.0																				
					12-24-19 11:45	0.57	1006	7.58	3.0																				
					12-24-19 12:00	0.61	1005	7.58	2.9																				
					12-24-19 12:15	0.60	1006	7.58	2.8																				
					12-24-19 12:30	0.51	1005	7.58	2.6																				
					12-24-19 12:45	0.53	1004	7.58	2.5																				
					12-24-19 13:00	0.49	1006	7.58	2.8																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-24-19 13:15	0.50	1006	7.58	2.7																				
					12-24-19 13:30	0.51	1007	7.58	2.5																				
					12-24-19 13:45	0.41	1006	7.58	2.3																				
					12-24-19 14:00	0.43	1005	7.58	3.0																				
					12-24-19 14:15	0.43	1006	7.58	2.8																				
					12-24-19 14:30	0.41	1005	7.58	2.5																				
					12-24-19 14:45	0.40	1006	7.58	2.7																				
					12-24-19 15:00	0.41	1006	7.58	2.6																				
					12-24-19 15:15	0.38	1007	7.58	2.8																				
					12-24-19 15:30	0.32	1007	7.58	2.5																				
					12-24-19 15:45	0.33	1006	7.58	2.6																				
					12-24-19 16:00	0.33	1005	7.58	2.6																				
					12-24-19 16:15	0.30	1006	7.58	2.3																				
					12-24-19 16:30	0.32	1007	7.58	2.6																				
					12-24-19 16:45	0.31	1006	7.58	2.6																				
					12-24-19 17:00	0.30	1005	7.58	2.6																				
					12-24-19 17:15	0.29	1006	7.58	2.8																				
					12-24-19 17:30	0.30	1005	7.58	2.1																				
					12-24-19 17:45	0.28	1005	7.58	2.6																				
					12-24-19 18:00	0.28	1005	7.58	2.7																				
					12-24-19 18:15	0.28	1006	7.58	2.5																				
					12-24-19 18:30	0.30	1005	7.58	2.2																				
					12-24-19 18:45	0.33	1006	7.58	2.4																				
					12-24-19 19:00	0.32	1004	7.58	2.4																				
					12-24-19 19:15	0.28	1007	7.58	2.7																				
					12-24-19 19:30	0.34	1005	7.58	3.1																				
					12-24-19 19:45	0.37	1005	7.58	2.6																				
					12-24-19 20:00	0.37	1005	7.58	2.6																				
					12-24-19 20:15	0.48	1003	7.59	1.4																				
					12-24-19 20:30	0.44	1005	7.58	2.6																				
					12-24-19 20:45	0.41	1003	7.58	2.6																				
					12-24-19 21:00	0.37	1005	7.58	2.6																				
					12-24-19 21:15	0.37	1005	7.58	2.5																				
					12-24-19 21:30	0.40	1004	7.58	2.3																				
					12-24-19 21:45	0.37	1004	7.58	2.4																				
					12-24-19 22:00	0.43	1003	7.58	2.5																				
					12-24-19 22:15	0.52	1004	7.58	2.7																				
					12-24-19 22:30	0.54	1003	7.58	2.6																				
					12-24-19 22:45	0.62	1003	7.58	2.9																				
					12-24-19 23:00	0.51	1000	7.58	2.5																				
					12-24-19 23:15	0.60	1002	7.58	2.8																				
					12-24-19 23:30	0.60	1002	7.58	2.5																				
					12-24-19 23:45	0.61	1004	7.58	2.7																				
					12-25-19 0:00	0.58	1003	7.58	2.3																				
					12-25-19 0:15	0.61	1005	7.58	2.3																				
					12-25-19 0:30	0.65	1003	7.58	2.6																				
					12-25-19 0:45	0.67	1003	7.58	2.4																				
					12-25-19 1:00	0.62	1002	7.58	2.6																				
					12-25-19 1:15	0.65	1004	7.58	2.8																				
					12-25-19 1:30	0.63	1003	7.58	2.6																				
					12-25-19 1:45	0.63	1003	7.58	2.6																				
					12-25-19 2:00	0.65	1003	7.58	2.7																				
					12-25-19 2:15	0.56	1004	7.59	2.6																				
					12-25-19 2:30	0.61	1004	7.58	2.8																				
					12-25-19 2:45	0.55	1003	7.58	2.7																				
					12-25-19 3:00	0.59	1004	7.58	2.8																				
					12-25-19 3:15	0.57	1002	7.58	2.3																				
					12-25-19 3:30	0.56	1004	7.58	2.7																				
					12-25-19 3:45	0.62	1004	7.58	2.4																				
					12-25-19 4:00	0.57	1003	7.58	2.5																				
					12-25-19 4:15	0.51	1005	7.58	2.4																				
					12-25-19 4:30	0.59	1004	7.59	2.5																				
					12-25-19 4:45	0.62	1001	7.58	2.5																				
					12-25-19 5:00	0.62	1005	7.58	2.5																				
					12-25-19 5:15	0.61	1006	7.58	2.5																				
					12-25-19 5:30	0.61	1005	7.58	2.4																				
					12-25-19 5:45	0.67	1006	7.58	2.4																				
					12-25-19 6:00	0.63	1007	7.58	2.2																				
					12-25-19 6:15	0.60	1006	7.58	2.4																				
					12-25-19 6:30	0.63	1005	7.58	2.4																				
					12-25-19 6:45	0.59	1005	7.58	2.4																				
					12-25-19 7:00	0.61	1006	7.58	2.5																				
					12-25-19 7:15	0.61	1006	7.58	2.6																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-25-19 7:30	0.61	1006	7.58	2.6																				
					12-25-19 7:45	0.62	1006	7.58	2.4																				
					12-25-19 8:00	0.59	1004	7.58	2.3																				
					12-25-19 8:15	0.55	1003	7.58	2.4																				
					12-25-19 8:30	0.63	1007	7.58	2.5																				
					12-25-19 8:45	0.64	1005	7.58	2.3																				
					12-25-19 9:00	0.64	1007	7.58	2.4																				
					12-25-19 9:15	0.59	1007	7.58	2.4																				
					12-25-19 9:30	0.62	1007	7.58	2.5																				
					12-25-19 9:45	0.60	1006	7.58	2.1																				
					12-25-19 10:00	0.60	1008	7.58	2.5																				
					12-25-19 10:15	0.60	1007	7.58	2.3																				
					12-25-19 10:30	0.56	1006	7.58	2.2																				
					12-25-19 10:45	0.59	1005	7.58	2.1																				
					12-25-19 11:00	0.60	1006	7.59	2.2																				
					12-25-19 11:15	0.59	1007	7.58	2.3																				
					12-25-19 11:30	0.57	1006	7.58	2.2																				
					12-25-19 11:45	0.51	1007	7.58	2.2																				
					12-25-19 12:00	0.57	1008	7.58	2.3																				
					12-25-19 12:15	0.55	1009	7.58	2.4																				
					12-25-19 12:30	0.58	1007	7.58	2.1																				
					12-25-19 12:45	0.61	1007	7.58	2.3																				
					12-25-19 13:00	0.58	1009	7.58	2.3																				
					12-25-19 13:15	0.51	1008	7.58	2.4																				
					12-25-19 13:30	0.55	1009	7.58	2.2																				
					12-25-19 13:45	0.57	1010	7.58	2.1																				
					12-25-19 14:00	0.51	1008	7.58	2.3																				
					12-25-19 14:15	0.55	1009	7.58	2.3																				
					12-25-19 14:30	0.55	1008	7.58	2.2																				
					12-25-19 14:45	0.49	1009	7.58	1.8																				
					12-25-19 15:00	0.46	1006	7.58	2.4																				
					12-25-19 15:15	0.52	1008	7.58	2.1																				
					12-25-19 15:30	0.48	1008	7.58	2.2																				
					12-25-19 15:45	0.48	1009	7.58	2.3																				
					12-25-19 16:00	0.43	1008	7.58	1.7																				
					12-25-19 16:15	0.43	1009	7.58	2.1																				
					12-25-19 16:30	0.37	1008	7.58	1.8																				
					12-25-19 16:45	0.40	1009	7.58	2.1																				
					12-25-19 17:00	0.41	1009	7.58	2.0																				
					12-25-19 17:15	0.45	1010	7.58	2.1																				
					12-25-19 17:30	0.49	1010	7.58	2.3																				
					12-25-19 17:45	0.43	1010	7.58	1.8																				
					12-25-19 18:00	0.40	1007	7.58	2.2																				
					12-25-19 18:15	0.43	1009	7.58	2.1																				
					12-25-19 18:30	0.40	1009	7.58	2.2																				
					12-25-19 18:45	0.39	1008	7.58	1.6																				
					12-25-19 19:00	0.38	1010	7.58	1.9																				
					12-25-19 19:15	0.38	1008	7.58	1.9																				
					12-25-19 19:30	0.40	1010	7.58	2.2																				
					12-25-19 19:45	0.36	1008	7.58	1.9																				
					12-25-19 20:00	0.34	1009	7.58	2.1																				
					12-25-19 20:15	0.36	1010	7.58	2.0																				
					12-25-19 20:30	0.32	1010	7.58	2.1																				
					12-25-19 20:45	0.30	1007	7.58	1.5																				
					12-25-19 21:00	0.33	1008	7.58	1.5																				
					12-25-19 21:15	0.37	1008	7.58	1.7																				
					12-25-19 21:30	0.36	1010	7.58	2.0																				
					12-25-19 21:45	0.36	1008	7.58	2.0																				
					12-25-19 22:00	0.41	1008	7.58	2.0																				
					12-25-19 22:15	0.39	1009	7.58	2.1																				
					12-25-19 22:30	0.36	1009	7.58	1.9																				
					12-25-19 22:45	0.37	1008	7.58	1.7																				
					12-25-19 23:00	0.34	1010	7.58	1.7																				
					12-25-19 23:15	0.34	1009	7.58	1.9																				
					12-25-19 23:30	0.37	1008	7.58	1.8																				
					12-25-19 23:45	0.41	1010	7.58	2.0																				
					12-26-19 0:00	0.42	1011	7.58	1.9																				
					12-26-19 0:15	0.43	1012	7.58	2.3																				
					12-26-19 0:30	0.43	1010	7.58	1.8																				
					12-26-19 0:45	0.41	1010	7.58	1.6																				
					12-26-19 1:00	0.45	1011	7.58	2.1																				
					12-26-19 1:15	0.45	1010	7.58	2.0																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-26-19 1:30	0.47	1011	7.58	2.0																				
					12-26-19 1:45	0.47	1011	7.58	1.9																				
					12-26-19 2:00	0.51	1011	7.58	2.0																				
					12-26-19 2:15	0.50	1009	7.58	2.0																				
					12-26-19 2:30	0.48	1011	7.58	1.8																				
					12-26-19 2:45	0.50	1010	7.58	2.0																				
					12-26-19 3:00	0.51	1011	7.59	2.0																				
					12-26-19 3:15	0.49	1009	7.58	2.0																				
					12-26-19 3:30	0.55	1010	7.58	2.2																				
					12-26-19 3:45	0.46	1009	7.58	1.9																				
					12-26-19 4:00	0.54	1009	7.58	1.9																				
					12-26-19 4:15	0.56	1011	7.58	1.9																				
					12-26-19 4:30	0.49	1008	7.59	1.8																				
					12-26-19 4:45	0.62	1010	7.58	2.1																				
					12-26-19 5:00	0.65	1010	7.58	2.1																				
					12-26-19 5:15	0.72	1008	7.58	2.1																				
					12-26-19 5:30	0.70	1010	7.58	2.0																				
					12-26-19 5:45	0.70	1010	7.58	1.9																				
					12-26-19 6:00	0.66	1011	7.58	2.3																				
					12-26-19 6:15	0.78	1012	7.58	2.1																				
					12-26-19 6:30	0.69	1011	7.58	2.1																				
					12-26-19 6:45	0.71	1009	7.58	2.0																				
					12-26-19 7:00	0.77	1011	7.58	1.9																				
					12-26-19 7:15	0.74	1011	7.58	1.8																				
					12-26-19 7:30	0.79	1011	7.58	2.0																				
					12-26-19 7:45	0.85	1010	7.58	2.0																				
					12-26-19 8:00	0.72	1012	7.58	1.7																				
					12-26-19 8:15	0.66	1011	7.58	2.0																				
					12-26-19 8:30	0.84	1011	7.58	2.0																				
					12-26-19 8:45	0.77	1013	7.58	2.0																				
					12-26-19 9:00	0.76	1012	7.58	2.0																				
					12-26-19 9:15	0.65	1012	7.58	1.7																				
					12-26-19 9:30	0.73	1010	7.58	1.9																				
					12-26-19 9:45	0.79	1010	7.58	1.8																				
					12-26-19 10:00	0.81	1013	7.58	2.0																				
					12-26-19 10:15	0.69	1012	7.58	1.9																				
					12-26-19 10:30	0.72	1011	7.58	1.8																				
					12-26-19 10:45	0.58	1011	7.58	1.8																				
					12-26-19 11:00	0.67	1014	7.58	2.0																				
					12-26-19 11:15	0.65	1012	7.58	1.8																				
					12-26-19 11:30	0.64	1014	7.58	1.8																				
					12-26-19 11:45	0.61	1012	7.58	1.7																				
					12-26-19 12:00	0.65	1013	7.58	1.7																				
					12-26-19 12:15	0.63	1011	7.58	1.4																				
					12-26-19 12:30	0.61	1013	7.58	1.9																				
					12-26-19 12:45	0.68	1011	7.58	1.3																				
					12-26-19 13:00	0.59	1014	7.58	1.6																				
					12-26-19 13:15	0.65	1013	7.58	1.8																				
					12-26-19 13:30	0.62	1013	7.59	1.9																				
					12-26-19 13:45	0.62	1013	7.58	1.9																				
					12-26-19 14:00	0.60	1014	7.58	1.8																				
					12-26-19 14:15	0.54	1013	7.58	1.7																				
					12-26-19 14:30	0.54	1013	7.58	1.7																				
					12-26-19 14:45	0.62	1012	7.58	2.0																				
					12-26-19 15:00	0.59	1012	7.58	1.8																				
					12-26-19 15:15	0.60	1011	7.59	1.5																				
					12-26-19 15:30	0.59	1012	7.58	1.7																				
					12-26-19 15:45	0.58	1011	7.58	1.9																				
					12-26-19 16:00	0.50	1013	7.59	1.7																				
					12-26-19 16:15	0.51	1013	7.59	1.5																				
					12-26-19 16:30	0.47	1013	7.59	1.8																				
					12-26-19 16:45	0.43	1012	7.58	1.8																				
					12-26-19 17:00	0.46	1011	7.58	1.7																				
					12-26-19 17:15	0.43	1012	7.59	1.8																				
					12-26-19 17:30	0.42	1011	7.59	1.6																				
					12-26-19 17:45	0.36	1012	7.58	1.4																				
					12-26-19 18:00	0.37	1013	7.58	1.6																				
					12-26-19 18:15	0.33	1013	7.58	1.7																				
					12-26-19 18:30	0.31	1012	7.58	1.7																				
					12-26-19 18:45	0.31	1011	7.58	1.6																				
					12-26-19 19:00	0.35	1012	7.59	1.6																				
					12-26-19 19:15	0.39	1012	7.58	1.6																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-26-19 19:30	0.39	1012	7.58	1.6																				
					12-26-19 19:45	0.36	1011	7.58	1.5																				
					12-26-19 20:00	0.38	1013	7.58	1.6																				
					12-26-19 20:15	0.39	1014	7.58	1.6																				
					12-26-19 20:30	0.46	1013	7.58	1.7																				
					12-26-19 20:45	0.46	1013	7.58	1.7																				
					12-26-19 21:00	0.46	1009	7.58	1.6																				
					12-26-19 21:15	0.53	1013	7.58	1.5																				
					12-26-19 21:30	0.53	1010	7.58	1.9																				
					12-26-19 21:45	0.53	1011	7.58	1.9																				
					12-26-19 22:00	0.57	1011	7.58	1.8																				
					12-26-19 22:15	0.68	1010	7.58	1.7																				
					12-26-19 22:30	0.64	1011	7.59	1.8																				
					12-26-19 22:45	0.83	1010	7.58	1.9																				
					12-26-19 23:00	0.80	1010	7.58	1.8																				
					12-26-19 23:15	0.80	1010	7.58	1.8																				
					12-26-19 23:30	0.74	1011	7.58	1.9																				
					12-26-19 23:45	0.81	1009	7.58	1.9																				
					12-27-19 0:00	0.76	1010	7.58	1.6																				
					12-27-19 0:15	0.73	1010	7.58	1.6																				
					12-27-19 0:30	0.76	1013	7.58	1.7																				
					12-27-19 0:45	0.84	1011	7.58	1.9																				
					12-27-19 1:00	0.81	1009	7.58	1.8																				
					12-27-19 1:15	0.84	1012	7.58	1.8																				
					12-27-19 1:30																								
					12-27-19 1:45																								
					12-27-19 2:00	0.90	1014	7.58	1.8																				
					12-27-19 2:15	0.86	1014	7.58	1.9																				
					12-27-19 2:30	0.91	1012	7.58	1.8																				
					12-27-19 2:45	0.84	1012	7.58	1.6																				
					12-27-19 3:00	0.99	1012	7.58	1.6																				
					12-27-19 3:15	0.99	1011	7.58	1.8																				
					12-27-19 3:30	0.82	1013	7.58	1.6																				
					12-27-19 3:45	0.82	1013	7.58	1.6																				
					12-27-19 4:00	0.97	1011	7.58	1.8																				
					12-27-19 4:15	0.86	1009	7.58	1.7																				
					12-27-19 4:30	0.88	1011	7.58	1.8																				
					12-27-19 4:45	0.84	1015	7.58	1.7																				
					12-27-19 5:00	0.80	1014	7.58	1.6																				
					12-27-19 5:15	1.01	1012	7.58	1.8																				
					12-27-19 5:30	0.92	1014	7.58	1.7																				
					12-27-19 5:45	0.79	1015	7.58	1.7																				
					12-27-19 6:00	0.87	1014	7.58	1.7																				
					12-27-19 6:15	0.90	1014	7.58	1.6																				
					12-27-19 6:30	0.88	1015	7.58	1.6																				
					12-27-19 6:45	0.88	1013	7.58	1.8																				
					12-27-19 7:00	0.75	1016	7.59	1.7																				
					12-27-19 7:15	0.87	1016	7.59	1.9																				
					12-27-19 7:30	1.03	1015	7.58	2.0																				
					12-27-19 7:45	0.82	1015	7.58	1.7																				
					12-27-19 8:00	0.90	1015	7.58	1.9																				
					12-27-19 8:15	0.97	1012	7.58	1.7																				
					12-27-19 8:30	0.91	1013	7.58	1.8																				
					12-27-19 8:45	1.08	1011	7.59	1.8																				
					12-27-19 9:00	1.02	1013	7.59	2.0																				
					12-27-19 9:15	0.97	1013	7.59	1.7																				
					12-27-19 9:30	0.96	1013	7.58	1.8																				
					12-27-19 9:45	0.83	1015	7.59	1.7																				
					12-27-19 10:00	0.93	1015	7.58	1.8																				
					12-27-19 10:15	0.92	1017	7.59	1.7																				
					12-27-19 10:30	1.08	1014	7.58	1.9																				
					12-27-19 10:45	1.13	1016	7.59	2.2																				
					12-27-19 11:00	0.97	1011	7.59	2.0																				
					12-27-19 11:15	1.02	1016	7.59	1.9																				
					12-27-19 11:30	0.91	1013	7.58	1.5																				
					12-27-19 11:45	0.84	1014	7.59	1.7																				
					12-27-19 12:00	0.99	1016	7.59	2.0																				
					12-27-19 12:15	0.99	1013	7.59	2.0																				
					12-27-19 12:30	0.91	1016	7.59	1.8																				
					12-27-19 12:45	1.03	1019	7.59	2.1																				
					12-27-19 13:00	0.86	1015	7.59	1.6																				
					12-27-19 13:15	0.97	1015	7.58	1.7																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-27-19 13:30	0.97	1015	7.59	1.8																				
					12-27-19 13:45	0.98	1014	7.59	1.9																				
					12-27-19 14:00	0.97	1013	7.59	2.2																				
					12-27-19 14:15	0.96	1016	7.58	1.6																				
					12-27-19 14:30	0.96	1016	7.58	1.6																				
					12-27-19 14:45	0.95	1014	7.59	1.8																				
					12-27-19 15:00	1.09	1017	7.59	2.1																				
					12-27-19 15:15	1.03	1014	7.59	1.8																				
					12-27-19 15:30	1.05	1010	7.59	1.7																				
					12-27-19 15:45	1.17	1019	7.59	2.3																				
					12-27-19 16:00	0.88	1014	7.58	1.6																				
					12-27-19 16:15	1.02	1017	7.59	1.7																				
					12-27-19 16:30	1.03	1016	7.58	2.0																				
					12-27-19 16:45	1.01	1016	7.59	2.4																				
					12-27-19 17:00	0.79	1018	7.58	1.7																				
					12-27-19 17:15	0.90	1018	7.59	1.6																				
					12-27-19 17:30	0.80	1013	7.58	1.5																				
					12-27-19 17:45	0.92	1018	7.59	1.9																				
					12-27-19 18:00	1.04	1015	7.58	1.7																				
					12-27-19 18:15	0.92	1018	7.58	1.6																				
					12-27-19 18:30	1.15	1019	7.59	2.2																				
					12-27-19 18:45	1.07	1012	7.59	1.4																				
					12-27-19 19:00	1.15	1018	7.59	1.8																				
					12-27-19 19:15	0.94	1015	7.58	2.1																				
					12-27-19 19:30	1.07	1013	7.59	2.2																				
					12-27-19 19:45	1.07	1015	7.58	2.6																				
					12-27-19 20:00	1.00	1021	7.58	1.8																				
					12-27-19 20:15	1.09	1016	7.59	1.6																				
					12-27-19 20:30	1.02	1018	7.58	2.2																				
					12-27-19 20:45	0.96	1018	7.58	1.7																				
					12-27-19 21:00	0.98	1018	7.59	1.6																				
					12-27-19 21:15	1.18	1020	7.59	2.4																				
					12-27-19 21:30	1.11	1022	7.59	2.0																				
					12-27-19 21:45	0.94	1018	7.59	1.7																				
					12-27-19 22:00	1.00	1017	7.60	2.0																				
					12-27-19 22:15	1.10	1017	7.59	2.2																				
					12-27-19 22:30	1.09	1020	7.59	1.9																				
					12-27-19 22:45	1.02	1019	7.59	1.4																				
					12-27-19 23:00	1.13	1021	7.59	2.4																				
					12-27-19 23:15	1.04	1019	7.58	1.9																				
					12-27-19 23:30	1.11	1023	7.59	1.9																				
					12-27-19 23:45	1.04	1019	7.59	1.7																				
					12-28-19 0:00	1.03	1020	7.59	1.8																				
					12-28-19 0:15	1.02	1020	7.59	1.8																				
					12-28-19 0:30	0.99	1020	7.59	1.8																				
					12-28-19 0:45	0.86	1022	7.59	1.8																				
					12-28-19 1:00	0.89	1020	7.58	1.6																				
					12-28-19 1:15	1.01	1024	7.59	2.1																				
					12-28-19 1:30	0.99	1021	7.59	1.7																				
					12-28-19 1:45	0.87	1021	7.59	1.5																				
					12-28-19 2:00	0.93	1023	7.59	1.8																				
					12-28-19 2:15	1.00	1018	7.59	1.7																				
					12-28-19 2:30	0.96	1024	7.59	1.9																				
					12-28-19 2:45	0.91	1021	7.59	1.5																				
					12-28-19 3:00	1.01	1025	7.59	2.6																				
					12-28-19 3:15	0.98	1025	7.59	2.1																				
					12-28-19 3:30	1.13	1024	7.59	2.0																				
					12-28-19 3:45	1.03	1023	7.59	1.9																				
					12-28-19 4:00	1.00	1025	7.59	2.2																				
					12-28-19 4:15	1.03	1023	7.59	2.3																				
					12-28-19 4:30	0.97	1022	7.59	1.7																				
					12-28-19 4:45	1.06	1026	7.59	2.2																				
					12-28-19 5:00	1.01	1022	7.59	2.0																				
					12-28-19 5:15	0.95	1031	7.58	2.3																				
					12-28-19 5:30	0.98	1026	7.59	1.8																				
					12-28-19 5:45	0.95	1027	7.59	2.3																				
					12-28-19 6:00	1.03	1026	7.59	1.9																				
					12-28-19 6:15	1.04	1025	7.59	2.0																				
					12-28-19 6:30	0.92	1024	7.58	1.6																				
					12-28-19 6:45	0.96	1025	7.58	2.0																				
					12-28-19 7:00	0.93	1026	7.58	1.9																				
					12-28-19 7:15	0.89	1024	7.58	1.8																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-28-19 7:30	0.89	1022	7.58	1.6																				
					12-28-19 7:45	0.87	1025	7.58	1.5																				
					12-28-19 8:00	0.90	1023	7.58	1.5																				
					12-28-19 8:15	0.90	1025	7.58	1.8																				
					12-28-19 8:30	0.92	1025	7.58	2.0																				
					12-28-19 8:45	0.96	1029	7.58	1.8																				
					12-28-19 9:00	0.93	1028	7.58	2.0																				
					12-28-19 9:15	0.94	1028	7.58	2.1																				
					12-28-19 9:30	0.89	1024	7.58	2.1																				
					12-28-19 9:45	0.85	1024	7.58	1.6																				
					12-28-19 10:00	0.88	1030	7.57	2.1																				
					12-28-19 10:15	0.86	1024	7.58	3.3																				
					12-28-19 10:30	0.94	1027	7.58	1.8																				
					12-28-19 10:45	0.88	1026	7.57	2.0																				
					12-28-19 11:00	0.95	1027	7.58	1.8																				
					12-28-19 11:15	0.85	1025	7.58	1.7																				
					12-28-19 11:30	0.92	1025	7.58	1.6																				
					12-28-19 11:45	0.91	1024	7.57	1.3																				
					12-28-19 12:00	1.00	1029	7.57	1.9																				
					12-28-19 12:15	0.88	1024	7.58	1.5																				
					12-28-19 12:30	0.92	1026	7.57	1.5																				
					12-28-19 12:45	0.93	1028	7.57	1.7																				
					12-28-19 13:00	0.88	1026	7.58	1.5																				
					12-28-19 13:15	0.87	1028	7.57	1.7																				
					12-28-19 13:30	0.93	1026	7.57	1.5																				
					12-28-19 13:45	0.94	1028	7.57	1.9																				
					12-28-19 14:00	0.96	1027	7.57	1.5																				
					12-28-19 14:15	0.96	1027	7.57	1.5																				
					12-28-19 14:30	1.05	1038	7.57	2.3																				
					12-28-19 14:45	1.03	1036	7.57	2.3																				
					12-28-19 15:00	0.88	1027	7.57	1.5																				
					12-28-19 15:15	0.95	1030	7.57	1.9																				
					12-28-19 15:30	0.82	1023	7.58	1.4																				
					12-28-19 15:45	0.94	1027	7.57	1.8																				
					12-28-19 16:00	1.02	1035	7.57	2.1																				
					12-28-19 16:15	0.98	1029	7.57	2.0																				
					12-28-19 16:30	0.96	1029	7.57	2.1																				
					12-28-19 16:45	0.98	1033	7.57	2.1																				
					12-28-19 17:00	0.96	1032	7.57	2.0																				
					12-28-19 17:15	0.96	1027	7.57	1.9																				
					12-28-19 17:30	0.84	1030	7.57	1.6																				
					12-28-19 17:45	0.98	1029	7.57	2.0																				
					12-28-19 18:00	0.78	1024	7.57	1.5																				
					12-28-19 18:15	0.92	1030	7.57	2.1																				
					12-28-19 18:30	0.84	1029	7.57	1.8																				
					12-28-19 18:45	0.89	1021	7.57	1.4																				
					12-28-19 19:00	1.02	1036	7.56	2.6																				
					12-28-19 19:15	1.07	1035	7.57	2.5																				
					12-28-19 19:30	1.01	1029	7.56	2.1																				
					12-28-19 19:45	1.06	1034	7.56	2.4																				
					12-28-19 20:00	1.02	1040	7.56	2.6																				
					12-28-19 20:15	1.00	1035	7.56	2.7																				
					12-28-19 20:30	1.06	1038	7.56	2.7																				
					12-28-19 20:45	1.07	1037	7.56	2.8																				
					12-28-19 21:00	0.98	1034	7.56	2.6																				
					12-28-19 21:15	1.03	1036	7.56	2.7																				
					12-28-19 21:30	0.90	1033	7.56	2.3																				
					12-28-19 21:45	1.00	1036	7.57	2.4																				
					12-28-19 22:00	0.94	1034	7.57	2.3																				
					12-28-19 22:15	0.94	1033	7.57	2.1																				
					12-28-19 22:30	1.00	1045	7.57	2.8																				
					12-28-19 22:45	0.97	1028	7.56	2.1																				
					12-28-19 23:00	1.03	1038	7.56	2.4																				
					12-28-19 23:15	1.03	1030	7.57	1.6																				
					12-28-19 23:30	1.07	1042	7.56	3.0																				
					12-28-19 23:45	1.06	1041	7.56	2.7																				
					12-29-19 0:00	0.99	1036	7.56	2.1																				
					12-29-19 0:15	1.16	1039	7.56	2.6																				
					12-29-19 0:30	1.04	1042	7.56	2.8																				
					12-29-19 0:45	0.97	1037	7.56	2.9																				
					12-29-19 1:00	1.03	1041	7.56	3.2																				
					12-29-19 1:15	1.03	1038	7.56	2.9																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-29-19 1:30	1.10	1047	7.56	3.4																				
					12-29-19 1:45	1.15	1045	7.56	5.1																				
					12-29-19 2:00	1.17	1053	7.56	3.8																				
					12-29-19 2:15	1.08	1041	7.56	3.8																				
					12-29-19 2:30	1.17	1051	7.56	3.8																				
					12-29-19 2:45	1.16	1051	7.56	3.3																				
					12-29-19 3:00	1.21	1055	7.56	4.3																				
					12-29-19 3:15	1.20	1058	7.56	5.0																				
					12-29-19 3:30	1.23	1055	7.56	5.0																				
					12-29-19 3:45	1.08	1042	7.56	3.7																				
					12-29-19 4:00	1.11	1047	7.56	4.8																				
					12-29-19 4:15	1.14	1048	7.56	3.9																				
					12-29-19 4:30	1.18	1050	7.56	4.7																				
					12-29-19 4:45	1.13	1040	7.56	3.7																				
					12-29-19 5:00	1.20	1052	7.56	4.2																				
					12-29-19 5:15	1.11	1044	7.56	3.4																				
					12-29-19 5:30	1.10	1042	7.56	3.2																				
					12-29-19 5:45	1.12	1055	7.57	3.7																				
					12-29-19 6:00	0.95	1031	7.56	3.2																				
					12-29-19 6:15	1.01	1036	7.56	3.0																				
					12-29-19 6:30	1.08	1042	7.56	3.2																				
					12-29-19 6:45	1.17	1053	7.56	4.2																				
					12-29-19 7:00	1.20	1054	7.56	5.6																				
					12-29-19 7:15	1.20	1054	7.56	5.6																				
					12-29-19 7:30	1.10	1049	7.56	3.1																				
					12-29-19 7:45	1.13	1047	7.56	5.1																				
					12-29-19 8:00	1.14	1046	7.56	3.8																				
					12-29-19 8:15	1.17	1040	7.56	4.0																				
					12-29-19 8:30	1.09	1047	7.56	4.4																				
					12-29-19 8:45	1.18	1058	7.56	4.6																				
					12-29-19 9:00	1.14	1048	7.56	5.0																				
					12-29-19 9:15	1.13	1048	7.56	4.4																				
					12-29-19 9:30	1.18	1053	7.56	4.7																				
					12-29-19 9:45	1.19	1050	7.56	3.8																				
					12-29-19 10:00	1.23	1060	7.56	5.5																				
					12-29-19 10:15	1.20	1051	7.56	4.6																				
					12-29-19 10:30	1.24	1054	7.56	4.5																				
					12-29-19 10:45	1.03	1038	7.57	4.3																				
					12-29-19 11:00	1.14	1054	7.56	4.0																				
					12-29-19 11:15	1.15	1048	7.56	4.9																				
					12-29-19 11:30	1.24	1061	7.56	6.1																				
					12-29-19 11:45	1.19	1053	7.56	4.4																				
					12-29-19 12:00	1.08	1042	7.56	3.5																				
					12-29-19 12:15	1.16	1050	7.56	4.5																				
					12-29-19 12:30	1.19	1056	7.56	5.3																				
					12-29-19 12:45	1.11	1047	7.57	3.6																				
					12-29-19 13:00	1.20	1053	7.57	5.8																				
					12-29-19 13:15	1.11	1041	7.56	3.6																				
					12-29-19 13:30	1.03	1041	7.56	3.2																				
					12-29-19 13:45	1.02	1037	7.56	3.5																				
					12-29-19 14:00	1.07	1049	7.56	4.0																				
					12-29-19 14:15	1.07	1049	7.56	4.0																				
					12-29-19 14:30	1.09	1048	7.56	3.8																				
					12-29-19 14:45	1.14	1053	7.57	5.1																				
					12-29-19 15:00	1.24	1065	7.56	5.3																				
					12-29-19 15:15	1.18	1052	7.56	4.7																				
					12-29-19 15:30	1.25	1060	7.56	6.0																				
					12-29-19 15:45	1.25	1060	7.56	6.0																				
					12-29-19 16:00	1.14	1053	7.57	5.4																				
					12-29-19 16:15	1.16	1057	7.56	4.9																				
					12-29-19 16:30	1.26	1061	7.56	6.4																				
					12-29-19 16:45	1.21	1048	7.56	4.9																				
					12-29-19 17:00	1.25	1058	7.57	6.0																				
					12-29-19 17:15	1.26	1060	7.56	5.2																				
					12-29-19 17:30	1.22	1060	7.56	5.3																				
					12-29-19 17:45																								
					12-29-19 18:00	1.14	1051	7.56	7.2																				
					12-29-19 18:15	1.20	1060	7.56	6.0																				
					12-29-19 18:30	1.26	1064	7.56	6.2																				
					12-29-19 18:45	1.22	1053	7.57	5.3																				
					12-29-19 19:00	1.20	1051	7.56	6.0																				
					12-29-19 19:15	1.08	1043	7.57	6.0																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-29-19 19:30	1.14	1058	7.56	7.2																				
					12-29-19 19:45	1.19	1054	7.56	6.7																				
					12-29-19 20:00	1.21	1056	7.56	5.2																				
					12-29-19 20:15	1.08	1046	7.56	4.7																				
					12-29-19 20:30	1.21	1051	7.56	6.6																				
					12-29-19 20:45	1.16	1049	7.56	6.0																				
					12-29-19 21:00	1.17	1051	7.56	6.0																				
					12-29-19 21:15	1.27	1058	7.56	6.6																				
					12-29-19 21:30	1.23	1047	7.56	3.7																				
					12-29-19 21:45	1.16	1049	7.56	4.5																				
					12-29-19 22:00	1.13	1051	7.56	6.5																				
					12-29-19 22:15	1.13	1047	7.56	4.7																				
					12-29-19 22:30	1.15	1047	7.56	4.8																				
					12-29-19 22:45	1.19	1048	7.56	4.3																				
					12-29-19 23:00	1.22	1059	7.56	5.5																				
					12-29-19 23:15	1.19	1047	7.56	4.3																				
					12-29-19 23:30	1.26	1056	7.56	4.0																				
					12-29-19 23:45	1.21	1053	7.57	4.8																				
					12-30-19 0:00	1.10	1045	7.56	4.6																				
					12-30-19 0:15	1.13	1048	7.56	4.0																				
					12-30-19 0:30	1.01	1043	7.56	3.0																				
					12-30-19 0:45	1.01	1045	7.56	3.6																				
					12-30-19 1:00	0.97	1036	7.57	1.9																				
					12-30-19 1:15	1.05	1053	7.56	3.3																				
					12-30-19 1:30	0.92	1029	7.57	2.1																				
					12-30-19 1:45	1.03	1044	7.56	2.7																				
					12-30-19 2:00	0.94	1034	7.57	3.0																				
					12-30-19 2:15	1.02	1045	7.56	2.4																				
					12-30-19 2:30	1.13	1055	7.56	4.3																				
					12-30-19 2:45	1.07	1050	7.56	3.2																				
					12-30-19 3:00	1.10	1050	7.56	4.0																				
					12-30-19 3:15	1.17	1049	7.56	3.6																				
					12-30-19 3:30	1.18	1054	7.56	6.1																				
					12-30-19 3:45	1.20	1048	7.57	5.9																				
					12-30-19 4:00	1.19	1050	7.57	5.5																				
					12-30-19 4:15	1.06	1043	7.57	4.1																				
					12-30-19 4:30	1.01	1042	7.57	3.6																				
					12-30-19 4:45	1.11	1040	7.57	3.6																				
					12-30-19 5:00	1.12	1052	7.57	5.2																				
					12-30-19 5:15	1.23	1056	7.57	5.1																				
					12-30-19 5:30	1.20	1057	7.57	4.6																				
					12-30-19 5:45	1.04	1046	7.57	3.9																				
					12-30-19 6:00	1.19	1055	7.57	4.2																				
					12-30-19 6:15	1.09	1052	7.57	4.2																				
					12-30-19 6:30	1.14	1053	7.57	3.9																				
					12-30-19 6:45	1.22	1045	7.57	4.4																				
					12-30-19 7:00	1.05	1039	7.57	3.3																				
					12-30-19 7:15	1.21	1059	7.57	4.8																				
					12-30-19 7:30	1.25	1052	7.57	4.7																				
					12-30-19 7:45	1.16	1049	7.57	4.3																				
					12-30-19 8:00	1.20	1053	7.57	5.1																				
					12-30-19 8:15	1.20	1054	7.58	6.0																				
					12-30-19 8:30	1.11	1051	7.57	4.5																				
					12-30-19 8:45	1.11	1045	7.58	5.9																				
					12-30-19 9:00	1.19	1056	7.57	4.8																				
					12-30-19 9:15	1.29	1056	7.58	5.2																				
					12-30-19 9:30	1.18	1054	7.58	4.8																				
					12-30-19 9:45	1.25	1071	7.57	5.7																				
					12-30-19 10:00	1.27	1059	7.57	5.3																				
					12-30-19 10:15	1.21	1058	7.58	4.4																				
					12-30-19 10:30	1.24	1066	7.57	5.1																				
					12-30-19 10:45	1.06	1044	7.58	3.9																				
					12-30-19 11:00	1.07	1049	7.58	4.2																				
					12-30-19 11:15	1.15	1055	7.58	4.4																				
					12-30-19 11:30	1.31	1055	7.57	5.2																				
					12-30-19 11:45	1.24	1053	7.57	4.6																				
					12-30-19 12:00	1.25	1055	7.57	4.8																				
					12-30-19 12:15	1.21	1050	7.58	4.7																				
					12-30-19 12:30	1.31	1066	7.57	5.9																				
					12-30-19 12:45	1.17	1048	7.57	3.0																				
					12-30-19 13:00	1.15	1052	7.57	5.0																				
					12-30-19 13:15	1.19	1057	7.57	4.7																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-30-19 13:30	1.13	1044	7.57	4.7																				
					12-30-19 13:45	1.11	1047	7.57	3.3																				
					12-30-19 14:00	1.26	1066	7.57	4.6																				
					12-30-19 14:15	1.24	1059	7.57	5.1																				
					12-30-19 14:30	1.30	1061	7.57	5.0																				
					12-30-19 14:45	1.19	1055	7.57	3.3																				
					12-30-19 15:00	1.14	1066	7.58	2.9																				
					12-30-19 15:15	1.17	1056	7.57	4.9																				
					12-30-19 15:30	1.14	1053	7.58	3.7																				
					12-30-19 15:45	1.08	1051	7.58	3.9																				
					12-30-19 16:00	1.20	1055	7.57	4.4																				
					12-30-19 16:15	1.21	1060	7.57	4.0																				
					12-30-19 16:30	1.20	1050	7.57	3.3																				
					12-30-19 16:45	1.20	1059	7.57	3.4																				
					12-30-19 17:00	1.04	1048	7.57	2.7																				
					12-30-19 17:15	1.20	1064	7.57	3.3																				
					12-30-19 17:30	1.02	1049	7.58	3.3																				
					12-30-19 17:45	1.21	1044	7.57	3.7																				
					12-30-19 18:00	1.21	1049	7.57	3.9																				
					12-30-19 18:15	1.21	1053	7.57	3.3																				
					12-30-19 18:30	1.06	1050	7.57	3.7																				
					12-30-19 18:45	0.96	1047	7.57	3.8																				
					12-30-19 19:00	0.88	1044	7.57	2.0																				
					12-30-19 19:15	0.95	1052	7.57	2.4																				
					12-30-19 19:30	0.94	1046	7.57	1.9																				
					12-30-19 19:45	1.15	1049	7.57	4.3																				
					12-30-19 20:00	1.23	1059	7.57	4.9																				
					12-30-19 20:15	1.25	1062	7.57	3.4																				
					12-30-19 20:30	1.21	1056	7.57	3.3																				
					12-30-19 20:45	1.25	1058	7.57	3.5																				
					12-30-19 21:00	1.26	1066	7.57	4.0																				
					12-30-19 21:15	1.06	1037	7.57	2.2																				
					12-30-19 21:30	1.14	1059	7.57	3.8																				
					12-30-19 21:45	1.20	1063	7.57	3.7																				
					12-30-19 22:00	1.17	1053	7.57	3.3																				
					12-30-19 22:15	1.09	1051	7.57	3.4																				
					12-30-19 22:30	1.01	1044	7.57	2.3																				
					12-30-19 22:45	1.14	1055	7.57	3.8																				
					12-30-19 23:00	1.00	1041	7.57	1.7																				
					12-30-19 23:15	1.04	1041	7.57	2.6																				
					12-30-19 23:30	1.12	1059	7.57	3.0																				
					12-30-19 23:45	1.00	1034	7.57	1.6																				
					12-31-19 0:00	1.07	1038	7.57	2.2																				
					12-31-19 0:15	0.94	1034	7.58	1.6																				
					12-31-19 0:30	1.07	1051	7.57	2.6																				
					12-31-19 0:45	0.95	1045	7.57	2.4																				
					12-31-19 1:00	0.92	1037	7.57	1.7																				
					12-31-19 1:15	1.01	1045	7.58	2.3																				
					12-31-19 1:30	0.92	1046	7.58	2.1																				
					12-31-19 1:45	0.77	1036	7.57	1.3																				
					12-31-19 2:00	1.01	1050	7.57	2.4																				
					12-31-19 2:15	1.08	1050	7.57	2.8																				
					12-31-19 2:30	0.94	1045	7.57	2.8																				
					12-31-19 2:45	1.12	1043	7.58	2.9																				
					12-31-19 3:00	1.14	1055	7.57	3.5																				
					12-31-19 3:15	1.20	1062	7.57	3.9																				
					12-31-19 3:30	1.16	1057	7.57	3.5																				
					12-31-19 3:45	1.04	1049	7.57	2.6																				
					12-31-19 4:00	1.19	1060	7.57	4.8																				
					12-31-19 4:15	1.27	1059	7.58	3.2																				
					12-31-19 4:30	1.29	1064	7.58	4.2																				
					12-31-19 4:45	1.23	1061	7.58	3.7																				
					12-31-19 5:00	1.22	1055	7.58	3.8																				
					12-31-19 5:15	1.28	1061	7.58	4.8																				
					12-31-19 5:30	1.27	1056	7.58	4.3																				
					12-31-19 5:45	1.33	1063	7.58	4.4																				
					12-31-19 6:00	1.33	1063	7.58	4.4																				
					12-31-19 6:15	1.25	1061	7.58	2.8																				
					12-31-19 6:30	1.30	1071	7.58	4.5																				
					12-31-19 6:45	1.25	1050	7.58	3.6																				
					12-31-19 7:00	1.31	1070	7.58	4.2																				
					12-31-19 7:15	1.23	1058	7.58	4.2																				

Appendix 3-A: 2019 In Situ Water Quality Data

RSEM-R5B					RSEM-R6E					RSEM-R6W					RSEM-L6					RSEM-L5E					RSEM-L5W				
Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)	Date and Time	Temperature (℃)	Specific Conductivity (µS/cm)	pH (pH)	Turbidity (NTU)
					12-31-19 7:30	1.18	1061	7.59	3.3																				
					12-31-19 7:45	1.04	1049	7.58	2.9																				
					12-31-19 8:00	1.13	1050	7.58	2.1																				
					12-31-19 8:15	1.05	1056	7.58	3.9																				
					12-31-19 8:30	1.12	1059	7.58	2.5																				
					12-31-19 8:45	1.08	1055	7.58	2.5																				
					12-31-19 9:00	1.02	1061	7.58	2.8																				
					12-31-19 9:15	0.98	1061	7.59	2.9																				
					12-31-19 9:30	1.13	1058	7.59	3.3																				
					12-31-19 9:45	1.00	1050	7.58	3.2																				
					12-31-19 10:00	1.04	1058	7.58	3.0																				
					12-31-19 10:15	0.93	1046	7.58	3.1																				
					12-31-19 10:30	1.14	1061	7.59	2.1																				
					12-31-19 10:45	1.35	1068	7.59	5.0																				
					12-31-19 11:00	1.24	1059	7.59	4.7																				
					12-31-19 11:15	1.24	1065	7.59	5.4																				
					12-31-19 11:30	1.28	1070	7.59	3.8																				
					12-31-19 11:45	1.18	1054	7.59	3.6																				
					12-31-19 12:00	1.17	1055	7.59	3.0																				
					12-31-19 12:15	1.16	1056	7.59	4.0																				
					12-31-19 12:30	1.16	1063	7.58	2.8																				
					12-31-19 12:45	1.27	1069	7.58	4.3																				
					12-31-19 13:00	1.33	1066	7.59	4.8																				
					12-31-19 13:15	1.36	1072	7.59	4.7																				
					12-31-19 13:30	1.26	1065	7.59	3.3																				
					12-31-19 13:45	1.24	1059	7.59	4.5																				
					12-31-19 14:00	1.27	1064	7.59	3.6																				
					12-31-19 14:15	1.14	1051	7.58	3.1																				
					12-31-19 14:30	1.08	1063	7.58	2.5																				
					12-31-19 14:45	1.10	1059	7.59	3.2																				
					12-31-19 15:00	1.23	1067	7.60	5.5																				
					12-31-19 15:15	1.07	1051	7.59	2.5																				
					12-31-19 15:30	1.18	1071	7.59	2.2																				
					12-31-19 15:45	1.04	1053	7.59	2.7																				
					12-31-19 16:00	0.95	1051	7.59	3.0																				
					12-31-19 16:15	1.06	1062	7.59	2.8																				
					12-31-19 16:30	1.19	1070	7.59	2.9																				
					12-31-19 16:45	1.11	1057	7.58	3.8																				
					12-31-19 17:00	1.07	1066	7.58	3.1																				
					12-31-19 17:15	1.16	1061	7.59	3.1																				
					12-31-19 17:30	1.02	1053	7.59	4.6																				
					12-31-19 17:45	0.91	1049	7.58	2.6																				
					12-31-19 18:00	1.24	1069	7.59	3.1																				
					12-31-19 18:15	1.28	1074	7.59	3.6																				
					12-31-19 18:30	1.20	1056	7.59	3.5																				
					12-31-19 18:45	1.29	1060	7.58	4.6																				
					12-31-19 19:00	1.26	1053	7.59	3.1																				
					12-31-19 19:15	1.23	1060	7.58	3.4																				
					12-31-19 19:30	1.20	1055	7.58	2.0																				
					12-31-19 19:45	1.14	1056	7.58	2.7																				
					12-31-19 20:00	1.17	1056	7.58	3.5																				
					12-31-19 20:15	1.27	1065	7.59	3.9																				
					12-31-19 20:30	1.32	1066	7.59	3.8																				
					12-31-19 20:45	1.18	1050	7.59	2.9																				
					12-31-19 21:00	1.29	1061	7.59	3.1																				
					12-31-19 21:15	1.24	1049	7.59	3.1																				
					12-31-19 21:30	1.21	1054	7.59	2.5																				
					12-31-19 21:45	1.23	1058	7.59	3.4																				
					12-31-19 22:00	1.21	1056	7.59	3.2																				
					12-31-19 22:15	1.16	1059	7.59	2.7																				
					12-31-19 22:30	1.14	1052	7.58	3.7																				
					12-31-19 22:45	1.18	1044	7.59	2.6																				
					12-31-19 23:00	1.07	1044	7.58	3.1																				
					12-31-19 23:15	1.17	1054	7.58	3.6																				
					12-31-19 23:30	1.16	1045	7.59	2.5																				
					12-31-19 23:45	1.17	1060	7.58	3.2																				

APPENDIX 3-B: 2019 WATER QUALITY ANALYTICAL RESULTS, TABULATED

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
1500_PH_Tank	6/12/2019 8:57	VW8065	M	8.06	241	1420	128	1560	321	117	101	<1.0	124	<1.0	<1.0	<0.50	0.080	<0.010	<1.0			0.11	<0.0050	0.106	0.106	<0.0050
A25_EOP	3/24/2019 15:06	VK6082	M			94.3		88.0																		
A25_EOP	3/25/2019 13:11	VK7815	M					46.4																		
A25_EOP	3/26/2019 13:28	VK9104	M			27.2		60.0																		
A25_EOP	3/27/2019 13:59	VL2035	M			18.6		22																		
A25_EOP	4/24/2019 12:22	VO7051	M			16.6		17.6																		
A25-SP	3/18/2019 16:40	VK0940	M	7.82	240	653	214	351	131	91.0	64.6	<1.0	78.9	<1.0	<1.0	3.41	0.130	0.028	39.2			0.25	0.0388	0.902	0.941	0.0093
A25-SP	3/19/2019 17:14	VK0941	M			365		252																		
A25-SP	3/21/2019 12:03	VK3830	M					159																		
A25-SP	4/23/2019 12:05	VO5346	M	8.03	296	8.09	164	16.8	116	119	57.7	<1.0	70.4	<1.0	<1.0	8.25	0.110	0.040	72.6			0.022	0.0189	0.646	0.665	0.0037
A25-SP	5/1/2019 13:00	VP6542	M	7.84	317	92.2	180	76.4	122	112	49.5	<1.0	60.4	<1.0	<1.0	8.70	0.160	0.058	89.2			0.027	<0.0050	<0.020	<0.020	0.0077
A25-SP	8/4/2019 11:15	WF7658	M	7.84	535	8.0	396	6.4	241	253	63.9	<1.0	78.0	<1.0	<1.0	7.10	0.260	0.094	179			0.017	0.0147	2.16	2.17	<0.0050
AC_East_Conveyor	1/26/2019 13:45	VD7168	M	7.76	432	81.3	268	71.6	84.9	80.6	56.0	<1.0	68.3	<1.0	<1.0	10.8	0.170	0.14	127			0.22	0.0317	0.894	0.925	0.0038
AC_East_Conveyor	3/23/2019 12:20	VK5980	M	6.58	2430	187	1840	161	640	622	37.9	<1.0	46.2	<1.0	<1.0	23.7	1.50	0.67	1220			1.0	0.0087	0.796	0.805	<0.0050
AC_East_Conveyor	4/1/2019 9:50	VL8077	M	7.79	2040	38.6	1490	90.8	517	570	216	<1.0	264	<1.0	<1.0	35.3	0.850	0.14	819			0.70	0.0170	1.11	1.12	<0.0050
AC-E-GW-Sump	8/1/2019 15:25	WF6266	M	8.38	1000	19	640	18	157	160	260	2.6	310	3.1	<1.0	23	0.52	0.42	210			0.067	0.0304	0.645	0.676	0.0052
AC-E-GW-Sump	9/1/2019 10:15	WK4239	M	8.36	1100	3.0	680	14	265	264	260	3.0	310	3.6	<1.0	22	0.44	0.47	240			0.16	0.0218	0.714	0.736	<0.0030
AC-E-GW-Sump	10/10/2019 11:55	WR7644	M	8.29	1000	2.3	600	5.9	269	272	300	<1.0	360	<1.0	<1.0	29	0.46	0.67	180			0.17	0.017	1.1	1.1	<0.0030
AC-E-GW-Sump	11/6/2019 14:25	WW9553	M	7.86	2460	1.3	1720	5.1	395	371	260	<1.0	320	<1.0	<1.0	35	0.91	0.93	990			1.3	0.031	1.6	1.6	0.0065
AC-E-Sump	5/8/2019 9:50	VQ8083	M	7.03	15800	61.8	14600	49.6	2970	3010	152	<1.0	186	<1.0	<1.0	178	7.50	3.9	11300			12	0.0099	0.146	0.156	0.0048
AC-E-Sump	7/11/2019 10:25	WC0491	M	8.22	1960	11	1400	16.0	557	576	238	<1.0	291	<1.0	<1.0	49.0	1.10	0.61	733			0.26	0.0553	1.23	1.28	<0.0050
AC-E-Sump	8/1/2019 10:20	WF6256	M	8.28	1300	3.5	900	9.2	373	380	230	<1.0	280	<1.0	<1.0	58	0.47	0.75	210			0.016	0.0127	0.608	0.620	<0.0030
AC-E-Sump	9/10/2019 9:50	WL9312	M	8.19	1500	13	1100	34.8	474	514	260	<1.0	320	<1.0	<1.0	64	0.45	0.92	460			0.068	0.0134	0.886	0.899	<0.0030
AC-E-Sump	10/1/2019 10:20	WP9956	M	8.21	1100	7.3	660	25.2	416	419	300	<1.0	370	<1.0	<1.0	33	0.33	0.47	240			0.14	<0.0050	1.11	1.11	<0.0030
AC-Mixed	4/2/2019 10:35	VL9793	M	8.14	1420	2170	960	1960	514	437	211	<1.0	257	<1.0	<1.0	33.0	0.750	0.53	462			0.29	0.0111	1.10	1.11	<0.0030
AC-Washbay-Seep	10/11/2019 12:05	WR7601	M	10.1	570	20	380	32	217	174	52	36	<1.0	19	6.7	32	0.46	1.3	180			0.41	0.18	0.48	0.66	0.0037
AC-W-Sump	7/14/2019 11:00	WC4183	M	8.18	1280	14	826	33.2	454	469	298	<1.0	364	<1.0	<1.0	38.7	0.310	0.31	305			0.12	0.0406	1.53	1.57	<0.0050
AC-W-Sump	8/1/2019 9:57	WF6255	M	8.32	1200	2.6	770	5.2	391	405	270	1.7	330	2.0	<1.0	29	0.28	0.31	300			<0.015	0.0096	1.29	1.30	<0.0030
AC-W-Sump	9/14/2019 9:55	WM7481	M	8.24	1400	0.90	1000	<4.0	515	485	270	<1.0	330	<1.0	<1.0	43	0.39	0.63	420			0.031	<0.0050	1.21	1.21	<0.0030
AC-W-Sump	10/1/2019 10:00	WP9955	M	8.25	1400	0.51	960	<4.0	506	516	270	<1.0	330	<1.0	<1.0	39	0.38	0.42	300			0.056	<0.0050	1.38	1.38	<0.0030
Adit-3	5/29/2019 14:00	VU2352	M	8.30	8070	3420	5480	3760	289	239	776	<1.0	947	<1.0	<1.0	54.5	0.590	8.4	2700			4.1	0.0853	0.648	0.733	<0.0050
Adit-3	6/15/2019 10:15	VX3542	M	8.21	8480	36.4	6070	30.0	389	397	549	<1.0	669	<1.0	<1.0	587	0.500	8.4	3260			4.3	<0.0050	<0.020	<0.020	<0.0050
ADIT-4	1/24/2019 15:38	VD5543	M	10.0	4140	10.0	2800	66.4	120	43.0	427	173	98.4	208	<1.0	88.0	2.10	20	1440			28	0.0058	<0.020	<0.020	0.0047
AFDE-Pond	4/5/2019 9:30	VM3334	M	7.83	289	75.4	236	43.2	65.0	63.4	59.0	<1.0	72.0	<1.0	<1.0	22.4	0.150	0.15	41.3			0.025	0.137	0.537	0.674	<0.0030
AK_Pond	3/9/2019 12:20	VI6897	M	8.40	1170	44.9	710	50.0	192	194	252	3.1	299	3.7	<1.0	57.5	0.490	0.96	258			0.30	0.0302	0.249	0.279	<0.0050
AK_Pond	3/12/2019 12:00	VI8447	M	8.30	813	84.3	490	42.8	151	116	181	<1.0	221	<1.0	<1.0	34.4	0.330	0.51	165			0.23	0.0621	0.365	0.427	<0.0050
AK_Pond	3/20/2019 13:40	VK3784	M	8.28	903	18.3	528	14.8	106	110	175	<1.0	214	<1.0	<1.0	41.3	0.340	0.68	105			0.19	0.0660	0.308	0.374	<0.0050
AK_Pond	3/27/2019 14:00	VL2038	M	7.88	383	12.6	180	24.8	76.3	75.5	75.6	<1.0	92.3	<1.0	<1.0	15.8	0.200	0.30	84.4			0.14	0.0232	0.232	0.255	<0.0050
AK_Pond	4/4/2019 11:35	VM3411	M	8.11	641	6.38	394	33.6	103	101	128	<1.0	156	<1.0	<1.0	26.4	0.260	0.50	148			0.16	0.0311	0.234	0.265	<0.0030
AK_Pond	4/9/2019 11:32	VM8373	M	8.22	737	9.28	450	24.0	129	127	152	<1.0	185	<1.0	<1.0	35.4	0.320	0.57	166			0.10	0.0453	0.320	0.366	<0.0050
AK_Pond	7/2/2019 13:05	WA3429	M	9.62	1050	5.8	698	8.8	92.7	94.1	56.7	13.8	35.4	16.6	<1.0	94.0	0.420	2.5	264			0.12	0.145	0.469	0.614	<0.0050
AK_Pond	7/24/2019 8:35	WE3041	M	8.13	1090	3.8	648	10.8	15.7	15.7	83.7	<1.0	102	<1.0	<1.0	104	0.480	3.0	243			0.050	0.128	0.407	0.536	<0.0050
AK_Pond	8/25/2019 10:45	WJ3024	M	7.62	960	9.7	570	4.5	32.0	32.4	110	<1.0	130	<1.0	<1.0	69	0.36	3.2	200			0.17	0.164	0.678	0.841	<0.0030
Area_20-21_W_Pond	4/12/2019 9:15	VN1932	M	7.67	164	70.0	120	30.0	54.6	52.8	47.8	<1.0	58.4	<1.0	<1.0	12.7	0.130	0.20	13.4			0.021	0.0407	0.375	0.416	<0.0050
Area_30_EOP	3/25/2019 11:30	VK7814	M					28.8																		
Area_30_EOP	3/26/2019 12:00	VK9108	M			37.7		25.6																		
Area_30_EOP	3/27/2019 15:41	VL2036	M			27.8		11																		
Area_30_EOP	3/28/2019 10:27	VL3527	M			29.1		58.4																		
Area_30_EOP	3/29/2019 9:40	VL3510	M			232		576																		
Area_30_EOP	3/30/2019 0:50	VL6617	M			19.4		29.2																		
Area_30_EOP	3/31/2019 14:18	VL6548	M			15.3		10.8																		
Area_30_EOP	4/1/2019	VL8086	M			10.9		<16																		
Area_30_EOP	4/2/2019 14:10	VL9743	M			10.6		9.6																		
Area_30_EOP	4/3/2019 2:43	VM1867	M			10.7		8.8																		
Area_30_EOP	4/4/2019 14:23	VM3427	M			12.5		11.6																		
Area_30_EOP	4/5/2019 10:06	VM3340	M			71.0		132																		
Area_30_EOP	4/12/2019 11:00	VN1947	M			25.4		15.6																		
Area_30_EOP	4/15/2019	VN6334	M			26.7		19.2																		
Area_30_EOP	4/16/2019 14:25	VN8469	M			29.7		18.4																		
Area_30_EOP	4/17/2019 14:40	VN9773	M			23.1		15.2																		
Area_30_EOP	4/18/2019 11:30	VN9663	M			22.1		12.4																		
Area_30_EOP	4/19/2019 13:12	VO0492	M			26.9		20.4																		
Area_30_EOP	4/20/2019 13:42	VO0482	M			19.7		13.2																		
Area_30_EOP	4/21/2019 13:20	VO1990	M			15.8		8.4																		
Area_30_EOP	4/24/2019 14:25	VO7052	M			16.5		8.4																		
Area_30_EOP	5/18/2019 9:15	VS1738	M			6.82		6.0																		
Area_30_EOP	5/20/2019 9:33	VS3030	M			4.67		7.6																		
Area_30_EOP	5/28/2019 9:25	VT7622	M			3.03		<4.0																		
Area_30_EOP	6/30/2019 9:35	WA1534	M			20.5		17.6																		
Area_32A_Sump	5/22/2019 13:15	VS7443	M	8.31	2890	9.30	1870	10.0	141	134	480	2.4	580	2.8	<1.0	157	0.810	2.4	807			0.18	0.0945	1.20	1.29	<0.0050
Area_A_N_Ditch	1/26/2019 14:40	VD7171	M	7.25	53.2	206	54	169	32.4	23.6	20.7	<1.0	25.3	<1.0	<1.0	0.79	0.036	<0.010	4.6			0.077	0.0062	0.452	0.458	0.022
Area_A_N_Ditch	2/23/2019 11:40	VG8592	M	8.22	259	19.1	130	17.6	106	109	107	<1.0	130	<1.0	<1.0	1.48	0.084	0.015	26.7			1.6	0.117	0.193	0.310	<0.0050
Area_A_N_Ditch	3/11/2019 14:45	VI9561	M	7.87	794	2.73	460	6.8	413	417	400	<1.0	488	<1.0	<1.0	6.06	0.130	0.059	44.2			0.079	0.0056	0.314	0.320	<0.0050
Area_A_N_Ditch	4/1/2019	VL8085	M	7.96	524	8.98	304	62	264	256	245	<1.0	299	<1.0	<1.0	12.4	0.130	0.15	29.0			0.096	<0.0050	0.567	0.567	0.0068
Area_A_N_Ditch	5/7/2019 12:56	VQ4258	M	8.01	755	8.29	432	14.0	411	408	369	<1.0	450	<1.0	<1.0	10.5	0.140	0.090	35.2			<0.015	<0.0050	0.401	0.401	0.0036
Area_A_N_Ditch	7/11/2019 10:00	WC0490	M	7.98	714	7.3	416	22.8	403	396	362	<1.0	442	<1.0	<1.0	10.2	0.150	0.084	32.1			0.056	<0.0050	0.121	0.121	<0.0050
Area_A_N_Ditch	8/3/2019 14:45	WF7652	M	8.21	732	5.8	460	4.8	387	403	357	<1.0	436	<1.0	<1.0	9.12	0.140	0.071	26.6			<0.015	<0.0050	0.138	0.138	<0.0050

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
1500_PH_Tank	6/12/2019 8:57	VW8065	M	5.7	4.7	11	<0.001	0.00852	0.812	0.00098	<0.002	<0.1	0.00277	89.8	0.019	0.0146	0.0413	24.5	0.0204	0.0221	23.6	0.994	0.0000035	<0.002	0.0428		3.27	0.00085
A25_EOP	3/24/2019 15:06	VK6082	M																									
A25_EOP	3/25/2019 13:11	VK7815	M																									
A25_EOP	3/26/2019 13:28	VK9104	M																									
A25_EOP	3/27/2019 13:59	VL2035	M																									
A25_EOP	4/24/2019 12:22	VO7051	M																									
A25-SP	3/18/2019 16:40	VK0940	M	4.0	2.8	7.12	0.00063	0.00654	0.264	0.00049	<0.001	<0.05	0.000535	35.5	0.014	0.00711	0.0249	16.3	0.0106	0.0104	10.4	0.279	0.0000025	0.0038	0.0243		4.30	0.00157
A25-SP	3/19/2019 17:14	VK0941	M																									
A25-SP	3/21/2019 12:03	VK3830	M																									
A25-SP	4/23/2019 12:05	VO5346	M	2.2	2.4	0.183	<0.0005	0.00035	0.068	<0.0001	<0.001	<0.05	0.000038	32.5	<0.001	0.00022	0.00227	0.296	0.00026	<0.002	8.56	0.0091	<0.000002	0.0029	0.0013		2.53	0.0012
A25-SP	5/1/2019 13:00	VP6542	M	3.0	2.8	1.44	<0.0005	0.00184	0.105	<0.0001	<0.001	<0.05	0.000112	35.9	0.0033	0.00131	0.00667	2.97	0.002	0.003	7.87	0.0409	<0.000002	0.005	0.0052		3.21	0.00185
A25-SP	8/4/2019 11:15	WF7658	M	3.6	3.6	0.289	<0.0005	0.0005	0.0796	<0.0001	<0.001	<0.05	0.000027	68.6	<0.001	0.00023	0.00253	0.344	0.00024	0.0038	16.9	0.0067	<0.000002	0.0073	0.0014		3.35	0.00338
AC_East_Conveyor	1/26/2019 13:45	VD7168	M	0.72	1.1	1.45	<0.0005	0.00199	0.148	0.00023	<0.001	0.061	0.000249	23.8	0.0023	0.00621	0.0121	3.36	0.00197	0.0254	6.18	0.0819	0.000003	0.0011	0.02		1.13	0.00054
AC_East_Conveyor	3/23/2019 12:20	VK5980	M	1.9	1.7	9.2	<0.001	0.00406	0.0684	0.00312	<0.002	0.205	0.00711	138	0.0063	0.167	0.157	12.8	0.00156	0.237	71.7	1.71	0.0000139	0.0021	0.605		3.27	0.00752
AC_East_Conveyor	4/1/2019 9:50	VL8077	M	2.0	2.0	1.24	0.00052	0.00168	0.0724	0.0003	<0.001	0.219	0.00145	127	0.0018	0.051	0.0133	3.35	0.00131	0.141	48.3	0.836	<0.000002	0.0027	0.202		3.17	0.00382
AC-E-GW-Sump	8/1/2019 15:25	WF6266	M	1.6	1.8	0.503	0.00116	0.00119	0.0987	<0.0001	<0.001	0.361	0.000034	39.6	<0.001	0.00098	0.00169	0.591	0.00039	0.071	14.2	0.0332	<0.000002	0.0051	0.0065		2.78	0.00099
AC-E-GW-Sump	9/1/2019 10:15	WK4239	M	2.0	1.7	0.104	0.00069	0.00061	0.0722	<0.0001	<0.001	0.275	0.000056	69.2	<0.001	0.0012	0.00135	0.135	<0.0002	0.0583	22.5	0.0296	<0.000002	0.004	0.0103		3.01	0.0009
AC-E-GW-Sump	10/10/2019 11:55	WR7644	M	1.7	1.6	0.0849	<0.0005	0.00051	0.082	<0.0001	<0.001	0.203	0.000047	72.6	<0.001	0.00199	0.00108	0.126	<0.0002	0.0558	21.4	0.0312	<0.000002	0.0032	0.0139		2.43	0.00087
AC-E-GW-Sump	11/6/2019 14:25	WW9553	M	1.6	2.0	0.105	0.0019	0.00107	0.0199	<0.0002	<0.002	0.289	0.000185	102	<0.002	0.0126	0.0016	0.194	<0.0004	0.177	34.3	0.253	<0.000002	0.0067	0.0628		4.63	0.0056
AC-E-Sump	5/8/2019 9:50	VQ8083	M	1.5	2.4	5.54	<0.01	<0.002	<0.02	<0.002	<0.02	2.66	0.0153	438	<0.02	1.23	<0.01	41.8	<0.004	1.7	457	15.1	<0.000002	<0.02	3.83		14.1	0.0138
AC-E-Sump	7/11/2019 10:25	WC0491	M	1.8	1.5	0.527	<0.001	0.00066	0.0447	<0.0002	<0.002	0.276	0.000743	137	<0.002	0.0306	0.0034	1.04	<0.0004	0.132	52.1	0.685	<0.000002	0.004	0.111		4.13	0.00214
AC-E-Sump	8/1/2019 10:20	WF6256	M	1.6	1.6	0.179	<0.0005	0.00042	0.0516	<0.0001	<0.001	0.229	0.000065	96.4	<0.001	0.00357	0.00163	0.26	<0.0002	0.0585	32.2	0.0788	<0.000002	0.004	0.0186		3.67	0.00088
AC-E-Sump	9/10/2019 9:50	WL9312	M	1.6	2.4	0.241	<0.0005	0.0007	0.06	<0.0001	<0.001	0.179	0.000198	127	<0.001	0.00806	0.00215	0.648	0.00034	0.0666	38.1	0.221	<0.000002	0.0037	0.0336		4.05	0.00113
AC-E-Sump	10/1/2019 10:20	WP9956	M	0.98	2.4	0.279	<0.0005	0.00045	0.0621	<0.0001	<0.001	0.109	0.000288	111	<0.001	0.0101	0.00217	1.47	0.00024	0.0311	34.1	0.192	<0.000002	0.002	0.0393		2.89	0.00077
AC-Mixed	4/2/2019 10:35	VL9793	M	17	<5.0	22.3	<0.0025	0.0258	1.35	0.0035	<0.005	<0.25	0.00461	133	0.0332	0.0626	0.154	61.6	0.0254	0.131	44.1	1.62	0.000031	<0.005	0.215		5.62	0.00382
AC-Washbay-Seep	10/11/2019 12:05	WR7601	M	18	17	0.731	0.00099	0.00282	0.106	<0.0001	<0.001	0.078	0.000102	79.0	0.0611	0.00273	0.00517	1.43	0.00083	0.0097	4.88	0.0603	0.0000085	0.0515	0.0111		4.72	0.00328
AC-W-Sump	7/14/2019 11:00	WC4183	M	1.7	0.58	0.214	0.00055	0.00053	0.0465	<0.0001	<0.001	0.213	0.000071	108	<0.001	0.00104	0.00147	0.196	<0.0002	0.0546	44.9	0.0145	<0.000002	0.0048	0.0175		4.45	0.00521
AC-W-Sump	8/1/2019 9:57	WF6255	M	1.6	1.9	0.0678	0.00051	0.00046	0.0327	<0.0001	<0.001	0.247	0.000053	89.0	<0.001	0.00054	0.00122	0.079	<0.0002	0.056	41.0	0.0067	<0.000002	0.0054	0.0162		4.34	0.00316
AC-W-Sump	9/14/2019 9:55	WM7481	M	1.3	2.5	0.0967	<0.0005	0.00027	0.026	<0.0001	<0.001	0.291	0.000141	119	<0.001	0.00238	0.00178	0.09	<0.0002	0.0819	53.2	0.0241	<0.000002	0.0041	0.0259		4.59	0.00351
AC-W-Sump	10/1/2019 10:00	WP9955	M	1.1	2.5	0.0263	<0.0005	0.00022	0.0205	<0.0001	<0.001	0.18	0.000107	120	<0.001	0.0012	0.00113	0.026	<0.0002	0.0485	49.9	0.0124	<0.000002	0.0041	0.0242		4.29	0.00286
Adit-3	5/29/2019 14:00	VU2352	M	<2.5	<2.5	9.55	<0.005	0.0204	0.706	<0.001	<0.01	0.687	0.00055	73.5	0.021	0.0151	0.0736	33	0.0189	0.518	25.7	0.228	<0.000002	<0.01	0.048		8.09	0.0031
Adit-3	6/15/2019 10:15	VX3542	M	3.9	3.8	1.42	<0.0025	0.00139	0.0642	<0.0005	<0.005	0.625	0.000328	107	<0.005	0.0014	0.0961	7.02	0.1	0.481	29.7	0.253	<0.000002	<0.005	0.0107		6.33	<0.0005
ADIT-4	1/24/2019 15:38	VD5543	M	5.0	4.7	0.153	<0.0025	0.00214	0.0324	<0.0005	<0.005	0.416	<0.00005	30.1	0.0255	<0.001	<0.0025	0.057	<0.001	0.115	11.0	<0.005	0.0000356	0.588	<0.005		74.5	0.0159
AFDE-Pond	4/5/2019 9:30	VM3334	M	2.8	2.1	2.15	<0.001	0.00246	0.222	<0.0002	<0.002	<0.1	0.000046	20.9	0.0048	0.00108	0.0049	1.68	0.00142	0.0054	3.09	0.0235	0.0000027	0.0065	0.0036		2.34	0.00151
AK_Pond	3/9/2019 12:20	VI6897	M	3.6	2.6	2.25	0.00165	0.00355	0.133	<0.0001	<0.001	0.256	0.00003	41.8	0.0067	0.00097	0.00285	1.23	0.00082	0.0381	21.4	0.0509	<0.000002	0.017	0.0043		3.97	0.00244
AK_Pond	3/12/2019 12:00	VI8447	M	2.5	2.9	2.51	0.00113	0.00281	0.216	0.00011	<0.001	0.174	0.000059	36.3	0.005	0.0014	0.00438	2.01	0.00153	0.026	14.6	0.0486	0.0000034	0.0108	0.0049		3.10	0.00176
AK_Pond	3/20/2019 13:40	VK3784	M	2.9	2.1	0.356	0.00071	0.00118	0.161	<0.0001	<0.001	0.089	0.000015	26.8	0.0017	0.00049	0.00185	0.283	0.00027	0.0143	9.43	0.0188	0.000003	0.007	0.0022		2.08	0.00114
AK_Pond	3/27/2019 14:00	VL2038	M	1.7	1.3	0.482	0.00055	0.00093	0.115	<0.0001	<0.001	0.066	0.000022	19.7	0.0015	0.00037	0.00101	0.321	0.0003	0.0105	6.56	0.0136	<0.000002	0.0049	0.0016		1.58	0.00094
AK_Pond	4/4/2019 11:35	VM3411	M	1.4	1.3	0.148	0.00091	0.00139	0.145	<0.0001	<0.001	0.11	0.000017	23.4	0.0016	0.00039	0.00114	0.218	<0.0002	0.0166	10.9	0.012	<0.000002	0.0094	0.0018		2.06	0.00147
AK_Pond	4/9/2019 11:32	VM8373	M	1.7	1.5	0.613	0.00106	0.00179	0.194	<0.0001	<0.001	0.149	0.000021	29.8	0.0022	0.00034	0.00127	0.394	0.00029	0.0221	13.3	0.0114	<0.000002	0.0114	0.0021		2.89	0.00183
AK_Pond	7/2/2019 13:05	WA3429	M	3.0	2.7	0.636	0.00484	0.00253	0.362	<0.0001	<0.001	0.228	<0.00001	36.8	0.0461	<0.0002	0.00217	0.128	<0.0002	0.0382	0.159	0.003	0.0000036	0.0607	<0.001		13.1	0.0136
AK_Pond	7/24/2019 8:35	WE3041	M	2.8	2.8	1.2	0.00539	0.00279	0.151	<0.0001	<0.001	0.22	0.000025	6.00	0.0598	<0.0002	0.00194	0.186	<0.0002	0.0355	0.159	0.0039	0.0000024	0.0738	<0.001		16.1	0.0124
AK_Pond	8/25/2019 10:45	WJ3024	M	2.8	3.0	0.393	0.00353	0.00183	0.128	<0.0001	<0.001	0.246	<0.00001	9.64	0.0619	0.00025	0.00203	0.276	0.00022	0.0374	1.91	0.0067	0.0000059	0.0806	<0.001		22.9	0.00611
Area_20-21_W_Pond	4/12/2019 9:15	VN1932	M	1.7	1.7	2.72	0.00115	0.00246	0.123	<0.0001	<0.001	0.053	0.000065	18.9	0.0155	0.00105	0.0044	2.45	0.00157	0.0042	1.82	0.0522	0.0000025	0.0092	0.0035		4.79	0.00053
Area_30_EOP	3/25/2019 11:30	VK7814	M																									
Area_30_EOP	3/26/2019 12:00	VK9108	M																									
Area_30_EOP	3/27/2019 15:41	VL2036	M																									
Area_30_EOP	3/28/2019 10:27	VL3527	M																									
Area_30_EOP	3/29/2019 9:40	VL3510	M																									
Area_30_EOP	3/30/2019 0:50	VL6617	M																									
Area_30_EOP	3/31/2019 14:18	VL6548	M																									
Area_30_EOP	4/1/2019	VL8086	M																									
Area_30_EOP	4/2/2019 14:10	VL9743	M																									
Area_30_EOP	4/3/2019 2:43	VM1867	M																									
Area_30_EOP	4/4/2019 14:23	VM3427	M																									
Area_30_EOP	4/5/2019 10:06	VM3340	M																									
Area_30_EOP	4/12/2019 11:00	VN1947	M																									
Area_30_EOP	4/15/2019	VN6334	M																									
Area_30_EOP	4/16/2019 14:25	VN8469	M																									
Area_30_EOP	4/17/2019 14:40	VN9773	M																									
Area_30_EOP	4/18/2019 11:30	VN9663	M																									
Area_30_EOP	4/19/2019 13:12	VO0492	M																									
Area_30_EOP	4/20/2019 13:42	VO0482	M																									
Area_30_EOP	4/21/2019 13:20	VO1990	M																									
Area_30_EOP	4/24/2019 14:25	VO7052	M																									
Area_30_EOP	5/18/2019 9:15	VS1738	M																									
Area_30_EOP	5/20/2019 9:33	VS3030	M																									
Area_30_EOP	5/28/2019 9:25	VT7622	M																									
Area_30_EOP	6/30/2019 9:35	WA1534	M																									
Area_32A_Sump	5/22/2019 13:15	VS7443	M	2.4	2.9	0.346	0.0029	0.00125	0.0363	<0.0002	<0.002	0.514	<0.00002	35.9	0.006	0.00124	0.0019	0.158	<0.0004	0.155	12.5	0.0222	<0.000002	0.0194	0.0086		5.15	0.00775
Area_A_N_Ditch	1/26/2019 14:40	VD7171	M	1.0	1.3	2.12	<0.0005	0.00189	0.094	0.00014	<0.001	<0.05	0.000127	9.80	0.0039	0.00212	0.00614	4.93	0.00265	0.0024	1.91	0.115	<0.000002	<0.001	0.006		0.818	<0.0001
Area_A_N_Ditch	2/23/2019 11:40	VG8592	M	2.3	3.2	0.253	<0.0005	0.00111	0.153	<0.0001	<0.001	<0.05	<0.00001	30.7	0.0012	0.00036	0.00165	0.236	0.00031	0.0036	7.04	0.0072	<0.000002	0.002	0.0016		1.09	0.00052
Area_A_N_Ditch	3/11/2019 14:45	VI9561	M	4.4	4.0	0.0265	<0.0005	0.00043	0.316	<0.0001	<0.001	<0.05	0.00001	123	<0.001	0.00027	0.00055	0.243	<0.0002	0.0035	25.5	0.0696	<0.000002	<0.001	<0.001		1.25	<0.0001
Area_A_N_Ditch	4/1/2019	VL8085	M	2.8	2.4	0.878	<0.0005	0.00124	0.262	<0.0001	<0.001	<0.05	0.000075	78.6	0.0018	0.00115	0.00345	1.98	0.00119	0.0035	16.5	0.0889	<0.000002	0.0012	0.0037		1.46	0.00022
Area_A_N_Ditch	5/7/2019 12:56	VQ4258	M	3.4	3.4	0.21	<0.0005	0.00056	0.333	<0.0001	<0.001	<0.05	0.000029	122	<0.001	0.00054	0.00111	0.423	0.00042	0.0042	25.7	0.144	<0.000002	<0.001	0.002		1.40	0.00019
Area_A_N_Ditch	7/11/2019 10:00	WC0490	M	3.8	3.8	0.0724	<0.0005	0.00037	0.315	<0.0001	<0.001	<0.05	0.000015	121	<0.001	0.00026	0.0006	0.343	<0.0002	0.0041	24.3	0.0909	<0.000002	<0.001	0.001		1.20	0.00021
Area_A_N_Ditch	8/3/2019 14:45	WF7652	M	4.5	4.0	0.136	<0.0005	0.00049	0.349	<0.0001	<0.001	<0.05	0.00002	117	<0.001	0.00026	0.0007	0.41	<0.0002	0.0047	23.1	0.0542	<0.000002	<0.001	0.0012		1.38	0.00015

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
1500_PH_Tank	6/12/2019 8:57	VW8065	M	20.8	0.000375	7.03	0.322	8.7	0.000299	<0.01	0.079	0.00213	0.039	0.165	0.00086	0.0063	<0.0005	0.00039	0.072	<0.0001	<0.001	<0.05	0.000068	34.4	<0.001	0.00028	0.00201	0.054
A25_EOP	3/24/2019 15:06	VK6082	M																									
A25_EOP	3/25/2019 13:11	VK7815	M																									
A25_EOP	3/26/2019 13:28	VK9104	M																									
A25_EOP	3/27/2019 13:59	VL2035	M																									
A25_EOP	4/24/2019 12:22	VO7051	M																									
A25-SP	3/18/2019 16:40	VK0940	M	11.6	0.00013	4.26	0.146	15.0	0.000156	<0.005	0.0914	0.00218	0.0245	0.0743	0.00142	0.0082	<0.0005	0.00031	0.0473	<0.0001	<0.001	<0.05	0.000057	25.5	<0.001	<0.0002	0.00248	0.015
A25-SP	3/19/2019 17:14	VK0941	M																									
A25-SP	3/21/2019 12:03	VK3830	M																									
A25-SP	4/23/2019 12:05	VO5346	M	0.851	<0.00002	7.14	0.111	22.5	<0.00001	<0.005	0.0084	0.0015	<0.005	<0.005	0.00013	0.0048	<0.0005	0.00016	0.0618	<0.0001	<0.001	<0.05	0.000022	33.0	<0.001	<0.0002	0.00165	<0.01
A25-SP	5/1/2019 13:00	VP6542	M	2.5	0.000044	7.72	0.137	29.9	0.00004	<0.005	0.028	0.00151	0.005	0.0142	0.00053	0.0281	<0.0005	0.00041	0.054	<0.0001	<0.001	<0.05	0.000013	33.2	<0.001	<0.0002	0.0024	<0.01
A25-SP	8/4/2019 11:15	WF7658	M	1.02	<0.00002	7.77	0.264	59.0	0.000015	<0.005	0.0111	0.00166	<0.005	<0.005	0.00031	0.0073	<0.0005	0.00037	0.073	<0.0001	<0.001	<0.05	0.000015	70.7	<0.001	<0.0002	0.00156	<0.01
AC_East_Conveyor	1/26/2019 13:45	VD7168	M	2.29	<0.00002	52.6	0.172	39.2	0.000038	<0.005	0.0075	0.00095	<0.005	0.207	0.00021	0.0435	<0.0005	0.00029	0.101	<0.0001	<0.001	0.06	0.000075	22.3	<0.001	0.0031	0.00064	<0.01
AC_East_Conveyor	3/23/2019 12:20	VK5980	M	5.92	<0.00004	364	0.8	451	0.000122	<0.01	<0.01	0.0139	<0.01	2.58	0.00072	0.732	<0.0005	0.00011	0.0184	0.00066	<0.001	0.22	0.00667	146	<0.001	0.173	0.0529	0.829
AC_East_Conveyor	4/1/2019 9:50	VL8077	M	4.73	0.000032	250	0.82	290	0.000076	<0.005	0.0104	0.00303	<0.005	0.448	0.00032	0.023	<0.0005	0.00017	0.012	<0.0001	<0.001	0.237	0.00137	141	<0.001	0.0518	0.00262	<0.01
AC-E-GW-Sump	8/1/2019 15:25	WF6266	M	4.75	<0.00002	170	0.326	75.1	0.000023	<0.005	0.0141	0.00151	<0.005	0.0071	0.00053	0.0124	0.00114	0.00082	0.0647	<0.0001	<0.001	0.348	0.000013	40.4	<0.001	<0.0002	0.00073	<0.01
AC-E-GW-Sump	9/1/2019 10:15	WK4239	M	3.68	<0.00002	130	0.483	87.6	0.000015	<0.005	<0.005	0.00164	<0.005	0.0122	<0.0001	0.0341	0.0007	0.00053	0.0651	<0.0001	<0.001	0.285	0.000036	69.6	<0.001	0.00051	0.00087	<0.01
AC-E-GW-Sump	10/10/2019 11:55	WR7644	M	3.77	<0.00002	129	0.492	64.2	0.000011	<0.005	<0.005	0.0016	<0.005	0.0133	0.00011	0.015	<0.0005	0.00045	0.0772	<0.0001	<0.001	0.197	0.000037	72.9	<0.001	0.00181	0.00074	<0.01
AC-E-GW-Sump	11/6/2019 14:25	WW9553	M	4.22	<0.00004	451	0.918	337	0.000043	<0.01	<0.01	0.00456	<0.01	0.031	<0.0002	0.0252	0.0018	0.00091	0.0137	<0.0002	<0.002	0.254	0.000192	94.5	<0.002	0.0125	0.0011	<0.02
AC-E-Sump	5/8/2019 9:50	VQ8083	M	13.6	<0.0004	3590	5.26	3740	<0.0002	<0.1	<0.1	0.0122	<0.1	11.1	<0.002	3.31	<0.01	<0.002	<0.02	<0.002	<0.02	2.63	0.0152	412	<0.02	1.25	<0.01	34.6
AC-E-Sump	7/11/2019 10:25	WC0491	M	4.91	<0.00004	234	0.589	258	0.000046	<0.01	<0.01	0.00337	<0.01	0.151	<0.0002	0.114	<0.0005	0.00036	0.0311	<0.0001	<0.001	0.266	0.00039	142	<0.001	0.0271	0.00102	<0.01
AC-E-Sump	8/1/2019 10:20	WF6256	M	2.93	<0.00002	150	0.47	126	0.000027	<0.005	<0.005	0.00184	<0.005	0.0225	<0.0001	0.0864	<0.0005	0.00033	0.0469	<0.0001	<0.001	0.228	<0.00001	96.6	<0.001	0.00119	0.00087	<0.01
AC-E-Sump	9/10/2019 9:50	WL9312	M	4.06	<0.00002	151	0.585	153	0.000031	<0.005	<0.005	0.00258	<0.005	0.0363	0.0001	0.0776	<0.0005	0.00034	0.0504	<0.0001	<0.001	0.209	0.000167	139	<0.001	0.00796	0.0011	<0.01
AC-E-Sump	10/1/2019 10:20	WP9956	M	4.51	<0.00002	78.7	0.372	70.9	0.000016	<0.005	<0.005	0.00167	<0.005	0.109	0.00011	0.0492	<0.0005	0.00015	0.0528	<0.0001	<0.001	0.129	0.000203	111	<0.001	0.00954	0.00054	0.012
AC-Mixed	4/2/2019 10:35	VL9793	M	29.6	0.00045	137	0.576	177	0.000592	<0.025	0.135	0.0137	0.056	0.887	0.00199	0.0468	<0.0005	0.00017	0.054	<0.0001	<0.001	0.115	0.000393	116	<0.001	0.0167	0.00102	<0.01
AC-Washbay-Seep	10/11/2019 12:05	WR7601	M	13.2	<0.00002	42.6	0.332	56.8	0.000023	<0.005	0.0253	0.00032	0.0123	0.024	0.00137	0.012	0.00087	0.00149	0.0626	<0.0001	<0.001	0.073	<0.00001	63.6	0.0614	0.00025	0.00246	<0.01
AC-W-Sump	7/14/2019 11:00	WC4183	M	3.96	<0.00002	123	0.572	117	0.000029	<0.005	0.008	0.004	<0.005	0.0102	0.00019	0.0093	0.00055	0.00043	0.0359	<0.0001	<0.001	0.232	<0.00001	105	<0.001	0.00021	<0.0005	<0.01
AC-W-Sump	8/1/2019 9:57	WF6255	M	2.5	<0.00002	109	0.585	104	0.000023	<0.005	<0.005	0.00307	<0.005	0.0084	0.0001	0.01	0.00055	0.00043	0.0302	<0.0001	<0.001	0.261	0.000027	92.4	<0.001	<0.0002	0.00079	<0.01
AC-W-Sump	9/14/2019 9:55	WM7481	M	2.81	<0.00002	139	0.742	158	0.000026	<0.005	<0.005	0.00365	<0.005	0.0256	<0.0001	0.0545	<0.0005	0.00022	0.0233	<0.0001	<0.001	0.252	0.000114	112	<0.001	0.00206	0.00126	<0.01
AC-W-Sump	10/1/2019 10:00	WP9955	M	2.71	<0.00002	124	0.759	144	0.00002	<0.005	<0.005	0.00359	<0.005	0.0219	<0.0001	0.019	<0.0005	0.00021	0.0207	<0.0001	<0.001	0.213	0.000116	126	<0.001	0.00121	0.00094	0.068
Adit-3	5/29/2019 14:00	VU2352	M	15.8	0.00049	1910	1.63	895	0.00027	<0.05	0.16	0.0031	<0.05	0.231	0.0043	<0.015	<0.0025	0.00186	0.0225	<0.0005	<0.005	0.608	0.000067	61.1	<0.005	0.0037	0.0048	<0.05
Adit-3	6/15/2019 10:15	VX3542	M	6.6	0.00015	1790	1.64	1150	<0.00005	<0.025	0.043	0.00217	<0.025	0.974	0.00139	0.017	<0.0025	<0.0005	0.0339	<0.0005	<0.005	0.616	0.000176	108	<0.005	<0.001	0.0141	<0.05
ADIT-4	1/24/2019 15:38	VD5543	M	3.62	<0.0001	823	0.812	462	<0.00005	<0.025	<0.025	0.00276	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.00185	0.0074	<0.0005	<0.005	0.443	<0.00005	5.94	0.0245	<0.001	<0.0025	<0.05
AFDE-Pond	4/5/2019 9:30	VM3334	M	6.02	<0.00004	27.1	0.0964	13.1	0.000043	<0.01	0.026	0.00083	<0.01	0.02	0.00117	0.0163	0.00104	0.00161	0.155	<0.0001	<0.001	<0.05	0.000012	20.9	0.002	<0.0002	0.00114	<0.01
AK_Pond	3/9/2019 12:20	VI6897	M	10.4	<0.00002	176	0.253	84.7	0.000037	<0.005	0.0655	0.00268	0.0123	0.0067	0.002	0.039	0.00163	0.00305	0.0833	<0.0001	<0.001	0.272	<0.00001	36.6	0.0036	0.00028	0.00083	<0.01
AK_Pond	3/12/2019 12:00	VI8447	M	8.71	0.000033	109	0.201	56.7	0.000043	<0.005	0.0821	0.002	0.0093	0.0142	0.00187	0.0117	0.00091	0.00154	0.166	<0.0001	<0.001	0.134	0.000011	27.3	0.0015	0.00034	0.00125	<0.01
AK_Pond	3/20/2019 13:40	VK3784	M	2.37	<0.00002	64.4	0.161	40.4	0.000013	<0.005	0.0063	0.00119	<0.005	<0.005	0.00026	0.0142	0.00074	0.00109	0.148	<0.0001	<0.001	0.095	<0.00001	27.6	0.001	0.00029	0.00062	<0.01
AK_Pond	3/27/2019 14:00	VL2038	M	2.45	<0.00002	48.7	0.108	28.8	0.000013	<0.005	0.015	0.00085	<0.005	<0.005	0.00038	0.0082	0.00053	0.00074	0.109	<0.0001	<0.001	0.063	<0.00001	19.3	<0.001	0.00023	0.00061	<0.01
AK_Pond	4/4/2019 11:35	VM3411	M	2.24	<0.00002	84.5	0.158	45.4	<0.00001	<0.005	<0.005	0.00138	<0.005	<0.005	<0.0001	0.0102	0.00091	0.00128	0.138	<0.0001	<0.001	0.104	<0.00001	23.8	0.0013	0.00025	0.00067	<0.01
AK_Pond	4/9/2019 11:32	VM8373	M	3.92	<0.00002	104	0.189	60.3	0.000013	<0.005	0.0101	0.00174	<0.005	0.0061	0.00035	0.0133	0.00108	0.00155	0.169	<0.0001	<0.001	0.134	<0.00001	30.0	0.0016	<0.0002	0.0007	<0.01
AK_Pond	7/2/2019 13:05	WA3429	M	6.74	<0.00002	193	0.615	89.0	0.000014	<0.005	<0.005	<0.0001	0.0134	<0.005	0.00019	0.566	0.00501	0.0021	0.338	<0.0001	<0.001	0.203	<0.00001	37.5	0.0458	<0.0002	0.00173	0.024
AK_Pond	7/24/2019 8:35	WE3041	M	8.87	<0.00002	196	0.388	87.7	0.000014	<0.005	<0.005	<0.0001	0.0189	<0.005	0.00024	0.787	0.0055	0.00284	0.131	<0.0001	<0.001	0.232	<0.00001	6.11	0.0569	<0.0002	0.00113	<0.01
AK_Pond	8/25/2019 10:45	WJ3024	M	9.43	<0.00002	170	0.375	74.5	0.000015	<0.005	0.0065	0.00035	0.0136	<0.005	0.00029	0.0301	0.00358	0.00171	0.112	<0.0001	<0.001	0.266	<0.00001	9.96	0.0599	<0.0002	0.0011	<0.01
Area_20-21_W_Pond	4/12/2019 9:15	VN1932	M	10.5	0.000029	7.81	0.151	4.5	0.000046	<0.005	0.0933	0.00055	0.0121	0.0154	0.0029	0.0317	0.0011	0.00151	0.0816	<0.0001	<0.001	<0.05	<0.00001	19.0	0.0113	<0.0002	0.00085	<0.01
Area_30_EOP	3/25/2019 11:30	VK7814	M																									
Area_30_EOP	3/26/2019 12:00	VK9108	M																									
Area_30_EOP	3/27/2019 15:41	VL2036	M																									
Area_30_EOP	3/28/2019 10:27	VL3527	M																									
Area_30_EOP	3/29/2019 9:40	VL3510	M																									
Area_30_EOP	3/30/2019 0:50	VL6617	M																									
Area_30_EOP	3/31/2019 14:18	VL6548	M																									
Area_30_EOP	4/1/2019	VL8086	M																									
Area_30_EOP	4/2/2019 14:10	VL9743	M																									
Area_30_EOP	4/3/2019 2:43	VM1867	M																									
Area_30_EOP	4/4/2019 14:23	VM3427	M																									
Area_30_EOP	4/5/2019 10:06	VM3340	M																									
Area_30_EOP	4/12/2019 11:00	VN1947	M																									
Area_30_EOP	4/15/2019	VN6334	M																									
Area_30_EOP	4/16/2019 14:25	VN8469	M																									
Area_30_EOP	4/17/2019 14:40	VN9773	M																									
Area_30_EOP	4/18/2019 11:30	VN9663	M																									
Area_30_EOP	4/19/2019 13:12	VO0492	M																									
Area_30_EOP	4/20/2019 13:42	VO0482	M																									
Area_30_EOP	4/21/2019 13:20	VO1990	M																									
Area_30_EOP	4/24/2019 14:25	VO7052	M																									
Area_30_EOP	5/18/2019 9:15	VS1738	M																									
Area_30_EOP	5/20/2019 9:33	VS3030	M																									
Area_30_EOP	5/28/2019 9:25	VT7622	M																									
Area_30_EOP	6/30/2019 9:35	WA1534	M																									
Area_32A_Sump	5/22/2019 13:15	VS7443	M	2.13	<0.00004	583	0.493	251	0.000027	<0.01	<0.01	0.0061	<0.01	<0.01	0.00028	0.04	0.003	0.00116	0.0275	<0.0002	<0.002	0.529	<0.00005	33.9	0.0035	0.00046	0.0038	<0.02
Area_A_N_Ditch	1/26/2019 14:40	VD7171	M	3.05	<0.00002	0.611	0.0252	<3.0	0.00007	<0.005	0.0364	0.00022	0.0062	0.022	0.00028	0.0218	<0.0005	0.00016	0.0315	<0.0001	<0.001	<0.05	<0.00001	8.10	<0.001	<0.0002	<0.0005	0.04
Area_A_N_Ditch	2/23/2019 11:40	VG8592	M	3.39	<0.00002	5.48	0.145	7.9	0.000011	<0.005	<0.005	0.0007	<0.005	<0.005	0.00012	0.06	<0.0005	0.00107	0.149	<0.0001	<0.001	<0.05	<0.00001	31.7	<0.001	0.00022	0.00106	<0.01
Area_A_N_Ditch	3/11/2019 14:45	VI9561	M	5.43	<0.00002	5.98	0.233	12.9	<0.00001	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00039	0.328	<0.0001	<0.001	<0.05	<0.00001	121	<0.001	0.00027	<0.0005	<0.01
Area_A_N_Ditch	4/1/2019	VL8085	M	4.7	<0.00002	4.78	0.182	8.9	0.000031	<0.005	0.0207	0.00115	<0.005	0.0109	0.0003	<0.003	<0.0005	0.00025	0.231	<0.0001	<0.001	<0.05	0.000024	75.1	<0.001	0.00031	0.00083	<0.01
Area_A_N_Ditch	5/7/2019 12:56	VQ4258	M	5.38	<0.00002	6.14	0.249	13.7	0.000011	<0.005	0.008	0.00152	<0.005	0.0051	0.00018	<0.003	<0.0005	0.00041	0.349	<0.0001	<0.001	<0.05	0.000013	123	<0.001	0.00036	0.00057	<0.01
Area_A_N_Ditch	7/11/2019 10:00	WC0490	M	5.27	<0.00002	5.53	0.25	10.6	<0.00001	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00032	0.294	<0.0001	<0.001	<0.05	<0.00001	117	<0.001	<0.0002	<0.0005	0.045
Area_A_N_Ditch	8/3/2019 14:45	WF7652	M	5.62	<0.00002	5.13	0.264	9.1	<0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00036	0.344	<0.0001	<0.001	<0.05	<0.00001	119	<0.001	<0.0002	<0.0005	0.051

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
1500_PH_Tank	6/12/2019 8:57	VW8065	M	<0.0002	0.0026	7.47	0.125	<0.000002	0.0037	0.0022		0.753	0.00043	1.98	<0.00002	2.07	0.132	6.4	0.00001	<0.005	<0.005	0.0006	<0.005	<0.005	<0.0001
A25_EOP	3/24/2019 15:06	VK6082	M																						
A25_EOP	3/25/2019 13:11	VK7815	M																						
A25_EOP	3/26/2019 13:28	VK9104	M																						
A25_EOP	3/27/2019 13:59	VL2035	M																						
A25_EOP	4/24/2019 12:22	VO7051	M																						
A25-SP	3/18/2019 16:40	VK0940	M	<0.0002	<0.002	6.65	0.0296	<0.000002	0.0043	0.0011		2.97	0.00117	0.573	<0.00002	3.71	0.0943	14.2	0.00001	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001
A25-SP	3/19/2019 17:14	VK0941	M																						
A25-SP	3/21/2019 12:03	VK3830	M																						
A25-SP	4/23/2019 12:05	VO5346	M	<0.0002	<0.002	8.87	<0.001	<0.000002	0.0028	<0.001		2.61	0.00114	0.533	<0.00002	7.29	0.11	25.6	<0.00001	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001
A25-SP	5/1/2019 13:00	VP6542	M	<0.0002	<0.002	7.18	<0.001	<0.000002	0.0052	<0.001		2.72	0.00183	<0.1	<0.00002	7.42	0.128	28.6	<0.00001	<0.005	<0.005	0.00138	<0.005	<0.005	<0.0001
A25-SP	8/4/2019 11:15	WF7658	M	<0.0002	0.0035	18.7	0.002	<0.000002	0.0071	<0.001		3.58	0.00351	0.585	<0.00002	8.01	0.239	68.8	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001
AC_East_Conveyor	1/26/2019 13:45	VD7168	M	<0.0002	0.0251	6.05	0.0561	<0.000002	<0.001	0.0074		0.755	0.00044	0.921	<0.00002	54.4	0.16	40.1	<0.00001	<0.005	<0.005	0.00038	<0.005	0.0277	<0.0001
AC_East_Conveyor	3/23/2019 12:20	VK5980	M	<0.0002	0.219	62.7	1.68	<0.000002	<0.001	0.527		2.91	0.00707	4.64	<0.00002	296	0.77	434	0.000091	<0.005	<0.005	0.00176	<0.005	1.86	<0.0001
AC_East_Conveyor	4/1/2019 9:50	VL8077	M	<0.0002	0.143	52.6	0.875	<0.000002	0.0023	0.208		3.13	0.00381	4.22	<0.00002	278	0.792	313	0.000049	<0.005	<0.005	0.00244	<0.005	0.447	<0.0001
AC-E-GW-Sump	8/1/2019 15:25	WF6266	M	<0.0002	0.0676	14.3	<0.001	<0.000002	0.005	0.0044		2.77	0.00094	3.75	<0.00002	161	0.31	78.6	0.000013	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001
AC-E-GW-Sump	9/1/2019 10:15	WK4239	M	<0.0002	0.0605	21.9	0.0073	<0.000002	0.004	0.0094		2.97	0.00091	3.68	<0.00002	132	0.486	87.7	0.00001	<0.005	<0.005	0.00163	<0.005	0.0059	<0.0001
AC-E-GW-Sump	10/10/2019 11:55	WR7644	M	<0.0002	0.0547	21.8	0.025	<0.000002	0.0031	0.0137		2.49	0.00088	3.56	<0.00002	130	0.459	65.4	<0.00001	<0.005	<0.005	0.00159	<0.005	0.0104	<0.0001
AC-E-GW-Sump	11/6/2019 14:25	WW9553	M	<0.0004	0.158	32.8	0.236	<0.000002	0.0067	0.0637		4.51	0.00509	4.02	<0.00004	419	0.899	317	0.000039	<0.01	<0.01	0.00442	<0.01	0.028	<0.0002
AC-E-Sump	5/8/2019 9:50	VQ8083	M	<0.004	1.67	482	15.2	<0.000002	<0.02	3.87		14.1	0.0132	12	<0.0004	3610	5.19	3850	<0.0002	<0.1	<0.1	0.0105	<0.1	11.1	<0.002
AC-E-Sump	7/11/2019 10:25	WC0491	M	<0.0002	0.135	54.0	0.579	<0.000002	0.004	0.0966		3.99	0.00211	4.33	<0.00002	239	0.602	255	0.00004	<0.005	<0.005	0.00352	<0.005	0.0595	<0.0001
AC-E-Sump	8/1/2019 10:20	WF6256	M	<0.0002	0.0587	33.8	0.0055	<0.000002	0.0038	0.014		3.96	0.00081	3.06	<0.00002	151	0.465	137	0.000029	<0.005	<0.005	0.00179	<0.005	<0.005	<0.0001
AC-E-Sump	9/10/2019 9:50	WL9312	M	<0.0002	0.0651	40.7	0.212	<0.000002	0.0035	0.0325		4.43	0.00125	4.11	<0.00002	164	0.537	172	0.000023	<0.005	<0.005	0.00243	<0.005	0.0219	<0.0001
AC-E-Sump	10/1/2019 10:20	WP9956	M	<0.0002	0.044	34.2	0.179	<0.000002	0.002	0.0373		2.92	0.00075	4.5	<0.00002	83.4	0.367	73.6	0.000016	<0.005	<0.005	0.00156	<0.005	0.064	<0.0001
AC-Mixed	4/2/2019 10:35	VL9793	M	<0.0002	0.09	36.0	0.414	0.0000051	0.0032	0.0677		2.93	0.00272	3.42	<0.00002	136	0.459	174	0.000023	<0.005	<0.005	0.00338	<0.005	0.0251	<0.0001
AC-Washbay-Seep	10/11/2019 12:05	WR7601	M	<0.0002	0.0095	3.58	<0.001	0.0000054	0.0528	0.0019		4.63	0.00325	12	<0.00002	43.1	0.318	55.5	<0.00001	<0.005	<0.005	<0.0001	0.0104	<0.005	<0.0001
AC-W-Sump	7/14/2019 11:00	WC4183	M	<0.0002	0.0602	50.4	<0.001	<0.000002	0.005	0.0138		5.26	0.00516	3.78	<0.00002	128	0.627	133	0.000028	<0.005	<0.005	0.00433	<0.005	<0.005	<0.0001
AC-W-Sump	8/1/2019 9:57	WF6255	M	<0.0002	0.0529	42.2	<0.001	<0.000002	0.0052	0.0127		4.45	0.00317	2.56	<0.00002	104	0.571	111	0.000022	<0.005	<0.005	0.00292	<0.005	<0.005	<0.0001
AC-W-Sump	9/14/2019 9:55	WM7481	M	<0.0002	0.0689	49.7	0.017	0.0000036	0.004	0.0241		4.37	0.00337	2.47	<0.00002	130	0.752	149	0.000024	<0.005	<0.005	0.00353	<0.005	0.0196	<0.0001
AC-W-Sump	10/1/2019 10:00	WP9955	M	<0.0002	0.0697	49.1	0.0122	<0.000002	0.0043	0.0244		4.43	0.00317	2.99	<0.00002	129	0.749	152	0.00002	<0.005	<0.005	0.00349	<0.005	0.0214	<0.0001
Adit-3	5/29/2019 14:00	VU2352	M	<0.001	0.59	21.0	0.1	<0.000002	0.0075	0.0116		6.84	0.00169	4.07	<0.0001	1880	1.32	971	0.000104	<0.025	<0.025	0.00085	<0.025	<0.025	<0.0005
Adit-3	6/15/2019 10:15	VX3542	M	<0.001	0.522	30.8	0.232	<0.000002	<0.005	0.0064		6.22	<0.0005	3.83	<0.0001	1930	1.66	1160	<0.00005	<0.025	<0.025	0.00224	<0.025	0.619	<0.0005
ADIT-4	1/24/2019 15:38	VD5543	M	<0.001	0.131	6.85	<0.005	0.0000312	0.633	<0.005		85.2	0.0178	3.4	<0.0001	878	0.403	525	<0.00005	<0.025	<0.025	0.00195	<0.025	<0.025	<0.0005
AFDE-Pond	4/5/2019 9:30	VM3334	M	<0.0002	0.0028	2.74	0.0038	<0.000002	0.0083	<0.001		1.64	0.00145	2.4	<0.00002	25.5	0.0982	13.4	<0.00001	<0.005	<0.005	0.00076	<0.005	<0.005	<0.0001
AK_Pond	3/9/2019 12:20	VI6897	M	<0.0002	0.0363	25.0	0.0129	<0.000002	0.0181	0.0023		3.69	0.00239	6.36	<0.00002	200	0.266	103	<0.00001	<0.005	<0.005	0.00274	0.0052	<0.005	0.0001
AK_Pond	3/12/2019 12:00	VI8447	M	<0.0002	0.0196	11.7	0.0149	<0.000002	0.0151	0.0019		2.13	0.0015	2.87	<0.00002	89.3	0.159	45.3	<0.00001	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001
AK_Pond	3/20/2019 13:40	VK3784	M	<0.0002	0.0136	10.0	0.0121	<0.000002	0.0073	0.0016		1.93	0.00136	1.72	<0.00002	73.1	0.158	42.5	<0.00001	<0.005	<0.005	0.00118	<0.005	<0.005	<0.0001
AK_Pond	3/27/2019 14:00	VL2038	M	<0.0002	0.0107	6.62	0.0095	<0.000002	0.0053	0.0012		1.40	0.0009	1.51	<0.00002	49.9	0.11	28.7	<0.00001	<0.005	<0.005	0.00087	<0.005	<0.005	<0.0001
AK_Pond	4/4/2019 11:35	VM3411	M	<0.0002	0.0159	10.0	0.004	<0.000002	0.0093	0.0014		2.07	0.00142	2.11	<0.00002	77.9	0.161	42.9	<0.00001	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001
AK_Pond	4/9/2019 11:32	VM8373	M	<0.0002	0.0195	12.6	<0.001	<0.000002	0.0112	0.0016		2.81	0.00187	3.13	<0.00002	104	0.191	58.1	<0.00001	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001
AK_Pond	7/2/2019 13:05	WA3429	M	<0.0002	0.0387	0.106	<0.001	0.0000024	0.0588	<0.001		13.7	0.0133	7.16	<0.00002	200	0.54	91.4	0.00001	<0.005	<0.005	<0.0001	0.0138	<0.005	<0.0001
AK_Pond	7/24/2019 8:35	WE3041	M	<0.0002	0.0345	0.114	<0.001	<0.000002	0.0712	<0.001		17.4	0.0125	9.49	<0.00002	194	0.343	94.2	0.000011	<0.005	<0.005	<0.0001	0.0179	<0.005	<0.0001
AK_Pond	8/25/2019 10:45	WJ3024	M	<0.0002	0.0364	1.83	0.0041	<0.000002	0.079	<0.001		22.2	0.00634	8.54	<0.00002	172	0.369	71.8	0.000013	<0.005	<0.005	0.0003	0.0134	<0.005	<0.0001
Area_20-21_W_Pond	4/12/2019 9:15	VN1932	M	<0.0002	0.0025	1.32	<0.001	<0.000002	0.0101	<0.001		4.19	0.00053	5.81	<0.00002	7.56	0.144	4.8	<0.00001	<0.005	<0.005	0.00041	<0.005	<0.005	<0.0001
Area_30_EOP	3/25/2019 11:30	VK7814	M																						
Area_30_EOP	3/26/2019 12:00	VK9108	M																						
Area_30_EOP	3/27/2019 15:41	VL2036	M																						
Area_30_EOP	3/28/2019 10:27	VL3527	M																						
Area_30_EOP	3/29/2019 9:40	VL3510	M																						
Area_30_EOP	3/30/2019 0:50	VL6617	M																						
Area_30_EOP	3/31/2019 14:18	VL6548	M																						
Area_30_EOP	4/1/2019	VL8086	M																						
Area_30_EOP	4/2/2019 14:10	VL9743	M																						
Area_30_EOP	4/3/2019 2:43	VM1867	M																						
Area_30_EOP	4/4/2019 14:23	VM3427	M																						
Area_30_EOP	4/5/2019 10:06	VM3340	M																						
Area_30_EOP	4/12/2019 11:00	VN1947	M																						
Area_30_EOP	4/15/2019	VN6334	M																						
Area_30_EOP	4/16/2019 14:25	VN8469	M																						
Area_30_EOP	4/17/2019 14:40	VN9773	M																						
Area_30_EOP	4/18/2019 11:30	VN9663	M																						
Area_30_EOP	4/19/2019 13:12	VO0492	M																						
Area_30_EOP	4/20/2019 13:42	VO0482	M																						
Area_30_EOP	4/21/2019 13:20	VO1990	M																						
Area_30_EOP	4/24/2019 14:25	VO7052	M																						
Area_30_EOP	5/18/2019 9:15	VS1738	M																						
Area_30_EOP	5/20/2019 9:33	VS3030	M																						
Area_30_EOP	5/28/2019 9:25	VT7622	M																						
Area_30_EOP	6/30/2019 9:35	WA1534	M																						
Area_32A_Sump	5/22/2019 13:15	VS7443	M	<0.0004	0.153	12.1	0.0055	<0.000002	0.0186	0.012		5.01	0.00838	1.54	<0.00004	575	0.492	248	0.000021	<0.01	<0.01	0.00607	<0.01	0.012	<0.0002
Area_A_N_Ditch	1/26/2019 14:40	VD7171	M	<0.0002	<0.002	0.809	0.0116	<0.000002	0.0077	<0.001		0.315	<0.0001	0.218	<0.00002	0.565	0.0196	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
Area_A_N_Ditch	2/23/2019 11:40	VG8592	M	<0.0002	0.0035	7.29	0.0056	<0.000002	0.002	0.0013		1.09	0.00047	3.3	<0.00002	5.83	0.15	8.2	0.000012	<0.005	<0.005	0.00071	<0.005	<0.005	<0.0001
Area_A_N_Ditch	3/11/2019 14:45	VI9561	M	<0.0002	0.0033	27.8	0.0714	<0.000002	<0.001	<0.001		1.26	<0.0001	5.28	<0.00002	6.60	0.25	13.9	<0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001
Area_A_N_Ditch	4/1/2019	VL8085	M	<0.0002	0.0027	16.7	0.0518	<0.000002	0.0011	0.0011		1.25	0.00018	3.29	<0.00002	4.88	0.172	9.8	<0.00001	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001
Area_A_N_Ditch	5/7/2019 12:56	VQ4258	M	<0.0002	0.004	24.3	0.119	<0.000002	<0.001	0.0014		1.30	0.0002	5.14	<0.00002	5.91	0.248	12.9	<0.00001	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001
Area_A_N_Ditch	7/11/2019 10:00	WC0490	M	<0.0002	0.0043	25.1	0.0014	<0.000002	<0.001	0.0011		1.25	0.00018	5.48	<0.00002	5.57	0.245	10.6	<0.00001	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001
Area_A_N_Ditch	8/3/2019 14:45	WF7652	M	<0.0002	0.0045	25.3	0.0335	<0.000002	<0.001	<0.001		1.44	0.0002	6.04	<0.00002	5.46	0.242	11.1	<0.00001	<0.005	<0.005	0.00125	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Area_A_N_Ditch	9/1/2019 12:20	WK4245	M	7.98	730	4.7	460	12	391	398	360	<1.0	440	<1.0	<1.0	9.6	0.13	0.075	27			0.024	<0.0050	0.721	0.721	<0.0030
Area_A_N_Ditch	10/3/2019 17:30	WQ4509	M	8.22	640	3.8	430	17.2	362	350	290	<1.0	360	<1.0	<1.0	17	0.17	0.12	30			0.016	<0.0050	0.325	0.325	<0.0030
Area_A_N_Ditch	11/5/2019 14:30	WW6755	M	7.83	486	2.7	283	2.1	248	260	220	<1.0	270	<1.0	<1.0	19	0.18	0.034	29			0.016	<0.010	0.80	0.80	0.0040
Area_A_N_Ditch	12/5/2019 10:30	XB6927	M	7.70	551	0.32	323	1.5	286	285	253	<1.0	309	<1.0	<1.0	5.07	0.137	0.043	32.3			<0.015	<0.010	0.423	0.423	0.0052
Bleed-Grout-Water	5/27/2019 14:10	VT3908	M	12.6	16500	8.45	6960	1260	8510	2920	2400	2200	<10	237	681	150	0.100	0.27	2000			0.16	0.0607	<0.020	0.070	<0.0050
Crusher-FeedPitPond1	10/7/2019 16:25	WQ9620	M	8.32	590	5.0	350	5.5	262	281	220	1.3	260	1.5	<1.0	6.1	0.15	0.061	90			0.020	<0.0030	0.0039	<0.0042	<0.0030
Crusher-FeedPitPond2	10/7/2019 16:40	WQ9621	M	8.14	960	7.3	650	6.5	419	465	290	<1.0	350	<1.0	<1.0	4.5	0.17	0.047	220			0.022	<0.0030	<0.0030	<0.0042	0.20
Crusher-FeedPitPond3	10/7/2019 17:00	WQ9622	M	8.26	380	0.78	210	1.7	161	174	140	<1.0	170	<1.0	<1.0	5.2	0.16	0.070	46			<0.015	<0.0030	<0.0030	<0.0042	<0.0030
Crusher-SLP	6/7/2019 15:30	VV9735	M	8.01	467	20.4	294	18.8	188	184	103	<1.0	126	<1.0	<1.0	52.9	0.230	0.065	38.2			0.056	0.0193	0.372	0.391	<0.0050
CVC_BOILER	1/17/2019 15:35	VC7583	M	8.95	2740		1410		1410	13.6	864	317	281	380	<1.0	6.47	0.860	<5.0	374			0.34	0.0642	11.7	11.7	<0.0050
CVC_Reclaimer	4/9/2019 11:05	VM8353	M	7.95	3410	34.0	1680	30	79.0	47.3	175	<1.0	213	<1.0	<1.0	930	0.110	0.15	3.0			25	0.0280	<0.020	0.038	3.47
CVC_TRUCKS	1/17/2019 15:24	VC7584	M	7.88	195	1.86	104	<4.0	94.2	91.0	84.2	<1.0	103	<1.0	<1.0	<0.50	0.047	<0.010	15.0			<0.015	<0.0050	0.080	0.080	<0.0050
DOC_S_Sump	1/1/2019 13:15	VA5887	M	8.29	1340	2.43	840	6.8	194	180	312	<1.0	380	<1.0	<1.0	28.9	0.480	0.50	286			0.81	<0.0050	0.023	0.023	0.0066
DOC_S_Sump	1/9/2019 14:05	VB6787	M	8.28	1380	53.9	864	47.5	198	171	305	<1.0	372	<1.0	<1.0	27.4	0.630	0.49	324			0.96	0.0312	0.092	0.123	<0.0050
DOC_S_Sump	1/19/2019 15:15	VC9568	M	8.34	1190	13.0	710	5.2	148	158	300	2.8	360	3.3	<1.0	28.3	0.540	0.50	248			0.63	0.0064	0.022	0.029	0.0138
DOC_S_Sump	2/4/2019 14:26	VE6894	M	8.39	1110	13.9	670	74.8	142	142	291	3.6	346	4.3	<1.0	27.9	0.540	0.47	223			0.51	<0.0050	0.027	0.027	0.014
DOC_S_Sump	2/6/2019 12:45	VF1090	M	8.21	1090	3.61	684	7.6	142	141	295	<1.0	360	<1.0	<1.0	28.9	9.50	0.48	212			0.64	<0.0050	0.303	0.303	0.015
DOC_S_Sump	2/17/2019 15:05	VG0951	M	8.39	1070	3.81	644	16.8	133	134	294	3.0	351	3.6	<1.0	26.4	0.520	0.48	236			0.68	<0.0050	0.035	0.035	0.0141
DOC_S_Sump	2/20/2019 15:40	VG4534	M	8.27	1060	1.29	656	<4.0	129	142	282	<1.0	344	<1.0	<1.0	26.5	0.510	0.48	184			0.64	<0.0050	0.040	0.040	0.0128
DOC_S_Sump	2/26/2019 14:20	VH2474	M	8.35	1060	4.35	621	53.6	138	143	287	2.8	343	3.3	<1.0	25.8	0.490	0.43	196			0.51	<0.0050	0.051	0.051	0.0150
DOC_S_Sump	3/10/2019 15:35	VI6960	M	8.45	1020	2.78	614	9.2	135	143	286	4.9	336	5.9	<1.0	26.1	0.530	0.42	190			0.53	<0.0050	0.078	0.078	0.0197
DOC_S_Sump	3/21/2019 12:10	VK3828	M	8.26	1070	2.01	668	11.6	197	199	234	<1.0	286	<1.0	<1.0	16.5	0.390	0.28	252			0.55	0.0120	0.158	0.170	<0.0050
DOC_S_Sump	3/27/2019 9:22	VL2030	M	8.33	1210	2.88	720	58.8	201	194	271	2.4	325	2.9	<1.0	25.7	0.460	0.49	272			0.68	0.0051	0.123	0.128	0.0095
DOC_S_Sump	4/3/2019 9:33	VM1858	M	8.46	1210	0.64	716	<4.0	185	187	266	5.5	310	6.6	<1.0	25.3	0.470	0.42	275			0.53	<0.0050	0.163	0.163	0.013
DOC_S_Sump	4/10/2019 10:45	VN0839	M	8.29	1200	2.08	704	17.2	182	182	273	<1.0	333	<1.0	<1.0	25.6	0.490	0.41	269			0.53	0.0099	0.186	0.196	0.013
DOC_S_Sump	4/17/2019 9:42	VN9649	M	8.50	1230	3.23	720	14.4	158	144	279	6.1	326	7.3	<1.0	26.1	0.510	0.45	257			0.48	0.0143	0.263	0.277	0.011
DOC_S_Sump	4/24/2019 9:20	VO7018	M	8.42	1140	3.11	668	6.4	138	145	262	3.8	310	4.6	<1.0	21.7	0.510	0.37	254			0.51	0.0179	0.295	0.313	0.0086
DOC_S_Sump	5/8/2019 11:25	VQ8326	M	8.48	1160	1.35	676	<4.0	110	110	304	6.0	357	7.2	<1.0	24.8	0.610	0.42	234			0.42	0.0248	0.523	0.548	0.021
DOC_S_Sump	5/15/2019 10:30	VR8836	M	8.45	1160	1.45	682	<4.0	98.1	99.9	307	4.8	363	5.8	<1.0	26.6	0.720	0.43	235			0.31	0.0294	0.589	0.618	0.018
DOC_S_Sump	5/22/2019 10:30	VS7472	M	8.61	1140	3.54	670	12.8	91.0	90.9	299	10.5	339	12.6	<1.0	25.8	0.640	0.45	220			0.22	0.0272	0.785	0.812	0.0230
DOC_S_Sump	6/4/2019 12:40	VU7715	M	8.24	1080	7.56	632	6.8	90.2	87.8	299	<1.0	365	<1.0	<1.0	24.8	0.680	0.41	198			0.17	0.0251	1.10	1.12	0.0263
DOC_S_Sump	6/12/2019 11:00	VW8059	M	8.47	1070	3.68	640	5.6	88.7	90.5	307	5.6	361	6.7	<1.0	24.2	0.660	0.40	226			0.15	0.0251	1.06	1.08	0.0232
DOC_S_Sump	6/20/2019 13:20	VY4155	M	8.57	1060	5.36	630	3.2	106	106	285	8.5	327	10.1	<1.0	23	0.640	0.37	170			0.13	0.0242	1.22	1.25	0.0274
DOC_S_Sump	6/28/2019 10:05	VZ7861	M	8.14	1100	2.32	708	<4.0	145	153	281	<1.0	343	<1.0	<1.0	22.8	0.600	0.32	257			0.082	0.0309	1.76	1.79	0.0216
DOC_S_Sump	7/10/2019 12:25	WB8325	M	8.38	1230	2.8	760	4.8	154	157	283	3.0	338	3.6	<1.0	23.4	0.590	0.40	293			0.24	0.0427	1.64	1.68	0.0215
DOC_S_Sump	7/16/2019 15:40	WC9637	M	8.57	1220	0.83	804	<4.0	175	173	288	8.3	332	9.9	<1.0	24.4	0.610	0.31	271			0.10	0.0283	1.35	1.38	0.0210
DOC_S_Sump	7/24/2019 14:15	WE3039	M	8.46	1240	1.4	758	11.2	163	168	300	5.6	353	6.8	<1.0	26.8	0.610	0.40	285			0.11	0.0288	1.25	1.28	0.0110
DOC_S_Sump	7/30/2019 12:55	WF2076	M	8.34	1190	1.5	750	<4.0	147	156	305	1.8	368	2.2	<1.0	24.3	0.620	0.38	227			0.022	0.0229	1.35	1.38	0.0139
DOC_S_Sump	8/16/2019 10:10	WH8425	M	8.37	1300	4.2	820	16	180	179	270	3.2	330	3.9	<1.0	19	0.54	0.29	290			0.024	0.0645	4.84	4.90	0.023
DOC_S_Sump	9/11/2019 13:00	WM1917	M	8.33	1900	10	1300	8.4	268	268	270	1.8	330	2.1	<1.0	28	0.61	0.64	640			0.093	0.0629	1.94	2.00	<0.0030
DOC_S_Sump	11/7/2019 11:55	WX2040	M	8.20	1070	4.1	663	27	181	181	260	<1.0	320	<1.0	<1.0	18	0.55	0.26	250			0.11	0.033	1.0	1.1	<0.0030
DOC_Upper_N_Sump	1/1/2019 13:45	VA5888	M	8.08	4160	166	3690	235	1470	1410	550	<1.0	671	<1.0	<1.0	43.7	0.170	0.95	1880			1.8	0.0252	<0.020	0.039	<0.0050
DOC_Upper_N_Sump	1/9/2019 14:25	VB6788	M	8.03	3340	98.5	2500	141	1570	1340	492	<1.0	600	<1.0	<1.0	33.1	0.160	0.71	1490			1.3	<0.0050	<0.020	<0.020	<0.0050
DOC_Upper_N_Sump	2/17/2019 14:43	VG0950	M	8.02	9090	2.15	8530	11.2	3380	3470	1050	<1.0	1280	<1.0	<1.0	45.0	0.220	1.7	5750			2.8	<0.0050	<0.020	<0.020	<0.0050
DOC_Upper_N_Sump	2/20/2019 15:15	VG4533	M	7.96	9950	800	10000	686	3500	3490	1090	<1.0	1330	<1.0	<1.0	49.3	0.190	1.7	6350			3.3	0.0057	0.023	0.029	<0.0050
DOC_Upper_N_Sump	3/2/2019 14:30	VH8130	M	8.04	7550	478	7240	430	2760	2770	722	<1.0	880	<1.0	<1.0	34.7	0.120	1.3	4590			2.5	<0.0050	<0.020	<0.020	<0.0050
DOC_Upper_N_Sump	3/10/2019 15:45	VI6961	M	8.06	8060	24.7	8130	95.2	2970	3400	807	<1.0	985	<1.0	<1.0	29.4	0.210	1.3	4900			2.3	0.0164	0.029	0.045	<0.0050
DOC_Upper_N_Sump	3/21/2019 11:50	VK3827	M	8.12	4440	142	3690	112	1330	1430	302	<1.0	368	<1.0	<1.0	21.0	0.310	0.80	2280			2.0	0.0802	0.198	0.279	<0.0050
DOC_Upper_N_Sump	3/27/2019 9:36	VL2031	M	8.12	4140	8.23	3360	26.0	1230	1250	317	<1.0	387	<1.0	<1.0	24.2	0.190	0.86	2280			2.3	0.0196	0.028	0.048	<0.0050
DOC_Upper_N_Sump	4/3/2019 9:38	VM1859	M	8.25	4670	3.24	3870	9.2	1140	1390	339	<1.0	414	<1.0	<1.0	35.8	0.210	0.91	2480			1.9	0.0151	<0.020	0.032	0.0034
DOC_Upper_N_Sump	4/10/2019 10:20	VN0838	M	8.14	1750	7.81	1170	28.8	403	405	215	<1.0	263	<1.0	<1.0	17.8	0.280	0.36	611			0.98	0.0311	0.103	0.134	0.0031
DOC_Upper_N_Sump	4/17/2019 9:52	VN9648	M	8.19	5490	7.24	4520	12.4	1770	1620	569	<1.0	694	<1.0	<1.0	39.5	0.260	0.98	2840			2.5	0.0082	<0.020	0.021	0.0030
DOC_Upper_N_Sump	4/24/2019 9:30	VO7019	M	8.12	5960	25.6	5210	126	2060	1910	642	<1.0	783	<1.0	<1.0	36.7	0.310	1.2	2370			3.2	0.0164	<0.020	<0.020	0.0033
DOC_Upper_N_Sump	5/5/2019 9:45	VQ1601	M	7.99	4680	3.67	3680	5.6	1020	1270	255	<1.0	311	<1.0	<1.0	48.6	0.380	0.86	2260			3.8	0.0753	0.154	0.230	0.0030
DOC_Upper_N_Sump	5/8/2019 10:45	VQ8324	M	8.04	6480	1.96	5570	9.6	2090	2120	463	<1.0	564	<1.0	<1.0	27.1	0.200	1.0	3730			4.0	0.0515	0.241	0.293	0.0042
DOC_Upper_N_Sump	5/15/2019 9:48	VR8835	M	8.10	3150	8.29	2460	52.4	916	925	357	<1.0	435	<1.0	<1.0	15.7	0.250	0.57	1380			1.4	0.0352	0.140	0.175	0.0076
DOC_Upper_N_Sump	5/22/2019 10:10	VS7471	M	8.35	1580	2.10	1030	10.4	431	429	237	<1.0	289	<1.0	<1.0	14.0	0.230	0.29	564			0.73	0.0301	0.176	0.206	<0.0050
DOC_Upper_N_Sump	5/28/2019 11:00	VT7570	M	8.27	1320	2.72	876	8.4	354	364	257	<1.0	313	<1.0	<1.0	12	0.280	0.31	430			0.57	0.0415	0.312	0.353	<0.0050
DOC_Upper_N_Sump	6/5/2019 10:15	VV4622	M	8.14	7240	0.66	7060	5.2	2900	2740	659	<1.0	804	<1.0	<1.0	19.7	0.260	1.5	4350			2.8	0.124	2.69	2.81	<0.0050
DOC_Upper_N_Sump	6/12/2019 10:35	VW8058	M	8.16	2740	4.27	2050	11.6	690	742	155	<1.0	189	<1.0	<1.0	18.5	0.230	0.43	1270			0.079	0.0354	0.413	0.448	<0.0050
DOC_Upper_N_Sump	7/7/2019 10:00	WB1480	M	8.09	5790	4.6	5550	12.4	2400	2360	367	<1.0	448	<1.0	<1.0	20.3	0.190	0.83	3630			0.093	0.121	2.94	3.06	<0.0050
DOC_Upper_N_Sump	7/12/2019 11:55	WC0456	M	8.12	6360	6.4	6010	18.0	2580	2580	317	<1.0	387	<1.0	<1.0	19.4	0.140	0.86	4010			0.36	0.0518	1.60	1.65	<0.0050
DOC_Upper_N_Sump	7/18/2019 14:45	WD4016	M	8.33	6650	6.4	6620	9.2	2480	2560	218	2.0	262	2.3	<1.0	20.4	0.098	0.91	4650			0.16	0.0149	0.207	0.222	<0.0050
DOC_Upper_N_Sump	7/24/2019 13:50	WE3040	M	8.30	6630	6.0	6480	25.2	2370	2410	241	<1.0	294	<1.0	<1.0	21.1	0.120	0.90	3910			0.22	0.0206	0.197	0.217	<0.0050
DOC_Upper_N_Sump	7/30/2019 13:30	WF2077	M	8.29	6010	3.5	9640	6.8	2130	2340	314	<1.0	383	<1.0	<1.0	19.4	0.150	0.97	3850			<0.015	0.0437	1.63	1.67	0.0154
DOC_Upper_N_Sump	8/6/2019 13:20	WG2810	M	8.25	6220	4.6	6400	9.2	2400	2510	356	<1.0	434	<1.0	<1.0	18.5	0.110	0.92	3950			<0.015	0.0332	0.929	0.962	<0.0050
DOC_Upper_N_Sump	8/18/2019 16:10	WI0689	M	8.12	2650	100	2390	90.4	909	910	102	<1.0	125	<1.0	<1.0	15	0.270	0.40	1500			0.34	0.189	6.11	6.30	<0.0050
DOC_Upper_N_Sump	9/11/2019 13:20	WM1918	M	8.27	3700	7.2	3200	10.4	1310	1310	220	<1.0	270	<1.0	<1.0	24	0.28	0.95	1900			0.023	0.106	7.70	7.81	<0.0030
DOC_Upper_N_Sump	10/2/2019 14:10	WQ2278	M	8.06	5600	0.89	9200	5.2	2220	2190	510	<1.0	620	<1.0	<1.0	19	0.22	1.4	1800			0.074	0.0105	1.61	1.62	0.042
DOP_BT_East	3/13/2019 13:30	VJ2170	M	8.22	4470	44600	3650	20000	2870	1230	59.2	<1.0	72.3	<1.0	<1.0	57.2	2.00	0.97	2110			3.1	0.208	0.657	0.865	0.0362
DOP_BT_East	4/27/2019 10:20	VP1252	M	7.79	8020	157	6190	51.2	1220	1240	259	<1.0	315	<1.0	<1.0	198	2.00	3.8	4080			5.1	0.0655	0.213	0.279	<0.0030
DOP_BT_East	5/8/2019 12:05	VQ8327	M	8.35	3980	36.6	2710	90.0	342	329	259	2.7	310	3.2	<1.0	121	0.750	2.0	1540			2.6	0.0894	0.298	0.387	0.015
DOP_BT_East	5/16/2019 11:10	VS0925	M	8.43	4930	66.0	3300	54.8	450	451	305	4.8	360	5.8	<1.0	151	0.730	2.6	1980			3.0	0.202	0.786	0.988	0.0078
DOP_BT_East	5/22/2019 11:00	VS7473	M	8.50	3300	7710	2260	4850	648	339	276	7.4	319	8.9	<1.0	98.2	0.570	1.6	1270			2.6	0.162	1.17	1.33	0.173
DOP_BT_East	5/28/2019 11:20	VT7571	M	8.40	3010	296	2080	205	331	333	291	4.0	346	4.7	<1.0	82	0.680	1.3	1200			2.0	0.331	1.02	1.35	<0.0050
DOP_BT_East	6/5/2019 11:00	VV4624	M	8.44	4270	69.7	3120	63.6	517	494	312	7.8	362	9.3	<1.0	99.7	0.740	1.6	1820			1.2	0.438	3.02	3.46	<0.0050
DOP_BT_East	6/12/2019 11:10	VW8060	M	8.21	3070	291	2110	191	401	388	307	<1.0	375	<1.0	<1.0	53.1	0.560	1.0	1190			0.76	0.511	2.98	3.49	<0.0050

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Area_A_N_Ditch	9/1/2019 12:20	WK4245	M	3.0	2.4	0.0886	<0.0005	0.00033	0.361	<0.0001	<0.001	<0.05	0.000022	118	<0.001	0.00022	0.00065	0.215	<0.0002	0.0045	23.2	0.0424	<0.000002	<0.001	0.0011		1.33	0.00033
Area_A_N_Ditch	10/3/2019 17:30	WQ4509	M	3.7	4.9	0.116	<0.0005	0.00039	0.341	<0.0001	<0.001	<0.05	0.000012	110	<0.001	<0.0002	0.00085	0.307	<0.0002	0.0036	21.2	0.0318	<0.000002	<0.001	<0.001		1.43	0.00023
Area_A_N_Ditch	11/5/2019 14:30	WW6755	M	2.8	2.4	0.085	<0.0005	0.00027	0.229	<0.0001	<0.001	<0.05	<0.00001	75.9	<0.001	<0.0002	0.0006	0.169	<0.0002	0.0024	14.1	0.014	<0.000002	0.001	<0.001		0.984	0.00024
Area_A_N_Ditch	12/5/2019 10:30	XB6927	M	2.20	2.08	0.0175	<0.0005	0.00016	0.268	<0.0001	<0.001	<0.05	0.00001	85.0	<0.001	<0.0002	0.00056	0.049	<0.0002	0.0047	17.9	0.0024	<0.000002	<0.001	<0.001		1.20	0.00038
Bleed-Grout-Water	5/27/2019 14:10	VT3908	M	210	100	99.6	<0.01	0.0555	1.14	<0.002	<0.02	<1	0.0007	3380	3.14	0.0588	0.545	82.5	0.036	0.706	19.2	0.802	<0.000002	0.702	0.081		1360	0.159
Crusher-FeedPitPond1	10/7/2019 16:25	WQ9620	M	4.5	4.2	0.184	<0.0005	0.00047	0.122	<0.0001	<0.001	<0.05	0.000012	58.1	<0.001	<0.0002	0.00103	0.194	<0.0002	0.0149	28.4	0.0108	<0.000002	0.0027	0.0018		2.78	0.00042
Crusher-FeedPitPond2	10/7/2019 16:40	WQ9621	M	15	16	0.235	<0.0005	0.00105	0.148	<0.0001	<0.001	0.095	0.000019	95.0	<0.001	0.00026	0.00133	0.367	0.00026	0.0232	44.2	0.0422	<0.000002	0.0046	0.0041		7.07	0.0004
Crusher-FeedPitPond3	10/7/2019 17:00	WQ9622	M	1.7	1.5	0.0277	<0.0005	0.00026	0.139	<0.0001	<0.001	<0.05	<0.00001	37.2	<0.001	<0.0002	<0.0005	0.024	<0.0002	0.0106	16.6	<0.001	<0.000002	0.0015	<0.001		1.26	0.00039
Crusher-SLP	6/7/2019 15:30	VV9735	M	4.8	4.2	0.311	<0.0005	0.00061	0.18	<0.0001	<0.001	<0.05	0.000033	56.5	<0.001	0.00043	0.00155	0.57	0.00031	0.0039	11.3	0.0241	0.0000027	0.0061	0.0014		2.68	0.00093
CVC_BOILER	1/17/2019 15:35	VC7583	M	43	19	0.978	<0.0025	0.00335	0.424	<0.0005	<0.005	<0.25	<0.00005	327	0.0152	0.0063	0.784	27.3	0.206	0.019	143	1.5	<0.000002	3.5	0.0513		519	0.00301
CVC_Reclaimer	4/9/2019 11:05	VM8353	M	56	35	1.49	<0.0025	0.00408	0.0817	<0.0005	<0.005	<0.25	0.00258	25.9	0.0058	0.0022	0.0213	1.68	<0.001	<0.01	3.49	0.054	0.0000022	<0.005	0.0075		61.1	0.0009
CVC_TRUCKS	1/17/2019 15:24	VC7584	M	1.6	1.9	0.632	<0.0005	0.0002	0.0343	<0.0001	<0.001	<0.05	0.00002	27.9	0.0016	<0.0002	0.00534	0.068	0.00038	<0.002	5.94	0.003	<0.000002	<0.001	<0.001		0.473	0.00027
DOC_S_Sump	1/1/2019 13:15	VA5887	M	<0.50	0.62	0.0939	0.0009	0.00065	0.019	<0.0001	<0.001	0.286	0.000024	46.1	<0.001	0.00202	0.001	0.12	<0.0002	0.0598	19.1	0.0775	<0.000002	0.0046	0.0063		1.66	0.00213
DOC_S_Sump	1/9/2019 14:05	VB6787	M	<0.50	0.97	0.43	0.00237	0.00147	0.0693	<0.0001	<0.001	0.319	0.000053	46.2	0.0012	0.00259	0.00356	0.999	0.0009	0.0731	20.1	0.0639	<0.000002	0.0165	0.0092		2.59	0.00848
DOC_S_Sump	1/19/2019 15:15	VC9568	M	<0.50	0.97	0.0563	0.00092	0.00056	0.0273	<0.0001	<0.001	0.247	0.000024	36.4	<0.001	0.00085	0.00069	0.152	0.0002	0.0484	13.8	0.0399	<0.000002	0.0045	0.0041		1.39	0.00159
DOC_S_Sump	2/4/2019 14:26	VE6894	M	<0.50	0.74	0.0881	0.00066	0.0004	0.0242	<0.0001	<0.001	0.255	0.000018	33.9	<0.001	0.00093	0.0012	0.131	<0.0002	0.0466	13.9	0.0225	<0.000002	0.0038	0.0047		1.43	0.00128
DOC_S_Sump	2/6/2019 12:45	VF1090	M	1.2	<0.50	0.0975	0.00065	0.00045	0.0237	<0.0001	<0.001	0.278	0.000013	35.3	<0.001	0.00087	0.00094	0.122	<0.0002	0.0495	13.0	0.018	<0.000002	0.0036	0.0044		1.44	0.00131
DOC_S_Sump	2/17/2019 15:05	VG0951	M	<0.50	0.96	0.0807	0.00057	0.00044	0.0279	<0.0001	<0.001	0.22	0.000014	31.2	<0.001	0.0008	0.00091	0.302	0.00046	0.0473	13.2	0.0176	0.0000044	0.0035	0.0044		1.23	0.00125
DOC_S_Sump	2/20/2019 15:40	VG4534	M	1.3	0.67	0.0246	0.00053	0.00032	0.0193	<0.0001	<0.001	0.209	<0.00001	30.8	<0.001	0.00068	0.00171	0.025	<0.0002	0.0426	12.6	0.0133	0.0000046	0.0033	0.004		1.17	0.00124
DOC_S_Sump	2/26/2019 14:20	VH2474	M	1.1	1.4	0.109	0.00056	0.00044	0.0303	<0.0001	<0.001	0.246	0.000013	34.3	<0.001	0.00063	0.00053	0.238	0.00056	0.0445	12.8	0.0117	<0.000002	0.0034	0.0044		1.32	0.00149
DOC_S_Sump	3/10/2019 15:35	VI6960	M	0.76	2.1	0.0574	0.00051	0.00035	0.0219	<0.0001	<0.001	0.241	0.000012	32.1	<0.001	0.00054	0.00051	0.057	<0.0002	0.046	13.3	0.0064	<0.000002	0.0031	0.0045		1.28	0.00134
DOC_S_Sump	3/21/2019 12:10	VK3828	M	1.9	1.9	0.087	0.00068	0.00039	0.0263	<0.0001	<0.001	0.181	0.000028	47.5	0.0012	0.00089	0.00083	0.153	<0.0002	0.0375	19.1	0.0095	0.0000057	0.0051	0.0085		1.97	0.00528
DOC_S_Sump	3/27/2019 9:22	VL2030	M	1.3	1.4	0.144	0.0007	0.00041	0.034	<0.0001	<0.001	0.245	0.000029	49.2	<0.001	0.00081	0.00229	0.255	0.00056	0.0476	19.0	0.0102	<0.000002	0.0049	0.0068		1.65	0.00556
DOC_S_Sump	4/3/2019 9:33	VM1858	M	1.3	1.3	0.0236	0.00067	0.00032	0.0227	<0.0001	<0.001	0.238	0.000013	44.2	<0.001	0.00049	<0.0005	0.02	<0.0002	0.052	18.0	0.0032	<0.000002	0.005	0.0055		1.55	0.00423
DOC_S_Sump	4/10/2019 10:45	VN0839	M	1.1	1.5	0.106	0.00068	0.00047	0.0318	<0.0001	<0.001	0.253	0.000026	45.2	<0.001	0.00065	0.0007	0.228	0.00024	0.0503	16.9	0.0072	<0.000002	0.0047	0.0053		1.56	0.00369
DOC_S_Sump	4/17/2019 9:42	VN9649	M	1.3	0.83	0.102	0.00069	0.00037	0.0273	<0.0001	<0.001	0.298	0.000035	39.9	<0.001	0.00053	0.00068	0.199	0.0002	0.055	14.3	0.006	<0.000002	0.0048	0.0049		1.47	0.00297
DOC_S_Sump	4/24/2019 9:20	VO7018	M	1.0	0.93	0.139	0.0008	0.00047	0.033	<0.0001	<0.001	0.296	0.000019	33.5	<0.001	0.00064	0.00062	0.263	0.00025	0.0515	13.1	0.009	<0.000002	0.0054	0.0042		1.49	0.00243
DOC_S_Sump	5/8/2019 11:25	VQ8326	M	0.70	0.98	0.0402	0.0008	0.00034	0.0187	<0.0001	<0.001	0.34	0.00001	26.2	<0.001	0.00029	<0.0005	0.037	<0.0002	0.0644	10.9	0.0017	<0.000002	0.0047	0.0029		1.40	0.00159
DOC_S_Sump	5/15/2019 10:30	VR8836	M	0.76	0.99	0.047	0.00082	0.00036	0.0177	<0.0001	<0.001	0.319	0.000012	23.6	<0.001	0.00028	<0.0005	0.034	<0.0002	0.0568	9.52	0.0017	<0.000002	0.0048	0.003		1.26	0.00148
DOC_S_Sump	5/22/2019 10:30	VS7472	M	0.88	0.90	0.0578	0.00079	0.00038	0.0208	<0.0001	<0.001	0.349	0.000014	22.5	<0.001	0.00026	<0.0005	0.066	<0.0002	0.0587	8.43	0.0018	<0.000002	0.0044	0.003		1.36	0.00137
DOC_S_Sump	6/4/2019 12:40	VU7715	M	0.87	1.0	0.0578	0.00075	0.00038	0.0209	<0.0001	<0.001	0.389	0.000011	22.0	<0.001	0.00025	<0.0005	0.062	<0.0002	0.0565	8.57	0.0019	<0.000002	0.0041	0.003		1.33	0.00152
DOC_S_Sump	6/12/2019 11:00	VW8059	M	1.3	0.82	0.0746	0.00071	0.0004	0.0239	<0.0001	<0.001	0.38	0.000014	21.5	<0.001	0.00024	0.00059	0.079	<0.0002	0.0593	8.52	0.0023	<0.000002	0.004	0.0029		1.31	0.00132
DOC_S_Sump	6/20/2019 13:20	VY4155	M	1.1	0.96	0.0625	0.00069	0.00038	0.0246	<0.0001	<0.001	0.414	0.000012	26.3	<0.001	0.00024	0.00058	0.084	<0.0002	0.0551	9.76	0.0023	<0.000002	0.0037	0.0029		1.44	0.00126
DOC_S_Sump	6/28/2019 10:05	VZ7861	M	1.1	0.97	0.0707	0.00069	0.00041	0.0269	<0.0001	<0.001	0.344	0.000025	35.5	<0.001	0.00041	0.00088	0.1	<0.0002	0.0562	13.6	0.004	<0.000002	0.0037	0.0043		1.66	0.00269
DOC_S_Sump	7/10/2019 12:25	WB8325	M	1.0	1.2	0.0499	0.00077	0.0004	0.026	<0.0001	<0.001	0.394	0.000028	37.4	<0.001	0.00033	0.00051	0.092	<0.0002	0.0601	14.7	0.0041	<0.000002	0.0037	0.0051		1.88	0.00236
DOC_S_Sump	7/16/2019 15:40	WC9637	M	0.91	1.5	0.0347	0.0007	0.00036	0.0267	<0.0001	<0.001	0.397	0.000029	43.7	<0.001	0.00027	0.00064	0.043	<0.0002	0.0613	16.0	0.0042	<0.000002	0.0036	0.0053		2.02	0.002
DOC_S_Sump	7/24/2019 14:15	WE3039	M	1.2	1.4	0.0968	0.00063	0.00047	0.0301	<0.0001	<0.001	0.361	0.000032	39.7	<0.001	0.00042	0.00091	0.279	0.00031	0.0546	15.5	0.0089	<0.000002	0.0034	0.0048		1.93	0.00168
DOC_S_Sump	7/30/2019 12:55	WF2076	M	0.84	1.3	0.0649	0.00053	0.00033	0.0249	<0.0001	<0.001	0.373	0.000021	35.5	<0.001	0.00024	<0.0005	0.043	<0.0002	0.0607	14.1	0.0048	<0.000002	0.0032	0.0036		1.79	0.00152
DOC_S_Sump	8/16/2019 10:10	WH8425	M	1.2	1.2	0.135	0.00057	0.00043	0.0345	<0.0001	<0.001	0.386	0.000028	44.9	<0.001	0.00031	0.00079	0.286	0.00025	0.0615	16.5	0.0102	<0.000002	0.0033	0.0045		2.08	0.00494
DOC_S_Sump	9/11/2019 13:00	WM1917	M	3.2	3.0	0.16	0.00084	0.00063	0.0467	<0.0001	<0.001	0.323	0.00003	58.4	0.0037	0.00119	0.00128	0.272	0.00026	0.0668	29.7	0.0288	<0.000002	0.0089	0.0058		5.79	0.00331
DOC_S_Sump	11/7/2019 11:55	WX2040	M	0.93	0.77	0.363	<0.0005	0.00038	0.0402	<0.0001	<0.001	0.269	0.000036	44.8	<0.001	0.00081	0.00126	0.613	0.00033	0.0466	16.8	0.0239	<0.000002	0.0025	0.0041		1.52	0.00249
DOC_Upper_N_Sump	1/1/2019 13:45	VA5888	M	1.3	1.8	0.192	0.0031	0.00272	0.0473	<0.0005	<0.005	0.324	0.0001	297	<0.005	0.0131	<0.0025	0.977	0.002	0.114	178	0.868	<0.000002	0.0101	0.046		5.36	0.00847
DOC_Upper_N_Sump	1/9/2019 14:25	VB6788	M	1.1	1.5	0.684	0.0025	0.00384	0.151	<0.0005	<0.005	0.357	0.000198	326	<0.005	0.0141	0.0039	1.86	0.0032	0.115	184	0.914	<0.000002	0.0068	0.0408		4.95	0.00574
DOC_Upper_N_Sump	2/17/2019 14:43	VG0950	M	3.7	3.6	<0.03	<0.005	0.0014	0.011	<0.001	<0.01	1.2	0.00113	405	<0.01	0.0196	<0.005	<0.1	<0.002	0.274	575	1.72	<0.000002	<0.01	0.058		6.86	0.0026
DOC_Upper_N_Sump	2/20/2019 15:15	VG4533	M	5.3	4.8	2.77	<0.005	0.0077	0.427	<0.001	<0.01	1.18	0.00121	394	<0.01	0.0268	0.0187	9.17	0.0138	0.267	612	1.94	<0.000002	<0.01	0.074		8.22	0.0034
DOC_Upper_N_Sump	3/2/2019 14:30	VH8130	M	5.5	6.0	1.64	<0.0025	0.00413	0.106	<0.0005	<0.005	0.93	0.000802	375	<0.005	0.0188	0.0071	2.75	0.0052	0.194	444	1.35	<0.000002	<0.005	0.0529		6.30	0.00247
DOC_Upper_N_Sump	3/10/2019 15:45	VI6961	M	3.1	3.7	0.377	<0.005	0.0013	0.039	<0.001	<0.01	1.07	0.00132	392	0.02	0.0138	<0.005	0.707	<0.002	0.205	484	1.51	<0.000002	<0.01	0.06		6.45	0.0027
DOC_Upper_N_Sump	3/21/2019 11:50	VK3827	M	6.2	6.1	0.783	0.0032	0.00246	0.0863	<0.0005	<0.005	0.422	0.000187	213	0.0104	0.0129	0.0042	2.8	0.0014	0.106	194	0.529	0.0000068	0.0224	0.0404		9.62	0.0122
DOC_Upper_N_Sump	3/27/2019 9:36	VL2031	M	4.2	3.8	0.207	0.0029	0.00185	0.0327	<0.0002	<0.002	0.498	0.000095	239	0.0156	0.00939	0.0013	0.202	<0.0004	0.105	154	0.404	<0.000002	0.0231	0.0286		7.21	0.0085
DOC_Upper_N_Sump	4/3/2019 9:38	VM1859	M	3.0	2.4	0.117	0.0036	0.00278	0.0353	<0.0005	<0.005	0.467	0.000067	200	0.0139	0.0085	<0.0025	0.169	<0.001	0.147	156	0.247	<0.000002	0.0242	0.0297		8.84	0.00947
DOC_Upper_N_Sump	4/10/2019 10:20	VN0838	M	4.8	4.7	0.266	0.00425	0.0037	0.0736	<0.0001	<0.001	0.22	0.000028	89.1	0.0053	0.00226	0.00239	0.387	0.00041	0.0608	43.9	0.101	<0.000002	0.0172	0.0093		10.1	0.00676
DOC_Upper_N_Sump	4/17/2019 9:52	VN9648	M	3.3	1.5	0.235	0.0034	0.0022	0.0311	<0.0005	<0.005	0.784	0.000141	308	<0.005	0.017	<0.0025	0.232	<0.001	0.18	242	0.705	<0.000002	0.0147	0.057		6.95	0.00537
DOC_Upper_N_Sump	4/24/2019 9:30	VO7019	M	2.0	1.7	2.37	0.0037	0.00303	0.115	<0.0005	<0.005	0.931	0.000188	310	<0.005	0.0199	0.0033	1.66	0.0014	0.238	311	0.901	<0.000002	0.0159	0.0624		6.73	0.00523
DOC_Upper_N_Sump	5/5/2019 9:45	VQ1601	M	3.4	3.8	0.162	0.0065	0.00402	0.0708	<0.0005	<0.005	0.278	0.000122	245	0.0211	0.007	<0.0025	0.245	<0.001	0.154	99.1	0.052	<0.000002	0.113	0.0301		12.1	0.133
DOC_Upper_N_Sump	5/8/2019 10:45	VQ8324	M	3.3	3.2	0.039	<0.005	0.0015	0.036	<0.001	<0.01	0.686	0.00032	440	<0.01	0.016	<0.005	<0.1	<0.002	0.218	241	0.13	<0.000002	0.029	0.081		12.3	0.0336
DOC_Upper_N_Sump	5/15/2019 9:48	VR8835	M	1.6	1.8	1.18	0.0026	0.00195	0.081	<0.0002	<0.002	0.405	0.000262	185	0.0036	0.00669	0.0027	1.2	0.00084	0.0898	110	0.16	<0.000002	0.0116	0.0306		6.27	0.00652
DOC_Upper_N_Sump	5/22/2019 10:10	VS7471	M	1.7	2.0	0.0442	0.00247	0.00141	0.0359	<0.0001	<0.001	0.238	0.000047	100	0.0014	0.00294	0.00079	0.082	<0.0002	0.0524	43.7	0.076	<0.000002	0.0081	0.0132		4.45	0.00484
DOC_Upper_N_Sump	5/28/2019 11:00	VT7570	M	1.8	2.0	0.0266	0.00131	0.00098	0.0322	<0.0001	<0.001	0.205	0.000022	91.3	<0.001	0.00209	0.0006	0.046	<0.0002	0.0418	30.7	0.0805	<0.000002	0.0058	0.0096		3.20	0.00467
DOC_Upper_N_Sump	6/5/2019 10:15	VV4622	M	1.9	2.6	0.31	0.0028	0.00086	0.0143	<0.0005	<0.005	1.02	0.000644	462	<0.005	0.0245	<0.0025	0.255	<0.001	0.218	423	0.71	<0.000002	<0.005	0.131		9.19	0.00837
DOC_Upper_N_Sump	6/12/2019 10:35	VW8058	M	4.1	4.4	0.0963	0.0025	0.00159	0.0392	<0.0002	<0.002	0.38	0.000021	114	0.0038	0.00048	0.0034	0.17	<0.0004	0.0848	98.4	0.0097	0.0000048	0.0115	0.0113		7.68	0.0074
DOC_Upper_N_Sump	7/7/2019 10:00	WB1480	M	3.0	2.9	0.122	0.0028	0.00103	0.0294	<0.0005	<0.005	0.985	<0.00005	398	<0.005	0.0022	<0.0025	0.203	<0.001	0.175	341	0.0626	<0.000002	0.0082	0.0462		13.0	0.0269
DOC_Upper_N_Sump	7/12/2019 11:55	WC0456	M	3.5	3.8	0.213	0.0031	0.00126	0.0219	<0.0005	<0.005	1.1	0.000121	390	<0.005	0.0013	<0.0025	0.157	<0.001	0.189	390	0.0229	<0.000002	0.0068	0.0389		12.3	0.0157
DOC_Upper_N_Sump	7/18/2019 14:45	WD4016	M	4.1	4.6	0.159	0.0033	0.00122	0.0232	<0.0005	<0.005	1.11	<0.00005	361	<0.005	<0.001	0.0025	0.185	<0.001	0.201	383	0.0287	<0.000002	0.0083	0.0269		13.3	0.00941
DOC_Upper_N_Sump	7/24/2019 13:50	WE3040	M	4.1	4.1	0.147	0.003	0.0017	0.0267	<0.0005	<0.005	0.997	0.00009	353	<0.005	0.0013	0.0026	0.282	<0.001	0.184	362	0.102	0.0000037	0.0092	0.0271		12.9	0.00675
DOC_Upper_N_Sump	7/30/2019 13:30	WF2077	M	3.8	3.9	0.063	<0.005	0.0015	0.022	<0.001	<0.01	0.923	<0.0001	326	<0.01	<0.002	<0.005	<0.1	<0.002	0.172	321	0.015	<0.000002	0.01	0.024		12.8	0.0095
DOC_Upper_N_Sump	8/6/2019 13:20	WG2810	M	3.1	3.6	0.118	<0.0025	0.00114	0.023	<0.0005	<0.005	0.97	0.000082	351	<0.005	<0.001	<0.0025	0.096	<0.001	0.161	371	0.0228	0.000002	0.0069	0.0258		11.0	0.00681
DOC_Upper_N_Sump	8/18/2019 16:10	WI0689	M	4.6	4.1	1.35	0.0026	0.00216	0.13	<0.0002	<0.002	0.252	0.000122	209	0.018	0.00956	0.0043	2.11	0.00125	0.0839	94.2	0.288	<0.000002	0.0224	0.0365		14.1	0.037
DOC_Upper_N_Sump	9/11/2019 13:20	WM1918	M	4.3	5.1	0.0584	0.0028	0.00105	0.029	<0.0002	<0.002	0.495	0.000162	263	0.0073	0.00647	0.002	0.103	<0.0004	0.116	158	0.081	<0.000002	0.0273	0.0379		12.5	0.0342
DOC_Upper_N_Sump	10/2/2019 14:10	WQ2278	M	2.6	3.7	0.026	<0.0025	0.00056	0.0139	<0.0005	<0.005	0.81	0.00029	406	<0.005	0.0028	<0.0025	<0.05	<0.001	0.139	292	0.027	<0.000002	<0.005	0.0542		7.31	0.0109
DOP_BT_East	3/13/2019 13:30	VJ2170	M	9.3	9.4	117	<0.01	0.195	0.724	0.0129	<0.02	<1	0.0203	742	0.182	0.343	0.667	396	0.102	0.356	247	7.57	0.0000047	0.031	0.811		36.7	0.0229
DOP_BT_East	4/27/2019 10:20	VP1252	M	2.8	2.8	0.176	<0.05	<0.01	<0.1	<0.01	<0.1	<5	<0.001	230	<0.1	0.088	<0.05	11.8	<0.02	<0.2	158	2.64	<0.000002	<0.1	0.166		11.4	<0.01
DOP_BT_East	5/8/2019 12:05	VQ8327	M	2.7	2.7	1.62	0.0033	0.00364	0.114	<0.0005	<0.005	0.337	0.00007	69.7	0.0062	0.0025	0.0045	2.39	0.0016	0.145	40.7	0.0582	<0.000002	0.0246	0.0096		7.49	0.00651
DOP_BT_East	5/16/2019 11:10	VS0925	M	2.9	3.3	0.953	0.0037	0.00291	0.0655	<0.0005	<0.005	0.433	0.000057	90.9	<0.005	0.0027	0.0036	1.52	0.001	0.173	54.1	0.0517	<0.000002	0.0263	0.012		8.42	0.00573
DOP_BT_East	5/22/2019 11:00	VS7473	M	5.2	4.9	40.9	<0.0025	0.0507	1.47	0.00269	<0.005	0.387	0.00249	155	0.105	0.0608	0.162	104	0.0527	0.183	63.6	1.62	<0.000002	0.0169	0.173		14.5	0.0067
DOP_BT_East	5/28/2019 11:20	VT7571	M	4.7	4.3	5.08	0.0023	0.00402	0.3	0.00022	<0.002	0.375	0.000072	68.8	0.0129	0.00335	0.009	4.21	0.00315	0.114	38.6	0.0729	<0.000002	0.0158	0.0152		6.42	0.00295
DOP_BT_East	6/5/2019 11:00	VV4624	M	2.6	3.3	0.97	0.0031	0.00275	0.0786	<0.0005	<0.005	0.547	0.000065	90.1	<0.005	0.0029	0.0038	1.68	0.0011	0.156	71.0	0.0654	<0.000002	0.0218	0.014		8.69	0.00519
DOP_BT_East	6/12/2019 11:10	VW8060	M	2.1	2.1	2.52	0.0022	0.00342	0.171	<0.0002	<0.002	0.446	0.0001	73.0	0.0065	0.0036	0.0082	3.97	0.00292	0.123	53.1	0.0728	0.000005	0.0129	0.0158		6.22	0.00296

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Area_A_N_Ditch	9/1/2019 12:20	WK4245	M	5.68	<0.00002	4.81	0.247	10.4	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00024	0.367	<0.0001	<0.001	<0.05	<0.00001	119	<0.001	<0.0002	<0.0005	0.011
Area_A_N_Ditch	10/3/2019 17:30	WQ4509	M	3.84	<0.00002	6.31	0.221	10.2	<0.00001	<0.005	<0.005	0.00118	<0.005	<0.005	0.00011	<0.003	<0.0005	0.00031	0.317	<0.0001	<0.001	<0.05	<0.00001	106	<0.001	<0.0002	<0.0005	0.014
Area_A_N_Ditch	11/5/2019 14:30	WW6755	M	3.74	<0.00002	4.91	0.151	8.3	<0.00001	<0.005	<0.005	0.00077	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00021	0.254	<0.0001	<0.001	<0.05	<0.00001	80.1	<0.001	<0.0002	<0.0005	<0.01
Area_A_N_Ditch	12/5/2019 10:30	XB6927	M	4.67	<0.00002	4.31	0.171	9.9	<0.00001	<0.005	<0.005	0.0009	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00017	0.257	<0.0001	<0.001	<0.05	<0.00001	84.8	<0.001	<0.0002	<0.0005	<0.01
Bleed-Grout-Water	5/27/2019 14:10	VT3908	M	213	0.00102	488	20.9	671	0.00037	<0.1	4.99	0.0115	0.17	1.36	0.0391	<0.15	<0.025	<0.005	0.465	<0.005	<0.05	<2.5	<0.0005	1170	3.15	<0.01	<0.025	<0.5
Crusher-FeedPitPond1	10/7/2019 16:25	WQ9620	M	1.01	<0.00002	17.0	0.27	28.7	0.000011	<0.005	0.0061	0.0029	<0.005	<0.005	0.00017	0.0036	<0.0005	0.00038	0.118	<0.0001	<0.001	<0.05	<0.00001	65.1	<0.001	<0.0002	0.00073	<0.01
Crusher-FeedPitPond2	10/7/2019 16:40	WQ9621	M	0.528	<0.00002	30.8	0.426	70.7	0.000012	<0.005	0.0104	0.00447	<0.005	<0.005	0.00032	0.0058	<0.0005	0.00089	0.149	<0.0001	<0.001	0.101	<0.00001	111	<0.001	<0.0002	0.00106	0.032
Crusher-FeedPitPond3	10/7/2019 17:00	WQ9622	M	1.39	<0.00002	10.0	0.151	14.1	<0.00001	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001	0.0046	<0.0005	0.00024	0.138	<0.0001	<0.001	<0.05	<0.00001	42.3	<0.001	<0.0002	<0.0005	<0.01
Crusher-SLP	6/7/2019 15:30	VV9735	M	4.37	<0.00002	15.6	0.119	12.7	0.000019	<0.005	0.0088	0.00106	<0.005	<0.005	0.00033	0.0068	<0.0005	0.00031	0.166	<0.0001	<0.001	<0.05	<0.00001	54.1	<0.001	<0.0002	0.0007	<0.01
CVC_BOILER	1/17/2019 15:35	VC7583	M	28.7	0.00302	83.3	1.28	136	0.000064	<0.025	<0.025	0.00325	<0.025	1.57	0.00114	0.116	<0.0025	0.00103	0.011	<0.0005	<0.005	<0.25	<0.00005	5.45	<0.005	<0.001	0.0705	<0.05
CVC_Reclaimer	4/9/2019 11:05	VM8353	M	7.76	<0.0001	563	0.104	<15	<0.00005	<0.025	0.031	0.00065	<0.025	0.221	0.00169	0.0168	0.00144	0.00304	0.0356	<0.0001	<0.001	<0.05	0.000408	15.5	0.0018	0.00129	0.0133	0.113
CVC_TRUCKS	1/17/2019 15:24	VC7584	M	2.33	<0.00002	1.28	0.112	4.9	<0.00001	<0.005	<0.005	0.00049	<0.005	0.0275	<0.0001	0.512	<0.0005	0.0002	0.0324	<0.0001	<0.001	<0.05	0.000013	26.4	<0.001	<0.0002	0.00326	<0.01
DOC_S_Sump	1/1/2019 13:15	VA5887	M	3.42	<0.00002	218	0.427	116	0.000012	<0.005	<0.005	0.00153	<0.005	<0.005	0.00018	<0.003	0.00086	0.00052	0.0133	<0.0001	<0.001	0.279	0.000021	41.5	<0.001	0.00184	<0.0005	<0.01
DOC_S_Sump	1/9/2019 14:05	VB6787	M	3.84	0.000022	291	0.652	143	0.000042	<0.005	0.0087	0.00414	<0.005	0.0085	0.00016	0.0033	0.00194	0.00086	0.0237	<0.0001	<0.001	0.272	0.000014	40.6	<0.001	0.00146	<0.0005	<0.01
DOC_S_Sump	1/19/2019 15:15	VC9568	M	2.8	<0.00002	176	0.363	88.4	0.000012	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001	0.0034	0.00089	0.00048	0.0177	<0.0001	<0.001	0.253	0.000012	37.0	<0.001	0.00081	<0.0005	<0.01
DOC_S_Sump	2/4/2019 14:26	VE6894	M	2.82	<0.00002	199	0.313	78.5	0.000011	<0.005	<0.005	0.00135	<0.005	0.018	<0.0001	0.0046	0.00062	0.00042	0.0197	<0.0001	<0.001	0.251	0.000012	34.2	<0.001	0.00076	<0.0005	<0.01
DOC_S_Sump	2/6/2019 12:45	VF1090	M	3.16	<0.00002	186	0.356	78.3	0.000011	<0.005	<0.005	0.00136	<0.005	0.0057	<0.0001	0.0076	0.00062	0.00035	0.0196	<0.0001	<0.001	0.246	0.000011	34.2	<0.001	0.00085	<0.0005	<0.01
DOC_S_Sump	2/17/2019 15:05	VG0951	M	2.55	<0.00002	178	0.303	69.3	<0.00001	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001	0.0049	0.00057	0.00035	0.0197	<0.0001	<0.001	0.222	<0.00001	32.4	<0.001	0.00067	<0.0005	<0.01
DOC_S_Sump	2/20/2019 15:40	VG4534	M	2.72	<0.00002	162	0.316	66.4	<0.00001	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001	<0.003	0.00059	0.00037	0.0199	<0.0001	<0.001	0.236	0.000012	36.2	<0.001	0.00069	0.00097	<0.01
DOC_S_Sump	2/26/2019 14:20	VH2474	M	3.2	<0.00002	164	0.302	71.5	0.000011	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001	0.0054	0.00058	0.0004	0.02	<0.0001	<0.001	0.248	<0.00001	35.2	<0.001	0.00056	<0.0005	<0.01
DOC_S_Sump	3/10/2019 15:35	VI6960	M	2.98	<0.00002	171	0.29	69.8	<0.00001	<0.005	<0.005	0.00121	<0.005	0.0062	<0.0001	0.0257	<0.0005	0.00034	0.0189	<0.0001	<0.001	0.247	<0.00001	32.3	<0.001	0.00051	<0.0005	<0.01
DOC_S_Sump	3/21/2019 12:10	VK3828	M	2.91	<0.00002	153	0.471	99.2	0.000022	<0.005	<0.005	0.00219	<0.005	0.0086	<0.0001	0.0034	0.00072	0.00039	0.023	<0.0001	<0.001	0.177	0.000027	48.2	<0.001	0.00055	<0.0005	<0.01
DOC_S_Sump	3/27/2019 9:22	VL2030	M	3.11	<0.00002	193	0.422	109	0.000011	<0.005	<0.005	0.00199	<0.005	0.0064	<0.0001	0.0241	0.00064	0.00035	0.0237	<0.0001	<0.001	0.234	0.000022	46.6	<0.001	0.00065	0.00084	<0.01
DOC_S_Sump	4/3/2019 9:33	VM1858	M	3.07	<0.00002	184	0.452	103	<0.00001	<0.005	<0.005	0.00188	<0.005	<0.005	<0.0001	0.0031	0.00069	0.00031	0.0219	<0.0001	<0.001	0.24	0.000014	45.1	<0.001	0.0005	<0.0005	<0.01
DOC_S_Sump	4/10/2019 10:45	VN0839	M	3.08	<0.00002	188	0.394	102	0.000014	<0.005	<0.005	0.00175	<0.005	0.0069	<0.0001	0.0075	0.00068	0.00035	0.0243	<0.0001	<0.001	0.26	0.000014	44.7	<0.001	0.00029	<0.0005	<0.01
DOC_S_Sump	4/17/2019 9:42	VN9649	M	3.06	<0.00002	198	0.359	99.5	0.000014	<0.005	<0.005	0.00163	<0.005	0.0066	<0.0001	0.0062	0.00075	0.00032	0.0236	<0.0001	<0.001	0.28	0.000013	35.4	<0.001	<0.0002	<0.0005	<0.01
DOC_S_Sump	4/24/2019 9:20	VO7018	M	2.96	<0.00002	194	0.334	88.7	0.00001	<0.005	<0.005	0.00161	<0.005	0.0051	<0.0001	0.0043	0.00084	0.00037	0.0194	<0.0001	<0.001	0.285	0.000011	35.2	<0.001	0.00048	<0.0005	<0.01
DOC_S_Sump	5/8/2019 11:25	VQ8326	M	3.1	<0.00002	223	0.272	85.3	<0.00001	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001	0.0043	0.00079	0.00037	0.0178	<0.0001	<0.001	0.327	<0.00001	27.1	<0.001	0.0003	<0.0005	<0.01
DOC_S_Sump	5/15/2019 10:30	VR8836	M	2.82	<0.00002	217	0.263	78.7	<0.00001	<0.005	<0.005	0.00107	<0.005	<0.005	<0.0001	0.0039	0.0009	0.00039	0.0172	<0.0001	<0.001	0.348	0.000011	23.9	<0.001	0.00025	<0.0005	<0.01
DOC_S_Sump	5/22/2019 10:30	VS7472	M	3.02	<0.00002	212	0.245	75.9	<0.00001	<0.005	<0.005	0.00098	<0.005	<0.005	<0.0001	0.0074	0.00083	0.0004	0.019	<0.0001	<0.001	0.343	0.00001	22.5	<0.001	0.00023	<0.0005	<0.01
DOC_S_Sump	6/4/2019 12:40	VU7715	M	2.8	<0.00002	211	0.251	61.3	<0.00001	<0.005	<0.005	0.00084	<0.005	<0.005	<0.0001	0.0044	0.00075	0.00042	0.0198	<0.0001	<0.001	0.363	<0.00001	21.7	<0.001	<0.0002	<0.0005	<0.01
DOC_S_Sump	6/12/2019 11:00	VW8059	M	3.05	<0.00002	199	0.272	68.8	<0.00001	<0.005	<0.005	0.00086	<0.005	0.0052	<0.0001	0.005	0.00068	0.00036	0.0215	<0.0001	<0.001	0.331	0.00001	22.1	<0.001	<0.0002	<0.0005	<0.01
DOC_S_Sump	6/20/2019 13:20	VY4155	M	3.05	<0.00002	189	0.297	67.8	<0.00001	<0.005	<0.005	0.00093	<0.005	<0.005	<0.0001	0.0043	0.0007	0.00035	0.0222	<0.0001	<0.001	0.392	0.000011	26.4	<0.001	<0.0002	<0.0005	<0.01
DOC_S_Sump	6/28/2019 10:05	VZ7861	M	2.99	<0.00002	197	0.398	87.4	<0.00001	<0.005	<0.005	0.00115	<0.005	0.015	<0.0001	0.004	0.00072	0.00035	0.0249	<0.0001	<0.001	0.382	0.000017	38.3	<0.001	<0.0002	<0.0005	<0.01
DOC_S_Sump	7/10/2019 12:25	WB8325	M	3.16	<0.00002	222	0.45	98.1	<0.00001	<0.005	<0.005	0.00139	<0.005	0.0059	<0.0001	<0.003	0.00074	0.0004	0.0247	<0.0001	<0.001	0.39	0.000021	38.4	<0.001	<0.0002	<0.0005	<0.01
DOC_S_Sump	7/16/2019 15:40	WC9637	M	3.36	<0.00002	219	0.504	102	<0.00001	<0.005	<0.005	0.00137	<0.005	0.0067	<0.0001	0.0044	0.00072	0.00031	0.0239	<0.0001	<0.001	0.428	0.000023	42.0	<0.001	<0.0002	<0.0005	<0.01
DOC_S_Sump	7/24/2019 14:15	WE3039	M	3.31	<0.00002	201	0.502	96.5	0.00001	<0.005	<0.005	0.00117	<0.005	0.0111	<0.0001	0.0082	0.00065	0.00037	0.0254	<0.0001	<0.001	0.391	0.000018	39.9	<0.001	<0.0002	<0.0005	<0.01
DOC_S_Sump	7/30/2019 12:55	WF2076	M	3.33	<0.00002	200	0.449	87.0	<0.00001	<0.005	<0.005	0.00103	<0.005	0.0065	<0.0001	0.0078	0.00059	0.00032	0.0239	<0.0001	<0.001	0.404	0.000015	38.4	<0.001	<0.0002	<0.0005	<0.01
DOC_S_Sump	8/16/2019 10:10	WH8425	M	3.58	<0.00002	207	0.568	103	0.000012	<0.005	<0.005	0.00129	<0.005	0.0085	<0.0001	0.008	0.00057	0.00033	0.0273	<0.0001	<0.001	0.395	0.000016	44.0	<0.001	<0.0002	<0.0005	<0.01
DOC_S_Sump	9/11/2019 13:00	WM1917	M	4.11	<0.00002	319	0.713	207	0.000022	0.0109	<0.005	0.00195	<0.005	0.011	0.00015	0.0337	<0.001	0.00056	0.0321	<0.0002	<0.002	0.41	<0.00002	58.2	0.0037	0.00075	<0.001	<0.02
DOC_S_Sump	11/7/2019 11:55	WX2040	M	3.26	<0.00002	168	0.408	80.2	0.00001	<0.005	<0.005	0.00076	<0.005	0.0149	0.00016	0.0317	<0.0005	0.00013	0.0267	<0.0001	<0.001	0.271	0.000018	44.9	<0.001	0.00046	<0.0005	<0.01
DOC_Upper_N_Sump	1/1/2019 13:45	VA5888	M	6.71	<0.0001	532	1.78	706	<0.00005	<0.025	<0.025	0.00794	<0.025	<0.025	0.00056	<0.015	0.0031	0.00204	0.0179	<0.0005	<0.005	0.302	0.000064	276	<0.005	0.012	<0.0025	<0.05
DOC_Upper_N_Sump	1/9/2019 14:25	VB6788	M	8.51	<0.0001	513	1.89	656	<0.00005	<0.025	<0.025	0.00862	<0.025	0.029	0.001	<0.015	<0.0025	0.00166	0.0194	<0.0005	<0.005	0.273	0.000099	286	<0.005	0.0104	<0.0025	<0.05
DOC_Upper_N_Sump	2/17/2019 14:43	VG0950	M	6.23	<0.0002	1290	3.7	1730	<0.0001	<0.05	<0.05	0.0103	<0.05	<0.05	<0.001	<0.03	<0.005	0.0013	0.011	<0.001	<0.01	1.18	0.0011	427	<0.01	0.019	<0.005	<0.1
DOC_Upper_N_Sump	2/20/2019 15:15	VG4533	M	10.4	<0.0002	1340	3.95	1790	<0.0001	<0.05	<0.05	0.0102	<0.05	0.08	0.0049	<0.03	<0.005	0.0026	0.012	<0.001	<0.01	1.27	0.00101	420	<0.01	0.0231	<0.005	<0.1
DOC_Upper_N_Sump	3/2/2019 14:30	VH8130	M	7.91	<0.0001	990	3.56	1410	<0.00005	<0.025	0.028	0.00692	<0.025	0.045	0.00308	0.036	<0.005	0.0022	0.01	<0.001	<0.01	1.01	0.0007	389	<0.01	0.0173	<0.005	<0.1
DOC_Upper_N_Sump	3/10/2019 15:45	VI6961	M	6.45	<0.0002	1060	3	1480	<0.0001	<0.05	<0.05	0.007	<0.05	<0.05	0.0014	<0.03	<0.005	<0.001	0.014	<0.001	<0.01	1.09	0.00134	405	<0.01	0.0142	<0.005	<0.1
DOC_Upper_N_Sump	3/21/2019 11:50	VK3827	M	5.17	<0.0001	590	2.07	773	<0.00005	<0.025	<0.025	0.00528	<0.025	0.031	0.00089	<0.015	0.0033	0.00104	0.0248	<0.0005	<0.005	0.448	0.000142	226	0.0075	0.0114	<0.0025	<0.05
DOC_Upper_N_Sump	3/27/2019 9:36	VL2031	M	5.16	<0.00004	561	1.94	737	0.000028	<0.01	<0.01	0.00337	<0.01	<0.01	0.00027	<0.015	0.0029	0.00178	0.0286	<0.0005	<0.005	0.512	0.000085	228	0.0148	0.0093	<0.0025	<0.05
DOC_Upper_N_Sump	4/3/2019 9:38	VM1859	M	5.87	<0.0001	616	2.15	710	<0.00005	<0.025	<0.025	0.00471	<0.025	<0.025	<0.0005	<0.015	0.0036	0.0029	0.0291	<0.0005	<0.005	0.549	0.000075	235	0.0116	0.01	<0.0025	<0.05
DOC_Upper_N_Sump	4/10/2019 10:20	VN0838	M	6.6	<0.00002	217	0.711	236	0.000022	<0.005	<0.005	0.00338	<0.005	<0.005	0.00023	0.0094	0.00443	0.00322	0.0486	<0.0001	<0.001	0.226	0.000012	89.4	0.0046	0.00172	0.00102	<0.01
DOC_Upper_N_Sump	4/17/2019 9:52	VN9648	M	6.15	<0.0001	737	2.65	965	<0.00005	<0.025	<0.025	0.00445	<0.025	<0.025	<0.0005	<0.015	0.0037	0.00219	0.0232	<0.0005	<0.005	0.838	0.000145	270	<0.005	0.0158	<0.0025	<0.05
DOC_Upper_N_Sump	4/24/2019 9:30	VO7019	M	9.67	<0.0001	999	3.51	1190	0.000056	<0.025	0.068	0.00518	<0.025	<0.025	0.00214	<0.015	0.0033	0.0019	0.0128	<0.0005	<0.005	0.839	0.00015	296	<0.005	0.0171	<0.0025	<0.05
DOC_Upper_N_Sump	5/5/2019 9:45	VQ1601	M	3.59	0.00024	748	2.99	834	<0.00005	<0.025	<0.025	0.0218	<0.025	<0.025	<0.0005	<0.015	0.0057	0.00305	0.0402	<0.0005	<0.005	0.317	0.000178	294	0.0149	0.0081	<0.0025	<0.05
DOC_Upper_N_Sump	5/8/2019 10:45	VQ8324	M	5.77	<0.0002	989	3.96	1280	<0.0001	<0.05	<0.05	0.033	<0.05	<0.05	<0.001	<0.015	0.0048	0.00164	0.0322	<0.0005	<0.005	0.584	0.000289	469	<0.005	0.0174	<0.0025	<0.05
DOC_Upper_N_Sump	5/15/2019 9:48	VR8835	M	7.36	<0.00004	404	1.57	495	0.000062	<0.01	0.037	0.00816	<0.01	0.032	0.00106	<0.006	0.0027	0.00125	0.0293	<0.0002	<0.002	0.421	0.000225	188	<0.002	0.00616	<0.001	<0.02
DOC_Upper_N_Sump	5/22/2019 10:10	VS7471	M	5.52	<0.00002	201	0.727	206	0.000032	<0.005	<0.005	0.00455	<0.005	0.0146	<0.0001	0.0088	0.00261	0.00148	0.0308	<0.0001	<0.001	0.229	0.000039	98.6	0.0014	0.00297	0.00053	<0.01
DOC_Upper_N_Sump	5/28/2019 11:00	VT7570	M	4.68	<0.00002	138	0.547	143	0.000024	<0.005	<0.005	0.004	<0.005	0.0074	<0.0001	0.0048	0.00136	0.00095	0.0299	<0.0001	<0.001	0.214	0.000016	89.7	<0.001	0.00203	<0.0005	<0.01
DOC_Upper_N_Sump	6/5/2019 10:15	VV4622	M	3.86	<0.0001	980	3.98	1400	0.000053	<0.025	<0.025	0.00772	<0.025	0.081	<0.0005	<0.015	0.0028	0.0009	0.0139	<0.0005	<0.005	1.03	0.000595	441	<0.005	0.0241	<0.0025	0.083
DOC_Upper_N_Sump	6/12/2019 10:35	VW8058	M	1.84	<0.00004	352	1.26	445	<0.00002	<0.01	<0.01	0.00635	<0.01	<0.01	<0.0002	0.0105	0.0026	0.00169	0.0352	<0.0002	<0.002	0.435	<0.00002	131	0.0039	<0.0004	0.0031	<0.02
DOC_Upper_N_Sump	7/7/2019 10:00	WB1480	M	4.54	<0.0001	833	3.44	1320	<0.00005	<0.025	<0.025	0.00847	<0.025	<0.025	<0.0005	0.018	0.0028	0.0009	0.0241	<0.0005	<0.005	0.917	<0.00005	425	<0.005	0.002	<0.0025	<0.05
DOC_Upper_N_Sump	7/12/2019 11:55	WC0456	M	2.26	<0.0001	915	3.32	1380	<0.00005	<0.025	<0.025	0.00676	<0.025	<0.025	<0.0005	0.046	0.0029	0.00101	0.019	<0.0005	<0.005	1.08	<0.00005	388	<0.005	<0.001	0.0051	0.068
DOC_Upper_N_Sump	7/18/2019 14:45	WD4016	M	1.26	<0.0001	947	2.95	1460	<0.00005	<0.025	<0.025	0.00648	<0.025	<0.025	<0.0005	0.032	0.0035	0.00123	0.0201	<0.0005	<0.005	1.16	<0.00005	379	<0.005	<0.001	<0.0025	<0.05
DOC_Upper_N_Sump	7/24/2019 13:50	WE3040	M	1.59	<0.0001	883	3	1410	0.000055	<0.025	<0.025	0.00594	<0.025	<0.025	<0.0005	0.023	0.0031	0.00128	0.02	<0.0005	<0.005	1.08	0.000081	354	<0.005	<0.001	<0.0025	<0.05
DOC_Upper_N_Sump	7/30/2019 13:30	WF2077	M	2.44	<0.0002	756	2.59	1160	<0.0001	<0.05	<0.05	0.0044	<0.05	<0.05	<0.001	0.016	0.0028	0.00109	0.0215	<0.0005	<0.005	1.03	<0.00005	373	<0.005	<0.001	<0.0025	<0.05
DOC_Upper_N_Sump	8/6/2019 13:20	WG2810	M	2.01	<0.0001	824	2.7	1260	<0.00005	<0.025	<0.025	0.00428	<0.025	<0.025	<0.0005	0.021	<0.0025	0.00108	0.019	<0.0005	<0.005	1.11	0.000115	367	<0.005	<0.001	<0.0025	<0.05
DOC_Upper_N_Sump	8/18/2019 16:10	WI0689	M	11	<0.00004	276	1.12	439	0.000061	<0.01	0.046	0.00665	<0.01	0.019	0.00173	0.0069	0.0027	0.00107	0.0726	<0.0002	<0.002	0.266	<0.00002	210	0.0164	0.00633	0.0011	<0.02
DOC_Upper_N_Sump	9/11/2019 13:20	WM1918	M	5.01	<0.00004	421	1.59	654	0.000034	<0.01	<0.01	0.0122	<0.01	0.028	0.00048	<0.006	0.0029	0.00107	0.0266	<0.0002	<0.002	0.433	0.000153	267	0.0073	0.00614	0.0014	0.022
DOC_Upper_N_Sump	10/2/2019 14:10	WQ2278	M	3.18	<0.0001	650	2.51	1040	<0.00005	<0.025	<0.025	0.00921	<0.025	0.063	<0.0005	<0.015	<0.0025	<0.0005	0.0129	<0.0005	<0.005	0.744	0.000282	407	<0.005	0.0026	<0.0025	<0.05
DOP_BT_East	3/13/2019 13:30	VJ2170	M	133	0.00489	599	2.84	878	0.00252	<0.1	0.124	0.0433	0.264	3.9	0.0056	0.068	<0.0025	0.00291	0.042	<0.0005	<0.005	<0.25	<0.00005	292	0.0066	<0.001	<0.0025	<0.05
DOP_BT_East	4/27/2019 10:20	VP1252	M	<10	<0.002	1510	1.83	1470	<0.001	<0.5	<0.5	<0.01	<0.5	<0.5	<0.01	<0.015	<0.0025	<0.0005	0.0156	<0.0005	<0.005	0.668	0.000092	231	<0.005	0.0895	<0.0025	0.056
DOP_BT_East	5/8/2019 12:05	VQ8327	M	7.08	<0.0001	768	0.796	538	<0.00005	<0.025	<0.025	0.00545	<0.025	0.067	0.00059	0.0218	0.0033	0.00252	0.0334	<0.0002	<0.002	0.328	<0.00002	66.8	0.0022	0.00118	0.001	<0.02
DOP_BT_East	5/16/2019 11:10	VS0925	M	5.41	<0.0001	978	1.09	707	<0.00005	<0.025	<0.025	0.00686	<0.025	0.142	<0.0005	0.021	0.0037	0.00224	0.0307	<0.0005	<0.005	0.441	<0.00005	92.6	<0.005	0.0019	<0.0025	<0.05
DOP_BT_East	5/22/2019 11:00	VS7473	M	62.5	0.00119	613	1.16	425	0.000744	<0.025	0.102	0.00949	0.11	1.17	0.00332	0.0245	0.0031	0.00241	0.0691	<0.0002	<0.002	0.334	<0.00002	72.7	<0.002	0.00069	0.0017	<0.02
DOP_BT_East	5/28/2019 11:20	VT7571	M	10.9	0.000046	489	0.736	380	0.000084	<0.01	0.085	0.00419	0.013	0.069	0.00283	0.0517	0.0027	0.00188	0.166	<0.0002	<0.002	0.371	<0.00002	67.9	<0.002	0.00115	0.002	<0.02
DOP_BT_East	6/5/2019 11:00	VV4624	M	5.92	<0.0001	813	1.16	584	<0.00005	<0.025	<0.025	0.00515	<0.025	0.071	0.00065	0.0164	0.0033	0.00204	0.0297	<0.0002	<0.002	0.457	0.00002	88.9	<0.002	0.00168	0.0011	<0.02
DOP_BT_East	6/12/2019 11:10	VW8060	M	7.9	<0.00004	540	1.01	414	0.000035	<0.01	0.028	0.00447	<0.01	0.096	0.00086	0.0461	0.0025	0.00153	0.0563	<0.0002	<0.002	0.393	<0.00002	71.9	<0.002	0.00128	0.0012	<0.02

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Area_A_N_Ditch	9/1/2019 12:20	WK4245	M	<0.0002	0.0048	24.3	0.0247	<0.000002	<0.001	<0.001		1.36	0.00033	5.75	<0.00002	5.05	0.251	10.8	<0.00001	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001
Area_A_N_Ditch	10/3/2019 17:30	WQ4509	M	<0.0002	0.0031	20.8	0.0113	<0.000002	<0.001	<0.001		1.43	0.00023	3.94	<0.00002	6.18	0.239	9.5	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001
Area_A_N_Ditch	11/5/2019 14:30	WW6755	M	<0.0002	0.0027	14.5	0.0021	<0.000002	0.0011	<0.001		1.04	0.00022	3.81	<0.00002	4.81	0.159	8.3	<0.00001	<0.005	<0.005	0.00075	<0.005	<0.005	<0.0001
Area_A_N_Ditch	12/5/2019 10:30	XB6927	M	<0.0002	0.0048	17.7	0.0016	<0.000002	<0.001	<0.001		1.21	0.00037	4.61	<0.00002	4.34	0.176	10.4	<0.00001	<0.005	<0.005	0.00093	<0.005	<0.005	<0.0001
Bleed-Grout-Water	5/27/2019 14:10	VT3908	M	<0.01	0.692	<2.5	<0.05	0.0000026	0.692	<0.05		1330	0.16	<5	<0.001	538	17.6	715	<0.0005	<0.25	<0.25	<0.005	<0.25	<0.25	<0.005
Crusher-FeedPitPond1	10/7/2019 16:25	WQ9620	M	<0.0002	0.0148	28.7	<0.001	<0.000002	0.0027	0.0015		2.73	0.00043	0.644	<0.00002	15.9	0.278	30.2	<0.00001	<0.005	<0.005	0.00288	<0.005	<0.005	<0.0001
Crusher-FeedPitPond2	10/7/2019 16:40	WQ9621	M	<0.0002	0.0246	45.7	<0.001	<0.000002	0.0048	0.0039		7.17	0.00052	0.187	<0.00002	31.8	0.439	75.0	<0.00001	<0.005	<0.005	0.00471	<0.005	<0.005	0.00019
Crusher-FeedPitPond3	10/7/2019 17:00	WQ9622	M	<0.0002	0.0108	16.7	<0.001	<0.000002	0.0015	<0.001		1.25	0.00051	1.41	<0.00002	9.98	0.155	15.0	<0.00001	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001
Crusher-SLP	6/7/2019 15:30	VV9735	M	<0.0002	0.0041	11.8	0.0017	<0.000002	0.0062	<0.001		2.46	0.00086	3.71	<0.00002	16.2	0.119	11.7	0.000012	<0.005	<0.005	0.00113	<0.005	<0.005	<0.0001
CVC_BOILER	1/17/2019 15:35	VC7583	M	0.005	0.018	<0.25	<0.005	<0.000002	3.71	0.0233		501	0.00317	2.51	<0.0001	75.6	0.0454	118	<0.00005	<0.025	<0.025	<0.0005	<0.025	<0.025	<0.0005
CVC_Reclaimer	4/9/2019 11:05	VM8353	M	<0.0002	0.0034	2.09	0.0238	<0.000002	0.0029	0.0036		41.6	0.00045	3.7	0.000029	339	0.064	8.0	0.00001	<0.005	<0.005	0.00046	<0.005	0.0543	0.00027
CVC_TRUCKS	1/17/2019 15:24	VC7584	M	<0.0002	<0.002	6.11	0.0019	<0.000002	<0.001	<0.001		0.460	0.00021	2.06	<0.00002	1.34	0.106	4.5	<0.00001	<0.005	<0.005	0.00047	<0.005	0.0114	<0.0001
DOC_S_Sump	1/1/2019 13:15	VA5887	M	<0.0002	0.0539	18.5	0.0696	<0.000002	0.0041	0.0057		1.50	0.00203	2.91	<0.00002	218	0.389	107	<0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001
DOC_S_Sump	1/9/2019 14:05	VB6787	M	<0.0002	0.06	17.0	0.0358	<0.000002	0.0133	0.006		2.30	0.00693	3.17	<0.00002	252	0.524	129	0.000024	<0.005	<0.005	0.00316	<0.005	<0.005	<0.0001
DOC_S_Sump	1/19/2019 15:15	VC9568	M	<0.0002	0.0478	16.0	0.0367	<0.000002	0.0045	0.0044		1.44	0.00161	2.78	<0.00002	199	0.355	88.7	0.00001	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001
DOC_S_Sump	2/4/2019 14:26	VE6894	M	<0.0002	0.0497	13.8	0.0182	<0.000002	0.0042	0.004		1.35	0.00137	2.93	<0.00002	187	0.388	80.9	<0.00001	<0.005	<0.005	0.0014	<0.005	<0.005	<0.0001
DOC_S_Sump	2/6/2019 12:45	VF1090	M	<0.0002	0.0483	13.4	0.0167	<0.000002	0.0036	0.0043		1.42	0.00139	2.87	<0.00002	192	0.345	81.3	0.00001	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001
DOC_S_Sump	2/17/2019 15:05	VG0951	M	<0.0002	0.0505	13.0	0.0122	0.000004	0.0036	0.0039		1.21	0.00129	2.54	<0.00002	179	0.313	71.9	<0.00001	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001
DOC_S_Sump	2/20/2019 15:40	VG4534	M	<0.0002	0.0477	12.5	0.0125	<0.000002	0.0034	0.0041		1.24	0.00133	3.04	<0.00002	173	0.316	68.4	<0.00001	<0.005	<0.005	0.0013	<0.005	<0.005	<0.0001
DOC_S_Sump	2/26/2019 14:20	VH2474	M	<0.0002	0.046	13.4	0.0093	<0.000002	0.0082	0.0042		1.40	0.00155	3.19	<0.00002	176	0.313	75.6	0.00001	<0.005	<0.005	0.00136	<0.005	<0.005	<0.0001
DOC_S_Sump	3/10/2019 15:35	VI6960	M	<0.0002	0.0423	15.2	0.0061	<0.000002	0.0034	0.0043		1.34	0.00138	3.11	<0.00002	190	0.32	80.5	<0.00001	<0.005	<0.005	0.00127	<0.005	0.0074	<0.0001
DOC_S_Sump	3/21/2019 12:10	VK3828	M	<0.0002	0.0399	19.1	0.0052	<0.000002	0.0054	0.0072		1.83	0.00639	3.07	<0.00002	148	0.515	94.1	0.000021	<0.005	<0.005	0.00229	<0.005	0.0066	<0.0001
DOC_S_Sump	3/27/2019 9:22	VL2030	M	<0.0002	0.0514	19.0	0.0061	<0.000002	0.0069	0.0062		1.51	0.00569	2.9	<0.00002	184	0.46	103	<0.00001	<0.005	<0.005	0.00201	<0.005	<0.005	<0.0001
DOC_S_Sump	4/3/2019 9:33	VM1858	M	<0.0002	0.0454	18.0	0.0029	<0.000002	0.0049	0.0057		1.53	0.00417	2.83	<0.00002	187	0.443	103	<0.00001	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001
DOC_S_Sump	4/10/2019 10:45	VN0839	M	<0.0002	0.0505	17.1	0.0014	<0.000002	0.0048	0.0044		1.54	0.00353	2.98	<0.00002	185	0.371	105	0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001
DOC_S_Sump	4/17/2019 9:42	VN9649	M	0.00023	0.0554	13.5	<0.001	<0.000002	0.005	0.004		1.37	0.00307	2.63	<0.00002	193	0.365	94.0	0.000011	<0.005	<0.005	0.0015	<0.005	0.0073	<0.0001
DOC_S_Sump	4/24/2019 9:20	VO7018	M	<0.0002	0.0532	13.8	0.0045	<0.000002	0.0057	0.0039		1.47	0.00255	2.84	<0.00002	194	0.331	94.1	<0.00001	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
DOC_S_Sump	5/8/2019 11:25	VQ8326	M	<0.0002	0.0596	10.4	0.0012	<0.000002	0.0049	0.0032		1.33	0.00164	2.75	<0.00002	214	0.27	84.0	<0.00001	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001
DOC_S_Sump	5/15/2019 10:30	VR8836	M	<0.0002	0.0588	9.77	0.0011	<0.000002	0.0051	0.003		1.27	0.00168	2.77	<0.00002	220	0.26	83.5	<0.00001	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001
DOC_S_Sump	5/22/2019 10:30	VS7472	M	<0.0002	0.06	8.42	<0.001	<0.000002	0.0044	0.0028		1.29	0.00143	2.98	<0.00002	212	0.255	76.0	<0.00001	<0.005	<0.005	0.00097	<0.005	0.0052	<0.0001
DOC_S_Sump	6/4/2019 12:40	VU7715	M	<0.0002	0.0582	8.14	0.0013	<0.000002	0.0042	0.0025		1.29	0.00169	2.87	<0.00002	204	0.28	68.2	<0.00001	<0.005	<0.005	0.00084	<0.005	<0.005	<0.0001
DOC_S_Sump	6/12/2019 11:00	VW8059	M	<0.0002	0.0507	8.57	<0.001	<0.000002	0.0038	0.0027		1.32	0.00121	2.67	<0.00002	201	0.257	65.0	<0.00001	<0.005	<0.005	0.00081	<0.005	<0.005	<0.0001
DOC_S_Sump	6/20/2019 13:20	VY4155	M	<0.0002	0.0566	9.80	<0.001	<0.000002	0.0038	0.0025		1.40	0.00131	3.05	<0.00002	195	0.289	70.5	<0.00001	<0.005	<0.005	0.0009	<0.005	<0.005	<0.0001
DOC_S_Sump	6/28/2019 10:05	VZ7861	M	<0.0002	0.0631	13.9	<0.001	<0.000002	0.0039	0.0035		1.78	0.00262	3.24	<0.00002	199	0.39	89.3	<0.00001	<0.005	<0.005	0.00119	<0.005	0.0111	<0.0001
DOC_S_Sump	7/10/2019 12:25	WB8325	M	<0.0002	0.0624	14.9	0.0018	<0.000002	0.0038	0.0046		1.99	0.00259	3.16	<0.00002	227	0.509	103	<0.00001	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001
DOC_S_Sump	7/16/2019 15:40	WC9637	M	<0.0002	0.0641	16.4	0.0022	<0.000002	0.0034	0.0051		2.18	0.00193	3.37	<0.00002	226	0.462	108	<0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001
DOC_S_Sump	7/24/2019 14:15	WE3039	M	<0.0002	0.0637	16.6	0.0045	<0.000002	0.0032	0.0042		2.11	0.00162	3.6	<0.00002	215	0.442	113	<0.00001	<0.005	<0.005	0.00118	<0.005	<0.005	<0.0001
DOC_S_Sump	7/30/2019 12:55	WF2076	M	<0.0002	0.0605	14.6	0.004	<0.000002	0.0033	0.0038		1.88	0.00159	3.4	<0.00002	212	0.47	93.8	<0.00001	<0.005	<0.005	0.00108	<0.005	<0.005	<0.0001
DOC_S_Sump	8/16/2019 10:10	WH8425	M	<0.0002	0.061	16.8	<0.001	<0.000002	0.0033	0.0039		2.16	0.00508	3.35	<0.00002	210	0.561	105	<0.00001	<0.005	<0.005	0.00125	<0.005	<0.005	<0.0001
DOC_S_Sump	9/11/2019 13:00	WM1917	M	<0.0004	0.0795	29.9	0.0194	<0.000002	0.009	0.005		5.78	0.00381	4.56	<0.00004	335	0.704	234	<0.00002	0.011	<0.01	0.00191	<0.01	<0.01	<0.0002
DOC_S_Sump	11/7/2019 11:55	WX2040	M	<0.0002	0.045	16.6	0.0173	<0.000002	0.0025	0.003		1.45	0.00273	2.82	<0.00002	172	0.406	80.6	<0.00001	<0.005	<0.005	0.00069	<0.005	0.0051	<0.0001
DOC_Upper_N_Sump	1/1/2019 13:45	VA5888	M	<0.001	0.107	176	0.785	<0.000002	0.0103	0.0426		5.25	0.00766	6.26	<0.0001	527	1.71	675	<0.00005	<0.025	<0.025	0.00795	<0.025	<0.025	<0.0005
DOC_Upper_N_Sump	1/9/2019 14:25	VB6788	M	<0.001	0.088	153	0.72	<0.000002	0.0053	0.0318		4.26	0.00429	7.21	<0.0001	436	1.45	620	<0.00005	<0.025	<0.025	0.00626	<0.025	<0.025	<0.0005
DOC_Upper_N_Sump	2/17/2019 14:43	VG0950	M	<0.002	0.266	583	1.7	<0.000002	<0.01	0.056		7.26	0.0024	6.83	<0.0002	1280	3.6	1750	<0.0001	<0.05	<0.05	0.0104	<0.05	<0.05	<0.001
DOC_Upper_N_Sump	2/20/2019 15:15	VG4533	M	<0.002	0.265	594	1.76	<0.000002	<0.01	0.066		8.18	0.0032	7.65	<0.0002	1410	3.59	1920	<0.0001	<0.05	<0.05	0.0088	<0.05	<0.05	0.0011
DOC_Upper_N_Sump	3/2/2019 14:30	VH8130	M	<0.002	0.202	436	1.32	<0.000002	<0.01	0.052		6.22	0.0026	5.46	<0.0002	1020	3.09	1490	<0.0001	<0.05	<0.05	0.0064	<0.05	<0.05	<0.001
DOC_Upper_N_Sump	3/10/2019 15:45	VI6961	M	<0.002	0.196	581	1.59	<0.000002	<0.01	0.051		6.63	0.0023	6.62	<0.0002	1260	3.35	1780	<0.0001	<0.05	<0.05	0.007	<0.05	<0.05	<0.001
DOC_Upper_N_Sump	3/21/2019 11:50	VK3827	M	<0.001	0.124	211	0.552	<0.000002	0.0218	0.0335		9.38	0.0133	4.38	<0.0001	623	2.22	810	<0.00005	<0.025	<0.025	0.00553	<0.025	<0.025	<0.0005
DOC_Upper_N_Sump	3/27/2019 9:36	VL2031	M	<0.001	0.12	166	0.409	<0.000002	0.0229	0.0294		6.97	0.00884	4.59	<0.0001	573	2.12	728	<0.00005	<0.025	<0.025	0.00338	<0.025	<0.025	<0.0005
DOC_Upper_N_Sump	4/3/2019 9:38	VM1859	M	<0.001	0.151	196	0.326	<0.000002	0.0212	0.0336		9.08	0.00888	6.51	<0.0001	666	2.51	859	<0.00005	<0.025	<0.025	0.00502	<0.025	<0.025	<0.0005
DOC_Upper_N_Sump	4/10/2019 10:20	VN0838	M	<0.0002	0.0591	44.1	0.0882	<0.000002	0.0176	0.0082		10.3	0.00599	6.34	<0.00002	214	0.727	234	0.000019	<0.005	<0.005	0.00353	<0.005	<0.005	<0.0001
DOC_Upper_N_Sump	4/17/2019 9:52	VN9648	M	<0.001	0.181	230	0.647	<0.000002	0.0149	0.0532		6.60	0.00577	4.93	<0.0001	729	2.69	951	<0.00005	<0.025	<0.025	0.00434	<0.025	<0.025	<0.0005
DOC_Upper_N_Sump	4/24/2019 9:30	VO7019	M	<0.001	0.212	284	0.888	<0.000002	0.0128	0.0567		5.25	0.00401	4.45	<0.0001	892	3.03	1060	<0.00005	<0.025	<0.025	0.00446	<0.025	<0.025	<0.0005
DOC_Upper_N_Sump	5/5/2019 9:45	VQ1601	M	<0.001	0.155	130	0.0665	<0.000002	0.0881	0.0411		11.3	0.104	3.66	0.00011	836	2.97	916	0.000064	<0.025	<0.025	0.0242	<0.025	<0.025	<0.0005
DOC_Upper_N_Sump	5/8/2019 10:45	VQ8324	M	<0.001	0.185	230	0.13	<0.000002	0.0322	0.0886		11.9	0.0308	4.94	<0.0001	961	3.96	1230	0.000093	<0.025	<0.025	0.0347	<0.025	0.026	<0.0005
DOC_Upper_N_Sump	5/15/2019 9:48	VR8835	M	<0.0004	0.0926	111	0.15	<0.000002	0.0182	0.0306		5.95	0.00633	5.11	<0.00004	412	1.57	487	0.000048	<0.01	<0.01	0.00779	<0.01	0.024	<0.0002
DOC_Upper_N_Sump	5/22/2019 10:10	VS7471	M	<0.0002	0.0504	44.5	0.0757	<0.000002	0.0077	0.0134		4.61	0.00488	5.46	<0.00002	206	0.718	214	0.000028	<0.005	<0.005	0.00458	<0.005	0.0136	<0.0001
DOC_Upper_N_Sump	5/28/2019 11:00	VT7570	M	<0.0002	0.0417	34.0	0.0746	<0.000002	0.0058	0.01		3.60	0.00474	4.82	<0.00002	145	0.554	143	0.000021	<0.005	<0.005	0.00395	<0.005	0.0062	<0.0001
DOC_Upper_N_Sump	6/5/2019 10:15	VV4622	M	<0.001	0.22	399	0.72	<0.000002	<0.005	0.129		8.38	0.00898	3.58	<0.0001	936	4.74	1450	<0.00005	<0.025	<0.025	0.00784	<0.025	0.077	<0.0005
DOC_Upper_N_Sump	6/12/2019 10:35	VW8058	M	<0.0004	0.0892	101	0.0044	0.0000028	0.0115	0.0116		8.20	0.00737	1.88	<0.00004	380	1.27	483	0.000022	<0.01	<0.01	0.00631	<0.01	<0.01	<0.0002
DOC_Upper_N_Sump	7/7/2019 10:00	WB1480	M	<0.001	0.179	317	0.0501	0.0000022	0.0081	0.0428		12.7	0.0262	4.99	<0.0001	771	3	1230	<0.00005	<0.025	<0.025	0.00797	<0.025	<0.025	<0.0005
DOC_Upper_N_Sump	7/12/2019 11:55	WC0456	M	<0.001	0.197	391	0.0141	<0.000002	0.0064	0.0372		11.9	0.0151	2.1	<0.0001	920	3.17	1380	<0.00005	<0.025	<0.025	0.0067	<0.025	<0.025	<0.0005
DOC_Upper_N_Sump	7/18/2019 14:45	WD4016	M	<0.001	0.214	393	0.0156	<0.000002	0.0085	0.0255		13.5	0.00932	1.01	<0.0001	953	3.07	1470	<0.00005	<0.025	<0.025	0.00649	<0.025	<0.025	<0.0005
DOC_Upper_N_Sump	7/24/2019 13:50	WE3040	M	0.0017	0.194	372	0.0868	<0.000002	0.0088	0.0274		14.4	0.00601	1.48	<0.0001	901	2.65	1590	0.000055	<0.025	<0.025	0.00593	<0.025	<0.025	<0.0005
DOC_Upper_N_Sump	7/30/2019 13:30	WF2077	M	<0.001	0.173	342	0.0114	<0.000002	0.0108	0.0269		13.8	0.00975	2.52	<0.0001	838	2.82	1300	<0.00005	<0.025	<0.025	0.00488	<0.025	<0.025	<0.0005
DOC_Upper_N_Sump	8/6/2019 13:20	WG2810	M	<0.001	0.176	386	0.0143	<0.000002	0.0071	0.026		11.4	0.00727	1.85	<0.0001	878	2.76	1320	<0.00005	<0.025	<0.025	0.00431	<0.025	<0.025	<0.0005
DOC_Upper_N_Sump	8/18/2019 16:10	WI0689	M	<0.0004	0.0851	93.5	0.165	<0.000002	0.0233	0.0306		14.4	0.0372	8.86	<0.00004	275	1.22	458	0.000041	<0.01	<0.01	0.00643	<0.01	<0.01	<0.0002
DOC_Upper_N_Sump	9/11/2019 13:20	WM1918	M	<0.0004	0.103	157	0.0804	<0.000002	0.0294	0.0364		13.3	0.0407	4.94	<0.00004	443	1.78	682	0.000036	<0.01	<0.01	0.0127	<0.01	0.025	<0.0002
DOC_Upper_N_Sump	10/2/2019 14:10	WQ2278	M	<0.001	0.134	286	0.0239	<0.000002	<0.005	0.0536		7.30	0.00908	2.73	<0.0001	654	2.65	1010	<0.00005	<0.025	<0.025	0.00856	<0.025	0.06	<0.0005
DOP_BT_East	3/13/2019 13:30	VJ2170	M	<0.001	0.036	122	0.0414	<0.000002	0.0451	<0.005		17.9	0.0163	2.39	<0.0001	591	1.2	850	<0.00005	<0.025	<0.025	0.00703	<0.025	<0.025	<0.0005
DOP_BT_East	4/27/2019 10:20	VP1252	M	<0.001	0.193	162	2.58	<0.000002	0.0396	0.164		12.0	0.00335	3.33	<0.0001	1660	1.92	1440	0.000089	<0.025	<0.025	0.00888	<0.025	0.303	<0.0005
DOP_BT_East	5/8/2019 12:05	VQ8327	M	<0.0004	0.127	39.4	0.0357	<0.000002	0.0261	0.0055		6.73	0.00604	3.54	<0.00004	741	0.775	542	0.00002	<0.01	<0.01	0.00526	<0.01	0.018	<0.0002
DOP_BT_East	5/16/2019 11:10	VS0925	M	<0.001	0.168	53.3	0.0348	<0.000002	0.0274	0.0086		8.62	0.00555	3.9	<0.0001	960	1.09	720	<0.00005	<0.025	<0.025	0.00684	<0.025	0.075	<0.0005
DOP_BT_East	5/22/2019 11:00	VS7473	M	<0.0004	0.109	38.4	0.0697	<0.000002	0.0192	0.0042		6.99	0.00373	4.59	<0.00004	605	0.72	442	0.000036	<0.01	<0.01	0.00486	<0.01	<0.01	<0.0002
DOP_BT_East	5/28/2019 11:20	VT7571	M	<0.0004	0.106	39.7	0.0384	<0.000002	0.0161	0.0076		5.90	0.00278	3.8	<0.00004	505	0.741	380	0.000023	<0.01	<0.01	0.00379	<0.01	<0.01	<0.0002
DOP_BT_East	6/5/2019 11:00	VV4624	M	<0.0004	0.149	66.0	0.0405	<0.000002	0.0224	0.0099		8.42	0.00519	4.13	<0.00004	786	1.31	621	<0.00002	<0.01	<0.01	0.00497	<0.01	0.027	<0.0002
DOP_BT_East	6/12/2019 11:10	VW8060	M	<0.0004	0.109	50.7	0.0275	<0.000002	0.0127	0.0085		5.56	0.0028	3.89	<0.00004	532	0.92	387	<0.00002	<0.01	<0.01	0.00407	<0.01	0.014	<0.0002

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
DOP_BT_East	6/20/2019 13:35	VY4156	M	8.55	2910	347	2050	240	392	413	298	11.2	336	13.4	<1.0	73	0.480	1.1	1100			1.2	0.317	3.20	3.52	<0.0050
DOP_BT_East	6/27/2019 14:45	VZ7731	M	8.34	3660	267	2790	187	658	616	296	2.8	355	3.4	<1.0	57.7	0.560	1.1	1550			0.47	0.243	4.85	5.09	0.0083
DOP_BT_East	7/6/2019 12:58	WB1490	M	8.16	2240	1400	1670	154	469	396	234	<1.0	285	<1.0	<1.0	50.5	0.410	0.78	922			1.3	0.370	2.70	3.07	0.0064
DOP_BT_East	7/12/2019 12:20	WC0457	M	8.26	3480	54	2650	56.8	783	798	292	<1.0	357	<1.0	<1.0	57.0	0.610	1.7	1590			0.80	0.265	3.01	3.28	<0.0050
DOP_BT_East	7/19/2019 13:50	WD4027	M	8.43	3560	32	2580	36.8	508	511	327	5.8	385	7.0	<1.0	111	0.570	1.7	1380			0.80	0.104	2.15	2.26	0.0070
DOP_BT_East	7/28/2019 13:50	WE7128	M	8.41	3080	2.5	2330	28.8	634	637	364	6.5	428	7.8	<1.0	33.4	0.410	0.60	1250			<0.015	0.0332	3.17	3.21	0.0063
DOP_BT_East	7/30/2019 13:50	WF2078	M	9.53	3270	77	2220	118	336	240	206	50.9	127	61.1	<1.0	106	0.320	2.0	1220			0.43	0.0351	2.40	2.43	<0.0050
DOP_BT_East	8/7/2019 12:10	WG4497	M	9.79	4720	1500	3240	2560	326	54.0	277	225	<1.0	63.4	58.4	247	0.550	3.7	1790			1.1	0.132	1.29	1.43	<0.0050
DOP_BT_East	8/18/2019 16:15	WI0690	M	10.1	3840	2300	3150	1520	209	13.2	390	146	120	175	<1.0	210	0.530	3.8	1200			2.4	0.331	0.673	1.00	<0.0050
DOP_BT_East	9/1/2019 12:50	WK4246	M	8.44	5000	510	3500	530	452	457	400	7.6	470	9.1	<1.0	170	0.49	3.1	1800			1.8	0.0760	1.58	1.66	0.0034
DOP_BT_East	11/7/2019 11:05	WX2038	M	8.17	4080	4.5	3090	11	890	920	440	<1.0	530	<1.0	<1.0	76	0.37	1.4	1800			0.39	0.033	2.0	2.0	<0.0030
DOP_BT_East	12/2/2019 14:05	XB0715	M	8.11	3660	18	2750	22	680	702	330	<1.0	400	<1.0	<1.0	170	0.60	1.2	1600			0.93	0.12	1.7	1.8	<0.0030
DOP_BT_West	4/27/2019 10:10	VP1251	M	8.43	5470	133	3910	88.8	477	477	218	3.6	257	4.3	<1.0	187	0.810	3.1	2600			3.5	0.0672	0.247	0.315	0.0051
DOP_BT_West	5/11/2019 13:40	VR2443	M	8.00	7650	29.3	5770	22.4	1170	1220	291	<1.0	356	<1.0	<1.0	187	2.30	3.5	3940			5.2	0.135	0.933	1.07	0.0042
DOP_BT_West	5/16/2019 11:25	VS0924	M	8.25	7610	22.5	5640	25.6	1170	1220	286	<1.0	349	<1.0	<1.0	196	2.30	3.4	3950			4.5	0.155	1.38	1.54	0.034
DOP_BT_West	5/22/2019 11:20	VS7474	M	8.31	3940	107	2840	92.0	568	546	232	1.6	280	1.9	<1.0	136	1.20	2.1	1630			1.3	0.161	2.94	3.11	0.0465
DOP_BT_West	5/28/2019 11:35	VT7572	M	8.21	4380	21.0	3160	22.8	557	622	260	<1.0	317	<1.0	<1.0	100	1.50	1.9	1900			1.8	0.259	2.61	2.87	<0.0050
DOP_BT_West	6/5/2019 10:40	VV4623	M	8.20	6490	14.3	4960	11.6	1030	1020	290	<1.0	354	<1.0	<1.0	147	1.80	3.2	3160			2.8	0.468	3.55	4.02	<0.0050
DOP_BT_West	6/12/2019 11:15	VW8061	M	8.30	6940	9.43	5430	8.8	1090	1110	309	<1.0	377	<1.0	<1.0	135	1.80	3.1	3320			2.7	0.419	4.12	4.54	<0.0050
DOP_BT_West	6/21/2019 10:55	VY4166	M	8.47	7280	9.09	5680	14.8	1080	1160	323	8.0	374	9.6	<1.0	152	2.00	2.9	3490			2.3	0.487	5.19	5.68	<0.0050
DOP_BT_West	6/27/2019 14:55	VZ7730	M	8.33	8050	25.5	6650	21.2	1440	1370	316	2.1	380	2.6	<1.0	126	1.40	2.7	4430			1.8	0.620	8.04	8.66	<0.0050
DOP_BT_West	7/6/2019 12:45	WB1489	M	7.74	8620	43	6850	38.0	1930	1960	205	<1.0	250	<1.0	<1.0	98.9	2.20	2.2	5360			2.5	0.535	5.13	5.66	<0.0050
DOP_BT_West	7/18/2019 15:05	WD4017	M	8.27	8740	79	7470	<4.0	2030	2050	337	<1.0	411	<1.0	<1.0	115	1.30	2.5	5390			1.4	0.404	5.34	5.74	<0.0050
DOP_BT_West	7/28/2019 14:00	WE7127	M	8.30	9710	10	8040	53.6	1940	2060	286	1.0	347	1.2	<1.0	130	1.10	1.2	5360			0.17	0.347	7.98	8.32	<0.0050
DOP_BT_West	8/1/2019 13:15	WF6263	M	8.36	9100	7.2	7700	18	1900	1940	280	3.5	340	4.2	<1.0	100	0.93	2.7	5400			0.067	0.148	7.13	7.27	<0.0030
DOP_BT_West	11/7/2019 11:30	WX2039	M	8.25	4620	43	3420	56	859	871	320	<1.0	400	<1.0	<1.0	120	0.97	2.1	2100			1.7	0.40	2.4	2.8	<0.0030
DOP_BT_West	12/2/2019 14:25	XB0716	M	8.23	2910	28	2130	27	543	545	280	<1.0	350	<1.0	<1.0	120	0.53	1.0	1200			0.72	0.10	1.4	1.5	<0.0030
DOP_W_Ditch	4/14/2019 9:00	VN6123	M	7.58	2800	91.4	2030	74.4	600	600	123	<1.0	150	<1.0	<1.0	51.3	1.50	0.91	1450			2.7	0.168	0.431	0.599	<0.0050
DOP-Center-Sump	7/30/2019 14:00	WF2079	M	8.60	3700	66	2420	24.8	136	131	496	15.1	569	18.1	<1.0	194	0.880	3.1	1200			0.49	0.282	0.965	1.25	0.0081
DOP-Fishway-S-Sump	5/4/2019 9:12	VQ1587	M	8.20	889	11.5	554	11.6	266	268	227	<1.0	277	<1.0	<1.0	10.2	0.220	0.25	203			0.29	0.0068	0.065	0.072	0.0032
DOP-Fishway-S-Sump	5/8/2019 11:00	VQ8325	M	8.12	1000	3.26	664	7.2	313	326	225	<1.0	275	<1.0	<1.0	11.6	0.200	0.20	300			0.40	0.0063	0.111	0.117	<0.0030
DTIP_BT_1	1/5/2019 15:08	VB1448	M	8.30	456	827	284	560	196	157	155	<1.0	189	<1.0	<1.0	6.23	0.150	0.058	73.3			3.1	0.422	0.192	0.614	<0.0050
DTIP_BT_1	1/12/2019 14:25	VC0274	M	8.07	459	895	268	550	202	148	148	<1.0	181	<1.0	<1.0	4.86	0.210	0.039	84.6			3.1	0.484	0.207	0.691	<0.0050
DTIP_BT_1	1/15/2019 14:25	VC4154	M	8.12	471	1020	302	748	195	159	158	<1.0	193	<1.0	<1.0	3.73	0.220	0.026	72.3			3.0	0.751	0.199	0.950	<0.0050
DTIP_BT_1	2/23/2019 16:20	VG8591	M	8.14	740	7.31	416	6.8	364	385	382	<1.0	466	<1.0	<1.0	6.29	0.130	0.076	34.1			0.087	0.0077	0.249	0.257	<0.0050
DTIP_BT_1	3/9/2019 15:15	VI6898	M	7.82	556	50.9	332	100	87.9	83.3	74.7	<1.0	91.2	<1.0	<1.0	14.4	0.810	0.16	158			2.2	0.763	0.210	0.973	0.0052
DTIP_BT_1	4/10/2019 12:15	VN0841	M	8.13	558	323	328	322	258	231	194	<1.0	237	<1.0	<1.0	4.41	0.160	0.041	97.2			3.5	0.739	0.316	1.05	0.0039
DTIP_BT_2	3/12/2019 10:30	VI8619	M	9.63	2430	1440	1650	1000	50.2	15.7	154	45.6	76.4	54.7	<1.0	161	1.10	2.2	785			5.7	0.218	0.263	0.481	0.0076
DTIP_BT_2	3/12/2019 10:45	VI8620	M	8.15	502	490	338	454	187	170	153	<1.0	187	<1.0	<1.0	4.87	0.300	0.058	102			2.4	0.475	0.209	0.684	<0.0050
DTIP_BT_2	3/13/2019 11:40	VJ2169	M	7.69	369	21.8	204	68.4	133	126	92.9	<1.0	113	<1.0	<1.0	1.51	0.120	0.015	79.8			0.38	0.0547	2.51	2.57	<0.0050
DTIP_BT_2	4/10/2019 11:43	VN0840	M	8.21	558	416	350	248	255	222	196	<1.0	240	<1.0	<1.0	4.36	0.160	0.035	101			3.7	0.723	0.340	1.06	0.0039
DTIP_BT_2	11/16/2019 13:35	WY5253	M	8.20	6140	>4000	4310	5400	727	341	400	<1.0	490	<1.0	<1.0	270	0.65	4.0	2500			4.6	<0.010	<0.010	<0.014	<0.0030
DTIP_BT_2	12/3/2019 13:55	XB3100	M	9.07	7300	30	5320	86.0	226	193	607	85.0	534	102	<1.0	323	0.364	6.19	3120			3.08	<0.050	<0.050	<0.071	0.0050
DTIP-1-Sump	6/29/2019 19:30	WA1488	M	7.59	3690	131	2960	129	817	815	93.0	<1.0	113	<1.0	<1.0	55.8	1.40	1.1	1820			1.8	0.190	2.16	2.35	<0.0050
DTIP-2-Sump	6/7/2019 16:20	VV9736	M	8.07	3570	1110	2720	686	879	730	254	<1.0	310	<1.0	<1.0	123	0.430	2.4	1540			1.2	0.0380	0.790	0.828	0.0107
DTIP-2-Sump	6/29/2019 19:05	WA1487	M	7.66	1940	108	1440	100	425	413	58.7	<1.0	71.7	<1.0	<1.0	22.6	0.890	0.45	860			0.51	0.192	1.34	1.53	0.0051
DTIP-DW	1/5/2019 15:00	VB1447	M	5.29	3540	311	3340	332	1920	1950	8.8	<1.0	10.8	<1.0	<1.0	23.0	2.60	0.45	2420			1.9	0.0741	0.593	0.667	<0.0050
DTIP-DW	1/12/2019 14:05	VC0273	M	7.16	3650	143	3250	116	1780	1680	55.2	<1.0	67.3	<1.0	<1.0	28.6	2.40	0.76	2120			2.7	0.0237	0.113	0.137	<0.0050
DTIP-DW	1/15/2019 14:15	VC4153	M	7.68	3710	113	3690	125	1760	1800	119	<1.0	145	<1.0	<1.0	36.6	2.80	0.83	2160			0.85	<0.0050	<0.020	<0.020	<0.0050
DTIP-DW	1/29/2019 14:44	VE0707	M	4.52	3040	13.4	2860	16.8	1680	1610	<1.0	<1.0	<1.0	<1.0	<1.0	12.4	2.30	0.72	1940			2.3	0.0671	1.01	1.07	0.0036
DTIP-DW	3/23/2019 11:05	VK5951	M	7.60	1610	14.8	1230	18.4	518	587	51.1	<1.0	62.4	<1.0	<1.0	11.6	0.600	0.24	785			1.2	0.0818	1.13	1.21	<0.0050
DTIP-DW	3/29/2019 10:03	VL3515	M	8.06	2470	514	2070	363	1170	1170	171	<1.0	209	<1.0	<1.0	23.1	0.570	0.43	1270			0.95	0.0463	0.872	0.918	<0.0050
DTIP-DW	4/4/2019 10:10	VM3421	M	7.83	3190	208	2810	115	1350	1320	134	<1.0	164	<1.0	<1.0	21.3	0.970	0.62	1700			1.8	0.0201	0.611	0.631	<0.0030
DTIP-DW	4/9/2019 11:00	VM8364	M	7.88	1970	11.1	1590	87.6	1010	939	196	<1.0	239	<1.0	<1.0	14.7	0.300	0.28	958			0.44	0.0212	0.665	0.686	<0.0050
DTIP-DW	4/19/2019 9:15	VO0386	M	7.90	1890	291	1530	199	973	1020	183	<1.0	223	<1.0	<1.0	12.2	0.340	0.23	938			0.58	0.0064	0.351	0.358	<0.0030
DTIP-DW	5/2/2019 9:45	VP8755	M	7.96	1580	30.9	1200	24.0	820	853	204	<1.0	249	<1.0	<1.0	9.80	0.230	0.20	640			0.37	0.0115	0.129	0.141	0.0037
DTIP-DW	5/9/2019 11:50	VQ9667	M	8.14	2090	117	1690	74.8	1020	1060	171	<1.0	208	<1.0	<1.0	18.4	0.530	0.29	1050			0.67	0.0146	0.343	0.357	<0.0030
DTIP-DW	5/18/2019 12:29	VS1843	M	8.12	2450	42.3	2070	38.0	1150	1170	197	<1.0	240	<1.0	<1.0	18.9	0.630	0.41	1270			0.50	0.0506	1.71	1.77	<0.0050
DTIP-DW	5/23/2019 12:15	VS9368	M	8.14	2120	148	1690	118	970	966	175	<1.0	213	<1.0	<1.0	15.5	0.450	0.34	1050			0.43	0.0324	1.13	1.17	<0.0050
DTIP-DW	5/29/2019 11:40	VT7345	M	8.09	2110	82.9	1710	76.8	951	951	198	<1.0	241	<1.0	<1.0	14	0.470	0.33	1100			0.37	0.0289	0.903	0.932	<0.0050
DTIP-DW	6/6/2019 10:41	VV6669	M	8.02	1980	369	1610	255	1030	952	191	<1.0	234	<1.0	<1.0	12.2	0.360	0.27	947			0.24	0.0241	0.764	0.788	<0.0050
DTIP-DW	6/11/2019 13:00	VW5008	M	8.48	5840	1160	3980	636	503	289	363	9.2	420	11.1	<1.0	282	0.420	4.9	2460			1.8	0.0704	0.320	0.390	0.0196
DTIP-DW	6/20/2019 14:10	VY4157	M	8.21	3890	61.1	2990	80	749	762	269	<1.0	328	<1.0	<1.0	130	0.360	2.0	1600			1.1	0.127	0.710	0.837	<0.0050
DTIP-DW	6/28/2019 11:28	VZ7862	M	7.97	2060	51200	1800	35700	1940	1060	164	<1.0	200	<1.0	<1.0	21.3	0.270	0.31	1010			0.35	0.119	2.32	2.44	0.0088
DTIP-DW	7/7/2019 11:30	WB1481	M	7.97	1650	45	1450	57.6	858	870	201	<1.0	245	<1.0	<1.0	25.2	0.220	0.26	665			0.096	0.0386	0.992	1.03	<0.0050
DTIP-DW	7/10/2019 13:35	WB8327	M	8.13	1680	190	1320	464	902	855	236	<1.0	288	<1.0	<1.0	19.9	0.200	0.26	751			0.067	0.0480	0.894	0.942	<0.0050
DTIP-DW	7/16/2019 16:05	WC9638	M	8.12	1930	4900	1660	2490	1180	933	173	<1.0	212	<1.0	<1.0	30.6	0.330	0.42	908			0.20	0.0680	1.83	1.90	0.0062
DTIP-DW	7/27/2019 12:35	WE7079	M	8.13	1800	540	1450	1280	884	815	209	<1.0	254	<1.0	<1.0	18.8	0.280	0.30	864			0.046	0.0424	0.839	0.881	0.0082
DTIP-DW	7/31/2019 13:45	WF4370	M	8.12	1770	110	1430	213	888	884	204	<1.0	249	<1.0	<1.0	26.4	0.250	0.28	846			0.039	0.0320	0.834	0.866	0.0060
DTIP-DW	8/7/2019 15:55	WG4503	M	8.06	1730	250	1450	760	857	870	194	<1.0	237	<1.0	<1.0	17.3	0.230	0.26	774			0.070	0.0257	0.600	0.625	<0.0050
DTIP-DW	8/19/2019 14:25	WI2771	M	8.13	1800	2200		3590	1050	874	182	<1.0	222	<1.0	<1.0	21	0.290	0.36	900			0.27	0.0493	2.40	2.45	0.0085
DTIP-DW	9/16/2019 14:15	WN0363	M	7.94	1500	290	1200	420	727	744	110	<1.0	130	<1.0	<1.0	20	0.28	0.44	680			0.16	0.0519	1.75	1.80	<0.0030
LBCD_Trench	2/22/2019 12:30	VG6138	M	8.10	672	6.56	430	10.0	313	303	140	<1.0	171	<1.0	<1.0	6.41	0.075	0.10	195			0.052	0.0071	0.049	0.056	<0.0050
LBCD-N-Sump-East	7/31/2019 14:10	WF4371	M	7.47	6170	370	6120	124	2910	3060	503	<1.0	614	<1.0	<1.0	39.9	0.120	2.7	3870			0.21	<0.0050	<0.020	<0.020	<0.0050
LBCD-N-SUMP-East	8/8/2019 13:55	WG6509	M	8.23	4800	39	4500	32	1960	2010	320	<1.0	400	<1.0	<1.0	39	0.63	1.2	2900			0.54	0.0078	0.077	0.084	<0.0030
LBCD-N-Sump-East	8/15/2019 23:35	WH8389	M	8.16	6500	31	6500	18	2970	2970	480	<1.0	590	<1.0	<1.0	56	1.1	0.71	4000			0.31	<0.0050	<0.020	<0.020	<0.0030
LBCD-N-SUMP-Trench	8/8/2019 13:35	WG6508	M	8.21	6400	160	6600	40	2790	2910	560	<1.0	680	<1.0	<1.0	59	0.91	1.7	3900			0.53	<0.0050	<0.020	<0.020	<0.0030

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
DOP_BT_East	6/20/2019 13:35	VY4156	M	2.6	2.8	3.17	0.0028	0.00397	0.217	<0.0002	<0.002	0.437	0.000101	78.0	0.0082	0.00305	0.0075	3.72	0.014	0.103	48.0	0.0718	<0.000002	0.0113	0.0137		6.31	0.00245
DOP_BT_East	6/27/2019 14:45	VZ7731	M	<2.0	2.6	5.94	0.003	0.0039	0.21	0.00024	<0.002	0.514	0.000346	130	0.0111	0.00881	0.0085	5.32	0.00355	0.144	81.0	0.18	0.0000021	0.0135	0.0234		9.99	0.0107
DOP_BT_East	7/6/2019 12:58	WB1490	M	3.9	3.7	11.2	0.0012	0.0134	0.82	0.00071	<0.002	0.306	0.000761	108	0.0266	0.0154	0.047	25.3	0.0169	0.0894	48.3	0.518	0.0000057	0.0096	0.0488		7.17	0.00507
DOP_BT_East	7/12/2019 12:20	WC0457	M	2.3	2.9	0.605	0.0021	0.00142	0.0575	0.00027	<0.002	0.473	0.000346	165	<0.002	0.00394	0.0022	0.773	0.00069	0.119	90.2	0.205	<0.000002	0.0117	0.0169		7.45	0.00542
DOP_BT_East	7/19/2019 13:50	WD4027	M	3.4	4.0	1.7	<0.0025	0.00127	0.0855	<0.0005	<0.005	0.498	0.000055	101	<0.005	0.006	0.0028	1.43	<0.001	0.126	62.2	0.328	0.0000037	0.0151	0.0157		7.28	0.00395
DOP_BT_East	7/28/2019 13:50	WE7128	M	1.6	1.8	0.212	<0.0025	0.00103	0.0466	<0.0005	<0.005	0.542	0.000053	118	<0.005	<0.001	<0.0025	0.257	<0.001	0.128	82.6	0.0507	0.0000027	0.0073	0.0071		6.10	0.00296
DOP_BT_East	7/30/2019 13:50	WF2078	M	4.6	5.5	0.084	<0.0025	0.00163	0.0293	<0.0005	<0.005	0.422	<0.00005	54.2	0.0436	<0.001	<0.0025	0.107	<0.001	0.122	48.7	0.0126	0.0000155	0.0478	<0.005		9.39	0.00394
DOP_BT_East	8/7/2019 12:10	WG4497	M	24	21	12.6	0.0096	0.0183	0.877	0.00103	<0.005	0.713	0.000389	115	0.059	0.0114	0.0503	22.9	0.0166	0.176	9.49	0.285	0.0000059	0.0622	0.0215		28.8	0.0116
DOP_BT_East	8/18/2019 16:15	WI0690	M	<13	7.3	19.1	0.003	0.0292	1.88	0.00136	<0.005	0.58	0.000803	65.0	0.0496	0.0228	0.0779	45	0.0283	0.194	11.3	0.502	<0.000002	0.0413	0.055		18.5	0.00847
DOP_BT_East	9/1/2019 12:50	WK4246	M	7.9	4.7	2.96	0.0039	0.00873	0.383	<0.0005	<0.005	0.75	0.000095	89.8	0.0153	0.0049	0.016	4.82	0.0059	0.237	55.4	0.0523	<0.000002	0.0265	0.0146		16.6	0.00528
DOP_BT_East	11/7/2019 11:05	WX2038	M	2.8	1.9	0.239	0.001	0.00069	0.0385	<0.0002	<0.002	0.44	0.000058	169	<0.002	0.00312	0.0018	0.505	<0.0004	0.138	113	0.0918	<0.000002	0.0055	0.0185		5.76	0.00318
DOP_BT_East	12/2/2019 14:05	XB0715	M	3.5	2.9	0.403	<0.0025	0.00084	0.0408	<0.0005	<0.005	0.415	0.000067	142	<0.005	0.0067	<0.0025	1.6	<0.001	0.128	78.8	0.227	<0.000002	0.0084	0.024		7.79	0.00329
DOP_BT_West	4/27/2019 10:10	VP1251	M	2.8	3.1	3.5	<0.005	0.0045	0.112	<0.001	<0.01	<0.5	0.00012	100	0.013	0.0025	0.0052	3.52	<0.002	0.159	54.9	0.138	0.0000052	0.034	<0.01		9.63	0.0077
DOP_BT_West	5/11/2019 13:40	VR2443	M	2.8	2.7	0.204	0.0025	<0.0005	0.0297	<0.0005	<0.005	0.623	0.000144	207	<0.005	0.0854	<0.0025	2.52	<0.001	0.186	159	2.37	<0.000002	0.029	0.162		12.2	0.0037
DOP_BT_West	5/16/2019 11:25	VS0924	M	2.9	4.0	0.215	<0.0025	<0.0005	0.028	<0.0005	<0.005	0.682	0.000132	206	<0.005	0.0858	<0.0025	1.24	<0.001	0.179	159	2.42	<0.000002	0.0267	0.159		12.7	0.00356
DOP_BT_West	5/22/2019 11:20	VS7474	M	4.8	4.7	1.91	<0.0025	0.0018	0.114	<0.0005	<0.005	0.366	0.000109	114	<0.005	0.0199	0.0053	2.67	0.0015	0.075	69.0	0.555	<0.000002	0.0189	0.0415		8.91	0.00271
DOP_BT_West	5/28/2019 11:35	VT7572	M	4.2	4.4	0.742	0.002	0.00075	0.0979	<0.0002	<0.002	0.436	0.00005	112	0.0031	0.0168	0.0015	0.778	<0.0004	0.104	67.6	0.641	<0.000002	0.0173	0.0357		7.58	0.00214
DOP_BT_West	6/5/2019 10:40	VV4623	M	3.7	4.3	0.219	<0.0025	0.00068	0.0447	<0.0005	<0.005	0.75	0.000063	172	<0.005	0.0396	<0.0025	1.25	<0.001	0.162	146	1.56	<0.000002	0.0269	0.0761		12.5	0.00384
DOP_BT_West	6/12/2019 11:15	VW8061	M	2.6	3.0	0.065	<0.0025	<0.0005	0.0329	<0.0005	<0.005	0.791	0.000057	180	<0.005	0.0433	<0.0025	1.32	<0.001	0.193	156	1.67	<0.000002	0.0243	0.0849		12.5	0.00334
DOP_BT_West	6/21/2019 10:55	VY4166	M	2.7	2.7	0.063	<0.005	<0.001	0.031	<0.001	<0.01	0.852	<0.0001	180	<0.01	0.0382	<0.005	1.1	<0.002	0.185	154	1.68	<0.000002	0.021	0.084		12.3	0.0027
DOP_BT_West	6/27/2019 14:55	VZ7730	M	3.1	3.2	0.101	0.0037	0.00091	0.0325	<0.0005	<0.005	0.955	0.0001	264	<0.005	0.0416	<0.0025	2.43	<0.001	0.24	190	1.68	<0.000002	0.0274	0.0936		17.6	0.0165
DOP_BT_West	7/6/2019 12:45	WB1489	M	2.6	2.8	1.46	<0.0025	0.00053	0.0393	<0.0005	<0.005	1.05	0.00156	318	<0.005	0.152	<0.0025	4.24	<0.001	0.235	275	3.61	<0.000002	0.0151	0.285		16.7	0.00875
DOP_BT_West	7/18/2019 15:05	WD4017	M	3.5	4.4	0.69	0.0026	0.00167	0.0593	<0.0005	<0.005	0.912	0.000579	397	<0.005	0.0319	0.004	2.88	0.0013	0.17	252	1.67	0.0000044	0.0252	0.0778		17.8	0.0104
DOP_BT_West	7/28/2019 14:00	WE7127	M	3.9	4.1	0.212	<0.005	0.0017	0.045	<0.001	<0.01	0.935	0.00016	328	<0.01	0.0166	0.0058	0.415	<0.002	0.252	272	0.973	<0.000002	0.031	0.044		21.8	0.0075
DOP_BT_West	8/1/2019 13:15	WF6263	M	3.9	3.5	0.484	<0.005	0.0015	0.032	<0.001	<0.01	0.976	0.00029	329	<0.01	0.0052	<0.005	0.955	<0.002	0.255	262	0.444	<0.000002	0.026	0.02		19.3	0.0064
DOP_BT_West	11/7/2019 11:30	WX2039	M	4.3	3.7	1.25	0.0021	0.00163	0.087	<0.0002	<0.002	0.513	0.000024	161	0.005	0.00834	0.0031	1.33	0.00082	0.162	111	0.228	<0.000002	0.0175	0.0374		10.6	0.0054
DOP_BT_West	12/2/2019 14:25	XB0716	M	3.3	2.7	1.11	<0.0025	0.00087	0.0591	<0.0005	<0.005	0.338	0.000073	115	<0.005	0.0073	<0.0025	2.11	<0.001	0.102	61.9	0.203	<0.000002	0.0074	0.0261		6.41	0.00267
DOP_W_Ditch	4/14/2019 9:00	VN6123	M	3.5	4.1	3.29	<0.005	0.0022	0.136	<0.001	<0.01	<0.5	0.00048	120	<0.01	0.0719	0.007	12.2	0.0022	0.053	73.2	1.8	0.0000048	0.015	0.147		8.50	0.0049
DOP-Center-Sump	7/30/2019 14:00	WF2079	M	2.5	3.0	4.8	0.0038	0.00373	0.166	<0.0005	<0.005	0.51	0.000073	27.3	0.0069	0.0027	0.0039	2.23	0.0015	0.137	16.4	0.102	0.0000036	0.0383	0.0097		5.19	0.00563
DOP-Fishway-S-Sump	5/4/2019 9:12	VQ1587	M	1.4	1.3	0.339	0.00088	0.00096	0.0298	<0.0001	<0.001	0.136	0.000024	68.7	0.0012	0.00237	0.00109	0.223	0.00025	0.0288	22.9	0.115	<0.000002	0.0052	0.0082		2.08	0.00267
DOP-Fishway-S-Sump	5/8/2019 11:00	VQ8325	M	1.5	1.7	0.0819	0.00099	0.00087	0.0313	<0.0001	<0.001	0.145	0.000023	80.1	<0.001	0.00211	0.00087	0.114	<0.0002	0.0272	27.5	0.104	<0.000002	0.0041	0.0077		2.18	0.00252
DTIP_BT_1	1/5/2019 15:08	VB1448	M	3.8	3.1	6.68	0.00092	0.00926	0.864	0.00044	<0.001	0.058	0.000145	58.5	0.0128	0.00729	0.023	13.4	0.00974	0.0227	12.1	0.0933	0.0000021	0.0049	0.0183		4.46	0.00192
DTIP_BT_1	1/12/2019 14:25	VC0274	M	<5.0	4.6	12.4	<0.0025	0.00937	0.887	0.00058	<0.005	<0.25	0.000134	55.4	0.0205	0.0074	0.0258	14.1	0.0096	0.029	15.4	0.104	<0.000002	<0.005	0.0208		6.27	0.00192
DTIP_BT_1	1/15/2019 14:25	VC4154	M	5.2	4.5	11	<0.0025	0.0115	1.12	0.00065	<0.005	<0.25	0.000133	55.3	0.0189	0.0077	0.022	14.4	0.011	0.031	13.9	0.0969	<0.000002	<0.005	0.0194		7.58	0.00173
DTIP_BT_1	2/23/2019 16:20	VG8591	M	2.5	3.5	0.064	<0.0005	0.00061	0.323	<0.0001	<0.001	<0.05	0.000018	108	<0.001	0.00037	0.00063	0.748	<0.0002	0.0026	22.9	0.101	<0.000002	<0.001	<0.001		1.16	<0.0001
DTIP_BT_1	3/9/2019 15:15	VI6898	M	6.1	5.9	2.06	0.00582	0.00806	0.208	<0.0001	<0.001	0.165	0.000051	30.4	0.0042	0.00105	0.00542	1.57	0.0012	0.0113	2.91	0.0238	<0.000002	0.0416	0.004		4.25	0.00233
DTIP_BT_1	4/10/2019 12:15	VN0841	M	6.6	6.0	5.49	<0.0025	0.0068	0.513	<0.0005	<0.005	<0.25	0.000157	75.9	0.0096	0.0047	0.0151	7.8	0.0056	0.021	16.7	0.074	0.0000026	<0.005	0.0129		6.51	0.00156
DTIP_BT_2	3/12/2019 10:30	VI8619	M	18	16	10.2	0.0108	0.0198	0.604	<0.0005	<0.005	0.471	0.000054	14.7	0.0301	0.0026	0.009	4.4	0.0038	0.082	3.26	0.0226	<0.000002	0.0441	0.0087		7.72	0.0131
DTIP_BT_2	3/12/2019 10:45	VI8620	M	8.2	5.8	13.8	<0.0025	0.00747	0.592	0.00059	<0.005	<0.25	0.000222	50.8	0.0206	0.0074	0.0194	10.9	0.0074	0.03	14.7	0.0977	<0.000002	0.0051	0.0226		7.10	0.00157
DTIP_BT_2	3/13/2019 11:40	VJ2169	M	2.3	1.5	0.512	<0.0005	0.0008	0.114	<0.0001	<0.001	<0.05	0.000094	37.8	0.0012	0.00174	0.0075	1.05	0.00241	0.0083	9.44	0.0387	<0.000002	0.0015	0.0069		1.22	0.00073
DTIP_BT_2	4/10/2019 11:43	VN0840	M	5.7	6.1	4.96	<0.0025	0.00608	0.486	<0.0005	<0.005	<0.25	0.000123	73.9	0.0088	0.0041	0.0134	6.92	0.0049	0.021	17.2	0.0613	0.0000024	<0.005	0.0126		5.98	0.00115
DTIP_BT_2	11/16/2019 13:35	WY5253	M	460	440	58.1	<0.005	0.0798	1.28	0.0032	<0.01	0.845	0.00237	171	0.109	0.0735	0.231	132	0.0515	0.305	72.9	1.99	<0.000002	0.056	0.2		22.3	0.0087
DTIP_BT_2	12/3/2019 13:55	XB3100	M	9.0	8.30	0.9	0.0096	0.0082	0.088	<0.001	<0.01	1.07	<0.0001	29.8	0.023	<0.002	0.0071	1.79	<0.002	0.348	36.8	0.152	<0.000002	0.027	<0.01		18.3	0.0027
DTIP-1-Sump	6/29/2019 19:30	WA1488	M	5.7	4.2	4.13	0.0059	0.00409	0.346	<0.0002	<0.002	0.382	0.000426	211	0.0083	0.00946	0.0047	3.34	0.00192	0.138	70.7	0.312	0.0000054	0.0224	0.0429		10.6	0.0143
DTIP-2-Sump	6/7/2019 16:20	VV9736	M	4.2	3.5	6.52	0.0015	0.00662	0.359	0.00042	<0.002	0.302	0.000699	253	0.0151	0.00755	0.0195	11.7	0.00679	0.1	59.6	0.362	0.0000047	0.0095	0.0258		6.85	0.00298
DTIP-2-Sump	6/29/2019 19:05	WA1487	M	5.3	4.9	2.89	0.0026	0.00364	0.187	<0.0002	<0.002	0.208	0.000121	131	0.013	0.00189	0.006	3.53	0.00199	0.0513	23.8	0.0675	<0.000002	0.0222	0.0078		12.0	0.00615
DTIP-DW	1/5/2019 15:00	VB1447	M	150	120	10.8	<0.0025	0.0057	0.295	0.00241	<0.005	0.322	0.0368	427	0.0104	0.293	0.0909	34.5	0.0066	0.23	208	5.45	<0.000002	<0.005	0.869		8.87	0.0258
DTIP-DW	1/12/2019 14:05	VC0273	M	34	31	6.3	<0.0025	0.00259	0.189	0.0006	<0.005	0.447	0.00076	382	0.0091	0.0591	0.0124	15.7	0.0029	0.084	201	4.84	<0.000002	<0.005	0.271		7.89	0.00144
DTIP-DW	1/15/2019 14:15	VC4153	M	42	42	3.42	<0.0025	0.00239	0.159	<0.0005	<0.005	0.436	0.000276	388	0.005	0.0176	0.0074	11.5	0.0022	0.082	192	4.68	<0.000002	<0.005	0.0652		7.99	0.00067
DTIP-DW	1/29/2019 14:44	VE0707	M	8.0	7.6	31.6	<0.0025	<0.0005	0.0361	0.00431	<0.005	<0.25	0.0505	366	<0.005	0.394	0.0289	1.65	<0.001	0.353	186	4.83	<0.000002	<0.005	1.03		9.03	0.0295
DTIP-DW	3/23/2019 11:05	VK5951	M	5.1	5.5	1.11	0.00058	0.00187	0.132	<0.0001	<0.001	0.051	0.0014	145	0.0016	0.0457	0.01	1.91	0.00178	0.0537	37.9	0.247	0.0000049	0.0118	0.121		7.39	0.0106
DTIP-DW	3/29/2019 10:03	VL3515	M	4.2	3.3	5.06	<0.001	0.00391	0.237	0.00035	<0.002	0.144	0.00103	297	0.0082	0.0517	0.0101	11.8	0.00455	0.052	105	1.46	0.0000032	0.0038	0.147		5.86	0.00517
DTIP-DW	4/4/2019 10:10	VM3421	M	3.7	3.5	2.62	<0.0025	0.00193	0.128	<0.0005	<0.005	<0.25	0.000631	320	0.0072	0.0314	0.0058	19.5	0.002	0.094	134	1.68	<0.000002	0.0055	0.118		7.74	0.0042
DTIP-DW	4/9/2019 11:00	VM8364	M	2.2	2.4	1.64	<0.0005	0.002	0.121	0.00012	<0.001	0.064	0.000299	291	0.0132	0.0036	0.016	6.33	0.00248	0.0179	68.1	0.419	<0.000002	0.0042	0.0151		4.29	0.00335
DTIP-DW	4/19/2019 9:15	VO0386	M	1.0	1.7	3.1	<0.001	0.00376	0.188	<0.0002	<0.002	<0.1	0.000235	288	0.0392	0.00463	0.0082	8.53	0.00371	0.0219	61.9	0.592	<0.000002	0.008	0.0154		4.15	0.00236
DTIP-DW	5/2/2019 9:45	VP8755	M	1.6	1.6	0.505	<0.0005	0.00128	0.0362	<0.0001	<0.001	<0.05	0.000205	252	0.001	0.00089	0.00091	1.29	0.00024	0.0149	46.2	0.297	<0.000002	0.0026	0.0051		2.52	0.00109
DTIP-DW	5/9/2019 11:50	VQ9667	M	2.0	1.6	1.84	<0.0005	0.00143	0.0851	0.00012	<0.001	0.121	0.000379	278	0.0033	0.0163	0.0038	9.68	0.00122	0.0423	78.8	1.72	<0.000002	0.0027	0.0486		4.12	0.00155
DTIP-DW	5/18/2019 12:29	VS1843	M	2.8	2.9	0.708	<0.0025	0.00105	0.0614	<0.0005	<0.005	<0.25	0.000223	304	<0.005	0.0051	0.0162	2.37	0.0014	0.029	95.2	0.664	<0.000002	<0.005	0.0185		4.48	0.00463
DTIP-DW	5/23/2019 12:15	VS9368	M	2.8	2.6	1.65	<0.0005	0.00184	0.14	<0.0001	<0.001	0.103	0.000258	273	0.0035	0.00281	0.0481	10.9	0.00254	0.0251	70.1	0.445	0.0000051	0.0037	0.015		5.15	0.00348
DTIP-DW	5/29/2019 11:40	VT7345	M	2.7	2.2	0.839	<0.0005	0.00117	0.0627	<0.0001	<0.001	0.101	0.00021	278	0.0074	0.00163	0.0187	3.81	0.00165	0.0251	62.2	0.285	<0.000002	0.0038	0.0106		3.59	0.00234
DTIP-DW	6/6/2019 10:41	VV6669	M	2.5	2.1	3.14	<0.001	0.00332	0.169	<0.0002	<0.002	<0.1	0.00034	292	0.0066	0.00371	0.0095	6.75	0.00358	0.0285	72.4	0.244	0.0000045	0.0037	0.0143		4.92	0.00219
DTIP-DW	6/11/2019 13:00	VW5008	M	6.9	6.4	5.16	0.0045	0.0137	0.364	<0.0005	<0.005	0.665	0.000591	131	0.0239	0.0089	0.0773	26.5	0.0102	0.236	42.7	0.452	0.0000035	0.0232	0.0304		13.2	0.00517
DTIP-DW	6/20/2019 14:10	VY4157	M	3.5	3.1	0.26	0.0012	0.00152	0.0468	<0.0002	<0.002	0.364	0.000123	208	<0.002	0.00091	0.0056	1.88	0.00376	0.111	55.6	0.22	<0.000002	0.007	0.0062		5.17	0.00164
DTIP-DW	6/28/2019 11:28	VZ7862	M	3.8	3.3	64.1	<0.01	0.0594	2.09	0.0056	<0.02	<1	0.00742	562	0.115	0.0995	0.275	182	0.0941	0.139	129	4.07	0.0000049	<0.02	0.306		15.0	0.0111
DTIP-DW	7/7/2019 11:30	WB1481	M	1.8	1.9	0.431	<0.0005	0.00096	0.0529	<0.0001	<0.001	0.068	0.000148	256	0.0013	0.0008	0.0031	1.74	0.00071	0.0198	53.3	0.0997	<0.000002	0.0029	0.0051		3.28	0.00333
DTIP-DW	7/10/2019 13:35	WB8327	M	2.1	1.9	2	0.00091	0.00266	0.145	0.0001	<0.001	0.076	0.000194	268	0.005	0.00175	0.00792	5.92	0.00285	0.022	56.8	0.133	0.0000028	0.0036	0.0087		4.00	0.0031
DTIP-DW	7/16/2019 16:05	WC9638	M	7.9	3.5	7.47	0.0011	0.012	0.335	0.00102	<0.002	0.151	0.00189	350	0.0129	0.0191	0.0495	23.8	0.0175	0.0368	74.1	0.981	0.0000051	0.006	0.0511		8.06	0.00625
DTIP-DW	7/27/2019 12:35	WE7079	M	2.8	2.5	4.1	0.0006	0.00669	0.357	0.00021	<0.001	0.106	0.000295	257	0.007	0.00253	0.0192	12	0.00983	0.0281	59.1	0.196	<0.000002	0.0056	0.0102		5.16	0.00243
DTIP-DW	7/31/2019 13:45	WF4370	M	2.1	3.1	0.476	<0.001	0.00161	0.0913	<0.0002	<0.002	0.101	0.000049	255	<0.002	0.00051	0.0038	2.5	0.002	0.0251	61.2	0.0819	<0.000002	0.0037	0.0037		3.99	0.00215
DTIP-DW	8/7/2019 15:55	WG4503	M	<2.5	2.2	0.902	<0.001	0.00312	0.101	<0.0002	<0.002	<0.1	0.000206	248	<0.002	0.00184	0.0147	3.21	0.00251	0.024	57.8	0.196	0.0000027	0.0033	0.0065		3.72	0.00186
DTIP-DW	8/19/2019 14:25	WI2771	M	11	2.8	20.8	0.0014	0.0241	0.922	0.00129	<0.002	0.13	0.00203	302	0.0379	0.0225	0.0806	53.6	0.0274	0.0455	73.1	1.12	0.0000021	0.0085	0.0746		9.81	0.00817
DTIP-DW	9/16/2019 14:15	WN0363	M	2.8	4.0	4.17	0.00199	0.00722	0.29	0.00029	<0.001	0.102	0.000447	216	0.0164	0.00544	0.017	12.4	0.00631	0.0227	45.6	0.248	0.0000026	0.015	0.0185		7.05	0.00776
LBCD_Trench	2/22/2019 12:30	VG6138	M	<0.50	0.91	0.135	<0.0005	0.00041	0.116	<0.0001	<0.001	<0.05	0.000068	91.0	<0.001	0.00052	0.00091	0.29	<0.0002	0.0063	20.8	0.0777	0.0000055	0.0021	0.0019		1.14	0.00111
LBCD-N-Sump-East	7/31/2019 14:10	WF4371	M	1.6	1.9	0.61	<0.0025	0.00304	0.0295	<0.0005	<0.005	0.4	0.000986	420	<0.005	0.0728	0.0026	40.8	<0.001	0.142	451	6.61	<0.000002	<0.005	0.147		4.38	<0.0005
LBCD-N-SUMP-East	8/8/2019 13:55	WG6509	M	3.7	3.7	1.02	<0.0025	0.00086	0.0345	<0.0005	<0.005	<0.25	0.000142	295	<0.005	0.0165	<0.0025	2.67	<0.001	0.114	297	2.61	<0.000002	0.006	0.021		5.33	0.00214
LBCD-N-Sump-East	8/15/2019 23:35	WH8389	M	2.3	2.6	0.213	<0.01	<0.002	<0.02	<0.002	<0.02	<1	<0.0002	427	<0.02	0.0428	<0.01	2.3	<0.004	0.159	462	3.02	<0.000002	<0.02	0.099		6.5	0.0025
LBCD-N-SUMP-Trench	8/8/2019 13:35	WG6508	M	2.5	2.6	0.157	<0.0025	0.00108	0.0127	<0.0005	<0.005	0.294	0.000217	411	<0.005	0.0436	<0.0025	17.2	<0.001	0.139	428	4.72	<0.000002	<0.005	0.0777		5.30	0.00127

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
DOP_BT_East	6/20/2019 13:35	VY4156	M	9.18	<0.00004	465	0.931	338	0.000054	<0.01	0.056	0.00398	<0.01	0.058	0.00187	0.0563	0.0024	0.0023	0.0969	<0.0002	<0.002	0.434	<0.00002	80.9	<0.002	0.00106	0.0012	<0.02
DOP_BT_East	6/27/2019 14:45	VZ7731	M	18.2	0.000054	660	1.19	563	0.000103	<0.01	0.221	0.00585	0.019	0.097	0.00365	0.0352	0.003	0.00156	0.0305	<0.0002	<0.002	0.507	0.000063	123	<0.002	0.00348	<0.001	<0.02
DOP_BT_East	7/6/2019 12:58	WB1490	M	18.1	0.000155	375	0.884	307	0.000227	<0.01	0.087	0.00563	0.033	0.178	0.00217	0.0255	0.00151	0.00113	0.133	<0.0001	<0.001	0.273	0.000036	91.5	<0.001	0.00136	0.00176	<0.01
DOP_BT_East	7/12/2019 12:20	WC0457	M	5.13	<0.00004	560	1.39	548	0.000047	<0.01	0.011	0.00755	<0.01	0.04	0.00044	0.205	0.0019	0.00089	0.0336	<0.0002	<0.002	0.469	<0.00002	170	<0.002	0.00297	<0.001	0.471
DOP_BT_East	7/19/2019 13:50	WD4027	M	7.25	<0.0001	675	1.05	506	<0.00005	<0.025	0.074	0.00519	<0.025	0.029	0.00104	<0.015	<0.0025	0.00067	0.037	<0.0005	<0.005	0.521	<0.00005	103	<0.005	0.0049	<0.0025	<0.05
DOP_BT_East	7/28/2019 13:50	WE7128	M	6.09	<0.0001	502	1.36	432	<0.00005	<0.025	<0.025	0.00439	<0.025	0.037	<0.0005	0.0251	0.0019	0.00065	0.0388	<0.0002	<0.002	0.544	0.000034	121	<0.002	0.00056	0.002	0.041
DOP_BT_East	7/30/2019 13:50	WF2078	M	7.16	<0.0001	627	0.917	423	<0.00005	<0.025	<0.025	0.00247	<0.025	<0.025	<0.0005	<0.006	0.0019	0.00145	0.0075	<0.0002	<0.002	0.452	<0.00002	17.3	0.0451	<0.0004	<0.001	<0.02
DOP_BT_East	8/7/2019 12:10	WG4497	M	33.4	0.00017	977	1.19	539	0.000137	<0.025	0.21	0.00374	0.057	0.247	0.00987	2.24	0.0137	0.00813	0.0423	<0.0005	<0.005	0.74	<0.00005	21.6	0.0455	<0.001	0.0038	0.362
DOP_BT_East	8/18/2019 16:15	WI0690	M	38.2	0.00027	861	0.602	394	0.000278	<0.025	0.139	0.00442	0.057	0.364	0.00961	0.081	0.0042	0.009	0.0245	<0.0005	<0.005	0.548	<0.00005	3.38	0.0114	<0.001	0.0025	0.125
DOP_BT_East	9/1/2019 12:50	WK4246	M	13.4	<0.0001	1040	1.25	697	<0.00005	<0.025	0.029	0.0048	<0.025	0.067	0.00187	0.018	0.0056	0.00648	0.033	<0.0005	<0.005	0.837	<0.00005	81.0	0.0105	<0.001	<0.0025	<0.05
DOP_BT_East	11/7/2019 11:05	WX2038	M	4.84	<0.00004	651	1.65	549	<0.00002	<0.01	<0.01	0.0042	<0.01	0.034	0.00042	0.0187	0.001	0.00052	0.0156	<0.0002	<0.002	0.466	0.000031	173	<0.002	0.00227	<0.001	<0.02
DOP_BT_East	12/2/2019 14:05	XB0715	M	5.33	<0.0001	631	1.38	503	<0.00005	<0.025	<0.025	0.00352	<0.025	0.045	0.00054	0.034	0.0011	0.00047	0.025	<0.0002	<0.002	0.408	0.000036	140	<0.002	0.00578	<0.001	0.07
DOP_BT_West	4/27/2019 10:10	VP1251	M	13	<0.0002	1050	1.04	813	<0.0001	<0.05	0.136	0.0061	<0.05	0.063	0.0048	0.016	0.0042	0.00313	0.0235	<0.0005	<0.005	0.335	<0.00005	100	0.0051	<0.001	<0.0025	<0.05
DOP_BT_West	5/11/2019 13:40	VR2443	M	4.09	<0.0001	1480	1.62	1310	0.000057	<0.025	<0.025	0.00754	<0.025	0.563	<0.0005	<0.015	<0.0025	<0.0005	0.0212	<0.0005	<0.005	0.625	0.000115	217	<0.005	0.0885	<0.0025	<0.05
DOP_BT_West	5/16/2019 11:25	VS0924	M	4.07	<0.0001	1470	1.55	1290	0.000059	<0.025	<0.025	0.0076	<0.025	0.412	<0.0005	<0.015	<0.0025	<0.0005	0.0226	<0.0005	<0.005	0.694	0.000123	216	<0.005	0.0847	<0.0025	<0.05
DOP_BT_West	5/22/2019 11:20	VS7474	M	6.76	<0.0001	683	0.744	563	0.000065	<0.025	<0.025	0.00457	<0.025	0.138	<0.0005	0.0522	0.0021	0.00051	0.0583	<0.0002	<0.002	0.361	0.000058	108	<0.002	0.0177	0.0015	<0.02
DOP_BT_West	5/28/2019 11:35	VT7572	M	5.02	<0.00004	679	0.862	618	0.000047	<0.01	0.021	0.00461	<0.01	0.047	0.00042	0.031	<0.0025	<0.0005	0.084	<0.0005	<0.005	0.475	<0.00005	118	<0.005	0.0187	<0.0025	<0.05
DOP_BT_West	6/5/2019 10:40	VV4623	M	4.14	<0.0001	1210	1.44	1020	0.000058	<0.025	<0.025	0.00631	<0.025	0.089	<0.0005	0.018	<0.0025	<0.0005	0.0361	<0.0005	<0.005	0.673	<0.00005	174	<0.005	0.0385	<0.0025	<0.05
DOP_BT_West	6/12/2019 11:15	VW8061	M	4.22	<0.0001	1330	1.68	1210	<0.00005	<0.025	<0.025	0.00654	<0.025	0.099	<0.0005	<0.015	<0.0025	<0.0005	0.0298	<0.0005	<0.005	0.702	<0.00005	185	<0.005	0.0425	<0.0025	<0.05
DOP_BT_West	6/21/2019 10:55	VY4166	M	3.93	<0.0002	1370	1.63	1170	<0.0001	<0.05	<0.05	0.0059	<0.05	0.077	<0.001	<0.015	<0.0025	<0.0005	0.027	<0.0005	<0.005	0.919	<0.00005	198	<0.005	0.0392	<0.0025	<0.05
DOP_BT_West	6/27/2019 14:55	VZ7730	M	5.48	<0.0001	1670	2	1480	0.000055	<0.025	<0.025	0.00789	<0.025	0.093	<0.0005	<0.015	0.0035	0.00051	0.0231	<0.0005	<0.005	1	0.000074	256	<0.005	0.0362	<0.0025	<0.05
DOP_BT_West	7/6/2019 12:45	WB1489	M	3.74	<0.0001	1650	2.86	1760	0.000051	<0.025	<0.025	0.00625	<0.025	0.701	<0.0005	0.04	<0.0025	0.00055	0.0283	<0.0005	<0.005	0.969	0.0017	341	<0.005	0.155	<0.0025	<0.05
DOP_BT_West	7/18/2019 15:05	WD4017	M	5.89	<0.0001	1660	3.41	1750	0.000107	<0.025	<0.025	0.0141	<0.025	0.281	0.00054	<0.015	<0.0025	0.00052	0.0225	<0.0005	<0.005	0.999	0.000541	403	<0.005	0.031	<0.0025	<0.05
DOP_BT_West	7/28/2019 14:00	WE7127	M	5.92	<0.0002	1950	2.73	1870	<0.0001	<0.05	<0.05	0.0122	<0.05	0.242	<0.001	0.07	<0.01	<0.002	0.041	<0.002	<0.02	1.1	<0.0002	354	<0.02	0.0174	<0.01	<0.2
DOP_BT_West	8/1/2019 13:15	WF6263	M	4.75	<0.0002	1880	2.51	1850	<0.0001	<0.05	<0.05	0.0157	<0.05	0.06	<0.001	0.068	<0.005	0.0029	0.019	<0.001	<0.01	0.954	0.00022	326	<0.01	0.0072	0.0086	<0.1
DOP_BT_West	11/7/2019 11:30	WX2039	M	8.05	<0.00004	781	1.55	650	0.000042	<0.01	0.044	0.00443	<0.01	0.059	0.00191	0.0164	0.0022	0.00099	0.0312	<0.0002	<0.002	0.526	<0.00002	159	0.0026	0.0068	0.001	<0.02
DOP_BT_West	12/2/2019 14:25	XB0716	M	6.16	<0.0001	485	1.07	375	<0.00005	<0.025	0.05	0.003	<0.025	0.065	0.00159	0.0453	<0.001	0.00041	0.0296	<0.0002	<0.002	0.316	0.000024	110	<0.002	0.00607	<0.001	0.054
DOP_W_Ditch	4/14/2019 9:00	VN6123	M	10.2	<0.0002	402	0.671	3900	0.0001	<0.05	0.138	0.0022	<0.05	0.337	0.003	<0.015	<0.0025	<0.0005	0.0498	<0.0005	<0.005	0.26	0.000242	113	<0.005	0.0565	<0.0025	0.425
DOP-Center-Sump	7/30/2019 14:00	WF2079	M	12.7	<0.0001	790	0.428	375	0.000083	<0.025	0.135	0.00672	<0.025	<0.025	0.00906	0.0107	0.0039	0.00251	0.0713	<0.0002	<0.002	0.505	<0.00002	26.6	<0.002	0.00132	0.001	<0.02
DOP-Fishway-S-Sump	5/4/2019 9:12	VQ1587	M	4.88	<0.00002	97.4	0.318	88.2	0.000013	<0.005	0.0102	0.00281	<0.005	0.008	0.00035	0.0039	0.00082	0.00079	0.0202	<0.0001	<0.001	0.139	0.000016	70.4	<0.001	0.00212	<0.0005	<0.01
DOP-Fishway-S-Sump	5/8/2019 11:00	VQ8325	M	4.66	<0.00002	98.9	0.351	98.6	0.00001	<0.005	<0.005	0.00331	<0.005	<0.005	<0.0001	0.0106	0.00098	0.00083	0.0272	<0.0001	<0.001	0.135	0.000017	86.9	<0.001	0.00215	0.00064	<0.01
DTIP_BT_1	1/5/2019 15:08	VB1448	M	15.1	0.000149	30.5	0.317	27.4	0.000135	<0.005	0.0347	0.00188	0.0209	0.0969	0.00079	0.0575	0.00123	0.00276	0.403	<0.0001	<0.001	<0.05	<0.00001	47.2	0.0017	0.00033	0.00111	<0.01
DTIP_BT_1	1/12/2019 14:25	VC0274	M	27.3	0.00107	26.5	0.321	30	0.000163	<0.025	0.225	0.00199	0.034	0.108	0.00304	0.0463	0.00133	0.00222	0.385	<0.0001	<0.001	<0.05	<0.00001	40.7	0.003	0.00038	0.0012	<0.01
DTIP_BT_1	1/15/2019 14:25	VC4154	M	26.6	0.00014	27.8	0.384	31	0.00017	<0.025	0.113	0.00231	0.032	0.116	0.00318	0.0375	0.00204	0.00381	0.562	<0.0001	<0.001	0.059	<0.00001	45.1	0.0034	0.00036	0.0022	<0.01
DTIP_BT_1	2/23/2019 16:20	VG8591	M	4.57	<0.00002	5.10	0.218	9.7	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00041	0.33	<0.0001	<0.001	<0.05	<0.00001	115	<0.001	0.00032	<0.0005	<0.01
DTIP_BT_1	3/9/2019 15:15	VI6898	M	9.77	0.000021	70.4	0.239	49.7	0.000046	<0.005	0.0512	0.00108	0.0204	0.157	0.00159	0.16	0.00609	0.00783	0.155	<0.0001	<0.001	0.162	<0.00001	28.6	0.0014	0.00023	0.00219	<0.01
DTIP_BT_1	4/10/2019 12:15	VN0841	M	13.5	<0.0001	23.5	0.336	35	0.000107	<0.025	0.025	0.00191	<0.025	0.057	0.00077	0.0699	0.00146	0.00269	0.238	<0.0001	<0.001	<0.05	<0.00001	68.5	0.002	0.00047	0.002	<0.01
DTIP_BT_2	3/12/2019 10:30	VI8619	M	26.2	<0.0001	486	0.251	257	0.000098	<0.025	0.221	0.00143	0.043	<0.025	0.0149	0.036	0.0142	0.0192	0.0696	<0.0005	<0.005	0.431	<0.00005	4.37	0.0274	<0.001	<0.0025	0.065
DTIP_BT_2	3/12/2019 10:45	VI8620	M	31.2	0.00012	30.9	0.282	32	0.000189	<0.025	0.328	0.0019	0.04	0.084	0.00894	0.0463	0.0012	0.00235	0.291	<0.0001	<0.001	0.052	0.000021	46.8	0.0016	0.00058	0.00204	<0.01
DTIP_BT_2	3/13/2019 11:40	VJ2169	M	3.35	<0.00002	16.5	0.147	24.6	0.000016	<0.005	0.0102	0.00067	<0.005	0.009	0.00015	0.0098	<0.0005	0.0004	0.0639	<0.0001	<0.001	<0.05	0.000057	36.6	<0.001	0.00122	0.00129	<0.01
DTIP_BT_2	4/10/2019 11:43	VN0840	M	12.7	<0.0001	23.8	0.347	33	0.000106	<0.025	0.027	0.00187	<0.025	0.045	0.0007	0.0737	0.00142	0.00262	0.236	<0.0001	<0.001	<0.05	<0.00001	65.0	0.0019	0.00045	0.00188	<0.01
DTIP_BT_2	11/16/2019 13:35	WY5253	M	75.3	0.0015	1410	1.87	846	0.00112	<0.05	0.407	0.0136	0.139	0.753	0.0119	<0.015	0.0098	0.00595	0.0494	<0.0005	<0.005	0.775	<0.00005	69.6	<0.005	<0.001	<0.0025	<0.05
DTIP_BT_2	12/3/2019 13:55	XB3100	M	16.6	<0.0002	1750	0.739	969	<0.0001	<0.05	<0.05	0.0017	<0.05	<0.05	0.0014	0.016	0.01	0.00779	0.0263	<0.0005	<0.005	1.16	<0.00005	15.6	0.0196	<0.001	<0.0025	<0.05
DTIP-1-Sump	6/29/2019 19:30	WA1488	M	9.8	0.000042	518	1.05	626	0.000103	<0.01	0.106	0.00582	<0.01	0.046	0.00428	0.0957	0.0061	0.00266	0.067	<0.0002	<0.002	0.408	0.000226	211	0.0035	0.00617	<0.001	2.41
DTIP-2-Sump	6/7/2019 16:20	VV9736	M	18.2	0.000106	557	0.735	527	0.00014	0.031	0.206	0.00704	0.023	0.139	0.00464	0.0155	0.0013	0.00132	0.0268	<0.0002	<0.002	0.33	<0.00002	198	0.002	0.00054	<0.001	0.02
DTIP-2-Sump	6/29/2019 19:05	WA1487	M	11	0.000042	254	0.531	292	0.000075	<0.01	0.091	0.00341	<0.01	0.028	0.00166	0.025	0.00278	0.00181	0.0936	<0.0001	<0.001	0.223	<0.00001	128	0.0086	0.0003	0.00158	0.011
DTIP-DW	1/5/2019 15:00	VB1447	M	11.8	0.00013	195	1.11	809	0.00017	<0.025	0.073	0.00444	<0.025	2.56	0.0019	3.46	<0.0025	<0.0005	0.0266	0.00144	<0.005	0.341	0.0396	435	<0.005	0.27	0.0276	13.2
DTIP-DW	1/12/2019 14:05	VC0273	M	12.4	0.0006	254	1.25	760	0.000086	<0.025	0.201	0.00116	<0.025	0.185	0.00748	0.039	<0.0025	<0.0005	0.0312	<0.0005	<0.005	0.406	0.00019	358	<0.005	0.0506	<0.0025	2.37
DTIP-DW	1/15/2019 14:15	VC4153	M	9.4	<0.0001	240	1.21	773	0.000054	<0.025	0.101	0.00097	<0.025	0.071	0.00259	0.02	<0.0025	<0.0005	0.0281	<0.0005	<0.005	0.472	<0.00005	392	<0.005	0.0117	<0.0025	0.083
DTIP-DW	1/29/2019 14:44	VE0707	M	6.26	<0.0001	135	0.989	668	0.000062	<0.025	<0.025	0.00501	<0.025	4.69	<0.0005	29.1	<0.0025	<0.0005	0.0328	0.00427	<0.005	<0.25	0.0532	355	<0.005	0.417	0.0325	0.142
DTIP-DW	3/23/2019 11:05	VK5951	M	2.85	0.000041	111	0.49	234	0.00006	<0.005	0.0145	0.00233	<0.005	0.467	0.00048	0.017	0.00051	0.00025	0.0531	<0.0001	<0.001	0.061	0.00107	167	<0.001	0.0512	0.00099	<0.01
DTIP-DW	3/29/2019 10:03	VL3515	M	11	0.00011	140	0.764	473	0.000125	<0.01	0.128	0.00724	0.015	0.503	0.00247	0.0122	<0.001	0.00021	0.0299	<0.0002	<0.002	0.132	0.000515	309	<0.002	0.0428	<0.001	<0.02
DTIP-DW	4/4/2019 10:10	VM3421	M	4.92	<0.0001	253	1.07	608	0.000057	<0.025	0.027	0.00624	<0.025	0.446	0.00087	<0.015	<0.0025	<0.0005	0.021	<0.0005	<0.005	<0.25	0.000345	308	<0.005	0.0276	<0.0025	<0.05
DTIP-DW	4/9/2019 11:00	VM8364	M	6.69	0.000041	79.2	0.577	332	0.000054	<0.005	0.0473	0.00783	0.0055	0.0819	0.00072	0.0129	<0.0005	0.00021	0.0208	<0.0001	<0.001	0.058	0.00008	269	<0.001	0.00144	0.00064	0.012
DTIP-DW	4/19/2019 9:15	VO0386	M	10.4	0.000089	60.3	0.488	301	0.0001	<0.01	0.091	0.00612	0.011	0.032	0.00097	0.0066	<0.001	0.00043	0.027	<0.0002	<0.002	<0.1	0.000049	291	<0.002	0.00241	<0.001	<0.02
DTIP-DW	5/2/2019 9:45	VP8755	M	5.1	<0.00002	34.6	0.478	245	0.000027	<0.005	0.0211	0.00567	<0.005	<0.005	0.00032	0.0058	<0.0005	0.0006	0.0241	<0.0001	<0.001	<0.05	0.00017	261	<0.001	0.0007	<0.0005	<0.01
DTIP-DW	5/9/2019 11:50	VQ9667	M	7.88	0.000024	82.2	0.62	363	0.000067	<0.005	0.0572	0.00623	0.006	0.084	0.00109	0.0101	<0.001	<0.0002	0.0233	<0.0002	<0.002	0.118	0.000164	292	<0.002	0.0116	<0.001	<0.02
DTIP-DW	5/18/2019 12:29	VS1843	M	4.27	<0.0001	174	0.701	432	0.000057	<0.025	<0.025	0.00689	<0.025	0.105	<0.0005	0.015	<0.0025	<0.0005	0.0263	<0.0005	<0.005	<0.25	0.000126	313	<0.005	0.0042	<0.0025	<0.05
DTIP-DW	5/23/2019 12:15	VS9368	M	6.86	0.000034	121	0.593	344	0.000075	<0.005	0.0465	0.00579	0.0057	0.142	0.0006	<0.003	<0.0005	0.0002	0.0307	<0.0001	<0.001	0.106	0.000077	273	<0.001	0.00116	0.00352	0.013
DTIP-DW	5/29/2019 11:40	VT7345	M	4.89	0.00002	122	0.595	349	0.000052	<0.005	0.0273	0.00633	<0.005	0.111	0.00098	0.0069	<0.001	0.00048	0.0239	<0.0002	<0.002	0.105	0.000088	270	<0.002	0.00085	0.0033	<0.02
DTIP-DW	6/6/2019 10:41	VV6669	M	9.65	0.000079	104	0.565	336	0.000091	<0.01	0.087	0.00647	0.011	0.065	0.0024	0.0119	<0.001	0.0005	0.0305	<0.0002	<0.002	0.108	<0.00002	268	<0.002	0.00057	<0.001	0.139
DTIP-DW	6/11/2019 13:00	VW5008	M	20.3	0.00018	1270	0.783	811	0.000132	<0.025	0.079	0.00479	0.033	0.368	0.00299	<0.015	0.0052	0.00436	0.024	<0.0005	<0.005	0.672	<0.00005	55.8	<0.005	<0.001	0.0039	<0.05
DTIP-DW	6/20/2019 14:10	VY4157	M	5.14	<0.00004	607	0.88	513	0.000028	<0.01	<0.01	0.00474	<0.01	0.059	0.00057	<0.006	<0.001	0.00045	0.0277	<0.0002	<0.002	0.37	<0.00002	212	<0.002	0.00052	0.0019	<0.02
DTIP-DW	6/28/2019 11:28	VZ7862	M	85.4	0.00115	118	1.41	351	0.00098	<0.1	0.432	0.0179	0.144	1.24	0.0082	0.0124	0.0015	0.00086	0.0444	<0.0002	<0.002	0.137	0.000035	295	<0.002	0.00044	0.001	<0.02
DTIP-DW	7/7/2019 11:30	WB1481	M	4.17	<0.00002	70.6	0.593	251	0.000031	<0.005	0.0107	0.00627	<0.005	0.0208	0.00044	0.0127	<0.0005	0.00029	0.0281	<0.0001	<0.001	0.062	<0.00001	263	<0.001	0.00036	0.00064	<0.01
DTIP-DW	7/10/2019 13:35	WB8327	M	8.48	0.000032	79.9	0.578	256	0.000081	<0.005	0.0456	0.00651	0.0069	0.0519	0.00137	0.0103	0.00075	0.00032	0.0302	<0.0001	<0.001	0.076	0.000016	252	<0.001	0.00038	0.00078	<0.01
DTIP-DW	7/16/2019 16:05	WC9638	M	12.9	0.000077	126	1.02	306	0.000168	<0.01	0.063	0.0102	0.03	0.182	0.00172	0.01	<0.001	0.00059	0.0401	<0.0002	<0.002	0.132	0.000054	261	<0.002	0.00063	0.0011	<0.02
DTIP-DW	7/27/2019 12:35	WE7079	M	10.8	0.000241	88.6	0.648	272	0.000287	<0.005	0.108	0.00671	0.0149	0.123	0.00219	0.006	<0.001	0.00044	0.0199	<0.0002	<0.002	0.112	0.000021	233	<0.002	0.00041	0.0016	<0.02
DTIP-DW	7/31/2019 13:45	WF4370	M	4.52	<0.00004	93.2	0.609	275	0.000072	<0.01	<0.01	0.00611	<0.01	0.01	0.00027	0.004	0.00055	0.00052	0.0227	<0.0001	<0.001	0.101	<0.00001	258	<0.001	0.00032	0.00077	<0.01
DTIP-DW	8/7/2019 15:55	WG4503	M	5.04	<0.00004	83.9	0.573	259	0.000055	<0.01	0.034	0.00641	<0.01	0.039	0.00118	<0.003	<0.0005	0.00072	0.0211	<0.0001	<0.001	0.093	0.000012	250	<0.001	0.00035	0.00101	<0.01
DTIP-DW	8/19/2019 14:25	WI2771	M	37.8	0.000275	86.8	0.744	265	0.000492	<0.01	0.489	0.0096	0.073	0.336	0.0105	0.0064	0.00052	0.00055	0.0315	<0.0001	<0.001	0.107	0.000095	251	<0.001	0.00085	0.00142	<0.01
DTIP-DW	9/16/2019 14:15	WN0363	M	12.7	0.000083	74.6	0.588	241	0.000129	<0.005	0.0711	0.00522	0.0158	0.0657	0.00172	0.0139	0.0021	0.0012	0.0573	<0.0002	<0.002	<0.1	0.000045	230	0.0083	<0.0004	<0.001	<0.02
LBCD_Trench	2/22/2019 12:30	VG6138	M	2.98	<0.00002	11.4	0.301	65.9	0.000011	<0.005	<0.005	0.00184	<0.005	<0.005	0.00012	<0.003	<0.0005	0.00027	0.111	<0.0001	<0.001	<0.05	0.000041	87.1	<0.001	0.00039	<0.0005	<0.01
LBCD-N-Sump-East	7/31/2019 14:10	WF4371	M	6.59	<0.0001	689	1.55	1250	<0.00005	<0.025	<0.025	0.00716	<0.025	0.054	0.00054	<0.015	<0.0025	<0.0005	0.007	<0.0005	<0.005	0.385	0.000709	454	<0.005	0.0701	<0.0025	15.2
LBCD-N-SUMP-East	8/8/2019 13:55	WG6509	M	3.83	<0.0001	530	1.18	906	0.000057	<0.025	0.035	0.015	<0.025	<0.025	0.00065	<0.015	<0.0025	<0.0005	0.0123	<0.0005	<0.005	<0.25	0.000122	299	<0.005	0.015	<0.0025	<0.05
LBCD-N-Sump-East	8/15/2019 23:35	WH8389	M	2.37	<0.0004	811	1.84	1350	<0.0002	<0.1	<0.1	0.0122	<0.1	<0.1	<0.002	<0.015	<0.0025	<0.0005	0.0064	<0.0005	<0.005	0.329	0.000077	428	<0.005	0.0407	<0.0025	<0.05
LBCD-N-SUMP-Trench	8/8/2019 13:35	WG6508	M	2.75	<0.0001	723	1.78	1230	<0.00005	<0.025	<0.025	0.0127	<0.025	0.083	<0.0005	<0.015	<0.0025	<0.0005	0.0058	<0.0005	<0.005	0.305	0.000156	434	<0.005	0.0419	<0.0025	<0.05

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
DOP_BT_East	6/20/2019 13:35	VY4156	M	<0.0004	0.103	51.3	0.0339	<0.000002	0.0114	0.0068		5.72	0.00265	4.86	<0.00004	515	0.923	378	0.000021	<0.01	<0.01	0.00393	<0.01	<0.01	<0.0002
DOP_BT_East	6/27/2019 14:45	VZ7731	M	<0.0004	0.143	75.3	0.0988	<0.000002	0.0138	0.0107		8.80	0.00995	5.02	<0.00004	634	1.2	555	0.000022	<0.01	<0.01	0.00539	<0.01	0.011	<0.0002
DOP_BT_East	7/6/2019 12:58	WB1490	M	<0.0002	0.0769	40.8	0.135	<0.000002	0.0095	0.0059		5.03	0.00394	4.15	<0.00002	354	0.722	305	0.000028	<0.005	<0.005	0.0041	<0.005	<0.005	0.00011
DOP_BT_East	7/12/2019 12:20	WC0457	M	0.00042	0.122	90.8	0.149	<0.000002	0.0118	0.0165		7.21	0.00516	4.57	<0.00004	575	1.35	539	0.000022	<0.01	<0.01	0.00713	<0.01	<0.01	<0.0002
DOP_BT_East	7/19/2019 13:50	WD4027	M	<0.001	0.123	61.7	0.284	<0.000002	0.0154	0.0131		6.91	0.00383	4.19	<0.0001	662	1.09	502	<0.00005	<0.025	<0.025	0.00495	<0.025	<0.025	<0.0005
DOP_BT_East	7/28/2019 13:50	WE7128	M	0.00052	0.12	81.5	0.0449	<0.000002	0.0075	0.0065		6.04	0.00281	5.76	<0.00004	507	1.39	442	<0.00002	<0.01	<0.01	0.00466	<0.01	0.028	<0.0002
DOP_BT_East	7/30/2019 13:50	WF2078	M	<0.0004	0.115	47.9	<0.002	0.0000021	0.0513	<0.002		9.65	0.00382	7.46	<0.00004	654	0.538	456	<0.00002	<0.01	<0.01	0.00233	<0.01	<0.01	<0.0002
DOP_BT_East	8/7/2019 12:10	WG4497	M	<0.001	0.163	<0.25	<0.005	<0.000002	0.0681	<0.005		28.2	0.0129	9.98	<0.0001	1090	0.693	586	<0.00005	<0.025	<0.025	<0.0005	0.033	<0.025	<0.0005
DOP_BT_East	8/18/2019 16:15	WI0690	M	<0.001	0.149	1.16	<0.005	0.0000027	0.0495	<0.005		14.4	0.00701	10.2	<0.0001	849	0.145	392	<0.00005	<0.025	<0.025	0.00126	<0.025	<0.025	<0.0005
DOP_BT_East	9/1/2019 12:50	WK4246	M	<0.001	0.275	61.8	<0.005	<0.000002	0.0331	0.0063		18.1	0.00563	9.95	<0.0001	1190	1.3	805	<0.00005	<0.025	<0.025	0.00479	<0.025	<0.025	<0.0005
DOP_BT_East	11/7/2019 11:05	WX2038	M	<0.0004	0.142	119	0.0672	<0.000002	0.0055	0.0168		5.87	0.00318	4.34	<0.00004	674	1.69	575	<0.00002	<0.01	<0.01	0.00404	<0.01	0.018	0.00034
DOP_BT_East	12/2/2019 14:05	XB0715	M	<0.0004	0.112	85.4	0.214	<0.000002	0.009	0.0198		7.47	0.00345	4.09	<0.00004	665	1.29	490	<0.00002	<0.01	<0.01	0.00375	<0.01	0.017	<0.0002
DOP_BT_West	4/27/2019 10:10	VP1251	M	<0.001	0.173	55.3	0.0664	<0.000002	0.0374	<0.005		9.01	0.00796	4.05	<0.0001	1170	1.15	845	<0.00005	<0.025	<0.025	0.00628	<0.025	<0.025	<0.0005
DOP_BT_West	5/11/2019 13:40	VR2443	M	<0.001	0.184	164	2.35	<0.000002	0.029	0.165		12.5	0.00361	3.53	<0.0001	1540	1.6	1340	0.000051	<0.025	<0.025	0.00783	<0.025	0.511	<0.0005
DOP_BT_West	5/16/2019 11:25	VS0924	M	<0.001	0.169	164	2.37	<0.000002	0.0266	0.155		12.5	0.0032	3.86	<0.0001	1470	1.54	1310	0.000057	<0.025	<0.025	0.00761	<0.025	0.358	<0.0005
DOP_BT_West	5/22/2019 11:20	VS7474	M	<0.0004	0.073	67.1	0.526	<0.000002	0.0195	0.0349		8.64	0.00225	4.1	<0.00004	665	0.72	583	0.000046	<0.01	<0.01	0.00456	<0.01	0.072	<0.0002
DOP_BT_West	5/28/2019 11:35	VT7572	M	<0.001	0.112	79.2	0.696	<0.000002	0.0184	0.0417		8.81	0.00238	3.92	<0.0001	766	0.927	657	<0.00005	<0.025	<0.025	0.0048	<0.025	0.041	<0.0005
DOP_BT_West	6/5/2019 10:40	VV4623	M	<0.001	0.156	142	1.44	<0.000002	0.0271	0.0703		12.7	0.00393	4.09	<0.0001	1200	1.68	1090	<0.00005	<0.025	<0.025	0.00617	<0.025	0.07	<0.0005
DOP_BT_West	6/12/2019 11:15	VW8061	M	<0.001	0.175	156	1.65	<0.000002	0.0238	0.0864		12.5	0.00308	3.91	<0.0001	1330	1.62	1150	<0.00005	<0.025	<0.025	0.00643	<0.025	0.075	<0.0005
DOP_BT_West	6/21/2019 10:55	VY4166	M	<0.001	0.197	163	1.73	<0.000002	0.0238	0.0857		12.8	0.00271	4.34	<0.0001	1460	1.72	1250	<0.00005	<0.025	<0.025	0.00643	<0.025	0.056	<0.0005
DOP_BT_West	6/27/2019 14:55	VZ7730	M	<0.001	0.251	176	1.55	<0.000002	0.028	0.0795		17.1	0.0159	5.13	<0.0001	1550	2.1	1430	<0.00005	<0.025	<0.025	0.0082	<0.025	0.049	<0.0005
DOP_BT_West	7/6/2019 12:45	WB1489	M	<0.001	0.242	270	3.71	<0.000002	0.0141	0.272		17.5	0.0088	3.81	<0.0001	1600	2.53	1770	0.000095	<0.025	<0.025	0.00593	<0.025	0.605	<0.0005
DOP_BT_West	7/18/2019 15:05	WD4017	M	<0.001	0.175	253	1.67	<0.000002	0.0254	0.0731		17.7	0.01	4.99	<0.0001	1660	3.49	1750	0.000084	<0.025	<0.025	0.0141	<0.025	0.245	<0.0005
DOP_BT_West	7/28/2019 14:00	WE7127	M	<0.004	0.245	286	0.979	<0.000002	0.031	0.046		22.0	0.0081	5.53	<0.0004	2030	2.89	1970	<0.0002	<0.1	<0.1	0.0131	<0.1	0.254	<0.002
DOP_BT_West	8/1/2019 13:15	WF6263	M	<0.002	0.259	273	0.369	<0.000002	0.025	0.016		20.1	0.005	3.88	<0.0002	1840	2.39	1970	<0.0001	<0.05	<0.05	0.0147	<0.05	<0.05	<0.001
DOP_BT_West	11/7/2019 11:30	WX2039	M	<0.0004	0.166	115	0.154	<0.000002	0.0173	0.0343		10.6	0.00562	4.93	<0.00004	807	1.52	696	0.000026	<0.01	<0.01	0.00423	<0.01	<0.01	0.00025
DOP_BT_West	12/2/2019 14:25	XB0716	M	<0.0004	0.0897	65.7	0.187	<0.000002	0.0078	0.0213		6.04	0.00281	3.65	<0.00004	514	0.98	369	<0.00002	<0.01	<0.01	0.0032	<0.01	0.016	<0.0002
DOP_W_Ditch	4/14/2019 9:00	VN6123	M	<0.001	0.06	76.8	1.51	<0.000002	0.0192	0.128		8.15	0.00567	4.22	<0.0001	458	0.757	510	<0.00005	<0.025	<0.025	0.0018	<0.025	0.213	<0.0005
DOP-Center-Sump	7/30/2019 14:00	WF2079	M	<0.0004	0.128	15.6	0.063	<0.000002	0.0402	0.0057		3.98	0.00491	3.77	<0.00004	799	0.438	385	0.000027	<0.01	<0.01	0.0064	<0.01	<0.01	<0.0002
DOP-Fishway-S-Sump	5/4/2019 9:12	VQ1587	M	<0.0002	0.0268	22.3	0.107	<0.000002	0.0052	0.0078		1.83	0.00276	3.94	<0.00002	97.7	0.305	78.2	<0.00001	<0.005	<0.005	0.00259	<0.005	<0.005	<0.0001
DOP-Fishway-S-Sump	5/8/2019 11:00	VQ8325	M	<0.0002	0.0268	26.5	0.102	<0.000002	0.0049	0.0083		2.07	0.0026	4.27	<0.00002	96.6	0.345	95.6	0.00001	<0.005	<0.005	0.0033	<0.005	<0.005	<0.0001
DTIP_BT_1	1/5/2019 15:08	VB1448	M	<0.0002	0.0115	9.57	0.0041	<0.000002	0.0058	0.0022		2.82	0.00145	4.98	<0.00002	30.0	0.278	25.5	0.000019	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001
DTIP_BT_1	1/12/2019 14:25	VC0274	M	<0.0002	0.0115	11.3	0.0077	<0.000002	0.0048	0.0025		2.80	0.0011	5.38	<0.00002	25.0	0.263	23.8	0.000017	<0.005	<0.005	0.00118	<0.005	<0.005	<0.0001
DTIP_BT_1	1/15/2019 14:25	VC4154	M	<0.0002	0.0143	11.2	0.0032	<0.000002	0.006	0.0023		4.44	0.00123	7.22	<0.00002	29.2	0.327	26.1	0.000024	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001
DTIP_BT_1	2/23/2019 16:20	VG8591	M	<0.0002	0.0028	24.1	0.1	<0.000002	0.0086	<0.001		1.20	<0.0001	4.71	<0.00002	5.42	0.23	10.1	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001
DTIP_BT_1	3/9/2019 15:15	VI6898	M	<0.0002	0.009	2.86	<0.001	<0.000002	0.0449	0.0015		4.01	0.00222	6.01	<0.00002	78.4	0.263	57.8	0.000025	<0.005	<0.005	0.00108	0.0153	0.0291	<0.0001
DTIP_BT_1	4/10/2019 12:15	VN0841	M	<0.0002	0.0141	14.4	0.0027	<0.000002	0.0047	0.0033		4.83	0.00113	5.92	<0.00002	20.9	0.293	30.9	0.000028	<0.005	<0.005	0.00142	<0.005	<0.005	0.00011
DTIP_BT_2	3/12/2019 10:30	VI8619	M	<0.001	0.073	1.16	<0.005	<0.000002	0.0471	0.0066		5.16	0.0131	8.65	<0.0001	493	0.163	267	<0.00005	<0.025	<0.025	0.00081	<0.025	<0.025	<0.0005
DTIP_BT_2	3/12/2019 10:45	VI8620	M	<0.0002	0.0143	13.0	0.0161	<0.000002	0.0147	0.0051		3.36	0.00102	5.36	<0.00002	32.6	0.254	34.2	0.000017	<0.005	<0.005	0.00129	<0.005	<0.005	<0.0001
DTIP_BT_2	3/13/2019 11:40	VJ2169	M	<0.0002	0.0069	8.33	0.0293	<0.000002	0.0015	0.0056		1.05	0.00073	2.4	<0.00002	15.5	0.157	24.5	<0.00001	<0.005	<0.005	0.00065	<0.005	<0.005	<0.0001
DTIP_BT_2	4/10/2019 11:43	VN0840	M	<0.0002	0.0142	14.5	0.0025	<0.000002	0.0049	0.0031		4.63	0.00106	5.62	<0.00002	22.1	0.298	31.8	0.000028	<0.005	<0.005	0.00147	<0.005	<0.005	0.00013
DTIP_BT_2	11/16/2019 13:35	WY5253	M	<0.001	0.23	40.5	0.0948	<0.000002	0.0613	<0.005		13.3	0.00319	6.55	<0.0001	1390	1.11	841	<0.00005	<0.025	<0.025	0.00637	<0.025	<0.025	<0.0005
DTIP_BT_2	12/3/2019 13:55	XB3100	M	<0.001	0.362	37.5	0.0139	<0.000002	0.0289	<0.005		19.0	0.00231	15.7	<0.0001	1810	0.52	1030	<0.00005	<0.025	<0.025	0.0017	<0.025	<0.025	<0.0005
DTIP-1-Sump	6/29/2019 19:30	WA1488	M	<0.0004	0.144	70.0	0.408	<0.000002	0.022	0.0304		9.51	0.0134	3.35	<0.00004	541	1.05	585	0.00005	<0.01	<0.01	0.00568	<0.01	<0.01	<0.0002
DTIP-2-Sump	6/7/2019 16:20	VV9736	M	<0.0004	0.101	57.6	0.0642	<0.000002	0.0102	0.0048		5.16	0.00269	5.74	<0.00004	555	0.606	506	0.000037	0.028	<0.01	0.00639	<0.01	<0.01	<0.0002
DTIP-2-Sump	6/29/2019 19:05	WA1487	M	<0.0002	0.0526	23.0	0.0117	0.0000028	0.023	0.0028		11.4	0.0059	6.17	<0.00002	263	0.549	284	0.00002	<0.005	<0.005	0.00341	<0.005	<0.005	<0.0001
DTIP-DW	1/5/2019 15:00	VB1447	M	<0.001	0.225	209	5.31	<0.000002	<0.005	0.796		8.67	0.0261	4.94	<0.0001	198	1.16	825	0.000087	<0.025	<0.025	0.00232	<0.025	2.26	<0.0005
DTIP-DW	1/12/2019 14:05	VC0273	M	<0.001	0.074	191	4.57	<0.000002	<0.005	0.238		6.18	0.00119	2.86	<0.0001	240	1.13	711	<0.00005	<0.025	<0.025	0.00057	<0.025	0.077	<0.0005
DTIP-DW	1/15/2019 14:15	VC4153	M	<0.001	0.078	198	4.64	<0.000002	<0.005	0.0476		7.40	0.00077	3.72	<0.0001	256	1.2	802	<0.00005	<0.025	<0.025	0.00071	<0.025	<0.025	<0.0005
DTIP-DW	1/29/2019 14:44	VE0707	M	<0.001	0.378	175	5.06	<0.000002	<0.005	1.16		9.16	0.0324	6.04	<0.0001	128	0.931	678	0.000121	<0.025	<0.025	0.00548	<0.025	5.13	<0.0005
DTIP-DW	3/23/2019 11:05	VK5951	M	<0.0002	0.0607	41.6	0.303	<0.000002	0.0117	0.113		8.37	0.0109	1.63	<0.00002	124	0.588	288	0.000033	<0.005	<0.005	0.00193	<0.005	0.289	<0.0001
DTIP-DW	3/29/2019 10:03	VL3515	M	<0.0004	0.0453	96.8	1.26	<0.000002	0.0029	0.117		4.64	0.00508	2.58	<0.00004	129	0.685	440	0.000029	<0.01	<0.01	0.00641	<0.01	0.239	<0.0002
DTIP-DW	4/4/2019 10:10	VM3421	M	<0.001	0.086	134	1.66	<0.000002	<0.005	0.0984		7.60	0.0039	2.18	<0.0001	246	1.05	591	<0.00005	<0.025	<0.025	0.00457	<0.025	0.184	<0.0005
DTIP-DW	4/9/2019 11:00	VM8364	M	<0.0002	0.0148	64.8	0.331	<0.000002	0.0033	0.0062		3.70	0.00307	2.64	<0.00002	75.4	0.555	318	0.000014	<0.005	<0.005	0.00721	<0.005	0.0091	<0.0001
DTIP-DW	4/19/2019 9:15	VO0386	M	<0.0004	0.0196	72.2	0.584	<0.000002	0.0086	0.0079		3.52	0.00237	3.17	<0.00004	71.2	0.533	336	<0.00002	<0.01	<0.01	0.00656	<0.01	<0.01	<0.0002
DTIP-DW	5/2/2019 9:45	VP8755	M	<0.0002	0.015	48.9	0.282	<0.000002	0.0029	0.0044		2.40	0.00113	3.51	<0.00002	37.2	0.487	249	0.000022	<0.005	<0.005	0.00606	<0.005	<0.005	<0.0001
DTIP-DW	5/9/2019 11:50	VQ9667	M	<0.0004	0.0359	80.6	1.7	<0.000002	0.0024	0.0386		3.52	0.00135	2.66	<0.00004	82.4	0.631	353	0.000042	<0.01	<0.01	0.00565	<0.01	0.026	<0.0002
DTIP-DW	5/18/2019 12:29	VS1843	M	<0.001	0.027	93.3	0.659	<0.000002	<0.005	0.0163		4.42	0.00449	3.24	<0.0001	182	0.701	446	<0.00005	<0.025	<0.025	0.00656	<0.025	0.057	<0.0005
DTIP-DW	5/23/2019 12:15	VS9368	M	<0.0002	0.024	69.3	0.395	<0.000002	0.0032	0.0077		4.79	0.00345	3.02	<0.00002	124	0.604	367	0.000041	<0.005	<0.005	0.00563	<0.005	0.0336	<0.0001
DTIP-DW	5/29/2019 11:40	VT7345	M	<0.0004	0.0247	67.5	0.245	<0.000002	0.0034	0.0077		3.78	0.00228	3.15	<0.00004	127	0.601	337	0.000034	<0.01	<0.01	0.00603	<0.01	0.052	<0.0002
DTIP-DW	6/6/2019 10:41	VV6669	M	<0.0004	0.0248	68.7	0.0998	<0.000002	0.0035	0.0052		3.99	0.00188	3.53	<0.00004	109	0.565	314	0.000024	<0.01	<0.01	0.00657	<0.01	<0.01	<0.0002
DTIP-DW	6/11/2019 13:00	VW5008	M	<0.001	0.24	36.3	0.0355	<0.000002	0.0242	<0.005		11.5	0.00462	10.3	<0.0001	1230	0.575	738	<0.00005	<0.025	<0.025	0.0038	<0.025	<0.025	<0.0005
DTIP-DW	6/20/2019 14:10	VY4157	M	<0.0004	0.115	56.3	0.144	<0.000002	0.0068	0.0042		4.98	0.00168	5.02	<0.00004	622	0.857	549	<0.00002	<0.01	<0.01	0.00474	<0.01	<0.01	<0.0002
DTIP-DW	6/28/2019 11:28	VZ7862	M	<0.0004	0.03	78.4	0.0885	<0.000002	0.0069	0.0029		5.98	0.00878	7.33	<0.00004	119	0.621	355	<0.00002	<0.01	<0.01	0.00811	<0.01	<0.01	<0.0002
DTIP-DW	7/7/2019 11:30	WB1481	M	<0.0002	0.0211	51.7	0.0625	<0.000002	0.0027	0.0035		3.29	0.00348	3.82	<0.00002	69.2	0.546	253	0.000024	<0.005	<0.005	0.00614	<0.005	<0.005	<0.0001
DTIP-DW	7/10/2019 13:35	WB8327	M	<0.0002	0.0214	55.1	0.0536	<0.000002	0.0031	0.0032		3.52	0.00295	3.5	<0.00002	79.0	0.621	261	0.000016	<0.005	<0.005	0.00609	<0.005	<0.005	<0.0001
DTIP-DW	7/16/2019 16:05	WC9638	M	<0.0004	0.0265	68.2	0.116	<0.000002	0.0079	0.0038		6.56	0.00569	3.89	<0.00004	122	0.662	337	0.000022	<0.01	<0.01	0.00755	<0.01	<0.01	<0.0002
DTIP-DW	7/27/2019 12:35	WE7079	M	<0.0004	0.0233	56.3	0.0856	<0.000002	0.0031	0.003		3.69	0.00185	3.57	<0.00004	94.0	0.586	274	<0.00002	<0.01	<0.01	0.00596	<0.01	<0.01	<0.0002
DTIP-DW	7/31/2019 13:45	WF4370	M	<0.0002	0.027	58.4	0.0668	<0.000002	0.0031	0.0029		3.79	0.00198	3.88	<0.00002	89.4	0.596	298	0.000019	<0.005	<0.005	0.00599	<0.005	<0.005	<0.0001
DTIP-DW	8/7/2019 15:55	WG4503	M	<0.0002	0.0235	59.8	0.105	<0.000002	0.0037	0.0019		3.67	0.00193	3.68	<0.00002	86.2	0.606	270	0.000018	<0.005	<0.005	0.00641	<0.005	<0.005	<0.0001
DTIP-DW	8/19/2019 14:25	WI2771	M	<0.0002	0.0227	60.1	0.13	<0.000002	0.007	0.005		5.95	0.00756	4.02	<0.00002	89.8	0.627	282	0.000021	<0.005	<0.005	0.00679	<0.005	<0.005	<0.0001
DTIP-DW	9/16/2019 14:15	WN0363	M	<0.0004	0.0156	41.3	0.0267	<0.000002	0.0156	<0.002		6.95	0.0073	7.2	<0.00004	76.0	0.586	263	0.00002	<0.01	<0.01	0.00445	<0.01	<0.01	<0.0002
LBCD_Trench	2/22/2019 12:30	VG6138	M	<0.0002	0.0068	20.9	0.0729	0.000003	0.0021	0.0014		1.13	0.00109	3	<0.00002	11.5	0.315	69.1	<0.00001	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001
LBCD-N-Sump-East	7/31/2019 14:10	WF4371	M	<0.001	0.155	467	6.53	<0.000002	<0.005	0.149		5.06	<0.0005	5.77	<0.0001	684	1.54	1410	<0.00005	<0.025	<0.025	0.00678	<0.025	0.045	<0.0005
LBCD-N-SUMP-East	8/8/2019 13:55	WG6509	M	<0.001	0.118	307	2.63	<0.000002	0.0058	0.0188		5.41	0.00203	1.72	<0.0001	564	1.2	982	<0.00005	<0.025	<0.025	0.0145	<0.025	<0.025	<0.0005
LBCD-N-Sump-East	8/15/2019 23:35	WH8389	M	<0.001	0.161	462	2.75	<0.000002	0.0052	0.091		6.48	0.00249	2.21	<0.0001	792	1.88	1370	<0.00005	<0.025	<0.025	0.0124	<0.025	<0.025	<0.0005
LBCD-N-SUMP-Trench	8/8/2019 13:35	WG6508	M	<0.001	0.144	442	4.88	<0.000002	<0.005	0.073		5.80	0.00105	2.44	<0.0001	770	1.91	1380	<0.00005	<0.025	<0.025	0.0122	<0.025	0.043	<0.0005

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LBCD-N-SUMP-West	8/8/2019 14:15	WG6510	M	7.64	7100	540	6800	160	2770	2820	120	<1.0	140	<1.0	<1.0	62	0.77	3.0	4700			0.68	<0.0050	<0.020	<0.020	<0.0030
LBCD-Out	1/1/2019 14:10	VA5882	M	7.96	1030	2.01	718	<4.0	475	459	168	<1.0	205	<1.0	<1.0	9.98	0.088	0.20	333			0.096	0.0055	0.027	0.033	<0.0050
LBCD-Out	1/2/2019 16:00	VA7354	M			1.69		<4.0																		
LBCD-Out	1/10/2019 15:20	VB7975	M	8.12	1050	1.84	732	6.8	500	505	171	<1.0	208	<1.0	<1.0	10.5	0.087	0.21	348			0.11	<0.0050	<0.020	<0.020	<0.0050
LBCD-Out	1/20/2019 14:25	VC9570	M	8.09	1030	5.96	734	6.0	472	465	170	<1.0	207	<1.0	<1.0	10.9	0.089	0.23	326			0.14	<0.0050	<0.020	<0.020	<0.0050
LBCD-Out	2/27/2019 11:10	VH2519	M	8.07	1280	9.18	926	<4.0	550	579	186	<1.0	227	<1.0	<1.0	12.3	0.084	0.25	460			0.16	<0.0050	0.122	0.122	<0.0050
LBCD-Out	3/1/2019 15:30	VH5671	M			6.27		<4.0																		
LBCD-Sump	5/11/2019 10:05	VR2441	M	8.08	602	39.6	394	37.2	255	255	149	<1.0	182	<1.0	<1.0	21.5	0.120	0.35	148			0.23	0.0054	<0.020	<0.020	<0.0030
LBCD-Sump	5/16/2019 12:10	VS0926	M	8.10	635	135	396	129	295	290	145	<1.0	177	<1.0	<1.0	17.7	0.099	0.30	174			0.24	<0.0050	<0.020	<0.020	0.0059
LBCD-Sump	5/24/2019 10:25	VS9236	M	9.03	1490	128000	4090	93000	2430	10.7						54.8	0.500	0.57	378			5.5	0.0729	0.083	0.156	0.0330
LBCD-Sump	5/25/2019 12:00	VT2670	M	8.49	1750	58900	1180	43700	855	72.9	214	4.5	250	5.3	<1.0	54.9	0.580	0.91	512			3.8	0.0799	0.025	0.105	0.060
LBCD-Sump	5/29/2019 9:25	VT7341	M	8.24	1770	37.8	1150	78.8	273	277	233	<1.0	285	<1.0	<1.0	63	0.330	1.0	590			1.0	0.0182	0.050	0.068	<0.0050
LBCD-Sump	6/4/2019 10:50	VU7713	M	8.16	1460	727	1020	462	393	327	194	<1.0	237	<1.0	<1.0	34.6	0.160	0.70	444			0.67	0.0296	0.139	0.169	<0.0050
LBCD-Sump	6/13/2019 10:40	VW9978	M	8.00	1450	12.7	958	72.4	414	417	234	<1.0	285	<1.0	<1.0	39.2	0.130	0.66	372			0.46	0.0166	0.157	0.174	<0.0050
LBCD-Sump	6/19/2019 13:50	VY1847	M	8.14	1340	2.28	936	<4.0	401	432	224	<1.0	273	<1.0	<1.0	37	0.120	0.62	420			0.37	0.0234	0.239	0.262	<0.0050
LBCD-Sump	6/26/2019 14:40	VZ5389	M	8.27	1820	1500	1200	870	397	355	234	<1.0	285	<1.0	<1.0	51.1	0.260	0.93	667			0.89	0.204	0.875	1.08	<0.0050
LBCD-Sump	7/4/2019 13:30	WA7984	M	8.22	1300	2.3	914	7.2	484	471	194	<1.0	237	<1.0	<1.0	27.0	0.095	0.43	452			0.19	0.0248	0.431	0.456	<0.0050
LBCD-Sump	7/10/2019 13:57	WB8328	M	8.25	1520	16	1040	32.4	446	424	221	<1.0	269	<1.0	<1.0	37.0	0.130	0.69	510			0.36	0.0350	0.514	0.549	<0.0050
LBCD-Sump	7/17/2019 14:41	WD1678	M	8.23	1410	41	950	68.0	459	382	199	<1.0	243	<1.0	<1.0	36.7	0.100	0.67	439			0.23	0.0387	0.496	0.535	<0.0050
LBCD-Sump	7/25/2019 13:20	WE4854	M	8.21	1380	4.4	964	36.4	412	383	194	<1.0	237	<1.0	<1.0	40.7	0.140	0.63	429			0.032	0.0446	0.542	0.586	<0.0050
LBCD-Sump	7/31/2019 12:40	WF4368	M	8.27	1400	2.2	962	8.8	426	420	215	<1.0	262	<1.0	<1.0	31.7	0.100	0.61	480			0.056	0.0346	0.473	0.507	<0.0050
LBCD-Sump	8/6/2019 13:45	WG2811	M	8.24	1510	12	1060	15.6	376	371	230	<1.0	281	<1.0	<1.0	50.7	0.140	0.76	519			0.074	0.0449	0.559	0.604	0.0056
LBCD-Sump	8/23/2019 11:05	WI9313	M	8.21	1400	73	940	33	405	393	200	<1.0	250	<1.0	<1.0	32	0.14	0.53	450			0.057	0.0896	1.31	1.40	0.0035
LBCD-Sump	8/27/2019 14:00	WJ7316	M	8.26	1400	5	970	4	454	426	220	<1.0	270	<1.0	<1.0	29	0.11	0.56	450			0.11	0.0407	0.495	0.535	<0.0030
LBCD-Sump	9/3/2019 14:15	WK8387	M	8.30	1400	1.7	1100	<4.0	425	436	220	<1.0	270	<1.0	<1.0	35	0.10	0.57	390			0.13	0.0279	0.410	0.438	<0.0030
LBCD-Sump	9/10/2019 12:50	WL9319	M	8.27	1700	1000	1200	803	263	207	230	<1.0	280	<1.0	<1.0	64	0.21	1.1	530			0.32	0.198	1.19	1.39	0.0066
LBCD-Sump	9/17/2019 10:30	WN3117	M	8.05	1500	210	1100	172	360	365	220	<1.0	260	<1.0	<1.0	43	0.12	0.73	460			0.29	0.0764	1.09	1.17	<0.0030
LBCD-Sump	9/27/2019 10:25	WP3483	M	8.11	1600	120	1100	110	414	388	230	<1.0	280	<1.0	<1.0	48	0.12	0.82	500			0.50	0.0428	0.441	0.484	<0.0030
LBCD-Sump	10/1/2019 14:45	WP9962	M	8.16	1600	15	1100	28.0	416	413	230	<1.0	280	<1.0	<1.0	44	0.12	0.79	530			0.40	0.0335	0.314	0.348	<0.0030
LBCD-Sump	10/9/2019 10:30	WR5594	M	8.07	1500	6.4	700	18	484	481	240	<1.0	290	<1.0	<1.0	36	0.085	0.60	480			0.36	0.013	0.20	0.22	<0.0030
LBCD-Sump	10/15/2019 9:30	WS4274	M	8.02	1600	76	1100	100	402	404	250	<1.0	300	<1.0	<1.0	45	0.10	0.81	530			0.61	0.023	0.30	0.33	0.0040
LBCD-Sump	10/22/2019 16:10	WT8962	M	8.21	1300	30	950	34	454	418	200	<1.0	250	<1.0	<1.0	31	0.12	0.51	430			0.31	<0.050	0.54	0.54	0.0036
LBCD-Sump	11/2/2019 14:45	WW1211	M	8.40	3900	99	2800	190	286	230	320	4.9	370	5.9	<1.0	180	0.55	3.0	1400			1.3	0.13	2.0	2.1	<0.0030
LBCD-Sump	11/9/2019 10:35	WX3316	M	8.13	735	0.25	446	<4.0	308	313	200	<1.0	240	<1.0	<1.0	26	0.068	0.39	150			0.057	<0.0050	0.194	0.194	0.011
LBCD-Sump	11/13/2019 13:15	WY0311	M	8.18	735	0.95	455	<1.0	305	312	220	<1.0	260	<1.0	<1.0	28	0.072	0.38	140			0.049	<0.010	0.19	0.19	<0.0030
LBCD-Sump	11/15/2019 12:40	WY2335	M	8.33	4800	16	3430	23	391	463	370	<1.0	460	<1.0	<1.0	190	0.44	0.45	1800			1.9	0.082	1.6	1.7	<0.0030
LBCD-Sump	11/19/2019 15:00	WY9705	M	8.04	1490	1.6	1110	4.5	526	540	240	<1.0	300	<1.0	<1.0	29	0.091	0.54	540			0.17	<0.010	0.36	0.36	<0.0030
LBCD-Sump	11/27/2019 15:10	XA4491	M	8.05	1390	0.82	968	2.1	547	528	260	<1.0	320	<1.0	<1.0	32	0.077	0.52	450			0.35	<0.010	0.15	0.15	<0.0030
LBCD-Sump	12/3/2019 13:25	XB3099	M	8.05	1520	0.36	1100	<1.0	589	594	266	<1.0	324	<1.0	<1.0	29.4	0.065	0.503	544			0.414	<0.010	0.119	0.119	<0.0030
LBCD-Sump	12/11/2019 15:00	XC6936	M	7.91	1090	1.0	762	1.6	443	441	205	<1.0	250	<1.0	<1.0	41.9	0.067	0.667	309			0.420	<0.010	0.115	0.115	<0.0030
LBCD-Sump	12/18/2019 13:55	XD7331	M	8.02	1020	1.8	795	14.3	441	474	210	<1.0	257	<1.0	<1.0	36.3	0.056	0.634	282			0.158	<0.010	0.113	0.113	<0.0030
LBDA	11/5/2019 15:30	WW9449	M	3.58	44400	2500	>10000	510	25700	25500	<1.0	<1.0	<1.0	<1.0	<1.0	9.3	0.12	13	94000			18	0.37	<0.10	0.37	380
LBEX-B1	1/21/2019 15:49	VD2274	M	8.08	1950	56.3	1320	85.6	887	815	704	<1.0	858	<1.0	<1.0	3.72	0.420	0.23	406			0.61	<0.0050	<0.020	<0.020	0.014
LBEX-B1	2/21/2019 15:15	VG6144	M	8.17	1360	11.2	902	14.4	605	566	512	<1.0	625	<1.0	<1.0	5.28	0.440	0.11	283			0.56	<0.0050	<0.020	<0.020	0.0119
LBEX-B1	3/23/2019 12:45	VK5952	M	8.06	623	767	414	610	387	280	138	<1.0	169	<1.0	<1.0	4.20	0.230	0.035	186			0.77	0.0403	1.31	1.35	<0.0050
LBEX-B1	3/26/2019 11:31	VK9100	M	8.14	646	530	422	298	346	280	142	<1.0	173	<1.0	<1.0	4.44	0.210	0.053	167			0.59	0.0438	1.14	1.18	0.0082
LBEX-B1	4/3/2019 11:25	VM1863	M			10.9		26.0																		
LBEX-B1	4/9/2019 13:15	VM8367	M	8.08	1160	16.9	788	94.4	546	479	373	<1.0	455	<1.0	<1.0	7.23	0.350	0.14	261			0.44	0.0497	0.613	0.662	0.0061
LBEX-B1	4/16/2019 12:15	VN8465	M			337		232																		
LBEX-B1	4/23/2019 11:40	VO5430	M			201		158																		
LBEX-B1	5/2/2019 11:50	VP8758	M	8.23	1340	8.34	812	18.8	591	574	482	<1.0	588	<1.0	<1.0	7.28	0.280	0.16	269			0.063	<0.0050	0.161	0.161	<0.0030
LBEX-B1	5/7/2019 11:45	VQ4353	M	8.29	1180	14.5	724	8.8	568	553	413	<1.0	504	<1.0	<1.0	13.3	0.220	0.13	264			0.039	<0.0050	<0.020	<0.020	0.0034
LBEX-B1	5/16/2019 14:20	VS0927	M	8.37	1420	19.1	938	51.2	627	613	486	5.6	579	6.7	<1.0	6.41	0.320	0.16	286			0.049	<0.0050	0.038	0.038	0.0067
LBEX-B1	5/23/2019 12:00	VS9367	M	8.39	1480	16.1	962	65.2	570	557	473	9.6	553	11.5	<1.0	5.26	0.350	0.17	375			0.050	<0.0050	<0.020	<0.020	<0.0050
LBEX-B1	5/25/2019 12:55	VT2671	M	8.26	1730	85.1	1140	214	710	736	613	<1.0	748	<1.0	<1.0	3.78	0.450	0.16	396			0.40	0.0059	0.032	0.038	0.0097
LBEX-B1	5/31/2019 12:15	VU2499	M	8.31	1600	20.5	1030	52.4	616	583	508	1.9	615	2.3	<1.0	4.66	0.370	0.17	366			0.087	0.0060	<0.020	<0.020	<0.0050
LBEX-B1	6/6/2019 12:45	VV6671	M	8.31	1430	15.4	1000	26.0	642	617	513	2.6	620	3.1	<1.0	7.86	0.350	0.20	298			0.12	0.0076	0.068	0.076	<0.0050
LBEX-B1	6/13/2019 12:55	VW9979	M	8.32	1610	74.6	1050	91.6	589	546	485	<1.0	592	<1.0	<1.0	5.93	0.340	0.18	398			0.035	<0.0050	0.023	0.023	<0.0050
LBEX-B1	6/19/2019 14:55	VY1849	M	8.42	1590	10.5	1110	24.0	578	569	552	11.2	646	13.4	<1.0	3.4	0.390	0.18	330			0.12	0.0153	0.073	0.089	<0.0050
LBEX-B1	6/26/2019 13:40	VZ5391	M	8.16	1560	88.2	1230	86.4	755	785	323	<1.0	395	<1.0	<1.0	18.3	0.490	0.21	579			0.29	0.0538	1.71	1.76	<0.0050
LBEX-B1	7/3/2019 13:45	WA5881	M	8.09	1780	48	1410	66.0	814	844	319	<1.0	389	<1.0	<1.0	5.54	0.440	0.17	681			0.14	0.0753	2.58	2.66	<0.0050
LBEX-B1	7/11/2019 14:05	WC0500	M	8.07	1820	15	1300	24.0	798	758	447	<1.0	546	<1.0	<1.0	4.74	0.360	0.21	619			0.15	0.0154	0.083	0.099	<0.0050
LBEX-B1	7/17/2019 15:46	WD1680	M	8.22	1570	120	1130	128	853	742	402	<1.0	490	<1.0	<1.0	5.97	0.320	0.19	529			0.097	0.0461	0.882	0.928	<0.0050
LBEX-B1	7/23/2019 14:40	WE1029	M	8.23	1900	32	1410	72.4	799	786	446	<1.0	544	<1.0	<1.0	6.24	<0.020	0.28	682			0.098	<0.0050	0.029	0.029	<0.0050
LBEX-B1	8/1/2019 14:05	WF6264	M	8.37	1500	12	1100	83	629	602	470	5.6	560	6.7	<1.0	7.3	0.29	0.19	410			<0.015	<0.0050	<0.020	<0.020	<0.0030
LBEX-B1	8/6/2019 14:50	WG2813	M	8.30	1540	46	1090	<4.0	686	673	444	1.2	538	1.4	<1.0	7.42	0.310	0.21	432			<0.015	<0.0050	0.036	0.036	0.0052
LBEX-B1	8/14/2019 9:45	WH7026	M	8.07	2440	64	2080	113	1090	1100	361	<1.0	440	<1.0	<1.0	8.09	0.610	0.31	1140			0.031	0.0055	<0.020	0.024	<0.0050
LBEX-B1	9/10/2019 13:55	WL9321	M	8.10	1300	26	970	41.2	581	662	300	<1.0	360	<1.0	<1.0	17	0.30	0.21	390			0.050	0.0168	1.53	1.54	<0.0030
LBEX-B1	10/1/2019 17:10	WP9964	M	8.21	1300	86	840	96.8	611	586	430	<1.0	520	<1.0	<1.0	9.9	0.27	0.11	210			0.25	<0.0050	0.341	0.341	0.0048
LBEX-B2	1/1/2019 15:00	VA5889	M	7.97	1990	121	1390	149	905	821	713	<1.0	870	<1.0	<1.0	3.71	0.460	0.21	452			0.65	<0.0050	<0.020	<0.020	0.0138
LBEX-B2	3/2/2019 14:30	VH8132	M	7.83	1620	33.7	896	92.0	612	619	724	<1.0	884	<1.0	<1.0	3.55	0.390	0.13	197			0.31	<0.0050	0.064	0.064	<0.0050
LBEX-SP	1/21/2019 15:00	VD2275	M																			32			0.044	
LBEX-SP	1/27/2019 16:30	VD8614	M	7.61	3730	31.6	2630	45.2	378	405	50.2	<1.0	61.3	<1.0	<1.0	52.4	1.30	12	1690			14	0.0259	0.271	0.297	0.0047
LBEX-SP	1/31/2019 11:05	VE3667	M	7.81	4980	12.3	3640	25.6	410	402	93.3	<1.0	114	<1.0	<1.0	79.4	1.80	19	2400			20	0.0216	0.200	0.221	0.0035
LBEX-SP	2/13/2019 14:20	VF7823	M	10.4	5260	79.4	3840	148	298	280	155	111	<1.0	53.0	22.7	86.4	1.80	21	2440			25	0.0167	0.092	0.108	0.0115
LBEX-SP	2/17/2019 15:27	VG0952	M	10.0	5170	82.3	3880	104	263	254	119	79.4	<1.0	47.6	13.5	85.3	1.70	22	2490			21	0.0174	0.068	0.085	<0.0050
LBEX-SP	2/20/2019 12:55	VG2689	M	9.92																		23	0.0235	0.077	0.100	

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LBCD-N-SUMP-West	8/8/2019 14:15	WG6510	M	1.7	1.6	0.277	<0.0025	0.00173	0.0156	<0.0005	<0.005	0.769	0.000744	384	<0.005	0.215	<0.0025	73.1	<0.001	0.276	440	7.63	<0.000002	<0.005	0.394		8.12	0.00093
LBCD-Out	1/1/2019 14:10	VA5882	M	<0.50	0.57	0.0189	<0.0005	0.00066	0.0768	<0.0001	<0.001	<0.05	<0.00001	139	<0.001	0.00023	<0.0005	0.445	<0.0002	0.0114	31.1	0.473	<0.000002	0.0018	<0.001		1.19	<0.0001
LBCD-Out	1/2/2019 16:00	VA7354	M																									
LBCD-Out	1/10/2019 15:20	VB7975	M	<0.50	0.56	0.0555	<0.0005	0.00069	0.0797	<0.0001	<0.001	<0.05	0.000023	146	<0.001	0.00029	0.00053	0.772	<0.0002	0.0117	33.1	0.466	<0.000002	0.0018	<0.001		1.23	0.0002
LBCD-Out	1/20/2019 14:25	VC9570	M	0.56	1.3	0.0301	<0.0005	0.00079	0.0766	<0.0001	<0.001	<0.05	0.000031	132	<0.001	0.00032	0.0042	0.925	<0.0002	0.0105	34.3	0.507	<0.000002	0.0017	<0.001		1.16	0.00019
LBCD-Out	2/27/2019 11:10	VH2519	M	1.3	1.3	0.0128	<0.0005	0.00043	0.0469	<0.0001	<0.001	<0.05	0.000025	159	<0.001	0.00029	<0.0005	0.856	<0.0002	0.0118	37.5	0.54	<0.000002	0.0014	<0.001		1.23	0.00386
LBCD-Out	3/1/2019 15:30	VH5671	M																									
LBCD-Sump	5/11/2019 10:05	VR2441	M	1.4	1.7	0.739	0.00086	0.00122	0.135	<0.0001	<0.001	<0.05	0.000111	72.2	0.0012	0.00116	0.00239	1.29	0.0008	0.0134	18.2	0.104	<0.000002	0.005	0.0053		1.61	0.00123
LBCD-Sump	5/16/2019 12:10	VS0926	M	1.3	1.4	1.39	<0.0005	0.00206	0.184	<0.0001	<0.001	<0.05	0.000279	85.3	0.0025	0.00258	0.00763	3.67	0.00253	0.0129	19.9	0.174	<0.000002	0.0024	0.0095		1.58	0.00101
LBCD-Sump	5/24/2019 10:25	VS9236	M	2.7	5.2	588	<0.025	0.601	0.749	0.0572	<0.05	<2.5	0.0237	476	0.987	0.791	2.85	1820	0.246	2.2	301	17	<0.00002	<0.05	1.89		80.2	0.0408
LBCD-Sump	5/25/2019 12:00	VT2670	M	3.3	7.7	53.6	<0.005	0.0926	2.21	0.0146	<0.01	0.567	0.00395	242	0.1	0.125	0.27	349	0.0845	0.259	60.7	4.3	<0.000002	0.015	0.27		21.5	0.0184
LBCD-Sump	5/29/2019 9:25	VT7341	M	2.4	2.1	1.35	0.00412	0.00319	0.197	<0.0001	<0.001	0.185	0.000027	72.8	0.0037	0.00143	0.0019	0.747	0.0007	0.0629	22.0	0.0474	<0.000002	0.0263	0.0046		3.90	0.00635
LBCD-Sump	6/4/2019 10:50	VU7713	M	2.1	3.3	1.92	0.00185	0.00595	0.613	0.00024	<0.001	0.134	0.00011	106	0.0066	0.00429	0.0111	5.97	0.00471	0.0472	31.0	0.164	<0.000002	0.0165	0.0105		3.97	0.00794
LBCD-Sump	6/13/2019 10:40	VW9978	M	1.4	1.6	0.634	0.00083	0.00131	0.133	<0.0001	<0.001	0.09	0.000034	114	0.001	0.002	0.00119	0.813	0.00041	0.0397	31.7	0.173	<0.000002	0.0034	0.0062		2.09	0.00207
LBCD-Sump	6/19/2019 13:50	VY1847	M	1.5	2.5	0.0458	0.00052	0.00082	0.0912	<0.0001	<0.001	0.095	0.000021	110	<0.001	0.0011	<0.0005	0.218	<0.0002	0.0348	30.4	0.143	<0.000002	0.0025	0.0043		1.85	0.00093
LBCD-Sump	6/26/2019 14:40	VZ5389	M	<5.0	3.2	7.47	0.0014	0.0116	1.01	0.00058	<0.002	0.228	0.000289	104	0.0117	0.0126	0.0288	15.9	0.0104	0.0809	33.3	0.287	<0.000002	0.0203	0.0311		5.07	0.0186
LBCD-Sump	7/4/2019 13:30	WA7984	M	1.3	1.7	0.112	<0.0005	0.00065	0.103	<0.0001	<0.001	0.061	0.000029	135	<0.001	0.00073	0.00066	0.374	<0.0002	0.0291	35.7	0.158	<0.000002	0.0018	0.0038		1.82	0.00579
LBCD-Sump	7/10/2019 13:57	WB8328	M	1.8	1.7	0.158	0.00064	0.00107	0.0967	<0.0001	<0.001	0.111	0.000015	120	0.0012	0.00055	0.0006	0.292	<0.0002	0.0451	35.3	0.124	<0.000002	0.0039	0.0032		4.76	0.00226
LBCD-Sump	7/17/2019 14:41	WD1678	M	1.8	1.7	0.297	0.00088	0.00105	0.104	<0.0001	<0.001	0.122	0.000021	126	0.0031	0.0006	0.00119	0.581	0.00032	0.0437	35.3	0.11	<0.000002	0.0042	0.0026		5.59	0.00196
LBCD-Sump	7/25/2019 13:20	WE4854	M	1.6	2.1	0.517	0.0008	0.00167	0.0952	<0.0001	<0.001	0.114	0.000011	110	0.0015	0.0004	0.00083	0.347	0.0002	0.0404	33.3	0.0758	<0.000002	0.0045	0.0024		3.07	0.00301
LBCD-Sump	7/31/2019 12:40	WF4368	M	2.0	1.6	0.0737	<0.0005	0.00074	0.0956	<0.0001	<0.001	0.099	<0.00001	114	<0.001	0.00029	0.00054	0.212	<0.0002	0.0376	34.3	0.0854	<0.000002	0.0021	0.0021		2.28	0.00131
LBCD-Sump	8/6/2019 13:45	WG2811	M	1.8	2.2	0.298	0.00125	0.00179	0.0899	<0.0001	<0.001	0.141	0.000013	99.3	0.0021	0.00041	0.00093	0.284	<0.0002	0.0451	31.2	0.0821	<0.000002	0.0059	0.0022		3.38	0.00267
LBCD-Sump	8/23/2019 11:05	WI9313	M	1.4	2.1	0.755	0.00129	0.00203	0.125	<0.0001	<0.001	0.136	0.000031	108	0.0024	0.00113	0.0024	0.709	0.00072	0.0437	32.5	0.092	<0.000002	0.0045	0.004		3.21	0.0068
LBCD-Sump	8/27/2019 14:00	WJ7316	M	2.4	2.3	0.157	0.00056	0.00072	0.0967	<0.0001	<0.001	0.099	0.000011	121	<0.001	0.00033	0.00075	0.155	<0.0002	0.0356	37.1	0.0833	<0.000002	0.0022	0.0022		2.24	0.00278
LBCD-Sump	9/3/2019 14:15	WK8387	M	2.1	2.8	0.0836	<0.0005	0.00068	0.0845	<0.0001	<0.001	0.096	<0.00001	112	<0.001	0.00029	0.00058	0.11	<0.0002	0.0373	35.0	0.0785	<0.000002	0.0017	0.0021		1.99	0.00192
LBCD-Sump	9/10/2019 12:50	WL9319	M	2.9	3.3	4.42	0.00242	0.00978	0.652	0.0004	<0.001	0.19	0.000181	66.9	0.0131	0.0091	0.0205	9.31	0.00787	0.0767	23.3	0.202	0.0000027	0.0122	0.0165		7.18	0.00859
LBCD-Sump	9/17/2019 10:30	WN3117	M	<2.5	3.0	1.98	0.00104	0.00275	0.218	0.00013	<0.001	0.12	0.000069	95.9	0.006	0.00232	0.0062	2.9	0.00208	0.0466	29.2	0.108	<0.000002	0.0059	0.0067		4.55	0.00712
LBCD-Sump	9/27/2019 10:25	WP3483	M	2.3	1.6	1.75	0.001	0.00215	0.169	<0.0002	<0.002	0.142	0.000055	112	0.0049	0.00165	0.0047	2.1	0.0015	0.0509	32.7	0.116	<0.000002	0.0054	0.0053		4.05	0.00342
LBCD-Sump	10/1/2019 14:45	WP9962	M	1.4	2.5	0.434	0.00092	0.00133	0.0931	<0.0001	<0.001	0.117	0.000013	110	0.0016	0.00052	0.00106	0.364	0.00026	0.0433	34.3	0.087	<0.000002	0.0032	0.0025		2.97	0.00231
LBCD-Sump	10/9/2019 10:30	WR5594	M	1.3	1.1	0.194	<0.0005	0.00076	0.0918	<0.0001	<0.001	0.096	0.000014	133	<0.001	0.00056	0.00078	0.31	<0.0002	0.0409	37.2	0.142	<0.000002	0.0019	0.0026		2.18	0.0015
LBCD-Sump	10/15/2019 9:30	WS4274	M	1.2	1.5	0.832	0.00084	0.002	0.132	<0.0001	<0.001	0.111	0.000046	110	0.0026	0.0014	0.00368	1.87	0.00131	0.0503	30.9	0.129	0.0000033	0.0037	0.0047		2.71	0.0018
LBCD-Sump	10/22/2019 16:10	WT8962	M	1.0	1.3	0.378	0.00077	0.00112	0.108	<0.0001	<0.001	0.08	0.000019	121	0.0014	0.0008	0.00141	0.352	0.00047	0.0358	36.8	0.117	<0.000002	0.0037	0.0031		2.62	0.00385
LBCD-Sump	11/2/2019 14:45	WW1211	M	2.3	1.4	12.8	0.0113	0.00824	0.305	0.00041	<0.002	0.249	0.000074	63.0	0.0217	0.00466	0.0103	5.16	0.00352	0.191	31.3	0.0938	<0.000002	0.0535	0.0148		10.5	0.0226
LBCD-Sump	11/9/2019 10:35	WX3316	M	1.1	1.3	0.0074	<0.0005	0.00031	0.082	<0.0001	<0.001	<0.05	0.000021	85.8	<0.001	0.00042	<0.0005	0.018	<0.0002	0.015	22.9	0.0512	<0.000002	0.0012	0.0028		1.22	0.00252
LBCD-Sump	11/13/2019 13:15	WY0311	M	1.0	0.98	0.0048	<0.0005	0.00031	0.0732	<0.0001	<0.001	<0.05	0.000022	86.7	<0.001	0.00038	<0.0005	<0.01	<0.0002	0.0132	21.6	0.0423	<0.000002	0.0014	0.0029		1.14	0.00257
LBCD-Sump	11/15/2019 12:40	WY2335	M	1.2	1.0	0.874	0.0064	0.00346	0.056	<0.0005	<0.005	<0.25	<0.00005	81.2	<0.005	0.0059	<0.0025	0.362	<0.001	0.166	45.6	0.0933	<0.000002	0.0374	0.0208		5.89	0.0206
LBCD-Sump	11/19/2019 15:00	WY9705	M	1.3	1.6	0.0469	0.00065	0.00048	0.0576	<0.0001	<0.001	0.066	0.000031	143	<0.001	0.00096	<0.0005	0.065	<0.0002	0.0294	41.3	0.122	0.0000033	0.0036	0.0052		2.09	0.00478
LBCD-Sump	11/27/2019 15:10	XA4491	M	1.4	1.5	0.0218	<0.0005	0.00042	0.0663	<0.0001	<0.001	0.058	0.000024	151	<0.001	0.00074	<0.0005	0.067	<0.0002	0.0266	41.4	0.14	<0.000002	0.0025	0.0048		1.74	0.0029
LBCD-Sump	12/3/2019 13:25	XB3099	M	1.37	1.37	0.0074	<0.0005	0.00039	0.0539	<0.0001	<0.001	0.066	0.000029	161	<0.001	0.00095	<0.0005	0.029	<0.0002	0.0269	45.6	0.158	<0.000002	0.0013	0.0044		1.98	0.00226
LBCD-Sump	12/11/2019 15:00	XC6936	M	0.83	1.12	0.0113	<0.0005	0.00033	0.0579	<0.0001	<0.001	<0.05	0.00005	129	<0.001	0.00064	<0.0005	0.129	<0.0002	0.0161	29.5	0.15	<0.000002	<0.001	0.0025		1.18	0.00221
LBCD-Sump	12/18/2019 13:55	XD7331	M	1.24	1.11	0.119	<0.0005	0.0005	0.0668	<0.0001	<0.001	<0.05	0.000051	129	<0.001	0.00072	0.00187	0.416	0.00032	0.0165	28.7	0.137	<0.000002	<0.001	0.0034		1.26	0.00386
LBDA	11/5/2019 15:30	WW9449	M	8.3	<13	5880	<0.05	4.84	0.121	0.509	<0.1	5.68	0.986	492	4.01	17.1	4.79	18400	<0.02	5.27	5950	214	<0.00004	<0.1	59.9		50.4	0.031
LBEX-B1	1/21/2019 15:49	VD2274	M	3.4	3.3	1.05	<0.0005	0.00554	0.0392	<0.0001	<0.001	0.184	0.000069	171	0.0018	0.00124	0.00306	2.09	0.0011	0.0643	112	0.142	<0.000002	0.0119	0.0045		5.26	0.00046
LBEX-B1	2/21/2019 15:15	VG6144	M	2.0	0.90	0.342	<0.0005	0.00391	0.0187	<0.0001	<0.001	0.145	<0.00001	116	<0.001	0.00061	0.00093	0.459	0.00032	0.0447	76.8	0.0939	<0.000002	0.0096	0.0022		4.07	0.00027
LBEX-B1	3/23/2019 12:45	VK5952	M	6.1	5.2	12.6	<0.0025	0.0115	0.439	0.00067	<0.005	<0.25	0.00108	85.5	0.022	0.0115	0.0458	25.7	0.0171	0.018	42.1	0.522	<0.000002	0.0098	0.0403		5.90	0.00561
LBEX-B1	3/26/2019 11:31	VK9100	M	5.5	5.3	2.66	0.0024	0.00327	0.133	<0.0002	<0.002	<0.1	0.000268	87.7	0.0055	0.00264	0.0109	6.56	0.0165	0.0089	31.0	0.156	<0.000002	0.0118	0.01		5.16	0.00616
LBEX-B1	4/3/2019 11:25	VM1863	M																									
LBEX-B1	4/9/2019 13:15	VM8367	M	3.5	3.9	1.73	0.00075	0.00236	0.0979	<0.0001	<0.001	0.082	0.000115	109	0.0033	0.00127	0.00452	2.47	0.00165	0.0231	66.2	0.14	<0.000002	0.0104	0.0053		4.67	0.00364
LBEX-B1	4/16/2019 12:15	VN8465	M																									
LBEX-B1	4/23/2019 11:40	VO5430	M																									
LBEX-B1	5/2/2019 11:50	VP8758	M	4.8	3.9	0.0688	<0.0005	0.00161	0.0534	<0.0001	<0.001	0.099	0.00001	94.7	<0.001	0.00032	0.00082	0.188	<0.0002	0.0345	86.2	0.0278	<0.000002	0.0082	0.0022		4.58	0.00316
LBEX-B1	5/7/2019 11:45	VQ4353	M	8.6	4.2	1.48	0.00067	0.00242	0.137	<0.0001	<0.001	0.083	0.000111	91.9	0.0027	0.00143	0.00449	2.64	0.0017	0.0286	82.2	0.0727	<0.000002	0.0073	0.0055		4.73	0.00354
LBEX-B1	5/16/2019 14:20	VS0927	M	4.3	3.7	0.205	<0.0005	0.00213	0.0432	<0.0001	<0.001	0.153	0.000029	93.2	<0.001	0.00046	0.00166	0.626	0.00039	0.0473	95.7	0.0315	<0.000002	0.0078	0.0029		5.17	0.00213
LBEX-B1	5/23/2019 12:00	VS9367	M	4.7	4.8	0.211	<0.0005	0.00187	0.0313	<0.0001	<0.001	0.165	0.000017	84.5	<0.001	0.00029	0.00322	0.429	0.00022	0.0514	87.1	0.0218	<0.000002	0.0082	0.0022		5.36	0.00152
LBEX-B1	5/25/2019 12:55	VT2671	M	3.9	4.1	0.323	<0.0005	0.00651	0.0314	<0.0001	<0.001	0.204	0.000039	146	<0.001	0.00064	0.00141	2.5	0.00052	0.055	84.0	0.112	<0.000002	0.0085	0.0027		5.63	0.00049
LBEX-B1	5/31/2019 12:15	VU2499	M	4.9	4.6	0.221	<0.0005	0.00233	0.0284	<0.0001	<0.001	0.219	0.000016	93.3	<0.001	0.0004	0.00189	0.476	0.0003	0.059	93.0	0.0258	<0.000002	0.0102	0.0026		5.99	0.00073
LBEX-B1	6/6/2019 12:45	VV6671	M	47	4.7	0.124	<0.0005	0.00209	0.0385	<0.0001	<0.001	0.192	0.000012	100	<0.001	0.00028	0.00206	0.252	<0.0002	0.0477	95.2	0.0253	<0.000002	0.0098	0.0024		5.45	0.00225
LBEX-B1	6/13/2019 12:55	VW9979	M	4.6	3.8	1.26	<0.0005	0.00276	0.056	<0.0001	<0.001	0.233	0.000058	78.2	0.002	0.00078	0.0036	1.57	0.00108	0.0612	95.7	0.0243	<0.000002	0.0107	0.0042		6.68	0.00109
LBEX-B1	6/19/2019 14:55	VY1849	M	4.5	5.0	0.042	<0.0005	0.00168	0.0289	<0.0001	<0.001	0.232	<0.00001	89.1	<0.001	0.00028	0.00074	0.095	<0.0002	0.0594	86.4	0.0105	<0.000002	0.0113	0.002		6.49	0.0006
LBEX-B1	6/26/2019 13:40	VZ5391	M	4.5	6.2	0.778	0.00078	0.00203	0.0817	<0.0001	<0.001	0.143	0.000202	167	0.0024	0.0064	0.00393	2.24	0.00124	0.037	81.9	0.573	0.0000021	0.0142	0.028		6.50	0.01
LBEX-B1	7/3/2019 13:45	WA5881	M	3.9	3.9	0.144	0.00054	0.00128	0.0654	<0.0001	<0.001	0.17	0.00003	165	<0.001	0.00078	0.00143	0.364	0.00026	0.0433	97.6	0.0684	0.0000041	0.0117	0.0047		6.72	0.0192
LBEX-B1	7/11/2019 14:05	WC0500	M	3.5	3.8	0.113	<0.0005	0.00156	0.0201	<0.0001	<0.001	0.221	<0.00001	138	<0.001	0.00022	0.00095	0.158	<0.0002	0.0564	110	0.0183	<0.000002	0.0095	0.0024		6.99	0.00179
LBEX-B1	7/17/2019 15:46	WD1680	M	4.1	4.3	1.92	0.00054	0.00264	0.0814	<0.0001	<0.001	0.182	0.000092	169	0.0028	0.00113	0.00431	2.37	0.0014	0.0452	105	0.0667	<0.000002	0.0099	0.0047		6.83	0.006
LBEX-B1	7/23/2019 14:40	WE1029	M	4.2	4.7	0.174	<0.001	0.00177	0.0384	<0.0002	<0.002	0.241	0.000065	126	<0.002	0.00073	0.0018	0.387	<0.0004	0.069	118	0.0368	0.0000027	0.011	0.0072		7.04	0.00193
LBEX-B1	8/1/2019 14:05	WF6264	M	5.0	4.4	0.542	<0.001	0.00224	0.0489	0.00035	<0.002	0.212	0.000332	88.2	<0.002	0.00083	0.0023	0.867	0.00084	0.0526	99.2	0.0232	<0.000002	0.0106	0.0035		6.71	0.0026
LBEX-B1	8/6/2019 14:50	WG2813	M	4.5	4.8	0.747	0.00061	0.00209	0.0653	<0.0001	<0.001	0.19	0.000047	99.5	0.0014	0.00064	0.00215	0.916	0.00066	0.049	106	0.0305	<0.000002	0.0113	0.0041		5.55	0.00259
LBEX-B1	8/14/2019 9:45	WH7026	M	4.8	4.6	0.183	<0.001	0.00122	0.0506	<0.0002	<0.002	0.316	0.000518	202	<0.002	0.0113	0.0019	0.36	<0.0004	0.108	142	0.567	<0.000002	0.0106	0.0566		6.84	0.00393
LBEX-B1	9/10/2019 13:55	WL9321	M	3.6	4.7	0.262	<0.0005	0.00113	0.0697	<0.0001	<0.001	0.097	0.000072	116	<0.001	0.00202	0.0018	0.578	0.00041	0.0285	70.4	0.195	<0.000002	0.0083	0.0098		5.16	0.00499
LBEX-B1	10/1/2019 17:10	WP9964	M	3.9	4.8	0.991	<0.0005	0.00229	0.0719	<0.0001	<0.001	0.11	0.000091	107	0.0023	0.00132	0.0043	2.24	0.00145	0.0282	83.6	0.0728	<0.000002	0.0073	0.0053		4.79	0.00251
LBEX-B2	1/1/2019 15:00	VA5889	M	3.8	3.7	0.816	<0.0005	0.00591	0.0748	<0.0001	<0.001	0.202	0.000133	169	0.0017	0.00199	0.00741	2.87	0.00255	0.0686	117	0.171	<0.000002	0.0112	0.0067		5.49	0.00048
LBEX-B2	3/2/2019 14:30	VH8132	M	3.2	3.0	0.875	<0.0005	0.00107	0.0836	<0.0001	<0.001	0.174	0.000155	128	0.0019	0.00139	0.00483	2.11	0.00126	0.0438	71.0	0.399	0.0000114	0.0022	0.0061		5.19	0.00065
LBEX-SP	1/21/2019 15:00	VD2275	M																									
LBEX-SP	1/27/2019 16:30	VD8614	M	4.1	4.5	4.07	<0.0025	0.00147	0.0558	0.00063	<0.005	0.388	0.0043	100	0.0359	0.0549	0.0401	1.86	<0.001	0.133	31.2	0.67	0.0000094	0.308	0.218		28.4	0.00876
LBEX-SP	1/31/2019 11:05	VE3667	M	4.0	2.8	2	<0.0025	0.00145	0.0325	<0.0005	<0.005	0.566	0.00234	113	0.0468	0.033	0.0199	0.861	<0.001	0.168	30.6	0.5	0.0000072	0.494	0.148		41.6	0.0121
LBEX-SP	2/13/2019 14:20	VF7823	M	6.2	5.2	0.918	<0.0025	0.00418	0.138	<0.0005	<0.005	0.648	0.000069	107	0.117	0.0021	0.009	3.02	0.0016	0.156	7.37	0.0245	0.0000182	0.693	0.0172		55.2	0.0158
LBEX-SP	2/17/2019 15:27	VG0952	M	6.7	5.5	1.08	<0.0025	0.00389	0.0834	<0.0005	<0.005	0.574	<0.00005	95.9	0.109	0.0027	0.0117	2.52	0.0015	0.145	5.80	0.0327	0.0000151	0.698	0.0202		51.0	0.0155
LBEX-SP	2/20/2019 12:55	VG2689	M																									

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LBCD-N-SUMP-West	8/8/2019 14:15	WG6510	M	2.91	<0.0001	928	2.22	1480	0.000052	<0.025	<0.025	0.0057	<0.025	0.332	<0.0005	<0.015	<0.0025	<0.0005	0.0073	<0.0005	<0.005	0.794	0.000548	394	<0.005	0.188	<0.0025	2.43
LBCD-Out	1/1/2019 14:10	VA5882	M	4.02	<0.00002	39.6	0.368	126	<0.00001	<0.005	<0.005	0.0008	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00048	0.0696	<0.0001	<0.001	<0.05	<0.00001	132	<0.001	0.00021	<0.0005	0.069
LBCD-Out	1/2/2019 16:00	VA7354	M																									
LBCD-Out	1/10/2019 15:20	VB7975	M	4.19	<0.00002	42.8	0.377	135	<0.00001	<0.005	<0.005	0.00087	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00039	0.0715	<0.0001	<0.001	<0.05	<0.00001	152	<0.001	0.0002	<0.0005	<0.01
LBCD-Out	1/20/2019 14:25	VC9570	M	3.73	<0.00002	45.1	0.348	132	<0.00001	<0.005	<0.005	0.00079	<0.005	0.0051	<0.0001	<0.003	<0.0005	0.00041	0.071	<0.0001	<0.001	<0.05	0.000021	132	<0.001	0.00027	<0.0005	<0.01
LBCD-Out	2/27/2019 11:10	VH2519	M	3.93	<0.00002	49.7	0.399	174	<0.00001	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00026	0.0465	<0.0001	<0.001	<0.05	0.000021	164	<0.001	0.00033	<0.0005	0.016
LBCD-Out	3/1/2019 15:30	VH5671	M																									
LBCD-Sump	5/11/2019 10:05	VR2441	M	4.49	<0.00002	24.5	0.277	44.1	0.000031	<0.005	0.0208	0.00282	<0.005	0.0055	0.00024	0.0035	0.00088	0.00061	0.112	<0.0001	<0.001	<0.05	0.000052	71.6	<0.001	0.00057	<0.0005	<0.01
LBCD-Sump	5/16/2019 12:10	VS0926	M	5.33	0.000054	23.1	0.295	53.4	0.00006	<0.005	0.0237	0.00149	0.0054	0.0161	0.00022	<0.003	<0.0005	0.00067	0.0997	<0.0001	<0.001	<0.05	0.00006	85.4	<0.001	0.00072	<0.0005	<0.01
LBCD-Sump	5/24/2019 10:25	VS9236	M	350	0.0189	425	6.56	369	0.00386	<0.25	0.286	0.157	1.49	8.78	<0.005	0.0249	0.022	0.017	0.0786	<0.0001	<0.001	0.417	<0.00001	3.08	<0.001	<0.0002	<0.0005	<0.01
LBCD-Sump	5/25/2019 12:00	VT2670	M	71.5	0.00103	320	2.36	165	0.00054	<0.05	0.062	0.058	0.221	0.858	0.0016	0.011	0.0147	0.0065	0.0441	<0.0001	<0.001	0.323	<0.00001	18.3	0.002	0.00072	<0.0005	<0.01
LBCD-Sump	5/29/2019 9:25	VT7341	M	5.91	<0.00002	238	0.6	183	0.00004	<0.005	0.038	0.00502	<0.005	0.0057	0.00098	0.0061	0.00464	0.00291	0.14	<0.0001	<0.001	0.213	<0.00001	68.6	0.0023	0.00088	<0.0005	<0.01
LBCD-Sump	6/4/2019 10:50	VU7713	M	7.78	0.000098	194	0.584	157	0.000063	<0.005	0.0208	0.00392	0.0085	0.038	0.00059	0.0066	0.00206	0.00324	0.128	<0.0001	<0.001	0.136	<0.00001	85.2	0.0032	0.00074	<0.0005	<0.01
LBCD-Sump	6/13/2019 10:40	VW9978	M	4.66	<0.00002	155	0.468	147	0.000019	<0.005	0.0208	0.00185	<0.005	0.0059	0.00047	<0.003	0.00077	0.00073	0.0825	<0.0001	<0.001	0.095	0.000024	116	<0.001	0.00164	<0.0005	<0.01
LBCD-Sump	6/19/2019 13:50	VY1847	M	3.7	<0.00002	139	0.498	142	<0.00001	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001	<0.003	0.00052	0.00062	0.089	<0.0001	<0.001	0.093	0.000019	122	<0.001	0.00106	<0.0005	<0.01
LBCD-Sump	6/26/2019 14:40	VZ5389	M	13.6	0.0001	279	0.679	205	0.000149	<0.01	0.026	0.00439	0.024	0.089	0.00117	0.0464	0.00235	0.00328	0.0561	<0.0001	<0.001	0.214	<0.00001	92.1	<0.001	0.00126	0.00056	0.024
LBCD-Sump	7/4/2019 13:30	WA7984	M	4.08	<0.00002	110	0.508	153	0.000011	<0.005	<0.005	0.0021	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00052	0.0936	<0.0001	<0.001	0.065	<0.00001	130	<0.001	0.00056	<0.0005	<0.01
LBCD-Sump	7/10/2019 13:57	WB8328	M	4.25	<0.00002	193	0.558	179	0.000016	<0.005	<0.005	0.00202	<0.005	<0.005	0.00029	0.0097	0.00062	0.00094	0.0822	<0.0001	<0.001	0.114	<0.00001	112	<0.001	0.00039	<0.0005	<0.01
LBCD-Sump	7/17/2019 14:41	WD1678	M	5.72	<0.00002	174	0.499	180	0.000012	<0.005	0.0064	0.00183	<0.005	<0.005	0.00029	0.0181	0.00086	0.00084	0.0698	<0.0001	<0.001	0.105	<0.00001	98.5	0.0025	0.00029	<0.0005	<0.01
LBCD-Sump	7/25/2019 13:20	WE4854	M	5.26	<0.00002	165	0.519	158	<0.00001	<0.005	0.0136	0.00167	<0.005	<0.005	0.00047	0.0141	0.00089	0.00142	0.0782	<0.0001	<0.001	0.111	<0.00001	99.3	<0.001	0.00023	<0.0005	<0.01
LBCD-Sump	7/31/2019 12:40	WF4368	M	4.04	<0.00002	153	0.566	160	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001	0.0087	0.00051	0.0006	0.0911	<0.0001	<0.001	0.123	<0.00001	112	<0.001	0.00021	<0.0005	0.013
LBCD-Sump	8/6/2019 13:45	WG2811	M	5.02	<0.00002	195	0.517	165	<0.00001	<0.005	0.0075	0.00152	<0.005	<0.005	0.00063	0.0096	0.00119	0.00163	0.074	<0.0001	<0.001	0.151	<0.00001	95.2	0.0018	0.0002	<0.0005	<0.01
LBCD-Sump	8/23/2019 11:05	WI9313	M	5.76	<0.00002	164	0.577	161	0.00002	<0.005	0.0142	0.00194	<0.005	0.0073	0.00055	0.0092	0.00131	0.00146	0.0767	<0.0001	<0.001	0.129	<0.00001	103	0.0012	0.00034	0.00056	<0.01
LBCD-Sump	8/27/2019 14:00	WJ7316	M	4.17	<0.00002	148	0.584	166	<0.00001	<0.005	<0.005	0.00184	<0.005	<0.005	0.00013	0.0062	0.00051	0.00065	0.0888	<0.0001	<0.001	0.099	<0.00001	113	<0.001	0.00023	<0.0005	<0.01
LBCD-Sump	9/3/2019 14:15	WK8387	M	3.37	<0.00002	140	0.568	158	<0.00001	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001	0.0095	<0.0005	0.00064	0.0855	<0.0001	<0.001	0.102	<0.00001	116	<0.001	0.00023	<0.0005	0.018
LBCD-Sump	9/10/2019 12:50	WL9319	M	14.7	0.000075	283	0.496	173	0.000091	<0.005	0.0216	0.00357	0.0192	0.057	0.00101	0.0057	0.00446	0.00538	0.0432	<0.0001	<0.001	0.215	<0.00001	45.3	0.0062	0.00029	0.00097	<0.01
LBCD-Sump	9/17/2019 10:30	WN3117	M	7.65	<0.00002	188	0.503	161	0.000043	<0.005	0.0242	0.00187	0.0066	0.0199	0.00089	0.0079	0.00123	0.00145	0.0731	<0.0001	<0.001	0.12	<0.00001	96.3	0.0035	0.00029	<0.0005	<0.01
LBCD-Sump	9/27/2019 10:25	WP3483	M	7.39	<0.00004	198	0.537	167	0.000031	<0.01	0.021	0.00194	<0.01	0.015	0.00091	0.0065	0.00114	0.00143	0.0658	<0.0001	<0.001	0.124	<0.00001	99.2	0.0021	0.00027	<0.0005	<0.01
LBCD-Sump	10/1/2019 14:45	WP9962	M	4.89	<0.00002	197	0.572	171	0.000013	<0.005	0.0094	0.00196	<0.005	<0.005	0.00049	0.0091	0.00095	0.00113	0.0797	<0.0001	<0.001	0.133	<0.00001	109	0.0011	0.00028	<0.0005	<0.01
LBCD-Sump	10/9/2019 10:30	WR5594	M	4.1	<0.00002	154	0.604	165	<0.00001	<0.005	<0.005	0.00187	<0.005	<0.005	0.0002	0.005	<0.0005	0.00056	0.0707	<0.0001	<0.001	0.087	<0.00001	127	<0.001	0.00029	<0.0005	<0.01
LBCD-Sump	10/15/2019 9:30	WS4274	M	5.21	<0.00002	192	0.583	166	0.000023	<0.005	0.0111	0.00192	<0.005	0.0117	0.00025	0.004	0.00089	0.00102	0.0637	<0.0001	<0.001	0.122	<0.00001	104	<0.001	0.00029	<0.0005	<0.01
LBCD-Sump	10/22/2019 16:10	WT8962	M	4.78	<0.00002	135	0.587	158	<0.00001	<0.005	0.0069	0.00205	<0.005	<0.005	0.00044	0.0049	0.00073	0.00078	0.0691	<0.0001	<0.001	0.082	<0.00001	112	<0.001	0.0003	<0.0005	<0.01
LBCD-Sump	11/2/2019 14:45	WW1211	M	31.3	0.000065	844	0.957	484	0.000145	<0.01	0.463	0.00874	0.043	0.035	0.0151	0.008	0.0123	0.0062	0.0292	<0.0002	<0.002	0.233	<0.00002	44.9	0.0032	0.00055	<0.001	<0.02
LBCD-Sump	11/9/2019 10:35	WX3316	M	3.02	<0.00002	40.2	0.353	50.1	<0.00001	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00032	0.0797	<0.0001	<0.001	<0.05	0.000021	88.5	<0.001	0.00037	<0.0005	<0.01
LBCD-Sump	11/13/2019 13:15	WY0311	M	3.06	<0.00002	36.0	0.343	43.9	<0.00001	<0.005	<0.005	0.00201	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00033	0.0752	<0.0001	<0.001	<0.05	0.000017	88.1	<0.001	0.00036	<0.0005	<0.01
LBCD-Sump	11/15/2019 12:40	WY2335	M	5.2	<0.0001	795	1.17	513	<0.00005	<0.025	<0.025	0.00723	<0.025	<0.025	0.00069	<0.015	0.0076	0.00401	0.0333	<0.0005	<0.005	<0.25	<0.00005	97.3	<0.005	0.0063	<0.0025	<0.05
LBCD-Sump	11/19/2019 15:00	WY9705	M	3.63	<0.00002	142	0.583	172	<0.00001	<0.005	<0.005	0.00302	<0.005	<0.005	<0.0001	<0.003	0.00067	0.00047	0.0565	<0.0001	<0.001	0.062	0.000027	146	<0.001	0.00097	<0.0005	<0.01
LBCD-Sump	11/27/2019 15:10	XA4491	M	3.81	<0.00002	117	0.575	154	<0.00001	<0.005	<0.005	0.00233	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00035	0.0632	<0.0001	<0.001	0.057	<0.00001	147	<0.001	0.00065	<0.0005	<0.01
LBCD-Sump	12/3/2019 13:25	XB3099	M	4.33	<0.00002	121	0.674	176	<0.00001	<0.005	<0.005	0.00253	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00044	0.0529	<0.0001	<0.001	0.067	0.000028	163	<0.001	0.00096	<0.0005	<0.01
LBCD-Sump	12/11/2019 15:00	XC6936	M	3.14	<0.00002	60.8	0.479	106	<0.00001	<0.005	<0.005	0.00198	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00029	0.0579	<0.0001	<0.001	<0.05	0.000043	128	<0.001	0.00063	<0.0005	<0.01
LBCD-Sump	12/18/2019 13:55	XD7331	M	2.83	<0.00002	61.8	0.414	98.3	<0.00001	<0.005	<0.005	0.00197	<0.005	<0.005	<0.0001	0.0053	<0.0005	0.00033	0.0576	<0.0001	<0.001	<0.05	<0.00001	139	<0.001	0.00056	0.00051	<0.01
LBDA	11/5/2019 15:30	WW9449	M	24.8	<0.002	3910	9.33	28500	<0.001	<0.5	<0.5	4.01	5.2	263	0.233	6150	<0.1	4.94	<0.2	0.559	<0.2	<10	1.05	512	3.66	16.1	4.58	17900
LBEX-B1	1/21/2019 15:49	VD2274	M	11	0.000024	162	0.763	166	0.000044	<0.005	0.0391	0.0137	<0.005	0.0162	0.00088	<0.003	<0.0005	0.0036	0.0074	<0.0001	<0.001	0.185	<0.00001	141	<0.001	0.00049	0.00074	<0.01
LBEX-B1	2/21/2019 15:15	VG6144	M	8.16	<0.00002	93.0	0.563	99.2	0.000023	<0.005	0.0108	0.00705	<0.005	<0.005	0.00031	0.0087	<0.0005	0.00332	0.0107	<0.0001	<0.001	0.141	<0.00001	103	<0.001	0.00037	<0.0005	<0.01
LBEX-B1	3/23/2019 12:45	VK5952	M	18.4	0.00035	21.9	0.34	71	0.000246	<0.025	0.154	0.00721	0.037	0.158	0.00233	0.0042	0.00083	0.00107	0.0612	<0.0001	<0.001	<0.05	0.000014	64.3	<0.001	0.00025	0.00131	<0.01
LBEX-B1	3/26/2019 11:31	VK9100	M	7.42	0.000097	17.8	0.261	70.0	0.000063	<0.01	0.062	0.0061	<0.01	0.039	0.00083	0.0046	0.00075	0.00074	0.0577	<0.0001	<0.001	<0.05	0.00002	62.1	<0.001	0.0003	0.00146	<0.01
LBEX-B1	4/3/2019 11:25	VM1863	M																									
LBEX-B1	4/9/2019 13:15	VM8367	M	8.47	0.000035	50.9	0.514	101	0.000043	<0.005	0.0737	0.00876	0.0077	0.0131	0.00145	<0.003	0.00066	0.00132	0.0513	<0.0001	<0.001	0.075	<0.00001	88.6	<0.001	0.00029	0.00054	<0.01
LBEX-B1	4/16/2019 12:15	VN8465	M																									
LBEX-B1	4/23/2019 11:40	VO5430	M																									
LBEX-B1	5/2/2019 11:50	VP8758	M	4.54	<0.00002	73.8	0.575	101	0.000012	<0.005	<0.005	0.00956	<0.005	<0.005	0.00018	<0.003	<0.0005	0.00144	0.0423	<0.0001	<0.001	0.109	<0.00001	83.2	<0.001	<0.0002	<0.0005	<0.01
LBEX-B1	5/7/2019 11:45	VQ4353	M	5.38	0.000033	53.4	0.53	82.0	0.00004	<0.005	0.045	0.0085	0.0054	0.0129	0.00067	<0.003	0.00059	0.00093	0.0604	<0.0001	<0.001	0.092	<0.00001	77.6	<0.001	<0.0002	0.00069	<0.01
LBEX-B1	5/16/2019 14:20	VS0927	M	4.63	<0.00002	119	0.559	118	0.000023	<0.005	0.006	0.0111	<0.005	0.0063	0.00028	<0.003	<0.0005	0.00176	0.0277	<0.0001	<0.001	0.163	<0.00001	84.3	<0.001	<0.0002	0.0006	<0.01
LBEX-B1	5/23/2019 12:00	VS9367	M	4.69	<0.00002	118	0.463	124	0.000028	<0.005	<0.005	0.00834	<0.005	0.0072	0.00014	<0.003	<0.0005	0.00164	0.0199	<0.0001	<0.001	0.176	<0.00001	75.7	<0.001	<0.0002	0.0006	<0.01
LBEX-B1	5/25/2019 12:55	VT2671	M	7.7	<0.00002	147	0.617	128	0.000028	<0.005	0.0093	0.0113	<0.005	0.0382	0.00025	<0.003	<0.0005	0.00285	0.0123	<0.0001	<0.001	0.195	<0.00001	149	<0.001	0.00023	<0.0005	0.045
LBEX-B1	5/31/2019 12:15	VU2499	M	6.63	<0.00002	163	0.555	134	0.000028	<0.005	0.0061	0.00937	<0.005	0.0051	0.00031	0.0056	<0.0005	0.00206	0.0144	<0.0001	<0.001	0.228	<0.00001	76.4	<0.001	<0.0002	0.0008	<0.01
LBEX-B1	6/6/2019 12:45	VV6671	M	5.82	<0.00002	119	0.56	111	0.000024	<0.005	<0.005	0.0108	<0.005	<0.005	0.00027	0.0032	<0.0005	0.00188	0.0309	<0.0001	<0.001	0.187	<0.00001	84.4	<0.001	<0.0002	0.00144	<0.01
LBEX-B1	6/13/2019 12:55	VW9979	M	8.79	0.000027	166	0.414	148	0.000054	<0.005	0.0401	0.00734	<0.005	0.0101	0.00071	<0.003	<0.0005	0.0018	0.0162	<0.0001	<0.001	0.249	<0.00001	64.4	<0.001	<0.0002	0.00133	<0.01
LBEX-B1	6/19/2019 14:55	VY1849	M	7.73	<0.00002	167	0.581	134	0.000019	<0.005	<0.005	0.0111	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00168	0.0223	<0.0001	<0.001	0.234	<0.00001	79.6	<0.001	0.00022	<0.0005	<0.01
LBEX-B1	6/26/2019 13:40	VZ5391	M	5.58	0.000024	85.2	0.68	181	0.000058	0.0154	0.0182	0.0164	<0.005	0.0261	0.00051	0.0047	0.00074	0.00083	0.0418	<0.0001	<0.001	0.15	<0.00001	175	<0.001	0.0045	0.00101	<0.01
LBEX-B1	7/3/2019 13:45	WA5881	M	5.24	<0.00002	122	0.696	237	0.000035	<0.005	<0.005	0.0133	<0.005	<0.005	0.00013	0.0032	0.00052	0.00103	0.0409	<0.0001	<0.001	0.176	<0.00001	169	<0.001	0.0005	0.00088	<0.01
LBEX-B1	7/11/2019 14:05	WC0500	M	6.28	<0.00002	151	0.795	214	0.000029	<0.005	<0.005	0.00994	<0.005	<0.005	0.00011	<0.003	<0.0005	0.00142	0.0166	<0.0001	<0.001	0.222	<0.00001	119	<0.001	<0.0002	0.00058	<0.01
LBEX-B1	7/17/2019 15:46	WD1680	M	10.9	0.000044	99.2	0.727	197	0.000058	0.0051	0.0647	0.0112	0.0061	0.01	0.0017	<0.003	<0.0005	0.00147	0.0286	<0.0001	<0.001	0.159	<0.00001	133	<0.001	<0.0002	0.00095	<0.01
LBEX-B1	7/23/2019 14:40	WE1029	M	6.83	<0.00004	157	0.755	229	0.000037	<0.01	<0.01	0.0122	<0.01	<0.01	0.00023	0.003	<0.0005	0.00135	0.0252	<0.0001	<0.001	0.255	<0.00001	117	<0.001	0.00033	0.00072	<0.01
LBEX-B1	8/1/2019 14:05	WF6264	M	6.33	<0.00004	131	0.581	141	0.000073	<0.01	0.015	0.0104	<0.01	<0.01	0.00052	<0.003	<0.0005	0.00155	0.0289	<0.0001	<0.001	0.214	<0.00001	71.9	<0.001	<0.0002	0.00063	<0.01
LBEX-B1	8/6/2019 14:50	WG2813	M	6.29	<0.00002	114	0.655	157	0.000028	<0.005	0.0259	0.0136	<0.005	<0.005	0.00045	<0.003	0.00058	0.00164	0.04	<0.0001	<0.001	0.207	<0.00001	92.4	<0.001	<0.0002	0.00068	<0.01
LBEX-B1	8/14/2019 9:45	WH7026	M	4.28	<0.00004	210	0.996	384	0.000038	<0.01	<0.01	0.0229	<0.01	0.043	0.0002	0.0189	<0.001	0.00094	0.0381	<0.0002	<0.002	0.367	<0.00002	199	<0.002	0.00808	<0.001	<0.02
LBEX-B1	9/10/2019 13:55	WL9321	M	4.16	<0.00002	62.0	0.572	131	0.000019	<0.005	0.0058	0.00825	<0.005	<0.005	0.00021	0.0047	<0.0005	0.00083	0.0559	<0.0001	<0.001	0.118	<0.00001	136	<0.001	0.00165	0.00099	<0.01
LBEX-B1	10/1/2019 17:10	WP9964	M	6.5	0.000021	85.4	0.587	93.6	0.000029	<0.005	0.0288	0.00879	<0.005	0.0107	0.00055	<0.003	<0.0005	0.00144	0.0382	<0.0001	<0.001	0.136	<0.00001	98.3	<0.001	0.00029	0.00085	<0.01
LBEX-B2	1/1/2019 15:00	VA5889	M	10.2	0.000044	180	0.756	176	0.00005	<0.005	0.0149	0.0145	<0.005	0.0141	0.0009	0.0036	<0.0005	0.00391	0.0119	<0.0001	<0.001	0.196	<0.00001	130	<0.001	0.0005	0.00093	<0.01
LBEX-B2	3/2/2019 14:30	VH8132	M	7.35	<0.00002	132	0.595	71.0	0.000039	<0.005	0.0292	0.00975	<0.005	0.0146	0.00068	<0.003	<0.0005	0.00028	0.0524	<0.0001	<0.001	0.196	0.000091	130	<0.001	0.00042	0.00159	<0.01
LBEX-SP	1/21/2019 15:00	VD2275	M																									
LBEX-SP	1/27/2019 16:30	VD8614	M	8.36	<0.0001	618	0.436	535	<0.00005	<0.025	<0.025	0.00659	<0.025	0.454	0.0006	0.0569	0.00089	0.00056	0.0372	<0.0001	<0.001	0.447	0.00405	108	0.0055	0.052	0.0114	<0.01
LBEX-SP	1/31/2019 11:05	VE3667	M	10.7	<0.0001	916	0.536	739	<0.00005	<0.025	<0.025	0.0052	<0.025	0.248	<0.0005	0.071	<0.0025	0.00105	0.0281	<0.0005	<0.005	0.657	0.00197	112	0.0342	0.0313	0.0078	<0.05
LBEX-SP	2/13/2019 14:20	VF7823	M	19.8	<0.0001	1080	0.996	828	<0.00005	<0.025	<0.025	0.0006	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.00275	0.0474	<0.0005	<0.005	0.64	<0.00005	105	0.114	0.0011	0.0061	<0.05
LBEX-SP	2/17/2019 15:27	VG0952	M	15.1	<0.0001	1040	0.916	791	<0.00005	<0.025	<0.025	0.00063	<0.025	0.026	0.00056	0.02	<0.0025	0.00254	0.0446	<0.0005	<0.005	0.536	<0.00005	96.3	0.106	0.0012	0.007	<0.05
LBEX-SP	2/20/2019 12:55	VG2689	M																									

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LBCD-N-SUMP-West	8/8/2019 14:15	WG6510	M	<0.001	0.269	447	7.59	<0.000002	<0.005	0.359		8.19	0.00089	1.81	<0.0001	947	2.29	1640	<0.00005	<0.025	<0.025	0.00217	<0.025	0.06	<0.0005
LBCD-Out	1/1/2019 14:10	VA5882	M	<0.0002	0.0104	31.4	0.437	<0.000002	0.0016	<0.001		1.14	<0.0001	3.76	<0.00002	41.6	0.338	125	<0.00001	<0.005	<0.005	0.00078	<0.005	<0.005	<0.0001
LBCD-Out	1/2/2019 16:00	VA7354	M																						
LBCD-Out	1/10/2019 15:20	VB7975	M	<0.0002	0.0119	30.3	0.421	<0.000002	0.0017	<0.001		1.20	0.00022	4.38	<0.00002	39.5	0.364	140	<0.00001	<0.005	<0.005	0.00077	<0.005	<0.005	<0.0001
LBCD-Out	1/20/2019 14:25	VC9570	M	<0.0002	0.0098	32.5	0.492	<0.000002	0.0017	<0.001		1.16	0.00019	3.73	<0.00002	43.0	0.339	133	<0.00001	<0.005	<0.005	0.00076	<0.005	<0.005	<0.0001
LBCD-Out	2/27/2019 11:10	VH2519	M	<0.0002	0.013	41.0	0.579	0.0000028	0.0014	<0.001		1.37	0.00416	4	<0.00002	55.5	0.415	185	<0.00001	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001
LBCD-Out	3/1/2019 15:30	VH5671	M																						
LBCD-Sump	5/11/2019 10:05	VR2441	M	<0.0002	0.0124	18.4	0.0847	<0.000002	0.005	0.0036		1.42	0.00114	3.08	<0.00002	25.2	0.265	46.3	0.000016	<0.005	<0.005	0.00278	<0.005	<0.005	<0.0001
LBCD-Sump	5/16/2019 12:10	VS0926	M	<0.0002	0.01	18.7	0.119	<0.000002	0.0023	0.0037		1.08	0.00074	3.5	<0.00002	21.6	0.291	51.0	0.000013	<0.005	<0.005	0.00121	<0.005	<0.005	<0.0001
LBCD-Sump	5/24/2019 10:25	VS9236	M	<0.0002	0.0551	0.734	0.0012	<0.00002	0.0716	<0.001		2.78	0.023	1.94	<0.00002	271	0.0694	106	0.000011	<0.005	<0.005	0.0146	<0.005	<0.005	<0.0001
LBCD-Sump	5/25/2019 12:00	VT2670	M	<0.0002	0.0721	6.61	0.0109	<0.000002	0.0807	0.0026		6.23	0.019	2.52	<0.00002	324	0.357	177	0.000027	<0.005	<0.005	0.0117	<0.005	<0.005	<0.0001
LBCD-Sump	5/29/2019 9:25	VT7341	M	<0.0002	0.0662	25.6	0.021	<0.000002	0.0281	0.0036		4.21	0.00682	3.88	<0.00002	268	0.647	187	0.000019	<0.005	<0.005	0.00518	<0.005	<0.005	<0.0001
LBCD-Sump	6/4/2019 10:50	VU7713	M	<0.0002	0.044	27.7	0.0281	<0.000002	0.0185	0.0033		3.36	0.00834	5.08	<0.00002	187	0.606	172	0.000014	<0.005	<0.005	0.0033	<0.005	<0.005	<0.0001
LBCD-Sump	6/13/2019 10:40	VW9978	M	<0.0002	0.0391	30.9	0.17	<0.000002	0.0035	0.0056		1.94	0.00195	3.63	<0.00002	154	0.463	161	0.000011	<0.005	<0.005	0.0018	<0.005	<0.005	<0.0001
LBCD-Sump	6/19/2019 13:50	VY1847	M	<0.0002	0.0361	30.8	0.148	<0.000002	0.0025	0.0042		1.89	0.00094	4.07	<0.00002	135	0.465	158	<0.00001	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001
LBCD-Sump	6/26/2019 14:40	VZ5389	M	<0.0002	0.0676	30.4	0.0509	<0.000002	0.0236	0.0043		3.45	0.0184	4.4	<0.00002	280	0.53	223	0.000015	0.0061	<0.005	0.00329	<0.005	<0.005	<0.0001
LBCD-Sump	7/4/2019 13:30	WA7984	M	<0.0002	0.0295	35.3	0.101	<0.000002	0.0018	0.0034		1.78	0.00575	3.92	<0.00002	112	0.512	154	0.00001	<0.005	<0.005	0.00215	<0.005	<0.005	<0.0001
LBCD-Sump	7/10/2019 13:57	WB8328	M	<0.0002	0.045	35.1	0.0636	<0.000002	0.0038	0.0026		4.73	0.00239	3.83	<0.00002	189	0.592	180	<0.00001	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001
LBCD-Sump	7/17/2019 14:41	WD1678	M	<0.0002	0.0414	33.1	0.0451	<0.000002	0.0042	0.0022		5.10	0.00195	4.74	<0.00002	163	0.508	168	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001
LBCD-Sump	7/25/2019 13:20	WE4854	M	<0.0002	0.0383	32.8	0.0257	<0.000002	0.0045	0.0019		2.73	0.00303	4.17	<0.00002	157	0.486	159	<0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001
LBCD-Sump	7/31/2019 12:40	WF4368	M	<0.0002	0.0443	34.2	0.0695	<0.000002	0.0022	0.002		2.41	0.0014	4.18	<0.00002	155	0.586	172	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001
LBCD-Sump	8/6/2019 13:45	WG2811	M	<0.0002	0.0493	32.3	0.0416	<0.000002	0.0062	0.0018		3.47	0.00277	4.48	<0.00002	209	0.517	172	<0.00001	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001
LBCD-Sump	8/23/2019 11:05	WI9313	M	<0.0002	0.0384	32.9	0.0314	<0.000002	0.0045	0.0023		2.92	0.00718	4.56	<0.00002	169	0.548	162	<0.00001	<0.005	<0.005	0.00186	<0.005	<0.005	<0.0001
LBCD-Sump	8/27/2019 14:00	WJ7316	M	<0.0002	0.0377	35	0.0556	<0.000002	0.002	0.0019		2.12	0.00287	3.51	<0.00002	141	0.55	158	<0.00001	<0.005	<0.005	0.00177	<0.005	<0.005	<0.0001
LBCD-Sump	9/3/2019 14:15	WK8387	M	<0.0002	0.0373	35.3	0.0656	<0.000002	0.0019	0.002		1.98	0.00203	3.28	<0.00002	148	0.559	156	<0.00001	<0.005	<0.005	0.00178	<0.005	<0.005	<0.0001
LBCD-Sump	9/10/2019 12:50	WL9319	M	<0.0002	0.0703	22.7	0.0047	<0.000002	0.0154	0.002		6.93	0.00868	8.78	<0.00002	316	0.343	197	<0.00001	<0.005	<0.005	0.00249	0.0058	<0.005	<0.0001
LBCD-Sump	9/17/2019 10:30	WN3117	M	<0.0002	0.0459	30.1	0.0322	<0.000002	0.0063	0.0017		4.89	0.00722	5.48	<0.00002	202	0.471	193	<0.00001	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001
LBCD-Sump	9/27/2019 10:25	WP3483	M	<0.0002	0.0486	34.1	0.0405	<0.000002	0.0056	0.0017		3.66	0.00364	4.41	<0.00002	204	0.551	175	<0.00001	<0.005	<0.005	0.00185	<0.005	<0.005	<0.0001
LBCD-Sump	10/1/2019 14:45	WP9962	M	<0.0002	0.0561	34.1	0.0541	<0.000002	0.0033	0.002		3.05	0.00255	4.49	<0.00002	205	0.545	184	<0.00001	<0.005	<0.005	0.00181	<0.005	<0.005	<0.0001
LBCD-Sump	10/9/2019 10:30	WR5594	M	<0.0002	0.0402	39.5	0.0539	<0.000002	0.0017	0.0023		2.15	0.00167	4.15	<0.00002	167	0.526	174	<0.00001	<0.005	<0.005	0.0017	<0.005	<0.005	<0.0001
LBCD-Sump	10/15/2019 9:30	WS4274	M	<0.0002	0.0541	34.8	0.0583	<0.000002	0.004	0.0019		2.65	0.00205	3.96	<0.00002	221	0.607	185	<0.00001	<0.005	<0.005	0.00193	<0.005	<0.005	0.00012
LBCD-Sump	10/22/2019 16:10	WT8962	M	<0.0002	0.0327	33.7	0.0464	<0.000002	0.0037	0.0021		2.36	0.00362	3.67	<0.00002	129	0.529	147	<0.00001	<0.005	<0.005	0.00194	<0.005	<0.005	<0.0001
LBCD-Sump	11/2/2019 14:45	WW1211	M	<0.0004	0.196	28.6	0.004	<0.000002	0.0538	0.0044		6.81	0.0258	4.85	<0.00004	841	0.884	518	<0.00002	<0.01	<0.01	0.0079	<0.01	<0.01	0.00037
LBCD-Sump	11/9/2019 10:35	WX3316	M	<0.0002	0.0159	22.4	0.0446	<0.000002	0.0012	0.0026		1.21	0.00231	3.22	<0.00002	39.5	0.353	52.5	<0.00001	<0.005	<0.005	0.00186	<0.005	<0.005	<0.0001
LBCD-Sump	11/13/2019 13:15	WY0311	M	<0.0002	0.0134	22.3	0.04	<0.000002	0.0015	0.0029		1.17	0.00272	3.13	<0.00002	37.9	0.354	46.8	<0.00001	<0.005	<0.005	0.00215	<0.005	<0.005	<0.0001
LBCD-Sump	11/15/2019 12:40	WY2335	M	<0.001	0.206	53.5	0.106	<0.000002	0.0476	0.023		6.72	0.0217	4.52	<0.0001	914	1.43	617	<0.00005	<0.025	<0.025	0.00881	<0.025	<0.025	0.00053
LBCD-Sump	11/19/2019 15:00	WY9705	M	<0.0002	0.0311	42.4	0.12	<0.000002	0.0036	0.0052		2.14	0.00507	3.57	<0.00002	143	0.596	176	<0.00001	<0.005	<0.005	0.00313	<0.005	<0.005	<0.0001
LBCD-Sump	11/27/2019 15:10	XA4491	M	<0.0002	0.0263	39.1	0.118	<0.000002	0.0024	0.0044		1.69	0.00289	3.81	<0.00002	109	0.565	146	<0.00001	<0.005	<0.005	0.00223	<0.005	<0.005	<0.0001
LBCD-Sump	12/3/2019 13:25	XB3099	M	<0.0002	0.0264	45.1	0.151	<0.000002	0.0014	0.0044		1.97	0.00234	4.34	<0.00002	118	0.656	176	<0.00001	<0.005	<0.005	0.00263	<0.005	<0.005	<0.0001
LBCD-Sump	12/11/2019 15:00	XC6936	M	<0.0002	0.0155	29.5	0.146	<0.000002	<0.001	0.0024		1.17	0.00227	3	<0.00002	60.3	0.461	106	<0.00001	<0.005	<0.005	0.00195	<0.005	<0.005	<0.0001
LBCD-Sump	12/18/2019 13:55	XD7331	M	<0.0002	0.0176	30.6	0.101	0.0000024	<0.001	0.0031		1.33	0.00389	3.02	<0.00002	63.9	0.419	108	<0.00001	<0.005	<0.005	0.00205	<0.005	<0.005	<0.0001
LBDA	11/5/2019 15:30	WW9449	M	<0.04	6.64	5880	209	<0.0004	<0.2	56.4		50	<0.02	31	<0.004	3890	10.1	29400	<0.002	<1	<1	4.14	4.91	267	0.244
LBEX-B1	1/21/2019 15:49	VD2274	M	<0.0002	0.0629	112	0.0549	<0.000002	0.011	0.0022		4.80	0.00043	8.13	<0.00002	159	0.705	160	0.000023	<0.005	<0.005	0.0127	<0.005	<0.005	<0.0001
LBEX-B1	2/21/2019 15:15	VG6144	M	<0.0002	0.0426	75.1	0.0345	0.0000029	0.0095	0.0017		3.99	0.00025	6.75	<0.00002	93.5	0.53	96.6	0.000027	<0.005	<0.005	0.00659	<0.005	<0.005	<0.0001
LBEX-B1	3/23/2019 12:45	VK5952	M	<0.0002	0.0048	29.0	0.0513	<0.000002	0.0103	0.002		3.95	0.00484	1.51	<0.00002	18.1	0.243	62.8	<0.00001	<0.005	<0.005	0.00552	<0.005	<0.005	<0.0001
LBEX-B1	3/26/2019 11:31	VK9100	M	<0.0002	0.0058	30.3	0.0679	<0.000002	0.0095	0.0019		3.98	0.00571	1.66	<0.00002	17.9	0.251	66.0	<0.00001	<0.005	<0.005	0.00625	<0.005	<0.005	<0.0001
LBEX-B1	4/3/2019 11:25	VM1863	M																						
LBEX-B1	4/9/2019 13:15	VM8367	M	<0.0002	0.0204	62.6	0.0668	<0.000002	0.0097	0.0017		3.96	0.00339	3.6	<0.00002	46.7	0.461	94.6	<0.00001	<0.005	<0.005	0.00809	<0.005	<0.005	0.00013
LBEX-B1	4/16/2019 12:15	VN8465	M																						
LBEX-B1	4/23/2019 11:40	VO5430	M																						
LBEX-B1	5/2/2019 11:50	VP8758	M	<0.0002	0.0356	89.0	0.0044	<0.000002	0.0083	0.0019		4.60	0.0033	4.46	<0.00002	82.1	0.568	105	<0.00001	<0.005	<0.005	0.0103	<0.005	<0.005	0.00016
LBEX-B1	5/7/2019 11:45	VQ4353	M	<0.0002	0.03	87.2	0.008	<0.000002	0.008	0.0018		4.31	0.00363	2.3	<0.00002	57.1	0.528	90.8	0.00001	<0.005	<0.005	0.00882	<0.005	<0.005	0.00013
LBEX-B1	5/16/2019 14:20	VS0927	M	<0.0002	0.0447	97.6	0.006	<0.000002	0.0081	0.0019		4.96	0.00215	4.66	<0.00002	112	0.533	113	0.000018	<0.005	<0.005	0.0109	<0.005	<0.005	0.00012
LBEX-B1	5/23/2019 12:00	VS9367	M	<0.0002	0.053	89.4	0.0054	<0.000002	0.0085	0.0017		5.56	0.00146	4.49	<0.00002	123	0.438	131	0.000022	<0.005	<0.005	0.00787	<0.005	<0.005	<0.0001
LBEX-B1	5/25/2019 12:55	VT2671	M	<0.0002	0.0556	88.3	0.039	<0.000002	0.0088	0.0017		5.73	0.00044	8.19	<0.00002	154	0.637	132	0.000022	<0.005	<0.005	0.0113	<0.005	<0.005	<0.0001
LBEX-B1	5/31/2019 12:15	VU2499	M	<0.0002	0.0594	95.2	<0.001	<0.000002	0.0099	0.0018		6.21	0.00071	6.15	<0.00002	168	0.402	138	0.000023	<0.005	<0.005	0.00746	<0.005	<0.005	<0.0001
LBEX-B1	6/6/2019 12:45	VV6671	M	<0.0002	0.0441	98.7	<0.001	<0.000002	0.0102	0.002		5.49	0.00253	5.65	<0.00002	120	0.548	115	0.000021	<0.005	<0.005	0.0106	<0.005	<0.005	0.00012
LBEX-B1	6/13/2019 12:55	VW9979	M	<0.0002	0.0593	93.6	<0.001	<0.000002	0.0106	0.002		6.04	0.00108	6.68	<0.00002	163	0.31	141	0.000026	<0.005	<0.005	0.00604	<0.005	<0.005	<0.0001
LBEX-B1	6/19/2019 14:55	VY1849	M	<0.0002	0.0602	89.9	0.0035	<0.000002	0.0112	0.002		7.03	0.0005	8.08	<0.00002	169	0.524	151	0.000022	<0.005	<0.005	0.0101	<0.005	<0.005	<0.0001
LBEX-B1	6/26/2019 13:40	VZ5391	M	<0.0002	0.0381	84.3	0.351	<0.000002	0.0144	0.0226		7.03	0.0104	4.96	<0.00002	86.5	0.619	194	0.000042	0.0159	<0.005	0.0162	<0.005	<0.005	<0.0001
LBEX-B1	7/3/2019 13:45	WA5881	M	<0.0002	0.0469	102	0.0346	<0.000002	0.0112	0.0042		7.43	0.0198	5.97	<0.00002	136	0.657	274	0.000032	<0.005	<0.005	0.0127	<0.005	<0.005	<0.0001
LBEX-B1	7/11/2019 14:05	WC0500	M	<0.0002	0.0583	112	<0.001	<0.000002	0.0091	0.0022		6.90	0.00187	6.33	<0.00002	152	0.719	210	0.000027	<0.005	<0.005	0.00985	<0.005	<0.005	<0.0001
LBEX-B1	7/17/2019 15:46	WD1680	M	<0.0002	0.0402	99.7	0.0044	<0.000002	0.0101	0.0019		5.90	0.00637	5.87	<0.00002	91.6	0.752	177	0.000023	<0.005	<0.005	0.0103	<0.005	<0.005	<0.0001
LBEX-B1	7/23/2019 14:40	WE1029	M	<0.0002	0.0688	120	0.0053	<0.000002	0.0119	0.0065		6.97	0.00184	6.4	<0.00002	165	0.756	234	0.000033	<0.005	<0.005	0.0132	<0.005	<0.005	<0.0001
LBEX-B1	8/1/2019 14:05	WF6264	M	<0.0002	0.0531	103	<0.001	<0.000002	0.0105	0.0016		6.83	0.00198	5.71	<0.00002	129	0.562	156	0.000017	<0.005	<0.005	0.01	<0.005	<0.005	<0.0001
LBEX-B1	8/6/2019 14:50	WG2813	M	<0.0002	0.0526	107	0.0019	<0.000002	0.0115	0.0028		5.45	0.00272	4.9	<0.00002	119	0.638	159	0.000013	<0.005	<0.005	0.0132	<0.005	<0.005	0.00011
LBEX-B1	8/14/2019 9:45	WH7026	M	<0.0004	0.125	146	0.272	<0.000002	0.0105	0.0514		6.93	0.00383	4.38	<0.00004	220	1.03	397	0.00003	<0.01	<0.01	0.0254	<0.01	<0.01	<0.0002
LBEX-B1	9/10/2019 13:55	WL9321	M	<0.0002	0.0309	78.1	0.147	<0.000002	0.0085	0.0091		5.67	0.00545	4.47	<0.00002	68.4	0.529	149	0.000013	<0.005	<0.005	0.00785	<0.005	<0.005	<0.0001
LBEX-B1	10/1/2019 17:10	WP9964	M	<0.0002	0.042	82.8	0.0199	<0.000002	0.008	0.002		4.87	0.00272	5.59	<0.00002	87.7	0.566	101	0.000016	<0.005	<0.005	0.00838	<0.005	<0.005	0.00013
LBEX-B2	1/1/2019 15:00	VA5889	M	<0.0002	0.0617	120	0.0272	<0.000002	0.0115	0.0029		5.14	0.00041	8.7	<0.00002	186	0.649	175	0.000026	<0.005	<0.005	0.0132	<0.005	<0.005	0.00016
LBEX-B2	3/2/2019 14:30	VH8132	M	<0.0002	0.0455	71.6	0.307	<0.000002	0.0021	0.0033		5.36	0.00059	5.88	<0.00002	140	0.531	77.8	0.000029	<0.005	<0.005	0.0092	<0.005	<0.005	0.00013
LBEX-SP	1/21/2019 15:00	VD2275	M																						
LBEX-SP	1/27/2019 16:30	VD8614	M	<0.0002	0.157	32.9	0.692	<0.000002	0.332	0.208		30.9	0.00916	7.74	<0.00002	690	0.547	610	0.000014	<0.005	<0.005	0.00374	<0.005	0.324	<0.0001
LBEX-SP	1/31/2019 11:05	VE3667	M	<0.001	0.178	29.8	0.494	<0.000002	0.504	0.138		40.3	0.013	10	<0.0001	905	0.562	756	<0.00005	<0.025	<0.025	0.00427	<0.025	0.155	<0.0005
LBEX-SP	2/13/2019 14:20	VF7823	M	<0.001	0.141	4.27	<0.005	0.0000038	0.683	0.0135		54.8	0.0162	15.3	<0.0001	1090	0.96	828	<0.00005	<0.025	<0.025	<0.0005	<0.025	<0.025	<0.0005
LBEX-SP	2/17/2019 15:27	VG0952	M	<0.001	0.141	3.36	<0.005	0.0000067	0.687	0.0141		51.8	0.0158	13.9	<0.0001	1050	0.893	810	<0.00005	<0.025	<0.025	<0.0005	<0.025	<0.025	<0.0005
LBEX-SP	2/20/2019 12:55	VG2689	M																						

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LBEX-SP	2/22/2019 0:55	VG6143	M	9.21	5410	6.27	3890	18.8	238	215	76.3	27.0	27.3	32.4	<1.0	106	1.80	22	2480			24	0.0183	0.073	0.092	<0.0050
LBEX-SP	2/26/2019 14:35	VH2473	M	8.62	5570	4.27	3950	10.8	266	268	68.3	5.2	70.6	6.3	<1.0	94.8	1.70	21	2520			24	0.0177	0.077	0.095	<0.0050
LBEX-SP	3/23/2019 14:45	VK5953	M	7.74	1600	91.9	1090	77.6	306	305	67.2	<1.0	82.0	<1.0	<1.0	58.9	0.790	3.8	584			3.3	0.0445	0.550	0.594	<0.0050
LBEX-SP	3/26/2019 9:38	VK9095	M	7.83	2620	17.5	1790	20.4	390	365	56.6	<1.0	69.1	<1.0	<1.0	46.4	1.20	7.0	1150			6.2	0.0473	0.407	0.454	<0.0050
LBEX-SP	4/2/2019 9:44	VL9744	M	7.83	2360	8.04	1630	92.4	405	408	63.1	<1.0	77.0	<1.0	<1.0	39.3	1.10	6.0	1050			4.6	0.0520	0.424	0.476	<0.0030
LBEX-SP	4/9/2019 10:27	VM8363	M	7.67	2530	1.55	1770	11.6	433	414	67.5	<1.0	82.3	<1.0	<1.0	44.5	1.30	6.4	1140			5.1	0.0504	0.403	0.454	<0.0050
LBEX-SP	4/16/2019 9:20	VN8439	M	7.62	2560	3.23	1780	6.0	468	459	65.8	<1.0	80.3	<1.0	<1.0	42.6	1.20	7.0	1230			4.9	0.0460	0.417	0.463	<0.0030
LBEX-SP	4/23/2019 9:30	VO5344	M	7.84	2640	3.70	1830	18.0	456	473	62.5	<1.0	76.2	<1.0	<1.0	45.4	1.10	6.8	1280			4.5	0.0502	0.344	0.394	0.0044
LBEX-SP	4/23/2019 9:35	VO5345	D	7.96	2650	3.35	1810	15.2	453	474	65.3	<1.0	79.7	<1.0	<1.0	44.8	1.10	6.8	1270			4.5	0.0494	0.347	0.397	0.0065
LBEX-SP	4/30/2019 9:40	VP5147	M	7.77	2650	2.28	1870	8.8	457	464	62.7	<1.0	76.5	<1.0	<1.0	40.4	1.20	6.7	1240			4.0	0.0500	0.384	0.434	0.0033
LBEX-SP	5/5/2019 10:20	VQ1605	M	7.63	2680	7.10	1880	23.2	498	489	53.1	<1.0	64.8	<1.0	<1.0	43.6	1.20	6.8	1200			3.5	0.0426	0.326	0.368	<0.0030
LBEX-SP	5/9/2019 10:57	VQ9666	M	7.67	2730	4.23	1840	9.2	474	471	41.3	<1.0	50.3	<1.0	<1.0	45.7	1.10	3.4	1220			3.0	0.0441	0.380	0.425	<0.0030
LBEX-SP	5/15/2019 14:45	VR8837	M	7.48	2720	4.54	1960	10.4	477	470	34.5	<1.0	42.1	<1.0	<1.0	47.3	1.30	6.8	1170			2.4	0.0476	0.405	0.453	0.0042
LBEX-SP	5/25/2019 11:45	VT2669	M	7.61	2840	9.16	2030	23.6	482	497	37.9	<1.0	46.2	<1.0	<1.0	48.5	1.20	7.1	1340			0.73	0.0486	0.252	0.300	<0.0050
LBEX-SP	7/2/2019 14:35	WA3406	M	7.90	2440	13	2140	27.6	1120	1170	102	<1.0	125	<1.0	<1.0	16.1	0.700	1.3	1310			0.43	0.0917	3.34	3.43	<0.0050
LBEX-SP	7/9/2019 14:35	WB6319	M	8.03	2500	4.9	2170	10.0	1190	1180	87.5	<1.0	107	<1.0	<1.0	14.9	0.760	1.4	1400			0.049	0.0912	2.21	2.30	<0.0050
LBGC-0.60	3/20/2019 14:30	VK2380	M			998		1440																		
LBGC-0.60	3/21/2019 13:45	VK3832	M					9060																		
LBGC-0.60	3/22/2019 12:15	VK3810	M					4210																		
LBGC-0.60	3/24/2019 13:01	VK6081	M			5400		7350																		
LBGC-0.60	3/25/2019 11:19	VK7813	M					7670																		
LBGC-0.60	3/26/2019 11:17	VK9099	M			4910		6020																		
LBGC-0.60	3/27/2019 12:17	VL2034	M			10100		7300																		
LBGC-0.60	3/29/2019 11:14	VL3516	M			4760		7270																		
LBGC-0.60	3/30/2019	VL6613	M			5570		7050																		
LBGC-0.60	3/31/2019 10:59	VL6547	M			4830		4790																		
LBGC-0.60	4/1/2019	VL8084	M			1090		3680																		
LBGC-0.60	4/2/2019 11:15	VL9742	M			1190		4290																		
LBGC-0.60	4/3/2019 11:00	VM1862	M			1190		4840																		
LBGC-0.60	4/4/2019 11:51	VM3425	M			1630		1330																		
LBGC-0.60	4/5/2019 10:15	VM3339	M			2520		2580																		
LBGC-0.60	4/11/2019 10:50	VN1902	M			8700		9520																		
LBGC-0.60	4/12/2019 10:25	VN1946	M			17500		7750																		
LBGC-0.60	4/13/2019 11:55	VN4485	M			9280		9500																		
LBGC-0.60	4/15/2019	VN6333	M			16300		14700																		
LBGC-0.60	4/16/2019 11:12	VN8464	M			7540		6890																		
LBGC-0.60	4/17/2019 12:04	VN9772	M			14500		12100																		
LBGC-0.60	4/18/2019 10:29	VN9662	M			17100		13500																		
LBGC-0.60	4/19/2019 10:40	VO0491	M			10900		9530																		
LBGC-0.60	4/20/2019 10:48	VO0478	M			10200		9110																		
LBGC-0.60	4/21/2019 10:59	VO1989	M			12000		11400																		
LBGC-0.60	4/22/2019 12:12	VO3511	M			60.2		13900																		
LBGC-0.60	4/23/2019 11:10	VO5429	M			12700		14100																		
LBGC-0.60	4/24/2019 11:39	VO7050	M			2050		10400																		
LBGC-Debris-US	5/17/2019	VS0945	M			4520		4050																		
LBGC-Debris-US	5/18/2019 13:45	VS1739	M			9880		7200																		
LBGC-Debris-US	5/19/2019 10:40	VS3036	M			8630		6120																		
LBGC-Debris-US	5/20/2019 13:45	VS3029	M			5820		4140																		
LBGC-Debris-US	5/28/2019 13:55	VT7623	M			5680		4240																		
LBGC-Debris-US	9/5/2019 14:00	WL2431	M			470		706																		
LBGC-Debris-US	9/6/2019 14:45	WL3948	M			28		45.2																		
LBGC-Debris-US	9/7/2019 14:15	WL4977	M			82		101																		
LBGC-Debris-US	9/19/2019 12:05	WN7504	M			2300		1300																		
LBGC-OUT	3/20/2019 14:20	VK2379	M			1440		1280																		
LBGC-OUT	3/21/2019 13:30	VK3831	M					5440																		
LBGC-OUT	3/22/2019 12:00	VK3809	M					7090																		
LBGC-OUT	3/24/2019 12:49	VK6080	M			4760		7960																		
LBGC-OUT	3/25/2019 11:03	VK7812	M					8410																		
LBGC-OUT	3/26/2019 10:57	VK9098	M			6430		8780																		
LBGC-OUT	3/27/2019 11:37	VL2033	M			10000		8700																		
LBGC-OUT	3/28/2019 10:00	VL3537	M			2040		6610																		
LBGC-OUT	3/29/2019 11:05	VL3514	M			6090		6740																		
LBGC-OUT	3/30/2019	VL6612	M			3690		7360																		
LBGC-OUT	3/31/2019 10:50	VL6546	M			5680		4560																		
LBGC-OUT	4/1/2019	VL8083	M			1100		3760																		
LBGC-OUT	4/2/2019 11:04	VL9741	M			1050		3710																		
LBGC-OUT	4/3/2019 10:50	VM1861	M			1280		4730																		
LBGC-OUT	4/4/2019 11:42	VM3424	M			1130		1000																		
LBGC-OUT	4/5/2019 10:05	VM3338	M			1940		1210																		
LBGC-OUT	4/11/2019 10:25	VN1901	M			8920		5680																		
LBGC-OUT	4/12/2019 10:15	VN1945	M			9020		8670																		
LBGC-OUT	4/13/2019 11:40	VN4484	M			10100		8660																		
LBGC-OUT	4/15/2019	VN6332	M			17700		13800																		
LBGC-OUT	4/16/2019 11:05	VN8463	M			7080		5980																		
LBGC-OUT	4/17/2019 11:55	VN9771	M			17600		13700																		
LBGC-OUT	4/18/2019 10:22	VN9661	M			17000		12500																		
LBGC-OUT	4/19/2019 10:30	VO0490	M			10000		7230																		

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LBEX-SP	2/22/2019 0:55	VG6143	M	4.2	6.0	0.101	<0.0025	0.00262	0.0446	<0.0005	<0.005	0.607	0.000106	89.1	0.105	0.0014	0.0077	0.158	<0.001	0.141	3.69	0.0053	0.0000228	0.648	0.0151		53.5	0.0147
LBEX-SP	2/26/2019 14:35	VH2473	M	5.8	6.3	0.096	<0.0025	0.00309	0.045	<0.0005	<0.005	0.616	<0.00005	101	0.107	0.0015	0.0084	0.133	<0.001	0.151	3.26	<0.005	0.0000121	0.66	0.016		61.1	0.0158
LBEX-SP	3/23/2019 14:45	VK5953	M	8.3	6.4	1.04	0.00059	0.00184	0.133	<0.0001	<0.001	0.099	0.00022	85.3	0.0088	0.00255	0.00683	2	0.00126	0.0196	22.5	0.148	<0.000002	0.118	0.0166		13.1	0.00406
LBEX-SP	3/26/2019 9:38	VK9095	M	4.5	3.9	0.671	<0.0025	0.00112	0.0503	<0.0005	<0.005	<0.25	0.000514	109	0.0125	0.0086	0.0097	0.693	<0.001	0.041	29.0	0.244	<0.000002	0.204	0.0443		19.1	0.00766
LBEX-SP	4/2/2019 9:44	VL9744	M	5.9	4.7	0.66	0.00085	0.00132	0.0733	<0.0001	<0.001	0.172	0.000194	114	0.0104	0.00322	0.00532	0.81	0.00068	0.0366	28.9	0.129	0.0000027	0.194	0.017		15.7	0.0067
LBEX-SP	4/9/2019 10:27	VM8363	M	4.5	4.7	0.2	0.00073	0.00116	0.0455	<0.0001	<0.001	0.185	0.000286	123	0.0096	0.00343	0.00441	0.204	<0.0002	0.0367	30.4	0.145	<0.000002	0.203	0.0191		16.4	0.00682
LBEX-SP	4/16/2019 9:20	VN8439	M	3.7	1.3	0.193	0.00079	0.00109	0.0412	<0.0001	<0.001	0.186	0.000368		0.009	0.00422	0.00416	0.122	<0.0002	0.0375		0.165	<0.000002	0.19	0.0196			0.00633
LBEX-SP	4/23/2019 9:30	VO5344	M	3.0	3.2	0.363	<0.001	0.00098	0.035	<0.0002	<0.002	0.169	0.00121	128	0.0075	0.00409	0.0064	0.457	<0.0004	0.0335	33.3	0.153	<0.000002	0.19	0.0185		16.3	0.00674
LBEX-SP	4/23/2019 9:35	VO5345	D	3.1	3.1	0.271	<0.001	0.00097	0.0361	<0.0002	<0.002	0.172	0.000517	127	0.0075	0.0035	0.004	0.372	<0.0004	0.033	33.2	0.127	<0.000002	0.191	0.0163		16.5	0.00655
LBEX-SP	4/30/2019 9:40	VP5147	M	2.9	2.8	0.186	<0.001	0.001	0.0295	<0.0002	<0.002	0.181	0.000214	132	0.0067	0.00216	0.0033	0.15	<0.0004	0.0324	30.9	0.0676	<0.000002	0.187	0.0108		16.1	0.00633
LBEX-SP	5/5/2019 10:20	VQ1605	M	3.3	3.0	0.281	<0.0025	0.00109	0.0314	<0.0005	<0.005	<0.25	0.000166	143	0.0066	0.0017	0.0027	0.258	<0.001	0.033	34.3	0.0506	<0.000002	0.175	0.0092		17.6	0.00688
LBEX-SP	5/9/2019 10:57	VQ9666	M	3.0	3.0	0.266	<0.0025	0.00093	0.0269	<0.0005	<0.005	<0.25	0.000081	134	0.0082	0.0013	0.0026	0.196	<0.001	0.038	33.6	0.0316	<0.000002	0.177	0.0084		16.7	0.00644
LBEX-SP	5/15/2019 14:45	VR8837	M	3.5	3.0	0.319	<0.001	0.00126	0.0296	<0.0002	<0.002	0.205	0.000077	133	0.0064	0.00114	0.003	0.42	<0.0004	0.032	35.3	0.029	<0.000002	0.186	0.0063		17.8	0.00611
LBEX-SP	5/25/2019 11:45	VT2669	M	4.9	4.4	0.197	<0.001	0.00141	0.029	<0.0002	<0.002	0.203	0.000078	138	0.0037	0.00079	0.0028	0.276	<0.0004	0.0314	33.4	0.023	<0.000002	0.188	0.0044		17.5	0.00517
LBEX-SP	7/2/2019 14:35	WA3406	M	3.5	3.8	0.325	<0.001	0.00088	0.0687	<0.0002	<0.002	0.151	0.00121	300	<0.002	0.0159	0.0034	0.631	0.00485	0.0495	89.0	0.982	0.0000021	0.0157	0.0611		7.16	0.0128
LBEX-SP	7/9/2019 14:35	WB6319	M	3.8	3.3	0.123	<0.001	0.00071	0.0437	<0.0002	<0.002	0.151	0.000518	310	<0.002	0.00825	0.002	0.123	<0.0004	0.0528	100	0.619	<0.000002	0.0164	0.0381		7.83	0.0132
LBGC-0.60	3/20/2019 14:30	VK2380	M																									
LBGC-0.60	3/21/2019 13:45	VK3832	M																									
LBGC-0.60	3/22/2019 12:15	VK3810	M																									
LBGC-0.60	3/24/2019 13:01	VK6081	M																									
LBGC-0.60	3/25/2019 11:19	VK7813	M																									
LBGC-0.60	3/26/2019 11:17	VK9099	M																									
LBGC-0.60	3/27/2019 12:17	VL2034	M																									
LBGC-0.60	3/29/2019 11:14	VL3516	M																									
LBGC-0.60	3/30/2019	VL6613	M																									
LBGC-0.60	3/31/2019 10:59	VL6547	M																									
LBGC-0.60	4/1/2019	VL8084	M																									
LBGC-0.60	4/2/2019 11:15	VL9742	M																									
LBGC-0.60	4/3/2019 11:00	VM1862	M																									
LBGC-0.60	4/4/2019 11:51	VM3425	M																									
LBGC-0.60	4/5/2019 10:15	VM3339	M																									
LBGC-0.60	4/11/2019 10:50	VN1902	M																									
LBGC-0.60	4/12/2019 10:25	VN1946	M																									
LBGC-0.60	4/13/2019 11:55	VN4485	M																									
LBGC-0.60	4/15/2019	VN6333	M																									
LBGC-0.60	4/16/2019 11:12	VN8464	M																									
LBGC-0.60	4/17/2019 12:04	VN9772	M																									
LBGC-0.60	4/18/2019 10:29	VN9662	M																									
LBGC-0.60	4/19/2019 10:40	VO0491	M																									
LBGC-0.60	4/20/2019 10:48	VO0478	M																									
LBGC-0.60	4/21/2019 10:59	VO1989	M																									
LBGC-0.60	4/22/2019 12:12	VO3511	M																									
LBGC-0.60	4/23/2019 11:10	VO5429	M																									
LBGC-0.60	4/24/2019 11:39	VO7050	M																									
LBGC-Debris-US	5/17/2019	VS0945	M																									
LBGC-Debris-US	5/18/2019 13:45	VS1739	M																									
LBGC-Debris-US	5/19/2019 10:40	VS3036	M																									
LBGC-Debris-US	5/20/2019 13:45	VS3029	M																									
LBGC-Debris-US	5/28/2019 13:55	VT7623	M																									
LBGC-Debris-US	9/5/2019 14:00	WL2431	M																									
LBGC-Debris-US	9/6/2019 14:45	WL3948	M																									
LBGC-Debris-US	9/7/2019 14:15	WL4977	M																									
LBGC-Debris-US	9/19/2019 12:05	WN7504	M																									
LBGC-OUT	3/20/2019 14:20	VK2379	M																									
LBGC-OUT	3/21/2019 13:30	VK3831	M																									
LBGC-OUT	3/22/2019 12:00	VK3809	M																									
LBGC-OUT	3/24/2019 12:49	VK6080	M																									
LBGC-OUT	3/25/2019 11:03	VK7812	M																									
LBGC-OUT	3/26/2019 10:57	VK9098	M																									
LBGC-OUT	3/27/2019 11:37	VL2033	M																									
LBGC-OUT	3/28/2019 10:00	VL3537	M																									
LBGC-OUT	3/29/2019 11:05	VL3514	M																									
LBGC-OUT	3/30/2019	VL6612	M																									
LBGC-OUT	3/31/2019 10:50	VL6546	M																									
LBGC-OUT	4/1/2019	VL8083	M																									
LBGC-OUT	4/2/2019 11:04	VL9741	M																									
LBGC-OUT	4/3/2019 10:50	VM1861	M																									
LBGC-OUT	4/4/2019 11:42	VM3424	M																									
LBGC-OUT	4/5/2019 10:05	VM3338	M																									
LBGC-OUT	4/11/2019 10:25	VN1901	M																									
LBGC-OUT	4/12/2019 10:15	VN1945	M																									
LBGC-OUT	4/13/2019 11:40	VN4484	M																									
LBGC-OUT	4/15/2019	VN6332	M																									
LBGC-OUT	4/16/2019 11:05	VN8463	M																									
LBGC-OUT	4/17/2019 11:55	VN9771	M																									
LBGC-OUT	4/18/2019 10:22	VN9661	M																									
LBGC-OUT	4/19/2019 10:30	VO0490	M																									

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LBEX-SP	2/22/2019 0:55	VG6143	M	14.5	<0.0001	1010	1.01	789	<0.00005	<0.025	<0.025	<0.0005	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.00241	0.0394	<0.0005	<0.005	0.665	<0.00005	81.5	0.112	0.0012	0.0076	<0.05
LBEX-SP	2/26/2019 14:35	VH2473	M	15.9	<0.0001	1100	1.06	924	<0.00005	<0.025	<0.025	<0.0005	<0.025	<0.025	<0.0005	<0.015	<0.0025	0.00317	0.044	<0.0005	<0.005	0.624	<0.00005	103	0.117	0.0014	0.0092	<0.05
LBEX-SP	3/23/2019 14:45	VK5953	M	3.41	0.000029	229	0.435	231	0.000039	<0.005	0.0199	0.00249	<0.005	0.0183	0.00105	0.0639	0.00055	0.00087	0.0916	<0.0001	<0.001	0.108	0.000148	87.2	0.0075	0.00156	0.00333	<0.01
LBEX-SP	3/26/2019 9:38	VK9095	M	3.2	<0.0001	430	0.455	426	<0.00005	<0.025	<0.025	0.00299	<0.025	0.027	0.00077	0.151	<0.0025	0.00082	0.0402	<0.0005	<0.005	<0.25	0.000446	101	0.0108	0.0073	0.0083	<0.05
LBEX-SP	4/2/2019 9:44	VL9744	M	2.44	0.000027	356	0.485	388	0.000054	<0.005	0.015	0.00448	<0.005	0.0151	0.00088	0.0787	0.00077	0.00106	0.0435	<0.0001	<0.001	0.177	0.000147	115	0.0101	0.00279	0.00384	<0.01
LBEX-SP	4/9/2019 10:27	VM8363	M	2.21	<0.00002	365	0.505	413	0.000038	<0.005	<0.005	0.00448	<0.005	0.0155	0.0001	0.0732	0.00074	0.00102	0.0387	<0.0001	<0.001	0.179	0.000266	118	0.0085	0.00314	0.00359	<0.01
LBEX-SP	4/16/2019 9:20	VN8439	M	1.94	<0.00002		0.485	439	0.000041	<0.005	<0.005	0.00463	<0.005	0.0175	<0.0001	0.078	<0.0025	0.001	0.0373	<0.0005	<0.005	<0.25	0.000388		0.0086	0.0042	0.0036	<0.05
LBEX-SP	4/23/2019 9:30	VO5344	M	1.55	<0.00004	375	0.494	409	0.000053	<0.01	<0.01	0.00451	<0.01	0.057	<0.0002	0.112	<0.0025	0.0009	0.0288	<0.0005	<0.005	<0.25	0.000345	133	0.0075	0.0032	0.0028	<0.05
LBEX-SP	4/23/2019 9:35	VO5345	D	1.51	<0.00004	367	0.487	398	0.000046	<0.01	<0.01	0.00454	<0.01	0.021	<0.0002	0.113	<0.0025	0.00093	0.0298	<0.0005	<0.005	<0.25	0.000358	133	0.0077	0.0032	<0.0025	<0.05
LBEX-SP	4/30/2019 9:40	VP5147	M	0.901	<0.00004	349	0.486	424	0.000035	<0.01	0.02	0.00433	<0.01	<0.01	<0.0002	0.14	0.0023	0.00093	0.0263	<0.0002	<0.002	0.181	0.00015	131	0.0068	0.00206	0.0023	<0.02
LBEX-SP	5/5/2019 10:20	VQ1605	M	0.759	<0.0001	386	0.492	431	<0.00005	<0.025	<0.025	0.00426	<0.025	<0.025	<0.0005	0.153	<0.001	0.00096	0.0239	<0.0002	<0.002	0.199	<0.00002	137	0.0064	0.00123	0.0022	<0.02
LBEX-SP	5/9/2019 10:57	VQ9666	M	0.521	<0.0001	403	0.472	440	<0.00005	<0.025	<0.025	0.0044	<0.025	<0.025	<0.0005	0.131	<0.001	0.00093	0.0244	<0.0002	<0.002	0.196	<0.00002	132	0.0074	0.00085	0.0021	<0.02
LBEX-SP	5/15/2019 14:45	VR8837	M	0.377	<0.00004	414	0.515	433	0.000051	<0.01	<0.01	0.00427	<0.01	<0.01	0.00032	0.115	<0.001	0.00111	0.0218	<0.0002	<0.002	0.221	0.000028	129	0.0059	0.00067	0.002	<0.02
LBEX-SP	5/25/2019 11:45	VT2669	M	0.278	<0.00004	400	0.53	441	0.00005	<0.01	<0.01	0.0041	<0.01	0.024	<0.0002	0.0849	0.00094	0.00125	0.0253	<0.0001	<0.001	0.217	0.000065	142	0.0032	0.00046	0.00206	0.021
LBEX-SP	7/2/2019 14:35	WA3406	M	2.04	<0.00004	133	0.882	412	0.000046	<0.01	<0.01	0.0133	<0.01	0.053	<0.0002	0.0469	<0.001	0.00051	0.0484	<0.0002	<0.002	0.15	0.00124	309	<0.002	0.0163	0.0021	0.02
LBEX-SP	7/9/2019 14:35	WB6319	M	0.814	<0.00004	145	0.94	473	0.000041	<0.01	<0.01	0.014	<0.01	0.011	<0.0002	0.052	<0.001	0.00065	0.0405	<0.0002	<0.002	0.175	0.000368	312	<0.002	0.00646	0.0012	<0.02
LBGC-0.60	3/20/2019 14:30	VK2380	M																									
LBGC-0.60	3/21/2019 13:45	VK3832	M																									
LBGC-0.60	3/22/2019 12:15	VK3810	M																									
LBGC-0.60	3/24/2019 13:01	VK6081	M																									
LBGC-0.60	3/25/2019 11:19	VK7813	M																									
LBGC-0.60	3/26/2019 11:17	VK9099	M																									
LBGC-0.60	3/27/2019 12:17	VL2034	M																									
LBGC-0.60	3/29/2019 11:14	VL3516	M																									
LBGC-0.60	3/30/2019	VL6613	M																									
LBGC-0.60	3/31/2019 10:59	VL6547	M																									
LBGC-0.60	4/1/2019	VL8084	M																									
LBGC-0.60	4/2/2019 11:15	VL9742	M																									
LBGC-0.60	4/3/2019 11:00	VM1862	M																									
LBGC-0.60	4/4/2019 11:51	VM3425	M																									
LBGC-0.60	4/5/2019 10:15	VM3339	M																									
LBGC-0.60	4/11/2019 10:50	VN1902	M																									
LBGC-0.60	4/12/2019 10:25	VN1946	M																									
LBGC-0.60	4/13/2019 11:55	VN4485	M																									
LBGC-0.60	4/15/2019	VN6333	M																									
LBGC-0.60	4/16/2019 11:12	VN8464	M																									
LBGC-0.60	4/17/2019 12:04	VN9772	M																									
LBGC-0.60	4/18/2019 10:29	VN9662	M																									
LBGC-0.60	4/19/2019 10:40	VO0491	M																									
LBGC-0.60	4/20/2019 10:48	VO0478	M																									
LBGC-0.60	4/21/2019 10:59	VO1989	M																									
LBGC-0.60	4/22/2019 12:12	VO3511	M																									
LBGC-0.60	4/23/2019 11:10	VO5429	M																									
LBGC-0.60	4/24/2019 11:39	VO7050	M																									
LBGC-Debris-US	5/17/2019	VS0945	M																									
LBGC-Debris-US	5/18/2019 13:45	VS1739	M																									
LBGC-Debris-US	5/19/2019 10:40	VS3036	M																									
LBGC-Debris-US	5/20/2019 13:45	VS3029	M																									
LBGC-Debris-US	5/28/2019 13:55	VT7623	M																									
LBGC-Debris-US	9/5/2019 14:00	WL2431	M																									
LBGC-Debris-US	9/6/2019 14:45	WL3948	M																									
LBGC-Debris-US	9/7/2019 14:15	WL4977	M																									
LBGC-Debris-US	9/19/2019 12:05	WN7504	M																									
LBGC-OUT	3/20/2019 14:20	VK2379	M																									
LBGC-OUT	3/21/2019 13:30	VK3831	M																									
LBGC-OUT	3/22/2019 12:00	VK3809	M																									
LBGC-OUT	3/24/2019 12:49	VK6080	M																									
LBGC-OUT	3/25/2019 11:03	VK7812	M																									
LBGC-OUT	3/26/2019 10:57	VK9098	M																									
LBGC-OUT	3/27/2019 11:37	VL2033	M																									
LBGC-OUT	3/28/2019 10:00	VL3537	M																									
LBGC-OUT	3/29/2019 11:05	VL3514	M																									
LBGC-OUT	3/30/2019	VL6612	M																									
LBGC-OUT	3/31/2019 10:50	VL6546	M																									
LBGC-OUT	4/1/2019	VL8083	M																									
LBGC-OUT	4/2/2019 11:04	VL9741	M																									
LBGC-OUT	4/3/2019 10:50	VM1861	M																									
LBGC-OUT	4/4/2019 11:42	VM3424	M																									
LBGC-OUT	4/5/2019 10:05	VM3338	M																									
LBGC-OUT	4/11/2019 10:25	VN1901	M																									
LBGC-OUT	4/12/2019 10:15	VN1945	M																									
LBGC-OUT	4/13/2019 11:40	VN4484	M																									
LBGC-OUT	4/15/2019	VN6332	M																									
LBGC-OUT	4/16/2019 11:05	VN8463	M																									
LBGC-OUT	4/17/2019 11:55	VN9771	M																									
LBGC-OUT	4/18/2019 10:22	VN9661	M																									
LBGC-OUT	4/19/2019 10:30	VO0490	M																									

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LBEX-SP	2/22/2019 0:55	VG6143	M	<0.001	0.154	2.71	<0.005	0.0000152	0.713	0.0154		58.0	0.0163	14.7	<0.0001	1100	1.06	857	<0.00005	<0.025	<0.025	<0.0005	<0.025	<0.025	<0.0005
LBEX-SP	2/26/2019 14:35	VH2473	M	<0.001	0.153	2.69	<0.005	0.0000085	0.71	0.0182		66.7	0.0162	15.6	<0.0001	1240	1.1	997	<0.00005	<0.025	<0.025	<0.0005	<0.025	<0.025	<0.0005
LBEX-SP	3/23/2019 14:45	VK5953	M	<0.0002	0.0196	21.3	0.117	<0.000002	0.114	0.0115		12.2	0.00414	1.98	<0.00002	217	0.42	237	0.000017	<0.005	<0.005	0.0023	<0.005	<0.005	<0.0001
LBEX-SP	3/26/2019 9:38	VK9095	M	<0.001	0.043	27.7	0.222	<0.000002	0.213	0.0394		18.8	0.00761	2.1	<0.0001	424	0.489	433	<0.00005	<0.025	<0.025	0.00307	<0.025	<0.025	<0.0005
LBEX-SP	4/2/2019 9:44	VL9744	M	<0.0002	0.0356	29.7	0.121	<0.000002	0.187	0.0156		16.0	0.00641	1.78	<0.00002	372	0.47	398	0.000029	<0.005	<0.005	0.00427	<0.005	<0.005	<0.0001
LBEX-SP	4/9/2019 10:27	VM8363	M	<0.0002	0.0325	29.2	0.134	<0.000002	0.194	0.0178		15.1	0.00671	1.89	<0.00002	352	0.474	389	0.000028	<0.005	<0.005	0.00432	<0.005	0.012	<0.0001
LBEX-SP	4/16/2019 9:20	VN8439	M	<0.001	0.037	32.2	0.166	<0.000002	0.187	0.0199			0.00645	2.04	<0.0001		0.499	456	<0.00005	<0.025	<0.025	0.00456	<0.025	<0.025	<0.0005
LBEX-SP	4/23/2019 9:30	VO5344	M	<0.001	0.035	34.3	0.129	<0.000002	0.183	0.0156		18.0	0.00637	1.46	<0.0001	388	0.481	461	<0.00005	<0.025	<0.025	0.00463	<0.025	<0.025	<0.0005
LBEX-SP	4/23/2019 9:35	VO5345	D	<0.001	0.035	34.4	0.115	<0.000002	0.183	0.015		16.7	0.007	1.36	<0.0001	367	0.473	434	<0.00005	<0.025	<0.025	0.00448	<0.025	<0.025	<0.0005
LBEX-SP	4/30/2019 9:40	VP5147	M	<0.0004	0.0324	33.4	0.0598	<0.000002	0.188	0.0111		17.2	0.00663	0.755	<0.00004	382	0.513	442	0.000038	<0.01	<0.01	0.00471	<0.01	<0.01	<0.0002
LBEX-SP	5/5/2019 10:20	VQ1605	M	<0.0004	0.0315	35.9	0.0261	<0.000002	0.187	0.0073		17.2	0.00634	0.426	<0.00004	415	0.488	437	0.000039	<0.01	<0.01	0.00439	<0.01	<0.01	<0.0002
LBEX-SP	5/9/2019 10:57	VQ9666	M	<0.0004	0.0332	34.5	0.0071	<0.000002	0.186	0.0066		16.8	0.0064	0.213	<0.00004	399	0.515	430	0.000043	<0.01	<0.01	0.00458	<0.01	<0.01	<0.0002
LBEX-SP	5/15/2019 14:45	VR8837	M	<0.0004	0.0328	35.9	0.0058	<0.000002	0.2	0.0049		17.4	0.00587	<0.2	<0.00004	407	0.509	434	0.000049	<0.01	<0.01	0.00422	<0.01	<0.01	<0.0002
LBEX-SP	5/25/2019 11:45	VT2669	M	<0.0002	0.03	34.6	0.0017	<0.000002	0.203	0.0032		17.6	0.00523	<0.1	<0.00002	417	0.587	448	0.000054	<0.005	<0.005	0.00419	<0.005	<0.005	<0.0001
LBEX-SP	7/2/2019 14:35	WA3406	M	<0.0004	0.0478	96.4	0.908	<0.000002	0.0165	0.0641		7.56	0.0136	1.61	<0.00004	141	0.882	457	0.000052	<0.01	<0.01	0.0144	<0.01	0.041	<0.0002
LBEX-SP	7/9/2019 14:35	WB6319	M	<0.0004	0.0533	96.2	0.543	<0.000002	0.0203	0.0335		7.83	0.0126	0.713	<0.00004	151	0.994	451	0.000031	<0.01	<0.01	0.0143	<0.01	<0.01	<0.0002
LBGC-0.60	3/20/2019 14:30	VK2380	M																						
LBGC-0.60	3/21/2019 13:45	VK3832	M																						
LBGC-0.60	3/22/2019 12:15	VK3810	M																						
LBGC-0.60	3/24/2019 13:01	VK6081	M																						
LBGC-0.60	3/25/2019 11:19	VK7813	M																						
LBGC-0.60	3/26/2019 11:17	VK9099	M																						
LBGC-0.60	3/27/2019 12:17	VL2034	M																						
LBGC-0.60	3/29/2019 11:14	VL3516	M																						
LBGC-0.60	3/30/2019	VL6613	M																						
LBGC-0.60	3/31/2019 10:59	VL6547	M																						
LBGC-0.60	4/1/2019	VL8084	M																						
LBGC-0.60	4/2/2019 11:15	VL9742	M																						
LBGC-0.60	4/3/2019 11:00	VM1862	M																						
LBGC-0.60	4/4/2019 11:51	VM3425	M																						
LBGC-0.60	4/5/2019 10:15	VM3339	M																						
LBGC-0.60	4/11/2019 10:50	VN1902	M																						
LBGC-0.60	4/12/2019 10:25	VN1946	M																						
LBGC-0.60	4/13/2019 11:55	VN4485	M																						
LBGC-0.60	4/15/2019	VN6333	M																						
LBGC-0.60	4/16/2019 11:12	VN8464	M																						
LBGC-0.60	4/17/2019 12:04	VN9772	M																						
LBGC-0.60	4/18/2019 10:29	VN9662	M																						
LBGC-0.60	4/19/2019 10:40	VO0491	M																						
LBGC-0.60	4/20/2019 10:48	VO0478	M																						
LBGC-0.60	4/21/2019 10:59	VO1989	M																						
LBGC-0.60	4/22/2019 12:12	VO3511	M																						
LBGC-0.60	4/23/2019 11:10	VO5429	M																						
LBGC-0.60	4/24/2019 11:39	VO7050	M																						
LBGC-Debris-US	5/17/2019	VS0945	M																						
LBGC-Debris-US	5/18/2019 13:45	VS1739	M																						
LBGC-Debris-US	5/19/2019 10:40	VS3036	M																						
LBGC-Debris-US	5/20/2019 13:45	VS3029	M																						
LBGC-Debris-US	5/28/2019 13:55	VT7623	M																						
LBGC-Debris-US	9/5/2019 14:00	WL2431	M																						
LBGC-Debris-US	9/6/2019 14:45	WL3948	M																						
LBGC-Debris-US	9/7/2019 14:15	WL4977	M																						
LBGC-Debris-US	9/19/2019 12:05	WN7504	M																						
LBGC-OUT	3/20/2019 14:20	VK2379	M																						
LBGC-OUT	3/21/2019 13:30	VK3831	M																						
LBGC-OUT	3/22/2019 12:00	VK3809	M																						
LBGC-OUT	3/24/2019 12:49	VK6080	M																						
LBGC-OUT	3/25/2019 11:03	VK7812	M																						
LBGC-OUT	3/26/2019 10:57	VK9098	M																						
LBGC-OUT	3/27/2019 11:37	VL2033	M																						
LBGC-OUT	3/28/2019 10:00	VL3537	M																						
LBGC-OUT	3/29/2019 11:05	VL3514	M																						
LBGC-OUT	3/30/2019	VL6612	M																						
LBGC-OUT	3/31/2019 10:50	VL6546	M																						
LBGC-OUT	4/1/2019	VL8083	M																						
LBGC-OUT	4/2/2019 11:04	VL9741	M																						
LBGC-OUT	4/3/2019 10:50	VM1861	M																						
LBGC-OUT	4/4/2019 11:42	VM3424	M																						
LBGC-OUT	4/5/2019 10:05	VM3338	M																						
LBGC-OUT	4/11/2019 10:25	VN1901	M																						
LBGC-OUT	4/12/2019 10:15	VN1945	M																						
LBGC-OUT	4/13/2019 11:40	VN4484	M																						
LBGC-OUT	4/15/2019	VN6332	M																						
LBGC-OUT	4/16/2019 11:05	VN8463	M																						
LBGC-OUT	4/17/2019 11:55	VN9771	M																						
LBGC-OUT	4/18/2019 10:22	VN9661	M																						
LBGC-OUT	4/19/2019 10:30	VO0490	M																						

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LBGC-OUT	4/20/2019 10:39	VO0477	M			9360		8200																		
LBGC-OUT	4/21/2019 10:52	VO1988	M			10300		8400																		
LBGC-OUT	4/22/2019 12:05	VO3510	M			70.4		13000																		
LBGC-OUT	4/23/2019 10:59	VO5428	M			16000		12700																		
LBGC-OUT	4/24/2019 11:28	VO7049	M			4340		8210																		
LBGC-OUT	5/17/2019	VS0944	M			4900		3130																		
LBGC-OUT	5/18/2019 13:35	VS1740	M			9200		5480																		
LBGC-OUT	5/19/2019 10:30	VS3035	M			6790		4150																		
LBGC-OUT	5/20/2019 13:35	VS3028	M			4410		2860																		
LBGC-OUT	5/28/2019 12:40	VT7624	M			4340		3040																		
LBGC-OUT	6/30/2019 15:40	WA1535	M			27600		23300																		
LBGC-OUT	9/4/2019 14:55	WL0774	M			72		134																		
LBGC-OUT	9/5/2019 13:15	WL2429	M			5.3		6.8																		
LBGC-OUT	9/6/2019 14:10	WL3946	M			3.8		5.6																		
LBGC-OUT	9/7/2019 13:30	WL4976	M			140		120																		
LBGC-OUT	9/8/2019 13:55	WL5052	M			23		34.4																		
LBGC-OUT	9/9/2019 9:20	WL7023	M			3.8		6.0																		
LBGC-OUT	9/17/2019 10:50	WN3118	M			15		24.8																		
LBGC-OUT	9/19/2019 9:50	WN7500	M			3.9		6.8																		
LBGC-OUT	10/3/2019 14:35	WQ4437	M			0.38		<4.0																		
LBGC-OUT	11/21/2019 12:15	WZ4250	M			2200																				
LBGC-OUT	11/22/2019 10:55	WZ4467	M					1100																		
LBGC-OUT	11/23/2019 13:20	WZ8995	M					5400																		
LBGC-OUT	11/24/2019 12:45	WZ7727	M					2200																		
LBGC-OUT	11/26/2019	XA1632	M					420																		
LBGC-OUT	11/26/2019 17:10	XA1631	M					89																		
LBL3C-1.57	3/26/2019 13:43	VK9103	M			374		508																		
LBL3C-1.57	3/30/2019 0:51	VL6616	M			292		289																		
LBL3C-1.57	4/3/2019 12:53	VM1866	M			76.3		426																		
LBL3C-1.57	4/16/2019 13:39	VN8468	M			421		363																		
LBL3C-1.57	4/20/2019 12:59	VO0479	M			127		122																		
LBL3C-1.57	4/23/2019 13:40	VO5433	M			261		201																		
LBL3C-2.19	3/26/2019 12:36	VK9101	M			54.1		126																		
LBL3C-2.19	3/30/2019 11:44	VL6614	M			69.6		81.2																		
LBL3C-2.19	4/3/2019 12:04	VM1864	M			13.5		28.8																		
LBL3C-2.19	4/16/2019 13:26	VN8467	M			10.3		8.4																		
LBL3C-2.19	4/20/2019 12:02	VO0480	M			12.5		114																		
LBL3C-2.19	4/23/2019 12:35	VO5431	M			7.56		45.6																		
LBL3C-3.32	3/26/2019 13:02	VK9102	M			313		410																		
LBL3C-3.32	3/30/2019 0:14	VL6615	M			76.7		88.0																		
LBL3C-3.32	4/3/2019 12:28	VM1865	M			15.3		23.6																		
LBL3C-3.32	4/16/2019 12:38	VN8466	M			12.1		12.0																		
LBL3C-3.32	4/20/2019 12:28	VO0481	M			14.0		14.4																		
LBL3C-3.32	4/23/2019 13:01	VO5432	M			37.8		24.0																		
LBL3C-Seep	5/1/2019 12:30	VP6541	M	8.13	745	5.23	478	26.4	376	387	255	<1.0	311	<1.0	<1.0	8.63	0.120	0.094	142			<0.015	0.0054	0.967	0.972	0.0033
LBL3C-Seep	8/4/2019 11:40	WF7659	M	8.07	794	67	536	136	454	441	271	<1.0	330	<1.0	<1.0	8.29	0.097	0.097	160			<0.015	<0.0050	1.11	1.11	<0.0050
R5B-EAST-SEEP	5/2/2019 12:40	VP8740	M	7.29	1490	4.24	952	7.6	368	371	69.8	<1.0	85.2	<1.0	<1.0	49.6	0.490	0.71	571			0.14	0.0063	0.805	0.811	<0.0030
R5B-WEST-SEEP	5/29/2019 16:00	VU0134	M	8.27	1660	6.25	1120	5.7	387	392	246	<1.0	300	<1.0	<1.0	34.6	0.170	0.53	526	<0.0019	<0.0020	<0.015	0.0034	0.0080	0.0114	<0.0050
RBAC-SEEP	1/26/2019 13:00	VD7167	M	8.36	1580	1.14	950	<4.0	124	128	721	6.7	863	8.0	<1.0	104	0.170	0.43	21.2			<0.015	0.0065	0.900	0.906	0.0043
RBAC-SEEP	3/29/2019 9:00	VL3508	M	8.46	1220	13.4	680	16.4	199	209	440	9.2	515	11.1	<1.0	51.8	0.450	0.32	149			0.079	<0.0050	0.797	0.797	<0.0050
RBAC-SEEP	5/2/2019 9:20	VP8738	M	8.31	1140	6.10	624	26.4	216	220	485	2.0	586	2.4	<1.0	44.9	0.200	0.27	78.5			0.044	0.0076	0.915	0.922	0.0032
RBAC-SEEP	5/28/2019 11:30	VT7649	M	8.27	950	3.10	574	1.5	222	219	451	<1.0	550	<1.0	<1.0	33	0.12	0.24	25	<0.0019	<0.0020	<0.015	<0.0020	1.54	1.54	<0.0050
RBAC-SEEP	7/9/2019 16:05	WB6322	M	8.39	1120	7.0	666	6.0	208	202	452	6.0	537	7.1	<1.0	39.2	0.370	0.27	118			0.063	0.0084	1.01	1.02	<0.0050
RBAC-SEEP	8/3/2019 9:55	WF7644	M	8.34	1050	1.3	610	<4.0	194	203	466	3.5	560	4.2	<1.0	35.6	0.140	0.26	43.7			<0.015	<0.0050	<0.020	<0.020	<0.0050
RBAC-SEEP	9/1/2019 9:40	WK4238	M	8.17	1000	140	630	1000	244	222	460	<1.0	560	<1.0	<1.0	37	0.13	0.33	36			0.031	<0.0050	1.24	1.24	<0.0030
RBAC-SEEP	10/2/2019 16:55	WQ2280	M	8.16	930	4.1	560	9.6	241	261	420	<1.0	510	<1.0	<1.0	37	0.10	0.38	27			0.018	<0.0050	1.26	1.26	<0.0030
RBAC-SUMP	1/26/2019 12:45	VD7166	M	4.09	312	41.7	190	55.2	95.9	97.6	<1.0	<1.0	<1.0	<1.0	<1.0	0.81	0.280	<0.050	126			0.17	<0.0050	0.545	0.545	<0.0030
RBAC-SUMP	3/1/2019 15:30	VH5670	M	8.13	1900	0.57	1220	<4.0	424	504	513	<1.0	626	<1.0	<1.0	101	0.570	0.75	320			0.39	<0.0050	0.474	0.474	<0.0050
RBAC-SUMP	3/29/2019 8:45	VL3507	M	8.09	1020	7.84	614	23.6	253	265	196	<1.0	239	<1.0	<1.0	29.3	0.530	0.26	227			0.17	<0.0050	0.411	0.411	<0.0050
RBAC-SUMP	5/2/2019 9:05	VP8737	M	8.49	1290	5.60	714	10.4	194	198	492	10.6	575	12.7	<1.0	57.0	0.320	0.33	121			0.12	0.0090	0.570	0.579	<0.0030
RBAC-SUMP	6/18/2019 9:50	VX8829	M	8.35	1130	2.01	666	<4.0	175	180	472	1.4	573	1.6	<1.0	52.0	0.250	0.37	67.6			0.12	0.0110	0.849	0.860	0.0062
RBAC-SUMP	7/9/2019 15:55	WB6321	M	8.39	1130	17	680	10.4	203	200	414	5.7	491	6.8	<1.0	40.5	0.390	0.31	131			0.11	0.0095	0.991	1.00	<0.0050
RBAC-SUMP	8/3/2019 9:45	WF7643	M	8.41	1190	10	690	6.0	180	180	462	6.3	548	7.6	<1.0	54.6	0.320	0.38	83.4			0.023	<0.0050	<0.020	<0.020	<0.0050
RBAC-SUMP	8/14/2019 10:35	WH7027	M	8.18	1460	19	1040	31.6	397	391	227	<1.0	277	<1.0	<1.0	43.7	0.130	0.71	473			0.056	0.0498	0.436	0.486	<0.0050
RBAC-SUMP	9/19/2019 10:00	WN7481	M	8.28	1300	25	820	36.4	319	324	320	<1.0	390	<1.0	<1.0	37	0.50	0.62	290			0.24	0.0127	0.954	0.967	<0.0030
RBAC-SUMP	10/2/2019 17:05	WQ2281	M	8.47	1200	24	750	18.8	196	205	450	9.1	530	11	<1.0	61	0.41	0.58	120			0.12	<0.0050	0.878	0.878	<0.0030
RBAC-SUMP	11/6/2019 13:35	WW9552	M	8.01	1110	14	686	10	234	229	470	<1.0	580	<1.0	<1.0	58	0.23	0.60	80			0.054	<0.010	1.2	1.2	<0.0030
RBAC-SUMP	12/5/2019 11:20	XB6928	M	7.86	1790	30	1170	33.1	434	437	433	<1.0	529	<1.0	<1.0	71.0	0.823	0.759	436			0.093	<0.010	1.02	1.02	0.0099
RB-Core-Trench-Sump	8/26/2019 7:15	WJ5218	M	8.94	1900	790	1900	196	21.1	5.06	670	48	700	58	<1.0	150	1.8	2.0	160			1.4	0.0242	<0.020	0.041	0.058
RBDT-BT	1/19/2019 13:15	VC9563	M	10.1	1050		2190		353	6.44	151	59.6	38.6	71.6	<1.0	68.7	0.330	1.1	232			1.9	2.14	2.02	4.16	0.0648
RBDT-BT	2/16/2019 13:50	VF9499	M	9.25	1970	18900	12200	14500	826	17.3						144	0.510	3.1	444			0.74	7.18	3.63	10.8	0.442
RBDT-BT	3/23/2019 16:20	VK5956	M	9.58	1940	4520	4180	3420	227	8.79						160	0.610	3.2	377			0.28	0.0250	6.79	6.81	0.0160
RBDT-BT	4/4/2019 15:02	VM3428	M	9.25	3050	4060	3400	3110	229	15.3						211	0.550	4.8	826			0.52	0.0075	4.89	4.89	0.019
RBDT-BT	5/9/2019 11:50	VQ8346	M	9.70	3850	14300	4630	14800	735	13.0	235	69.3	118	83.2	<1.0	261	0.590	5.8	1150			0.85	3.20	3.84	7.05	0.023
RBDT-BT	6/13/2019 14:45	VW9991	M	8.97	4630	21700	2840	18200	1210	22.8						370	0.460	6.6	1420			0.46	4.45	3.08	7.53	0.0115
RBDT-BT	7/6/2019 12:40	WB1465	M	9.14	5430	22000	7330	12300	1260	24.7						445	0.650	7.3	1790			0.30	0.0203	10.7	10.7	0.935
RBDT-MudPond-BT	6/27/2019 13:00	VZ7772	M	8.67	1840	604	1590	456	102	56.8	259	9.3	294	11.2	<1.0	129	0.460	1.8	376			0.15	1.13	7.71	8.83	0.375

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LBGC-OUT	4/20/2019 10:39	VO0477	M																									
LBGC-OUT	4/21/2019 10:52	VO1988	M																									
LBGC-OUT	4/22/2019 12:05	VO3510	M																									
LBGC-OUT	4/23/2019 10:59	VO5428	M																									
LBGC-OUT	4/24/2019 11:28	VO7049	M																									
LBGC-OUT	5/17/2019	VS0944	M																									
LBGC-OUT	5/18/2019 13:35	VS1740	M																									
LBGC-OUT	5/19/2019 10:30	VS3035	M																									
LBGC-OUT	5/20/2019 13:35	VS3028	M																									
LBGC-OUT	5/28/2019 12:40	VT7624	M																									
LBGC-OUT	6/30/2019 15:40	WA1535	M																									
LBGC-OUT	9/4/2019 14:55	WL0774	M																									
LBGC-OUT	9/5/2019 13:15	WL2429	M																									
LBGC-OUT	9/6/2019 14:10	WL3946	M																									
LBGC-OUT	9/7/2019 13:30	WL4976	M																									
LBGC-OUT	9/8/2019 13:55	WL5052	M																									
LBGC-OUT	9/9/2019 9:20	WL7023	M																									
LBGC-OUT	9/17/2019 10:50	WN3118	M																									
LBGC-OUT	9/19/2019 9:50	WN7500	M																									
LBGC-OUT	10/3/2019 14:35	WQ4437	M																									
LBGC-OUT	11/21/2019 12:15	WZ4250	M																									
LBGC-OUT	11/22/2019 10:55	WZ4467	M																									
LBGC-OUT	11/23/2019 13:20	WZ8995	M																									
LBGC-OUT	11/24/2019 12:45	WZ7727	M																									
LBGC-OUT	11/26/2019	XA1632	M																									
LBGC-OUT	11/26/2019 17:10	XA1631	M																									
LBL3C-1.57	3/26/2019 13:43	VK9103	M																									
LBL3C-1.57	3/30/2019 0:51	VL6616	M																									
LBL3C-1.57	4/3/2019 12:53	VM1866	M																									
LBL3C-1.57	4/16/2019 13:39	VN8468	M																									
LBL3C-1.57	4/20/2019 12:59	VO0479	M																									
LBL3C-1.57	4/23/2019 13:40	VO5433	M																									
LBL3C-2.19	3/26/2019 12:36	VK9101	M																									
LBL3C-2.19	3/30/2019 11:44	VL6614	M																									
LBL3C-2.19	4/3/2019 12:04	VM1864	M																									
LBL3C-2.19	4/16/2019 13:26	VN8467	M																									
LBL3C-2.19	4/20/2019 12:02	VO0480	M																									
LBL3C-2.19	4/23/2019 12:35	VO5431	M																									
LBL3C-3.32	3/26/2019 13:02	VK9102	M																									
LBL3C-3.32	3/30/2019 0:14	VL6615	M																									
LBL3C-3.32	4/3/2019 12:28	VM1865	M																									
LBL3C-3.32	4/16/2019 12:38	VN8466	M																									
LBL3C-3.32	4/20/2019 12:28	VO0481	M																									
LBL3C-3.32	4/23/2019 13:01	VO5432	M																									
LBL3C-Seep	5/1/2019 12:30	VP6541	M	1.4	1.3	0.0755	<0.0005	0.00026	0.186	<0.0001	<0.001	<0.05	0.000017	98.3	<0.001	<0.0002	<0.0005	0.203	<0.0002	0.0181	31.7	0.0077	<0.000002	<0.001	<0.001		3.25	0.00176
LBL3C-Seep	8/4/2019 11:40	WF7659	M	1.7	1.7	1.3	<0.0005	0.00121	0.185	<0.0001	<0.001	<0.05	0.000084	119	0.0025	0.00106	0.0027	2.29	0.00146	0.0204	38.2	0.0343	<0.000002	0.0014	0.0034		3.83	0.00182
R5B-EAST-SEEP	5/2/2019 12:40	VP8740	M	1.1	1.3	0.463	<0.0005	0.00018	0.0125	0.00025	<0.001	0.158	0.00111	94.9	<0.001	0.026	0.011	1.63	<0.0002	0.108	31.7	0.414	<0.000002	<0.001	0.0978		3.34	0.0013
R5B-WEST-SEEP	5/29/2019 16:00	VU0134	M	3.9	4.4	0.159	0.000217	0.000844	0.0592	<0.00001	<0.00001	0.381	0.0000174	95.2	0.0003	0.000175	0.00145	0.231	0.000178	0.0976	36.3	0.0155	<0.000002	0.00257	0.00198	0.0255	4.42	0.000115
RBAC-SEEP	1/26/2019 13:00	VD7167	M	<0.50	0.80	0.0315	<0.0005	0.00018	0.139	<0.0001	<0.001	0.183	<0.00001	32.3	<0.001	<0.0002	<0.0005	0.023	<0.0002	0.543	10.5	<0.001	<0.000002	0.0025	<0.001		2.59	0.00025
RBAC-SEEP	3/29/2019 9:00	VL3508	M	1.9	1.3	0.892	<0.0005	0.0003	0.106	0.00028	<0.001	0.113	0.0016	48.8	<0.001	0.0272	0.0132	1.93	<0.0002	0.273	18.8	0.349	<0.000002	0.0031	0.0892		2.46	0.00084
RBAC-SEEP	5/2/2019 9:20	VP8738	M	1.4	1.6	0.0905	<0.0005	0.00034	0.141	<0.0001	<0.001	0.107	0.000213	58.4	<0.001	0.00458	0.00117	0.43	<0.0002	0.197	17.0	0.077	<0.000002	0.0032	0.0192		2.81	0.00078
RBAC-SEEP	5/28/2019 11:30	VT7649	M	1.0	1.1	0.0837	<0.0005	0.00031	0.215	<0.0001	<0.001	0.068	0.000016	62.9	<0.001	<0.0002	0.00053	0.284	<0.0002	0.178	15.7	0.0084	<0.000002	0.0012	<0.001		2.95	0.00081
RBAC-SEEP	7/9/2019 16:05	WB6322	M	6.8	1.2	0.447	<0.0005	0.00029	0.142	0.00012	<0.001	0.142	0.000437	53.9	<0.001	0.00926	0.00801	1.7	<0.0002	0.261	17.7	0.158	<0.000002	0.0036	0.0341		2.73	0.00073
RBAC-SEEP	8/3/2019 9:55	WF7644	M	1.4	1.4	0.0564	<0.0005	0.00019	0.173	<0.0001	<0.001	0.106	0.000042	54.3	<0.001	0.00064	0.00078	0.194	<0.0002	0.249	14.3	0.0215	<0.000002	0.0021	0.004		2.73	0.0005
RBAC-SEEP	9/1/2019 9:40	WK4238	M	2.6	1.1	2.3	<0.0005	0.00341	0.388	0.0002	<0.001	0.094	0.000264	69.9	0.0036	0.00291	0.0113	6.14	0.00349	0.224	16.9	0.13	0.0000032	0.0014	0.0091		3.28	0.00063
RBAC-SEEP	10/2/2019 16:55	WQ2280	M	1.2	2.2	0.0592	<0.0005	0.00014	0.236	<0.0001	<0.001	0.06	<0.00001	69.5	<0.001	<0.0002	<0.0005	0.13	<0.0002	0.151	16.4	0.003	<0.000002	<0.001	<0.001		2.81	0.00064
RBAC-SUMP	1/26/2019 12:45	VD7166	M	<0.50	0.73	3.24	<0.0005	0.00065	0.0814	0.00083	<0.001	<0.05	0.00164	28.1	0.0024	0.0162	0.0379	5.25	0.00066	0.014	6.23	0.341	<0.000002	<0.001	0.0544		0.510	0.00046
RBAC-SUMP	3/1/2019 15:30	VH5670	M	1.1	1.5	0.0498	<0.0005	0.00016	0.0881	<0.0001	<0.001	0.18	0.00118	109	<0.001	0.0405	0.00449	0.166	<0.0002	0.279	36.6	0.887	<0.000002	0.0024	0.135		3.08	0.00051
RBAC-SUMP	3/29/2019 8:45	VL3507	M	1.0	1.3	0.36	<0.0005	0.00036	0.0606	0.00011	<0.001	0.083	0.00261	63.1	<0.001	0.0468	0.00526	0.801	<0.0002	0.162	23.2	0.698	<0.000002	0.0019	0.155		1.59	0.00077
RBAC-SUMP	5/2/2019 9:05	VP8737	M	1.7	1.6	0.107	<0.0005	0.00041	0.137	<0.0001	<0.001	0.151	0.000285	50.4	<0.001	0.0095	0.0014	0.642	<0.0002	0.273	16.5	0.159	<0.000002	0.0046	0.0343		2.48	0.00087
RBAC-SUMP	6/18/2019 9:50	VX8829	M	1.9	1.5	0.0426	<0.0005	0.00029	0.144	<0.0001	<0.001	0.161	0.000025	47.1	<0.001	0.00048	0.0008	0.166	<0.0002	0.241	14.0	0.026	<0.000002	0.004	0.0053		2.71	0.00066
RBAC-SUMP	7/9/2019 15:55	WB6321	M	0.88	1.6	0.656	<0.0005	0.00032	0.137	0.00019	<0.001	0.147	0.000556	51.9	<0.001	0.0106	0.0113	2.65	<0.0002	0.256	17.9	0.169	<0.000002	0.0037	0.039		2.69	0.00073
RBAC-SUMP	8/3/2019 9:45	WF7643	M	1.8	1.6	0.25	<0.0005	0.00054	0.185	<0.0001	<0.001	0.184	0.000266	47.2	<0.001	0.00521	0.0037	1.76	<0.0002	0.259	15.1	0.0939	<0.000002	0.0049	0.0212		2.54	0.00048
RBAC-SUMP	8/14/2019 10:35	WH7027	M	1.8	2.0	0.414	0.00082	0.00135	0.102	<0.0001	<0.001	0.124	0.000012	104	0.0012	0.00047	0.00105	0.359	0.00028	0.0454	32.9	0.0731	<0.000002	0.0034	0.0024		2.47	0.00161
RBAC-SUMP	9/19/2019 10:00	WN7481	M	1.3	1.9	0.961	<0.0005	0.00084	0.144	0.00022	<0.001	0.207	0.000764	82.1	0.0018	0.0158	0.0105	3.08	0.00036	0.167	27.6	0.268	0.0000027	0.0036	0.0593		3.26	0.00161
RBAC-SUMP	10/2/2019 17:05	WQ2281	M	1.5	2.4	0.735	<0.0005	0.00043	0.203	0.0002	<0.001	0.174	0.000491	49.4	<0.001	0.012	0.00902	3.65	<0.0002	0.29	17.6	0.181	<0.000002	0.0035	0.0434		2.40	0.00067
RBAC-SUMP	11/6/2019 13:35	WW9552	M	0.66	1.2	0.455	<0.0005	0.00027	0.187	<0.0001	<0.001	0.105	0.000261	63.6	<0.001	0.00609	0.0041	1.77	<0.0002	0.23	18.2	0.0956	<0.000002	0.0018	0.0227		2.65	0.00064
RBAC-SUMP	12/5/2019 11:20	XB6928	M	2.12	2.12	2.44	<0.0005	0.00084	0.112	0.00057	<0.001	0.166	0.00295	107	0.0017	0.0627	0.0256	3.61	0.00033	0.399	40.2	0.993	<0.000002	0.0023	0.219		2.80	0.00086
RB-Core-Trench-Sump	8/26/2019 7:15	WJ5218	M	<5.0	1.9	13.5	0.0057	0.0117	1.6	0.00079	<0.005	0.529	0.00013	3.67	0.0187	0.006	0.0241	10.7	0.011	0.133	2.91	0.0578	<0.000002	0.024	0.0174		5.51	0.0101
RBDT-BT	1/19/2019 13:15	VC9563	M	<13	<25	11.2	0.00885	0.0309	0.92	0.00169	<0.001	0.29	0.000624	127	0.0266	0.0307	0.1	19.8	0.0336	0.0445	8.79	0.395	0.0000024	0.0346	0.0523		8.51	0.0079
RBDT-BT	2/16/2019 13:50	VF9499	M	2.5	8.0	97	<0.05	0.122	2.85	<0.01	<0.1	<5	0.0026	257	0.179	0.192	0.638	148	0.115	0.261	44.6	1.31	<0.000002	<0.1	0.376		33.1	0.027
RBDT-BT	3/23/2019 16:20	VK5956	M	3.1	4.7	46.4	<0.005	0.0496	5.97	0.0031	<0.01	0.598	0.00075	62.0	0.076	0.0501	0.185	45.7	0.0732	0.14	17.6	0.401	<0.000002	0.071	0.114		19.5	0.0144
RBDT-BT	4/4/2019 15:02	VM3428	M	2.6	2.8	38.1	0.0033	0.0353	2.43	0.00248	<0.005	0.759	0.000627	68.0	0.0611	0.042	0.149	43.8	0.0475	0.199	14.3	0.372	<0.000002	0.0759	0.0928		22.7	0.0147
RBDT-BT	5/9/2019 11:50	VQ8346	M	8.3	7.2	117	<0.005	0.09	0.92	0.0085	<0.01	1.36	0.00212	224	0.179	0.116	0.408	133	0.074	0.425	42.6	1.05	<0.000002	0.056	0.25		36.4	0.0392
RBDT-BT	6/13/2019 14:45	VW9991	M	<5.0	11	139	<0.01	0.118	0.732	0.0113	<0.02	1.15	0.00438	388	0.243	0.233	0.78	218	0.0812	0.493	57.7	1.9	<0.0002	0.054	0.463		53.8	0.0384
RBDT-BT	7/6/2019 12:40	WB1465	M	<13	6.3	170	<0.01	0.111	0.501	0.0142	<0.02	1.31	0.00788	395	0.286	0.228	0.736	229	0.101	0.648	66.6	2.08	<0.000002	0.05	0.482		54.5	0.0398
RBDT-MudPond-BT	6/27/2019 13:00	VZ7772	M	6.3	20	7.64	0.0083	0.0221	0.764	0.00056	<0.002	0.37	0.000173	31.3	0.0167	0.0103	0.0343	7.55	0.0132	0.0783	5.86	0.082	0.0000072	0.0656	0.0216		9.89	0.00755

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LBGC-OUT	4/20/2019 10:39	VO0477	M																									
LBGC-OUT	4/21/2019 10:52	VO1988	M																									
LBGC-OUT	4/22/2019 12:05	VO3510	M																									
LBGC-OUT	4/23/2019 10:59	VO5428	M																									
LBGC-OUT	4/24/2019 11:28	VO7049	M																									
LBGC-OUT	5/17/2019	VS0944	M																									
LBGC-OUT	5/18/2019 13:35	VS1740	M																									
LBGC-OUT	5/19/2019 10:30	VS3035	M																									
LBGC-OUT	5/20/2019 13:35	VS3028	M																									
LBGC-OUT	5/28/2019 12:40	VT7624	M																									
LBGC-OUT	6/30/2019 15:40	WA1535	M																									
LBGC-OUT	9/4/2019 14:55	WL0774	M																									
LBGC-OUT	9/5/2019 13:15	WL2429	M																									
LBGC-OUT	9/6/2019 14:10	WL3946	M																									
LBGC-OUT	9/7/2019 13:30	WL4976	M																									
LBGC-OUT	9/8/2019 13:55	WL5052	M																									
LBGC-OUT	9/9/2019 9:20	WL7023	M																									
LBGC-OUT	9/17/2019 10:50	WN3118	M																									
LBGC-OUT	9/19/2019 9:50	WN7500	M																									
LBGC-OUT	10/3/2019 14:35	WQ4437	M																									
LBGC-OUT	11/21/2019 12:15	WZ4250	M																									
LBGC-OUT	11/22/2019 10:55	WZ4467	M																									
LBGC-OUT	11/23/2019 13:20	WZ8995	M																									
LBGC-OUT	11/24/2019 12:45	WZ7727	M																									
LBGC-OUT	11/26/2019	XA1632	M																									
LBGC-OUT	11/26/2019 17:10	XA1631	M																									
LBL3C-1.57	3/26/2019 13:43	VK9103	M																									
LBL3C-1.57	3/30/2019 0:51	VL6616	M																									
LBL3C-1.57	4/3/2019 12:53	VM1866	M																									
LBL3C-1.57	4/16/2019 13:39	VN8468	M																									
LBL3C-1.57	4/20/2019 12:59	VO0479	M																									
LBL3C-1.57	4/23/2019 13:40	VO5433	M																									
LBL3C-2.19	3/26/2019 12:36	VK9101	M																									
LBL3C-2.19	3/30/2019 11:44	VL6614	M																									
LBL3C-2.19	4/3/2019 12:04	VM1864	M																									
LBL3C-2.19	4/16/2019 13:26	VN8467	M																									
LBL3C-2.19	4/20/2019 12:02	VO0480	M																									
LBL3C-2.19	4/23/2019 12:35	VO5431	M																									
LBL3C-3.32	3/26/2019 13:02	VK9102	M																									
LBL3C-3.32	3/30/2019 0:14	VL6615	M																									
LBL3C-3.32	4/3/2019 12:28	VM1865	M																									
LBL3C-3.32	4/16/2019 12:38	VN8466	M																									
LBL3C-3.32	4/20/2019 12:28	VO0481	M																									
LBL3C-3.32	4/23/2019 13:01	VO5432	M																									
LBL3C-Seep	5/1/2019 12:30	VP6541	M	5.08	<0.00002	7.87	0.338	45.8	<0.00001	<0.005	<0.005	0.00284	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00014	0.177	<0.0001	<0.001	<0.05	<0.00001	101	<0.001	<0.0002	<0.0005	<0.01
LBL3C-Seep	8/4/2019 11:40	WF7659	M	7.61	0.000021	9.21	0.423	50.6	0.00004	<0.005	0.0341	0.00364	<0.005	0.0106	0.00067	<0.003	<0.0005	0.00014	0.137	<0.0001	<0.001	<0.05	<0.00001	109	<0.001	<0.0002	<0.0005	<0.01
R5B-EAST-SEEP	5/2/2019 12:40	VP8740	M	3.38	<0.00002	164	0.603	209	0.000099	<0.005	<0.005	0.00041	<0.005	0.252	<0.0001	0.0586	<0.0005	<0.0001	0.0117	0.00013	<0.001	0.179	0.0011	95.1	<0.001	0.026	0.00653	0.031
R5B-WEST-SEEP	5/29/2019 16:00	VU0134	M	0.784	0.000011	213	0.697	187	0.000034	<0.0002	0.004	0.00197	0.00094	0.0011	0.00022	0.0128	0.000233	0.000662	0.0498	<0.00001	<0.000005	0.386	0.000007	94.2	<0.0001	0.0000883	0.00127	0.0143
RBAC-SEEP	1/26/2019 13:00	VD7167	M	4.9	<0.00002	349	0.124	5.7	<0.00001	<0.005	<0.005	0.00241	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00021	0.148	<0.0001	<0.001	0.199	<0.00001	33.0	<0.001	<0.0002	<0.0005	<0.01
RBAC-SEEP	3/29/2019 9:00	VL3508	M	4.88	<0.00002	199	0.162	49.7	0.000012	<0.005	<0.005	0.00318	<0.005	0.324	<0.0001	0.107	<0.0005	0.0001	0.0978	<0.0001	<0.001	0.11	0.00107	51.5	<0.001	0.0276	0.0028	<0.01
RBAC-SEEP	5/2/2019 9:20	VP8738	M	5.07	<0.00002	172	0.205	24.9	0.000013	<0.005	<0.005	0.00184	<0.005	0.0451	<0.0001	0.0247	<0.0005	0.0002	0.136	<0.0001	<0.001	0.109	0.000121	60.0	<0.001	0.00264	0.00057	<0.01
RBAC-SEEP	5/28/2019 11:30	VT7649	M	6.34	<0.00002	150	0.166	8.6	<0.00001	<0.005	<0.005	0.00162	<0.005	<0.005	0.0001	<0.003	<0.0005	<0.0001	0.209	<0.0001	<0.001	0.065	<0.00001	62.3	<0.0005	<0.0002	<0.0004	<0.01
RBAC-SEEP	7/9/2019 16:05	WB6322	M	4.76	<0.00002	183	0.218	38.5	0.000015	<0.005	<0.005	0.00272	<0.005	0.0701	<0.0001	0.0618	<0.0005	0.00011	0.123	<0.0001	<0.001	0.14	0.000225	53.3	<0.001	0.0081	0.00135	<0.01
RBAC-SEEP	8/3/2019 9:55	WF7644	M	5.3	<0.00002	158	0.193	14.1	0.00001	<0.005	<0.005	0.00173	<0.005	0.0074	<0.0001	0.0144	<0.0005	0.00017	0.178	<0.0001	<0.001	0.117	0.000028	56.8	<0.001	0.00045	<0.0005	<0.01
RBAC-SEEP	9/1/2019 9:40	WK4238	M	8.46	0.000028	151	0.202	12.9	0.000065	<0.005	0.0343	0.00245	0.0059	0.0426	0.00174	0.0104	<0.0005	0.00024	0.194	<0.0001	<0.001	0.093	0.000014	62.8	<0.001	<0.0002	<0.0005	<0.01
RBAC-SEEP	10/2/2019 16:55	WQ2280	M	5.82	<0.00002	119	0.182	7.8	<0.00001	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001	<0.003	<0.0005	<0.0001	0.267	<0.0001	<0.001	0.059	<0.00001	76.3	<0.001	<0.0002	<0.0005	<0.01
RBAC-SUMP	1/26/2019 12:45	VD7166	M	1.75	<0.00002	2.95	0.0413	38.6	0.000023	<0.005	0.0129	0.00244	<0.005	0.246	0.00063	2.47	<0.0005	0.00012	0.0552	0.00079	<0.001	<0.05	0.00168	28.7	<0.001	0.0162	0.0373	1.65
RBAC-SUMP	3/1/2019 15:30	VH5670	M	4.47	<0.00002	222	0.456	127	0.000014	<0.005	<0.005	0.00197	<0.005	0.392	<0.0001	0.0153	<0.0005	0.00015	0.0902	<0.0001	<0.001	0.248	0.00119	134	<0.001	0.0441	0.0043	<0.01
RBAC-SUMP	3/29/2019 8:45	VL3507	M	3.19	<0.00002	103	0.17	92.3	0.000019	<0.005	<0.005	0.00115	<0.005	0.519	<0.0001	0.0318	<0.0005	<0.0001	0.0569	<0.0001	<0.001	0.083	0.00264	64.9	<0.001	0.0525	0.00267	<0.01
RBAC-SUMP	5/2/2019 9:05	VP8737	M	4.11	<0.00002	216	0.203	40.2	0.000012	<0.005	<0.005	0.00216	<0.005	0.0865	<0.0001	0.0411	<0.0005	0.00026	0.133	<0.0001	<0.001	0.175	0.000207	50.8	<0.001	0.00842	0.00066	0.019
RBAC-SUMP	6/18/2019 9:50	VX8829	M	4.11	<0.00002	194	0.214	20.6	0.000013	<0.005	<0.005	0.00157	<0.005	0.0056	<0.0001	0.0085	<0.0005	0.00028	0.149	<0.0001	<0.001	0.17	0.000013	48.7	<0.001	<0.0002	0.00056	0.025
RBAC-SUMP	7/9/2019 15:55	WB6321	M	4.64	<0.00002	186	0.21	40.2	0.000016	<0.005	<0.005	0.00281	<0.005	0.0954	<0.0001	0.055	<0.0005	0.00012	0.12	<0.0001	<0.001	0.155	0.00026	51.9	<0.001	0.00929	0.00144	0.014
RBAC-SUMP	8/3/2019 9:45	WF7643	M	4.52	<0.00002	188	0.249	26.9	0.000024	<0.005	<0.005	0.00222	<0.005	0.0578	<0.0001	0.0559	<0.0005	0.0003	0.171	<0.0001	<0.001	0.192	0.000127	45.9	<0.001	0.0039	0.00078	0.02
RBAC-SUMP	8/14/2019 10:35	WH7027	M	4.31	<0.00002	184	0.54	166	0.000012	<0.005	0.0103	0.00141	<0.005	<0.005	0.00066	0.0109	0.0008	0.0011	0.0781	<0.0001	<0.001	0.144	<0.00001	102	<0.001	<0.0002	<0.0005	<0.01
RBAC-SUMP	9/19/2019 10:00	WN7481	M	5.09	<0.00002	184	0.39	112	0.000029	<0.005	<0.005	0.00242	<0.005	0.142	0.00014	0.0958	<0.0005	0.0002	0.1	<0.0001	<0.001	0.193	0.000364	80.8	<0.001	0.0116	0.00127	<0.01
RBAC-SUMP	10/2/2019 17:05	WQ2281	M	4.81	<0.00002	208	0.213	38.4	0.000017	<0.005	<0.005	0.00226	<0.005	0.139	<0.0001	0.0612	<0.0005	0.00016	0.195	<0.0001	<0.001	0.169	0.000211	52.2	<0.001	0.00972	0.00111	0.015
RBAC-SUMP	11/6/2019 13:35	WW9552	M	5.6	<0.00002	175	0.196	23.8	<0.00001	<0.005	<0.005	0.00187	<0.005	0.0677	<0.0001	0.0867	<0.0005	<0.0001	0.176	<0.0001	<0.001	0.101	0.00014	61.7	<0.001	0.00531	0.00072	<0.01
RBAC-SUMP	12/5/2019 11:20	XB6928	M	5.97	<0.00002	248	0.302	144	0.00002	<0.005	0.0079	0.00501	<0.005	0.515	0.00028	0.0826	<0.0005	0.00018	0.0818	<0.0001	<0.001	0.157	0.00219	109	<0.001	0.0572	0.00342	<0.01
RB-Core-Trench-Sump	8/26/2019 7:15	WJ5218	M	25.2	<0.0001	427	0.17	45	0.000175	<0.025	0.233	0.00366	0.038	0.046	0.00682	0.022	0.0094	0.00785	0.417	<0.0002	<0.002	0.516	<0.00002	1.48	<0.002	<0.0004	<0.001	<0.02
RBDT-BT	1/19/2019 13:15	VC9563	M	39.1	0.000288	185	0.67	78.2	0.000163	<0.005	0.0929	0.00604	0.0393	0.359	0.00414	0.574	0.0145	0.0207	0.04	<0.0001	<0.001	0.291	<0.00001	2.47	0.0144	<0.0002	0.00189	0.038
RBDT-BT	2/16/2019 13:50	VF9499	M	148	0.0027	445	1.99	<300	<0.001	<0.5	<0.5	0.026	<0.5	1.75	0.01	0.11	0.0282	0.0691	0.073	<0.0001	<0.001	0.681	<0.00001	6.07	0.0096	<0.0002	0.00176	0.098
RBDT-BT	3/23/2019 16:20	VK5956	M	67.6	0.00102	442	0.636	133	0.00031	<0.05	0.051	0.0069	0.091	0.721	0.0023	0.193	0.0155	0.0331	0.0346	<0.0001	<0.001	0.551	0.000045	2.88	0.0143	<0.0002	0.00229	0.057
RBDT-BT	4/4/2019 15:02	VM3428	M	68.1	0.0008	610	0.643	267	0.000282	<0.025	0.064	0.00642	0.083	0.546	0.00234	0.174	0.0124	0.0237	0.0302	<0.0005	<0.005	0.599	<0.00005	4.52	0.008	<0.001	<0.0025	<0.05
RBDT-BT	5/9/2019 11:50	VQ8346	M	191	0.00211	873	1.58	416	0.0005	<0.05	0.062	0.0157	0.228	1.28	0.0024	0.301	0.0261	0.0489	0.034	<0.0005	<0.005	1.02	<0.00005	3.99	0.0349	<0.001	0.0042	<0.05
RBDT-BT	6/13/2019 14:45	VW9991	M	202	0.00406	1050	2.27	485	0.00057	<0.1	<0.1	0.0284	0.281	2.65	0.0027	0.118	0.0273	0.0426	0.0245	<0.0002	<0.002	0.861	<0.00002	7.48	0.0149	<0.0004	0.0037	0.097
RBDT-BT	7/6/2019 12:40	WB1465	M	226	0.00251	1420	2.57	652	0.00092	<0.1	0.258	0.0321	0.322	2.63	0.0121	0.083	0.0214	0.0455	0.0242	<0.0005	<0.005	1.05	<0.00005	6.98	0.0171	<0.001	0.0031	<0.05
RBDT-MudPond-BT	6/27/2019 13:00	VZ7772	M	22.7	0.000176	369	0.264	139	0.000093	<0.01	0.086	0.00447	0.03	0.128	0.00402	0.0629	0.0124	0.0193	0.0741	<0.0001	<0.001	0.374	<0.00001	18.3	0.0034	<0.0002	0.00275	0.022

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
LBGC-OUT	4/20/2019 10:39	VO0477	M																						
LBGC-OUT	4/21/2019 10:52	VO1988	M																						
LBGC-OUT	4/22/2019 12:05	VO3510	M																						
LBGC-OUT	4/23/2019 10:59	VO5428	M																						
LBGC-OUT	4/24/2019 11:28	VO7049	M																						
LBGC-OUT	5/17/2019	VS0944	M																						
LBGC-OUT	5/18/2019 13:35	VS1740	M																						
LBGC-OUT	5/19/2019 10:30	VS3035	M																						
LBGC-OUT	5/20/2019 13:35	VS3028	M																						
LBGC-OUT	5/28/2019 12:40	VT7624	M																						
LBGC-OUT	6/30/2019 15:40	WA1535	M																						
LBGC-OUT	9/4/2019 14:55	WL0774	M																						
LBGC-OUT	9/5/2019 13:15	WL2429	M																						
LBGC-OUT	9/6/2019 14:10	WL3946	M																						
LBGC-OUT	9/7/2019 13:30	WL4976	M																						
LBGC-OUT	9/8/2019 13:55	WL5052	M																						
LBGC-OUT	9/9/2019 9:20	WL7023	M																						
LBGC-OUT	9/17/2019 10:50	WN3118	M																						
LBGC-OUT	9/19/2019 9:50	WN7500	M																						
LBGC-OUT	10/3/2019 14:35	WQ4437	M																						
LBGC-OUT	11/21/2019 12:15	WZ4250	M																						
LBGC-OUT	11/22/2019 10:55	WZ4467	M																						
LBGC-OUT	11/23/2019 13:20	WZ8995	M																						
LBGC-OUT	11/24/2019 12:45	WZ7727	M																						
LBGC-OUT	11/26/2019	XA1632	M																						
LBGC-OUT	11/26/2019 17:10	XA1631	M																						
LBL3C-1.57	3/26/2019 13:43	VK9103	M																						
LBL3C-1.57	3/30/2019 0:51	VL6616	M																						
LBL3C-1.57	4/3/2019 12:53	VM1866	M																						
LBL3C-1.57	4/16/2019 13:39	VN8468	M																						
LBL3C-1.57	4/20/2019 12:59	VO0479	M																						
LBL3C-1.57	4/23/2019 13:40	VO5433	M																						
LBL3C-2.19	3/26/2019 12:36	VK9101	M																						
LBL3C-2.19	3/30/2019 11:44	VL6614	M																						
LBL3C-2.19	4/3/2019 12:04	VM1864	M																						
LBL3C-2.19	4/16/2019 13:26	VN8467	M																						
LBL3C-2.19	4/20/2019 12:02	VO0480	M																						
LBL3C-2.19	4/23/2019 12:35	VO5431	M																						
LBL3C-3.32	3/26/2019 13:02	VK9102	M																						
LBL3C-3.32	3/30/2019 0:14	VL6615	M																						
LBL3C-3.32	4/3/2019 12:28	VM1865	M																						
LBL3C-3.32	4/16/2019 12:38	VN8466	M																						
LBL3C-3.32	4/20/2019 12:28	VO0481	M																						
LBL3C-3.32	4/23/2019 13:01	VO5432	M																						
LBL3C-Seep	5/1/2019 12:30	VP6541	M	<0.0002	0.0178	33.1	<0.001	<0.000002	<0.001	<0.001		3.13	0.00186	5.01	<0.00002	7.95	0.34	46.7	<0.00001	<0.005	<0.005	0.00293	<0.005	<0.005	<0.0001
LBL3C-Seep	8/4/2019 11:40	WF7659	M	<0.0002	0.0179	41.1	<0.001	<0.000002	0.0011	<0.001		3.83	0.00185	5.73	<0.00002	9.44	0.358	56.5	<0.00001	<0.005	<0.005	0.00311	<0.005	<0.005	<0.0001
R5B-EAST-SEEP	5/2/2019 12:40	VP8740	M	<0.0002	0.11	32.4	0.42	<0.000002	<0.001	0.0978		3.45	0.00129	3.36	<0.00002	165	0.589	210	0.000095	<0.005	<0.005	0.00015	<0.005	0.253	<0.0001
R5B-WEST-SEEP	5/29/2019 16:00	VU0134	M	0.000022	0.0969	38.0	0.0101	<0.000002	0.00244	0.00164	0.0068	4.25	0.000107	0.353	<0.000005	224	0.606	181	0.0000314	<0.0002	<0.0005	0.00197	0.00022	0.00022	<0.0001
RBAC-SEEP	1/26/2019 13:00	VD7167	M	<0.0002	0.595	11.2	<0.001	<0.000002	0.0026	<0.001		2.76	0.00027	5.06	<0.00002	366	0.132	5.9	<0.00001	<0.005	<0.005	0.00251	<0.005	<0.005	<0.0001
RBAC-SEEP	3/29/2019 9:00	VL3508	M	<0.0002	0.28	19.5	0.345	<0.000002	0.0031	0.0858		2.33	0.0008	4.48	<0.00002	190	0.15	49.5	0.000014	<0.005	<0.005	0.00296	<0.005	0.189	<0.0001
RBAC-SEEP	5/2/2019 9:20	VP8738	M	<0.0002	0.197	17.2	0.0415	<0.000002	0.0034	0.0175		2.79	0.00084	5.02	<0.00002	178	0.201	26.2	0.000011	<0.005	<0.005	0.00179	<0.005	0.0293	<0.0001
RBAC-SEEP	5/28/2019 11:30	VT7649	M	<0.0002	0.149	15.3	<0.001	<0.000002	0.001	<0.001		2.99	0.00063	5.76	<0.00002	133	0.176	7.4	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001
RBAC-SEEP	7/9/2019 16:05	WB6322	M	<0.0002	0.237	16.7	0.143	<0.000002	0.0035	0.0303		2.63	0.00069	4.5	<0.00002	175	0.219	36.0	0.00001	<0.005	<0.005	0.0025	<0.005	0.0254	<0.0001
RBAC-SEEP	8/3/2019 9:55	WF7644	M	<0.0002	0.245	14.8	0.0147	<0.000002	0.0021	0.0035		2.87	0.00057	5.75	<0.00002	172	0.174	15.7	<0.00001	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001
RBAC-SEEP	9/1/2019 9:40	WK4238	M	<0.0002	0.226	15.9	0.0035	<0.000002	0.0013	0.0012		2.96	0.0006	6.03	<0.00002	154	0.189	12.5	<0.00001	<0.005	<0.005	0.00111	<0.005	<0.005	<0.0001
RBAC-SEEP	10/2/2019 16:55	WQ2280	M	<0.0002	0.152	17.0	<0.001	<0.000002	<0.001	<0.001		2.92	0.00057	6.43	<0.00002	126	0.204	8.2	<0.00001	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001
RBAC-SUMP	1/26/2019 12:45	VD7166	M	<0.0002	0.0136	6.31	0.345	<0.000002	<0.001	0.0543		0.276	0.00042	0.473	<0.00002	3.42	0.0409	40.0	<0.00001	<0.005	<0.005	0.00225	<0.005	0.25	<0.0001
RBAC-SUMP	3/1/2019 15:30	VH5670	M	<0.0002	0.349	41.3	0.937	<0.000002	0.0023	0.151		3.39	0.00054	5.45	<0.00002	249	0.42	140	0.000015	<0.005	<0.005	0.00188	<0.005	0.428	<0.0001
RBAC-SUMP	3/29/2019 8:45	VL3507	M	<0.0002	0.163	25.1	0.73	<0.000002	0.0019	0.172		1.64	0.0008	2.88	<0.00002	109	0.167	97.0	0.000014	<0.005	<0.005	0.00101	<0.005	0.548	<0.0001
RBAC-SUMP	5/2/2019 9:05	VP8737	M	<0.0002	0.287	17.3	0.137	<0.000002	0.0047	0.0321		2.50	0.00085	4.08	<0.00002	215	0.201	42.0	0.000011	<0.005	<0.005	0.00218	<0.005	0.0502	<0.0001
RBAC-SUMP	6/18/2019 9:50	VX8829	M	<0.0002	0.251	14.3	0.0035	<0.000002	0.0042	0.0051		2.76	0.00071	4.2	<0.00002	195	0.223	20.5	0.000012	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001
RBAC-SUMP	7/9/2019 15:55	WB6321	M	<0.0002	0.238	17.2	0.164	<0.000002	0.0037	0.0342		2.61	0.00067	4.34	<0.00002	178	0.215	37.7	0.000011	<0.005	<0.005	0.00258	<0.005	0.03	<0.0001
RBAC-SUMP	8/3/2019 9:45	WF7643	M	<0.0002	0.249	15.8	0.0727	<0.000002	0.0048	0.0171		2.71	0.0005	4.42	<0.00002	210	0.213	29.7	0.000024	<0.005	<0.005	0.00198	<0.005	0.0199	<0.0001
RBAC-SUMP	8/14/2019 10:35	WH7027	M	<0.0002	0.0506	33.4	0.0265	<0.000002	0.0033	0.0015		2.36	0.00159	3.9	<0.00002	196	0.52	171	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001
RBAC-SUMP	9/19/2019 10:00	WN7481	M	<0.0002	0.157	29.6	0.225	<0.000002	0.0037	0.0439		3.17	0.00173	4.52	<0.00002	192	0.42	115	0.00002	<0.005	<0.005	0.00219	<0.005	0.0412	<0.0001
RBAC-SUMP	10/2/2019 17:05	WQ2281	M	<0.0002	0.284	18.3	0.172	<0.000002	0.0034	0.0368		2.37	0.0005	4.62	<0.00002	212	0.22	37.0	0.000014	<0.005	<0.005	0.00199	<0.005	0.0429	<0.0001
RBAC-SUMP	11/6/2019 13:35	WW9552	M	<0.0002	0.226	18.3	0.0892	<0.000002	0.0018	0.0195		2.68	0.00063	5.15	<0.00002	168	0.2	23.9	<0.00001	<0.005	<0.005	0.00179	<0.005	0.0245	<0.0001
RBAC-SUMP	12/5/2019 11:20	XB6928	M	<0.0002	0.402	40.1	0.968	<0.000002	0.0023	0.2		2.79	0.00085	5.06	<0.00002	247	0.304	147	0.000012	<0.005	<0.005	0.00428	<0.005	0.333	<0.0001
RB-Core-Trench-Sump	8/26/2019 7:15	WJ5218	M	<0.0004	0.109	0.33	<0.002	<0.000002	0.0352	<0.002		1.30	0.0101	2.44	<0.00004	436	0.0817	46.3	<0.00002	<0.01	<0.01	0.00272	<0.01	<0.01	0.00041
RBDT-BT	1/19/2019 13:15	VC9563	M	<0.0002	0.0177	0.068	<0.001	<0.000002	0.0492	<0.001		3.62	0.00599	12.1	<0.00002	207	0.0299	78.2	<0.00001	<0.005	<0.005	0.0004	0.0274	<0.005	<0.0001
RBDT-BT	2/16/2019 13:50	VF9499	M	0.0012	0.0283	0.524	<0.001	0.000024	0.188	<0.001		4.15	0.0205	8.34	<0.00002	374	0.0839	150	<0.00001	<0.005	<0.005	0.00552	0.0426	<0.005	0.00025
RBDT-BT	3/23/2019 16:20	VK5956	M	0.00042	0.0403	0.385	<0.001	<0.000002	0.116	<0.001		7.38	0.0119	6.79	<0.00002	359	0.0395	134	<0.00001	<0.005	<0.005	0.00257	0.0318	<0.005	0.00015
RBDT-BT	4/4/2019 15:02	VM3428	M	<0.001	0.104	0.98	<0.005	<0.000002	0.0998	<0.005		11.4	0.0128	6.62	<0.0001	612	0.0992	268	<0.00005	<0.025	<0.025	0.00285	<0.025	<0.025	<0.0005
RBDT-BT	5/9/2019 11:50	VQ8346	M	<0.001	0.056	0.73	<0.005	<0.00002	0.148	<0.005		9.14	0.0347	16.6	<0.0001	791	0.0839	422	<0.00005	<0.025	<0.025	0.00082	0.095	<0.025	<0.0005
RBDT-BT	6/13/2019 14:45	VW9991	M	0.00056	0.0886	0.99	<0.002	<0.00004	0.146	<0.002		12.5	0.0251	7.2	<0.00004	755	0.126	404	0.000027	<0.01	<0.01	0.0067	0.039	<0.01	0.00026
RBDT-BT	7/6/2019 12:40	WB1465	M	<0.001	0.222	1.76	<0.005	<0.00002	0.136	<0.005		17.1	0.0273	11.7	<0.0001	1250	0.181	638	<0.00005	<0.025	<0.025	0.00787	0.043	<0.025	<0.0005
RBDT-MudPond-BT	6/27/2019 13:00	VZ7772	M	0.00026	0.0655	2.66	<0.001	<0.000002	0.0759	0.0013		7.36	0.00877	7.94	<0.00002	352	0.171	136	0.00001	<0.005	<0.005	0.00405	0.0094	<0.005	0.00024

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RBDT-NSP	3/23/2019 16:05	VK5955	M	7.62	253	60.9	184	54.4	18.9	16.3	38.8	<1.0	47.3	<1.0	<1.0	34.2	0.130	0.11	27.3			0.19	0.114	0.828	0.942	0.0726
RBDT-NSP	4/1/2019 0:40	VL8078	M	7.63	237	10.0	172	40.8	15.0	14.8	39.8	<1.0	48.5	<1.0	<1.0	27.7	0.150	0.79	28.3			0.12	0.0580	0.927	0.985	0.0641
RBDT-NSP	5/8/2019 12:32	VQ9187	M	8.26	1030	140	812	122	41.6	32.7	145	<1.0	177	<1.0	<1.0	84.3	0.280	1.1	230			0.042	0.0579	5.42	5.47	0.0079
RBDT-NSP	6/3/2019 9:44	VU5990	M	8.33	1420	171	618	188	57.7	46.7	203	1.1	245	1.3	<1.0	117	0.390	1.5	258			0.051	0.692	6.33	7.02	0.0196
RBDT-NSP	7/7/2019 11:50	WB1498	M	8.07	417	330	386	211	60.8	44.7	73.1	<1.0	89.1	<1.0	<1.0	56.4	0.170	0.33	37.8			0.025	0.0058	<0.020	<0.020	0.139
RBDT-Station-14177	11/5/2019 15:00	WW9448	M	8.62	2100	5.9	1360	14	131	111	520	17	600	20	<1.0	75	1.0	1.1	470			0.023	0.013	0.69	0.70	0.0052
RBDT-Station-495	11/4/2019 15:10	WW6481	M	11.4	6010	>4000	3340	13000	1120	14.1	420	280	<1.0	170	47	490	0.70	7.7	1500			1.2	1.5	11	13	0.0098
RBDT-TC	1/19/2019 13:05	VC9569	M	9.07	979	911	1060	337	64.3	35.1	140	12.5	140	15.0	<1.0	61.2	0.280	1.1	184			1.8	1.96	1.50	3.45	0.0115
RBDT-TC	2/16/2019 13:25	VF9498	M	8.81	1110	713	1710	642	73.8	20.6						73.0	0.390	1.3	257			0.15	0.0076	6.58	6.59	0.0313
RBDT-TC	3/23/2019 16:15	VK5954	M	9.49	2160	2830	2720	4060	224	11.6						175	0.630	3.7	435			0.45	0.0203	5.52	5.54	0.0166
RBDT-TC	4/4/2019 15:05	VM3429	M	9.27	2210	2070	2850	446	131	14.9						163	0.500	3.7	511			0.16	0.0114	5.09	5.10	0.014
RBDT-TC	5/9/2019 12:12	VQ8347	M	9.60	4000	15200	7020	15600	782	9.08	250	65.5	145	78.6	<1.0	281	0.620	6.4	1260			0.80	3.27	3.95	7.23	0.033
RBDT-TC	6/13/2019 14:35	VW9990	M	8.99	4870	24500	5150	19700	1250	26.5						376	0.450	7.1	1470			0.68	4.82	3.12	7.95	3.36
RBDT-TC	7/6/2019 13:00	WB1466	M	9.18	5620	19000	9360	9560	1320	23.3						392	0.650	6.9	1660			0.30	0.0068	10.9	10.9	1.40
RBDT-TPSA-CP	3/20/2019 14:00	VK3785	M	9.25	1360	16900	7800	1200	554	14.4						59.9	0.450	0.20	260			1.7	1.33	25.1	26.5	0.211
RBDT-TPSA-CP	5/15/2019 12:05	VR8792	M	8.42	1090	139	848	97.6	44.6	36.9	157	2.0	186	2.4	<1.0	85.5	0.340	1.2	182			0.046	0.0790	5.73	5.80	0.0090
RBDT-TUNNELDUCT	5/4/2019 14:35	VQ1569	M	10.8	4010	95500	2080	131000	9530	48.8	355	212	<1.0	172	23.5	196	0.950	3.7	885			0.99	4.98	1.13	6.12	0.016
RB-MWTF_SLP	1/23/2019 14:20	VD3816	M																			0.89			0.512	
RB-MWTF_SLP	1/30/2019 14:17	VE2140	M																			0.69	0.0866	0.645	0.732	
RB-MWTF_SLP	2/9/2019 14:20	VF3230	M																			0.49				
RB-MWTF_SLP	2/13/2019 13:39	VF7822	M																			3.2	0.187	0.201	0.388	
RB-MWTF_SLP	2/19/2019 15:00	VG2854	M	9.31	1220				10000	132	137	24.1	108	28.9	< 1	70.0	0.390	1.8	293			1.1	0.0968	0.578	0.674	< 0.005
RB-MWTF_SLP	2/20/2019 12:25	VG2690	M	7.97																		0.89	0.0889	0.558	0.647	
RB-MWTF_SLP	2/22/2019 12:15	VG6139	M	8.25																		0.90	0.0821	0.632	0.714	
RB-MWTF_SLP	2/24/2019 14:05	VG8614	M																			1.1	0.0775	0.516	0.593	
RB-MWTF_SLP	3/11/2019 14:09	VI9562	M																			1.1	0.0720	0.488	0.560	
RB-MWTF_SLP	3/13/2019 15:15	VJ2181	M																			0.88	0.188	0.978	1.17	
RB-MWTF_SLP	3/15/2019 13:03	VJ4030	M																			0.72	0.167	1.14	1.31	
RB-MWTF_SLP	3/18/2019 14:21	VJ9222	M																			0.60	0.128	0.848	0.976	
RB-MWTF_SLP	3/26/2019 10:20	VK9107	M						98.5		111	< 1	135	< 1	< 1											
RB-MWTF_SLP	4/4/2019 9:35	VM3407	M	7.80	1440	0.63	908	< 4	211	215	89.7	< 1	109	< 1	< 1	38.6	0.580	0.51	524			0.50	0.0330	1.38	1.41	< 0.003
RB-MWTF_SLP	4/23/2019 9:23	VO5415	M	8.13	1210	0.87	732	< 4	177	157	105	< 1	128	< 1	< 1	55.6	0.290	0.81	397			0.40	0.0814	0.943	1.02	0.0044
RB-MWTF_SLP	5/1/2019 10:30	VP6540	M	8.14	1380	1.07	844	< 4	157	155	123	< 1	150	< 1	< 1	51.4	0.370	0.84	359			0.51	0.0712	0.929	1.00	< 0.003
RB-MWTF_SLP	5/8/2019 10:16	VQ9190	M	7.91	1520	0.51	930	< 4	182	175	101	< 1	123	< 1	< 1	51.8	0.360	1.0	510			0.66	0.0253	0.646	0.671	< 0.003
RB-MWTF_SLP	5/15/2019 9:56	VR8793	M	7.80	1770	1.03	1100	< 4	177	191	106	< 1	129	< 1	< 1	54.5	0.430	1.0	613			0.64	0.0385	0.606	0.645	0.0048
RB-MWTF_SLP	5/22/2019 12:15	VS7478	M	7.99	1630	0.38	1030	< 4	184	189	76.8	< 1	93.7	< 1	< 1	48.7	0.460	1.3	602			0.47	0.0340	0.667	0.701	< 0.005
RB-MWTF_SLP	5/28/2019 9:40	VT7565	M	7.86	1480	0.40	908	< 4	185	174	78.0	< 1	95.1	< 1	< 1	46	0.480	1.2	570			0.39	0.0376	0.624	0.661	< 0.005
RB-MWTF_SLP	6/5/2019 10:02	VV4616	M	7.90	1330	1.11	812	< 4	146	151	99.4	< 1	121	< 1	< 1	43.9	0.370	0.79	425			0.16	0.0435	0.746	0.789	< 0.005
RB-MWTF_SLP	6/11/2019 10:05	VW4966	M	8.02	1280	0.18	782	5.2	168	164	91.9	< 1	112	< 1	< 1	35.7	0.320	0.61	395			0.25	0.0489	0.776	0.825	< 0.005
RB-MWTF_SLP	6/21/2019 8:35	VY4159	M	8.17	1270	0.43	818	< 4	162	170	92.4	< 1	113	< 1	< 1	43.5	0.340	0.53	368			0.18	0.0509	1.07	1.13	< 0.005
RB-MWTF_SLP	6/25/2019 10:25	VZ1750	M	7.74	1240	0.60	792	< 4	195	206	82.6	< 1	101	< 1	< 1	35.1	0.430	0.52	434			0.20	0.0478	1.04	1.09	< 0.005
RB-MWTF_SLP	7/3/2019 10:20	WA5879	M	7.29	1960	0.86	1350	4.0	347	370	38.1	< 1	46.5	< 1	< 1	75.8	0.800	1.2	798			0.38	0.236	1.51	1.74	< 0.005
RB-MWTF_SLP	7/10/2019 9:50	WB8318	M	7.85	1990	0.31	1330	< 4	370	369	42.7	< 1	52.1	< 1	< 1	57.3	0.590	0.98	846			0.37	0.166	1.59	1.76	< 0.005
RB-MWTF_SLP	7/16/2019 14:55	WC9635	M	7.81	2150	0.54	1540	6.8	382	385	44.6	< 1	54.4	< 1	< 1	79.6	0.470	1.3	908			0.52	0.165	1.52	1.69	< 0.005
RB-MWTF_SLP	7/30/2019 10:20	WF2069	M	8.09	1520	0.84	940	4.4	97.7	106	155	< 1	189	< 1	< 1	64.4	0.340	0.91	491			< 0.015	0.0239	0.428	0.452	< 0.005
RB-MWTF_SLP	8/6/2019 10:00	WG2802	M	8.09	1910	0.45	1300	< 4	235	242	155	< 1	189	< 1	< 1	69.3	0.260	1.1	676			0.028	0.0201	0.363	0.383	0.0053
RB-MWTF_SLP	8/13/2019 11:00	WH4524	M	7.82	1580	1.1	1060	< 4	168	175	112	< 1	137	< 1	< 1	62.8	0.270	1.1	550			0.016	0.0344	0.515	0.549	< 0.005
RB-MWTF_SLP	8/20/2019 12:05	WI5439	M	7.52	2000	0.40	1500	< 4	438	446	34.5	< 1	42.1	< 1	< 1	73	0.64	1.2	870			0.16	0.143	2.24	2.39	< 0.003
RB-MWTF_SLP	8/27/2019 10:40	WJ7308	M	7.5	2200	0.3	1600	< 4	390	378	39	< 1	48	< 1	< 1	77	0.77	1.2	960			0.8	0.146	1.76	1.91	< 0.003
RB-MWTF_SLP	10/7/2019 15:20	WQ9663	M	7.89	1700	3.0	1100	6.7	243	243	140	< 1	170	< 1	< 1	56	0.30	0.90	620			0.35	0.054	0.84	0.89	< 0.003
RB-MWTF_SLP	11/28/2019 13:45	XA6240	M	6.82	3410	1.2	2490	1.3	616	608	64.0	< 1	78.1	< 1	< 1	98.4	1.13	1.52	1650			1.84	0.087	1.33	1.42	< 0.003
RB-R5B-ACDC	1/2/2019 14:08	VA7320	M	8.21	1000	14.3	604	24.0	380	342	342	<1.0	417	<1.0	<1.0	41.3	0.250	0.28	149			0.077	0.0065	0.953	0.960	0.0059
RB-R5B-ACDC	2/14/2019 13:36	VF9051	M	8.19	932	4.12	556	6.0	343	333	333	<1.0	406	<1.0	<1.0	40.7	0.200	0.31	128			0.055	<0.0050	1.04	1.04	0.0052
RB-R5B-ACDC	3/8/2019 13:30	VI4437	M	8.16	991	637	624	764	422	410	302	<1.0	368	<1.0	<1.0	16.5	0.560	0.12	143			0.36	0.0053	0.820	0.825	<0.0050
RB-R5B-ACDC	4/2/2019 11:40	VL9792	M	8.02	1300	24.8	934	43.2	450	496	160	<1.0	195	<1.0	<1.0	16.3	0.940	0.24	380			0.33	<0.0050	0.824	0.824	<0.0030
RB-R5B-ACDC	4/23/2019 9:45	VO5485	M	8.25	1170	9.35	714	549	404	371	317	<1.0	387	<1.0	<1.0	40.7	0.600	0.35	238			0.13	0.0075	0.679	0.687	0.0041
RB-R5B-ACDC	5/2/2019 10:50	VP8739	M	8.16	1010	6.12	580	11.6	376	378	306	<1.0	373	<1.0	<1.0	28.7	0.480	0.30	197			0.074	0.0082	0.771	0.779	0.0036
RB-R5B-ACDC	7/4/2019 10:40	WA7981	M	8.16	945	61	740	138	491	467	239	<1.0	292	<1.0	<1.0	22.9	0.200	0.25	236			0.051	0.0111	1.19	1.20	<0.0050
RB-R5B-ACDC	8/2/2019 8:50	WF6280	M	8.23	890	1.2	560	1.2	455	407	310	<1.0	380	<1.0	<1.0	26	0.13	0.19	160			<0.015	<0.0050	0.833	0.833	<0.0030
RB-R5B-ACDC	9/1/2019 10:40	WK4240	M	8.25	930	0.53	630	<4.0	454	435	310	<1.0	380	<1.0	<1.0	23	0.15	0.20	160			0.023	<0.0050	0.795	0.795	<0.0030
RB-R5B-ACDC	9/3/2019 11:36	WK8379	M	8.27	1100	1.9	780	10.8	454	447	280	<1.0	340	<1.0	<1.0	33	0.28	0.30	270			0.023	<0.0050	0.861	0.861	<0.0030
RB-R5B-ACDC	9/4/2019 11:15	WL0768	M	8.09	690	71	430	104	309	303	200	<1.0	240	<1.0	<1.0	18	0.14	0.16	140			0.039	<0.0050	0.498	0.498	0.014
RB-R5B-ACDC	9/5/2019 10:50	WL2423	M	8.23	910	0.30	590	<4.0	443	413	290	<1.0	350	<1.0	<1.0	23	0.14	0.18	170			0.030	<0.0050	0.789	0.789	0.033
RB-R5B-ACDC	9/6/2019 11:30	WL3940	M	8.23	890	0.31	660	<4.0	434	450	310	<1.0	370	<1.0	<1.0	25	0.14	0.17	170			<0.015	<0.0050	0.714	0.714	<0.0030
RB-R5B-ACDC	9/7/2019 11:20	WL4970	M	8.19	690	4.0	510	18.4	296	307	220	<1.0	270	<1.0	<1.0	14	0.16	0.13	140			0.030	0.0050	0.518	0.523	<0.0030
RB-R5B-ACDC	9/8/2019 9:55	WL5046	M	8.22	1000	1.6	780	5.6	497	499	310	<1.0	380	<1.0	<1.0	22	0.20	0.19	220			<0.015	<0.0050	0.911	0.911	<0.0030
RB-R5B-ACDC	9/9/2019 11:00	WL7029	M	8.19	930	3.0	680	12.8	444	418	300	<1.0	360	<1.0	<1.0	22	0.15	0.19	180			<0.015	<0.0050	0.821	0.821	<0.0030
RB-R5B-ACDC	9/10/2019 10:40	WL9313	M	8.13	920	6.9	620	23.2	440	469	250	<1.0	310	<1.0	<1.0	24	0.19	0.25	210			0.027	<0.0050	0.671	0.671	<0.0030
RB-R5B-ACDC	9/11/2019 11:00	WM1911	M	8.15	870	0.91	520	<4.0	406	413	250	<1.0	300	<1.0	<1.0	21	0.15	0.21	190			0.022	<0.0050	0.574	0.574	<0.0030
RB-R5B-ACDC	10/1/2019 10:45	WP9957	M	8.24	910	1.3	550	<4.0	463	429	300	<1.0	370	<1.0	<1.0	22	0.15	0.20	160			0.039	<0.0050	0.840	0.840	<0.0030
RB-R5B-ACDC	11/5/2019 12:55	WW6752	M	8.01	1010	18	640	36	481	465	290	<1.0	360	<1.0	<1.0	30	0.20	0.29	210			0.026	<0.010	0.99	0.99	0.032
RB-R5B-ACDC	12/2/2019 10:55	XB0710	M	8.08	953	3.1	625	5.6	459	468	320	<1.0	390	<1.0	<1.0	29	0.18	0.26	170			0.044	<0.010	0.96	0.96	<0.0030
RCC_NE_SUMP	1/19/2019 13:35	VC9567	M	9.15	1470	105	896	111	96.7	52.1	292	31.1	280	37.3	<1.0	115	0.590	2.0	209			0.66	0.273	0.401	0.673	0.0454
RCC_NE_SUMP	2/15/2019 12:30	VF9056	M	8.85	1160	158	690	134	98.2	58.2	265	14.4	288	17.3	<1.0	83.4	0.450	1.4	192			0.53	0.318	0.321	0.638	0.0571
RCC_NE_SUMP	2/26/2019 13:55	VH2472	M	8.53	1180	578	826	480	157	96.7	283	6.3	329	7.6	<1.0	82.6	0.460	1.5	197			0.37	0.0282	0.226	0.254	0.0423
RCC_NE_SUMP	3/5/2019 13:40	VI1639	M	8.93	1010	219	<10	34.4	131	62.1	220	15.6	231	18.8	<1.0	72.2	0.420	1.2	182			0.39	0.0293	0.173	0.202	0.0183
RCC_NE_SUMP	3/15/2019 11:30	VJ4024	M	8.80	1080	3750	2330	2630	323	29.7	250	12.1	275	14.5	<1.0	99.9	0.680	1.6	170			1.2	0.189	1.10	1.29	0.173

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RBDT-NSP	3/23/2019 16:05	VK5955	M	1.4	1.7	0.461	0.00184	0.00495	0.14	<0.0001	<0.001	<0.05	0.00004	6.15	0.001	0.00082	0.00351	0.441	0.00107	0.0054	0.850	0.016	<0.000002	0.0047	0.0022		1.58	0.00101
RBDT-NSP	4/1/2019 0:40	VL8078	M	1.2	3.2	0.714	0.00162	0.00477	0.128	<0.0001	<0.001	<0.05	0.000031	4.79	0.0015	0.00076	0.00334	0.626	0.00099	0.0066	0.732	0.0115	<0.000002	0.005	0.0023		1.66	0.00105
RBDT-NSP	5/8/2019 12:32	VQ9187	M	3.4	12	3.24	0.00461	0.0138	0.484	0.00024	<0.001	0.218	0.000056	12.7	0.0072	0.0034	0.0112	2.5	0.00488	0.0407	2.39	0.0245	<0.000002	0.0346	0.0078		4.80	0.00464
RBDT-NSP	6/3/2019 9:44	VU5990	M	15	21	5.44	0.0064	0.0189	0.637	0.00032	<0.002	0.27	0.000081	17.9	0.0116	0.00434	0.0138	3.73	0.00699	0.056	3.16	0.034	<0.000002	0.0498	0.0106		7.36	0.00695
RBDT-NSP	7/7/2019 11:50	WB1498	M	4.7	3.9	6.15	0.00176	0.00601	0.533	0.00038	<0.001	0.1	0.000133	19.1	0.0095	0.00447	0.0218	5.53	0.00555	0.0172	3.16	0.0653	<0.000002	0.0073	0.0119		4.87	0.00138
RBDT-Station-14177	11/5/2019 15:00	WW9448	M	2.4	3.0	0.226	0.0014	0.00107	0.0328	<0.0002	<0.002	0.761	<0.00002	28.1	<0.002	0.00041	0.0021	0.264	<0.0004	0.158	14.7	0.011	<0.000002	0.0039	0.0037		3.58	0.00036
RBDT-Station-495	11/4/2019 15:10	WW6481	M	71	79	80.4	<0.01	0.0747	1.58	0.0054	<0.02	<1	0.00327	378	0.422	0.117	0.444	149	0.0786	0.273	42.0	2.06	<0.000002	0.179	0.238		50.1	0.0627
RBDT-TC	1/19/2019 13:05	VC9569	M	<13	<13	2.38	0.00647	0.0144	0.868	0.00032	<0.001	0.22	0.000077	17.9	0.0076	0.00621	0.0196	2.68	0.0112	0.0302	4.73	0.0369	0.0000046	0.0343	0.0109		4.90	0.00525
RBDT-TC	2/16/2019 13:25	VF9498	M	<2.5	3.2	19	<0.01	0.0299	1.72	<0.002	<0.02	<1	0.00034	18.1	0.043	0.0179	0.096	17.3	0.0299	0.143	6.9	0.117	0.0000032	0.039	0.041		9.4	0.009
RBDT-TC	3/23/2019 16:15	VK5954	M	4.9	3.1	32.8	0.004	0.0402	3.8	0.00218	<0.005	0.528	0.000661	67.0	0.06	0.0372	0.144	42.7	0.0533	0.121	13.8	0.447	<0.000002	0.0779	0.0849		20.6	0.0126
RBDT-TC	4/4/2019 15:05	VM3429	M	2.4	3.1	27.8	0.0037	0.0306	3.43	0.00175	<0.005	0.598	0.000366	34.8	0.0493	0.03	0.105	30.2	0.0417	0.12	10.6	0.244	<0.000002	0.0724	0.065		19.0	0.0121
RBDT-TC	5/9/2019 12:12	VQ8347	M	8.3	7.8	127	<0.005	0.0969	0.979	0.0086	<0.01	1.26	0.00231	237	0.194	0.121	0.428	153	0.0825	0.446	46.4	1.32	<0.000002	0.06	0.266		39.2	0.0428
RBDT-TC	6/13/2019 14:35	VW9990	M	<5.0	11	88.7	<0.01	0.118	1.15	0.0098	<0.02	1.11	0.00441	428	0.165	0.221	0.719	173	0.0653	0.364	44.4	1.78	<0.0002	0.069	0.404		47.9	0.0322
RBDT-TC	7/6/2019 13:00	WB1466	M	<13	6.1	170	<0.01	0.107	0.569	0.0115	<0.02	1.3	0.00472	414	0.288	0.223	0.732	231	0.104	0.668	68.6	2.22	<0.000002	0.049	0.477		55.2	0.0378
RBDT-TPSA-CP	3/20/2019 14:00	VK3785	M	31	5.5	76.5	<0.005	0.0667	5.2	0.0079	<0.01	<0.5	0.00636	159	0.125	0.197	0.608	143	0.0822	0.195	37.9	2.28	0.0000125	0.014	0.434		18.3	0.0539
RBDT-TPSA-CP	5/15/2019 12:05	VR8792	M	4.3	13	6.4	0.00551	0.0151	0.494	0.00032	<0.001	0.206	0.000055	13.5	0.0117	0.00362	0.0115	3.13	0.00568	0.0435	2.65	0.026	<0.000002	0.0373	0.0087		6.08	0.00535
RBDT-TUNNELDUCT	5/4/2019 14:35	VQ1569	M	31	36	411	<0.025	0.567	0.511	0.0724	<0.05	<2.5	0.048	3260	0.696	1.16	4.69	1560	0.028	1.82	335	42.8	<0.00002	<0.05	2.35		67.7	0.029
RB-MWTF_SLP	1/23/2019 14:20	VD3816	M																									
RB-MWTF_SLP	1/30/2019 14:17	VE2140	M																									
RB-MWTF_SLP	2/9/2019 14:20	VF3230	M																									
RB-MWTF_SLP	2/13/2019 13:39	VF7822	M																									
RB-MWTF_SLP	2/19/2019 15:00	VG2854	M	3.1	2.6	13.7	< 0.005	0.0288	2.84	0.0013	< 0.01	< 0.5	0.0051	3810	0.027	0.136	0.0785	17.3	0.0293	0.103	118	5.35	0.0000032	0.027	0.482		8.35	0.0058
RB-MWTF_SLP	2/20/2019 12:25	VG2690	M																									
RB-MWTF_SLP	2/22/2019 12:15	VG6139	M																									
RB-MWTF_SLP	2/24/2019 14:05	VG8614	M																									
RB-MWTF_SLP	3/11/2019 14:09	VI9562	M																									
RB-MWTF_SLP	3/13/2019 15:15	VJ2181	M																									
RB-MWTF_SLP	3/15/2019 13:03	VJ4030	M																									
RB-MWTF_SLP	3/18/2019 14:21	VJ9222	M																									
RB-MWTF_SLP	3/26/2019 10:20	VK9107	M			0.223	0.00323	0.00308	0.159	< 0.0001	< 0.001	0.212	0.000012	20.8	0.0037	0.00047	0.00209	0.187	< 0.0002	0.0403	11.3	0.0052	< 0.000002	0.0276	0.0058		4.00	0.00837
RB-MWTF_SLP	4/4/2019 9:35	VM3407	M	1.6	1.7	0.0937	0.00063	0.00037	0.0136	< 0.0001	< 0.001	0.136	0.000013	36.1	< 0.001	0.00179	0.00115	0.029	< 0.0002	0.116	29.3	0.0139	< 0.000002	0.0066	0.022		3.05	0.00511
RB-MWTF_SLP	4/23/2019 9:23	VO5415	M	2.6	2.1	0.173	0.0018	0.00191	0.126	< 0.0001	< 0.001	0.165	< 0.00001	31.2	0.002	0.00026	0.0018	0.042	< 0.0002	0.0704	24.2	0.0031	< 0.000002	0.0107	0.0076		3.85	0.00599
RB-MWTF_SLP	5/1/2019 10:30	VP6540	M	1.9	1.9	0.0689	0.00206	0.0021	0.0501	< 0.0001	< 0.001	0.206	< 0.00001	23.6	0.0015	0.00032	0.0007	0.031	< 0.0002	0.0845	23.8	0.005	< 0.000002	0.0138	0.0066		3.87	0.00585
RB-MWTF_SLP	5/8/2019 10:16	VQ9190	M	1.7	1.7	0.0118	0.0011	0.00074	0.0118	< 0.0001	< 0.001	0.224	< 0.00001	24.2	0.0024	< 0.0002	< 0.0005	< 0.01	< 0.0002	0.125	29.6	0.0029	< 0.000002	0.0181	0.0022		4.18	0.0034
RB-MWTF_SLP	5/15/2019 9:56	VR8793	M	1.6	1.6	0.021	0.0015	0.00123	0.0105	< 0.0001	< 0.001	0.23	0.000011	20.4	0.0046	0.00036	0.00057	0.014	< 0.0002	0.136	30.6	0.0038	< 0.000002	0.0177	0.0034		4.81	0.00351
RB-MWTF_SLP	5/22/2019 12:15	VS7478	M	2.1	1.9	0.0098	0.00122	0.00061	0.0215	< 0.0001	< 0.001	0.211	< 0.00001	35.1	0.0018	< 0.0002	0.00059	0.01	< 0.0002	0.105	23.4	0.0014	< 0.000002	0.0259	0.0012		5.67	0.00312
RB-MWTF_SLP	5/28/2019 9:40	VT7565	M	1.9	1.9	0.0213	0.00106	0.00065	0.0106	< 0.0001	< 0.001	0.221	0.000012	21.7	0.0011	0.00032	0.00094	0.029	< 0.0002	0.112	31.7	0.0037	< 0.000002	0.0243	0.0022		5.53	0.0032
RB-MWTF_SLP	6/5/2019 10:02	VV4616	M	2.2	2.4	0.0265	0.00111	0.00075	0.0079	< 0.0001	< 0.001	0.205	< 0.00001	14.9	0.0016	< 0.0002	0.00092	0.034	< 0.0002	0.11	26.6	0.002	< 0.000002	0.0154	0.0016		4.93	0.00323
RB-MWTF_SLP	6/11/2019 10:05	VW4966	M	1.7	2.0	0.0136	0.00079	0.00056	0.0049	< 0.0001	< 0.001	0.205	< 0.00001	13.6	< 0.001	0.0003	0.00094	0.019	< 0.0002	0.119	32.5	0.0037	< 0.000002	0.0082	0.002		4.33	0.00278
RB-MWTF_SLP	6/21/2019 8:35	VY4159	M	1.6	1.7	0.0084	0.00062	0.00045	0.0064	< 0.0001	< 0.001	0.206	< 0.00001	14.0	< 0.001	< 0.0002	0.0008	< 0.01	< 0.0002	0.113	30.8	0.0044	< 0.000002	0.0061	0.0014		4.00	0.00246
RB-MWTF_SLP	6/25/2019 10:25	VZ1750	M	1.4	1.8	0.014	0.00063	0.00045	0.0079	< 0.0001	< 0.001	0.206	< 0.00001	22.1	< 0.001	0.00021	0.00078	0.013	< 0.0002	0.101	33.9	0.0032	< 0.000002	0.0065	0.0025		4.14	0.003
RB-MWTF_SLP	7/3/2019 10:20	WA5879	M	2.3	2.3	0.025	0.0018	0.00067	0.03	< 0.0001	< 0.001	0.257	0.000041	79.1	0.0035	0.00099	0.00075	0.019	< 0.0002	0.129	36.2	0.0151	0.0000022	0.018	0.0042		7.10	0.011
RB-MWTF_SLP	7/10/2019 9:50	WB8318	M	2.0	2.0	0.0058	0.00116	0.00042	0.0178	< 0.0001	< 0.001	0.266	< 0.00001	74.3	< 0.001	0.00026	0.00061	< 0.01	< 0.0002	0.141	44.8	0.004	< 0.000002	0.0117	0.0017		5.86	0.00686
RB-MWTF_SLP	7/16/2019 14:55	WC9635	M	2.5	3.1	0.0112	0.00178	0.00123	0.0197	< 0.0001	< 0.001	0.247	< 0.00001	81.4	< 0.001	0.00026	0.00089	0.014	< 0.0002	0.116	43.4	0.0024	< 0.000002	0.0218	0.0013		6.07	0.00691
RB-MWTF_SLP	7/30/2019 10:20	WF2069	M	2.6	2.5	0.0181	0.00092	0.00079	0.0065	< 0.0001	< 0.001	0.217	< 0.00001	6.22	0.0011	< 0.0002	0.00093	0.019	< 0.0002	0.12	19.9	0.0023	0.0000025	0.0088	< 0.001		4.19	0.00167
RB-MWTF_SLP	8/6/2019 10:00	WG2802	M	2.5	2.6	0.0174	0.0011	0.00074	0.006	< 0.0001	< 0.001	0.211	< 0.00001	7.93	0.0034	< 0.0002	0.00079	0.013	< 0.0002	0.136	52.1	0.0049	< 0.000002	0.0125	0.0012		4.79	0.00165
RB-MWTF_SLP	8/13/2019 11:00	WH4524	M	2.2	2.3	0.0247	0.00158	0.0012	0.0096	< 0.0001	< 0.001	0.25	< 0.00001	11.5	0.0012	< 0.0002	0.00069	0.025	< 0.0002	0.123	33.9	0.0028	< 0.000002	0.0092	0.0013		4.49	0.00207
RB-MWTF_SLP	8/20/2019 12:05	WI5439	M	1.9	2.2	0.0056	0.0019	0.00059	0.0316	< 0.0001	< 0.001	0.225	0.000013	107	0.0013	0.00035	0.00081	< 0.01	< 0.0002	0.129	41.3	0.0037	< 0.000002	0.0187	0.0017		6.57	0.00955
RB-MWTF_SLP	8/27/2019 10:40	WJ7308	M	2.1	1.8	0.0067	0.00266	0.0007	0.0315	< 0.0001	< 0.001	0.261	< 0.00001	80.2	0.0011	0.00048	< 0.0005	< 0.01	< 0.0002	0.171	46.1	0.0064	< 0.000002	0.0191	0.0028		6.55	0.00866
RB-MWTF_SLP	10/7/2019 15:20	WQ9663	M	2.0	1.6	0.0645	0.00188	0.00118	0.0207	< 0.0001	< 0.001	0.234	0.000011	26.4	0.0025	0.00024	0.00069	0.067	< 0.0002	0.134	43.0	0.0034	< 0.000002	0.0126	0.0035		4.89	0.00305
RB-MWTF_SLP	11/28/2019 13:45	XA6240	M	7.78	7.38	0.019	0.0026	0.00102	0.028	< 0.0002	< 0.002	0.328	< 0.00002	109	< 0.002	0.00267	0.0011	0.02	< 0.0004	0.233	83.7	0.0357	< 0.000002	0.0215	0.0277		8.93	0.00724
RB-R5B-ACDC	1/2/2019 14:08	VA7320	M	1.2	1.1	0.348	<0.0005	0.0007	0.095	<0.0001	<0.001	0.081	0.000189	104	<0.001	0.00329	0.00304	1.05	0.00033	0.112	28.9	0.0702	<0.000002	0.0023	0.0156		4.21	0.00265
RB-R5B-ACDC	2/14/2019 13:36	VF9051	M	0.63	1.3	0.0562	<0.0005	0.00027	0.0808	<0.0001	<0.001	0.061	0.000058	90.2	<0.001	0.00085	0.00071	0.2	<0.0002	0.0803	28.6	0.0236	0.0000027	0.0022	0.0074		3.83	0.00292
RB-R5B-ACDC	3/8/2019 13:30	VI4437	M	2.0	1.7	5.79	<0.0005	0.00825	0.417	0.00072	<0.001	0.088	0.00129	111	0.0086	0.0279	0.0346	19.4	0.0084	0.071	35.3	0.344	<0.000002	0.004	0.0975		6.51	0.00372
RB-R5B-ACDC	4/2/2019 11:40	VL9792	M	3.1	1.6	1.54	<0.0005	0.00073	0.0577	0.00044	<0.001	0.115	0.00213	109	0.0013	0.053	0.0145	1.93	0.00076	0.109	42.9	0.604	<0.000002	0.0025	0.185		4.51	0.00281
RB-R5B-ACDC	4/23/2019 9:45	VO5485	M	1.8	1.7	4.4	<0.0005	0.00745	0.322	0.00063	<0.001	0.111	0.00121	106	0.0066	0.0197	0.0266	13.7	0.00826	0.125	33.8	0.448	0.0000041	0.0041	0.0669		4.33	0.00221
RB-R5B-ACDC	5/2/2019 10:50	VP8739	M	1.3	1.4	0.263	<0.0005	0.00036	0.0536	<0.0001	<0.001	0.084	0.000405	101	<0.001	0.00878	0.00268	0.444	<0.0002	0.0817	29.7	0.158	<0.000002	0.0031	0.0332		3.93	0.00186
RB-R5B-ACDC	7/4/2019 10:40	WA7981	M	1.1	1.3	0.225	<0.0005	0.00042	0.131	<0.0001	<0.001	0.08	0.000074	129	<0.001	0.00107	0.0011	0.586	0.00038	0.0284	41.1	0.0335	<0.000002	0.0021	0.0065		5.78	0.00339
RB-R5B-ACDC	8/2/2019 8:50	WF6280	M	1.1	1.3	0.0346	<0.0005	0.00015	0.0641	<0.0001	<0.001	0.06	<0.00001	110	<0.001	<0.0002	<0.0005	0.055	<0.0002	0.0212	43.7	0.002	<0.000002	0.0017	0.0011		5.06	0.00438
RB-R5B-ACDC	9/1/2019 10:40	WK4240	M	1.2	1.2	0.021	<0.0005	0.00013	0.0603	<0.0001	<0.001	0.067	0.000012	111	<0.001	<0.0002	<0.0005	0.031	<0.0002	0.0243	42.9	0.0028	<0.000002	0.0015	0.0022		5.08	0.00414
RB-R5B-ACDC	9/3/2019 11:36	WK8379	M	1.2	2.0	0.0981	<0.0005	0.0002	0.0526	<0.0001	<0.001	0.111	0.000054	109	<0.001	0.00418	0.00081	0.088	<0.0002	0.0431	44.1	0.0471	<0.000002	0.0019	0.0196		4.34	0.00331
RB-R5B-ACDC	9/4/2019 11:15	WL0768	M	1.4	2.1	1.24	<0.0005	0.00165	0.113	0.0001	<0.001	0.051	0.000134	78.4	0.0026	0.00181	0.00442	2.96	0.00175	0.0208	27.6	0.0571	0.0000022	0.0018	0.0076		3.71	0.00272
RB-R5B-ACDC	9/5/2019 10:50	WL2423	M	1.3	2.2	0.0276	<0.0005	0.00017	0.06	<0.0001	<0.001	0.062	0.000012	106	<0.001	<0.0002	<0.0005	0.04	<0.0002	0.0239	43.7	0.002	<0.000002	0.0016	0.0021		5.01	0.00424
RB-R5B-ACDC	9/6/2019 11:30	WL3940	M	1.1	1.3	0.0141	<0.0005	0.00014	0.0561	<0.0001	<0.001	0.061	<0.00001	104	<0.001	<0.0002	<0.0005	0.017	<0.0002	0.0231	42.5	0.0012	<0.000002	0.0015	0.0018		4.86	0.00421
RB-R5B-ACDC	9/7/2019 11:20	WL4970	M	2.0	2.0	0.111	<0.0005	0.00023	0.0528	<0.0001	<0.001	0.054	0.000021	75.8	<0.001	0.00022	0.0006	0.154	<0.0002	0.0192	26.0	0.0062	<0.000002	0.0015	0.0022		3.60	0.00222
RB-R5B-ACDC	9/8/2019 9:55	WL5046	M	1.4	2.0	0.208	<0.0005	0.00022	0.0621	<0.0001	<0.001	0.085	0.000206	122	<0.001	0.00322	0.0028	0.288	<0.0002	0.0321	46.9	0.0493	<0.000002	0.0016	0.0183		4.95	0.0043
RB-R5B-ACDC	9/9/2019 11:00	WL7029	M	1.3	2.0	0.0772	<0.0005	0.00021	0.061	<0.0001	<0.001	0.06	0.000034	109	<0.001	0.00043	0.00062	0.134	<0.0002	0.0234	41.5	0.01	<0.000002	0.0013	0.0052		4.85	0.00375
RB-R5B-ACDC	9/10/2019 10:40	WL9313	M	1.3	2.0	0.146	<0.0005	0.00035	0.0628	<0.0001	<0.001	0.075	0.00003	103	<0.001	0.00095	0.00109	0.227	<0.0002	0.0326	44.6	0.0203	<0.000002	0.002	0.0086		4.89	0.00387
RB-R5B-ACDC	9/11/2019 11:00	WM1911	M	1.3	2.3	0.0283	<0.0005	0.00015	0.0479	<0.0001	<0.001	0.058	<0.00001	93.9	<0.001	<0.0002	<0.0005	0.019	<0.0002	0.0252	41.8	0.0015	<0.000002	0.0016	0.0042		4.83	0.00372
RB-R5B-ACDC	10/1/2019 10:45	WP9957	M	1.1	2.2	0.0458	<0.0005	0.00014	0.0611	<0.0001	<0.001	<0.05	0.000035	116	<0.001	0.00058	<0.0005	0.101	<0.0002	0.0179	42.1	0.0109	<0.000002	0.0014	0.0044		4.87	0.00404
RB-R5B-ACDC	11/5/2019 12:55	WW6752	M	0.73	1.4	0.621	<0.0005	0.00053	0.0759	<0.0001	<0.001	0.065	0.000131	122	0.0012	0.00253	0.00182	0.84	0.00056	0.027	42.7	0.0442	<0.000002	0.0016	0.0143		4.66	0.00373
RB-R5B-ACDC	12/2/2019 10:55	XB0710	M	1.6	1.1	0.202	<0.0005	0.00024	0.0675	<0.0001	<0.001	<0.05	0.000191	117	<0.001	0.00348	0.00224	0.441	<0.0002	0.0217	40.4	0.0545	<0.000002	0.0016	0.0135		4.80	0.00362
RCC_NE_SUMP	1/19/2019 13:35	VC9567	M	3.5	3.0	1.17	0.00332	0.00859	0.161	<0.0001	<0.001	0.383	0.000075	26.4	0.0032	0.00176	0.00482	0.768	0.00172	0.0488	7.46	0.0517	0.0000124	0.0424	0.004		5.45	0.00433
RCC_NE_SUMP	2/15/2019 12:30	VF9056	M	1.1	1.9	2.41	0.00224	0.0082	0.185	0.00012	<0.001	0.273	0.000115	26.3	0.0048	0.00262	0.00804	4.53	0.00319	0.0355	7.89	0.087	0.000013	0.0307	0.0076		3.81	0.00382
RCC_NE_SUMP	2/26/2019 13:55	VH2472	M	6.7	1.5	8.34	0.0021	0.0139	0.391	0.00047	<0.001	0.311	0.000363	42.0	0.0137	0.00757	0.0207	16	0.0106	0.0455	12.7	0.318	0.0000204	0.0221	0.0213		5.02	0.00293
RCC_NE_SUMP	3/5/2019 13:40	VI1639	M	3.3	3.9	5.29	0.0019	0.0075	0.24	0.00024	<0.002	0.276	0.000138	35.5	0.0161	0.00324	0.0105	6.59	0.00456	0.0372	10.2	0.117	0.0000154	0.0234	0.0096		5.35	0.00233
RCC_NE_SUMP	3/15/2019 11:30	VJ4024	M	12	12	40.1	<0.0025	0.027	3.24	0.00258	<0.005	0.337	0.00192	90.2	0.0698	0.0392	0.114	75.4	0.0504	0.098	23.7	1.47	<0.000002	0.0215	0.109		14.0	0.00716

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RBDT-NSP	3/23/2019 16:05	VK5955	M	2.03	<0.00002	48.6	0.0448	9.9	0.00001	<0.005	<0.005	0.00053	<0.005	0.0133	0.00037	0.0918	0.00191	0.00467	0.0772	<0.0001	<0.001	<0.05	0.000019	5.48	<0.001	<0.0002	0.00124	0.032
RBDT-NSP	4/1/2019 0:40	VL8078	M	2.49	<0.00002	40.9	0.0429	9.6	0.000015	<0.005	0.0053	0.0005	<0.005	0.0107	0.00042	0.119	0.00174	0.00469	0.078	<0.0001	<0.001	<0.05	0.000011	5.00	<0.001	<0.0002	0.001	0.038
RBDT-NSP	5/8/2019 12:32	VQ9187	M	9.25	0.000056	187	0.122	67.6	0.00005	<0.005	0.0155	0.00217	0.0154	0.0338	0.00097	0.0739	0.00637	0.0129	0.102	<0.0001	<0.001	0.167	<0.00001	10.9	0.0027	<0.0002	0.00184	0.014
RBDT-NSP	6/3/2019 9:44	VU5990	M	16.4	0.00004	244	0.201	95.2	0.000064	<0.01	0.039	0.00315	0.021	0.048	0.00377	0.0496	0.00927	0.017	0.118	<0.0001	<0.001	0.282	0.000022	15.4	0.0034	<0.0002	0.00217	0.014
RBDT-NSP	7/7/2019 11:50	WB1498	M	13.2	0.000057	65.2	0.151	12.0	0.000089	<0.005	0.0669	0.00126	0.0177	0.0647	0.00261	0.0564	0.00264	0.00422	0.174	<0.0001	<0.001	0.08	0.000011	15.5	<0.001	<0.0002	0.00323	<0.01
RBDT-Station-14177	11/5/2019 15:00	WW9448	M	4.02	<0.00004	463	0.481	160	<0.00002	<0.01	<0.01	0.00101	<0.01	0.01	0.00057	0.0437	0.0014	0.001	0.0228	<0.0002	<0.002	0.67	<0.00002	20.9	<0.002	<0.0004	<0.001	<0.02
RBDT-Station-495	11/4/2019 15:10	WW6481	M	132	0.00218	1370	1.98	493	0.00052	<0.1	0.277	0.0157	0.166	1.82	0.0071	3.63	0.0133	0.0206	0.0252	<0.0005	<0.005	0.537	<0.00005	5.66	0.305	<0.001	0.0192	1.05
RBDT-TC	1/19/2019 13:05	VC9569	M	11.3	0.000111	169	0.21	75.9	0.000052	<0.005	0.018	0.00266	0.0169	0.0566	0.00203	0.063	0.00741	0.013	0.0989	<0.0001	<0.001	0.2	<0.00001	9.01	0.0051	<0.0002	0.00161	0.011
RBDT-TC	2/16/2019 13:25	VF9498	M	35	0.00042	216	0.221	81	<0.0002	<0.1	<0.1	0.003	<0.1	0.285	0.0021	0.088	0.0142	0.0239	0.105	<0.0001	<0.001	0.319	<0.00001	6.77	0.0124	<0.0002	0.00148	0.024
RBDT-TC	3/23/2019 16:15	VK5954	M	54.6	0.0008	486	0.521	163	0.000279	<0.025	0.059	0.00589	0.075	0.606	0.00309	0.178	0.0129	0.024	0.0384	<0.0001	<0.001	0.572	0.000043	3.77	0.0128	<0.0002	0.00224	0.082
RBDT-TC	4/4/2019 15:05	VM3429	M	50.5	0.00059	433	0.408	175	0.000196	<0.025	0.053	0.00462	0.069	0.394	0.00205	0.183	0.00978	0.022	0.0401	<0.0001	<0.001	0.468	<0.00001	4.48	0.0094	<0.0002	0.00199	0.054
RBDT-TC	5/9/2019 12:12	VQ8347	M	203	0.00234	905	1.63	444	0.00046	<0.05	0.064	0.0169	0.237	1.37	0.0024	0.206	0.0263	0.0505	0.0322	<0.0005	<0.005	1.01	<0.00005	3.64	0.0337	<0.001	0.0038	<0.05
RBDT-TC	6/13/2019 14:35	VW9990	M	151	0.00325	1110	2.12	506	0.00043	<0.1	<0.1	0.0272	0.217	2.57	0.0047	1.41	0.0307	0.0479	0.0467	<0.0002	<0.002	1.03	<0.00002	8.59	0.0135	0.00054	0.0046	0.408
RBDT-TC	7/6/2019 13:00	WB1466	M	230	0.00114	1400	2.66	646	0.00066	<0.1	0.279	0.0294	0.319	2.64	0.0095	0.082	0.0213	0.0445	0.0237	<0.0005	<0.005	1.04	<0.00005	6.89	0.0172	<0.001	0.0031	<0.05
RBDT-TPSA-CP	3/20/2019 14:00	VK3785	M	95	0.00327	279	2.02	83	0.00082	<0.05	0.063	0.0223	0.193	1.86	0.0028	0.353	0.0057	0.0192	0.0929	<0.0001	<0.001	0.245	0.000018	4.66	0.0047	0.0005	0.00417	0.487
RBDT-TPSA-CP	5/15/2019 12:05	VR8792	M	15.9	0.00006	197	0.135	69.2	0.000081	<0.005	0.0806	0.00257	0.0234	0.0377	0.00447	0.0546	0.00763	0.0144	0.107	<0.0001	<0.001	0.22	<0.00001	12.2	0.0029	<0.0002	0.00206	0.011
RBDT-TUNNELDUCT	5/4/2019 14:35	VQ1569	M	390	0.0328	1300	13.9	867	0.00325	<0.25	0.3	0.185	0.384	18.7	0.0106	1.92	0.0153	0.0353	0.0531	<0.0005	<0.005	0.85	<0.00005	19.6	0.0618	<0.001	0.0097	0.075
RB-MWTF_SLP	1/23/2019 14:20	VD3816	M																									
RB-MWTF_SLP	1/30/2019 14:17	VE2140	M																									
RB-MWTF_SLP	2/9/2019 14:20	VF3230	M																									
RB-MWTF_SLP	2/13/2019 13:39	VF7822	M																									
RB-MWTF_SLP	2/19/2019 15:00	VG2854	M	25.9	< 0.0002	208	16.3	129	0.00018	< 0.05	0.135	0.023	< 0.05	0.681	0.0049	0.0542	0.00155	0.00261	0.0152	< 0.0001	< 0.001	0.232	< 0.00001	12.2	0.0059	< 0.0002	0.00113	< 0.01
RB-MWTF_SLP	2/20/2019 12:25	VG2690	M																									
RB-MWTF_SLP	2/22/2019 12:15	VG6139	M																									
RB-MWTF_SLP	2/24/2019 14:05	VG8614	M																									
RB-MWTF_SLP	3/11/2019 14:09	VI9562	M																									
RB-MWTF_SLP	3/13/2019 15:15	VJ2181	M																									
RB-MWTF_SLP	3/15/2019 13:03	VJ4030	M																									
RB-MWTF_SLP	3/18/2019 14:21	VJ9222	M																									
RB-MWTF_SLP	3/26/2019 10:20	VK9107	M	2.88	< 0.00002	176	0.212	98.5	0.000014	< 0.005	< 0.005	0.00289	< 0.005	< 0.005	0.00025													
RB-MWTF_SLP	4/4/2019 9:35	VM3407	M	3.37	< 0.00002	197	0.273	177	0.00002	< 0.005	< 0.005	0.00262	< 0.005	0.0115	< 0.0001	0.0775	0.00063	0.00038	0.0132	< 0.0001	< 0.001	0.142	0.000011	36.9	< 0.001	0.0014	0.00075	< 0.01
RB-MWTF_SLP	4/23/2019 9:23	VO5415	M	4.42	< 0.00002	175	0.198	136	0.000011	< 0.005	< 0.005	0.00274	< 0.005	0.11	< 0.0001	0.0426	0.00181	0.00193	0.0456	< 0.0001	< 0.001	0.175	< 0.00001	22.0	0.0019	0.00023	0.00139	< 0.01
RB-MWTF_SLP	5/1/2019 10:30	VP6540	M	4.3	< 0.00002	211	0.234	163	0.000012	< 0.005	< 0.005	0.00297	< 0.005	< 0.005	< 0.0001	0.0333	0.00205	0.00203	0.0456	< 0.0001	< 0.001	0.21	< 0.00001	22.5	0.0016	0.00025	0.00057	< 0.01
RB-MWTF_SLP	5/8/2019 10:16	VQ9190	M	4.58	< 0.00002	230	0.196	180	0.00001	< 0.005	< 0.005	0.00154	0.005	< 0.005	< 0.0001	0.0053	0.00105	0.00084	0.0121	< 0.0001	< 0.001	0.182	< 0.00001	24.8	0.0025	< 0.0002	< 0.0005	< 0.01
RB-MWTF_SLP	5/15/2019 9:56	VR8793	M	4.64	< 0.00002	287	0.136	214	0.000018	< 0.005	< 0.005	0.0021	0.0066	< 0.005	< 0.0001	0.0102	0.0017	0.00134	0.0112	< 0.0001	< 0.001	0.258	< 0.00001	21.7	0.0046	0.00036	< 0.0005	< 0.01
RB-MWTF_SLP	5/22/2019 12:15	VS7478	M	3.65	< 0.00002	248	0.262	206	0.000013	< 0.005	< 0.005	0.00095	< 0.005	< 0.005	< 0.0001	0.0045	0.00124	0.00061	0.0203	< 0.0001	< 0.001	0.214	< 0.00001	35.1	0.0018	< 0.0002	0.00053	< 0.01
RB-MWTF_SLP	5/28/2019 9:40	VT7565	M	3.58	< 0.00002	235	0.123	190	0.000019	< 0.005	< 0.005	0.00084	0.006	< 0.005	< 0.0001	0.0108	0.00109	0.0006	0.0105	< 0.0001	< 0.001	0.21	0.000017	20.9	0.0011	0.00057	0.00078	< 0.01
RB-MWTF_SLP	6/5/2019 10:02	VV4616	M	3.05	< 0.00002	203	0.0967	149	0.000014	< 0.005	< 0.005	0.00098	0.0067	< 0.005	< 0.0001	0.0046	0.00118	0.00077	0.0073	< 0.0001	< 0.001	0.199	< 0.00001	15.5	0.0015	< 0.0002	0.00073	< 0.01
RB-MWTF_SLP	6/11/2019 10:05	VW4966	M	3.4	< 0.00002	195	0.0475	153	0.000017	< 0.005	< 0.005	0.00042	0.0059	< 0.005	< 0.0001	< 0.003	0.00075	0.00053	0.0045	< 0.0001	< 0.001	0.192	< 0.00001	13.0	0.0016	0.00024	0.00083	< 0.01
RB-MWTF_SLP	6/21/2019 8:35	VY4159	M	3.32	< 0.00002	190	0.0509	142	0.000018	< 0.005	< 0.005	0.0004	< 0.005	< 0.005	< 0.0001	< 0.003	0.00066	0.00045	0.0068	< 0.0001	< 0.001	0.212	< 0.00001	14.7	< 0.001	< 0.0002	0.00074	< 0.01
RB-MWTF_SLP	6/25/2019 10:25	VZ1750	M	3.54	< 0.00002	182	0.157	145	0.000015	< 0.005	< 0.005	0.00147	< 0.005	< 0.005	< 0.0001	0.0031	0.0006	0.00053	0.0075	< 0.0001	< 0.001	0.206	< 0.00001	24.3	< 0.001	0.00021	0.00064	< 0.01
RB-MWTF_SLP	7/3/2019 10:20	WA5879	M	3.65	< 0.00002	287	0.519	293	0.000028	< 0.005	< 0.005	0.00055	< 0.005	0.005	< 0.0001	0.006	0.0018	0.00065	0.0298	< 0.0001	< 0.001	0.267	0.000033	87.2	0.0035	0.00102	0.00068	< 0.01
RB-MWTF_SLP	7/10/2019 9:50	WB8318	M	3.68	< 0.00002	302	0.505	290	0.000026	< 0.005	< 0.005	0.00069	< 0.005	< 0.005	< 0.0001	< 0.003	0.00114	0.00043	0.0183	< 0.0001	< 0.001	0.266	< 0.00001	73.2	< 0.001	0.00026	< 0.0005	< 0.01
RB-MWTF_SLP	7/16/2019 14:55	WC9635	M	2.92	< 0.00002	333	0.478	309	0.000025	< 0.005	< 0.005	0.00062	< 0.005	< 0.005	< 0.0001	< 0.003	0.00173	0.00116	0.0194	< 0.0001	< 0.001	0.267	< 0.00001	83.8	< 0.001	0.00024	0.00067	< 0.01
RB-MWTF_SLP	7/30/2019 10:20	WF2069	M	2.37	< 0.00002	265	0.0246	150	< 0.00001	< 0.005	< 0.005	0.00063	< 0.005	< 0.005	< 0.0001	0.0064	0.00108	0.00085	0.0076	< 0.0001	< 0.001	0.25	< 0.00001	7.18	0.0012	< 0.0002	0.00092	< 0.01
RB-MWTF_SLP	8/6/2019 10:00	WG2802	M	2.64	< 0.00002	316	0.0217	231	0.000012	< 0.005	< 0.005	0.00058	< 0.005	< 0.005	< 0.0001	0.0093	0.0011	0.00085	0.0064	< 0.0002	< 0.002	0.224	< 0.00001	8.00	0.0035	< 0.0004	< 0.001	< 0.02
RB-MWTF_SLP	8/13/2019 11:00	WH4524	M	3.26	< 0.00002	274	0.0491	185	< 0.00001	< 0.005	< 0.005	0.00066	< 0.005	< 0.005	< 0.0001	0.0058	0.00169	0.00116	0.0092	< 0.0001	< 0.001	0.259	< 0.00001	11.8	0.0011	< 0.0002	0.00056	< 0.01
RB-MWTF_SLP	8/20/2019 12:05	WI5439	M	2.93	< 0.00002	265	0.693	288	0.000021	< 0.005	< 0.005	0.00039	< 0.005	< 0.005	< 0.0001	< 0.003	0.00197	0.00059	0.0312	< 0.0001	< 0.001	0.237	0.000012	110	0.001	0.00029	0.00065	< 0.01
RB-MWTF_SLP	8/27/2019 10:40	WJ7308	M	3.91	< 0.00002	352	0.68	320	0.000026	< 0.005	< 0.005	0.00062	< 0.005	< 0.005	< 0.0001	0.0038	0.00263	0.00065	0.0307	< 0.0001	< 0.001	0.263	< 0.00001	76.8	< 0.001	0.00045	< 0.0005	< 0.01
RB-MWTF_SLP	10/7/2019 15:20	WQ9663	M	5.13	< 0.00002	303	0.222	244	< 0.00001	< 0.005	< 0.005	0.00313	< 0.005	< 0.005	< 0.0001	0.02	0.00183	0.00115	0.0166	< 0.0001	< 0.001	0.25	< 0.00001	27.4	0.0022	< 0.0002	< 0.0005	< 0.01
RB-MWTF_SLP	11/28/2019 13:45	XA6240	M	6.12	< 0.00004	579	0.862	532	0.000028	< 0.01	< 0.01	0.0025	< 0.01	< 0.01	< 0.0002	0.0085	0.0026	0.00101	0.0274	< 0.0002	< 0.002	0.348	< 0.00002	112	< 0.002	0.0026	< 0.001	< 0.02
RB-R5B-ACDC	1/2/2019 14:08	VA7320	M	5.59	<0.00002	94.0	0.312	50.0	0.000017	<0.005	0.0051	0.0025	<0.005	0.0329	<0.0001	0.0838	<0.0005	0.00019	0.0754	<0.0001	<0.001	0.078	0.000108	90.0	<0.001	0.0028	0.0009	0.016
RB-R5B-ACDC	2/14/2019 13:36	VF9051	M	4.7	<0.00002	77.1	0.304	38.3	<0.00001	<0.005	<0.005	0.00241	<0.005	0.0095	<0.0001	0.0083	<0.0005	0.00016	0.0748	<0.0001	<0.001	0.07	<0.00001	81.2	<0.001	0.00048	<0.0005	<0.01
RB-R5B-ACDC	3/8/2019 13:30	VI4437	M	12.2	0.000206	47.0	0.535	68.6	0.00023	<0.005	0.0907	0.00519	0.0164	0.28	0.00165	0.0355	<0.0005	0.00031	0.0691	<0.0001	<0.001	0.093	0.000422	107	<0.001	0.0149	0.00165	0.034
RB-R5B-ACDC	4/2/2019 11:40	VL9792	M	4.35	0.000021	78.6	0.587	173	0.000054	<0.005	0.0162	0.0045	<0.005	0.526	0.00026	0.085	<0.0005	0.00013	0.0338	<0.0001	<0.001	0.12	0.0018	122	<0.001	0.0516	0.00241	0.014
RB-R5B-ACDC	4/23/2019 9:45	VO5485	M	9.02	0.00016	109	0.364	86.2	0.000208	<0.005	0.0329	0.00376	0.0135	0.181	0.00069	0.0804	<0.0005	0.00029	0.0337	<0.0001	<0.001	0.096	0.000231	96.1	<0.001	0.00773	0.00078	<0.01
RB-R5B-ACDC	5/2/2019 10:50	VP8739	M	4.6	<0.00002	76.1	0.358	66.4	0.000023	<0.005	<0.005	0.00246	<0.005	0.0518	<0.0001	0.129	<0.0005	0.00021	0.0471	<0.0001	<0.001	0.088	0.000337	102	<0.001	0.00816	0.00123	0.015
RB-R5B-ACDC	7/4/2019 10:40	WA7981	M	5.86	<0.00002	39.4	0.458	80.1	0.000017	<0.005	0.0052	0.00362	<0.005	0.0073	<0.0001	0.0092	<0.0005	0.00013	0.108	<0.0001	<0.001	0.085	<0.00001	119	<0.001	0.00037	<0.0005	<0.01
RB-R5B-ACDC	8/2/2019 8:50	WF6280	M	5.57	<0.00002	32.2	0.397	52.1	<0.00001	<0.005	<0.005	0.004	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00013	0.0549	<0.0001	<0.001	0.052	<0.00001	93.5	<0.001	<0.0002	<0.0005	<0.01
RB-R5B-ACDC	9/1/2019 10:40	WK4240	M	5.21	<0.00002	35.6	0.431	58.3	<0.00001	<0.005	<0.005	0.00384	<0.005	<0.005	<0.0001	0.0051	<0.0005	0.00013	0.0561	<0.0001	<0.001	0.069	<0.00001	101	<0.001	<0.0002	<0.0005	<0.01
RB-R5B-ACDC	9/3/2019 11:36	WK8379	M	4.49	<0.00002	75.8	0.489	93.2	0.000018	<0.005	<0.005	0.00362	<0.005	0.0102	<0.0001	0.0445	<0.0005	0.00015	0.0478	<0.0001	<0.001	0.118	<0.00001	104	<0.001	0.00282	<0.0005	<0.01
RB-R5B-ACDC	9/4/2019 11:15	WL0768	M	4.69	<0.00002	26.2	0.303	44.8	0.000045	<0.005	0.0215	0.00261	<0.005	0.0235	0.00025	0.0161	<0.0005	0.00016	0.0576	<0.0001	<0.001	<0.05	0.000014	78.0	<0.001	0.00034	0.00058	<0.01
RB-R5B-ACDC	9/5/2019 10:50	WL2423	M	5.01	<0.00002	34.5	0.412	54.0	<0.00001	<0.005	<0.005	0.00382	<0.005	<0.005	<0.0001	0.0059	<0.0005	0.00014	0.0532	<0.0001	<0.001	0.058	<0.00001	93.1	<0.001	<0.0002	<0.0005	<0.01
RB-R5B-ACDC	9/6/2019 11:30	WL3940	M	4.88	<0.00002	32.3	0.395	53.0	<0.00001	<0.005	<0.005	0.00369	<0.005	<0.005	<0.0001	0.0038	<0.0005	<0.0001	0.055	<0.0001	<0.001	0.057	<0.00001	108	<0.001	<0.0002	<0.0005	<0.01
RB-R5B-ACDC	9/7/2019 11:20	WL4970	M	3.21	<0.00002	25.7	0.29	40.6	<0.00001	<0.005	<0.005	0.00236	<0.005	<0.005	0.00022	0.0069	<0.0005	0.00014	0.0505	<0.0001	<0.001	0.061	<0.00001	77.8	<0.001	<0.0002	<0.0005	<0.01
RB-R5B-ACDC	9/8/2019 9:55	WL5046	M	5.07	<0.00002	40.8	0.516	79.0	<0.00001	<0.005	<0.005	0.00397	<0.005	0.0389	<0.0001	0.128	<0.0005	0.00013	0.0559	<0.0001	<0.001	0.098	0.000022	119	<0.001	0.00278	0.00073	0.013
RB-R5B-ACDC	9/9/2019 11:00	WL7029	M	4.84	<0.00002	32.7	0.439	61.1	<0.00001	<0.005	<0.005	0.00367	<0.005	0.006	<0.0001	0.012	<0.0005	0.00011	0.0537	<0.0001	<0.001	0.068	<0.00001	97.9	<0.001	<0.0002	<0.0005	<0.01
RB-R5B-ACDC	9/10/2019 10:40	WL9313	M	4.44	<0.00002	39.8	0.482	74.0	0.000012	<0.005	<0.005	0.00359	<0.005	<0.005	<0.0001	0.0444	<0.0005	0.00019	0.0516	<0.0001	<0.001	0.079	<0.00001	109	<0.001	0.00064	<0.0005	<0.01
RB-R5B-ACDC	9/11/2019 11:00	WM1911	M	3.74	<0.00002	33.7	0.436	59.6	<0.00001	<0.005	<0.005	0.00345	<0.005	<0.005	<0.0001	0.0175	<0.0005	0.00016	0.0472	<0.0001	<0.001	0.068	<0.00001	91.7	<0.001	<0.0002	<0.0005	<0.01
RB-R5B-ACDC	10/1/2019 10:45	WP9957	M	5.08	<0.00002	30.9	0.409	50.4	<0.00001	<0.005	<0.005	0.00369	<0.005	0.0063	<0.0001	0.0108	<0.0005	0.00011	0.0576	<0.0001	<0.001	<0.05	<0.00001	104	<0.001	0.00045	<0.0005	<0.01
RB-R5B-ACDC	11/5/2019 12:55	WW6752	M	6.17	<0.00002	41.6	0.456	67.5	0.000023	<0.005	0.023	0.00369	<0.005	0.0245	0.00123	0.0142	<0.0005	0.00015	0.0553	<0.0001	<0.001	0.061	<0.00001	115	<0.001	0.00121	<0.0005	<0.01
RB-R5B-ACDC	12/2/2019 10:55	XB0710	M	5.57	<0.00002	27.5	0.406	51.6	<0.00001	<0.005	<0.005	0.00352	<0.005	0.0471	<0.0001	0.0892	<0.0005	0.00012	0.0647	<0.0001	<0.001	<0.05	0.000087	117	<0.001	0.00328	0.00082	0.012
RCC_NE_SUMP	1/19/2019 13:35	VC9567	M	5.1	0.000042	261	0.157	86.5	0.000022	<0.005	0.0064	0.0035	0.0135	0.009	0.00067	0.415	0.0033	0.00767	0.0335	<0.0001	<0.001	0.364	<0.00001	8.38	0.0024	<0.0002	0.00135	0.013
RCC_NE_SUMP	2/15/2019 12:30	VF9056	M	7.05	0.000027	203	0.16	64.8	0.000045	<0.005	0.0339	0.00315	0.0134	0.024	0.00061	0.214	0.00255	0.00559	0.0531	<0.0001	<0.001	0.284	<0.00001	11.3	0.0011	<0.0002	0.00124	0.015
RCC_NE_SUMP	2/26/2019 13:55	VH2472	M	17.1	0.000201	203	0.203	67.2	0.000271	<0.005	0.104	0.00334	0.0282	0.0599	0.00222	0.0985	0.00231	0.00484	0.0744	<0.0001	<0.001	0.311	<0.00001	22.5	0.0014	<0.0002	0.00068	0.053
RCC_NE_SUMP	3/5/2019 13:40	VI1639	M	16.6	0.000093	175	0.152	56.3	0.000112	<0.01	0.103	0.00252	0.021	0.029	0.00203	0.101	0.00205	0.0041	0.0438	<0.0001	<0.001	0.301	<0.00001	10.2	0.01	<0.0002	0.0012	0.02
RCC_NE_SUMP	3/15/2019 11:30	VJ4024	M	59.6	0.00077	220	0.467	59	0.000663	<0.025	0.224	0.00736	0.1	0.386	0.00372	0.0933	0.00421	0.00588	0.144	<0.0001	<0.001	0.276	0.000011	7.02	0.0053	0.00029	0.00373	0.031

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RBDT-NSP	3/23/2019 16:05	VK5955	M	<0.0002	0.0051	0.631	<0.001	<0.000002	0.0055	0.001		1.42	0.00097	1.58	<0.00002	44.7	0.0389	9.0	<0.00001	<0.005	<0.005	0.00048	<0.005	<0.005	0.00019
RBDT-NSP	4/1/2019 0:40	VL8078	M	<0.0002	0.006	0.555	<0.001	<0.000002	0.0062	<0.001		1.41	0.00109	1.84	<0.00002	42.9	0.0363	10.3	<0.00001	<0.005	<0.005	0.00046	<0.005	<0.005	0.00021
RBDT-NSP	5/8/2019 12:32	VQ9187	M	<0.0002	0.0306	1.34	<0.001	<0.000002	0.0439	<0.001		4.29	0.00436	4.09	<0.00002	179	0.112	65.3	<0.00001	<0.005	<0.005	0.0023	0.0073	<0.005	0.00012
RBDT-NSP	6/3/2019 9:44	VU5990	M	<0.0002	0.0529	1.99	<0.001	<0.000002	0.0584	0.0014		5.81	0.00648	5.91	<0.00002	269	0.166	97.1	<0.00001	<0.005	<0.005	0.00299	0.0065	<0.005	0.00019
RBDT-NSP	7/7/2019 11:50	WB1498	M	<0.0002	0.0113	1.49	<0.001	0.0000034	0.0094	0.0011		3.40	0.0013	3.87	<0.00002	67.7	0.116	13.8	<0.00001	<0.005	<0.005	0.0009	<0.005	<0.005	<0.0001
RBDT-Station-14177	11/5/2019 15:00	WW9448	M	<0.0004	0.151	14.3	<0.002	<0.000002	0.0041	0.0027		3.59	0.0003	4.07	<0.00004	442	0.439	166	<0.00002	<0.01	<0.01	0.00102	<0.01	<0.01	0.00024
RBDT-Station-495	11/4/2019 15:10	WW6481	M	<0.001	0.061	<0.25	<0.005	<0.000002	0.261	<0.005		31.1	0.0583	19.7	<0.0001	1250	0.156	477	<0.00005	<0.025	<0.025	<0.0005	0.041	<0.025	<0.0005
RBDT-TC	1/19/2019 13:05	VC9569	M	<0.0002	0.0225	3.05	<0.001	<0.000002	0.0353	<0.001		3.85	0.00528	7.06	<0.00002	179	0.109	72.5	0.000013	<0.005	<0.005	0.00183	0.0137	<0.005	<0.0001
RBDT-TC	2/16/2019 13:25	VF9498	M	0.00061	0.0347	0.902	<0.001	0.0000024	0.0615	<0.001		4.21	0.0055	9.91	<0.00002	210	0.0886	85.7	<0.00001	<0.005	<0.005	0.00171	0.025	<0.005	0.00016
RBDT-TC	3/23/2019 16:15	VK5954	M	0.00034	0.0554	0.536	0.001	<0.000002	0.114	<0.001		9.87	0.0108	6.38	<0.00002	406	0.0544	154	<0.00001	<0.005	<0.005	0.00232	0.0243	<0.005	0.00022
RBDT-TC	4/4/2019 15:05	VM3429	M	0.00031	0.0577	0.906	<0.001	<0.000002	0.0875	<0.001		9.84	0.0103	6.14	<0.00002	373	0.0894	157	0.000011	<0.005	<0.005	0.00255	0.0225	<0.005	0.00015
RBDT-TC	5/9/2019 12:12	VQ8347	M	<0.001	0.061	<0.25	<0.005	<0.00002	0.147	<0.005		8.78	0.0347	15.4	<0.0001	796	0.0773	398	<0.00005	<0.025	<0.025	0.00147	0.089	<0.025	<0.0005
RBDT-TC	6/13/2019 14:35	VW9990	M	0.00104	0.103	1.22	0.0026	<0.00004	0.183	<0.002		14.5	0.0286	10	<0.00004	906	0.159	448	0.000033	<0.01	0.022	0.0079	0.046	<0.01	0.00121
RBDT-TC	7/6/2019 13:00	WB1466	M	<0.001	0.227	1.48	<0.005	<0.00002	0.13	<0.005		17.1	0.0276	11.5	<0.0001	1250	0.185	640	<0.00005	<0.025	<0.025	0.0079	0.042	<0.025	<0.0005
RBDT-TPSA-CP	3/20/2019 14:00	VK3785	M	0.00081	0.0204	0.638	0.0045	0.0000022	0.0578	0.0022		2.21	0.0722	4.72	0.000024	258	0.069	91.2	0.00001	<0.005	0.0082	0.00793	0.0124	<0.005	0.00055
RBDT-TPSA-CP	5/15/2019 12:05	VR8792	M	<0.0002	0.0381	1.58	<0.001	<0.000002	0.0444	0.0013		4.56	0.00514	4.56	<0.00002	206	0.111	72.9	<0.00001	<0.005	<0.005	0.00228	0.0061	<0.005	<0.0001
RBDT-TUNNELDUCT	5/4/2019 14:35	VQ1569	M	<0.001	0.025	<0.25	<0.005	<0.00002	0.167	<0.005		10.1	0.0476	28.2	<0.0001	827	0.244	387	<0.00005	<0.025	<0.025	<0.0005	0.122	<0.025	<0.0005
RB-MWTF_SLP	1/23/2019 14:20	VD3816	M																						
RB-MWTF_SLP	1/30/2019 14:17	VE2140	M																						
RB-MWTF_SLP	2/9/2019 14:20	VF3230	M																						
RB-MWTF_SLP	2/13/2019 13:39	VF7822	M																						
RB-MWTF_SLP	2/19/2019 15:00	VG2854	M	< 0.0002	0.0409	24.7	< 0.001	< 0.000002	0.039	0.0031		6.13	0.00321	5.63	< 0.00002	195	0.148	115	0.000011	< 0.005	< 0.005	0.00297	0.0061	< 0.005	< 0.0001
RB-MWTF_SLP	2/20/2019 12:25	VG2690	M																						
RB-MWTF_SLP	2/22/2019 12:15	VG6139	M																						
RB-MWTF_SLP	2/24/2019 14:05	VG8614	M																						
RB-MWTF_SLP	3/11/2019 14:09	VI9562	M																						
RB-MWTF_SLP	3/13/2019 15:15	VJ2181	M																						
RB-MWTF_SLP	3/15/2019 13:03	VJ4030	M																						
RB-MWTF_SLP	3/18/2019 14:21	VJ9222	M																						
RB-MWTF_SLP	3/26/2019 10:20	VK9107	M																						
RB-MWTF_SLP	4/4/2019 9:35	VM3407	M	< 0.0002	0.107	30.0	0.011	< 0.000002	0.0063	0.0205		3.27	0.00529	3.31	< 0.00002	195	0.281	177	0.000017	< 0.005	< 0.005	0.00266	< 0.005	0.0082	< 0.0001
RB-MWTF_SLP	4/23/2019 9:23	VO5415	M	< 0.0002	0.0687	24.7	0.0015	< 0.000002	0.0116	0.0078		3.79	0.00614	4.13	< 0.00002	185	0.209	130	< 0.00001	< 0.005	< 0.005	0.00289	< 0.005	< 0.005	< 0.0001
RB-MWTF_SLP	5/1/2019 10:30	VP6540	M	< 0.0002	0.0846	23.9	0.0026	< 0.000002	0.0134	0.006		3.72	0.00577	4.17	< 0.00002	203	0.231	161	< 0.00001	< 0.005	< 0.005	0.00295	< 0.005	< 0.005	< 0.0001
RB-MWTF_SLP	5/8/2019 10:16	VQ9190	M	< 0.0002	0.128	27.5	0.0019	< 0.000002	0.0189	0.0021		4.59	0.00349	4.66	< 0.00002	222	0.231	184	< 0.00001	< 0.005	< 0.005	0.00174	< 0.005	< 0.005	< 0.0001
RB-MWTF_SLP	5/15/2019 9:56	VR8793	M	< 0.0002	0.143	33.3	0.0029	< 0.000002	0.0198	0.0033		5.08	0.00363	4.83	< 0.00002	293	0.147	217	0.000018	< 0.005	< 0.005	0.00218	0.0071	< 0.005	< 0.0001
RB-MWTF_SLP	5/22/2019 12:15	VS7478	M	< 0.0002	0.109	24.6	0.0012	< 0.000002	0.0263	0.0013		5.77	0.00341	3.54	< 0.00002	262	0.264	214	0.000015	< 0.005	< 0.005	0.00096	< 0.005	< 0.005	< 0.0001
RB-MWTF_SLP	5/28/2019 9:40	VT7565	M	< 0.0002	0.112	29.6	0.0064	< 0.000002	0.0239	0.0028		5.33	0.0031	3.34	< 0.00002	221	0.127	184	0.000019	< 0.005	< 0.005	0.00083	0.0061	< 0.005	< 0.0001
RB-MWTF_SLP	6/5/2019 10:02	VV4616	M	< 0.0002	0.11	27.1	0.0013	< 0.000002	0.016	0.0015		5.14	0.00339	3.15	< 0.00002	208	0.101	156	0.000014	< 0.005	< 0.005	0.00103	0.0069	< 0.005	< 0.0001
RB-MWTF_SLP	6/11/2019 10:05	VW4966	M	< 0.0002	0.11	31.9	0.0028	< 0.000002	0.0081	0.0019		4.02	0.00271	3.24	< 0.00002	191	0.0447	147	0.000018	< 0.005	< 0.005	0.00041	0.006	< 0.005	< 0.0001
RB-MWTF_SLP	6/21/2019 8:35	VY4159	M	< 0.0002	0.113	32.4	0.0046	< 0.000002	0.0063	0.0015		4.13	0.0025	3.47	< 0.00002	200	0.0527	148	0.000018	< 0.005	< 0.005	0.00039	< 0.005	< 0.005	< 0.0001
RB-MWTF_SLP	6/25/2019 10:25	VZ1750	M	< 0.0002	0.11	35.3	0.003	< 0.000002	0.0062	0.0022		4.21	0.00301	3.81	< 0.00002	194	0.149	158	0.000016	< 0.005	< 0.005	0.00136	< 0.005	< 0.005	< 0.0001
RB-MWTF_SLP	7/3/2019 10:20	WA5879	M	< 0.0002	0.139	36.9	0.0149	< 0.000002	0.0174	0.0041		7.44	0.0114	4.28	< 0.00002	303	0.509	294	0.000026	< 0.005	< 0.005	0.00055	< 0.005	< 0.005	< 0.0001
RB-MWTF_SLP	7/10/2019 9:50	WB8318	M	< 0.0002	0.145	45.2	0.0034	< 0.000002	0.012	0.0015		5.98	0.00764	3.54	< 0.00002	305	0.554	295	0.000025	< 0.005	< 0.005	0.0007	< 0.005	< 0.005	< 0.0001
RB-MWTF_SLP	7/16/2019 14:55	WC9635	M	< 0.0002	0.123	42.6	0.002	< 0.000002	0.0208	0.0011		6.31	0.00659	3.05	< 0.00002	329	0.437	319	0.000026	< 0.005	< 0.005	0.00064	< 0.005	< 0.005	< 0.0001
RB-MWTF_SLP	7/30/2019 10:20	WF2069	M	< 0.0002	0.126	21.5	0.0031	< 0.000002	0.0099	0.0011		4.48	0.0017	2.73	< 0.00002	287	0.0292	167	< 0.00001	< 0.005	< 0.005	0.00069	< 0.005	< 0.005	< 0.0001
RB-MWTF_SLP	8/6/2019 10:00	WG2802	M	< 0.0004	0.144	53.9	0.006	< 0.000002	0.0124	< 0.002		5.10	0.00186	2.54	< 0.00004	334	0.0214	243	0.000024	< 0.01	< 0.01	0.00075	< 0.01	< 0.01	< 0.0002
RB-MWTF_SLP	8/13/2019 11:00	WH4524	M	< 0.0002	0.127	35.2	0.0022	< 0.000002	0.0095	0.0013		4.53	0.0021	3.39	< 0.00002	281	0.0508	188	< 0.00001	< 0.005	< 0.005	0.00067	< 0.005	< 0.005	< 0.0001
RB-MWTF_SLP	8/20/2019 12:05	WI5439	M	< 0.0002	0.134	41.9	0.0034	< 0.000002	0.0193	0.0016		6.61	0.00995	3.07	< 0.00002	274	0.707	293	0.000024	< 0.005	< 0.005	0.00039	< 0.005	< 0.005	< 0.0001
RB-MWTF_SLP	8/27/2019 10:40	WJ7308	M	< 0.0002	0.177	45.3	0.0051	< 0.000002	0.0172	0.0025		6.32	0.00815	3.66	< 0.00002	328	0.618	314	0.000026	< 0.005	< 0.005	0.00059	< 0.005	< 0.005	< 0.0001
RB-MWTF_SLP	10/7/2019 15:20	WQ9663	M	< 0.0002	0.124	42.3	0.0013	< 0.000002	0.0119	0.0034		4.45	0.00312	4.67	< 0.00002	296	0.198	209	< 0.00001	< 0.005	< 0.005	0.00297	< 0.005	< 0.005	< 0.0001
RB-MWTF_SLP	11/28/2019 13:45	XA6240	M	< 0.0004	0.233	80.1	0.0345	0.000002	0.0227	0.0278		8.84	0.00705	5.7	< 0.00004	582	0.87	528	0.000028	< 0.01	< 0.01	0.00242	< 0.01	< 0.01	< 0.0002
RB-R5B-ACDC	1/2/2019 14:08	VA7320	M	<0.0002	0.104	28.4	0.0587	<0.000002	0.0023	0.014		3.90	0.00237	4.47	<0.00002	95.6	0.321	46.3	0.000012	<0.005	<0.005	0.00222	<0.005	0.0129	<0.0001
RB-R5B-ACDC	2/14/2019 13:36	VF9051	M	<0.0002	0.0888	31.6	0.0059	<0.000002	0.0023	0.0071		4.12	0.00321	4.85	<0.00002	82.9	0.321	39.6	<0.00001	<0.005	<0.005	0.00238	<0.005	<0.005	<0.0001
RB-R5B-ACDC	3/8/2019 13:30	VI4437	M	<0.0002	0.0652	35.0	0.18	<0.000002	0.0032	0.0546		5.77	0.00329	4.16	<0.00002	50.7	0.586	73.4	0.000035	<0.005	<0.005	0.00284	<0.005	0.0697	<0.0001
RB-R5B-ACDC	4/2/2019 11:40	VL9792	M	<0.0002	0.111	46.6	0.602	0.0000022	0.0026	0.179		4.46	0.00306	3.61	<0.00002	82.6	0.585	181	0.000032	<0.005	<0.005	0.00405	<0.005	0.349	<0.0001
RB-R5B-ACDC	4/23/2019 9:45	VO5485	M	<0.0002	0.125	31.8	0.234	<0.000002	0.0036	0.0276		3.49	0.00192	3.88	<0.00002	117	0.323	90.2	0.000026	<0.005	<0.005	0.00258	<0.005	0.0087	<0.0001
RB-R5B-ACDC	5/2/2019 10:50	VP8739	M	<0.0002	0.0832	29.9	0.149	<0.000002	0.003	0.0306		3.91	0.00194	4.45	<0.00002	75.3	0.337	66.6	0.00002	<0.005	<0.005	0.00239	<0.005	0.0344	<0.0001
RB-R5B-ACDC	7/4/2019 10:40	WA7981	M	<0.0002	0.0287	41.5	0.0062	<0.000002	0.0022	0.005		5.73	0.00329	5.58	<0.00002	39.8	0.45	81.0	0.000011	<0.005	<0.005	0.00375	<0.005	<0.005	<0.0001
RB-R5B-ACDC	8/2/2019 8:50	WF6280	M	<0.0002	0.0217	42.1	<0.001	<0.000002	0.0017	0.0011		4.97	0.00436	4.9	<0.00002	30.4	0.36	52.3	<0.00001	<0.005	<0.005	0.00341	<0.005	<0.005	<0.0001
RB-R5B-ACDC	9/1/2019 10:40	WK4240	M	<0.0002	0.0246	44.3	<0.001	<0.000002	0.0015	0.002		5.22	0.00425	5.27	<0.00002	36.7	0.432	61.8	<0.00001	<0.005	<0.005	0.00384	<0.005	<0.005	<0.0001
RB-R5B-ACDC	9/3/2019 11:36	WK8379	M	<0.0002	0.0443	45.6	0.0135	<0.000002	0.002	0.0177		4.46	0.00367	4.63	<0.00002	79.1	0.471	94.4	0.000014	<0.005	<0.005	0.00356	<0.005	<0.005	<0.0001
RB-R5B-ACDC	9/4/2019 11:15	WL0768	M	<0.0002	0.0182	26.3	0.0072	<0.000002	0.0022	0.0027		3.39	0.00251	3.13	<0.00002	25.7	0.301	45.1	<0.00001	<0.005	<0.005	0.00251	<0.005	<0.005	<0.0001
RB-R5B-ACDC	9/5/2019 10:50	WL2423	M	<0.0002	0.0226	43.8	<0.001	<0.000002	0.0015	0.0018		5.13	0.0042	4.95	<0.00002	34.0	0.4	56.7	<0.00001	<0.005	<0.005	0.00384	<0.005	<0.005	<0.0001
RB-R5B-ACDC	9/6/2019 11:30	WL3940	M	<0.0002	0.0241	44.0	<0.001	<0.000002	0.0015	0.0016		5.28	0.00397	5.61	<0.00002	32.9	0.388	55.4	<0.00001	<0.005	<0.005	0.00342	<0.005	<0.005	<0.0001
RB-R5B-ACDC	9/7/2019 11:20	WL4970	M	<0.0002	0.0225	27.5	0.0012	<0.000002	0.0016	0.002		3.65	0.00247	3.3	<0.00002	27.2	0.29	42.9	<0.00001	<0.005	<0.005	0.00235	<0.005	<0.005	<0.0001
RB-R5B-ACDC	9/8/2019 9:55	WL5046	M	<0.0002	0.0331	48.8	0.0326	<0.000002	0.0015	0.0179		5.03	0.00445	5	<0.00002	42.6	0.506	82.2	<0.00001	<0.005	<0.005	0.00392	<0.005	0.006	<0.0001
RB-R5B-ACDC	9/9/2019 11:00	WL7029	M	<0.0002	0.0234	42.2	<0.001	<0.000002	0.0015	0.0045		4.79	0.00417	4.68	<0.00002	33.8	0.429	60.7	<0.00001	<0.005	<0.005	0.00365	<0.005	<0.005	<0.0001
RB-R5B-ACDC	9/10/2019 10:40	WL9313	M	<0.0002	0.0332	47.9	0.0066	<0.000002	0.0019	0.0079		5.25	0.004	4.67	<0.00002	43.4	0.421	80.2	<0.00001	<0.005	<0.005	0.00328	<0.005	<0.005	<0.0001
RB-R5B-ACDC	9/11/2019 11:00	WM1911	M	<0.0002	0.0278	44.8	<0.001	<0.000002	0.0019	0.0042		5.16	0.00433	4.19	<0.00002	36.6	0.448	66.2	<0.00001	<0.005	<0.005	0.00349	<0.005	<0.005	<0.0001
RB-R5B-ACDC	10/1/2019 10:45	WP9957	M	<0.0002	0.0246	41.2	0.005	<0.000002	0.0014	0.0041		5.03	0.00412	5.04	<0.00002	31.2	0.402	51.3	<0.00001	<0.005	<0.005	0.00348	<0.005	<0.005	<0.0001
RB-R5B-ACDC	11/5/2019 12:55	WW6752	M	<0.0002	0.0289	43.4	0.0074	<0.000002	0.0016	0.0118		4.69	0.00375	5.35	<0.00002	40.9	0.473	70.4	<0.00001	<0.005	<0.005	0.0036	<0.005	<0.005	<0.0001
RB-R5B-ACDC	12/2/2019 10:55	XB0710	M	<0.0002	0.0224	43.0	0.0458	<0.000002	0.0016	0.0129		4.93	0.0041	5.3	<0.00002	29.7	0.387	53.0	<0.00001	<0.005	<0.005	0.00377	<0.005	0.0192	<0.0001
RCC_NE_SUMP	1/19/2019 13:35	VC9567	M	<0.0002	0.0452	7.56	<0.001	<0.000002	0.0439	0.0011		5.23	0.00507	4.02	<0.00002	281	0.0951	87.4	0.00001	<0.005	<0.005	0.00331	0.0113	<0.005	<0.0001
RCC_NE_SUMP	2/15/2019 12:30	VF9056	M	<0.0002	0.034	7.28	<0.001	0.0000064	0.0325	<0.001		3.39	0.00377	3.35	<0.00002	215	0.108	64.8	<0.00001	<0.005	<0.005	0.00292	0.0069	<0.005	<0.0001
RCC_NE_SUMP	2/26/2019 13:55	VH2472	M	<0.0002	0.0388	9.82	0.0037	0.0000022	0.0293	<0.001		3.67	0.00298	4	<0.00002	203	0.144	65.5	0.000011	<0.005	<0.005	0.00282	0.0052	<0.005	0.00014
RCC_NE_SUMP	3/5/2019 13:40	VI1639	M	<0.0002	0.0315	8.88	<0.001	<0.000002	0.0258	<0.001		4.86	0.00253	9.22	<0.00002	197	0.0895	60.8	<0.00001	<0.005	<0.005	0.00226	0.0093	<0.005	<0.0001
RCC_NE_SUMP	3/15/2019 11:30	VJ4024	M	<0.0002	0.033	2.96	0.0033	0.0000022	0.04	0.0011		5.86	0.00647	3.99	<0.00002	207	0.0991	49.7	0.000011	<0.005	<0.005	0.00335	0.0063	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RCC_NE_SUMP	3/19/2019 12:45	VK0927	M	9.28	4.5	5050	3620	6210	890	15.6	668	<1.0	814	<1.0	<1.0	92.9	0.740	1.4	170			1.5	0.257	2.28	2.54	0.0646
RCC_NE_SUMP	4/7/2019 12:07	VM5350	M	8.61	2480	206	1610	1190	134	47.7	348	10.4	399	12.4	<1.0	402	0.710	4.9	233			1.2	1.54	16.0	17.6	0.0056
RCC_NE_SUMP	4/16/2019 11:15	VN8483	M	8.32	1280	168	780	129	222	178	225	1.2	271	1.4	<1.0	79.3	0.310	1.4	267			0.51	0.241	1.65	1.89	0.0055
RCC_NE_SUMP	4/23/2019 12:00	VO5418	M	8.54	1040	7.40	646	84.4	242	241	208	6.7	238	8.1	<1.0	45.7	0.190	0.75	262			0.34	0.0636	1.05	1.11	0.0033
RCC_NE_SUMP	4/30/2019 12:40	VP5224	M	8.19	1040	111	642	127	258	186	159	<1.0	194	<1.0	<1.0	56.3	0.180	1.1	222			0.17	0.0387	1.20	1.23	0.0035
RCC_NE_SUMP	5/5/2019 13:28	VQ1491	M	7.75	1060	22.3	666	26.4	342	343	252	<1.0	307	<1.0	<1.0	32.0	0.140	0.56	207			0.055	0.0321	0.950	0.982	<0.0030
RCC_NE_SUMP	5/8/2019 12:57	VR2944	M	8.10	1040	44.5	636	50.4	154	141	179	<1.0	218	<1.0	<1.0	72.9	0.240	1.4	210			0.26	0.0722	0.911	0.984	0.0030
RCC_NE_SUMP	5/16/2019 12:50	VS0883	M	8.00	801	70.0	500	64.4	220	223	196	<1.0	239	<1.0	<1.0	25.8	0.180	0.60	183			0.095	0.0167	0.502	0.519	0.0068
RCC_NE_SUMP	5/28/2019 10:45	VT7566	M	8.25	606	49.9	360	53.6	212	201	182	<1.0	222	<1.0	<1.0	16	0.150	0.30	110			0.019	0.0104	0.194	0.204	<0.0050
RCC_NE_SUMP	6/4/2019 11:20	VU7700	M	8.15	882	44.4	560	44.4	230	220	224	<1.0	273	<1.0	<1.0	32.8	0.200	0.71	193			0.069	0.0423	0.258	0.301	<0.0050
RCC_NE_SUMP	6/11/2019 11:55	VW4965	M	8.45	686	20.4	406	42.0	195	180	182	5.1	210	6.2	<1.0	24.0	0.160	0.45	149			0.030	0.0195	0.140	0.160	<0.0050
RCC_NE_SUMP	6/18/2019 12:00	VX8831	M	8.07	914	34.8	552	35.2	166	172	221	<1.0	270	<1.0	<1.0	46.1	0.260	0.94	154			0.11	0.0229	0.157	0.180	<0.0050
RCC_NE_SUMP	6/25/2019 11:54	VZ1749	M	8.13	696	174	432	160	183	167	154	<1.0	188	<1.0	<1.0	34.1	0.190	0.81	135			0.037	0.0392	0.466	0.505	<0.0050
RCC_NE_SUMP	7/4/2019 12:20	WA7982	M	8.11	1210	70	742	59.2	203	200	228	<1.0	278	<1.0	<1.0	78.6	0.300	1.4	230			0.13	0.157	0.683	0.840	<0.0050
RCC_NE_SUMP	7/16/2019 15:20	WC9636	M	8.47	839	28	546	44.4	174	178	183	3.8	213	4.6	<1.0	31.6	0.170	0.65	207			0.079	0.0477	0.298	0.345	<0.0050
RCC_NE_SUMP	7/23/2019 13:05	WE1030	M	7.85	1060	29	652	32.8	200	208	256	<1.0	312	<1.0	<1.0	52.5	0.250	0.90	234			0.090	0.0159	0.198	0.214	<0.0050
RCC_NE_SUMP	7/31/2019 10:50	WF4362	M	8.23	685	9.5	406	14.0	152	157	184	<1.0	224	<1.0	<1.0	38.1	0.150	0.76	122			0.021	0.0081	0.151	0.159	<0.0050
RCC_NE_SUMP	8/6/2019 11:10	WG2804	M	8.17	1070	63	636	55.2	175	169	203	<1.0	248	<1.0	<1.0	88.6	0.230	1.7	186			0.027	0.0516	0.262	0.313	0.0051
RCC_NE_SUMP	8/13/2019 13:20	WH4525	M	8.71	848	15	542	9.6	157	152	198	9.2	219	11.1	<1.0	62.1	0.180	1.2	149			0.022	0.0305	0.164	0.194	0.0181
RCC_NE_SUMP	8/21/2019 13:10	WI5132	M	8.34	1300	240	820	210	251	227	260	1.9	320	2.3	<1.0	93	0.31	1.9	250			0.28	0.0819	0.756	0.838	0.0095
RCC_NE_SUMP	8/27/2019 12:05	WJ7310	M	7.6	1500	25	910	32	189	183	290	<1.0	350	<1.0	<1.0	120	0.31	2.5	250			0.23	0.0511	0.398	0.449	<0.0030
RCC_NE_SUMP	9/3/2019 12:40	WK8381	M	8.35	860	16	520	35.6	145	145	200	2.2	240	2.6	<1.0	82	0.19	1.4	140			0.19	0.0355	0.177	0.213	0.017
RCC_NE_SUMP	9/11/2019 11:30	WM1912	M	7.80	590	150	370	292	636	125	170	<1.0	210	<1.0	<1.0	39	0.17	0.82	73			0.026	0.0187	0.139	0.158	0.013
RCC_NE_SUMP	9/21/2019 11:30	WO1837	M	8.99	1000	68	630	110	90.8	39.3	210	13	220	16	<1.0	71	0.31	2.0	180			0.31	0.125	0.514	0.639	0.0063
RCC_NE_SUMP	9/27/2019 10:05	WP3482	M	8.30	990	7.1	600	4.8	188	187	260	<1.0	320	<1.0	<1.0	41	0.34	0.83	190			0.24	0.0195	0.531	0.550	0.0091
RCC_NE_SUMP	10/2/2019 12:30	WQ2276	M	8.29	770	41	460	78.8	115	109	190	<1.0	230	<1.0	<1.0	65	0.26	1.4	90			0.26	0.0153	0.119	0.134	0.0065
RCC_NE_SUMP	10/8/2019 12:35	WR3473	M	7.34	1200	69	730	220	178	158	310	<1.0	380	<1.0	<1.0	100	0.40	2.1	150			0.35	0.035	0.24	0.27	0.0035
RCC_NE_SUMP	10/17/2019 9:40	WS9491	M	7.88	860	28	520	48	175	183	240	<1.0	290	<1.0	<1.0	53	0.26	1.2	120			0.089	0.019	0.26	0.28	0.0030
RCC_NE_SUMP	10/25/2019 15:15	WU5357	M	9.98	630	>4000	1750	3330	680	10.5						42	0.42	1.4	100			0.36	0.114	0.362	0.476	0.039
RCC_NE_SUMP	11/1/2019 12:00	WV7048	M	8.01	1100	100	640	130	193	153	240	<1.0	290	<1.0	<1.0	75	0.30	1.6	200			0.12	0.040	0.47	0.51	0.0076
RCC_NE_SUMP	11/6/2019 11:45	WW9550	M	8.35	1290	70	785	270	262	175	300	1.4	360	1.7	<1.0	100	0.33	2.1	230			0.51	0.026	0.56	0.59	0.0058
RCC_NE_SUMP	11/13/2019 11:55	WY0309	M	8.17	691	26	409	27	216	215	280	<1.0	340	<1.0	<1.0	15	0.30	0.32	67			0.11	<0.010	0.13	0.13	0.021
RCC_NE_SUMP	11/19/2019 13:30	WY9703	M	8.28	908	670	600	280	198	109	150	<1.0	180	<1.0	<1.0	40	0.33	1.0	220			0.12	0.060	0.58	0.64	0.0032
RCC_NE_SUMP	11/27/2019 10:50	XA4486	M	8.51	841	5.6	475	12	172	158	250	6.4	290	7.7	<1.0	53	0.23	1.1	120			0.29	0.018	0.20	0.22	<0.0030
RCC_NE_SUMP	12/3/2019 12:15	XB3097	M	9.17	1000	25	616	224	192	65.8	170	27.6	140	33.1	<1.0	83.1	0.271	1.50	191			0.393	0.027	0.304	0.331	0.0042
RCC_NE_SUMP	12/14/2019 11:00	XD1664	M	7.21	1200	11	678	38.8	212	230	303	<1.0	369	<1.0	<1.0	85.5	0.298	1.60	184			0.126	0.012	0.233	0.245	0.0039
RCC_NE_SUMP	12/18/2019 12:55	XD7329	M	8.24	1170	7.4	854	26.5	193	180	287	<1.0	350	<1.0	<1.0	87.0	0.254	1.53	177			0.344	<0.010	0.262	0.262	<0.0030
RCC_Spillway_E_Sump	3/7/2019 14:30	VI4428	M	8.85	988	449	774	2380	183	46.7	202	10.9	220	13.1	<1.0	66.2	0.530	1.2	173			0.18	0.230	2.16	2.39	0.0740
RCC_Spillway_E_Sump	4/26/2019 7:14	VO8654	M	9.60	1630	6460	3740	4890	393	8.63	358	73.7	257	88.4	<1.0	105	0.450	2.0	299			2.3	0.300	0.574	0.874	0.041
RCC_Spillway_E_Sump	4/30/2019 13:00	VP5225	M	9.34	1510	1080	1290	510	61.3	16.8	328	50.4	277	60.4	<1.0	139	0.670	2.4	205			1.5	0.107	0.101	0.208	0.0077
RCC_Spillway_E_Sump	5/10/2019 7:25	VQ9651	M	10.5	1530	337	972	221	45.3	6.91	339	155	36.0	186	<1.0	103	0.750	2.5	229			0.82	0.0709	0.121	0.192	0.0088
RCC_Spillway_E_Sump	5/15/2019 7:28	VR8794	M	10.3	1500	6680	4220	8670	292	6.98	172	<1.0	210	<1.0	<1.0	161	0.840	2.6	105			4.2	0.0550	0.102	0.157	0.083
RCC_Spillway_E_Sump	7/2/2019 2:18	WA3736	M	9.92	2290	120	1390	106	41.0	10.5	178	59.2	72.5	71.0	<1.0	262	0.880	4.8	490			0.62	1.10	1.30	2.40	0.0051
RCC_Spillway_W_Sump	3/6/2019 15:35	VI3048	M	8.91	1010	531	874	232	74.4	41.4	292	16.6	315	19.9	<1.0	61.4	0.530	0.99	150			0.54	0.0988	0.219	0.317	0.0634
RCC_Spillway_W_Sump	4/11/2019 7:00	VN1881	M	9.60	1860	2480	2110	665	86.8	8.82	320	68.6	223	82.3	<1.0	221	0.760	3.9	192			1.6	1.27	0.564	1.83	0.0194
RCC_Spillway_W_Sump	4/21/2019 7:31	VO1914	M	9.59	2090	11800	3880	7350	180	5.24	443	95.1	308	114	<1.0	186	1.40	2.7	340			2.4	0.0404	0.044	0.084	0.0094
RCC_Spillway_W_Sump	4/24/2019 7:22	VO6976	M	11.4	1420	23.1	980	210	562	506	213	175	<1.0	46.1	46.3	29.3	0.550	1.3	283			3.0	0.0250	0.109	0.134	0.0037
RCC-Mid-Powerhouse	1/16/2019 14:15	VC6519	M	9.78	1700	134	1120	46.4	21.6	13.9	297	81.8	163	98.2	<1.0	150	0.790	2.7	235			1.2	0.550	0.493	1.04	0.135
RCC-Mid-Powerhouse	1/16/2019 14:20	VC6521	M	8.17	1540	758	976	523	430	334	356	<1.0	434	<1.0	<1.0	85.5	0.220	1.3	298			0.25	0.0165	0.499	0.515	0.0080
RCC-Mid-Powerhouse	1/16/2019 14:30	VC6518	M	8.62	813	116	456	248	171	47.7	151	4.8	172	5.7	<1.0	70.0	0.220	1.6	142			0.46	0.0549	0.136	0.191	0.0101
RCC-Mid-PowerHouse	3/1/2019 14:55	VH5669	M			268			119	53.1						112	0.570	2.2	210			0.62	0.0422	0.312	0.354	0.0676
RCC-Mid-Powerhouse	3/23/2019 14:20	VK5982	M	9.19	1620	2080	1420	1780	332	77.1						120	0.510	2.3	297			0.82	0.294	1.68	1.97	0.0270
RCC-Mid-PowerHouse	4/8/2019 9:20	VM6521	M	8.25	1400	14.2	906	618	441	355	220	<1.0	269	<1.0	<1.0	46.6	0.190	0.72	396			0.14	0.0764	2.81	2.89	<0.0050
RCC-Mid-PowerHouse	5/7/2019 11:50	VQ4257	M	8.43	931	41.6	540	248	352	322	199	3.2	235	3.8	<1.0	29.6	0.140	0.54	239			0.050	0.0463	0.946	0.992	0.0032
RCC-Mid-Powerhouse	6/17/2019 12:20	VX5947	M	8.35	598	25.6	350	115	165	111	136	1.2	163	1.5	<1.0	25.7	0.150	0.56	129			0.17	0.0185	0.128	0.147	<0.0050
RCC-Mid-PowerHouse	7/28/2019 11:30	WE7126	M	8.62	982	19	528	56.8	205	173	200	7.2	226	8.7	<1.0	47.0	0.190	0.93	226			0.036	0.0441	0.446	0.490	<0.0050
RCC-Mid-PowerHouse	8/5/2019 10:50	WF9950	M	8.87	3670	38	2450	42.8	86.5	67.9	174	10.2	188	12.3	<1.0	145	0.510	3.3	1280			0.20	0.740	1.72	2.46	0.0081
RCC-Sunken-BT	4/19/2019 11:40	VO0464	M	6.68	362	12.0	216	12.0	76.4	75.5	90.0	<1.0	110	<1.0	<1.0	11.6	0.260	0.70	65.3			0.13	0.0939	0.310	0.403	0.0030
RCC-Sunken-BT	5/4/2019 12:20	VQ1568	M	11.6	1490	4.40	754	23.2	521	469	289	248	<1.0	48.5	70.7	19.7	0.270	1.7	166			1.0	0.0595	0.204	0.263	0.0036
RCC-Sunken-BT	5/6/2019 11:19	VQ3953	M	11.7	1720	0.39	732	<1.2	472	441	354	307	<1.0	56.9	88.2	19.3	0.300	1.7	174			0.92	0.0610	0.221	0.282	<0.0030
RCC-Sunken-BT	5/15/2019 12:32	VR8791	M	11.0	2030	0.99	1010	<4.0	12.8	5.75	411	236	<1.0	210	20.6	203	0.750	4.2	162			0.54	0.115	0.083	0.198	0.011
RCC-Sunken-BT	5/28/2019 11:45	VT7567	M	11.9	1620	11.3	660	20.8	445	465	455	425	<1.0	35.0	135	19	0.340	1.5	24			0.23	0.0307	0.120	0.151	<0.0050
RCC-Sunken-BT	6/13/2019 13:25	VW9989	M	9.59	583	512	452	236	80.0	7.10	173	38.9	117	46.7	<1.0	30.7	0.330	0.75	68.1			<0.015	0.0362	0.050	0.086	<0.0050
RCC-Sunken-BT	6/27/2019 13:25	VZ7773	M	12.4	4500	46.5	1600	162	1750	1490	1720	1690	<1.0	40.8	563	29.9	0.280	2.8	<1.0			0.19	0.0832	0.46	0.55	<0.0050
RCC-Sunken-BT	7/24/2019 13:05	WE3042	M	8.93	1770	18	918	2060	422	110	27.1	3.3	25.1	3.9	<1.0	70.6	0.410	3.7	156			0.13	0.0633	0.227	0.290	<0.0050
RCC-Sunken-BT	8/17/2019 10:45	WI0636	M	11.8	1920	15	832	92.4	411	390	384	353	<1.0	37.1	110	68	0.450	4.9	140			0.18	0.166	0.402	0.568	<0.0050
RCC-W-Sump	3/21/2019 11:37	VK3819	M	7.89	1110	14.8	740	18.0	267	261	70.6	<1.0	86.1	<1.0	<1.0	42.2	0.810	0.61	380			0.48	0.0806	1.43	1.52	<0.0050
RCC-W-Sump	3/22/2019 10:00	VK3717	M	8.18	1160	52.5	710	54.4	172	149	112	<1.0	136	<1.0	<1.0	72.7	0.760	1.2	282			0.69	0.289	1.53	1.81	0.0093
RCC-W-Sump	3/23/2019 14:00	VK5981	M	8.05	1150	9.96	704	17.2	168	167	104	<1.0	127	<1.0	<1.0	67.7	0.820	1.1	312			0.73	0.218	1.49	1.71	<0.0050
RCC-W-Sump	3/24/2019 0:15	VK6068	M	8.33	1140	70.6	710	76.0	169	156	101	<1.0	123	<1.0	<1.0	68.8	0.870	1.1	298			0.73	0.242	1.46	1.70	<0.0050
RCC-W-Sump	3/25/2019 12:15	VK7808	M	7.71	1710	234	1170	262	458	406	82.4	<1.0	101	<1.0	<1.0	33.9	1.20	0.56	696			0.69	0.0502	1.60	1.65	<0.0050
RCC-W-Sump	3/26/2019 11:30	VK9105	M	7.77	1740	589	1250	504	441	434	68.8	<1.0	83.9	<1.0	<1.0	29.1	1.10	0.49	711			0.70	0.0465	1.66	1.71	<0.0050
RCC-W-Sump	3/27/2019 11:50	VL2037	M	7.86	1880	7.31	1290	14.8	451	458	76.5	<1.0	93.3	<1.0	<1.0	30.0	1.10	0.53	804			0.69	0.0255	1.82	1.84	<0.0050
RCC-W-Sump	3/28/2019 10:30	VL3538	M	7.84	1920	1.95	1340	<4.0	484	478	81.9	<1.0	99.9	<1.0	<1.0	32.3	1.20	0.49	874			0.72	0.0650	1.64	1.70	<0.0050
RCC-W-Sump	3/29/2019 9:50	VL3509	M	8.23	1810	17.5	1240	29.6	496	515	180	<1.0	219	<1.0	<1.0	34.1	1.00	0.48	636			0.56	0.0405	0.990	1.03	0.0073
RCC-W-Sump	4/30/2019 12:10	VP5223	M	7.63	1910	4.26	1270	9.2	366	360	81.3	<1.0	99.2	<1.0	<1.0	75.3	2.10	1.3	687			0.040	0.0060	<0.020	<0.020	0.0046
RSEM-L5E-EOP	3/15/2019 8:35	VJ4029	M	7.90	448	11.3	270	13.6	174	192	84.8	<1.0	103	<1.0	<1.0	3.79	0.250	0.031	143			0.66	0.0821	1.61	1.70	0.0055

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RCC_NE_SUMP	3/19/2019 12:45	VK0927	M	35	5.9	75.6	<0.005	0.0646	7.44	0.0062	<0.01	<0.5	0.00506	264	0.148	0.0909	0.281	187	0.129	0.178	56.2	3.78	0.0000023	0.014	0.235		15.7	0.0088
RCC_NE_SUMP	4/7/2019 12:07	VM5350	M	9.3	13	15.3	0.0026	0.0168	3.27	0.00093	<0.005	0.446	0.00048	35.2	0.0251	0.0129	0.0691	25.6	0.0175	0.125	11.3	0.259	0.0000056	0.0393	0.0419		5.48	0.0181
RCC_NE_SUMP	4/16/2019 11:15	VN8483	M	2.5	2.5	2.9	0.00292	0.00434	0.701	0.00013	<0.001	0.196	0.00003	63.2	0.0072	0.00123	0.0065	2.34	0.00148	0.0425	15.5	0.0255	0.0000045	0.0171	0.0041		4.17	0.0103
RCC_NE_SUMP	4/23/2019 12:00	VO5418	M	4.6	3.8	0.832	0.00245	0.00338	0.482	<0.0001	<0.001	0.15	0.000032	69.7	0.0025	0.00073	0.00262	1.06	0.00078	0.024	16.6	0.0158	<0.000002	0.0102	0.0029		3.66	0.00716
RCC_NE_SUMP	4/30/2019 12:40	VP5224	M	3.6	3.5	0.729	0.0013	0.00217	0.114	<0.0001	<0.001	0.136	0.000039	72.6	0.008	0.00065	0.00314	0.874	0.00078	0.03	18.7	0.0179	<0.000002	0.0162	0.0025		8.77	0.00663
RCC_NE_SUMP	5/5/2019 13:28	VQ1491	M	4.1	4.2	1.11	0.001	0.00154	0.102	<0.0001	<0.001	0.092	0.000043	98.3	0.0048	0.00071	0.00327	0.777	0.00061	0.0216	23.5	0.0204	<0.000002	0.0072	0.0032		4.19	0.00653
RCC_NE_SUMP	5/8/2019 12:57	VR2944	M	8.4	6.2	1.19	0.00186	0.00195	0.0985	<0.0001	<0.001	0.148	0.000056	39.7	0.0148	0.00093	0.00555	1.47	0.00107	0.0322	13.4	0.0254	<0.000002	0.0257	0.003		8.59	0.00519
RCC_NE_SUMP	5/16/2019 12:50	VS0883	M	3.8	3.8	1.16	0.00106	0.0025	0.134	<0.0001	<0.001	0.1	0.000082	63.2	0.0098	0.00116	0.00466	2.07	0.00141	0.0199	15.0	0.0389	<0.000002	0.0107	0.0041		3.78	0.00314
RCC_NE_SUMP	5/28/2019 10:45	VT7566	M	4.1	3.9	0.838	0.00062	0.00155	0.116	<0.0001	<0.001	0.065	0.000127	60.4	0.0021	0.00102	0.0038	1.76	0.00105	0.0137	14.9	0.0337	<0.000002	0.0041	0.0039		2.16	0.00162
RCC_NE_SUMP	6/4/2019 11:20	VU7700	M	6.0	6.7	0.62	0.00126	0.00227	0.11	<0.0001	<0.001	0.164	0.000045	64.7	0.0039	0.00083	0.00409	1.13	0.00088	0.0218	16.6	0.0269	<0.000002	0.0113	0.0033		4.24	0.00242
RCC_NE_SUMP	6/11/2019 11:55	VW4965	M	3.2	2.9	0.344	0.00078	0.00129	0.0858	<0.0001	<0.001	0.102	0.00003	55.3	0.0029	0.00042	0.0026	0.525	0.00044	0.0183	13.8	0.0161	<0.000002	0.0069	0.002		2.51	0.00149
RCC_NE_SUMP	6/18/2019 12:00	VX8831	M	4.2	3.5	0.641	0.0014	0.00228	0.106	<0.0001	<0.001	0.162	0.000035	46.1	0.0042	0.00087	0.00354	0.778	0.00074	0.0282	12.4	0.024	<0.000002	0.0125	0.0031		4.73	0.00186
RCC_NE_SUMP	6/25/2019 11:54	VZ1749	M	8.7	8.1	1.56	0.00192	0.00315	0.157	<0.0001	<0.001	0.176	0.000107	54.2	0.0089	0.00169	0.00811	3.28	0.00197	0.0193	11.5	0.0731	<0.000002	0.015	0.0059		9.18	0.00314
RCC_NE_SUMP	7/4/2019 12:20	WA7982	M	4.9	4.0	1.01	0.00193	0.00348	0.149	<0.0001	<0.001	0.224	0.000062	59.0	0.0085	0.00123	0.00467	1.88	0.00135	0.043	13.4	0.0339	0.000005	0.0212	0.0045		7.11	0.00476
RCC_NE_SUMP	7/16/2019 15:20	WC9636	M	3.0	3.3	0.663	0.00107	0.00165	0.089	<0.0001	<0.001	0.137	0.000042	49.6	0.0049	0.00056	0.00273	0.717	0.00061	0.0235	12.2	0.0251	<0.000002	0.0122	0.0022		4.54	0.0017
RCC_NE_SUMP	7/23/2019 13:05	WE1030	M	3.1	3.0	0.827	0.00146	0.00241	0.0911	<0.0001	<0.001	0.209	0.000031	53.0	0.0024	0.00055	0.00284	0.749	0.00061	0.0334	16.5	0.0247	0.0000043	0.0163	0.0026		6.15	0.00194
RCC_NE_SUMP	7/31/2019 10:50	WF4362	M	3.1	3.6	0.448	0.00086	0.00138	0.0661	<0.0001	<0.001	0.128	0.000026	41.8	0.0013	0.00025	0.00176	0.321	0.00028	0.0214	11.5	0.0103	<0.000002	0.0147	0.0016		4.73	0.00128
RCC_NE_SUMP	8/6/2019 11:10	WG2804	M	3.6	4.1	1.65	0.00186	0.00284	0.14	<0.0001	<0.001	0.22	0.000061	51.1	0.0091	0.00098	0.00457	1.76	0.00126	0.0317	11.6	0.0439	0.0000048	0.0287	0.0036		8.75	0.00188
RCC_NE_SUMP	8/13/2019 13:20	WH4525	M	3.4	3.7	0.644	0.00097	0.00169	0.0705	<0.0001	<0.001	0.161	0.000032	43.7	0.0016	0.00029	0.00215	0.512	0.0004	0.0257	11.5	0.0145	<0.000002	0.0205	0.0018		4.91	0.00155
RCC_NE_SUMP	8/21/2019 13:10	WI5132	M	<5.0	3.5	5.92	0.00181	0.00607	0.253	0.00022	<0.001	0.299	0.000216	72.0	0.0151	0.00342	0.0105	7.81	0.00416	0.0497	17.3	0.189	0.0000055	0.0313	0.0111		10.1	0.00319
RCC_NE_SUMP	8/27/2019 12:05	WJ7310	M	4.9	4.1	1.17	0.00197	0.00345	0.126	<0.0001	<0.001	0.303	0.00004	52.7	0.0071	0.00061	0.00426	0.805	0.00075	0.0508	14	0.0329	0.0000049	0.0478	0.0024		10.6	0.00318
RCC_NE_SUMP	9/3/2019 12:40	WK8381	M	3.3	3.8	0.606	0.00106	0.00206	0.0861	<0.0001	<0.001	0.163	0.000034	41.3	0.0018	0.00044	0.00281	0.593	0.00054	0.0273	10.2	0.0231	<0.000002	0.0243	0.002		5.41	0.00142
RCC_NE_SUMP	9/11/2019 11:30	WM1912	M	4.0	5.4	0.0251	0.00133	0.00051	0.0148	<0.0001	<0.001	0.181	0.000081	129	0.0036	0.00304	0.00089	0.05	<0.0002	0.0457	75.9	0.0402	0.0000021	0.014	0.0176		6.30	0.0162
RCC_NE_SUMP	9/21/2019 11:30	WO1837	M	3.8	4.5	2.67	0.0017	0.00484	0.123	<0.0001	<0.001	0.26	0.000048	26.9	0.0077	0.00088	0.005	1.48	0.00109	0.0404	5.76	0.0391	0.0000091	0.0635	0.0035		17.2	0.00285
RCC_NE_SUMP	9/27/2019 10:05	WP3482	M	1.3	2.7	0.0989	<0.0005	0.00077	0.103	<0.0001	<0.001	0.313	0.00003	55.0	<0.001	0.00072	0.00078	0.192	<0.0002	0.0401	12.3	0.0678	<0.000002	0.0052	0.0033		2.10	0.00164
RCC_NE_SUMP	10/2/2019 12:30	WQ2276	M	6.3	7.4	1.61	0.00132	0.00309	0.155	<0.0001	<0.001	0.208	0.000045	34.1	0.0074	0.00102	0.00611	1.8	0.00125	0.0289	7.28	0.0444	<0.000002	0.0269	0.0036		5.83	0.00124
RCC_NE_SUMP	10/8/2019 12:35	WR3473	M	3.8	3.6	5.79	0.0034	0.00736	0.435	0.00027	<0.002	0.392	0.000201	56.6	0.0143	0.00403	0.0173	8.24	0.00515	0.0532	9.00	0.18	0.0000213	0.0463	0.009		10.7	0.00267
RCC_NE_SUMP	10/17/2019 9:40	WS9491	M	3.7	2.8	1.47	0.00147	0.00332	0.146	<0.0001	<0.001	0.184	0.00005	53.0	0.0074	0.0009	0.00474	1.5	0.00134	0.0249	10.4	0.0443	0.000005	0.0323	0.003		5.32	0.00182
RCC_NE_SUMP	10/25/2019 15:15	WU5357	M	<13	5.2	63.9	<0.005	0.0336	3.04	0.0035	<0.01	<0.5	0.00389	215	0.134	0.0617	0.201	128	0.0789	0.08	34.6	3.27	0.0000128	0.023	0.176		25.1	0.0034
RCC_NE_SUMP	11/1/2019 12:00	WV7048	M	2.5	2.3	3.35	0.00156	0.00457	0.223	0.00013	<0.001	0.236	0.000116	53.7	0.0072	0.00218	0.00872	4.1	0.00259	0.0391	14.3	0.0972	0.0000032	0.035	0.0068		7.31	0.00294
RCC_NE_SUMP	11/6/2019 11:45	WW9550	M	2.0	2.6	4.74	0.00256	0.00516	0.326	0.00019	<0.001	0.295	0.000102	72.4	0.0074	0.00237	0.0132	3.99	0.00408	0.0465	19.8	0.0875	<0.000002	0.0574	0.0063		9.64	0.00289
RCC_NE_SUMP	11/13/2019 11:55	WY0309	M	1.1	1.0	0.226	<0.0005	0.00093	0.255	<0.0001	<0.001	0.157	0.000033	63.3	<0.001	0.00049	0.00113	0.408	0.00024	0.0189	14.2	0.0452	<0.000002	0.0041	0.0021		1.99	0.00123
RCC_NE_SUMP	11/19/2019 13:30	WY9703	M	5.0	2.8	6.35	0.0025	0.00613	0.339	0.00026	<0.002	0.262	0.000218	56.7	0.0203	0.00412	0.0142	8.33	0.00468	0.0424	13.6	0.172	<0.000002	0.0289	0.0138		13.6	0.00396
RCC_NE_SUMP	12/3/2019 12:15	XB3097	M	3.9	3.75	4.18	0.00325	0.0059	0.346	0.00019	<0.001	0.259	0.000116	56.5	0.0159	0.00258	0.0175	3.24	0.00412	0.0385	12.4	0.0949	0.0000053	0.0316	0.0045		10.8	0.00242
RCC_NE_SUMP	12/14/2019 11:00	XD1664	M	3.98	1.88	1.5	0.00158	0.00286	0.136	<0.0001	<0.001	0.232	0.00004	57.8	0.0043	0.00074	0.00432	0.987	0.00071	0.0401	16.4	0.0394	<0.000002	0.0254	0.0025		8.17	0.00179
RCC_NE_SUMP	12/18/2019 12:55	XD7329	M	5.31	4.58	1.13	0.00143	0.00222	0.109	<0.0001	<0.001	0.242	0.00002	51.2	0.0054	0.0004	0.00463	0.353	0.00047	0.0402	15.8	0.027	0.0000045	0.025	0.0018		8.74	0.00197
RCC_Spillway_E_Sump	3/7/2019 14:30	VI4428	M	<13	3.6	22.6	<0.0025	0.0253	1.03	0.00135	<0.005	0.261	0.00152	50.3	0.0544	0.0243	0.0642	46.1	0.0281	0.045	13.9	1.19	0.000123	0.0325	0.0661		8.23	0.0061
RCC_Spillway_E_Sump	4/26/2019 7:14	VO8654	M	<50	2.9	75	<0.005	0.0534	8.88	0.005	<0.01	0.603	0.00178	104	0.115	0.0896	0.27	126	0.0695	0.231	32.5	1.25	<0.000002	0.025	0.163		16.9	0.0209
RCC_Spillway_E_Sump	4/30/2019 13:00	VP5225	M	5.5	5.1	11.2	<0.005	0.0134	2.42	<0.001	<0.01	<0.5	0.00018	15.9	0.019	0.0075	0.03	13.5	0.0097	0.084	5.23	0.109	<0.000002	0.028	0.018		5.90	0.01
RCC_Spillway_E_Sump	5/10/2019 7:25	VQ9651	M	9.4	9.5	9.05	0.0071	0.0168	0.38	<0.0005	<0.005	0.521	0.000207	14.7	0.079	0.004	0.0174	8.78	0.0057	0.079	2.05	0.153	0.0000096	0.0594	0.0129		20.6	0.0101
RCC_Spillway_E_Sump	5/15/2019 7:28	VR8794	M	9.3	11	90.6	<0.005	0.108	8.57	0.0058	<0.01	0.643	0.00143	66.1	0.168	0.0703	0.236	153	0.0868	0.258	30.8	0.519	0.0000026	0.026	0.182		17.7	0.016
RCC_Spillway_E_Sump	7/2/2019 2:18	WA3736	M	3.4	3.6	2.45	0.0066	0.00885	0.35	<0.0002	<0.002	0.433	0.000092	13.3	0.0408	0.00283	0.0086	2.35	0.00234	0.109	1.93	0.0375	0.0000093	0.0756	0.0074		16.4	0.0262
RCC_Spillway_W_Sump	3/6/2019 15:35	VI3048	M	5.3	3.5	10.1	0.0017	0.0106	0.706	0.0005	<0.002	0.307	0.000403	19.7	0.0151	0.0087	0.0249	15	0.0107	0.047	6.10	0.346	0.0000084	0.0229	0.021		4.84	0.00315
RCC_Spillway_W_Sump	4/11/2019 7:00	VN1881	M	4.9	3.3	23.4	0.003	0.0229	3.86	0.00165	<0.005	0.587	0.000669	22.1	0.0375	0.0197	0.0867	33.7	0.0274	0.113	7.72	0.34	0.0000039	0.039	0.053		10.1	0.0141
RCC_Spillway_W_Sump	4/21/2019 7:31	VO1914	M	4.2	2.0	84.7	<0.01	0.0323	16	0.0054	<0.02	<1	0.00072	26.9	0.126	0.0431	0.263	119	0.0566	0.318	27.3	0.409	<0.00002	<0.02	0.125		16.9	0.0113
RCC_Spillway_W_Sump	4/24/2019 7:22	VO6976	M	4.5	4.6	1.82	0.00107	0.00329	0.558	<0.0001	<0.001	0.136	<0.00001	223	0.105	0.00138	0.00916	0.934	0.00173	0.0288	1.21	0.0222	0.0000068	0.124	0.0014		14.8	0.00737
RCC-Mid-Powerhouse	1/16/2019 14:15	VC6519	M	<2.5	4.7	3.75	0.0048	0.0146	0.189	0.00017	<0.001	0.472	0.000135	6.65	0.0075	0.00325	0.00959	3.31	0.00392	0.0446	1.20	0.108	0.0000131	0.0677	0.0086		6.15	0.00587
RCC-Mid-Powerhouse	1/16/2019 14:20	VC6521	M	<2.5	1.8	6.21	<0.0025	0.00555	0.79	<0.0005	<0.005	<0.25	0.000129	117	0.0098	0.0057	0.0205	7.05	0.0061	0.052	33.7	0.101	<0.000002	0.0136	0.015		6.52	0.00342
RCC-Mid-Powerhouse	1/16/2019 14:30	VC6518	M	1.9	2.8	2.62	0.0016	0.00366	0.228	0.00015	<0.001	0.139	0.000095	56.7	0.0063	0.0016	0.0135	3.65	0.00481	0.0258	7.19	0.102	<0.000002	0.0206	0.0054		3.67	0.00088
RCC-Mid-PowerHouse	3/1/2019 14:55	VH5669	M	3.4	4.9	6.68	0.00274	0.0135	0.274	0.00031	<0.001	0.331	0.000261	31.3	0.0121	0.00565	0.0177	10.8	0.00708	0.045	9.83	0.168	0.0000053	0.0366	0.0174		5.62	0.00415
RCC-Mid-Powerhouse	3/23/2019 14:20	VK5982	M	8.1	4.6	26.8	0.0021	0.0224	2.86	0.00158	<0.002	0.423	0.000701	90.9	0.0466	0.0197	0.0776	30.8	0.0296	0.103	25.4	0.433	<0.000002	0.0428	0.0605		17.5	0.0164
RCC-Mid-PowerHouse	4/8/2019 9:20	VM6521	M	3.0	2.4	8.46	0.0021	0.00871	0.533	0.00044	<0.002	0.153	0.000332	134	0.0164	0.00695	0.0258	13.4	0.00874	0.0359	25.8	0.262	<0.000002	0.0099	0.0183		6.36	0.0142
RCC-Mid-PowerHouse	5/7/2019 11:50	VQ4257	M	3.6	3.6	1.8	0.00123	0.0023	0.138	0.00011	<0.001	0.092	0.000091	104	0.0055	0.00136	0.00629	2.53	0.00174	0.0199	22.2	0.0462	<0.000002	0.0068	0.0042		3.94	0.00554
RCC-Mid-Powerhouse	6/17/2019 12:20	VX5947	M	5.8	4.0	1.45	0.00155	0.00248	0.141	<0.0001	<0.001	0.118	0.000064	48.2	0.0056	0.00095	0.0064	1.84	0.00156	0.0173	10.9	0.0334	0.000002	0.013	0.0032		7.88	0.00131
RCC-Mid-PowerHouse	7/28/2019 11:30	WE7126	M	3.5	4.0	1.36	0.00139	0.00237	0.0902	<0.0001	<0.001	0.177	0.000065	58.6	0.0057	0.0007	0.00342	1.38	0.0009	0.0323	14.4	0.0219	0.0000027	0.0205	0.003		6.26	0.00229
RCC-Mid-PowerHouse	8/5/2019 10:50	WF9950	M	2.6	2.5	1.73	0.0051	0.00478	0.0703	<0.0005	<0.005	0.61	<0.00005	25.9	0.0182	<0.001	0.003	1.24	<0.001	0.162	5.31	0.0204	0.000004	0.0628	<0.005		14.9	0.0053
RCC-Sunken-BT	4/19/2019 11:40	VO0464	M	5.6	5.6	0.924	0.0054	0.00143	0.0733	<0.0001	<0.001	0.309	0.000022	29.7	0.052	0.00044	0.0057	0.563	0.00026	0.007	0.553	0.0282	<0.000002	0.0435	0.0015		9.04	0.0019
RCC-Sunken-BT	5/4/2019 12:20	VQ1568	M	7.0	7.2	0.0687	<0.0005	0.00073	0.695	<0.0001	<0.001	0.059	<0.00001	209	0.0811	<0.0002	0.00353	0.017	<0.0002	0.0173	<0.050	<0.001	<0.000002	0.0914	<0.001		19.7	0.00454
RCC-Sunken-BT	5/6/2019 11:19	VQ3953	M	7.0	6.6	0.0797	<0.0005	0.00054	0.661	<0.0001	<0.001	0.058	<0.00001	189	0.0762	<0.0002	0.00332	0.015	<0.0002	0.0165	<0.050	<0.001	<0.000002	0.0868	<0.001		18.1	0.00427
RCC-Sunken-BT	5/15/2019 12:32	VR8791	M	8.7	7.8	1.99	0.00515	0.0024	0.197	<0.0001	<0.001	0.206	<0.00001	5.12	0.084	<0.0002	0.00505	0.109	<0.0002	0.0294	<0.050	0.0013	<0.000002	0.0965	<0.001		9.54	0.00944
RCC-Sunken-BT	5/28/2019 11:45	VT7567	M	3.4	3.5	1.23	0.0032	0.00096	2.05	<0.0005	<0.005	<0.25	<0.00005	178	0.0969	<0.001	0.0039	0.474	<0.001	0.016	0.26	0.0096	0.0000025	0.0705	<0.005		26.3	0.00245
RCC-Sunken-BT	6/13/2019 13:25	VW9989	M	4.2	4.3	18.5	0.0081	0.0109	0.486	0.00061	<0.005	0.354	0.000302	23.3	0.0385	0.0057	0.0339	13.1	0.0094	0.039	5.29	0.203	<0.0002	0.0205	0.0166		17.7	0.00251
RCC-Sunken-BT	6/27/2019 13:25	VZ7773	M	4.6	4.6	0.386	<0.01	<0.002	13	<0.002	<0.02	<1	<0.0002	701	0.044	<0.004	<0.01	<0.2	<0.004	<0.04	<1.0	<0.02	<0.000002	0.071	<0.02		56.9	<0.002
RCC-Sunken-BT	7/24/2019 13:05	WE3042	M	4.4	3.7	15.5	0.0075	0.015	1.27	0.00085	<0.002	0.375	0.00053	150	0.0509	0.0108	0.0498	20	0.0186	0.057	11.7	0.408	0.00013	0.0292	0.0222		17.8	0.00339
RCC-Sunken-BT	8/17/2019 10:45	WI0636	M	8.5	8.7	1.35	0.0047	0.00258	0.856	<0.0002	<0.002	0.414	0.000048	164	0.143	0.00077	0.0061	0.977	0.00098	0.024	0.49	0.0225	0.0000044	0.141	<0.002		51.1	0.00687
RCC-W-Sump	3/21/2019 11:37	VK3819	M	2.9	2.4	0.417	0.00129	0.00094	0.132	<0.0001	<0.001	0.124	0.000142	71.4	0.0018	0.00871	0.00648	0.397	0.00026	0.0783	21.5	0.3	<0.000002	0.0091	0.0377		3.94	0.006
RCC-W-Sump	3/22/2019 10:00	VK3717	M	2.5	2.9	0.621	0.0038	0.0055	0.531	<0.0001	<0.001	0.194	0.000025	46.9	0.0063	0.0013	0.00662	0.609	0.00056	0.0599	13.3	0.0703	0.0000082	0.0266	0.0107		4.39	0.0091
RCC-W-Sump	3/23/2019 14:00	VK5981	M	3.2	3.0	0.251	0.00348	0.00454	0.427	<0.0001	<0.001	0.186	0.00002	44.2	0.0045	0.00103	0.00473	0.183	<0.0002	0.0583	13.9	0.0284	<0.000002	0.0257	0.0102		4.29	0.00912
RCC-W-Sump	3/24/2019 0:15	VK6068	M	2.5	2.8	0.52	0.00368	0.00475	0.424	<0.0001	<0.001	0.192	0.000032	45.2	0.0058	0.00111	0.00607	0.468	0.0005	0.0576	13.7	0.026	0.0000035	0.0265	0.0099		4.40	0.00962
RCC-W-Sump	3/25/2019 12:15	VK7808	M	1.9	1.4	1.71	0.00078	0.00272	0.161	0.0002	<0.001	0.146	0.000895	120	0.0034	0.0335	0.0108	4.77	0.00262	0.136	38.8	0.671	0.0000026	0.0069	0.118		4.38	0.0112
RCC-W-Sump	3/26/2019 11:30	VK9105	M	4.3	1.5	3.8	0.0015	0.00602	0.32	0.00051	<0.002	0.149	0.00161	110	0.0064	0.0561	0.0255	9.37	0.012	0.152	40.3	0.872	0.0000043	0.0076	0.181		4.93	0.0102
RCC-W-Sump	3/27/2019 11:50	VL2037	M	1.8	1.7	2.47	0.000055	0.00136	0.111	0.00014	<0.001	0.168	0.000996	111	0.0036	0.0502	0.00538	2.52	0.00135	0.159	42.3	0.767	0.0000026	0.005	0.149		4.50	0.0106
RCC-W-Sump	3/28/2019 10:30	VL3538	M	1.4	1.7	0.0844	0.00051	0.00018	0.0493	<0.0001	<0.001	0.179	0.000886	120	<0.001	0.0417	0.00102	0.069	<0.0002	0.16	44.5	0.706	<0.000002	0.0051	0.121		4.06	0.0109
RCC-W-Sump	3/29/2019 9:50	VL3509	M	1.9	1.3	0.732	<0.0005	0.00057	0.0691	<0.0001	<0.001	0.16	0.000499	128	<0.001	0.0215	0.00233	0.682	0.00041	0.144	42.6	0.44	<0.000002	0.0046	0.0662		4.42	0.00684
RCC-W-Sump	4/30/2019 12:10	VP5223	M	3.9	4.1	0.374	0.00107	0.00074	0.0546	<0.0001	<0.001	0.355	0.000056	95.6	0.0013	0.00068	0.00229	0.519	0.00034	0.0278	30.9	0.0102	<0.000002	0.0372	0.0031		5.54	0.00306
RSEM-L5E-EOP	3/15/2019 8:35	VJ4029	M	3.6	3.0	0.659	0.00071	0.00057	0.0436	<0.0001	<0.001	<0.05	0.000042	41.9	0.0011	0.00047	0.0022	0.578	0.00034	0.0035	16.8	0.0663	<0.000002	0.009	0.0023		2.94	0.00359

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RCC_NE_SUMP	3/19/2019 12:45	VK0927	M	91.8	0.00176	191	1.28	63	0.001	<0.05	0.189	0.0162	0.185	1.1	0.0043	0.359	0.00875	0.0139	0.0899	<0.0001	<0.001	0.356	<0.00001	5.35	0.0132	0.00043	0.00295	0.096
RCC_NE_SUMP	4/7/2019 12:07	VM5350	M	24.5	0.00034	488	0.356	99	0.000214	<0.025	0.051	0.00373	0.04	0.157	0.00096	0.0506	0.0062	0.00605	0.34	<0.0001	<0.001	0.343	<0.00001	12.5	0.004	0.00198	0.0361	0.357
RCC_NE_SUMP	4/16/2019 11:15	VN8483	M	9.41	0.000027	195	0.338	104	0.000046	<0.005	0.0608	0.00355	0.0119	0.0094	0.00142	0.0231	0.00357	0.00377	0.461	<0.0001	<0.001	0.217	<0.00001	48.3	0.0035	0.00022	0.00354	0.01
RCC_NE_SUMP	4/23/2019 12:00	VO5418	M	4.86	<0.00002	114	0.398	92.6	0.00002	<0.005	0.0129	0.00304	0.0064	0.0062	0.00029	0.0471	0.00278	0.00311	0.466	<0.0001	<0.001	0.156	<0.00001	69.4	0.0015	0.00025	0.00104	<0.01
RCC_NE_SUMP	4/30/2019 12:40	VP5224	M	7.29	<0.00002	129	0.315	96.0	0.000016	<0.005	0.0177	0.00243	0.0055	0.0141	0.00074	0.0632	0.00117	0.00161	0.0459	<0.0001	<0.001	0.123	<0.00001	42.9	0.0073	<0.0002	0.00083	<0.01
RCC_NE_SUMP	5/5/2019 13:28	VQ1491	M	7.57	<0.00002	95.1	0.35	97.7	0.000023	<0.005	0.0319	0.0028	0.0052	0.0094	0.00101	0.0162	0.00094	0.00109	0.0746	<0.0001	<0.001	0.094	0.000028	99.2	0.0028	0.00036	0.00156	<0.01
RCC_NE_SUMP	5/8/2019 12:57	VR2944	M	7.39	0.000026	160	0.224	76.7	0.000027	<0.005	0.0281	0.0016	0.0093	0.0141	0.00169	0.05	0.00185	0.00125	0.0493	<0.0001	<0.001	0.156	0.00003	35.8	0.0126	<0.0002	0.00175	<0.01
RCC_NE_SUMP	5/16/2019 12:50	VS0883	M	7.78	0.000032	82.1	0.248	57.4	0.00004	<0.005	0.0224	0.0019	0.0069	0.02	0.00045	0.0208	0.00105	0.00134	0.0987	<0.0001	<0.001	0.112	0.000044	63.4	0.0079	0.00038	0.00162	0.013
RCC_NE_SUMP	5/28/2019 10:45	VT7566	M	4.68	0.000027	50.2	0.212	39.1	0.000032	<0.005	0.0132	0.00143	<0.005	0.0211	0.00043	0.0153	0.0006	0.0007	0.0795	<0.0001	<0.001	0.068	0.000099	57.7	<0.001	0.00029	0.00126	0.014
RCC_NE_SUMP	6/4/2019 11:20	VU7700	M	6.16	<0.00002	102	0.264	54.8	0.000022	<0.005	0.0131	0.0021	0.0054	0.0135	0.00039	0.0508	0.00127	0.00189	0.0784	<0.0001	<0.001	0.153	0.000011	61.9	0.0026	0.00021	0.00139	<0.01
RCC_NE_SUMP	6/11/2019 11:55	VW4965	M	3.8	<0.00002	73.8	0.217	44.5	0.000012	<0.005	0.0069	0.00155	<0.005	0.0064	0.00031	0.0584	0.00071	0.00102	0.062	<0.0001	<0.001	0.1	<0.00001	49.8	0.0023	<0.0002	0.00128	<0.01
RCC_NE_SUMP	6/18/2019 12:00	VX8831	M	5.78	<0.00002	121	0.22	50.3	0.000021	<0.005	0.0134	0.00171	<0.005	0.0122	0.00046	0.0256	0.00146	0.00204	0.0856	<0.0001	<0.001	0.177	0.000015	47.7	0.0034	0.00025	0.00152	<0.01
RCC_NE_SUMP	6/25/2019 11:54	VZ1749	M	7.4	0.00003	76.4	0.272	43.3	0.000035	<0.005	0.0318	0.00148	0.0103	0.0458	0.00071	0.0948	0.00189	0.00169	0.0693	<0.0001	<0.001	0.185	<0.00001	48.0	0.0056	<0.0002	0.00189	0.014
RCC_NE_SUMP	7/4/2019 12:20	WA7982	M	6.94	0.00003	180	0.257	87.6	0.000038	<0.005	0.015	0.00203	0.0085	0.015	0.00094	0.0276	0.00204	0.00245	0.0872	<0.0001	<0.001	0.223	0.000029	58.3	0.0064	<0.0002	0.00158	<0.01
RCC_NE_SUMP	7/16/2019 15:20	WC9636	M	4.25	<0.00002	115	0.223	62.1	0.000016	<0.005	0.0127	0.00141	<0.005	0.0105	0.00045	0.214	0.00113	0.00126	0.0649	<0.0001	<0.001	0.145	<0.00001	49.3	0.0043	<0.0002	0.00099	<0.01
RCC_NE_SUMP	7/23/2019 13:05	WE1030	M	5.65	<0.00002	143	0.269	69.9	0.000024	<0.005	0.0181	0.00215	0.0054	0.0081	0.00068	0.0274	0.00156	0.00173	0.0732	<0.0001	<0.001	0.224	0.000018	56.4	0.0012	<0.0002	0.00127	<0.01
RCC_NE_SUMP	7/31/2019 10:50	WF4362	M	3.24	<0.00002	92.0	0.204	39.8	0.000011	<0.005	<0.005	0.00124	<0.005	<0.005	0.00016	0.151	0.00092	0.00122	0.0596	<0.0001	<0.001	0.147	<0.00001	45.5	<0.001	<0.0002	0.00116	<0.01
RCC_NE_SUMP	8/6/2019 11:10	WG2804	M	6.76	0.000026	149	0.343	67.7	0.000037	<0.005	0.0378	0.00172	0.008	0.02	0.00085	0.126	0.00183	0.00201	0.0896	<0.0001	<0.001	0.235	<0.00001	48.6	0.0075	<0.0002	0.00125	<0.01
RCC_NE_SUMP	8/13/2019 13:20	WH4525	M	3.84	<0.00002	123	0.204	51.0	0.000013	<0.005	0.0079	0.00137	<0.005	0.0065	0.00036	0.269	0.001	0.00146	0.0569	<0.0001	<0.001	0.167	<0.00001	41.6	0.0011	<0.0002	0.00113	<0.01
RCC_NE_SUMP	8/21/2019 13:10	WI5132	M	17.1	0.000067	186	0.367	86.3	0.000119	<0.005	0.158	0.00276	0.0201	0.0436	0.00441	0.117	0.00162	0.00225	0.0933	<0.0001	<0.001	0.319	<0.00001	64.2	0.0066	0.00022	0.00107	<0.01
RCC_NE_SUMP	8/27/2019 12:05	WJ7310	M	6.26	<0.00002	257	0.305	91.3	0.000023	<0.005	0.0175	0.00213	0.0077	0.0151	0.00135	0.193	0.00182	0.00264	0.0968	<0.0001	<0.001	0.313	<0.00001	51.2	0.0042	0.00026	0.00183	0.02
RCC_NE_SUMP	9/3/2019 12:40	WK8381	M	3.99	<0.00002	120	0.193	41.6	0.000014	<0.005	0.0125	0.00118	<0.005	0.0176	0.00042	0.183	0.00109	0.0019	0.0674	<0.0001	<0.001	0.164	<0.00001	41.0	<0.001	<0.0002	0.00112	<0.01
RCC_NE_SUMP	9/11/2019 11:30	WM1912	M	2.18	<0.00002	205	0.853	300	0.000018	<0.005	<0.005	0.00628	<0.005	0.0127	<0.0001	0.0328	0.00092	0.00139	0.0885	<0.0001	<0.001	0.124	0.000055	38.5	0.0019	0.00037	0.00137	0.022
RCC_NE_SUMP	9/21/2019 11:30	WO1837	M	6.08	0.00003	197	0.21	59.0	0.000032	<0.005	0.0236	0.00098	0.0104	0.0118	0.00066	1.36	0.00179	0.00379	0.0343	<0.0001	<0.001	0.295	<0.00001	7.37	0.0058	<0.0002	0.00185	0.013
RCC_NE_SUMP	9/27/2019 10:05	WP3482	M	3.82	<0.00002	144	0.358	62.6	0.000014	<0.005	<0.005	0.00186	<0.005	<0.005	<0.0001	0.006	<0.0005	0.00076	0.1	<0.0001	<0.001	0.301	0.000019	53.9	<0.001	0.00051	<0.0005	<0.01
RCC_NE_SUMP	10/2/2019 12:30	WQ2276	M	7.24	0.000031	121	0.168	32.3	0.000028	<0.005	0.0384	0.00095	0.01	0.0219	0.00087	0.248	0.00122	0.00225	0.0833	<0.0001	<0.001	0.207	<0.00001	32.7	0.0045	<0.0002	0.00129	0.041
RCC_NE_SUMP	10/8/2019 12:35	WR3473	M	19.2	0.000147	217	0.26	53.0	0.000102	<0.01	0.221	0.00177	0.023	0.083	0.0038	0.0316	0.00285	0.00341	0.168	<0.0001	<0.001	0.351	0.000041	51.3	0.0025	0.00076	0.0026	<0.01
RCC_NE_SUMP	10/17/2019 9:40	WS9491	M	11.1	0.000027	114	0.225	38.2	0.000028	<0.005	0.0469	0.00147	0.0099	0.0178	0.00161	0.0407	0.00134	0.00231	0.093	<0.0001	<0.001	0.196	0.000012	57.2	0.0052	0.00034	0.00084	<0.01
RCC_NE_SUMP	10/25/2019 15:15	WU5357	M	99.4	0.00146	129	0.699	34	0.0013	<0.05	0.481	0.0081	0.181	0.816	0.0062	0.741	0.00643	0.0103	0.0275	<0.0001	<0.001	0.399	<0.00001	3.77	0.0204	<0.0002	0.00293	0.139
RCC_NE_SUMP	11/1/2019 12:00	WV7048	M	10.9	0.000042	171	0.259	60.5	0.000059	<0.005	0.091	0.00201	0.0136	0.0353	0.00312	0.0635	0.00134	0.00247	0.0956	<0.0001	<0.001	0.221	<0.00001	39.2	0.0028	0.00022	0.00109	<0.01
RCC_NE_SUMP	11/6/2019 11:45	WW9550	M	15.2	0.000086	217	0.348	75.1	0.000073	<0.005	0.123	0.00257	0.014	0.0513	0.00387	0.182	0.00167	0.00303	0.0711	<0.0001	<0.001	0.277	<0.00001	39.2	0.0021	0.00027	0.00071	<0.01
RCC_NE_SUMP	11/13/2019 11:55	WY0309	M	4.16	<0.00002	72.5	0.287	23.0	0.000015	<0.005	0.0068	0.00124	<0.005	<0.005	0.00017	0.021	<0.0005	0.00074	0.242	<0.0001	<0.001	0.156	0.000017	62.7	<0.001	0.00022	<0.0005	<0.01
RCC_NE_SUMP	11/19/2019 13:30	WY9703	M	16.2	<0.00004	149	0.318	75.1	0.000087	<0.01	0.123	0.00155	0.028	0.054	0.00324	0.242	0.00261	0.00259	0.0545	<0.0001	<0.001	0.238	0.000013	25.4	0.0116	<0.0002	0.00096	<0.01
RCC_NE_SUMP	11/27/2019 10:50	XA4486	M	4.82	<0.00002	115	0.232	35.9	<0.00001	<0.005	0.0076	0.00114	<0.005	0.0067	0.00039	0.265	0.00094	0.00181	0.118	<0.0001	<0.001	0.174	<0.00001	43.7	0.0012	<0.0002	0.00078	<0.01
RCC_NE_SUMP	12/3/2019 12:15	XB3097	M	19.5	0.000059	179	0.277	64.8	0.000058	<0.005	0.12	0.00183	0.017	0.0736	0.00369	0.0572	0.00228	0.00386	0.0366	<0.0001	<0.001	0.249	<0.00001	9.53	0.0113	<0.0002	0.00115	<0.01
RCC_NE_SUMP	12/14/2019 11:00	XD1664	M	8.05	<0.00002	190	0.251	64.6	0.00002	<0.005	0.0235	0.00167	0.0066	0.013	0.00127	0.0667	0.0016	0.00223	0.107	<0.0001	<0.001	0.269	0.000012	64.1	0.0023	0.0003	0.00121	<0.01
RCC_NE_SUMP	12/18/2019 12:55	XD7329	M	7.6	<0.00002	185	0.231	61.7	0.000012	<0.005	0.0113	0.00166	0.0051	0.0053	0.00051	0.428	0.00147	0.00207	0.0764	<0.0001	<0.001	0.264	<0.00001	46.3	0.0045	<0.0002	0.00105	0.023
RCC_Spillway_E_Sump	3/7/2019 14:30	VI4428	M	40.1	0.00048	174	0.159	52	0.000621	<0.025	0.357	0.00443	0.079	0.19	0.00486	0.0421	0.00098	0.00296	0.0723	<0.0001	<0.001	0.209	<0.00001	13.7	0.0125	<0.0002	0.00089	0.038
RCC_Spillway_E_Sump	4/26/2019 7:14	VO8654	M	106	0.00516	361	0.936	107	0.00063	<0.05	0.163	0.014	0.152	0.631	0.0042	0.703	0.00892	0.024	0.0944	<0.0001	<0.001	0.505	0.000012	2.95	0.004	<0.0002	0.00091	0.03
RCC_Spillway_E_Sump	4/30/2019 13:00	VP5225	M	21.7	0.00026	314	0.22	78	0.00013	<0.05	0.093	0.0034	<0.05	0.068	0.0013	0.15	0.00548	0.0102	0.179	<0.0001	<0.001	0.369	<0.00001	4.12	0.0027	<0.0002	0.00084	0.017
RCC_Spillway_E_Sump	5/10/2019 7:25	VQ9651	M	35.6	0.00011	303	0.164	79	0.000127	<0.025	0.17	0.00086	0.059	0.05	0.0128	1.57	0.00813	0.0126	0.0555	<0.0001	<0.001	0.384	<0.00001	2.77	0.0654	<0.0002	0.00323	0.068
RCC_Spillway_E_Sump	5/15/2019 7:28	VR8794	M	119	0.00115	336	0.815	65	0.00089	<0.05	0.22	0.0128	0.215	0.673	0.0045	0.802	0.0136	0.0556	0.15	<0.0001	<0.001	0.606	0.000012	2.70	0.0235	<0.0002	0.00374	0.063
RCC_Spillway_E_Sump	7/2/2019 2:18	WA3736	M	9.82	0.000051	427	0.252	159	0.000046	<0.01	0.044	0.00139	0.019	0.039	0.00227	0.529	0.0072	0.00743	0.0714	<0.0002	<0.002	0.462	<0.00002	3.03	0.0385	<0.0004	0.0012	0.021
RCC_Spillway_W_Sump	3/6/2019 15:35	VI3048	M	20.8	0.00025	207	0.171	52.7	0.000219	<0.01	0.177	0.00327	0.031	0.07	0.00547	0.0538	0.00184	0.00301	0.164	<0.0001	<0.001	0.29	<0.00001	11.6	<0.001	<0.0002	0.00097	0.079
RCC_Spillway_W_Sump	4/11/2019 7:00	VN1881	M	35	0.00046	370	0.336	67	0.000295	<0.025	0.053	0.00476	0.07	0.187	0.00123	1.01	0.00827	0.0119	0.0981	<0.0001	<0.001	0.444	<0.00001	2.91	0.0033	0.00039	0.0025	0.087
RCC_Spillway_W_Sump	4/21/2019 7:31	VO1914	M	109	0.00087	468	0.877	114	0.00052	<0.1	0.213	0.011	0.163	0.493	0.0044	0.103	0.013	0.016	0.122	<0.0002	<0.002	0.481	<0.00002	1.63	<0.002	<0.0004	<0.001	<0.02
RCC_Spillway_W_Sump	4/24/2019 7:22	VO6976	M	14.3	0.000035	175	0.929	98.5	0.000028	<0.005	0.0543	0.00024	0.0091	0.0185	0.00273	0.0352	<0.0005	0.00191	0.406	<0.0001	<0.001	0.098	<0.00001	202	0.103	0.0006	0.00315	0.027
RCC-Mid-Powerhouse	1/16/2019 14:15	VC6519	M	8.41	0.000098	335	0.0927	92.5	0.000073	<0.005	0.0577	0.00527	0.0261	0.0207	0.00254	0.765	0.00518	0.0138	0.0398	<0.0001	<0.001	0.485	<0.00001	5.01	0.0027	<0.0002	0.00252	0.094
RCC-Mid-Powerhouse	1/16/2019 14:20	VC6521	M	15.6	<0.0001	214	0.509	106	0.000098	<0.025	0.168	0.00477	<0.025	0.059	0.00247	0.0481	0.00206	0.00289	0.0779	<0.0001	<0.001	0.245	<0.00001	84.8	0.0011	0.00024	0.00073	<0.01
RCC-Mid-Powerhouse	1/16/2019 14:30	VC6518	M	8.46	0.000062	135	0.233	42.2	0.000031	<0.005	0.113	0.00136	0.0087	0.0517	0.0064	0.198	0.00108	0.00224	0.0297	<0.0001	<0.001	0.165	<0.00001	10.7	0.0015	<0.0002	0.00149	0.016
RCC-Mid-PowerHouse	3/1/2019 14:55	VH5669	M	13.3	0.000109	261	0.192	73.2	0.00015	<0.005	0.0745	0.00396	0.0287	0.0508	0.00204	0.242	0.00349	0.00704	0.0427	<0.0001	<0.001	0.436	<0.00001	8.37	0.0013	<0.0002	0.00098	0.025
RCC-Mid-Powerhouse	3/23/2019 14:20	VK5982	M	41.1	0.000441	329	0.529	127	0.000386	<0.01	0.079	0.00691	0.059	0.24	0.0023	0.038	0.00454	0.00754	0.0974	<0.0001	<0.001	0.359	0.00002	11.3	0.016	0.0003	0.00161	0.026
RCC-Mid-PowerHouse	4/8/2019 9:20	VM6521	M	19.5	0.00016	166	0.53	145	0.000177	<0.01	0.227	0.00487	0.024	0.096	0.00618	0.0405	0.00155	0.00182	0.0807	<0.0001	<0.001	0.152	<0.00001	105	0.0028	0.00033	0.0012	<0.01
RCC-Mid-PowerHouse	5/7/2019 11:50	VQ4257	M	7.86	0.000034	85.5	0.354	90.9	0.000036	<0.005	0.0532	0.00276	0.007	0.0246	0.0017	0.138	0.00088	0.00111	0.0588	<0.0001	<0.001	0.076	<0.00001	93.9	0.0029	0.00021	0.00122	<0.01
RCC-Mid-Powerhouse	6/17/2019 12:20	VX5947	M	6.29	0.000034	72.5	0.22	38.6	0.000036	<0.005	0.0341	0.00132	0.0069	0.0316	0.00122	0.185	0.00133	0.00147	0.0516	<0.0001	<0.001	0.117	<0.00001	27.2	0.0037	<0.0002	0.00121	<0.01
RCC-Mid-PowerHouse	7/28/2019 11:30	WE7126	M	5.83	0.000021	141	0.263	73.8	0.00003	<0.005	0.028	0.00178	0.0072	0.0128	0.00092	0.335	0.00141	0.00168	0.0442	<0.0001	<0.001	0.196	<0.00001	45.6	0.0042	<0.0002	0.00109	<0.01
RCC-Mid-PowerHouse	8/5/2019 10:50	WF9950	M	7.41	<0.0001	777	0.49	462	<0.00005	<0.025	0.058	0.00303	<0.025	<0.025	0.00118	0.479	0.0056	0.00432	0.0353	<0.0005	<0.005	0.656	<0.00005	18.8	0.0166	<0.001	<0.0025	<0.05
RCC-Sunken-BT	4/19/2019 11:40	VO0464	M	8.06	<0.00002	34.9	0.155	21.1	0.00002	<0.005	0.0103	<0.0001	0.0199	0.0073	0.00045	0.264	0.00587	0.00055	0.0675	<0.0001	<0.001	0.335	0.000037	29.4	0.0379	0.00046	0.00255	0.171
RCC-Sunken-BT	5/4/2019 12:20	VQ1568	M	6.7	<0.00002	100	1.03	61.8	<0.00001	<0.005	<0.005	<0.0001	0.0051	<0.005	<0.0001	0.0515	<0.0005	0.00055	0.657	<0.0001	<0.001	0.062	<0.00001	188	0.0795	<0.0002	0.00306	<0.01
RCC-Sunken-BT	5/6/2019 11:19	VQ3953	M	5.88	<0.00002	93.1	0.952	57.3	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001	0.0752	<0.0005	0.00057	0.636	<0.0001	<0.001	0.073	<0.00001	176	0.0775	<0.0002	0.00299	<0.01
RCC-Sunken-BT	5/15/2019 12:32	VR8791	M	11.7	<0.00002	355	0.277	51.1	<0.00001	<0.005	<0.005	<0.0001	0.0279	0.0106	<0.0001	2.06	0.0055	0.00235	0.173	<0.0002	<0.002	0.228	<0.00002	2.30	0.0841	<0.0004	0.0048	0.054
RCC-Sunken-BT	5/28/2019 11:45	VT7567	M	3.41	<0.0001	72.9	1.97	<15	<0.00005	<0.025	<0.025	<0.0005	<0.025	<0.025	0.00154	0.795	0.0032	0.00052	2.24	<0.0005	<0.005	<0.25	<0.00005	185	0.106	<0.001	0.0025	0.103
RCC-Sunken-BT	6/13/2019 13:25	VW9989	M	44.3	0.00028	112	0.16	30	0.000236	<0.025	0.512	0.00169	0.067	0.155	0.0207	0.679	0.00823	0.00642	0.0263	<0.0001	<0.001	0.323	<0.00001	2.27	0.0135	<0.0002	0.00198	0.039
RCC-Sunken-BT	6/27/2019 13:25	VZ7773	M	<2	<0.0004	118	10.2	<60	<0.0002	<0.1	<0.1	<0.002	<0.1	<0.1	<0.002	0.169	<0.01	<0.002	12.6	<0.002	<0.02	<1	<0.0002	597	0.041	<0.004	<0.01	<0.2
RCC-Sunken-BT	7/24/2019 13:05	WE3042	M	34.5	0.000363	265	1.44	47.2	0.000386	0.011	0.38	0.00276	0.047	0.269	0.00634	0.284	0.00755	0.00253	0.113	<0.0001	<0.001	0.354	<0.00001	40.0	0.0274	<0.0002	0.00145	0.011
RCC-Sunken-BT	8/17/2019 10:45	WI0636	M	14.7	<0.00004	115	1.41	44.6	0.00003	<0.01	0.041	<0.0002	0.021	0.014	0.00301	0.158	0.0044	0.00134	0.828	<0.0002	<0.002	0.435	<0.00002	156	0.144	<0.0004	0.0031	<0.02
RCC-W-Sump	3/21/2019 11:37	VK3819	M	2.38	<0.00002	118	0.335	136	0.000026	<0.005	0.0065	0.00275	<0.005	0.0262	0.00018	0.068	0.00128	0.00075	0.113	<0.0001	<0.001	0.121	0.000114	70.0	0.0012	0.00712	0.00373	<0.01
RCC-W-Sump	3/22/2019 10:00	VK3717	M	3.55	0.000021	174	0.292	108	0.000021	<0.005	0.0075	0.00366	0.0064	0.0262	0.00046	0.0408	0.00403	0.00529	0.335	<0.0001	<0.001	0.208	<0.00001	37.6	0.0043	0.00067	0.00408	0.013
RCC-W-Sump	3/23/2019 14:00	VK5981	M	2.87	<0.00002	182	0.294	113	0.000014	<0.005	<0.005	0.0034	<0.005	<0.005	0.00032	0.0465	0.00363	0.00445	0.222	<0.0001	<0.001	0.203	0.000013	43.4	0.0047	0.00087	0.00384	<0.01
RCC-W-Sump	3/24/2019 0:15	VK6068	M	3.55	0.000026	179	0.299	114	0.00002	<0.005	0.011	0.00348	0.0051	0.0112	0.00137	0.045	0.00377	0.00428	0.216	<0.0001	<0.001	0.219	0.000017	40.6	0.0053	0.00077	0.00365	<0.01
RCC-W-Sump	3/25/2019 12:15	VK7808	M	5.57	0.000062	199	0.497	253	0.000092	<0.005	0.0194	0.00426	<0.005	0.133	0.00055	0.0554	0.00074	0.00025	0.0491	<0.0001	<0.001	0.15	0.000568	101	<0.001	0.0283	0.00091	<0.01
RCC-W-Sump	3/26/2019 11:30	VK9105	M	8.27	0.000165	200	0.474	262	0.000178	<0.01	0.042	0.00439	0.011	0.348	0.00082	0.0445	0.00051	0.00018	0.0486	<0.0001	<0.001	0.156	0.000851	106	<0.001	0.0414	0.00095	<0.01
RCC-W-Sump	3/27/2019 11:50	VL2037	M	7.94	0.00004	224	0.506	291	0.000081	<0.005	0.0723	0.00392	0.0068	0.144	0.00133	0.0347	<0.0005	0.00014	0.048	<0.0001	<0.001	0.163	0.000821	112	<0.001	0.0449	0.00076	<0.01
RCC-W-Sump	3/28/2019 10:30	VL3538	M	3.03	<0.00002	230	0.529	310	0.000044	<0.005	<0.005	0.00437	<0.005	0.0992	<0.0001	0.0393	0.0005	0.00018	0.0467	<0.0001	<0.001	0.175	0.000857	121	<0.001	0.0425	0.00073	<0.01
RCC-W-Sump	3/29/2019 9:50	VL3509	M	4.96	<0.00002	204	0.577	261	0.000044	<0.005	0.0162	0.00542	<0.005	0.0509	0.00044	0.0666	<0.0005	0.00022	0.0465	<0.0001	<0.001	0.151	0.00042	131	<0.001	0.0215	0.00084	<0.01
RCC-W-Sump	4/30/2019 12:10	VP5223	M	0.519	<0.00002	261	0.517	269	0.00002	<0.005	<0.005	0.00502	<0.005	0.0072	0.00017	0.0724	0.00111	0.00044	0.0403	<0.0001	<0.001	0.345	0.000024	93.7	<0.001	0.00026	0.00139	<0.01
RSEM-L5E-EOP	3/15/2019 8:35	VJ4029	M	1.92	<0.00002	14.6	0.149	39.6	0.000017	<0.005	0.0249	0.00288	<0.005	<0.005	0.00051	0.0031	0.00069	0.00035	0.0329	<0.0001	<0.001	<0.05	0.000028	47.0	<0.001	0.0002	0.0012	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RCC_NE_SUMP	3/19/2019 12:45	VK0927	M	<0.0002	0.0259	0.545	<0.001	<0.000002	0.0425	<0.001		4.00	0.0111	4.88	<0.00002	182	0.0667	49.4	<0.00001	<0.005	<0.005	0.00418	0.0157	<0.005	<0.0001
RCC_NE_SUMP	4/7/2019 12:07	VM5350	M	<0.0002	0.101	3.99	0.0043	<0.000002	0.0586	0.0097		2.16	0.0167	2.78	0.000142	532	0.199	84.9	<0.00001	<0.005	<0.005	0.00222	<0.005	<0.005	0.00017
RCC_NE_SUMP	4/16/2019 11:15	VN8483	M	<0.0002	0.0384	14.1	0.0012	<0.000002	0.0193	0.0015		3.32	0.0112	3.72	<0.00002	191	0.321	95.1	<0.00001	<0.005	<0.005	0.0033	<0.005	<0.005	<0.0001
RCC_NE_SUMP	4/23/2019 12:00	VO5418	M	<0.0002	0.0232	16.5	0.0038	<0.000002	0.0113	0.0016		3.59	0.00786	3.69	<0.00002	129	0.417	86.8	<0.00001	<0.005	<0.005	0.00304	<0.005	<0.005	<0.0001
RCC_NE_SUMP	4/30/2019 12:40	VP5224	M	<0.0002	0.027	19.2	0.0011	<0.000002	0.017	0.0012		9.12	0.00687	6.08	<0.00002	140	0.265	95.1	<0.00001	<0.005	<0.005	0.00243	<0.005	<0.005	<0.0001
RCC_NE_SUMP	5/5/2019 13:28	VQ1491	M	<0.0002	0.0199	23.1	0.0118	<0.000002	0.0072	0.0018		3.80	0.00584	4.89	<0.00002	92.3	0.351	85.8	<0.00001	<0.005	<0.005	0.00266	<0.005	<0.005	0.00013
RCC_NE_SUMP	5/8/2019 12:57	VR2944	M	<0.0002	0.0299	12.6	0.0054	<0.000002	0.0255	0.0015		8.20	0.00476	5.4	<0.00002	158	0.201	75.6	<0.00001	<0.005	<0.005	0.0015	0.0059	<0.005	0.0001
RCC_NE_SUMP	5/16/2019 12:50	VS0883	M	<0.0002	0.0193	15.7	0.0169	<0.000002	0.0118	0.0018		3.75	0.00323	5.95	<0.00002	82.6	0.254	57.9	<0.00001	<0.005	<0.005	0.0018	<0.005	0.006	0.00014
RCC_NE_SUMP	5/28/2019 10:45	VT7566	M	<0.0002	0.0129	13.9	0.0136	<0.000002	0.0045	0.0019		1.81	0.00159	3.23	<0.00002	47.5	0.215	37.8	<0.00001	<0.005	<0.005	0.00137	<0.005	0.0106	0.0001
RCC_NE_SUMP	6/4/2019 11:20	VU7700	M	<0.0002	0.0232	16.0	0.0072	<0.000002	0.0118	0.0016		4.20	0.00256	5.14	<0.00002	100	0.286	61.7	<0.00001	<0.005	<0.005	0.00202	<0.005	<0.005	0.00014
RCC_NE_SUMP	6/11/2019 11:55	VW4965	M	<0.0002	0.0164	13.5	<0.001	<0.000002	0.0068	0.0011		2.37	0.00141	3.24	<0.00002	71.3	0.21	42.9	<0.00001	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RCC_NE_SUMP	6/18/2019 12:00	VX8831	M	<0.0002	0.0298	12.8	0.0098	<0.000002	0.0134	0.0014		4.86	0.002	4.97	<0.00002	126	0.225	51.2	<0.00001	<0.005	<0.005	0.0017	<0.005	<0.005	<0.0001
RCC_NE_SUMP	6/25/2019 11:54	VZ1749	M	<0.0002	0.0209	11.6	0.002	<0.000002	0.015	0.0016		9.58	0.0032	5.45	<0.00002	84.4	0.221	49.5	0.000011	<0.005	<0.005	0.00127	0.0058	<0.005	<0.0001
RCC_NE_SUMP	7/4/2019 12:20	WA7982	M	<0.0002	0.0423	13.2	0.0026	<0.000002	0.0225	0.002		6.89	0.00492	5.45	<0.00002	183	0.252	88.9	0.000014	<0.005	<0.005	0.00197	<0.005	<0.005	<0.0001
RCC_NE_SUMP	7/16/2019 15:20	WC9636	M	<0.0002	0.0255	13.4	0.0025	<0.000002	0.0124	0.001		5.19	0.00165	3.54	<0.00002	125	0.207	70.6	<0.00001	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001
RCC_NE_SUMP	7/23/2019 13:05	WE1030	M	<0.0002	0.0316	16.3	0.0126	0.0000022	0.0172	0.0015		6.02	0.00204	4.6	<0.00002	146	0.282	70.4	0.000012	<0.005	<0.005	0.00214	<0.005	<0.005	<0.0001
RCC_NE_SUMP	7/31/2019 10:50	WF4362	M	<0.0002	0.0228	10.5	0.0029	<0.000002	0.0151	0.0012		4.91	0.00143	3.22	<0.00002	93.0	0.206	42.4	<0.00001	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001
RCC_NE_SUMP	8/6/2019 11:10	WG2804	M	<0.0002	0.0322	11.5	0.0036	<0.000002	0.0354	0.0011		8.96	0.00196	4.05	<0.00002	160	0.347	69.5	0.000012	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001
RCC_NE_SUMP	8/13/2019 13:20	WH4525	M	<0.0002	0.0269	11.7	<0.001	<0.000002	0.021	0.001		4.93	0.00158	3.47	<0.00002	129	0.203	51.3	<0.00001	<0.005	<0.005	0.00138	<0.005	<0.005	0.0001
RCC_NE_SUMP	8/21/2019 13:10	WI5132	M	<0.0002	0.048	16.2	0.0204	<0.000002	0.0327	0.0018		8.87	0.0033	5.64	<0.00002	202	0.323	91.5	0.000018	<0.005	<0.005	0.00239	<0.005	<0.005	<0.0001
RCC_NE_SUMP	8/27/2019 12:05	WJ7310	M	<0.0002	0.053	13.5	0.0216	<0.000002	0.0451	0.0015		10.3	0.00301	4.85	<0.00002	243	0.274	89.4	0.000014	<0.005	<0.005	0.00202	0.0054	0.0053	0.00016
RCC_NE_SUMP	9/3/2019 12:40	WK8381	M	<0.0002	0.027	10.4	0.0041	<0.000002	0.026	0.0011		5.66	0.00155	3.45	<0.00002	128	0.183	42.5	<0.00001	<0.005	<0.005	0.0012	<0.005	<0.005	<0.0001
RCC_NE_SUMP	9/11/2019 11:30	WM1912	M	<0.0002	0.0165	7.04	0.0396	<0.000002	0.0163	0.0016		5.75	0.00109	3.63	<0.00002	74.0	0.175	23.7	0.000012	<0.005	<0.005	0.00087	<0.005	0.0065	0.00016
RCC_NE_SUMP	9/21/2019 11:30	WO1837	M	<0.0002	0.0439	5.07	<0.001	<0.000002	0.0611	0.0011		17.8	0.00268	5.05	<0.00002	203	0.118	63.6	0.000014	<0.005	<0.005	0.00097	0.0085	<0.005	<0.0001
RCC_NE_SUMP	9/27/2019 10:05	WP3482	M	<0.0002	0.0406	12.9	0.0515	<0.000002	0.0055	0.0029		2.15	0.00169	3.79	<0.00002	148	0.377	64.0	0.000012	<0.005	<0.005	0.00187	<0.005	<0.005	<0.0001
RCC_NE_SUMP	10/2/2019 12:30	WQ2276	M	<0.0002	0.0261	6.58	0.0081	<0.000002	0.0291	0.0012		5.46	0.00121	5.8	<0.00002	121	0.171	29.3	<0.00001	<0.005	<0.005	0.00087	0.006	<0.005	0.00021
RCC_NE_SUMP	10/8/2019 12:35	WR3473	M	<0.0002	0.0433	7.27	0.0657	<0.000002	0.0471	0.002		9.66	0.00243	8.54	<0.00002	227	0.209	49.5	0.000021	<0.005	<0.005	0.00128	0.0092	0.0063	0.00024
RCC_NE_SUMP	10/17/2019 9:40	WS9491	M	<0.0002	0.026	9.82	0.022	<0.000002	0.0332	0.0018		5.19	0.00175	10.1	<0.00002	112	0.189	38.7	0.000011	<0.005	<0.005	0.00129	0.0072	<0.005	0.00016
RCC_NE_SUMP	10/25/2019 15:15	WU5357	M	<0.0002	0.0194	0.259	0.0022	0.0000059	0.0691	<0.001		13.7	0.00371	6.96	<0.00002	121	0.0324	31.9	0.000011	<0.005	<0.005	0.0013	0.0296	<0.005	0.00033
RCC_NE_SUMP	11/1/2019 12:00	WV7048	M	<0.0002	0.0362	13.3	0.0156	<0.000002	0.037	0.0016		6.81	0.00256	5.59	<0.00002	168	0.228	60.0	0.000013	<0.005	<0.005	0.00177	0.0057	<0.005	<0.0001
RCC_NE_SUMP	11/6/2019 11:45	WW9550	M	<0.0002	0.0418	18.8	0.0059	<0.000002	0.0578	0.0019		9.37	0.00326	5	<0.00002	209	0.263	78.0	0.000013	<0.005	<0.005	0.00217	0.0066	<0.005	0.00011
RCC_NE_SUMP	11/13/2019 11:55	WY0309	M	<0.0002	0.019	14.3	0.0268	<0.000002	0.0041	0.0016		1.95	0.00117	3.86	<0.00002	74.3	0.283	22.6	0.000011	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001
RCC_NE_SUMP	11/19/2019 13:30	WY9703	M	<0.0002	0.0375	11.2	0.0028	<0.000002	0.0313	0.0019		12.6	0.00339	4.63	<0.00002	149	0.223	76.5	0.000011	<0.005	<0.005	0.00116	0.0129	<0.005	<0.0001
RCC_NE_SUMP	11/27/2019 10:50	XA4486	M	<0.0002	0.0248	11.8	0.0094	<0.000002	0.0232	0.0012		5.42	0.0017	4.56	<0.00002	114	0.226	36.9	<0.00001	<0.005	<0.005	0.0011	<0.005	<0.005	<0.0001
RCC_NE_SUMP	12/3/2019 12:15	XB3097	M	<0.0002	0.0368	10.2	<0.001	<0.000002	0.0328	<0.001		10.4	0.00245	11.3	<0.00002	181	0.105	64.3	<0.00001	<0.005	<0.005	0.00135	0.0116	<0.005	<0.0001
RCC_NE_SUMP	12/14/2019 11:00	XD1664	M	<0.0002	0.0432	16.9	0.0265	<0.000002	0.0271	0.0016		8.24	0.00209	7.4	<0.00002	199	0.252	68.2	0.00001	<0.005	<0.005	0.00174	0.005	<0.005	<0.0001
RCC_NE_SUMP	12/18/2019 12:55	XD7329	M	<0.0002	0.0397	15.7	0.016	<0.000002	0.0254	0.0012		8.81	0.00205	7.31	<0.00002	178	0.216	63.8	<0.00001	<0.005	<0.005	0.00165	<0.005	<0.005	0.00014
RCC_Spillway_E_Sump	3/7/2019 14:30	VI4428	M	<0.0002	0.0182	3.00	0.0017	0.00002	0.0436	<0.001		3.78	0.00586	3.66	<0.00002	189	0.0517	56.0	0.00001	<0.005	<0.005	0.00274	<0.005	<0.005	<0.0001
RCC_Spillway_E_Sump	4/26/2019 7:14	VO8654	M	<0.0002	0.0464	0.308	<0.001	<0.000002	0.0617	<0.001		3.36	0.0172	4.26	<0.00002	325	0.0554	90.4	0.000012	<0.005	<0.005	0.00524	0.0217	<0.005	0.0001
RCC_Spillway_E_Sump	4/30/2019 13:00	VP5225	M	<0.0002	0.0589	1.57	<0.001	<0.000002	0.0405	<0.001		3.41	0.00957	4.87	<0.00002	320	0.108	73.8	<0.00001	<0.005	<0.005	0.00284	0.0089	<0.005	<0.0001
RCC_Spillway_E_Sump	5/10/2019 7:25	VQ9651	M	<0.0002	0.0482	<0.050	<0.001	<0.000002	0.067	<0.001		19.5	0.00919	18.8	<0.00002	270	0.0741	76.9	<0.00001	<0.005	<0.005	0.0003	0.0382	<0.005	<0.0001
RCC_Spillway_E_Sump	5/15/2019 7:28	VR8794	M	<0.0002	0.0169	0.056	<0.001	<0.00002	0.0773	<0.001		2.17	0.0141	19.8	<0.00002	289	0.0375	44.5	<0.00001	0.0371	<0.005	0.00158	0.0469	<0.005	<0.0001
RCC_Spillway_E_Sump	7/2/2019 2:18	WA3736	M	<0.0004	0.12	0.71	<0.002	<0.000002	0.0744	<0.002		18.0	0.0258	8.22	<0.00004	447	0.178	174	<0.00002	<0.01	<0.01	0.00106	0.015	<0.01	<0.0002
RCC_Spillway_W_Sump	3/6/2019 15:35	VI3048	M	<0.0002	0.037	3.00	0.0041	0.0000022	0.0295	0.0011		2.42	0.00264	3.62	<0.00002	210	0.112	52.9	<0.00001	<0.005	<0.005	0.00256	<0.005	<0.005	0.00013
RCC_Spillway_W_Sump	4/11/2019 7:00	VN1881	M	<0.0002	0.0652	0.379	<0.001	<0.000002	0.0634	<0.001		4.47	0.0131	3.28	<0.00002	366	0.0652	66.3	0.000013	<0.005	<0.005	0.00264	0.0196	<0.005	0.00017
RCC_Spillway_W_Sump	4/21/2019 7:31	VO1914	M	<0.0004	0.0916	0.28	<0.002	<0.00002	0.0241	<0.002		1.15	0.0074	3.01	<0.00004	411	0.0749	98.1	<0.00002	<0.01	<0.01	0.00254	<0.01	<0.01	<0.0002
RCC_Spillway_W_Sump	4/24/2019 7:22	VO6976	M	<0.0002	0.0273	<0.050	<0.001	<0.000002	0.12	<0.001		14.2	0.0074	6.7	<0.00002	174	0.876	97.9	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
RCC-Mid-Powerhouse	1/16/2019 14:15	VC6519	M	<0.0002	0.0453	0.342	0.0011	0.0000065	0.0726	0.0011		5.68	0.00715	3.93	<0.00002	338	0.0639	96.3	0.000014	<0.005	<0.005	0.00474	0.0167	<0.005	0.00011
RCC-Mid-Powerhouse	1/16/2019 14:20	VC6521	M	<0.0002	0.047	29.7	0.0014	<0.000002	0.0154	0.0019		5.28	0.00302	5.91	<0.00002	204	0.434	115	0.000013	<0.005	<0.005	0.00426	<0.005	<0.005	0.00022
RCC-Mid-Powerhouse	1/16/2019 14:30	VC6518	M	<0.0002	0.0321	5.09	<0.001	<0.000002	0.026	0.001		3.85	0.00098	4.03	<0.00002	149	0.0934	50.1	<0.00001	<0.005	<0.005	0.00088	<0.005	<0.005	<0.0001
RCC-Mid-PowerHouse	3/1/2019 14:55	VH5669	M	<0.0002	0.0496	7.83	<0.001	<0.000002	0.0373	<0.001		4.59	0.00412	3.65	<0.00002	273	0.0914	77.9	0.000012	<0.005	<0.005	0.00336	0.0086	<0.005	<0.0001
RCC-Mid-Powerhouse	3/23/2019 14:20	VK5982	M	<0.0002	0.0484	11.9	0.0011	<0.000002	0.056	0.0014		11.6	0.0148	8.84	<0.00002	294	0.15	125	0.000015	<0.005	<0.005	0.00402	0.0155	<0.005	<0.0001
RCC-Mid-PowerHouse	4/8/2019 9:20	VM6521	M	<0.0002	0.0272	22.8	0.0062	<0.000002	0.0106	0.002		5.20	0.0135	5.51	<0.00002	174	0.439	163	0.000012	<0.005	<0.005	0.00432	<0.005	<0.005	<0.0001
RCC-Mid-PowerHouse	5/7/2019 11:50	VQ4257	M	<0.0002	0.019	21.3	0.0036	<0.000002	0.007	0.0015		3.89	0.00582	4.86	<0.00002	89.4	0.328	92.2	<0.00001	<0.005	<0.005	0.00256	<0.005	<0.005	<0.0001
RCC-Mid-Powerhouse	6/17/2019 12:20	VX5947	M	<0.0002	0.0163	10.4	<0.001	<0.000002	0.0127	<0.001		7.90	0.00118	4.17	<0.00002	76.0	0.165	38.2	<0.00001	<0.005	<0.005	0.00112	<0.005	<0.005	0.0002
RCC-Mid-PowerHouse	7/28/2019 11:30	WE7126	M	<0.0002	0.0307	14.3	<0.001	<0.000002	0.0205	0.0011		6.21	0.00222	3.92	<0.00002	147	0.236	76.7	<0.00001	<0.005	<0.005	0.00178	<0.005	<0.005	<0.0001
RCC-Mid-PowerHouse	8/5/2019 10:50	WF9950	M	<0.001	0.179	5.10	<0.005	<0.000002	0.0654	<0.005		14.9	0.00554	4.77	<0.0001	806	0.478	478	<0.00005	<0.025	<0.025	0.0031	<0.025	<0.025	<0.0005
RCC-Sunken-BT	4/19/2019 11:40	VO0464	M	<0.0002	0.0062	0.519	0.0269	<0.000002	0.0437	0.0013		8.72	0.00213	6.81	<0.00002	35.7	0.163	20.7	0.000017	<0.005	<0.005	<0.0001	0.0157	0.0138	<0.0001
RCC-Sunken-BT	5/4/2019 12:20	VQ1568	M	<0.0002	0.016	<0.050	<0.001	<0.000002	0.0871	<0.001		17.9	0.00448	5.36	<0.00002	95.0	0.971	53.3	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
RCC-Sunken-BT	5/6/2019 11:19	VQ3953	M	<0.0002	0.016	<0.050	<0.001	<0.000002	0.0881	<0.001		17.8	0.00458	5.41	<0.00002	93.6	0.954	55.2	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
RCC-Sunken-BT	5/15/2019 12:32	VR8791	M	<0.0004	0.0303	<0.10	<0.002	<0.000002	0.101	<0.002		9.95	0.00989	12	<0.00004	361	0.254	50.7	<0.00002	<0.01	<0.01	<0.0002	0.027	<0.01	<0.0002
RCC-Sunken-BT	5/28/2019 11:45	VT7567	M	<0.001	0.017	0.73	<0.005	<0.000002	0.0747	<0.005		29.2	0.00227	2.53	<0.0001	82.8	2.02	<15	<0.00005	<0.025	<0.025	<0.0005	<0.025	<0.025	<0.0005
RCC-Sunken-BT	6/13/2019 13:25	VW9989	M	<0.0002	0.0233	0.346	<0.001	<0.000002	0.02	<0.001		12.0	0.00169	6.9	<0.00002	104	0.0352	21.4	<0.00001	0.0052	<0.005	0.00079	0.0214	<0.005	0.00013
RCC-Sunken-BT	6/27/2019 13:25	VZ7773	M	<0.004	<0.04	<1.0	<0.02	<0.000002	0.068	<0.02		53.5	<0.002	<2	<0.0004	116	10.1	<60	<0.0002	<0.1	<0.1	<0.002	<0.1	<0.1	<0.002
RCC-Sunken-BT	7/24/2019 13:05	WE3042	M	<0.0002	0.0434	2.50	<0.001	0.0000188	0.0363	<0.001		16.3	0.00245	4.89	<0.00002	275	0.835	46.8	0.000058	0.0057	<0.005	<0.0001	0.0191	<0.005	<0.0001
RCC-Sunken-BT	8/17/2019 10:45	WI0636	M	<0.0004	0.0238	<0.10	<0.002	<0.000002	0.136	<0.002		52.0	0.00677	8.31	<0.00004	118	1.45	45.9	<0.00002	<0.01	<0.01	<0.0002	0.017	<0.01	<0.0002
RCC-W-Sump	3/21/2019 11:37	VK3819	M	<0.0002	0.064	21.0	0.26	<0.000002	0.0093	0.0281		3.47	0.00685	1.67	<0.00002	118	0.326	126	0.000021	<0.005	<0.005	0.00269	<0.005	0.0107	<0.0001
RCC-W-Sump	3/22/2019 10:00	VK3717	M	<0.0002	0.0541	13.4	0.0161	<0.000002	0.0276	0.0076		4.01	0.0104	2.4	<0.00002	181	0.292	109	0.000011	<0.005	<0.005	0.00372	<0.005	<0.005	<0.0001
RCC-W-Sump	3/23/2019 14:00	VK5981	M	<0.0002	0.0599	14.1	0.0103	<0.000002	0.0246	0.0098		4.24	0.00987	2.66	<0.00002	173	0.285	120	0.000011	<0.005	<0.005	0.00327	<0.005	<0.005	<0.0001
RCC-W-Sump	3/24/2019 0:15	VK6068	M	<0.0002	0.0595	13.3	0.0062	<0.000002	0.026	0.0087		4.29	0.00983	2.95	<0.00002	174	0.28	122	0.000011	<0.005	<0.005	0.00338	<0.005	<0.005	<0.0001
RCC-W-Sump	3/25/2019 12:15	VK7808	M	<0.0002	0.132	37.5	0.644	<0.000002	0.0066	0.0913		3.69	0.00964	2.61	<0.00002	200	0.477	256	0.000033	<0.005	<0.005	0.00397	<0.005	0.0428	<0.0001
RCC-W-Sump	3/26/2019 11:30	VK9105	M	<0.0002	0.16	40.9	0.707	<0.000002	0.0052	0.131		3.76	0.0112	2.98	<0.00002	205	0.462	272	0.000039	<0.005	<0.005	0.00376	<0.005	0.0996	<0.0001
RCC-W-Sump	3/27/2019 11:50	VL2037	M	<0.0002	0.175	43.4	0.771	<0.000002	0.0049	0.132		3.95	0.0109	2.91	<0.00002	225	0.549	287	0.000039	<0.005	<0.005	0.00399	<0.005	0.0903	<0.0001
RCC-W-Sump	3/28/2019 10:30	VL3538	M	<0.0002	0.156	42.9	0.702	<0.000002	0.0052	0.122		4.01	0.0108	2.88	<0.00002	226	0.515	305	0.000042	<0.005	<0.005	0.00427	<0.005	0.0954	<0.0001
RCC-W-Sump	3/29/2019 9:50	VL3509	M	<0.0002	0.145	45.6	0.436	<0.000002	0.0045	0.0669		4.23	0.00695	3.27	<0.00002	203	0.542	255	0.000028	<0.005	<0.005	0.00519	<0.005	0.0311	<0.0001
RCC-W-Sump	4/30/2019 12:10	VP5223	M	<0.0002	0.0253	30.7	0.0016	<0.000002	0.0377	0.0017		5.54	0.00312	<0.1	<0.00002	270	0.541	267	0.000012	<0.005	<0.005	0.00522	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	3/15/2019 8:35	VJ4029	M	<0.0002	0.0033	18.2	0.0537	<0.000002	0.0089	0.0013		3.13	0.00382	0.85	<0.00002	14.8	0.163	47.1	<0.00001	<0.005	<0.005	0.00274	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	3/16/2019 15:10	VJ7201	M	7.92	510	20.2	296	13.2	205	200	81.7	<1.0	99.6	<1.0	<1.0	10.2	0.230	0.027	148			0.64	0.0835	1.69	1.77	<0.0050
RSEM-L5E-EOP	3/17/2019 13:45	VJ7216	M	7.94	539	13.3	324	12.8	204	209	82.2	<1.0	100	<1.0	<1.0	13.5	0.230	0.039	155			0.60	0.0764	1.69	1.76	<0.0050
RSEM-L5E-EOP	3/18/2019 14:30	VJ9220	M	7.94	599	42.9	362	32.8	208	205	85.2	<1.0	104	<1.0	<1.0	21.0	0.240	0.046	179			0.64	0.0686	1.44	1.51	<0.0050
RSEM-L5E-EOP	3/19/2019 13:25	VK0930	M	7.91	595	154	386	142	228	203	89.6	<1.0	109	<1.0	<1.0	19.0	0.230	0.068	175			0.61	0.0566	1.37	1.43	<0.0050
RSEM-L5E-EOP	3/20/2019 14:00	VK2377	M	7.85	596	19.4	356	26.0	223	226	91.5	<1.0	112	<1.0	<1.0	17.5	0.220	0.056	178			0.60	0.0744	1.35	1.43	<0.0050
RSEM-L5E-EOP	3/21/2019 12:50	VK3825	M	7.99	570	57.6	352	56.4	219	218	92.0	<1.0	112	<1.0	<1.0	13.2	0.210	0.043	164			0.59	0.0824	1.43	1.51	<0.0050
RSEM-L5E-EOP	3/22/2019 11:45	VK3807	M	7.93	577	46.7	352	40.0	230	234	92.3	<1.0	113	<1.0	<1.0	11.7	0.200	0.035	172			0.60	0.0871	1.46	1.55	<0.0050
RSEM-L5E-EOP	3/23/2019 11:25	VK5882	M	7.72	529	13.1	342	12.0	212	214	83.1	<1.0	101	<1.0	<1.0	10.6	0.200	0.025	148			0.56	0.0492	1.30	1.35	0.0055
RSEM-L5E-EOP	3/24/2019 12:07	VK6078	M	7.88	588	85.9	378	66.8	247	251	99.9	<1.0	122	<1.0	<1.0	10.4	0.230	0.031	180			0.65	0.0505	1.38	1.43	0.0059
RSEM-L5E-EOP	3/25/2019 10:20	VK7810	M	7.99	591	47.0	366	42.4	227	231	99.1	<1.0	121	<1.0	<1.0	10.6	0.240	0.049	175			0.57	0.0543	1.40	1.46	<0.0050
RSEM-L5E-EOP	3/26/2019 10:13	VK9096	M	7.96	606	30.5	398	32.0	258	246	104	<1.0	127	<1.0	<1.0	10.2	0.190	0.051	171			0.59	0.0640	1.35	1.42	<0.0050
RSEM-L5E-EOP	3/28/2019 9:50	VL3535	M	7.98	630	21.1	350	17.2	266	265	114	<1.0	139	<1.0	<1.0	9.91	0.200	0.046	185			0.60	0.0493	1.29	1.34	0.0057
RSEM-L5E-EOP	3/29/2019 10:27	VL3511	M	8.01	634	11.2	384	15.6	270	272	115	<1.0	140	<1.0	<1.0	9.94	0.200	0.052	184			0.59	0.0532	1.27	1.32	0.0052
RSEM-L5E-EOP	3/30/2019 9:54	VL6609	M	7.98	633	14.3	394	10.8	261	273	112	<1.0	137	<1.0	<1.0	10.6	0.210	0.057	192			0.54	0.0519	1.39	1.44	<0.0050
RSEM-L5E-EOP	3/31/2019 9:57	VL6544	M	8.00	637	6.70	410	14.0	269	253	115	<1.0	140	<1.0	<1.0	9.81	0.210	0.058	198			0.57	0.0517	1.38	1.43	<0.0050
RSEM-L5E-EOP	4/1/2019 10:16	VL8080	M	7.97	593	19.7	386	50.4	257	260	112	<1.0	137	<1.0	<1.0	11.4	0.200	0.073	180			0.49	0.0349	1.08	1.11	<0.0050
RSEM-L5E-EOP	4/2/2019 10:28	VL9739	M	8.00	501	43.6	270	44.8	216	215	94.0	<1.0	115	<1.0	<1.0	12.4	0.170	0.080	137			0.26	0.0497	0.916	0.965	0.0031
RSEM-L5E-EOP	4/3/2019 8:05	VM1856	M	8.12	502	29.7	292	51.2	203	202	97.0	<1.0	118	<1.0	<1.0	12.0	0.180	0.085	130			0.26	0.0487	0.892	0.941	<0.0030
RSEM-L5E-EOP	4/4/2019 11:05	VM3422	M	7.91	490	24.7	316	26.0	201	198	98.7	<1.0	120	<1.0	<1.0	12.8	0.180	0.20	137			0.26	0.0462	0.823	0.869	<0.0030
RSEM-L5E-EOP	4/5/2019 9:19	VM3314	M	8.08	494	16.1	320	16.0	190	194	95.9	<1.0	117	<1.0	<1.0	12.2	0.170	0.076	134			0.25	0.0328	0.850	0.883	<0.0030
RSEM-L5E-EOP	4/6/2019 10:35	VM5475	M	7.95	485	9.68	270	6.8	194	211	99.8	<1.0	122	<1.0	<1.0	12.2	0.190	0.081	135			0.25	0.0316	0.811	0.842	<0.0050
RSEM-L5E-EOP	4/7/2019 10:35	VM5529	M	7.94	742	0.77	290	9.6	208	214	104	<1.0	127	<1.0	<1.0	12.1	0.200	0.063	129			0.24	0.0308	0.820	0.850	<0.0050
RSEM-L5E-EOP	4/8/2019 10:45	VM6518	M	8.04	520	7.14	332	22.0	219	222	106	<1.0	130	<1.0	<1.0	11.7	0.200	0.067	147			0.24	0.0305	0.900	0.930	<0.0050
RSEM-L5E-EOP	4/9/2019 12:05	VM8365	M	8.03	574	13.0	358	28.0	251	219	129	<1.0	158	<1.0	<1.0	11.6	0.230	0.086	157			0.24	0.0299	0.818	0.848	<0.0050
RSEM-L5E-EOP	4/10/2019 13:25	VN0842	M	8.02	548	3.77	318	12.0	249	246	118	<1.0	144	<1.0	<1.0	11.4	0.180	0.087	152			0.21	0.0247	0.805	0.830	<0.0030
RSEM-L5E-EOP	4/11/2019 10:00	VN1899	M	8.12	652	11.1	420	21.6	305	292	137	<1.0	168	<1.0	<1.0	9.21	0.130	0.11	198			0.13	0.0175	0.413	0.430	<0.0050
RSEM-L5E-EOP	4/12/2019 9:55	VN1944	M	8.08	700	12.0	476	16.8	332	303	133	<1.0	162	<1.0	<1.0	9.52	0.110	0.14	200			0.079	0.0169	0.334	0.351	<0.0050
RSEM-L5E-EOP	4/13/2019 11:25	VN4483	M	8.06	996	19.2	704	33.6	432	444	155	<1.0	189	<1.0	<1.0	10.3	0.110	0.18	333			0.13	0.0070	0.254	0.261	<0.0050
RSEM-L5E-EOP	4/14/2019 10:40	VN4676	M	8.02	1080	22.0	730	20.0	462	468	151	<1.0	184	<1.0	<1.0	10.7	0.100	0.23	381			0.13	0.0064	0.162	0.169	<0.0050
RSEM-L5E-EOP	4/15/2019 9:25	VN6296	M	8.16	1050	12.7	708	16.0	508	441	153	<1.0	187	<1.0	<1.0	11.4	0.098	0.19	395			0.12	<0.0050	0.138	0.138	<0.0050
RSEM-L5E-EOP	4/16/2019 10:12	VN8437	D	8.13	1030	6.10	724	6.0	479	467	152	<1.0	185	<1.0	<1.0	10.7	0.110	0.20	352			0.11	<0.0050	0.151	0.151	<0.0030
RSEM-L5E-EOP	4/16/2019 10:12	VN8436	M	8.17	1000	4.88	718	7.6	487	468	160	<1.0	195	<1.0	<1.0	11.1	0.110	0.20	347			0.11	<0.0050	0.150	0.150	<0.0030
RSEM-L5E-EOP	4/17/2019 10:55	VN9784	M	8.28	1050	6.03	724	10.4	475	446	163	<1.0	199	<1.0	<1.0	11.5	0.098	0.19	367			0.13	<0.0050	0.102	0.102	<0.0030
RSEM-L5E-EOP	4/18/2019 9:38	VN9659	M	8.31	1050	5.21	736	8.0	489	439	162	<1.0	198	<1.0	<1.0	12.2	0.100	0.20	376			0.12	<0.0050	0.104	0.104	<0.0030
RSEM-L5E-EOP	4/19/2019 9:48	VO0383	M	8.13	1040	5.50	728	11.2	483	480	161	<1.0	196	<1.0	<1.0	12.3	0.098	0.21	361			0.10	<0.0050	0.082	0.082	<0.0030
RSEM-L5E-EOP	4/20/2019 9:50	VO0404	D	7.98	1040	1.44	712	8.8	471	488	158	<1.0	192	<1.0	<1.0	12.2	0.098	0.22	363			0.098	<0.0050	0.076	0.076	<0.0030
RSEM-L5E-EOP	4/20/2019 9:50	VO0403	M	8.13	1040	3.16	722	6.4	448	501	163	<1.0	199	<1.0	<1.0	12.4	0.100	0.20	303			0.097	<0.0050	0.078	0.078	0.040
RSEM-L5E-EOP	4/21/2019 10:15	VO1965	M	8.30	1050	3.76	724	8.0	465	479	163	<1.0	199	<1.0	<1.0	12.7	0.096	0.22	282			0.083	<0.0050	0.062	0.062	<0.0030
RSEM-L5E-EOP	4/22/2019 11:18	VO3487	M	8.10	1060	1.05	706	<4.0	454	487	164	<1.0	200	<1.0	<1.0	13.1	0.100	0.24	318			0.074	<0.0050	0.044	0.044	0.0033
RSEM-L5E-EOP	4/23/2019 10:25	VO5342	M	8.26	1060	0.92	726	6.4	470	498	163	<1.0	199	<1.0	<1.0	14.3	0.092	0.26	350			0.081	<0.0050	0.030	0.030	0.0033
RSEM-L5E-EOP	4/24/2019 10:28	VO7015	M	8.23	1080	1.40	732	9.2	491	486	164	<1.0	200	<1.0	<1.0	14.0	0.092	0.24	365			0.084	<0.0050	0.028	0.028	0.0035
RSEM-L5E-EOP	4/25/2019 10:57	VO8668	M	8.09	1090	4.35	742	7.6	485	488	166	<1.0	202	<1.0	<1.0	14.7	0.090	0.26	409			0.091	<0.0050	0.028	0.028	<0.0030
RSEM-L5E-EOP	4/26/2019 12:17	VO8652	M	8.12	1090	3.15	736	9.2	498	480	160	<1.0	195	<1.0	<1.0	14.7	0.093	0.26	385			0.053	<0.0050	0.028	0.028	<0.0030
RSEM-L5E-EOP	4/27/2019 10:50	VP1308	M	8.02	1120	1.83	764	5.2	482	506	160	<1.0	195	<1.0	<1.0	15.2	0.094	0.31	358			0.064	<0.0050	<0.020	<0.020	<0.0030
RSEM-L5E-EOP	4/28/2019 9:14	VP1283	M	8.13	1130	1.77	772	4.4	485	511	162	<1.0	197	<1.0	<1.0	15.5	0.093	0.29	386			0.063	<0.0050	0.021	0.021	<0.0030
RSEM-L5E-EOP	4/29/2019 9:30	VP3211	M	8.15	1120	1.80	774	<4.0	516	506	168	<1.0	205	<1.0	<1.0	15.9	0.092	0.30	410			0.059	<0.0050	<0.020	<0.020	0.0042
RSEM-L5E-EOP	4/30/2019 10:29	VP5145	M	8.06	1120	3.72	770	4.4	484	507	165	<1.0	202	<1.0	<1.0	15.8	0.093	0.32	409			0.068	<0.0050	<0.020	<0.020	<0.0030
RSEM-L5E-EOP	5/1/2019 11:00	VP6546	M	8.16	1150	3.62	810	7.6	494	499	153	<1.0	187	<1.0	<1.0	16.4	0.100	0.37	424			0.11	<0.0050	<0.020	<0.020	<0.0030
RSEM-L5E-EOP	5/2/2019 10:45	VP8756	M	7.91	1160	3.90	782	5.6	480	508	156	<1.0	190	<1.0	<1.0	16.8	0.100	0.36	434			0.095	<0.0050	0.027	0.027	0.0038
RSEM-L5E-EOP	5/3/2019 10:00	VP8789	M	8.05	1140	12.0	776	11.6	472	471	155	<1.0	189	<1.0	<1.0	16.5	0.110	0.37	375			0.088	<0.0050	0.075	0.075	<0.0030
RSEM-L5E-EOP	5/4/2019 9:55	VQ1586	M	8.11	961	6.05	624	7.6	425	427	135	<1.0	165	<1.0	<1.0	12.6	0.160	0.29	331			0.094	<0.0050	0.291	0.291	<0.0030
RSEM-L5E-EOP	5/5/2019 11:20	VQ1602	M	8.02	967	3.20	646	8.0	414	425	134	<1.0	163	<1.0	<1.0	11.9	0.150	0.29	323			0.087	<0.0050	0.266	0.266	<0.0030
RSEM-L5E-EOP	5/5/2019 11:40	VQ1603	D	8.05	967	3.33	650	8.0	396	429	135	<1.0	165	<1.0	<1.0	12.0	0.150	0.29	308			0.20	<0.0050	0.255	0.255	<0.0030
RSEM-L5E-EOP	5/6/2019 10:15	VQ4516	M	8.16	957	2.34	654	4.0	413	418	130	<1.0	159	<1.0	<1.0	11.1	0.160	0.28	347			0.045	0.0055	0.298	0.303	<0.0030
RSEM-L5E-EOP	5/7/2019 10:35	VQ4352	M	8.18	958	2.64	660	6.4	414	415	126	<1.0	154	<1.0	<1.0	11.7	0.160	0.29	367			0.035	0.0069	0.273	0.280	0.0030
RSEM-L5E-EOP	5/8/2019 13:30	VQ8329	D	8.10	997	1.70	676	5.6	419	435	138	<1.0	168	<1.0	<1.0	12.4	0.140	0.28	345			0.051	<0.0050	0.250	0.250	0.0049
RSEM-L5E-EOP	5/8/2019 13:30	VQ8328	M	8.07	974	1.94	654	<4.0	418	434	131	<1.0	160	<1.0	<1.0	12.3	0.140	0.28	342			0.056	<0.0050	0.256	0.256	0.0032
RSEM-L5E-EOP	5/9/2019 13:00	VQ9668	M	8.16	991	3.24	672	5.6	427	432	135	<1.0	165	<1.0	<1.0	13.3	0.140	0.26	391			0.033	<0.0050	0.229	0.229	<0.0030
RSEM-L5E-EOP	5/10/2019 10:00	VQ9679	M	8.21	990	4.64	690	13.6	429	436	133	<1.0	163	<1.0	<1.0	13.6	0.140	0.27	393			0.049	<0.0050	0.210	0.210	<0.0030
RSEM-L5E-EOP	5/11/2019 11:40	VR2442	M	8.03	895	4.98	640	8.0	378	384	123	<1.0	150	<1.0	<1.0	11.8	0.160	0.25	337			0.056	<0.0050	0.266	0.266	<0.0030
RSEM-L5E-EOP	5/12/2019 11:00	VR2489	M	8.07	940	3.43	628	8.0	393	391	127	<1.0	155	<1.0	<1.0	13.5	0.150	0.31	314			0.064	<0.0050	0.207	0.207	0.0032
RSEM-L5E-EOP	5/13/2019 12:35	VR4455	M	7.87	914	3.45	598	5.2	380	388	120	<1.0	146	<1.0	<1.0	12.9	0.160	0.32	309			0.061	<0.0050	0.207	0.207	0.0036
RSEM-L5E-EOP	5/14/2019 11:35	VR6864	M	8.09	946	4.98	660	24.0	398	369	124	<1.0	151	<1.0	<1.0	13.3	0.160	0.38	377			0.063	0.0056	0.179	0.185	0.0043
RSEM-L5E-EOP	5/15/2019 13:05	VR8898	M	7.94	964	2.27	650	8.4	387	394	121	<1.0	148	<1.0	<1.0	14.0	0.200	0.45	325			0.080	<0.0050	0.178	0.178	0.0043
RSEM-L5E-EOP	5/15/2019 13:15	VR8910	D	8.13	950	0.69	668	8.8	370	377	121	<1.0	148	<1.0	<1.0	13.8	0.220	0.46	346			0.077	<0.0050	0.184	0.184	<0.0030
RSEM-L5E-EOP	5/16/2019 13:15	VS0893	M	8.19	976	4.69	650	9.6	390	393	120	<1.0	146	<1.0	<1.0	14.1	0.190	0.51	327			0.075	<0.0050	0.179	0.179	0.0049
RSEM-L5E-EOP	5/17/2019 10:15	VS0930	M	8.17	980	1.99	662	6.8	388	386	118	<1.0	144	<1.0	<1.0	14.4	0.190	0.59	342			0.10	0.0053	0.162	0.167	0.0054
RSEM-L5E-EOP	5/17/2019 10:20	VS0931	D	8.15	981	2.50	666	6.0	384	399	116	<1.0	141	<1.0	<1.0	14.2	0.200	0.56	338			0.11	<0.0050	0.170	0.170	0.0041
RSEM-L5E-EOP	5/18/2019 13:00	VS1842	M	8.12	983	2.63	646	7.2	373	383	115	<1.0	141	<1.0	<1.0	14.8	0.220	0.58	337			0.10	0.0056	0.144	0.149	<0.0050
RSEM-L5E-EOP	5/19/2019 10:00	VS3042	M	8.14	987	5.24	670	12.4	388	384	120	<1.0	147	<1.0	<1.0	14.9	0.240	0.57	355			0.087	0.0052	0.127	0.133	<0.0050
RSEM-L5E-EOP	5/19/2019 10:05	VS3041	D	8.23	1500	1.45	938	<4.0	232	245	106	<1.0	129	<1.0	<1.0	65.0	0.570	1.2	505			0.048	0.0493	1.45	1.50	<0.0050
RSEM-L5E-EOP	5/20/2019 13:00	VS3033	M	8.06	988	1.08	646	6.8	379	393	117	<1.0	142	<1.0	<1.0	14.2	0.240	0.54	352			0.071	0.0056	0.147	0.153	<0.0050
RSEM-L5E-EOP	5/21/2019 11:45	VS3707	M	8.10	999	7.06	658	12.4	380	386	117	<1.0	143	<1.0	<1.0	15.4	0.220	0.64	334			0.084	0.0052	0.125	0.130	<0.0050
RSEM-L5E-EOP	5/21/2019 11:55	VS3708	D	8.02	1000	5.30	666	10.0	364	379	116	<1.0	141	<1.0	<1.0	15.3	0.220	0.63	383			0.070	<0.0050	0.127	0.127	<0.0050
RSEM-L5E-EOP	5/22/2019 12:05	VS7475	M	8.09	1010	4.80	678	9.2	360	369	117	<1.0	143	<1.0	<1.0	16.0	0.210	0.72	359			0.079	<0.0050	0.117	0.117	<0.0050
RSEM-L5E-EOP	5/22/2019 12:10	VS7476	D	8.17	1010	4.37	670	7.6	357	370	121	<1.0	148	<1.0	<1.0	16.2	0.210	0.65	369			0.076	<0.0050	0.116	0.116	<0.0050
RSEM-L5E-EOP	5/23/2019 11:00	VS9365	M	8.23	1040	6.57	698	11.6	360	366	124	<1.0	151	<1.0	<1.0	16.6	0.220	0.71	353			0.12	<0.0050	0.116	0.116	<0.0050

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	3/16/2019 15:10	VJ7201	M	3.8	3.4	0.594	0.00071	0.00069	0.0511	<0.0001	<0.001	<0.05	0.000046	49.7	<0.001	0.00056	0.00189	0.641	0.00038	0.0048	19.6	0.0707	<0.000002	0.0088	0.0025		3.52	0.004
RSEM-L5E-EOP	3/17/2019 13:45	VJ7216	M	4.0	3.5	0.315	0.00068	0.00057	0.0453	<0.0001	<0.001	<0.05	0.000045	50.6	<0.001	0.00067	0.00151	0.374	0.00023	0.0049	18.8	0.0771	<0.000002	0.009	0.0027		3.44	0.00427
RSEM-L5E-EOP	3/18/2019 14:30	VJ9220	M	4.4	4.2	1.26	0.00078	0.00113	0.0642	<0.0001	<0.001	<0.05	0.000064	52.4	0.0025	0.00103	0.00256	1.58	0.00077	0.0068	18.8	0.121	<0.000002	0.0104	0.0039		4.01	0.00488
RSEM-L5E-EOP	3/19/2019 13:25	VK0930	M	3.5	3.2	1.98	0.00091	0.00274	0.114	0.00013	<0.001	<0.05	0.000183	56.8	0.004	0.00229	0.00729	4.67	0.00279	0.0078	21.0	0.156	0.0000032	0.0127	0.0078		3.92	0.00432
RSEM-L5E-EOP	3/20/2019 14:00	VK2377	M	3.7	3.3	0.279	0.00089	0.00091	0.0594	<0.0001	<0.001	<0.05	0.000052	54.9	<0.001	0.0006	0.00181	0.661	0.00044	0.0045	20.9	0.0956	<0.000002	0.0138	0.0024		3.68	0.00399
RSEM-L5E-EOP	3/21/2019 12:50	VK3825	M	2.8	3.5	1.6	0.00079	0.00132	0.0831	<0.0001	<0.001	<0.05	0.00008	54.1	0.0026	0.00105	0.0036	2.05	0.00114	0.0046	20.4	0.113	0.0000088	0.0114	0.004		3.85	0.00325
RSEM-L5E-EOP	3/22/2019 11:45	VK3807	M	3.7	3.7	0.639	0.00078	0.00117	0.0757	<0.0001	<0.001	<0.05	0.000064	55.3	0.0019	0.00083	0.00312	1.32	0.00083	0.0039	22.3	0.104	<0.000002	0.0112	0.0037		3.87	0.00324
RSEM-L5E-EOP	3/23/2019 11:25	VK5882	M	2.8	3.8	0.209	0.00066	0.0007	0.0585	<0.0001	<0.001	<0.05	0.000035	51.2	<0.001	0.00033	0.00133	0.261	0.00023	0.0034	20.4	0.0767	<0.000002	0.0098	0.0018		3.31	0.00322
RSEM-L5E-EOP	3/24/2019 12:07	VK6078	M	4.4	4.1	1.26	0.00079	0.00161	0.095	<0.0001	<0.001	<0.05	0.000114	58.3	0.0022	0.00123	0.00503	2.3	0.00161	0.0054	24.7	0.116	<0.000002	0.0105	0.0052		3.87	0.00368
RSEM-L5E-EOP	3/25/2019 10:20	VK7810	M	3.9	3.7	0.766	0.00073	0.00097	0.0821	<0.0001	<0.001	<0.05	0.000076	56.5	0.0012	0.00075	0.00295	1	0.00087	0.0046	20.8	0.0999	<0.000002	0.01	0.0031		3.60	0.00354
RSEM-L5E-EOP	3/26/2019 10:13	VK9096	M	4.7	4.2	0.921	0.00078	0.00114	0.0809	<0.0001	<0.001	<0.05	0.000066	62.0	0.0017	0.00079	0.00334	1.23	0.00077	0.0052	25.0	0.0981	<0.000002	0.0104	0.0036		3.75	0.00384
RSEM-L5E-EOP	3/28/2019 9:50	VL3535	M	3.4	3.9	0.638	0.00075	0.00084	0.076	<0.0001	<0.001	<0.05	0.000049	64.9	<0.001	0.00052	0.0021	0.65	0.00044	0.0052	25.2	0.09	<0.000002	0.01	0.0024		3.83	0.00372
RSEM-L5E-EOP	3/29/2019 10:27	VL3511	M	3.7	3.6	0.19	0.00078	0.00079	0.0747	<0.0001	<0.001	<0.05	0.000042	66.6	<0.001	0.00047	0.00193	0.353	0.00037	0.0049	25.2	0.0869	<0.000002	0.0107	0.0022		3.81	0.0041
RSEM-L5E-EOP	3/30/2019 9:54	VL6609	M	3.3	3.8	0.435	0.00078	0.00075	0.0715	<0.0001	<0.001	<0.05	0.000039	64.6	<0.001	0.00049	0.00194	0.452	0.00032	0.0048	24.2	0.0892	<0.000002	0.0107	0.0024		3.68	0.00404
RSEM-L5E-EOP	3/31/2019 9:57	VL6544	M	3.3	3.6	0.396	0.0008	0.00074	0.0738	<0.0001	<0.001	<0.05	0.000039	64.1	<0.001	0.00051	0.00208	0.416	0.00031	0.0044	26.5	0.0945	<0.000002	0.0114	0.0025		3.75	0.00386
RSEM-L5E-EOP	4/1/2019 10:16	VL8080	M	4.1	3.4	0.738	0.00075	0.00119	0.0787	<0.0001	<0.001	<0.05	0.000095	60.8	0.0016	0.00095	0.00395	1.59	0.00104	0.0057	25.5	0.106	<0.000002	0.0095	0.004		3.49	0.00313
RSEM-L5E-EOP	4/2/2019 10:28	VL9739	M	3.8	3.2	0.746	0.00059	0.00115	0.0829	<0.0001	<0.001	<0.05	0.000117	53.2	0.0016	0.00097	0.00408	1.77	0.00116	0.0052	20.1	0.0958	<0.000002	0.0075	0.004		2.96	0.0027
RSEM-L5E-EOP	4/3/2019 8:05	VM1856	M	3.4	3.9	0.762	0.00056	0.00107	0.0836	<0.0001	<0.001	<0.05	0.000104	50.5	0.0014	0.00085	0.00359	1.55	0.001	0.0048	18.8	0.0886	<0.000002	0.007	0.0036		2.84	0.00228
RSEM-L5E-EOP	4/4/2019 11:05	VM3422	M	3.7	3.3	0.649	0.00051	0.00088	0.0777	<0.0001	<0.001	<0.05	0.000095	51.0	0.0012	0.00069	0.00327	1.18	0.00076	0.0043	17.9	0.0782	<0.000002	0.0068	0.0032		2.81	0.00245
RSEM-L5E-EOP	4/5/2019 9:19	VM3314	M	3.4	3.4	0.375	<0.0005	0.00061	0.0712	<0.0001	<0.001	<0.05	0.000082	46.3	<0.001	0.00052	0.00249	0.586	0.00047	0.0036	18.1	0.0664	<0.000002	0.0066	0.0025		2.68	0.00205
RSEM-L5E-EOP	4/6/2019 10:35	VM5475	M	3.7	3.0	0.229	<0.0005	0.00045	0.0635	<0.0001	<0.001	<0.05	0.000076	49.6	<0.001	0.00034	0.00185	0.378	0.00028	0.0031	17.1	0.0638	<0.000002	0.0062	0.0019		2.72	0.00208
RSEM-L5E-EOP	4/7/2019 10:35	VM5529	M	3.4	3.8	0.219	<0.0005	0.00048	0.072	<0.0001	<0.001	<0.05	0.000079	52.9	<0.001	0.00038	0.00195	0.369	0.00028	0.0035	18.3	0.066	<0.000002	0.0066	0.002		2.79	0.00231
RSEM-L5E-EOP	4/8/2019 10:45	VM6518	M	3.4	3.3	0.67	0.00055	0.00072	0.0748	<0.0001	<0.001	<0.05	0.000088	54.3	0.0013	0.00055	0.00262	0.754	0.0005	0.0048	20.3	0.0709	<0.000002	0.0069	0.0027		2.93	0.00246
RSEM-L5E-EOP	4/9/2019 12:05	VM8365	M	3.1	3.3	0.762	0.00058	0.00077	0.0761	<0.0001	<0.001	<0.05	0.000095	62.3	0.0014	0.00063	0.00283	0.999	0.00064	0.0062	23.1	0.0797	<0.000002	0.0074	0.003		3.19	0.00247
RSEM-L5E-EOP	4/10/2019 13:25	VN0842	M	3.1	3.5	0.141	0.00053	0.00046	0.0715	<0.0001	<0.001	<0.05	0.000074	62.9	<0.001	0.00042	0.00196	0.325	0.00024	0.0054	22.4	0.0635	<0.000002	0.0069	0.0022		2.92	0.00238
RSEM-L5E-EOP	4/11/2019 10:00	VN1899	M	1.9	1.7	0.305	<0.0005	0.00056	0.0867	<0.0001	<0.001	<0.05	0.000069	84.3	<0.001	0.00057	0.00191	0.623	0.00043	0.0067	22.9	0.0652	<0.000002	0.0047	0.0026		2.15	0.00223
RSEM-L5E-EOP	4/12/2019 9:55	VN1944	M	1.1	1.8	0.443	<0.0005	0.00047	0.0885	<0.0001	<0.001	<0.05	0.000087	93.0	<0.001	0.00055	0.0018	0.655	0.00036	0.007	24.1	0.0642	<0.000002	0.004	0.0028		1.89	0.00241
RSEM-L5E-EOP	4/13/2019 11:25	VN4483	M	1.8	1.8	0.358	0.00051	0.00098	0.103	<0.0001	<0.001	<0.05	0.000166	119	<0.001	0.001	0.00395	1.04	0.00089	0.0108	33.1	0.189	<0.000002	0.004	0.0056		1.96	0.00196
RSEM-L5E-EOP	4/14/2019 10:40	VN4676	M	1.7	1.9	0.524	<0.0005	0.00091	0.11	<0.0001	<0.001	<0.05	0.000139	128	<0.001	0.00111	0.00224	0.823	0.00058	0.0116	34.4	0.228	<0.000002	0.0032	0.0044		1.82	0.00154
RSEM-L5E-EOP	4/15/2019 9:25	VN6296	M	1.8	1.5	0.213	0.0005	0.00087	0.111	<0.0001	<0.001	<0.05	0.000139	141	<0.001	0.00111	0.00176	0.555	0.00045	0.0129	38.2	0.249	<0.000002	0.0033	0.0041		1.99	0.00152
RSEM-L5E-EOP	4/16/2019 10:12	VN8437	D	2.0	1.6	0.0696	<0.0005	0.00066	0.0992	<0.0001	<0.001	<0.05	0.000097		<0.001	0.00075	0.00084	0.172	<0.0002	0.0125		0.212	<0.000002	0.0032	0.0032			0.0014
RSEM-L5E-EOP	4/16/2019 10:12	VN8436	M	1.6	1.6	0.0572	<0.0005	0.00064	0.0995	<0.0001	<0.001	<0.05	0.000098		<0.001	0.00077	0.00081	0.14	<0.0002	0.0122		0.22	<0.000002	0.003	0.0031			0.00137
RSEM-L5E-EOP	4/17/2019 10:55	VN9784	M	1.9	1.5	0.0924	<0.0005	0.00065	0.0981	<0.0001	<0.001	<0.05	0.000096	134	<0.001	0.00081	0.00091	0.248	0.00022	0.0127	33.8	0.235	<0.000002	0.0031	0.0033		1.61	0.00115
RSEM-L5E-EOP	4/18/2019 9:38	VN9659	M	1.5	0.84	0.0926	<0.0005	0.00063	0.095	<0.0001	<0.001	<0.05	0.00009	138	<0.001	0.00086	0.00131	0.243	<0.0002	0.0126	35.0	0.229	<0.000002	0.003	0.0037		1.68	0.00123
RSEM-L5E-EOP	4/19/2019 9:48	VO0383	M	1.6	1.4	0.139	<0.0005	0.00061	0.0993	<0.0001	<0.001	<0.05	0.000088	137	<0.001	0.00082	0.00082	0.248	<0.0002	0.013	34.1	0.227	<0.000002	0.0029	0.0035		1.63	0.00108
RSEM-L5E-EOP	4/20/2019 9:50	VO0404	D	1.3	1.8	0.0773	<0.0005	0.00054	0.0946	<0.0001	<0.001	<0.05	0.000074	133	<0.001	0.00074	0.00058	0.135	<0.0002	0.0123	33.5	0.22	<0.000002	0.0028	0.0035		1.57	0.00102
RSEM-L5E-EOP	4/20/2019 9:50	VO0403	M	1.5	1.7	0.0506	<0.0005	0.00051	0.092	<0.0001	<0.001	<0.05	0.000071	127	<0.001	0.00073	0.00053	0.11	<0.0002	0.0127	32.2	0.206	<0.000002	0.0026	0.0033		1.51	0.00096
RSEM-L5E-EOP	4/21/2019 10:15	VO1965	M	1.6	1.3	0.041	<0.0005	0.00052	0.09	<0.0001	<0.001	<0.05	0.000073	128	<0.001	0.00072	0.00058	0.103	<0.0002	0.0118	35.2	0.211	<0.000002	0.0028	0.0033		1.60	0.00107
RSEM-L5E-EOP	4/22/2019 11:18	VO3487	M	1.5	1.5	0.0201	<0.0005	0.00045	0.0854	<0.0001	<0.001	<0.05	0.00006	125	<0.001	0.00068	<0.0005	0.08	<0.0002	0.0121	34.3	0.203	<0.000002	0.0025	0.0031		1.47	0.0009
RSEM-L5E-EOP	4/23/2019 10:25	VO5342	M	1.5	1.6	0.0274	<0.0005	0.00047	0.089	<0.0001	<0.001	<0.05	0.000059	130	<0.001	0.00067	0.0005	0.107	<0.0002	0.0126	35.5	0.212	<0.000002	0.0026	0.0033		1.44	0.00098
RSEM-L5E-EOP	4/24/2019 10:28	VO7015	M	1.3	0.84	0.0431	<0.0005	0.00048	0.0883	<0.0001	<0.001	<0.05	0.00006	139	<0.001	0.00066	0.00059	0.147	<0.0002	0.0127	34.6	0.211	<0.000002	0.0023	0.0034		1.45	0.00081
RSEM-L5E-EOP	4/25/2019 10:57	VO8668	M	1.3	1.3	0.0458	<0.0005	0.00051	0.0899	<0.0001	<0.001	<0.05	0.000053	135	<0.001	0.00067	0.00057	0.184	<0.0002	0.0136	36.1	0.224	<0.000002	0.0025	0.0035		1.38	0.00083
RSEM-L5E-EOP	4/26/2019 12:17	VO8652	M	1.4	1.4	0.053	<0.0005	0.00051	0.0928	<0.0001	<0.001	<0.05	0.000036	138	<0.001	0.00061	0.0005	0.163	<0.0002	0.0145	37.1	0.2	<0.000002	0.0027	0.0034		1.58	0.00085
RSEM-L5E-EOP	4/27/2019 10:50	VP1308	M	1.6	1.6	0.0315	<0.0005	0.00044	0.0889	<0.0001	<0.001	<0.05	0.000038	134	<0.001	0.00065	<0.0005	0.144	<0.0002	0.0127	35.8	0.203	<0.000002	0.0025	0.0034		1.46	0.00078
RSEM-L5E-EOP	4/28/2019 9:14	VP1283	M	1.3	1.5	0.0277	<0.0005	0.00047	0.0852	<0.0001	<0.001	<0.05	0.000037	135	<0.001	0.00059	<0.0005	0.129	<0.0002	0.0126	36.1	0.201	<0.000002	0.0025	0.0032		1.45	0.00084
RSEM-L5E-EOP	4/29/2019 9:30	VP3211	M	1.5	1.8	0.0335	<0.0005	0.00046	0.0862	<0.0001	<0.001	<0.05	0.000037	146	<0.001	0.00064	<0.0005	0.158	<0.0002	0.013	36.6	0.207	<0.000002	0.0026	0.0034		1.50	0.00081
RSEM-L5E-EOP	4/30/2019 10:29	VP5145	M	1.5	1.9	0.0518	<0.0005	0.00047	0.0869	<0.0001	<0.001	<0.05	0.000045	137	<0.001	0.00064	0.00061	0.169	<0.0002	0.0142	34.4	0.2	<0.000002	0.0032	0.0036		1.51	0.00082
RSEM-L5E-EOP	5/1/2019 11:00	VP6546	M	1.7	1.4	0.0423	<0.0005	0.0005	0.0893	<0.0001	<0.001	<0.05	0.00004	141	<0.001	0.0007	0.0006	0.144	<0.0002	0.0146	34.3	0.192	<0.000002	0.0046	0.0038		1.68	0.00086
RSEM-L5E-EOP	5/2/2019 10:45	VP8756	M	1.8	1.7	0.0336	<0.0005	0.00049	0.0896	<0.0001	<0.001	<0.05	0.00004	136	<0.001	0.00072	0.00058	0.103	<0.0002	0.0142	34.1	0.184	<0.000002	0.0046	0.0039		1.74	0.001
RSEM-L5E-EOP	5/3/2019 10:00	VP8789	M	1.8	1.9	0.125	<0.0005	0.00058	0.0956	<0.0001	<0.001	<0.05	0.000052	133	<0.001	0.00082	0.001	0.272	0.00023	0.0143	34.2	0.173	<0.000002	0.0057	0.0042		1.92	0.00112
RSEM-L5E-EOP	5/4/2019 9:55	VQ1586	M	1.7	1.5	0.246	<0.0005	0.00047	0.097	<0.0001	<0.001	<0.05	0.00005	112	<0.001	0.00067	0.00106	0.287	0.00023	0.0128	35.1	0.119	<0.000002	0.0054	0.0037		2.25	0.00152
RSEM-L5E-EOP	5/5/2019 11:20	VQ1602	M	1.5	1.7	0.0946	<0.0005	0.00043	0.0927	<0.0001	<0.001	<0.05	0.000035	114	<0.001	0.00056	0.00078	0.18	<0.0002	0.0114	31.2	0.102	<0.000002	0.0051	0.0031		2.03	0.00156
RSEM-L5E-EOP	5/5/2019 11:40	VQ1603	D	1.5	1.6	0.114	<0.0005	0.00042	0.0942	<0.0001	<0.001	<0.05	0.000034	107	<0.001	0.00056	0.00077	0.163	<0.0002	0.0115	31.1	0.103	<0.000002	0.0052	0.0032		2.08	0.00144
RSEM-L5E-EOP	5/6/2019 10:15	VQ4516	M	1.8	1.5	0.0694	<0.0005	0.00039	0.0887	<0.0001	<0.001	<0.05	0.000042	110	<0.001	0.00055	0.00085	0.121	<0.0002	0.012	33.8	0.104	<0.000002	0.0049	0.0034		2.09	0.00139
RSEM-L5E-EOP	5/7/2019 10:35	VQ4352	M	1.4	1.5	0.104	<0.0005	0.0004	0.0941	<0.0001	<0.001	<0.05	0.000034	112	<0.001	0.00055	0.0008	0.147	<0.0002	0.0119	32.6	0.0934	<0.000002	0.0051	0.0031		2.15	0.00148
RSEM-L5E-EOP	5/8/2019 13:30	VQ8329	D	1.8	1.7	0.0719	<0.0005	0.0004	0.0887	<0.0001	<0.001	<0.05	0.000044	109	<0.001	0.00053	0.00069	0.096	<0.0002	0.0132	35.8	0.0937	<0.000002	0.0046	0.003		2.15	0.00145
RSEM-L5E-EOP	5/8/2019 13:30	VQ8328	M	1.7	1.6	0.0545	<0.0005	0.0004	0.0921	<0.0001	<0.001	<0.05	0.000044	107	<0.001	0.00053	0.00072	0.086	<0.0002	0.0139	36.7	0.0971	<0.000002	0.0047	0.0031		2.21	0.00148
RSEM-L5E-EOP	5/9/2019 13:00	VQ9668	M	1.9	2.1	0.0967	<0.0005	0.00041	0.0884	<0.0001	<0.001	<0.05	0.000043	114	<0.001	0.00055	0.00081	0.109	<0.0002	0.0143	34.7	0.098	<0.000002	0.005	0.0034		2.13	0.00148
RSEM-L5E-EOP	5/10/2019 10:00	VQ9679	M	1.8	2.0	0.29	<0.0005	0.00049	0.0908	<0.0001	<0.001	<0.05	0.000047	114	<0.001	0.00059	0.00095	0.228	<0.0002	0.0149	35.1	0.0984	<0.000002	0.0049	0.0034		2.13	0.00148
RSEM-L5E-EOP	5/11/2019 11:40	VR2442	M	1.2	1.6	0.166	0.00053	0.00054	0.0732	<0.0001	<0.001	<0.05	0.000044	98.1	<0.001	0.00059	0.00099	0.246	<0.0002	0.0119	32.3	0.0781	<0.000002	0.0078	0.0036		2.11	0.00176
RSEM-L5E-EOP	5/12/2019 11:00	VR2489	M	1.6	1.5	0.103	0.00052	0.00054	0.0743	<0.0001	<0.001	<0.05	0.000045	101	<0.001	0.00063	0.00087	0.138	<0.0002	0.0127	33.9	0.0811	<0.000002	0.0055	0.0039		2.22	0.00174
RSEM-L5E-EOP	5/13/2019 12:35	VR4455	M	1.7	2.0	0.0603	0.00064	0.00054	0.0686	<0.0001	<0.001	<0.05	0.000036	98.9	<0.001	0.00063	0.00081	0.075	<0.0002	0.0129	32.4	0.0681	<0.000002	0.0065	0.0039		2.27	0.00183
RSEM-L5E-EOP	5/14/2019 11:35	VR6864	M	1.7	2.0	0.149	0.0007	0.00077	0.074	<0.0001	<0.001	<0.05	0.000048	103	<0.001	0.00077	0.00112	0.404	0.00024	0.0137	34.0	0.0718	<0.000002	0.0088	0.0046		2.59	0.00202
RSEM-L5E-EOP	5/15/2019 13:05	VR8898	M	1.8	2.1	0.156	0.00071	0.00063	0.063	<0.0001	<0.001	<0.05	0.000034	103	<0.001	0.00069	0.00082	0.227	<0.0002	0.0139	31.7	0.0584	<0.000002	0.0099	0.0043		2.54	0.00201
RSEM-L5E-EOP	5/15/2019 13:15	VR8910	D	2.2	2.1	0.125	0.00074	0.00068	0.0657	<0.0001	<0.001	<0.05	0.000036	97.5	<0.001	0.00072	0.0015	0.206	<0.0002	0.0134	30.8	0.0584	<0.000002	0.0101	0.0044		2.49	0.00201
RSEM-L5E-EOP	5/16/2019 13:15	VS0893	M	2.2	2.2	0.109	0.00073	0.00076	0.0656	<0.0001	<0.001	<0.05	0.000036	104	<0.001	0.00069	0.00087	0.24	<0.0002	0.0135	31.6	0.0575	<0.000002	0.0118	0.0041		2.69	0.00205
RSEM-L5E-EOP	5/17/2019 10:15	VS0930	M	2.0	2.3	0.0963	0.00078	0.00066	0.0643	<0.0001	<0.001	<0.05	0.000038	102	<0.001	0.00073	0.00098	0.145	<0.0002	0.0142	32.2	0.0545	<0.000002	0.0127	0.0047		2.80	0.00205
RSEM-L5E-EOP	5/17/2019 10:20	VS0931	D	2.2	2.2	0.0632	0.00078	0.00066	0.0642	<0.0001	<0.001	<0.05	0.000036	100	<0.001	0.00074	0.0009	0.12	<0.0002	0.014	32.4	0.0558	<0.000002	0.0125	0.0046		2.80	0.00209
RSEM-L5E-EOP	5/18/2019 13:00	VS1842	M	2.1	2.1	0.0733	0.00072	0.00066	0.0753	<0.0001	<0.001	<0.05	0.000028	98.6	<0.001	0.00064	0.00083	0.151	<0.0002	0.0131	30.7	0.0506	<0.000002	0.0134	0.0039		2.93	0.00191
RSEM-L5E-EOP	5/19/2019 10:00	VS3042	M	2.3	2.0	0.206	0.0009	0.00086	0.088	<0.0001	<0.001	<0.05	0.000032	103	<0.001	0.00066	0.00096	0.291	<0.0002	0.0148	31.9	0.0436	<0.000002	0.0156	0.0039		3.05	0.00209
RSEM-L5E-EOP	5/19/2019 10:05	VS3041	D	2.9	2.9	0.0789	0.00346	0.00151	0.0539	<0.0001	<0.001	0.261	0.000013	46.0	0.003	0.00039	0.0018	0.06	<0.0002	0.0417	28.4	0.0025	<0.000002	0.0307	0.0039		4.92	0.00997
RSEM-L5E-EOP	5/20/2019 13:00	VS3033	M	2.1	2.2	0.163	0.00077	0.00071	0.0676	<0.0001	<0.001	<0.05	0.000027	101	<0.001	0.00062	0.0008	0.162	<0.0002	0.0136	31.0	0.0457	<0.000002	0.0142	0.0037		2.78	0.00214
RSEM-L5E-EOP	5/21/2019 11:45	VS3707	M	2.3	2.2	0.0961	0.00096	0.00076	0.0969	<0.0001	<0.001	<0.05	0.000026	99.9	<0.001	0.0006	0.00091	0.195	<0.0002	0.0145	31.8	0.0371	<0.000002	0.0159	0.0037		3.12	0.00212
RSEM-L5E-EOP	5/21/2019 11:55	VS3708	D	2.4	2.4	0.0819	0.00095	0.00074	0.0954	<0.0001	<0.001	<0.05	0.000028	95.2	<0.001	0.00053	0.0008	0.136	<0.0002	0.0146	30.7	0.0334	<0.000002	0.0153	0.0035		2.93	0.00214
RSEM-L5E-EOP	5/22/2019 12:05	VS7475	M	2.2	2.3	0.103	0.00109	0.00086	0.11	<0.0001	<0.001	<0.05	0.000018	93.4	<0.001	0.00056	0.00092	0.204	<0.0002	0.0156	30.8	0.0306	<0.000002	0.0163	0.0041		3.34	0.00221
RSEM-L5E-EOP	5/22/2019 12:10	VS7476	D	2.1	2.2	0.0905	0.0011	0.00085	0.108	<0.0001	<0.001	<0.05	0.000016	92.3	<0.001	0.00058	0.00221	0.176	<0.0002	0.0153	30.7	0.0295	<0.000002	0.0162	0.004		3.29	0.00233
RSEM-L5E-EOP	5/23/2019 11:00	VS9365	M	2.3	2.2	0.232	0.00131	0.00092	0.111	<0.0001	<0.001	0.054	0.000019	91.7	<0.001	0.00053	0.00108	0.308	<0.0002	0.0167	31.7	0.026	<0.000002	0.0161	0.0036		3.21	0.00235

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	3/16/2019 15:10	VJ7201	M	2.09	0.000022	18.7	0.175	51.8	0.00002	<0.005	0.0185	0.00321	<0.005	<0.005	0.00077	<0.003	0.00067	0.00037	0.0392	<0.0001	<0.001	<0.05	0.000029	48.2	<0.001	0.00029	0.00109	<0.01
RSEM-L5E-EOP	3/17/2019 13:45	VJ7216	M	1.71	<0.00002	20.5	0.17	53.8	0.000014	<0.005	0.014	0.00319	<0.005	<0.005	0.00028	<0.003	0.00068	0.00037	0.0404	<0.0001	<0.001	<0.05	0.000036	51.2	<0.001	0.0005	0.00108	<0.01
RSEM-L5E-EOP	3/18/2019 14:30	VJ9220	M	4.88	<0.00002	24.4	0.186	55.7	0.000028	<0.005	0.0613	0.00368	<0.005	0.0074	0.00132	<0.003	0.00074	0.00045	0.0399	<0.0001	<0.001	<0.05	0.000029	51.4	<0.001	0.00044	0.00081	<0.01
RSEM-L5E-EOP	3/19/2019 13:25	VK0930	M	4.11	0.000038	26.5	0.23	56.0	0.00004	<0.005	0.0454	0.00427	0.0071	0.0213	0.0008	0.0043	0.00083	0.00059	0.0492	<0.0001	<0.001	<0.05	0.000021	50.2	<0.001	0.00026	0.00079	<0.01
RSEM-L5E-EOP	3/20/2019 14:00	VK2377	M	1.22	<0.00002	25.7	0.2	55.5	0.00001	<0.005	0.0066	0.00422	<0.005	<0.005	0.00015	<0.003	0.00088	0.00062	0.0501	<0.0001	<0.001	<0.05	0.000024	55.0	<0.001	0.00029	0.00066	<0.01
RSEM-L5E-EOP	3/21/2019 12:50	VK3825	M	3.4	0.000031	19.1	0.198	51.2	0.000032	<0.005	0.0467	0.00405	<0.005	0.0096	0.0012	0.0035	0.00078	0.00064	0.0552	<0.0001	<0.001	<0.05	0.000027	53.8	<0.001	0.00023	0.0008	<0.01
RSEM-L5E-EOP	3/22/2019 11:45	VK3807	M	1.95	0.000028	19.9	0.211	54.4	0.000017	<0.005	0.0155	0.00438	<0.005	0.0074	0.00029	0.004	0.0008	0.00073	0.0584	<0.0001	<0.001	<0.05	0.000023	56.7	<0.001	0.00025	0.00095	<0.01
RSEM-L5E-EOP	3/23/2019 11:25	VK5882	M	1.36	<0.00002	19.0	0.183	53.0	<0.00001	<0.005	<0.005	0.00357	<0.005	<0.005	0.0001	<0.003	0.0007	0.00054	0.0542	<0.0001	<0.001	<0.05	0.000024	52.4	<0.001	0.00023	0.00082	<0.01
RSEM-L5E-EOP	3/24/2019 12:07	VK6078	M	2.94	0.00004	21.6	0.217	59.7	0.000028	<0.005	0.0303	0.0044	<0.005	0.0144	0.0005	0.0032	0.00077	0.00058	0.0601	<0.0001	<0.001	<0.05	0.000024	60.4	<0.001	0.00028	0.00111	<0.01
RSEM-L5E-EOP	3/25/2019 10:20	VK7810	M	2.4	<0.00002	18.7	0.209	53.0	0.000014	<0.005	0.0204	0.00428	<0.005	0.0075	0.00065	<0.003	0.00073	0.00058	0.0633	<0.0001	<0.001	<0.05	0.00003	57.1	<0.001	0.00027	0.00115	<0.01
RSEM-L5E-EOP	3/26/2019 10:13	VK9096	M	2.89	0.000028	20.7	0.222	62.4	0.000016	<0.005	0.0282	0.00446	<0.005	0.009	0.00067	<0.003	0.00079	0.00059	0.0645	<0.0001	<0.001	<0.05	0.000026	60.0	<0.001	0.00027	0.00111	<0.01
RSEM-L5E-EOP	3/28/2019 9:50	VL3535	M	2.73	<0.00002	20.3	0.231	67.8	0.000016	<0.005	0.0218	0.00458	<0.005	<0.005	0.00031	0.0033	0.00073	0.00053	0.0636	<0.0001	<0.001	<0.05	0.00003	65.1	<0.001	0.00027	0.00122	<0.01
RSEM-L5E-EOP	3/29/2019 10:27	VL3511	M	1.75	<0.00002	20.8	0.239	66.7	<0.00001	<0.005	0.0053	0.00488	<0.005	<0.005	0.00019	0.004	0.00077	0.00054	0.0656	<0.0001	<0.001	<0.05	0.000025	67.2	<0.001	0.00028	0.00124	<0.01
RSEM-L5E-EOP	3/30/2019 9:54	VL6609	M	2.21	<0.00002	18.3	0.233	59.3	0.000013	<0.005	0.0159	0.00488	<0.005	<0.005	0.00031	<0.003	0.00078	0.00055	0.063	<0.0001	<0.001	<0.05	0.000023	69.4	<0.001	0.00028	0.00134	<0.01
RSEM-L5E-EOP	3/31/2019 9:57	VL6544	M	1.72	<0.00002	21.1	0.247	62.1	0.000011	<0.005	0.0181	0.00499	<0.005	<0.005	0.00025	<0.003	0.00079	0.00054	0.0643	<0.0001	<0.001	<0.05	0.000022	62.9	<0.001	0.00028	0.00118	<0.01
RSEM-L5E-EOP	4/1/2019 10:16	VL8080	M	2.83	0.000025	19.5	0.238	60.4	0.000019	<0.005	0.0199	0.00456	<0.005	0.01	0.00053	<0.003	0.0007	0.00043	0.056	<0.0001	<0.001	<0.05	0.000041	64.1	<0.001	0.00028	0.00131	<0.01
RSEM-L5E-EOP	4/2/2019 10:28	VL9739	M	2.33	0.000027	15.6	0.205	46.6	0.000024	<0.005	0.0166	0.00358	<0.005	0.0096	0.00055	0.0058	0.00055	0.00035	0.0596	<0.0001	<0.001	<0.05	0.000057	53.2	<0.001	0.00025	0.00152	<0.01
RSEM-L5E-EOP	4/3/2019 8:05	VM1856	M	2.44	<0.00002	14.6	0.21	42.6	0.000021	<0.005	0.0177	0.0034	<0.005	0.0076	0.00074	0.0031	0.00053	0.00033	0.0618	<0.0001	<0.001	<0.05	0.000064	50.2	<0.001	0.00024	0.00143	<0.01
RSEM-L5E-EOP	4/4/2019 11:05	VM3422	M	2.22	<0.00002	13.6	0.196	41.6	0.000023	<0.005	0.016	0.00326	<0.005	0.0071	0.00052	0.0039	0.0005	0.0003	0.0601	<0.0001	<0.001	<0.05	0.000062	49.9	<0.001	0.00021	0.00139	<0.01
RSEM-L5E-EOP	4/5/2019 9:19	VM3314	M	1.72	<0.00002	14.3	0.187	41.6	0.000013	<0.005	0.0083	0.00321	<0.005	<0.005	0.00033	0.0033	0.0005	0.00025	0.0604	<0.0001	<0.001	<0.05	0.000061	49.1	<0.001	0.0002	0.00143	<0.01
RSEM-L5E-EOP	4/6/2019 10:35	VM5475	M	1.56	<0.00002	13.2	0.183	40.3	0.00001	<0.005	0.0067	0.00314	<0.005	<0.005	0.00018	<0.003	<0.0005	0.00025	0.0592	<0.0001	<0.001	<0.05	0.00007	53.1	<0.001	0.00022	0.00143	<0.01
RSEM-L5E-EOP	4/7/2019 10:35	VM5529	M	1.72	<0.00002	14.5	0.197	45.0	0.000012	<0.005	0.0066	0.00339	<0.005	0.0084	0.00017	<0.003	0.00051	0.00029	0.0596	<0.0001	<0.001	<0.05	0.000069	53.7	<0.001	0.00022	0.00143	<0.01
RSEM-L5E-EOP	4/8/2019 10:45	VM6518	M	2.56	<0.00002	15.6	0.201	44.6	0.00002	<0.005	0.0301	0.00358	<0.005	<0.005	0.00047	0.0039	<0.0005	0.0003	0.0631	<0.0001	<0.001	<0.05	0.000068	55.8	<0.001	0.0002	0.00131	<0.01
RSEM-L5E-EOP	4/9/2019 12:05	VM8365	M	3.15	<0.00002	17.9	0.235	50.7	0.000021	<0.005	0.0315	0.00423	<0.005	0.006	0.00082	<0.003	0.00052	0.00033	0.0521	<0.0001	<0.001	<0.05	0.000056	51.9	<0.001	0.00021	0.00116	<0.01
RSEM-L5E-EOP	4/10/2019 13:25	VN0842	M	1.71	<0.00002	17.4	0.22	52.3	0.000013	<0.005	<0.005	0.00383	<0.005	<0.005	0.0002	0.0038	0.00051	0.00033	0.063	<0.0001	<0.001	<0.05	0.000058	61.8	<0.001	<0.0002	0.00126	<0.01
RSEM-L5E-EOP	4/11/2019 10:00	VN1899	M	2.8	<0.00002	17.7	0.266	65.5	0.000017	<0.005	0.008	0.00308	<0.005	<0.005	0.00018	0.0036	<0.0005	0.00032	0.0764	<0.0001	<0.001	<0.05	0.00004	78.5	<0.001	0.00021	0.00072	<0.01
RSEM-L5E-EOP	4/12/2019 9:55	VN1944	M	3.21	<0.00002	19.8	0.283	70.4	0.000018	<0.005	0.0165	0.003	<0.005	<0.005	0.00057	0.0042	<0.0005	0.00022	0.0766	<0.0001	<0.001	<0.05	0.000049	84.2	<0.001	0.00023	0.00069	<0.01
RSEM-L5E-EOP	4/13/2019 11:25	VN4483	M	3.06	0.000022	39.5	0.363	125	0.000043	<0.005	0.0098	0.00364	<0.005	0.005	0.00025	<0.003	<0.0005	0.00057	0.0901	<0.0001	<0.001	<0.05	0.000095	121	<0.001	0.00061	0.00072	<0.01
RSEM-L5E-EOP	4/14/2019 10:40	VN4676	M	3.85	<0.00002	43.7	0.375	128	0.000029	<0.005	0.0223	0.0034	<0.005	<0.005	0.00026	0.0284	0.00058	0.00064	0.0994	<0.0001	<0.001	<0.05	0.000095	130	<0.001	0.00068	0.00059	<0.01
RSEM-L5E-EOP	4/15/2019 9:25	VN6296	M	3.8	<0.00002	47.7	0.412	157	0.000025	<0.005	0.0055	0.00345	<0.005	<0.005	0.00034	<0.003	<0.0005	0.00053	0.0851	<0.0001	<0.001	<0.05	0.000083	124	<0.001	0.00066	<0.0005	<0.01
RSEM-L5E-EOP	4/16/2019 10:12	VN8437	D	3.14	<0.00002		0.384	139	0.000018	<0.005	<0.005	0.00313	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00052	0.099	<0.0001	<0.001	<0.05	0.000081		<0.001	0.00066	<0.0005	<0.01
RSEM-L5E-EOP	4/16/2019 10:12	VN8436	M	3.1	<0.00002		0.382	142	0.000017	<0.005	<0.005	0.00311	<0.005	<0.005	0.00011	<0.003	<0.0005	0.00055	0.101	<0.0001	<0.001	<0.05	0.000078		<0.001	0.00065	<0.0005	<0.01
RSEM-L5E-EOP	4/17/2019 10:55	VN9784	M	3.28	<0.00002	38.2	0.388	126	0.000016	<0.005	<0.005	0.00284	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00046	0.0931	<0.0001	<0.001	<0.05	0.000073	121	<0.001	0.00069	<0.0005	<0.01
RSEM-L5E-EOP	4/18/2019 9:38	VN9659	M	3.42	<0.00002	40.8	0.392	134	0.000019	<0.005	<0.005	0.00272	<0.005	<0.005	<0.0001	0.0066	<0.0005	0.00049	0.0941	<0.0001	<0.001	<0.05	0.000076	122	<0.001	0.00066	<0.0005	<0.01
RSEM-L5E-EOP	4/19/2019 9:48	VO0383	M	3.55	<0.00002	40.3	0.402	132	0.000019	<0.005	0.0063	0.00259	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00048	0.0987	<0.0001	<0.001	<0.05	0.000078	132	<0.001	0.00078	<0.0005	<0.01
RSEM-L5E-EOP	4/20/2019 9:50	VO0404	D	3.31	<0.00002	38.9	0.38	136	0.000014	<0.005	<0.005	0.00245	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00051	0.101	<0.0001	<0.001	<0.05	0.000074	132	<0.001	0.00081	<0.0005	<0.01
RSEM-L5E-EOP	4/20/2019 9:50	VO0403	M	3.15	<0.00002	37.3	0.389	122	0.000015	<0.005	<0.005	0.00244	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00049	0.103	<0.0001	<0.001	<0.05	0.000077	137	<0.001	0.00081	<0.0005	<0.01
RSEM-L5E-EOP	4/21/2019 10:15	VO1965	M	3.22	<0.00002	41.0	0.404	136	0.000014	<0.005	<0.005	0.00244	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00041	0.0911	<0.0001	<0.001	<0.05	0.000063	133	<0.001	0.00069	<0.0005	<0.01
RSEM-L5E-EOP	4/22/2019 11:18	VO3487	M	3.13	<0.00002	41.0	0.383	130	0.000012	<0.005	<0.005	0.00217	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00051	0.0888	<0.0001	<0.001	<0.05	0.000053	136	<0.001	0.00066	<0.0005	<0.01
RSEM-L5E-EOP	4/23/2019 10:25	VO5342	M	3.04	<0.00002	43.4	0.414	130	0.000011	<0.005	<0.005	0.00228	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00044	0.0908	<0.0001	<0.001	<0.05	0.000051	137	<0.001	0.00065	<0.0005	<0.01
RSEM-L5E-EOP	4/24/2019 10:28	VO7015	M	3.25	<0.00002	44.6	0.413	133	0.000012	<0.005	<0.005	0.00212	<0.005	<0.005	<0.0001	0.01	<0.0005	0.0004	0.0846	<0.0001	<0.001	<0.05	0.000042	136	<0.001	0.00063	<0.0005	<0.01
RSEM-L5E-EOP	4/25/2019 10:57	VO8668	M	3.1	<0.00002	45.5	0.409	136	0.000011	<0.005	<0.005	0.00208	<0.005	0.0075	<0.0001	<0.003	<0.0005	0.00042	0.0882	<0.0001	<0.001	<0.05	0.00001	135	<0.001	0.00054	<0.0005	<0.01
RSEM-L5E-EOP	4/26/2019 12:17	VO8652	M	3.27	<0.00002	45.7	0.426	144	0.000011	<0.005	<0.005	0.00214	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00042	0.0894	<0.0001	<0.001	<0.05	<0.00001	131	<0.001	0.0005	<0.0005	<0.01
RSEM-L5E-EOP	4/27/2019 10:50	VP1308	M	3.08	<0.00002	47.5	0.429	141	<0.00001	<0.005	<0.005	0.00212	<0.005	<0.005	<0.0001	0.0035	<0.0005	0.0004	0.0888	<0.0001	<0.001	<0.05	0.000015	140	<0.001	0.00057	<0.0005	<0.01
RSEM-L5E-EOP	4/28/2019 9:14	VP1283	M	2.97	<0.00002	48.0	0.427	142	<0.00001	<0.005	<0.005	0.00207	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00038	0.089	<0.0001	<0.001	<0.05	0.00002	143	<0.001	0.00056	<0.0005	<0.01
RSEM-L5E-EOP	4/29/2019 9:30	VP3211	M	3.25	<0.00002	49.4	0.447	148	<0.00001	<0.005	<0.005	0.00214	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.0004	0.0853	<0.0001	<0.001	<0.05	0.000018	141	<0.001	0.00057	<0.0005	<0.01
RSEM-L5E-EOP	4/30/2019 10:29	VP5145	M	3.07	<0.00002	46.6	0.421	148	0.000011	<0.005	<0.005	0.00229	<0.005	<0.005	<0.0001	0.0037	<0.0005	0.00042	0.0836	<0.0001	<0.001	<0.05	0.000019	138	<0.001	0.00063	<0.0005	<0.01
RSEM-L5E-EOP	5/1/2019 11:00	VP6546	M	3.19	<0.00002	48.9	0.429	150	0.00001	<0.005	<0.005	0.00262	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.0004	0.0849	<0.0001	<0.001	<0.05	0.000021	139	<0.001	0.00064	<0.0005	<0.01
RSEM-L5E-EOP	5/2/2019 10:45	VP8756	M	3.04	<0.00002	49.8	0.428	149	0.000011	<0.005	<0.005	0.00267	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00043	0.0825	<0.0001	<0.001	<0.05	<0.00001	141	<0.001	0.00063	<0.0005	<0.01
RSEM-L5E-EOP	5/3/2019 10:00	VP8789	M	3.12	<0.00002	50.0	0.424	148	0.000015	<0.005	<0.005	0.0028	<0.005	<0.005	0.00047	0.0035	<0.0005	0.00043	0.0876	<0.0001	<0.001	<0.05	0.00001	133	<0.001	0.0006	<0.0005	<0.01
RSEM-L5E-EOP	5/4/2019 9:55	VQ1586	M	2.72	<0.00002	46.2	0.354	138	0.000015	<0.005	0.0083	0.00305	<0.005	<0.005	0.00012	0.0039	<0.0005	0.00036	0.0861	<0.0001	<0.001	<0.05	0.000031	112	<0.001	0.00053	0.00057	<0.01
RSEM-L5E-EOP	5/5/2019 11:20	VQ1602	M	2.72	<0.00002	42.1	0.345	120	0.000017	<0.005	0.0052	0.00291	<0.005	<0.005	<0.0001	0.0041	<0.0005	0.00036	0.0878	<0.0001	<0.001	<0.05	0.000029	113	<0.001	0.0005	<0.0005	<0.01
RSEM-L5E-EOP	5/5/2019 11:40	VQ1603	D	2.1	<0.00002	41.9	0.342	122	0.000014	<0.005	0.0054	0.00295	<0.005	<0.005	<0.0001	0.0043	<0.0005	0.00033	0.0843	<0.0001	<0.001	<0.05	0.000031	113	<0.001	0.00051	0.00054	<0.01
RSEM-L5E-EOP	5/6/2019 10:15	VQ4516	M	2.09	<0.00002	43.6	0.341	129	0.000012	<0.005	<0.005	0.0031	<0.005	<0.005	<0.0001	0.0066	<0.0005	0.00038	0.0912	<0.0001	<0.001	<0.05	0.000031	112	<0.001	0.00052	<0.0005	<0.01
RSEM-L5E-EOP	5/7/2019 10:35	VQ4352	M	2.07	<0.00002	41.7	0.351	117	0.00001	<0.005	<0.005	0.0029	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00037	0.0891	<0.0001	<0.001	<0.05	0.00003	111	<0.001	0.0005	<0.0005	<0.01
RSEM-L5E-EOP	5/8/2019 13:30	VQ8329	D	2.16	<0.00002	45.1	0.352	122	0.000012	<0.005	<0.005	0.00319	<0.005	<0.005	<0.0001	0.0035	<0.0005	0.00037	0.0873	<0.0001	<0.001	<0.05	0.000032	117	<0.001	0.00052	0.00054	<0.01
RSEM-L5E-EOP	5/8/2019 13:30	VQ8328	M	2.38	<0.00002	46.3	0.361	132	0.000012	<0.005	<0.005	0.00333	<0.005	<0.005	<0.0001	0.0034	<0.0005	0.00036	0.087	<0.0001	<0.001	<0.05	0.000035	116	<0.001	0.00052	0.00052	<0.01
RSEM-L5E-EOP	5/9/2019 13:00	VQ9668	M	2.14	<0.00002	46.2	0.36	130	0.000013	<0.005	<0.005	0.00342	<0.005	<0.005	<0.0001	0.0033	<0.0005	0.00036	0.0884	<0.0001	<0.001	<0.05	0.000026	113	<0.001	0.00051	0.00055	<0.01
RSEM-L5E-EOP	5/10/2019 10:00	VQ9679	M	2.33	<0.00002	49.0	0.358	131	0.000015	<0.005	<0.005	0.00336	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00038	0.0857	<0.0001	<0.001	<0.05	0.000021	116	<0.001	0.0005	0.00053	<0.01
RSEM-L5E-EOP	5/11/2019 11:40	VR2442	M	1.86	<0.00002	41.8	0.322	113	0.000019	<0.005	<0.005	0.00346	<0.005	<0.005	0.00034	0.0057	<0.0005	0.00043	0.0664	<0.0001	<0.001	<0.05	0.000029	101	<0.001	0.00046	<0.0005	<0.01
RSEM-L5E-EOP	5/12/2019 11:00	VR2489	M	1.81	<0.00002	46.3	0.344	119	0.000018	<0.005	<0.005	0.00362	<0.005	<0.005	0.00011	0.0042	0.00053	0.00042	0.0708	<0.0001	<0.001	<0.05	0.000028	102	<0.001	0.00054	0.00054	<0.01
RSEM-L5E-EOP	5/13/2019 12:35	VR4455	M	1.59	<0.00002	47.1	0.335	117	0.000016	<0.005	<0.005	0.00373	<0.005	<0.005	<0.0001	0.0036	0.00063	0.00049	0.0673	<0.0001	<0.001	<0.05	0.000028	101	<0.001	0.00055	0.00052	<0.01
RSEM-L5E-EOP	5/14/2019 11:35	VR6864	M	1.74	<0.00002	52.2	0.354	121	0.000019	<0.005	<0.005	0.00397	<0.005	<0.005	<0.0001	0.0043	0.00065	0.00052	0.0616	<0.0001	<0.001	<0.05	0.000022	95.6	<0.001	0.00052	<0.0005	<0.01
RSEM-L5E-EOP	5/15/2019 13:05	VR8898	M	1.85	<0.00002	51.4	0.327	122	0.000018	<0.005	<0.005	0.00404	<0.005	<0.005	0.00016	0.0044	0.00075	0.00061	0.0635	<0.0001	<0.001	<0.05	0.000026	102	<0.001	0.0006	<0.0005	<0.01
RSEM-L5E-EOP	5/15/2019 13:15	VR8910	D	1.81	<0.00002	51.9	0.332	113	0.00002	<0.005	<0.005	0.00387	<0.005	<0.005	0.0001	0.004	0.00075	0.00054	0.0606	<0.0001	<0.001	<0.05	0.000022	98.5	<0.001	0.00057	0.00052	<0.01
RSEM-L5E-EOP	5/16/2019 13:15	VS0893	M	1.74	<0.00002	55.8	0.344	123	0.000019	<0.005	<0.005	0.00392	<0.005	<0.005	<0.0001	0.0042	0.00077	0.00062	0.0634	<0.0001	<0.001	<0.05	0.000023	103	<0.001	0.0006	<0.0005	<0.01
RSEM-L5E-EOP	5/17/2019 10:15	VS0930	M	1.62	<0.00002	59.7	0.337	123	0.00002	<0.005	<0.005	0.00409	<0.005	<0.005	<0.0001	0.0048	0.00077	0.00063	0.062	<0.0001	<0.001	<0.05	0.000024	101	<0.001	0.00061	0.00081	<0.01
RSEM-L5E-EOP	5/17/2019 10:20	VS0931	D	1.57	<0.00002	58.4	0.337	126	0.000019	<0.005	<0.005	0.00403	<0.005	<0.005	0.00101	0.0051	0.00079	0.00063	0.0634	<0.0001	<0.001	<0.05	0.000027	105	<0.001	0.0006	0.00055	<0.01
RSEM-L5E-EOP	5/18/2019 13:00	VS1842	M	1.65	<0.00002	59.9	0.332	129	0.000018	<0.005	<0.005	0.00391	<0.005	<0.005	<0.0001	0.0047	0.00076	0.00056	0.0662	<0.0001	<0.001	<0.05	0.000021	101	<0.001	0.00052	<0.0005	<0.01
RSEM-L5E-EOP	5/19/2019 10:00	VS3042	M	1.98	<0.00002	66.9	0.354	132	0.000022	<0.005	0.0081	0.00412	<0.005	<0.005	0.00017	0.004	0.00088	0.00069	0.0826	<0.0001	<0.001	<0.05	0.00001	100	<0.001	0.00041	<0.0005	<0.01
RSEM-L5E-EOP	5/19/2019 10:05	VS3041	D	0.546	<0.00002	215	0.357	164	0.000016	<0.005	<0.005	0.00625	<0.005	<0.005	0.00011	0.0159	0.00351	0.00152	0.056	<0.0001	<0.001	0.257	0.000015	46.8	0.003	0.00028	0.00151	<0.01
RSEM-L5E-EOP	5/20/2019 13:00	VS3033	M	1.81	<0.00002	61.3	0.341	119	0.00002	<0.005	0.0056	0.00396	<0.005	<0.005	<0.0001	0.0042	0.00078	0.00067	0.0679	<0.0001	<0.001	<0.05	0.000019	102	<0.001	0.00046	<0.0005	<0.01
RSEM-L5E-EOP	5/21/2019 11:45	VS3707	M	1.57	<0.00002	69.0	0.361	125	0.000019	<0.005	<0.005	0.00409	<0.005	<0.005	<0.0001	0.004	0.00097	0.00069	0.0942	<0.0001	<0.001	<0.05	0.000013	101	<0.001	0.0004	<0.0005	<0.01
RSEM-L5E-EOP	5/21/2019 11:55	VS3708	D	1.54	<0.00002	64.6	0.342	120	0.000019	<0.005	<0.005	0.00395	<0.005	<0.005	<0.0001	0.0041	0.00097	0.00071	0.0901	<0.0001	<0.001	<0.05	0.000014	97.4	<0.001	0.00039	<0.0005	<0.01
RSEM-L5E-EOP	5/22/2019 12:05	VS7475	M	1.54	<0.00002	71.0	0.353	128	0.000019	<0.005	<0.005	0.00403	<0.005	<0.005	<0.0001	0.0046	0.00111	0.00068	0.102	<0.0001	<0.001	<0.05	<0.00001	95.4	<0.001	0.00046	0.00053	<0.01
RSEM-L5E-EOP	5/22/2019 12:10	VS7476	D	1.49	<0.00002	70.4	0.352	125	0.000021	<0.005	<0.005	0.00385	<0.005	<0.005	<0.0001	0.0046	0.00113	0.00073	0.101	<0.0001	<0.001	<0.05	<0.00001	97.0	<0.001	0.00045	0.00055	<0.01
RSEM-L5E-EOP	5/23/2019 11:00	VS9365	M	1.83	<0.00002	66.4	0.374	130	0.000021	<0.005	0.0062	0.00401	<0.005	<0.005	0.00028	0.0033	0.00135	0.0008	0.104	<0.0001	<0.001	0.054	<0.00001	94.7	<0.001	0.00036	<0.0005	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	3/16/2019 15:10	VJ7201	M	<0.0002	0.0042	19.4	0.0599	<0.000002	0.0091	0.0015		3.29	0.00395	0.867	<0.00002	19.3	0.165	49.8	<0.00001	<0.005	<0.005	0.00304	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	3/17/2019 13:45	VJ7216	M	<0.0002	0.0048	18.4	0.0735	<0.000002	0.0093	0.0023		3.59	0.00428	0.908	<0.00002	20.6	0.176	55.4	<0.00001	<0.005	<0.005	0.00327	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	3/18/2019 14:30	VJ9220	M	<0.0002	0.0055	18.5	0.103	<0.000002	0.0104	0.0021		3.52	0.00492	0.777	<0.00002	23.5	0.185	57.3	<0.00001	<0.005	<0.005	0.00349	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	3/19/2019 13:25	VK0930	M	<0.0002	0.0049	18.8	0.0739	<0.000002	0.0126	0.0016		3.75	0.00409	0.923	<0.00002	24.6	0.19	56.2	<0.00001	<0.005	<0.005	0.00388	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	3/20/2019 14:00	VK2377	M	<0.0002	0.0042	21.5	0.0816	<0.000002	0.0136	0.0014		3.72	0.00409	0.88	<0.00002	26.8	0.206	57.1	<0.00001	<0.005	<0.005	0.00422	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	3/21/2019 12:50	VK3825	M	<0.0002	0.0042	20.2	0.0795	0.0000072	0.0121	0.0013		3.54	0.00347	1.03	<0.00002	20.5	0.217	55.3	<0.00001	<0.005	<0.005	0.00418	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	3/22/2019 11:45	VK3807	M	<0.0002	0.0036	22.5	0.0806	<0.000002	0.0117	0.0015		3.60	0.00376	0.895	<0.00002	21.6	0.208	56.9	<0.00001	<0.005	<0.005	0.0045	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	3/23/2019 11:25	VK5882	M	<0.0002	0.0035	20.3	0.0782	<0.000002	0.0105	0.0014		3.45	0.00332	1.01	<0.00002	19.4	0.181	55.0	<0.00001	<0.005	<0.005	0.00365	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	3/24/2019 12:07	VK6078	M	<0.0002	0.0042	24.3	0.0822	<0.000002	0.0107	0.0017		3.66	0.0036	1.17	<0.00002	21.2	0.214	64.9	<0.00001	<0.005	<0.005	0.0043	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	3/25/2019 10:20	VK7810	M	<0.0002	0.0038	21.6	0.0807	<0.000002	0.0104	0.0016		3.39	0.0035	1.12	<0.00002	19.0	0.212	58.2	<0.00001	<0.005	<0.005	0.00432	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	3/26/2019 10:13	VK9096	M	<0.0002	0.0044	23.4	0.0793	<0.000002	0.0106	0.0018		3.54	0.00423	1.24	<0.00002	18.7	0.224	63.3	<0.00001	<0.005	<0.005	0.00446	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	3/28/2019 9:50	VL3535	M	<0.0002	0.0046	24.8	0.0767	<0.000002	0.0103	0.0016		3.73	0.00388	1.32	<0.00002	20.4	0.231	65.4	<0.00001	<0.005	<0.005	0.00473	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	3/29/2019 10:27	VL3511	M	<0.0002	0.0046	25.2	0.0751	<0.000002	0.0104	0.0017		3.61	0.00408	1.3	<0.00002	20.3	0.224	66.3	<0.00001	<0.005	<0.005	0.00459	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	3/30/2019 9:54	VL6609	M	<0.0002	0.0048	24.2	0.0805	<0.000002	0.0106	0.0016		3.76	0.00424	1.31	<0.00002	19.1	0.238	61.3	<0.00001	<0.005	<0.005	0.00477	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	3/31/2019 9:57	VL6544	M	<0.0002	0.0045	23.2	0.0824	<0.000002	0.0108	0.0017		3.57	0.00399	1.17	<0.00002	18.1	0.237	59.0	<0.00001	<0.005	<0.005	0.00489	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/1/2019 10:16	VL8080	M	<0.0002	0.0045	24.4	0.0828	<0.000002	0.0092	0.0018		3.25	0.00323	1.33	<0.00002	20.0	0.225	60.4	<0.00001	<0.005	<0.005	0.00431	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/2/2019 10:28	VL9739	M	<0.0002	0.0042	20.0	0.0683	0.0000093	0.0073	0.0016		2.95	0.00255	1.1	<0.00002	15.8	0.199	48.0	<0.00001	<0.005	<0.005	0.00352	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/3/2019 8:05	VM1856	M	<0.0002	0.003	18.7	0.0655	<0.000002	0.0071	0.0016		2.70	0.00231	0.976	<0.00002	14.8	0.198	42.4	<0.00001	<0.005	<0.005	0.00337	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/4/2019 11:05	VM3422	M	<0.0002	0.0033	17.9	0.0533	<0.000002	0.0069	0.0016		2.57	0.00237	1.06	<0.00002	13.3	0.187	41.5	<0.00001	<0.005	<0.005	0.00325	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/5/2019 9:19	VM3314	M	<0.0002	0.0033	17.4	0.048	<0.000002	0.0066	0.0016		2.45	0.00229	1.06	<0.00002	13.5	0.193	40.2	<0.00001	<0.005	<0.005	0.00316	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/6/2019 10:35	VM5475	M	<0.0002	0.0036	18.9	0.0572	<0.000002	0.0066	0.0016		2.54	0.00228	1.14	<0.00002	14.8	0.188	42.6	<0.00001	<0.005	<0.005	0.00323	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/7/2019 10:35	VM5529	M	<0.0002	0.0038	19.4	0.0579	<0.000002	0.0067	0.0015		2.61	0.00233	1.15	<0.00002	15.5	0.19	41.7	<0.00001	<0.005	<0.005	0.00337	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/8/2019 10:45	VM6518	M	<0.0002	0.0044	20.1	0.0527	<0.000002	0.0071	0.0016		2.86	0.00226	1.34	<0.00002	15.7	0.204	47.3	<0.00001	<0.005	<0.005	0.00367	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/9/2019 12:05	VM8365	M	<0.0002	0.0047	21.6	0.0536	<0.000002	0.0067	0.0015		2.68	0.00221	1.22	<0.00002	16.0	0.211	46.2	<0.00001	<0.005	<0.005	0.00375	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/10/2019 13:25	VN0842	M	<0.0002	0.0047	22.2	0.0139	<0.000002	0.0068	0.0015		2.84	0.00232	1.5	<0.00002	16.0	0.206	49.2	<0.00001	<0.005	<0.005	0.00359	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/11/2019 10:00	VN1899	M	<0.0002	0.0066	23.3	0.0304	<0.000002	0.005	0.0015		2.06	0.00242	2.4	<0.00002	17.9	0.261	66.3	<0.00001	<0.005	<0.005	0.00295	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/12/2019 9:55	VN1944	M	<0.0002	0.0069	22.4	0.0341	<0.000002	0.0038	0.0017		1.80	0.00208	2.24	<0.00002	18.7	0.26	67.6	0.00001	<0.005	<0.005	0.00287	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/13/2019 11:25	VN4483	M	<0.0002	0.0109	34.2	0.182	<0.000002	0.0039	0.0029		1.98	0.00201	2.72	<0.00002	42.7	0.365	134	0.000014	<0.005	<0.005	0.00354	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/14/2019 10:40	VN4676	M	<0.0002	0.0124	34.9	0.207	<0.000002	0.0038	0.0031		1.72	0.00159	2.81	<0.00002	44.8	0.405	143	0.000015	<0.005	<0.005	0.0034	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/15/2019 9:25	VN6296	M	<0.0002	0.011	32.0	0.192	<0.000002	0.0031	0.0028		1.56	0.0013	2.88	<0.00002	39.1	0.365	125	0.000016	<0.005	<0.005	0.0027	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/16/2019 10:12	VN8437	D	<0.0002	0.0118	33.5	0.194	<0.000002	0.0032	0.0027			0.0013	3.17	<0.00002		0.389	134	0.000017	<0.005	<0.005	0.0031	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/16/2019 10:12	VN8436	M	<0.0002	0.0115	34.1	0.194	<0.000002	0.0031	0.0026			0.00127	3.12	<0.00002		0.39	135	0.000017	<0.005	<0.005	0.00311	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/17/2019 10:55	VN9784	M	<0.0002	0.0113	35.1	0.215	<0.000002	0.0031	0.003		1.62	0.00117	2.89	<0.00002	40.9	0.389	128	0.000014	<0.005	<0.005	0.00263	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/18/2019 9:38	VN9659	M	<0.0002	0.0122	32.6	0.198	<0.000002	0.0029	0.0029		1.45	0.00118	2.91	<0.00002	38.2	0.395	118	0.000016	<0.005	<0.005	0.00272	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/19/2019 9:48	VO0383	M	<0.0002	0.0137	36.6	0.235	<0.000002	0.0033	0.0036		1.55	0.00121	2.94	<0.00002	46.1	0.428	135	0.000016	<0.005	<0.005	0.0028	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/20/2019 9:50	VO0404	D	<0.0002	0.0138	38.4	0.239	<0.000002	0.0032	0.0039		1.62	0.00118	3.08	<0.00002	47.2	0.432	139	0.000016	<0.005	<0.005	0.0028	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/20/2019 9:50	VO0403	M	<0.0002	0.0139	38.6	0.239	<0.000002	0.0034	0.0038		1.64	0.0012	3.09	<0.00002	47.1	0.452	143	0.000017	<0.005	<0.005	0.00284	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/21/2019 10:15	VO1965	M	<0.0002	0.0127	35.5	0.206	<0.000002	0.0028	0.0033		1.57	0.00114	3.01	<0.00002	42.6	0.41	129	0.000015	<0.005	<0.005	0.00251	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/22/2019 11:18	VO3487	M	<0.0002	0.0125	36.0	0.209	<0.000002	0.0027	0.0032		1.54	0.00095	3.33	<0.00002	41.7	0.406	138	0.000011	<0.005	<0.005	0.00231	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/23/2019 10:25	VO5342	M	<0.0002	0.0124	37.8	0.216	<0.000002	0.0025	0.0035		1.53	0.00099	3.25	<0.00002	43.5	0.404	146	0.000012	<0.005	<0.005	0.00222	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/24/2019 10:28	VO7015	M	<0.0002	0.0126	35.4	0.205	<0.000002	0.0024	0.0034		1.38	0.00096	3	<0.00002	44.1	0.402	126	0.000012	<0.005	<0.005	0.00221	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/25/2019 10:57	VO8668	M	<0.0002	0.0134	36.6	0.187	<0.000002	0.0026	0.0032		1.51	0.00087	3.26	<0.00002	45.2	0.414	146	0.000012	<0.005	<0.005	0.0021	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/26/2019 12:17	VO8652	M	<0.0002	0.0141	36.8	0.146	<0.000002	0.0027	0.003		1.52	0.00087	3.03	<0.00002	45.1	0.425	145	0.000011	<0.005	<0.005	0.00212	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/27/2019 10:50	VP1308	M	<0.0002	0.0143	37.8	0.191	<0.000002	0.0026	0.0033		1.47	0.00083	3.11	<0.00002	48.0	0.427	147	0.00001	<0.005	<0.005	0.00206	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/28/2019 9:14	VP1283	M	<0.0002	0.0148	37.6	0.2	<0.000002	0.0027	0.0034		1.50	0.00084	3.17	<0.00002	49.5	0.429	151	0.00001	<0.005	<0.005	0.00205	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/29/2019 9:30	VP3211	M	<0.0002	0.0146	37.5	0.193	<0.000002	0.0027	0.0033		1.47	0.00079	3.06	<0.00002	47.7	0.433	146	0.000011	<0.005	<0.005	0.00206	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	4/30/2019 10:29	VP5145	M	<0.0002	0.0136	39.1	0.199	<0.000002	0.0033	0.0036		1.62	0.00084	3.01	<0.00002	53.7	0.45	156	<0.00001	<0.005	<0.005	0.00253	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/1/2019 11:00	VP6546	M	<0.0002	0.0151	36.6	0.187	<0.000002	0.0045	0.0036		1.72	0.00096	3.02	<0.00002	51.2	0.425	155	<0.00001	<0.005	<0.005	0.0027	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/2/2019 10:45	VP8756	M	<0.0002	0.0151	37.5	0.15	<0.000002	0.0048	0.0038		1.79	0.00107	3.11	<0.00002	54.7	0.451	155	0.000011	<0.005	<0.005	0.00291	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/3/2019 10:00	VP8789	M	<0.0002	0.0142	33.7	0.144	<0.000002	0.0058	0.0035		1.87	0.00109	2.92	<0.00002	50.4	0.419	152	0.000012	<0.005	<0.005	0.00285	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/4/2019 9:55	VQ1586	M	<0.0002	0.0117	35.8	0.111	<0.000002	0.0052	0.0032		2.11	0.00142	1.97	<0.00002	47.5	0.343	124	0.000012	<0.005	<0.005	0.00294	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/5/2019 11:20	VQ1602	M	<0.0002	0.0118	34.6	0.096	<0.000002	0.0051	0.003		2.00	0.0014	1.93	<0.00002	45.5	0.348	124	0.00001	<0.005	<0.005	0.00289	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/5/2019 11:40	VQ1603	D	<0.0002	0.0115	35.7	0.0994	<0.000002	0.0052	0.003		2.01	0.00133	1.93	<0.00002	46.5	0.344	123	0.000011	<0.005	<0.005	0.00296	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/6/2019 10:15	VQ4516	M	<0.0002	0.0127	33.5	0.0958	<0.000002	0.0055	0.003		2.21	0.00146	2.17	<0.00002	44.0	0.361	129	0.000011	<0.005	<0.005	0.00316	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/7/2019 10:35	VQ4352	M	<0.0002	0.0123	33.3	0.088	<0.000002	0.0054	0.003		2.10	0.00151	2.04	<0.00002	45.1	0.359	128	0.000013	<0.005	<0.005	0.00314	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/8/2019 13:30	VQ8329	D	<0.0002	0.0123	34.4	0.0883	<0.000002	0.0047	0.0032		2.10	0.00143	1.98	<0.00002	45.2	0.345	125	0.000013	<0.005	<0.005	0.00323	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/8/2019 13:30	VQ8328	M	<0.0002	0.0128	34.9	0.0881	<0.000002	0.0047	0.0032		2.10	0.00146	1.9	<0.00002	46.2	0.348	120	0.000013	<0.005	<0.005	0.00324	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/9/2019 13:00	VQ9668	M	<0.0002	0.0133	36.2	0.0831	<0.000002	0.0046	0.0034		2.08	0.0015	1.87	<0.00002	45.3	0.373	124	0.000013	<0.005	<0.005	0.00324	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/10/2019 10:00	VQ9679	M	<0.0002	0.013	35.8	0.0763	<0.000002	0.0047	0.0033		2.06	0.00158	1.87	<0.00002	46.2	0.367	130	0.000014	<0.005	<0.005	0.00334	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/11/2019 11:40	VR2442	M	<0.0002	0.0121	32.2	0.0654	<0.000002	0.008	0.0031		2.03	0.00187	1.59	<0.00002	41.9	0.315	111	0.000013	<0.005	<0.005	0.00343	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/12/2019 11:00	VR2489	M	<0.0002	0.0129	33.0	0.0678	<0.000002	0.0057	0.0037		2.16	0.00169	1.59	<0.00002	46.0	0.335	120	0.000014	<0.005	<0.005	0.00346	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/13/2019 12:35	VR4455	M	<0.0002	0.0124	33.1	0.0602	<0.000002	0.0068	0.0038		2.18	0.00187	1.56	<0.00002	48.5	0.337	123	0.000013	<0.005	<0.005	0.00367	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/14/2019 11:35	VR6864	M	<0.0002	0.0139	31.7	0.0492	<0.000002	0.0088	0.0036		2.20	0.00195	1.41	<0.00002	48.7	0.351	119	0.000013	<0.005	<0.005	0.0041	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/15/2019 13:05	VR8898	M	<0.0002	0.0139	33.8	0.048	<0.000002	0.0107	0.0041		2.60	0.00208	1.5	<0.00002	55.8	0.351	126	0.000016	<0.005	<0.005	0.00407	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/15/2019 13:15	VR8910	D	<0.0002	0.0135	31.7	0.0378	<0.000002	0.0102	0.0039		2.51	0.00203	1.39	<0.00002	52.8	0.337	119	0.000016	<0.005	<0.005	0.00402	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/16/2019 13:15	VS0893	M	<0.0002	0.0142	32.9	0.0437	<0.000002	0.0124	0.0042		2.65	0.00197	1.43	<0.00002	56.8	0.357	120	0.000016	<0.005	<0.005	0.00415	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/17/2019 10:15	VS0930	M	<0.0002	0.0137	32.3	0.0423	<0.000002	0.013	0.004		2.71	0.00227	1.47	<0.00002	56.4	0.346	115	0.00002	<0.005	<0.005	0.00413	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/17/2019 10:20	VS0931	D	<0.0002	0.0131	33.0	0.0438	<0.000002	0.0132	0.004		2.74	0.00219	1.47	<0.00002	57.9	0.349	125	0.000016	<0.005	<0.005	0.00409	<0.005	0.007	<0.0001
RSEM-L5E-EOP	5/18/2019 13:00	VS1842	M	<0.0002	0.0143	32.1	0.0373	<0.000002	0.0136	0.0036		2.92	0.00203	1.49	<0.00002	61.8	0.342	126	0.000016	<0.005	<0.005	0.00409	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/19/2019 10:00	VS3042	M	<0.0002	0.0145	32.6	0.0099	<0.000002	0.0159	0.0034		3.04	0.00214	1.43	<0.00002	67.4	0.357	127	0.000017	<0.005	<0.005	0.00407	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/19/2019 10:05	VS3041	D	<0.0002	0.0427	31.1	<0.001	<0.000002	0.0304	0.0039		5.44	0.00976	0.361	<0.00002	233	0.352	186	0.000014	<0.005	<0.005	0.0061	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/20/2019 13:00	VS3033	M	<0.0002	0.0143	33.4	0.0186	<0.000002	0.015	0.0036		2.91	0.00205	1.48	<0.00002	65.9	0.352	128	0.000017	<0.005	<0.005	0.00405	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/21/2019 11:45	VS3707	M	<0.0002	0.015	32.5	0.0125	<0.000002	0.0164	0.0033		3.15	0.00228	1.43	<0.00002	69.2	0.362	131	0.000016	<0.005	<0.005	0.00404	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/21/2019 11:55	VS3708	D	<0.0002	0.0147	32.9	0.0123	<0.000002	0.0164	0.0032		3.09	0.00219	1.42	<0.00002	67.6	0.362	133	0.000018	<0.005	<0.005	0.00416	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/22/2019 12:05	VS7475	M	<0.0002	0.0156	31.9	0.0167	<0.000002	0.0169	0.0039		3.48	0.00238	1.33	<0.00002	71.2	0.376	139	0.000018	<0.005	<0.005	0.00417	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/22/2019 12:10	VS7476	D	<0.0002	0.0158	31.0	0.0157	<0.000002	0.017	0.0038		3.26	0.0024	1.35	<0.00002	72.1	0.371	131	0.000019	<0.005	<0.005	0.00414	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/23/2019 11:00	VS9365	M	<0.0002	0.0173	31.4	0.0139	<0.000002	0.0165	0.0031		3.15	0.0025	1.39	<0.00002	69.3	0.369	133	0.000017	<0.005	<0.005	0.00412	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	5/23/2019 11:10	VS9366	D	8.18	1030	8.81	676	12.4	347	358	121	<1.0	148	<1.0	<1.0	17.0	0.220	0.71	375			0.10	<0.0050	0.112	0.112	<0.0050
RSEM-L5E-EOP	5/24/2019 11:10	VS9237	M	8.18	1040	4.67	702	7.2	347	358	123	<1.0	150	<1.0	<1.0	17.4	0.230	0.71	377			0.14	<0.0050	0.119	0.119	<0.0050
RSEM-L5E-EOP	5/24/2019 11:20	VS9238	D	8.24	1040	3.47	702	6.4	321	366	122	<1.0	149	<1.0	<1.0	17.3	0.230	0.76	382			0.14	0.0056	0.113	0.119	<0.0050
RSEM-L5E-EOP	5/25/2019 10:45	VT2666	M	8.15	1060	4.77	718	7.2	318	345	129	<1.0	157	<1.0	<1.0	18.4	0.250	0.75	364			0.20	0.0073	0.099	0.106	<0.0050
RSEM-L5E-EOP	5/25/2019 10:55	VT2667	D	8.18	1060	5.35	672	8.0	331	332	128	<1.0	157	<1.0	<1.0	19.2	0.240	0.75	385			0.20	0.0073	0.090	0.097	<0.0050
RSEM-L5E-EOP	5/26/2019 14:00	VT2643	M	8.21	1060	5.07	704	8.0	310	334	130	<1.0	158	<1.0	<1.0	20.2	0.270	0.74	394			0.21	0.0089	0.103	0.112	<0.0050
RSEM-L5E-EOP	5/26/2019 14:10	VT2644	D	8.18	1070	4.83	736	8.4	321	326	131	<1.0	160	<1.0	<1.0	20.3	0.250	0.75	378			0.25	0.0091	0.106	0.115	<0.0050
RSEM-L5E-EOP	5/27/2019 11:00	VT4237	M	8.12	1090	3.50	728	7.2	311	322	135	<1.0	165	<1.0	<1.0	20	0.270	0.74	410			0.28	0.0105	0.100	0.111	<0.0050
RSEM-L5E-EOP	5/27/2019 11:15	VT4238	D	8.12	1100	2.99	710	7.2	315	312	134	<1.0	164	<1.0	<1.0	21	0.260	0.75	410			0.28	0.0113	0.091	0.102	<0.0050
RSEM-L5E-EOP	5/28/2019 13:10	VT7638	M	8.15	1120	3.43	720	4.8	333	309	141	<1.0	172	<1.0	<1.0	21	0.300	0.79	410			0.30	0.0101	0.082	0.092	<0.0050
RSEM-L5E-EOP	5/28/2019 13:20	VT7639	D	8.19	1120	3.54	736	6.4	326	304	143	<1.0	175	<1.0	<1.0	21	0.310	0.75	410			0.32	0.0098	0.087	0.096	<0.0050
RSEM-L5E-EOP	5/29/2019 10:40	VT7342	M	8.09	1560	1.39	992	4.0	178	189	92.1	<1.0	112	<1.0	<1.0	49	0.530	1.2	590			<0.015	0.0201	0.304	0.324	<0.0050
RSEM-L5E-EOP	5/29/2019 10:50	VT7343	D	8.21	1130	3.07	750	5.6	298	309	145	<1.0	177	<1.0	<1.0	22	0.340	0.79	410			0.31	0.0101	0.103	0.113	0.0067
RSEM-L5E-EOP	5/30/2019 9:55	VU0226	M	8.20	1160	3.01	768	<4.0	288	316	146	<1.0	178	<1.0	<1.0	22.9	0.290	0.79	367			0.32	0.0108	0.101	0.111	<0.0050
RSEM-L5E-EOP	5/30/2019 10:00	VU0227	D	8.17	1150	2.94	748	<4.0	296	323	144	<1.0	176	<1.0	<1.0	22.9	0.290	0.80	366			0.34	0.0107	0.097	0.108	<0.0050
RSEM-L5E-EOP	5/31/2019 11:25	VU2496	M	8.17	1190	4.19	746	<4.0	288	307	148	<1.0	181	<1.0	<1.0	24.1	0.310	0.71	422			0.38	0.0130	0.074	0.087	0.0590
RSEM-L5E-EOP	5/31/2019 11:30	VU2497	D	8.10	1180	4.40	738	6.0	291	319	151	<1.0	184	<1.0	<1.0	24.7	0.310	0.74	385			0.39	0.0120	0.082	0.094	<0.0050
RSEM-L5E-EOP	6/1/2019 11:25	VU3314	M	8.23	1200	4.35	748	5.2	290	309	160	<1.0	195	<1.0	<1.0	26.4	0.310	0.79	437			0.39	0.0118	0.099	0.111	<0.0050
RSEM-L5E-EOP	6/1/2019 11:35	VU3315	D	8.24	1200	3.69	742	4.8	294	306	160	<1.0	195	<1.0	<1.0	27.6	0.300	0.78	432			0.40	0.0114	0.099	0.110	<0.0050
RSEM-L5E-EOP	6/2/2019 11:35	VU6005	M	8.29	1220	1.7	804	8.0	289	293	202	<1.0	246	<1.0	<1.0	26.3	0.290	0.78	362			0.45	0.0120	0.097	0.109	<0.0050
RSEM-L5E-EOP	6/3/2019 11:05	VU6003	M	8.29	1220	4.71	792	8.0	288	299	165	<1.0	201	<1.0	<1.0	26.4	0.290	0.75	353			0.42	0.0111	0.085	0.096	<0.0050
RSEM-L5E-EOP	6/4/2019 11:40	VU7714	M	8.02	1230	5.12	806	4.0	298	293	164	<1.0	200	<1.0	<1.0	28.1	0.300	0.71	365			0.44	0.0118	0.076	0.088	<0.0050
RSEM-L5E-EOP	6/5/2019 12:00	VV4625	M	8.32	1260	5.62	832	9.2	304	304	170	2.0	203	2.4	<1.0	27.8	0.290	0.73	385			0.42	0.0122	0.101	0.114	<0.0050
RSEM-L5E-EOP	6/6/2019 11:15	VV6670	M	8.27	1260	6.20	822	8.4	309	316	173	<1.0	211	<1.0	<1.0	27.8	0.300	0.79	374			0.39	0.0149	0.113	0.127	<0.0050
RSEM-L5E-EOP	6/7/2019 12:35	VV6713	M	8.26	1270	4.97	848	<4.0	312	312	180	<1.0	219	<1.0	<1.0	29.1	0.290	0.81	388			0.40	0.0181	0.111	0.129	<0.0050
RSEM-L5E-EOP	6/8/2019 10:30	VV9758	M	8.13	1270	8.23	846	9.6	321	333	177	<1.0	216	<1.0	<1.0	29.1	0.270	0.75	404			0.39	0.0197	0.119	0.138	<0.0050
RSEM-L5E-EOP	6/9/2019 10:25	VV9750	M	8.24	1290	4.66	858	<4.0	335	332	182	<1.0	222	<1.0	<1.0	29.5	0.260	0.74	425			0.42	0.0222	0.130	0.152	<0.0050
RSEM-L5E-EOP	6/10/2019 10:45	VW2548	M	8.30	1370	11.8	894	12.4	331	350	180	1.9	215	2.3	<1.0	26.6	0.270	0.75	448			0.38	0.0241	0.157	0.182	<0.0050
RSEM-L5E-EOP	6/10/2019 10:55	VW2549	D	8.25	1360	10.6	916	12.0	330	355	181	<1.0	221	<1.0	<1.0	29.2	0.270	0.74	466			0.38	0.0235	0.156	0.179	<0.0050
RSEM-L5E-EOP	6/11/2019 12:15	VW5005	M	8.38	1350	3.73	912	4.0	327	312	182	3.0	214	3.6	<1.0	29.2	0.270	0.75	430			0.38	0.0220	0.178	0.200	<0.0050
RSEM-L5E-EOP	6/11/2019 12:25	VW5006	D	8.38	1350	3.09	920	4.0	325	329	182	3.6	214	4.3	<1.0	30.0	0.270	0.82	432			0.36	0.0258	0.176	0.201	<0.0050
RSEM-L5E-EOP	6/12/2019 12:10	VW8062	M	8.30	1380	2.99	914	<4.0	328	333	187	<1.0	228	<1.0	<1.0	38.3	0.270	0.77	471			0.36	0.0218	0.175	0.197	<0.0050
RSEM-L5E-EOP	6/13/2019 11:20	VW9976	D	8.25	1410	5.23	890	5.6	337	351	185	<1.0	226	<1.0	<1.0	35.3	0.270	0.74	423			0.32	0.0227	0.201	0.223	<0.0050
RSEM-L5E-EOP	6/13/2019 11:20	VW9975	M	8.26	1410	5.29	898	<4.0	345	345	184	<1.0	224	<1.0	<1.0	36.6	0.270	0.76	419			0.30	0.0239	0.204	0.228	<0.0050
RSEM-L5E-EOP	6/14/2019 13:15	VW9970	D	8.26	1410	2.25	892	<4.0	347	342	222	<1.0	271	<1.0	<1.0	31.5	0.250	0.74	403			0.30	0.0219	0.209	0.231	<0.0050
RSEM-L5E-EOP	6/14/2019 13:15	VW9969	M	8.26	1410	2.23	918	<4.0	345	351	186	<1.0	227	<1.0	<1.0	31.2	0.260	0.76	446			0.33	0.0195	0.190	0.210	<0.0050
RSEM-L5E-EOP	6/15/2019 14:45	VX3568	D	8.29	1370	5.03	902	9.2	349	347	184	<1.0	224	<1.0	<1.0	28.5	0.260	0.72	418			0.25	0.0159	0.226	0.242	<0.0050
RSEM-L5E-EOP	6/15/2019 14:45	VX3567	M	8.24	1370	5.06	908	6.0	340	343	180	<1.0	220	<1.0	<1.0	26.3	0.260	0.73	446			0.23	0.0179	0.229	0.247	<0.0050
RSEM-L5E-EOP	6/16/2019 14:30	VX3552	D	8.29	1370	4.0	924	4.4	338	345	222	<1.0	271	<1.0	<1.0	29.1	0.250	0.72	414			0.20	0.0178	0.251	0.269	<0.0050
RSEM-L5E-EOP	6/16/2019 14:30	VX3551	M	8.27	1380	4.7	914	4.8	333	342	183	<1.0	223	<1.0	<1.0	28.1	0.250	0.72	421			0.20	0.0182	0.248	0.267	<0.0050
RSEM-L5E-EOP	6/17/2019 14:20	VX5945	D	8.20	1370	4.07	904	10.4	336	336	183	<1.0	223	<1.0	<1.0	30.3	0.250	0.72	458			0.18	0.0166	0.260	0.276	<0.0050
RSEM-L5E-EOP	6/17/2019 14:20	VX5944	M	8.18	1390	3.83	918	17.2	339	337	185	<1.0	226	<1.0	<1.0	31.2	0.250	0.72	476			0.19	0.0164	0.258	0.274	<0.0050
RSEM-L5E-EOP	6/18/2019 14:25	VX8837	M	8.22	1400	10.6	912	16.4	345	348	180	<1.0	220	<1.0	<1.0	31.4	0.250	0.71	461			0.39	0.0145	0.230	0.245	<0.0050
RSEM-L5E-EOP	6/19/2019 14:25	VY1848	M	8.36	1470	8.42	1060	8.4	368	373	184	1.4	221	1.7	<1.0	37	0.250	0.79	500			0.18	0.0268	0.284	0.311	<0.0050
RSEM-L5E-EOP	6/20/2019 14:45	VY4158	M	8.36	1480	12.7	1040	15	372	367	221	2.3	264	2.8	<1.0	38	0.240	0.78	470			0.17	0.0288	0.301	0.330	<0.0050
RSEM-L5E-EOP	6/21/2019 11:45	VY4167	M	8.31	1500	5.74	1060	9.2	366	382	183	1.2	221	1.4	<1.0	40.5	0.250	0.77	547			0.16	0.0278	0.322	0.350	<0.0050
RSEM-L5E-EOP	6/22/2019 13:50	VY6747	M	8.15	1490	5.58	1070	6.4	383	386	192	<1.0	234	<1.0	<1.0	36.5	0.240	0.75	507			0.15	0.0223	0.305	0.327	<0.0050
RSEM-L5E-EOP	6/23/2019 13:45	VY6760	M	8.23	1500	13.0	1060	13.2	384	394	192	<1.0	234	<1.0	<1.0	42.8	0.240	0.75	476			0.14	0.0267	0.297	0.323	<0.0050
RSEM-L5E-EOP	6/24/2019 10:50	VY9737	M	8.31	1520	7.08	1090	12.0	370	381	185	1.4	222	1.7	<1.0	34.1	0.230	0.88	498			0.14	0.0253	0.299	0.324	<0.0050
RSEM-L5E-EOP	6/25/2019 13:30	VZ1752	M	8.11	1420	16.5	966	21.6	380	403	167	<1.0	203	<1.0	<1.0	33.2	0.300	0.68	486			0.25	0.0363	0.933	0.970	<0.0050
RSEM-L5E-EOP	6/26/2019 14:15	VZ5390	M	8.16	1430	19.1	990	21.6	386	413	169	<1.0	207	<1.0	<1.0	34.0	0.300	0.66	482			0.20	0.0413	1.01	1.05	<0.0050
RSEM-L5E-EOP	6/27/2019 13:56	VZ7729	M	8.09	1470	11.9	1020	13.2	428	424	170	<1.0	207	<1.0	<1.0	31.4	0.320	0.62	545			0.25	0.0671	1.03	1.10	<0.0050
RSEM-L5E-EOP	6/28/2019 10:40	VZ7860	M	8.03	1490	25.2	1050	28.0	392	442	168	<1.0	205	<1.0	<1.0	31.9	0.330	0.64	515			0.23	0.0802	1.03	1.11	<0.0050
RSEM-L5E-EOP	6/29/2019 10:30	VZ9042	M	7.92	1490	7.35	1050	11.2	412	420	157	<1.0	192	<1.0	<1.0	30.9	0.350	0.52	531			0.26	0.0831	1.10	1.19	<0.0050
RSEM-L5E-EOP	6/30/2019 15:15	WA1462	M	8.07	1550	5.86	1160	20.4	527	529	154	<1.0	188	<1.0	<1.0	29.6	0.370	0.55	613			0.22	0.103	1.49	1.60	<0.0050
RSEM-L5E-EOP	7/1/2019 11:50	WA1439	M	7.96	1440	46.2	1100	48.4	587	533	127	<1.0	155	<1.0	<1.0	22.3	0.390	0.39	583			0.24	0.104	2.27	2.37	<0.0050
RSEM-L5E-EOP	7/2/2019 15:30	WA3407	M	8.03	1450	9.6	1070	12.8	535	566	131	<1.0	160	<1.0	<1.0	23.1	0.370	0.39	560			0.21	0.104	2.36	2.47	<0.0050
RSEM-L5E-EOP	7/2/2019 15:45	WA3409	D	8.05	1450	8.9	1070	9.6	521	560	128	<1.0	156	<1.0	<1.0	23.1	0.370	0.38	577			0.23	0.106	2.37	2.47	<0.0050
RSEM-L5E-EOP	7/3/2019 13:22	WA5880	M	7.90	1440	7.7	1080	13.6	535	560	131	<1.0	160	<1.0	<1.0	23.0	0.390	0.38	577			0.18	0.114	2.31	2.42	<0.0050
RSEM-L5E-EOP	7/4/2019 14:00	WA7985	M	8.23	1420	8.7	1030	14.4	513	532	127	<1.0	155	<1.0	<1.0	23.9	0.360	0.36	585			0.15	0.108	2.07	2.18	<0.0050
RSEM-L5E-EOP	7/5/2019 11:25	WA8014	M	8.19	1370	7.0	1120	18.8	515	517	124	<1.0	151	<1.0	<1.0	23	0.360	0.36	580			0.12	0.101	1.88	1.98	<0.0050
RSEM-L5E-EOP	7/6/2019 13:50	WB1488	M	8.00	1360	7.3	1020	11.6	494	500	130	<1.0	158	<1.0	<1.0	22.1	0.360	0.40	555			0.12	0.0932	1.84	1.93	<0.0050
RSEM-L5E-EOP	7/7/2019 9:28	WB1478	M	8.01	1370	7.8	1050	14.4	494	504	130	<1.0	158	<1.0	<1.0	22.4	0.380	0.40	526			0.099	0.0853	1.80	1.89	<0.0050
RSEM-L5E-EOP	7/8/2019 12:30	WB4605	M	8.03	1350	6.7	1020	9.6	526	508	132	<1.0	161	<1.0	<1.0	22.8	0.350	0.38	543			0.11	0.0820	1.67	1.75	0.0116
RSEM-L5E-EOP	7/9/2019 15:05	WB6320	M	8.13	1380	6.4	1040	8.4	475	465	130	<1.0	159	<1.0	<1.0	22.3	0.360	0.40	545			0.11	0.0700	1.63	1.70	<0.0050
RSEM-L5E-EOP	7/10/2019 13:05	WB8326	M	8.26	1410	4.7	1010	6.4	496	501	135	<1.0	165	<1.0	<1.0	22.9	0.340	0.42	565			0.095	0.0571	1.71	1.77	<0.0050
RSEM-L5E-EOP	7/11/2019 13:35	WC0499	M	8.08	1410	9.4	1010	10.0	486	499	139	<1.0	170	<1.0	<1.0	23.8	0.330	0.39	480			0.086	0.0621	1.65	1.71	<0.0050
RSEM-L5E-EOP	7/12/2019 13:00	WC0458	M	8.12	1430	6.3	1010	6.0	499	510	144	<1.0	175	<1.0	<1.0	24.2	0.330	0.40	557			0.081	0.0573	1.60	1.65	<0.0050
RSEM-L5E-EOP	7/13/2019 14:30	WC4354	M	8.08	1400	7.0	860	11.2	471	530	144	<1.0	175	<1.0	<1.0	26.1	0.320	0.45	639			0.11	0.0474	1.50	1.55	<0.0050
RSEM-L5E-EOP	7/14/2019 14:55	WC4358	M	8.06	1430	8.7	1030	13.2	473	539	141	<1.0	172	<1.0	<1.0	26.6	0.320	0.45	578			0.095	0.0444	1.46	1.50	<0.0050
RSEM-L5E-EOP	7/15/2019 13:25	WC7556	M	8.20	1460	6.1	1020	8.8	476	497	144	<1.0	175	<1.0	<1.0	25.1	0.300	0.44	600			0.094	0.0383	1.46	1.50	<0.0050
RSEM-L5E-EOP	7/16/2019 13:33	WC9634	M	8.40	1450	8.0	1100	12.4	508	495	151	2.7	177	3.3	<1.0	24.8	0.300	0.42	568			0.067	0.0428	1.29	1.34	<0.0050
RSEM-L5E-EOP	7/17/2019 15:15	WD1679	M	8.24	1440	6.0	1020	8.0	528	467	152	<1.0	185	<1.0	<1.0	24.7	0.300	0.46	556			0.032	0.0386	1.36	1.40	<0.0050
RSEM-L5E-EOP	7/18/2019 14:10	WD4015	M	8.30	1470	6.8	1100	6.4	486	504	160	<1.0	196	<1.0	<1.0	25.8	0.280	0.44	434			0.056	0.0389	1.52	1.55	<0.0050
RSEM-L5E-EOP	7/19/2019 13:25	WD4026	M	8.32	1470	4.8	1070	11.6	497	513	158	<1.0	193	<1.0	<1.0	26.1	0.280	0.45	612			0.074	0.0411	1.58	1.62	<0.0050
RSEM-L5E-EOP	7/20/2019 15:25	WD7114	M	8.36	1480	6.2	1080	5.6	516	511	155	1.9	184	2.3	<1.0	25.4	0.290	0.43	529			0.066	0.0373	1.64	1.67	<0.0050
RSEM-L5E-EOP	7/21/2019 15:25	WD7087	M	8.34	1500	4.2	1060	5.6	528	515	154	1.6	185	1.9	<1.0	26.4	0.280	0.44	643			0.061	0.0337	1.64	1.67	<0.0050

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	5/23/2019 11:10	VS9366	D	2.3	2.3	0.239	0.00133	0.00095	0.11	<0.0001	<0.001	0.054	0.00002	88.1	<0.001	0.00052	0.00103	0.302	<0.0002	0.0176	30.8	0.0261	<0.000002	0.0157	0.0037		3.22	0.00236
RSEM-L5E-EOP	5/24/2019 11:10	VS9237	M	2.3	3.5	0.102	0.00164	0.001	0.114	<0.0001	<0.001	0.064	0.000012	90.1	<0.001	0.00048	0.00087	0.171	<0.0002	0.0184	29.7	0.0187	<0.000002	0.0169	0.0035		3.16	0.00276
RSEM-L5E-EOP	5/24/2019 11:20	VS9238	D	2.4	3.5	0.0839	0.00152	0.00088	0.109	<0.0001	<0.001	0.056	<0.00001	82.5	<0.001	0.0004	0.00074	0.11	<0.0002	0.0177	27.9	0.0173	<0.000002	0.0158	0.0031		3.03	0.00246
RSEM-L5E-EOP	5/25/2019 10:45	VT2666	M	2.3	2.5	0.119	0.00218	0.00128	0.128	<0.0001	<0.001	0.065	<0.00001	82.0	<0.001	0.00044	0.00073	0.09	<0.0002	0.0194	27.5	0.0156	<0.000002	0.0188	0.0032		3.26	0.00304
RSEM-L5E-EOP	5/25/2019 10:55	VT2667	D	2.4	2.5	0.113	0.00217	0.00132	0.127	<0.0001	<0.001	0.07	0.00001	87.1	<0.001	0.00042	0.00076	0.094	<0.0002	0.0196	27.5	0.0154	<0.000002	0.0187	0.0032		3.16	0.00318
RSEM-L5E-EOP	5/26/2019 14:00	VT2643	M	2.2	2.3	0.11	0.00249	0.00145	0.129	<0.0001	<0.001	0.075	0.00001	79.0	<0.001	0.0004	0.00079	0.101	<0.0002	0.0206	27.3	0.0137	<0.000002	0.0197	0.0031		3.27	0.00343
RSEM-L5E-EOP	5/26/2019 14:10	VT2644	D	2.5	2.5	0.1	0.00255	0.0015	0.133	<0.0001	<0.001	0.073	0.000011	83.8	<0.001	0.00043	0.00081	0.092	<0.0002	0.0217	27.2	0.0136	<0.000002	0.0196	0.003		3.34	0.00357
RSEM-L5E-EOP	5/27/2019 11:00	VT4237	M	2.3	2.1	0.0866	0.003	0.00155	0.147	<0.0001	<0.001	0.08	<0.00001	81.1	<0.001	0.00043	0.00081	0.069	<0.0002	0.0231	26.4	0.011	<0.000002	0.0211	0.0032		3.32	0.00381
RSEM-L5E-EOP	5/27/2019 11:15	VT4238	D	2.2	2.1	0.0832	0.00301	0.0016	0.147	<0.0001	<0.001	0.084	<0.00001	81.5	<0.001	0.00041	0.00072	0.062	<0.0002	0.0228	27.0	0.0112	<0.000002	0.021	0.0031		3.36	0.00385
RSEM-L5E-EOP	5/28/2019 13:10	VT7638	M	2.1	2.4	0.0648	0.00333	0.00175	0.147	<0.0001	<0.001	0.093	<0.00001	80.9	<0.001	0.00041	0.00076	0.06	<0.0002	0.0275	31.8	0.0117	<0.000002	0.0222	0.003		4.01	0.00439
RSEM-L5E-EOP	5/28/2019 13:20	VT7639	D	2.1	2.4	0.0596	0.00333	0.00176	0.142	<0.0001	<0.001	0.093	0.00001	81.4	<0.001	0.0004	0.00074	0.058	<0.0002	0.0274	29.8	0.0111	<0.000002	0.0219	0.003		3.92	0.00428
RSEM-L5E-EOP	5/29/2019 10:40	VT7342	M	3.1	2.5	0.038	0.00108	0.00073	0.0231	<0.0001	<0.001	0.211	0.000021	27.6	0.0013	0.00023	0.00134	0.047	<0.0002	0.122	26.6	0.0053	<0.000002	0.0229	0.0018		5.03	0.00297
RSEM-L5E-EOP	5/29/2019 10:50	VT7343	D	2.1	2.2	0.0859	0.00335	0.00181	0.142	<0.0001	<0.001	0.094	0.000011	78.0	<0.001	0.00035	0.00071	0.059	<0.0002	0.0261	25.0	0.0108	<0.000002	0.0223	0.0028		3.38	0.00412
RSEM-L5E-EOP	5/30/2019 9:55	VU0226	M	1.9	2.2	0.0886	0.00343	0.00183	0.13	<0.0001	<0.001	0.091	<0.00001	72.0	<0.001	0.00036	0.0008	0.048	<0.0002	0.0216	26.2	0.0115	<0.000002	0.0214	0.003		3.56	0.00446
RSEM-L5E-EOP	5/30/2019 10:00	VU0227	D	1.9	2.1	0.0571	0.00349	0.00188	0.132	<0.0001	<0.001	0.09	<0.00001	73.9	<0.001	0.00037	0.00078	0.048	<0.0002	0.022	27.1	0.0123	<0.000002	0.0218	0.003		3.66	0.00462
RSEM-L5E-EOP	5/31/2019 11:25	VU2496	M	2.4	2.5	0.0991	0.00351	0.00182	0.139	<0.0001	<0.001	0.109	<0.00001	72.4	<0.001	0.00033	0.00091	0.097	<0.0002	0.028	26.0	0.0115	<0.000002	0.0232	0.0027		3.68	0.00435
RSEM-L5E-EOP	5/31/2019 11:30	VU2497	D	1.9	2.5	0.104	0.00359	0.00192	0.142	<0.0001	<0.001	0.111	0.000012	72.9	<0.001	0.00034	0.00092	0.099	<0.0002	0.0284	26.6	0.0117	<0.000002	0.0238	0.0028		3.85	0.00441
RSEM-L5E-EOP	6/1/2019 11:25	VU3314	M	2.3	2.5	0.144	0.00357	0.00202	0.141	<0.0001	<0.001	0.111	0.000012	73.5	<0.001	0.00034	0.00088	0.124	<0.0002	0.0301	25.8	0.0123	<0.000002	0.0238	0.0027		3.83	0.00463
RSEM-L5E-EOP	6/1/2019 11:35	VU3315	D	1.8	2.2	0.118	0.00365	0.002	0.141	<0.0001	<0.001	0.113	0.000012	75.0	<0.001	0.00034	0.00091	0.11	<0.0002	0.0307	25.8	0.012	<0.000002	0.0238	0.0028		3.87	0.00474
RSEM-L5E-EOP	6/2/2019 11:35	VU6005	M	2.1	2.3	0.108	0.00371	0.00222	0.149	<0.0001	<0.001	0.116	0.000021	75.5	<0.001	0.00039	0.00092	0.133	<0.0002	0.032	24.3	0.0181	<0.000002	0.0239	0.0028		4.00	0.00489
RSEM-L5E-EOP	6/3/2019 11:05	VU6003	M	2.2	2.2	0.157	0.00364	0.00209	0.147	<0.0001	<0.001	0.117	0.000031	75.3	<0.001	0.00044	0.00116	0.238	<0.0002	0.0321	24.4	0.0218	<0.000002	0.0236	0.0029		3.99	0.00481
RSEM-L5E-EOP	6/4/2019 11:40	VU7714	M	2.3	3.1	0.11	0.0038	0.00171	0.128	<0.0001	<0.001	0.119	0.000019	74.8	<0.001	0.00039	0.00115	0.135	<0.0002	0.0285	27.1	0.0194	<0.000002	0.0221	0.003		3.80	0.00439
RSEM-L5E-EOP	6/5/2019 12:00	VV4625	M	2.1	2.7	0.152	0.00352	0.00182	0.136	<0.0001	<0.001	0.134	0.000025	76.7	<0.001	0.00045	0.00121	0.219	<0.0002	0.0347	27.4	0.0217	<0.000002	0.023	0.0031		3.86	0.00435
RSEM-L5E-EOP	6/6/2019 11:15	VV6670	M	2.3	1.9	0.142	0.00344	0.00173	0.133	<0.0001	<0.001	0.136	0.000025	77.5	<0.001	0.00043	0.00133	0.226	<0.0002	0.034	28.1	0.0224	<0.000002	0.0224	0.003		3.92	0.00434
RSEM-L5E-EOP	6/7/2019 12:35	VV6713	M	2.3	1.9	0.0947	0.00342	0.00174	0.132	<0.0001	<0.001	0.139	0.000017	79.0	0.001	0.00044	0.0011	0.11	<0.0002	0.0358	27.9	0.0221	<0.000002	0.0221	0.003		3.86	0.00447
RSEM-L5E-EOP	6/8/2019 10:30	VV9758	M	2.0	2.1	0.131	0.00343	0.00178	0.133	<0.0001	<0.001	0.127	0.000027	81.0	0.001	0.00045	0.00132	0.233	0.00021	0.0344	28.7	0.0244	<0.000002	0.0216	0.0029		3.98	0.00445
RSEM-L5E-EOP	6/9/2019 10:25	VV9750	M	1.9	2.0	0.103	0.00333	0.0017	0.13	<0.0001	<0.001	0.129	0.000022	83.6	0.001	0.00045	0.00155	0.13	<0.0002	0.0367	30.6	0.0244	<0.000002	0.0205	0.003		4.04	0.00455
RSEM-L5E-EOP	6/10/2019 10:45	VW2548	M	1.9	1.8	0.187	0.00302	0.00163	0.127	<0.0001	<0.001	0.118	0.000037	81.0	0.0012	0.00067	0.00164	0.431	0.00027	0.0315	31.2	0.0366	<0.000002	0.0219	0.0038		3.92	0.00412
RSEM-L5E-EOP	6/10/2019 10:55	VW2549	D	1.5	2.0	0.183	0.00299	0.00164	0.126	<0.0001	<0.001	0.12	0.000037	80.3	0.0012	0.00068	0.00164	0.403	0.00026	0.0326	31.4	0.0362	<0.000002	0.0201	0.0038		3.91	0.00416
RSEM-L5E-EOP	6/11/2019 12:15	VW5005	M	1.9	1.9	0.0576	0.00308	0.00153	0.121	<0.0001	<0.001	0.133	0.000018	81.1	<0.001	0.00045	0.00107	0.083	<0.0002	0.0376	30.3	0.0269	<0.000002	0.0206	0.0031		3.87	0.0042
RSEM-L5E-EOP	6/11/2019 12:25	VW5006	D	1.8	1.8	0.0715	0.00295	0.00157	0.118	<0.0001	<0.001	0.124	0.000017	80.7	<0.001	0.00046	0.00111	0.101	<0.0002	0.0369	30.1	0.0272	<0.000002	0.0194	0.0033		3.95	0.00395
RSEM-L5E-EOP	6/12/2019 12:10	VW8062	M	2.0	1.9	0.0689	0.00312	0.0015	0.123	<0.0001	<0.001	0.136	0.000024	79.5	<0.001	0.00048	0.00115	0.086	<0.0002	0.0396	31.5	0.0257	<0.000002	0.0202	0.0033		3.87	0.00422
RSEM-L5E-EOP	6/13/2019 11:20	VW9976	D	1.8	1.9	0.12	0.00299	0.00145	0.115	<0.0001	<0.001	0.13	0.000026	84.6	0.001	0.00045	0.00121	0.148	<0.0002	0.0392	30.5	0.0242	<0.000002	0.019	0.0033		3.88	0.00397
RSEM-L5E-EOP	6/13/2019 11:20	VW9975	M	2.0	2.1	0.104	0.00292	0.00148	0.117	<0.0001	<0.001	0.131	0.000023	87.2	0.0011	0.00042	0.00122	0.151	<0.0002	0.0385	31.0	0.0245	<0.000002	0.0193	0.0033		4.05	0.00423
RSEM-L5E-EOP	6/14/2019 13:15	VW9970	D	1.5	1.5	0.0886	0.00294	0.00137	0.112	<0.0001	<0.001	0.136	0.000019	87.9	<0.001	0.0004	0.00112	0.112	<0.0002	0.0399	31.1	0.0211	<0.000002	0.0184	0.0031		3.81	0.00408
RSEM-L5E-EOP	6/14/2019 13:15	VW9969	M	1.7	2.0	0.0979	0.00291	0.0014	0.112	<0.0001	<0.001	0.133	0.000017	86.4	0.0011	0.00043	0.00121	0.122	<0.0002	0.0391	31.5	0.0226	<0.000002	0.0187	0.0033		4.16	0.00417
RSEM-L5E-EOP	6/15/2019 14:45	VX3568	D	2.0	2.1	0.131	0.00282	0.00145	0.112	<0.0001	<0.001	0.141	0.000019	86.3	<0.001	0.0004	0.00122	0.193	<0.0002	0.04	32.3	0.0221	<0.000002	0.0188	0.0032		3.79	0.00395
RSEM-L5E-EOP	6/15/2019 14:45	VX3567	M	2.0	2.4	0.131	0.00266	0.00141	0.106	<0.0001	<0.001	0.138	0.000019	83.6	0.001	0.00039	0.00121	0.207	<0.0002	0.0384	31.9	0.022	<0.000002	0.019	0.0031		3.73	0.00377
RSEM-L5E-EOP	6/16/2019 14:30	VX3552	D	1.9	2.2	0.116	0.00257	0.00133	0.1	<0.0001	<0.001	0.131	0.000015	82.3	<0.001	0.00035	0.00114	0.141	<0.0002	0.038	32.2	0.019	<0.000002	0.0174	0.003		3.78	0.00371
RSEM-L5E-EOP	6/16/2019 14:30	VX3551	M	1.9	2.3	0.111	0.00254	0.0013	0.0984	<0.0001	<0.001	0.127	0.000012	81.5	<0.001	0.00034	0.00111	0.134	<0.0002	0.0374	31.5	0.018	<0.000002	0.0169	0.0029		3.67	0.00363
RSEM-L5E-EOP	6/17/2019 14:20	VX5945	D	2.1	2.0	0.0946	0.0026	0.0013	0.102	<0.0001	<0.001	0.128	0.00001	82.6	<0.001	0.00034	0.00123	0.155	<0.0002	0.0391	31.6	0.0192	<0.000002	0.0172	0.0029		3.82	0.00358
RSEM-L5E-EOP	6/17/2019 14:20	VX5944	M	2.0	2.0	0.125	0.00259	0.00133	0.107	<0.0001	<0.001	0.129	0.000021	84.2	<0.001	0.00039	0.00164	0.248	<0.0002	0.0402	31.3	0.0242	<0.000002	0.0175	0.0031		3.78	0.00364
RSEM-L5E-EOP	6/18/2019 14:25	VX8837	M	2.6	2.0	0.199	0.00242	0.00127	0.0995	<0.0001	<0.001	0.128	0.000018	84.6	<0.001	0.0004	0.00146	0.348	0.00024	0.0381	32.5	0.023	<0.000002	0.0166	0.003		3.79	0.00342
RSEM-L5E-EOP	6/19/2019 14:25	VY1848	M	1.8	1.9	0.0832	0.00243	0.00124	0.0987	<0.0001	<0.001	0.139	0.000016	88.3	<0.001	0.0005	0.0013	0.156	<0.0002	0.0431	35.7	0.0305	<0.000002	0.0164	0.0034		3.85	0.00372
RSEM-L5E-EOP	6/20/2019 14:45	VY4158	M	1.6	2.1	0.167	0.00232	0.00125	0.0939	<0.0001	<0.001	0.148	0.00002	90.3	<0.001	0.0006	0.00156	0.372	0.00028	0.0429	35.6	0.0334	<0.000002	0.0158	0.0038		3.67	0.00343
RSEM-L5E-EOP	6/21/2019 11:45	VY4167	M	1.8	1.7	0.0749	0.0022	0.00112	0.087	<0.0002	<0.002	0.136	<0.00002	87.2	<0.002	0.00051	0.0012	0.139	<0.0004	0.0425	36.1	0.0287	<0.000002	0.0146	0.0037		3.65	0.00337
RSEM-L5E-EOP	6/22/2019 13:50	VY6747	M	1.8	2.1	0.0734	0.0023	0.00114	0.0893	<0.0001	<0.001	0.151	<0.00001	92.0	<0.001	0.00045	0.00117	0.13	<0.0002	0.0457	37.2	0.0224	<0.000002	0.0156	0.0033		3.64	0.00346
RSEM-L5E-EOP	6/23/2019 13:45	VY6760	M	1.8	2.2	0.139	0.00214	0.00126	0.0924	<0.0001	<0.001	0.149	0.000016	92.0	<0.001	0.00058	0.00145	0.279	0.00022	0.0449	37.4	0.027	<0.000002	0.0149	0.0037		3.66	0.00337
RSEM-L5E-EOP	6/24/2019 10:50	VY9737	M	1.7	1.9	0.126	0.00203	0.0011	0.0845	<0.0001	<0.001	0.146	0.000016	87.5	<0.001	0.0005	0.0015	0.254	<0.0002	0.0397	36.7	0.0238	<0.000002	0.0144	0.0033		3.54	0.00342
RSEM-L5E-EOP	6/25/2019 13:30	VZ1752	M	2.4	2.3	0.375	0.00174	0.00121	0.0786	<0.0001	<0.001	0.134	0.000052	93.8	0.0014	0.00097	0.00178	0.506	0.00035	0.034	35.5	0.083	<0.000002	0.0157	0.005		4.20	0.00637
RSEM-L5E-EOP	6/26/2019 14:15	VZ5390	M	2.6	2.4	0.214	0.00185	0.00145	0.0852	<0.0001	<0.001	0.134	0.000064	95.8	0.0014	0.00146	0.00169	0.544	0.00032	0.0394	35.6	0.126	<0.000002	0.0163	0.0075		4.26	0.00715
RSEM-L5E-EOP	6/27/2019 13:56	VZ7729	M	2.5	2.4	0.223	0.00189	0.00125	0.108	<0.0001	<0.001	0.134	0.000054	106	0.0015	0.00148	0.0015	0.493	0.00027	0.042	39.8	0.152	<0.000002	0.0169	0.007		4.59	0.00861
RSEM-L5E-EOP	6/28/2019 10:40	VZ7860	M	3.8	2.3	0.606	0.00167	0.00141	0.107	<0.0001	<0.001	0.133	0.000078	95.4	0.0019	0.00128	0.00177	0.853	0.00048	0.0401	37.4	0.133	0.0000023	0.02	0.0061		4.25	0.00853
RSEM-L5E-EOP	6/29/2019 10:30	VZ9042	M	2.6	2.5	0.157	0.00156	0.00107	0.0933	<0.0001	<0.001	0.126	0.000062	99.5	0.001	0.00128	0.0013	0.323	<0.0002	0.0362	39.8	0.138	<0.000002	0.016	0.0065		4.25	0.00891
RSEM-L5E-EOP	6/30/2019 15:15	WA1462	M	2.5	3.0	0.12	0.00145	0.00097	0.0859	<0.0001	<0.001	0.13	0.000081	135	<0.001	0.00105	0.00186	0.296	0.00022	0.0393	45.9	0.179	<0.000002	0.0151	0.0052		5.18	0.00939
RSEM-L5E-EOP	7/1/2019 11:50	WA1439	M	3.0	3.0	0.333	0.00118	0.00102	0.0754	<0.0001	<0.001	0.109	0.000186	157	0.0013	0.00236	0.00283	0.87	0.0008	0.0397	47.7	0.365	0.0000023	0.0138	0.0091		5.54	0.0124
RSEM-L5E-EOP	7/2/2019 15:30	WA3407	M	2.9	2.6	0.165	0.00118	0.00073	0.067	<0.0001	<0.001	0.118	0.000108	139	<0.001	0.00135	0.00178	0.352	0.00021	0.0344	45.8	0.27	<0.000002	0.0155	0.0063		5.36	0.012
RSEM-L5E-EOP	7/2/2019 15:45	WA3409	D	2.5	3.4	0.176	0.00115	0.0007	0.0672	<0.0001	<0.001	0.116	0.000111	136	<0.001	0.00136	0.00179	0.379	0.00023	0.034	44.2	0.268	<0.000002	0.0144	0.0062		5.27	0.0115
RSEM-L5E-EOP	7/3/2019 13:22	WA5880	M	3.0	2.9	0.142	0.00125	0.00076	0.0681	<0.0001	<0.001	0.112	0.000107	138	<0.001	0.00128	0.00173	0.312	0.00021	0.0323	46.2	0.225	<0.000002	0.0155	0.0059		5.32	0.0125
RSEM-L5E-EOP	7/4/2019 14:00	WA7985	M	2.8	2.8	0.163	0.00115	0.00078	0.0692	<0.0001	<0.001	0.102	0.000083	137	<0.001	0.00101	0.00164	0.362	0.00025	0.0347	41.7	0.166	<0.000002	0.0137	0.0049		5.24	0.0116
RSEM-L5E-EOP	7/5/2019 11:25	WA8014	M	2.3	3.0	0.238	0.00112	0.00086	0.0718	<0.0001	<0.001	0.103	0.000071	133	0.001	0.00099	0.00195	0.462	0.00029	0.0334	44.7	0.145	<0.000002	0.0136	0.0048		5.55	0.0111
RSEM-L5E-EOP	7/6/2019 13:50	WB1488	M	2.6	3.2	0.177	0.00109	0.00078	0.0689	<0.0001	<0.001	0.112	0.000056	128	<0.001	0.00072	0.00171	0.36	0.0002	0.0313	42.5	0.101	<0.000002	0.0144	0.0041		4.97	0.0112
RSEM-L5E-EOP	7/7/2019 9:28	WB1478	M	2.4	2.6	0.182	0.00106	0.00074	0.0682	<0.0001	<0.001	0.11	0.000052	129	<0.001	0.00069	0.00172	0.375	0.00023	0.0312	41.5	0.0873	<0.000002	0.0137	0.0041		4.85	0.011
RSEM-L5E-EOP	7/8/2019 12:30	WB4605	M	2.6	3.1	0.107	0.0011	0.00071	0.0655	<0.0001	<0.001	0.11	0.000049	137	<0.001	0.0006	0.00162	0.215	<0.0002	0.0319	44.5	0.0734	<0.000002	0.0131	0.0038		5.21	0.0106
RSEM-L5E-EOP	7/9/2019 15:05	WB6320	M	2.2	2.5	0.181	0.001	0.00076	0.0661	<0.0001	<0.001	0.111	0.000045	122	<0.001	0.00058	0.00152	0.274	<0.0002	0.0341	41.4	0.0569	<0.000002	0.013	0.0036		4.65	0.0106
RSEM-L5E-EOP	7/10/2019 13:05	WB8326	M	3.0	2.6	0.144	0.00103	0.00067	0.0654	<0.0001	<0.001	0.109	0.000037	129	<0.001	0.00051	0.0014	0.185	<0.0002	0.0321	42.3	0.0503	<0.000002	0.0125	0.0034		4.56	0.0102
RSEM-L5E-EOP	7/11/2019 13:35	WC0499	M	2.4	2.5	0.239	0.00106	0.00074	0.0693	<0.0001	<0.001	0.108	0.000039	125	<0.001	0.0006	0.00153	0.362	0.00021	0.0314	42.3	0.0507	<0.000002	0.0126	0.0036		4.70	0.00995
RSEM-L5E-EOP	7/12/2019 13:00	WC0458	M	2.2	2.4	0.255	0.00103	0.00073	0.0687	<0.0001	<0.001	0.112	0.000036	128	<0.001	0.00053	0.00151	0.293	<0.0002	0.0329	43.5	0.0429	<0.000002	0.0123	0.0035		4.85	0.00973
RSEM-L5E-EOP	7/13/2019 14:30	WC4354	M	2.4	3.0	0.249	0.00098	0.00071	0.0655	<0.0001	<0.001	0.109	0.000031	120	<0.001	0.00046	0.00139	0.203	<0.0002	0.0344	41.7	0.0328	<0.000002	0.0119	0.0032		4.53	0.00955
RSEM-L5E-EOP	7/14/2019 14:55	WC4358	M	2.4	3.2	0.217	0.00096	0.00072	0.0671	<0.0001	<0.001	0.109	0.000029	119	<0.001	0.00047	0.00148	0.257	<0.0002	0.0353	42.6	0.0303	<0.000002	0.0117	0.0032		4.59	0.00886
RSEM-L5E-EOP	7/15/2019 13:25	WC7556	M	2.2	3.1	0.115	0.00098	0.00064	0.0649	<0.0001	<0.001	0.111	0.000018	120	<0.001	0.00038	0.00136	0.162	<0.0002	0.0341	42.5	0.024	<0.000002	0.0113	0.0031		4.63	0.00851
RSEM-L5E-EOP	7/16/2019 13:33	WC9634	M	2.2	2.9	0.112	0.00096	0.00074	0.085	<0.0001	<0.001	0.116	0.000028	129	<0.001	0.0004	0.00136	0.231	<0.0002	0.034	45.1	0.0288	<0.000002	0.0112	0.0025		4.81	0.00834
RSEM-L5E-EOP	7/17/2019 15:15	WD1679	M	2.4	3.0	0.198	0.00102	0.00066	0.0904	<0.0001	<0.001	0.129	0.000027	134	0.0011	0.00038	0.00163	0.236	<0.0002	0.0388	46.8	0.0249	0.000006	0.0109	0.0021		5.48	0.00797
RSEM-L5E-EOP	7/18/2019 14:10	WD4015	M	2.1	3.1	0.139	0.00091	0.00069	0.0842	<0.0001	<0.001	0.109	0.000031	120	0.0012	0.00048	0.00169	0.264	<0.0002	0.0346	45.2	0.0306	<0.000002	0.0104	0.0028		4.97	0.00747
RSEM-L5E-EOP	7/19/2019 13:25	WD4026	M	2.3	3.5	0.174	0.00084	0.00072	0.0822	<0.0001	<0.001	0.112	0.000062	125	0.0014	0.00093	0.0015	0.324	<0.0002	0.035	45.1	0.0723	<0.000002	0.0102	0.0042		5.01	0.00715
RSEM-L5E-EOP	7/20/2019 15:25	WD7114	M	2.5	2.7	0.144	0.00087	0.00064	0.0829	<0.0001	<0.001	0.118	0.000054	127	0.0014	0.0009	0.00144	0.175	<0.0002	0.036	48.5	0.0702	0.0000043	0.0105	0.0044		5.12	0.00712
RSEM-L5E-EOP	7/21/2019 15:25	WD7087	M	2.6	3.1	0.115	0.00087	0.00062	0.0808	<0.0001	<0.001	0.119	0.000053	131	0.0013	0.00101	0.00136	0.159	<0.0002	0.0365	48.7	0.0725	<0.000002	0.0102	0.0047		5.20	0.00713

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	5/23/2019 11:10	VS9366	D	1.74	<0.00002	68.0	0.364	124	0.000021	<0.005	0.0068	0.00402	<0.005	<0.005	<0.0001	0.0032	0.00131	0.00081	0.105	<0.0001	<0.001	0.055	<0.00001	91.7	<0.001	0.00036	<0.0005	<0.01
RSEM-L5E-EOP	5/24/2019 11:10	VS9237	M	1.53	<0.00002	77.0	0.366	124	0.000018	<0.005	<0.005	0.00425	<0.005	<0.005	<0.0001	0.0051	0.00175	0.00096	0.12	<0.0001	<0.001	0.059	<0.00001	93.4	<0.001	0.00037	0.00054	<0.01
RSEM-L5E-EOP	5/24/2019 11:20	VS9238	D	1.4	<0.00002	69.9	0.352	120	0.000019	<0.005	<0.005	0.00387	<0.005	<0.005	<0.0001	0.0046	0.00171	0.00093	0.117	<0.0001	<0.001	0.058	<0.00001	94.8	<0.001	0.00038	0.00053	<0.01
RSEM-L5E-EOP	5/25/2019 10:45	VT2666	M	1.52	<0.00002	82.2	0.384	123	0.000018	<0.005	<0.005	0.00451	<0.005	<0.005	<0.0001	<0.003	0.0024	0.00124	0.135	<0.0001	<0.001	0.068	<0.00001	90.6	<0.001	0.00038	<0.0005	<0.01
RSEM-L5E-EOP	5/25/2019 10:55	VT2667	D	1.57	<0.00002	80.8	0.382	120	0.000018	<0.005	<0.005	0.00448	<0.005	<0.005	<0.0001	<0.003	0.00232	0.00121	0.134	<0.0001	<0.001	0.07	<0.00001	87.0	<0.001	0.00037	<0.0005	<0.01
RSEM-L5E-EOP	5/26/2019 14:00	VT2643	M	1.54	<0.00002	87.3	0.405	124	0.000019	<0.005	<0.005	0.00477	<0.005	<0.005	<0.0001	<0.003	0.00265	0.00126	0.137	<0.0001	<0.001	0.075	<0.00001	86.2	<0.001	0.00032	<0.0005	<0.01
RSEM-L5E-EOP	5/26/2019 14:10	VT2644	D	1.6	<0.00002	90.4	0.398	124	0.00002	<0.005	<0.005	0.00484	<0.005	<0.005	<0.0001	<0.003	0.00266	0.00127	0.138	<0.0001	<0.001	0.074	<0.00001	83.8	<0.001	0.00033	<0.0005	<0.01
RSEM-L5E-EOP	5/27/2019 11:00	VT4237	M	1.74	<0.00002	97.8	0.433	125	0.000022	<0.005	<0.005	0.0049	<0.005	<0.005	<0.0001	0.004	0.00304	0.00154	0.141	<0.0001	<0.001	0.086	<0.00001	82.5	<0.001	0.00027	<0.0005	<0.01
RSEM-L5E-EOP	5/27/2019 11:15	VT4238	D	1.69	<0.00002	101	0.448	131	0.000021	<0.005	<0.005	0.00487	<0.005	<0.005	<0.0001	0.0039	0.00298	0.00162	0.14	<0.0001	<0.001	0.088	<0.00001	79.8	<0.001	0.00025	<0.0005	<0.01
RSEM-L5E-EOP	5/28/2019 13:10	VT7638	M	1.74	<0.00002	123	0.445	148	0.000022	<0.005	<0.005	0.00549	<0.005	<0.005	<0.0001	0.0039	0.00336	0.00168	0.144	<0.0001	<0.001	0.096	<0.00001	78.5	<0.001	0.00028	<0.0005	<0.01
RSEM-L5E-EOP	5/28/2019 13:20	VT7639	D	1.75	<0.00002	115	0.455	137	0.00002	<0.005	<0.005	0.00529	<0.005	<0.005	<0.0001	0.0041	0.00335	0.00164	0.139	<0.0001	<0.001	0.093	<0.00001	77.2	<0.001	0.00029	0.00052	<0.01
RSEM-L5E-EOP	5/29/2019 10:40	VT7342	M	1.21	<0.00002	225	0.176	191	0.000016	<0.005	<0.005	0.0013	<0.005	<0.005	<0.0001	0.0145	0.00119	0.00074	0.0221	<0.0001	<0.001	0.223	0.000012	27.7	0.0013	<0.0002	0.00134	<0.01
RSEM-L5E-EOP	5/29/2019 10:50	VT7343	D	1.78	<0.00002	106	0.447	133	0.000021	<0.005	<0.005	0.00519	<0.005	<0.005	<0.0001	0.0038	0.00339	0.00166	0.143	<0.0001	<0.001	0.099	<0.00001	77.8	<0.001	0.00028	0.00058	<0.01
RSEM-L5E-EOP	5/30/2019 9:55	VU0226	M	1.5	<0.00002	119	0.447	121	0.000017	<0.005	<0.005	0.00486	<0.005	<0.005	<0.0001	0.0051	0.00359	0.00185	0.141	<0.0001	<0.001	0.096	<0.00001	79.8	<0.001	0.00028	0.00054	<0.01
RSEM-L5E-EOP	5/30/2019 10:00	VU0227	D	1.49	<0.00002	121	0.46	124	0.000018	<0.005	<0.005	0.00497	<0.005	<0.005	<0.0001	0.0062	0.00351	0.00183	0.141	<0.0001	<0.001	0.097	<0.00001	79.7	<0.001	0.0003	0.00067	<0.01
RSEM-L5E-EOP	5/31/2019 11:25	VU2496	M	1.95	<0.00002	125	0.512	129	0.000024	<0.005	<0.005	0.00537	<0.005	<0.005	<0.0001	0.0046	0.00375	0.00178	0.146	<0.0001	<0.001	0.106	<0.00001	75.3	<0.001	0.00022	0.0007	<0.01
RSEM-L5E-EOP	5/31/2019 11:30	VU2497	D	1.94	<0.00002	128	0.53	134	0.000025	<0.005	<0.005	0.00553	<0.005	<0.005	0.00012	0.0048	0.00394	0.00189	0.145	<0.0001	<0.001	0.112	<0.00001	80.0	<0.001	0.00023	0.00072	<0.01
RSEM-L5E-EOP	6/1/2019 11:25	VU3314	M	2.07	<0.00002	131	0.54	131	0.000022	<0.005	<0.005	0.00536	<0.005	<0.005	0.0001	0.0043	0.00393	0.00193	0.143	<0.0001	<0.001	0.116	0.00001	75.8	<0.001	0.00027	0.00071	<0.01
RSEM-L5E-EOP	6/1/2019 11:35	VU3315	D	2.06	<0.00002	132	0.542	135	0.000023	<0.005	<0.005	0.00536	<0.005	<0.005	0.00025	0.0044	0.00394	0.00192	0.144	<0.0001	<0.001	0.121	0.00001	77.2	<0.001	0.00026	0.00073	<0.01
RSEM-L5E-EOP	6/2/2019 11:35	VU6005	M	2.38	<0.00002	130	0.578	140	0.000024	<0.005	<0.005	0.00534	<0.005	<0.005	0.00015	0.004	0.00374	0.00206	0.138	<0.0001	<0.001	0.12	0.000014	74.9	<0.001	0.00032	0.00062	<0.01
RSEM-L5E-EOP	6/3/2019 11:05	VU6003	M	2.5	<0.00002	131	0.581	140	0.000024	<0.005	<0.005	0.00539	<0.005	<0.005	0.00014	0.0045	0.00364	0.00192	0.137	<0.0001	<0.001	0.128	0.000023	76.3	<0.001	0.0003	0.00067	<0.01
RSEM-L5E-EOP	6/4/2019 11:40	VU7714	M	2.12	<0.00002	147	0.479	127	0.000026	<0.005	<0.005	0.00524	<0.005	<0.005	<0.0001	0.0042	0.00352	0.00187	0.131	<0.0001	<0.001	0.123	0.000021	75.5	<0.001	0.00029	0.00068	<0.01
RSEM-L5E-EOP	6/5/2019 12:00	VV4625	M	2.69	<0.00002	144	0.508	135	0.000029	<0.005	<0.005	0.00543	<0.005	<0.005	0.00012	0.0041	0.00351	0.00177	0.135	<0.0001	<0.001	0.12	0.000015	78.1	<0.001	0.00034	0.003	<0.01
RSEM-L5E-EOP	6/6/2019 11:15	VV6670	M	2.58	<0.00002	149	0.501	137	0.00003	<0.005	<0.005	0.00554	<0.005	<0.005	<0.0001	0.0046	0.00358	0.00167	0.132	<0.0001	<0.001	0.14	0.000017	78.5	<0.001	0.0003	0.00085	<0.01
RSEM-L5E-EOP	6/7/2019 12:35	VV6713	M	2.82	<0.00002	154	0.509	140	0.000028	<0.005	<0.005	0.00516	<0.005	<0.005	<0.0001	0.0051	0.00341	0.00175	0.131	<0.0001	<0.001	0.141	0.000014	78.9	<0.001	0.00035	0.0008	<0.01
RSEM-L5E-EOP	6/8/2019 10:30	VV9758	M	2.89	<0.00002	151	0.508	146	0.00003	<0.005	<0.005	0.00524	<0.005	<0.005	<0.0001	0.0043	0.00334	0.00162	0.132	<0.0001	<0.001	0.127	0.000016	86.7	<0.001	0.00032	0.00073	<0.01
RSEM-L5E-EOP	6/9/2019 10:25	VV9750	M	2.91	<0.00002	161	0.512	151	0.000028	<0.005	<0.005	0.00511	<0.005	<0.005	<0.0001	0.0051	0.00329	0.00164	0.126	<0.0001	<0.001	0.139	0.000019	84.2	<0.001	0.00039	0.00076	<0.01
RSEM-L5E-EOP	6/10/2019 10:45	VW2548	M	2.76	<0.00002	163	0.522	152	0.000042	<0.005	<0.005	0.00513	<0.005	<0.005	0.00012	0.0044	0.0032	0.00159	0.127	<0.0001	<0.001	0.128	0.000021	88.3	<0.001	0.00043	0.00073	<0.01
RSEM-L5E-EOP	6/10/2019 10:55	VW2549	D	2.71	<0.00002	163	0.519	151	0.000033	<0.005	<0.005	0.00513	<0.005	<0.005	<0.0001	0.0044	0.00319	0.00152	0.124	<0.0001	<0.001	0.134	0.000021	90.6	<0.001	0.0004	0.00071	<0.01
RSEM-L5E-EOP	6/11/2019 12:15	VW5005	M	2.75	<0.00002	164	0.526	157	0.000026	<0.005	<0.005	0.00489	<0.005	<0.005	<0.0001	0.0042	0.00291	0.00152	0.112	<0.0001	<0.001	0.131	0.000012	75.9	<0.001	0.00039	0.0008	<0.01
RSEM-L5E-EOP	6/11/2019 12:25	VW5006	D	2.78	<0.00002	162	0.526	161	0.000027	<0.005	<0.005	0.00488	<0.005	<0.005	<0.0001	0.0045	0.00289	0.00146	0.111	<0.0001	<0.001	0.132	0.000012	81.4	<0.001	0.0004	0.00079	<0.01
RSEM-L5E-EOP	6/12/2019 12:10	VW8062	M	2.96	<0.00002	165	0.563	164	0.000017	<0.005	<0.005	0.00522	<0.005	<0.005	0.00023	0.0042	0.00295	0.00148	0.117	<0.0001	<0.001	0.119	0.000019	82.0	<0.001	0.00041	0.00087	<0.01
RSEM-L5E-EOP	6/13/2019 11:20	VW9976	D	3.02	<0.00002	168	0.531	158	0.000027	<0.005	<0.005	0.00475	<0.005	<0.005	<0.0001	0.0046	0.00303	0.00143	0.116	<0.0001	<0.001	0.136	<0.00001	88.8	<0.001	0.00032	0.00083	<0.01
RSEM-L5E-EOP	6/13/2019 11:20	VW9975	M	3.09	<0.00002	170	0.528	162	0.000026	<0.005	<0.005	0.00477	<0.005	<0.005	0.00014	0.0046	0.00305	0.00138	0.113	<0.0001	<0.001	0.143	<0.00001	86.4	<0.001	0.00031	0.00072	<0.01
RSEM-L5E-EOP	6/14/2019 13:15	VW9970	D	3.03	<0.00002	168	0.529	158	0.000028	<0.005	<0.005	0.00488	<0.005	<0.005	<0.0001	0.0047	0.00295	0.00136	0.11	<0.0001	<0.001	0.144	<0.00001	84.8	<0.001	0.0003	0.00076	<0.01
RSEM-L5E-EOP	6/14/2019 13:15	VW9969	M	3.04	<0.00002	181	0.532	169	0.000024	<0.005	<0.005	0.00467	<0.005	<0.005	<0.0001	0.0044	0.00298	0.00142	0.111	<0.0001	<0.001	0.145	<0.00001	86.9	<0.001	0.0003	0.00076	<0.01
RSEM-L5E-EOP	6/15/2019 14:45	VX3568	D	3.18	<0.00002	170	0.543	158	0.000026	<0.005	<0.005	0.00477	<0.005	<0.005	<0.0001	0.0039	0.00269	0.00127	0.1	<0.0001	<0.001	0.136	<0.00001	85.5	<0.001	0.00027	0.00072	<0.01
RSEM-L5E-EOP	6/15/2019 14:45	VX3567	M	3.04	<0.00002	165	0.525	157	0.000026	<0.005	<0.005	0.00459	<0.005	<0.005	<0.0001	0.0037	0.00267	0.00127	0.0974	<0.0001	<0.001	0.132	<0.00001	83.1	<0.001	0.00027	0.00073	<0.01
RSEM-L5E-EOP	6/16/2019 14:30	VX3552	D	2.99	<0.00002	168	0.53	150	0.000024	<0.005	<0.005	0.00445	<0.005	<0.005	0.0002	0.0038	0.00257	0.00124	0.0968	<0.0001	<0.001	0.134	<0.00001	85.5	<0.001	0.00025	0.00072	<0.01
RSEM-L5E-EOP	6/16/2019 14:30	VX3551	M	3	<0.00002	164	0.521	151	0.000024	<0.005	<0.005	0.00453	<0.005	<0.005	0.00011	0.0038	0.00259	0.00124	0.0973	<0.0001	<0.001	0.136	<0.00001	82.8	<0.001	0.00025	0.00076	<0.01
RSEM-L5E-EOP	6/17/2019 14:20	VX5945	D	3.01	<0.00002	165	0.537	156	0.000026	<0.005	<0.005	0.00477	<0.005	<0.005	<0.0001	0.0039	0.00255	0.00124	0.095	<0.0001	<0.001	0.13	<0.00001	82.4	<0.001	0.00023	0.00076	<0.01
RSEM-L5E-EOP	6/17/2019 14:20	VX5944	M	3.09	<0.00002	165	0.547	158	0.000027	<0.005	<0.005	0.00483	<0.005	<0.005	<0.0001	0.0039	0.00252	0.0012	0.0947	<0.0001	<0.001	0.131	<0.00001	82.0	<0.001	0.00022	0.00076	<0.01
RSEM-L5E-EOP	6/18/2019 14:25	VX8837	M	3.19	<0.00002	169	0.539	159	0.000027	<0.005	0.0056	0.00488	<0.005	<0.005	0.00012	0.0042	0.00258	0.00116	0.0975	<0.0001	<0.001	0.134	<0.00001	85.0	<0.001	0.00023	0.00079	<0.01
RSEM-L5E-EOP	6/19/2019 14:25	VY1848	M	3.05	<0.00002	181	0.589	178	0.000024	<0.005	<0.005	0.00483	<0.005	<0.005	<0.0001	0.0049	0.00246	0.00122	0.0955	<0.0001	<0.001	0.137	<0.00001	91.4	<0.001	0.00036	0.00077	<0.01
RSEM-L5E-EOP	6/20/2019 14:45	VY4158	M	3.17	<0.00002	178	0.575	170	0.000024	<0.005	<0.005	0.0046	<0.005	<0.005	<0.0001	0.0046	0.00237	0.00109	0.0883	<0.0001	<0.001	0.154	<0.00001	87.5	<0.001	0.00032	0.00075	<0.01
RSEM-L5E-EOP	6/21/2019 11:45	VY4167	M	3.11	<0.00004	181	0.537	177	<0.00002	<0.01	<0.01	0.00438	<0.01	<0.01	<0.0002	0.0044	0.00235	0.00112	0.0883	<0.0001	<0.001	0.151	<0.00001	90.5	<0.001	0.00037	0.00084	<0.01
RSEM-L5E-EOP	6/22/2019 13:50	VY6747	M	3.13	<0.00002	184	0.586	174	0.000021	<0.005	<0.005	0.00462	<0.005	<0.005	<0.0001	0.0061	0.00236	0.00114	0.0897	<0.0001	<0.001	0.151	<0.00001	91.9	<0.001	0.00042	0.00081	<0.01
RSEM-L5E-EOP	6/23/2019 13:45	VY6760	M	3.29	<0.00002	188	0.59	176	0.000022	<0.005	<0.005	0.00448	<0.005	<0.005	0.00011	0.0046	0.00227	0.00114	0.0889	<0.0001	<0.001	0.146	<0.00001	94.8	<0.001	0.00037	0.00083	<0.01
RSEM-L5E-EOP	6/24/2019 10:50	VY9737	M	3.1	<0.00002	179	0.567	177	0.000023	<0.005	<0.005	0.00416	<0.005	<0.005	0.0001	0.0041	0.00214	0.00108	0.0812	<0.0001	<0.001	0.145	<0.00001	90.3	<0.001	0.00035	0.00078	<0.01
RSEM-L5E-EOP	6/25/2019 13:30	VZ1752	M	3.44	<0.00002	158	0.519	165	0.000026	<0.005	0.0106	0.00473	<0.005	<0.005	0.00027	0.008	0.00178	0.00107	0.0669	<0.0001	<0.001	0.136	0.000037	98.3	<0.001	0.00073	0.00092	<0.01
RSEM-L5E-EOP	6/26/2019 14:15	VZ5390	M	3.27	<0.00002	160	0.53	166	0.000024	<0.005	<0.005	0.00503	<0.005	<0.005	0.00015	0.0071	0.00183	0.00113	0.0766	<0.0001	<0.001	0.135	0.000043	102	<0.001	0.00111	0.00091	<0.01
RSEM-L5E-EOP	6/27/2019 13:56	VZ7729	M	3.44	<0.00002	170	0.515	191	0.000027	<0.005	0.0057	0.0054	<0.005	<0.005	0.00012	0.0065	0.00183	0.00094	0.1	<0.0001	<0.001	0.142	0.000035	105	<0.001	0.00102	0.00068	<0.01
RSEM-L5E-EOP	6/28/2019 10:40	VZ7860	M	3.82	<0.00002	161	0.524	182	0.000028	<0.005	0.0129	0.005	<0.005	<0.005	0.00046	0.0068	0.00174	0.00096	0.0951	<0.0001	<0.001	0.145	0.000033	109	<0.001	0.00085	0.00079	<0.01
RSEM-L5E-EOP	6/29/2019 10:30	VZ9042	M	2.74	<0.00002	158	0.538	189	0.000023	<0.005	<0.005	0.00534	<0.005	<0.005	0.00013	0.0057	0.00156	0.00085	0.0894	<0.0001	<0.001	0.132	0.000036	104	<0.001	0.00105	0.00077	<0.01
RSEM-L5E-EOP	6/30/2019 15:15	WA1462	M	2.79	<0.00002	159	0.552	224	0.00003	<0.005	<0.005	0.00616	<0.005	<0.005	<0.0001	0.011	0.00151	0.00078	0.0801	<0.0001	<0.001	0.132	0.000065	133	<0.001	0.00085	0.00109	<0.01
RSEM-L5E-EOP	7/1/2019 11:50	WA1439	M	2.54	0.000024	114	0.515	218	0.000041	<0.005	0.0069	0.00655	<0.005	0.0062	0.0003	0.0124	0.0011	0.00051	0.0561	<0.0001	<0.001	0.106	0.000111	141	<0.001	0.00168	0.00114	<0.01
RSEM-L5E-EOP	7/2/2019 15:30	WA3407	M	2.26	<0.00002	114	0.565	207	0.000032	<0.005	<0.005	0.00641	<0.005	<0.005	0.00012	0.0133	0.00124	0.00058	0.0636	<0.0001	<0.001	0.114	0.000101	149	<0.001	0.00124	0.00114	<0.01
RSEM-L5E-EOP	7/2/2019 15:45	WA3409	D	2.26	<0.00002	113	0.561	200	0.000032	<0.005	<0.005	0.00643	<0.005	<0.005	0.00012	0.0133	0.00127	0.00054	0.0651	<0.0001	<0.001	0.116	0.000101	150	<0.001	0.00119	0.00109	<0.01
RSEM-L5E-EOP	7/3/2019 13:22	WA5880	M	2.09	<0.00002	115	0.532	206	0.000032	<0.005	<0.005	0.00669	<0.005	<0.005	<0.0001	0.0133	0.00122	0.00059	0.0601	<0.0001	<0.001	0.115	0.000085	144	<0.001	0.0011	0.00116	<0.01
RSEM-L5E-EOP	7/4/2019 14:00	WA7985	M	2.5	<0.00002	121	0.486	199	0.000031	<0.005	<0.005	0.00601	<0.005	<0.005	0.0001	0.0122	0.0012	0.00059	0.0644	<0.0001	<0.001	0.113	0.000063	141	<0.001	0.00082	0.00126	<0.01
RSEM-L5E-EOP	7/5/2019 11:25	WA8014	M	2.48	<0.00002	127	0.491	214	0.000034	<0.005	0.0074	0.00594	<0.005	<0.005	0.00013	0.0112	0.00115	0.00061	0.0645	<0.0001	<0.001	0.114	0.000054	134	<0.001	0.00068	0.00112	<0.01
RSEM-L5E-EOP	7/6/2019 13:50	WB1488	M	2.22	<0.00002	119	0.53	200	0.000026	<0.005	<0.005	0.0058	<0.005	<0.005	0.00011	0.0114	0.00108	0.00056	0.064	<0.0001	<0.001	0.102	0.000044	135	0.0013	0.00053	0.00114	<0.01
RSEM-L5E-EOP	7/7/2019 9:28	WB1478	M	2.28	<0.00002	117	0.525	191	0.000025	<0.005	<0.005	0.00585	<0.005	<0.005	0.00016	0.0103	0.00103	0.0006	0.0617	<0.0001	<0.001	0.1	0.00004	134	<0.001	0.00053	0.00111	<0.01
RSEM-L5E-EOP	7/8/2019 12:30	WB4605	M	2.33	<0.00002	128	0.478	212	0.000028	<0.005	<0.005	0.00549	<0.005	<0.005	0.00134	0.0093	0.00108	0.00059	0.0637	<0.0001	<0.001	0.116	0.000039	134	<0.001	0.00043	0.00105	<0.01
RSEM-L5E-EOP	7/9/2019 15:05	WB6320	M	2.16	<0.00002	121	0.517	190	0.000025	<0.005	0.0249	0.00535	<0.005	<0.005	0.00011	0.0085	0.001	0.00061	0.06	<0.0001	<0.001	0.108	0.000029	122	<0.001	0.00039	0.00094	<0.01
RSEM-L5E-EOP	7/10/2019 13:05	WB8326	M	2.27	<0.00002	127	0.51	191	0.000022	<0.005	0.0062	0.00524	<0.005	<0.005	<0.0001	0.0088	0.00098	0.00063	0.064	<0.0001	<0.001	0.116	0.000031	129	<0.001	0.00044	0.00096	<0.01
RSEM-L5E-EOP	7/11/2019 13:35	WC0499	M	2.39	<0.00002	125	0.531	197	0.000024	<0.005	0.0087	0.00521	<0.005	<0.005	0.00043	0.0085	0.00102	0.00064	0.0639	<0.0001	<0.001	0.111	0.000027	127	<0.001	0.00041	0.00098	<0.01
RSEM-L5E-EOP	7/12/2019 13:00	WC0458	M	2.46	<0.00002	131	0.54	203	0.000025	<0.005	0.0051	0.00521	<0.005	<0.005	0.00018	0.0683	0.0011	0.00061	0.0607	<0.0002	<0.002	0.124	0.000024	129	<0.002	0.00054	0.001	0.162
RSEM-L5E-EOP	7/13/2019 14:30	WC4354	M	2.18	<0.00002	126	0.544	191	0.000024	<0.005	0.0071	0.00489	<0.005	<0.005	0.00013	0.0094	0.0011	0.00062	0.0667	<0.0001	<0.001	0.131	<0.00001	135	<0.001	<0.0002	0.001	<0.01
RSEM-L5E-EOP	7/14/2019 14:55	WC4358	M	2.2	<0.00002	129	0.546	191	0.000025	<0.005	0.0076	0.00489	<0.005	<0.005	0.00025	0.0096	0.00105	0.00058	0.0661	<0.0001	<0.001	0.129	<0.00001	138	<0.001	<0.0002	0.00109	<0.01
RSEM-L5E-EOP	7/15/2019 13:25	WC7556	M	2.43	<0.00002	133	0.53	187	0.000023	<0.005	<0.005	0.00509	<0.005	<0.005	0.0001	0.0074	0.00098	0.00058	0.0633	<0.0001	<0.001	0.115	<0.00001	128	<0.001	0.00028	0.00093	<0.01
RSEM-L5E-EOP	7/16/2019 13:33	WC9634	M	2.39	<0.00002	142	0.548	197	0.000021	<0.005	<0.005	0.00487	<0.005	<0.005	<0.0001	0.0066	0.00099	0.00055	0.0817	<0.0001	<0.001	0.113	0.000016	122	<0.001	0.00027	0.00085	<0.01
RSEM-L5E-EOP	7/17/2019 15:15	WD1679	M	2.64	<0.00002	147	0.532	230	0.000022	<0.005	<0.005	0.00512	<0.005	<0.005	0.00023	0.0066	0.00091	0.00057	0.0801	<0.0001	<0.001	0.111	0.000015	116	<0.001	0.00025	0.00084	<0.01
RSEM-L5E-EOP	7/18/2019 14:10	WD4015	M	2.32	<0.00002	138	0.564	198	0.00002	<0.005	<0.005	0.00492	<0.005	<0.005	0.00016	0.0096	0.0009	0.00055	0.0821	<0.0001	<0.001	0.114	0.000019	128	<0.001	0.0003	0.00092	<0.01
RSEM-L5E-EOP	7/19/2019 13:25	WD4026	M	2.66	<0.00002	137	0.57	200	0.000022	<0.005	<0.005	0.00476	<0.005	<0.005	0.00014	0.0104	0.00084	0.00056	0.0796	<0.0001	<0.001	0.117	0.000045	129	0.0011	0.00077	0.00095	<0.01
RSEM-L5E-EOP	7/20/2019 15:25	WD7114	M	2.52	<0.00002	145	0.593	210	0.000018	<0.005	<0.005	0.0046	<0.005	<0.005	<0.0001	0.0096	0.00087	0.00058	0.0786	<0.0001	<0.001	0.116	0.000044	127	0.0012	0.00079	0.00096	<0.01
RSEM-L5E-EOP	7/21/2019 15:25	WD7087	M	2.48	<0.00002	148	0.585	216	0.000018	<0.005	<0.005	0.00456	<0.005	<0.005	<0.0001	0.0095	0.00085	0.00055	0.0782	<0.0001	<0.001	0.118	0.000043	126	0.0012	0.00087	0.00096	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	5/23/2019 11:10	VS9366	D	<0.0002	0.0176	31.4	0.0139	<0.000002	0.0164	0.0031		3.22	0.00236	1.38	<0.00002	71.1	0.375	134	0.000018	<0.005	<0.005	0.00405	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/24/2019 11:10	VS9237	M	<0.0002	0.0178	30.2	0.0096	<0.000002	0.018	0.0033		3.36	0.00301	1.35	<0.00002	79.6	0.398	131	0.000019	<0.005	<0.005	0.00447	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/24/2019 11:20	VS9238	D	<0.0002	0.0179	31.5	0.01	<0.000002	0.0178	0.0034		3.68	0.00277	1.37	<0.00002	80.4	0.406	140	0.000019	<0.005	<0.005	0.0044	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/25/2019 10:45	VT2666	M	<0.0002	0.0195	29.0	0.0069	<0.000002	0.0216	0.0032		3.32	0.00327	1.48	<0.00002	86.7	0.421	129	0.000018	<0.005	<0.005	0.00458	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/25/2019 10:55	VT2667	D	<0.0002	0.0195	27.8	0.0065	<0.000002	0.0192	0.0031		3.25	0.00304	1.41	<0.00002	86.2	0.417	128	0.000019	<0.005	<0.005	0.00455	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/26/2019 14:00	VT2643	M	<0.0002	0.0214	28.9	0.0026	<0.000002	0.0208	0.0029		3.26	0.00359	1.44	<0.00002	93.1	0.432	132	0.00002	<0.005	<0.005	0.0048	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/26/2019 14:10	VT2644	D	<0.0002	0.021	28.3	0.0027	<0.000002	0.0206	0.003		3.33	0.00358	1.41	<0.00002	93.0	0.422	130	0.00002	<0.005	<0.005	0.00475	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/27/2019 11:00	VT4237	M	<0.0002	0.0246	28.1	<0.001	<0.000002	0.022	0.003		3.62	0.00377	1.47	<0.00002	101	0.454	128	0.00002	<0.005	<0.005	0.00512	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/27/2019 11:15	VT4238	D	<0.0002	0.0247	27.4	0.0011	<0.000002	0.0219	0.0028		3.53	0.00393	1.44	<0.00002	101	0.448	129	0.000018	<0.005	<0.005	0.00505	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/28/2019 13:10	VT7638	M	<0.0002	0.0264	27.5	0.0014	<0.000002	0.0226	0.0028		3.75	0.00416	1.54	<0.00002	110	0.473	132	0.000023	<0.005	<0.005	0.00525	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/28/2019 13:20	VT7639	D	<0.0002	0.0254	26.9	0.0018	<0.000002	0.0224	0.0029		3.68	0.00437	1.5	<0.00002	109	0.457	126	0.000021	<0.005	<0.005	0.00514	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/29/2019 10:40	VT7342	M	<0.0002	0.116	29.0	0.0014	<0.000002	0.0273	0.0019		5.13	0.00295	1.17	<0.00002	241	0.18	196	0.000016	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/29/2019 10:50	VT7343	D	<0.0002	0.0277	27.7	0.0018	<0.000002	0.023	0.0028		3.80	0.00439	1.58	<0.00002	113	0.477	135	0.000021	<0.005	<0.005	0.00528	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/30/2019 9:55	VU0226	M	<0.0002	0.0297	28.5	0.0055	<0.000002	0.0233	0.0027		4.11	0.00465	1.78	<0.00002	130	0.462	148	0.000022	<0.005	<0.005	0.00537	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/30/2019 10:00	VU0227	D	<0.0002	0.0296	30.0	0.0065	<0.000002	0.0303	0.0029		4.29	0.00431	1.81	<0.00002	138	0.447	154	0.000022	<0.005	<0.005	0.0055	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/31/2019 11:25	VU2496	M	<0.0002	0.0312	28.9	0.0016	<0.000002	0.0236	0.0027		3.92	0.00477	1.76	<0.00002	135	0.469	135	0.000023	<0.005	<0.005	0.00532	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	5/31/2019 11:30	VU2497	D	<0.0002	0.0311	29.0	0.0019	<0.000002	0.0237	0.0027		4.02	0.00481	1.9	<0.00002	141	0.477	147	0.000025	<0.005	<0.005	0.0055	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/1/2019 11:25	VU3314	M	<0.0002	0.0307	29.1	0.006	<0.000002	0.0239	0.0027		4.13	0.00476	1.94	<0.00002	145	0.479	142	0.000023	<0.005	<0.005	0.00533	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/1/2019 11:35	VU3315	D	<0.0002	0.0307	27.5	0.0061	<0.000002	0.0239	0.0026		4.00	0.00493	1.92	<0.00002	142	0.477	143	0.000024	<0.005	<0.005	0.00537	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/2/2019 11:35	VU6005	M	<0.0002	0.0315	25.6	0.0121	<0.000002	0.024	0.0025		3.79	0.00501	1.96	<0.00002	142	0.543	139	0.000021	<0.005	<0.005	0.00536	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/3/2019 11:05	VU6003	M	<0.0002	0.0349	26.4	0.0142	<0.000002	0.0241	0.0025		3.89	0.00497	2.18	<0.00002	144	0.563	142	0.00002	<0.005	<0.005	0.00538	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/4/2019 11:40	VU7714	M	<0.0002	0.0328	25.5	0.0133	<0.000002	0.0245	0.0024		3.78	0.00474	2.09	<0.00002	142	0.548	139	0.000021	<0.005	<0.005	0.00528	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/5/2019 12:00	VV4625	M	<0.0002	0.0329	26.5	0.0156	<0.000002	0.0231	0.0027		4.05	0.00457	2.37	<0.00002	143	0.576	143	0.000022	<0.005	<0.005	0.00532	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/6/2019 11:15	VV6670	M	<0.0002	0.0342	29.2	0.0122	<0.000002	0.0237	0.0027		3.94	0.00452	2.4	<0.00002	154	0.525	141	0.000028	<0.005	<0.005	0.00563	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/7/2019 12:35	VV6713	M	<0.0002	0.0357	28.0	0.0164	<0.000002	0.0226	0.0028		3.93	0.00456	2.62	<0.00002	155	0.518	142	0.000026	<0.005	<0.005	0.00519	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/8/2019 10:30	VV9758	M	<0.0002	0.0354	28.4	0.0186	<0.000002	0.0218	0.0027		4.16	0.00453	2.95	<0.00002	149	0.503	157	0.000025	<0.005	<0.005	0.00495	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/9/2019 10:25	VV9750	M	<0.0002	0.0378	29.6	0.0201	<0.000002	0.0221	0.0028		4.27	0.00447	2.93	<0.00002	159	0.518	158	0.000027	<0.005	<0.005	0.00492	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/10/2019 10:45	VW2548	M	<0.0002	0.0386	31.5	0.0252	<0.000002	0.0223	0.0028		4.22	0.00428	3.07	<0.00002	168	0.54	169	0.000028	<0.005	<0.005	0.00488	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/10/2019 10:55	VW2549	D	<0.0002	0.0395	31.3	0.025	<0.000002	0.021	0.0028		4.08	0.00431	3.18	<0.00002	161	0.548	164	0.000025	<0.005	<0.005	0.005	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/11/2019 12:15	VW5005	M	<0.0002	0.036	29.9	0.022	<0.000002	0.0201	0.0029		3.73	0.00403	2.59	<0.00002	159	0.522	151	0.000025	<0.005	<0.005	0.00485	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/11/2019 12:25	VW5006	D	<0.0002	0.0366	30.6	0.0222	<0.000002	0.0199	0.003		3.79	0.00421	2.69	<0.00002	165	0.527	155	0.000025	<0.005	<0.005	0.00487	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/12/2019 12:10	VW8062	M	<0.0002	0.0342	31.2	0.0199	<0.000002	0.0198	0.0031		3.91	0.00416	2.65	<0.00002	162	0.537	154	0.000017	<0.005	<0.005	0.0049	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/13/2019 11:20	VW9976	D	<0.0002	0.0379	31.3	0.0113	<0.000002	0.0189	0.0028		3.78	0.00408	3	<0.00002	164	0.514	160	0.000028	<0.005	<0.005	0.00499	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/13/2019 11:20	VW9975	M	<0.0002	0.0392	31.3	0.011	<0.000002	0.02	0.0029		3.92	0.00432	2.93	<0.00002	171	0.535	165	0.000024	<0.005	<0.005	0.00486	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/14/2019 13:15	VW9970	D	<0.0002	0.0401	31.6	0.0109	<0.000002	0.0192	0.0028		3.84	0.00406	2.88	<0.00002	170	0.535	163	0.000026	<0.005	<0.005	0.00489	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/14/2019 13:15	VW9969	M	<0.0002	0.0401	32.4	0.0108	<0.000002	0.0189	0.0028		4.00	0.00433	2.96	<0.00002	177	0.536	169	0.000025	<0.005	<0.005	0.00492	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/15/2019 14:45	VX3568	D	<0.0002	0.0355	32.4	0.0097	<0.000002	0.0175	0.0028		3.82	0.00396	2.7	<0.00002	177	0.526	144	0.000022	<0.005	<0.005	0.0045	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/15/2019 14:45	VX3567	M	<0.0002	0.0353	32.8	0.0098	<0.000002	0.0181	0.0028		3.80	0.00402	2.62	<0.00002	178	0.526	146	0.000023	<0.005	<0.005	0.00449	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/16/2019 14:30	VX3552	D	<0.0002	0.0358	32.1	0.0101	<0.000002	0.0169	0.0026		3.70	0.00376	2.69	<0.00002	171	0.523	144	0.000022	<0.005	<0.005	0.00454	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/16/2019 14:30	VX3551	M	<0.0002	0.037	32.7	0.01	<0.000002	0.017	0.0027		3.83	0.00383	2.67	<0.00002	173	0.526	146	0.000023	<0.005	<0.005	0.00452	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/17/2019 14:20	VX5945	D	<0.0002	0.0379	31.7	0.0095	<0.000002	0.0171	0.0025		3.63	0.00368	2.84	<0.00002	167	0.526	150	0.000021	<0.005	<0.005	0.00449	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/17/2019 14:20	VX5944	M	<0.0002	0.0383	32.1	0.0088	<0.000002	0.0171	0.0025		3.73	0.00367	2.79	<0.00002	167	0.526	153	0.000021	<0.005	<0.005	0.00442	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/18/2019 14:25	VX8837	M	<0.0002	0.0396	32.9	0.0114	<0.000002	0.0171	0.0025		3.79	0.00359	2.88	<0.00002	170	0.555	165	0.000022	<0.005	<0.005	0.00489	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/19/2019 14:25	VY1848	M	<0.0002	0.0434	35.1	0.0223	<0.000002	0.0167	0.0029		3.95	0.00352	3.27	<0.00002	174	0.542	195	0.000024	<0.005	<0.005	0.00449	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/20/2019 14:45	VY4158	M	<0.0002	0.0434	36.2	0.013	<0.000002	0.0164	0.0029		3.66	0.00361	3	<0.00002	185	0.567	176	0.000023	<0.005	<0.005	0.00469	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/21/2019 11:45	VY4167	M	<0.0002	0.0427	38.0	0.0136	<0.000002	0.0158	0.0032		3.74	0.00348	3	<0.00002	193	0.563	184	0.00002	<0.005	<0.005	0.00442	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/22/2019 13:50	VY6747	M	<0.0002	0.0476	38.1	0.0134	<0.000002	0.0159	0.0032		3.85	0.00361	3.12	<0.00002	190	0.57	185	0.000022	<0.005	<0.005	0.00459	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/23/2019 13:45	VY6760	M	<0.0002	0.0473	38.2	0.0155	<0.000002	0.0154	0.0029		3.75	0.00346	3.1	<0.00002	189	0.566	189	0.000022	<0.005	<0.005	0.00456	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/24/2019 10:50	VY9737	M	<0.0002	0.0426	37.8	0.0165	<0.000002	0.0149	0.0028		3.68	0.00346	2.93	<0.00002	185	0.582	178	0.000019	<0.005	<0.005	0.00442	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/25/2019 13:30	VZ1752	M	<0.0002	0.0378	38.3	0.0722	<0.000002	0.0147	0.004		4.39	0.00656	2.8	<0.00002	171	0.466	187	0.000021	<0.005	<0.005	0.00454	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/26/2019 14:15	VZ5390	M	<0.0002	0.0408	38.5	0.106	<0.000002	0.0166	0.0062		4.60	0.00774	3.04	<0.00002	168	0.498	181	0.00002	<0.005	<0.005	0.00511	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/27/2019 13:56	VZ7729	M	<0.0002	0.0427	39.1	0.11	<0.000002	0.0173	0.0055		4.79	0.00862	3.08	<0.00002	178	0.52	194	0.00002	<0.005	<0.005	0.00564	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/28/2019 10:40	VZ7860	M	<0.0002	0.0425	41.0	0.118	<0.000002	0.0219	0.0047		4.83	0.00906	3.15	<0.00002	182	0.518	202	0.000018	<0.005	<0.005	0.00522	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/29/2019 10:30	VZ9042	M	<0.0002	0.0401	38.7	0.127	<0.000002	0.0159	0.0057		4.19	0.00862	2.82	<0.00002	158	0.537	181	0.000015	<0.005	<0.005	0.00522	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	6/30/2019 15:15	WA1462	M	<0.0002	0.0369	47.7	0.164	<0.000002	0.015	0.0046		5.40	0.00953	2.49	<0.00002	164	0.526	230	0.000028	<0.005	<0.005	0.00597	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/1/2019 11:50	WA1439	M	<0.0002	0.0352	43.9	0.348	<0.000002	0.0141	0.0071		5.14	0.0119	1.91	<0.00002	108	0.523	197	0.000027	<0.005	<0.005	0.00639	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/2/2019 15:30	WA3407	M	<0.0002	0.0354	47.0	0.248	<0.000002	0.0153	0.0058		5.73	0.0125	2.12	<0.00002	118	0.519	219	0.000032	<0.005	<0.005	0.0065	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/2/2019 15:45	WA3409	D	<0.0002	0.036	45.3	0.238	<0.000002	0.0148	0.0056		5.45	0.0121	2.18	<0.00002	113	0.519	218	0.00003	<0.005	<0.005	0.00654	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/3/2019 13:22	WA5880	M	<0.0002	0.0344	48.6	0.221	<0.000002	0.0147	0.0057		5.63	0.0128	2.23	<0.00002	127	0.495	223	0.000028	<0.005	<0.005	0.00641	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/4/2019 14:00	WA7985	M	<0.0002	0.0345	43.9	0.152	<0.000002	0.0143	0.0043		5.37	0.0119	2.28	<0.00002	125	0.499	208	0.000027	<0.005	<0.005	0.00607	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/5/2019 11:25	WA8014	M	<0.0002	0.0339	44.0	0.119	<0.000002	0.0137	0.0039		5.32	0.0115	2.16	<0.00002	124	0.492	208	0.000028	<0.005	<0.005	0.00601	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/6/2019 13:50	WB1488	M	<0.0002	0.0338	39.7	0.0811	<0.000002	0.0138	0.0039		5.08	0.0108	2.16	<0.00002	112	0.496	192	0.000027	<0.005	<0.005	0.00593	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/7/2019 9:28	WB1478	M	<0.0002	0.033	40.9	0.0776	<0.000002	0.0129	0.0034		5.17	0.0106	2.13	<0.00002	118	0.491	199	0.000027	<0.005	<0.005	0.00583	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/8/2019 12:30	WB4605	M	<0.0002	0.0328	42.4	0.0622	<0.000002	0.0132	0.0031		4.93	0.0111	2.14	<0.00002	121	0.499	209	0.000026	<0.005	<0.005	0.00565	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/9/2019 15:05	WB6320	M	<0.0002	0.0313	38.8	0.0451	<0.000002	0.0126	0.0029		4.41	0.0103	1.97	<0.00002	113	0.526	179	0.000016	<0.005	<0.005	0.00546	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/10/2019 13:05	WB8326	M	<0.0002	0.0347	43.3	0.0425	<0.000002	0.013	0.003		4.72	0.0108	2.02	<0.00002	128	0.567	197	0.000019	<0.005	<0.005	0.00517	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/11/2019 13:35	WC0499	M	<0.0002	0.0336	44.3	0.0338	<0.000002	0.0127	0.003		4.70	0.0103	1.94	<0.00002	128	0.535	197	0.000019	<0.005	<0.005	0.00537	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/12/2019 13:00	WC0458	M	<0.0004	0.0351	45.3	0.038	<0.000002	0.012	0.0047		4.78	0.00976	2.21	<0.00004	140	0.524	204	<0.00002	<0.01	<0.01	0.00522	<0.01	<0.01	<0.0002
RSEM-L5E-EOP	7/13/2019 14:30	WC4354	M	<0.0002	0.0377	47.0	<0.001	<0.000002	0.0127	0.0024		5.47	0.00955	2.22	<0.00002	144	0.53	233	0.000024	<0.005	<0.005	0.00534	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/14/2019 14:55	WC4358	M	<0.0002	0.0384	47.0	<0.001	<0.000002	0.0125	0.0028		5.56	0.00935	2.23	<0.00002	146	0.545	234	0.000024	<0.005	<0.005	0.00529	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/15/2019 13:25	WC7556	M	<0.0002	0.0368	43.1	0.0163	<0.000002	0.0119	0.0027		4.84	0.00896	2.05	<0.00002	136	0.572	195	0.000021	<0.005	<0.005	0.00535	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/16/2019 13:33	WC9634	M	<0.0002	0.0369	46.3	0.0207	<0.000002	0.0109	0.0021		5.20	0.00845	2.11	<0.00002	143	0.503	210	0.000019	<0.005	<0.005	0.00491	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/17/2019 15:15	WD1679	M	<0.0002	0.0365	42.9	0.0152	<0.000002	0.0109	0.0018		4.77	0.00814	2.08	<0.00002	129	0.569	197	0.000016	<0.005	<0.005	0.00458	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/18/2019 14:10	WD4015	M	<0.0002	0.0357	44.9	0.0161	<0.000002	0.0106	0.0021		4.94	0.00721	2.31	<0.00002	137	0.584	200	0.000018	<0.005	<0.005	0.00498	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/19/2019 13:25	WD4026	M	<0.0002	0.0365	46.3	0.0554	<0.000002	0.0104	0.0036		5.08	0.00711	2.4	<0.00002	139	0.588	210	0.000018	<0.005	<0.005	0.00477	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/20/2019 15:25	WD7114	M	<0.0002	0.0351	47.0	0.0556	<0.000002	0.0103	0.004		5.05	0.00718	2.34	<0.00002	144	0.591	206	0.000022	<0.005	<0.005	0.00464	<0.005	0.0084	<0.0001
RSEM-L5E-EOP	7/21/2019 15:25	WD7087	M	<0.0002	0.0363	48.9	0.0591	<0.000002	0.0103	0.0044		5.16	0.0069	2.26	<0.00002	145	0.596	215	0.000017	<0.005	<0.005	0.00453	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	7/22/2019 13:11	WD8947	M	8.36	1530	5.1	1100	6.8	501	488	154	1.9	183	2.2	<1.0	25.6	0.250	0.39	530			0.066	0.0328	1.58	1.62	<0.0050
RSEM-L5E-EOP	7/23/2019 14:20	WE1028	M	8.31	1520	6.6	1090	10.0	485	519	156	<1.0	190	<1.0	<1.0	27.8	<0.020	0.41	625			0.062	0.0303	1.41	1.44	<0.0050
RSEM-L5E-EOP	7/24/2019 15:15	WE3038	M	8.36	1530	2.8	1070	10.0	505	502	154	1.8	184	2.2	<1.0	27.1	0.280	0.48	656			0.065	0.0325	1.46	1.50	<0.0050
RSEM-L5E-EOP	7/25/2019 13:40	WE4853	M	8.35	1500	5.7	1100	7.6	478	489	158	1.5	189	1.8	<1.0	27.7	0.280	0.51	636			<0.015	0.0316	1.60	1.63	<0.0050
RSEM-L5E-EOP	7/26/2019 10:40	WE4709	M	8.30	1510	5.1	1110	4.4	485	483	159	<1.0	193	<1.0	<1.0	27.7	0.280	0.52	599			<0.015	0.0312	1.58	1.61	<0.0050
RSEM-L5E-EOP	7/27/2019 13:10	WE7078	M	8.33	1520	4.3	1090	6.4	485	473	158	1.5	189	1.8	<1.0	27.3	0.270	0.51	578			0.018	0.0296	1.52	1.55	<0.0050
RSEM-L5E-EOP	7/28/2019 12:45	WE7125	M	8.37	1530	3.3	1120	9.6	481	486	159	2.5	187	3.0	<1.0	28.2	<0.020	0.52	531			0.021	0.0327	1.50	1.54	<0.0050
RSEM-L5E-EOP	7/29/2019 10:35	WE7144	M	8.35	1510	2.2	1010	4.8	455	483	159	2.1	189	2.6	<1.0	28.1	0.260	0.52	613			0.018	0.0306	1.47	1.50	<0.0050
RSEM-L5E-EOP	7/30/2019 15:00	WF2080	M	8.32	1540	2.5	1100	4.4	458	490	165	<1.0	201	<1.0	<1.0	28.7	0.260	0.55	618			<0.015	0.0236	1.35	1.38	<0.0050
RSEM-L5E-EOP	7/31/2019 13:15	WF4369	M	8.32	1570	1.3	1140	<4.0	486	512	163	1.6	195	2.0	<1.0	28.9	0.260	0.55	654			<0.015	0.0229	1.53	1.55	<0.0050
RSEM-L5E-EOP	8/1/2019 14:40	WF6265	M	8.26	1600	2.7	1200	3.6	517	539	170	<1.0	210	<1.0	<1.0	34	0.25	0.62	640			<0.015	0.0239	1.38	1.41	<0.0030
RSEM-L5E-EOP	8/2/2019 11:00	WF6287	M	8.33	1800	<0.10	1300	<1.0	585	521	180	1.4	220	1.6	<1.0	30	0.25	0.65	660			<0.015	0.0229	1.38	1.40	<0.0030
RSEM-L5E-EOP	8/3/2019 13:50	WF7651	M	8.32	1890	1.0	1420	<4.0	595	629	191	1.2	230	1.5	<1.0	31.5	0.230	0.69	779			<0.015	0.0233	0.893	0.916	<0.0050
RSEM-L5E-EOP	8/4/2019 15:25	WF7666	M	8.29	1920	0.97	1430	4.0	596	636	193	<1.0	235	<1.0	<1.0	30.1	0.240	0.68	813			<0.015	0.0224	1.29	1.31	<0.0050
RSEM-L5E-EOP	8/5/2019 13:25	WF9956	M	8.29	1920	0.89	1430	<4.0	626	629	194	<1.0	237	<1.0	<1.0	30.0	0.240	0.72	689			0.015	0.0203	1.26	1.28	0.0053
RSEM-L5E-EOP	8/6/2019 14:25	WG2812	M	8.29	1950	0.70	1470	<4.0	632	640	196	<1.0	240	<1.0	<1.0	35.3	0.240	0.73	844			0.017	0.0179	1.20	1.21	<0.0050
RSEM-L5E-EOP	8/7/2019 11:37	WG4496	M	8.32	2000	0.93	1500	<4.0	633	643	198	1.6	238	1.9	<1.0	35.1	0.230	0.75	828			<0.015	0.0202	1.20	1.22	<0.0050
RSEM-L5E-EOP	8/8/2019 15:05	WG6511	M	8.32	2200	1.1	1700	4.8	689	705	200	2.2	240	2.6	<1.0	36	0.23	0.79	950			0.015	0.0178	1.11	1.13	<0.0030
RSEM-L5E-EOP	8/9/2019 11:30	WG6546	M	8.33	2200	1.2	1700	3.2	718	737	210	2.3	250	2.8	<1.0	36	0.23	0.76	1000			<0.015	0.0174	1.08	1.09	<0.0030
RSEM-L5E-EOP	8/16/2019 11:40	WH8427	M	8.20	2000	12	1600	16	644	671	180	<1.0	210	<1.0	<1.0	37	0.28	0.73	900			<0.015	0.0282	1.63	1.65	<0.0030
RSEM-L5E-EOP	8/18/2019 15:15	WI0688	M	8.06	1610	6.0	1330	12.4	558	574	132	<1.0	161	<1.0	<1.0	25	0.320	0.51	690			0.17	0.0384	2.35	2.39	<0.0050
RSEM-L5E-EOP	8/19/2019 14:50	WI2770	M	8.08	1600	3.4		4.8	552	574	122	<1.0	149	<1.0	<1.0	23	0.350	0.46	630			0.24	0.0363	2.91	2.95	<0.0030
RSEM-L5E-EOP	8/21/2019 12:15	WI5133	M	8.16	1600	1.1	1200	1.6	545	557	120	<1.0	150	<1.0	<1.0	23	0.37	0.42	650			0.22	0.0436	2.98	3.02	0.0032
RSEM-L5E-EOP	8/22/2019 10:05	WI9247	M	8.16	1600	1.1	1200	<1.0	572	573	130	<1.0	150	<1.0	<1.0	25	0.39	0.40	700			0.065	0.0458	2.94	2.99	<0.0030
RSEM-L5E-EOP	8/23/2019 10:45	WI9312	M	8.18	1600	0.59	1200	<1.0	563	569	130	<1.0	150	<1.0	<1.0	25	0.40	0.41	700			0.073	0.0432	2.95	3.00	<0.0030
RSEM-L5E-EOP	8/24/2019 6:15	WJ3011	M	8.16	1700	0.4	1400	4	579	597	130	<1.0	160	<1.0	<1.0	25	0.41	0.49	720			0.36	0.0505	2.76	2.81	<0.0030
RSEM-L5E-EOP	8/25/2019 12:40	WJ3023	M	8.22	1800	0.89	1300	<1.0	615	626	140	<1.0	170	<1.0	<1.0	27	0.46	0.55	800			0.38	0.0584	2.67	2.73	<0.0030
RSEM-L5E-EOP	8/26/2019 13:00	WJ5217	M	8.06	1900	0.69	1500	<4.0	611	611	130	<1.0	160	<1.0	<1.0	28	0.47	0.54	840			0.36	0.0573	2.57	2.63	<0.0030
RSEM-L5E-EOP	8/27/2019 14:40	WJ7317	M	8.28	1900	0.77	1500	<4.0	613	603	130	<1.0	160	<1.0	<1.0	29	0.46	0.55	850			0.24	0.0544	2.16	2.21	<0.0030
RSEM-L5E-EOP	8/28/2019 14:55	WJ9550	M	8.24	2000	0.59	1400	<1.0	634	644	130	<1.0	160	<1.0	<1.0	29	0.46	0.53	870			0.31	0.0544	2.38	2.43	<0.0030
RSEM-L5E-EOP	8/29/2019 15:30	WK2436	M	8.05	1900	12	1500	6	624	626	120	<1.0	150	<1.0	<1.0	29	0.46	0.58	870			0.23	0.0501	2.37	2.42	<0.0030
RSEM-L5E-EOP	8/30/2019 10:20	WK2408	M	8.12	1900	1.3	1500	4.8	613	623	120	<1.0	150	<1.0	<1.0	29	0.42	0.57	850			0.21	0.05	2.38	2.43	<0.0030
RSEM-L5E-EOP	8/31/2019 13:00	WK4122	M	8.26	1900	0.63	1500	<4.0	607	626	120	<1.0	150	<1.0	<1.0	29	0.45	0.6	850			0.17	0.0472	2.26	2.31	<0.0030
RSEM-L5E-EOP	9/1/2019 13:30	WK4247	M	8.19	1900	0.92	1500	<4.0	607	613	120	<1.0	140	<1.0	<1.0	29	0.44	0.58	870			0.14	0.0481	2.19	2.24	<0.0030
RSEM-L5E-EOP	9/2/2019 12:30	WK6471	M	8.95	1900	0.81	1500	4.4	588	587	120	<1.0	140	<1.0	<1.0	29	0.43	0.62	850			0.074	0.0446	1.95	2.00	<0.0030
RSEM-L5E-EOP	9/3/2019 15:00	WK8388	M	8.20	1900	0.65	1500	<4.0	600	600	110	<1.0	140	<1.0	<1.0	34	0.41	0.60	950			0.10	0.0465	1.86	1.91	<0.0030
RSEM-L5E-EOP	9/4/2019 15:00	WL0775	M	7.93	1900	1.6	1500	5.6	573	583	110	<1.0	140	<1.0	<1.0	31	0.40	0.59	960			0.094	0.0454	1.67	1.71	<0.0030
RSEM-L5E-EOP	9/5/2019 13:35	WL2430	M	7.79	1900	0.52	1500	<4.0	583	591	110	<1.0	130	<1.0	<1.0	30	0.41	0.61	850			0.077	0.0443	1.69	1.73	<0.0030
RSEM-L5E-EOP	9/6/2019 14:30	WL3947	M	8.20	1900	0.92	1500	<4.0	561	588	110	<1.0	140	<1.0	<1.0	29	0.38	0.62	910			0.017	0.0407	1.55	1.59	<0.0030
RSEM-L5E-EOP	9/7/2019 13:45	WL4978	M	8.03	1800	0.81	1500	<4.0	552	563	110	<1.0	140	<1.0	<1.0	30	0.37	0.64	810			0.021	0.0377	1.47	1.51	<0.0030
RSEM-L5E-EOP	9/8/2019 14:15	WL5053	M	8.08	1800	0.65	1500	<4.0	555	557	110	<1.0	140	<1.0	<1.0	30	0.36	0.62	900			0.029	0.0387	1.41	1.45	<0.0030
RSEM-L5E-EOP	9/9/2019 9:00	WL7022	M	8.05	1800	0.58	1500	<4.0	541	535	110	<1.0	140	<1.0	<1.0	30	0.36	0.67	800			0.038	0.0379	1.35	1.38	<0.0030
RSEM-L5E-EOP	9/10/2019 13:30	WL9320	M	8.01	1800	0.84	1400	4.0	500	578	120	<1.0	140	<1.0	<1.0	35	0.34	0.63	770			0.026	0.0325	1.27	1.30	<0.0030
RSEM-L5E-EOP	9/11/2019 14:10	WM1919	M	8.06	1800	1.0	1200	<4.0	522	513	130	<1.0	160	<1.0	<1.0	28	0.35	0.67	760			0.018	0.0314	1.13	1.16	<0.0030
RSEM-L5E-EOP	9/12/2019 12:35	WM1925	M	8.17	1700	1.1	1300	<4.0	496	497	130	<1.0	160	<1.0	<1.0	30	0.31	0.62	750			0.017	0.0324	1.04	1.07	<0.0030
RSEM-L5E-EOP	9/13/2019 12:30	WM4309	M	8.05	1700	0.83	1200	1.1	501	504	140	<1.0	170	<1.0	<1.0	30	0.32	0.65	690			<0.015	0.0268	0.954	0.981	<0.0030
RSEM-L5E-EOP	9/14/2019 13:00	WM7486	M	8.09	1700	0.96	1300	<4.0	508	475	130	<1.0	160	<1.0	<1.0	32	0.29	0.67	670			0.019	0.0260	0.818	0.844	<0.0030
RSEM-L5E-EOP	9/15/2019 12:35	WM7506	M	8.07	1700	0.78	1300	<4.0	478	473	140	<1.0	160	<1.0	<1.0	30	0.27	0.68	670			0.032	0.0272	0.786	0.813	<0.0030
RSEM-L5E-EOP	9/16/2019 13:50	WN0362	M	7.89	1500	7.2	1100	18	463	494	120	<1.0	150	<1.0	<1.0	26	0.30	0.48	570			0.075	0.0252	1.35	1.38	<0.0030
RSEM-L5E-EOP	9/17/2019 11:15	WN3119	M	7.54	1400	2.7	1100	7.2	472	481	120	<1.0	150	<1.0	<1.0	24	0.30	0.48	560			0.034	0.0339	1.36	1.39	<0.0030
RSEM-L5E-EOP	9/17/2019 11:30	WN3120	D	7.52	1400	2.7	1100	6.0	474	477	120	<1.0	150	<1.0	<1.0	24	0.30	0.52	550			0.034	0.0332	1.36	1.39	<0.0030
RSEM-L5E-EOP	9/18/2019 9:50	WN2832	M	7.87	1400	2.2	1100	<4.0	462	479	120	<1.0	150	<1.0	<1.0	24	0.32	0.47	540			0.032	0.0333	1.36	1.40	<0.0030
RSEM-L5E-EOP	9/18/2019 10:00	WN2833	D	7.95	1400	2.1	1100	4.0	452	506	120	<1.0	150	<1.0	<1.0	24	0.32	0.47	550			0.041	0.0324	1.36	1.40	<0.0030
RSEM-L5E-EOP	9/19/2019 10:50	WN7501	M	8.16	1400	0.90	980	<4.0	467	476	120	<1.0	150	<1.0	<1.0	23	0.33	0.47	550			0.065	0.0307	1.38	1.41	<0.0030
RSEM-L5E-EOP	9/19/2019 11:00	WN7502	D	8.14	1400	0.95	970	4.0	454	477	120	<1.0	150	<1.0	<1.0	24	0.33	0.47	550			0.073	0.0314	1.40	1.43	<0.0030
RSEM-L5E-EOP	9/20/2019 10:20	WN7541	M	8.01	1400	0.79	970	<4.0	470	463	120	<1.0	140	<1.0	<1.0	22	0.33	0.46	520			0.051	0.0298	1.36	1.39	<0.0030
RSEM-L5E-EOP	9/20/2019 10:30	WN7542	D	8.01	1400	1.1	980	<4.0	470	466	120	<1.0	150	<1.0	<1.0	22	0.33	0.46	510			0.056	0.0302	1.35	1.38	<0.0030
RSEM-L5E-EOP	9/21/2019 10:30	WO1827	M	7.99	1400	1.0	990	<4.0	456	462	120	<1.0	140	<1.0	<1.0	22	0.29	0.51	510			0.017	0.0278	1.28	1.31	<0.0030
RSEM-L5E-EOP	9/21/2019 10:45	WO1828	D	7.99	1400	0.86	1000	<4.0	464		120	<1.0	140	<1.0	<1.0	22	0.30	0.48	530			0.019	0.0296	1.30	1.33	<0.0030
RSEM-L5E-EOP	9/22/2019 10:30	WO1891	M	7.99	1400	0.78	990	<4.0	452	437	110	<1.0	140	<1.0	<1.0	22	0.30	0.45	520			0.018	0.0275	1.22	1.24	<0.0030
RSEM-L5E-EOP	9/22/2019 10:40	WO1892	D	8.01	1400	0.78	1000	<4.0	460	460	120	<1.0	140	<1.0	<1.0	22	0.28	0.50	530			0.020	0.0296	1.21	1.24	<0.0030
RSEM-L5E-EOP	9/23/2019 10:15	WO4847	M	7.98	1300	0.81	960	<4.0	460	467	110	<1.0	140	<1.0	<1.0	22	0.31	0.44	530			0.030	0.0270	1.09	1.11	<0.0030
RSEM-L5E-EOP	9/23/2019 10:25	WO4848	D	7.97	1400	0.81	950	<4.0	439	469	110	<1.0	140	<1.0	<1.0	22	0.32	0.46	540			<0.015	0.0255	1.09	1.12	<0.0030
RSEM-L5E-EOP	9/24/2019 12:10	WO4823	M	7.70	1300	0.70	940	<4.0	443	461	110	<1.0	130	<1.0	<1.0	22	0.30	0.46	550			0.027	0.0271	0.981	1.01	<0.0030
RSEM-L5E-EOP	9/25/2019 12:50	WO6412	M	7.79	1300	3.4	970	15.2	431	459	110	<1.0	130	<1.0	<1.0	22	0.30	0.44	540			0.061	0.0255	0.677	0.703	<0.0030
RSEM-L5E-EOP	9/26/2019 12:35	WP1627	M	7.93	1300	0.96	940	<4.0	438	416	100	<1.0	120	<1.0	<1.0	23	0.31	0.53	540			0.027	0.0242	0.758	0.782	<0.0030
RSEM-L5E-EOP	9/27/2019 10:55	WP3484	M	8.02	1300	1.0	930	<4.0	422	416	100	<1.0	130	<1.0	<1.0	23	0.29	0.48	520			0.026	0.0254	0.688	0.714	<0.0030
RSEM-L5E-EOP	9/28/2019 11:35	WP3452	M	7.69	1300	1.4	940	<4.0	425	417	110	<1.0	130	<1.0	<1.0	24	0.30	0.48	500			0.039	0.0255	0.625	0.651	<0.0030
RSEM-L5E-EOP	9/28/2019 11:40	WP3453	D	7.70	1300	1.2	930	<4.0	417	424	110	<1.0	130	<1.0	<1.0	24	0.30	0.49	500			0.043	0.0242	0.636	0.660	<0.0030
RSEM-L5E-EOP	9/29/2019 11:35	WP5512	M	7.76	1300	1.3	720	<4.0	415	416	110	<1.0	130	<1.0	<1.0	23	0.26	0.44	530			0.065	0.0214	0.594	0.615	<0.0030
RSEM-L5E-EOP	9/29/2019 11:45	WP5513	D	7.74	1300	1.3	940	<4.0	409	421	110	<1.0	130	<1.0	<1.0	23	0.26	0.53	530			0.037	0.0223	0.591	0.613	<0.0030
RSEM-L5E-EOP	9/30/2019 10:25	WP5292	M	7.87	1300	1.3	900	<4.0	405	413	110	<1.0	130	<1.0	<1.0	24	0.29	0.48	520			0.051	0.0219	0.551	0.573	<0.0030
RSEM-L5E-EOP	10/1/2019 15:50	WP9963	M	7.98	1300	2.4	930	9.6	411	414	110	<1.0	130	<1.0	<1.0	24	0.28	0.48	340			0.037	0.0206	0.485	0.505	<0.0030
RSEM-L5E-EOP	10/2/2019 15:00	WQ2279	M	8.06	1300	1.3	980	7.2	388	415	110	<1.0	140	<1.0	<1.0	24	0.25	0.46	490			0.040	0.0192	0.431	0.450	<0.0030
RSEM-L5E-EOP	10/3/2019 14:35	WQ4508	M	7.92	1300	1.5	970	6.0	389	404	110	<1.0	140	<1.0	<1.0	25	0.25	0.56	440			<0.015	0.0201	0.377	0.397	<0.0030
RSEM-L5E-EOP	10/4/2019 12:50	WQ4430	M	7.93	1300	1.1	920	<4.0	403	398	110	<1.0	140	<1.0	<1.0	25	0.26	0.54	480			0.024	0.0194	0.295	0.314	<0.0030
RSEM-L5E-EOP	10/5/2019 14:00	WQ7327	M	8.02	1300	1.2	900	1.5	390	430	120	<1.0	150	<1.0	<1.0	30	0.23	0.51	530			0.034	0.018	0.23	0.25	<0.0030

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	7/22/2019 13:11	WD8947	M	2.3	3.1	0.143	0.00087	0.00063	0.0761	<0.0001	<0.001	0.114	0.000051	124	0.0016	0.00101	0.00135	0.18	<0.0002	0.0365	46.1	0.0698	<0.000002	0.0101	0.0049		5.00	0.00688
RSEM-L5E-EOP	7/23/2019 14:20	WE1028	M	2.7	2.9	0.138	<0.001	0.0008	0.0746	<0.0002	<0.002	0.115	0.000041	117	<0.002	0.00096	0.0015	0.226	0.00479	0.0376	46.8	0.0604	0.0000026	0.0095	0.0049		5.11	0.00691
RSEM-L5E-EOP	7/24/2019 15:15	WE3038	M	2.5	2.6	0.127	0.00087	0.00078	0.0795	<0.0001	<0.001	0.107	0.000039	124	0.0015	0.00095	0.0014	0.241	<0.0002	0.0333	47.7	0.0556	0.0000026	0.01	0.0047		5.32	0.00679
RSEM-L5E-EOP	7/25/2019 13:40	WE4853	M	2.5	2.9	0.172	0.00074	0.0007	0.0718	<0.0001	<0.001	0.115	0.00003	117	0.0016	0.00078	0.00134	0.23	<0.0002	0.0383	45.0	0.0481	<0.000002	0.0095	0.0045		5.13	0.00629
RSEM-L5E-EOP	7/26/2019 10:40	WE4709	M	2.2	2.9	0.112	0.00075	0.00068	0.0711	<0.0001	<0.001	0.121	0.000027	119	0.0017	0.00068	0.00125	0.149	<0.0002	0.0391	45.8	0.0379	<0.000002	0.0097	0.0044		5.12	0.00636
RSEM-L5E-EOP	7/27/2019 13:10	WE7078	M	2.5	2.8	0.0856	0.00087	0.00077	0.0722	<0.0001	<0.001	0.119	0.000021	116	0.0016	0.00061	0.00121	0.134	<0.0002	0.0383	47.5	0.0291	<0.000002	0.0096	0.004		5.24	0.00631
RSEM-L5E-EOP	7/28/2019 12:45	WE7125	M	2.1	2.7	0.107	0.0009	0.00085	0.0714	<0.0001	<0.001	0.121	0.00002	115	0.0016	0.0006	0.00126	0.196	<0.0002	0.0394	46.9	0.0277	<0.000002	0.0094	0.0039		5.23	0.00627
RSEM-L5E-EOP	7/29/2019 10:35	WE7144	M	2.2	2.9	0.144	0.00085	0.00073	0.0659	<0.0001	<0.001	0.116	0.000014	109	0.0018	0.00053	0.00125	0.135	<0.0002	0.0391	44.5	0.0204	<0.000002	0.0093	0.0038		4.99	0.00576
RSEM-L5E-EOP	7/30/2019 15:00	WF2080	M	2.5	2.7	0.0561	0.00087	0.00085	0.0642	<0.0001	<0.001	0.122	0.00001	109	0.0016	0.00059	0.00111	0.072	<0.0002	0.0397	45.3	0.0288	<0.000002	0.009	0.0036		5.05	0.00585
RSEM-L5E-EOP	7/31/2019 13:15	WF4369	M	2.6	3.1	0.0365	<0.001	0.00072	0.0654	<0.0002	<0.002	0.131	<0.00002	115	<0.002	0.00063	0.0012	0.053	<0.0004	0.0394	48.1	0.0391	<0.000002	0.0093	0.0042		5.26	0.00602
RSEM-L5E-EOP	8/1/2019 14:40	WF6265	M	2.3	2.5	0.0879	0.001	0.00094	0.0677	0.00022	<0.002	0.14	0.000232	117	<0.002	0.00126	0.0017	0.164	<0.0004	0.0429	54.5	0.0808	<0.000002	0.0095	0.0055		5.51	0.00611
RSEM-L5E-EOP	8/2/2019 11:00	WF6287	M	2.0	2.6	0.0291	0.001	0.00074	0.065	<0.0002	<0.002	0.162	0.000118	129	<0.002	0.00189	0.0014	0.032	<0.0004	0.0475	64.0	0.163	<0.000002	0.0098	0.0069		5.54	0.00599
RSEM-L5E-EOP	8/3/2019 13:50	WF7651	M	2.5	2.2	0.0304	0.00089	0.00064	0.0643	<0.0001	<0.001	0.136	0.000018	131	0.0013	0.00212	0.00122	0.053	<0.0002	0.0488	65.3	0.199	<0.000002	0.009	0.0076		5.28	0.00491
RSEM-L5E-EOP	8/4/2019 15:25	WF7666	M	2.5	2.4	0.0277	0.00087	0.0006	0.0621	<0.0001	<0.001	0.139	0.000021	129	0.0012	0.00208	0.00125	0.041	<0.0002	0.0492	66.8	0.201	<0.000002	0.0088	0.0075		5.15	0.00458
RSEM-L5E-EOP	8/5/2019 13:25	WF9956	M	2.6	2.6	0.0328	0.00093	0.00068	0.0605	<0.0001	<0.001	0.153	0.00002	130	0.0013	0.00209	0.00113	0.04	<0.0002	0.0471	73.4	0.185	<0.000002	0.0088	0.0077		5.39	0.00502
RSEM-L5E-EOP	8/6/2019 14:25	WG2812	M	2.3	2.2	0.0253	0.00093	0.00067	0.0595	<0.0001	<0.001	0.145	0.000019	131	0.001	0.00205	0.00111	0.03	<0.0002	0.0447	74.3	0.195	<0.000002	0.0087	0.0078		5.18	0.00496
RSEM-L5E-EOP	8/7/2019 11:37	WG4496	M	2.1	2.7	0.0234	0.0009	0.00063	0.0568	<0.0001	<0.001	0.154	0.000016	130	0.0011	0.00209	0.00102	0.021	<0.0002	0.0504	74.9	0.189	<0.000002	0.0088	0.0077		5.16	0.00483
RSEM-L5E-EOP	8/8/2019 15:05	WG6511	M	2.2	2.1	0.027	<0.001	0.00081	0.0547	0.00031	<0.002	0.165	0.000019	137	<0.002	0.0036	0.0013	0.042	<0.0004	0.0561	84.4	0.284	<0.000002	0.008	0.0111		5.19	0.00461
RSEM-L5E-EOP	8/9/2019 11:30	WG6546	M	2.2	2.3	0.0288	<0.001	0.00062	0.054	<0.0002	<0.002	0.169	0.000079	139	<0.002	0.00356	0.001	0.036	<0.0004	0.0595	90.3	0.296	<0.000002	0.0079	0.0114		5.30	0.00428
RSEM-L5E-EOP	8/16/2019 11:40	WH8427	M	2.3	2.6	0.247	<0.001	0.00083	0.057	<0.0002	<0.002	0.163	0.00005	134	<0.002	0.00129	0.0019	0.626	<0.0004	0.0492	75.1	0.103	<0.000002	0.0109	0.0063		5.04	0.0056
RSEM-L5E-EOP	8/18/2019 15:15	WI0688	M	3.2	3.6	0.153	0.00091	0.00067	0.0594	<0.0001	<0.001	0.122	0.000124	129	<0.001	0.00217	0.00155	0.255	<0.0002	0.0393	57.5	0.235	<0.000002	0.0095	0.0087		4.86	0.0076
RSEM-L5E-EOP	8/19/2019 14:50	WI2770	M	3.4	3.5	0.111	0.00091	0.00053	0.0601	<0.0001	<0.001	0.116	0.000361	132	<0.001	0.00678	0.00139	0.13	<0.0002	0.0388	53.7	0.452	<0.000002	0.0091	0.0232		4.72	0.00917
RSEM-L5E-EOP	8/21/2019 12:15	WI5133	M	3.0	3.5	0.0746	0.00093	0.00054	0.0582	<0.0001	<0.001	0.112	0.000385	132	<0.001	0.00751	0.00135	0.064	<0.0002	0.0399	52.3	0.458	<0.000002	0.0092	0.027		4.78	0.00958
RSEM-L5E-EOP	8/22/2019 10:05	WI9247	M	2.8	2.8	0.0391	0.00112	0.00052	0.0578	<0.0001	<0.001	0.124	0.000388	139	<0.001	0.00776	0.00117	0.033	<0.0002	0.0416	54.6	0.479	<0.000002	0.0112	0.029		4.89	0.0104
RSEM-L5E-EOP	8/23/2019 10:45	WI9312	M	2.6	2.8	0.0452	0.0011	0.00053	0.0556	<0.0001	<0.001	0.124	0.000338	137	<0.001	0.00695	0.00126	0.056	<0.0002	0.0426	53.9	0.43	<0.000002	0.013	0.0272		4.86	0.00993
RSEM-L5E-EOP	8/24/2019 6:15	WJ3011	M	2.5	2.7	0.032	0.00119	0.00053	0.0527	<0.0001	<0.001	0.128	0.000269	137	<0.001	0.00638	0.00102	0.021	<0.0002	0.0449	57.2	0.39	<0.000002	0.0097	0.0255		4.79	0.0105
RSEM-L5E-EOP	8/25/2019 12:40	WJ3023	M	2.5	2.5	0.0307	0.00133	0.00068	0.049	<0.0001	<0.001	0.137	0.000181	143	<0.001	0.00575	0.00104	0.022	<0.0002	0.0499	62.6	0.352	0.0000043	0.0105	0.0227		5.15	0.0107
RSEM-L5E-EOP	8/26/2019 13:00	WJ5217	M	2.1	2.5	0.0315	0.00137	0.00065	0.0478	<0.0001	<0.001	0.139	0.000123	142	<0.001	0.00502	0.00098	0.019	<0.0002	0.0523	62.5	0.304	<0.000002	0.0107	0.0212		5.02	0.0106
RSEM-L5E-EOP	8/27/2019 14:40	WJ7317	M	2.3	2.3	0.0298	0.00136	0.00062	0.0457	<0.0001	<0.001	0.145	0.000116	139	<0.001	0.00474	0.00101	0.019	<0.0002	0.049	64.6	0.276	<0.000002	0.0108	0.0207		5.02	0.0101
RSEM-L5E-EOP	8/28/2019 14:55	WJ9550	M	2.3	2.5	0.0264	0.0014	0.00065	0.0454	<0.0001	<0.001	0.153	0.000071	145	<0.001	0.00395	0.00096	0.016	<0.0002	0.0521	66.3	0.226	<0.000002	0.0107	0.019		5.22	0.00977
RSEM-L5E-EOP	8/29/2019 15:30	WK2436	M	2.3	2.4	0.069	0.00134	0.00066	0.045	<0.0001	<0.001	0.154	0.000063	138	<0.001	0.00334	0.00105	0.112	<0.0002	0.0482	67.7	0.176	<0.000002	0.0106	0.0181		4.92	0.00999
RSEM-L5E-EOP	8/30/2019 10:20	WK2408	M	2.1	2.4	0.0493	0.00128	0.00065	0.0408	<0.0001	<0.001	0.151	0.000044	135	<0.001	0.00301	0.00101	0.071	<0.0002	0.0505	67.4	0.159	0.0000029	0.0105	0.0171		4.79	0.00968
RSEM-L5E-EOP	8/31/2019 13:00	WK4122	M	2.1	2.2	0.0285	0.00131	0.00062	0.0387	<0.0001	<0.001	0.146	0.000028	133	<0.001	0.0025	0.00091	0.016	<0.0002	0.0467	66.7	0.117	<0.000002	0.0101	0.0158		4.84	0.00976
RSEM-L5E-EOP	9/1/2019 13:30	WK4247	M	2.2	2.1	0.0366	0.00126	0.00065	0.0382	<0.0001	<0.001	0.161	0.000023	133	<0.001	0.00191	0.00093	0.029	<0.0002	0.0502	66.8	0.0805	<0.000002	0.01	0.0137		4.84	0.00891
RSEM-L5E-EOP	9/2/2019 12:30	WK6471	M	2.3	2.4	0.0349	0.00129	0.00064	0.0368	<0.0001	<0.001	0.151	0.000021	129	<0.001	0.00183	0.00096	0.036	<0.0002	0.0508	64.2	0.0764	<0.000002	0.0096	0.0132		4.62	0.00935
RSEM-L5E-EOP	9/3/2019 15:00	WK8388	M	2.1	2.8	0.0246	0.00125	0.00065	0.0352	<0.0001	<0.001	0.156	0.000014	131	<0.001	0.00148	0.00106	0.017	<0.0002	0.0541	66.5	0.0546	<0.000002	0.0097	0.0125		4.74	0.00901
RSEM-L5E-EOP	9/4/2019 15:00	WL0775	M	2.7	3.0	0.0504	0.00119	0.00067	0.0344	<0.0001	<0.001	0.153	0.000017	125	<0.001	0.00134	0.00097	0.075	<0.0002	0.0503	63.6	0.0484	<0.000002	0.0095	0.0114		4.55	0.00905
RSEM-L5E-EOP	9/5/2019 13:35	WL2430	M	2.4	3.0	0.0253	0.00123	0.00065	0.0326	<0.0001	<0.001	0.156	<0.00001	126	<0.001	0.00109	0.00093	0.021	<0.0002	0.0533	65.1	0.0371	<0.000002	0.0098	0.0109		4.46	0.00892
RSEM-L5E-EOP	9/6/2019 14:30	WL3947	M	2.2	2.5	0.0409	0.00143	0.00065	0.0324	<0.0001	<0.001	0.155	<0.00001	120	<0.001	0.00076	0.00093	0.027	<0.0002	0.0524	63.3	0.0232	<0.000002	0.0094	0.0093		4.43	0.00831
RSEM-L5E-EOP	9/7/2019 13:45	WL4978	M	2.2	2.8	0.0275	0.00115	0.00064	0.0307	<0.0001	<0.001	0.147	<0.00001	119	<0.001	0.00067	0.0009	0.027	<0.0002	0.0496	61.7	0.0201	<0.000002	0.0095	0.0085		4.50	0.00836
RSEM-L5E-EOP	9/8/2019 14:15	WL5053	M	2.6	3.2	0.0251	0.00117	0.00068	0.0285	<0.0001	<0.001	0.154	<0.00001	117	<0.001	0.00055	0.00092	0.017	<0.0002	0.0489	63.8	0.0148	<0.000002	0.0087	0.0084		4.47	0.00816
RSEM-L5E-EOP	9/9/2019 9:00	WL7022	M	2.3	3.0	0.0215	0.00117	0.0007	0.0282	<0.0001	<0.001	0.139	<0.00001	116	<0.001	0.00048	0.00096	0.018	<0.0002	0.0494	61.1	0.0125	<0.000002	0.0088	0.008		4.55	0.00773
RSEM-L5E-EOP	9/10/2019 13:30	WL9320	M	2.2	2.9	0.0318	0.00111	0.00072	0.0282	<0.0001	<0.001	0.131	<0.00001	107	<0.001	0.00039	0.00101	0.027	<0.0002	0.0472	56.5	0.0109	<0.000002	0.0083	0.0066		4.39	0.00699
RSEM-L5E-EOP	9/11/2019 14:10	WM1919	M	2.4	3.3	0.0279	0.00117	0.00073	0.0292	<0.0001	<0.001	0.121	<0.00001	113	0.0011	0.00035	0.00094	0.03	<0.0002	0.043	58.2	0.0114	<0.000002	0.0088	0.006		4.70	0.00656
RSEM-L5E-EOP	9/12/2019 12:35	WM1925	M	2.6	3.4	0.0349	0.00118	0.00086	0.0295	<0.0001	<0.001	0.139	<0.00001	106	0.0012	0.00032	0.00101	0.035	<0.0002	0.0468	56.5	0.0112	<0.000002	0.0087	0.0056		4.77	0.0064
RSEM-L5E-EOP	9/13/2019 12:30	WM4309	M	3.6	3.7	0.0321	0.00119	0.00077	0.0277	<0.0001	<0.001	0.13	<0.00001	108	0.0014	0.00026	0.00094	0.024	<0.0002	0.0446	56.1	0.0087	0.0000027	0.0088	0.005		4.81	0.00622
RSEM-L5E-EOP	9/14/2019 13:00	WM7486	M	2.4	3.4	0.0494	0.00125	0.00079	0.0248	<0.0001	<0.001	0.17	<0.00001	106	0.0014	0.00029	0.00105	0.043	<0.0002	0.0555	58.8	0.008	0.0000054	0.0087	0.0048		4.79	0.00642
RSEM-L5E-EOP	9/15/2019 12:35	WM7506	M	2.3	3.4	0.0279	0.00124	0.00081	0.0224	<0.0001	<0.001	0.151	<0.00001	105	0.0012	0.00021	0.00088	0.028	<0.0002	0.0482	52.4	0.0048	<0.000002	0.009	0.0041		4.79	0.00584
RSEM-L5E-EOP	9/16/2019 13:50	WN0362	M	2.0	3.0	0.274	0.001	0.00071	0.0391	<0.0001	<0.001	0.121	0.000073	109	0.002	0.00114	0.00192	0.525	0.00034	0.0417	46.4	0.145	<0.000002	0.008	0.0059		4.62	0.00599
RSEM-L5E-EOP	9/17/2019 11:15	WN3119	M	1.9	3.8	0.103	0.00098	0.00072	0.0358	<0.0001	<0.001	0.112	0.000058	114	0.0016	0.00089	0.00147	0.168	<0.0002	0.0365	45.3	0.123	<0.000002	0.0084	0.0054		4.80	0.00605
RSEM-L5E-EOP	9/17/2019 11:30	WN3120	D	2.3	3.1	0.0987	0.00099	0.0007	0.0358	<0.0001	<0.001	0.113	0.000054	115	0.0017	0.00086	0.00137	0.163	<0.0002	0.036	45.5	0.121	<0.000002	0.0081	0.0054		4.78	0.00607
RSEM-L5E-EOP	9/18/2019 9:50	WN2832	M	2.2	3.2	0.0626	0.00095	0.00064	0.0321	<0.0001	<0.001	0.109	0.000166	114	0.0016	0.0021	0.0012	0.097	<0.0002	0.0357	43.0	0.152	<0.000002	0.0082	0.0105		4.63	0.00599
RSEM-L5E-EOP	9/18/2019 10:00	WN2833	D	1.9	3.5	0.0633	0.00093	0.00063	0.0313	<0.0001	<0.001	0.104	0.000158	111	0.0015	0.00204	0.00115	0.091	<0.0002	0.0342	42.2	0.152	<0.000002	0.008	0.01		4.58	0.00595
RSEM-L5E-EOP	9/19/2019 10:50	WN7501	M	1.8	2.2	0.0619	0.00097	0.0006	0.0305	<0.0001	<0.001	0.107	0.000178	118	0.0016	0.00244	0.00107	0.054	<0.0002	0.0376	41.9	0.152	<0.000002	0.008	0.0119		4.94	0.00644
RSEM-L5E-EOP	9/19/2019 11:00	WN7502	D	1.9	2.5	0.0489	0.00091	0.00059	0.0292	<0.0001	<0.001	0.101	0.000168	113	0.0016	0.00256	0.00114	0.054	<0.0002	0.0356	41.4	0.18	<0.000002	0.0081	0.0128		4.62	0.00663
RSEM-L5E-EOP	9/20/2019 10:20	WN7541	M	1.7	3.3	0.0446	0.00098	0.00056	0.0284	<0.0001	<0.001	0.103	0.000134	117	0.0016	0.0021	0.00113	0.039	<0.0002	0.0366	43.2	0.131	<0.000002	0.0082	0.0116		5.10	0.00652
RSEM-L5E-EOP	9/20/2019 10:30	WN7542	D	1.7	3.2	0.0528	0.00095	0.00057	0.0283	<0.0001	<0.001	0.105	0.000131	120	0.0016	0.00203	0.00114	0.043	<0.0002	0.0356	41.7	0.129	<0.000002	0.0079	0.0115		5.00	0.00633
RSEM-L5E-EOP	9/21/2019 10:30	WO1827	M	1.9	2.2	0.0395	0.00089	0.0006	0.0232	<0.0001	<0.001	0.096	0.000081	112	0.0016	0.00162	0.00111	0.041	<0.0002	0.0332	42.8	0.107	<0.000002	0.0081	0.0107		4.80	0.00656
RSEM-L5E-EOP	9/21/2019 10:45	WO1828	D	1.9	3.0	0.0411	0.00089	0.00061	0.0241	<0.0001	<0.001	0.097	0.000086	114	0.0016	0.00165	0.0011	0.036	<0.0002	0.0334	43.3	0.11	0.0000021	0.0081	0.0108		4.81	0.00674
RSEM-L5E-EOP	9/22/2019 10:30	WO1891	M	1.9	3.1	0.0354	0.00087	0.00062	0.0197	<0.0001	<0.001	0.1	0.000054	111	0.0015	0.00121	0.00102	0.022	<0.0002	0.0328	42.6	0.0793	0.0000021	0.0079	0.01		4.67	0.00665
RSEM-L5E-EOP	9/22/2019 10:40	WO1892	D	2.0	2.8	0.0348	0.00092	0.00058	0.0208	<0.0001	<0.001	0.1	0.000048	113	0.0015	0.00126	0.00107	0.024	<0.0002	0.0339	43.4	0.0816	0.0000023	0.0081	0.0102		4.79	0.00664
RSEM-L5E-EOP	9/23/2019 10:15	WO4847	M	2.0	3.4	0.0499	0.0009	0.00058	0.018	<0.0001	<0.001	0.112	0.000022	110	0.0018	0.0009	0.0011	0.039	<0.0002	0.0368	45.0	0.0574	0.0000026	0.0083	0.0092		4.71	0.0069
RSEM-L5E-EOP	9/23/2019 10:25	WO4848	D	2.7	3.3	0.0505	0.00088	0.0006	0.0173	<0.0001	<0.001	0.109	0.000022	104	0.0017	0.00087	0.001	0.039	<0.0002	0.0355	43.4	0.0516	<0.000002	0.0077	0.009		4.57	0.00656
RSEM-L5E-EOP	9/24/2019 12:10	WO4823	M	2.1	3.2	0.0389	0.00086	0.00057	0.014	<0.0001	<0.001	0.11	0.000014	106	0.0017	0.00058	0.00107	0.023	<0.0002	0.0355	43.4	0.0405	0.0000036	0.0078	0.0084		4.72	0.00674
RSEM-L5E-EOP	9/25/2019 12:50	WO6412	M	1.9	3.0	0.154	0.00089	0.0007	0.019	<0.0001	<0.001	0.098	0.00002	104	0.0017	0.00057	0.00132	0.267	<0.0002	0.0341	41.3	0.0374	<0.000002	0.0078	0.008		4.53	0.00639
RSEM-L5E-EOP	9/26/2019 12:35	WP1627	M	2.2	3.2	0.0617	0.00101	0.00063	0.0127	<0.0001	<0.001	0.112	<0.00001	105	0.002	0.00036	0.00176	0.036	<0.0002	0.0377	42.5	0.0208	<0.000002	0.0081	0.0073		4.91	0.00691
RSEM-L5E-EOP	9/27/2019 10:55	WP3484	M	2.2	3.3	0.046	0.00087	0.00052	0.0118	<0.0001	<0.001	0.106	<0.00001	103	0.0017	0.00026	0.00103	0.034	<0.0002	0.0342	40.1	0.0136	<0.000002	0.0074	0.0061		4.40	0.00627
RSEM-L5E-EOP	9/28/2019 11:35	WP3452	M	2.5	3.4	0.0469	0.00087	0.00053	0.013	<0.0001	<0.001	0.108	<0.00001	104	0.0018	0.00024	0.00108	0.043	<0.0002	0.0337	40.1	0.0122	<0.000002	0.0073	0.006		4.39	0.00605
RSEM-L5E-EOP	9/28/2019 11:40	WP3453	D	2.3	3.2	0.0482	0.00088	0.0005	0.0126	<0.0001	<0.001	0.105	<0.00001	101	0.0015	0.00024	0.00108	0.042	<0.0002	0.0338	40.3	0.0123	<0.000002	0.0074	0.0058		4.37	0.00605
RSEM-L5E-EOP	9/29/2019 11:35	WP5512	M	2.2	2.9	0.066	0.00084	0.00052	0.013	<0.0001	<0.001	0.105	<0.00001	99.4	0.0016	0.00024	0.00109	0.053	<0.0002	0.0335	40.5	0.011	<0.000002	0.0073	0.0057		4.43	0.00606
RSEM-L5E-EOP	9/29/2019 11:45	WP5513	D	2.3	3.4	0.0562	0.00083	0.00052	0.0126	<0.0001	<0.001	0.105	<0.00001	98.4	0.0015	0.00024	0.00111	0.048	<0.0002	0.033	39.8	0.011	<0.000002	0.0072	0.0055		4.32	0.00589
RSEM-L5E-EOP	9/30/2019 10:25	WP5292	M	2.2	3.3	0.0596	0.00083	0.00055	0.0124	<0.0001	<0.001	0.104	<0.00001	96.4	0.0017	0.00023	0.00124	0.062	<0.0002	0.0343	40.0	0.0102	<0.000002	0.0074	0.0054		4.33	0.0059
RSEM-L5E-EOP	10/1/2019 15:50	WP9963	M	2.3	3.4	0.0962	0.00082	0.00069	0.0173	<0.0001	<0.001	0.094	0.000014	95.0	0.0017	0.0003	0.00126	0.218	<0.0002	0.0288	42.2	0.0138	<0.000002	0.0075	0.0052		4.44	0.00604
RSEM-L5E-EOP	10/2/2019 15:00	WQ2279	M	2.3	4.0	0.0864	0.00083	0.00065	0.0155	<0.0001	<0.001	0.102	0.000016	91.8	0.0015	0.00029	0.00109	0.136	<0.0002	0.0381	38.6	0.0127	<0.000002	0.0071	0.0047		4.20	0.00564
RSEM-L5E-EOP	10/3/2019 14:35	WQ4508	M	2.0	3.3	0.0657	0.00082	0.00061	0.0138	<0.0001	<0.001	0.105	0.000011	91.4	0.0015	0.00021	0.0011	0.1	<0.0002	0.0344	39.1	0.0092	<0.000002	0.007	0.0045		4.15	0.0055
RSEM-L5E-EOP	10/4/2019 12:50	WQ4430	M	2.3	3.3	0.057	0.00091	0.00068	0.0133	<0.0001	<0.001	0.117	<0.00001	94.4	0.0016	<0.0002	0.00095	0.037	<0.0002	0.0433	40.7	0.0078	<0.000002	0.0075	0.004		4.63	0.00548
RSEM-L5E-EOP	10/5/2019 14:00	WQ7327	M	2.2	2.4	0.0374	0.00079	0.00062	0.0132	<0.0001	<0.001	0.102	<0.00001	87.8	0.0014	<0.0002	0.00092	0.03	<0.0002	0.0355	41.5	0.0069	<0.000002	0.0069	0.0039		4.03	0.0053

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	7/22/2019 13:11	WD8947	M	2.55	<0.00002	139	0.578	203	0.000017	<0.005	<0.005	0.00449	<0.005	<0.005	<0.0001	0.0098	0.00082	0.00057	0.0729	<0.0001	<0.001	0.11	0.000039	118	0.0011	0.00086	0.00089	<0.01
RSEM-L5E-EOP	7/23/2019 14:20	WE1028	M	2.5	<0.00004	139	0.552	203	<0.00002	<0.01	<0.01	0.00426	<0.01	<0.01	<0.0002	0.0085	0.00085	0.00057	0.0736	<0.0001	<0.001	0.121	0.000027	127	0.0013	0.00078	0.00101	<0.01
RSEM-L5E-EOP	7/24/2019 15:15	WE3038	M	2.31	<0.00002	142	0.597	218	0.00002	<0.005	<0.005	0.00445	<0.005	<0.005	0.00011	0.0079	0.00084	0.00062	0.071	<0.0001	<0.001	0.12	0.000024	121	0.0013	0.00072	0.00095	<0.01
RSEM-L5E-EOP	7/25/2019 13:40	WE4853	M	2.57	<0.00002	142	0.549	195	0.000013	<0.005	<0.005	0.0043	<0.005	<0.005	0.00018	0.0087	0.00085	0.00067	0.0693	<0.0001	<0.001	0.116	0.000019	119	0.0013	0.00071	0.00089	<0.01
RSEM-L5E-EOP	7/26/2019 10:40	WE4709	M	2.5	<0.00002	146	0.566	200	0.000015	<0.005	<0.005	0.00437	<0.005	<0.005	<0.0001	0.0082	0.00085	0.00065	0.068	<0.0001	<0.001	0.114	0.000019	117	0.0013	0.00062	0.00196	<0.01
RSEM-L5E-EOP	7/27/2019 13:10	WE7078	M	2.39	<0.00002	148	0.568	206	0.000019	<0.005	<0.005	0.00412	<0.005	<0.005	<0.0001	0.0087	0.00178	0.00057	0.0642	<0.0001	<0.001	0.139	0.000018	113	0.0014	0.0005	0.001	<0.01
RSEM-L5E-EOP	7/28/2019 12:45	WE7125	M	2.58	<0.00002	150	0.566	205	0.00002	<0.005	<0.005	0.00392	<0.005	<0.005	0.00015	0.0073	0.00093	0.00065	0.0685	<0.0001	<0.001	0.123	<0.00001	117	0.0015	0.00046	0.00092	<0.01
RSEM-L5E-EOP	7/29/2019 10:35	WE7144	M	2.61	<0.00002	146	0.538	195	0.000017	<0.005	<0.005	0.00405	<0.005	<0.005	0.00023	0.0076	0.00093	0.00067	0.067	<0.0001	<0.001	0.126	<0.00001	118	0.0016	0.00041	0.00092	<0.01
RSEM-L5E-EOP	7/30/2019 15:00	WF2080	M	2.57	<0.00002	148	0.532	195	0.000016	<0.005	<0.005	0.00399	<0.005	<0.005	<0.0001	0.0074	0.00097	0.00069	0.0656	<0.0001	<0.001	0.129	<0.00001	117	0.0016	0.00054	0.00091	<0.01
RSEM-L5E-EOP	7/31/2019 13:15	WF4369	M	2.72	<0.00004	162	0.565	209	<0.00002	<0.01	<0.01	0.004	<0.01	<0.01	<0.0002	0.0093	0.001	0.00073	0.0676	<0.0001	<0.001	0.153	<0.00001	123	0.0016	0.00059	0.00194	<0.01
RSEM-L5E-EOP	8/1/2019 14:40	WF6265	M	2.91	<0.00004	171	0.558	222	0.000049	<0.01	<0.01	0.00446	<0.01	<0.01	<0.0002	0.007	0.00101	0.0007	0.0668	<0.0001	<0.001	0.138	<0.00001	124	0.0013	0.00079	0.00088	<0.01
RSEM-L5E-EOP	8/2/2019 11:00	WF6287	M	2.96	<0.00004	197	0.615	259	0.000035	<0.01	<0.01	0.00453	<0.01	<0.005	<0.0002	0.008	<0.001	0.00074	0.0609	<0.0002	<0.002	0.131	0.000022	113	<0.002	0.00175	0.0013	<0.02
RSEM-L5E-EOP	8/3/2019 13:50	WF7651	M	2.86	<0.00002	181	0.686	252	0.000019	<0.005	<0.005	0.00454	<0.005	<0.005	<0.0001	0.0058	0.00099	0.00066	0.063	<0.0001	<0.001	0.154	0.00002	135	0.0011	0.00194	0.0008	<0.01
RSEM-L5E-EOP	8/4/2019 15:25	WF7666	M	2.79	<0.00002	183	0.695	252	0.000018	<0.005	<0.005	0.00452	<0.005	<0.005	<0.0001	0.0051	0.00095	0.00065	0.0618	<0.0001	<0.001	0.158	0.000021	136	<0.001	0.00183	0.00111	<0.01
RSEM-L5E-EOP	8/5/2019 13:25	WF9956	M	2.74	<0.00002	207	0.657	277	0.000019	<0.005	<0.005	0.00431	<0.005	<0.005	<0.0001	0.0056	0.00095	0.00062	0.0582	<0.0001	<0.001	0.16	0.000019	134	0.0012	0.00207	0.00089	<0.01
RSEM-L5E-EOP	8/6/2019 14:25	WG2812	M	2.73	<0.00002	204	0.67	283	0.000017	<0.005	<0.005	0.00451	<0.005	<0.005	<0.0001	0.0051	0.00094	0.00059	0.0586	<0.0001	<0.001	0.155	0.000016	133	0.0011	0.00204	0.0009	<0.01
RSEM-L5E-EOP	8/7/2019 11:37	WG4496	M	2.75	<0.00002	206	0.655	286	0.000017	<0.005	<0.005	0.0044	<0.005	<0.005	<0.0001	0.0059	0.00094	0.0006	0.0579	<0.0001	<0.001	0.158	0.000014	132	0.0011	0.00217	0.00082	<0.01
RSEM-L5E-EOP	8/8/2019 15:05	WG6511	M	2.85	<0.00004	224	0.683	308	0.000039	<0.01	<0.01	0.0048	<0.01	<0.01	<0.0002	0.0042	0.00094	0.00059	0.0566	<0.0001	<0.001	0.174	<0.00001	140	<0.001	0.00305	0.0007	<0.01
RSEM-L5E-EOP	8/9/2019 11:30	WG6546	M	2.79	<0.00004	234	0.71	321	0.000021	<0.01	<0.01	0.00467	<0.01	<0.01	<0.0002	0.0044	0.00091	0.00064	0.0556	<0.0001	<0.001	0.158	<0.00001	142	<0.001	0.00327	0.00078	<0.01
RSEM-L5E-EOP	8/16/2019 11:40	WH8427	M	2.76	<0.00004	198	0.664	282	0.000021	<0.01	<0.01	0.00526	<0.01	<0.01	<0.0002	0.0061	0.00089	0.00066	0.0505	<0.0001	<0.001	0.16	0.000025	141	<0.001	0.001	0.00106	<0.01
RSEM-L5E-EOP	8/18/2019 15:15	WI0688	M	2.22	<0.00002	149	0.569	229	0.00002	<0.005	<0.005	0.00537	<0.005	<0.005	0.00011	0.0187	0.00096	0.00057	0.0575	<0.0001	<0.001	0.121	0.000122	136	<0.001	0.00201	0.00104	<0.01
RSEM-L5E-EOP	8/19/2019 14:50	WI2770	M	2.15	<0.00002	134	0.567	219	0.000021	<0.005	<0.005	0.00521	<0.005	0.0096	0.00013	0.0219	0.00096	0.00056	0.0604	<0.0001	<0.001	0.114	0.000363	138	<0.001	0.00695	0.00107	<0.01
RSEM-L5E-EOP	8/21/2019 12:15	WI5133	M	2	<0.00002	127	0.561	222	0.000018	<0.005	<0.005	0.005	<0.005	0.0094	<0.0001	0.0186	0.00099	0.00048	0.0567	<0.0001	<0.001	0.115	0.000381	136	<0.001	0.00693	0.00104	<0.01
RSEM-L5E-EOP	8/22/2019 10:05	WI9247	M	2.07	<0.00002	144	0.6	238	0.000022	<0.005	<0.005	0.00524	<0.005	0.0088	<0.0001	0.0173	0.00111	0.00049	0.0559	<0.0001	<0.001	0.115	0.000378	140	<0.001	0.00732	0.00094	<0.01
RSEM-L5E-EOP	8/23/2019 10:45	WI9312	M	2.02	<0.00002	146	0.605	235	0.000021	<0.005	<0.005	0.00514	<0.005	0.0072	<0.0001	0.0165	0.00114	0.00049	0.0535	<0.0001	<0.001	0.119	0.000338	139	<0.001	0.00666	0.00097	<0.01
RSEM-L5E-EOP	8/24/2019 6:15	WJ3011	M	2.07	<0.00002	158	0.622	246	0.000023	<0.005	<0.005	0.00511	<0.005	0.0052	<0.0001	0.0141	0.00121	0.00055	0.0526	<0.0001	<0.001	0.129	0.000284	143	<0.001	0.00633	0.0009	<0.01
RSEM-L5E-EOP	8/25/2019 12:40	WJ3023	M	2.11	<0.00002	183	0.686	284	0.000022	<0.005	<0.005	0.00537	<0.005	<0.005	<0.0001	0.0127	0.00139	0.00059	0.0481	<0.0001	<0.001	0.149	0.000182	146	<0.001	0.00555	0.00088	<0.01
RSEM-L5E-EOP	8/26/2019 13:00	WJ5217	M	2.02	<0.00002	187	0.737	280	0.000025	<0.005	<0.005	0.00522	<0.005	<0.005	<0.0001	0.013	0.00137	0.00067	0.0468	<0.0001	<0.001	0.145	0.000115	141	<0.001	0.00501	0.00084	<0.01
RSEM-L5E-EOP	8/27/2019 14:40	WJ7317	M	1.98	<0.00002	200	0.743	288	0.000024	<0.005	<0.005	0.00535	<0.005	<0.005	<0.0001	0.0118	0.00131	0.0006	0.0447	<0.0001	<0.001	0.147	0.000087	137	<0.001	0.00436	0.00077	<0.01
RSEM-L5E-EOP	8/28/2019 14:55	WJ9550	M	1.97	<0.00002	199	0.833	309	0.000023	<0.005	<0.005	0.00522	<0.005	<0.005	<0.0001	0.0124	0.00137	0.00062	0.0429	<0.0001	<0.001	0.158	0.00004	144	<0.001	0.00364	0.00078	<0.01
RSEM-L5E-EOP	8/29/2019 15:30	WK2436	M	1.94	<0.00002	209	0.725	293	0.000019	<0.005	<0.005	0.00499	<0.005	<0.005	<0.0001	0.0111	0.00139	0.00062	0.0419	<0.0001	<0.001	0.15	0.000024	140	<0.001	0.00294	0.00081	<0.01
RSEM-L5E-EOP	8/30/2019 10:20	WK2408	M	1.76	<0.00002	211	0.734	294	0.00002	<0.005	<0.005	0.00497	<0.005	<0.005	<0.0001	0.0107	0.00137	0.00063	0.0401	<0.0001	<0.001	0.153	0.000029	139	<0.001	0.00283	0.0008	<0.01
RSEM-L5E-EOP	8/31/2019 13:00	WK4122	M	1.61	<0.00002	210	0.715	301	0.000017	<0.005	<0.005	0.00483	<0.005	<0.005	<0.0001	0.0101	0.00131	0.00064	0.039	<0.0001	<0.001	0.164	0.000025	140	<0.001	0.0024	0.00075	<0.01
RSEM-L5E-EOP	9/1/2019 13:30	WK4247	M	1.58	<0.00002	207	0.753	299	0.000019	<0.005	<0.005	0.00491	<0.005	<0.005	<0.0001	0.0098	0.00125	0.00064	0.0373	<0.0001	<0.001	0.166	0.000018	135	<0.001	0.00177	0.00078	<0.01
RSEM-L5E-EOP	9/2/2019 12:30	WK6471	M	1.47	<0.00002	202	0.71	284	0.000019	<0.005	<0.005	0.00482	<0.005	<0.005	<0.0001	0.0086	0.00123	0.00061	0.0342	<0.0001	<0.001	0.147	<0.00001	129	<0.001	0.0017	0.00084	<0.01
RSEM-L5E-EOP	9/3/2019 15:00	WK8388	M	1.38	<0.00002	207	0.738	298	0.00002	<0.005	<0.005	0.00467	<0.005	<0.005	<0.0001	0.0089	0.00129	0.00062	0.0359	<0.0001	<0.001	0.149	0.000014	131	<0.001	0.00142	0.00086	<0.01
RSEM-L5E-EOP	9/4/2019 15:00	WL0775	M	1.36	<0.00002	206	0.701	274	0.000017	<0.005	<0.005	0.0046	<0.005	<0.005	<0.0001	0.0086	0.00128	0.00067	0.0349	<0.0001	<0.001	0.139	0.000011	128	<0.001	0.00126	0.00083	<0.01
RSEM-L5E-EOP	9/5/2019 13:35	WL2430	M	1.25	<0.00002	211	0.695	279	0.00002	<0.005	<0.005	0.00455	<0.005	<0.005	<0.0001	0.0094	0.0012	0.00064	0.0332	<0.0002	<0.002	0.152	<0.00002	126	<0.002	0.00107	<0.001	<0.02
RSEM-L5E-EOP	9/6/2019 14:30	WL3947	M	1.24	<0.00002	203	0.702	275	0.000019	<0.005	<0.005	0.00455	<0.005	<0.005	<0.0001	0.0079	0.00126	0.00059	0.0324	<0.0001	<0.001	0.164	<0.00001	130	<0.001	0.00068	0.00092	<0.01
RSEM-L5E-EOP	9/7/2019 13:45	WL4978	M	1.24	<0.00002	203	0.704	275	0.000015	<0.005	<0.005	0.0046	<0.005	<0.005	<0.0001	0.0076	0.0012	0.00065	0.0296	<0.0001	<0.001	0.16	<0.00001	120	<0.001	0.00061	0.0008	<0.01
RSEM-L5E-EOP	9/8/2019 14:15	WL5053	M	1.25	<0.00002	202	0.675	286	0.000018	<0.005	<0.005	0.00447	<0.005	<0.005	<0.0001	0.0076	0.00117	0.00067	0.0273	<0.0001	<0.001	0.16	<0.00001	116	<0.001	0.00052	0.00079	<0.01
RSEM-L5E-EOP	9/9/2019 9:00	WL7022	M	1.28	<0.00002	196	0.686	270	0.000018	<0.005	<0.005	0.00457	<0.005	<0.005	<0.0001	0.0069	0.00113	0.00066	0.0264	<0.0001	<0.001	0.15	<0.00001	113	<0.001	0.00042	0.00077	<0.01
RSEM-L5E-EOP	9/10/2019 13:30	WL9320	M	1.53	<0.00002	181	0.657	250	0.000016	<0.005	<0.005	0.00426	<0.005	<0.005	<0.0001	0.0083	0.00122	0.00066	0.0279	<0.0001	<0.001	0.158	<0.00001	126	<0.001	0.00038	0.00089	<0.01
RSEM-L5E-EOP	9/11/2019 14:10	WM1919	M	1.71	<0.00002	192	0.659	240	0.00002	<0.005	<0.005	0.00444	<0.005	<0.005	<0.0001	0.0068	0.00124	0.00081	0.0286	<0.0001	<0.001	0.145	<0.00001	110	0.0011	0.0003	0.00079	<0.01
RSEM-L5E-EOP	9/12/2019 12:35	WM1925	M	2.04	<0.00002	188	0.634	243	0.000015	<0.005	<0.005	0.00425	<0.005	<0.005	<0.0001	0.0063	0.0012	0.00074	0.0266	<0.0001	<0.001	0.147	<0.00001	106	0.0012	0.00028	0.00084	<0.01
RSEM-L5E-EOP	9/13/2019 12:30	WM4309	M	2.05	<0.00002	189	0.631	230	0.000016	<0.005	<0.005	0.0044	<0.005	<0.005	<0.0001	0.0054	0.00119	0.00078	0.0269	<0.0001	<0.001	0.123	<0.00001	108	0.0013	0.00022	0.00082	<0.01
RSEM-L5E-EOP	9/14/2019 13:00	WM7486	M	2.32	<0.00002	196	0.588	249	0.000015	<0.005	<0.005	0.00429	<0.005	<0.005	<0.0001	0.005	0.00124	0.0008	0.0231	<0.0001	<0.001	0.144	<0.00001	100	0.0013	0.00021	0.00086	<0.01
RSEM-L5E-EOP	9/15/2019 12:35	WM7506	M	2.19	<0.00002	182	0.617	249	0.000013	<0.005	<0.005	0.004	<0.005	<0.005	<0.0001	0.0053	0.00125	0.00058	0.0212	<0.0001	<0.001	0.155	<0.00001	98.0	0.0014	<0.0002	0.00094	<0.01
RSEM-L5E-EOP	9/16/2019 13:50	WN0362	M	2.37	<0.00002	137	0.494	200	0.000022	<0.005	0.0063	0.00475	<0.005	<0.005	0.00017	0.0181	0.00104	0.00066	0.0338	<0.0001	<0.001	0.124	0.000058	122	0.0015	0.00076	0.00089	<0.01
RSEM-L5E-EOP	9/17/2019 11:15	WN3119	M	2.14	<0.00002	138	0.51	200	0.000016	<0.005	<0.005	0.00446	<0.005	<0.005	<0.0001	0.0135	0.001	0.00067	0.0322	<0.0001	<0.001	0.107	0.00005	119	0.0015	0.00072	0.00106	<0.01
RSEM-L5E-EOP	9/17/2019 11:30	WN3120	D	2.17	<0.00002	139	0.503	199	0.000016	<0.005	<0.005	0.00447	<0.005	<0.005	<0.0001	0.0145	0.00102	0.00065	0.0336	<0.0001	<0.001	0.119	0.000054	118	0.0014	0.00072	0.00096	<0.01
RSEM-L5E-EOP	9/18/2019 9:50	WN2832	M	2.1	<0.00002	128	0.51	196	0.000015	<0.005	<0.005	0.0045	<0.005	0.0105	<0.0001	0.0148	0.00099	0.00061	0.0309	<0.0001	<0.001	0.113	0.000173	121	0.0015	0.00198	0.00084	<0.01
RSEM-L5E-EOP	9/18/2019 10:00	WN2833	D	1.99	<0.00002	126	0.49	188	0.000015	<0.005	<0.005	0.00459	<0.005	0.0101	<0.0001	0.0214	0.00096	0.00056	0.0316	<0.0001	<0.001	0.115	0.000167	127	0.0015	0.00211	0.00099	<0.01
RSEM-L5E-EOP	9/19/2019 10:50	WN7501	M	2.33	<0.00002	123	0.48	191	0.000014	<0.005	<0.005	0.00465	<0.005	0.0093	<0.0001	0.0171	0.00096	0.00065	0.0289	<0.0001	<0.001	0.102	0.000159	116	0.0015	0.00245	0.00096	<0.01
RSEM-L5E-EOP	9/19/2019 11:00	WN7502	D	2.19	<0.00002	122	0.491	186	0.000014	<0.005	<0.005	0.0048	<0.005	0.0102	<0.0001	0.0174	0.00098	0.00063	0.0292	<0.0001	<0.001	0.107	0.00016	116	0.0015	0.00239	0.00093	<0.01
RSEM-L5E-EOP	9/20/2019 10:20	WN7541	M	2.3	<0.00002	125	0.478	199	0.000014	<0.005	<0.005	0.00466	<0.005	0.0071	<0.0001	0.014	0.00095	0.00062	0.0273	<0.0001	<0.001	0.101	0.000123	113	0.0016	0.00188	0.00094	<0.01
RSEM-L5E-EOP	9/20/2019 10:30	WN7542	D	2.3	<0.00002	123	0.471	195	0.000016	<0.005	<0.005	0.00464	<0.005	0.0067	<0.0001	0.0136	0.00095	0.0006	0.0268	<0.0001	<0.001	0.097	0.000123	115	0.0015	0.00186	0.00101	<0.01
RSEM-L5E-EOP	9/21/2019 10:30	WO1827	M	1.95	<0.00002	122	0.481	187	0.000015	<0.005	<0.005	0.00461	<0.005	<0.005	<0.0001	0.0141	0.00097	0.00059	0.0231	<0.0001	<0.001	0.098	0.000082	112	0.0017	0.00157	0.00109	<0.01
RSEM-L5E-EOP	9/21/2019 10:45	WO1828	D	1.97	<0.00002	122	0.493	188	0.000014	<0.005	<0.005	0.00454	<0.005	<0.005	<0.0001													
RSEM-L5E-EOP	9/22/2019 10:30	WO1891	M	1.89	<0.00002	120	0.482	184	0.000014	<0.005	<0.005	0.00448	<0.005	<0.005	<0.0001	0.0099	0.00095	0.00057	0.0198	<0.0001	<0.001	0.094	0.000058	107	0.0016	0.00118	0.00103	<0.01
RSEM-L5E-EOP	9/22/2019 10:40	WO1892	D	1.95	<0.00002	123	0.49	188	0.000015	<0.005	<0.005	0.00471	<0.005	<0.005	<0.0001	0.0106	0.00092	0.00056	0.0195	<0.0001	<0.001	0.096	0.000057	113	0.0017	0.00123	0.00097	<0.01
RSEM-L5E-EOP	9/23/2019 10:15	WO4847	M	2.05	<0.00002	127	0.487	193	0.000015	<0.005	<0.005	0.00488	<0.005	<0.005	0.0001	0.0123	0.00091	0.00059	0.0167	<0.0001	<0.001	0.105	0.000019	117	0.0015	0.00082	0.00094	<0.01
RSEM-L5E-EOP	9/23/2019 10:25	WO4848	D	1.94	<0.00002	121	0.46	183	0.000014	<0.005	<0.005	0.00463	<0.005	<0.005	<0.0001	0.0125	0.00093	0.00056	0.0165	<0.0001	<0.001	0.105	0.000024	117	0.0016	0.00084	0.00098	<0.01
RSEM-L5E-EOP	9/24/2019 12:10	WO4823	M	2.05	<0.00002	124	0.482	190	0.000013	<0.005	<0.005	0.00478	<0.005	<0.005	<0.0001	0.0106	0.00093	0.00057	0.0141	<0.0001	<0.001	0.103	0.000011	114	0.0015	0.00053	0.00096	<0.01
RSEM-L5E-EOP	9/25/2019 12:50	WO6412	M	2.09	<0.00002	116	0.479	183	0.000015	<0.005	<0.005	0.00479	<0.005	<0.005	0.00011	0.0072	0.00093	0.00059	0.0136	<0.0001	<0.001	0.109	0.000019	115	0.0015	0.00042	0.00092	<0.01
RSEM-L5E-EOP	9/26/2019 12:35	WP1627	M	2.39	<0.00002	129	0.468	208	0.000015	<0.005	<0.005	0.00466	<0.005	<0.005	<0.0001	0.0105	0.00089	0.00059	0.0114	<0.0001	<0.001	0.101	<0.00001	99.9	0.0014	0.00027	0.00135	<0.01
RSEM-L5E-EOP	9/27/2019 10:55	WP3484	M	2.18	<0.00002	123	0.455	178	0.000011	<0.005	<0.005	0.00452	<0.005	<0.005	0.00011	0.0093	0.00088	0.00057	0.0117	<0.0001	<0.001	0.102	<0.00001	97.0	0.0015	0.00023	0.00089	<0.01
RSEM-L5E-EOP	9/28/2019 11:35	WP3452	M	2.25	<0.00002	124	0.46	179	0.000012	<0.005	<0.005	0.00442	<0.005	<0.005	<0.0001	0.0075	0.00087	0.00061	0.0127	<0.0001	<0.001	0.104	<0.00001	97.5	0.0016	0.0002	0.00091	<0.01
RSEM-L5E-EOP	9/28/2019 11:40	WP3453	D	2.17	<0.00002	124	0.46	178	0.00001	<0.005	<0.005	0.00444	<0.005	<0.005	<0.0001	0.0076	0.00088	0.0006	0.0126	<0.0001	<0.001	0.102	<0.00001	100	0.0015	<0.0002	0.00091	<0.01
RSEM-L5E-EOP	9/29/2019 11:35	WP5512	M	2.18	<0.00002	123	0.455	177	<0.00001	<0.005	<0.005	0.00444	<0.005	<0.005	<0.0001	0.0073	0.00085	0.00055	0.0118	<0.0001	<0.001	0.104	<0.00001	97.8	0.0014	<0.0002	0.00088	<0.01
RSEM-L5E-EOP	9/29/2019 11:45	WP5513	D	2.1	<0.00002	122	0.445	173	<0.00001	<0.005	<0.005	0.00434	<0.005	<0.005	<0.0001	0.0076	0.00083	0.00058	0.0117	<0.0001	<0.001	0.102	<0.00001	101	0.0014	<0.0002	0.00094	<0.01
RSEM-L5E-EOP	9/30/2019 10:25	WP5292	M	2.18	<0.00002	124	0.46	176	<0.00001	<0.005	<0.005	0.00438	<0.005	<0.005	<0.0001	0.0078	0.00084	0.00055	0.0118	<0.0001	<0.001	0.101	<0.00001	98.3	0.0014	<0.0002	0.00089	<0.01
RSEM-L5E-EOP	10/1/2019 15:50	WP9963	M	2.3	<0.00002	129	0.468	177	0.000012	<0.005	<0.005	0.0044	<0.005	<0.005	<0.0001	0.0078	0.00088	0.0006	0.0133	<0.0001	<0.001	0.105	0.000011	97.8	0.0015	<0.0002	0.00098	<0.01
RSEM-L5E-EOP	10/2/2019 15:00	WQ2279	M	2.43	<0.00002	123	0.437	181	0.000011	<0.005	<0.005	0.00395	<0.005	<0.005	<0.0001	0.0068	0.00085	0.00061	0.0127	<0.0001	<0.001	0.108	<0.00001	97.3	0.0014	<0.0002	0.00089	<0.01
RSEM-L5E-EOP	10/3/2019 14:35	WQ4508	M	2.15	<0.00002	128	0.44	169	<0.00001	<0.005	<0.005	0.00398	<0.005	<0.005	<0.0001	0.0059	0.00079	0.00059	0.0128	<0.0001	<0.001	0.087	<0.00001	92.3	0.0014	<0.0002	0.00086	<0.01
RSEM-L5E-EOP	10/4/2019 12:50	WQ4430	M	2.87	<0.00002	134	0.48	203	0.000011	<0.005	<0.005	0.0043	<0.005	<0.005	<0.0001	0.0064	0.00076	0.0006	0.0117	<0.0001	<0.001	0.092	<0.00001	91.1	0.0014	<0.0002	0.00085	<0.01
RSEM-L5E-EOP	10/5/2019 14:00	WQ7327	M	2.48	<0.00002	134	0.478	170	<0.00001	<0.005	<0.005	0.00417	<0.005	<0.005	<0.0001	0.0504	0.00087	0.00068	0.0138	<0.0001	<0.001	0.121	<0.00001	101	0.0015	<0.0002	0.00085	0.03

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	7/22/2019 13:11	WD8947	M	<0.0002	0.038	47.0	0.057	<0.000002	0.0101	0.0043		5.01	0.00715	2.03	<0.00002	138	0.566	201	0.000017	<0.005	<0.005	0.00454	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/23/2019 14:20	WE1028	M	<0.0002	0.038	48.9	0.0464	<0.000002	0.0105	0.0045		5.25	0.00707	2.25	<0.00002	148	0.589	213	0.000015	<0.005	<0.005	0.00454	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/24/2019 15:15	WE3038	M	<0.0002	0.0367	48.3	0.0471	<0.000002	0.0089	0.0044		5.79	0.00681	2.35	<0.00002	141	0.505	230	0.000018	<0.005	<0.005	0.00439	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/25/2019 13:40	WE4853	M	<0.0002	0.0362	46.9	0.0345	<0.000002	0.0097	0.0042		5.18	0.00671	2.21	<0.00002	142	0.554	207	0.000017	<0.005	<0.005	0.00444	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/26/2019 10:40	WE4709	M	<0.0002	0.0366	46.3	0.0275	<0.000002	0.0096	0.004		5.08	0.00656	2.19	<0.00002	142	0.542	205	0.000017	<0.005	<0.005	0.00443	<0.005	<0.005	0.00021
RSEM-L5E-EOP	7/27/2019 13:10	WE7078	M	<0.0002	0.0384	46.5	0.0215	<0.000002	0.0096	0.004		5.16	0.00663	2.4	<0.00002	146	0.562	208	0.000018	<0.005	<0.005	0.00408	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/28/2019 12:45	WE7125	M	<0.0002	0.0383	46.9	0.0179	<0.000002	0.0097	0.0038		5.19	0.0062	2.5	<0.00002	150	0.574	210	0.000017	<0.005	<0.005	0.00425	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/29/2019 10:35	WE7144	M	<0.0002	0.0375	45.5	0.0144	<0.000002	0.0096	0.0037		5.21	0.00618	2.47	<0.00002	151	0.563	202	0.000017	<0.005	<0.005	0.00412	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/30/2019 15:00	WF2080	M	<0.0002	0.0384	47.7	0.0268	<0.000002	0.0096	0.0037		5.36	0.00595	2.72	<0.00002	159	0.557	211	0.000015	<0.005	<0.005	0.00415	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	7/31/2019 13:15	WF4369	M	<0.0002	0.0466	49.7	0.0344	<0.000002	0.0098	0.0041		5.87	0.00636	2.79	<0.00002	166	0.581	229	0.000015	<0.005	<0.005	0.00401	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/1/2019 14:40	WF6265	M	<0.0002	0.0446	55.6	0.0502	<0.000002	0.0096	0.0042		5.81	0.00549	3.01	<0.00002	171	0.566	251	0.000018	<0.005	<0.005	0.00429	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/2/2019 11:00	WF6287	M	<0.0004	0.0445	58.1	0.147	<0.000002	0.0088	0.0068		5.16	0.00549	2.56	<0.00004	177	0.548	239	<0.00002	<0.01	<0.01	0.0037	<0.01	<0.01	<0.0002
RSEM-L5E-EOP	8/3/2019 13:50	WF7651	M	<0.0002	0.049	70.9	0.178	<0.000002	0.0086	0.0071		5.78	0.005	3.16	<0.00002	196	0.606	292	0.000016	<0.005	<0.005	0.0042	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/4/2019 15:25	WF7666	M	<0.0002	0.0504	72.0	0.177	<0.000002	0.0089	0.0069		5.75	0.0049	3.13	<0.00002	199	0.62	293	0.000019	<0.005	<0.005	0.00434	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/5/2019 13:25	WF9956	M	<0.0002	0.051	71.7	0.191	<0.000002	0.0094	0.0076		5.21	0.00512	2.88	<0.00002	205	0.682	277	0.000015	<0.005	<0.005	0.00449	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/6/2019 14:25	WG2812	M	<0.0002	0.0495	75.2	0.182	<0.000002	0.009	0.0078		5.31	0.00498	2.71	<0.00002	211	0.67	284	0.000016	<0.005	<0.005	0.00448	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/7/2019 11:37	WG4496	M	<0.0002	0.0538	76.0	0.186	<0.000002	0.0087	0.008		5.27	0.00501	2.75	<0.00002	212	0.696	285	0.000016	<0.005	<0.005	0.00456	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/8/2019 15:05	WG6511	M	<0.0002	0.0564	86.1	0.277	<0.000002	0.0087	0.0101		5.22	0.0044	2.76	<0.00002	235	0.717	324	0.000015	<0.005	<0.005	0.00456	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/9/2019 11:30	WG6546	M	<0.0002	0.0556	92.8	0.282	<0.000002	0.0086	0.0106		5.26	0.00468	2.68	<0.00002	240	0.735	333	0.000018	<0.005	<0.005	0.00473	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/16/2019 11:40	WH8427	M	<0.0002	0.0514	77.6	0.0804	<0.000002	0.013	0.0053		5.08	0.00591	2.44	<0.00002	210	0.693	290	0.000019	<0.005	<0.005	0.00554	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/18/2019 15:15	WI0688	M	<0.0002	0.0411	57.2	0.234	<0.000002	0.0096	0.0083		4.83	0.00759	2.11	<0.00002	146	0.604	233	0.00002	<0.005	<0.005	0.00541	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/19/2019 14:50	WI2770	M	<0.0002	0.041	55.8	0.45	<0.000002	0.0094	0.0237		4.93	0.00946	2.01	<0.00002	133	0.604	233	0.000019	<0.005	<0.005	0.0051	<0.005	0.0082	<0.0001
RSEM-L5E-EOP	8/21/2019 12:15	WI5133	M	<0.0002	0.0414	53.1	0.451	<0.000002	0.0095	0.0259		4.75	0.00986	1.99	<0.00002	131	0.56	226	0.000019	<0.005	<0.005	0.00502	<0.005	0.0086	<0.0001
RSEM-L5E-EOP	8/22/2019 10:05	WI9247	M	<0.0002	0.0362	54.0	0.467	<0.000002	0.0108	0.0283		4.79	0.0101	2	<0.00002	144	0.587	232	0.000022	<0.005	<0.005	0.00517	<0.005	0.0077	<0.0001
RSEM-L5E-EOP	8/23/2019 10:45	WI9312	M	<0.0002	0.0383	54.0	0.414	<0.000002	0.013	0.0267		4.84	0.0103	1.97	<0.00002	150	0.61	235	0.000022	<0.005	<0.005	0.00517	<0.005	0.006	<0.0001
RSEM-L5E-EOP	8/24/2019 6:15	WJ3011	M	<0.0002	0.0455	58.5	0.394	<0.000002	0.0098	0.026		4.89	0.0107	2.08	<0.00002	163	0.646	256	0.000022	<0.005	<0.005	0.00515	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/25/2019 12:40	WJ3023	M	<0.0002	0.0496	63.5	0.35	<0.000002	0.0106	0.0234		5.03	0.0113	2.06	<0.00002	190	0.698	281	0.000023	<0.005	<0.005	0.00537	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/26/2019 13:00	WJ5217	M	<0.0002	0.0487	63.2	0.292	<0.000002	0.0108	0.0214		4.96	0.0108	1.78	<0.00002	190	0.701	279	0.000024	<0.005	<0.005	0.00524	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/27/2019 14:40	WJ7317	M	<0.0002	0.0515	63.4	0.245	<0.000002	0.0102	0.0198		4.82	0.0104	1.84	<0.00002	189	0.693	279	0.000022	<0.005	<0.005	0.00521	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/28/2019 14:55	WJ9550	M	<0.0002	0.0537	69.3	0.203	<0.000002	0.0111	0.0189		5.1	0.00987	1.91	<0.00002	212	0.786	303	0.000024	<0.005	<0.005	0.00541	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/29/2019 15:30	WK2436	M	<0.0002	0.0484	67.5	0.14	<0.000002	0.0109	0.0175		4.99	0.0101	1.75	<0.00002	214	0.743	299	0.000022	<0.005	<0.005	0.00529	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/30/2019 10:20	WK2408	M	<0.0002	0.0491	67.2	0.137	<0.000002	0.0106	0.0171		4.94	0.00998	1.68	<0.00002	215	0.742	296	0.000021	<0.005	<0.005	0.00526	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	8/31/2019 13:00	WK4122	M	<0.0002	0.0529	67.2	0.104	<0.000002	0.0104	0.0154		5.03	0.00936	1.72	<0.00002	211	0.767	309	0.000019	<0.005	<0.005	0.00501	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/1/2019 13:30	WK4247	M	<0.0002	0.0526	66.8	0.0622	0.0000029	0.0103	0.0132		4.93	0.00923	1.56	<0.00002	209	0.763	302	0.000017	<0.005	<0.005	0.00496	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/2/2019 12:30	WK6471	M	<0.0002	0.0482	64.6	0.0547	<0.000002	0.0093	0.0131		4.62	0.00897	1.37	<0.00002	203	0.718	288	0.000021	<0.005	<0.005	0.00454	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/3/2019 15:00	WK8388	M	<0.0002	0.0497	66.6	0.0417	<0.000002	0.01	0.0124		4.75	0.01	1.33	<0.00002	211	0.724	292	0.00002	<0.005	<0.005	0.00502	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/4/2019 15:00	WL0775	M	<0.0002	0.0476	64.0	0.0409	<0.000002	0.0096	0.0114		4.75	0.00875	1.37	<0.00002	197	0.75	290	0.000021	<0.005	<0.005	0.00464	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/5/2019 13:35	WL2430	M	<0.0004	0.0496	67.2	0.0301	<0.000002	0.0091	0.0113		4.68	0.00857	1.24	<0.00004	207	0.702	290	<0.00002	<0.01	<0.01	0.00466	<0.01	<0.01	<0.0002
RSEM-L5E-EOP	9/6/2019 14:30	WL3947	M	<0.0002	0.0548	63.8	0.0153	<0.000002	0.009	0.0092		4.68	0.00767	1.39	<0.00002	199	0.671	282	0.000018	<0.005	<0.005	0.00436	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/7/2019 13:45	WL4978	M	<0.0002	0.0535	63.9	0.0133	<0.000002	0.0093	0.0086		4.49	0.00856	1.22	<0.00002	209	0.681	280	0.000018	<0.005	<0.005	0.00446	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/8/2019 14:15	WL5053	M	<0.0002	0.0517	64.6	0.0111	<0.000002	0.0092	0.0083		4.49	0.00832	1.14	<0.00002	212	0.662	276	0.000017	<0.005	<0.005	0.00434	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/9/2019 9:00	WL7022	M	<0.0002	0.0505	61.4	0.0069	<0.000002	0.0091	0.0074		4.41	0.008	1.22	<0.00002	201	0.683	272	0.000014	<0.005	<0.005	0.00442	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/10/2019 13:30	WL9320	M	<0.0002	0.0496	64.1	0.0074	<0.000002	0.0084	0.0067		5.10	0.00696	1.73	<0.00002	208	0.59	283	0.000016	<0.005	<0.005	0.004	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/11/2019 14:10	WM1919	M	<0.0002	0.0482	57.9	0.0062	<0.000002	0.0092	0.006		4.82	0.00746	1.78	<0.00002	198	0.666	264	0.000016	<0.005	<0.005	0.00443	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/12/2019 12:35	WM1925	M	<0.0002	0.046	56.3	0.0064	<0.000002	0.0085	0.0053		4.67	0.00625	1.93	<0.00002	182	0.589	252	0.000016	<0.005	<0.005	0.00422	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/13/2019 12:30	WM4309	M	<0.0002	0.0429	56.8	0.0049	<0.000002	0.0089	0.005		4.89	0.00638	2.07	<0.00002	192	0.654	235	0.000017	<0.005	<0.005	0.00438	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/14/2019 13:00	WM7486	M	<0.0002	0.0451	54.6	0.0032	<0.000002	0.0085	0.0043		4.62	0.00618	1.97	<0.00002	184	0.574	238	0.000015	<0.005	<0.005	0.00414	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/15/2019 12:35	WM7506	M	<0.0002	0.0484	55.5	0.0035	0.0000033	0.0083	0.0043		4.64	0.00598	2.14	<0.00002	185	0.57	240	0.000014	<0.005	<0.005	0.00408	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/16/2019 13:50	WN0362	M	<0.0002	0.0407	46.3	0.127	<0.000002	0.0084	0.0048		5.42	0.00605	2.2	<0.00002	144	0.517	226	0.000015	<0.005	<0.005	0.00444	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/17/2019 11:15	WN3119	M	<0.0002	0.0377	44.8	0.118	<0.000002	0.008	0.0048		5.36	0.00597	2.12	<0.00002	136	0.495	219	0.000015	<0.005	<0.005	0.00439	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/17/2019 11:30	WN3120	D	<0.0002	0.0397	44.0	0.114	<0.000002	0.0083	0.0047		5.29	0.00582	2.16	<0.00002	132	0.506	224	0.000016	<0.005	<0.005	0.00445	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/18/2019 9:50	WN2832	M	<0.0002	0.0374	43.1	0.152	<0.000002	0.0082	0.0096		5.34	0.00628	2.11	<0.00002	130	0.513	217	0.000015	<0.005	<0.005	0.00452	<0.005	0.0093	<0.0001
RSEM-L5E-EOP	9/18/2019 10:00	WN2833	D	<0.0002	0.0393	45.9	0.16	<0.000002	0.0083	0.0103		5.58	0.00611	2.22	<0.00002	136	0.513	226	0.000015	<0.005	<0.005	0.00456	<0.005	0.0097	<0.0001
RSEM-L5E-EOP	9/19/2019 10:50	WN7501	M	<0.0002	0.0327	45.2	0.156	<0.000002	0.0083	0.0123		5.02	0.0068	2.12	<0.00002	135	0.521	207	0.000015	<0.005	<0.005	0.00487	<0.005	0.0088	<0.0001
RSEM-L5E-EOP	9/19/2019 11:00	WN7502	D	<0.0002	0.0353	45.8	0.154	<0.000002	0.0085	0.0123		5.05	0.00697	2.16	<0.00002	138	0.511	209	0.000015	<0.005	<0.005	0.0049	<0.005	0.0083	<0.0001
RSEM-L5E-EOP	9/20/2019 10:20	WN7541	M	<0.0002	0.0326	44.1	0.128	<0.000002	0.0082	0.0116		5.01	0.0068	2.14	<0.00002	127	0.511	203	0.000014	<0.005	<0.005	0.00479	<0.005	0.0066	<0.0001
RSEM-L5E-EOP	9/20/2019 10:30	WN7542	D	<0.0002	0.0314	43.3	0.129	<0.000002	0.0082	0.0117		5.05	0.00691	2.13	<0.00002	129	0.51	205	0.000014	<0.005	<0.005	0.0048	<0.005	0.0067	<0.0001
RSEM-L5E-EOP	9/21/2019 10:30	WO1827	M	<0.0002	0.0379	44.2	0.109	<0.000002	0.008	0.0117		4.98	0.00656	2.22	<0.00002	128	0.475	208	0.000015	<0.005	<0.005	0.00495	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/21/2019 10:45	WO1828	D																						
RSEM-L5E-EOP	9/22/2019 10:30	WO1891	M	<0.0002	0.0356	41.1	0.0801	<0.000002	0.0077	0.0106		4.62	0.00638	2.25	<0.00002	118	0.461	193	0.000014	<0.005	<0.005	0.0048	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/22/2019 10:40	WO1892	D	<0.0002	0.037	43.1	0.0841	<0.000002	0.0077	0.0115		4.96	0.00687	2.33	<0.00002	128	0.456	199	0.000015	<0.005	<0.005	0.00497	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/23/2019 10:15	WO4847	M	<0.0002	0.0349	42.3	0.0505	<0.000002	0.0084	0.0092		4.68	0.00678	2.14	<0.00002	124	0.491	193	0.000013	<0.005	<0.005	0.00463	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/23/2019 10:25	WO4848	D	<0.0002	0.0348	43.0	0.0513	<0.000002	0.0082	0.0093		4.75	0.00688	2.04	<0.00002	125	0.493	192	0.000013	<0.005	<0.005	0.00463	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/24/2019 12:10	WO4823	M	<0.0002	0.0352	43.0	0.038	<0.000002	0.0082	0.0086		4.67	0.00668	2.09	<0.00002	125	0.49	195	0.000013	<0.005	<0.005	0.00473	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/25/2019 12:50	WO6412	M	<0.0002	0.0359	41.4	0.0304	<0.000002	0.0081	0.008		4.66	0.00633	1.91	<0.00002	120	0.505	187	0.000013	<0.005	<0.005	0.00478	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/26/2019 12:35	WP1627	M	<0.0002	0.038	40.3	0.0132	<0.000002	0.0078	0.0063		4.62	0.00647	2.27	<0.00002	115	0.498	184	0.000012	<0.005	<0.005	0.0047	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/27/2019 10:55	WP3484	M	<0.0002	0.0336	42.1	0.0105	<0.000002	0.0079	0.0061		4.57	0.00651	2.05	<0.00002	123	0.474	181	0.000011	<0.005	<0.005	0.00463	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/28/2019 11:35	WP3452	M	<0.0002	0.0358	42.2	0.0107	<0.000002	0.0075	0.0058		4.53	0.00636	2.16	<0.00002	124	0.486	181	0.000011	<0.005	<0.005	0.00457	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/28/2019 11:40	WP3453	D	<0.0002	0.0342	42.2	0.0108	<0.000002	0.0077	0.0059		4.48	0.00635	2.15	<0.00002	125	0.483	181	0.000012	<0.005	<0.005	0.00458	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/29/2019 11:35	WP5512	M	<0.0002	0.0337	41.7	0.0087	<0.000002	0.0071	0.0054		4.37	0.00614	2.04	<0.00002	124	0.443	182	<0.00001	<0.005	<0.005	0.0043	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/29/2019 11:45	WP5513	D	<0.0002	0.0333	41.3	0.0088	<0.000002	0.0072	0.0053		4.41	0.00624	2.06	<0.00002	124	0.451	179	<0.00001	<0.005	<0.005	0.00435	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	9/30/2019 10:25	WP5292	M	<0.0002	0.0335	40.7	0.0074	<0.000002	0.0072	0.0052		4.36	0.00603	2.09	<0.00002	124	0.443	178	<0.00001	<0.005	<0.005	0.00425	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/1/2019 15:50	WP9963	M	<0.0002	0.0365	41.2	0.007	<0.000002	0.0077	0.0056		4.59	0.00666	2.41	<0.00002	131	0.464	189	0.000011	<0.005	<0.005	0.00427	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/2/2019 15:00	WQ2279	M	<0.0002	0.0367	41.6	0.0059	<0.000002	0.0074	0.0046		4.39	0.00541	2.19	<0.00002	131	0.463	182	<0.00001	<0.005	<0.005	0.00428	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/3/2019 14:35	WQ4508	M	<0.0002	0.0288	42.2	0.0062	<0.000002	0.0068	0.0044		4.38	0.00555	2.26	<0.00002	132	0.483	170	<0.00001	<0.005	<0.005	0.00419	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/4/2019 12:50	WQ4430	M	<0.0002	0.0307	41.3	0.0063	<0.000002	0.0067	0.0042		4.34	0.00547	2.34	<0.00002	130	0.479	168	<0.00001	<0.005	<0.005	0.00426	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/5/2019 14:00	WQ7327	M	<0.0002	0.0433	42.9	0.0066	<0.000002	0.007	0.0035		4.60	0.00575	3.37	<0.00002	141	0.471	204	0.00001	<0.005	<0.005	0.00415	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	10/6/2019 14:05	WQ7683	M	8.07	1300	1.6	910	1.9	424	427	130	<1.0	150	<1.0	<1.0	29	0.23	0.61	510			0.032	0.016	0.19	0.20	<0.0030
RSEM-L5E-EOP	10/7/2019 13:20	WQ9661	M	7.99	1300	1.5	930	3.3	385	399	120	<1.0	150	<1.0	<1.0	31	0.23	0.57	520			0.053	0.017	0.15	0.17	<0.0030
RSEM-L5E-EOP	10/8/2019 10:30	WR2885	M	7.71	1300	1.3	890	1.3	400	407	130	<1.0	160	<1.0	<1.0	31	0.22	0.55	520			0.029	0.014	0.12	0.14	<0.0030
RSEM-L5E-EOP	10/8/2019 10:40	WR2886	D	7.65	1300	1.2	910	<1.0	398	401	140	<1.0	170	<1.0	<1.0	31	0.22	0.55	510			0.032	0.014	0.12	0.13	<0.0030
RSEM-L5E-EOP	10/9/2019 11:40	WR5595	M	7.88	1300	1.3	870	3.0	400	409	140	<1.0	170	<1.0	<1.0	31	0.22	0.54	520			0.027	0.013	0.097	0.11	<0.0030
RSEM-L5E-EOP	10/9/2019 11:50	WR5596	D	7.51	1300	1.5	850	3.0	398	413	140	<1.0	170	<1.0	<1.0	32	0.22	0.44	520			0.026	0.015	0.098	0.11	<0.0030
RSEM-L5E-EOP	10/10/2019 13:30	WR7641	M	7.63	1400	3.6	930	4.7	389	402	180	<1.0	220	<1.0	<1.0	31	0.23	0.56	510			0.024	0.012	0.073	0.085	<0.0030
RSEM-L5E-EOP	10/10/2019 13:40	WR7642	D	6.87	1300	3.5	910	5.6	395	399	140	<1.0	170	<1.0	<1.0	32	0.22	0.56	510			0.024	0.012	0.073	0.084	<0.0030
RSEM-L5E-EOP	10/11/2019 10:55	WR7608	M	7.75	1400	2.0	920	3.9	390	394	130	<1.0	160	<1.0	<1.0	32	0.22	0.48	500			<0.015	0.012	0.063	0.074	<0.0030
RSEM-L5E-EOP	10/11/2019 11:00	WR7609	D	7.86	1400	1.6	950	<1.0	397	399	130	<1.0	160	<1.0	<1.0	32	0.23	0.49	520			0.027	0.012	0.064	0.076	<0.0030
RSEM-L5E-EOP	10/12/2019 11:10	WR9651	M	7.69	1300	1.5	950	<4.0	391	398	140	<1.0	180	<1.0	<1.0	31	0.22	0.48	510			0.021	0.0152	0.050	0.065	<0.0030
RSEM-L5E-EOP	10/12/2019 11:20	WR9652	D	7.58	1300	1.4	950	4.0	396	400	140	<1.0	180	<1.0	<1.0	29	0.22	0.48	510			0.016	0.0083	0.049	0.057	<0.0030
RSEM-L5E-EOP	10/13/2019 11:00	WS2564	M	7.59	1400	0.96	920	<1.0	386	379	150	<1.0	180	<1.0	<1.0	33	0.24	0.50	510			0.028	<0.010	0.031	0.031	<0.0030
RSEM-L5E-EOP	10/13/2019 11:10	WS2565	D	7.49	1400	1.2	930	2.2	398	381	150	<1.0	180	<1.0	<1.0	32	0.24	0.51	540			0.022	<0.010	0.030	0.030	<0.0030
RSEM-L5E-EOP	10/14/2019 10:20	WS2626	M	7.69	1400	1.1	920	1.1	383	376	150	<1.0	180	<1.0	<1.0	33	0.24	0.50	500			0.027	<0.010	0.023	0.023	<0.0030
RSEM-L5E-EOP	10/14/2019 10:30	WS2627	D	7.69	1400	1.0	910	1.1	402	378	150	<1.0	180	<1.0	<1.0	33	0.24	0.51	510			0.028	<0.010	0.023	0.023	<0.0030
RSEM-L5E-EOP	10/15/2019 10:45	WS4275	M	7.78	1400	1.2	930	3.4	366	384	150	<1.0	180	<1.0	<1.0	34	0.19	0.53	510			0.018	<0.010	0.038	0.038	<0.0030
RSEM-L5E-EOP	10/15/2019 11:00	WS4276	D	7.64	1400	1.4	920	3.8	368	382	150	<1.0	180	<1.0	<1.0	33	0.20	0.52	500			<0.015	<0.010	0.018	0.018	<0.0030
RSEM-L5E-EOP	10/16/2019 10:40	WS6070	M	7.43	1400	0.96	930	1.7	376	397	160	<1.0	190	<1.0	<1.0	34	0.21	0.51	460			<0.015	<0.010	0.013	<0.014	<0.0030
RSEM-L5E-EOP	10/16/2019 10:50	WS6071	D	7.64	1400	0.95	950	1.7	382	402	160	<1.0	190	<1.0	<1.0	33	0.21	0.53	480			0.019	<0.010	0.013	<0.014	<0.0030
RSEM-L5E-EOP	10/17/2019 10:20	WS9495	M	7.52	1400	1.1	930	1.9	379	402	150	<1.0	190	<1.0	<1.0	33	0.20	0.50	510			<0.015	<0.010	<0.010	<0.014	<0.0030
RSEM-L5E-EOP	10/17/2019 10:30	WS9496	D	7.83	1400	1.7	930	2.8	375	407	160	<1.0	190	<1.0	<1.0	34	0.22	0.50	510			<0.015	<0.010	0.014	0.014	<0.0030
RSEM-L5E-EOP	10/18/2019 11:05	WT0851	M	7.78	1400	0.98	940	<4.0	385	400	150	<1.0	190	<1.0	<1.0	29	0.19	0.50	480			<0.015	<0.0050	<0.020	<0.020	<0.0030
RSEM-L5E-EOP	10/18/2019 11:15	WT0852	D	7.78	1400	1.0	910	<4.0	373	402	150	<1.0	190	<1.0	<1.0	33	0.20	0.51	580			<0.015	<0.0050	<0.020	<0.020	<0.0030
RSEM-L5E-EOP	10/19/2019 10:30	WT3632	M	7.85	1400	1.5	930	1.2	352	358	160	<1.0	190	<1.0	<1.0	34	0.21	0.50	490			<0.015	<0.010	<0.010	<0.014	<0.0030
RSEM-L5E-EOP	10/19/2019 10:45	WT3633	D	7.84	1400	1.6	940	1.1	359	372	160	<1.0	200	<1.0	<1.0	34	0.22	0.51	490			0.016	<0.010	<0.010	<0.014	<0.0030
RSEM-L5E-EOP	10/20/2019 12:50	WT3704	M	7.86	1400	1.0	970	1.3	388	357	160	<1.0	190	<1.0	<1.0	34	0.22	0.52	490			0.033	<0.010	<0.010	<0.014	<0.0030
RSEM-L5E-EOP	10/20/2019 13:00	WT3708	D	7.88	1400	1.1	950	<1.0	393	356	170	<1.0	200	<1.0	<1.0	34	0.21	0.48	480			0.036	<0.010	<0.010	<0.014	<0.0030
RSEM-L5E-EOP	10/21/2019 10:00	WT4452	M	7.61	1400	1.2	910	<1.0	379	360	160	<1.0	200	<1.0	<1.0	34	0.20	0.48	490			0.033	<0.010	0.031	0.031	<0.0030
RSEM-L5E-EOP	10/21/2019 10:15	WT4453	D	7.56	1400	1.2	920	<1.0	401	361	160	<1.0	200	<1.0	<1.0	34	0.20	0.49	520			0.025	<0.010	0.031	0.031	<0.0030
RSEM-L5E-EOP	10/22/2019 17:00	WT8963	M	8.32	1300	1.9	930	1.3	391	378	180	<1.0	220	<1.0	<1.0	36	0.19	0.57	490			0.026	<0.010	0.30	0.30	0.0032
RSEM-L5E-EOP	10/23/2019 15:45	WU1857	M	8.07	1400	1.9	930	3.6	377	385	180	<1.0	220	<1.0	<1.0	35	0.18	0.55	470			0.015	<0.010	0.35	0.35	<0.0030
RSEM-L5E-EOP	10/24/2019 17:15	WU4171	M	7.84	1400	1.7	910	2.3	388	374	180	<1.0	220	<1.0	<1.0	35	0.19	0.53	460			<0.015	<0.010	0.43	0.43	<0.0030
RSEM-L5E-EOP	10/25/2019 17:00	WU5359	M	7.97	1320	6.5	922	22.0	433	414	190	<1.0	230	<1.0	<1.0	28	0.21	0.46	470			0.035	0.0132	1.67	1.68	<0.0030
RSEM-L5E-EOP	10/26/2019 16:15	WU7030	M	7.21	1400	5.0	920	3.5	412	445	180	<1.0	220	<1.0	<1.0	31	0.19	0.48	470			0.032	0.030	2.0	2.0	<0.0030
RSEM-L5E-EOP	10/27/2019 14:50	WU7141	M	7.32	1400	2.6	910	2.3	429	462	190	<1.0	230	<1.0	<1.0	30	0.19	0.46	490			0.024	0.018	2.4	2.4	0.0032
RSEM-L5E-EOP	10/28/2019 12:20	WU7151	M	7.32	1400	2.4	850	1.1	427	456	180	<1.0	220	<1.0	<1.0	29	0.19	0.44	470			0.031	0.015	2.3	2.4	<0.0030
RSEM-L5E-EOP	10/29/2019 12:40	WU9594	M	7.89	1400	1.7	950	1.9	430	453	180	<1.0	230	<1.0	<1.0	30	0.21	0.53	490			0.022	0.016	2.4	2.5	<0.0030
RSEM-L5E-EOP	10/30/2019 12:55	WV3965	M	7.56	1400	2.1	940	1.7	450	447	180	<1.0	220	<1.0	<1.0	30	0.22	0.44	450			0.043	0.016	2.5	2.5	<0.0030
RSEM-L5E-EOP	10/31/2019 13:40	WV6748	M	7.49	1390	2.3	931	1.4	441	456	190	<1.0	230	<1.0	<1.0	30	0.22	0.44	460			0.032	0.015	2.4	2.4	<0.0030
RSEM-L5E-EOP	11/1/2019 12:50	WV7047	M	6.95	1400	1.9	960	2.2	457	452	190	<1.0	230	<1.0	<1.0	29	0.19	0.44	480			<0.015	0.016	2.4	2.5	<0.0030
RSEM-L5E-EOP	11/2/2019 15:00	WW1212	M	7.34	1400	1.1	940	1.9	463	469	190	<1.0	230	<1.0	<1.0	29	0.21	0.38	480			0.016	0.018	2.5	2.6	<0.0030
RSEM-L5E-EOP	11/3/2019 15:15	WW1183	M	7.28	1400	0.89	940	2.3	458	483	190	<1.0	230	<1.0	<1.0	29	0.21	0.39	480			0.028	0.018	2.5	2.6	<0.0030
RSEM-L5E-EOP	11/4/2019 13:30	WW5975	M	7.18	1360	0.84	992	<1.0	471	476	200	<1.0	240	<1.0	<1.0	28	0.20	0.39	470			<0.015	0.017	2.5	2.6	<0.0030
RSEM-L5E-EOP	11/5/2019 10:45	WW6585	M	7.45	1380	0.93	940	<1.0	467	481	190	<1.0	230	<1.0	<1.0	29	0.23	0.41	500			<0.015	0.016	2.5	2.6	<0.0030
RSEM-L5E-EOP	11/5/2019 11:00	WW6587	D	7.48	1380	0.91	942	<1.0	453	481	190	<1.0	230	<1.0	<1.0	29	0.22	0.40	490			<0.015	0.017	2.5	2.5	<0.0030
RSEM-L5E-EOP	11/6/2019 12:00	WW9546	M	7.53	1390	0.97	1010	<1.0	493	489	210	<1.0	250	<1.0	<1.0	29	0.20	0.41	510			<0.015	0.022	2.7	2.7	<0.0030
RSEM-L5E-EOP	11/6/2019 12:20	WW9547	D	7.54	1390	0.90	1020	1.0	491	491	190	<1.0	230	<1.0	<1.0	28	0.21	0.42	520			0.022	0.021	2.7	2.7	<0.0030
RSEM-L5E-EOP	11/7/2019 13:00	WX2041	M	7.91	1450	1.1	1020	1.2	500	506	210	<1.0	250	<1.0	<1.0	29	0.20	0.43	490			0.019	0.018	2.6	2.6	<0.0030
RSEM-L5E-EOP	11/7/2019 13:10	WX2042	D	7.91	1440	1.0	998	<1.0	484	504	210	<1.0	250	<1.0	<1.0	29	0.20	0.44	520			0.021	0.018	2.6	2.7	<0.0030
RSEM-L5E-EOP	11/8/2019 12:00	WX1871	M	7.79	1440	0.91	1000	3.4	481	511	210	<1.0	260	<1.0	<1.0	28	0.21	0.44	520			0.017	0.016	2.6	2.6	<0.0030
RSEM-L5E-EOP	11/8/2019 12:10	WX1872	D	7.87	1450	0.92	1030	3.3	506	508	210	<1.0	250	<1.0	<1.0	28	0.20	0.44	530			0.017	0.016	2.6	2.6	<0.0030
RSEM-L5E-EOP	11/9/2019 11:30	WX3317	M	8.25	1440	0.99	1010	<4.0	488	499	210	<1.0	250	<1.0	<1.0	27	0.23	0.42	500			0.038	0.0188	2.64	2.65	<0.0030
RSEM-L5E-EOP	11/9/2019 11:40	WX3318	D	8.25	1450	1.3	1000	<4.0	469	527	210	<1.0	250	<1.0	<1.0	27	0.22	0.40	490			0.017	0.0191	2.65	2.67	0.0030
RSEM-L5E-EOP	11/10/2019 12:40	WX5926	M	7.72	1430	1.4	1010	2.9	500	503	210	<1.0	250	<1.0	<1.0	28	0.19	0.41	530			0.029	0.015	2.6	2.6	0.0044
RSEM-L5E-EOP	11/10/2019 12:50	WX5927	D	7.76	1430	1.6	995	2.4	498	520	210	<1.0	250	<1.0	<1.0	28	0.20	0.41	510			0.024	<0.010	<0.010	<0.014	0.0030
RSEM-L5E-EOP	11/11/2019 10:00	WX5902	M	7.81	1440	1.5	1030	2.6	485	541	210	<1.0	250	<1.0	<1.0	29	0.20	0.45	520			0.023	0.016	2.6	2.7	<0.0030
RSEM-L5E-EOP	11/11/2019 10:10	WX5903	D	7.80	1450	1.5	1000	3.8	491	535	210	<1.0	260	<1.0	<1.0	29	0.20	0.41	500			0.017	0.017	2.7	2.7	0.0034
RSEM-L5E-EOP	11/12/2019 13:30	WX7841	M	8.05	1450	0.89	1020	<1.0	515	510	210	<1.0	250	<1.0	<1.0	30	0.23	0.44	490			0.034	0.016	2.6	2.6	<0.0030
RSEM-L5E-EOP	11/13/2019 14:05	WY0312	M	8.09	1440	0.88	995	<1.0	508	510	210	<1.0	260	<1.0	<1.0	29	0.23	0.42	500			0.017	0.016	2.6	2.6	<0.0030
RSEM-L5E-EOP	11/14/2019 13:35	WY2287	M	8.03	1440	0.72	982	2.9	481	505	210	<1.0	260	<1.0	<1.0	30	0.20	0.44	510			0.027	0.017	2.6	2.6	<0.0030
RSEM-L5E-EOP	11/15/2019 13:25	WY2336	M	7.83	1440	0.85	1010	2.1	480	509	210	<1.0	260	<1.0	<1.0	30	0.20	0.43	510			0.026	0.022	2.6	2.6	<0.0030
RSEM-L5E-EOP	11/16/2019 14:05	WY5254	M	7.47	1430	0.78	1020	<1.0	508	510	220	<1.0	270	<1.0	<1.0	30	0.20	0.45	510			0.024	0.021	2.5	2.6	<0.0030
RSEM-L5E-EOP	11/17/2019 9:30	WY5449	M	7.92	1450	1.2	1030	3.1	487	510	210	<1.0	250	<1.0	<1.0	30	0.25	0.45	510			0.045	0.019	2.6	2.7	<0.0030
RSEM-L5E-EOP	11/17/2019 9:40	WY5450	D	7.91	1450	0.93	1050	2.8	497	507	210	<1.0	250	<1.0	<1.0	31	0.26	0.44	510			0.042	0.020	2.6	2.6	<0.0030
RSEM-L5E-EOP	11/18/2019 14:35	WY7747	M	7.89	1650	3.4	1190	11	569	586	210	<1.0	260	<1.0	<1.0	35	0.29	0.51	620			0.11	0.028	5.0	5.0	<0.0030
RSEM-L5E-EOP	11/19/2019 15:35	WY9706	M	7.46	1720	2.5	1290	5.0	651	629	210	<1.0	260	<1.0	<1.0	37	0.28	0.51	690			0.12	0.025	6.1	6.1	<0.0030
RSEM-L5E-EOP	11/20/2019 0:25	WZ2234	M	7.50	1760	3.1	1270	3.8	644	653	210	<1.0	250	<1.0	<1.0	38	0.28	0.53	730			0.22	0.020	7.0	7.0	<0.0030
RSEM-L5E-EOP	11/21/2019 11:40	WZ4248	M	7.42	1830	2.7	1350	4.1	711	695	190	<1.0	230	<1.0	<1.0	34	0.35	0.52	690			0.13	0.029	8.3	8.4	<0.0030
RSEM-L5E-EOP	11/22/2019 10:20	WZ4474	M	7.71	1840	1.9	1370	<1.0	701	688	190	<1.0	230	<1.0	<1.0	35	0.35	0.52	700			0.10	0.029	8.2	8.2	<0.0030
RSEM-L5E-EOP	11/23/2019 13:00	WZ7699	M	7.33	1800	0.91	1320	2.5	671	692	200	<1.0	240	<1.0	<1.0	34	0.31	0.51	780			0.10	0.023	7.7	7.8	<0.0030
RSEM-L5E-SP	3/13/2019 12:10	VJ2168	M	7.98	392	67.9	222	114	174	147	92.1	<1.0	112	<1.0	<1.0	3.95	0.220	0.018	96.0			0.50	0.0664	1.16	1.23	0.0103
RSEM-L5E-SP	3/14/2019 12:30	VJ4040	M	7.90	396	22.0	220	16.4	158	157	94.2	<1.0	115	<1.0	<1.0	3.47	0.190	0.042	101			0.56	0.0651	1.11	1.17	0.0076
RSEM-L5E-SP	4/1/2019 10:30	VL8081	M	7.96	584	19.7	388	49.2	254	247	113	<1.0	138	<1.0	<1.0	11.7	0.200	0.072	174			0.49	0.0375	1.07	1.10	<0.0050
RSEM-L5E-SP	11/24/2019 12:10	WZ7710	M	7.53	1840	0.84	1450	2.4	706	732	190	<1.0	230	<1.0	<1.0	33	0.33	0.50	790			0.31	0.026	8.1	8.1	<0.0030
RSEM-L5E-SP	11/29/2019 12:45	XA6570	M	7.90	2280	4.6	1690	6.7	744	726	250	<1.0	300	<1.0	<1.0	46	0.39	0.70	960			0.66	0.049	6.9	7.0	0.0035
RSEM-L5E-SP	12/3/2019 14:25	XB3101	M	7.88	2440	2.1	1840	1.7	728	745	243	<1.0	296	<1.0	<1.0	53.7	0.402	0.724	1090			0.744	0.059	6.75	6.81	<0.0030

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	10/6/2019 14:05	WQ7683	M	2.5	2.3	0.0532	0.00084	0.0007	0.0146	<0.0001	<0.001	0.105	<0.00001	96.2	0.0015	0.00025	0.00107	0.061	<0.0002	0.0379	44.6	0.012	<0.000002	0.0068	0.0037		4.50	0.00524
RSEM-L5E-EOP	10/7/2019 13:20	WQ9661	M	2.5	2.3	0.0578	0.00086	0.00067	0.0147	<0.0001	<0.001	0.117	0.00001	86.1	0.0013	<0.0002	0.00093	0.064	<0.0002	0.0412	41.4	0.0083	<0.000002	0.0068	0.0034		4.32	0.00512
RSEM-L5E-EOP	10/8/2019 10:30	WR2885	M	1.8	2.0	0.052	0.00085	0.00066	0.0152	<0.0001	<0.001	0.117	<0.00001	92.5	0.0013	<0.0002	0.001	0.054	<0.0002	0.0396	41.0	0.0073	<0.000002	0.0066	0.0033		4.06	0.00466
RSEM-L5E-EOP	10/8/2019 10:40	WR2886	D	2.4	2.1	0.0507	0.00084	0.00066	0.0148	<0.0001	<0.001	0.116	<0.00001	93.0	0.0013	<0.0002	0.001	0.05	<0.0002	0.0396	40.3	0.0075	<0.000002	0.0066	0.0033		4.00	0.00469
RSEM-L5E-EOP	10/9/2019 11:40	WR5595	M	2.0	2.1	0.0438	0.00081	0.00066	0.0149	<0.0001	<0.001	0.116	<0.00001	92.6	0.0013	<0.0002	0.00104	0.047	<0.0002	0.0399	41.1	0.007	<0.000002	0.0066	0.0034		4.07	0.00465
RSEM-L5E-EOP	10/9/2019 11:50	WR5596	D	2.8	2.6	0.0452	0.00084	0.00067	0.0148	<0.0001	<0.001	0.115	<0.00001	92.5	0.0013	<0.0002	0.00101	0.045	<0.0002	0.0388	40.6	0.0068	<0.000002	0.0066	0.0033		4.06	0.00465
RSEM-L5E-EOP	10/10/2019 13:30	WR7641	M	2.4	2.2	0.152	0.0008	0.00073	0.0197	<0.0001	<0.001	0.116	0.000013	89.2	0.0015	0.00026	0.00144	0.234	0.00021	0.0391	40.4	0.0132	<0.000002	0.0063	0.0035		4.01	0.00449
RSEM-L5E-EOP	10/10/2019 13:40	WR7642	D	2.4	2.4	0.0873	0.00083	0.00067	0.0162	<0.0001	<0.001	0.117	0.00001	90.7	0.0014	<0.0002	0.00114	0.131	<0.0002	0.0407	40.9	0.0092	<0.000002	0.0063	0.0033		4.06	0.00446
RSEM-L5E-EOP	10/11/2019 10:55	WR7608	M	2.5	2.2	0.067	0.00078	0.00063	0.0147	<0.0001	<0.001	0.121	<0.00001	89.1	0.0013	<0.0002	0.00099	0.067	<0.0002	0.0405	40.7	0.0077	<0.000002	0.0064	0.0032		3.97	0.00446
RSEM-L5E-EOP	10/11/2019 11:00	WR7609	D	2.4	2.1	0.0579	0.00081	0.00068	0.0151	<0.0001	<0.001	0.121	<0.00001	91.5	0.0013	<0.0002	0.001	0.064	<0.0002	0.0416	40.9	0.007	<0.000002	0.0067	0.0031		4.03	0.00449
RSEM-L5E-EOP	10/12/2019 11:10	WR9651	M	2.8	3.8	0.0737	0.00082	0.00066	0.0153	<0.0001	<0.001	0.119	<0.00001	88.5	0.0013	<0.0002	0.00183	0.088	<0.0002	0.0408	41.2	0.0093	<0.000002	0.0062	0.0032		3.94	0.00433
RSEM-L5E-EOP	10/12/2019 11:20	WR9652	D	2.6	3.6	0.0622	0.0008	0.00068	0.015	<0.0001	<0.001	0.121	<0.00001	90.6	0.0013	<0.0002	0.00112	0.069	<0.0002	0.0411	41.1	0.0075	<0.000002	0.0064	0.0031		4.00	0.00455
RSEM-L5E-EOP	10/13/2019 11:00	WS2564	M	2.4	2.1	0.0516	0.0008	0.00069	0.014	<0.0001	<0.001	0.109	<0.00001	85.6	0.0013	<0.0002	0.00095	0.039	<0.0002	0.0394	41.8	0.0069	<0.000002	0.0063	0.003		3.91	0.00427
RSEM-L5E-EOP	10/13/2019 11:10	WS2565	D	2.4	2.2	0.0462	0.00084	0.00071	0.0148	<0.0001	<0.001	0.109	<0.00001	88.4	0.0014	<0.0002	0.00101	0.056	<0.0002	0.0382	43.1	0.0081	<0.000002	0.0063	0.0031		4.17	0.00447
RSEM-L5E-EOP	10/14/2019 10:20	WS2626	M	2.6	2.1	0.0444	0.00081	0.00069	0.0138	<0.0001	<0.001	0.106	<0.00001	83.4	0.0013	<0.0002	0.00099	0.048	<0.0002	0.036	42.3	0.0066	<0.000002	0.0061	0.0029		3.95	0.00423
RSEM-L5E-EOP	10/14/2019 10:30	WS2627	D	2.7	2.1	0.0491	0.00084	0.00076	0.0143	<0.0001	<0.001	0.107	<0.00001	88.5	0.0014	<0.0002	0.00096	0.038	<0.0002	0.0366	43.9	0.0068	<0.000002	0.0065	0.0031		4.15	0.00441
RSEM-L5E-EOP	10/15/2019 10:45	WS4275	M	2.5	2.3	0.0688	0.00075	0.00068	0.0134	<0.0001	<0.001	0.107	0.000011	82.7	0.0012	<0.0002	0.00098	0.068	<0.0002	0.0377	38.8	0.0068	<0.000002	0.0057	0.0027		3.68	0.00381
RSEM-L5E-EOP	10/15/2019 11:00	WS4276	D	2.4	2.6	0.0609	0.00077	0.00068	0.0136	<0.0001	<0.001	0.108	<0.00001	84.1	0.0012	<0.0002	0.00099	0.07	<0.0002	0.0373	38.5	0.007	<0.000002	0.0058	0.0027		3.60	0.00379
RSEM-L5E-EOP	10/16/2019 10:40	WS6070	M	2.0	2.5	0.0364	0.00076	0.0007	0.0137	<0.0001	<0.001	0.108	<0.00001	80.9	0.0012	<0.0002	0.0009	0.037	<0.0002	0.0383	42.3	0.006	<0.000002	0.0059	0.0027		3.79	0.00404
RSEM-L5E-EOP	10/16/2019 10:50	WS6071	D	2.1	2.5	0.037	0.00079	0.00068	0.0136	<0.0001	<0.001	0.109	<0.00001	82.4	0.0012	<0.0002	0.00092	0.037	<0.0002	0.0386	42.8	0.0061	<0.000002	0.006	0.0028		3.86	0.00401
RSEM-L5E-EOP	10/17/2019 10:20	WS9495	M	2.8	2.2	0.039	0.00079	0.0007	0.0134	<0.0001	<0.001	0.108	<0.00001	81.4	0.0011	<0.0002	0.00101	0.042	<0.0002	0.0382	42.8	0.006	<0.000002	0.006	0.0028		3.78	0.00398
RSEM-L5E-EOP	10/17/2019 10:30	WS9496	D	2.4	2.2	0.0436	0.00075	0.00068	0.0134	<0.0001	<0.001	0.108	<0.00001	80.6	0.0012	<0.0002	0.00101	0.041	<0.0002	0.0378	42.2	0.006	<0.000002	0.0059	0.0026		3.79	0.00409
RSEM-L5E-EOP	10/18/2019 11:05	WT0851	M	2.7	3.5	0.04	0.00079	0.00068	0.0131	<0.0001	<0.001	0.111	<0.00001	82.1	0.0012	<0.0002	0.00105	0.047	<0.0002	0.0396	43.7	0.0062	<0.000002	0.0059	0.0027		3.84	0.00404
RSEM-L5E-EOP	10/18/2019 11:15	WT0852	D	1.6	4.1	0.0444	0.00074	0.00069	0.0128	<0.0001	<0.001	0.111	<0.00001	79.5	0.0011	<0.0002	0.00101	0.05	<0.0002	0.0381	42.3	0.0064	<0.000002	0.0058	0.0026		3.70	0.00397
RSEM-L5E-EOP	10/19/2019 10:30	WT3632	M	2.5	2.7	0.0496	0.00075	0.00069	0.0128	<0.0001	<0.001	0.094	<0.00001	76.2	0.0012	<0.0002	0.00096	0.052	<0.0002	0.0317	39.3	0.0075	<0.000002	0.0057	0.0027		3.63	0.00358
RSEM-L5E-EOP	10/19/2019 10:45	WT3633	D	2.3	2.2	0.0484	0.00079	0.00069	0.0129	<0.0001	<0.001	0.093	<0.00001	77.3	0.0012	<0.0002	0.00105	0.057	<0.0002	0.0302	40.4	0.0076	<0.000002	0.0059	0.0029		3.71	0.00372
RSEM-L5E-EOP	10/20/2019 12:50	WT3704	M	2.7	2.2	0.0436	<0.001	0.00079	0.0135	<0.0002	<0.002	0.114	<0.00002	83.3	<0.002	<0.0004	0.001	0.054	<0.0004	0.0396	43.8	0.0078	<0.000002	0.0059	0.0027		3.81	0.00389
RSEM-L5E-EOP	10/20/2019 13:00	WT3708	D	2.4	2.2	0.0449	<0.001	0.00082	0.0135	<0.0002	<0.002	0.116	<0.00002	83.4	<0.002	<0.0004	0.0011	0.052	<0.0004	0.0407	44.8	0.0087	<0.000002	0.006	0.0028		3.95	0.00388
RSEM-L5E-EOP	10/21/2019 10:00	WT4452	M	2.1	2.1	0.0466	<0.001	0.00083	0.0142	<0.0002	<0.002	0.115	<0.00002	80.5	<0.002	<0.0004	<0.001	0.054	<0.0004	0.04	43.3	0.0084	<0.000002	0.0058	0.0028		3.76	0.00375
RSEM-L5E-EOP	10/21/2019 10:15	WT4453	D	2.3	2.0	0.0474	<0.001	0.0009	0.0149	<0.0002	<0.002	0.119	<0.00002	86.0	<0.002	<0.0004	0.0011	0.056	<0.0004	0.0414	45.1	0.0089	<0.000002	0.006	0.0028		3.91	0.00398
RSEM-L5E-EOP	10/22/2019 17:00	WT8963	M	2.3	2.6	0.0852	0.00085	0.00087	0.0213	<0.0001	<0.001	0.111	<0.00001	84.4	0.0013	<0.0002	0.00099	0.075	<0.0002	0.0421	43.6	0.0147	<0.000002	0.0061	0.0025		3.78	0.00385
RSEM-L5E-EOP	10/23/2019 15:45	WU1857	M	2.7	2.6	0.0827	0.00081	0.00082	0.0209	<0.0001	<0.001	0.106	<0.00001	83.1	0.0012	<0.0002	0.00094	0.063	<0.0002	0.0403	41.1	0.0136	<0.000002	0.0059	0.0022		3.63	0.00396
RSEM-L5E-EOP	10/24/2019 17:15	WU4171	M	2.5	2.2	0.0792	0.00084	0.00084	0.0204	<0.0001	<0.001	0.113	<0.00001	87.9	0.0015	<0.0002	0.00103	0.069	<0.0002	0.0389	40.9	0.0137	<0.000002	0.0061	0.0026		3.73	0.00386
RSEM-L5E-EOP	10/25/2019 17:00	WU5359	M	1.3	2.4	0.459	0.00082	0.00107	0.0401	<0.0001	<0.001	0.105	0.000145	102	0.0018	0.00333	0.00207	0.667	0.00037	0.0368	43.3	0.207	<0.000002	0.0066	0.0137		3.98	0.00552
RSEM-L5E-EOP	10/26/2019 16:15	WU7030	M	2.5	2.1	0.151	0.00082	0.00084	0.036	<0.0001	<0.001	0.096	0.000175	93.2	0.0012	0.00408	0.00151	0.203	<0.0002	0.0334	43.6	0.251	<0.000002	0.0061	0.0168		3.73	0.00532
RSEM-L5E-EOP	10/27/2019 14:50	WU7141	M	2.3	2.1	0.135	0.00079	0.00079	0.0371	<0.0001	<0.001	0.094	0.000204	101	0.0011	0.00495	0.00142	0.133	<0.0002	0.033	42.7	0.303	0.0000036	0.0062	0.0205		3.76	0.00575
RSEM-L5E-EOP	10/28/2019 12:20	WU7151	M	3.1	1.9	0.0815	0.00079	0.00076	0.0355	<0.0001	<0.001	0.092	0.00019	99.9	0.0011	0.00481	0.0014	0.089	<0.0002	0.0322	43.2	0.296	<0.000002	0.0062	0.0208		3.73	0.00588
RSEM-L5E-EOP	10/29/2019 12:40	WU9594	M	1.9	2.1	0.0783	0.00076	0.00073	0.0358	<0.0001	<0.001	0.092	0.000187	98.6	0.001	0.00468	0.00141	0.081	<0.0002	0.0331	44.6	0.27	<0.000002	0.006	0.0206		3.72	0.00548
RSEM-L5E-EOP	10/30/2019 12:55	WV3965	M	2.4	2.2	0.0776	0.00077	0.00077	0.0373	<0.0001	<0.001	0.096	0.0002	109	0.0013	0.00536	0.00168	0.088	<0.0002	0.0377	43.0	0.305	<0.000002	0.0049	0.0235		4.07	0.00602
RSEM-L5E-EOP	10/31/2019 13:40	WV6748	M	2.2	1.9	0.0693	0.00079	0.00075	0.0322	<0.0001	<0.001	0.091	0.000179	106	<0.001	0.00443	0.00126	0.063	<0.0002	0.0365	42.9	0.254	<0.000002	0.006	0.0204		3.72	0.00625
RSEM-L5E-EOP	11/1/2019 12:50	WV7047	M	2.4	2.2	0.0622	0.00079	0.0008	0.0325	<0.0001	<0.001	0.095	0.00018	109	<0.001	0.00454	0.00129	0.057	<0.0002	0.0394	44.8	0.258	<0.000002	0.0068	0.0213		3.87	0.00662
RSEM-L5E-EOP	11/2/2019 15:00	WW1212	M	2.8	2.2	0.0501	0.00072	0.0007	0.0326	<0.0001	<0.001	0.092	0.000166	109	<0.001	0.00476	0.0013	0.045	<0.0002	0.0372	46.3	0.274	<0.000002	0.006	0.0227		3.95	0.00622
RSEM-L5E-EOP	11/3/2019 15:15	WW1183	M	2.6	2.2	0.0503	0.00073	0.00072	0.0321	<0.0001	<0.001	0.087	0.000168	110	<0.001	0.00495	0.00131	0.042	<0.0002	0.0342	44.6	0.28	<0.000002	0.006	0.024		3.81	0.00617
RSEM-L5E-EOP	11/4/2019 13:30	WW5975	M	2.5	2.4	0.0398	0.00073	0.00074	0.0331	<0.0001	<0.001	0.086	0.000157	113	<0.001	0.00468	0.00128	0.042	<0.0002	0.0338	45.8	0.269	<0.000002	0.006	0.0232		3.89	0.00646
RSEM-L5E-EOP	11/5/2019 10:45	WW6585	M	2.3	2.5	0.0463	0.00076	0.00075	0.0324	<0.0001	<0.001	0.089	0.000163	112	<0.001	0.00463	0.00131	0.044	<0.0002	0.0352	45.8	0.264	<0.000002	0.006	0.0233		3.92	0.00634
RSEM-L5E-EOP	11/5/2019 11:00	WW6587	D	2.4	2.3	0.0537	0.00072	0.00076	0.0316	<0.0001	<0.001	0.086	0.000165	108	<0.001	0.00446	0.00127	0.042	<0.0002	0.0349	44.5	0.256	<0.000002	0.0059	0.022		3.75	0.00623
RSEM-L5E-EOP	11/6/2019 12:00	WW9546	M	2.2	2.4	0.0432	0.00074	0.00075	0.032	<0.0001	<0.001	0.093	0.00016	121	<0.001	0.00448	0.00133	0.042	<0.0002	0.0385	46.5	0.273	<0.000002	0.0062	0.0232		3.86	0.00658
RSEM-L5E-EOP	11/6/2019 12:20	WW9547	D	2.3	2.5	0.0474	0.00073	0.00074	0.0317	<0.0001	<0.001	0.094	0.000152	119	<0.001	0.00458	0.00134	0.043	<0.0002	0.0381	47.2	0.27	<0.000002	0.0062	0.0234		3.92	0.00658
RSEM-L5E-EOP	11/7/2019 13:00	WX2041	M	2.9	2.3	0.0403	0.00073	0.00072	0.0319	<0.0001	<0.001	0.096	0.000163	121	<0.001	0.00412	0.00139	0.041	<0.0002	0.0381	47.9	0.25	<0.000002	0.0061	0.0227		3.90	0.00662
RSEM-L5E-EOP	11/7/2019 13:10	WX2042	D	2.1	2.3	0.0375	0.00072	0.00071	0.0306	<0.0001	<0.001	0.092	0.00016	117	<0.001	0.00405	0.00132	0.038	<0.0002	0.0359	46.4	0.24	<0.000002	0.006	0.0227		3.82	0.00653
RSEM-L5E-EOP	11/8/2019 12:00	WX1871	M	2.1	2.2	0.0408	0.0008	0.00073	0.0327	<0.0001	<0.001	0.096	0.00016	116	<0.001	0.00428	0.00156	0.042	<0.0002	0.0436	46.3	0.246	0.0000025	0.0061	0.0242		4.02	0.00657
RSEM-L5E-EOP	11/8/2019 12:10	WX1872	D	2.2	2.1	0.0429	0.00081	0.00072	0.0338	<0.0001	<0.001	0.096	0.000171	126	<0.001	0.00431	0.00164	0.049	<0.0002	0.0412	46.5	0.246	<0.000002	0.0061	0.0242		4.07	0.00671
RSEM-L5E-EOP	11/9/2019 11:30	WX3317	M	2.2	2.4	0.0469	0.00077	0.00078	0.0324	<0.0001	<0.001	0.091	0.000163	119	<0.001	0.00439	0.00149	0.047	<0.0002	0.0402	46.5	0.25	<0.000002	0.0062	0.0243		4.03	0.00667
RSEM-L5E-EOP	11/9/2019 11:40	WX3318	D	2.2	2.4	0.0352	0.00075	0.00073	0.0313	<0.0001	<0.001	0.089	0.000161	114	<0.001	0.00426	0.00145	0.044	<0.0002	0.039	44.7	0.239	<0.000002	0.0057	0.0238		3.92	0.00646
RSEM-L5E-EOP	11/10/2019 12:40	WX5926	M	2.2	2.0	0.0554	0.00079	0.00072	0.0336	<0.0001	<0.001	0.093	0.000162	124	<0.001	0.00433	0.00158	0.056	<0.0002	0.0415	45.9	0.246	0.0000022	0.0063	0.0245		3.94	0.00672
RSEM-L5E-EOP	11/10/2019 12:50	WX5927	D	2.3	2.0	0.0542	0.00081	0.00072	0.0339	<0.0001	<0.001	0.097	0.000167	121	<0.001	0.00423	0.00148	0.045	<0.0002	0.0396	47.8	0.242	0.0000027	0.0065	0.0245		3.99	0.00705
RSEM-L5E-EOP	11/11/2019 10:00	WX5902	M	2.4	1.9	0.033	0.0007	0.00067	0.033	<0.0001	<0.001	0.082	0.000144	116	<0.001	0.00352	0.00159	0.036	<0.0002	0.0339	47.3	0.21	<0.000002	0.0061	0.0217		3.93	0.00622
RSEM-L5E-EOP	11/11/2019 10:10	WX5903	D	2.2	1.9	0.0363	0.0007	0.00067	0.0329	<0.0001	<0.001	0.084	0.000154	118	<0.001	0.00393	0.00155	0.043	<0.0002	0.0336	47.8	0.247	<0.000002	0.006	0.022		4.05	0.00632
RSEM-L5E-EOP	11/12/2019 13:30	WX7841	M	2.7	2.4	0.0378	0.00076	0.00073	0.0335	<0.0001	<0.001	0.088	0.000158	126	<0.001	0.00357	0.00162	0.04	<0.0002	0.0353	48.8	0.215	0.0000023	0.0065	0.0227		4.12	0.0068
RSEM-L5E-EOP	11/13/2019 14:05	WY0312	M	2.1	2.3	0.0346	0.00072	0.00072	0.0317	<0.0001	<0.001	0.098	0.000149	125	<0.001	0.00365	0.00142	0.036	<0.0002	0.0393	47.9	0.24	0.0000024	0.0063	0.0223		3.95	0.00662
RSEM-L5E-EOP	11/14/2019 13:35	WY2287	M	2.2	2.3	0.0359	0.00069	0.00071	0.031	<0.0001	<0.001	0.091	0.000146	118	<0.001	0.00362	0.00129	0.042	<0.0002	0.0364	45.4	0.232	<0.000002	0.0059	0.0216		3.79	0.00648
RSEM-L5E-EOP	11/15/2019 13:25	WY2336	M	1.9	1.7	0.0388	0.00073	0.00073	0.0312	<0.0001	<0.001	0.089	0.000147	116	<0.001	0.00392	0.00124	0.046	<0.0002	0.0362	46.1	0.242	<0.000002	0.006	0.0222		3.80	0.00661
RSEM-L5E-EOP	11/16/2019 14:05	WY5254	M	2.5	2.8	0.0371	0.00079	0.00073	0.0335	<0.0001	<0.001	0.091	0.000144	125	<0.001	0.00378	0.00125	0.032	<0.0002	0.0355	47.7	0.236	<0.000002	0.0064	0.0229		3.94	0.00692
RSEM-L5E-EOP	11/17/2019 9:30	WY5449	M	2.4	2.3	0.0337	0.00076	0.00071	0.0335	<0.0001	<0.001	0.087	0.000141	118	<0.001	0.00347	0.00128	0.03	<0.0002	0.0354	46.8	0.212	<0.000002	0.0063	0.0224		3.89	0.00657
RSEM-L5E-EOP	11/17/2019 9:40	WY5450	D	2.3	2.1	0.0333	0.00078	0.00072	0.0335	<0.0001	<0.001	0.089	0.000136	121	0.0011	0.00354	0.00135	0.033	<0.0002	0.0357	47.4	0.216	<0.000002	0.0064	0.0225		3.95	0.00662
RSEM-L5E-EOP	11/18/2019 14:35	WY7747	M	3.4	3.7	0.218	0.00098	0.00081	0.0351	<0.0001	<0.001	0.084	0.000223	145	0.0011	0.00488	0.00176	0.345	<0.0002	0.039	50.0	0.388	0.000004	0.0088	0.0223		4.19	0.00808
RSEM-L5E-EOP	11/19/2019 15:35	WY9706	M	4.5	3.3	0.149	0.00107	0.00076	0.0346	<0.0001	<0.001	0.093	0.000283	168	<0.001	0.00549	0.00169	0.245	<0.0002	0.0444	56.1	0.471	<0.000002	0.01	0.0241		4.67	0.00941
RSEM-L5E-EOP	11/20/2019 0:25	WZ2234	M	4.1	4.0	0.106	0.00096	0.00067	0.0311	<0.0001	<0.001	0.088	0.000311	169	<0.001	0.00583	0.00159	0.212	<0.0002	0.0416	53.7	0.551	0.000003	0.0095	0.0233		4.54	0.00963
RSEM-L5E-EOP	11/21/2019 11:40	WZ4248	M	3.4	3.5	0.0503	0.00099	0.00066	0.0344	<0.0001	<0.001	0.095	0.000406	187	<0.001	0.0103	0.00132	0.143	<0.0002	0.0483	59.2	0.723	<0.000002	0.0113	0.0357		4.72	0.0119
RSEM-L5E-EOP	11/22/2019 10:20	WZ4474	M	3.5	3.6	0.0367	0.00097	0.00063	0.0335	<0.0001	<0.001	0.093	0.000379	186	<0.001	0.00897	0.00132	0.098	<0.0002	0.0485	57.6	0.649	0.0000029	0.0111	0.0336		4.72	0.0118
RSEM-L5E-EOP	11/23/2019 13:00	WZ7699	M	4.4	3.2	0.0286	0.00091	0.00058	0.0334	<0.0001	<0.001	0.083	0.00035	175	<0.001	0.00742	0.00122	0.062	<0.0002	0.0443	56.9	0.564	<0.000002	0.0103	0.0302		4.61	0.0111
RSEM-L5E-SP	3/13/2019 12:10	VJ2168	M	3.5	3.3	0.721	0.00071	0.00122	0.132	<0.0001	<0.001	<0.05	0.000102	43.5	0.0024	0.0011	0.00474	2.03	0.00119	0.0053	16.0	0.0879	0.0000021	0.0082	0.0048		3.38	0.00228
RSEM-L5E-SP	3/14/2019 12:30	VJ4040	M	3.9	3.0	1.25	0.00073	0.00072	0.0623	<0.0001	<0.001	<0.05	0.00005	39.0	0.0021	0.00051	0.0034	1.12	0.00057	0.0064	14.6	0.0533	<0.000002	0.0087	0.0026		3.19	0.00258
RSEM-L5E-SP	4/1/2019 10:30	VL8081	M	4.4	3.9	0.798	0.00071	0.00123	0.079	<0.0001	<0.001	<0.05	0.000097	61.2	0.0017	0.00101	0.00412	1.85	0.00109	0.0055	24.6	0.107	<0.000002	0.0091	0.0043		3.47	0.00332
RSEM-L5E-SP	11/24/2019 12:10	WZ7710	M	4.1	3.5	0.0258	0.00094	0.00051	0.0334	<0.0001	<0.001	0.086	0.000411	181	<0.001	0.0109	0.00119	0.07	<0.0002	0.0456	61.3	0.708	<0.000002	0.0109	0.0392		4.71	0.0123
RSEM-L5E-SP	11/29/2019 12:45	XA6570	M	3.2	2.9	0.0785	0.00175	0.00082	0.0442	<0.0001	<0.001	0.118	0.00031	183	<0.001	0.0098	0.00165	0.132	<0.0002	0.0633	69.5	0.588	<0.000002	0.0194	0.0367		5.52	0.0164
RSEM-L5E-SP	12/3/2019 14:25	XB3101	M	3.46	3.38	0.0432	0.002	0.00084	0.0426	<0.0002	<0.002	0.142	0.000293	181	<0.002	0.01	0.0013	0.065	<0.0004	0.078	67.1	0.585	0.0000027	0.0219	0.0385		5.59	0.0174

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	10/6/2019 14:05	WQ7683	M	2.94	<0.00002	149	0.443	202	0.00001	<0.005	<0.005	0.00379	<0.005	<0.005	<0.0001	0.0059	0.00088	0.00069	0.0144	<0.0001	<0.001	0.12	<0.00001	101	0.0013	<0.0002	0.00078	<0.01
RSEM-L5E-EOP	10/7/2019 13:20	WQ9661	M	2.85	<0.00002	150	0.458	199	<0.00001	<0.005	<0.005	0.00391	<0.005	<0.005	<0.0001	0.0053	0.00084	0.00069	0.013	<0.0001	<0.001	0.116	<0.00001	89.6	0.0014	<0.0002	0.00079	<0.01
RSEM-L5E-EOP	10/8/2019 10:30	WR2885	M	2.68	<0.00002	140	0.485	177	0.00001	<0.005	<0.005	0.00399	<0.005	<0.005	<0.0001	0.0049	0.00084	0.00071	0.0134	<0.0001	<0.001	0.123	<0.00001	92.9	0.0013	<0.0002	0.00081	<0.01
RSEM-L5E-EOP	10/8/2019 10:40	WR2886	D	2.65	<0.00002	142	0.473	177	<0.00001	<0.005	<0.005	0.00398	<0.005	<0.005	<0.0001	0.0047	0.00085	0.00068	0.0137	<0.0001	<0.001	0.117	<0.00001	88.7	0.0013	<0.0002	0.00092	<0.01
RSEM-L5E-EOP	10/9/2019 11:40	WR5595	M	2.68	<0.00002	145	0.481	178	<0.00001	<0.005	<0.005	0.00394	<0.005	<0.005	<0.0001	0.0049	0.00084	0.00073	0.014	<0.0001	<0.001	0.128	<0.00001	88.9	0.0013	<0.0002	0.00096	<0.01
RSEM-L5E-EOP	10/9/2019 11:50	WR5596	D	2.63	<0.00002	141	0.475	177	<0.00001	<0.005	<0.005	0.00394	<0.005	<0.005	<0.0001	0.0051	0.00083	0.00063	0.0139	<0.0001	<0.001	0.124	<0.00001	91.9	0.0013	<0.0002	0.00085	<0.01
RSEM-L5E-EOP	10/10/2019 13:30	WR7641	M	2.81	<0.00002	142	0.471	174	<0.00001	<0.005	<0.005	0.0039	<0.005	<0.005	0.00015	0.0036	0.00084	0.00066	0.0146	<0.0001	<0.001	0.117	<0.00001	90.9	0.0012	<0.0002	0.00086	<0.01
RSEM-L5E-EOP	10/10/2019 13:40	WR7642	D	2.78	<0.00002	143	0.467	177	<0.00001	<0.005	<0.005	0.00392	<0.005	<0.005	<0.0001	0.0038	0.00081	0.00067	0.0143	<0.0001	<0.001	0.113	<0.00001	90.4	0.0012	<0.0002	0.00086	<0.01
RSEM-L5E-EOP	10/11/2019 10:55	WR7608	M	2.75	<0.00002	144	0.475	178	<0.00001	<0.005	<0.005	0.00389	<0.005	<0.005	<0.0001	0.0044	0.00079	0.00066	0.0139	<0.0001	<0.001	0.114	<0.00001	88.6	0.0012	<0.0002	0.00084	<0.01
RSEM-L5E-EOP	10/11/2019 11:00	WR7609	D	2.79	<0.00002	145	0.479	179	<0.00001	<0.005	<0.005	0.00395	<0.005	<0.005	<0.0001	0.0047	0.0008	0.00067	0.0137	<0.0001	<0.001	0.116	<0.00001	90.4	0.0012	<0.0002	0.00082	<0.01
RSEM-L5E-EOP	10/12/2019 11:10	WR9651	M	2.75	<0.00002	147	0.467	176	<0.00001	<0.005	<0.005	0.00389	<0.005	<0.005	<0.0001	0.0044	0.0008	0.00067	0.014	<0.0001	<0.001	0.117	<0.00001	90.8	0.0012	<0.0002	0.00089	<0.01
RSEM-L5E-EOP	10/12/2019 11:20	WR9652	D	2.79	<0.00002	147	0.479	178	<0.00001	<0.005	<0.005	0.00396	<0.005	<0.005	<0.0001	0.0042	0.00083	0.00067	0.0141	<0.0001	<0.001	0.116	<0.00001	90.6	0.0012	<0.0002	0.00095	<0.01
RSEM-L5E-EOP	10/13/2019 11:00	WS2564	M	2.87	<0.00002	145	0.493	174	<0.00001	<0.005	<0.005	0.00387	<0.005	<0.005	<0.0001	0.0036	0.0008	0.00065	0.0138	<0.0001	<0.001	0.092	<0.00001	84.1	0.0012	<0.0002	0.00094	<0.01
RSEM-L5E-EOP	10/13/2019 11:10	WS2565	D	2.93	<0.00002	150	0.507	180	<0.00001	<0.005	<0.005	0.00397	<0.005	<0.005	<0.0001	0.0037	0.00082	0.00071	0.014	<0.0001	<0.001	0.092	<0.00001	84.7	0.0012	<0.0002	0.00088	<0.01
RSEM-L5E-EOP	10/14/2019 10:20	WS2626	M	2.82	<0.00002	148	0.481	173	<0.00001	<0.005	<0.005	0.00384	<0.005	<0.005	<0.0001	0.0038	0.00085	0.00068	0.0134	<0.0001	<0.001	0.091	<0.00001	83.0	0.0012	<0.0002	0.00085	<0.01
RSEM-L5E-EOP	10/14/2019 10:30	WS2627	D	2.94	<0.00002	156	0.507	181	<0.00001	<0.005	<0.005	0.00403	<0.005	<0.005	<0.0001	0.0038	0.00082	0.00068	0.0133	<0.0001	<0.001	0.092	<0.00001	82.4	0.0013	<0.0002	0.00087	<0.01
RSEM-L5E-EOP	10/15/2019 10:45	WS4275	M	2.62	<0.00002	143	0.443	160	<0.00001	<0.005	<0.005	0.0037	<0.005	<0.005	<0.0001	0.0041	0.00081	0.00069	0.0132	<0.0001	<0.001	0.114	<0.00001	82.8	0.0012	<0.0002	0.00083	<0.01
RSEM-L5E-EOP	10/15/2019 11:00	WS4276	D	2.69	<0.00002	143	0.454	158	<0.00001	<0.005	<0.005	0.00361	<0.005	<0.005	<0.0001	0.0038	0.00082	0.00071	0.0132	<0.0001	<0.001	0.11	<0.00001	83.7	0.0012	<0.0002	0.00086	<0.01
RSEM-L5E-EOP	10/16/2019 10:40	WS6070	M	2.76	<0.00002	150	0.472	170	<0.00001	<0.005	<0.005	0.00377	<0.005	<0.005	<0.0001	0.0034	0.0008	0.00066	0.0131	<0.0001	<0.001	0.123	<0.00001	88.6	0.0011	<0.0002	0.00081	<0.01
RSEM-L5E-EOP	10/16/2019 10:50	WS6071	D	2.83	<0.00002	152	0.476	174	<0.00001	<0.005	<0.005	0.00379	<0.005	<0.005	<0.0001	0.0039	0.00082	0.00068	0.0132	<0.0001	<0.001	0.128	<0.00001	90.2	0.0011	<0.0002	0.00085	<0.01
RSEM-L5E-EOP	10/17/2019 10:20	WS9495	M	2.76	<0.00002	152	0.47	172	<0.00001	<0.005	<0.005	0.00377	<0.005	<0.005	<0.0001	0.0033	0.0008	0.0007	0.0128	<0.0001	<0.001	0.123	<0.00001	93.0	0.0011	<0.0002	0.0006	<0.01
RSEM-L5E-EOP	10/17/2019 10:30	WS9496	D	2.76	<0.00002	151	0.471	171	<0.00001	<0.005	<0.005	0.00371	<0.005	<0.005	<0.0001	0.0036	0.00081	0.00073	0.0126	<0.0001	<0.001	0.122	<0.00001	91.6	0.0011	<0.0002	0.00065	<0.01
RSEM-L5E-EOP	10/18/2019 11:05	WT0851	M	2.73	<0.00002	156	0.475	173	<0.00001	<0.005	<0.005	0.00375	<0.005	<0.005	<0.0001	0.0038	0.00081	0.0007	0.0125	<0.0001	<0.001	0.128	<0.00001	90.8	0.0011	<0.0002	0.00088	<0.01
RSEM-L5E-EOP	10/18/2019 11:15	WT0852	D	2.74	<0.00002	153	0.47	170	<0.00001	<0.005	<0.005	0.0037	<0.005	<0.005	<0.0001	0.0038	0.00081	0.00069	0.0128	<0.0001	<0.001	0.129	<0.00001	90.0	0.0011	<0.0002	0.00088	<0.01
RSEM-L5E-EOP	10/19/2019 10:30	WT3632	M	2.51	<0.00002	144	0.447	160	<0.00001	<0.005	<0.005	0.00355	<0.005	<0.005	<0.0001	0.0038	0.00078	0.00058	0.0122	<0.0001	<0.001	0.107	<0.00001	80.8	<0.001	<0.0002	0.0007	<0.01
RSEM-L5E-EOP	10/19/2019 10:45	WT3633	D	2.51	<0.00002	147	0.451	163	<0.00001	<0.005	<0.005	0.00369	<0.005	<0.005	<0.0001	0.0038	0.0008	0.00063	0.0124	<0.0001	<0.001	0.112	<0.00001	82.8	0.0011	<0.0002	0.0008	<0.01
RSEM-L5E-EOP	10/20/2019 12:50	WT3704	M	2.98	<0.00004	156	0.49	171	<0.00002	<0.01	<0.01	0.00369	<0.01	<0.01	<0.0002	0.0034	0.00077	0.00068	0.0123	<0.0001	<0.001	0.102	<0.00001	77.2	0.001	<0.0002	0.00074	<0.01
RSEM-L5E-EOP	10/20/2019 13:00	WT3708	D	2.94	<0.00004	163	0.498	177	<0.00002	<0.01	<0.01	0.00379	<0.01	<0.01	<0.0002	0.0033	0.00076	0.0007	0.0123	<0.0001	<0.001	0.103	<0.00001	77.7	0.001	<0.0002	0.00074	<0.01
RSEM-L5E-EOP	10/21/2019 10:00	WT4452	M	2.97	<0.00004	157	0.467	170	<0.00002	<0.01	<0.01	0.00364	<0.01	<0.01	<0.0002	0.0031	0.00075	0.00069	0.0134	<0.0001	<0.001	0.102	<0.00001	79.2	0.001	<0.0002	0.00076	<0.01
RSEM-L5E-EOP	10/21/2019 10:15	WT4453	D	3.09	<0.00004	164	0.498	177	<0.00002	<0.01	<0.01	0.00377	<0.01	<0.01	<0.0002	0.0033	0.00077	0.00067	0.0135	<0.0001	<0.001	0.101	<0.00001	78.5	0.0011	<0.0002	0.00079	<0.01
RSEM-L5E-EOP	10/22/2019 17:00	WT8963	M	3.45	<0.00002	156	0.507	169	<0.00001	<0.005	<0.005	0.00359	<0.005	<0.005	0.00011	0.0043	0.00082	0.00079	0.0196	<0.0001	<0.001	0.116	<0.00001	84.6	0.001	<0.0002	0.00078	<0.01
RSEM-L5E-EOP	10/23/2019 15:45	WU1857	M	3.3	<0.00002	149	0.492	162	<0.00001	<0.005	<0.005	0.00354	<0.005	<0.005	0.00021	0.0032	0.00083	0.00081	0.0204	<0.0001	<0.001	0.116	0.00001	87.5	0.0011	<0.0002	0.00077	<0.01
RSEM-L5E-EOP	10/24/2019 17:15	WU4171	M	3.02	<0.00002	156	0.478	164	<0.00001	<0.005	<0.005	0.00351	<0.005	<0.005	0.00023	0.0033	0.00083	0.00089	0.0198	<0.0001	<0.001	0.104	<0.00001	81.4	0.0011	<0.0002	0.00081	<0.01
RSEM-L5E-EOP	10/25/2019 17:00	WU5359	M	3.53	<0.00002	142	0.478	162	0.000015	<0.005	0.0122	0.00388	<0.005	0.0066	0.00029	0.0183	0.00081	0.00083	0.0308	<0.0001	<0.001	0.097	0.000116	93.3	<0.001	0.00291	0.00108	<0.01
RSEM-L5E-EOP	10/26/2019 16:15	WU7030	M	2.88	<0.00002	126	0.49	154	0.00001	<0.005	<0.005	0.00378	<0.005	0.0059	<0.0001	0.0109	0.00083	0.00079	0.0329	<0.0001	<0.001	0.104	0.000158	106	<0.001	0.00394	0.00113	<0.01
RSEM-L5E-EOP	10/27/2019 14:50	WU7141	M	2.81	<0.00002	123	0.509	155	<0.00001	<0.005	<0.005	0.00391	<0.005	0.0067	<0.0001	0.0135	0.00082	0.00077	0.0342	<0.0001	<0.001	0.104	0.000202	111	<0.001	0.0049	0.00114	<0.01
RSEM-L5E-EOP	10/28/2019 12:20	WU7151	M	2.84	<0.00002	122	0.492	156	<0.00001	<0.005	<0.005	0.00394	<0.005	0.0061	<0.0001	0.013	0.0008	0.00076	0.0341	<0.0001	<0.001	0.103	0.000196	110	<0.001	0.00465	0.00116	<0.01
RSEM-L5E-EOP	10/29/2019 12:40	WU9594	M	2.58	<0.00002	128	0.479	151	<0.00001	<0.005	<0.005	0.00416	<0.005	0.0057	<0.0001	0.0133	0.00077	0.00075	0.0323	<0.0001	<0.001	0.092	0.000188	110	<0.001	0.00511	0.00127	<0.01
RSEM-L5E-EOP	10/30/2019 12:55	WV3965	M	2.81	<0.00002	129	0.489	172	<0.00001	<0.005	<0.005	0.00428	<0.005	0.0078	0.00012	0.0102	0.00077	0.00066	0.0347	<0.0001	<0.001	0.096	0.00022	109	<0.001	0.00517	0.0014	<0.01
RSEM-L5E-EOP	10/31/2019 13:40	WV6748	M	2.6	<0.00002	128	0.457	156	<0.00001	<0.005	<0.005	0.0039	<0.005	0.0056	<0.0001	0.0091	0.00077	0.00075	0.0327	<0.0001	<0.001	0.092	0.000176	106	<0.001	0.0046	0.00118	<0.01
RSEM-L5E-EOP	11/1/2019 12:50	WV7047	M	2.69	<0.00002	131	0.48	163	<0.00001	<0.005	<0.005	0.00404	<0.005	0.0057	<0.0001	0.0101	0.00075	0.00073	0.0323	<0.0001	<0.001	0.091	0.000169	106	<0.001	0.00438	0.00118	<0.01
RSEM-L5E-EOP	11/2/2019 15:00	WW1212	M	3.03	<0.00002	126	0.495	166	<0.00001	<0.005	<0.005	0.00417	<0.005	0.0055	<0.0001	0.0094	0.00077	0.00071	0.0327	<0.0001	<0.001	0.095	0.000165	115	<0.001	0.00457	0.00107	<0.01
RSEM-L5E-EOP	11/3/2019 15:15	WW1183	M	2.86	<0.00002	122	0.504	161	<0.00001	<0.005	<0.005	0.0042	<0.005	0.0053	<0.0001	0.0088	0.00079	0.00074	0.0323	<0.0001	<0.001	0.094	0.000173	119	<0.001	0.00481	0.00109	<0.01
RSEM-L5E-EOP	11/4/2019 13:30	WW5975	M	2.82	<0.00002	127	0.512	164	<0.00001	<0.005	<0.005	0.00428	<0.005	0.0053	<0.0001	0.0085	0.00074	0.0007	0.03	<0.0001	<0.001	0.093	0.000151	115	<0.001	0.00432	0.00105	<0.01
RSEM-L5E-EOP	11/5/2019 10:45	WW6585	M	2.84	<0.00002	129	0.5	167	<0.00001	<0.005	0.0089	0.00421	<0.005	0.0054	<0.0001	0.0107	0.0008	0.00069	0.0326	<0.0001	<0.001	0.091	0.00017	118	<0.001	0.00436	0.00107	<0.01
RSEM-L5E-EOP	11/5/2019 11:00	WW6587	D	2.86	<0.00002	125	0.495	161	<0.00001	<0.005	<0.005	0.00416	<0.005	0.0056	<0.0001	0.0107	0.00076	0.00073	0.0328	<0.0001	<0.001	0.09	0.000164	117	<0.001	0.00441	0.00109	<0.01
RSEM-L5E-EOP	11/6/2019 12:00	WW9546	M	2.98	<0.00002	127	0.516	167	<0.00001	<0.005	<0.005	0.00443	<0.005	0.0054	<0.0001	0.0099	0.00072	0.00074	0.0341	<0.0001	<0.001	0.088	0.000158	118	<0.001	0.00442	0.00115	<0.01
RSEM-L5E-EOP	11/6/2019 12:20	WW9547	D	2.94	<0.00002	130	0.504	168	<0.00001	<0.005	<0.005	0.00438	<0.005	0.0053	<0.0001	0.0099	0.00072	0.00076	0.0334	<0.0001	<0.001	0.088	0.000161	118	<0.001	0.00455	0.00117	<0.01
RSEM-L5E-EOP	11/7/2019 13:00	WX2041	M	2.91	<0.00002	131	0.51	168	<0.00001	<0.005	<0.005	0.00444	<0.005	0.0053	<0.0001	0.0085	0.00074	0.00071	0.0311	<0.0001	<0.001	0.097	0.000159	123	<0.001	0.00408	0.00123	<0.01
RSEM-L5E-EOP	11/7/2019 13:10	WX2042	D	2.77	<0.00002	128	0.499	163	<0.00001	<0.005	<0.005	0.00425	<0.005	0.0053	<0.0001	0.0088	0.00074	0.00071	0.031	<0.0001	<0.001	0.096	0.000155	123	<0.001	0.00403	0.00118	<0.01
RSEM-L5E-EOP	11/8/2019 12:00	WX1871	M	3.04	<0.00002	126	0.502	179	<0.00001	<0.005	<0.005	0.0042	<0.005	0.0057	0.00011	0.0091	0.00075	0.00073	0.0312	<0.0001	<0.001	0.097	0.00016	125	<0.001	0.00407	0.0013	<0.01
RSEM-L5E-EOP	11/8/2019 12:10	WX1872	D	3.15	<0.00002	128	0.514	179	<0.00001	<0.005	<0.005	0.00436	<0.005	0.0059	<0.0001	0.0086	0.00075	0.00073	0.0309	<0.0001	<0.001	0.096	0.000148	124	<0.001	0.00401	0.00134	<0.01
RSEM-L5E-EOP	11/9/2019 11:30	WX3317	M	3	<0.00002	129	0.498	178	<0.00001	<0.005	<0.005	0.00435	<0.005	0.0058	<0.0001	0.0103	0.00076	0.00068	0.0315	<0.0001	<0.001	0.094	0.000159	124	<0.001	0.00405	0.0013	0.012
RSEM-L5E-EOP	11/9/2019 11:40	WX3318	D	2.95	<0.00002	126	0.475	171	<0.00001	<0.005	<0.005	0.00414	<0.005	0.0057	<0.0001	0.0108	0.0008	0.00074	0.032	<0.0001	<0.001	0.097	0.000162	130	<0.001	0.00419	0.00127	0.011
RSEM-L5E-EOP	11/10/2019 12:40	WX5926	M	3.12	<0.00002	126	0.505	175	<0.00001	<0.005	<0.005	0.00435	<0.005	0.0059	<0.0001	0.009	0.00077	0.00076	0.0319	<0.0001	<0.001	0.091	0.000156	123	<0.001	0.0039	0.00123	<0.01
RSEM-L5E-EOP	11/10/2019 12:50	WX5927	D	3.1	<0.00002	129	0.515	182	<0.00001	<0.005	<0.005	0.00437	<0.005	0.0053	<0.0001	0.0093	0.00079	0.0007	0.0322	<0.0001	<0.001	0.096	0.000161	126	<0.001	0.0039	0.00119	<0.01
RSEM-L5E-EOP	11/11/2019 10:00	WX5902	M	2.9	<0.00002	124	0.531	162	<0.00001	<0.005	<0.005	0.00441	<0.005	0.005	0.00012	0.0096	0.00078	0.00073	0.0332	<0.0001	<0.001	0.096	0.00016	137	<0.001	0.00348	0.00137	<0.01
RSEM-L5E-EOP	11/11/2019 10:10	WX5903	D	2.84	<0.00002	127	0.517	163	<0.00001	<0.005	<0.005	0.00444	<0.005	0.0053	<0.0001	0.01	0.00077	0.00077	0.0329	<0.0001	<0.001	0.097	0.000156	133	<0.001	0.00351	0.00136	<0.01
RSEM-L5E-EOP	11/12/2019 13:30	WX7841	M	2.97	<0.00002	129	0.553	172	<0.00001	<0.005	<0.005	0.00465	<0.005	<0.005	<0.0001	0.0085	0.00075	0.00075	0.0312	<0.0001	<0.001	0.095	0.000153	123	<0.001	0.00326	0.00123	<0.01
RSEM-L5E-EOP	11/13/2019 14:05	WY0312	M	3.06	<0.00002	129	0.527	178	<0.00001	<0.005	<0.005	0.00432	<0.005	0.005	<0.0001	0.0087	0.00073	0.00072	0.0315	<0.0001	<0.001	0.096	0.000147	124	<0.001	0.00346	0.00112	<0.01
RSEM-L5E-EOP	11/14/2019 13:35	WY2287	M	2.8	<0.00002	124	0.497	167	<0.00001	<0.005	<0.005	0.00413	<0.005	0.0052	<0.0001	0.0083	0.00075	0.00071	0.0316	<0.0001	<0.001	0.097	0.000157	122	<0.001	0.00365	0.00115	<0.01
RSEM-L5E-EOP	11/15/2019 13:25	WY2336	M	2.78	<0.00002	127	0.503	166	<0.00001	<0.005	<0.005	0.00411	<0.005	0.005	<0.0001	0.008	0.0008	0.00072	0.0325	<0.0001	<0.001	0.098	0.000157	124	<0.001	0.00381	0.00107	<0.01
RSEM-L5E-EOP	11/16/2019 14:05	WY5254	M	3.02	<0.00002	132	0.543	179	<0.00001	<0.005	<0.005	0.00442	<0.005	0.0052	<0.0001	0.0081	0.00081	0.00075	0.033	<0.0001	<0.001	0.095	0.000146	124	<0.001	0.0037	0.0011	<0.01
RSEM-L5E-EOP	11/17/2019 9:30	WY5449	M	2.92	<0.00002	128	0.536	176	<0.00001	<0.005	<0.005	0.00431	<0.005	<0.005	<0.0001	0.008	0.00078	0.00073	0.034	<0.0001	<0.001	0.094	0.000146	124	<0.001	0.00347	0.00111	<0.01
RSEM-L5E-EOP	11/17/2019 9:40	WY5450	D	2.99	<0.00002	130	0.543	179	<0.00001	<0.005	<0.005	0.00441	<0.005	<0.005	<0.0001	0.0078	0.0008	0.00071	0.0339	<0.0001	<0.001	0.095	0.000139	123	<0.001	0.00344	0.00111	<0.01
RSEM-L5E-EOP	11/18/2019 14:35	WY7747	M	3.13	<0.00002	152	0.584	208	0.000022	<0.005	<0.005	0.00551	<0.005	0.0078	0.00014	0.0087	0.00107	0.00068	0.0317	<0.0001	<0.001	0.094	0.000213	149	<0.001	0.00467	0.00117	<0.01
RSEM-L5E-EOP	11/19/2019 15:35	WY9706	M	2.83	<0.00002	174	0.629	231	0.000024	<0.005	<0.005	0.00596	<0.005	0.0086	0.0001	0.0062	0.00105	0.00067	0.0305	<0.0001	<0.001	0.085	0.000278	163	<0.001	0.00527	0.00118	0.012
RSEM-L5E-EOP	11/20/2019 0:25	WZ2234	M	2.37	<0.00002	160	0.61	232	0.000024	<0.005	<0.005	0.00598	<0.005	0.0109	0.0001	0.0063	0.00099	0.0006	0.0284	<0.0001	<0.001	0.089	0.000302	173	<0.001	0.00568	0.00107	<0.01
RSEM-L5E-EOP	11/21/2019 11:40	WZ4248	M	2.22	<0.00002	162	0.677	256	0.000022	<0.005	<0.005	0.00687	<0.005	0.0281	<0.0001	0.0038	0.00099	0.00052	0.0326	<0.0001	<0.001	0.09	0.000415	180	<0.001	0.0101	0.00106	<0.01
RSEM-L5E-EOP	11/22/2019 10:20	WZ4474	M	2.21	<0.00002	161	0.664	254	0.000021	<0.005	<0.005	0.00677	<0.005	0.0246	<0.0001	0.004	0.00099	0.00049	0.0325	<0.0001	<0.001	0.092	0.000383	177	<0.001	0.00888	0.00103	<0.01
RSEM-L5E-EOP	11/23/2019 13:00	WZ7699	M	2.22	<0.00002	154	0.657	241	0.000022	<0.005	<0.005	0.00681	<0.005	0.0208	<0.0001	0.0041	0.00094	0.00059	0.0328	<0.0001	<0.001	0.091	0.000366	182	<0.001	0.00746	0.00096	<0.01
RSEM-L5E-SP	3/13/2019 12:10	VJ2168	M	2.22	0.000025	17.0	0.147	36.6	0.000031	<0.005	0.0154	0.0026	<0.005	0.0227	0.00044	0.0084	0.00064	0.00029	0.0679	<0.0001	<0.001	<0.05	0.000026	36.8	<0.001	0.00028	0.00163	<0.01
RSEM-L5E-SP	3/14/2019 12:30	VJ4040	M	3.67	<0.00002	15.2	0.139	31.7	0.000029	<0.005	0.0297	0.00259	<0.005	0.0105	0.00074	0.0057	0.00071	0.00032	0.0429	<0.0001	<0.001	<0.05	0.000023	37.2	<0.001	<0.0002	0.00151	<0.01
RSEM-L5E-SP	4/1/2019 10:30	VL8081	M	2.66	0.000025	19.9	0.233	58.3	0.000023	<0.005	0.0211	0.0044	<0.005	0.0092	0.00048	<0.003	0.00068	0.00042	0.0551	<0.0001	<0.001	<0.05	0.00004	58.9	<0.001	0.0003	0.0013	<0.01
RSEM-L5E-SP	11/24/2019 12:10	WZ7710	M	2.08	<0.00002	157	0.652	256	0.000022	<0.005	<0.005	0.00713	<0.005	0.033	0.00013	0.004	0.00096	0.00047	0.0325	<0.0001	<0.001	0.092	0.000394	193	<0.001	0.0102	0.00096	<0.01
RSEM-L5E-SP	11/29/2019 12:45	XA6570	M	3.26	<0.00002	259	0.838	318	0.000026	<0.005	0.0158	0.0078	<0.005	0.0251	0.00012	<0.006	0.0017	0.00079	0.038	<0.0002	<0.002	0.132	0.000289	184	<0.002	0.00934	0.0012	<0.02
RSEM-L5E-SP	12/3/2019 14:25	XB3101	M	3.39	<0.00004	289	0.842	334	0.000026	<0.01	<0.01	0.00801	<0.01	0.025	<0.0002	0.0064	0.002	0.00093	0.0421	<0.0001	<0.001	0.147	0.000292	187	<0.001	0.00954	0.001	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5E-EOP	10/6/2019 14:05	WQ7683	M	<0.0002	0.0415	42.7	0.0044	<0.000002	0.0073	0.0032		4.58	0.00534	3.27	<0.00002	144	0.482	203	<0.00001	<0.005	<0.005	0.00419	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/7/2019 13:20	WQ9661	M	<0.0002	0.0383	42.5	<0.001	<0.000002	0.0067	0.0035		3.99	0.00529	2.58	<0.00002	148	0.425	182	<0.00001	<0.005	<0.005	0.00377	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/8/2019 10:30	WR2885	M	<0.0002	0.0387	42.6	0.0022	<0.000002	0.0064	0.0034		4.01	0.00518	2.68	<0.00002	154	0.424	179	<0.00001	<0.005	<0.005	0.00366	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/8/2019 10:40	WR2886	D	<0.0002	0.0368	43.6	0.0019	<0.000002	0.0065	0.0034		4.04	0.00505	2.57	<0.00002	155	0.431	185	<0.00001	<0.005	<0.005	0.0038	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/9/2019 11:40	WR5595	M	<0.0002	0.0396	45.5	0.0044	<0.000002	0.0066	0.0036		4.20	0.00474	2.65	<0.00002	161	0.43	191	<0.00001	<0.005	<0.005	0.00377	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/9/2019 11:50	WR5596	D	<0.0002	0.0392	44.6	0.0042	<0.000002	0.0064	0.0035		4.12	0.00491	2.68	<0.00002	156	0.426	186	<0.00001	<0.005	<0.005	0.0037	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/10/2019 13:30	WR7641	M	<0.0002	0.0415	42.6	0.007	<0.000002	0.0064	0.0032		4.07	0.00472	2.54	<0.00002	148	0.463	176	<0.00001	<0.005	<0.005	0.00396	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/10/2019 13:40	WR7642	D	<0.0002	0.0401	42.1	0.0067	<0.000002	0.0065	0.0032		4.07	0.00476	2.53	<0.00002	148	0.476	171	<0.00001	<0.005	<0.005	0.00399	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/11/2019 10:55	WR7608	M	<0.0002	0.0405	41.9	0.0051	<0.000002	0.0064	0.003		4.04	0.00453	2.58	<0.00002	147	0.47	179	<0.00001	<0.005	<0.005	0.00396	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/11/2019 11:00	WR7609	D	<0.0002	0.0411	42.0	0.0049	<0.000002	0.0064	0.003		4.04	0.00459	2.6	<0.00002	148	0.459	176	<0.00001	<0.005	<0.005	0.00393	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/12/2019 11:10	WR9651	M	<0.0002	0.0415	41.6	0.0063	<0.000002	0.0065	0.0031		3.99	0.0045	2.68	<0.00002	149	0.467	175	<0.00001	<0.005	<0.005	0.00398	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/12/2019 11:20	WR9652	D	<0.0002	0.0408	42.2	0.0066	<0.000002	0.0063	0.0031		4.01	0.00463	2.65	<0.00002	149	0.469	178	<0.00001	<0.005	<0.005	0.00396	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/13/2019 11:00	WS2564	M	<0.0002	0.0316	41.1	0.0065	<0.000002	0.0063	0.0031		4.06	0.00443	2.55	<0.00002	144	0.496	169	<0.00001	<0.005	<0.005	0.00386	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/13/2019 11:10	WS2565	D	<0.0002	0.0315	41.2	0.0065	<0.000002	0.0064	0.003		4.09	0.00443	2.54	<0.00002	144	0.51	171	<0.00001	<0.005	<0.005	0.00384	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/14/2019 10:20	WS2626	M	<0.0002	0.0307	41.0	0.0061	<0.000002	0.0063	0.0029		4.04	0.00426	2.55	<0.00002	146	0.499	170	<0.00001	<0.005	<0.005	0.00384	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/14/2019 10:30	WS2627	D	<0.0002	0.0305	41.9	0.0061	<0.000002	0.0063	0.0031		4.06	0.00424	2.54	<0.00002	148	0.501	171	<0.00001	<0.005	<0.005	0.00383	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/15/2019 10:45	WS4275	M	<0.0002	0.0403	43.0	0.0048	<0.000002	0.0062	0.0028		3.84	0.0045	2.83	<0.00002	154	0.506	176	<0.00001	<0.005	<0.005	0.00384	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/15/2019 11:00	WS4276	D	<0.0002	0.0399	42.1	0.0053	<0.000002	0.0063	0.0028		3.84	0.00431	2.8	<0.00002	153	0.5	172	<0.00001	<0.005	<0.005	0.00386	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/16/2019 10:40	WS6070	M	<0.0002	0.0419	42.5	0.0055	<0.000002	0.0062	0.0028		3.85	0.004	2.71	<0.00002	154	0.483	179	<0.00001	<0.005	<0.005	0.00378	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/16/2019 10:50	WS6071	D	<0.0002	0.0425	43.0	0.0055	<0.000002	0.0061	0.0028		3.91	0.00403	2.79	<0.00002	156	0.483	181	<0.00001	<0.005	<0.005	0.00381	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/17/2019 10:20	WS9495	M	<0.0002	0.0414	41.3	0.0055	<0.000002	0.0062	0.0027		3.86	0.00445	3.15	<0.00002	152	0.452	177	<0.00001	<0.005	<0.005	0.00363	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/17/2019 10:30	WS9496	D	<0.0002	0.0395	43.3	0.0057	<0.000002	0.006	0.0028		3.91	0.00403	3.03	<0.00002	159	0.437	185	<0.00001	<0.005	<0.005	0.00365	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/18/2019 11:05	WT0851	M	<0.0002	0.0423	42.0	0.0057	<0.000002	0.0061	0.0029		3.85	0.00418	2.8	<0.00002	155	0.484	179	<0.00001	<0.005	<0.005	0.00378	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/18/2019 11:15	WT0852	D	<0.0002	0.0431	43.1	0.0059	<0.000002	0.0062	0.0028		3.87	0.00411	2.75	<0.00002	158	0.498	179	<0.00001	<0.005	<0.005	0.00388	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/19/2019 10:30	WT3632	M	<0.0002	0.0421	37.9	0.0062	<0.000002	0.0055	0.0024		3.56	0.0035	2.87	<0.00002	143	0.426	169	<0.00001	<0.005	<0.005	0.00345	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/19/2019 10:45	WT3633	D	<0.0002	0.0427	40.1	0.0063	0.000003	0.0057	0.0026		3.82	0.00342	3.06	<0.00002	153	0.442	179	<0.00001	<0.005	<0.005	0.00358	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/20/2019 12:50	WT3704	M	<0.0002	0.0381	39.8	0.0058	<0.000002	0.0057	0.0025		3.60	0.00352	2.65	<0.00002	141	0.474	165	<0.00001	<0.005	<0.005	0.00347	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/20/2019 13:00	WT3708	D	<0.0002	0.037	39.4	0.0057	<0.000002	0.0056	0.0025		3.65	0.00356	2.64	<0.00002	141	0.484	163	<0.00001	<0.005	<0.005	0.0035	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/21/2019 10:00	WT4452	M	<0.0002	0.0371	39.4	0.0071	<0.000002	0.0056	0.0025		3.58	0.00353	2.68	<0.00002	141	0.473	162	<0.00001	<0.005	<0.005	0.00338	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/21/2019 10:15	WT4453	D	<0.0002	0.0387	40.0	0.0072	<0.000002	0.0056	0.0025		3.62	0.00341	2.65	<0.00002	143	0.467	165	<0.00001	<0.005	<0.005	0.00342	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/22/2019 17:00	WT8963	M	<0.0002	0.0382	40.4	0.0104	<0.000002	0.006	0.0024		3.52	0.00375	2.85	<0.00002	151	0.471	160	<0.00001	<0.005	<0.005	0.00349	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/23/2019 15:45	WU1857	M	<0.0002	0.0372	40.4	0.0113	<0.000002	0.0059	0.0024		3.57	0.0039	2.89	<0.00002	151	0.468	160	<0.00001	<0.005	<0.005	0.00337	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/24/2019 17:15	WU4171	M	<0.0002	0.0379	41.4	0.0118	<0.000002	0.006	0.0024		3.65	0.00413	3.02	<0.00002	151	0.49	160	<0.00001	<0.005	<0.005	0.00349	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/25/2019 17:00	WU5359	M	<0.0002	0.0367	43.8	0.177	<0.000002	0.0063	0.0116		3.83	0.00555	2.91	<0.00002	139	0.493	162	<0.00001	<0.005	<0.005	0.00384	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/26/2019 16:15	WU7030	M	<0.0002	0.0375	43.4	0.244	<0.000002	0.0064	0.0164		3.83	0.00566	2.82	<0.00002	138	0.487	164	<0.00001	<0.005	<0.005	0.0039	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/27/2019 14:50	WU7141	M	<0.0002	0.0386	44.9	0.293	<0.000002	0.0064	0.02		3.91	0.00623	2.79	<0.00002	136	0.495	168	<0.00001	<0.005	<0.005	0.00406	<0.005	0.0066	<0.0001
RSEM-L5E-EOP	10/28/2019 12:20	WU7151	M	<0.0002	0.0373	43.8	0.279	<0.000002	0.0064	0.0203		3.87	0.00631	2.68	<0.00002	135	0.489	164	<0.00001	<0.005	<0.005	0.00396	<0.005	0.0055	<0.0001
RSEM-L5E-EOP	10/29/2019 12:40	WU9594	M	<0.0002	0.0397	43.2	0.28	<0.000002	0.0061	0.0223		4.14	0.00637	3.03	<0.00002	130	0.451	179	<0.00001	<0.005	<0.005	0.00397	<0.005	0.0063	<0.0001
RSEM-L5E-EOP	10/30/2019 12:55	WV3965	M	<0.0002	0.0379	42.7	0.273	<0.000002	0.0057	0.0223		3.97	0.00643	2.67	<0.00002	128	0.484	174	<0.00001	<0.005	<0.005	0.00426	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	10/31/2019 13:40	WV6748	M	<0.0002	0.0341	46.3	0.266	<0.000002	0.0062	0.021		3.96	0.00611	2.82	<0.00002	130	0.488	165	<0.00001	<0.005	<0.005	0.00418	<0.005	0.0052	<0.0001
RSEM-L5E-EOP	11/1/2019 12:50	WV7047	M	<0.0002	0.0368	45.8	0.246	<0.000002	0.0068	0.0207		3.94	0.00605	2.92	<0.00002	129	0.502	162	<0.00001	<0.005	<0.005	0.00408	<0.005	0.0058	<0.0001
RSEM-L5E-EOP	11/2/2019 15:00	WW1212	M	<0.0002	0.0379	44.1	0.274	<0.000002	0.0063	0.0223		3.85	0.00671	2.89	<0.00002	125	0.512	167	<0.00001	<0.005	<0.005	0.00428	<0.005	0.0063	<0.0001
RSEM-L5E-EOP	11/3/2019 15:15	WW1183	M	<0.0002	0.0385	45.1	0.288	<0.000002	0.0062	0.0235		3.95	0.00676	2.9	<0.00002	126	0.524	173	<0.00001	<0.005	<0.005	0.00428	<0.005	0.0052	<0.0001
RSEM-L5E-EOP	11/4/2019 13:30	WW5975	M	<0.0002	0.036	46.1	0.255	<0.000002	0.006	0.023		3.77	0.00682	2.63	<0.00002	130	0.475	163	<0.00001	<0.005	<0.005	0.00399	<0.005	0.0052	<0.0001
RSEM-L5E-EOP	11/5/2019 10:45	WW6585	M	<0.0002	0.0386	45.1	0.259	<0.000002	0.0062	0.0227		3.97	0.00619	2.93	<0.00002	124	0.523	168	<0.00001	<0.005	<0.005	0.00418	<0.005	0.0051	<0.0001
RSEM-L5E-EOP	11/5/2019 11:00	WW6587	D	<0.0002	0.0389	45.9	0.264	<0.000002	0.0061	0.0231		4.02	0.00619	2.93	<0.00002	129	0.524	169	<0.00001	<0.005	<0.005	0.0042	<0.005	0.0051	<0.0001
RSEM-L5E-EOP	11/6/2019 12:00	WW9546	M	<0.0002	0.0357	47.4	0.263	<0.000002	0.0063	0.0233		4.06	0.00656	3.11	<0.00002	125	0.532	173	<0.00001	<0.005	<0.005	0.00439	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	11/6/2019 12:20	WW9547	D	<0.0002	0.0351	47.6	0.266	<0.000002	0.0061	0.0241		4.09	0.00678	3.02	<0.00002	126	0.527	173	<0.00001	<0.005	<0.005	0.00435	<0.005	0.0052	<0.0001
RSEM-L5E-EOP	11/7/2019 13:00	WX2041	M	<0.0002	0.0384	48.3	0.251	<0.000002	0.0061	0.0238		3.94	0.00706	2.83	<0.00002	133	0.512	170	<0.00001	<0.005	<0.005	0.00435	<0.005	0.0052	<0.0001
RSEM-L5E-EOP	11/7/2019 13:10	WX2042	D	<0.0002	0.038	47.6	0.245	<0.000002	0.0061	0.0231		3.90	0.00699	2.83	<0.00002	133	0.505	170	<0.00001	<0.005	<0.005	0.00429	<0.005	0.005	<0.0001
RSEM-L5E-EOP	11/8/2019 12:00	WX1871	M	<0.0002	0.0389	48.5	0.25	<0.000002	0.0062	0.0242		3.94	0.00694	2.91	<0.00002	134	0.515	172	<0.00001	<0.005	<0.005	0.0043	<0.005	0.005	<0.0001
RSEM-L5E-EOP	11/8/2019 12:10	WX1872	D	<0.0002	0.0379	47.9	0.241	<0.000002	0.0063	0.0238		3.96	0.007	2.87	<0.00002	132	0.512	169	<0.00001	<0.005	<0.005	0.00427	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	11/9/2019 11:30	WX3317	M	<0.0002	0.0422	46.3	0.233	<0.000002	0.0061	0.0228		4.04	0.00667	3.37	<0.00002	127	0.489	178	<0.00001	<0.005	<0.005	0.00426	<0.005	0.0053	<0.0001
RSEM-L5E-EOP	11/9/2019 11:40	WX3318	D	<0.0002	0.0417	49.3	0.252	<0.000002	0.0062	0.024		4.36	0.00672	3.4	<0.00002	132	0.522	188	<0.00001	<0.005	<0.005	0.00444	<0.005	0.0055	<0.0001
RSEM-L5E-EOP	11/10/2019 12:40	WX5926	M	<0.0002	0.0404	47.4	0.237	<0.000002	0.0061	0.0227		4.13	0.00649	3.39	<0.00002	129	0.486	186	<0.00001	<0.005	<0.005	0.00427	<0.005	0.0051	<0.0001
RSEM-L5E-EOP	11/10/2019 12:50	WX5927	D	<0.0002	0.0418	49.6	0.239	<0.000002	0.0061	0.0232		4.33	0.0066	3.45	<0.00002	135	0.509	194	<0.00001	<0.005	<0.005	0.00442	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	11/11/2019 10:00	WX5902	M	<0.0002	0.0427	48.0	0.219	<0.000002	0.0063	0.0227		4.29	0.00638	3.49	<0.00002	133	0.51	189	<0.00001	<0.005	<0.005	0.00459	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	11/11/2019 10:10	WX5903	D	<0.0002	0.0412	49.6	0.221	<0.000002	0.0063	0.0222		4.34	0.00656	3.39	<0.00002	134	0.51	195	<0.00001	<0.005	<0.005	0.00451	<0.005	0.0053	<0.0001
RSEM-L5E-EOP	11/12/2019 13:30	WX7841	M	<0.0002	0.0379	49.0	0.215	<0.000002	0.0064	0.0218		3.90	0.00691	2.81	<0.00002	132	0.529	171	<0.00001	<0.005	<0.005	0.00432	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	11/13/2019 14:05	WY0312	M	<0.0002	0.0387	48.7	0.221	<0.000002	0.0063	0.0222		3.96	0.0068	2.95	<0.00002	131	0.535	178	<0.00001	<0.005	<0.005	0.00442	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	11/14/2019 13:35	WY2287	M	<0.0002	0.0396	48.4	0.238	<0.000002	0.0062	0.0226		3.97	0.00655	2.95	<0.00002	130	0.53	172	<0.00001	<0.005	<0.005	0.00442	<0.005	0.0051	<0.0001
RSEM-L5E-EOP	11/15/2019 13:25	WY2336	M	<0.0002	0.0422	48.7	0.251	<0.000002	0.0062	0.0228		3.98	0.00637	3.09	<0.00002	130	0.544	175	<0.00001	<0.005	<0.005	0.0044	<0.005	0.0051	<0.0001
RSEM-L5E-EOP	11/16/2019 14:05	WY5254	M	<0.0002	0.0396	48.5	0.237	<0.000002	0.0065	0.0229		3.93	0.00679	2.96	<0.00002	135	0.532	173	<0.00001	<0.005	<0.005	0.00453	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	11/17/2019 9:30	WY5449	M	<0.0002	0.0386	48.4	0.222	<0.000002	0.0065	0.0226		3.95	0.00698	2.94	<0.00002	136	0.529	175	<0.00001	<0.005	<0.005	0.00454	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	11/17/2019 9:40	WY5450	D	<0.0002	0.0381	48.3	0.228	<0.000002	0.0066	0.0227		3.95	0.00707	2.87	<0.00002	136	0.534	177	<0.00001	<0.005	<0.005	0.00455	<0.005	<0.005	<0.0001
RSEM-L5E-EOP	11/18/2019 14:35	WY7747	M	<0.0002	0.0447	51.9	0.381	<0.000002	0.009	0.0224		4.22	0.00871	2.75	<0.00002	160	0.577	210	0.000018	<0.005	<0.005	0.00566	<0.005	0.0063	<0.0001
RSEM-L5E-EOP	11/19/2019 15:35	WY9706	M	<0.0002	0.0446	53.7	0.443	<0.000002	0.0096	0.0229		4.51	0.0094	2.44	<0.00002	166	0.603	233	0.00002	<0.005	<0.005	0.00592	<0.005	0.0074	<0.0001
RSEM-L5E-EOP	11/20/2019 0:25	WZ2234	M	<0.0002	0.0426	53.6	0.559	<0.000002	0.0096	0.0229		4.53	0.00951	2.27	<0.00002	160	0.618	234	0.000021	<0.005	<0.005	0.00608	<0.005	0.0097	<0.0001
RSEM-L5E-EOP	11/21/2019 11:40	WZ4248	M	<0.0002	0.047	59.8	0.696	<0.000002	0.0105	0.0357		4.53	0.012	2.16	<0.00002	157	0.648	254	0.000024	<0.005	<0.005	0.00671	<0.005	0.0286	<0.0001
RSEM-L5E-EOP	11/22/2019 10:20	WZ4474	M	<0.0002	0.048	59.7	0.638	<0.000002	0.0106	0.0337		4.65	0.012	2.18	<0.00002	160	0.646	255	0.000022	<0.005	<0.005	0.00665	<0.005	0.0248	<0.0001
RSEM-L5E-EOP	11/23/2019 13:00	WZ7699	M	<0.0002	0.0486	57.5	0.59	<0.000002	0.0102	0.0305		4.64	0.0117	2.22	<0.00002	157	0.685	251	0.000019	<0.005	<0.005	0.00661	<0.005	0.0211	<0.0001
RSEM-L5E-SP	3/13/2019 12:10	VJ2168	M	<0.0002	0.004	13.8	0.0487	<0.000002	0.0084	0.0015		3.12	0.00245	0.965	<0.00002	16.0	0.145	32.5	0.000011	<0.005	<0.005	0.00263	<0.005	<0.005	<0.0001
RSEM-L5E-SP	3/14/2019 12:30	VJ4040	M	<0.0002	0.0038	15.6	0.0345	<0.000002	0.0086	0.0011		2.99	0.00249	0.998	<0.00002	16.4	0.137	34.6	0.000011	<0.005	<0.005	0.00255	<0.005	<0.005	<0.0001
RSEM-L5E-SP	4/1/2019 10:30	VL8081	M	<0.0002	0.0047	24.2	0.0812	<0.000002	0.0092	0.0017		3.19	0.00305	1.26	<0.00002	19.6	0.223	60.3	<0.00001	<0.005	<0.005	0.00434	<0.005	<0.005	<0.0001
RSEM-L5E-SP	11/24/2019 12:10	WZ7710	M	<0.0002	0.0479	60.5	0.707	<0.000002	0.0108	0.038		4.77	0.0125	1.94	<0.00002	164	0.669	264	0.000021	<0.005	<0.005	0.00659	<0.005	0.0317	<0.0001
RSEM-L5E-SP	11/29/2019 12:45	XA6570	M	<0.0004	0.065	64.4	0.57	<0.000002	0.0185	0.0365		5.23	0.0159	2.69	<0.00004	256	0.783	306	<0.00002	<0.01	<0.01	0.00726	<0.01	0.025	<0.0002
RSEM-L5E-SP	12/3/2019 14:25	XB3101	M	<0.0002	0.0757	67.4	0.573	<0.000002	0.0236	0.0366		5.68	0.0168	3.43	<0.00002	297	0.959	352	0.000027	<0.005	<0.005	0.00788	<0.005	0.0211	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5W-EOP	3/18/2019 14:40	VJ9221	M	7.80	415	87.9	242	75.2	157	150	67.6	<1.0	82.5	<1.0	<1.0	1.27	0.220	0.031	146			0.17	0.0314	0.850	0.881	<0.0050
RSEM-L5W-EOP	3/19/2019 13:20	VK0929	M	7.77	456	33.6	288	26.0	179	176	67.5	<1.0	82.4	<1.0	<1.0	1.57	0.220	0.033	155			0.13	0.0250	0.906	0.931	<0.0050
RSEM-L5W-EOP	3/20/2019 14:05	VK2378	M	7.77	475	20.2	294	19.6	181	194	72.5	<1.0	88.4	<1.0	<1.0	2.05	0.220	0.039	162			0.13	0.0256	0.987	1.01	<0.0050
RSEM-L5W-EOP	3/21/2019 13:00	VK3826	M	7.92	529	17.0	328	14.8	214	217	76.0	<1.0	92.7	<1.0	<1.0	1.82	0.270	0.044	182			0.12	0.0342	1.24	1.27	<0.0050
RSEM-L5W-EOP	3/22/2019 11:45	VK3808	M	7.88	555	15.9	332	14.4	222	235	78.0	<1.0	95.2	<1.0	<1.0	1.86	0.230	0.040	187			0.099	0.0320	1.28	1.31	<0.0050
RSEM-L5W-EOP	3/23/2019 11:30	VK5883	M	7.86	590	13.2	576	11.6	243	249	84.6	<1.0	103	<1.0	<1.0	2.05	0.250	0.033	189			0.11	0.0317	1.33	1.36	<0.0050
RSEM-L5W-EOP	3/24/2019 12:14	VK6079	M	7.87	602	8.81	392	6.8	266	265	88.5	<1.0	108	<1.0	<1.0	1.93	0.230	0.042	212			0.094	0.0234	1.38	1.40	<0.0050
RSEM-L5W-EOP	3/25/2019 10:21	VK7811	M	7.95	613	10.1	412	8.4	257	250	89.7	<1.0	109	<1.0	<1.0	2.40	0.280	0.056	192			0.090	0.0150	1.41	1.42	<0.0050
RSEM-L5W-EOP	3/26/2019 10:20	VK9097	M	7.93	613	4.77	414	6.8	265	258	91.3	<1.0	111	<1.0	<1.0	2.36	0.220	0.059	212			0.097	0.0201	1.37	1.39	<0.0050
RSEM-L5W-EOP	3/28/2019 9:45	VL3536	M	7.97	629	2.51	396	<4.0	276	278	97.1	<1.0	118	<1.0	<1.0	2.47	0.230	0.054	230			0.085	0.0169	1.38	1.40	0.0056
RSEM-L5W-EOP	4/7/2019 10:42	VM5530	M	7.97	757	0.71	480	<4.0	336	356	112	<1.0	136	<1.0	<1.0	2.77	0.220	0.050	212			0.057	<0.0050	2.74	2.74	<0.0050
RSEM-L5W-EOP	4/8/2019 11:10	VM6519	M	7.95	813	0.84	558	6.0	365	387	113	<1.0	138	<1.0	<1.0	3.14	0.270	<0.10	263			0.049	<0.0050	2.93	2.93	<0.0050
RSEM-L5W-EOP	4/9/2019 12:20	VM8366	M	7.90	869	0.88	604	5.2	412	358	117	<1.0	143	<1.0	<1.0	3.39	0.270	0.082	287			0.060	<0.0050	3.87	3.87	<0.0050
RSEM-L5W-EOP	4/10/2019 12:36	VN0770	M	7.93	898	0.79	604	<4.0	433	455	125	<1.0	152	<1.0	<1.0	3.57	0.220	0.090	339			0.042	<0.0050	4.80	4.80	0.0059
RSEM-L5W-SP	1/1/2019 14:30	VA5883	M	7.79	835	1.16	608	<4.0	400	399	71.2	<1.0	86.8	<1.0	<1.0	2.30	0.320	0.072	325			0.082	0.0138	2.44	2.45	0.0207
RSEM-L5W-SP	1/8/2019 15:10	VB4662	M	7.77	834	5.83	592	18.3	432	395	69.8	<1.0	85.1	<1.0	<1.0	2.20	0.330	0.089	329			0.089	0.0157	2.45	2.47	0.0051
RSEM-L5W-SP	3/14/2019 12:45	VJ4039	M	7.82	1650	36.0	1160	34.0	514	505	91.7	<1.0	112	<1.0	<1.0	4.34	0.740	0.15	699			1.7	0.0446	0.741	0.786	<0.0050
RSEM-L5W-SP	3/15/2019 9:00	VJ4026	M	7.78	708	180	470	121	241	233	82.5	<1.0	101	<1.0	<1.0	2.00	0.370	0.047	293			0.64	0.0335	0.808	0.842	0.0085
RSEM-L5W-SP	3/17/2019 14:00	VJ7217	M	7.80	314	62.5	202	50.4	104	106	57.1	<1.0	69.7	<1.0	<1.0	0.86	0.180	0.018	92.0			0.23	0.0241	0.586	0.610	0.0055
RSEM-L5W-SP	3/29/2019 10:39	VL3512	M	7.87	623	8.10	382	11.6	271	270	95.7	<1.0	117	<1.0	<1.0	2.32	0.230	0.050	187			0.086	0.0225	1.23	1.25	<0.0050
RSEM-L5W-SP	3/30/2019 10:15	VL6610	M	8.16	597	7.27	382	4.8	241	247	91.6	<1.0	112	<1.0	<1.0	2.36	0.220	0.054	196			0.084	0.0227	1.32	1.35	<0.0050
RSEM-L5W-SP	3/31/2019 10:31	VL6545	M	7.95	578	4.48	360	8.4	242	234	87.8	<1.0	107	<1.0	<1.0	2.17	0.210	0.054	189			0.078	0.0227	1.30	1.33	<0.0050
RSEM-L5W-SP	4/1/2019 10:36	VL8082	M	7.79	566	8.10	368	6.4	245	247	90.1	<1.0	110	<1.0	<1.0	2.31	0.210	0.053	178			0.082	0.0171	1.25	1.26	<0.0050
RSEM-L5W-SP	4/2/2019 10:39	VL9740	M	7.98	560	5.20	344	11.2	237	246	83.7	<1.0	102	<1.0	<1.0	2.16	0.200	0.043	180			0.055	0.0188	1.25	1.27	<0.0030
RSEM-L5W-SP	4/3/2019 9:05	VM1857	M	8.03	605	13.6	372	12.0	247	246	90.9	<1.0	111	<1.0	<1.0	2.25	0.220	0.054	200			0.069	0.0197	1.36	1.38	0.0034
RSEM-L5W-SP	4/4/2019 11:12	VM3423	M	7.88	649	7.09	416	12.8	264	277	103	<1.0	126	<1.0	<1.0	2.35	0.220	<0.10	209			0.063	0.0178	1.37	1.39	<0.0030
RSEM-L5W-SP	4/5/2019 9:31	VM3315	M	8.09	651	2.85	430	6.4	260	278	102	<1.0	125	<1.0	<1.0	2.43	0.230	<0.10	218			0.061	0.0185	1.41	1.43	0.0033
RSEM-L5W-SP	4/6/2019 10:55	VM5476	M	7.91	632	2.49	396	<4.0	274	274	102	<1.0	124	<1.0	<1.0	2.34	0.230	<0.050	198			0.065	0.0151	1.37	1.38	<0.0050
RSEM-L5W-SP	4/11/2019 10:10	VN1900	M	7.99	643	4.93	436	11.6	277	265	102	<1.0	125	<1.0	<1.0	2.21	0.220	0.059	212			0.061	0.0169	1.35	1.37	<0.0050
RSEM-L5W-SP	4/12/2019 9:40	VN1943	M	7.82	628	3.52	436	8.8	259	259	96.5	<1.0	118	<1.0	<1.0	2.39	0.220	0.065	202			0.047	0.0145	1.37	1.39	<0.0050
RSEM-L5W-SP	4/13/2019 11:05	VN4482	M	7.99	625	9.17	379	12.0	304	270	99.7	<1.0	122	<1.0	<1.0	2.30	0.230	0.060	175			0.044	0.0122	1.42	1.43	<0.0050
RSEM-L5W-SP	4/14/2019 11:00	VN4677	M	8.06	631	6.57	400	16.4	262	267	96.7	<1.0	118	<1.0	<1.0	2.29	0.230	0.060	215			0.025	0.0093	1.33	1.34	<0.0050
RSEM-L5W-SP	4/15/2019 9:35	VN6297	M	8.06	629	2.76	388	6.0	282	273	95.0	<1.0	116	<1.0	<1.0	2.34	0.210	0.061	210			0.021	0.0116	1.29	1.30	<0.0050
RSEM-L5W-SP	4/16/2019 10:17	VN8438	M	7.99	621	2.28	418	4.8	273	263	98.1	<1.0	120	<1.0	<1.0	2.64	0.230	0.062	213			0.023	0.0095	1.34	1.35	<0.0030
RSEM-L5W-SP	4/17/2019 11:05	VN9786	D	8.22	628	8.88	406	34.8	276	262	95.9	<1.0	117	<1.0	<1.0	2.38	0.230	0.059	215			0.017	0.0088	1.33	1.34	<0.0030
RSEM-L5W-SP	4/17/2019 11:05	VN9785	M	8.19	627	10.7	400	35.2	271	255	95.7	<1.0	117	<1.0	<1.0	2.31	0.220	0.063	200			<0.015	0.0125	1.33	1.35	<0.0030
RSEM-L5W-SP	4/18/2019 9:44	VN9658	M	8.09	627	5.67	384	16.4	273	252	94.7	<1.0	116	<1.0	<1.0	2.24	0.220	0.058	197			0.016	0.0125	1.31	1.33	<0.0030
RSEM-L5W-SP	4/19/2019 9:58	VO0384	M	8.04	623	2.19	398	10.8	279	272	98.3	<1.0	120	<1.0	<1.0	2.09	0.220	0.061	228			<0.015	0.0120	1.30	1.32	<0.0030
RSEM-L5W-SP	4/20/2019 10:02	VO0405	M	8.03	621	2.29	392	11.2	265	285	96.1	<1.0	117	<1.0	<1.0	2.12	0.220	0.061	236			0.034	0.0114	1.28	1.29	<0.0030
RSEM-L5W-SP	4/21/2019 10:25	VO1966	M	8.22	627	1.80	390	6.0	263	269	93.9	<1.0	115	<1.0	<1.0	1.99	0.220	0.051	208			0.019	0.0106	1.24	1.25	<0.0030
RSEM-L5W-SP	4/22/2019 11:25	VO3489	D	8.00	617	1.50	386	6.0	272	269	94.1	<1.0	115	<1.0	<1.0	2.10	0.230	0.071	199			<0.015	0.0103	1.02	1.03	<0.0030
RSEM-L5W-SP	4/22/2019 11:25	VO3488	M	7.87	618	1.53	386	4.8	268	269	91.6	<1.0	112	<1.0	<1.0	2.07	0.230	0.067	213			<0.015	0.0102	1.02	1.03	<0.0030
RSEM-L5W-SP	4/23/2019 10:31	VO5343	M	8.19	623	2.25	386	12.0	259	273	91.3	<1.0	111	<1.0	<1.0	2.31	0.220	0.054	227			<0.015	0.0084	1.03	1.04	0.0045
RSEM-L5W-SP	4/24/2019 10:38	VO7016	M	8.00	622	2.58	386	7.2	257	267	91.4	<1.0	111	<1.0	<1.0	2.16	0.220	0.066	214			<0.015	0.0106	1.12	1.13	<0.0030
RSEM-L5W-SP	4/24/2019 10:43	VO7017	D	8.10	627	2.93	398	11.6	256	264	92.2	<1.0	112	<1.0	<1.0	2.34	0.220	0.055	147			<0.015	0.0120	1.15	1.16	<0.0030
RSEM-L5W-SP	4/25/2019 11:15	VO8669	M	8.00	618	4.21	386	11.2	264	264	91.5	<1.0	112	<1.0	<1.0	2.09	0.220	0.063	218			<0.015	0.0103	1.11	1.12	<0.0030
RSEM-L5W-SP	4/26/2019 12:25	VO8653	M	7.85	621	2.61	380	11.2	265	261	87.6	<1.0	107	<1.0	<1.0	2.34	0.220	0.062	213			0.017	0.0113	1.07	1.08	<0.0030
RSEM-L5W-SP	4/27/2019 11:24	VP1309	M	7.85	634	1.94	390	13.6	256	269	88.1	<1.0	108	<1.0	<1.0	2.08	0.220	0.064	221			0.037	0.0117	1.01	1.02	0.0032
RSEM-L5W-SP	4/28/2019 9:45	VP1284	M	7.76	627	2.43	388	7.6	256	269	85.9	<1.0	105	<1.0	<1.0	2.14	0.230	0.063	186			<0.015	0.0066	0.906	0.913	<0.0030
RSEM-L5W-SP	4/29/2019 22:00	VP3212	M	8.13	614	1.99	380	<4.0	250	266	83.7	<1.0	102	<1.0	<1.0	2.05	0.220	0.065	150			<0.015	0.0099	0.997	1.01	<0.0030
RSEM-L5W-SP	4/30/2019 11:13	VP5146	M	7.67	608	3.81	366	9.6	255	261	82.3	<1.0	100	<1.0	<1.0	2.23	0.220	0.063	210			0.028	0.0122	0.971	0.984	<0.0030
RSEM-L5W-SP	5/1/2019 11:35	VP6547	M	8.01	616	2.84	354	11.2	253	251	83.3	<1.0	102	<1.0	<1.0	2.32	0.220	0.065	238			0.030	0.0138	0.918	0.931	<0.0030
RSEM-L5W-SP	5/2/2019 11:10	VP8757	M	7.87	621	4.78	370	11.2	262	265	82.6	<1.0	101	<1.0	<1.0	2.32	0.220	0.067	215			<0.015	0.0122	0.876	0.889	<0.0030
RSEM-L5W-SP	5/3/2019 10:30	VP8790	M	7.89	625	8.90	398	12.4	255	255	84.7	<1.0	103	<1.0	<1.0	2.24	0.220	0.071	204			0.033	0.0117	0.885	0.896	<0.0030
RSEM-L5W-SP	6/5/2019 12:35	VV4626	M	8.30	1250	3.79	870	14.4	437	423	182	<1.0	222	<1.0	<1.0	24.2	0.340	0.71	412			<0.015	0.0070	0.407	0.414	<0.0050
RSEM-L5W-SP	6/29/2019 10:50	VZ9043	M	7.78	1080	50.4	756	51.2	375	375	81.1	<1.0	99.0	<1.0	<1.0	13.0	0.430	0.27	393			0.094	0.0583	1.62	1.68	<0.0050
RSEM-L5W-SP	6/30/2019 15:20	WA1463	M	7.89	940	9.13	664	9.2	366	370	73.6	<1.0	89.8	<1.0	<1.0	10.6	0.400	0.21	359			0.024	0.0490	1.49	1.54	<0.0050
RSEM-L5W-SP	7/1/2019 11:40	WA1440	M	7.79	855	41.1	618	44.4	340	308	68.7	<1.0	83.8	<1.0	<1.0	9.01	0.350	0.18	289			<0.015	0.0386	1.42	1.46	<0.0050
RSEM-L5W-SP	7/2/2019 15:20	WA3408	M	7.84	897	5.3	714	14.8	322	346	71.9	<1.0	87.7	<1.0	<1.0	10.2	0.340	0.18	316			0.044	0.0380	1.40	1.44	<0.0050
RSEM-L6-EOP	9/5/2019 9:50	WL2422	M	7.31	1500	2.5	1100	5.2	400	401	67	<1.0	82	<1.0	<1.0	58	0.49	1.0	570			0.074	0.0109	0.469	0.480	0.0033
RSEM-L6-SP	3/21/2019 11:30	VK3829	M	8.25	1320	87.0	812	70.0	200	193	164	<1.0	200	<1.0	<1.0	73.1	0.750	1.2	336			0.91	0.234	2.34	2.57	<0.0050
RSEM-L6-SP	3/22/2019 11:15	VK3806	M	8.26	1340	15.0	818	13.2	215	222	168	<1.0	205	<1.0	<1.0	71.4	0.610	1.2	358			0.82	0.227	2.26	2.48	<0.0050
RSEM-L6-SP	3/23/2019 9:55	VK5881	M	8.30	1350	3.46	870	7.2	221	222	167	<1.0	204	<1.0	<1.0	67.8	0.690	1.2	314			0.82	0.211	2.19	2.40	<0.0050
RSEM-L6-SP	3/24/2019 11:18	VK6077	M	8.25	1360	6.02	854	7.2	217	217	167	<1.0	204	<1.0	<1.0	67.7	0.700	1.2	371			0.88	0.205	2.19	2.39	<0.0050
RSEM-L6-SP	3/25/2019 9:43	VK7809	M	8.26	1360	13.1	820	17.2	210	217	167	<1.0	203	<1.0	<1.0	69.5	0.740	1.1	379			0.79	0.205	2.11	2.32	<0.0050
RSEM-L6-SP	3/26/2019 9:17	VK9094	M	8.43	1410	10.8	914	11.6	222	231	181	3.0	213	3.6	<1.0	70.1	0.590	1.2	382			0.85	0.241	2.04	2.28	<0.0050
RSEM-L6-SP	3/27/2019 10:19	VL2032	M	8.25	1460	5.57	922	26.4	251	255	191	<1.0	233	<1.0	<1.0	67.1	0.610	1.1	428			0.86	0.208	1.73	1.93	<0.0050
RSEM-L6-SP	3/28/2019 9:30	VL3534	M	8.31	1490	4.92	898	19.2	265	271	191	<1.0	233	<1.0	<1.0	63.5	0.620	1.0	327			0.84	0.214	1.61	1.83	<0.0050
RSEM-L6-SP	3/29/2019 9:13	VL3513	M	8.26	1480	4.24	916	8.8	268	283	190	<1.0	232	<1.0	<1.0	59.5	0.590	1.1	436			0.84	0.211	1.60	1.81	<0.0050
RSEM-L6-SP	3/30/2019 9:21	VL6608	M	8.27	1490	4.52	926	4.4	289	278	185	<1.0	225	<1.0	<1.0	63.2	0.630	1.1	481			0.77	0.204	1.76	1.97	<0.0050
RSEM-L6-SP	3/31/2019 9:20	VL6543	M	8.27	1470	1.52	922	6.4	277	268	183	<1.0	224	<1.0	<1.0	62.8	0.630	1.1	464			0.78	0.205	1.79	1.99	<0.0050
RSEM-L6-SP	4/1/2019 9:29	VL8079	M	8.17	1470	1.64	958	5.6	285	289	187	<1.0	228	<1.0	<1.0	65.4	0.620	1.0	466			0.79	0.189	1.70	1.89	<0.0050
RSEM-L6-SP	4/2/2019 9:24	VL9738	M	8.28	1490	1.09	948	4.4	291	293	182	<1.0	222	<1.0	<1.0	65.4	0.600	1.2	422			0.65	0.191	1.79	1.98	<0.0030
RSEM-L6-SP	4/3/2019 10:28	VM1860	M	8.35	1520	1.02	950	<4.0	285	294	186	1.4	224	1.6	<1.0	63.9	0.620	1.1	437			0.65	0.188	1.96	2.15	<0.0030
RSEM-L6-SP	4/4/2019 9:10	VM3420	D	8.20	1480	0.83	956	<4.0	292	268	188	<1.0	230	<1.0	<1.0	60.5	0.620	1.1	452			0.70	0.179	1.71	1.89	<0.0030
RSEM-L6-SP	4/4/2019 9:10	VM3419	M	8.04	1470	0.96	962	<4.0	291	265	185	<1.0	225	<1.0	<1.0	60.4	0.610	1.1	428			0.67	0.182	1.69	1.87	<0.0030
RSEM-L6-SP	4/5/2019 8:44	VM3313	M	8.28	1530	0.98	992	<4.0	284	262	182	<1.0	222	<1.0	<1.0	60.8	0.600	0.96	426			0.65	0.182	1.71	1.89	<0.0030

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5W-EOP	3/18/2019 14:40	VJ9221	M	2.3	2.6	3.15	<0.0005	0.0019	0.106	0.00013	<0.001	<0.05	0.000103	39.7	0.0055	0.00136	0.00452	3.73	0.00193	0.0073	13.9	0.075	0.0000023	0.0044	0.005		3.11	0.00125
RSEM-L5W-EOP	3/19/2019 13:20	VK0929	M	1.9	1.7	0.669	<0.0005	0.00087	0.0671	<0.0001	<0.001	<0.05	0.000049	44.8	0.0012	0.00062	0.00232	1.38	0.00076	0.0063	16.2	0.0431	<0.000002	0.0045	0.0026		2.30	0.00129
RSEM-L5W-EOP	3/20/2019 14:05	VK2378	M	2.0	1.5	0.847	<0.0005	0.00061	0.0635	<0.0001	<0.001	<0.05	0.000042	45.7	0.0049	0.00046	0.00176	0.921	0.00052	0.0063	16.3	0.0335	<0.000002	0.0043	0.0042		2.30	0.00125
RSEM-L5W-EOP	3/21/2019 13:00	VK3826	M	1.5	2.0	0.438	<0.0005	0.0004	0.0579	<0.0001	<0.001	<0.05	0.000039	52.9	<0.001	0.00035	0.00159	0.559	0.00035	0.0053	19.9	0.0307	0.0000075	0.0044	0.0017		2.45	0.00137
RSEM-L5W-EOP	3/22/2019 11:45	VK3808	M	1.2	1.8	0.29	<0.0005	0.00042	0.056	<0.0001	<0.001	<0.05	0.000042	54.3	0.0012	0.00039	0.00168	0.592	0.00037	0.0052	21.0	0.0317	0.0000035	0.0046	0.0019		2.40	0.00135
RSEM-L5W-EOP	3/23/2019 11:30	VK5883	M	1.8	2.4	0.217	<0.0005	0.00031	0.0557	<0.0001	<0.001	<0.05	0.000042	58.5	<0.001	0.00027	0.0013	0.299	0.00024	0.0056	23.7	0.0289	<0.000002	0.0047	0.0015		2.27	0.0016
RSEM-L5W-EOP	3/24/2019 12:14	VK6079	M	1.9	1.9	0.132	<0.0005	0.00021	0.0607	<0.0001	<0.001	<0.05	0.000039	63.5	<0.001	0.00022	0.00118	0.185	<0.0002	0.0056	26.1	0.027	<0.000002	0.0047	0.0014		2.43	0.00178
RSEM-L5W-EOP	3/25/2019 10:21	VK7811	M	2.2	1.7	0.287	<0.0005	0.00026	0.0592	<0.0001	<0.001	<0.05	0.000037	65.9	<0.001	0.00024	0.00122	0.264	<0.0002	0.0054	22.4	0.0282	<0.000002	0.0045	0.0014		2.22	0.00176
RSEM-L5W-EOP	3/26/2019 10:20	VK9097	M	1.8	1.6	0.14	<0.0005	0.00024	0.0584	<0.0001	<0.001	<0.05	0.000035	67.1	<0.001	0.00022	0.00102	0.17	<0.0002	0.0061	23.6	0.0261	<0.000002	0.0047	0.0012		2.31	0.00175
RSEM-L5W-EOP	3/28/2019 9:45	VL3536	M	1.3	1.2	0.0506	<0.0005	0.0002	0.0599	<0.0001	<0.001	<0.05	0.000033	69.6	<0.001	<0.0002	0.00101	0.079	<0.0002	0.0063	24.7	0.0232	<0.000002	0.0044	0.001		2.44	0.00171
RSEM-L5W-EOP	4/7/2019 10:42	VM5530	M	1.8	2.3	0.0154	<0.0005	0.00017	0.0705	<0.0001	<0.001	<0.05	0.000032	87.5	<0.001	<0.0002	0.00069	0.029	<0.0002	0.0044	28.4	0.0073	<0.000002	0.0041	<0.001		2.60	0.00224
RSEM-L5W-EOP	4/8/2019 11:10	VM6519	M	2.1	1.8	0.0652	<0.0005	0.00022	0.0744	<0.0001	<0.001	<0.05	0.000034	95.4	<0.001	<0.0002	0.00091	0.16	<0.0002	0.0051	30.8	0.0088	<0.000002	0.0041	<0.001		2.60	0.00257
RSEM-L5W-EOP	4/9/2019 12:20	VM8366	M	2.1	1.7	0.02	<0.0005	0.00017	0.0735	<0.0001	<0.001	<0.05	0.000035	110	<0.001	<0.0002	0.00075	0.027	<0.0002	0.0046	33.5	0.005	<0.000002	0.0041	<0.001		2.87	0.00277
RSEM-L5W-EOP	4/10/2019 12:36	VN0770	M	2.0	1.5	0.0151	<0.0005	0.00018	0.0785	<0.0001	<0.001	<0.05	0.000033	115	<0.001	<0.0002	0.00081	0.028	<0.0002	0.0049	35.6	0.0045	<0.000002	0.004	<0.001		2.97	0.00278
RSEM-L5W-SP	1/1/2019 14:30	VA5883	M	1.7	2.1	0.0384	<0.0005	0.00032	0.0484	<0.0001	<0.001	<0.05	0.000039	107	<0.001	<0.0002	0.00117	0.055	<0.0002	0.0068	32.3	0.0134	<0.000002	0.0087	0.0013		3.65	0.00331
RSEM-L5W-SP	1/8/2019 15:10	VB4662	M	2.4	2.5	0.147	<0.0005	0.00042	0.0527	<0.0001	<0.001	<0.05	0.000054	117	<0.001	0.00024	0.00174	0.346	<0.0002	0.007	34.3	0.0175	<0.000002	0.0091	0.0017		3.84	0.00365
RSEM-L5W-SP	3/14/2019 12:45	VJ4039	M	2.5	1.8	1.91	0.00127	0.00076	0.0726	<0.0001	<0.001	0.219	0.000355	111	0.0024	0.0076	0.0023	2.53	0.00078	0.0547	57.6	0.625	<0.000002	0.007	0.0282		17.3	0.00287
RSEM-L5W-SP	3/15/2019 9:00	VJ4026	M	1.8	1.8	6.99	<0.0025	0.00301	0.212	<0.0005	<0.005	<0.25	0.000247	54.2	0.0096	0.0043	0.0082	7.22	0.0033	0.023	25.6	0.254	<0.000002	0.0053	0.0153		8.35	0.00128
RSEM-L5W-SP	3/17/2019 14:00	VJ7217	M	1.9	1.7	1.06	<0.0005	0.00111	0.0897	<0.0001	<0.001	<0.05	0.000097	25.4	0.0018	0.00111	0.00311	2.1	0.00123	0.0069	9.86	0.078	0.0000025	0.0027	0.0041		2.48	0.00066
RSEM-L5W-SP	3/29/2019 10:39	VL3512	M	1.7	1.4	0.35	<0.0005	0.00037	0.0708	<0.0001	<0.001	<0.05	0.000042	67.3	<0.001	0.00029	0.00133	0.414	0.00025	0.0067	25.1	0.0316	<0.000002	0.0046	0.0015		2.47	0.00163
RSEM-L5W-SP	3/30/2019 10:15	VL6610	M	1.4	1.3	0.227	<0.0005	0.00023	0.0684	<0.0001	<0.001	<0.05	0.000034	60.1	<0.001	0.00026	0.00112	0.241	<0.0002	0.0062	22.2	0.0275	<0.000002	0.0045	0.0013		2.20	0.0017
RSEM-L5W-SP	3/31/2019 10:31	VL6545	M	1.3	1.4	0.355	<0.0005	0.0003	0.0773	<0.0001	<0.001	<0.05	0.000041	58.5	<0.001	0.00031	0.00129	0.366	0.00023	0.0055	23.2	0.0286	<0.000002	0.0045	0.0015		2.18	0.00157
RSEM-L5W-SP	4/1/2019 10:36	VL8082	M	1.3	2.2	0.166	<0.0005	0.00032	0.0787	<0.0001	<0.001	<0.05	0.000035	58.5	<0.001	0.00027	0.00135	0.296	<0.0002	0.0062	24.0	0.0283	<0.000002	0.0046	0.0016		2.26	0.00158
RSEM-L5W-SP	4/2/2019 10:39	VL9740	M	1.7	1.3	0.156	<0.0005	0.00029	0.08	<0.0001	<0.001	<0.05	0.000033	58.3	<0.001	0.00029	0.00156	0.321	<0.0002	0.0064	22.3	0.0268	<0.000002	0.0043	0.0013		2.06	0.00154
RSEM-L5W-SP	4/3/2019 9:05	VM1857	M	0.70	1.7	0.229	<0.0005	0.00035	0.0929	<0.0001	<0.001	<0.05	0.000039	59.5	<0.001	0.00032	0.00136	0.394	0.00024	0.006	23.8	0.0302	<0.000002	0.0047	0.0015		2.21	0.00167
RSEM-L5W-SP	4/4/2019 11:12	VM3423	M	1.7	1.5	0.266	<0.0005	0.00042	0.109	<0.0001	<0.001	<0.05	0.000043	63.8	<0.001	0.00039	0.0015	0.501	0.00031	0.0068	25.4	0.0401	<0.000002	0.0049	0.0018		2.41	0.00187
RSEM-L5W-SP	4/5/2019 9:31	VM3315	M	2.0	1.4	0.0933	<0.0005	0.00023	0.103	<0.0001	<0.001	<0.05	0.000031	62.7	<0.001	0.00024	0.00092	0.144	<0.0002	0.0066	25.0	0.0269	<0.000002	0.0048	0.0013		2.29	0.00187
RSEM-L5W-SP	4/6/2019 10:55	VM5476	M	1.7	1.4	0.0754	<0.0005	0.00022	0.107	<0.0001	<0.001	<0.05	0.00003	68.1	<0.001	<0.0002	0.001	0.099	<0.0002	0.0064	25.3	0.0263	<0.000002	0.0051	0.0012		2.54	0.00177
RSEM-L5W-SP	4/11/2019 10:10	VN1900	M	0.66	1.5	0.213	<0.0005	0.00036	0.136	<0.0001	<0.001	<0.05	0.000039	69.7	<0.001	0.00028	0.00129	0.358	0.00024	0.0071	24.9	0.0289	<0.000002	0.0048	0.0014		2.42	0.00182
RSEM-L5W-SP	4/12/2019 9:40	VN1943	M	1.0	1.4	0.241	<0.0005	0.0003	0.124	<0.0001	<0.001	<0.05	0.000034	62.9	<0.001	0.00027	0.00115	0.284	<0.0002	0.0071	24.7	0.0279	<0.000002	0.0045	0.0014		2.20	0.00179
RSEM-L5W-SP	4/13/2019 11:05	VN4482	M	1.5	1.5	0.176	<0.0005	0.00043	0.144	<0.0001	<0.001	<0.05	0.000045	73.7	<0.001	0.00033	0.00158	0.418	0.00025	0.0079	29.2	0.0336	<0.000002	0.0058	0.0018		2.57	0.00215
RSEM-L5W-SP	4/14/2019 11:00	VN4677	M	1.7	2.1	0.189	<0.0005	0.00023	0.124	<0.0001	<0.001	<0.05	0.00003	64.2	<0.001	0.00023	0.00108	0.229	<0.0002	0.007	24.7	0.0256	<0.000002	0.0046	0.0012		2.28	0.00161
RSEM-L5W-SP	4/15/2019 9:35	VN6297	M	1.7	1.1	0.0725	<0.0005	0.00026	0.142	<0.0001	<0.001	<0.05	0.000032	69.0	0.0019	0.00023	0.00099	0.149	<0.0002	0.0074	26.8	0.0247	<0.000002	0.0049	0.0018		2.59	0.00185
RSEM-L5W-SP	4/16/2019 10:17	VN8438	M	1.7	1.5	0.0486	<0.0005	0.00021	0.127	<0.0001	<0.001	<0.05	0.000028		<0.001	<0.0002	0.00096	0.1	<0.0002	0.0072		0.0202	<0.000002	0.0046	0.0011			0.00169
RSEM-L5W-SP	4/17/2019 11:05	VN9786	D	1.5	2.1	0.411	<0.0005	0.00073	0.146	<0.0001	<0.001	<0.05	0.000049	70.2	<0.001	0.00047	0.00261	1.08	0.0006	0.0076	24.5	0.0243	<0.000002	0.0048	0.0022		2.42	0.00179
RSEM-L5W-SP	4/17/2019 11:05	VN9785	M	1.9	1.4	0.297	<0.0005	0.00052	0.136	<0.0001	<0.001	<0.05	0.000041	66.6	<0.001	0.00034	0.00152	0.678	0.00039	0.0077	25.5	0.0188	<0.000002	0.0047	0.002		2.38	0.0017
RSEM-L5W-SP	4/18/2019 9:44	VN9658	M	1.5	0.94	0.242	<0.0005	0.00048	0.138	<0.0001	<0.001	<0.05	0.000038	68.4	<0.001	0.00031	0.00184	0.624	0.00039	0.0075	24.7	0.014	<0.000002	0.0048	0.0019		2.39	0.00178
RSEM-L5W-SP	4/19/2019 9:58	VO0384	M	1.7	1.6	0.152	<0.0005	0.00026	0.127	<0.0001	<0.001	<0.05	0.000021	69.7	<0.001	<0.0002	0.001	0.194	<0.0002	0.0077	25.5	0.0051	<0.000002	0.0047	0.0013		2.49	0.00171
RSEM-L5W-SP	4/20/2019 10:02	VO0405	M	1.6	1.5	0.0945	<0.0005	0.00021	0.118	<0.0001	<0.001	<0.05	0.000017	65.2	<0.001	<0.0002	0.0008	0.111	<0.0002	0.0075	25.0	0.0037	<0.000002	0.0044	0.0011		2.35	0.00176
RSEM-L5W-SP	4/21/2019 10:25	VO1966	M	1.5	1.2	0.0369	<0.0005	0.00017	0.114	<0.0001	<0.001	<0.05	0.000017	64.4	<0.001	<0.0002	0.0007	0.054	<0.0002	0.0066	24.8	0.0024	<0.000002	0.0047	0.001		2.31	0.00173
RSEM-L5W-SP	4/22/2019 11:25	VO3489	D	1.6	1.6	0.0285	<0.0005	0.00018	0.117	<0.0001	<0.001	<0.05	0.000015	65.7	<0.001	<0.0002	0.00069	0.039	<0.0002	0.0071	26.2	0.0021	<0.000002	0.0047	0.001		2.38	0.00175
RSEM-L5W-SP	4/22/2019 11:25	VO3488	M	1.7	1.5	0.0355	<0.0005	0.00017	0.117	<0.0001	<0.001	<0.05	0.000014	64.4	<0.001	<0.0002	0.00073	0.084	<0.0002	0.0073	26.0	0.0024	<0.000002	0.0047	<0.001		2.38	0.00174
RSEM-L5W-SP	4/23/2019 10:31	VO5343	M	1.6	1.9	0.0818	<0.0005	0.00024	0.116	<0.0001	<0.001	<0.05	0.00002	62.6	<0.001	<0.0002	0.001	0.174	<0.0002	0.0071	25.0	0.0051	<0.000002	0.0049	0.0011		2.31	0.00175
RSEM-L5W-SP	4/24/2019 10:38	VO7016	M	1.7	1.5	0.172	<0.0005	0.00027	0.116	<0.0001	<0.001	<0.05	0.00002	60.8	<0.001	<0.0002	0.00133	0.244	<0.0002	0.007	25.5	0.0057	<0.000002	0.0047	0.0013		2.31	0.00171
RSEM-L5W-SP	4/24/2019 10:43	VO7017	D	1.6	1.2	0.131	<0.0005	0.00024	0.113	<0.0001	<0.001	<0.05	0.000017	60.5	<0.001	<0.0002	0.00098	0.201	<0.0002	0.007	25.4	0.005	<0.000002	0.0046	0.0012		2.28	0.00177
RSEM-L5W-SP	4/25/2019 11:15	VO8669	M	1.4	1.5	0.0712	<0.0005	0.0002	0.116	<0.0001	<0.001	<0.05	0.000015	62.7	<0.001	<0.0002	0.0009	0.099	<0.0002	0.0074	26.1	0.0034	<0.000002	0.0049	0.001		2.28	0.00186
RSEM-L5W-SP	4/26/2019 12:25	VO8653	M	1.6	1.5	0.0895	<0.0005	0.00023	0.116	<0.0001	<0.001	<0.05	<0.00001	63.2	<0.001	<0.0002	0.00095	0.172	<0.0002	0.0073	26.1	0.0051	<0.000002	0.005	0.0011		2.41	0.0018
RSEM-L5W-SP	4/27/2019 11:24	VP1309	M	1.9	1.6	0.0794	<0.0005	0.00025	0.11	<0.0001	<0.001	<0.05	0.000014	60.9	<0.001	<0.0002	0.00098	0.196	<0.0002	0.0067	25.1	0.0048	<0.000002	0.0047	0.0011		2.31	0.0019
RSEM-L5W-SP	4/28/2019 9:45	VP1284	M	1.9	1.3	0.0512	<0.0005	0.00021	0.11	<0.0001	<0.001	<0.05	0.00001	60.0	<0.001	<0.0002	0.00084	0.09	<0.0002	0.0067	25.9	0.003	<0.000002	0.0048	0.0011		2.45	0.00188
RSEM-L5W-SP	4/29/2019 22:00	VP3212	M	1.7	2.0	0.0382	<0.0005	0.0002	0.107	<0.0001	<0.001	<0.05	<0.00001	59.0	<0.001	<0.0002	0.00083	0.064	<0.0002	0.0064	25.0	0.0023	<0.000002	0.0047	<0.001		2.35	0.00177
RSEM-L5W-SP	4/30/2019 11:13	VP5146	M	1.9	1.7	0.0933	<0.0005	0.00028	0.113	<0.0001	<0.001	<0.05	0.000017	61.0	<0.001	<0.0002	0.00098	0.201	<0.0002	0.0073	24.9	0.0047	<0.000002	0.0051	0.0011		2.36	0.00178
RSEM-L5W-SP	5/1/2019 11:35	VP6547	M	1.8	1.8	0.0685	<0.0005	0.00026	0.12	<0.0001	<0.001	<0.05	0.000017	61.8	<0.001	<0.0002	0.00091	0.142	<0.0002	0.0072	24.0	0.0043	<0.000002	0.0051	0.001		2.47	0.00185
RSEM-L5W-SP	5/2/2019 11:10	VP8757	M	1.9	2.0	0.13	<0.0005	0.00035	0.124	<0.0001	<0.001	<0.05	0.000022	63.7	<0.001	<0.0002	0.0012	0.284	<0.0002	0.0075	25.1	0.0065	<0.000002	0.0052	0.0013		2.60	0.00184
RSEM-L5W-SP	5/3/2019 10:30	VP8790	M	2.1	1.7	0.143	<0.0005	0.00035	0.12	<0.0001	<0.001	<0.05	0.00002	61.5	<0.001	0.0002	0.00112	0.263	<0.0002	0.0072	24.6	0.0068	<0.000002	0.0052	0.0012		2.48	0.00173
RSEM-L5W-SP	6/5/2019 12:35	VV4626	M	2.0	2.6	0.138	<0.0005	0.0004	0.0525	<0.0001	<0.001	0.096	0.000036	96.1	<0.001	<0.0002	0.00119	0.29	<0.0002	0.0214	47.9	0.0153	<0.000002	0.0067	0.0012		4.08	0.00204
RSEM-L5W-SP	6/29/2019 10:50	VZ9043	M	3.0	3.5	1.16	0.00051	0.00145	0.115	<0.0001	<0.001	0.076	0.000104	99.9	0.0022	0.00098	0.00355	2.14	0.00107	0.0149	30.4	0.0548	<0.000002	0.0125	0.0041		4.41	0.00724
RSEM-L5W-SP	6/30/2019 15:20	WA1463	M	3.1	3.4	0.132	<0.0005	0.00043	0.0801	<0.0001	<0.001	0.06	0.000043	100	<0.001	0.00029	0.00167	0.335	<0.0002	0.0131	28.0	0.0214	<0.000002	0.0095	0.0016		3.89	0.0056
RSEM-L5W-SP	7/1/2019 11:40	WA1440	M	3.1	3.0	0.747	<0.0005	0.00128	0.106	<0.0001	<0.001	0.055	0.000093	93.8	0.0016	0.00098	0.00357	1.99	0.00119	0.0127	25.6	0.0512	<0.000002	0.0081	0.0036		3.60	0.00442
RSEM-L5W-SP	7/2/2019 15:20	WA3408	M	2.8	2.3	0.133	<0.0005	0.00044	0.0754	<0.0001	<0.001	0.066	0.000039	86.4	<0.001	0.00027	0.00197	0.319	0.00023	0.0125	25.9	0.0123	<0.000002	0.0085	0.0016		3.39	0.00477
RSEM-L6-EOP	9/5/2019 9:50	WL2422	M	3.1	3.8	0.114	0.0014	0.00067	0.0648	<0.0001	<0.001	0.181	0.000024	97.9	0.0012	<0.0002	0.00146	0.135	<0.0002	0.0344	37.9	0.0043	<0.000002	0.0236	0.0015		5.90	0.00848
RSEM-L6-SP	3/21/2019 11:30	VK3829	M	5.8	4.9	0.692	0.0045	0.00432	0.201	<0.0001	<0.001	0.23	0.000057	43.9	0.0061	0.00123	0.0167	1.56	0.001	0.0356	21.9	0.0482	0.0000089	0.0319	0.007		5.09	0.00822
RSEM-L6-SP	3/22/2019 11:15	VK3806	M	5.3	4.8	0.23	0.00436	0.00318	0.136	<0.0001	<0.001	0.221	0.00002	47.2	0.0054	0.00072	0.0163	0.363	0.00023	0.0333	23.5	0.027	0.0000032	0.032	0.0056		4.81	0.00817
RSEM-L6-SP	3/23/2019 9:55	VK5881	M	3.9	4.3	0.0775	0.0043	0.00287	0.124	<0.0001	<0.001	0.203	0.000025	47.3	0.0041	0.00056	0.0149	0.077	<0.0002	0.0321	25.0	0.0221	<0.000002	0.0321	0.0047		4.88	0.00934
RSEM-L6-SP	3/24/2019 11:18	VK6077	M	4.5	4.7	0.121	0.00431	0.00311	0.127	<0.0001	<0.001	0.224	0.000027	44.0	0.0043	0.00062	0.0154	0.142	<0.0002	0.0328	25.9	0.0254	0.0000022	0.0321	0.005		5.02	0.00909
RSEM-L6-SP	3/25/2019 9:43	VK7809	M	4.3	4.1	0.526	0.00412	0.00287	0.135	<0.0001	<0.001	0.23	0.000025	45.5	0.0045	0.0007	0.0142	0.324	0.00024	0.0335	23.4	0.0242	<0.000002	0.0305	0.005		4.66	0.00897
RSEM-L6-SP	3/26/2019 9:17	VK9094	M	4.0	3.5	0.477	0.00425	0.00392	0.513	<0.0001	<0.001	0.26	0.000046	52.1	0.005	0.00354	0.00754	0.305	<0.0002	0.0401	22.3	0.0377	<0.000002	0.0323	0.0122		4.84	0.011
RSEM-L6-SP	3/27/2019 10:19	VL2032	M	4.1	3.7	0.505	0.00395	0.00346	0.278	<0.0001	<0.001	0.247	0.000074	59.9	0.0043	0.00622	0.00604	0.557	0.0003	0.0414	24.7	0.0778	<0.000002	0.0288	0.0189		4.78	0.0104
RSEM-L6-SP	3/28/2019 9:30	VL3534	M	3.7	3.9	0.515	0.00397	0.00327	0.242	<0.0001	<0.001	0.247	0.000076	62.8	0.0038	0.00588	0.00519	0.75	0.00042	0.0432	26.4	0.0841	<0.000002	0.0298	0.0178		4.92	0.0107
RSEM-L6-SP	3/29/2019 9:13	VL3513	M	3.9	4.1	0.218	0.00384	0.00275	0.2	<0.0001	<0.001	0.248	0.00006	62.6	0.0035	0.00581	0.00449	0.276	<0.0002	0.0424	27.2	0.0791	<0.000002	0.0289	0.018		4.96	0.0109
RSEM-L6-SP	3/30/2019 9:21	VL6608	M	3.1	3.3	0.0898	0.004	0.00253	0.169	<0.0001	<0.001	0.222	0.000047	70.0	0.0037	0.00578	0.00415	0.105	<0.0002	0.0435	27.7	0.0793	<0.000002	0.0301	0.0192		4.98	0.0113
RSEM-L6-SP	3/31/2019 9:20	VL6543	M	3.3	3.3	0.103	0.00384	0.00262	0.182	<0.0001	<0.001	0.215	0.000046	63.9	0.0035	0.00592	0.00424	0.12	<0.0002	0.0395	28.4	0.078	<0.000002	0.0301	0.0192		4.77	0.0106
RSEM-L6-SP	4/1/2019 9:29	VL8079	M	3.7	3.7	0.0589	0.00388	0.00264	0.163	<0.0001	<0.001	0.255	0.000046	65.5	0.0034	0.00527	0.00442	0.055	<0.0002	0.0443	29.6	0.0727	<0.000002	0.0309	0.0226		5.11	0.0103
RSEM-L6-SP	4/2/2019 9:24	VL9738	M	3.6	3.1	0.0249	0.0039	0.00251	0.158	<0.0001	<0.001	0.218	0.000043	67.1	0.0034	0.00541	0.00367	0.058	<0.0002	0.044	29.9	0.0732	<0.000002	0.0302	0.0185		4.90	0.0109
RSEM-L6-SP	4/3/2019 10:28	VM1860	M	3.3	3.2	0.0773	0.00372	0.00246	0.146	<0.0001	<0.001	0.233	0.000043	65.7	0.0031	0.00459	0.00311	0.053	<0.0002	0.0454	29.5	0.0665	<0.000002	0.0296	0.0162		4.73	0.0104
RSEM-L6-SP	4/4/2019 9:10	VM3420	D	3.2	2.9	0.0598	0.0037	0.00231	0.142	<0.0001	<0.001	0.22	0.000038	68.7	0.0033	0.00459	0.00321	0.045	<0.0002	0.0368	29.2	0.0625	<0.000002	0.0298	0.0168		4.91	0.0108
RSEM-L6-SP	4/4/2019 9:10	VM3419	M	3.4	3.1	0.0497	0.00375	0.00224	0.141	<0.0001	<0.001	0.227	0.000033	69.5	0.0036	0.00462	0.00328	0.063	<0.0002	0.039	28.4	0.0632	<0.000002	0.0303	0.0176		4.84	0.011
RSEM-L6-SP	4/5/2019 8:44	VM3313	M	3.0	3.0	0.0432	0.00371	0.00223	0.139	<0.0001	<0.001	0.236	0.000035	65.4	0.0032	0.00457	0.00314	0.028	<0.0002	0.0427	29.4	0.0616	<0.000002	0.0301	0.0173		5.06	0.0104

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5W-EOP	3/18/2019 14:40	VJ9221	M	7.69	0.000029	13.7	0.138	41.7	0.000062	<0.005	0.14	0.00184	0.0116	0.0182	0.0029	0.0186	<0.0005	0.00014	0.0477	<0.0001	<0.001	<0.05	0.000026	38.2	<0.001	<0.0002	0.00067	0.011
RSEM-L5W-EOP	3/19/2019 13:20	VK0929	M	2.13	<0.00002	14.8	0.162	47.7	0.000021	<0.005	0.0183	0.00209	<0.005	0.0061	0.0004	<0.003	<0.0005	0.00015	0.0453	<0.0001	<0.001	<0.05	0.000024	44.1	<0.001	<0.0002	0.00069	<0.01
RSEM-L5W-EOP	3/20/2019 14:05	VK2378	M	3.33	<0.00002	14.0	0.165	48.7	0.000032	<0.005	0.0372	0.00215	<0.005	<0.005	0.00109	<0.003	<0.0005	0.00011	0.0449	<0.0001	<0.001	<0.05	0.000024	48.1	<0.001	<0.0002	0.0007	<0.01
RSEM-L5W-EOP	3/21/2019 13:00	VK3826	M	2.05	<0.00002	15.3	0.179	57.8	0.000017	<0.005	0.0191	0.00261	<0.005	<0.005	0.0002	<0.003	<0.0005	0.00014	0.0485	<0.0001	<0.001	<0.05	0.000027	54.6	<0.001	<0.0002	0.00069	<0.01
RSEM-L5W-EOP	3/22/2019 11:45	VK3808	M	1.6	<0.00002	16.1	0.182	60.3	0.000014	<0.005	0.0062	0.0027	<0.005	<0.005	0.00013	<0.003	<0.0005	0.00012	0.0471	<0.0001	<0.001	<0.05	0.000028	58.0	<0.001	<0.0002	0.00076	<0.01
RSEM-L5W-EOP	3/23/2019 11:30	VK5883	M	1.78	<0.00002	18.0	0.188	67.8	<0.00001	<0.005	0.0098	0.00272	<0.005	<0.005	0.00011	<0.003	<0.0005	0.00016	0.0514	<0.0001	<0.001	<0.05	0.000032	61.0	<0.001	<0.0002	0.00075	<0.01
RSEM-L5W-EOP	3/24/2019 12:14	VK6079	M	1.56	<0.00002	19.7	0.198	76.5	<0.00001	<0.005	<0.005	0.00292	<0.005	<0.005	0.00029	<0.003	<0.0005	0.00012	0.0525	<0.0001	<0.001	<0.05	0.00003	66.3	<0.001	<0.0002	0.00079	<0.01
RSEM-L5W-EOP	3/25/2019 10:21	VK7811	M	1.8	<0.00002	17.1	0.194	68.0	<0.00001	<0.005	0.0072	0.00292	<0.005	<0.005	0.00016	<0.003	<0.0005	0.00021	0.0542	<0.0001	<0.001	<0.05	0.000027	63.3	<0.001	<0.0002	0.0007	<0.01
RSEM-L5W-EOP	3/26/2019 10:20	VK9097	M	1.64	<0.00002	18.1	0.192	70.2	<0.00001	<0.005	<0.005	0.00293	<0.005	<0.005	0.00011	<0.003	<0.0005	0.00014	0.0554	<0.0001	<0.001	<0.05	0.00003	64.2	<0.001	<0.0002	0.00077	<0.01
RSEM-L5W-EOP	3/28/2019 9:45	VL3536	M	1.65	<0.00002	19.9	0.2	77.6	<0.00001	<0.005	<0.005	0.00291	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00017	0.0597	<0.0001	<0.001	<0.05	0.000032	69.7	<0.001	<0.0002	0.0007	<0.01
RSEM-L5W-EOP	4/7/2019 10:42	VM5530	M	1.92	<0.00002	21.3	0.207	95.1	<0.00001	<0.005	<0.005	0.00334	<0.005	0.0076	<0.0001	<0.003	<0.0005	0.00014	0.0682	<0.0001	<0.001	<0.05	0.000033	94.4	<0.001	<0.0002	0.00061	<0.01
RSEM-L5W-EOP	4/8/2019 11:10	VM6519	M	1.95	<0.00002	22.0	0.216	98.9	<0.00001	<0.005	<0.005	0.00359	<0.005	0.0083	<0.0001	<0.003	<0.0005	0.00016	0.0762	<0.0001	<0.001	<0.05	0.000031	102	<0.001	<0.0002	0.00058	<0.01
RSEM-L5W-EOP	4/9/2019 12:20	VM8366	M	2.16	<0.00002	23.5	0.241	116	<0.00001	<0.005	<0.005	0.00396	<0.005	0.0088	<0.0001	<0.003	<0.0005	0.00019	0.0662	<0.0001	<0.001	<0.05	0.000029	94.5	<0.001	<0.0002	0.0006	<0.01
RSEM-L5W-EOP	4/10/2019 12:36	VN0770	M	2.18	<0.00002	24.2	0.231	120	<0.00001	<0.005	<0.005	0.00394	<0.005	0.008	<0.0001	<0.003	<0.0005	0.00017	0.0719	<0.0001	<0.001	<0.05	0.000032	120	<0.001	<0.0002	0.0007	<0.01
RSEM-L5W-SP	1/1/2019 14:30	VA5883	M	0.55	<0.00002	18.6	0.358	123	<0.00001	<0.005	<0.005	0.00336	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00027	0.0422	<0.0001	<0.001	<0.05	0.000031	103	<0.001	<0.0002	0.00105	<0.01
RSEM-L5W-SP	1/8/2019 15:10	VB4662	M	0.795	<0.00002	20.5	0.369	131	0.000013	<0.005	<0.005	0.00344	<0.005	0.006	<0.0001	0.003	<0.0005	0.0003	0.044	<0.0001	<0.001	<0.05	0.000037	103	<0.001	<0.0002	0.00171	<0.01
RSEM-L5W-SP	3/14/2019 12:45	VJ4039	M	7.71	<0.00002	152	0.674	260	0.000032	<0.005	0.0732	0.00166	0.0052	0.0188	0.00092	0.0032	0.00126	0.00014	0.03	<0.0001	<0.001	0.203	0.000278	103	<0.001	0.00718	<0.0005	<0.01
RSEM-L5W-SP	3/15/2019 9:00	VJ4026	M	15.4	<0.0001	51.8	0.265	93	0.000109	<0.025	0.239	0.00188	<0.025	0.043	0.00483	0.0156	<0.0005	0.00015	0.068	<0.0001	<0.001	0.067	0.000061	51.7	<0.001	0.00115	0.00068	<0.01
RSEM-L5W-SP	3/17/2019 14:00	VJ7217	M	2.59	0.000025	15.6	0.107	29.1	0.00003	<0.005	0.0261	0.00096	<0.005	0.0113	0.00034	0.0072	<0.0005	0.00012	0.0602	<0.0001	<0.001	<0.05	0.000027	25.8	<0.001	0.00028	0.00065	<0.01
RSEM-L5W-SP	3/29/2019 10:39	VL3512	M	2.18	<0.00002	20.0	0.206	76.5	0.000012	<0.005	0.0121	0.00296	<0.005	<0.005	0.00051	0.0033	<0.0005	0.00015	0.0656	<0.0001	<0.001	<0.05	0.000028	67.5	<0.001	<0.0002	0.0008	<0.01
RSEM-L5W-SP	3/30/2019 10:15	VL6610	M	1.56	<0.00002	16.4	0.193	63.6	<0.00001	<0.005	0.01	0.00289	<0.005	<0.005	0.00014	<0.003	<0.0005	0.00013	0.0632	<0.0001	<0.001	<0.05	0.000026	61.9	<0.001	<0.0002	0.00072	<0.01
RSEM-L5W-SP	3/31/2019 10:31	VL6545	M	1.8	<0.00002	18.0	0.2	62.3	<0.00001	<0.005	0.0225	0.00281	<0.005	<0.005	0.00022	<0.003	<0.0005	0.00014	0.0682	<0.0001	<0.001	<0.05	0.000027	59.5	<0.001	<0.0002	0.00071	<0.01
RSEM-L5W-SP	4/1/2019 10:36	VL8082	M	1.52	<0.00002	18.9	0.194	68.8	<0.00001	<0.005	0.0052	0.00287	<0.005	<0.005	0.00011	<0.003	<0.0005	0.00014	0.0727	<0.0001	<0.001	<0.05	0.000028	59.5	<0.001	<0.0002	0.00077	<0.01
RSEM-L5W-SP	4/2/2019 10:39	VL9740	M	1.45	<0.00002	17.4	0.193	64.7	0.00001	<0.005	<0.005	0.00277	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00012	0.0757	<0.0001	<0.001	<0.05	0.000026	60.8	<0.001	<0.0002	0.00077	<0.01
RSEM-L5W-SP	4/3/2019 9:05	VM1857	M	1.58	<0.00002	19.0	0.205	65.5	0.000011	<0.005	0.0087	0.00292	<0.005	<0.005	0.00019	<0.003	<0.0005	0.00014	0.0876	<0.0001	<0.001	<0.05	0.00003	59.7	<0.001	<0.0002	0.0007	<0.01
RSEM-L5W-SP	4/4/2019 11:12	VM3423	M	1.74	<0.00002	20.4	0.224	71.0	0.000015	<0.005	0.01	0.00313	<0.005	0.0056	0.00013	<0.003	<0.0005	0.00018	0.101	<0.0001	<0.001	<0.05	0.000031	67.8	<0.001	<0.0002	0.00079	<0.01
RSEM-L5W-SP	4/5/2019 9:31	VM3315	M	1.36	<0.00002	21.7	0.22	71.8	<0.00001	<0.005	<0.005	0.00302	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00014	0.102	<0.0001	<0.001	<0.05	0.000026	70.0	<0.001	<0.0002	0.00065	<0.01
RSEM-L5W-SP	4/6/2019 10:55	VM5476	M	1.58	<0.00002	21.3	0.215	77.4	<0.00001	<0.005	<0.005	0.00306	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00016	0.102	<0.0001	<0.001	<0.05	0.000029	67.2	<0.001	<0.0002	0.00078	<0.01
RSEM-L5W-SP	4/11/2019 10:10	VN1900	M	1.66	<0.00002	20.4	0.222	71.9	0.000011	<0.005	0.0069	0.00308	<0.005	<0.005	0.00011	<0.003	<0.0005	0.00017	0.122	<0.0001	<0.001	<0.05	0.000024	65.5	<0.001	<0.0002	0.00064	<0.01
RSEM-L5W-SP	4/12/2019 9:40	VN1943	M	1.7	<0.00002	20.0	0.209	68.2	<0.00001	<0.005	0.0073	0.00302	<0.005	<0.005	0.00023	<0.003	<0.0005	0.00015	0.118	<0.0001	<0.001	<0.05	0.000023	63.0	<0.001	<0.0002	0.0006	<0.01
RSEM-L5W-SP	4/13/2019 11:05	VN4482	M	1.56	<0.00002	24.9	0.251	82.9	0.00001	<0.005	0.0079	0.00356	<0.005	<0.005	0.00037	<0.003	<0.0005	0.00016	0.123	<0.0001	<0.001	<0.05	0.000026	66.3	<0.001	<0.0002	0.0007	<0.01
RSEM-L5W-SP	4/14/2019 11:00	VN4677	M	1.52	<0.00002	19.1	0.205	66.9	<0.00001	<0.005	0.0068	0.00302	<0.005	<0.005	0.0001	0.0085	<0.0005	0.00014	0.117	<0.0001	<0.001	<0.05	0.000025	66.6	<0.001	<0.0002	0.00078	<0.01
RSEM-L5W-SP	4/15/2019 9:35	VN6297	M	1.38	<0.00002	22.6	0.238	83.2	<0.00001	<0.005	<0.005	0.00317	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00012	0.122	<0.0001	<0.001	<0.05	0.000025	67.8	<0.001	<0.0002	0.00062	<0.01
RSEM-L5W-SP	4/16/2019 10:17	VN8438	M	1.32	<0.00002		0.224	75.9	<0.00001	<0.005	<0.005	0.00311	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00014	0.126	<0.0001	<0.001	<0.05	0.000014		<0.001	<0.0002	0.00053	<0.01
RSEM-L5W-SP	4/17/2019 11:05	VN9786	D	2.01	<0.00002	19.3	0.222	68.9	0.000018	<0.005	0.0101	0.00312	<0.005	<0.005	0.00023	0.0039	<0.0005	0.00015	0.121	<0.0001	<0.001	<0.05	0.000012	62.9	<0.001	<0.0002	0.00075	<0.01
RSEM-L5W-SP	4/17/2019 11:05	VN9785	M	1.63	<0.00002	19.9	0.22	73.1	0.000012	<0.005	0.0077	0.00302	<0.005	<0.005	0.00015	0.0033	<0.0005	0.00014	0.121	<0.0001	<0.001	<0.05	0.000014	62.6	<0.001	<0.0002	0.00053	<0.01
RSEM-L5W-SP	4/18/2019 9:44	VN9658	M	1.57	<0.00002	19.2	0.218	71.4	0.000014	<0.005	0.0072	0.0031	<0.005	<0.005	0.00015	0.0044	<0.0005	0.00016	0.119	<0.0001	<0.001	<0.05	0.000013	60.1	<0.001	<0.0002	0.00075	<0.01
RSEM-L5W-SP	4/19/2019 9:58	VO0384	M	1.55	<0.00002	20.4	0.216	76.6	<0.00001	<0.005	<0.005	0.00305	<0.005	<0.005	0.00028	0.0033	<0.0005	0.00014	0.122	<0.0001	<0.001	<0.05	0.000012	65.0	<0.001	<0.0002	0.00072	<0.01
RSEM-L5W-SP	4/20/2019 10:02	VO0405	M	1.27	<0.00002	18.9	0.208	67.0	<0.00001	<0.005	<0.005	0.00294	<0.005	<0.005	<0.0001	0.0303	<0.0005	0.00016	0.129	<0.0001	<0.001	<0.05	0.000014	68.0	<0.001	<0.0002	0.00066	<0.01
RSEM-L5W-SP	4/21/2019 10:25	VO1966	M	1.13	<0.00002	20.3	0.214	72.4	<0.00001	<0.005	<0.005	0.00295	<0.005	<0.005	<0.0001	0.0035	<0.0005	0.00013	0.117	<0.0001	<0.001	<0.05	0.00001	65.4	<0.001	<0.0002	0.00057	<0.01
RSEM-L5W-SP	4/22/2019 11:25	VO3489	D	1.16	<0.00002	20.8	0.222	75.5	<0.00001	<0.005	<0.005	0.00302	<0.005	<0.005	<0.0001	0.0034	<0.0005	0.00015	0.113	<0.0001	<0.001	<0.05	<0.00001	66.4	<0.001	<0.0002	0.00052	<0.01
RSEM-L5W-SP	4/22/2019 11:25	VO3488	M	1.1	<0.00002	20.5	0.217	75.1	<0.00001	<0.005	<0.005	0.00301	<0.005	<0.005	<0.0001	0.0031	<0.0005	0.00017	0.117	<0.0001	<0.001	<0.05	<0.00001	65.8	<0.001	<0.0002	<0.0005	<0.01
RSEM-L5W-SP	4/23/2019 10:31	VO5343	M	1.11	<0.00002	20.6	0.215	71.6	<0.00001	<0.005	<0.005	0.00309	<0.005	<0.005	<0.0001	0.0049	<0.0005	0.00015	0.115	<0.0001	<0.001	<0.05	0.00001	65.1	<0.001	<0.0002	0.0006	<0.01
RSEM-L5W-SP	4/24/2019 10:38	VO7016	M	1.02	<0.00002	21.1	0.218	71.2	<0.00001	<0.005	<0.005	0.00292	<0.005	<0.005	<0.0001	0.0079	<0.0005	0.00014	0.112	<0.0001	<0.001	<0.05	0.000011	64.9	<0.001	<0.0002	0.00064	<0.01
RSEM-L5W-SP	4/24/2019 10:43	VO7017	D	1.08	<0.00002	21.5	0.211	69.2	<0.00001	<0.005	<0.005	0.00297	<0.005	<0.005	<0.0001	0.006	<0.0005	0.00014	0.107	<0.0001	<0.001	<0.05	0.00001	63.2	<0.001	<0.0002	0.00061	<0.01
RSEM-L5W-SP	4/25/2019 11:15	VO8669	M	0.891	<0.00002	21.4	0.216	73.9	<0.00001	<0.005	<0.005	0.0031	<0.005	<0.005	<0.0001	0.0044	<0.0005	0.00018	0.113	<0.0001	<0.001	<0.05	0.00001	62.3	<0.001	<0.0002	0.00056	<0.01
RSEM-L5W-SP	4/26/2019 12:25	VO8653	M	0.959	<0.00002	21.4	0.211	75.7	<0.00001	<0.005	<0.005	0.003	<0.005	<0.005	<0.0001	0.0049	<0.0005	0.00017	0.111	<0.0001	<0.001	<0.05	0.00001	61.1	<0.001	<0.0002	0.00056	<0.01
RSEM-L5W-SP	4/27/2019 11:24	VP1309	M	0.813	<0.00002	21.2	0.213	73.5	<0.00001	<0.005	<0.005	0.00307	<0.005	<0.005	<0.0001	0.0057	<0.0005	0.00016	0.114	<0.0001	<0.001	<0.05	0.00001	64.1	<0.001	<0.0002	0.00061	<0.01
RSEM-L5W-SP	4/28/2019 9:45	VP1284	M	0.731	<0.00002	21.5	0.221	75.2	<0.00001	<0.005	<0.005	0.00318	<0.005	<0.005	<0.0001	0.0052	<0.0005	0.00015	0.111	<0.0001	<0.001	<0.05	0.00001	64.3	<0.001	<0.0002	0.00066	<0.01
RSEM-L5W-SP	4/29/2019 22:00	VP3212	M	0.666	<0.00002	21.3	0.22	71.9	<0.00001	<0.005	<0.005	0.00313	<0.005	<0.005	<0.0001	0.0051	<0.0005	0.00016	0.109	<0.0001	<0.001	<0.05	<0.00001	64.2	<0.001	<0.0002	0.00061	<0.01
RSEM-L5W-SP	4/30/2019 11:13	VP5146	M	0.805	<0.00002	21.0	0.215	74.1	<0.00001	<0.005	<0.005	0.00299	<0.005	<0.005	<0.0001	0.0057	<0.0005	0.00016	0.106	<0.0001	<0.001	<0.05	<0.00001	60.6	<0.001	<0.0002	0.00059	<0.01
RSEM-L5W-SP	5/1/2019 11:35	VP6547	M	0.707	<0.00002	20.1	0.22	76.9	<0.00001	<0.005	<0.005	0.00289	<0.005	<0.005	<0.0001	0.006	<0.0005	0.0002	0.112	<0.0001	<0.001	<0.05	<0.00001	60.8	<0.001	<0.0002	0.00063	<0.01
RSEM-L5W-SP	5/2/2019 11:10	VP8757	M	0.795	<0.00002	20.3	0.228	79.1	<0.00001	<0.005	<0.005	0.00295	<0.005	<0.005	<0.0001	0.0078	<0.0005	0.00018	0.107	<0.0001	<0.001	<0.05	<0.00001	63.4	<0.001	<0.0002	0.00062	<0.01
RSEM-L5W-SP	5/3/2019 10:30	VP8790	M	0.765	<0.00002	20.5	0.227	77.6	<0.00001	<0.005	<0.005	0.00298	<0.005	<0.005	0.00011	0.0054	<0.0005	0.0002	0.108	<0.0001	<0.001	<0.05	<0.00001	61.9	<0.001	<0.0002	0.00055	<0.01
RSEM-L5W-SP	6/5/2019 12:35	VV4626	M	3.81	<0.00002	108	0.446	151	0.000015	<0.005	<0.005	0.00644	<0.005	<0.005	<0.0001	<0.003	<0.0005	0.00025	0.0486	<0.0001	<0.001	0.087	0.000021	95.0	<0.001	<0.0002	0.00075	<0.01
RSEM-L5W-SP	6/29/2019 10:50	VZ9043	M	4.1	0.000026	83.4	0.348	150	0.000041	<0.005	0.0375	0.00347	<0.005	0.008	0.00083	0.0033	<0.0005	0.00028	0.08	<0.0001	<0.001	0.077	0.000039	102	<0.001	<0.0002	0.00119	<0.01
RSEM-L5W-SP	6/30/2019 15:20	WA1463	M	2.15	<0.00002	67.8	0.294	140	0.000015	<0.005	<0.005	0.0027	<0.005	<0.005	<0.0001	0.0055	<0.0005	0.00026	0.08	<0.0001	<0.001	0.062	0.000032	104	<0.001	<0.0002	0.00127	<0.01
RSEM-L5W-SP	7/1/2019 11:40	WA1440	M	2.91	0.000026	56.3	0.282	125	0.000033	<0.005	0.0149	0.00276	<0.005	0.0082	0.00035	0.0047	<0.0005	0.00022	0.0733	<0.0001	<0.001	0.054	0.000025	84.0	<0.001	<0.0002	0.00107	<0.01
RSEM-L5W-SP	7/2/2019 15:20	WA3408	M	1.81	<0.00002	61.3	0.319	121	0.000015	<0.005	<0.005	0.00259	<0.005	<0.005	0.00012	0.0079	<0.0005	0.00026	0.0731	<0.0001	<0.001	0.06	0.000025	93.9	<0.001	<0.0002	0.00102	<0.01
RSEM-L6-EOP	9/5/2019 9:50	WL2422	M	0.534	<0.00002	169	0.508	198	0.000016	<0.005	<0.005	0.00498	<0.005	<0.005	<0.0001	0.0161	0.00143	0.00058	0.0596	<0.0001	<0.001	0.176	0.000023	97.1	<0.001	<0.0002	0.00117	<0.01
RSEM-L6-SP	3/21/2019 11:30	VK3829	M	3.93	0.000056	195	0.301	121	0.000028	<0.005	0.0179	0.00589	0.005	0.009	0.00044	0.0169	0.00471	0.00362	0.146	<0.0001	<0.001	0.224	0.000016	41.4	0.0045	0.00054	0.0119	0.023
RSEM-L6-SP	3/22/2019 11:15	VK3806	M	2.93	0.000054	189	0.308	124	0.000017	<0.005	<0.005	0.00568	<0.005	<0.005	0.00014	0.0139	0.00455	0.00316	0.124	<0.0001	<0.001	0.226	0.000016	48.0	0.0042	0.00055	0.0136	<0.01
RSEM-L6-SP	3/23/2019 9:55	VK5881	M	2.77	0.000043	207	0.314	136	0.00001	<0.005	<0.005	0.0053	<0.005	<0.005	<0.0001	0.0121	0.0045	0.00301	0.125	<0.0001	<0.001	0.237	0.000021	46.7	0.0038	0.00052	0.0134	<0.01
RSEM-L6-SP	3/24/2019 11:18	VK6077	M	2.66	0.000047	208	0.306	135	0.000013	<0.005	<0.005	0.00535	<0.005	<0.005	<0.0001	0.0114	0.00444	0.00296	0.119	<0.0001	<0.001	0.239	0.000027	48.0	0.004	0.00056	0.0141	<0.01
RSEM-L6-SP	3/25/2019 9:43	VK7809	M	3.39	0.000047	188	0.309	127	0.000016	<0.005	0.0132	0.0054	<0.005	<0.005	0.00037	0.0115	0.00437	0.00279	0.127	<0.0001	<0.001	0.238	0.000016	48.3	0.0038	0.00055	0.0117	<0.01
RSEM-L6-SP	3/26/2019 9:17	VK9094	M	4.17	0.000024	204	0.367	137	0.000017	<0.005	0.0112	0.00513	<0.005	0.0325	0.00044	0.0194	0.0044	0.00403	0.147	<0.0001	<0.001	0.265	0.00004	53.0	0.0045	0.00328	0.00641	<0.01
RSEM-L6-SP	3/27/2019 10:19	VL2032	M	4.15	0.000023	199	0.401	147	0.000022	<0.005	0.0321	0.00558	<0.005	0.0335	0.00061	0.0325	0.00401	0.00287	0.162	<0.0001	<0.001	0.242	0.000049	57.9	0.0033	0.00565	0.00439	<0.01
RSEM-L6-SP	3/28/2019 9:30	VL3534	M	4.42	0.000022	197	0.407	156	0.000026	<0.005	0.0125	0.00578	<0.005	0.0255	0.00063	0.031	0.00392	0.00291	0.173	<0.0001	<0.001	0.25	0.000045	63.8	0.0033	0.00497	0.00358	<0.01
RSEM-L6-SP	3/29/2019 9:13	VL3513	M	3.59	0.00002	208	0.412	165	0.000018	<0.005	0.0071	0.00566	<0.005	0.0206	0.00012	0.0327	0.00405	0.00269	0.175	<0.0001	<0.001	0.236	0.000045	67.0	0.0034	0.00559	0.00379	<0.01
RSEM-L6-SP	3/30/2019 9:21	VL6608	M	3.36	<0.00002	201	0.414	160	0.000017	<0.005	<0.005	0.00594	<0.005	0.016	<0.0001	0.0268	0.00387	0.0025	0.155	<0.0001	<0.001	0.219	0.000042	66.3	0.0032	0.0051	0.00324	<0.01
RSEM-L6-SP	3/31/2019 9:20	VL6543	M	3.05	<0.00002	198	0.429	152	0.000015	<0.005	<0.005	0.00561	<0.005	0.0171	<0.0001	0.0268	0.0039	0.00256	0.161	<0.0001	<0.001	0.194	0.000039	64.1	0.0033	0.00539	0.00351	<0.01
RSEM-L6-SP	4/1/2019 9:29	VL8079	M	3.23	<0.00002	223	0.429	165	0.000018	<0.005	<0.005	0.0061	<0.005	0.0164	<0.0001	0.0252	0.00375	0.00247	0.148	<0.0001	<0.001	0.247	0.000045	66.2	0.0031	0.00473	0.00322	<0.01
RSEM-L6-SP	4/2/2019 9:24	VL9738	M	3.23	<0.00002	211	0.433	169	0.000017	<0.005	<0.005	0.00599	<0.005	0.0128	<0.0001	0.0231	0.004	0.0025	0.151	<0.0001	<0.001	0.228	0.000039	66.7	0.0033	0.00505	0.00313	<0.01
RSEM-L6-SP	4/3/2019 10:28	VM1860	M	3.46	<0.00002	199	0.453	160	0.000017	<0.005	<0.005	0.00568	<0.005	0.0149	<0.0001	0.0219	0.00381	0.00244	0.142	<0.0001	<0.001	0.237	0.000045	67.0	0.003	0.00425	0.00266	<0.01
RSEM-L6-SP	4/4/2019 9:10	VM3420	D	3.21	<0.00002	199	0.416	152	0.000017	<0.005	<0.005	0.00591	<0.005	0.0117	0.00035	0.0192	0.00381	0.00231	0.138	<0.0001	<0.001	0.215	0.000034	63.5	0.0032	0.00372	0.00259	<0.01
RSEM-L6-SP	4/4/2019 9:10	VM3419	M	3.24	<0.00002	197	0.414	157	0.00002	<0.005	<0.005	0.00581	<0.005	0.0119	<0.0001	0.0189	0.00371	0.00222	0.133	<0.0001	<0.001	0.226	0.00003	62.6	0.0032	0.00379	0.00251	<0.01
RSEM-L6-SP	4/5/2019 8:44	VM3313	M	3.09	<0.00002	204	0.415	163	0.00002	<0.005	<0.005	0.00586	<0.005	0.0122	<0.0001	0.019	0.00373	0.00227	0.137	<0.0001	<0.001	0.224	0.00003	63.0	0.0031	0.00372	0.00251	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L5W-EOP	3/18/2019 14:40	VJ9221	M	<0.0002	0.005	13.3	0.032	<0.000002	0.0042	<0.001		1.98	0.00113	0.919	<0.00002	14.3	0.135	43.4	<0.00001	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001
RSEM-L5W-EOP	3/19/2019 13:20	VK0929	M	<0.0002	0.0052	16.0	0.0263	<0.000002	0.0043	<0.001		2.21	0.0012	0.99	<0.00002	14.2	0.147	48.0	<0.00001	<0.005	<0.005	0.00192	<0.005	<0.005	<0.0001
RSEM-L5W-EOP	3/20/2019 14:05	VK2378	M	<0.0002	0.0048	17.9	0.0241	<0.000002	0.0043	<0.001		2.14	0.00129	1.05	<0.00002	15.5	0.159	50.8	<0.00001	<0.005	<0.005	0.00216	<0.005	<0.005	<0.0001
RSEM-L5W-EOP	3/21/2019 13:00	VK3826	M	<0.0002	0.0059	19.5	0.0244	<0.000002	0.0045	<0.001		2.21	0.00137	1.25	<0.00002	15.5	0.194	59.2	<0.00001	<0.005	<0.005	0.00261	<0.005	<0.005	<0.0001
RSEM-L5W-EOP	3/22/2019 11:45	VK3808	M	<0.0002	0.0051	22.0	0.0248	0.0000068	0.0047	<0.001		2.22	0.0015	1.07	<0.00002	17.7	0.18	62.2	<0.00001	<0.005	<0.005	0.00271	<0.005	<0.005	<0.0001
RSEM-L5W-EOP	3/23/2019 11:30	VK5883	M	<0.0002	0.0058	23.6	0.0255	<0.000002	0.0049	<0.001		2.30	0.00166	1.34	<0.00002	18.7	0.191	70.7	<0.00001	<0.005	<0.005	0.0028	<0.005	<0.005	<0.0001
RSEM-L5W-EOP	3/24/2019 12:14	VK6079	M	<0.0002	0.006	24.2	0.0248	<0.000002	0.0047	<0.001		2.36	0.00168	1.36	<0.00002	18.4	0.193	73.6	<0.00001	<0.005	<0.005	0.00276	<0.005	<0.005	<0.0001
RSEM-L5W-EOP	3/25/2019 10:21	VK7811	M	<0.0002	0.0058	22.3	0.0241	<0.000002	0.0046	<0.001		2.14	0.00168	1.34	<0.00002	17.0	0.196	69.2	<0.00001	<0.005	<0.005	0.00292	<0.005	<0.005	<0.0001
RSEM-L5W-EOP	3/26/2019 10:20	VK9097	M	<0.0002	0.0063	23.7	0.0231	<0.000002	0.0047	0.001		2.35	0.00172	1.39	<0.00002	18.3	0.196	71.6	<0.00001	<0.005	<0.005	0.00286	<0.005	<0.005	<0.0001
RSEM-L5W-EOP	3/28/2019 9:45	VL3536	M	<0.0002	0.0062	25.3	0.0213	<0.000002	0.0044	<0.001		2.40	0.00174	1.46	<0.00002	20.4	0.201	74.6	<0.00001	<0.005	<0.005	0.00293	<0.005	<0.005	<0.0001
RSEM-L5W-EOP	4/7/2019 10:42	VM5530	M	<0.0002	0.0048	29.3	0.0068	<0.000002	0.0042	<0.001		2.41	0.00232	1.9	<0.00002	22.4	0.208	91.0	<0.00001	<0.005	<0.005	0.00341	<0.005	0.0074	<0.0001
RSEM-L5W-EOP	4/8/2019 11:10	VM6519	M	<0.0002	0.0046	31.9	0.0046	<0.000002	0.0041	<0.001		2.87	0.00245	2.2	<0.00002	23.6	0.227	109	<0.00001	<0.005	<0.005	0.00371	<0.005	0.0081	<0.0001
RSEM-L5W-EOP	4/9/2019 12:20	VM8366	M	<0.0002	0.0042	29.7	0.0039	<0.000002	0.0037	<0.001		2.54	0.00254	1.8	<0.00002	21.3	0.22	103	<0.00001	<0.005	<0.005	0.0036	<0.005	0.0079	<0.0001
RSEM-L5W-EOP	4/10/2019 12:36	VN0770	M	<0.0002	0.0046	37.4	0.0038	<0.000002	0.0038	<0.001		2.80	0.00288	2.12	<0.00002	24.6	0.234	122	<0.00001	<0.005	<0.005	0.00419	<0.005	0.0082	<0.0001
RSEM-L5W-SP	1/1/2019 14:30	VA5883	M	<0.0002	0.0061	34.5	0.0123	<0.000002	0.0079	0.0012		3.65	0.00351	0.464	<0.00002	19.6	0.328	128	<0.00001	<0.005	<0.005	0.00309	<0.005	<0.005	<0.0001
RSEM-L5W-SP	1/8/2019 15:10	VB4662	M	<0.0002	0.0062	33.7	0.0129	<0.000002	0.0084	0.0014		3.50	0.00324	0.448	<0.00002	19.4	0.35	120	<0.00001	<0.005	<0.005	0.00319	<0.005	<0.005	<0.0001
RSEM-L5W-SP	3/14/2019 12:45	VJ4039	M	<0.0002	0.0517	60.0	0.634	<0.000002	0.0066	0.027		18.1	0.00281	3.43	<0.00002	170	0.658	275	0.000013	<0.005	<0.005	0.00157	<0.005	0.0076	<0.0001
RSEM-L5W-SP	3/15/2019 9:00	VJ4026	M	<0.0002	0.0173	25.1	0.171	<0.000002	0.0052	0.005		6.47	0.00137	1.69	<0.00002	53.0	0.259	92.4	0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001
RSEM-L5W-SP	3/17/2019 14:00	VJ7217	M	<0.0002	0.0058	10.1	0.0489	<0.000002	0.0027	0.0014		2.32	0.00068	0.851	<0.00002	16.7	0.104	32.9	<0.00001	<0.005	<0.005	0.00086	<0.005	<0.005	<0.0001
RSEM-L5W-SP	3/29/2019 10:39	VL3512	M	<0.0002	0.0063	24.7	0.0229	<0.000002	0.0047	0.0011		2.26	0.0017	1.35	<0.00002	19.2	0.198	73.1	<0.00001	<0.005	<0.005	0.00296	<0.005	<0.005	<0.0001
RSEM-L5W-SP	3/30/2019 10:15	VL6610	M	<0.0002	0.0063	22.5	0.0246	<0.000002	0.0046	0.001		2.23	0.00163	1.18	<0.00002	16.6	0.196	66.8	<0.00001	<0.005	<0.005	0.00282	<0.005	<0.005	<0.0001
RSEM-L5W-SP	3/31/2019 10:31	VL6545	M	<0.0002	0.0057	20.8	0.0238	<0.000002	0.0045	<0.001		2.19	0.00169	1.09	<0.00002	15.8	0.188	61.9	<0.00001	<0.005	<0.005	0.00283	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/1/2019 10:36	VL8082	M	<0.0002	0.0063	23.9	0.0235	<0.000002	0.0042	0.0011		2.14	0.0016	1.25	<0.00002	19.2	0.187	68.7	<0.00001	<0.005	<0.005	0.00273	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/2/2019 10:39	VL9740	M	<0.0002	0.0064	23.0	0.0226	0.0000058	0.0043	<0.001		2.10	0.00165	1.21	<0.00002	18.0	0.192	66.3	<0.00001	<0.005	<0.005	0.00282	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/3/2019 9:05	VM1857	M	<0.0002	0.0054	23.6	0.0248	<0.000002	0.0046	0.001		2.17	0.0016	1.16	<0.00002	18.8	0.209	65.7	<0.00001	<0.005	<0.005	0.00288	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/4/2019 11:12	VM3423	M	<0.0002	0.0066	26.0	0.0272	<0.000002	0.0053	0.0012		2.19	0.002	1.26	<0.00002	23.6	0.231	72.2	<0.00001	<0.005	<0.005	0.00312	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/5/2019 9:31	VM3315	M	<0.0002	0.0065	25.0	0.024	<0.000002	0.0048	0.0011		2.25	0.00183	1.32	<0.00002	20.1	0.221	72.4	<0.00001	<0.005	<0.005	0.00309	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/6/2019 10:55	VM5476	M	<0.0002	0.0069	25.9	0.0249	<0.000002	0.005	<0.001		2.32	0.00177	1.28	<0.00002	22.0	0.22	75.2	<0.00001	<0.005	<0.005	0.00306	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/11/2019 10:10	VN1900	M	<0.0002	0.0069	24.7	0.0217	<0.000002	0.0045	<0.001		2.23	0.00183	1.32	<0.00002	20.4	0.207	72.2	<0.00001	<0.005	<0.005	0.00286	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/12/2019 9:40	VN1943	M	<0.0002	0.0067	24.7	0.0233	<0.000002	0.0045	0.001		2.22	0.00168	1.13	<0.00002	20.0	0.211	68.3	<0.00001	<0.005	<0.005	0.00302	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/13/2019 11:05	VN4482	M	<0.0002	0.0069	25.4	0.0221	<0.000002	0.005	0.001		2.30	0.00192	1.23	<0.00002	22.6	0.218	75.5	<0.00001	<0.005	<0.005	0.00303	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/14/2019 11:00	VN4677	M	<0.0002	0.0069	24.4	0.0206	<0.000002	0.0048	<0.001		2.24	0.0018	1.18	<0.00002	21.3	0.217	72.0	<0.00001	<0.005	<0.005	0.00294	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/15/2019 9:35	VN6297	M	<0.0002	0.0069	25.2	0.0179	<0.000002	0.0049	<0.001		2.23	0.00187	1.27	<0.00002	20.5	0.218	72.5	<0.00001	<0.005	<0.005	0.00285	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/16/2019 10:17	VN8438	M	<0.0002	0.0066	24.3	0.0011	<0.000002	0.0046	<0.001			0.0018	1.25	<0.00002		0.215	75.8	<0.00001	<0.005	<0.005	0.00301	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/17/2019 11:05	VN9786	D	<0.0002	0.0067	25.5	<0.001	<0.000002	0.0047	<0.001		2.30	0.00184	1.13	<0.00002	20.5	0.221	70.8	<0.00001	<0.005	<0.005	0.00298	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/17/2019 11:05	VN9785	M	<0.0002	0.0065	23.9	<0.001	<0.000002	0.0046	<0.001		2.10	0.00185	1.1	<0.00002	18.4	0.215	67.7	<0.00001	<0.005	<0.005	0.00295	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/18/2019 9:44	VN9658	M	<0.0002	0.0068	24.7	<0.001	<0.000002	0.0047	<0.001		2.24	0.00174	1.07	<0.00002	19.2	0.213	68.7	<0.00001	<0.005	<0.005	0.00299	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/19/2019 9:58	VO0384	M	<0.0002	0.0073	26.6	0.0012	<0.000002	0.0051	0.001		2.43	0.00189	1.05	<0.00002	22.1	0.23	75.8	<0.00001	<0.005	<0.005	0.00321	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/20/2019 10:02	VO0405	M	<0.0002	0.0077	27.8	0.0012	<0.000002	0.0053	0.0013		2.32	0.002	1.07	<0.00002	23.1	0.237	75.6	<0.00001	<0.005	<0.005	0.00335	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/21/2019 10:25	VO1966	M	<0.0002	0.0073	25.6	0.001	<0.000002	0.0048	<0.001		2.25	0.00186	0.987	<0.00002	21.1	0.217	70.2	<0.00001	<0.005	<0.005	0.00312	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/22/2019 11:25	VO3489	D	<0.0002	0.0069	25.1	<0.001	<0.000002	0.0048	<0.001		2.42	0.00178	1.07	<0.00002	20.7	0.218	73.1	<0.00001	<0.005	<0.005	0.00299	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/22/2019 11:25	VO3488	M	<0.0002	0.0069	25.4	<0.001	<0.000002	0.0048	<0.001		2.39	0.00175	1.04	<0.00002	20.5	0.219	75.2	<0.00001	<0.005	<0.005	0.00301	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/23/2019 10:31	VO5343	M	<0.0002	0.007	26.8	0.0011	<0.000002	0.0047	<0.001		2.28	0.0018	0.927	<0.00002	21.5	0.214	75.2	<0.00001	<0.005	<0.005	0.00303	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/24/2019 10:38	VO7016	M	<0.0002	0.0065	25.6	0.001	<0.000002	0.0049	<0.001		2.23	0.00183	0.808	<0.00002	21.6	0.215	72.1	<0.00001	<0.005	<0.005	0.00318	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/24/2019 10:43	VO7017	D	<0.0002	0.0067	25.7	0.0016	<0.000002	0.0049	<0.001		2.24	0.00186	0.815	<0.00002	21.3	0.213	72.2	<0.00001	<0.005	<0.005	0.00315	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/25/2019 11:15	VO8669	M	<0.0002	0.0076	26.4	<0.001	<0.000002	0.0054	<0.001		2.34	0.00182	0.785	<0.00002	20.8	0.218	73.7	<0.00001	<0.005	<0.005	0.00309	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/26/2019 12:25	VO8653	M	<0.0002	0.0072	26.3	<0.001	<0.000002	0.0051	<0.001		2.35	0.0018	0.755	<0.00002	21.2	0.216	77.7	<0.00001	<0.005	<0.005	0.003	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/27/2019 11:24	VP1309	M	<0.0002	0.0077	26.4	<0.001	<0.000002	0.0052	<0.001		2.38	0.00189	0.713	<0.00002	22.3	0.222	77.9	<0.00001	<0.005	<0.005	0.00315	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/28/2019 9:45	VP1284	M	<0.0002	0.0076	26.4	<0.001	<0.000002	0.0052	<0.001		2.40	0.00193	0.674	<0.00002	22.4	0.223	77.7	<0.00001	<0.005	<0.005	0.0032	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/29/2019 22:00	VP3212	M	<0.0002	0.0075	25.6	<0.001	<0.000002	0.0051	<0.001		2.29	0.00188	0.632	<0.00002	21.4	0.223	73.5	<0.00001	<0.005	<0.005	0.00311	<0.005	<0.005	<0.0001
RSEM-L5W-SP	4/30/2019 11:13	VP5146	M	<0.0002	0.0069	26.6	<0.001	<0.000002	0.0052	<0.001		2.39	0.00184	0.573	<0.00002	22.8	0.226	77.4	<0.00001	<0.005	<0.005	0.00321	<0.005	<0.005	<0.0001
RSEM-L5W-SP	5/1/2019 11:35	VP6547	M	<0.0002	0.0074	24.1	<0.001	<0.000002	0.005	<0.001		2.41	0.00187	0.559	<0.00002	20.6	0.218	77.3	<0.00001	<0.005	<0.005	0.00301	<0.005	<0.005	<0.0001
RSEM-L5W-SP	5/2/2019 11:10	VP8757	M	<0.0002	0.0073	26.0	<0.001	<0.000002	0.005	<0.001		2.46	0.00192	0.545	<0.00002	22.0	0.224	79.3	<0.00001	<0.005	<0.005	0.00311	<0.005	<0.005	<0.0001
RSEM-L5W-SP	5/3/2019 10:30	VP8790	M	<0.0002	0.0073	24.3	0.0011	<0.000002	0.005	<0.001		2.52	0.0018	0.551	<0.00002	20.7	0.212	77.9	<0.00001	<0.005	<0.005	0.00293	<0.005	<0.005	<0.0001
RSEM-L5W-SP	6/5/2019 12:35	VV4626	M	<0.0002	0.0207	45.0	0.0092	<0.000002	0.0066	<0.001		4.16	0.00205	3.68	<0.00002	104	0.516	152	<0.00001	<0.005	<0.005	0.00618	<0.005	<0.005	<0.0001
RSEM-L5W-SP	6/29/2019 10:50	VZ9043	M	<0.0002	0.0145	29.4	0.02	<0.000002	0.0122	0.0015		4.19	0.00708	1.98	<0.00002	82.9	0.365	148	0.000011	<0.005	<0.005	0.00325	<0.005	<0.005	<0.0001
RSEM-L5W-SP	6/30/2019 15:20	WA1463	M	<0.0002	0.0128	27.0	0.0043	<0.000002	0.0102	0.0012		3.88	0.00568	1.95	<0.00002	66.9	0.302	137	0.000013	<0.005	<0.005	0.00284	<0.005	<0.005	<0.0001
RSEM-L5W-SP	7/1/2019 11:40	WA1440	M	<0.0002	0.0102	23.7	0.0115	0.0000022	0.0082	0.0011		3.14	0.00442	1.54	<0.00002	52.5	0.276	109	<0.00001	<0.005	<0.005	0.00253	<0.005	<0.005	<0.0001
RSEM-L5W-SP	7/2/2019 15:20	WA3408	M	<0.0002	0.0132	27.1	0.002	<0.000002	0.0086	0.0011		3.56	0.00495	1.63	<0.00002	63.2	0.292	128	0.000011	<0.005	<0.005	0.00275	<0.005	<0.005	<0.0001
RSEM-L6-EOP	9/5/2019 9:50	WL2422	M	<0.0002	0.033	38.5	<0.001	<0.000002	0.0224	0.0012		6.07	0.00858	0.343	<0.00002	167	0.521	206	0.000014	<0.005	<0.005	0.00505	<0.005	<0.005	<0.0001
RSEM-L6-SP	3/21/2019 11:30	VK3829	M	<0.0002	0.0366	21.7	0.0145	0.000003	0.0333	0.0043		4.71	0.00982	2.92	0.000037	195	0.32	124	0.000012	<0.005	<0.005	0.00589	<0.005	<0.005	<0.0001
RSEM-L6-SP	3/22/2019 11:15	VK3806	M	<0.0002	0.031	24.8	0.0173	0.0000031	0.0326	0.0045		4.75	0.0101	2.4	0.000045	204	0.318	129	0.000013	<0.005	<0.005	0.00571	<0.005	<0.005	<0.0001
RSEM-L6-SP	3/23/2019 9:55	VK5881	M	<0.0002	0.0342	25.6	0.0168	<0.000002	0.0327	0.0047		5.00	0.00932	2.87	0.000048	220	0.302	143	0.000012	<0.005	<0.005	0.00547	<0.005	<0.005	<0.0001
RSEM-L6-SP	3/24/2019 11:18	VK6077	M	<0.0002	0.0343	23.7	0.0187	<0.000002	0.0314	0.0045		4.78	0.00964	2.65	0.000042	196	0.304	140	0.000012	<0.005	<0.005	0.00523	<0.005	<0.005	<0.0001
RSEM-L6-SP	3/25/2019 9:43	VK7809	M	<0.0002	0.033	23.3	0.0169	<0.000002	0.0316	0.0045		4.62	0.00931	2.62	0.000042	184	0.311	130	<0.00001	<0.005	<0.005	0.00546	<0.005	<0.005	<0.0001
RSEM-L6-SP	3/26/2019 9:17	VK9094	M	<0.0002	0.0407	23.8	0.0359	<0.000002	0.0336	0.0118		5.14	0.0119	3.36	<0.00002	223	0.372	152	0.000012	<0.005	<0.005	0.00524	<0.005	0.0212	<0.0001
RSEM-L6-SP	3/27/2019 10:19	VL2032	M	<0.0002	0.0466	26.8	0.0732	<0.000002	0.0302	0.0178		4.65	0.0109	3.21	<0.00002	208	0.434	149	0.000014	<0.005	<0.005	0.00572	<0.005	0.0169	<0.0001
RSEM-L6-SP	3/28/2019 9:30	VL3534	M	<0.0002	0.0418	27.2	0.0679	<0.000002	0.0295	0.0161		4.84	0.0105	3.24	<0.00002	201	0.396	160	0.000016	<0.005	<0.005	0.00564	<0.005	0.0102	<0.0001
RSEM-L6-SP	3/29/2019 9:13	VL3513	M	<0.0002	0.0423	28.1	0.0715	<0.000002	0.0298	0.0186		4.83	0.0103	3.19	<0.00002	207	0.402	163	0.000016	<0.005	<0.005	0.00556	<0.005	0.0133	<0.0001
RSEM-L6-SP	3/30/2019 9:21	VL6608	M	<0.0002	0.0413	27.3	0.0687	<0.000002	0.0294	0.0183		4.71	0.0107	2.88	<0.00002	181	0.412	154	0.000016	<0.005	<0.005	0.00566	<0.005	0.0122	<0.0001
RSEM-L6-SP	3/31/2019 9:20	VL6543	M	<0.0002	0.043	26.1	0.0675	<0.000002	0.03	0.0178		4.92	0.0106	2.81	<0.00002	184	0.414	149	0.000016	<0.005	<0.005	0.00584	<0.005	0.0135	<0.0001
RSEM-L6-SP	4/1/2019 9:29	VL8079	M	<0.0002	0.0423	30.0	0.0646	<0.000002	0.0288	0.0193		4.62	0.00992	3.25	<0.00002	217	0.414	172	0.000018	<0.005	<0.005	0.00579	<0.005	0.0131	<0.0001
RSEM-L6-SP	4/2/2019 9:24	VL9738	M	<0.0002	0.0453	30.6	0.064	0.0000059	0.0309	0.0187		5.03	0.0106	3.11	<0.00002	214	0.44	169	0.000018	<0.005	<0.005	0.0061	<0.005	0.0107	<0.0001
RSEM-L6-SP	4/3/2019 10:28	VM1860	M	<0.0002	0.0393	30.7	0.0562	<0.000002	0.0297	0.0164		4.84	0.0105	3.33	<0.00002	201	0.452	166	0.000015	<0.005	<0.005	0.0057	<0.005	0.009	<0.0001
RSEM-L6-SP	4/4/2019 9:10	VM3420	D	<0.0002	0.0382	26.6	0.0521	<0.000002	0.0301	0.0165		4.63	0.0107	2.89	<0.00002	189	0.428	148	0.000019	<0.005	<0.005	0.00591	<0.005	0.0095	<0.0001
RSEM-L6-SP	4/4/2019 9:10	VM3419	M	<0.0002	0.0374	26.3	0.0533	<0.000002	0.0303	0.0163		5.06	0.0104	2.81	<0.00002	184	0.411	153	0.000015	<0.005	<0.005	0.00577	<0.005	0.0093	<0.0001
RSEM-L6-SP	4/5/2019 8:44	VM3313	M	<0.0002	0.0382	25.5	0.0507	<0.000002	0.0302	0.0166		4.76	0.0106	2.76	<0.00002	181	0.416	147	0.000019	<0.005	<0.005	0.00589	<0.005	0.0091	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L6-SP	4/6/2019 9:32	VM5474	M	8.23	1490	0.77	922	<4.0	293	291	184	<1.0	224	<1.0	<1.0	62.3	0.660	1.0	329			0.62	0.179	1.73	1.91	<0.0050
RSEM-L6-SP	4/7/2019 9:30	VM5528	M	8.24	1500	0.93	922	<4.0	293	295	190	<1.0	232	<1.0	<1.0	64.2	0.660	0.98	455			0.63	0.180	1.76	1.94	<0.0050
RSEM-L6-SP	4/8/2019 9:40	VM6517	M	8.23	1490	1.24	966	4.8	295	308	182	<1.0	222	<1.0	<1.0	62.6	0.700	0.93	392			0.63	0.168	1.79	1.95	<0.0050
RSEM-L6-SP	4/9/2019 10:00	VM8362	M	8.08	1490	1.00	966	4.8	300	264	184	<1.0	225	<1.0	<1.0	62.5	0.680	1.1	403			0.67	0.160	1.73	1.89	<0.0050
RSEM-L6-SP	4/10/2019 9:50	VN0837	M	8.29	1500	0.61	912	<4.0	310	307	188	<1.0	230	<1.0	<1.0	60.4	0.600	1.1	369			0.61	0.148	1.81	1.95	<0.0030
RSEM-L6-SP	4/11/2019 9:15	VN1898	M	8.25	1530	0.75	966	4.8	308	300	194	<1.0	236	<1.0	<1.0	61.2	0.620	1.1	431			0.64	0.152	1.81	1.97	<0.0050
RSEM-L6-SP	4/12/2019 9:20	VN1942	M	8.17	1510	0.76	972	<4.0	294	282	188	<1.0	230	<1.0	<1.0	63.4	0.610	1.1	432			0.63	0.153	1.82	1.97	<0.0050
RSEM-L6-SP	4/13/2019 10:00	VN4481	M	8.21	1500	1.48	914	6.4	296	300	188	<1.0	229	<1.0	<1.0	62.5	0.630	1.1	462			0.62	0.151	2.01	2.16	<0.0050
RSEM-L6-SP	4/14/2019 9:45	VN4675	M	8.27	1520	1.61	944	<4.0	282	294	184	<1.0	224	<1.0	<1.0	63.4	0.610	1.1	447			0.56	0.135	1.83	1.96	<0.0050
RSEM-L6-SP	4/15/2019 8:40	VN6295	M	8.31	1510	1.55	950	<4.0	300	303	184	<1.0	224	<1.0	<1.0	67.4	0.650	1.1	461			0.64	0.140	1.81	1.95	<0.0050
RSEM-L6-SP	4/16/2019 8:50	VN8435	M	8.19	1500	1.26	946	<4.0	301	303	185	<1.0	225	<1.0	<1.0	62.5	0.640	1.1	465			0.59	0.130	1.85	1.98	<0.0030
RSEM-L6-SP	4/17/2019 9:12	VN9783	M	8.39	1520	1.41	932	<4.0	309	287	184	4.0	215	4.8	<1.0	61.4	0.630	1.1	464			0.53	0.131	1.95	2.08	<0.0030
RSEM-L6-SP	4/18/2019 8:38	VN9657	D	8.36	1510	2.55	966	<4.0	304	291	181	1.5	217	1.8	<1.0	61.7	0.600	1.1	440			0.50	0.116	1.87	1.99	<0.0030
RSEM-L6-SP	4/18/2019 8:38	VN9656	M	8.42	1520	2.17	970	<4.0	314	277	184	2.9	218	3.4	<1.0	62.3	0.620	1.1	467			0.53	0.120	1.86	1.98	<0.0030
RSEM-L6-SP	4/19/2019 8:35	VO0382	M	8.22	1510	3.99	960	12.4	318	305	185	<1.0	226	<1.0	<1.0	62.8	0.650	1.1	425			0.48	0.114	2.00	2.12	<0.0030
RSEM-L6-SP	4/20/2019 9:02	VO0402	M	8.25	1510	2.86	952	10.4	313	320	189	<1.0	231	<1.0	<1.0	63.6	0.610	1.0	428			0.49	0.107	2.04	2.14	<0.0030
RSEM-L6-SP	4/21/2019 9:00	VO1964	D	8.38	1520	3.84	940	10.0	305	300	182	2.6	216	3.1	<1.0	62.4	0.650	1.0	475			0.47	0.102	2.09	2.20	0.0032
RSEM-L6-SP	4/21/2019 9:00	VO1963	M	8.32	1520	2.79	952	5.2	308	307	178	1.3	214	1.5	<1.0	62.2	0.650	1.1	478			0.48	0.0984	2.09	2.18	<0.0030
RSEM-L6-SP	4/22/2019 10:02	VO3486	M	8.22	1500	1.31	938	4.8	302	302	185	<1.0	225	<1.0	<1.0	62.7	0.640	1.1	454			0.41	0.0975	1.57	1.66	<0.0030
RSEM-L6-SP	4/23/2019 8:59	VO5341	M	8.29	1520	1.37	456	5.6	301	308	176	<1.0	214	<1.0	<1.0	67.2	0.600	1.1	504			0.40	0.0877	1.69	1.78	0.0034
RSEM-L6-SP	4/24/2019 8:52	VO7014	M	8.32	1520	1.67	956	8.0	298	308	176	<1.0	215	<1.0	<1.0	60.9	0.600	1.1	446			0.37	0.0828	2.19	2.27	<0.0030
RSEM-L6-SP	4/25/2019 10:00	VO8667	M	8.17	1520	2.14	954	4.8	307	304	178	<1.0	217	<1.0	<1.0	57.7	0.610	1.1	482			0.31	0.0719	2.12	2.19	<0.0030
RSEM-L6-SP	4/26/2019 11:44	VO8651	M	8.23	1540	1.50	954	4.8	297	295	175	<1.0	213	<1.0	<1.0	59.6	0.610	1.1	481			0.31	0.0742	2.16	2.23	<0.0030
RSEM-L6-SP	4/27/2019 9:57	VP1307	M	8.26	1550	1.44	958	<4.0	298	299	171	<1.0	208	<1.0	<1.0	63.9	0.610	1.1	446			0.27	0.0747	1.92	1.99	0.0036
RSEM-L6-SP	4/28/2019 8:21	VP1282	M	8.16	1560	1.99	968	18.4	290	304	170	<1.0	207	<1.0	<1.0	62.9	0.630	1.1	427			0.23	0.0590	1.77	1.83	0.0034
RSEM-L6-SP	4/29/2019 8:30	VP3210	M	8.40	1520	1.56	968	<4.0	283	295	162	2.4	192	2.8	<1.0	67.1	0.610	1.1	447			0.20	0.0646	1.93	2.00	<0.0030
RSEM-L6-SP	4/30/2019 9:00	VP5144	M	8.14	1510	1.55	948	10.4	269	286	163	<1.0	199	<1.0	<1.0	61.7	0.590	1.1	453			0.20	0.0616	2.07	2.13	<0.0030
RSEM-L6-SP	5/1/2019 9:40	VP6545	M	8.32	1530	2.66	964	9.6	274	275	159	<1.0	194	<1.0	<1.0	59.2	0.600	1.1	475			0.20	0.0546	1.91	1.96	<0.0030
RSEM-L6-SP	5/2/2019 8:45	VP8754	M	8.17	1530	1.84	932	<4.0	263	279	155	<1.0	189	<1.0	<1.0	63.2	0.580	1.1	459			0.16	0.0538	1.87	1.93	<0.0030
RSEM-L6-SP	5/3/2019 9:00	VP8788	M	8.17	1530	1.97	950	4.0	255	267	148	<1.0	181	<1.0	<1.0	64.5	0.580	1.1	471			0.14	0.0482	1.82	1.86	0.0039
RSEM-L6-SP	5/4/2019 8:20	VQ1585	M	8.12	1500	1.30	952	4.0	279	281	147	<1.0	179	<1.0	<1.0	64.1	0.600	1.1	458			0.11	0.0425	1.63	1.67	<0.0030
RSEM-L6-SP	5/5/2019 9:15	VQ1600	M	8.17	1500	2.52	964	6.0	258	276	143	<1.0	174	<1.0	<1.0	64.2	0.590	1.1	404			0.11	0.0515	1.56	1.61	<0.0030
RSEM-L6-SP	5/6/2019 8:38	VQ4515	M	8.32	1490	1.78	958	4.8	287	267	134	<1.0	164	<1.0	<1.0	59.7	0.590	1.1	493			0.092	0.0494	1.86	1.91	<0.0030
RSEM-L6-SP	5/7/2019 9:05	VQ4351	M	8.37	1490	2.28	956	5.2	254	270	133	1.9	157	2.3	<1.0	60.2	0.600	1.1	486			0.26	0.0482	1.85	1.90	<0.0030
RSEM-L6-SP	5/8/2019 10:00	VQ8323	M	7.94	1540	1.88	954	4.0	271	269	134	<1.0	164	<1.0	<1.0	61.8	0.590	1.1	492			0.10	0.0499	1.82	1.87	<0.0030
RSEM-L6-SP	5/9/2019 10:28	VQ9665	M	8.10	1510	2.53	956	<4.0	253	263	125	<1.0	153	<1.0	<1.0	62.2	0.570	1.1	489			0.071	0.0484	1.73	1.78	0.0068
RSEM-L6-SP	5/10/2019 9:05	VQ9678	M	8.26	1510	2.17	956	<4.0	263	263	124	<1.0	151	<1.0	<1.0	62.2	0.560	1.2	493			0.076	0.0466	1.74	1.79	<0.0030
RSEM-L6-SP	5/11/2019 9:25	VR2440	M	8.10	1490	1.36	958	<4.0	255	253	126	<1.0	153	<1.0	<1.0	66.6	0.580	1.2	468			0.15	0.0441	1.77	1.81	<0.0030
RSEM-L6-SP	5/12/2019 9:20	VR2488	M	8.10	1490	1.76	920	4.8	242	246	122	<1.0	148	<1.0	<1.0	68.1	0.570	1.2	488			0.093	0.0447	1.74	1.78	<0.0030
RSEM-L6-SP	5/13/2019 10:30	VR4454	M	8.07	1490	1.45	932	<4.0	253	250	121	<1.0	147	<1.0	<1.0	67.3	0.570	1.2	445			0.049	0.0447	1.68	1.72	<0.0030
RSEM-L6-SP	5/14/2019 10:30	VR6863	M	8.08	1490	1.48	934	<4.0	249	242	115	<1.0	141	<1.0	<1.0	64.3	0.560	1.2	527			0.035	0.0435	1.64	1.69	0.0036
RSEM-L6-SP	5/15/2019 9:30	VR8834	M	8.02	1490	1.33	944	<4.0	244	245	111	<1.0	135	<1.0	<1.0	66.7	0.650	1.2	478			0.044	0.0456	1.58	1.63	0.0047
RSEM-L6-SP	5/16/2019 10:45	VS0892	M	8.19	1490	1.22	920	<4.0	241	249	110	<1.0	135	<1.0	<1.0	69.2	0.580	1.2	464			0.13	0.0457	1.64	1.68	0.0046
RSEM-L6-SP	5/17/2019 9:00	VS0928	M	8.15	1490	1.23	986	6.4	241	252	110	<1.0	135	<1.0	<1.0	65.2	0.570	1.2	488			0.037	0.0487	1.60	1.65	0.0043
RSEM-L6-SP	5/18/2019 9:55	VS1841	M	8.19	1490	1.55	912	<4.0	245	240	109	<1.0	133	<1.0	<1.0	62.1	0.640	1.2	520			0.031	0.0459	1.51	1.55	<0.0050
RSEM-L6-SP	5/18/2019 10:00	VS1845	D	8.19	1490	1.52	944	4.0	246	252	109	<1.0	133	<1.0	<1.0	64.1	0.600	1.2	505			0.041	0.0472	1.50	1.54	<0.0050
RSEM-L6-SP	5/19/2019 8:45	VS3039	M	8.19	1500	1.51	944	<4.0	239	249	105	<1.0	128	<1.0	<1.0	64.3	0.660	1.1	409			0.034	0.0479	1.45	1.49	<0.0050
RSEM-L6-SP	5/20/2019 11:30	VS3031	M	8.03	1480	1.33	962	8.0	236	248	105	<1.0	128	<1.0	<1.0	65.6	0.670	1.2	545			0.078	0.0507	1.40	1.45	<0.0050
RSEM-L6-SP	5/20/2019 11:35	VS3032	D	8.14	989	1.08	654	5.6	395	387	120	<1.0	147	<1.0	<1.0	14.9	0.240	0.62	340			0.070	0.0053	0.147	0.152	<0.0050
RSEM-L6-SP	5/21/2019 10:15	VS3706	M	8.18	1500	2.37	914	5.6	235	244	102	<1.0	125	<1.0	<1.0	63.9	0.620	1.1	512			0.056	0.0471	1.35	1.40	<0.0050
RSEM-L6-SP	5/22/2019 9:30	VS7470	M	8.08	1510	3.62	946	10.4	234	241	102	<1.0	124	<1.0	<1.0	66.5	0.560	1.2	497			0.029	0.0526	1.32	1.37	<0.0050
RSEM-L6-SP	5/23/2019 9:55	VS9364	M	8.08	1530	1.89	948	4.0	235	235	106	<1.0	129	<1.0	<1.0	67.5	0.690	1.2	509			0.052	0.0504	1.38	1.43	<0.0050
RSEM-L6-SP	5/24/2019 9:45	VS9235	M	8.17	1520	4.03	960	9.6	242	237	102	<1.0	124	<1.0	<1.0	67.2	0.560	1.2	519			0.048	0.0527	1.37	1.42	<0.0050
RSEM-L6-SP	5/25/2019 10:15	VT2665	M	8.12	1520	5.47	960	8.8	230	232	104	<1.0	127	<1.0	<1.0	70.4	0.560	1.2	539			0.068	0.0603	1.26	1.32	<0.0050
RSEM-L6-SP	5/26/2019 11:20	VT2642	M	8.26	1510	4.91	958	8.8	228	244	105	<1.0	128	<1.0	<1.0	70.8	0.570	1.2	546			0.047	0.0598	1.39	1.45	<0.0050
RSEM-L6-SP	5/27/2019 10:10	VT4236	M	8.04	1530	4.89	956	8.0	232	239	107	<1.0	131	<1.0	<1.0	68	0.560	1.2	570			0.053	0.0606	1.27	1.33	<0.0050
RSEM-L6-SP	5/28/2019 10:30	VT7637	M	7.93	1540	4.30	990	5.6	252	242	105	<1.0	128	<1.0	<1.0	68	0.630	1.2	540			0.030	0.0573	1.19	1.24	<0.0050
RSEM-L6-SP	5/29/2019 9:00	VT7340	M	8.17	1560	4.59	982	8.8	225	250	113	<1.0	138	<1.0	<1.0	60	0.640	1.2	550			0.025	0.0615	1.59	1.65	<0.0050
RSEM-L6-SP	5/30/2019 8:40	VU0225	M	8.08	1550	5.01	984	8.8	244	262	111	<1.0	135	<1.0	<1.0	70.6	0.570	1.2	494			0.026	0.0633	0.932	0.995	<0.0050
RSEM-L6-SP	5/31/2019 10:10	VU2495	M	7.98	1570	7.09	950	9.2	247	266	112	<1.0	136	<1.0	<1.0	67.6	0.620	1.2	509			0.026	0.0621	0.932	0.994	<0.0050
RSEM-L6-SP	6/1/2019 10:30	VU3313	M	8.16	1570	5.45	984	8.4	246	263	118	<1.0	144	<1.0	<1.0	65.6	0.620	1.3	574			0.029	0.0565	1.21	1.27	<0.0050
RSEM-L6-SP	6/2/2019 10:25	VU6004	M	8.19	1570	2.9	1010	10.0	246	249	117	<1.0	143	<1.0	<1.0	69.6	0.600	1.3	548			0.042	0.0572	1.16	1.22	0.0053
RSEM-L6-SP	6/3/2019 9:55	VU6002	M	8.19	1580	5.84	1030	7.6	245	255	118	<1.0	144	<1.0	<1.0	64.0	0.600	1.2	498			0.046	0.0558	1.15	1.20	<0.0050
RSEM-L6-SP	6/4/2019 10:15	VU7712	M	8.11	1590	7.25	1020	6.8	265	254	119	<1.0	146	<1.0	<1.0	71.2	0.620	1.2	498			0.058	0.0519	1.13	1.18	<0.0050
RSEM-L6-SP	6/5/2019 9:15	VV4621	M	8.10	1590	6.93	1010	10.4	264	260	116	<1.0	142	<1.0	<1.0	71.5	0.620	1.2	518			0.070	0.0500	1.17	1.22	<0.0050
RSEM-L6-SP	6/6/2019 9:50	VV6668	M	8.04	1590	6.84	1030	<4.0	267	267	120	<1.0	147	<1.0	<1.0	74.3	0.610	1.3	536			0.080	0.0395	1.12	1.16	<0.0050
RSEM-L6-SP	6/7/2019 10:45	VV6712	M	8.12	1600	7.99	1040	5.2	269	278	124	<1.0	152	<1.0	<1.0	65.1	0.620	1.3	515			0.088	0.0488	1.10	1.15	<0.0050
RSEM-L6-SP	6/8/2019 9:25	VV9757	M	8.07	1590	7.70	1030	6.0	281	288	125	<1.0	153	<1.0	<1.0	66.2	0.590	1.2	522			0.083	0.0475	1.12	1.16	<0.0050
RSEM-L6-SP	6/9/2019 9:20	VV9749	M	8.07	1600	6.99	1050	5.2	272	283	126	<1.0	154	<1.0	<1.0	66.7	0.590	1.2	569			0.086	0.0436	1.11	1.15	<0.0050
RSEM-L6-SP	6/10/2019 9:45	VW2547	M	8.21	1620	7.57	1030	4.0	262	283	124	<1.0	151	<1.0	<1.0	64.3	0.620	1.3	546			0.090	0.0393	1.09	1.13	<0.0050
RSEM-L6-SP	6/11/2019 10:20	VW5004	M	8.55	1620	6.31	1260	6.4	270	269	127	4.5	144	5.4	<1.0	65.1	0.610	1.3	491			0.091	0.0385	1.07	1.11	<0.0050
RSEM-L6-SP	6/12/2019 10:15	VW8057	M	8.18	1640	8.52	1040	8.4	274	287	124	<1.0	152	<1.0	<1.0	65.6	0.610	1.3	572			0.097	0.0411	1.06	1.10	<0.0050
RSEM-L6-SP	6/13/2019 10:20	VW9974	M	8.14	1680	7.60	1080	<4.0	286	283	128	<1.0	156	<1.0	<1.0	69.2	0.610	1.3	504			0.11	0.0340	0.996	1.03	<0.0050
RSEM-L6-SP	6/14/2019 12:25	VW9968	M	8.07	1690	4.98	1060	<4.0	290	288	129	<1.0	157	<1.0	<1.0	69.6	0.620	1.3	531			0.13	0.0303	0.978	1.01	<0.0050
RSEM-L6-SP	6/15/2019 13:25	VX3566	M	8.17	1630	6.39	1080	5.6	287	288	127	<1.0	154	<1.0	<1.0	60.1	0.630	1.3	582			0.089	0.0276	1.10	1.13	<0.0050
RSEM-L6-SP	6/16/2019 15:15	VX3554	M	7.87	1270	1.2	814	<4.0	230	208	125	<1.0	153	<1.0	<1.0	35.0	0.410	0.63	409			0.028	<0.0050	<0.020	<0.020	<0.0050
RSEM-L6-SP	6/17/2019 13:35	VX5943	M	8.20	1670	4.48	1090	6.4	277	283	134	<1.0	163	<1.0	<1.0	70.3	0.630	1.3	564			0.060	0.0252	1.05	1.08	<0.0050

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L6-SP	4/6/2019 9:32	VM5474	M	3.0	2.9	0.0359	0.00357	0.00228	0.136	<0.0001	<0.001	0.222	0.000043	70.0	0.0031	0.00387	0.00284	0.028	<0.0002	0.04	28.7	0.0579	<0.000002	0.0291	0.0162		4.90	0.01
RSEM-L6-SP	4/7/2019 9:30	VM5528	M	3.0	3.1	0.0439	0.00349	0.00219	0.133	<0.0001	<0.001	0.215	0.00004	70.6	0.003	0.00365	0.00284	0.033	<0.0002	0.0404	28.4	0.0565	<0.000002	0.0291	0.0157		4.95	0.00993
RSEM-L6-SP	4/8/2019 9:40	VM6517	M	3.1	3.0	0.0819	0.00359	0.00223	0.128	<0.0001	<0.001	0.222	0.000039	71.0	0.0032	0.00396	0.00287	0.067	<0.0002	0.0415	28.6	0.056	<0.000002	0.0285	0.0157		4.70	0.0103
RSEM-L6-SP	4/9/2019 10:00	VM8362	M	3.3	2.8	0.0704	0.00393	0.0023	0.129	<0.0001	<0.001	0.244	0.000047	71.8	0.0032	0.00355	0.00291	0.054	<0.0002	0.0466	29.2	0.0529	<0.000002	0.0308	0.0161		5.43	0.0107
RSEM-L6-SP	4/10/2019 9:50	VN0837	M	3.0	3.2	0.0359	0.00373	0.00231	0.132	<0.0001	<0.001	0.241	0.000041	73.8	0.0032	0.00375	0.00275	0.03	<0.0002	0.0436	30.6	0.0512	<0.000002	0.0289	0.0153		5.12	0.011
RSEM-L6-SP	4/11/2019 9:15	VN1898	M	2.2	2.1	0.0493	0.00363	0.0022	0.128	<0.0001	<0.001	0.222	0.000038	75.6	0.0031	0.00337	0.00259	0.039	<0.0002	0.0413	28.9	0.0462	<0.000002	0.0286	0.0147		4.93	0.0104
RSEM-L6-SP	4/12/2019 9:20	VN1942	M	2.4	1.9	0.0465	0.00362	0.00222	0.121	<0.0001	<0.001	0.238	0.000048	69.2	0.0031	0.00317	0.00251	0.032	<0.0002	0.043	29.4	0.042	<0.000002	0.0294	0.0144		4.86	0.0105
RSEM-L6-SP	4/13/2019 10:00	VN4481	M	2.5	2.3	0.0333	0.0035	0.00211	0.11	<0.0001	<0.001	0.197	0.000039	69.9	0.003	0.00277	0.00253	0.039	<0.0002	0.042	29.6	0.0366	<0.000002	0.0304	0.0146		4.83	0.0108
RSEM-L6-SP	4/14/2019 9:45	VN4675	M	2.7	2.3	0.0593	0.00351	0.00191	0.109	<0.0001	<0.001	0.223	0.000032	66.5	0.0031	0.00267	0.00237	0.034	<0.0002	0.0395	28.0	0.0319	<0.000002	0.0274	0.0136		4.64	0.0101
RSEM-L6-SP	4/15/2019 8:40	VN6295	M	2.8	2.3	0.0374	0.00379	0.00207	0.115	<0.0001	<0.001	0.248	0.00004	72.9	0.0032	0.00247	0.00231	0.045	<0.0002	0.0437	28.7	0.0291	<0.000002	0.029	0.0136		5.05	0.0103
RSEM-L6-SP	4/16/2019 8:50	VN8435	M	3.1	2.4	0.0275	0.00358	0.00199	0.109	<0.0001	<0.001	0.228	0.000033		0.003	0.00224	0.00213	0.022	<0.0002	0.0421		0.0249	<0.000002	0.0286	0.0131			0.0098
RSEM-L6-SP	4/17/2019 9:12	VN9783	M	3.0	2.4	0.0389	0.00359	0.00201	0.114	<0.0001	<0.001	0.244	0.000041	76.8	0.003	0.00206	0.0023	0.039	<0.0002	0.0449	28.5	0.0217	<0.000002	0.0289	0.0126		4.87	0.0102
RSEM-L6-SP	4/18/2019 8:38	VN9657	D	2.5	1.8	0.0535	0.00353	0.00201	0.116	<0.0001	<0.001	0.241	0.000037	74.2	0.0031	0.00186	0.00225	0.059	<0.0002	0.044	28.7	0.0192	<0.000002	0.0293	0.0125		5.04	0.0103
RSEM-L6-SP	4/18/2019 8:38	VN9656	M	2.5	1.2	0.0511	0.00359	0.00198	0.113	<0.0001	<0.001	0.234	0.000037	77.2	0.0031	0.00184	0.00203	0.055	<0.0002	0.0451	29.5	0.0192	<0.000002	0.029	0.0126		5.15	0.00978
RSEM-L6-SP	4/19/2019 8:35	VO0382	M	2.7	1.7	0.159	0.00347	0.00213	0.116	<0.0001	<0.001	0.23	0.00004	78.9	0.0032	0.00164	0.0021	0.195	<0.0002	0.0441	29.4	0.0181	0.000002	0.0304	0.0126		5.31	0.0103
RSEM-L6-SP	4/20/2019 9:02	VO0402	M	2.0	2.5	0.122	0.00355	0.00199	0.11	<0.0001	<0.001	0.236	0.000035	75.0	0.0031	0.00137	0.00197	0.137	<0.0002	0.0432	30.5	0.0135	<0.000002	0.0297	0.0118		5.26	0.0102
RSEM-L6-SP	4/21/2019 9:00	VO1964	D	2.4	2.0	0.0649	0.00341	0.00185	0.101	<0.0001	<0.001	0.24	0.000023	70.9	0.003	0.00121	0.00178	0.086	<0.0002	0.0432	31.1	0.01	<0.000002	0.0295	0.0106		5.05	0.0103
RSEM-L6-SP	4/21/2019 9:00	VO1963	M	2.3	2.1	0.0603	0.00342	0.0018	0.102	<0.0001	<0.001	0.233	0.000026	73.5	0.003	0.00118	0.00175	0.071	<0.0002	0.0413	30.2	0.0106	<0.000002	0.0296	0.0105		5.13	0.0103
RSEM-L6-SP	4/22/2019 10:02	VO3486	M	2.4	2.2	0.0417	0.0034	0.00177	0.101	<0.0001	<0.001	0.241	0.000023	71.9	0.0028	0.001	0.00167	0.04	<0.0002	0.0418	29.8	0.0071	<0.000002	0.0289	0.0101		4.96	0.0103
RSEM-L6-SP	4/23/2019 8:59	VO5341	M	2.2	2.4	0.0519	0.00349	0.00173	0.1	<0.0001	<0.001	0.225	0.000027	70.6	0.003	0.00092	0.00169	0.068	<0.0002	0.041	30.4	0.0075	<0.000002	0.0306	0.0099		4.84	0.0106
RSEM-L6-SP	4/24/2019 8:52	VO7014	M	2.4	2.1	0.101	0.00338	0.00175	0.0971	<0.0001	<0.001	0.244	0.000031	70.0	0.0032	0.00089	0.00199	0.159	<0.0002	0.0425	30.0	0.0094	<0.000002	0.0286	0.0099		4.90	0.0103
RSEM-L6-SP	4/25/2019 10:00	VO8667	M	2.2	2.1	0.0492	0.00346	0.00175	0.0984	<0.0001	<0.001	0.244	<0.00001	73.0	0.003	0.00074	0.00159	0.06	<0.0002	0.0482	30.4	0.0046	<0.000002	0.0317	0.0091		5.25	0.0107
RSEM-L6-SP	4/26/2019 11:44	VO8651	M	2.6	2.3	0.0554	0.0034	0.00168	0.0936	<0.0001	<0.001	0.255	<0.00001	70.1	0.0031	0.0007	0.00156	0.063	<0.0002	0.0458	29.6	0.0038	<0.000002	0.031	0.0088		5.14	0.0106
RSEM-L6-SP	4/27/2019 9:57	VP1307	M	2.7	2.5	0.0447	0.00334	0.00169	0.0923	<0.0001	<0.001	0.228	0.000012	68.7	0.003	0.00071	0.00171	0.054	<0.0002	0.0435	30.8	0.0035	<0.000002	0.0308	0.0091		5.32	0.011
RSEM-L6-SP	4/28/2019 8:21	VP1282	M	2.4	2.4	0.109	0.00328	0.00167	0.0893	<0.0001	<0.001	0.218	0.000018	67.0	0.0031	0.00077	0.00169	0.223	<0.0002	0.0411	29.8	0.0073	<0.000002	0.0294	0.0088		5.07	0.0107
RSEM-L6-SP	4/29/2019 8:30	VP3210	M	2.1	2.4	0.0534	0.0033	0.00166	0.0841	<0.0001	<0.001	0.219	0.00001	64.5	0.003	0.00065	0.00153	0.067	<0.0002	0.0405	29.5	0.0035	<0.000002	0.0304	0.008		5.21	0.0108
RSEM-L6-SP	4/30/2019 9:00	VP5144	M	2.2	2.7	0.059	0.0034	0.00158	0.0856	<0.0001	<0.001	0.227	0.000019	62.5	0.0029	0.00061	0.00168	0.103	<0.0002	0.0427	27.4	0.0036	<0.000002	0.0299	0.0077		5.04	0.0103
RSEM-L6-SP	5/1/2019 9:40	VP6545	M	6.8	<2.5	0.0804	0.00339	0.00163	0.0878	<0.0001	<0.001	0.223	0.00002	63.8	0.0031	0.0006	0.00152	0.122	<0.0002	0.0428	27.9	0.0044	<0.000002	0.0311	0.0076		5.21	0.0103
RSEM-L6-SP	5/2/2019 8:45	VP8754	M	2.8	2.4	0.0394	0.00339	0.00157	0.0828	<0.0001	<0.001	0.221	0.000014	60.4	0.0029	0.00054	0.00148	0.05	<0.0002	0.041	27.2	0.0027	<0.000002	0.0306	0.0071		5.09	0.01
RSEM-L6-SP	5/3/2019 9:00	VP8788	M	2.7	2.6	0.0463	0.00328	0.00149	0.0789	<0.0001	<0.001	0.221	0.000015	57.9	0.0028	0.00054	0.00145	0.064	<0.0002	0.0434	26.9	0.0029	<0.000002	0.0299	0.0068		5.15	0.00983
RSEM-L6-SP	5/4/2019 8:20	VQ1585	M	2.6	2.4	0.0445	0.00349	0.00148	0.0715	<0.0001	<0.001	0.23	0.00001	59.2	0.003	0.00058	0.00153	0.039	<0.0002	0.0439	31.8	0.0037	<0.000002	0.0293	0.0073		5.29	0.0111
RSEM-L6-SP	5/5/2019 9:15	VQ1600	M	2.4	2.3	0.0932	0.00341	0.00158	0.077	<0.0001	<0.001	0.232	<0.00001	57.9	0.0031	0.00053	0.00162	0.068	<0.0002	0.0421	27.5	0.0028	<0.000002	0.0301	0.0065		5.15	0.0105
RSEM-L6-SP	5/6/2019 8:38	VQ4515	M	2.3	2.1	0.0591	0.00367	0.00164	0.0708	<0.0001	<0.001	0.269	<0.00001	60.1	0.0033	0.00057	0.00182	0.042	<0.0002	0.0445	33.2	0.0023	<0.000002	0.0318	0.0074		5.59	0.0114
RSEM-L6-SP	5/7/2019 9:05	VQ4351	M	2.7	2.3	0.102	0.00347	0.00154	0.0722	<0.0001	<0.001	0.219	<0.00001	56.3	0.0031	0.00051	0.00162	0.044	<0.0002	0.0418	27.6	0.002	<0.000002	0.0297	0.0062		5.27	0.0104
RSEM-L6-SP	5/8/2019 10:00	VQ8323	M	2.6	2.3	0.074	0.00353	0.00162	0.0689	<0.0001	<0.001	0.257	0.000017	57.3	0.0029	0.00045	0.00154	0.044	<0.0002	0.0469	31.0	0.0018	<0.000002	0.0297	0.0056		5.27	0.0105
RSEM-L6-SP	5/9/2019 10:28	VQ9665	M	2.6	2.7	0.0955	0.00356	0.00156	0.0659	<0.0001	<0.001	0.287	0.000011	52.8	0.0031	0.00047	0.00173	0.044	<0.0002	0.0489	29.5	0.0019	<0.000002	0.0312	0.0058		5.01	0.0105
RSEM-L6-SP	5/10/2019 9:05	VQ9678	M	2.4	2.5	0.0856	0.00352	0.00162	0.067	<0.0001	<0.001	0.269	0.000014	54.4	0.0033	0.00048	0.00181	0.053	<0.0002	0.0476	30.9	0.0021	<0.000002	0.0311	0.0058		5.28	0.0107
RSEM-L6-SP	5/11/2019 9:25	VR2440	M	2.2	2.2	0.0901	0.00363	0.00154	0.0633	<0.0001	<0.001	0.243	0.000014	53.5	0.0032	0.00048	0.00193	0.053	<0.0002	0.044	29.4	0.0023	<0.000002	0.0309	0.0059		5.03	0.0102
RSEM-L6-SP	5/12/2019 9:20	VR2488	M	2.6	2.2	0.0632	0.00352	0.00154	0.0594	<0.0001	<0.001	0.235	0.00001	49.5	0.003	0.00046	0.00173	0.036	<0.0002	0.0428	28.8	0.0025	<0.000002	0.0298	0.0053		4.93	0.00991
RSEM-L6-SP	5/13/2019 10:30	VR4454	M	2.9	3.0	0.05	0.00372	0.00154	0.061	<0.0001	<0.001	0.249	0.000012	50.8	0.0031	0.00049	0.00187	0.025	<0.0002	0.0455	30.7	0.0019	<0.000002	0.0315	0.0055		5.23	0.0108
RSEM-L6-SP	5/14/2019 10:30	VR6863	M	2.5	2.8	0.0556	0.00367	0.0016	0.0585	<0.0001	<0.001	0.252	0.000012	49.8	0.0031	0.00046	0.00198	0.038	<0.0002	0.0447	30.3	0.0021	<0.000002	0.0338	0.0053		5.22	0.0103
RSEM-L6-SP	5/15/2019 9:30	VR8834	M	2.5	2.6	0.0535	0.00352	0.00148	0.0585	<0.0001	<0.001	0.235	0.00001	48.6	0.0031	0.00043	0.00183	0.028	<0.0002	0.044	29.7	0.0018	<0.000002	0.0297	0.0048		5.13	0.00981
RSEM-L6-SP	5/16/2019 10:45	VS0892	M	3.0	2.9	0.0492	0.00356	0.00154	0.0575	<0.0001	<0.001	0.254	0.000013	47.3	0.003	0.00044	0.00204	0.029	<0.0002	0.0436	29.8	0.0017	<0.000002	0.0307	0.0045		4.88	0.0101
RSEM-L6-SP	5/17/2019 9:00	VS0928	M	2.8	3.4	0.0495	0.00362	0.00152	0.0552	<0.0001	<0.001	0.231	<0.00001	47.4	0.0034	0.00047	0.00201	0.042	<0.0002	0.0435	29.7	0.0033	<0.000002	0.0304	0.0051		5.10	0.0104
RSEM-L6-SP	5/18/2019 9:55	VS1841	M	3.3	3.5	0.284	0.00339	0.0017	0.0671	<0.0001	<0.001	0.239	0.000027	48.8	0.0035	0.00072	0.00215	0.593	0.00031	0.0409	29.9	0.0121	<0.000002	0.0294	0.0051		5.24	0.0101
RSEM-L6-SP	5/18/2019 10:00	VS1845	D	3.2	3.0	0.0831	0.00354	0.00163	0.057	<0.0001	<0.001	0.253	0.000013	47.7	0.0031	0.00045	0.00179	0.083	<0.0002	0.0416	30.9	0.0039	<0.000002	0.0315	0.0044		5.23	0.0106
RSEM-L6-SP	5/19/2019 8:45	VS3039	M	3.1	3.0	0.0764	0.00342	0.00157	0.0549	<0.0001	<0.001	0.244	0.000015	46.2	0.0031	0.00042	0.00197	0.055	<0.0002	0.0437	30.1	0.0025	<0.000002	0.0298	0.0041		5.23	0.0102
RSEM-L6-SP	5/20/2019 11:30	VS3031	M	2.7	2.9	0.097	0.0035	0.00151	0.0557	<0.0001	<0.001	0.248	0.000012	47.6	0.003	0.00039	0.00175	0.063	<0.0002	0.0423	28.3	0.0027	<0.000002	0.0304	0.004		4.89	0.0102
RSEM-L6-SP	5/20/2019 11:35	VS3032	D	2.1	2.1	0.177	0.00081	0.00073	0.0697	<0.0001	<0.001	<0.05	0.00003	103	<0.001	0.00064	0.00094	0.187	<0.0002	0.0144	33.4	0.0495	<0.000002	0.0154	0.004		2.87	0.00225
RSEM-L6-SP	5/21/2019 10:15	VS3706	M	3.4	2.9	0.068	0.0034	0.00149	0.0562	<0.0001	<0.001	0.244	0.000014	46.4	0.0031	0.0004	0.00186	0.053	<0.0002	0.0418	29.0	0.003	<0.000002	0.0302	0.0039		5.08	0.00986
RSEM-L6-SP	5/22/2019 9:30	VS7470	M	3.2	3.0	0.106	0.00339	0.00157	0.0583	<0.0001	<0.001	0.234	0.000014	46.9	0.0031	0.00043	0.00188	0.112	<0.0002	0.043	28.5	0.0035	<0.000002	0.0305	0.0044		5.58	0.00982
RSEM-L6-SP	5/23/2019 9:55	VS9364	M	3.2	3.5	0.0971	0.0034	0.00138	0.0548	<0.0001	<0.001	0.249	0.000013	45.2	0.0028	0.00037	0.0017	0.075	<0.0002	0.0459	29.6	0.0031	<0.000002	0.0298	0.0038		5.22	0.00945
RSEM-L6-SP	5/24/2019 9:45	VS9235	M	3.3	4.4	0.188	0.00362	0.00161	0.0709	<0.0001	<0.001	0.229	0.000011	47.1	0.0032	0.00045	0.00203	0.112	<0.0002	0.0441	30.2	0.0036	<0.000002	0.0315	0.0042		5.30	0.0101
RSEM-L6-SP	5/25/2019 10:15	VT2665	M	3.6	3.6	0.145	0.00335	0.00151	0.0781	<0.0001	<0.001	0.244	0.000014	45.7	0.0029	0.00045	0.00182	0.099	<0.0002	0.0428	28.2	0.0033	<0.000002	0.03	0.0037		5.07	0.00962
RSEM-L6-SP	5/26/2019 11:20	VT2642	M	3.6	3.6	0.189	0.00339	0.00158	0.077	<0.0001	<0.001	0.245	0.000015	45.6	0.0027	0.00041	0.00185	0.122	<0.0002	0.0428	27.7	0.0037	<0.000002	0.0303	0.0035		4.91	0.00971
RSEM-L6-SP	5/27/2019 10:10	VT4236	M	3.7	3.4	0.19	0.00345	0.00149	0.0784	<0.0001	<0.001	0.257	0.000012	45.7	0.0029	0.00041	0.00194	0.085	<0.0002	0.0453	28.5	0.0036	<0.000002	0.0296	0.0039		5.25	0.00957
RSEM-L6-SP	5/28/2019 10:30	VT7637	M	3.9	3.8	0.0867	0.00351	0.00164	0.0776	<0.0001	<0.001	0.246	0.000015	49.1	0.0026	0.00041	0.002	0.069	<0.0002	0.0469	31.4	0.0037	<0.000002	0.0308	0.0039		5.82	0.00972
RSEM-L6-SP	5/29/2019 9:00	VT7340	M	4.0	4.1	0.221	0.0033	0.00151	0.0749	<0.0001	<0.001	0.24	0.00002	45.7	0.0026	0.00041	0.00178	0.098	<0.0002	0.0452	26.9	0.0045	<0.000002	0.03	0.0037		5.25	0.00906
RSEM-L6-SP	5/30/2019 8:40	VU0225	M	4.0	3.4	0.181	0.00348	0.00167	0.0745	<0.0001	<0.001	0.219	0.000013	47.6	0.0027	0.00045	0.00204	0.082	<0.0002	0.0375	30.3	0.0048	<0.000002	0.0298	0.0039		5.26	0.0101
RSEM-L6-SP	5/31/2019 10:10	VU2495	M	4.1	3.9	0.158	0.00343	0.00172	0.0768	<0.0001	<0.001	0.254	0.000018	48.4	0.0025	0.00042	0.00208	0.084	<0.0002	0.0466	30.6	0.0055	<0.000002	0.0323	0.0039		5.45	0.00959
RSEM-L6-SP	6/1/2019 10:30	VU3313	M	4.2	4.5	0.259	0.0033	0.00175	0.0757	<0.0001	<0.001	0.244	0.000011	49.8	0.0026	0.00041	0.00183	0.135	<0.0002	0.0452	29.5	0.0062	<0.000002	0.0322	0.0036		5.39	0.00991
RSEM-L6-SP	6/2/2019 10:25	VU6004	M	4.5	4.5	0.155	0.00342	0.00194	0.0795	<0.0001	<0.001	0.233	0.000021	51.3	0.0025	0.00041	0.00192	0.111	<0.0002	0.0465	28.7	0.0065	<0.000002	0.0336	0.0037		5.63	0.0106
RSEM-L6-SP	6/3/2019 9:55	VU6002	M	4.1	4.5	0.15	0.00334	0.0019	0.077	<0.0001	<0.001	0.236	0.000024	51.9	0.0023	0.00039	0.00191	0.099	<0.0002	0.0469	28.1	0.0064	<0.000002	0.0329	0.0037		5.52	0.0104
RSEM-L6-SP	6/4/2019 10:15	VU7712	M	4.2	4.1	0.0938	0.00335	0.0017	0.0723	<0.0001	<0.001	0.276	0.000016	53.6	0.0022	0.00044	0.00225	0.115	<0.0002	0.0457	31.9	0.0073	<0.000002	0.0321	0.0041		5.53	0.00966
RSEM-L6-SP	6/5/2019 9:15	VV4621	M	4.5	5.2	0.193	0.00335	0.00173	0.0744	<0.0001	<0.001	0.274	0.000022	54.1	0.0023	0.00042	0.00232	0.154	<0.0002	0.0505	31.3	0.0072	<0.000002	0.0342	0.0041		5.50	0.00941
RSEM-L6-SP	6/6/2019 9:50	VV6668	M	4.5	3.6	0.207	0.00343	0.00168	0.0733	<0.0001	<0.001	0.281	0.000016	53.9	0.0024	0.00039	0.00227	0.113	<0.0002	0.0498	32.2	0.0065	<0.000002	0.0336	0.0041		5.61	0.0095
RSEM-L6-SP	6/7/2019 10:45	VV6712	M	4.5	4.0	0.187	0.00338	0.00166	0.0725	<0.0001	<0.001	0.275	0.000017	54.6	0.0024	0.00038	0.00227	0.114	<0.0002	0.0481	32.1	0.0064	<0.000002	0.0337	0.0041		5.50	0.00931
RSEM-L6-SP	6/8/2019 9:25	VV9757	M	4.3	3.8	0.187	0.00346	0.00175	0.0739	<0.0001	<0.001	0.259	0.000014	57.5	0.0023	0.0004	0.00238	0.116	<0.0002	0.0458	33.3	0.0071	<0.000002	0.0339	0.004		5.90	0.00948
RSEM-L6-SP	6/9/2019 9:20	VV9749	M	4.2	3.9	0.183	0.00322	0.00165	0.0709	<0.0001	<0.001	0.252	0.000016	56.2	0.0023	0.00039	0.00231	0.126	<0.0002	0.0457	32.0	0.0068	<0.000002	0.0318	0.0039		5.65	0.00962
RSEM-L6-SP	6/10/2019 9:45	VW2547	M	4.0	4.2	0.115	0.00309	0.00161	0.0702	<0.0001	<0.001	0.228	0.00002	53.1	0.0022	0.00038	0.00236	0.127	<0.0002	0.04	31.4	0.0066	0.0000026	0.0315	0.0041		5.41	0.00905
RSEM-L6-SP	6/11/2019 10:20	VW5004	M	3.8	3.5	0.0991	0.00327	0.00162	0.0707	<0.0001	<0.001	0.263	0.000015	55.8	0.0024	0.00033	0.00231	0.111	<0.0002	0.0472	31.8	0.0062	0.0000021	0.0326	0.0042		5.64	0.00896
RSEM-L6-SP	6/12/2019 10:15	VW8057	M	4.2	3.8	0.131	0.00335	0.00168	0.0744	<0.0001	<0.001	0.265	0.000024	54.8	0.0022	0.00038	0.0025	0.165	<0.0002	0.0488	33.3	0.0071	0.0000025	0.034	0.0042		5.79	0.00946
RSEM-L6-SP	6/13/2019 10:20	VW9974	M	3.8	3.4	0.257	0.0033	0.00163	0.0697	<0.0001	<0.001	0.278	0.000025	60.1	0.0024	0.00041	0.00263	0.16	<0.0002	0.0487	33.0	0.0067	<0.000002	0.0326	0.0044		5.84	0.00946
RSEM-L6-SP	6/14/2019 12:25	VW9968	M	3.7	3.7	0.193	0.00322	0.00152	0.0705	<0.0001	<0.001	0.263	0.000018	59.9	0.0023	0.00029	0.00242	0.131	<0.0002	0.0478	34.2	0.0055	<0.000002	0.0333	0.0041		6.15	0.0092
RSEM-L6-SP	6/15/2019 13:25	VX3566	M	4.2	4.3	0.157	0.00333	0.00162	0.0709	<0.0001	<0.001	0.283	0.000028	60.5	0.002	0.00027	0.00223	0.124	<0.0002	0.0489	32.9	0.0051	<0.000002	0.0339	0.0039		5.74	0.00919
RSEM-L6-SP	6/16/2019 15:15	VX3554	M	4.3	4.5	0.0278	0.00089	0.00092	0.0162	<0.0001	<0.001	0.202	<0.00001	34.0	<0.001	0.0003	0.00203	0.066	<0.0002	0.115	35.2	0.0138	<0.000002	0.0115	0.0023		4.25	0.00239
RSEM-L6-SP	6/17/2019 13:35	VX5943	M	3.9	3.8	0.131	0.0032	0.00152	0.0672	<0.0002	<0.002	0.256	0.000042	58.5	0.0021	<0.0004	0.0037	0.189	0.00093	0.0472	31.7	0.0064	<0.000002	0.0324	0.0039		6.31	0.0087

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L6-SP	4/6/2019 9:32	VM5474	M	3.56	<0.00002	200	0.409	167	0.000018	<0.005	<0.005	0.00578	<0.005	0.0112	<0.0001	0.0178	0.00376	0.00232	0.13	<0.0001	<0.001	0.193	0.000043	66.6	0.0031	0.00384	0.00254	<0.01
RSEM-L6-SP	4/7/2019 9:30	VM5528	M	3.68	<0.00002	196	0.399	165	0.000016	<0.005	<0.005	0.00565	<0.005	0.0114	<0.0001	0.0176	0.00373	0.00233	0.128	<0.0001	<0.001	0.2	0.000048	71.1	0.0032	0.00371	0.00261	<0.01
RSEM-L6-SP	4/8/2019 9:40	VM6517	M	3.26	<0.00002	194	0.406	159	0.000018	<0.005	<0.005	0.00574	<0.005	0.0095	<0.0001	0.0203	0.00364	0.00223	0.132	<0.0001	<0.001	0.238	0.000042	73.2	0.0029	0.00287	0.00247	<0.01
RSEM-L6-SP	4/9/2019 10:00	VM8362	M	3.32	0.000024	204	0.453	170	0.000017	<0.005	<0.005	0.00607	<0.005	0.0097	<0.0001	0.0171	0.00341	0.00215	0.111	<0.0001	<0.001	0.22	0.000039	61.2	0.0029	0.00273	0.00216	<0.01
RSEM-L6-SP	4/10/2019 9:50	VN0837	M	3.43	<0.00002	203	0.412	174	0.000021	<0.005	<0.005	0.00615	<0.005	0.0082	<0.0001	0.0174	0.00376	0.00216	0.122	<0.0001	<0.001	0.223	0.000045	74.8	0.0031	0.00232	0.00207	<0.01
RSEM-L6-SP	4/11/2019 9:15	VN1898	M	3.39	<0.00002	198	0.413	162	0.000021	<0.005	<0.005	0.00584	<0.005	0.0076	<0.0001	0.0157	0.00363	0.00226	0.122	<0.0001	<0.001	0.21	0.000036	69.8	0.0027	0.00198	0.00212	<0.01
RSEM-L6-SP	4/12/2019 9:20	VN1942	M	3.22	<0.00002	197	0.409	167	0.000021	<0.005	<0.005	0.00603	<0.005	0.0071	<0.0001	0.0161	0.00352	0.00196	0.11	<0.0001	<0.001	0.216	0.000028	66.5	0.0031	0.00176	0.00196	<0.01
RSEM-L6-SP	4/13/2019 10:00	VN4481	M	3.08	<0.00002	214	0.412	166	0.000017	<0.005	<0.005	0.00592	<0.005	0.0075	<0.0001	0.0146	0.00364	0.00219	0.109	<0.0001	<0.001	0.212	0.000035	69.4	0.003	0.00191	0.00211	<0.01
RSEM-L6-SP	4/14/2019 9:45	VN4675	M	3.02	<0.00002	192	0.382	146	0.000021	<0.005	<0.005	0.00576	<0.005	0.0063	<0.0001	0.0248	0.0036	0.00207	0.108	<0.0001	<0.001	0.204	0.000038	71.0	0.0027	0.00168	0.00201	<0.01
RSEM-L6-SP	4/15/2019 8:40	VN6295	M	3.43	<0.00002	208	0.427	175	0.00002	<0.005	<0.005	0.00614	<0.005	0.0066	<0.0001	0.014	0.00355	0.00192	0.109	<0.0001	<0.001	0.236	0.000042	72.4	0.0028	0.00152	0.00193	<0.01
RSEM-L6-SP	4/16/2019 8:50	VN8435	M	3.16	<0.00002		0.408	166	0.000017	<0.005	<0.005	0.00586	<0.005	0.0058	<0.0001	0.0141	0.00366	0.00204	0.114	<0.0001	<0.001	0.243	0.000034		0.003	0.00147	0.00184	<0.01
RSEM-L6-SP	4/17/2019 9:12	VN9783	M	3.51	<0.00002	184	0.413	162	0.000021	<0.005	<0.005	0.00594	<0.005	0.008	<0.0001	0.0124	0.00357	0.00192	0.107	<0.0001	<0.001	0.248	0.000032	68.5	0.0028	0.00102	0.00173	<0.01
RSEM-L6-SP	4/18/2019 8:38	VN9657	D	3.31	<0.00002	192	0.403	175	0.000021	<0.005	<0.005	0.00597	<0.005	0.0055	<0.0001	0.0119	0.00372	0.00189	0.108	<0.0001	<0.001	0.233	0.000028	67.2	0.0028	0.00101	0.00171	<0.01
RSEM-L6-SP	4/18/2019 8:38	VN9656	M	3.44	<0.00002	192	0.412	169	0.00002	<0.005	<0.005	0.00599	<0.005	0.0055	<0.0001	0.0116	0.00363	0.00187	0.106	<0.0001	<0.001	0.233	0.000026	65.2	0.0027	0.00094	0.00159	<0.01
RSEM-L6-SP	4/19/2019 8:35	VO0382	M	3.92	<0.00002	197	0.419	176	0.000024	<0.005	<0.005	0.00601	<0.005	0.005	0.00023	0.0122	0.00374	0.00192	0.107	<0.0001	<0.001	0.245	0.00002	70.5	0.0033	0.0011	0.00165	<0.01
RSEM-L6-SP	4/20/2019 9:02	VO0402	M	3.55	<0.00002	191	0.411	172	0.000022	<0.005	0.0052	0.00602	<0.005	<0.005	0.0001	0.0124	0.00391	0.00193	0.113	<0.0001	<0.001	0.26	0.00002	73.7	0.0033	0.001	0.00168	<0.01
RSEM-L6-SP	4/21/2019 9:00	VO1964	D	3.25	<0.00002	197	0.419	170	0.00002	<0.005	<0.005	0.00597	<0.005	<0.005	<0.0001	0.0119	0.0035	0.00171	0.0978	<0.0001	<0.001	0.235	0.000022	71.4	0.003	0.00087	0.00145	<0.01
RSEM-L6-SP	4/21/2019 9:00	VO1963	M	3.36	<0.00002	199	0.424	169	0.000022	<0.005	<0.005	0.00601	<0.005	<0.005	<0.0001	0.0115	0.00352	0.00168	0.0977	<0.0001	<0.001	0.231	0.000023	73.9	0.0029	0.00082	0.0015	<0.01
RSEM-L6-SP	4/22/2019 10:02	VO3486	M	3.2	<0.00002	196	0.417	167	0.00002	<0.005	<0.005	0.00593	<0.005	<0.005	<0.0001	0.012	0.0034	0.00176	0.0998	<0.0001	<0.001	0.237	0.000021	71.3	0.0028	0.00075	0.00132	<0.01
RSEM-L6-SP	4/23/2019 8:59	VO5341	M	2.97	<0.00002	197	0.413	165	0.000016	<0.005	<0.005	0.00609	<0.005	<0.005	<0.0001	0.0116	0.00345	0.0017	0.096	<0.0001	<0.001	0.228	0.000028	73.6	0.003	0.00072	0.00137	<0.01
RSEM-L6-SP	4/24/2019 8:52	VO7014	M	2.87	<0.00002	208	0.401	162	0.000022	<0.005	<0.005	0.00614	<0.005	<0.005	<0.0001	0.0133	0.00361	0.00165	0.0919	<0.0001	<0.001	0.241	0.000022	71.2	0.0032	0.00074	0.00146	<0.01
RSEM-L6-SP	4/25/2019 10:00	VO8667	M	2.99	<0.00002	206	0.415	173	0.000018	<0.005	<0.005	0.00615	<0.005	<0.005	<0.0001	0.0101	0.00352	0.00178	0.0948	<0.0001	<0.001	0.258	0.000025	71.0	0.0029	0.00063	0.00129	<0.01
RSEM-L6-SP	4/26/2019 11:44	VO8651	M	2.72	<0.00002	204	0.416	169	0.000015	<0.005	<0.005	0.00613	<0.005	<0.005	<0.0001	0.0098	0.00355	0.00174	0.0925	<0.0001	<0.001	0.253	0.000025	68.0	0.0029	0.00058	0.00131	<0.01
RSEM-L6-SP	4/27/2019 9:57	VP1307	M	2.61	<0.00002	215	0.426	174	0.000015	<0.005	<0.005	0.00646	<0.005	<0.005	<0.0001	0.0117	0.00365	0.00172	0.0935	<0.0001	<0.001	0.269	0.000018	69.0	0.0031	0.0006	0.00139	<0.01
RSEM-L6-SP	4/28/2019 8:21	VP1282	M	2.54	<0.00002	208	0.413	166	0.000016	<0.005	<0.005	0.00623	<0.005	<0.005	<0.0001	0.0119	0.00366	0.00165	0.0899	<0.0001	<0.001	0.27	0.000018	69.1	0.0031	0.00059	0.0013	<0.01
RSEM-L6-SP	4/29/2019 8:30	VP3210	M	2.32	<0.00002	208	0.423	168	0.000013	<0.005	<0.005	0.00641	<0.005	<0.005	<0.0001	0.01	0.00346	0.00152	0.0852	<0.0001	<0.001	0.263	0.000012	66.1	0.003	0.00052	0.00138	<0.01
RSEM-L6-SP	4/30/2019 9:00	VP5144	M	2.08	<0.00002	192	0.394	171	0.000015	<0.005	<0.005	0.00592	<0.005	<0.005	<0.0001	0.0159	0.00342	0.00159	0.0802	<0.0001	<0.001	0.219	<0.00001	63.5	0.0029	0.00052	0.00126	<0.01
RSEM-L6-SP	5/1/2019 9:40	VP6545	M	2.06	<0.00002	192	0.404	172	0.000017	<0.005	<0.005	0.00582	<0.005	<0.005	<0.0001	0.0098	0.00347	0.00158	0.081	<0.0001	<0.001	0.229	0.000014	63.3	0.0031	0.0005	0.00118	<0.01
RSEM-L6-SP	5/2/2019 8:45	VP8754	M	1.79	<0.00002	182	0.402	168	0.000014	<0.005	<0.005	0.00571	<0.005	<0.005	<0.0001	0.0083	0.00351	0.00159	0.0766	<0.0001	<0.001	0.243	<0.00001	62.9	0.0028	0.00048	0.00122	<0.01
RSEM-L6-SP	5/3/2019 9:00	VP8788	M	1.75	<0.00002	189	0.397	167	0.000012	<0.005	<0.005	0.00559	<0.005	<0.005	<0.0001	0.0073	0.00346	0.00152	0.0774	<0.0001	<0.001	0.225	0.000012	61.2	0.0027	0.00046	0.00118	<0.01
RSEM-L6-SP	5/4/2019 8:20	VQ1585	M	1.53	<0.00002	218	0.39	184	0.000017	<0.005	<0.005	0.0061	<0.005	<0.005	<0.0001	0.0092	0.00358	0.00141	0.0694	<0.0001	<0.001	0.242	<0.00001	61.8	0.0029	0.0005	0.00143	<0.01
RSEM-L6-SP	5/5/2019 9:15	VQ1600	M	1.56	<0.00002	203	0.383	169	0.000012	<0.005	<0.005	0.00572	<0.005	<0.005	<0.0001	0.0128	0.0034	0.00161	0.0692	<0.0001	<0.001	0.247	<0.00001	60.2	0.003	0.00047	0.00139	<0.01
RSEM-L6-SP	5/6/2019 8:38	VQ4515	M	1.52	<0.00002	219	0.399	198	0.000016	<0.005	<0.005	0.00656	<0.005	<0.005	<0.0001	0.0103	0.00353	0.00161	0.0702	<0.0001	<0.001	0.223	<0.00001	58.5	0.003	0.00044	0.00135	<0.01
RSEM-L6-SP	5/7/2019 9:05	VQ4351	M	1.38	<0.00002	204	0.381	167	0.000011	<0.005	<0.005	0.00574	<0.005	<0.005	<0.0001	0.0419	0.00356	0.00166	0.0691	<0.0001	<0.001	0.226	<0.00001	58.8	0.0031	0.00045	0.00188	<0.01
RSEM-L6-SP	5/8/2019 10:00	VQ8323	M	1.52	<0.00002	218	0.391	175	0.000013	<0.005	<0.005	0.00621	<0.005	<0.005	<0.0001	0.0118	0.00345	0.00154	0.0652	<0.0001	<0.001	0.246	<0.00001	56.9	0.0031	0.00044	0.00146	<0.01
RSEM-L6-SP	5/9/2019 10:28	VQ9665	M	1.53	<0.00002	218	0.372	176	0.000012	<0.005	<0.005	0.00617	<0.005	<0.005	<0.0001	0.0123	0.00375	0.00153	0.0663	<0.0001	<0.001	0.266	0.000012	55.2	0.0032	0.00045	0.00154	<0.01
RSEM-L6-SP	5/10/2019 9:05	VQ9678	M	1.32	<0.00002	224	0.375	187	0.000012	<0.005	<0.005	0.00634	<0.005	<0.005	<0.0001	0.0129	0.00365	0.00152	0.0666	<0.0001	<0.001	0.253	<0.00001	55.9	0.0032	0.00041	0.00149	<0.01
RSEM-L6-SP	5/11/2019 9:25	VR2440	M	1.14	<0.00002	214	0.374	168	0.000016	<0.005	<0.005	0.0061	<0.005	<0.005	<0.0001	0.0137	0.00347	0.0015	0.0622	<0.0001	<0.001	0.232	<0.00001	51.2	0.0031	0.00039	0.00153	<0.01
RSEM-L6-SP	5/12/2019 9:20	VR2488	M	0.964	<0.00002	210	0.363	165	0.000015	<0.005	<0.005	0.00586	<0.005	<0.005	<0.0001	0.0139	0.0036	0.00149	0.0589	<0.0001	<0.001	0.24	0.000012	49.9	0.0031	0.0004	0.00157	<0.01
RSEM-L6-SP	5/13/2019 10:30	VR4454	M	0.864	<0.00002	224	0.38	180	0.000015	<0.005	<0.005	0.00631	<0.005	<0.005	<0.0001	0.0132	0.00369	0.00157	0.0603	<0.0001	<0.001	0.241	0.000016	51.0	0.003	0.00036	0.00149	<0.01
RSEM-L6-SP	5/14/2019 10:30	VR6863	M	0.772	<0.00002	220	0.379	176	0.000014	<0.005	<0.005	0.00596	<0.005	<0.005	<0.0001	0.014	0.00359	0.00152	0.0564	<0.0001	<0.001	0.272	0.00001	48.6	0.0029	0.00033	0.00154	<0.01
RSEM-L6-SP	5/15/2019 9:30	VR8834	M	0.746	<0.00002	215	0.365	176	0.000014	<0.005	<0.005	0.00588	<0.005	<0.005	<0.0001	0.0139	0.0037	0.00161	0.0572	<0.0001	<0.001	0.24	<0.00001	49.1	0.003	0.00037	0.00143	<0.01
RSEM-L6-SP	5/16/2019 10:45	VS0892	M	0.648	<0.00002	216	0.361	162	0.000013	<0.005	<0.005	0.00588	<0.005	<0.005	<0.0001	0.0134	0.0037	0.00154	0.0577	<0.0001	<0.001	0.238	<0.00001	48.7	0.0031	0.00036	0.00149	<0.01
RSEM-L6-SP	5/17/2019 9:00	VS0928	M	0.578	<0.00002	223	0.363	173	0.000014	<0.005	<0.005	0.0061	<0.005	<0.005	<0.0001	0.0136	0.00364	0.00159	0.0563	<0.0001	<0.001	0.251	0.000015	49.7	0.0032	0.00034	0.00159	<0.01
RSEM-L6-SP	5/18/2019 9:55	VS1841	M	0.888	<0.00002	222	0.362	175	0.000019	<0.005	<0.005	0.00593	<0.005	<0.005	0.00013	0.0178	0.00355	0.00159	0.0561	<0.0001	<0.001	0.249	0.000012	47.1	0.003	0.00032	0.00147	<0.01
RSEM-L6-SP	5/18/2019 10:00	VS1845	D	0.606	<0.00002	227	0.364	171	0.000015	<0.005	<0.005	0.00599	<0.005	<0.005	<0.0001	0.015	0.00359	0.00154	0.0556	<0.0001	<0.001	0.251	0.000011	49.3	0.0031	0.00032	0.00147	<0.01
RSEM-L6-SP	5/19/2019 8:45	VS3039	M	0.531	<0.00002	222	0.352	182	0.000015	<0.005	<0.005	0.0061	<0.005	<0.005	<0.0001	0.0164	0.00348	0.00146	0.054	<0.0001	<0.001	0.251	0.000015	49.1	0.0031	0.00027	0.00165	<0.01
RSEM-L6-SP	5/20/2019 11:30	VS3031	M	0.62	<0.00002	212	0.358	167	0.000015	<0.005	<0.005	0.00588	<0.005	<0.005	<0.0001	0.0148	0.00356	0.00155	0.0571	<0.0001	<0.001	0.253	0.00001	47.7	0.0031	0.00026	0.00149	<0.01
RSEM-L6-SP	5/20/2019 11:35	VS3032	D	1.86	<0.00002	64.8	0.365	129	0.00002	<0.005	0.0063	0.00405	<0.005	<0.005	0.00015	0.0039	0.00077	0.00063	0.0678	<0.0001	<0.001	<0.05	0.000021	102	<0.001	0.00046	<0.0005	<0.01
RSEM-L6-SP	5/21/2019 10:15	VS3706	M	0.433	<0.00002	219	0.361	167	0.000015	<0.005	<0.005	0.00593	<0.005	<0.005	<0.0001	0.0152	0.00351	0.00148	0.0551	<0.0001	<0.001	0.243	0.000012	47.6	0.003	0.00025	0.00142	<0.01
RSEM-L6-SP	5/22/2019 9:30	VS7470	M	0.45	<0.00002	223	0.372	181	0.000018	<0.005	<0.005	0.00578	<0.005	<0.005	<0.0001	0.0158	0.00347	0.00146	0.0533	<0.0001	<0.001	0.24	<0.00001	47.0	0.003	0.00029	0.00149	<0.01
RSEM-L6-SP	5/23/2019 9:55	VS9364	M	0.379	<0.00002	204	0.358	174	0.000013	<0.005	<0.005	0.00558	<0.005	<0.005	<0.0001	0.0128	0.00348	0.00144	0.0521	<0.0001	<0.001	0.236	<0.00001	45.3	0.0028	0.00026	0.00137	<0.01
RSEM-L6-SP	5/24/2019 9:45	VS9235	M	0.554	<0.00002	226	0.376	186	0.000017	<0.005	<0.005	0.00602	<0.005	<0.005	0.00018	0.015	0.00358	0.00152	0.0693	<0.0001	<0.001	0.237	0.00001	46.4	0.003	0.00028	0.00164	<0.01
RSEM-L6-SP	5/25/2019 10:15	VT2665	M	0.454	<0.00002	207	0.363	167	0.000016	<0.005	<0.005	0.00587	<0.005	0.0053	<0.0001	0.0112	0.0036	0.00146	0.0812	<0.0001	<0.001	0.244	0.000014	45.2	0.0028	0.00028	0.00146	<0.01
RSEM-L6-SP	5/26/2019 11:20	VT2642	M	0.455	<0.00002	203	0.369	167	0.000018	<0.005	<0.005	0.00577	<0.005	0.0109	0.00014	0.0116	0.00364	0.00145	0.0804	<0.0001	<0.001	0.242	0.000015	48.3	0.0028	0.00026	0.00151	<0.01
RSEM-L6-SP	5/27/2019 10:10	VT4236	M	0.572	<0.00002	218	0.362	175	0.000016	<0.005	<0.005	0.00568	<0.005	0.0054	0.00015	0.0138	0.00347	0.00148	0.0754	<0.0001	<0.001	0.264	<0.00001	46.7	0.0027	0.00023	0.00152	<0.01
RSEM-L6-SP	5/28/2019 10:30	VT7637	M	0.311	<0.00002	225	0.378	193	0.000018	<0.005	<0.005	0.00641	<0.005	<0.005	<0.0001	0.0133	0.00347	0.00144	0.0741	<0.0001	<0.001	0.266	0.00001	47.5	0.0024	0.00023	0.00149	<0.01
RSEM-L6-SP	5/29/2019 9:00	VT7340	M	0.506	<0.00002	197	0.369	176	0.000017	<0.005	<0.005	0.00579	<0.005	<0.005	0.00018	0.014	0.0035	0.00152	0.0736	<0.0001	<0.001	0.262	<0.00001	47.7	0.0027	0.00023	0.00158	<0.01
RSEM-L6-SP	5/30/2019 8:40	VU0225	M	0.411	<0.00002	220	0.389	166	0.000014	<0.005	<0.005	0.00578	<0.005	<0.005	0.00017	0.0142	0.00353	0.00167	0.0739	<0.0001	<0.001	0.26	<0.00001	50.7	0.0023	0.00021	0.00157	<0.01
RSEM-L6-SP	5/31/2019 10:10	VU2495	M	0.518	<0.00002	226	0.443	181	0.000019	<0.005	<0.005	0.00626	<0.005	<0.005	0.00011	0.0131	0.00364	0.00166	0.0745	<0.0001	<0.001	0.258	0.000013	52.6	0.0024	0.0002	0.00165	<0.01
RSEM-L6-SP	6/1/2019 10:30	VU3313	M	0.765	<0.00002	219	0.446	174	0.00002	<0.005	0.0063	0.00606	<0.005	<0.005	0.00023	0.0127	0.00362	0.0017	0.0726	<0.0001	<0.001	0.266	0.000013	52.0	0.0023	0.00022	0.00168	<0.01
RSEM-L6-SP	6/2/2019 10:25	VU6004	M	0.668	<0.00002	212	0.484	187	0.000019	<0.005	<0.005	0.00626	<0.005	0.0066	0.00011	0.0116	0.00342	0.00178	0.0706	<0.0001	<0.001	0.241	0.000014	51.2	0.0021	<0.0002	0.00137	<0.01
RSEM-L6-SP	6/3/2019 9:55	VU6002	M	0.653	<0.00002	208	0.48	184	0.000018	<0.005	<0.005	0.00619	<0.005	<0.005	0.00017	0.0114	0.00331	0.0018	0.0694	<0.0001	<0.001	0.253	0.00002	52.5	0.0021	<0.0002	0.0014	<0.01
RSEM-L6-SP	6/4/2019 10:15	VU7712	M	0.398	<0.00002	234	0.404	169	0.00002	<0.005	<0.005	0.00637	<0.005	<0.005	<0.0001	0.0102	0.00329	0.00176	0.0669	<0.0001	<0.001	0.254	0.000018	52.4	0.002	<0.0002	0.00141	<0.01
RSEM-L6-SP	6/5/2019 9:15	VV4621	M	0.688	<0.00002	227	0.422	181	0.000025	<0.005	<0.005	0.00648	<0.005	<0.005	0.00021	0.0108	0.00335	0.0017	0.0701	<0.0001	<0.001	0.242	<0.00001	53.3	0.002	<0.0002	0.00176	<0.01
RSEM-L6-SP	6/6/2019 9:50	VV6668	M	0.717	<0.00002	233	0.421	182	0.000023	<0.005	<0.005	0.0066	<0.005	<0.005	0.0002	0.0092	0.00346	0.00164	0.0675	<0.0001	<0.001	0.278	0.000011	54.5	0.002	<0.0002	0.00169	<0.01
RSEM-L6-SP	6/7/2019 10:45	VV6712	M	0.693	<0.00002	230	0.411	179	0.000023	<0.005	<0.005	0.00662	<0.005	<0.005	0.00015	0.0092	0.00349	0.00169	0.0686	<0.0001	<0.001	0.283	0.000011	56.1	0.002	<0.0002	0.00176	<0.01
RSEM-L6-SP	6/8/2019 9:25	VV9757	M	0.701	<0.00002	243	0.418	189	0.000023	<0.005	<0.005	0.00649	<0.005	<0.005	0.00012	0.009	0.00339	0.00165	0.0674	<0.0001	<0.001	0.255	0.000015	61.2	0.002	<0.0002	0.00167	<0.01
RSEM-L6-SP	6/9/2019 9:20	VV9749	M	0.729	<0.00002	235	0.397	185	0.000024	<0.005	<0.005	0.0063	<0.005	<0.005	0.00015	0.0093	0.00334	0.00163	0.0667	<0.0001	<0.001	0.258	0.000016	59.4	0.002	<0.0002	0.0017	<0.01
RSEM-L6-SP	6/10/2019 9:45	VW2547	M	0.483	<0.00002	226	0.398	176	0.000024	<0.005	<0.005	0.00623	<0.005	0.008	<0.0001	0.0092	0.00332	0.00159	0.0664	<0.0001	<0.001	0.264	0.000012	60.3	0.0018	<0.0002	0.00158	<0.01
RSEM-L6-SP	6/11/2019 10:20	VW5004	M	0.515	<0.00002	234	0.41	191	0.000025	<0.005	<0.005	0.00635	<0.005	0.0058	0.00028	0.0071	0.00318	0.00147	0.0613	<0.0001	<0.001	0.264	<0.00001	54.8	0.0018	<0.0002	0.00173	<0.01
RSEM-L6-SP	6/12/2019 10:15	VW8057	M	0.62	<0.00002	237	0.449	198	0.000016	<0.005	<0.005	0.00682	<0.005	<0.005	0.00011	0.0085	0.00337	0.00162	0.0662	<0.0001	<0.001	0.288	0.000012	60.3	0.0019	<0.0002	0.00186	<0.01
RSEM-L6-SP	6/13/2019 10:20	VW9974	M	0.894	<0.00002	246	0.421	197	0.000026	<0.005	0.011	0.00648	<0.005	0.0067	0.00012	0.0089	0.00337	0.00154	0.0661	<0.0001	<0.001	0.279	0.000012	57.9	0.0018	<0.0002	0.00181	<0.01
RSEM-L6-SP	6/14/2019 12:25	VW9968	M	0.805	<0.00002	256	0.428	201	0.000024	<0.005	<0.005	0.00624	<0.005	<0.005	<0.0001	0.0086	0.00331	0.00156	0.0646	<0.0001	<0.001	0.281	<0.00001	60.6	0.0018	<0.0002	0.00176	<0.01
RSEM-L6-SP	6/15/2019 13:25	VX3566	M	0.639	<0.00002	238	0.439	193	0.000026	<0.005	<0.005	0.00655	<0.005	<0.005	<0.0001	0.0075	0.0031	0.00149	0.0602	<0.0001	<0.001	0.268	0.000014	59.8	0.0016	<0.0002	0.00171	<0.01
RSEM-L6-SP	6/16/2019 15:15	VX3554	M	0.18	<0.00002	208	0.134	157	0.000012	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001	0.0136	0.0007	0.00079	0.0141	<0.0001	<0.001	0.184	<0.00001	30.9	<0.001	0.00036	0.00158	0.05
RSEM-L6-SP	6/17/2019 13:35	VX5943	M	0.577	<0.00004	239	0.44	192	0.000023	<0.01	<0.01	0.00634	<0.01	0.011	<0.0002	0.0086	0.00316	0.00148	0.0604	<0.0001	<0.001	0.268	0.000023	58.3	0.0016	<0.0002	0.00169	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L6-SP	4/6/2019 9:32	VM5474	M	<0.0002	0.0433	30.2	0.0498	<0.000002	0.0294	0.0162		4.80	0.0106	3.07	<0.00002	213	0.425	162	0.000017	<0.005	<0.005	0.00584	<0.005	0.0094	<0.0001
RSEM-L6-SP	4/7/2019 9:30	VM5528	M	<0.0002	0.0404	28.4	0.048	<0.000002	0.03	0.0162		4.96	0.011	3.21	<0.00002	206	0.431	164	0.000017	<0.005	<0.005	0.00585	<0.005	0.0103	<0.0001
RSEM-L6-SP	4/8/2019 9:40	VM6517	M	<0.0002	0.0442	30.5	0.0426	<0.000002	0.0302	0.0157		5.20	0.0104	3.71	<0.00002	203	0.425	175	0.000014	<0.005	<0.005	0.00595	<0.005	0.0089	<0.0001
RSEM-L6-SP	4/9/2019 10:00	VM8362	M	<0.0002	0.0386	27.1	0.0348	<0.000002	0.0272	0.0144		4.59	0.00999	2.88	<0.00002	189	0.393	153	0.000015	<0.005	<0.005	0.00541	<0.005	0.008	<0.0001
RSEM-L6-SP	4/10/2019 9:50	VN0837	M	<0.0002	0.0408	29.3	0.0336	<0.000002	0.0286	0.0139		4.92	0.0101	3.28	<0.00002	191	0.41	159	0.000019	<0.005	<0.005	0.00583	<0.005	0.0056	<0.0001
RSEM-L6-SP	4/11/2019 9:15	VN1898	M	<0.0002	0.0459	30.7	0.025	<0.000002	0.0303	0.0149		4.75	0.0109	3.39	<0.00002	204	0.437	171	0.000016	<0.005	<0.005	0.00573	<0.005	0.0068	<0.0001
RSEM-L6-SP	4/12/2019 9:20	VN1942	M	<0.0002	0.0412	28.2	0.0194	<0.000002	0.0281	0.0143		4.89	0.0099	2.85	<0.00002	198	0.398	156	0.000019	<0.005	<0.005	0.00569	<0.005	0.0054	<0.0001
RSEM-L6-SP	4/13/2019 10:00	VN4481	M	<0.0002	0.0441	30.7	0.0172	<0.000002	0.0314	0.0148		5.11	0.0116	3.1	<0.00002	223	0.419	177	0.000018	<0.005	<0.005	0.00589	<0.005	0.0061	<0.0001
RSEM-L6-SP	4/14/2019 9:45	VN4675	M	<0.0002	0.0442	28.2	0.0139	<0.000002	0.031	0.014		4.68	0.0113	3.22	<0.00002	212	0.415	167	0.000018	<0.005	<0.005	0.0059	<0.005	0.006	<0.0001
RSEM-L6-SP	4/15/2019 8:40	VN6295	M	<0.0002	0.0427	29.7	0.0126	<0.000002	0.0304	0.0129		4.86	0.0107	3.3	<0.00002	202	0.413	168	0.000022	<0.005	<0.005	0.0056	<0.005	0.0056	<0.0001
RSEM-L6-SP	4/16/2019 8:50	VN8435	M	<0.0002	0.0437	30.6	0.011	<0.000002	0.029	0.0132			0.0103	3.33	<0.00002		0.412	183	0.00002	<0.005	<0.005	0.00596	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/17/2019 9:12	VN9783	M	<0.0002	0.0437	28.1	0.0083	<0.000002	0.029	0.0117		4.74	0.0103	2.97	<0.00002	188	0.409	153	0.000018	<0.005	<0.005	0.00567	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/18/2019 8:38	VN9657	D	<0.0002	0.0423	30.0	0.0077	<0.000002	0.0282	0.0114		4.73	0.0106	2.92	<0.00002	185	0.405	155	0.000019	<0.005	<0.005	0.00584	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/18/2019 8:38	VN9656	M	<0.0002	0.0399	27.7	0.0074	<0.000002	0.0292	0.011		4.67	0.0101	2.89	<0.00002	185	0.41	149	0.00002	<0.005	<0.005	0.00561	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/19/2019 8:35	VO0382	M	<0.0002	0.0435	31.3	0.007	<0.000002	0.0315	0.0123		5.03	0.0109	2.93	<0.00002	208	0.446	166	0.000019	<0.005	<0.005	0.00641	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/20/2019 9:02	VO0402	M	<0.0002	0.0472	33.1	0.0051	<0.000002	0.0326	0.0123		5.28	0.0114	3.03	<0.00002	215	0.458	172	0.000021	<0.005	<0.005	0.00657	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/21/2019 9:00	VO1964	D	<0.0002	0.0436	29.5	0.0038	<0.000002	0.029	0.0108		4.95	0.0105	2.89	<0.00002	202	0.415	160	0.00002	<0.005	<0.005	0.00617	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/21/2019 9:00	VO1963	M	<0.0002	0.0432	29.7	0.0041	<0.000002	0.0289	0.0106		4.62	0.0104	2.96	<0.00002	198	0.42	148	0.000021	<0.005	<0.005	0.00622	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/22/2019 10:02	VO3486	M	<0.0002	0.0416	30.0	0.0024	<0.000002	0.0293	0.0097		4.96	0.0101	3.09	<0.00002	196	0.416	169	0.000019	<0.005	<0.005	0.00587	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/23/2019 8:59	VO5341	M	<0.0002	0.0428	30.3	0.0024	<0.000002	0.0283	0.0097		4.86	0.0108	2.94	<0.00002	194	0.405	172	0.000019	<0.005	<0.005	0.00609	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/24/2019 8:52	VO7014	M	<0.0002	0.0432	31.6	0.0035	<0.000002	0.03	0.0102		4.98	0.0111	2.72	<0.00002	220	0.413	172	0.000019	<0.005	<0.005	0.00637	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/25/2019 10:00	VO8667	M	<0.0002	0.0441	30.7	0.0021	<0.000002	0.0321	0.0091		5.19	0.0109	2.86	<0.00002	200	0.427	176	0.000019	<0.005	<0.005	0.00609	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/26/2019 11:44	VO8651	M	<0.0002	0.0422	30.3	0.0017	<0.000002	0.0321	0.0088		5.03	0.0109	2.7	<0.00002	206	0.412	177	0.000019	<0.005	<0.005	0.00611	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/27/2019 9:57	VP1307	M	<0.0002	0.0463	30.8	0.0013	<0.000002	0.0322	0.009		5.06	0.0107	2.57	<0.00002	215	0.418	175	0.000016	<0.005	<0.005	0.00632	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/28/2019 8:21	VP1282	M	<0.0002	0.048	32.0	0.002	<0.000002	0.034	0.0085		5.05	0.0109	2.41	<0.00002	215	0.426	176	0.000017	<0.005	<0.005	0.00635	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/29/2019 8:30	VP3210	M	<0.0002	0.0473	31.5	0.0011	<0.000002	0.0331	0.008		5.05	0.0103	2.17	<0.00002	208	0.41	171	0.000018	<0.005	<0.005	0.00622	<0.005	<0.005	<0.0001
RSEM-L6-SP	4/30/2019 9:00	VP5144	M	<0.0002	0.0427	30.9	0.0011	<0.000002	0.0305	0.0079		5.23	0.0112	1.95	<0.00002	213	0.424	177	0.000013	<0.005	<0.005	0.00651	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/1/2019 9:40	VP6545	M	<0.0002	0.0426	28.4	0.0014	<0.000002	0.031	0.007		5.15	0.0107	1.88	<0.00002	198	0.4	175	0.000013	<0.005	<0.005	0.006	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/2/2019 8:45	VP8754	M	<0.0002	0.0433	29.7	0.001	<0.000002	0.0308	0.0073		5.34	0.0113	1.81	<0.00002	217	0.407	180	0.000014	<0.005	<0.005	0.00632	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/3/2019 9:00	VP8788	M	<0.0002	0.0438	27.7	0.0011	<0.000002	0.0304	0.0066		5.12	0.0104	1.56	<0.00002	190	0.387	175	0.000012	<0.005	<0.005	0.00576	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/4/2019 8:20	VQ1585	M	<0.0002	0.0412	30.8	0.0013	<0.000002	0.0293	0.0071		4.89	0.0107	1.29	<0.00002	214	0.381	165	0.000015	<0.005	<0.005	0.00583	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/5/2019 9:15	VQ1600	M	<0.0002	0.0407	30.6	<0.001	<0.000002	0.0292	0.0066		5.12	0.0107	1.35	<0.00002	219	0.381	173	0.000013	<0.005	<0.005	0.00567	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/6/2019 8:38	VQ4515	M	<0.0002	0.0441	29.4	<0.001	<0.000002	0.032	0.0063		5.15	0.0109	1.43	<0.00002	210	0.392	180	0.000012	<0.005	<0.005	0.006	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/7/2019 9:05	VQ4351	M	<0.0002	0.0458	29.8	<0.001	<0.000002	0.0318	0.0063		5.41	0.0111	1.44	<0.00002	222	0.397	184	0.000013	<0.005	<0.005	0.00595	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/8/2019 10:00	VQ8323	M	<0.0002	0.0443	30.9	<0.001	<0.000002	0.0295	0.0061		5.29	0.0102	1.17	<0.00002	217	0.361	175	0.000014	<0.005	<0.005	0.0061	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/9/2019 10:28	VQ9665	M	<0.0002	0.0439	30.5	<0.001	<0.000002	0.0305	0.0063		5.09	0.0109	1.1	<0.00002	220	0.402	182	0.000013	<0.005	<0.005	0.00612	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/10/2019 9:05	VQ9678	M	<0.0002	0.0432	29.9	<0.001	<0.000002	0.0301	0.0061		5.00	0.0107	1.04	<0.00002	212	0.39	172	0.000015	<0.005	<0.005	0.00601	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/11/2019 9:25	VR2440	M	<0.0002	0.0435	30.3	<0.001	<0.000002	0.0307	0.006		5.12	0.01	0.929	<0.00002	221	0.361	177	0.000012	<0.005	<0.005	0.0058	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/12/2019 9:20	VR2488	M	<0.0002	0.0441	29.6	<0.001	<0.000002	0.0304	0.0054		5.09	0.0105	0.847	<0.00002	219	0.363	174	0.000014	<0.005	<0.005	0.00602	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/13/2019 10:30	VR4454	M	<0.0002	0.0436	29.7	<0.001	<0.000002	0.0316	0.0051		5.05	0.0108	0.808	<0.00002	218	0.372	175	0.000011	<0.005	<0.005	0.00586	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/14/2019 10:30	VR6863	M	<0.0002	0.0424	29.2	<0.001	<0.000002	0.031	0.0048		5.00	0.0103	0.673	<0.00002	202	0.387	174	0.000011	<0.005	<0.005	0.00627	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/15/2019 9:30	VR8834	M	<0.0002	0.0457	29.8	<0.001	<0.000002	0.0378	0.0049		5.08	0.0104	0.615	<0.00002	224	0.378	174	0.000015	<0.005	<0.005	0.00596	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/16/2019 10:45	VS0892	M	<0.0002	0.0452	30.9	<0.001	<0.000002	0.0324	0.0048		5.23	0.0103	0.529	<0.00002	225	0.38	173	0.000014	<0.005	<0.005	0.00601	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/17/2019 9:00	VS0928	M	<0.0002	0.0432	31.0	<0.001	<0.000002	0.0311	0.0047		5.47	0.0107	0.516	<0.00002	221	0.355	187	0.000013	<0.005	<0.005	0.006	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/18/2019 9:55	VS1841	M	<0.0002	0.0423	29.8	<0.001	<0.000002	0.0321	0.0039		5.08	0.0105	0.441	<0.00002	219	0.382	176	0.000015	<0.005	<0.005	0.00618	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/18/2019 10:00	VS1845	D	<0.0002	0.0443	31.2	<0.001	<0.000002	0.0313	0.004		5.35	0.0105	0.445	<0.00002	231	0.372	177	0.000014	<0.005	<0.005	0.00612	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/19/2019 8:45	VS3039	M	<0.0002	0.0427	30.8	<0.001	<0.000002	0.0303	0.0038		5.27	0.00959	0.368	<0.00002	226	0.366	179	0.000014	<0.005	<0.005	0.00598	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/20/2019 11:30	VS3031	M	<0.0002	0.0439	31.3	<0.001	<0.000002	0.0312	0.004		5.30	0.00981	0.406	<0.00002	227	0.361	180	0.000014	<0.005	<0.005	0.00594	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/20/2019 11:35	VS3032	D	<0.0002	0.0144	32.2	0.0162	<0.000002	0.0146	0.0035		2.99	0.00203	1.49	<0.00002	61.8	0.358	132	0.000017	<0.005	<0.005	0.00403	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/21/2019 10:15	VS3706	M	<0.0002	0.0414	30.4	<0.001	<0.000002	0.0303	0.0038		5.23	0.00976	0.291	<0.00002	221	0.359	173	0.000015	<0.005	<0.005	0.00587	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/22/2019 9:30	VS7470	M	<0.0002	0.0424	30.0	<0.001	<0.000002	0.0309	0.0042		5.61	0.00974	0.238	<0.00002	223	0.374	186	0.000016	<0.005	<0.005	0.00615	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/23/2019 9:55	VS9364	M	<0.0002	0.0448	29.5	<0.001	<0.000002	0.0298	0.0035		5.32	0.00962	0.191	<0.00002	212	0.353	179	0.000016	<0.005	<0.005	0.00558	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/24/2019 9:45	VS9235	M	<0.0002	0.0427	29.5	<0.001	<0.000002	0.0313	0.0038		5.67	0.00993	0.176	<0.00002	220	0.377	184	0.000014	<0.005	<0.005	0.00585	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/25/2019 10:15	VT2665	M	<0.0002	0.0424	28.9	<0.001	<0.000002	0.0312	0.0038		5.19	0.0094	0.164	<0.00002	218	0.391	175	0.000016	<0.005	<0.005	0.00589	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/26/2019 11:20	VT2642	M	<0.0002	0.0418	29.9	<0.001	<0.000002	0.0311	0.0037		5.31	0.00954	0.155	<0.00002	221	0.404	179	0.000017	<0.005	<0.005	0.00606	<0.005	0.0068	<0.0001
RSEM-L6-SP	5/27/2019 10:10	VT4236	M	<0.0002	0.0462	29.7	<0.001	<0.000002	0.0312	0.0036		5.34	0.00994	0.149	<0.00002	212	0.392	177	0.000015	<0.005	<0.005	0.00602	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/28/2019 10:30	VT7637	M	<0.0002	0.0464	30.1	<0.001	<0.000002	0.0315	0.0037		5.44	0.00978	0.151	<0.00002	212	0.395	177	0.000016	<0.005	<0.005	0.0061	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/29/2019 9:00	VT7340	M	<0.0002	0.0461	31.8	<0.001	<0.000002	0.0323	0.0037		5.72	0.01	0.163	<0.00002	229	0.408	188	0.000015	<0.005	<0.005	0.00601	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/30/2019 8:40	VU0225	M	<0.0002	0.0468	32.9	<0.001	<0.000002	0.0305	0.0036		5.86	0.0102	0.196	<0.00002	229	0.38	197	0.000017	<0.005	<0.005	0.00615	<0.005	<0.005	<0.0001
RSEM-L6-SP	5/31/2019 10:10	VU2495	M	<0.0002	0.0465	32.6	<0.001	<0.000002	0.031	0.0037		5.76	0.00989	0.223	<0.00002	241	0.388	191	0.00002	<0.005	<0.005	0.00596	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/1/2019 10:30	VU3313	M	<0.0002	0.0475	32.3	<0.001	<0.000002	0.0328	0.0038		5.79	0.0097	0.239	<0.00002	240	0.402	192	0.000019	<0.005	<0.005	0.00608	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/2/2019 10:25	VU6004	M	<0.0002	0.0453	29.4	<0.001	<0.000002	0.0331	0.0033		5.43	0.0106	0.247	<0.00002	224	0.442	185	0.000014	<0.005	<0.005	0.00629	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/3/2019 9:55	VU6002	M	<0.0002	0.0497	30.0	<0.001	<0.000002	0.0336	0.0032		5.51	0.0106	0.29	<0.00002	228	0.467	187	0.000016	<0.005	<0.005	0.00631	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/4/2019 10:15	VU7712	M	<0.0002	0.0462	30.0	<0.001	<0.000002	0.0326	0.0032		5.42	0.0104	0.284	<0.00002	230	0.451	185	0.000015	<0.005	<0.005	0.0062	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/5/2019 9:15	VV4621	M	<0.0002	0.0459	30.9	<0.001	<0.000002	0.0339	0.0037		5.80	0.00999	0.337	<0.00002	228	0.475	189	0.000016	<0.005	<0.005	0.00633	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/6/2019 9:50	VV6668	M	<0.0002	0.0474	31.8	<0.001	<0.000002	0.0344	0.0037		5.55	0.00971	0.317	<0.00002	230	0.422	181	0.00002	<0.005	<0.005	0.00656	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/7/2019 10:45	VV6712	M	<0.0002	0.0488	33.5	<0.001	<0.000002	0.0352	0.0038		5.76	0.00975	0.33	<0.00002	242	0.437	189	0.000021	<0.005	<0.005	0.00668	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/8/2019 9:25	VV9757	M	<0.0002	0.0475	32.8	<0.001	<0.000002	0.033	0.0035		6.19	0.00955	0.387	<0.00002	232	0.41	201	0.000019	<0.005	<0.005	0.00618	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/9/2019 9:20	VV9749	M	<0.0002	0.049	32.8	<0.001	<0.000002	0.033	0.0037		6.39	0.00949	0.386	<0.00002	234	0.417	207	0.000019	<0.005	<0.005	0.00628	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/10/2019 9:45	VW2547	M	<0.0002	0.0481	32.1	<0.001	<0.000002	0.034	0.0034		5.94	0.00924	0.403	<0.00002	227	0.423	196	0.000019	<0.005	<0.005	0.00642	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/11/2019 10:20	VW5004	M	<0.0002	0.0448	32.0	<0.001	<0.000002	0.0316	0.0037		5.63	0.00906	0.325	<0.00002	232	0.413	183	0.00002	<0.005	<0.005	0.0063	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/12/2019 10:15	VW8057	M	<0.0002	0.0488	33.3	<0.001	0.0000021	0.0337	0.0037		5.94	0.00965	0.388	<0.00002	246	0.431	200	0.000024	<0.005	<0.005	0.00654	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/13/2019 10:20	VW9974	M	<0.0002	0.0499	33.5	<0.001	<0.000002	0.0336	0.0036		5.83	0.00954	0.388	<0.00002	240	0.43	198	0.000023	<0.005	<0.005	0.00652	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/14/2019 12:25	VW9968	M	<0.0002	0.0494	33.2	<0.001	<0.000002	0.0335	0.0037		5.86	0.0111	0.395	<0.00002	246	0.424	203	0.000024	<0.005	<0.005	0.0065	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/15/2019 13:25	VX3566	M	<0.0002	0.0457	33.7	<0.001	<0.000002	0.0315	0.0035		5.82	0.00936	0.315	<0.00002	249	0.425	178	0.000021	<0.005	<0.005	0.00626	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/16/2019 15:15	VX3554	M	<0.0002	0.0939	31.6	0.0285	<0.000002	0.0108	0.0022		3.77	0.00234	0.114	<0.00002	189	0.125	136	0.000012	<0.005	<0.005	0.00103	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/17/2019 13:35	VX5943	M	<0.0002	0.0471	33.4	<0.001	<0.000002	0.0329	0.0034		5.80	0.0089	0.348	<0.00002	240	0.441	187	0.00002	<0.005	<0.005	0.00641	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L6-SP	6/18/2019 13:45	VX8836	M	8.28	1670	6.35	1100	10.8	281	296	131	<1.0	160	<1.0	<1.0	77.1	0.650	1.3	518			0.054	0.0232	1.01	1.04	<0.0050
RSEM-L6-SP	6/19/2019 13:25	VY1846	M	8.31	1690	5.23	1150	4.4	293	300	133	<1.0	162	<1.0	<1.0	77	0.640	1.3	570			0.066	0.0226	1.06	1.08	<0.0050
RSEM-L6-SP	6/20/2019 12:55	VY4154	M	8.30	1690	3.69	1140	2.0	296	300	135	<1.0	165	<1.0	<1.0	79	0.640	1.3	550			0.043	0.0212	1.09	1.11	<0.0050
RSEM-L6-SP	6/21/2019 10:35	VY4165	M	8.34	1700	3.41	1120	<4.0	282	295	133	1.1	160	1.3	<1.0	77.1	0.660	1.3	518			0.041	0.0191	1.08	1.10	<0.0050
RSEM-L6-SP	6/22/2019 12:50	VY6746	M	8.20	1680	3.24	1160	4.0	300	306	136	<1.0	166	<1.0	<1.0	73.7	0.660	1.3	542			0.041	0.0174	1.02	1.04	<0.0050
RSEM-L6-SP	6/23/2019 12:50	VY6759	M	8.21	1710	3.22	1160	<4.0	300	312	137	<1.0	167	<1.0	<1.0	73.7	0.650	1.3	560			0.034	0.0168	1.00	1.02	<0.0050
RSEM-L6-SP	6/24/2019 9:20	VY9736	M	8.24	1680	3.79	1120	4.8	286	299	131	<1.0	159	<1.0	<1.0	66.2	0.660	1.4	559			0.060	0.0102	0.967	0.977	<0.0050
RSEM-L6-SP	6/25/2019 12:45	VZ1751	M	7.92	1620	4.54	1090	8.4	318	342	128	<1.0	156	<1.0	<1.0	64.8	0.610	1.3	611			0.059	0.0153	1.11	1.12	<0.0050
RSEM-L6-SP	6/26/2019 1:10	VZ5392	M	8.09	1640	3.01	1120	5.2	339	355	129	<1.0	157	<1.0	<1.0	63.5	0.600	1.3	567			0.072	0.0158	1.25	1.26	<0.0050
RSEM-L6-SP	6/27/2019 13:12	VZ7728	M	8.83	1660	3.21	1130	4.4	363	368	143	10.4	148	12.5	<1.0	64.7	0.590	1.2	583			0.060	0.0115	1.26	1.27	<0.0050
RSEM-L6-SP	6/28/2019 9:45	VZ7859	M	8.03	1640	2.77	1110	4.0	338	363	128	<1.0	156	<1.0	<1.0	68.0	0.600	1.1	572			0.046	0.0145	1.24	1.26	<0.0050
RSEM-L6-SP	6/29/2019 9:30	VZ9041	M	8.08	1660	3.37	1140	6.0	339	344	127	<1.0	155	<1.0	<1.0	67.7	0.610	1.2	544			0.22	0.0127	1.23	1.24	<0.0050
RSEM-L6-SP	6/30/2019 14:40	WA1461	M	8.05	1610	5.00	1130	8.0	383	380	118	<1.0	144	<1.0	<1.0	69.0	0.560	1.1	566			0.055	0.0141	1.30	1.32	<0.0050
RSEM-L6-SP	7/1/2019 12:45	WA1438	M	8.00	1540	10.8	1070	12.4	366	344	113	<1.0	138	<1.0	<1.0	63.6	0.540	1.0	515			0.064	0.0164	1.36	1.38	<0.0050
RSEM-L6-SP	7/2/2019 14:15	WA3405	M	8.02	1550	5.0	1030	5.6	365	384	113	<1.0	138	<1.0	<1.0	61.8	0.530	0.98	524			0.091	0.0166	1.40	1.42	<0.0050
RSEM-L6-SP	7/3/2019 12:29	WA5878	M	7.88	1540	4.3	1070	6.4	369	407	112	<1.0	137	<1.0	<1.0	61.8	0.550	1.0	587			0.035	0.0171	1.39	1.41	<0.0050
RSEM-L6-SP	7/4/2019 13:00	WA7983	M	8.23	1550	4.5	1060	5.6	395	393	109	<1.0	133	<1.0	<1.0	62.5	0.530	0.94	579			0.031	0.0152	1.37	1.39	<0.0050
RSEM-L6-SP	7/5/2019 10:50	WA8013	M	8.18	1530	3.7	650	6.4	386	391	108	<1.0	132	<1.0	<1.0	63	0.520	0.96	580			0.035	0.0190	1.37	1.39	<0.0050
RSEM-L6-SP	7/6/2019 12:10	WB1487	M	7.95	1520	4.1	1070	8.4	379	399	111	<1.0	136	<1.0	<1.0	58.9	0.550	1.0	572			0.047	0.0158	1.36	1.38	<0.0050
RSEM-L6-SP	7/7/2019 11:50	WB1479	M	7.99	1530	3.7	1090	6.8	388	386	111	<1.0	136	<1.0	<1.0	59.8	0.550	1.0	560			0.064	0.0154	1.35	1.37	<0.0050
RSEM-L6-SP	7/8/2019 10:00	WB4604	M	7.97	1530	4.7	1070	<4.0	400	399	110	<1.0	134	<1.0	<1.0	63.8	0.550	0.99	547			0.050	0.0214	1.23	1.26	<0.0050
RSEM-L6-SP	7/9/2019 14:10	WB6318	M	8.20	1550	5.3	1090	4.0	381	366	107	<1.0	131	<1.0	<1.0	54.2	0.570	1.0	560			0.13	0.0160	1.27	1.29	<0.0050
RSEM-L6-SP	7/10/2019 12:00	WB8324	M	8.22	1560	4.2	1030	<4.0	387	382	109	<1.0	133	<1.0	<1.0	59.2	0.540	1.0	573			0.040	0.0150	1.33	1.34	<0.0050
RSEM-L6-SP	7/11/2019 13:00	WC0498	M	8.00	1560	5.9	1090	<4.0	386	385	109	<1.0	134	<1.0	<1.0	65.8	0.550	0.99	630			0.084	0.0136	1.29	1.31	<0.0050
RSEM-L6-SP	7/12/2019 11:30	WC0455	M	8.05	1580	6.4	1080	19.2	388	390	113	<1.0	137	<1.0	<1.0	58.9	0.580	1.0	574			0.043	0.0152	1.29	1.31	<0.0050
RSEM-L6-SP	7/13/2019 13:25	WC4189	M	7.97	1580	4.1	1050	7.2	378	439	109	<1.0	133	<1.0	<1.0	61.8	0.510	1.0	601			0.091	0.0113	1.24	1.25	<0.0050
RSEM-L6-SP	7/14/2019 14:00	WC4353	M	7.98	1580	5.2	1080	8.0	378	433	111	<1.0	135	<1.0	<1.0	65.9	0.550	1.0	636			0.066	0.0113	1.23	1.24	<0.0050
RSEM-L6-SP	7/15/2019 12:20	WC7555	M	8.19	1600	3.9	1050	5.6	374	396	109	<1.0	132	<1.0	<1.0	58.7	0.560	1.0	620			0.083	0.0104	1.25	1.26	<0.0050
RSEM-L6-SP	7/16/2019 12:50	WC9633	M	8.30	1600	4.4	1130	7.2	405	387	111	<1.0	136	<1.0	<1.0	58.0	0.540	0.99	577			0.045	0.0119	1.13	1.14	<0.0050
RSEM-L6-SP	7/17/2019 14:20	WD1677	M	8.14	1590	4.8	1070	10.0	419	376	110	<1.0	135	<1.0	<1.0	59.8	0.560	1.1	588			0.028	0.0095	1.16	1.17	<0.0050
RSEM-L6-SP	7/18/2019 13:20	WD4014	M	8.21	1600	5.8	1080	6.0	383	389	110	<1.0	135	<1.0	<1.0	65.9	0.560	1.0	546			0.047	0.0094	1.21	1.22	<0.0050
RSEM-L6-SP	7/19/2019 12:48	WD4025	M	8.22	1600	4.0	1080	6.0	376	392	109	<1.0	133	<1.0	<1.0	64.2	0.560	1.0	542			0.059	0.0097	1.18	1.19	<0.0050
RSEM-L6-SP	7/20/2019 14:30	WD7113	M	8.27	1610	5.3	1130	4.0	397	396	109	<1.0	133	<1.0	<1.0	63.8	<0.020	1.0	542			0.067	0.0108	1.21	1.22	<0.0050
RSEM-L6-SP	7/21/2019 14:30	WD7086	M	8.27	1610	5.5	1130	4.4	408	396	109	<1.0	133	<1.0	<1.0	63.4	0.550	1.0	562			0.093	0.0115	1.19	1.20	<0.0050
RSEM-L6-SP	7/22/2019 12:35	WD8946	M	8.32	1610	4.8	1090	6.8	395	373	109	<1.0	132	<1.0	<1.0	66.9	0.560	0.92	605			0.061	0.0089	1.13	1.14	<0.0050
RSEM-L6-SP	7/23/2019 13:50	WE1027	M	8.24	1600	7.5	1110	9.6	366	393	107	<1.0	131	<1.0	<1.0	60.4	<0.020	0.92	551			0.092	0.0083	1.04	1.05	<0.0050
RSEM-L6-SP	7/24/2019 12:35	WE3037	M	8.28	1620	3.7	1110	7.2	379	389	108	<1.0	131	<1.0	<1.0	62.5	0.560	1.1	601			0.055	0.0104	1.04	1.05	<0.0050
RSEM-L6-SP	7/25/2019 13:00	WE4850	M	8.17	1600	4.3	1100	<4.0	391	379	107	<1.0	130	<1.0	<1.0	67.6	0.560	1.1	590			<0.015	0.0096	1.13	1.14	<0.0050
RSEM-L6-SP	7/26/2019 10:20	WE4708	M	8.15	1610	5.1	1060	5.6	394	384	106	<1.0	129	<1.0	<1.0	64.3	0.560	1.1	632			<0.015	0.0086	1.12	1.13	<0.0050
RSEM-L6-SP	7/27/2019 12:15	WE7077	M	8.20	1610	3.8	1120	6.4	383	392	105	<1.0	128	<1.0	<1.0	58.7	0.570	1.1	641			<0.015	0.0120	1.06	1.07	<0.0050
RSEM-L6-SP	7/28/2019 12:30	WE7124	M	8.19	1620	3.5	1070	4.0	380	387	103	<1.0	126	<1.0	<1.0	65.7	0.550	1.1	601			0.021	0.0115	1.03	1.05	<0.0050
RSEM-L6-SP	7/29/2019 10:15	WE7143	M	8.20	1620	2.7	1080	<4.0	370	396	103	<1.0	126	<1.0	<1.0	60.8	0.560	1.1	605			0.021	0.0120	1.01	1.03	<0.0050
RSEM-L6-SP	7/30/2019 12:35	WF2075	M	8.19	1620	3.4	1120	4.4	386	399	101	<1.0	123	<1.0	<1.0	61.3	0.560	1.1	643			0.018	0.0089	0.955	0.964	<0.0050
RSEM-L6-SP	7/31/2019 12:15	WF4367	M	8.08	1630	2.8	1110	<4.0	382	406	98.4	<1.0	120	<1.0	<1.0	66.0	0.520	1.1	588			<0.015	0.0097	1.02	1.03	<0.0050
RSEM-L6-SP	8/1/2019 12:50	WF6262	M	7.99	1600	3.9	1100	3.6	382	406	99	<1.0	120	<1.0	<1.0	60	0.54	1.1	540			<0.015	0.0090	0.938	0.947	<0.0030
RSEM-L6-SP	8/2/2019 10:25	WF6286	M	8.00	1600	3.4	1100	1.6	398	369	98	<1.0	120	<1.0	<1.0	62	0.55	1.1	660			<0.015	0.0098	0.912	0.922	<0.0030
RSEM-L6-SP	8/3/2019 12:55	WF7650	M	8.11	1640	2.9	1140	<4.0	385	389	96.8	<1.0	118	<1.0	<1.0	64.7	0.550	1.1	623			<0.015	<0.0050	0.566	0.566	<0.0050
RSEM-L6-SP	8/4/2019 14:30	WF7665	M	8.09	1640	3.1	1110	<4.0	380	397	92.9	<1.0	113	<1.0	<1.0	60.4	0.560	1.5	623			<0.015	0.0105	0.874	0.885	<0.0050
RSEM-L6-SP	8/5/2019 12:17	WF9955	M	8.05	1620	3.1	1110	<4.0	386	393	95.4	<1.0	116	<1.0	<1.0	63.3	0.560	1.1	555			0.017	0.0100	0.855	0.865	<0.0050
RSEM-L6-SP	8/6/2019 12:45	WG2809	M	7.97	1610	2.7	1140	<4.0	386	395	94.4	<1.0	115	<1.0	<1.0	68.4	0.550	1.1	587			0.019	0.0085	0.787	0.796	<0.0050
RSEM-L6-SP	8/14/2019 10:45	WH7028	M	7.89	1640	2.4	1200	4.4	394	404	85.0	<1.0	104	<1.0	<1.0	68.7	0.530	1.2	677			0.016	0.0069	0.652	0.659	<0.0050
RSEM-L6-SP	8/20/2019 13:00	WI5440	M	8.01	1500	3.8	1000	5.6	386	391	75.8	<1.0	92.5	<1.0	<1.0	58	0.51	1.1	550			<0.015	0.0132	0.710	0.724	<0.0030
RSEM-L6-SP	8/27/2019 13:35	WJ7315	M	7.94	1500	3.4	1000	6.8	391	386	71	<1.0	86	<1.0	<1.0	60	0.5	1.1	550			0.022	0.0118	0.51	0.522	<0.0030
RSEM-L6-SP	9/3/2019 14:00	WK8386	M	7.83	1500	2.4	1100	4.0	388	399	68	<1.0	83	<1.0	<1.0	68	0.49	1.0	450			0.064	0.0089	0.490	0.499	0.0040
RSEM-L6-SP	11/24/2019 14:00	WZ7701	M	7.31	1100	1.6	739	3.5	431	458	67	<1.0	81	<1.0	<1.0	45	0.31	0.76	440			<0.015	0.017	0.64	0.66	<0.0030
RSEM-L6-SP	12/16/2019 15:20	XD3848	M	7.64	1560	3.8	1240	8.7	689	669	95.5	<1.0	117	<1.0	<1.0	63.6	0.364	0.999	637			0.030	<0.010	0.753	0.753	<0.0030
RSEM-R5a-A-EOP	3/18/2019 10:45	VJ6957	M	7.54	297	5250	1450	2680	215	43.6	62.7	<1.0	76.5	<1.0	<1.0	7.47	0.260	0.081	68.5			0.55	0.0500	0.737	0.787	0.0228
RSEM-R5a-A-EOP	3/19/2019 17:01	VK0908	M	7.83	291	1380	844	544	93.4	50.8	48.0	<1.0	58.6	<1.0	<1.0	5.84	0.180	0.081	74.2			0.31	0.0320	0.672	0.704	0.0137
RSEM-R5a-A-EOP	3/20/2019 9:30	VK2370	M	7.78	285	448	446	85.2	64.6	53.4	52.7	<1.0	64.3	<1.0	<1.0	5.82	0.200	0.088	75.9			0.24	0.0352	0.695	0.730	0.0249
RSEM-R5a-A-EOP	3/21/2019 14:10	VK3786	M	8.05	523	98.0	318	39.6	156	159	117	<1.0	143	<1.0	<1.0	5.10	0.260	0.082	137			0.047	0.0072	1.98	1.99	0.0177
RSEM-R5A-A-SP	3/14/2019 15:00	VJ4043	M	7.79	183	330	1730	414	134	39.4	56.5	<1.0	68.9	<1.0	<1.0	14.7	0.230	0.041	52.6			0.35	0.0620	0.998	1.06	0.0570
RSEM-R5A-A-SP	3/22/2019 8:45	VK3761	M	7.73	301	215	278	97.6	63.1	55.2	52.0	<1.0	63.5	<1.0	<1.0	5.71	0.210	0.089	75.0			0.19	0.0333	0.728	0.761	0.0199
RSEM-R5A-A-SP	3/23/2019 16:50	VK5906	M	7.75	318	246	312	42.8	61.3	55.0	53.8	<1.0	65.7	<1.0	<1.0	6.08	0.220	0.076	83.8			0.25	0.0294	0.746	0.776	0.0072
RSEM-R5A-A-SP	3/24/2019 15:52	VK5970	M	7.70	317	196	280	47.6	60.8	54.6	54.6	<1.0	66.6	<1.0	<1.0	6.62	0.250	0.078	91.3			0.24	0.0311	0.749	0.780	0.0102
RSEM-R5A-A-SP	3/25/2019 13:56	VK7775	M	7.68	325	147	264	37.2	61.5	57.8	53.6	<1.0	65.4	<1.0	<1.0	6.45	0.270	0.078	87.8			0.23	0.0291	0.741	0.770	0.0190
RSEM-R5A-A-SP	3/26/2019 14:26	VK9034	M	7.60	323	91.7	266	27.2	60.2	55.8	54.0	<1.0	65.9	<1.0	<1.0	6.28	0.220	0.074	106			0.22	0.0326	0.740	0.772	0.0220
RSEM-R5A-A-SP	3/27/2019 14:57	VL1964	M	7.69	331	122	280	21	61.4	57.0	57.4	<1.0	70.0	<1.0	<1.0	6.11	0.220	0.085	92.0			0.25	0.0320	0.763	0.795	0.0188
RSEM-R5A-A-SP	3/28/2019 12:30	VL3517	M	7.75	342	104	254	24.0	64.1	59.8	59.4	<1.0	72.5	<1.0	<1.0	6.37	0.220	0.088	95.1			0.24	0.0322	0.686	0.718	0.0188
RSEM-R5A-A-SP	4/3/2019 13:30	VM2012	M	7.87	415	197	300	121	72.6	67.4	69.0	<1.0	84.2	<1.0	<1.0	8.00	0.250	0.11	118			0.22	0.0412	0.689	0.730	0.0059
RSEM-R5A-A-SP	4/10/2019 14:20	VN0773	M	7.84	429	95.8	250	270	89.9	69.6	69.3	<1.0	84.6	<1.0	<1.0	9.76	0.220	0.13	129			0.19	0.0363	0.570	0.606	0.0054
RSEM-R5A-A-SP	4/11/2019 9:45	VN1903	M	7.91	443	94.8	286	108	76.1	67.5	71.4	<1.0	87.1	<1.0	<1.0	8.47	0.230	0.13	134			0.18	0.0308	0.577	0.608	<0.0050
RSEM-R5A-A-SP	4/12/2019 8:58	VN1938	M	7.81	444	75.8	290	72.4	74.7	69.5	71.0	<1.0	86.6	<1.0	<1.0	8.54	0.230	0.13	120			0.16	0.0377	0.582	0.620	<0.0050
RSEM-R5A-A-SP	4/13/2019 9:58	VN4349	M	7.87	439	101	264	70.4	71.7	66.6	72.1	<1.0	88.0	<1.0	<1.0	8.62	0.250	0.13	123			0.14	0.0345	0.603	0.637	<0.0050
RSEM-R5A-A-SP	4/14/2019 10:44	VN4344	M	7.86	440	326	258	44.8	67.6	68.5	72.4	<1.0	88.3	<1.0	<1.0	8.54	0.250	1.4	127			0.10	0.0343	0.608	0.642	<0.0050
RSEM-R5A-A-SP	4/15/2019 10:15	VN6309	M	8.00	447	57.6	262	31.2	79.7	73.1	70.0	<1.0	85.4	<1.0	<1.0	8.87	0.240	0.13	126			0.073	0.0276	0.551	0.579	<0.0050
RSEM-R5A-A-SP	4/16/2019 13:31	VN8484	M	7.84	437	54.2	266	33.6	74.5	69.0	69.9	<1.0	85.3	<1.0	<1.0	8.86	0.250	0.12	120			0.064	0.0493	0.595	0.645	0.0040

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L6-SP	6/18/2019 13:45	VX8836	M	4.4	4.1	0.162	0.00306	0.00152	0.0681	<0.0001	<0.001	0.264	0.000015	59.5	0.0018	0.00031	0.00219	0.201	<0.0002	0.0491	32.2	0.0064	<0.000002	0.0324	0.0037		5.83	0.00857
RSEM-L6-SP	6/19/2019 13:25	VY1846	M	4.5	5.1	0.106	0.00312	0.00161	0.069	<0.0001	<0.001	0.282	0.000014	61.7	0.0018	0.0003	0.00213	0.092	<0.0002	0.0478	33.6	0.0047	<0.000002	0.0343	0.0037		6.05	0.00927
RSEM-L6-SP	6/20/2019 12:55	VY4154	M	4.1	4.1	0.0901	0.00325	0.00151	0.0663	<0.0001	<0.001	0.301	0.000014	63.0	0.0018	0.00024	0.00209	0.071	<0.0002	0.0496	33.6	0.0038	<0.000002	0.0348	0.0036		6.01	0.00883
RSEM-L6-SP	6/21/2019 10:35	VY4165	M	3.9	3.9	0.0837	0.0031	0.0014	0.0623	<0.0002	<0.002	0.266	<0.00002	59.4	<0.002	<0.0004	0.0021	0.062	<0.0004	0.0466	32.4	0.0033	<0.000002	0.0311	0.0035		5.73	0.00865
RSEM-L6-SP	6/22/2019 12:50	VY6746	M	3.9	4.1	0.101	0.00317	0.00154	0.0652	<0.0001	<0.001	0.295	<0.00001	63.1	0.0019	0.00026	0.00217	0.063	<0.0002	0.0511	34.7	0.0032	<0.000002	0.0347	0.0035		5.91	0.00886
RSEM-L6-SP	6/23/2019 12:50	VY6759	M	4.1	4.1	0.0993	0.00317	0.00149	0.0642	<0.0001	<0.001	0.289	0.000012	63.5	0.0018	0.00024	0.00213	0.062	<0.0002	0.0524	34.5	0.0036	<0.000002	0.0342	0.0036		6.10	0.00883
RSEM-L6-SP	6/24/2019 9:20	VY9736	M	4.0	3.9	0.113	0.00298	0.00139	0.062	<0.0001	<0.001	0.282	0.000017	60.0	0.0019	0.00021	0.00216	0.081	<0.0002	0.0439	33.2	0.0039	<0.000002	0.0331	0.0033		5.67	0.0087
RSEM-L6-SP	6/25/2019 12:45	VZ1751	M	3.4	3.7	0.15	0.0028	0.00131	0.0635	<0.0001	<0.001	0.263	0.00002	70.4	0.0016	0.00024	0.0021	0.128	<0.0002	0.0409	34.5	0.0086	<0.000002	0.0312	0.0033		5.84	0.00943
RSEM-L6-SP	6/26/2019 1:10	VZ5392	M	3.8	4.8	0.0686	0.00277	0.00132	0.0649	<0.0001	<0.001	0.262	0.00002	77.6	0.0015	0.00026	0.00201	0.084	<0.0002	0.0461	35.2	0.0083	<0.000002	0.0316	0.0033		5.85	0.0096
RSEM-L6-SP	6/27/2019 13:12	VZ7728	M	4.2	4.1	0.121	0.00289	0.00132	0.0675	<0.0001	<0.001	0.25	0.000026	84.2	0.0017	0.00024	0.00197	0.128	<0.0002	0.047	37.0	0.0078	<0.000002	0.0299	0.0031		6.14	0.0103
RSEM-L6-SP	6/28/2019 9:45	VZ7859	M	3.9	3.8	0.0837	0.00264	0.00128	0.0607	<0.0001	<0.001	0.234	0.000049	76.0	0.0014	0.00023	0.00178	0.074	<0.0002	0.0437	36.0	0.0059	<0.000002	0.0309	0.0029		5.86	0.0099
RSEM-L6-SP	6/29/2019 9:30	VZ9041	M	3.8	3.8	0.0955	0.00269	0.0013	0.062	<0.0001	<0.001	0.223	0.000049	77.2	0.0015	0.00024	0.00184	0.078	<0.0002	0.041	35.6	0.0059	<0.000002	0.0314	0.003		5.78	0.01
RSEM-L6-SP	6/30/2019 14:40	WA1461	M	3.6	3.8	0.0943	0.00245	0.00129	0.0675	<0.0001	<0.001	0.227	0.000028	90.5	0.0016	0.00029	0.00195	0.168	<0.0002	0.0437	38.2	0.0107	<0.000002	0.0279	0.0029		6.26	0.0105
RSEM-L6-SP	7/1/2019 12:45	WA1438	M	3.6	4.0	0.136	0.00218	0.00121	0.0708	<0.0001	<0.001	0.204	0.000036	90.6	0.0013	0.00037	0.00191	0.308	0.00021	0.0393	33.9	0.0171	<0.000002	0.0255	0.0026		5.53	0.00999
RSEM-L6-SP	7/2/2019 14:15	WA3405	M	3.5	3.2	0.0856	0.00216	0.00111	0.0694	<0.0001	<0.001	0.226	0.00003	88.8	0.0012	0.00028	0.00183	0.134	<0.0002	0.0393	34.9	0.0127	<0.000002	0.0267	0.0024		5.79	0.0103
RSEM-L6-SP	7/3/2019 12:29	WA5878	M	3.8	3.6	0.0905	0.00215	0.00112	0.0669	<0.0001	<0.001	0.196	0.00004	88.1	0.0012	0.00034	0.00177	0.132	<0.0002	0.0346	36.1	0.0115	<0.000002	0.0263	0.0026		5.72	0.0108
RSEM-L6-SP	7/4/2019 13:00	WA7983	M	3.2	3.4	0.0889	0.00212	0.00112	0.0663	<0.0001	<0.001	0.2	0.000032	97.7	0.0013	0.0003	0.0018	0.122	<0.0002	0.0386	36.6	0.0101	<0.000002	0.0252	0.0026		6.17	0.0112
RSEM-L6-SP	7/5/2019 10:50	WA8013	M	3.3	3.7	0.114	0.00207	0.00106	0.067	<0.0001	<0.001	0.205	0.000028	96.5	0.0013	0.00026	0.00165	0.135	<0.0002	0.0392	35.2	0.0084	<0.000002	0.0257	0.0023		5.93	0.0108
RSEM-L6-SP	7/6/2019 12:10	WB1487	M	3.6	3.8	0.139	0.00214	0.00109	0.0693	<0.0001	<0.001	0.215	0.000028	93.7	0.0013	0.00032	0.00208	0.163	<0.0002	0.0369	35.2	0.0092	<0.000002	0.0267	0.0025		5.89	0.0106
RSEM-L6-SP	7/7/2019 11:50	WB1479	M	3.6	3.6	0.126	0.00214	0.00107	0.0691	<0.0001	<0.001	0.217	0.000024	95.0	0.0013	0.00026	0.00206	0.143	<0.0002	0.038	36.6	0.0072	<0.000002	0.0272	0.0025		6.07	0.0111
RSEM-L6-SP	7/8/2019 10:00	WB4604	M	3.3	3.7	0.128	0.00218	0.00105	0.0678	<0.0001	<0.001	0.216	0.000026	96.1	0.0013	0.00027	0.00192	0.122	<0.0002	0.0388	38.8	0.0067	<0.000002	0.0257	0.0024		6.34	0.0104
RSEM-L6-SP	7/9/2019 14:10	WB6318	M	3.4	3.4	0.143	0.00209	0.00112	0.0698	<0.0001	<0.001	0.214	0.000025	91.2	0.0012	0.00027	0.00172	0.133	<0.0002	0.0406	37.2	0.0062	<0.000002	0.0277	0.0023		5.98	0.0113
RSEM-L6-SP	7/10/2019 12:00	WB8324	M	3.5	3.8	0.137	0.00209	0.00104	0.0672	<0.0001	<0.001	0.211	0.000021	93.1	0.0011	0.00024	0.00168	0.117	<0.0002	0.0392	37.6	0.0052	<0.000002	0.0267	0.0022		5.98	0.0106
RSEM-L6-SP	7/11/2019 13:00	WC0498	M	3.3	3.7	0.217	0.00215	0.00108	0.0723	<0.0001	<0.001	0.211	0.000022	93.5	0.0013	0.00033	0.00169	0.166	<0.0002	0.038	36.9	0.0064	<0.000002	0.0272	0.0024		6.08	0.0107
RSEM-L6-SP	7/12/2019 11:30	WC0455	M	3.2	3.5	0.232	0.00212	0.00107	0.0694	<0.0001	<0.001	0.218	0.000022	94.0	0.0014	0.0003	0.00174	0.233	<0.0002	0.0385	37.2	0.0068	<0.000002	0.0267	0.0023		6.19	0.0109
RSEM-L6-SP	7/13/2019 13:25	WC4189	M	3.5	2.8	0.195	0.00211	0.00106	0.0641	<0.0001	<0.001	0.221	0.000021	91.3	0.0013	0.00026	0.00186	0.133	<0.0002	0.0379	36.3	0.0046	<0.000002	0.026	0.0019		5.73	0.011
RSEM-L6-SP	7/14/2019 14:00	WC4353	M	3.6	4.1	0.162	0.00208	0.00106	0.0668	<0.0001	<0.001	0.213	0.000023	90.2	0.0011	0.00027	0.00169	0.13	<0.0002	0.0383	37.1	0.0045	<0.000002	0.0269	0.0022		5.96	0.0108
RSEM-L6-SP	7/15/2019 12:20	WC7555	M	3.4	4.1	0.16	0.002	0.00097	0.0661	<0.0001	<0.001	0.214	0.000019	90.7	0.0012	0.00024	0.0016	0.114	<0.0002	0.0391	35.9	0.0042	<0.000002	0.0259	0.0021		5.91	0.0102
RSEM-L6-SP	7/16/2019 12:50	WC9633	M	3.3	4.0	0.116	0.00209	0.00102	0.0684	<0.0001	<0.001	0.218	0.000018	98.3	0.0011	0.00028	0.00177	0.109	<0.0002	0.039	38.6	0.0047	<0.000002	0.0277	0.0023		6.18	0.0111
RSEM-L6-SP	7/17/2019 14:20	WD1677	M	3.4	3.6	0.192	0.00211	0.00102	0.0669	<0.0001	<0.001	0.226	0.000029	103	0.0013	0.00026	0.00207	0.172	<0.0002	0.0401	39.1	0.0048	<0.000002	0.0263	0.0018		6.68	0.0108
RSEM-L6-SP	7/18/2019 13:20	WD4014	M	3.2	4.2	0.148	0.00205	0.00099	0.0676	<0.0001	<0.001	0.21	0.000016	93.4	0.0012	0.00024	0.00178	0.168	<0.0002	0.0374	36.4	0.0048	<0.000002	0.0274	0.0021		6.17	0.0103
RSEM-L6-SP	7/19/2019 12:48	WD4025	M	3.7	4.3	0.176	0.00199	0.00099	0.0653	<0.0001	<0.001	0.213	0.000021	91.1	0.0012	0.00024	0.0018	0.158	<0.0002	0.0384	36.2	0.0045	<0.000002	0.0268	0.0022		6.05	0.0102
RSEM-L6-SP	7/20/2019 14:30	WD7113	M	4.3	4.2	0.202	0.0021	0.00097	0.0685	<0.0001	<0.001	0.227	0.000011	95.9	0.0012	0.00023	0.00181	0.15	<0.0002	0.04	38.2	0.004	0.000006	0.0282	0.0021		6.21	0.0106
RSEM-L6-SP	7/21/2019 14:30	WD7086	M	3.3	4.0	0.251	0.00213	0.001	0.0693	<0.0001	<0.001	0.235	0.000013	98.8	0.0013	0.00025	0.00186	0.174	<0.0002	0.0419	39.1	0.0045	<0.000002	0.0283	0.0022		6.32	0.0104
RSEM-L6-SP	7/22/2019 12:35	WD8946	M	3.5	3.8	0.182	0.0021	0.00097	0.066	<0.0001	<0.001	0.22	0.000018	96.3	0.0012	0.00021	0.00178	0.129	<0.0002	0.04	37.6	0.0037	0.0000023	0.0285	0.0021		6.17	0.0106
RSEM-L6-SP	7/23/2019 13:50	WE1027	M	3.9	3.8	0.237	0.0019	0.00104	0.0641	<0.0002	<0.002	0.203	<0.00002	86.9	<0.002	<0.0004	0.0018	0.192	<0.0004	0.0391	36.1	0.0049	0.0000022	0.0258	0.0022		6.04	0.0107
RSEM-L6-SP	7/24/2019 12:35	WE3037	M	3.5	3.7	0.0786	0.00199	0.00101	0.0651	<0.0001	<0.001	0.191	0.000023	91.7	0.001	0.00021	0.00161	0.117	<0.0002	0.0344	36.5	0.0036	0.0000024	0.0275	0.0019		6.12	0.0104
RSEM-L6-SP	7/25/2019 13:00	WE4850	M	3.6	4.1	0.133	0.00198	0.00094	0.0646	<0.0001	<0.001	0.223	0.000013	94.0	0.0011	<0.0002	0.00173	0.114	<0.0002	0.0431	38.0	0.0032	<0.000002	0.0304	0.002		6.32	0.0104
RSEM-L6-SP	7/26/2019 10:20	WE4708	M	3.6	4.2	0.185	0.00188	0.00092	0.0649	<0.0001	<0.001	0.223	0.00002	94.9	0.0013	0.00022	0.00178	0.19	<0.0002	0.0409	38.1	0.005	<0.000002	0.0302	0.002		6.22	0.0104
RSEM-L6-SP	7/27/2019 12:15	WE7077	M	3.6	3.9	0.0877	0.00198	0.001	0.0627	<0.0001	<0.001	0.21	0.000016	90.7	0.0011	<0.0002	0.00169	0.096	<0.0002	0.0399	38.1	0.0028	<0.000002	0.0274	0.0018		6.15	0.0104
RSEM-L6-SP	7/28/2019 12:30	WE7124	M	4.1	3.9	0.108	0.00194	0.00096	0.0625	<0.0001	<0.001	0.206	0.000016	89.5	0.0012	<0.0002	0.0023	0.114	<0.0002	0.0408	37.9	0.0034	<0.000002	0.0271	0.002		6.14	0.0101
RSEM-L6-SP	7/29/2019 10:15	WE7143	M	4.1	4.1	0.0941	0.00186	0.00091	0.0578	<0.0001	<0.001	0.2	0.000013	86.5	0.0011	<0.0002	0.00183	0.102	<0.0002	0.0402	37.3	0.0031	<0.000002	0.0262	0.0018		5.89	0.0101
RSEM-L6-SP	7/30/2019 12:35	WF2075	M	3.6	3.9	0.101	0.00192	0.00091	0.0612	<0.0001	<0.001	0.204	<0.00001	91.1	0.0011	<0.0002	0.00158	0.089	<0.0002	0.0419	38.6	0.0027	0.0000023	0.027	0.0018		6.29	0.0104
RSEM-L6-SP	7/31/2019 12:15	WF4367	M	4.1	3.6	0.0625	0.002	0.00086	0.0592	<0.0002	<0.002	0.22	<0.00002	90.2	<0.002	<0.0004	0.0017	0.082	<0.0004	0.0391	38.1	0.0032	<0.000002	0.0262	<0.002		6.26	0.01
RSEM-L6-SP	8/1/2019 12:50	WF6262	M	3.4	3.7	0.118	0.0021	0.00128	0.06	0.00055	<0.002	0.225	0.000015	89.6	<0.002	0.00067	0.0022	0.115	0.00061	0.0407	38.5	0.0039	<0.000002	0.026	0.0026		6.37	0.0111
RSEM-L6-SP	8/2/2019 10:25	WF6286	M	3.7	3.6	0.108	0.002	0.00098	0.0601	<0.0002	<0.002	0.23	0.000161	92.8	<0.002	<0.0004	0.0018	0.108	<0.0004	0.0416	40.3	0.0043	<0.000002	0.0265	0.0021		6.38	0.0107
RSEM-L6-SP	8/3/2019 12:55	WF7650	M	3.7	3.4	0.0695	0.00191	0.00078	0.0606	<0.0001	<0.001	0.211	<0.00001	91.4	0.0011	<0.0002	0.00166	0.083	<0.0002	0.0421	38.1	0.0024	<0.000002	0.0274	0.0018		6.27	0.00963
RSEM-L6-SP	8/4/2019 14:30	WF7665	M	3.8	3.6	0.102	0.00188	0.00082	0.0616	<0.0001	<0.001	0.202	<0.00001	90.2	0.0012	<0.0002	0.00169	0.111	<0.0002	0.0405	37.7	0.0029	<0.000002	0.0272	0.0018		6.29	0.00939
RSEM-L6-SP	8/5/2019 12:17	WF9955	M	3.5	4.0	0.0929	0.00194	0.00083	0.059	<0.0001	<0.001	0.219	0.000015	89.3	0.0011	<0.0002	0.00162	0.088	<0.0002	0.0381	39.7	0.0023	<0.000002	0.0273	0.0016		6.25	0.0103
RSEM-L6-SP	8/6/2019 12:45	WG2809	M	3.7	3.7	0.0933	0.00195	0.00083	0.0583	<0.0001	<0.001	0.212	0.000012	89.6	0.001	<0.0002	0.00187	0.089	<0.0002	0.0372	39.5	0.0025	<0.000002	0.027	0.0017		6.24	0.00987
RSEM-L6-SP	8/14/2019 10:45	WH7028	M	3.8	3.8	0.0584	0.00189	0.00073	0.0534	<0.0001	<0.001	0.212	0.000011	93.3	0.0012	<0.0002	0.00153	0.081	<0.0002	0.0406	39.2	0.0027	<0.000002	0.0273	0.0016		6.37	0.00898
RSEM-L6-SP	8/20/2019 13:00	WI5440	M	3.1	3.8	0.126	0.00144	0.00068	0.0716	<0.0001	<0.001	0.174	0.000035	95.4	0.0012	0.0003	0.00179	0.202	<0.0002	0.0321	35.9	0.0134	<0.000002	0.023	0.0019		5.86	0.00865
RSEM-L6-SP	8/27/2019 13:35	WJ7315	M	3.4	3.4	0.0962	0.00138	0.00066	0.0655	<0.0001	<0.001	0.164	0.000029	96.5	0.0011	0.0002	0.00146	0.136	<0.0002	0.0285	36.5	0.0054	<0.000002	0.0235	0.0014		5.95	0.00857
RSEM-L6-SP	9/3/2019 14:00	WK8386	M	2.9	3.7	0.0522	0.00139	0.00061	0.0627	<0.0001	<0.001	0.173	0.000021	94.6	<0.001	<0.0002	0.0014	0.074	<0.0002	0.0331	36.9	0.003	<0.000002	0.0225	0.0014		5.98	0.00824
RSEM-L6-SP	11/24/2019 14:00	WZ7701	M	2.3	2.3	0.0693	<0.0005	0.00037	0.0588	<0.0001	<0.001	0.061	0.000059	119	<0.001	<0.0002	0.00126	0.071	<0.0002	0.0117	32.2	0.0118	0.0000021	0.0107	0.0016		4.72	0.00389
RSEM-L6-SP	12/16/2019 15:20	XD3848	M	2.98	3.11	0.141	0.00066	0.00054	0.0639	<0.0001	<0.001	0.09	0.000086	184	0.0012	0.00029	0.00191	0.176	<0.0002	0.0157	55.4	0.0092	<0.000002	0.0143	0.0024		6.91	0.00548
RSEM-R5a-A-EOP	3/18/2019 10:45	VJ6957	M	3.5	3.3	46	0.00077	0.0231	3.15	0.00345	<0.001	0.219	0.00217	55.6	0.0652	0.045	0.129	81.8	0.0532	0.091	18.4	1.12	0.0000082	0.0038	0.122		13.0	0.00327
RSEM-R5a-A-EOP	3/19/2019 17:01	VK0908	M	16	2.7	15.3	<0.001	0.00933	0.921	0.00101	<0.002	<0.1	0.000575	25.3	0.0225	0.0129	0.0384	22.7	0.0151	0.0305	7.31	0.323	0.0000036	0.0032	0.0375		7.04	0.00372
RSEM-R5a-A-EOP	3/20/2019 9:30	VK2370	M	2.4	2.2	3.39	<0.0005	0.0031	0.344	0.00032	<0.001	<0.05	0.000197	19.4	0.0054	0.00447	0.0133	6.23	0.0048	0.0128	3.93	0.104	0.000003	0.0029	0.0122		3.65	0.00304
RSEM-R5a-A-EOP	3/21/2019 14:10	VK3786	M	2.4	1.9	5.48	<0.0005	0.00158	0.152	0.00017	<0.001	0.052	0.000089	46.5	0.0075	0.0013	0.0043	3.07	0.00173	0.0091	9.61	0.0441	0.0000051	0.0038	0.0047		3.31	0.00352
RSEM-R5A-A-SP	3/14/2019 15:00	VJ4043	M	6.8	3.4	30.7	<0.0025	0.0127	1.81	0.00199	<0.005	<0.25	0.00101	36.2	0.0444	0.0251	0.0767	45.3	0.0298	0.049	10.6	0.651	0.000003	<0.005	0.0691		9.45	0.00209
RSEM-R5A-A-SP	3/22/2019 8:45	VK3761	M	2.4	1.6	4.76	<0.0005	0.00206	0.218	0.00024	<0.001	<0.05	0.000102	19.1	0.007	0.00243	0.00777	4.06	0.00248	0.0113	3.74	0.0571	<0.000002	0.0037	0.0076		3.94	0.00355
RSEM-R5A-A-SP	3/23/2019 16:50	VK5906	M	1.2	1.9	10.1	<0.0025	0.00253	0.269	<0.0005	<0.005	<0.25	0.000116	17.8	0.0162	0.003	0.0091	6.32	0.0032	0.018	4.11	0.0678	0.0000032	<0.005	0.0094		5.92	0.00439
RSEM-R5A-A-SP	3/24/2019 15:52	VK5970	M	0.82	1.1	13	<0.0025	0.00225	0.254	<0.0005	<0.005	<0.25	0.000101	17.9	0.0169	0.0024	0.0072	5.6	0.0028	0.018	3.91	0.0573	0.0000076	<0.005	0.0078		6.12	0.00404
RSEM-R5A-A-SP	3/25/2019 13:56	VK7775	M	2.0	1.7	11.7	<0.001	0.00163	0.219	0.00035	<0.002	<0.1	0.000088	17.6	0.0142	0.0017	0.0052	3.83	0.00211	0.0162	4.24	0.0433	0.0000074	0.0042	0.0064		6.18	0.00361
RSEM-R5A-A-SP	3/26/2019 14:26	VK9034	M	1.4	1.3	1.82	<0.0005	0.0011	0.143	<0.0001	<0.001	<0.05	0.000059	18.7	0.0026	0.00114	0.00405	1.58	0.00118	0.0088	3.29	0.0317	<0.000002	0.0039	0.0037		3.10	0.00369
RSEM-R5A-A-SP	3/27/2019 14:57	VL1964	M	4.3	1.4	1.55	<0.0005	0.00146	0.152	0.0001	<0.001	<0.05	0.000068	18.9	0.0026	0.00152	0.00529	2.44	0.00153	0.0099	3.43	0.0399	<0.000002	0.004	0.005		3.23	0.00367
RSEM-R5A-A-SP	3/28/2019 12:30	VL3517	M	1.8	1.8	4.18	<0.001	0.00152	0.17	<0.0002	<0.002	<0.1	0.000072	19.9	0.0058	0.00155	0.0051	2.84	0.00168	0.0127	3.50	0.0386	<0.000002	0.0045	0.0055		4.06	0.00401
RSEM-R5A-A-SP	4/3/2019 13:30	VM2012	M	1.2	1.7	3.47	0.0005	0.00215	0.223	0.0002	<0.001	0.065	0.00011	22.0	0.0051	0.00234	0.00716	4.34	0.00247	0.015	4.31	0.0799	0.0000138	0.005	0.0072		4.14	0.00338
RSEM-R5A-A-SP	4/10/2019 14:20	VN0773	M	1.2	1.7	2.54	<0.0025	0.00336	0.299	<0.0005	<0.005	<0.25	0.000165	27.7	<0.005	0.0031	0.0088	7.35	0.0038	0.016	5.01	0.141	<0.000002	<0.005	0.0082		3.79	0.00288
RSEM-R5A-A-SP	4/11/2019 9:45	VN1903	M	0.83	1.6	1.79	<0.001	0.00146	0.224	<0.0002	<0.002	<0.1	0.000072	24.0	0.0027	0.00157	0.0052	2.92	0.0016	0.0126	3.95	0.0692	<0.000002	0.0047	0.005		3.44	0.00263
RSEM-R5A-A-SP	4/12/2019 8:58	VN1938	M	0.62	1.6	1.41	<0.001	0.00138	0.215	<0.0002	<0.002	<0.1	0.000072	23.2	0.0024	0.00139	0.0045	2.38	0.00142	0.0129	4.09	0.0626	<0.000002	0.0049	0.0047		3.51	0.0026
RSEM-R5A-A-SP	4/13/2019 9:58	VN4349	M	1.9	1.2	1.25	0.00051	0.00131	0.199	<0.0001	<0.001	0.057	0.000071	22.1	0.002	0.00139	0.00615	2.27	0.00127	0.0122	4.02	0.0631	<0.000002	0.0052	0.0072		3.35	0.00288
RSEM-R5A-A-SP	4/14/2019 10:44	VN4344	M	1.7	2.4	0.968	<0.0005	0.00099	0.178	<0.0001	<0.001	0.055	0.00005	20.8	0.0015	0.00107	0.00343	1.53	0.0009	0.0118	3.80	0.0483	<0.000002	0.0052	0.0038		3.10	0.00267
RSEM-R5A-A-SP	4/15/2019 10:15	VN6309	M	1.8	1.5	1.01	0.00054	0.00105	0.195	<0.0001	<0.001	0.077	0.00009	24.8	0.0015	0.00158	0.00369	1.57	0.00098	0.0138	4.30	0.0494	<0.000002	0.0056	0.0053		3.65	0.0027
RSEM-R5A-A-SP	4/16/2019 13:31	VN8484	M	1.2	1.6	2.16	0.00053	0.00092	0.192	<0.0001	<0.001	0.067	0.000043	23.3	0.0029	0.00083	0.00284	1.39	0.00089	0.0146	3.98	0.0303	<0.000002	0.0054	0.0031		3.71	0.00258

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L6-SP	6/18/2019 13:45	VX8836	M	0.629	<0.00002	238	0.443	191	0.000027	<0.005	<0.005	0.00667	<0.005	<0.005	0.00016	0.0092	0.00324	0.00147	0.0644	<0.0001	<0.001	0.285	0.000014	62.2	0.0016	<0.0002	0.00171	<0.01
RSEM-L6-SP	6/19/2019 13:25	VY1846	M	0.572	<0.00002	248	0.468	194	0.000021	<0.005	<0.005	0.00685	<0.005	<0.005	0.0001	0.0105	0.00325	0.00159	0.0645	<0.0001	<0.001	0.262	0.000013	63.7	0.0017	<0.0002	0.00178	<0.01
RSEM-L6-SP	6/20/2019 12:55	VY4154	M	0.514	<0.00002	242	0.473	195	0.000021	<0.005	<0.005	0.0068	<0.005	<0.005	0.00012	0.0106	0.00329	0.00147	0.0641	<0.0001	<0.001	0.3	0.000013	62.3	0.0016	<0.0002	0.00176	<0.01
RSEM-L6-SP	6/21/2019 10:35	VY4165	M	0.5	<0.00004	239	0.422	190	0.00002	<0.01	<0.01	0.00639	<0.01	<0.01	0.00081	0.0098	0.00328	0.00147	0.0632	<0.0001	<0.001	0.289	0.000013	62.5	0.0016	<0.0002	0.00169	<0.01
RSEM-L6-SP	6/22/2019 12:50	VY6746	M	0.531	<0.00002	250	0.474	198	0.000019	<0.005	<0.005	0.0068	<0.005	<0.005	0.00014	0.0108	0.00332	0.00155	0.0639	<0.0001	<0.001	0.275	<0.00001	65.8	0.0015	<0.0002	0.0019	<0.01
RSEM-L6-SP	6/23/2019 12:50	VY6759	M	0.53	<0.00002	248	0.471	195	0.00002	<0.005	<0.005	0.00677	<0.005	<0.005	<0.0001	0.0116	0.00325	0.00164	0.0644	<0.0001	<0.001	0.281	<0.00001	68.0	0.0015	0.00024	0.00173	<0.01
RSEM-L6-SP	6/24/2019 9:20	VY9736	M	0.521	<0.00002	236	0.455	192	0.00002	<0.005	<0.005	0.00622	<0.005	<0.005	<0.0001	0.0098	0.00302	0.0014	0.0587	<0.0001	<0.001	0.286	<0.00001	63.0	0.0015	<0.0002	0.0018	<0.01
RSEM-L6-SP	6/25/2019 12:45	VZ1751	M	0.788	<0.00002	225	0.47	194	0.000022	<0.005	<0.005	0.00617	<0.005	0.0068	<0.0001	0.0113	0.00278	0.00139	0.0595	<0.0001	<0.001	0.245	0.00002	76.0	0.0013	<0.0002	0.00157	<0.01
RSEM-L6-SP	6/26/2019 1:10	VZ5392	M	0.683	<0.00002	227	0.503	204	0.000019	<0.005	<0.005	0.00605	<0.005	0.0061	<0.0001	0.0112	0.00281	0.0013	0.0601	<0.0001	<0.001	0.257	0.000024	81.1	0.0013	0.00021	0.00172	<0.01
RSEM-L6-SP	6/27/2019 13:12	VZ7728	M	0.878	<0.00002	226	0.463	213	0.000024	<0.005	<0.005	0.00643	<0.005	<0.005	0.00011	0.0117	0.00268	0.00125	0.0619	<0.0001	<0.001	0.257	0.00002	86.5	0.0012	<0.0002	0.00151	<0.01
RSEM-L6-SP	6/28/2019 9:45	VZ7859	M	0.678	<0.00002	217	0.485	210	0.000019	<0.005	<0.005	0.00591	<0.005	<0.005	<0.0001	0.0108	0.00271	0.00124	0.0609	<0.0001	<0.001	0.258	0.000021	85.3	0.0012	<0.0002	0.00153	<0.01
RSEM-L6-SP	6/29/2019 9:30	VZ9041	M	0.705	<0.00002	218	0.475	207	0.000021	<0.005	<0.005	0.00606	<0.005	<0.005	<0.0001	0.0095	0.00265	0.00124	0.0584	<0.0001	<0.001	0.246	0.000012	79.8	0.0012	<0.0002	0.00156	<0.01
RSEM-L6-SP	6/30/2019 14:40	WA1461	M	0.949	<0.00002	218	0.469	216	0.000023	<0.005	<0.005	0.00616	<0.005	<0.005	<0.0001	0.0124	0.00257	0.00118	0.0632	<0.0001	<0.001	0.23	0.000026	89.2	0.0013	0.00021	0.00161	<0.01
RSEM-L6-SP	7/1/2019 12:45	WA1438	M	1.09	<0.00002	187	0.442	188	0.000023	<0.005	<0.005	0.0055	<0.005	<0.005	<0.0001	0.0104	0.00212	0.00101	0.0616	<0.0001	<0.001	0.21	0.000022	83.6	0.001	<0.0002	0.00134	<0.01
RSEM-L6-SP	7/2/2019 14:15	WA3405	M	1.05	<0.00002	189	0.508	195	0.000019	<0.005	<0.005	0.00553	<0.005	<0.005	<0.0001	0.0155	0.00231	0.00105	0.0692	<0.0001	<0.001	0.213	0.000033	95.6	0.001	0.00028	0.00137	<0.01
RSEM-L6-SP	7/3/2019 12:29	WA5878	M	0.94	<0.00002	188	0.454	195	0.00002	<0.005	<0.005	0.00552	<0.005	0.0061	<0.0001	0.0136	0.00221	0.00107	0.0635	<0.0001	<0.001	0.204	0.000028	102	0.0011	0.00027	0.00146	<0.01
RSEM-L6-SP	7/4/2019 13:00	WA7983	M	1.13	<0.00002	202	0.452	206	0.000021	<0.005	<0.005	0.00573	<0.005	<0.005	0.0001	0.0132	0.00213	0.00106	0.064	<0.0001	<0.001	0.201	0.000024	97.5	0.001	0.00021	0.00146	<0.01
RSEM-L6-SP	7/5/2019 10:50	WA8013	M	1.09	<0.00002	190	0.46	201	0.000023	<0.005	<0.005	0.00574	<0.005	<0.005	<0.0001	0.0129	0.00216	0.001	0.0636	<0.0001	<0.001	0.204	0.000023	96.6	<0.001	<0.0002	0.00137	<0.01
RSEM-L6-SP	7/6/2019 12:10	WB1487	M	1.05	<0.00002	189	0.494	199	0.000018	<0.005	<0.005	0.00604	<0.005	<0.005	<0.0001	0.0141	0.00208	0.00098	0.0639	<0.0001	<0.001	0.203	0.000026	103	<0.001	0.00022	0.00148	<0.01
RSEM-L6-SP	7/7/2019 11:50	WB1479	M	0.984	<0.00002	197	0.499	205	0.00002	<0.005	<0.005	0.00607	<0.005	<0.005	<0.0001	0.0134	0.00205	0.00095	0.062	<0.0001	<0.001	0.2	0.000019	95.9	0.001	<0.0002	0.00149	<0.01
RSEM-L6-SP	7/8/2019 10:00	WB4604	M	1	<0.00002	207	0.437	216	0.000023	<0.005	<0.005	0.00574	<0.005	<0.005	<0.0001	0.0129	0.00225	0.00096	0.0661	<0.0001	<0.001	0.222	0.000018	99.2	0.0011	<0.0002	0.00142	<0.01
RSEM-L6-SP	7/9/2019 14:10	WB6318	M	0.994	<0.00002	199	0.501	204	0.000019	<0.005	<0.005	0.00594	<0.005	<0.005	0.0003	0.0114	0.00207	0.00098	0.0608	<0.0001	<0.001	0.209	0.00002	89.8	<0.001	<0.0002	0.00126	<0.01
RSEM-L6-SP	7/10/2019 12:00	WB8324	M	1.07	<0.00002	200	0.478	205	0.00002	<0.005	<0.005	0.00589	<0.005	<0.005	<0.0001	0.012	0.00196	0.00103	0.0614	<0.0001	<0.001	0.204	0.000019	92.0	<0.001	0.0002	0.00129	<0.01
RSEM-L6-SP	7/11/2019 13:00	WC0498	M	1.09	<0.00002	195	0.503	208	0.00002	<0.005	<0.005	0.00587	<0.005	<0.005	0.00019	0.0125	0.00209	0.00101	0.0628	<0.0001	<0.001	0.208	0.000023	92.0	0.001	<0.0002	0.00133	<0.01
RSEM-L6-SP	7/12/2019 11:30	WC0455	M	1.36	<0.00002	197	0.505	209	0.000022	<0.005	<0.005	0.00609	<0.005	<0.005	0.00028	0.0118	0.00206	0.00094	0.0613	<0.0001	<0.001	0.212	0.000014	95.2	<0.001	<0.0002	0.0013	<0.01
RSEM-L6-SP	7/13/2019 13:25	WC4189	M	0.971	<0.00002	204	0.428	202	0.000021	<0.005	<0.005	0.00549	<0.005	<0.005	0.00036	0.0137	0.00221	0.001	0.0652	<0.0001	<0.001	0.233	0.00002	111	0.001	<0.0002	0.00148	<0.01
RSEM-L6-SP	7/14/2019 14:00	WC4353	M	0.86	<0.00002	196	0.513	204	0.000022	<0.005	<0.005	0.00577	<0.005	<0.005	<0.0001	0.0153	0.00219	0.00099	0.0659	<0.0001	<0.001	0.235	0.000016	108	0.001	<0.0002	0.00131	<0.01
RSEM-L6-SP	7/15/2019 12:20	WC7555	M	0.856	<0.00002	194	0.486	195	0.00002	<0.005	<0.005	0.00604	<0.005	<0.005	<0.0001	0.0127	0.00212	0.00093	0.0628	<0.0001	<0.001	0.217	0.000014	95.8	0.001	<0.0002	0.00135	<0.01
RSEM-L6-SP	7/16/2019 12:50	WC9633	M	0.76	<0.00002	203	0.498	210	0.000021	<0.005	<0.005	0.00593	<0.005	<0.005	0.00012	0.0129	0.00212	0.00088	0.0612	<0.0001	<0.001	0.233	0.000015	91.8	<0.001	<0.0002	0.00128	<0.01
RSEM-L6-SP	7/17/2019 14:20	WD1677	M	1.03	<0.00002	208	0.474	232	0.000023	<0.005	<0.005	0.00577	<0.005	<0.005	0.00015	0.0132	0.00207	0.00097	0.0606	<0.0001	<0.001	0.2	0.000012	91.3	<0.001	<0.0002	0.00145	<0.01
RSEM-L6-SP	7/18/2019 13:20	WD4014	M	0.714	<0.00002	192	0.515	207	0.000023	<0.005	<0.005	0.00607	<0.005	<0.005	0.0003	0.0159	0.00201	0.00091	0.0609	<0.0001	<0.001	0.22	0.000011	96.2	<0.001	<0.0002	0.00131	<0.01
RSEM-L6-SP	7/19/2019 12:48	WD4025	M	0.785	<0.00002	191	0.503	205	0.000021	<0.005	<0.005	0.00597	<0.005	<0.005	0.0002	0.0138	0.002	0.00094	0.0611	<0.0001	<0.001	0.224	0.000014	96.7	<0.001	<0.0002	0.00131	<0.01
RSEM-L6-SP	7/20/2019 14:30	WD7113	M	0.803	<0.00002	203	0.53	211	0.000021	<0.005	<0.005	0.00595	<0.005	<0.005	0.00017	0.0133	0.00208	0.00088	0.0614	<0.0001	<0.001	0.227	0.000016	95.5	0.0011	<0.0002	0.00147	<0.01
RSEM-L6-SP	7/21/2019 14:30	WD7086	M	0.897	<0.00002	209	0.539	220	0.000024	<0.005	0.0065	0.00612	<0.005	<0.005	0.00023	0.013	0.00207	0.00089	0.0612	<0.0001	<0.001	0.229	<0.00001	96.0	<0.001	<0.0002	0.00136	<0.01
RSEM-L6-SP	7/22/2019 12:35	WD8946	M	0.73	<0.00002	198	0.517	208	0.000021	<0.005	<0.005	0.00598	<0.005	<0.005	0.00011	0.0132	0.00197	0.0009	0.0575	<0.0001	<0.001	0.207	<0.00001	89.2	<0.001	<0.0002	0.00131	<0.01
RSEM-L6-SP	7/23/2019 13:50	WE1027	M	0.864	<0.00004	189	0.477	202	0.00002	<0.01	<0.01	0.00544	<0.01	<0.01	0.00021	0.0133	0.0021	0.00088	0.0592	<0.0001	<0.001	0.218	0.00001	95.9	<0.001	<0.0002	0.00145	<0.01
RSEM-L6-SP	7/24/2019 12:35	WE3037	M	0.505	<0.00002	189	0.521	208	0.000021	<0.005	<0.005	0.00576	<0.005	<0.005	<0.0001	0.0122	0.00206	0.00095	0.0592	<0.0001	<0.001	0.22	0.00001	91.2	<0.001	<0.0002	0.0013	<0.01
RSEM-L6-SP	7/25/2019 13:00	WE4850	M	0.592	<0.00002	203	0.521	210	0.000017	<0.005	<0.005	0.00606	<0.005	<0.005	0.00014	0.0126	0.002	0.00089	0.0576	<0.0001	<0.001	0.209	0.000012	90.8	<0.001	<0.0002	0.00134	<0.01
RSEM-L6-SP	7/26/2019 10:20	WE4708	M	0.7	<0.00002	202	0.511	206	0.000019	<0.005	<0.005	0.00615	<0.005	<0.005	<0.0001	0.0131	0.002	0.00088	0.0572	<0.0001	<0.001	0.207	0.000014	91.7	<0.001	<0.0002	0.00133	<0.01
RSEM-L6-SP	7/27/2019 12:15	WE7077	M	0.467	<0.00002	195	0.512	208	0.000022	<0.005	<0.005	0.00564	<0.005	<0.005	<0.0001	0.0136	0.002	0.0008	0.0561	<0.0001	<0.001	0.241	0.000016	94.3	<0.001	<0.0002	0.0016	<0.01
RSEM-L6-SP	7/28/2019 12:30	WE7124	M	0.497	<0.00002	195	0.507	205	0.000022	<0.005	<0.005	0.00569	<0.005	<0.005	<0.0001	0.014	0.00201	0.00083	0.0578	<0.0001	<0.001	0.221	<0.00001	92.6	<0.001	<0.0002	0.00201	<0.01
RSEM-L6-SP	7/29/2019 10:15	WE7143	M	0.405	<0.00002	188	0.489	202	0.000019	<0.005	<0.005	0.00574	<0.005	<0.005	<0.0001	0.0141	0.00197	0.00084	0.0575	<0.0001	<0.001	0.229	<0.00001	93.8	<0.001	<0.0002	0.00163	<0.01
RSEM-L6-SP	7/30/2019 12:35	WF2075	M	0.487	<0.00002	199	0.505	212	0.00002	<0.005	<0.005	0.00597	<0.005	<0.005	0.0001	0.0147	0.002	0.00081	0.0569	<0.0001	<0.001	0.222	<0.00001	95.9	<0.001	<0.0002	0.00137	<0.01
RSEM-L6-SP	7/31/2019 12:15	WF4367	M	0.329	<0.00004	200	0.537	208	<0.00002	<0.01	<0.01	0.00568	<0.01	<0.01	<0.0002	0.0187	0.00212	0.00087	0.0612	<0.0001	<0.001	0.247	<0.00001	97.6	<0.001	<0.0002	0.00151	<0.01
RSEM-L6-SP	8/1/2019 12:50	WF6262	M	0.447	<0.00004	203	0.487	213	0.000096	<0.01	<0.01	0.00637	<0.01	<0.01	<0.0002	0.014	0.00204	0.00081	0.0555	<0.0001	<0.001	0.222	<0.00001	96.0	<0.001	<0.0002	0.00129	<0.01
RSEM-L6-SP	8/2/2019 10:25	WF6286	M	0.464	<0.00004	207	0.507	217	0.000044	<0.01	<0.01	0.00614	<0.01	<0.01	<0.0002	0.014	0.00201	0.0008	0.0545	<0.0001	<0.001	0.219	<0.00001	86.5	<0.001	<0.0002	0.00146	<0.01
RSEM-L6-SP	8/3/2019 12:55	WF7650	M	0.313	<0.00002	189	0.557	204	0.00002	<0.005	<0.005	0.00638	<0.005	<0.005	<0.0001	0.0145	0.00204	0.00082	0.0565	<0.0001	<0.001	0.226	<0.00001	90.3	<0.001	<0.0002	0.00126	<0.01
RSEM-L6-SP	8/4/2019 14:30	WF7665	M	0.317	<0.00002	186	0.549	205	0.000022	<0.005	<0.005	0.00623	<0.005	<0.005	<0.0001	0.0152	0.00201	0.00075	0.0598	<0.0001	<0.001	0.226	<0.00001	94.4	<0.001	<0.0002	0.00113	<0.01
RSEM-L6-SP	8/5/2019 12:17	WF9955	M	0.326	<0.00002	203	0.522	215	0.000021	<0.005	<0.005	0.00601	<0.005	<0.005	<0.0001	0.0161	0.002	0.00078	0.0559	<0.0001	<0.001	0.229	<0.00001	92.6	<0.001	<0.0002	0.00142	<0.01
RSEM-L6-SP	8/6/2019 12:45	WG2809	M	0.292	<0.00002	201	0.519	216	0.00002	<0.005	<0.005	0.00608	<0.005	<0.005	<0.0001	0.0145	0.00193	0.00072	0.0546	<0.0001	<0.001	0.224	<0.00001	91.1	0.0011	<0.0002	0.00146	<0.01
RSEM-L6-SP	8/14/2019 10:45	WH7028	M	0.194	<0.00002	199	0.534	216	0.000018	<0.005	<0.005	0.00584	<0.005	<0.005	<0.0001	0.0184	0.0019	0.00069	0.0523	<0.0001	<0.001	0.234	<0.00001	93.7	<0.001	<0.0002	0.0013	<0.01
RSEM-L6-SP	8/20/2019 13:00	WI5440	M	0.815	<0.00002	161	0.49	191	0.000014	<0.005	<0.005	0.00498	<0.005	<0.005	<0.0001	0.0255	0.0015	0.0006	0.0648	<0.0001	<0.001	0.181	0.000023	96.9	<0.001	<0.0002	0.00117	<0.01
RSEM-L6-SP	8/27/2019 13:35	WJ7315	M	0.675	<0.00002	164	0.508	197	0.000015	<0.005	<0.005	0.00509	<0.005	<0.005	<0.0001	0.0159	0.00138	0.00058	0.0631	<0.0001	<0.001	0.18	<0.00001	95.9	<0.001	<0.0002	0.00112	<0.01
RSEM-L6-SP	9/3/2019 14:00	WK8386	M	0.41	<0.00002	163	0.521	201	0.000015	<0.005	<0.005	0.00477	<0.005	<0.005	<0.0001	0.0134	0.00143	0.00057	0.0615	<0.0001	<0.001	0.175	0.000021	98.8	<0.001	<0.0002	0.00124	<0.01
RSEM-L6-SP	11/24/2019 14:00	WZ7701	M	1.32	<0.00002	56.5	0.468	139	0.000011	<0.005	<0.005	0.00453	<0.005	<0.005	<0.0001	0.0047	<0.0005	0.00038	0.0594	<0.0001	<0.001	0.066	0.000058	127	<0.001	<0.0002	0.00097	<0.01
RSEM-L6-SP	12/16/2019 15:20	XD3848	M	1.44	<0.00002	90.6	0.669	223	0.000015	<0.005	<0.005	0.00699	<0.005	0.0081	0.00012	0.0071	0.00066	0.0005	0.0581	<0.0001	<0.001	0.092	0.000075	178	<0.001	<0.0002	0.00149	<0.01
RSEM-R5a-A-EOP	3/18/2019 10:45	VJ6957	M	63.6	0.000839	39.7	0.414	20.3	0.000711	<0.005	0.128	0.00553	0.0884	0.469	0.00186	0.0306	0.00064	0.00063	0.0909	<0.0001	<0.001	0.056	<0.00001	13.9	<0.001	<0.0002	0.00111	0.015
RSEM-R5a-A-EOP	3/19/2019 17:01	VK0908	M	21.9	0.000238	30.2	0.182	26.0	0.000328	<0.01	0.112	0.00239	0.039	0.16	0.00187	0.0289	<0.0005	0.00041	0.0568	<0.0001	<0.001	<0.05	<0.00001	16.0	<0.001	<0.0002	0.00084	0.031
RSEM-R5a-A-EOP	3/20/2019 9:30	VK2370	M	4.86	0.000052	30.5	0.121	22.6	0.000103	<0.005	0.0222	0.00149	0.0094	0.0537	0.00034	0.0186	<0.0005	0.00041	0.0631	<0.0001	<0.001	<0.05	0.000012	17.0	<0.001	<0.0002	0.00099	0.02
RSEM-R5a-A-EOP	3/21/2019 14:10	VK3786	M	12.8	0.000052	40.5	0.135	39.9	0.000076	<0.005	0.148	0.0017	0.0161	0.0322	0.00657	0.0051	<0.0005	0.00025	0.0744	<0.0001	<0.001	<0.05	0.00002	47.8	<0.001	<0.0002	0.00063	<0.01
RSEM-R5A-A-SP	3/14/2019 15:00	VJ4043	M	47.6	0.00046	19.2	0.253	<15	0.000447	<0.025	0.192	0.00321	0.073	0.27	0.0056	0.0369	0.00059	0.00053	0.151	<0.0001	<0.001	<0.05	<0.00001		<0.001	<0.0002	0.00107	0.013
RSEM-R5A-A-SP	3/22/2019 8:45	VK3761	M	9.67	0.000038	33.9	0.106	24.4	0.00009	<0.005	0.0905	0.00146	0.0138	0.0255	0.00289	0.0457	0.00052	0.0004	0.0765	<0.0001	<0.001	<0.05	0.000011	17.6	<0.001	<0.0002	0.00094	<0.01
RSEM-R5A-A-SP	3/23/2019 16:50	VK5906	M	21.8	<0.0001	37.9	0.109	25	0.000178	<0.025	0.283	0.00173	0.031	0.033	0.0087	0.013	<0.0005	0.00038	0.0667	<0.0001	<0.001	<0.05	0.000012	17.3	<0.001	<0.0002	0.00098	0.015
RSEM-R5A-A-SP	3/24/2019 15:52	VK5970	M	26.5	<0.0001	37.1	0.107	23	0.000164	<0.025	0.306	0.00178	0.035	0.027	0.00619	0.013	<0.0005	0.0004	0.0631	<0.0001	<0.001	<0.05	0.000012	17.4	<0.001	<0.0002	0.00098	0.019
RSEM-R5A-A-SP	3/25/2019 13:56	VK7775	M	24.2	0.000056	39.7	0.106	26.5	0.000145	<0.01	0.297	0.00153	0.029	0.019	0.00946	0.0123	<0.0005	0.00038	0.0665	<0.0001	<0.001	<0.05	0.000013	18.3	<0.001	<0.0002	0.00093	0.016
RSEM-R5A-A-SP	3/26/2019 14:26	VK9034	M	4.03	0.000024	37.5	0.0966	27.3	0.000036	<0.005	0.0282	0.00135	0.0051	0.0186	0.00108	0.0094	<0.0005	0.00038	0.0664	<0.0001	<0.001	<0.05	0.000013	17.8	<0.001	<0.0002	0.00091	0.012
RSEM-R5A-A-SP	3/27/2019 14:57	VL1964	M	3.35	0.000022	38.7	0.097	26.9	0.000029	<0.005	0.0133	0.00141	<0.005	0.0229	0.00017	0.0086	<0.0005	0.00037	0.0666	<0.0001	<0.001	0.05	0.000015	17.8	<0.001	<0.0002	0.00095	<0.01
RSEM-R5A-A-SP	3/28/2019 12:30	VL3517	M	9.11	<0.00004	38.2	0.105	29.3	0.000075	<0.01	0.074	0.00156	0.011	0.019	0.00174	0.0117	<0.0005	0.00038	0.0739	<0.0001	<0.001	<0.05	0.000015	19.0	<0.001	<0.0002	0.00087	<0.01
RSEM-R5A-A-SP	4/3/2019 13:30	VM2012	M	8.19	0.00004	50.5	0.144	34.9	0.000075	<0.005	0.0607	0.00183	0.0095	0.0249	0.00153	0.0112	0.0005	0.00039	0.0785	<0.0001	<0.001	0.06	0.000017	21.2	<0.001	<0.0002	0.00096	<0.01
RSEM-R5A-A-SP	4/10/2019 14:20	VN0773	M	4.98	<0.0001	56.3	0.149	39	0.000085	<0.025	<0.025	0.00206	<0.025	0.032	<0.0005	0.0166	<0.0005	0.00039	0.141	<0.0001	<0.001	0.066	0.000014	22.0	<0.001	<0.0002	0.00096	<0.01
RSEM-R5A-A-SP	4/11/2019 9:45	VN1903	M	4.27	<0.00004	53.8	0.138	38.4	0.000047	<0.01	0.033	0.00178	<0.01	0.016	0.00064	0.0112	<0.0005	0.00036	0.142	<0.0001	<0.001	0.055	0.000014	21.3	<0.001	<0.0002	0.00089	<0.01
RSEM-R5A-A-SP	4/12/2019 8:58	VN1938	M	3.63	<0.00004	54.0	0.14	39.4	0.000044	<0.01	0.021	0.00181	<0.01	0.015	0.00042	0.01	<0.0005	0.00036	0.142	<0.0001	<0.001	0.055	0.000012	21.7	<0.001	<0.0002	0.00091	<0.01
RSEM-R5A-A-SP	4/13/2019 9:58	VN4349	M	2.97	0.000026	57.7	0.138	39.9	0.000036	<0.005	0.0186	0.00187	<0.005	0.014	0.00112	0.0088	<0.0005	0.0003	0.128	<0.0001	<0.001	0.061	0.000017	20.9	<0.001	0.00021	0.00096	<0.01
RSEM-R5A-A-SP	4/14/2019 10:44	VN4344	M	2.58	<0.00002	57.6	0.133	37.6	0.000032	<0.005	0.0169	0.00181	<0.005	0.01	0.00032	0.0093	0.0005	0.00031	0.124	<0.0001	<0.001	0.066	0.000015	21.5	<0.001	0.00023	0.00094	<0.01
RSEM-R5A-A-SP	4/15/2019 10:15	VN6309	M	3.07	<0.00002	63.1	0.151	44.6	0.000033	<0.005	0.0127	0.00202	<0.005	0.0146	0.00033	0.0261	0.00053	0.00031	0.135	<0.0001	<0.001	0.069	0.000034	23.2	<0.001	0.00054	0.00105	<0.01
RSEM-R5A-A-SP	4/16/2019 13:31	VN8484	M	5.66	0.00002	55.9	0.149	42.4	0.000037	<0.005	0.0605	0.00197	0.0058	0.0076	0.0013	0.0096	0.00055	0.00035	0.135	<0.0001	<0.001	0.07	0.00001	21.7	<0.001	<0.0002	0.00092	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-L6-SP	6/18/2019 13:45	VX8836	M	<0.0002	0.0504	34.1	<0.001	<0.000002	0.0339	0.0033		6.13	0.00872	0.387	<0.00002	250	0.459	204	0.00002	<0.005	<0.005	0.00674	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/19/2019 13:25	VY1846	M	<0.0002	0.0494	34.3	<0.001	<0.000002	0.0347	0.0034		6.07	0.0089	0.439	<0.00002	240	0.44	221	0.000023	<0.005	<0.005	0.00621	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/20/2019 12:55	VY4154	M	<0.0002	0.0499	35.0	<0.001	<0.000002	0.0349	0.0035		6.14	0.00955	0.384	<0.00002	253	0.458	207	0.000022	<0.005	<0.005	0.00683	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/21/2019 10:35	VY4165	M	<0.0002	0.0485	33.7	<0.001	<0.000002	0.0346	0.0033		5.99	0.00953	0.375	<0.00002	252	0.459	200	0.00002	<0.005	<0.005	0.00681	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/22/2019 12:50	VY6746	M	<0.0002	0.0526	34.5	<0.001	<0.000002	0.0359	0.0031		6.13	0.0097	0.407	<0.00002	251	0.461	202	0.000022	<0.005	<0.005	0.00689	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/23/2019 12:50	VY6759	M	<0.0002	0.0533	34.4	0.0015	<0.000002	0.0352	0.0033		6.22	0.00957	0.424	<0.00002	249	0.452	210	0.000024	<0.005	<0.005	0.00676	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/24/2019 9:20	VY9736	M	<0.0002	0.0486	34.4	0.0013	<0.000002	0.0335	0.0032		5.97	0.00912	0.369	<0.00002	249	0.467	195	0.000019	<0.005	<0.005	0.00666	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/25/2019 12:45	VZ1751	M	<0.0002	0.0467	36.8	0.0053	<0.000002	0.0302	0.003		6.24	0.0101	0.604	<0.00002	250	0.436	217	0.00002	<0.005	<0.005	0.00561	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/26/2019 1:10	VZ5392	M	<0.0002	0.0469	37.0	0.0049	<0.000002	0.0328	0.0029		6.14	0.0106	0.648	<0.00002	232	0.464	208	0.000021	<0.005	<0.005	0.00624	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/27/2019 13:12	VZ7728	M	<0.0002	0.0476	36.8	0.0021	<0.000002	0.0322	0.0026		6.41	0.0107	0.702	<0.00002	227	0.467	213	0.000019	<0.005	<0.005	0.00626	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/28/2019 9:45	VZ7859	M	<0.0002	0.047	36.3	0.0014	<0.000002	0.0318	0.0027		6.46	0.0107	0.665	<0.00002	232	0.46	213	0.00002	<0.005	<0.005	0.00621	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/29/2019 9:30	VZ9041	M	<0.0002	0.0449	35.2	0.0033	<0.000002	0.0305	0.0028		5.68	0.0106	0.576	<0.00002	220	0.505	197	0.000016	<0.005	<0.005	0.00602	<0.005	<0.005	<0.0001
RSEM-L6-SP	6/30/2019 14:40	WA1461	M	<0.0002	0.0429	38.2	0.0055	<0.000002	0.0281	0.0026		6.41	0.0103	0.76	<0.00002	227	0.456	217	0.000021	<0.005	<0.005	0.00605	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/1/2019 12:45	WA1438	M	<0.0002	0.0368	32.9	0.0098	<0.000002	0.0262	0.0021		5.38	0.0103	0.804	<0.00002	184	0.453	176	0.000016	<0.005	<0.005	0.00547	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/2/2019 14:15	WA3405	M	<0.0002	0.0394	35.2	0.0098	<0.000002	0.0259	0.0024		5.85	0.0104	0.984	<0.00002	189	0.453	191	0.000021	<0.005	<0.005	0.00562	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/3/2019 12:29	WA5878	M	<0.0002	0.0379	36.9	0.0082	<0.000002	0.026	0.0025		6.04	0.012	1.03	<0.00002	203	0.44	209	0.000018	<0.005	<0.005	0.00556	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/4/2019 13:00	WA7983	M	<0.0002	0.0393	36.4	0.0043	<0.000002	0.0261	0.0022		6.05	0.0112	0.968	<0.00002	194	0.451	202	0.000019	<0.005	<0.005	0.00583	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/5/2019 10:50	WA8013	M	<0.0002	0.0396	36.3	0.0033	<0.000002	0.0258	0.0021		6.06	0.0108	0.926	<0.00002	196	0.455	206	0.00002	<0.005	<0.005	0.00588	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/6/2019 12:10	WB1487	M	<0.0002	0.0399	34.4	0.0034	<0.000002	0.026	0.0021		6.10	0.0105	0.945	<0.00002	184	0.456	203	0.00002	<0.005	<0.005	0.00593	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/7/2019 11:50	WB1479	M	<0.0002	0.0391	35.6	0.0035	<0.000002	0.0255	0.0021		6.25	0.0103	0.848	<0.00002	189	0.454	209	0.000021	<0.005	<0.005	0.00583	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/8/2019 10:00	WB4604	M	<0.0002	0.0408	36.7	0.0039	<0.000002	0.0268	0.002		6.15	0.0109	0.867	<0.00002	198	0.47	218	0.000021	<0.005	<0.005	0.00593	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/9/2019 14:10	WB6318	M	<0.0002	0.0375	34.4	0.0031	<0.000002	0.0262	0.002		5.73	0.0102	0.717	<0.00002	186	0.495	186	0.000014	<0.005	<0.005	0.00583	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/10/2019 12:00	WB8324	M	<0.0002	0.0384	37.1	0.0027	<0.000002	0.0263	0.0019		6.05	0.0115	0.732	<0.00002	200	0.522	207	0.000014	<0.005	<0.005	0.00549	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/11/2019 13:00	WC0498	M	<0.0002	0.0377	37.7	0.0011	<0.000002	0.0264	0.002		5.93	0.0109	0.695	<0.00002	198	0.486	201	0.000015	<0.005	<0.005	0.00585	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/12/2019 11:30	WC0455	M	<0.0002	0.0409	36.9	<0.001	<0.000002	0.0269	0.0019		5.84	0.0107	0.746	<0.00002	200	0.491	200	0.000015	<0.005	<0.005	0.00588	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/13/2019 13:25	WC4189	M	<0.0002	0.0422	39.5	<0.001	<0.000002	0.0278	0.0016		6.88	0.0111	0.825	<0.00002	210	0.482	240	0.000021	<0.005	<0.005	0.00607	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/14/2019 14:00	WC4353	M	<0.0002	0.0426	39.6	<0.001	<0.000002	0.0282	0.0016		6.81	0.0114	0.757	<0.00002	209	0.483	233	0.000022	<0.005	<0.005	0.00613	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/15/2019 12:20	WC7555	M	<0.0002	0.0396	37.9	0.0017	<0.000002	0.0266	0.0019		6.28	0.011	0.595	<0.00002	205	0.508	209	0.00002	<0.005	<0.005	0.00622	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/16/2019 12:50	WC9633	M	<0.0002	0.0413	38.2	0.0016	<0.000002	0.0262	0.0017		6.47	0.0111	0.594	<0.00002	204	0.456	216	0.000018	<0.005	<0.005	0.00606	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/17/2019 14:20	WD1677	M	<0.0002	0.0401	36.1	0.0016	<0.000002	0.0272	0.0017		6.08	0.0111	0.57	<0.00002	188	0.52	207	0.000018	<0.005	<0.005	0.00557	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/18/2019 13:20	WD4014	M	<0.0002	0.0397	36.0	<0.001	<0.000002	0.027	0.0018		6.13	0.0101	0.532	<0.00002	195	0.519	206	0.000019	<0.005	<0.005	0.00601	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/19/2019 12:48	WD4025	M	<0.0002	0.0402	36.6	<0.001	<0.000002	0.027	0.0018		6.05	0.0102	0.515	<0.00002	196	0.531	207	0.00002	<0.005	<0.005	0.00611	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/20/2019 14:30	WD7113	M	<0.0002	0.0395	38.4	0.0012	<0.000002	0.0277	0.0017		6.21	0.0106	0.467	<0.00002	203	0.538	217	0.00002	<0.005	<0.005	0.00587	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/21/2019 14:30	WD7086	M	<0.0002	0.0416	37.8	<0.001	<0.000002	0.0282	0.0018		6.03	0.0103	0.452	<0.00002	200	0.537	213	0.000019	<0.005	<0.005	0.00596	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/22/2019 12:35	WD8946	M	<0.0002	0.0407	36.5	<0.001	<0.000002	0.0279	0.0017		5.85	0.011	0.4	<0.00002	190	0.5	199	0.00002	<0.005	<0.005	0.00602	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/23/2019 13:50	WE1027	M	<0.0002	0.04	37.2	<0.001	<0.000002	0.0284	0.0018		6.20	0.0106	0.404	<0.00002	197	0.526	209	0.000017	<0.005	<0.005	0.00586	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/24/2019 12:35	WE3037	M	<0.0002	0.0395	39.2	<0.001	<0.000002	0.0261	0.0017		6.91	0.0104	0.424	<0.00002	200	0.467	238	0.00002	<0.005	<0.005	0.00579	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/25/2019 13:00	WE4850	M	<0.0002	0.0387	37.0	<0.001	<0.000002	0.03	0.0017		6.09	0.0108	0.359	<0.00002	188	0.491	203	0.00002	<0.005	<0.005	0.00604	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/26/2019 10:20	WE4708	M	<0.0002	0.0386	37.5	<0.001	<0.000002	0.0305	0.0016		6.06	0.0107	0.359	<0.00002	190	0.492	211	0.00002	<0.005	<0.005	0.00601	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/27/2019 12:15	WE7077	M	<0.0002	0.0405	38.1	<0.001	<0.000002	0.0266	0.0018		6.25	0.0123	0.36	<0.00002	204	0.501	213	0.000022	<0.005	<0.005	0.00577	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/28/2019 12:30	WE7124	M	<0.0002	0.04	37.7	<0.001	<0.000002	0.03	0.0016		6.23	0.0101	0.309	<0.00002	196	0.525	209	0.00002	<0.005	<0.005	0.006	<0.005	<0.005	0.00012
RSEM-L6-SP	7/29/2019 10:15	WE7143	M	<0.0002	0.039	39.3	<0.001	<0.000002	0.0271	0.0017		6.32	0.0102	0.305	<0.00002	203	0.53	215	0.000018	<0.005	<0.005	0.00605	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/30/2019 12:35	WF2075	M	<0.0002	0.0405	38.7	<0.001	<0.000002	0.0275	0.0017		6.23	0.0103	0.288	<0.00002	203	0.521	218	0.000017	<0.005	<0.005	0.00603	<0.005	<0.005	<0.0001
RSEM-L6-SP	7/31/2019 12:15	WF4367	M	<0.0002	0.0421	39.5	<0.001	<0.000002	0.0284	0.0018		6.80	0.0109	0.299	<0.00002	211	0.552	234	0.000019	<0.005	<0.005	0.00586	<0.005	<0.005	<0.0001
RSEM-L6-SP	8/1/2019 12:50	WF6262	M	<0.0002	0.0406	40.3	<0.001	<0.000002	0.0265	0.0015		6.91	0.0101	0.268	<0.00002	200	0.488	233	0.000019	<0.005	<0.005	0.00586	<0.005	<0.005	<0.0001
RSEM-L6-SP	8/2/2019 10:25	WF6286	M	<0.0002	0.0406	37.1	<0.001	<0.000002	0.0271	0.0016		5.96	0.0104	0.219	<0.00002	192	0.471	207	0.00002	<0.005	<0.005	0.00531	<0.005	<0.005	<0.0001
RSEM-L6-SP	8/3/2019 12:55	WF7650	M	<0.0002	0.0437	39.7	<0.001	<0.000002	0.0268	0.0015		6.72	0.00987	0.208	<0.00002	199	0.487	231	0.000019	<0.005	<0.005	0.00604	<0.005	<0.005	<0.0001
RSEM-L6-SP	8/4/2019 14:30	WF7665	M	<0.0002	0.0414	39.2	<0.001	<0.000002	0.0267	0.0014		6.83	0.00948	0.211	<0.00002	195	0.499	229	0.00002	<0.005	<0.005	0.00582	<0.005	<0.005	<0.0001
RSEM-L6-SP	8/5/2019 12:17	WF9955	M	<0.0002	0.0414	39.3	<0.001	<0.000002	0.0283	0.0016		6.33	0.0101	0.171	<0.00002	207	0.539	216	0.000018	<0.005	<0.005	0.00597	<0.005	<0.005	<0.0001
RSEM-L6-SP	8/6/2019 12:45	WG2809	M	<0.0002	0.0407	40.8	<0.001	<0.000002	0.0272	0.0016		6.42	0.0101	0.155	<0.00002	209	0.517	215	0.000018	<0.005	<0.005	0.00596	<0.005	<0.005	<0.0001
RSEM-L6-SP	8/14/2019 10:45	WH7028	M	<0.0002	0.0453	41.2	<0.001	<0.000002	0.0278	0.0015		6.58	0.00923	0.132	<0.00002	214	0.533	231	0.000017	<0.005	<0.005	0.00616	<0.005	<0.005	<0.0001
RSEM-L6-SP	8/20/2019 13:00	WI5440	M	<0.0002	0.0321	36.2	0.0076	<0.000002	0.0232	0.0014		5.97	0.00912	0.621	<0.00002	168	0.479	197	0.000013	<0.005	<0.005	0.00498	<0.005	<0.005	<0.0001
RSEM-L6-SP	8/27/2019 13:35	WJ7315	M	<0.0002	0.0338	35.5	0.0016	<0.000002	0.0224	0.0012		5.86	0.00875	0.528	<0.00002	158	0.497	192	0.000012	<0.005	<0.005	0.005	<0.005	<0.005	<0.0001
RSEM-L6-SP	9/3/2019 14:00	WK8386	M	<0.0002	0.0312	36.9	0.001	<0.000002	0.0233	0.0012		5.99	0.00919	0.351	<0.00002	167	0.506	197	0.000014	<0.005	<0.005	0.0051	<0.005	<0.005	<0.0001
RSEM-L6-SP	11/24/2019 14:00	WZ7701	M	<0.0002	0.0132	34.0	0.0094	<0.000002	0.011	0.0015		4.86	0.00406	1.27	<0.00002	58.8	0.488	152	<0.00001	<0.005	<0.005	0.00442	<0.005	<0.005	<0.0001
RSEM-L6-SP	12/16/2019 15:20	XD3848	M	<0.0002	0.0156	54.5	0.0032	<0.000002	0.0142	0.0022		6.82	0.00575	1.2	<0.00002	88.2	0.676	221	0.000013	<0.005	<0.005	0.00692	<0.005	0.0067	<0.0001
RSEM-R5a-A-EOP	3/18/2019 10:45	VJ6957	M	<0.0002	0.0095	2.18	0.0063	<0.000002	0.0054	<0.001		4.22	0.00351	1.91	<0.00002	38.0	0.082	21.5	0.000011	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001
RSEM-R5a-A-EOP	3/19/2019 17:01	VK0908	M	<0.0002	0.0074	2.66	0.0111	<0.000002	0.0017	<0.001		2.68	0.00298	0.996	<0.00002	29.2	0.0891	22.5	<0.00001	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001
RSEM-R5a-A-EOP	3/20/2019 9:30	VK2370	M	<0.0002	0.0059	2.67	0.0125	<0.000002	0.0036	0.0012		2.52	0.00304	0.903	<0.00002	30.8	0.0836	21.9	<0.00001	<0.005	<0.005	0.00113	<0.005	<0.005	<0.0001
RSEM-R5a-A-EOP	3/21/2019 14:10	VK3786	M	<0.0002	0.005	9.60	0.0054	<0.000002	0.0035	<0.001		2.02	0.00363	1.85	<0.00002	44.1	0.125	41.9	<0.00001	<0.005	<0.005	0.00152	<0.005	0.0059	<0.0001
RSEM-R5A-A-SP	3/14/2019 15:00	VJ4043	M	<0.0002	0.0053	1.62	0.0073	<0.000002	0.0032	<0.001			0.00165	1.49	<0.00002		0.0952	7.9	<0.00001	<0.005	<0.005	0.00081	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	3/22/2019 8:45	VK3761	M	<0.0002	0.006	2.74	0.0094	<0.000002	0.0038	0.001		2.58	0.00338	1.02	<0.00002	32.8	0.0887	24.0	<0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	3/23/2019 16:50	VK5906	M	<0.0002	0.0075	2.84	0.0098	<0.000002	0.0043	0.001		2.83	0.00398	1.12	<0.00002	38.0	0.0904	25.8	<0.00001	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	3/24/2019 15:52	VK5970	M	<0.0002	0.0073	2.70	0.0097	0.0000103	0.0045	0.001		2.84	0.00401	1.19	<0.00002	37.9	0.0881	26.4	<0.00001	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	3/25/2019 13:56	VK7775	M	<0.0002	0.0073	2.95	0.0096	<0.000002	0.0048	0.001		2.57	0.00391	1.23	<0.00002	39.7	0.0905	28.6	<0.00001	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	3/26/2019 14:26	VK9034	M	<0.0002	0.0074	2.74	0.0095	<0.000002	0.0047	<0.001		2.64	0.00371	1.16	<0.00002	38.0	0.0886	28.6	<0.00001	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	3/27/2019 14:57	VL1964	M	<0.0002	0.0081	3.02	0.0088	<0.000002	0.0045	0.0011		2.86	0.00399	1.23	<0.00002	38.9	0.0925	29.3	<0.00001	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	3/28/2019 12:30	VL3517	M	<0.0002	0.0081	3.00	0.0073	<0.000002	0.0042	<0.001		2.86	0.00376	1.33	<0.00002	41.1	0.0978	30.2	<0.00001	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	4/3/2019 13:30	VM2012	M	<0.0002	0.0098	3.49	0.0258	<0.000002	0.0053	0.0013		3.25	0.00328	1.41	<0.00002	53.0	0.13	36.5	<0.00001	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	4/10/2019 14:20	VN0773	M	<0.0002	0.011	3.57	0.0266	<0.000002	0.005	0.0012		2.87	0.00259	1.34	<0.00002	55.2	0.128	40.9	0.00001	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	4/11/2019 9:45	VN1903	M	<0.0002	0.0114	3.47	0.0262	<0.000002	0.0051	0.0012		2.82	0.00256	1.41	<0.00002	53.0	0.132	39.2	<0.00001	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	4/12/2019 8:58	VN1938	M	<0.0002	0.0114	3.69	0.0263	<0.000002	0.0053	0.0011		2.99	0.00275	1.43	<0.00002	56.3	0.135	40.6	<0.00001	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	4/13/2019 9:58	VN4349	M	<0.0002	0.0113	3.51	0.0262	<0.000002	0.0052	0.0015		2.86	0.00251	1.24	<0.00002	53.5	0.128	35.2	<0.00001	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	4/14/2019 10:44	VN4344	M	<0.0002	0.0117	3.61	0.0222	<0.000002	0.0051	0.0017		2.93	0.00259	1.26	<0.00002	54.9	0.13	38.5	<0.00001	<0.005	<0.005	0.00177	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	4/15/2019 10:15	VN6309	M	<0.0002	0.0123	3.70	0.016	<0.000002	0.0054	0.0029		3.12	0.00282	1.48	<0.00002	55.2	0.14	42.1	<0.00001	<0.005	<0.005	0.00178	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	4/16/2019 13:31	VN8484	M	<0.0002	0.0115	3.61	<0.001	<0.000002	0.0054	0.0011		3.11	0.00273	1.29	<0.00002	57.1	0.137	38.8	<0.00001	<0.005	<0.005	0.00177	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5A-A-SP	4/17/2019 12:30	VN9790	M	8.17	443	5.63	274	29.6	76.7	65.6	71.5	<1.0	87.3	<1.0	<1.0	8.17	0.240	0.13	129			0.047	0.0304	0.584	0.614	0.0071
RSEM-R5A-A-SP	4/18/2019 9:15	VN9667	M	8.17	452	61.0	280	33.6	77.2	65.7	73.5	<1.0	89.6	<1.0	<1.0	8.16	0.240	0.12	129			0.038	0.0299	0.585	0.615	<0.0030
RSEM-R5A-A-SP	6/29/2019 11:55	VZ9044	M	7.50	556	227	382	108	114	113	50.5	<1.0	61.6	<1.0	<1.0	6.55	0.260	0.12	195			0.020	0.0252	0.671	0.696	0.0149
RSEM-R5A-A-SP	7/16/2019 9:20	WC9626	M	7.94	592	84	418	66.0	103	98.3	56.9	<1.0	69.5	<1.0	<1.0	8.09	0.300	0.13	241			0.043	0.0090	0.284	0.293	0.0128
RSEM-R5A-B-EOP	3/19/2019 17:05	VK0909	M	7.57	252	664	482	229	64.7	43.2	34.4	<1.0	42.0	<1.0	<1.0	3.59	0.110	0.056	69.0			0.30	0.0227	0.779	0.802	0.0141
RSEM-R5A-B-EOP	3/20/2019 9:45	VK2372	M	8.04	794	185	588	46.0	112	115	146	<1.0	178	<1.0	<1.0	6.17	0.160	0.13	216			0.13	<0.0050	6.64	6.64	0.0086
RSEM-R5A-B-EOP	3/21/2019 14:15	VK3787	M	8.23	1010	120	642	37.2	150	154	201	<1.0	246	<1.0	<1.0	8.25	0.280	0.15	239			0.033	0.0059	7.90	7.91	0.0170
RSEM-R5A-B-SP	3/18/2019 11:00	VJ6968	M	7.44	110	188	204	58.0	42.2	31.7	26.6	<1.0	32.4	<1.0	<1.0	1.52	0.056	0.019	20.8			0.12	0.0211	0.519	0.540	0.0213
RSEM-R5A-B-SP	3/22/2019 8:55	VK3762	M	7.55	280	161	262	55.6	61.3	59.1	33.9	<1.0	41.4	<1.0	<1.0	3.29	0.180	0.055	73.7			0.28	0.0190	0.434	0.453	0.0106
RSEM-R5A-B-SP	3/23/2019 16:55	VK5907	M	7.65	331	160	284	59.6	69.4	61.8	41.8	<1.0	51.0	<1.0	<1.0	3.90	0.210	0.049	114			0.30	0.0214	0.455	0.476	0.0057
RSEM-R5A-B-SP	3/24/2019 16:08	VK5971	M	7.64	372	149	278	52.4	70.1	63.2	45.3	<1.0	55.2	<1.0	<1.0	5.52	0.230	0.062	129			0.33	0.0244	0.507	0.532	<0.0050
RSEM-R5A-B-SP	3/25/2019 14:11	VK7776	M	7.62	377	81.6	300	28.0	76.4	69.5	46.1	<1.0	56.2	<1.0	<1.0	5.27	0.220	0.069	127			0.30	0.0224	0.511	0.533	0.0093
RSEM-R5A-B-SP	3/26/2019 14:37	VK9035	M	7.88	812	722	768	208	79.7	64.6	71.9	<1.0	87.7	<1.0	<1.0	35.7	0.450	0.49	273			0.79	0.0679	1.40	1.46	0.0211
RSEM-R5A-B-SP	3/27/2019 15:11	VL1965	M	7.97	802	343	642	92	85.4	68.2	92.3	<1.0	113	<1.0	<1.0	28.0	0.380	0.42	226			1.7	0.0391	2.23	2.27	0.0108
RSEM-R5A-B-SP	3/28/2019 12:45	VL3518	M	8.00	1250	207	806	111	72.9	68.2	106	<1.0	129	<1.0	<1.0	61.6	0.700	0.74	343			2.2	0.0941	2.99	3.09	0.0171
RSEM-R5A-B-SP	4/3/2019 13:40	VM2013	M	9.21	2250	213	1530	102	38.7	30.5	144	22.8	121	27.3	<1.0	136	1.20	2.0	671			5.0	0.252	3.01	3.26	0.34
RSEM-R5A-B-SP	4/10/2019 14:40	VN0774	M	8.50	2190	630	1590	252	59.4	39.3	141	3.6	163	4.4	<1.0	102	1.00	1.8	696			1.9	0.295	3.31	3.60	0.0064
RSEM-R5A-B-SP	4/11/2019 10:00	VN1904	M	8.41	2100	424	1470	128	55.2	42.2	152	1.9	181	2.3	<1.0	91.9	0.930	1.6	633			1.9	0.265	3.44	3.71	0.0051
RSEM-R5A-B-SP	4/12/2019 9:11	VN1939	M	8.39	2060	403	1480	162	53.5	40.6	152	1.8	181	2.1	<1.0	84.6	0.870	1.5	611			1.7	0.266	3.80	4.06	<0.0050
RSEM-R5A-B-SP	4/13/2019 10:10	VN4350	M	8.29	1780	318	1210	160	61.5	48.7	167	<1.0	204	<1.0	<1.0	69.0	0.750	1.2	569			1.1	0.195	3.86	4.05	0.0062
RSEM-R5A-B-SP	4/14/2019 10:58	VN4345	M	8.24	1920	81.8	1440	171	60.1	46.3	157	<1.0	192	<1.0	<1.0	83.1	0.850	0.12	641			1.2	0.248	3.46	3.71	0.0066
RSEM-R5A-B-SP	4/15/2019 10:30	VN6310	M	8.27	1920	362	1350	133	64.6	52.7	143	<1.0	175	<1.0	<1.0	85.7	0.810	1.2	604			1.4	0.245	3.19	3.44	0.0139
RSEM-R5A-B-SP	4/16/2019 13:45	VN8485	M	8.19	1950	707	1450	279	67.9	44.6	139	<1.0	169	<1.0	<1.0	86.1	0.920	1.5	652			1.6	0.270	2.78	3.05	0.011
RSEM-R5A-B-SP	4/17/2019 12:45	VN9791	M	8.34	2030	1020	1560	338	83.6	43.9	137	<1.0	167	<1.0	<1.0	90.0	0.950	1.5	658			1.4	0.290	2.70	2.99	0.012
RSEM-R5A-B-SP	4/18/2019 9:25	VN9668	M	8.31	1930	846	1490	230	76.0	51.7	146	<1.0	178	<1.0	<1.0	79.9	0.830	1.3	606			1.2	0.260	2.82	3.08	0.012
RSEM-R5A-B-SP	6/29/2019 12:15	VZ9045	M	7.50	498	641	426	242	85.8	73.0	49.6	<1.0	60.5	<1.0	<1.0	6.53	0.290	0.10	172			0.040	0.0430	0.970	1.01	0.0302
RSEM-R5A-B-SP	7/16/2019 9:35	WC9627	M	7.69	774	72	498	60.8	152	154	36.8	<1.0	44.9	<1.0	<1.0	8.40	0.280	0.14	302			0.10	0.0333	1.81	1.85	<0.0050
RSEM-R5A-C-EOP	3/19/2019 17:10	VK0910	M	7.37	241	217	210	790	116	46.0	27.7	<1.0	33.8	<1.0	<1.0	5.14	0.140	0.076	69.2			0.28	0.0193	0.394	0.414	0.0196
RSEM-R5A-C-EOP	3/21/2019 14:45	VK3788	M	7.35	572	64.3	358	30.8	78.5	80.8	35.0	<1.0	42.7	<1.0	<1.0	11.2	0.300	0.18	191			0.48	0.0796	0.793	0.872	0.0077
RSEM-R5A-C-SP	3/20/2019 10:15	VK2373	M	7.46	315	78.2	240	16.0	53.3	53.0	30.8	<1.0	37.6	<1.0	<1.0	7.32	0.170	0.080	108			0.29	0.0209	0.520	0.540	0.0109
RSEM-R5A-C-SP	3/22/2019 9:15	VK3763	M	7.29	754	33.2	470	15.2	96.2	97.2	40.1	<1.0	49.0	<1.0	<1.0	18.5	0.380	0.30	255			0.46	0.0541	0.891	0.945	0.0068
RSEM-R5A-C-SP	3/23/2019 17:15	VK5908	M	7.61	723	80.5	448	36.4	89.1	89.9	43.8	<1.0	53.4	<1.0	<1.0	16.9	0.420	0.26	232			0.58	0.0607	0.977	1.04	<0.0050
RSEM-R5A-C-SP	3/24/2019 16:05	VK5968	M	7.54	884	91.0	576	40.8	101	96.2	52.8	<1.0	64.4	<1.0	<1.0	24.7	0.470	0.37	306			0.63	0.0254	2.50	2.52	<0.0050
RSEM-R5A-C-SP	3/25/2019 14:35	VK7777	M	7.68	1510	41.1	982	18.0	116	117	68.9	<1.0	84.1	<1.0	<1.0	53.9	0.550	0.75	537			0.89	0.0738	9.49	9.56	0.0058
RSEM-R5A-C-SP	3/26/2019 14:25	VK9036	M	7.82	1530	55.7	1020	35.6	123	126	81.1	<1.0	98.9	<1.0	<1.0	52.4	0.460	0.72	586			0.86	0.115	9.29	9.40	0.0096
RSEM-R5A-C-SP	3/27/2019 15:41	VL1966	M	7.93	2180	50.4	1440	19	151	158	101	<1.0	123	<1.0	<1.0	69.0	0.530	0.99	869			1.2	0.131	11.4	11.5	0.0088
RSEM-R5A-C-SP	3/28/2019 12:15	VL3519	M	8.08	3560	33.0	2340	19.6	212	213	146	<1.0	179	<1.0	<1.0	99.7	0.670	1.4	1370			2.0	0.271	17.0	17.2	0.0110
RSEM-R5A-C-SP	4/3/2019 13:35	VM1868	M	8.16	3760	15.0	2570	49.6	208	223	171	<1.0	209	<1.0	<1.0	106	0.780	1.7	1460			1.2	0.585	14.3	14.9	0.0031
RSEM-R5A-C-SP	4/10/2019 15:01	VN0775	M	8.06	2780	106	1790	80.0	181	168	118	<1.0	144	<1.0	<1.0	74.3	0.660	1.2	1070			0.034	0.312	9.89	10.2	0.0049
RSEM-R5A-C-SP	4/11/2019 10:19	VN1905	M	8.06	2740	100	1820	98.4	177	166	118	<1.0	144	<1.0	<1.0	70.5	0.670	1.2	1050			0.038	0.323	9.30	9.62	<0.0050
RSEM-R5A-C-SP	4/12/2019 9:34	VN1940	M	8.03	2680	90.2	1740	74.4	167	164	115	<1.0	140	<1.0	<1.0	69.0	0.640	1.2	1030			0.041	0.290	8.94	9.23	<0.0050
RSEM-R5A-C-SP	4/13/2019 10:28	VN4351	M	8.00	2540	57.9	1640	45.6	157	154	114	<1.0	140	<1.0	<1.0	68.7	0.680	1.1	1010			0.030	0.238	8.40	8.64	0.0068
RSEM-R5A-C-SP	4/14/2019 11:22	VN4346	M	8.01	2510	42.2	1620	40.4	155	151	112	<1.0	137	<1.0	<1.0	66.4	0.670	1.1	968			0.028	0.219	8.18	8.40	<0.0050
RSEM-R5A-C-SP	4/15/2019 10:45	VN6311	M	8.11	2390	68.0	1450	56.0	145	152	103	<1.0	126	<1.0	<1.0	65.6	0.620	1.0	963			0.034	0.174	7.54	7.72	<0.0050
RSEM-R5A-C-SP	4/16/2019 14:15	VN8486	M	8.01	2330	158	1530	2200	160	150	102	<1.0	124	<1.0	<1.0	59.8	0.640	1.0	934			0.039	0.186	7.91	8.09	0.0088
RSEM-R5A-C-SP	4/17/2019 13:20	VN9792	M	8.24	2320	76.3	1470	129	154	124	103	<1.0	125	<1.0	<1.0	60.2	0.600	0.98	893			0.042	0.141	6.17	6.31	0.0033
RSEM-R5A-C-SP	4/18/2019 9:45	VN9669	M	8.23	2310	96.8	1470	76.4	158	176	103	<1.0	126	<1.0	<1.0	56.5	0.600	0.97	876			0.034	0.140	6.01	6.15	0.0059
RSEM-R5A-C-SP	6/29/2019 12:40	VZ9046	M	7.73	1610	82.9	1050	108	205	211	68.1	<1.0	83.1	<1.0	<1.0	17.7	0.560	0.43	618			0.33	0.143	1.72	1.87	<0.0050
RSEM-R5A-D-SP	3/19/2019 17:15	VK0911	M	7.11	77.8	141	114	62.4	28.4	25.5	13.4	<1.0	16.3	<1.0	<1.0	<0.50	0.034	<0.010	16.7			0.13	0.0107	0.418	0.429	0.0199
RSEM-R5A-D-SP	3/20/2019 10:05	VK2376	M	7.15	86.7	118	86	74.0	31.8	26.9	16.0	<1.0	19.6	<1.0	<1.0	<0.50	0.044	<0.010	19.6			0.14	0.0132	0.434	0.447	0.0235
RSEM-R5A-D-SP	3/21/2019 14:30	VK3789	M	7.13	109	77.3	84	26.4	44.8	41.2	14.5	<1.0	17.7	<1.0	<1.0	1.57	0.055	<0.010	31.4			0.13	0.0163	0.401	0.417	0.0157
RSEM-R5A-D-SP	3/22/2019 9:25	VK3764	M	7.17	160	138	116	64.4	56.0	53.6	20.6	<1.0	25.2	<1.0	<1.0	2.27	0.067	0.013	52.6			0.12	0.0070	0.442	0.449	0.0150
RSEM-R5A-D-SP	3/23/2019 17:25	VK5909	M	7.34	163	117	126	42.4	56.9	53.4	22.9	<1.0	27.9	<1.0	<1.0	<0.50	0.077	<0.010	44.8			0.13	0.0091	0.434	0.444	0.0054
RSEM-R5A-D-SP	3/24/2019 16:15	VK5969	M	7.30	166	116	124	42.8	59.7	53.5	24.2	<1.0	29.5	<1.0	<1.0	<0.50	0.074	<0.010	49.7			0.11	0.0115	0.417	0.428	0.0058
RSEM-R5A-D-SP	3/25/2019 14:47	VK7778	M	7.14	180	85.6	144	26.4	62.6	62.2	23.1	<1.0	28.2	<1.0	<1.0	<0.50	0.091	<0.010	55.7			0.13	0.0111	0.401	0.412	0.0129
RSEM-R5A-D-SP	3/26/2019 14:50	VK9037	M	7.56	218	93.1	162	44.8	73.8	69.4	33.1	<1.0	40.4	<1.0	<1.0	<0.50	0.080	0.011	71.5			0.11	0.0136	0.439	0.453	0.0154
RSEM-R5A-D-SP	3/27/2019 15:56	VL1967	M	7.51	216	71.7	146	22	72.4	72.2	34.2	<1.0	41.7	<1.0	<1.0	0.61	0.079	0.017	67.6			0.10	0.0054	0.429	0.435	0.0152
RSEM-R5A-D-SP	3/28/2019 13:00	VL3520	M	7.50	255	55.6	174	38.4	81.3	82.7	36.2	<1.0	44.1	<1.0	<1.0	2.14	0.091	0.020	87.2			0.10	0.0088	1.44	1.45	0.0146
RSEM-R5A-D-SP	4/3/2019 13:41	VM1869	M	7.83	648	1.89	390	<4.0	182	181	78.9	<1.0	96.3	<1.0	<1.0	4.36	0.240	0.091	212			<0.015	0.0079	0.103	0.110	<0.0030
RSEM-R5A-D-SP	4/10/2019 15:15	VN0776	M	7.85	806	0.82	536	<4.0	242	229	67.5	<1.0	82.4	<1.0	<1.0	7.17	0.290	0.13	280			0.015	<0.0050	0.209	0.209	0.0046
RSEM-R5A-D-SP	4/11/2019 10:29	VN1906	M	7.84	832	1.12	518	5.2	246	238	67.9	<1.0	82.9	<1.0	<1.0	7.18	0.270	0.15	283			0.020	<0.0050	0.043	0.043	<0.0050
RSEM-R5A-D-SP	4/12/2019 9:45	VN1941	M	7.83	863	0.81	558	4.0	248	241	72.9	<1.0	88.9	<1.0	<1.0	8.05	0.270	0.16	304			0.033	<0.0050	0.126	0.126	<0.0050
RSEM-R5A-D-SP	4/13/2019 10:40	VN4352	M	7.78	870	1.86	536	12.4	247	246	69.5	<1.0	84.8	<1.0	<1.0	8.38	0.290	0.16	275			0.037	<0.0050	0.035	0.035	<0.0050
RSEM-R5A-D-SP	4/14/2019 11:34	VN4347	M	7.80	908	1.26	590	6.4	263	269	74.4	<1.0	90.7	<1.0	<1.0	9.60	0.280	0.18	337			0.019	<0.0050	0.111	0.111	<0.0050
RSEM-R5A-D-SP	4/15/2019 11:00	VN6312	M	7.94	852	4.15	554	6.0	265	244	72.5	<1.0	88.5	<1.0	<1.0	9.36	0.250	0.15	309			0.020	0.0063	0.102	0.108	<0.0050
RSEM-R5A-D-SP	4/16/2019 14:20	VN8487	M	7.86	926	1.45	604	<4.0	287	265	73.2	<1.0	89.3	<1.0	<1.0	10.8	0.270	0.21	348			0.025	<0.0050	0.149	0.149	<0.0030
RSEM-R5A-D-SP	4/17/2019 13:35	VN9793	M	8.10	984	1.29	656	<4.0	315	256	73.5	<1.0	89.7	<1.0	<1.0	12.1	0.250	0.21	361			0.017	<0.0050	0.087	0.087	<0.0030
RSEM-R5A-D-SP	4/18/2019 9:55	VN9670	M	8.10	1020	1.06	668	<4.0	323	274	76.4	<1.0	93.2	<1.0	<1.0	13.4	0.250	0.23	373			0.017	0.0061	0.112	0.118	<0.0030
RSEM-R5A-NCD	3/19/2019 19:00	VK0928	M	7.25	623	46.5	432	64.0	278	267	23.9	<1.0	29.1	<1.0	<1.0	0.63	0.180	0.046	281			0.31	0.0180	0.487	0.505	<0.0050
RSEM-R5B-EOP	1/1/2019 12:55	VA5881	M	8.25	1240	1.64	778	<4.0	249	243	275	<1.0	336	<1.0	<1.0	52.9	0.310	0.79	269			0.65	0.0749	0.701	0.776	<0.0050
RSEM-R5B-EOP	1/2/2019 13:30	VA7319	D	8.21	1220	1.52	758	<4.0	251	237	252	<1.0	307	<1.0	<1.0	54.8	0.320	0.80	270			0.56	0.0812	0.736	0.817	<0.0050
RSEM-R5B-EOP	1/2/2019 13:30	VA7318	M	8.30	1250	1.48	752	<4.0	245	237	257	<1.0	314	<1.0	<1.0	54.6	0.330	0.80	291			0.56	0.0731	0.752	0.825	<0.0050
RSEM-R5B-EOP	1/3/2019 14:50	VA8830	M	8.26	1250	1.08	756	<4.0	239	237	258	<1.0	314	<1.0	<1.0	55.3	0.340	0.86	261			0.48	0.0716	0.728	0.799	<0.0050
RSEM-R5B-EOP	1/4/2019 13:05	VA8827	M	8.25	1290	1.08	750	<4.0	254	238	257	<1.0	314	<1.0	<1.0	59.5	0.320	0.89	308			0.54	0.0530	0.753	0.806	<0.0050
RSEM-R5B-EOP	1/5/2019 13:48	VB1445	D	8.14	1310	1.32	820	<4.0	241	254	252	<1.0	307	<1.0	<1.0	56.1	0.340	0.81	310			0.45	0.0617	0.750	0.812	<0.0050
RSEM-R5B-EOP	1/5/2019 13:48	VB1444	M	8.14	1300	1.40	788	<4.0	244	252	252	<1.0	308	<1.0	<1.0	55.5	0.350	0.82	312			0.50	0.0652	0.744	0.810	<0.0050
RSEM-R5B-EOP	1/6/2019 13:00	VB1451	M	8.15	1300	1.50	758	<4.0	255	247	240	<1.0	293	<1.0	<1.0	53.0	0.330	0.74	308			0.55	0.0576	0.831	0.889	<0.0050

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5A-A-SP	4/17/2019 12:30	VN9790	M	1.6	1.6	2.27	0.00053	0.00098	0.195	<0.0001	<0.001	0.078	0.00004	24.0	0.0032	0.0008	0.00297	1.59	0.00093	0.0147	4.09	0.0265	<0.000002	0.0054	0.0035		3.98	0.00267
RSEM-R5A-A-SP	4/18/2019 9:15	VN9667	M	1.5	1.5	0.993	0.00052	0.00102	0.185	<0.0001	<0.001	0.072	0.00004	24.3	0.0017	0.00087	0.00311	1.51	0.00095	0.0135	3.99	0.0266	<0.000002	0.0055	0.0036		3.63	0.0026
RSEM-R5A-A-SP	6/29/2019 11:55	VZ9044	M	2.8	3.5	5.81	<0.001	0.00331	0.241	0.00024	<0.002	<0.1	0.000156	35.4	0.0084	0.00228	0.0085	6.29	0.00393	0.0173	6.29	0.0716	<0.000002	0.0057	0.0088		4.56	0.0043
RSEM-R5A-A-SP	7/16/2019 9:20	WC9626	M	4.0	3.8	1.42	0.00067	0.00247	0.186	0.00013	<0.001	0.107	0.000116	32.5	0.0023	0.0017	0.00642	2.78	0.00233	0.0146	5.37	0.059	<0.000002	0.0058	0.0057		3.81	0.00454
RSEM-R5A-B-EOP	3/19/2019 17:05	VK0909	M	9.8	2.0	9.68	<0.0005	0.00589	0.583	0.00064	<0.001	<0.05	0.000365	18.1	0.014	0.00817	0.0234	13.3	0.00898	0.0188	4.75	0.195	0.0000026	0.0022	0.024		4.62	0.00302
RSEM-R5A-B-EOP	3/20/2019 9:45	VK2372	M	2.7	1.8	1.68	<0.0005	0.00201	0.161	0.00017	<0.001	0.096	0.000119	33.6	0.0026	0.00227	0.0332	3.04	0.00245	0.0133	6.71	0.0624	<0.000002	0.0021	0.0068		2.26	0.00465
RSEM-R5A-B-EOP	3/21/2019 14:15	VK3787	M	2.4	2.0	4.74	<0.0005	0.00187	0.141	0.00018	<0.001	0.131	0.000087	45.1	0.0065	0.00158	0.00566	3.44	0.00207	0.016	9.04	0.0424	<0.000002	0.0034	0.0057		2.96	0.00591
RSEM-R5A-B-SP	3/18/2019 11:00	VJ6968	M	3.4	2.9	19.3	<0.0025	0.00233	0.314	0.00058	<0.005	<0.25	0.000136	11.5	0.0249	0.0031	0.0089	6.85	0.0038	0.016	3.26	0.0688	0.0000047	<0.005	0.0098		5.91	0.00092
RSEM-R5A-B-SP	3/22/2019 8:55	VK3762	M	1.6	1.1	4.97	<0.0005	0.00184	0.215	0.00023	<0.001	<0.05	0.000132	18.4	0.0071	0.00311	0.00727	3.93	0.00254	0.0129	3.73	0.0853	<0.000002	0.0019	0.0094		3.10	0.00323
RSEM-R5A-B-SP	3/23/2019 16:55	VK5907	M	<0.50	0.97	11	<0.0025	0.00163	0.235	<0.0005	<0.005	<0.25	0.000116	20.3	0.0162	0.0027	0.0062	4.83	0.0025	0.019	4.52	0.074	0.0000083	<0.005	0.009		4.74	0.00432
RSEM-R5A-B-SP	3/24/2019 16:08	VK5971	M	0.65	1.5	11.3	<0.0025	0.00144	0.223	<0.0005	<0.005	<0.25	0.000085	20.6	0.0148	0.0024	0.0056	4.27	0.0021	0.02	4.55	0.0591	0.0000072	<0.005	0.0074		4.85	0.00624
RSEM-R5A-B-SP	3/25/2019 14:11	VK7776	M	1.4	1.2	6.79	<0.0005	0.00101	0.168	0.00021	<0.001	<0.05	0.000071	22.3	0.0084	0.00137	0.0033	2.25	0.00135	0.0161	5.04	0.0452	<0.000002	0.0026	0.0048		3.79	0.00551
RSEM-R5A-B-SP	3/26/2019 14:37	VK9035	M	2.0	2.2	6.01	0.00107	0.00497	0.527	0.00042	<0.001	0.108	0.000209	23.2	0.0095	0.00644	0.0187	8.08	0.0059	0.0344	5.27	0.104	0.0000068	0.0161	0.0173		5.31	0.0175
RSEM-R5A-B-SP	3/27/2019 15:11	VL1965	M	6.7	1.9	9.68	0.00138	0.00793	0.717	0.00063	<0.001	0.216	0.000246	24.1	0.0175	0.00815	0.0229	11.2	0.00826	0.0538	6.13	0.127	0.0000093	0.0274	0.0214		5.85	0.023
RSEM-R5A-B-SP	3/28/2019 12:45	VL3518	M	3.7	3.8	3.93	0.0022	0.00593	0.209	<0.0002	<0.002	0.236	0.000069	22.2	0.0113	0.00219	0.0073	3.27	0.00213	0.04	4.25	0.0365	0.0000062	0.0413	0.007		4.79	0.0289
RSEM-R5A-B-SP	4/3/2019 13:40	VM2013	M	5.3	4.5	3.3	0.00412	0.0177	0.352	0.00021	<0.001	0.455	0.000089	11.5	0.0221	0.00294	0.0113	4.14	0.00331	0.0536	2.43	0.0434	0.0000166	0.091	0.0077		3.19	0.046
RSEM-R5A-B-SP	4/10/2019 14:40	VN0774	M	3.7	3.8	5.97	0.0029	0.0179	0.598	<0.0005	<0.005	0.381	0.000204	17.0	0.0236	0.0066	0.0211	9.6	0.0071	0.059	4.13	0.112	0.0000063	0.0655	0.0171		4.30	0.0395
RSEM-R5A-B-SP	4/11/2019 10:00	VN1904	M	6.0	3.1	13	0.0033	0.0147	0.532	0.00053	<0.005	0.34	0.000166	15.4	0.0289	0.005	0.0167	7.94	0.0057	0.061	4.06	0.0797	0.000005	0.0599	0.0145		6.19	0.0332
RSEM-R5A-B-SP	4/12/2019 9:11	VN1939	M	2.1	2.8	5.14	0.0027	0.0139	0.461	<0.0005	<0.005	0.321	0.000147	15.6	0.019	0.0047	0.0159	6.95	0.0051	0.056	3.52	0.0763	<0.000002	0.0522	0.0131		4.02	0.0318
RSEM-R5A-B-SP	4/13/2019 10:10	VN4350	M	4.8	2.2	4.34	0.0022	0.0122	0.402	0.00027	<0.002	0.264	0.000185	18.1	0.0148	0.00431	0.0155	6.94	0.00474	0.0538	3.99	0.0778	<0.000002	0.0439	0.013		3.59	0.0283
RSEM-R5A-B-SP	4/14/2019 10:58	VN4345	M	3.9	2.1	3.77	0.0024	0.0114	0.374	0.00024	<0.002	0.278	0.000151	17.7	0.0147	0.00396	0.0142	6.05	0.00418	0.0523	3.85	0.0729	<0.000002	0.0502	0.0115		3.57	0.0298
RSEM-R5A-B-SP	4/15/2019 10:30	VN6310	M	2.6	2.4	5.48	0.00254	0.013	0.511	0.00035	<0.001	0.341	0.000185	18.9	0.0175	0.0052	0.0158	7.63	0.0058	0.0538	4.23	0.092	<0.000002	0.0513	0.0139		4.26	0.0284
RSEM-R5A-B-SP	4/16/2019 13:45	VN8485	M	<2.5	3.2	8.03	0.00237	0.0141	0.644	0.00051	<0.001	0.325	0.000231	19.4	0.0218	0.00709	0.0205	10	0.00779	0.0587	4.70	0.128	<0.000002	0.0505	0.0186		5.12	0.0292
RSEM-R5A-B-SP	4/17/2019 12:45	VN9791	M	3.3	3.8	11.5	0.0026	0.0176	0.975	0.00074	<0.002	0.372	0.000331	23.7	0.0278	0.0104	0.0299	16	0.0111	0.0643	5.95	0.197	<0.000002	0.054	0.0277		6.46	0.0313
RSEM-R5A-B-SP	4/18/2019 9:25	VN9668	M	2.7	2.9	7.24	0.0021	0.0137	0.733	0.00051	<0.002	0.35	0.000254	22.2	0.0212	0.00796	0.0229	11.6	0.00839	0.0594	5.02	0.139	<0.000002	0.0475	0.0209		5.24	0.0265
RSEM-R5A-B-SP	6/29/2019 12:15	VZ9045	M	<2.0	2.7	9.21	<0.001	0.00667	0.433	0.0005	<0.002	<0.1	0.000287	26.0	0.0135	0.00545	0.0173	12.3	0.00855	0.0182	5.05	0.144	<0.000002	0.0055	0.0184		4.79	0.00585
RSEM-R5A-B-SP	7/16/2019 9:35	WC9627	M	11	3.3	0.523	0.0005	0.00112	0.14	<0.0001	<0.001	0.097	0.000054	50.1	<0.001	0.00083	0.00354	0.71	0.00085	0.0143	6.47	0.032	<0.000002	0.0057	0.003		3.45	0.0107
RSEM-R5A-C-EOP	3/19/2019 17:10	VK0910	M	4.6	2.2	7.21	0.00057	0.00794	0.615	0.00053	<0.001	<0.05	0.00051	32.6	0.0119	0.00815	0.0196	16.1	0.00963	0.0184	8.48	0.245	0.0000045	0.0031	0.026		3.28	0.00339
RSEM-R5A-C-EOP	3/21/2019 14:45	VK3788	M	2.0	1.2	4.48	0.00087	0.00105	0.144	0.00013	<0.001	0.055	0.000047	23.2	0.0057	0.00146	0.00251	1.6	0.00094	0.0206	4.97	0.0478	0.0000072	0.0064	0.0056		3.08	0.00733
RSEM-R5A-C-SP	3/20/2019 10:15	VK2373	M	1.5	1.2	1.59	0.00053	0.00123	0.212	<0.0001	<0.001	<0.05	0.000055	16.2	0.0022	0.00148	0.00304	1.41	0.00119	0.0117	3.11	0.0418	0.0000026	0.0038	0.0049		1.47	0.00382
RSEM-R5A-C-SP	3/22/2019 9:15	VK3763	M	1.5	0.92	2.9	0.00111	0.00086	0.132	<0.0001	<0.001	0.067	0.000041	28.6	0.0036	0.00158	0.00164	0.93	0.00054	0.028	6.03	0.0626	0.0000023	0.009	0.0062		2.80	0.0108
RSEM-R5A-C-SP	3/23/2019 17:15	VK5908	M	<0.50	0.78	3.35	0.00109	0.00096	0.141	0.0001	<0.001	0.072	0.000041	26.2	0.005	0.00141	0.00216	1.36	0.00078	0.0271	5.73	0.0532	0.0000069	0.0088	0.0056		3.36	0.0101
RSEM-R5A-C-SP	3/24/2019 16:05	VK5968	M	0.55	0.69	6.21	0.0012	0.00131	0.173	0.00021	<0.002	<0.1	0.000065	29.6	0.0081	0.00198	0.0036	2.45	0.00133	0.0334	6.67	0.0697	0.0000088	0.0102	0.0068		4.19	0.0149
RSEM-R5A-C-SP	3/25/2019 14:35	VK7777	M	1.2	1.0	2.5	0.00154	0.00086	0.12	<0.0001	<0.001	0.127	0.000071	32.4	0.0031	0.00208	0.00188	0.907	0.0006	0.0607	8.48	0.0896	0.0000055	0.0151	0.0071		3.75	0.0314
RSEM-R5A-C-SP	3/26/2019 14:25	VK9036	M	1.2	0.96	1.13	0.00135	0.00103	0.122	<0.0001	<0.001	0.123	0.000061	35.6	0.0018	0.00236	0.00266	1.06	0.00076	0.0613	8.36	0.0879	0.0000034	0.014	0.0091		3.25	0.0316
RSEM-R5A-C-SP	3/27/2019 15:41	VL1966	M	1.9	1.6	1.63	0.00165	0.00108	0.12	<0.0001	<0.001	0.185	0.000065	43.4	0.0023	0.00284	0.00237	1.1	0.00074	0.0981	10.3	0.112	0.0000021	0.0175	0.0099		4.09	0.0445
RSEM-R5A-C-SP	3/28/2019 12:15	VL3519	M	2.0	1.4	2.38	0.0025	0.0017	0.108	<0.0005	<0.005	0.325	0.000098	59.0	0.006	0.0051	0.0027	1.16	<0.001	0.188	15.8	0.175	0.0000022	0.03	0.0186		5.58	0.0743
RSEM-R5A-C-SP	4/3/2019 13:35	VM1868	M	1.8	2.5	0.927	0.0026	0.00209	0.111	<0.0005	<0.005	0.361	0.000051	57.3	<0.005	0.0023	0.0031	1.16	<0.001	0.177	15.9	0.0351	<0.000002	0.0344	0.0106		4.76	0.0572
RSEM-R5A-C-SP	4/10/2019 15:01	VN0775	M	1.5	2.0	1.05	<0.0025	0.0024	0.145	<0.0005	<0.005	0.3	0.000059	51.1	<0.005	0.0012	0.0041	1.67	0.0011	0.131	12.9	0.0235	<0.000002	0.0271	0.0056		4.57	0.0397
RSEM-R5A-C-SP	4/11/2019 10:19	VN1905	M	1.4	2.0	0.874	<0.0025	0.00216	0.107	<0.0005	<0.005	0.264	<0.00005	50.8	<0.005	<0.001	0.0033	1.08	<0.001	0.114	12.1	0.0152	<0.000002	0.0259	0.0053		4.15	0.0368
RSEM-R5A-C-SP	4/12/2019 9:34	VN1940	M	1.1	1.7	0.944	<0.0025	0.00191	0.0895	<0.0005	<0.005	0.271	<0.00005	47.8	<0.005	<0.001	0.0029	0.711	<0.001	0.109	11.6	0.0098	<0.000002	0.0256	<0.005		4.07	0.0345
RSEM-R5A-C-SP	4/13/2019 10:28	VN4351	M	1.9	1.8	0.949	0.002	0.00221	0.108	<0.0002	<0.002	0.227	0.000048	43.1	<0.002	0.00101	0.0034	1.21	0.00084	0.102	11.8	0.0167	<0.000002	0.0259	0.0095		4.15	0.0355
RSEM-R5A-C-SP	4/14/2019 11:22	VN4346	M	1.9	1.7	0.663	0.00191	0.00199	0.0835	<0.0001	<0.001	0.22	0.000031	43.8	0.0012	0.00066	0.00249	0.725	0.00051	0.0975	11.0	0.0099	<0.000002	0.0269	0.0036		3.63	0.0335
RSEM-R5A-C-SP	4/15/2019 10:45	VN6311	M	2.4	2.2	1.1	0.0018	0.00225	0.119	<0.0002	<0.002	0.251	0.000047	40.7	<0.002	0.00108	0.0035	1.29	0.00105	0.0945	10.5	0.0185	<0.000002	0.0237	0.0046		3.87	0.0272
RSEM-R5A-C-SP	4/16/2019 14:15	VN8486	M	<2.5	2.2	3.48	0.0016	0.00359	0.224	0.0002	<0.001	0.246	0.000112	44.5	0.0052	0.00272	0.00726	3.95	0.00289	0.1	11.8	0.0541	<0.000002	0.0222	0.0089		4.91	0.0261
RSEM-R5A-C-SP	4/17/2019 13:20	VN9792	M	2.3	2.0	3.81	0.0016	0.00299	0.197	<0.0002	<0.002	0.259	0.00008	43.7	0.0053	0.00199	0.0058	3.21	0.00206	0.0946	10.9	0.0366	<0.000002	0.0225	0.0073		4.76	0.0257
RSEM-R5A-C-SP	4/18/2019 9:45	VN9669	M	2.4	<2.5	1.34	0.0017	0.00248	0.135	<0.0002	<0.002	0.263	0.000057	45.6	0.0023	0.00146	0.0041	1.88	0.00135	0.0924	10.7	0.0264	<0.000002	0.0227	0.0055		3.98	0.0253
RSEM-R5A-C-SP	6/29/2019 12:40	VZ9046	M	2.1	2.8	2.53	<0.001	0.00199	0.187	<0.0002	<0.002	0.193	0.000102	63.0	0.0046	0.00195	0.0052	2.93	0.00203	0.0474	11.4	0.0419	<0.000002	0.0125	0.0072		6.07	0.0219
RSEM-R5A-D-SP	3/19/2019 17:15	VK0911	M	3.0	0.91	4	<0.001	0.00187	0.147	<0.0002	<0.002	<0.1	0.000125	8.38	0.0059	0.00213	0.0055	3.7	0.00228	0.005	1.83	0.0652	0.0000048	<0.002	0.007		1.92	0.00085
RSEM-R5A-D-SP	3/20/2019 10:05	VK2376	M	1.7	0.80	1.09	<0.0005	0.00147	0.14	0.00014	<0.001	<0.05	0.00015	9.68	0.0019	0.00239	0.00509	2.5	0.0022	0.0034	1.85	0.0751	<0.000002	<0.001	0.0067		1.14	0.00071
RSEM-R5A-D-SP	3/21/2019 14:30	VK3789	M	1.3	<0.50	5.87	<0.0005	0.0017	0.154	0.00022	<0.001	<0.05	0.000171	13.1	0.0084	0.00322	0.00647	3.79	0.00215	0.0074	2.92	0.0932	<0.000002	<0.001	0.0098		2.40	0.00095
RSEM-R5A-D-SP	3/22/2019 9:25	VK3764	M	1.2	0.79	5.88	<0.0005	0.00175	0.152	0.00022	<0.001	<0.05	0.000172	16.4	0.0086	0.0035	0.00549	3.72	0.0022	0.0086	3.65	0.101	<0.000002	<0.001	0.0105		2.34	0.00107
RSEM-R5A-D-SP	3/23/2019 17:25	VK5909	M	<0.50	<0.50	6.68	<0.001	0.00166	0.157	0.00026	<0.002	<0.1	0.000154	16.7	0.0101	0.00323	0.0051	3.82	0.00221	0.0094	3.69	0.0908	<0.000002	<0.002	0.0095		2.62	0.0012
RSEM-R5A-D-SP	3/24/2019 16:15	VK5969	M	<0.50	<0.50	5.92	<0.001	0.00157	0.148	0.00022	<0.002	<0.1	0.000147	17.5	0.0088	0.00291	0.0048	3.64	0.00196	0.0089	3.91	0.0829	0.0000035	<0.002	0.0085		2.44	0.00128
RSEM-R5A-D-SP	3/25/2019 14:47	VK7778	M	0.87	0.59	5.83	<0.0005	0.00136	0.136	0.00019	<0.001	<0.05	0.000127	18.0	0.0068	0.00225	0.00377	2.75	0.00173	0.0088	4.26	0.0713	0.0000044	0.0011	0.0069		2.34	0.00106
RSEM-R5A-D-SP	3/26/2019 14:50	VK9037	M	0.91	<0.50	1.82	<0.0005	0.00135	0.111	0.0001	<0.001	<0.05	0.000116	22.3	0.0027	0.00203	0.00415	2.36	0.00161	0.006	4.38	0.0693	<0.000002	0.0014	0.0063		1.39	0.0013
RSEM-R5A-D-SP	3/27/2019 15:56	VL1967	M	1.1	0.73	2.14	<0.0005	0.00126	0.111	0.00011	<0.001	<0.05	0.00011	21.7	0.0032	0.00195	0.00402	2.33	0.00146	0.0068	4.43	0.0674	<0.000002	0.0013	0.0064		1.53	0.00125
RSEM-R5A-D-SP	3/28/2019 13:00	VL3520	M	0.96	0.58	3.14	<0.0005	0.00114	0.121	0.00013	<0.001	<0.05	0.000098	24.9	0.0048	0.00172	0.00336	2.45	0.00142	0.0085	4.66	0.0601	<0.000002	0.0016	0.0056		1.98	0.0014
RSEM-R5A-D-SP	4/3/2019 13:41	VM1869	M	1.3	1.7	0.0683	0.00051	0.0004	0.0777	<0.0001	<0.001	0.069	0.000014	52.3	<0.001	0.00033	0.0012	0.054	<0.0002	0.013	12.5	0.0476	<0.000002	0.0049	0.0022		2.38	0.00201
RSEM-R5A-D-SP	4/10/2019 15:15	VN0776	M	1.0	1.7	0.0586	0.00077	0.00047	0.0559	<0.0001	<0.001	0.108	0.000012	67.6	<0.001	<0.0002	0.00167	0.041	<0.0002	0.0186	17.7	0.0166	<0.000002	0.0058	0.0021		3.57	0.00275
RSEM-R5A-D-SP	4/11/2019 10:29	VN1906	M	1.2	1.8	0.0622	0.00072	0.00053	0.0562	<0.0001	<0.001	0.101	0.000011	70.4	<0.001	0.00021	0.00167	0.082	<0.0002	0.0197	17.1	0.0144	<0.000002	0.0058	0.0021		3.44	0.00263
RSEM-R5A-D-SP	4/12/2019 9:45	VN1941	M	0.94	1.9	0.0914	0.0008	0.00056	0.0557	<0.0001	<0.001	0.096	0.000012	70.1	<0.001	0.00025	0.00167	0.105	<0.0002	0.0197	17.7	0.0213	<0.000002	0.0058	0.0024		3.58	0.003
RSEM-R5A-D-SP	4/13/2019 10:40	VN4352	M	1.8	1.5	0.0845	0.00073	0.00053	0.0516	<0.0001	<0.001	0.093	0.000015	69.1	<0.001	0.00027	0.00177	0.15	<0.0002	0.0184	18.0	0.0151	<0.000002	0.0058	0.0024		3.52	0.00298
RSEM-R5A-D-SP	4/14/2019 11:34	VN4347	M	1.5	1.7	0.0425	0.00067	0.00045	0.0434	<0.0001	<0.001	0.092	0.000011	73.1	<0.001	<0.0002	0.00161	0.052	<0.0002	0.0184	19.5	0.0156	<0.000002	0.0059	0.0024		3.41	0.00335
RSEM-R5A-D-SP	4/15/2019 11:00	VN6312	M	1.9	1.8	0.0906	0.00063	0.00046	0.0583	<0.0001	<0.001	0.094	0.000014	76.0	<0.001	<0.0002	0.00168	0.133	<0.0002	0.0197	18.4	0.0096	<0.000002	0.0056	0.0023		3.59	0.00269
RSEM-R5A-D-SP	4/16/2019 14:20	VN8487	M	1.4	1.9	0.0623	0.00062	0.00043	0.0431	<0.0001	<0.001	0.098	<0.00001	80.7	<0.001	<0.0002	0.00143	0.062	<0.0002	0.0197	20.7	0.0117	<0.000002	0.0048	0.0021		3.59	0.00356
RSEM-R5A-D-SP	4/17/2019 13:35	VN9793	M	2.2	1.6	0.0518	0.00068	0.00049	0.0439	<0.0001	<0.001	0.103	0.00001	90.6	<0.001	<0.0002	0.00151	0.055	<0.0002	0.0221	21.6	0.0144	<0.000002	0.0054	0.0023		3.96	0.00377
RSEM-R5A-D-SP	4/18/2019 9:55	VN9670	M	1.9	2.5	0.0463	0.00067	0.00049	0.0455	<0.0001	<0.001	0.12	0.00001	93.0	<0.001	<0.0002	0.00149	0.051	<0.0002	0.0222	22.1	0.0128	<0.000002	0.0053	0.0026		3.95	0.00396
RSEM-R5A-NCD	3/19/2019 19:00	VK0928	M	1.1	2.0	0.787	<0.0005	0.00131	0.114	<0.0001	<0.001	<0.05	0.000332	80.0	0.0016	0.00511	0.00328	2.09	0.00113	0.0123	19.0	0.154	0.0000028	0.0016	0.0123		2.41	0.00256
RSEM-R5B-EOP	1/1/2019 12:55	VA5881	M	2.0	4.6	0.0706	0.00111	0.00153	0.0454	<0.0001	<0.001	0.191	0.000031	46.8	0.0015	0.00066	0.00106	0.053	<0.0002	0.0672	32.1	0.0177	<0.000002	0.0165	0.006		4.43	0.0035
RSEM-R5B-EOP	1/2/2019 13:30	VA7319	D	2.4	2.4	0.0696	0.0012	0.0016	0.0458	<0.0001	<0.001	0.193	0.000034	48.1	0.0014	0.00066	0.00109	0.046	<0.0002	0.0726	31.7	0.0179	<0.000002	0.0187	0.0057		4.68	0.00332
RSEM-R5B-EOP	1/2/2019 13:30	VA7318	M	2.2	2.9	0.0767	0.00121	0.00148	0.0457	<0.0001	<0.001	0.191	0.000038	47.3	0.0013	0.00067	0.00102	0.048	<0.0002	0.0713	30.9	0.0177	<0.000002	0.0182	0.0059		4.56	0.00335
RSEM-R5B-EOP	1/3/2019 14:50	VA8830	M	1.5	0.84	0.0679	0.00116	0.00146	0.0437	<0.0001	<0.001	0.222	0.000042	43.1	0.0013	0.00073	0.00101	0.044	<0.0002	0.0885	31.8	0.0181	<0.000002	0.0174	0.0063		4.38	0.00335
RSEM-R5B-EOP	1/4/2019 13:05	VA8827	M	1.4	1.0	0.0582	0.00125	0.00146	0.0427	<0.0001	<0.001	0.238	0.000046	45.8	0.0014	0.00074	0.00114	0.042	<0.0002	0.0914	33.8	0.0171	<0.000002	0.0189	0.0068		4.50	0.00362
RSEM-R5B-EOP	1/5/2019 13:48	VB1445	D	1.6	2.9	0.0557	0.0011	0.00134	0.0373	<0.0001	<0.001	0.183	0.000041	46.1	0.0013	0.00069	0.00114	0.044	<0.0002	0.067	30.7	0.0166	<0.000002	0.0179	0.0063		4.34	0.00364
RSEM-R5B-EOP	1/5/2019 13:48	VB1444	M	1.5	3.0	0.0533	0.00111	0.00141	0.0376	<0.0001	<0.001	0.177	0.00004	46.1	0.0013	0.00077	0.00108	0.042	<0.0002	0.066	31.4	0.0169	<0.000002	0.0177	0.0066		4.56	0.0034
RSEM-R5B-EOP	1/6/2019 13:00	VB1451	M	2.5	2.7	0.0518	0.00106	0.00119	0.0371	<0.0001	<0.001	0.176	0.000036	47.1	0.0014	0.00075	0.0013	0.053	<0.0002	0.0656	33.4	0.0181	<0.000002	0.017	0.0067		4.33	0.00389

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5A-A-SP	4/17/2019 12:30	VN9790	M	6.65	0.000023	54.1	0.146	40.1	0.000042	<0.005	0.0685	0.00189	0.0066	0.008	0.00162	0.0092	0.00051	0.00032	0.127	<0.0001	<0.001	0.065	0.000012	20.5	<0.001	<0.0002	0.00087	<0.01
RSEM-R5A-A-SP	4/18/2019 9:15	VN9667	M	3.04	0.00002	54.1	0.146	39.9	0.000032	<0.005	0.0148	0.0019	<0.005	0.0088	0.00183	0.0095	0.0005	0.00032	0.117	<0.0001	<0.001	0.065	0.000012	20.5	<0.001	<0.0002	0.00085	<0.01
RSEM-R5A-A-SP	6/29/2019 11:55	VZ9044	M	12.9	0.000067	64.8	0.169	61.4	0.000115	<0.01	0.205	0.00137	0.016	0.029	0.00357	0.0056	<0.0005	0.00035	0.0876	<0.0001	<0.001	0.083	0.000017	36.5	<0.001	<0.0002	0.00172	0.014
RSEM-R5A-A-SP	7/16/2019 9:20	WC9626	M	2.52	<0.00002	81.7	0.164	68.9	0.000048	<0.005	0.0182	0.00154	<0.005	0.0221	0.0005	0.0134	0.00068	0.00074	0.0862	<0.0001	<0.001	0.107	0.000016	30.6	<0.001	<0.0002	0.00178	0.015
RSEM-R5A-B-EOP	3/19/2019 17:05	VK0909	M	15.2	0.000146	27.5	0.118	24.1	0.000216	<0.005	0.0937	0.00151	0.0267	0.0958	0.00205	0.0412	<0.0005	0.00027	0.0604	<0.0001	<0.001	<0.05	0.000013	13.7	<0.001	<0.0002	0.00077	0.025
RSEM-R5A-B-EOP	3/20/2019 9:45	VK2372	M	3	0.000041	112	0.105	66.8	0.000049	<0.005	0.0163	0.00173	<0.005	0.0349	0.00024	0.0056	<0.0005	0.00019	0.0641	<0.0001	<0.001	0.087	0.000031	35.2	<0.001	0.00038	0.00086	<0.01
RSEM-R5A-B-EOP	3/21/2019 14:15	VK3787	M	9.72	0.000062	147	0.114	82.8	0.000075	<0.005	0.101	0.00239	0.0136	0.0246	0.00322	0.0058	<0.0005	0.00022	0.0451	<0.0001	<0.001	0.142	0.000015	46.5	<0.001	<0.0002	0.00074	<0.01
RSEM-R5A-B-SP	3/18/2019 11:00	VJ6968	M	36.2	<0.0001	6.80	0.0718	<15	0.000204	<0.025	0.506	0.00095	0.051	0.033	0.0181	0.058	<0.0005	0.00028	0.0909	<0.0001	<0.001	<0.05	0.00001	10.6	<0.001	<0.0002	0.00074	0.037
RSEM-R5A-B-SP	3/22/2019 8:55	VK3762	M	9.46	0.000045	27.5	0.0922	25.9	0.0001	<0.005	0.112	0.0011	0.0145	0.0275	0.00397	0.0404	<0.0005	0.00019	0.0723	<0.0001	<0.001	<0.05	0.000026	17.6	<0.001	0.00038	0.00063	<0.01
RSEM-R5A-B-SP	3/23/2019 16:55	VK5907	M	21.5	<0.0001	32.0	0.101	29	0.000148	<0.025	0.459	0.00136	0.033	0.026	0.00814	0.0118	<0.0005	0.00019	0.0557	<0.0001	<0.001	<0.05	0.000025	18.9	<0.001	0.00044	0.00061	<0.01
RSEM-R5A-B-SP	3/24/2019 16:08	VK5971	M	24	<0.0001	44.3	0.101	37	0.000135	<0.025	0.323	0.00145	0.031	<0.025	0.00893	0.0103	<0.0005	0.00023	0.0551	<0.0001	<0.001	<0.05	0.00002	19.6	<0.001	0.00035	0.00066	<0.01
RSEM-R5A-B-SP	3/25/2019 14:11	VK7776	M	15.3	0.000036	47.7	0.108	42.7	0.000089	<0.005	0.189	0.00136	0.0175	0.0135	0.00638	0.0079	<0.0005	0.00021	0.0578	<0.0001	<0.001	<0.05	0.000025	21.3	<0.001	0.00034	0.00067	<0.01
RSEM-R5A-B-SP	3/26/2019 14:37	VK9035	M	9.96	0.000097	133	0.179	79.8	0.000137	<0.005	0.0449	0.00288	0.0174	0.0673	0.00179	0.0098	0.0014	0.00143	0.0476	<0.0001	<0.001	0.108	0.000014	19.7	<0.001	0.00027	0.00151	<0.01
RSEM-R5A-B-SP	3/27/2019 15:11	VL1965	M	17.7	0.000103	193	0.243	110	0.000171	<0.005	0.0924	0.00343	0.0277	0.077	0.00254	0.0157	0.00195	0.00286	0.0599	<0.0001	<0.001	0.221	0.00001	21.2	0.004	0.00024	0.00133	0.014
RSEM-R5A-B-SP	3/28/2019 12:45	VL3518	M	9.18	0.000051	189	0.161	116	0.000079	<0.01	0.066	0.00293	0.014	0.026	0.00277	0.0122	0.00243	0.00387	0.0583	<0.0001	<0.001	0.253	0.000017	21.4	0.0053	0.00026	0.00126	<0.01
RSEM-R5A-B-SP	4/3/2019 13:40	VM2013	M	10.3	0.000057	451	0.175	248	0.000067	<0.005	0.0332	0.00145	0.0229	0.0254	0.00159	0.0296	0.00523	0.0151	0.0456	<0.0001	<0.001	0.437	<0.00001	9.73	0.0179	0.00034	0.00274	<0.01
RSEM-R5A-B-SP	4/10/2019 14:40	VN0774	M	13.2	<0.0001	458	0.188	248	0.000139	<0.025	0.029	0.00212	0.028	0.064	0.00132	0.0257	0.0037	0.0102	0.0458	<0.0002	<0.002	0.401	<0.00002	12.3	0.0121	<0.0004	0.0018	<0.02
RSEM-R5A-B-SP	4/11/2019 10:00	VN1904	M	25.4	0.00012	409	0.192	227	0.00018	<0.025	0.322	0.00233	0.042	0.048	0.00882	0.0181	0.00346	0.00981	0.047	<0.0001	<0.001	0.278	<0.00001	13.1	0.0108	0.00024	0.00166	<0.01
RSEM-R5A-B-SP	4/12/2019 9:11	VN1939	M	11.7	<0.0001	396	0.184	217	0.000112	<0.025	0.049	0.00205	<0.025	0.047	0.00113	0.0212	0.0036	0.00982	0.049	<0.0002	<0.002	0.294	<0.00002	12.4	0.0107	<0.0004	0.0017	0.049
RSEM-R5A-B-SP	4/13/2019 10:10	VN4350	M	9.23	0.000097	350	0.192	193	0.000099	<0.01	0.03	0.00233	0.019	0.054	0.00114	0.0113	0.00272	0.0061	0.0431	<0.0001	<0.001	0.274	<0.00001	15.0	0.0085	0.00026	0.00144	<0.01
RSEM-R5A-B-SP	4/14/2019 10:58	VN4345	M	8.24	0.00007	367	0.186	203	0.000086	<0.01	0.026	0.00228	0.017	0.047	0.0011	0.0105	0.00322	0.00769	0.0473	<0.0001	<0.001	0.299	<0.00001	14.5	0.0104	0.00029	0.00168	<0.01
RSEM-R5A-B-SP	4/15/2019 10:30	VN6310	M	11.5	0.000086	370	0.207	215	0.00012	<0.005	0.0254	0.00246	0.0213	0.0464	0.00078	0.013	0.0033	0.0084	0.0499	<0.0002	<0.002	0.316	<0.00002	15.8	0.0117	<0.0004	0.002	0.102
RSEM-R5A-B-SP	4/16/2019 13:45	VN8485	M	17.2	0.00012	374	0.216	223	0.00016	<0.005	0.0784	0.00264	0.0297	0.0644	0.00297	0.0119	0.0037	0.00712	0.0524	<0.0002	<0.002	0.344	<0.00002	13.7	0.01	<0.0004	0.0016	<0.02
RSEM-R5A-B-SP	4/17/2019 12:45	VN9791	M	23.5	0.000175	378	0.234	240	0.00022	<0.01	0.105	0.00291	0.04	0.097	0.00323	0.0093	0.00354	0.00692	0.0497	<0.0001	<0.001	0.307	0.00001	13.7	0.0098	0.00031	0.00148	<0.01
RSEM-R5A-B-SP	4/18/2019 9:25	VN9668	M	15.3	0.000129	354	0.223	217	0.000171	<0.01	0.033	0.00278	0.027	0.074	0.00111	0.0098	0.0035	0.0059	0.0518	<0.0001	<0.001	0.317	0.00001	16.0	0.0094	0.00033	0.0016	<0.01
RSEM-R5A-B-SP	6/29/2019 12:15	VZ9045	M	18.4	0.000126	67.7	0.139	52.5	0.000221	<0.01	0.18	0.00147	0.027	0.06	0.00542	0.0065	<0.0005	0.0004	0.0651	<0.0001	<0.001	0.073	0.000011	24.3	<0.001	<0.0002	0.00124	0.016
RSEM-R5A-B-SP	7/16/2019 9:35	WC9627	M	1.59	<0.00002	95.7	0.215	97.5	0.000026	<0.005	0.0097	0.00097	<0.005	0.0066	0.00091	0.0093	0.0005	0.00065	0.0875	<0.0001	<0.001	0.099	0.000017	50.8	<0.001	<0.0002	0.0017	<0.01
RSEM-R5A-C-EOP	3/19/2019 17:10	VK0910	M	11.3	0.000196	24.9	0.133	25.0	0.000204	<0.005	0.094	0.00158	0.0244	0.0942	0.00187	0.0226	<0.0005	0.0004	0.0858	<0.0001	<0.001	<0.05	0.000012	14.2	<0.001	0.00025	0.00066	0.013
RSEM-R5A-C-EOP	3/21/2019 14:45	VK3788	M	9.26	0.000023	74.6	0.158	62.1	0.00006	<0.005	0.102	0.00141	0.012	0.0089	0.00372	0.0102	0.00089	0.0004	0.0769	<0.0001	<0.001	0.055	0.000023	24.0	<0.001	0.0007	<0.0005	<0.01
RSEM-R5A-C-SP	3/20/2019 10:15	VK2373	M	3.17	<0.00002	32.5	0.0993	29.2	0.000042	<0.005	0.0325	0.00074	<0.005	0.0117	0.00098	0.0156	0.00058	0.0004	0.139	<0.0001	<0.001	<0.05	0.000017	16.4	<0.001	0.00058	0.00057	<0.01
RSEM-R5A-C-SP	3/22/2019 9:15	VK3763	M	6.52	0.000023	106	0.2	87.3	0.00004	<0.005	0.0693	0.00174	0.0076	0.0053	0.00257	0.0074	0.00107	0.00038	0.0792	<0.0001	<0.001	0.064	0.00002	29.0	<0.001	<0.0002	<0.0005	<0.01
RSEM-R5A-C-SP	3/23/2019 17:15	VK5908	M	7.91	0.000025	102	0.193	82.4	0.000058	<0.005	0.105	0.00182	0.0106	0.0071	0.00401	0.0072	0.00105	0.00042	0.0804	<0.0001	<0.001	0.067	0.000025	27.1	<0.001	0.00086	0.0007	<0.01
RSEM-R5A-C-SP	3/24/2019 16:05	VK5968	M	12.7	<0.00004	132	0.219	100	0.000085	<0.01	0.182	0.00225	0.017	0.012	0.00545	0.0088	0.0012	0.00041	0.0737	<0.0001	<0.001	0.07	0.000023	28.7	<0.001	0.00081	0.00064	<0.01
RSEM-R5A-C-SP	3/25/2019 14:35	VK7777	M	6.36	0.000027	271	0.304	201	0.000046	<0.005	0.0763	0.00332	0.0071	0.0059	0.00279	0.0213	0.00155	0.00045	0.0751	<0.0001	<0.001	0.122	0.000048	33.1	<0.001	0.00156	0.00079	<0.01
RSEM-R5A-C-SP	3/26/2019 14:25	VK9036	M	3.28	0.000023	268	0.309	182	0.000032	<0.005	0.0232	0.00332	<0.005	0.0084	0.00219	0.0143	0.0014	0.00044	0.0707	<0.0001	<0.001	0.128	0.000035	37.1	<0.001	0.00159	0.00067	<0.01
RSEM-R5A-C-SP	3/27/2019 15:41	VL1966	M	5.14	0.000021	381	0.491	273	0.000044	<0.005	0.0414	0.00476	<0.005	0.0073	0.00251	0.0138	0.00183	0.00057	0.0717	<0.0001	<0.001	0.204	0.000037	45.6	<0.001	0.00202	0.00075	<0.01
RSEM-R5A-C-SP	3/28/2019 12:15	VL3519	M	8.79	<0.0001	691	0.717	477	0.000057	<0.025	0.075	0.0075	<0.025	<0.025	0.00502	0.0424	0.0023	0.00128	0.0547	<0.0002	<0.002	0.347	0.000069	60.2	<0.002	0.00365	0.0011	<0.02
RSEM-R5A-C-SP	4/3/2019 13:35	VM1868	M	3.33	<0.0001	746	0.741	504	<0.00005	<0.025	<0.025	0.00824	<0.025	<0.025	0.0009	0.024	0.0029	0.00161	0.0567	<0.0005	<0.005	0.404	<0.00005	61.5	<0.005	0.0015	<0.0025	<0.05
RSEM-R5A-C-SP	4/10/2019 15:01	VN0775	M	3.1	<0.0001	528	0.504	392	<0.00005	<0.025	<0.025	0.00675	<0.025	<0.025	<0.0005	0.0211	0.0021	0.00157	0.058	<0.0002	<0.002	0.317	<0.00002	47.9	<0.002	<0.0004	0.001	<0.02
RSEM-R5A-C-SP	4/11/2019 10:19	VN1905	M	2.79	<0.0001	493	0.471	352	<0.00005	<0.025	<0.025	0.00647	<0.025	<0.025	0.00122	0.0181	0.0021	0.00157	0.0585	<0.0002	<0.002	0.238	<0.00002	46.7	<0.002	<0.0004	<0.001	0.107
RSEM-R5A-C-SP	4/12/2019 9:34	VN1940	M	2.68	<0.0001	468	0.453	343	<0.00005	<0.025	<0.025	0.00601	<0.025	<0.025	0.00052	0.0144	0.0021	0.00168	0.058	<0.0002	<0.002	0.247	<0.00002	46.6	<0.002	<0.0004	0.0011	0.02
RSEM-R5A-C-SP	4/13/2019 10:28	VN4351	M	2.66	<0.00004	485	0.452	347	0.000025	<0.01	0.017	0.00606	<0.01	0.01	0.00067	0.0126	0.002	0.00142	0.0543	<0.0002	<0.002	0.256	<0.00002	43.3	<0.002	<0.0004	0.0011	<0.02
RSEM-R5A-C-SP	4/14/2019 11:22	VN4346	M	2.28	<0.00002	477	0.458	341	0.000018	<0.005	0.0147	0.00592	<0.005	0.0052	0.00122	0.0141	0.002	0.00149	0.0518	<0.0002	<0.002	0.247	<0.00002	43.1	<0.002	<0.0004	0.0012	0.023
RSEM-R5A-C-SP	4/15/2019 10:45	VN6311	M	2.76	<0.00004	419	0.415	320	0.000031	<0.01	0.011	0.00563	<0.01	<0.01	0.00047	0.0168	0.002	0.00176	0.0486	<0.0002	<0.002	0.253	<0.00002	42.4	<0.002	<0.0004	0.0011	0.036
RSEM-R5A-C-SP	4/16/2019 14:15	VN8486	M	7.19	0.000048	437	0.44	321	0.000072	<0.005	0.0782	0.00595	0.0104	0.0222	0.00293	0.0141	0.0021	0.00174	0.0436	<0.0002	<0.002	0.284	<0.00002	41.8	<0.002	<0.0004	0.0011	<0.02
RSEM-R5A-C-SP	4/17/2019 13:20	VN9792	M	8.3	<0.00004	397	0.401	291	0.000069	<0.01	0.091	0.00545	0.01	0.017	0.00293	0.0146	0.0017	0.00135	0.0378	<0.0002	<0.002	0.202	<0.00002	35.6	<0.002	<0.0004	0.0011	<0.02
RSEM-R5A-C-SP	4/18/2019 9:45	VN9669	M	2.74	<0.00004	384	0.404	293	0.00004	<0.01	0.015	0.00552	<0.01	0.012	0.00054	0.018	0.0024	0.00178	0.0512	<0.0002	<0.002	0.261	0.000024	50.7	<0.002	0.00045	0.0015	<0.02
RSEM-R5A-C-SP	6/29/2019 12:40	VZ9046	M	6.41	0.000042	255	0.353	214	0.000086	<0.01	0.074	0.00273	<0.01	0.017	0.00375	0.011	0.00076	0.00051	0.0683	<0.0001	<0.001	0.206	<0.00001	66.8	<0.001	0.00025	0.0009	<0.01
RSEM-R5A-D-SP	3/19/2019 17:15	VK0911	M	7.33	0.000046	3.99	0.0393	6.4	0.000082	<0.01	0.099	0.0004	0.012	0.027	0.00158	0.0216	<0.0005	0.00021	0.0661	<0.0001	<0.001	<0.05	0.000019	8.03	<0.001	0.00047	0.0005	0.036
RSEM-R5A-D-SP	3/20/2019 10:05	VK2376	M	1.39	0.000028	3.95	0.0392	6.3	0.000045	<0.005	0.013	0.00035	<0.005	0.04	0.00018	0.0148	<0.0005	0.00019	0.0644	<0.0001	<0.001	<0.05	0.000027	8.51	<0.001	0.00059	0.00055	0.033
RSEM-R5A-D-SP	3/21/2019 14:30	VK3789	M	12.3	0.000045	5.01	0.0544	10.8	0.000088	<0.005	0.196	0.00059	0.0182	0.0422	0.00538	0.0119	<0.0005	0.00017	0.0694	<0.0001	<0.001	<0.05	0.000047	12.6	<0.001	0.00116	0.00057	0.017
RSEM-R5A-D-SP	3/22/2019 9:25	VK3764	M	12.6	0.000045	6.43	0.0631	15.0	0.000089	<0.005	0.222	0.00063	0.018	0.034	0.00563	0.0075	<0.0005	<0.0001	0.0706	<0.0001	<0.001	<0.05	0.000027	16.2	<0.001	<0.0002	<0.0005	<0.01
RSEM-R5A-D-SP	3/23/2019 17:25	VK5909	M	15.1	0.00005	6.37	0.069	14.3	0.000097	<0.01	0.246	0.00064	0.02	0.031	0.00626	0.0088	<0.0005	0.00012	0.0674	<0.0001	<0.001	<0.05	0.000048	16.3	<0.001	0.00119	<0.0005	0.019
RSEM-R5A-D-SP	3/24/2019 16:15	VK5969	M	13.1	0.000043	8.04	0.0705	15.3	0.000087	<0.01	0.216	0.00066	0.018	0.027	0.00632	0.0095	<0.0005	0.00013	0.0667	<0.0001	<0.001	<0.05	0.000043	16.4	<0.001	0.00102	<0.0005	0.023
RSEM-R5A-D-SP	3/25/2019 14:47	VK7778	M	12.5	0.000037	8.35	0.0716	18.3	0.000077	<0.005	0.191	0.00063	0.0154	0.0216	0.0045	0.0079	<0.0005	0.00012	0.0661	<0.0001	<0.001	<0.05	0.000041	18.8	<0.001	0.0009	<0.0005	0.017
RSEM-R5A-D-SP	3/26/2019 14:50	VK9037	M	3.52	0.000031	11.1	0.0818	20.6	0.000048	<0.005	0.0345	0.00072	0.0057	0.0209	0.00081	0.0084	<0.0005	0.00016	0.0666	<0.0001	<0.001	<0.05	0.000031	21.2	<0.001	0.00058	<0.0005	0.014
RSEM-R5A-D-SP	3/27/2019 15:56	VL1967	M	4.67	0.000022	11.2	0.0775	20.0	0.000032	<0.005	0.056	0.00069	0.0068	0.0187	0.00165	0.0075	<0.0005	0.00015	0.0675	<0.0001	<0.001	<0.05	0.000033	22.1	<0.001	0.00055	<0.0005	0.013
RSEM-R5A-D-SP	3/28/2019 13:00	VL3520	M	7.94	0.000036	12.1	0.0861	22.7	0.000053	<0.005	0.102	0.00083	0.0103	0.0185	0.00262	0.0112	<0.0005	0.00018	0.0692	<0.0001	<0.001	<0.05	0.000029	25.3	<0.001	0.00033	0.00052	<0.01
RSEM-R5A-D-SP	4/3/2019 13:41	VM1869	M	0.461	<0.00002	55.6	0.239	75.5	<0.00001	<0.005	<0.005	0.00232	<0.005	<0.005	<0.0001	0.014	0.00052	0.00038	0.0765	<0.0001	<0.001	0.067	0.000012	52.3	<0.001	0.00028	0.00097	<0.01
RSEM-R5A-D-SP	4/10/2019 15:15	VN0776	M	0.201	<0.00002	75.4	0.302	115	0.000013	<0.005	<0.005	0.00272	<0.005	<0.005	<0.0001	0.0354	0.00085	0.00049	0.053	<0.0001	<0.001	0.101	0.000014	65.1	<0.001	0.00022	0.00147	<0.01
RSEM-R5A-D-SP	4/11/2019 10:29	VN1906	M	0.183	<0.00002	70.5	0.305	113	0.000013	<0.005	<0.005	0.0028	<0.005	<0.005	<0.0001	0.0202	0.0007	0.00047	0.0514	<0.0001	<0.001	0.097	<0.00001	67.7	<0.001	<0.0002	0.0013	<0.01
RSEM-R5A-D-SP	4/12/2019 9:45	VN1941	M	0.311	<0.00002	74.9	0.318	117	0.000013	<0.005	<0.005	0.00284	<0.005	<0.005	<0.0001	0.0183	0.00067	0.00047	0.0512	<0.0001	<0.001	0.093	<0.00001	67.1	<0.001	<0.0002	0.00131	<0.01
RSEM-R5A-D-SP	4/13/2019 10:40	VN4352	M	0.197	<0.00002	78.1	0.33	120	0.000013	<0.005	<0.005	0.00283	<0.005	<0.005	<0.0001	0.0179	0.00076	0.0004	0.0481	<0.0001	<0.001	0.111	<0.00001	69.8	<0.001	<0.0002	0.00132	<0.01
RSEM-R5A-D-SP	4/14/2019 11:34	VN4347	M	0.18	<0.00002	79.3	0.335	120	<0.00001	<0.005	<0.005	0.00299	<0.005	<0.005	<0.0001	0.0139	0.00068	0.00041	0.0451	<0.0001	<0.001	0.103	<0.00001	76.1	<0.001	<0.0002	0.00137	<0.01
RSEM-R5A-D-SP	4/15/2019 11:00	VN6312	M	0.329	<0.00002	75.6	0.34	125	0.000013	<0.005	<0.005	0.0029	<0.005	<0.005	<0.0001	0.0092	0.0006	0.00037	0.0479	<0.0001	<0.001	0.104	0.00001	70.3	<0.001	<0.0002	0.00128	<0.01
RSEM-R5A-D-SP	4/16/2019 14:20	VN8487	M	0.275	<0.00002	75.9	0.342	127	0.000011	<0.005	<0.005	0.00306	<0.005	<0.005	<0.0001	0.0112	0.00063	0.00039	0.0405	<0.0001	<0.001	0.092	<0.00001	73.7	<0.001	<0.0002	0.00114	<0.01
RSEM-R5A-D-SP	4/17/2019 13:35	VN9793	M	0.259	<0.00002	83.0	0.368	144	0.000013	<0.005	<0.005	0.00338	<0.005	<0.005	<0.0001	0.0092	0.0006	0.00037	0.0375	<0.0001	<0.001	0.093	<0.00001	71.2	<0.001	<0.0002	0.00114	<0.01
RSEM-R5A-D-SP	4/18/2019 9:55	VN9670	M	0.195	<0.00002	83.3	0.37	142	0.000014	<0.005	<0.005	0.00344	<0.005	<0.005	<0.0001	0.0097	0.00062	0.00039	0.0376	<0.0001	<0.001	0.096	<0.00001	77.1	<0.001	<0.0002	0.00117	<0.01
RSEM-R5A-NCD	3/19/2019 19:00	VK0928	M	2.13	<0.00002	6.69	0.147	91.3	0.000031	<0.005	0.0205	0.00091	<0.005	0.0177	0.0003	0.0126	<0.0005	0.00015	0.0807	<0.0001	<0.001	<0.05	0.000246	76.4	<0.001	0.00374	0.0007	<0.01
RSEM-R5B-EOP	1/1/2019 12:55	VA5881	M	4.97	<0.00002	179	0.226	105	0.000011	<0.005	<0.005	0.00275	<0.005	0.0069	<0.0001	0.0334	0.0011	0.00138	0.0433	<0.0001	<0.001	0.173	0.000031	43.6	0.0013	0.00058	0.00086	<0.01
RSEM-R5B-EOP	1/2/2019 13:30	VA7319	D	5.33	<0.00002	178	0.241	110	0.000011	<0.005	<0.005	0.00286	<0.005	0.0068	<0.0001	0.034	0.00115	0.00141	0.0418	<0.0001	<0.001	0.177	0.000037	43.4	0.0013	0.00062	0.00099	<0.01
RSEM-R5B-EOP	1/2/2019 13:30	VA7318	M	5.28	<0.00002	177	0.238	108	0.000013	<0.005	<0.005	0.00287	<0.005	0.0064	<0.0001	0.0344	0.00113	0.00141	0.0419	<0.0001	<0.001	0.175	0.000033	43.6	0.0013	0.00063	0.00085	<0.01
RSEM-R5B-EOP	1/3/2019 14:50	VA8830	M	5.01	<0.00002	176	0.252	105	<0.00001	<0.005	<0.005	0.00283	<0.005	0.0072	<0.0001	0.0362	0.00112	0.0014	0.0407	<0.0001	<0.001	0.177	0.000034	43.9	0.0013	0.00064	0.0009	<0.01
RSEM-R5B-EOP	1/4/2019 13:05	VA8827	M	5.34	<0.00002	189	0.266	113	<0.00001	<0.005	<0.005	0.003	<0.005	0.0078	<0.0001	0.0331	0.00116	0.00135	0.0396	<0.0001	<0.001	0.183	0.000039	44.0	0.0013	0.00066	0.001	<0.01
RSEM-R5B-EOP	1/5/2019 13:48	VB1445	D	4.86	<0.00002	181	0.222	109	0.000011	<0.005	<0.005	0.00285	<0.005	0.0069	<0.0001	0.032	0.00115	0.00141	0.039	<0.0001	<0.001	0.185	0.000041	49.0	0.0012	0.00068	0.00154	<0.01
RSEM-R5B-EOP	1/5/2019 13:48	VB1444	M	4.83	<0.00002	187	0.223	116	0.000011	<0.005	<0.005	0.00282	<0.005	0.007	<0.0001	0.0328	0.00118	0.00133	0.0391	<0.0001	<0.001	0.186	0.000038	48.4	0.0013	0.00067	0.00088	<0.01
RSEM-R5B-EOP	1/6/2019 13:00	VB1451	M	4.54	<0.00002	180	0.244	121	0.000012	<0.005	<0.005	0.00314	<0.005	0.0077	<0.0001	0.0274	0.00107	0.0011	0.0364	<0.0001	<0.001	0.162	0.000037	45.9	<0.001	0.00072	0.0011	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5A-A-SP	4/17/2019 12:30	VN9790	M	<0.0002	0.0106	3.53	0.0022	<0.000002	0.0051	0.0011		2.90	0.0026	1.24	<0.00002	53.5	0.132	36.5	<0.00001	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	4/18/2019 9:15	VN9667	M	<0.0002	0.011	3.52	0.0029	<0.000002	0.0051	0.0012		2.87	0.00255	1.18	<0.00002	50.9	0.132	34.8	<0.00001	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	6/29/2019 11:55	VZ9044	M	<0.0002	0.0119	5.31	0.0121	0.0000025	0.0052	0.0013		2.96	0.00417	0.864	<0.00002	66.8	0.162	62.9	<0.00001	<0.005	<0.005	0.00094	<0.005	<0.005	<0.0001
RSEM-R5A-A-SP	7/16/2019 9:20	WC9626	M	<0.0002	0.014	5.30	0.0154	<0.000002	0.0063	0.0013		3.62	0.00475	0.54	<0.00002	85.2	0.144	71.1	<0.00001	<0.005	<0.005	0.00131	<0.005	<0.005	<0.0001
RSEM-R5A-B-EOP	3/19/2019 17:05	VK0909	M	<0.0002	0.006	2.20	0.0214	<0.000002	0.002	<0.001		1.63	0.00264	0.521	<0.00002	26.8	0.0661	22.7	<0.00001	<0.005	<0.005	0.00063	<0.005	<0.005	<0.0001
RSEM-R5A-B-EOP	3/20/2019 9:45	VK2372	M	<0.0002	0.0094	6.60	0.0175	<0.000002	0.0022	0.0018		1.69	0.005	1.07	<0.00002	119	0.0948	69.6	<0.00001	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001
RSEM-R5A-B-EOP	3/21/2019 14:15	VK3787	M	<0.0002	0.0124	9.11	<0.001	<0.000002	0.0033	<0.001		1.77	0.0064	1.66	<0.00002	162	0.108	87.8	<0.00001	<0.005	<0.005	0.00225	<0.005	<0.005	<0.0001
RSEM-R5A-B-SP	3/18/2019 11:00	VJ6968	M	<0.0002	<0.002	1.24	0.0135	<0.000002	0.0023	<0.001		0.926	0.00092	0.473	<0.00002	6.08	0.0479	6.6	<0.00001	<0.005	<0.005	0.00027	<0.005	<0.005	<0.0001
RSEM-R5A-B-SP	3/22/2019 8:55	VK3762	M	<0.0002	0.0079	2.95	0.0343	<0.000002	0.002	0.0016		1.68	0.00326	0.516	<0.00002	28.0	0.0788	26.7	<0.00001	<0.005	<0.005	0.00074	<0.005	<0.005	<0.0001
RSEM-R5A-B-SP	3/23/2019 16:55	VK5907	M	<0.0002	0.0097	3.56	0.0314	0.0000101	0.0024	0.0018		1.67	0.00437	0.603	<0.00002	34.5	0.0836	32.6	<0.00001	<0.005	<0.005	0.00095	<0.005	<0.005	<0.0001
RSEM-R5A-B-SP	3/24/2019 16:08	VK5971	M	<0.0002	0.0106	3.43	0.026	0.0000095	0.0042	0.0017		1.97	0.00562	0.686	<0.00002	43.8	0.0919	35.8	<0.00001	<0.005	<0.005	0.00111	<0.005	<0.005	<0.0001
RSEM-R5A-B-SP	3/25/2019 14:11	VK7776	M	<0.0002	0.0095	3.97	0.0249	<0.000002	0.0025	0.0016		1.75	0.00532	0.699	<0.00002	43.8	0.0898	39.6	<0.00001	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001
RSEM-R5A-B-SP	3/26/2019 14:37	VK9035	M	<0.0002	0.0249	3.72	0.0149	<0.000002	0.0187	0.0014		3.63	0.0174	1.24	<0.00002	134	0.124	87.5	0.00001	<0.005	<0.005	0.00233	<0.005	<0.005	<0.0001
RSEM-R5A-B-SP	3/27/2019 15:11	VL1965	M	<0.0002	0.0383	3.69	0.008	<0.000002	0.0329	0.0011		3.48	0.0239	1.79	<0.00002	194	0.153	112	0.000012	<0.005	<0.005	0.00257	<0.005	<0.005	<0.0001
RSEM-R5A-B-SP	3/28/2019 12:45	VL3518	M	<0.0002	0.0331	3.59	0.0071	<0.000002	0.0407	0.0011		3.82	0.0264	1.9	<0.00002	217	0.15	127	0.000015	<0.005	<0.005	0.00266	<0.005	<0.005	<0.0001
RSEM-R5A-B-SP	4/3/2019 13:40	VM2013	M	<0.0002	0.0398	1.51	<0.001	<0.000002	0.102	<0.001		2.47	0.0445	4.59	<0.00002	450	0.132	249	<0.00001	<0.005	<0.005	0.00115	0.0146	<0.005	<0.0001
RSEM-R5A-B-SP	4/10/2019 14:40	VN0774	M	<0.0004	0.0461	2.08	<0.002	<0.000002	0.0596	<0.002		2.57	0.0316	3.94	<0.00004	379	0.125	232	<0.00002	<0.01	<0.01	0.00158	<0.01	<0.01	<0.0002
RSEM-R5A-B-SP	4/11/2019 10:00	VN1904	M	<0.0002	0.0497	2.33	<0.001	<0.000002	0.0613	<0.001		2.59	0.0322	3.6	<0.00002	403	0.145	226	<0.00001	<0.005	<0.005	0.00165	0.0068	<0.005	<0.0001
RSEM-R5A-B-SP	4/12/2019 9:11	VN1939	M	<0.0004	0.0476	2.31	<0.002	<0.000002	0.0616	<0.002		2.70	0.0315	3.6	<0.00004	381	0.14	223	<0.00002	<0.01	<0.01	0.00159	<0.01	<0.01	<0.0002
RSEM-R5A-B-SP	4/13/2019 10:10	VN4350	M	<0.0002	0.0502	2.75	0.0028	<0.000002	0.0428	0.0014		2.43	0.0222	2.54	<0.00002	328	0.157	178	<0.00001	<0.005	<0.005	0.00196	<0.005	<0.005	<0.0001
RSEM-R5A-B-SP	4/14/2019 10:58	VN4345	M	<0.0002	0.0447	2.47	0.004	<0.000002	0.051	0.0014		2.50	0.0269	2.78	<0.00002	358	0.142	199	<0.00001	<0.005	<0.005	0.00187	0.0055	<0.005	<0.0001
RSEM-R5A-B-SP	4/15/2019 10:30	VN6310	M	<0.0004	0.0449	3.24	0.0587	<0.000002	0.0528	0.0025		2.77	0.0279	3.33	<0.00004	386	0.166	220	<0.00002	<0.01	<0.01	0.00203	<0.01	<0.01	<0.0002
RSEM-R5A-B-SP	4/16/2019 13:45	VN8485	M	<0.0004	0.0409	2.50	0.0064	<0.000002	0.055	<0.002		2.78	0.0282	2.77	<0.00004	358	0.145	198	<0.00002	<0.01	<0.01	0.00185	<0.01	<0.01	<0.0002
RSEM-R5A-B-SP	4/17/2019 12:45	VN9791	M	<0.0002	0.038	2.35	0.0078	<0.000002	0.0566	0.0012		2.72	0.0285	2.69	<0.00002	329	0.137	187	0.000016	<0.005	<0.005	0.00179	<0.005	<0.005	<0.0001
RSEM-R5A-B-SP	4/18/2019 9:25	VN9668	M	<0.0002	0.0438	2.87	0.0101	<0.000002	0.0514	0.0015		2.99	0.0262	2.67	<0.00002	348	0.151	194	0.000015	<0.005	<0.005	0.00193	<0.005	<0.005	<0.0001
RSEM-R5A-B-SP	6/29/2019 12:15	VZ9045	M	<0.0002	0.0085	2.98	0.0069	<0.000002	0.0053	0.0011		2.24	0.00541	0.992	<0.00002	68.9	0.0957	54.0	<0.00001	<0.005	<0.005	0.00064	<0.005	<0.005	<0.0001
RSEM-R5A-B-SP	7/16/2019 9:35	WC9627	M	<0.0002	0.0145	6.61	0.0044	<0.000002	0.006	0.0012		3.57	0.0101	0.675	<0.00002	103	0.193	109	0.000012	<0.005	<0.005	0.00086	<0.005	<0.005	<0.0001
RSEM-R5A-C-EOP	3/19/2019 17:10	VK0910	M	<0.0002	0.0073	2.53	0.0208	<0.000002	0.0033	0.0014		1.05	0.00303	0.525	<0.00002	24.5	0.0737	23.8	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001
RSEM-R5A-C-EOP	3/21/2019 14:45	VK3788	M	<0.0002	0.0181	5.05	0.0355	<0.000002	0.0065	0.003		2.00	0.00804	0.654	<0.00002	82.7	0.152	66.5	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001
RSEM-R5A-C-SP	3/20/2019 10:15	VK2373	M	<0.0002	0.0084	2.93	0.0254	<0.000002	0.0043	0.0024		0.983	0.004	0.48	<0.00002	34.7	0.0906	30.0	<0.00001	<0.005	<0.005	0.00064	<0.005	<0.005	<0.0001
RSEM-R5A-C-SP	3/22/2019 9:15	VK3763	M	<0.0002	0.0261	6.01	0.0112	<0.000002	0.0084	0.0033		2.12	0.0102	0.747	<0.00002	110	0.185	88.9	<0.00001	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001
RSEM-R5A-C-SP	3/23/2019 17:15	VK5908	M	<0.0002	0.0233	5.39	0.0439	<0.000002	0.0086	0.0036		2.24	0.0108	0.773	<0.00002	106	0.18	83.2	0.000011	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001
RSEM-R5A-C-SP	3/24/2019 16:05	VK5968	M	<0.0002	0.0292	5.96	0.048	0.0000049	0.0104	0.0034		2.35	0.0142	0.868	<0.00002	131	0.204	98.7	0.000013	<0.005	<0.005	0.00201	<0.005	<0.005	<0.0001
RSEM-R5A-C-SP	3/25/2019 14:35	VK7777	M	<0.0002	0.0596	8.47	0.0819	0.000003	0.016	0.0061		2.99	0.033	1.04	<0.00002	290	0.284	198	0.000015	<0.005	<0.005	0.00318	<0.005	<0.005	<0.0001
RSEM-R5A-C-SP	3/26/2019 14:25	VK9036	M	<0.0002	0.0598	8.03	0.0723	<0.000002	0.0141	0.0062		2.94	0.0325	1.13	<0.00002	274	0.309	189	0.000013	<0.005	<0.005	0.00324	<0.005	<0.005	<0.0001
RSEM-R5A-C-SP	3/27/2019 15:41	VL1966	M	<0.0002	0.0975	10.6	0.0947	<0.000002	0.019	0.0082		3.90	0.0486	1.38	<0.00002	416	0.435	302	0.000022	<0.005	<0.005	0.00477	<0.005	<0.005	<0.0001
RSEM-R5A-C-SP	3/28/2019 12:15	VL3519	M	<0.0004	0.158	15.2	0.155	<0.000002	0.0278	0.0134		5.00	0.0705	1.67	<0.00004	713	0.7	522	0.000026	<0.01	<0.01	0.00693	<0.01	<0.01	<0.0002
RSEM-R5A-C-SP	4/3/2019 13:35	VM1868	M	<0.001	0.175	16.7	0.0177	<0.000002	0.0352	0.0078		4.70	0.0578	1.8	<0.0001	777	0.802	540	<0.00005	<0.025	<0.025	0.00827	<0.025	<0.025	<0.0005
RSEM-R5A-C-SP	4/10/2019 15:01	VN0775	M	<0.0004	0.117	11.7	<0.002	<0.000002	0.0263	0.0026		3.88	0.0344	1.64	<0.00004	481	0.444	395	<0.00002	<0.01	<0.01	0.00605	<0.01	<0.01	<0.0002
RSEM-R5A-C-SP	4/11/2019 10:19	VN1905	M	<0.0004	0.112	12.0	<0.002	<0.000002	0.0261	0.0023		3.89	0.0387	1.72	<0.00004	509	0.463	375	<0.00002	<0.01	<0.01	0.00584	<0.01	<0.01	<0.0002
RSEM-R5A-C-SP	4/12/2019 9:34	VN1940	M	<0.0004	0.101	11.5	0.0024	<0.000002	0.0269	0.0024		3.80	0.0362	1.62	<0.00004	483	0.464	363	<0.00002	<0.01	<0.01	0.00571	<0.01	<0.01	<0.0002
RSEM-R5A-C-SP	4/13/2019 10:28	VN4351	M	<0.0004	0.1	11.0	0.0037	<0.000002	0.0249	0.0029		3.63	0.0304	1.2	<0.00004	444	0.424	317	<0.00002	<0.01	<0.01	0.00588	<0.01	<0.01	<0.0002
RSEM-R5A-C-SP	4/14/2019 11:22	VN4346	M	<0.0004	0.0961	10.6	0.003	<0.000002	0.0236	0.0025		3.44	0.0294	1.09	<0.00004	434	0.404	302	<0.00002	<0.01	<0.01	0.00573	<0.01	<0.01	<0.0002
RSEM-R5A-C-SP	4/15/2019 10:45	VN6311	M	<0.0004	0.103	11.2	0.0147	<0.000002	0.0246	0.0022		3.61	0.0302	1.21	<0.00004	450	0.411	334	<0.00002	<0.01	<0.01	0.0053	<0.01	<0.01	<0.0002
RSEM-R5A-C-SP	4/16/2019 14:15	VN8486	M	<0.0004	0.0985	11.0	0.0025	<0.000002	0.0274	0.0023		3.56	0.0293	0.828	<0.00004	404	0.423	301	<0.00002	<0.01	<0.01	0.00552	<0.01	<0.01	<0.0002
RSEM-R5A-C-SP	4/17/2019 13:20	VN9792	M	<0.0004	0.0865	8.59	0.0027	<0.000002	0.0197	<0.002		2.91	0.0258	0.528	<0.00004	329	0.345	238	<0.00002	<0.01	<0.01	0.00461	<0.01	<0.01	<0.0002
RSEM-R5A-C-SP	4/18/2019 9:45	VN9669	M	<0.0004	0.115	12.0	0.0079	<0.000002	0.0287	0.0027		4.13	0.0318	0.675	<0.00004	465	0.506	332	<0.00002	<0.01	<0.01	0.0062	<0.01	<0.01	<0.0002
RSEM-R5A-C-SP	6/29/2019 12:40	VZ9046	M	<0.0002	0.0479	10.6	0.002	<0.000002	0.013	0.0021		5.37	0.0223	1.11	<0.00002	248	0.381	219	0.000027	<0.005	<0.005	0.00257	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	3/19/2019 17:15	VK0911	M	<0.0002	<0.002	1.32	0.0217	<0.000002	<0.001	0.0017		0.630	0.0008	0.306	<0.00002	3.81	0.0309	6.2	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	3/20/2019 10:05	VK2376	M	<0.0002	<0.002	1.38	0.0268	<0.000002	<0.001	0.002		0.683	0.00074	0.254	<0.00002	4.04	0.0312	6.2	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	3/21/2019 14:30	VK3789	M	<0.0002	0.0028	2.38	0.0464	0.0000035	<0.001	0.0034		0.711	0.00087	0.3	<0.00002	5.50	0.0439	11.6	<0.00001	<0.005	<0.005	<0.0001	<0.005	0.0059	<0.0001
RSEM-R5A-D-SP	3/22/2019 9:25	VK3764	M	<0.0002	0.0041	3.16	<0.001	<0.000002	0.0054	0.0013		0.772	0.00096	0.418	<0.00002	6.53	0.0533	16.9	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	3/23/2019 17:25	VK5909	M	<0.0002	0.0041	3.10	0.0457	0.0000024	<0.001	0.0036		0.710	0.00106	0.4	<0.00002	6.25	0.0561	15.8	<0.00001	<0.005	<0.005	0.00019	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	3/24/2019 16:15	VK5969	M	<0.0002	0.004	3.03	0.041	0.0000091	0.0016	0.0033		0.709	0.00099	0.415	<0.00002	6.79	0.0585	14.9	<0.00001	<0.005	<0.005	0.00025	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	3/25/2019 14:47	VK7778	M	<0.0002	0.0044	3.70	0.039	<0.000002	<0.001	0.0031		0.774	0.0011	0.489	<0.00002	8.10	0.0615	19.0	<0.00001	<0.005	<0.005	0.00029	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	3/26/2019 14:50	VK9037	M	<0.0002	0.0047	3.97	0.0305	<0.000002	0.0013	0.0023		0.809	0.00131	0.6	<0.00002	11.2	0.074	22.4	<0.00001	<0.005	<0.005	0.00053	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	3/27/2019 15:56	VL1967	M	<0.0002	0.0049	4.12	0.03	<0.000002	0.0013	0.0024		0.898	0.00129	0.619	<0.00002	11.2	0.0729	22.2	<0.00001	<0.005	<0.005	0.0005	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	3/28/2019 13:00	VL3520	M	<0.0002	0.0052	4.72	0.022	<0.000002	0.0016	0.0018		0.983	0.00134	0.641	<0.00002	13.5	0.0826	27.5	<0.00001	<0.005	<0.005	0.00057	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	4/3/2019 13:41	VM1869	M	<0.0002	0.0119	12.3	0.0378	<0.000002	0.0049	0.0021		2.39	0.0019	0.319	<0.00002	54.9	0.238	75.8	<0.00001	<0.005	<0.005	0.00233	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	4/10/2019 15:15	VN0776	M	<0.0002	0.0198	16.2	0.0058	<0.000002	0.0059	0.0021		3.24	0.00294	0.12	<0.00002	71.0	0.292	109	0.000011	<0.005	<0.005	0.00281	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	4/11/2019 10:29	VN1906	M	<0.0002	0.0195	16.9	0.0081	<0.000002	0.0058	0.0019		3.18	0.00276	0.105	<0.00002	68.6	0.31	110	<0.00001	<0.005	<0.005	0.00265	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	4/12/2019 9:45	VN1941	M	<0.0002	0.0196	18.0	0.0132	<0.000002	0.0059	0.002		3.38	0.00304	0.172	<0.00002	72.7	0.32	117	<0.00001	<0.005	<0.005	0.00269	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	4/13/2019 10:40	VN4352	M	<0.0002	0.0202	17.5	0.0079	<0.000002	0.0058	0.002		3.31	0.00294	<0.1	<0.00002	71.2	0.315	111	0.000011	<0.005	<0.005	0.00281	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	4/14/2019 11:34	VN4347	M	<0.0002	0.019	19.2	0.0132	<0.000002	0.0055	0.0023		3.54	0.00322	0.143	<0.00002	74.3	0.333	118	0.000012	<0.005	<0.005	0.00301	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	4/15/2019 11:00	VN6312	M	<0.0002	0.0198	16.5	0.0036	<0.000002	0.0053	0.0023		3.22	0.00283	0.157	<0.00002	68.7	0.325	116	<0.00001	<0.005	<0.005	0.0027	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	4/16/2019 14:20	VN8487	M	<0.0002	0.018	19.7	<0.001	<0.000002	0.0049	0.0019		3.43	0.0036	0.126	<0.00002	72.9	0.325	117	0.000011	<0.005	<0.005	0.00296	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	4/17/2019 13:35	VN9793	M	<0.0002	0.0176	19.0	0.0048	<0.000002	0.005	0.0019		3.32	0.0038	<0.1	<0.00002	73.1	0.331	116	0.000011	<0.005	<0.005	0.00286	<0.005	<0.005	<0.0001
RSEM-R5A-D-SP	4/18/2019 9:55	VN9670	M	<0.0002	0.0183	19.9	0.0042	<0.000002	0.0048	0.002		3.32	0.0041	<0.1	<0.00002	76.3	0.337	118	0.00001	<0.005	<0.005	0.00296	<0.005	<0.005	<0.0001
RSEM-R5A-NCD	3/19/2019 19:00	VK0928	M	<0.0002	0.0107	18.6	0.118	<0.000002	0.0012	0.0089		2.34	0.00251	0.856	<0.00002	6.34	0.131	92.8	0.000012	<0.005	<0.005	0.00077	<0.005	0.007	<0.0001
RSEM-R5B-EOP	1/1/2019 12:55	VA5881	M	<0.0002	0.064	32.5	0.0159	<0.000002	0.0162	0.0056		4.33	0.00337	4.67	<0.00002	179	0.214	108	0.00001	<0.005	<0.005	0.00268	<0.005	0.005	<0.0001
RSEM-R5B-EOP	1/2/2019 13:30	VA7319	D	<0.0002	0.0652	31.3	0.0161	<0.000002	0.0175	0.006		4.32	0.00313	4.69	<0.00002	180	0.235	103	0.000012	<0.005	<0.005	0.00253	<0.005	0.0055	<0.0001
RSEM-R5B-EOP	1/2/2019 13:30	VA7318	M	<0.0002	0.0647	31.1	0.0162	<0.000002	0.0172	0.0058		4.35	0.00311	4.67	<0.00002	180	0.234	103	0.000011	<0.005	<0.005	0.00254	<0.005	0.007	<0.0001
RSEM-R5B-EOP	1/3/2019 14:50	VA8830	M	<0.0002	0.0661	30.9	0.0148	<0.000002	0.0176	0.0058		4.32	0.00311	4.7	<0.00002	181	0.242	102	<0.00001	<0.005	<0.005	0.00247	<0.005	0.0056	<0.0001
RSEM-R5B-EOP	1/4/2019 13:05	VA8827	M	<0.0002	0.0664	31.1	0.0138	<0.000002	0.0182	0.0062		4.29	0.0032	4.64	<0.00002	187	0.246	107	0.000012	<0.005	<0.005	0.00254	<0.005	0.0062	<0.0001
RSEM-R5B-EOP	1/5/2019 13:48	VB1445	D	<0.0002	0.0694	31.9	0.0156	<0.000002	0.0186	0.0064		4.61	0.00345	5.19	<0.00002	187	0.234	121	0.000011	<0.005	<0.005	0.00289	<0.005	0.0067	<0.0001
RSEM-R5B-EOP	1/5/2019 13:48	VB1444	M	<0.0002	0.0701	32.0	0.0157	<0.000002	0.0187	0.0061		4.60	0.00359	5.12	<0.00002	189	0.231	117	0.000013	<0.005	<0.005	0.00297	<0.005	0.0064	<0.0001
RSEM-R5B-EOP	1/6/2019 13:00	VB1451	M	<0.0002	0.0643	32.2	0.0163	<0.000002	0.0163	0.0064		4.02	0.00384	4.35	<0.00002	175	0.232	113	0.000013	<0.005	<0.005	0.00305	<0.005	0.0062	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	1/7/2019 11:25	VB3251	M	8.19	1290	1.24	816	<5.3	271	252	235	<1.0	286	<1.0	<1.0	52.5	0.330	0.84	327			0.49	0.0493	0.910	0.959	<0.0050
RSEM-R5B-EOP	1/8/2019 12:55	VB4661	M	8.13	1290	1.18	796	<4.0	293	272	231	<1.0	282	<1.0	<1.0	51.2	0.330	0.74	335			0.50	0.0512	0.979	1.03	<0.0050
RSEM-R5B-EOP	1/9/2019 12:20	VB6785	D	8.11	1310	1.31	806	<4.0	247	280	234	<1.0	286	<1.0	<1.0	47.0	0.300	0.73	330			0.47	0.0470	1.00	1.05	<0.0050
RSEM-R5B-EOP	1/9/2019 12:20	VB6784	M	8.15	1310	1.37	774	<4.0	249	289	238	<1.0	290	<1.0	<1.0	45.7	0.310	0.74	326			0.50	0.0489	1.00	1.05	<0.0050
RSEM-R5B-EOP	1/10/2019 12:30	VB7974	M	8.31	1310	0.97	816	<4.0	284	279	237	<1.0	289	<1.0	<1.0	44.1	0.340	0.70	325			0.52	0.0425	1.03	1.08	<0.0050
RSEM-R5B-EOP	1/11/2019 9:32	VB7979	M	8.16	1290	0.69	794	<4.0	292	288	230	<1.0	281	<1.0	<1.0	39.2	0.340	0.58	334			0.50	0.0180	1.09	1.10	<0.0050
RSEM-R5B-EOP	1/12/2019 12:10	VC0272	M	8.19	1260	0.83	768	<4.0	295	264	237	<1.0	289	<1.0	<1.0	41.6	0.330	0.50	345			0.46	0.0229	1.00	1.03	<0.0050
RSEM-R5B-EOP	1/13/2019 12:05	VC0278	D	8.15	1250	0.92	776	<4.0	288	268	231	<1.0	282	<1.0	<1.0	38.1	0.360	0.47	346			0.44	0.0171	0.941	0.958	<0.0050
RSEM-R5B-EOP	1/13/2019 12:05	VC0277	M	8.21	1240	1.18	760	<4.0	296	267	230	<1.0	281	<1.0	<1.0	39.1	0.360	0.50	344			0.44	0.0208	0.941	0.961	<0.0050
RSEM-R5B-EOP	1/14/2019 12:04	VC1963	M	8.07	1220	0.87	734	<4.0	278	263	230	<1.0	280	<1.0	<1.0	38.8	0.340	0.48	288			0.34	0.0193	0.883	0.902	<0.0050
RSEM-R5B-EOP	1/15/2019 12:20	VC4152	M	8.32	1190	0.69	768	<4.0	253	256	230	1.5	277	1.8	<1.0	41.7	0.320	0.53	306			0.37	0.0305	0.866	0.896	<0.0050
RSEM-R5B-EOP	1/16/2019 12:50	VC6537	D	8.29	1170	0.73	732	<4.0	241	257	234	<1.0	286	<1.0	<1.0	42.5	0.350	0.60	261			0.27	0.0123	0.910	0.923	0.0054
RSEM-R5B-EOP	1/16/2019 12:50	VC6536	M	8.32	1170	0.83	730	<4.0	255	259	232	1.2	280	1.4	<1.0	42.4	0.340	0.57	285			0.27	0.0208	0.906	0.927	<0.0050
RSEM-R5B-EOP	1/17/2019 12:20	VC7568	M	8.00	1180	0.55	724	8.4	264	252	202	<1.0	247	<1.0	<1.0	43.8	0.330	0.60	301			0.29	0.0262	4.81	4.83	0.400
RSEM-R5B-EOP	1/18/2019 12:00	VC7590	M	8.35	1150	0.51	698	<4.0	264	255	245	2.1	294	2.5	<1.0	45.2	0.350	0.62	221			0.29	0.0249	0.904	0.929	<0.0050
RSEM-R5B-EOP	1/19/2019 13:50	VC9566	M	8.32	1140	0.71	670	<4.0	232	260	255	1.4	308	1.7	<1.0	45.6	0.330	0.58	235			0.28	0.0200	0.890	0.910	0.0065
RSEM-R5B-EOP	1/20/2019 13:40	VC9572	M	8.34	1140	0.82	674	<4.0	265	252	258	2.2	310	2.6	<1.0	42.8	0.360	0.55	229			0.28	0.0204	0.891	0.911	<0.0050
RSEM-R5B-EOP	1/21/2019 14:06	VD2273	M	8.25	1140	0.80	698	<4.0	260	253	259	<1.0	316	<1.0	<1.0	40.8	0.350	0.50	225			0.33	0.0209	0.907	0.927	0.0048
RSEM-R5B-EOP	1/22/2019 13:25	VD2309	M	8.23	1140	0.78	714	<4.0	263	252	259	<1.0	316	<1.0	<1.0	40.2	0.360	0.50	272			0.33	0.0240	0.905	0.929	0.0058
RSEM-R5B-EOP	1/23/2019 13:55	VD3813	M	8.16	1100	1.48	692	<4.0	245	244	253	<1.0	309	<1.0	<1.0	44.8	0.330	0.55	230			0.40	0.0479	0.876	0.924	0.0042
RSEM-R5B-EOP	1/24/2019 14:30	VD5542	M	8.37	1130	1.46	685	<4.0	226	247	271	2.7	324	3.2	<1.0	43.3	0.350	0.51	204			0.41	0.0504	0.866	0.917	0.0042
RSEM-R5B-EOP	1/25/2019 11:57	VD5642	M	8.29	1140	0.61	636	<4.0	263	260	251	<1.0	307	<1.0	<1.0	43.1	0.350	0.51	233			0.33	0.0298	0.953	0.983	0.0043
RSEM-R5B-EOP	1/26/2019 16:50	VD7170	D	8.13	1220	1.03	774	<4.0	266	270	252	<1.0	308	<1.0	<1.0	46.1	0.330	0.60	297			0.41	0.0386	0.863	0.902	0.0037
RSEM-R5B-EOP	1/26/2019 16:50	VD7165	M	8.24	1230	1.13	756	<4.0	271	270	257	<1.0	313	<1.0	<1.0	46.8	0.340	0.61	250			0.41	0.0314	0.881	0.912	0.0037
RSEM-R5B-EOP	1/27/2019 14:03	VD7174	M	8.29	1300	1.20	826	<4.0	254	275	262	<1.0	320	<1.0	<1.0	53.8	0.360	0.64	200			0.46	0.0374	0.828	0.866	0.0041
RSEM-R5B-EOP	1/28/2019 12:55	VD8612	M	8.23	1470	1.88	934	<4.0	257	276	222	<1.0	271	<1.0	<1.0	57.3	0.360	0.78	380			0.63	0.0356	0.763	0.799	0.0046
RSEM-R5B-EOP	1/29/2019 12:00	VE0718	M	8.20	1510	1.51	974	6.4	275	255	156	<1.0	190	<1.0	<1.0	59.5	0.400	0.88	451			0.75	0.0444	0.776	0.820	0.011
RSEM-R5B-EOP	1/30/2019 13:50	VE2162	M	8.13	1450	1.12	900	<4.0	228	240	136	<1.0	166	<1.0	<1.0	55.4	0.400	0.84	471			0.64	0.0469	0.662	0.709	0.0031
RSEM-R5B-EOP	1/31/2019 13:15	VE3666	M	8.19	1350	1.74	871	<4.0	212	212	136	<1.0	166	<1.0	<1.0	60.6	0.410	0.92	416			0.65	0.0584	0.807	0.865	<0.0030
RSEM-R5B-EOP	2/1/2019 12:20	VE3673	M	8.26	1330	1.32	798	4.4	190	182	149	<1.0	182	<1.0	<1.0	63.0	0.440	0.99	239			0.59	0.0930	0.823	0.916	<0.0030
RSEM-R5B-EOP	2/2/2019 13:21	VE5321	D	8.15	1240	1.26	734	<4.0	191	206	194	<1.0	237	<1.0	<1.0	62.7	0.440	0.95	302			0.46	0.112	0.866	0.978	0.0033
RSEM-R5B-EOP	2/2/2019 13:21	VE5320	M	8.27	1230	1.32	738	<4.0	204	202	196	<1.0	239	<1.0	<1.0	62.4	0.430	0.96	299			0.46	0.108	0.874	0.982	0.0032
RSEM-R5B-EOP	2/3/2019 11:55	VE5317	M	8.29	1380	1.39	832	<4.0	226	231	226	<1.0	276	<1.0	<1.0	70.4	0.490	1.1	321			0.49	0.116	1.02	1.14	0.0032
RSEM-R5B-EOP	2/8/2019 12:00	VF1455	M	8.10	1220	2.18	700	<4.0	211	211	255	<1.0	311	<1.0	<1.0	68.1	0.410	0.87	256			0.36	0.108	0.847	0.955	<0.0030
RSEM-R5B-EOP	2/9/2019 14:00	VF3229	M	8.18	1150	2.10	688	<4.0	197	201	281	<1.0	343	<1.0	<1.0	66.2	0.380	0.98	190			0.32	0.0795	0.785	0.864	<0.0030
RSEM-R5B-EOP	2/10/2019 12:45	VF3200	M	8.26	1090	2.23	642	<4.0	186	190	276	<1.0	337	<1.0	<1.0	62.4	0.360	0.93	183			0.30	0.0564	0.689	0.745	0.0032
RSEM-R5B-EOP	2/11/2019 14:40	VF4318	M	8.19	1070	2.49	620	4.4	178	178	274	<1.0	334	<1.0	<1.0	61.4	0.370	0.91	184			0.31	0.0380	0.627	0.665	0.0032
RSEM-R5B-EOP	2/12/2019 11:15	VF6493	D	8.15	1060	2.39	624	<4.0	182	182	274	<1.0	334	<1.0	<1.0	64.4	0.380	0.89	135			0.33	0.0404	0.582	0.622	<0.0050
RSEM-R5B-EOP	2/12/2019 11:15	VF6506	M	8.19	1060	2.35	614	<4.0	182	183	272	<1.0	332	<1.0	<1.0	62.9	0.380	0.89	196			0.32	0.0404	0.573	0.613	<0.0050
RSEM-R5B-EOP	2/13/2019 12:45	VF7821	M	8.29	1150	2.43	684	<4.0	189	186	278	<1.0	339	<1.0	<1.0	64.5	0.400	1.1	202			0.42	0.0719	0.634	0.706	<0.0050
RSEM-R5B-EOP	2/14/2019 0:38	VF9049	D	8.30	1430	3.08	856	<4.0	178	188	264	<1.0	322	<1.0	<1.0	66.1	0.450	2.0	344			1.5	0.0937	0.692	0.786	<0.0050
RSEM-R5B-EOP	2/14/2019 12:38	VF9048	M	8.35	1430	2.70	860	4.4	178	190	264	2.3	316	2.7	<1.0	66.1	0.440	1.9	323			1.4	0.0992	0.685	0.785	<0.0050
RSEM-R5B-EOP	2/15/2019 13:00	VF9054	M	8.37	1630	3.97	1000	<4.0	167	167	251	2.6	300	3.1	<1.0	66.8	0.470	2.9	428			2.4	0.112	0.661	0.772	<0.0050
RSEM-R5B-EOP	2/16/2019 14:27	VF9496	D	8.14	1690	4.24	1060	4.4	150	160	247	<1.0	302	<1.0	<1.0	68.5	0.490	3.3	453			2.6	0.117	0.658	0.776	<0.0050
RSEM-R5B-EOP	2/16/2019 14:27	VF9495	M	8.20	1700	4.02	1040	4.8	152	157	249	<1.0	304	<1.0	<1.0	67.9	0.500	3.3	463			2.7	0.120	0.669	0.790	<0.0050
RSEM-R5B-EOP	2/17/2019 13:25	VG0949	M	8.36	1680	5.62	992	6.8	151	153	249	2.5	298	3.0	<1.0	70.7	0.500	3.6	456			2.5	0.120	0.678	0.799	<0.0050
RSEM-R5B-EOP	2/18/2019 12:00	VG0934	M	8.26	1430	2.32	854	<4.0	174	177	233	<1.0	285	<1.0	<1.0	71.2	0.430	2.3	376			1.5	0.106	0.717	0.823	<0.0050
RSEM-R5B-EOP	2/19/2019 12:30	VG0989	D	8.24	1300	2.01	772	<4.0	185	181	215	<1.0	263	<1.0	<1.0	66.0	0.430	1.8	317			1.0	0.0845	0.717	0.801	<0.0050
RSEM-R5B-EOP	2/19/2019 12:30	VG0987	M	8.23	1300	2.08	772	<4.0	178	178	219	<1.0	267	<1.0	<1.0	66.3	0.420	1.8	328			1.0	0.0816	0.714	0.795	<0.0050
RSEM-R5B-EOP	2/20/2019 12:00	VG2688	M	8.15	1280	1.46	772	<4.0	187	201	229	<1.0	279	<1.0	<1.0	66.6	0.370	1.5	269			0.86	0.0695	0.705	0.775	<0.0050
RSEM-R5B-EOP	2/21/2019 12:30	VG4543	M	8.30	1190	1.35	654	<4.0	213	231	258	<1.0	315	<1.0	<1.0	71.3	0.340	1.3	251			0.59	0.0489	0.886	0.935	<0.0050
RSEM-R5B-EOP	2/22/2019 11:50	VG6142	M	8.33	1160	1.40	702	<4.0	214	225	263	2.2	316	2.7	<1.0	70.3	0.350	1.2	239			0.53	0.0406	0.903	0.944	0.0052
RSEM-R5B-EOP	2/23/2019 13:30	VG8590	M	8.37	1170	1.31	692	<4.0	217	229	257	2.9	306	3.4	<1.0	58.9	0.340	1.2	233			0.49	0.0384	0.884	0.922	<0.0050
RSEM-R5B-EOP	2/24/2019 13:40	VG8613	D	8.27	1150	2.20	656	<4.0	214	221	254	<1.0	310	<1.0	<1.0	55.7	0.330	1.1	162			0.48	0.0366	0.866	0.903	0.0057
RSEM-R5B-EOP	2/24/2019 13:40	VG8611	M	8.30	1140	2.65	664	4.0	218	224	254	<1.0	310	<1.0	<1.0	54.8	0.330	1.1	250			0.49	0.0374	0.852	0.889	0.0064
RSEM-R5B-EOP	2/25/2019 12:30	VG8575	M	8.35	1380	4.43	848	7.2	211	224	227	2.0	272	2.4	<1.0	56.6	0.400	1.7	336			1.2	0.0449	0.675	0.720	0.0054
RSEM-R5B-EOP	2/26/2019 12:20	VH0047	D	8.23	1330	4.13	824	8.8	245	245	250	<1.0	306	<1.0	<1.0	50.5	0.390	1.6	341			1.1	0.0415	0.669	0.710	0.0060
RSEM-R5B-EOP	2/26/2019 12:20	VH0049	M	8.31	1300	3.37	824	8.4	230	238	258	1.0	312	1.2	<1.0	48.7	0.380	1.5	331			0.99	0.0397	0.667	0.706	<0.0050
RSEM-R5B-EOP	2/27/2019 11:50	VH2518	M	8.36	1030	5.66	612	7.2	283	289	288	3.3	343	4.0	<1.0	29.4	0.290	0.79	142			0.56	0.0264	0.640	0.667	<0.0050
RSEM-R5B-EOP	2/28/2019 12:40	VH4367	D	8.32	1010	3.44	593	5.2	292	301	301	1.8	363	2.2	<1.0	29.5	0.280	0.67	187			0.37	0.0196	0.701	0.721	0.0051
RSEM-R5B-EOP	2/28/2019 12:40	VH4366	M	8.21	997	3.46	586	4.4	290	302	291	<1.0	355	<1.0	<1.0	29.9	0.280	0.67	188			0.41	0.0214	0.708	0.730	<0.0050
RSEM-R5B-EOP	3/1/2019 12:15	VH5674	M	8.24	966	0.86	608	<4.0	297	317	320	<1.0	390	<1.0	<1.0	29.5	0.250	0.52	160			0.31	0.0139	0.798	0.812	<0.0050
RSEM-R5B-EOP	3/2/2019 12:40	VH8129	D	8.18	983	1.71	574	<4.0	309	329	343	<1.0	419	<1.0	<1.0	33.9	0.240	0.42	130			0.19	0.0098	0.907	0.917	<0.0050
RSEM-R5B-EOP	3/2/2019 12:40	VH8128	M	8.18	978	1.74	580	<4.0	297	325	343	<1.0	419	<1.0	<1.0	33.3	0.240	0.42	141			0.18	0.0094	0.901	0.910	<0.0050
RSEM-R5B-EOP	3/3/2019 14:25	VH7776	M	8.18	960	1.44	550	<4.0	322	334	348	<1.0	424	<1.0	<1.0	35.5	0.240	0.39	136			0.13	0.0057	0.965	0.971	<0.0050
RSEM-R5B-EOP	3/8/2019 13:03	VI4436	M	8.35	1050	0.83	656	<4.0	339	351	371	3.6	444	4.3	<1.0	39.4	0.280	0.40	147			0.13	0.0103	1.06	1.07	0.0084
RSEM-R5B-EOP	3/9/2019 13:00	VI6896	M	8.23	1040	0.27	632	<4.0	363	386	373	<1.0	456	<1.0	<1.0	43.4	0.270	0.35	140			0.068	0.0102	1.12	1.13	0.0077
RSEM-R5B-EOP	3/10/2019 13:45	VI6958	D	8.23	1030	0.57	628	<4.0	368	402	369	<1.0	450	<1.0	<1.0	42.9	0.250	0.35	135			0.076	0.0068	1.14	1.14	0.0069
RSEM-R5B-EOP	3/10/2019 13:45	VI6957	M	8.13	965	0.63	632	<4.0	358	377	365	<1.0	445	<1.0	<1.0	42.4	0.280	0.35	140			0.061	0.0051	1.13	1.14	0.0064
RSEM-R5B-EOP	3/11/2019 13:44	VI9560	M	8.26	1370	1.92	826	<4.0	215	226	263	<1.0	321	<1.0	<1.0	69.5	0.390	1.5	316			0.70	0.0488	0.768	0.816	0.0071
RSEM-R5B-EOP	3/12/2019 12:25	VI8446	D	8.30	1370	1.28	850	<4.0	208	208	270	<1.0	330	<1.0	<1.0	70.9	0.400	1.6	321			0.69	0.0420	0.829	0.871	0.0073
RSEM-R5B-EOP	3/12/2019 12:25	VI8444	M	8.41	1370	1.28	828	<4.0	205	212	276	4.1	327	4.9	<1.0	70.4	0.390	1.6	321			0.68	0.0459	0.822	0.868	0.0050
RSEM-R5B-EOP	3/13/2019 13:15	VJ2180	M	8.15	1290	50.5	786	31.2	187	181	219	<1.0	267	<1.0	<1.0	67.1	0.460	1.4	314			0.74	0.0971	0.845	0.942	<0.0050
RSEM-R5B-EOP	3/14/2019 13:15	VJ4046	D	8.10	981	52.7	584	28.0	170	180	176	<1.0	215	<1.0	<1.0	55.4	0.390	0.75	264			0.45	0.153	1.07	1.23	0.0130
RSEM-R5B-EOP	3/14/2019 13:15	VJ4045	M	8.17	985	51.8	622	31.2	164	175	177	<1.0	216	<1.0	<1.0	56.0	0.400	0.75	243			0.51	0.152	1.08	1.23	0.0143
RSEM-R5B-EOP	3/15/2019 11:55	VJ4023	M	8.13	866	61.4	518	24.0	158	158	147	<1.0	179	<1.0	<1.0	48.0	0.440	0.58	233			0.42	0.142	1.04	1.18	0.0124

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	1/7/2019 11:25	VB3251	M	2.2	2.8	0.0632	0.00105	0.00107	0.0375	<0.0001	<0.001	0.164	0.000043	50.1	<0.001	0.0008	0.00114	0.045	<0.0002	0.0668	35.4	0.0188	<0.000002	0.0156	0.0073		4.30	0.00443
RSEM-R5B-EOP	1/8/2019 12:55	VB4661	M	2.3	2.9	0.0562	0.00101	0.00106	0.0435	<0.0001	<0.001	0.16	0.000045	55.7	<0.001	0.00081	0.00128	0.048	<0.0002	0.0697	37.4	0.0201	<0.000002	0.0155	0.0074		4.41	0.00442
RSEM-R5B-EOP	1/9/2019 12:20	VB6785	D	2.4	2.3	0.0414	0.00094	0.00092	0.0377	<0.0001	<0.001	0.148	0.000041	45.5	<0.001	0.00065	0.00111	0.035	<0.0002	0.0649	32.5	0.0171	<0.000002	0.0139	0.0068		3.73	0.00401
RSEM-R5B-EOP	1/9/2019 12:20	VB6784	M	2.1	2.6	0.0449	0.00094	0.00098	0.0382	<0.0001	<0.001	0.146	0.000039	46.1	<0.001	0.00066	0.00121	0.037	<0.0002	0.065	32.4	0.0165	<0.000002	0.0136	0.0065		3.66	0.00392
RSEM-R5B-EOP	1/10/2019 12:30	VB7974	M	2.2	2.3	0.0406	0.00092	0.00101	0.0413	<0.0001	<0.001	0.16	0.000038	51.6	<0.001	0.00068	0.00117	0.035	<0.0002	0.069	37.6	0.0172	<0.000002	0.0138	0.0074		4.22	0.00438
RSEM-R5B-EOP	1/11/2019 9:32	VB7979	M	1.9	2.3	0.0406	0.00081	0.00102	0.043	<0.0001	<0.001	0.15	0.000039	51.9	<0.001	0.00079	0.00112	0.034	<0.0002	0.0742	39.5	0.0195	<0.000002	0.0111	0.0087		4.18	0.00459
RSEM-R5B-EOP	1/12/2019 12:10	VC0272	M	2.4	2.9	0.0374	0.00074	0.00081	0.0448	<0.0001	<0.001	0.151	0.000037	52.8	<0.001	0.00086	0.00159	0.033	<0.0002	0.0776	39.5	0.02	<0.000002	0.0094	0.009		4.14	0.00465
RSEM-R5B-EOP	1/13/2019 12:05	VC0278	D	2.0	2.6	0.044	0.00077	0.00073	0.0422	<0.0001	<0.001	0.154	0.000077	52.2	<0.001	0.00211	0.0012	0.039	<0.0002	0.0808	38.2	0.0301	<0.000002	0.0088	0.0132		4.00	0.00455
RSEM-R5B-EOP	1/13/2019 12:05	VC0277	M	2.1	2.7	0.0421	0.00081	0.00076	0.0441	<0.0001	<0.001	0.158	0.000084	52.6	<0.001	0.00221	0.00134	0.043	<0.0002	0.0848	40.0	0.0315	<0.000002	0.0089	0.014		4.16	0.00472
RSEM-R5B-EOP	1/14/2019 12:04	VC1963	M	2.1	2.2	0.0407	0.00075	0.00067	0.035	<0.0001	<0.001	0.157	0.000053	49.2	<0.001	0.00101	0.0011	0.03	<0.0002	0.0745	37.6	0.0191	<0.000002	0.0089	0.0092		4.01	0.00426
RSEM-R5B-EOP	1/15/2019 12:20	VC4152	M	1.2	1.1	0.0331	0.0007	0.00068	0.0312	<0.0001	<0.001	0.146	0.000034	46.6	<0.001	0.00064	0.00129	0.026	0.00043	0.068	33.2	0.0139	<0.000002	0.0089	0.0066		3.91	0.00334
RSEM-R5B-EOP	1/16/2019 12:50	VC6537	D	1.4	2.0	0.0333	0.00075	0.0007	0.0333	<0.0001	<0.001	0.131	0.00004	43.5	<0.001	0.00069	0.00094	0.03	<0.0002	0.0573	32.0	0.0137	<0.000002	0.0092	0.0069		3.78	0.00318
RSEM-R5B-EOP	1/16/2019 12:50	VC6536	M	1.5	2.0	0.0366	0.00072	0.00076	0.0331	<0.0001	<0.001	0.141	0.00004	44.4	0.0024	0.00076	0.00102	0.061	<0.0002	0.0628	35.0	0.0156	<0.000002	0.0094	0.0078		4.07	0.00322
RSEM-R5B-EOP	1/17/2019 12:20	VC7568	M	1.3	1.3	0.0389	0.00079	0.00092	0.0334	<0.0001	<0.001	0.155	0.000034	45.7	<0.001	0.0007	0.001	0.028	<0.0002	0.067	36.3	0.0154	<0.000002	0.0098	0.0076		4.25	0.00334
RSEM-R5B-EOP	1/18/2019 12:00	VC7590	M	1.2	1.3	0.0362	0.00074	0.00093	0.0332	<0.0001	<0.001	0.154	0.000032	45.3	<0.001	0.00064	0.00101	0.027	<0.0002	0.0651	36.6	0.0154	<0.000002	0.0099	0.0072		4.20	0.00324
RSEM-R5B-EOP	1/19/2019 13:50	VC9566	M	1.4	2.1	0.0346	0.00077	0.00096	0.0372	<0.0001	<0.001	0.157	0.000032	43.0	<0.001	0.00052	0.00088	0.039	<0.0002	0.0652	30.3	0.0137	<0.000002	0.0094	0.0061		3.95	0.00293
RSEM-R5B-EOP	1/20/2019 13:40	VC9572	M	1.7	2.1	0.0405	0.00072	0.00094	0.0329	<0.0001	<0.001	0.163	0.000027	45.0	<0.001	0.00056	0.00099	0.029	<0.0002	0.0638	37.0	0.0145	<0.000002	0.0088	0.0071		4.03	0.00322
RSEM-R5B-EOP	1/21/2019 14:06	VD2273	M	1.4	1.4	0.0438	0.00072	0.00094	0.0366	<0.0001	<0.001	0.161	0.000033	45.8	<0.001	0.00056	0.00089	0.023	<0.0002	0.069	35.5	0.0144	<0.000002	0.0088	0.0064		4.05	0.00313
RSEM-R5B-EOP	1/22/2019 13:25	VD2309	M	1.3	1.2	0.0425	0.00075	0.00094	0.0372	<0.0001	<0.001	0.159	0.000033	45.2	<0.001	0.00054	0.001	0.031	<0.0002	0.069	36.4	0.0147	<0.000002	0.0091	0.0062		4.09	0.00326
RSEM-R5B-EOP	1/23/2019 13:55	VD3813	M	1.4	2.3	0.0455	0.00087	0.00115	0.0399	<0.0001	<0.001	0.187	0.00003	44.5	<0.001	0.00044	0.00101	0.031	<0.0002	0.0807	32.5	0.013	<0.000002	0.011	0.0057		4.04	0.00299
RSEM-R5B-EOP	1/24/2019 14:30	VD5542	M	1.8	0.88	0.0548	0.00082	0.0011	0.0371	<0.0001	<0.001	0.153	0.000024	39.3	<0.001	0.00041	0.00093	0.032	<0.0002	0.0581	30.9	0.0115	<0.000002	0.01	0.0052		3.60	0.00295
RSEM-R5B-EOP	1/25/2019 11:57	VD5642	M	1.2	0.83	0.0389	0.0008	0.00103	0.0378	<0.0001	<0.001	0.182	0.000029	46.4	<0.001	0.00035	0.00157	0.024	<0.0002	0.0791	35.8	0.0088	<0.000002	0.0105	0.0063		4.15	0.00304
RSEM-R5B-EOP	1/26/2019 16:50	VD7170	D	0.96	1.2	0.0435	0.00095	0.00109	0.0399	<0.0001	<0.001	0.166	0.00003	46.9	<0.001	0.00037	0.00094	0.024	<0.0002	0.069	36.3	0.0106	<0.000002	0.0114	0.0056		4.00	0.00294
RSEM-R5B-EOP	1/26/2019 16:50	VD7165	M	1.1	1.3	0.0412	0.00096	0.00114	0.0408	<0.0001	<0.001	0.173	0.00003	47.6	<0.001	0.00036	0.00091	0.024	<0.0002	0.0705	37.0	0.0106	<0.000002	0.012	0.0059		4.09	0.00303
RSEM-R5B-EOP	1/27/2019 14:03	VD7174	M	1.9	1.6	0.0313	0.00103	0.00109	0.0429	<0.0001	<0.001	0.147	0.00003	43.5	<0.001	0.00042	0.00096	0.024	<0.0002	0.0585	35.3	0.0147	<0.000002	0.0114	0.0056		3.89	0.00283
RSEM-R5B-EOP	1/28/2019 12:55	VD8612	M	1.9	2.3	0.0651	0.00124	0.00105	0.0366	<0.0001	<0.001	0.16	0.000033	37.4	<0.001	0.00066	0.00087	0.034	<0.0002	0.0587	39.6	0.0207	<0.000002	0.0122	0.0065		3.80	0.00269
RSEM-R5B-EOP	1/29/2019 12:00	VE0718	M	5.9	5.4	0.0642	0.00137	0.00096	0.0245	<0.0001	<0.001	0.192	0.000025	37.1	<0.001	0.00088	0.00102	0.038	<0.0002	0.0804	44.2	0.0173	<0.000002	0.014	0.0117		4.71	0.00336
RSEM-R5B-EOP	1/30/2019 13:50	VE2162	M	5.8	5.2	0.0505	0.00145	0.00101	0.0234	<0.0001	<0.001	0.175	0.000026	32.4	<0.001	0.00092	0.001	0.027	<0.0002	0.0758	35.6	0.0154	<0.000002	0.0147	0.0136		5.01	0.00358
RSEM-R5B-EOP	1/31/2019 13:15	VE3666	M	5.3	4.7	0.0556	0.00137	0.00115	0.0189	<0.0001	<0.001	0.169	0.00002	29.5	0.0011	0.00076	0.00119	0.035	<0.0002	0.0709	33.5	0.0109	<0.000002	0.0155	0.0136		4.94	0.00339
RSEM-R5B-EOP	2/1/2019 12:20	VE3673	M	4.6	4.3	0.0646	0.00149	0.00148	0.0167	<0.0001	<0.001	0.185	0.00002	26.2	0.0015	0.00062	0.00138	0.043	<0.0002	0.0675	30.2	0.0085	<0.000002	0.0183	0.0121		5.12	0.00352
RSEM-R5B-EOP	2/2/2019 13:21	VE5321	D	3.0	3.7	0.104	0.00139	0.00135	0.021	<0.0001	<0.001	0.201	0.000118	34.9	0.0014	0.00248	0.00201	0.042	<0.0002	0.0729	25.3	0.0287	<0.000002	0.0164	0.0154		5.01	0.00376
RSEM-R5B-EOP	2/2/2019 13:21	VE5320	M	3.0	3.6	0.0904	0.00143	0.00145	0.0204	<0.0001	<0.001	0.19	0.000114	35.4	0.0014	0.00253	0.0018	0.044	<0.0002	0.0728	28.0	0.0289	<0.000002	0.0164	0.016		4.96	0.00379
RSEM-R5B-EOP	2/3/2019 11:55	VE5317	M	3.3	4.0	0.0941	0.00151	0.00153	0.0234	<0.0001	<0.001	0.214	0.000154	40.3	0.0014	0.00307	0.00224	0.041	<0.0002	0.0786	30.4	0.0349	<0.000002	0.0193	0.0185		5.67	0.00421
RSEM-R5B-EOP	2/8/2019 12:00	VF1455	M	2.9	1.7	0.0977	0.00148	0.00198	0.0311	<0.0001	<0.001	0.204	0.000065	41.8	0.0013	0.00115	0.00168	0.059	<0.0002	0.0703	25.8	0.0192	0.000004	0.0205	0.0093		4.95	0.00411
RSEM-R5B-EOP	2/9/2019 14:00	VF3229	M	2.5	2.1	0.102	0.00133	0.00208	0.0327	<0.0001	<0.001	0.187	0.000042	42.9	0.0011	0.00076	0.00147	0.058	<0.0002	0.0617	21.9	0.0158	0.0000052	0.0189	0.0067		4.32	0.00377
RSEM-R5B-EOP	2/10/2019 12:45	VF3200	M	2.3	2.2	0.104	0.00128	0.0021	0.0332	<0.0001	<0.001	0.182	0.000029	41.1	<0.001	0.00058	0.00133	0.061	<0.0002	0.0584	20.3	0.0122	0.000004	0.0179	0.0056		4.01	0.00345
RSEM-R5B-EOP	2/11/2019 14:40	VF4318	M	2.4	1.6	0.119	0.0013	0.00194	0.0359	<0.0001	<0.001	0.165	0.000034	38.9	<0.001	0.00056	0.00156	0.086	0.00068	0.0499	19.5	0.0121	0.0000051	0.0171	0.0057		3.83	0.00306
RSEM-R5B-EOP	2/12/2019 11:15	VF6493	D	2.2	1.5	0.103	0.00133	0.00209	0.0357	<0.0001	<0.001	0.196	0.000032	40.9	<0.001	0.00046	0.00143	0.067	<0.0002	0.0607	19.3	0.0095	0.0000053	0.0184	0.0051		3.78	0.00308
RSEM-R5B-EOP	2/12/2019 11:15	VF6506	M	2.1	2.5	0.11	0.00132	0.00213	0.0358	<0.0001	<0.001	0.191	0.000035	40.9	<0.001	0.00046	0.00123	0.073	<0.0002	0.0595	19.3	0.0092	0.0000037	0.0184	0.0051		3.72	0.00314
RSEM-R5B-EOP	2/13/2019 12:45	VF7821	M	2.7	2.1	0.111	0.00147	0.00239	0.0352	<0.0001	<0.001	0.212	0.000035	41.2	0.0013	0.0005	0.00243	0.075	<0.0002	0.0641	20.9	0.0106	0.0000092	0.0229	0.0058		4.37	0.0036
RSEM-R5B-EOP	2/14/2019 0:38	VF9049	D	1.9	1.8	0.0876	0.00151	0.00237	0.0366	<0.0001	<0.001	0.216	0.000028	39.2	0.007	0.0005	0.00142	0.059	<0.0002	0.0587	19.5	0.0095	0.0000042	0.0558	0.0058		6.84	0.00416
RSEM-R5B-EOP	2/14/2019 12:38	VF9048	M	2.2	2.0	0.0805	0.0015	0.00235	0.0363	<0.0001	<0.001	0.207	0.000025	38.7	0.0069	0.0005	0.00142	0.058	<0.0002	0.0577	19.7	0.0094	0.000005	0.0555	0.0059		6.70	0.00396
RSEM-R5B-EOP	2/15/2019 13:00	VF9054	M	1.5	1.8	0.0973	0.00156	0.00272	0.037	<0.0001	<0.001	0.233	0.000016	37.7	0.0132	0.0005	0.00163	0.088	<0.0002	0.0598	17.8	0.0086	0.0000068	0.0932	0.0053		9.41	0.00468
RSEM-R5B-EOP	2/16/2019 14:27	VF9496	D	2.0	2.3	0.0863	0.00153	0.00281	0.0354	<0.0001	<0.001	0.253	0.000022	32.7	0.0158	0.00047	0.00188	0.077	<0.0002	0.0549	16.6	0.0073	<0.000002	0.101	0.0053		9.81	0.00461
RSEM-R5B-EOP	2/16/2019 14:27	VF9495	M	2.1	3.4	0.0959	0.00157	0.00287	0.0359	<0.0001	<0.001	0.263	0.000025	33.6	0.016	0.00047	0.00196	0.076	<0.0002	0.0573	16.7	0.0074	0.0000033	0.102	0.0051		9.73	0.00474
RSEM-R5B-EOP	2/17/2019 13:25	VG0949	M	1.8	2.4	0.114	0.00187	0.00323	0.0418	<0.0001	<0.001	0.253	<0.00001	32.3	0.0149	0.00043	0.00212	0.091	<0.0002	0.0637	17.1	0.0072	<0.000002	0.106	0.005		9.49	0.00475
RSEM-R5B-EOP	2/18/2019 12:00	VG0934	M	2.1	1.9	0.084	0.00171	0.00286	0.0322	<0.0001	<0.001	0.222	<0.00001	31.0	0.0084	0.00036	0.00152	0.054	<0.0002	0.0565	23.4	0.0068	0.0000032	0.0644	0.0048		7.04	0.00388
RSEM-R5B-EOP	2/19/2019 12:30	VG0989	D	2.0	1.5	0.0793	0.00156	0.0025	0.0322	<0.0001	<0.001	0.214	<0.00001		0.0062	0.00032	0.00139	0.052	<0.0002	0.0551		0.007	0.0000069	0.0451	0.0049			0.00327
RSEM-R5B-EOP	2/19/2019 12:30	VG0987	M	2.5	1.7	0.082	0.00156	0.00246	0.0312	<0.0001	<0.001	0.206	<0.00001		0.006	0.00033	0.00134	0.054	<0.0002	0.0522		0.0067	0.0000047	0.0435	0.0048			0.00328
RSEM-R5B-EOP	2/20/2019 12:00	VG2688	M	1.9	1.9	0.0757	0.00129	0.00198	0.0285	<0.0001	<0.001	0.21	0.000018	33.0	0.0054	0.00031	0.00118	0.037	<0.0002	0.0517	25.4	0.0067	0.0000059	0.0358	0.0045		5.60	0.00315
RSEM-R5B-EOP	2/21/2019 12:30	VG4543	M	1.9	1.5	0.0539	0.00103	0.00152	0.0359	<0.0001	<0.001	0.159	0.000026	41.2	0.0038	0.00035	0.00116	0.033	<0.0002	0.0564	26.7	0.0081	<0.000002	0.0271	0.0051		5.22	0.00287
RSEM-R5B-EOP	2/22/2019 11:50	VG6142	M	2.0	2.3	0.0531	0.00095	0.00141	0.0363	<0.0001	<0.001	0.172	0.000025	41.7	0.003	0.00032	0.00096	0.032	<0.0002	0.0625	26.8	0.0077	0.0000022	0.0227	0.0048		5.02	0.00282
RSEM-R5B-EOP	2/23/2019 13:30	VG8590	M	2.1	2.2	0.0776	0.00094	0.00143	0.0399	<0.0001	<0.001	0.178	0.000019	43.1	0.0029	0.00032	0.00093	0.036	<0.0002	0.0637	26.7	0.0068	<0.000002	0.0226	0.0048		4.89	0.00292
RSEM-R5B-EOP	2/24/2019 13:40	VG8613	D	1.6	1.8	0.065	0.0009	0.0014	0.0431	<0.0001	<0.001	0.17	0.000019	42.7	0.0027	0.00032	0.00102	0.081	<0.0002	0.0616	26.0	0.0105	<0.000002	0.0221	0.0044		4.67	0.00271
RSEM-R5B-EOP	2/24/2019 13:40	VG8611	M	1.7	1.6	0.075	0.00091	0.0014	0.0452	<0.0001	<0.001	0.176	0.000022	43.7	0.0027	0.00033	0.00102	0.084	<0.0002	0.0614	26.5	0.0121	<0.000002	0.022	0.0046		4.68	0.00279
RSEM-R5B-EOP	2/25/2019 12:30	VG8575	M	2.3	2.0	0.0959	0.00105	0.00167	0.062	<0.0001	<0.001	0.206	0.000014	40.8	0.0028	0.0004	0.00132	0.193	<0.0002	0.054	26.6	0.0321	<0.000002	0.0431	0.0041		4.59	0.00305
RSEM-R5B-EOP	2/26/2019 12:20	VH0047	D	2.5	1.7	0.0984	0.00098	0.00153	0.0745	<0.0001	<0.001	0.193	0.000016		0.002	0.0005	0.00101	0.171	<0.0002	0.0555		0.0399	<0.000002	0.0373	0.004			0.00294
RSEM-R5B-EOP	2/26/2019 12:20	VH0049	M	1.6	2.0	0.0927	0.00092	0.00137	0.0729	<0.0001	<0.001	0.177	0.000015		0.0018	0.00051	0.00099	0.175	<0.0002	0.0549		0.0386	<0.000002	0.033	0.0039			0.00291
RSEM-R5B-EOP	2/27/2019 11:50	VH2518	M	2.2	3.0	0.0805	<0.0005	0.00069	0.143	<0.0001	<0.001	0.099	0.000022	73.5	<0.001	0.00057	0.0009	0.207	<0.0002	0.0423	24.2	0.0456	<0.000002	0.0186	0.0038		3.18	0.00189
RSEM-R5B-EOP	2/28/2019 12:40	VH4367	D	2.8	3.8	0.0442	<0.0005	0.00058	0.123	<0.0001	<0.001	0.092	0.000036	74.6	<0.001	0.00109	0.00087	0.129	<0.0002	0.0516	25.6	0.0465	<0.000002	0.0159	0.0062		3.09	0.00209
RSEM-R5B-EOP	2/28/2019 12:40	VH4366	M	2.2	3.0	0.0482	<0.0005	0.00059	0.123	<0.0001	<0.001	0.093	0.00004	74.3	<0.001	0.00105	0.00108	0.134	<0.0002	0.0531	25.4	0.0464	<0.000002	0.0158	0.0061		3.14	0.00211
RSEM-R5B-EOP	3/1/2019 12:15	VH5674	M	2.5	2.1	0.0348	<0.0005	0.00045	0.123	<0.0001	<0.001	0.07	0.000037	76.3	<0.001	0.00113	0.00072	0.076	<0.0002	0.0473	25.8	0.0435	<0.000002	0.011	0.0069		2.97	0.002
RSEM-R5B-EOP	3/2/2019 12:40	VH8129	D	1.7	2.6	0.0401	<0.0005	0.00041	0.116	<0.0001	<0.001	0.069	0.000036	79.9	<0.001	0.00131	0.00064	0.076	<0.0002	0.0592	26.6	0.0397	<0.000002	0.0073	0.0082		3.13	0.0022
RSEM-R5B-EOP	3/2/2019 12:40	VH8128	M	2.2	1.4	0.0362	<0.0005	0.00039	0.112	<0.0001	<0.001	0.065	0.000038	76.0	<0.001	0.00127	0.00066	0.07	<0.0002	0.0564	26.0	0.0377	<0.000002	0.007	0.0079		2.98	0.00209
RSEM-R5B-EOP	3/3/2019 14:25	VH7776	M	1.5	2.1	0.0391	<0.0005	0.00039	0.119	<0.0001	<0.001	0.068	0.000022	82.5	<0.001	0.00074	0.0006	0.058	<0.0002	0.0619	28.1	0.0309	<0.000002	0.006	0.0066		3.26	0.00232
RSEM-R5B-EOP	3/8/2019 13:03	VI4436	M	1.7	2.2	0.023	<0.0005	0.00044	0.103	<0.0001	<0.001	0.072	0.000026	86.7	<0.001	0.00055	0.00068	0.031	<0.0002	0.0755	29.8	0.0224	<0.000002	0.0061	0.0063		3.80	0.00255
RSEM-R5B-EOP	3/9/2019 13:00	VI6896	M	1.8	1.7	0.0167	<0.0005	0.00044	0.0964	<0.0001	<0.001	0.076	0.000022	91.1	<0.001	0.00047	0.00061	0.017	<0.0002	0.0865	32.9	0.0128	<0.000002	0.0046	0.0065		4.17	0.00299
RSEM-R5B-EOP	3/10/2019 13:45	VI6958	D	1.3	1.8	0.0198	<0.0005	0.00041	0.0916	<0.0001	<0.001	0.075	0.000031	92.6	<0.001	0.00075	0.00059	0.022	<0.0002	0.0904	33.2	0.015	<0.000002	0.0041	0.0075		4.26	0.00314
RSEM-R5B-EOP	3/10/2019 13:45	VI6957	M	1.8	1.6	0.0195	<0.0005	0.00041	0.0865	<0.0001	<0.001	0.071	0.000028	88.2	<0.001	0.00072	0.0006	0.022	<0.0002	0.0881	33.4	0.0146	<0.000002	0.0038	0.0073		4.19	0.00299
RSEM-R5B-EOP	3/11/2019 13:44	VI9560	M	3.7	2.3	0.0735	0.00141	0.00209	0.0364	<0.0001	<0.001	0.242	0.000018	43.4	0.0038	0.00048	0.00105	0.061	<0.0002	0.0605	25.8	0.009	<0.000002	0.0327	0.0046		5.52	0.00326
RSEM-R5B-EOP	3/12/2019 12:25	VI8446	D	<2.5	1.8	0.0911	0.00146	0.00204	0.0352	<0.0001	<0.001	0.246	0.000024	39.4	0.004	0.00056	0.00115	0.05	<0.0002	0.0604	26.7	0.0101	<0.000002	0.0331	0.0052		5.84	0.00328
RSEM-R5B-EOP	3/12/2019 12:25	VI8444	M	1.6	2.2	0.0744	0.0014	0.00191	0.0357	<0.0001	<0.001	0.241	0.000017	39.1	0.004	0.00056	0.00127	0.049	<0.0002	0.0611	26.1	0.0099	<0.000002	0.0334	0.0051		5.80	0.00304
RSEM-R5B-EOP	3/13/2019 13:15	VJ2180	M	14	13	0.695	0.00171	0.0026	0.141	<0.0001	<0.001	0.249	0.000064	37.1	0.0045	0.00153	0.00412	1.07	0.00074	0.0523	22.9	0.0356	0.0000027	0.0314	0.0074		6.44	0.00304
RSEM-R5B-EOP	3/14/2019 13:15	VJ4046	D	16	14	3.46	0.00161	0.00208	0.182	0.00011	<0.001	0.157	0.000137	40.3	0.007	0.00357	0.00574	1.65	0.00086	0.0497	16.9	0.0718	0.0000022	0.0188	0.015		6.49	0.00304
RSEM-R5B-EOP	3/14/2019 13:15	VJ4045	M	17	15	3.83	0.00166	0.00207	0.186	0.00011	<0.001	0.163	0.00014	39.4	0.0074	0.00356	0.00593	1.69	0.00086	0.049	16.0	0.0716	<0.000002	0.0189	0.0148		6.32	0.00299
RSEM-R5B-EOP	3/15/2019 11:55	VJ4023	M	10	8.8	2.88	0.00155	0.00192	0.16	0.00011	<0.001	0.143	0.000175	37.2	0.0064	0.00473	0.00569	1.68	0.00093	0.0471	15.7	0.0954	0.0000021	0.0163	0.0193		5.50	0.00323

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	1/7/2019 11:25	VB3251	M	4.6	<0.00002	176	0.249	122	0.000014	<0.005	<0.005	0.00316	<0.005	0.0083	<0.0001	0.026	0.00102	0.00101	0.0365	<0.0001	<0.001	0.148	0.000038	46.8	<0.001	0.00074	0.00099	0.017
RSEM-R5B-EOP	1/8/2019 12:55	VB4661	M	4.98	<0.00002	185	0.274	129	0.000014	<0.005	<0.005	0.00345	<0.005	0.008	<0.0001	0.0197	0.00096	0.00097	0.038	<0.0001	<0.001	0.151	0.000037	48.7	<0.001	0.0007	0.00108	<0.01
RSEM-R5B-EOP	1/9/2019 12:20	VB6785	D	3.99	<0.00002	161	0.253	111	0.000012	<0.005	<0.005	0.00332	<0.005	0.0072	<0.0001	0.0231	0.00099	0.00105	0.041	<0.0001	<0.001	0.145	0.00004	52.5	<0.001	0.00066	0.00116	0.01
RSEM-R5B-EOP	1/9/2019 12:20	VB6784	M	3.97	<0.00002	155	0.254	108	0.000013	<0.005	<0.005	0.00326	<0.005	0.007	<0.0001	0.0226	0.00097	0.00107	0.0398	<0.0001	<0.001	0.144	0.000036	54.9	<0.001	0.00071	0.00102	<0.01
RSEM-R5B-EOP	1/10/2019 12:30	VB7974	M	4.64	<0.00002	174	0.272	125	0.000015	<0.005	<0.005	0.00337	<0.005	0.0073	<0.0001	0.0167	0.00094	0.00103	0.0406	<0.0001	<0.001	0.164	0.000026	54.1	<0.001	0.00037	0.00073	<0.01
RSEM-R5B-EOP	1/11/2019 9:32	VB7979	M	4.56	<0.00002	167	0.283	126	0.000015	<0.005	<0.005	0.00337	<0.005	0.0076	<0.0001	0.0147	0.00082	0.00086	0.0416	<0.0001	<0.001	0.16	0.000027	55.8	<0.001	0.0003	0.00064	<0.01
RSEM-R5B-EOP	1/12/2019 12:10	VC0272	M	4.31	<0.00002	166	0.293	123	0.000014	<0.005	<0.005	0.00319	<0.005	0.0086	<0.0001	0.0188	0.00074	0.00067	0.0392	<0.0001	<0.001	0.14	0.000038	45.0	<0.001	0.00076	0.00092	<0.01
RSEM-R5B-EOP	1/13/2019 12:05	VC0278	D	4.32	<0.00002	163	0.287	121	0.000015	<0.005	<0.005	0.00314	<0.005	0.015	<0.0001	0.0195	0.00073	0.00063	0.0378	<0.0001	<0.001	0.138	0.00008	47.0	<0.001	0.00198	0.00094	<0.01
RSEM-R5B-EOP	1/13/2019 12:05	VC0277	M	4.32	<0.00002	172	0.294	130	0.000016	<0.005	<0.005	0.00318	<0.005	0.0157	<0.0001	0.02	0.00072	0.00061	0.0376	<0.0001	<0.001	0.14	0.000074	45.9	<0.001	0.00197	0.0009	<0.01
RSEM-R5B-EOP	1/14/2019 12:04	VC1963	M	4.32	<0.00002	163	0.259	116	0.000014	<0.005	<0.005	0.003	<0.005	0.0101	<0.0001	0.0311	0.00076	0.00064	0.034	<0.0001	<0.001	0.154	0.000051	45.8	<0.001	0.00093	0.00098	<0.01
RSEM-R5B-EOP	1/15/2019 12:20	VC4152	M	4.62	<0.00002	141	0.245	108	0.000013	<0.005	<0.005	0.00276	<0.005	0.0061	<0.0001	0.0209	0.00071	0.00067	0.0308	<0.0001	<0.001	0.145	0.000038	46.1	<0.001	0.0006	0.00073	<0.01
RSEM-R5B-EOP	1/16/2019 12:50	VC6537	D	4.09	<0.00002	138	0.233	93.5	<0.00001	<0.005	<0.005	0.0027	<0.005	0.0066	<0.0001	0.0226	0.00077	0.00081	0.032	<0.0001	<0.001	0.16	0.000032	47.3	<0.001	0.0002	0.00075	<0.01
RSEM-R5B-EOP	1/16/2019 12:50	VC6536	M	4.35	<0.00002	148	0.26	100	0.00001	<0.005	<0.005	0.00266	<0.005	0.0081	<0.0001	0.0226	0.00078	0.00084	0.0324	<0.0001	<0.001	0.156	0.000034	47.7	<0.001	0.00028	0.00081	<0.01
RSEM-R5B-EOP	1/17/2019 12:20	VC7568	M	4.63	<0.00002	152	0.238	101	0.000012	<0.005	<0.005	0.00281	<0.005	0.0074	<0.0001	0.0271	0.0008	0.00091	0.0347	<0.0001	<0.001	0.16	0.000036	45.4	<0.001	0.00057	0.00091	<0.01
RSEM-R5B-EOP	1/18/2019 12:00	VC7590	M	4.61	<0.00002	153	0.23	97.3	0.000012	<0.005	<0.005	0.00274	<0.005	0.0062	<0.0001	0.0229	0.00076	0.00091	0.0348	<0.0001	<0.001	0.163	0.000028	46.7	<0.001	0.0005	0.0009	<0.01
RSEM-R5B-EOP	1/19/2019 13:50	VC9566	M	4.37	<0.00002	127	0.229	85.1	0.000012	<0.005	<0.005	0.00294	<0.005	<0.005	<0.0001	0.0249	0.00087	0.00091	0.0332	<0.0001	<0.001	0.141	0.000031	45.3	<0.001	0.00059	0.00194	<0.01
RSEM-R5B-EOP	1/20/2019 13:40	VC9572	M	4.65	<0.00002	150	0.22	92.0	0.000011	<0.005	<0.005	0.00289	<0.005	0.0061	<0.0001	0.0213	0.00071	0.00085	0.0325	<0.0001	<0.001	0.139	0.000027	44.1	<0.001	0.00055	0.00084	<0.01
RSEM-R5B-EOP	1/21/2019 14:06	VD2273	M	4.69	<0.00002	139	0.241	92.0	0.000013	<0.005	<0.005	0.00324	<0.005	<0.005	<0.0001	0.0213	0.00071	0.00085	0.0352	<0.0001	<0.001	0.161	0.000033	42.8	<0.001	0.00049	0.00092	<0.01
RSEM-R5B-EOP	1/22/2019 13:25	VD2309	M	4.79	<0.00002	146	0.237	89.9	0.000014	<0.005	<0.005	0.00334	<0.005	0.0052	<0.0001	0.0204	0.00075	0.00091	0.0345	<0.0001	<0.001	0.16	0.00003	43.2	<0.001	0.00049	0.00077	<0.01
RSEM-R5B-EOP	1/23/2019 13:55	VD3813	M	4.06	<0.00002	145	0.247	88.1	0.000011	<0.005	<0.005	0.00291	<0.005	<0.005	<0.0001	0.0216	0.00091	0.00119	0.0395	<0.0001	<0.001	0.177	0.000022	43.4	<0.001	<0.0002	0.00068	<0.01
RSEM-R5B-EOP	1/24/2019 14:30	VD5542	M	3.82	<0.00002	136	0.209	77.3	<0.00001	<0.005	<0.005	0.00296	<0.005	<0.005	<0.0001	0.0245	0.00091	0.00119	0.0402	<0.0001	<0.001	0.191	0.000024	44.1	<0.001	<0.0002	0.00092	<0.01
RSEM-R5B-EOP	1/25/2019 11:57	VD5642	M	4.19	<0.00002	151	0.261	94.2	0.000011	<0.005	<0.005	0.00295	<0.005	0.0055	<0.0001	0.0202	0.00084	0.00103	0.0377	<0.0001	<0.001	0.174	0.000028	44.8	<0.001	0.00025	0.00086	<0.01
RSEM-R5B-EOP	1/26/2019 16:50	VD7170	D	4.43	<0.00002	171	0.282	104	0.000011	<0.005	<0.005	0.00293	<0.005	0.0059	<0.0001	0.0177	0.00096	0.00112	0.0399	<0.0001	<0.001	0.173	0.000029	47.0	<0.001	0.00033	0.00067	<0.01
RSEM-R5B-EOP	1/26/2019 16:50	VD7165	M	4.51	<0.00002	172	0.292	105	0.000012	<0.005	<0.005	0.00302	<0.005	0.0057	<0.0001	0.0174	0.00098	0.00114	0.0402	<0.0001	<0.001	0.167	0.00003	47.2	<0.001	0.00032	0.00065	<0.01
RSEM-R5B-EOP	1/27/2019 14:03	VD7174	M	3.79	<0.00002	168	0.241	105	0.00001	<0.005	<0.005	0.00325	<0.005	0.0053	<0.0001	0.0182	0.00106	0.00111	0.0403	<0.0001	<0.001	0.17	0.000029	46.9	<0.001	0.0004	0.00071	<0.01
RSEM-R5B-EOP	1/28/2019 12:55	VD8612	M	3.56	<0.00002	204	0.246	135	0.000013	<0.005	<0.005	0.00362	<0.005	0.0062	<0.0001	0.0224	0.00127	0.00109	0.0343	<0.0001	<0.001	0.184	0.000033	40.1	<0.001	0.00063	0.00084	<0.01
RSEM-R5B-EOP	1/29/2019 12:00	VE0718	M	4.26	<0.00002	250	0.334	179	0.000012	<0.005	<0.005	0.00313	<0.005	0.0056	<0.0001	0.0226	0.00148	0.00101	0.0268	<0.0001	<0.001	0.194	0.000026	35.1	<0.001	0.00086	0.00085	<0.01
RSEM-R5B-EOP	1/30/2019 13:50	VE2162	M	3.99	<0.00002	205	0.304	164	0.000013	<0.005	<0.005	0.00294	<0.005	0.0057	<0.0001	0.024	0.0014	0.00095	0.0218	<0.0001	<0.001	0.163	0.000024	33.9	<0.001	0.00086	0.0008	<0.01
RSEM-R5B-EOP	1/31/2019 13:15	VE3666	M	3.84	<0.00002	197	0.241	140	<0.00001	<0.005	<0.005	0.00287	<0.005	<0.005	<0.0001	0.0305	0.00143	0.00116	0.0185	<0.0001	<0.001	0.197	0.000015	30.1	0.0013	<0.0002	0.0008	<0.01
RSEM-R5B-EOP	2/1/2019 12:20	VE3673	M	3.73	<0.00002	199	0.206	128	<0.00001	<0.005	<0.005	0.00286	<0.005	<0.005	<0.0001	0.0387	0.00151	0.00138	0.0164	<0.0001	<0.001	0.195	0.000011	26.5	0.0014	<0.0002	0.00095	<0.01
RSEM-R5B-EOP	2/2/2019 13:21	VE5321	D	4.48	<0.00002	168	0.198	114	0.000011	<0.005	<0.005	0.00287	<0.005	0.0174	<0.0001	0.0518	0.00136	0.00135	0.0189	<0.0001	<0.001	0.185	0.000105	38.1	0.0013	0.00259	0.0015	<0.01
RSEM-R5B-EOP	2/2/2019 13:21	VE5320	M	4.37	<0.00002	172	0.196	118	0.00001	<0.005	<0.005	0.00288	<0.005	0.0182	<0.0001	0.0521	0.00141	0.0014	0.0193	<0.0001	<0.001	0.19	0.000109	36.5	0.0012	0.0025	0.00151	<0.01
RSEM-R5B-EOP	2/3/2019 11:55	VE5317	M	4.95	<0.00002	195	0.23	129	0.000013	<0.005	<0.005	0.00328	<0.005	0.0237	0.0002	0.0552	0.00152	0.00154	0.022	<0.0001	<0.001	0.217	0.000147	42.4	0.0015	0.00319	0.00176	<0.01
RSEM-R5B-EOP	2/8/2019 12:00	VF1455	M	4.57	<0.00002	182	0.218	91.6	<0.00001	<0.005	<0.005	0.00314	<0.005	0.0102	<0.0001	0.046	0.00152	0.00188	0.0293	<0.0001	<0.001	0.198	0.000051	43.7	0.0013	0.00055	0.00129	<0.01
RSEM-R5B-EOP	2/9/2019 14:00	VF3229	M	4.37	<0.00002	161	0.198	71.9	<0.00001	<0.005	<0.005	0.00277	<0.005	0.0065	<0.0001	0.0528	0.00138	0.00204	0.0321	<0.0001	<0.001	0.191	0.000038	43.7	0.001	0.0007	0.00105	<0.01
RSEM-R5B-EOP	2/10/2019 12:45	VF3200	M	4.2	<0.00002	155	0.187	65.5	<0.00001	<0.005	<0.005	0.00269	<0.005	<0.005	<0.0001	0.0611	0.00133	0.00203	0.0321	<0.0001	<0.001	0.192	0.000025	41.5	<0.001	0.00059	0.00094	<0.01
RSEM-R5B-EOP	2/11/2019 14:40	VF4318	M	3.8	<0.00002	151	0.18	60.7	0.00003	<0.005	<0.005	0.00255	<0.005	0.007	0.0001	0.0437	0.00128	0.0019	0.0337	<0.0001	<0.001	0.165	0.000032	38.8	<0.001	0.00051	0.00102	<0.01
RSEM-R5B-EOP	2/12/2019 11:15	VF6493	D	4.26	<0.00002	154	0.187	61.3	<0.00001	<0.005	<0.005	0.00268	<0.005	<0.005	<0.0001	0.045	0.00131	0.00212	0.0333	<0.0001	<0.001	0.191	0.000032	40.7	<0.001	0.00043	0.00094	<0.01
RSEM-R5B-EOP	2/12/2019 11:15	VF6506	M	4.25	<0.00002	153	0.189	60.3	0.000011	<0.005	<0.005	0.00267	<0.005	<0.005	<0.0001	0.0459	0.00132	0.00214	0.0336	<0.0001	<0.001	0.197	0.000027	40.9	<0.001	0.00044	0.00094	<0.01
RSEM-R5B-EOP	2/13/2019 12:45	VF7821	M	4.51	<0.00002	175	0.197	73.4	<0.00001	<0.005	<0.005	0.00294	<0.005	0.0053	<0.0001	0.046	0.00148	0.00233	0.0327	<0.0001	<0.001	0.212	0.000029	39.5	0.0012	0.00048	0.00096	<0.01
RSEM-R5B-EOP	2/14/2019 0:38	VF9049	D	4.96	<0.00002	212	0.215	122	<0.00001	<0.005	<0.005	0.00285	<0.005	<0.005	<0.0001	0.0437	0.0016	0.00243	0.0348	<0.0001	<0.001	0.227	0.000025	39.4	0.007	<0.0002	0.00102	<0.01
RSEM-R5B-EOP	2/14/2019 12:38	VF9048	M	4.78	<0.00002	213	0.209	121	<0.00001	<0.005	<0.005	0.00291	<0.005	0.0057	<0.0001	0.0446	0.0016	0.00237	0.0345	<0.0001	<0.001	0.225	0.000028	40.0	0.0069	<0.0002	0.001	<0.01
RSEM-R5B-EOP	2/15/2019 13:00	VF9054	M	5.72	<0.00002	260	0.222	157	0.000011	<0.005	<0.005	0.00276	0.0054	<0.005	<0.0001	0.0414	0.00161	0.0026	0.0333	<0.0001	<0.001	0.235	0.000011	37.0	0.0134	<0.0002	0.00119	<0.01
RSEM-R5B-EOP	2/16/2019 14:27	VF9496	D	5.02	<0.00002	276	0.181	151	0.000011	<0.005	<0.005	0.00255	0.0061	<0.005	<0.0001	0.0397	0.00172	0.00296	0.0323	<0.0001	<0.001	0.258	<0.00001	35.6	0.0156	0.0004	0.0014	<0.01
RSEM-R5B-EOP	2/16/2019 14:27	VF9495	M	5.21	<0.00002	279	0.186	153	0.000012	<0.005	<0.005	0.00265	0.0061	<0.005	<0.0001	0.0394	0.00178	0.00313	0.0327	<0.0001	<0.001	0.258	0.000015	34.8	0.0152	0.0004	0.00136	<0.01
RSEM-R5B-EOP	2/17/2019 13:25	VG0949	M	5.08	<0.00002	287	0.184	150	0.000013	<0.005	<0.005	0.00346	0.0065	<0.005	0.00012	0.0335	0.00194	0.00323	0.0353	<0.0001	<0.001	0.25	<0.00001	33.1	0.0147	0.00038	0.00155	<0.01
RSEM-R5B-EOP	2/18/2019 12:00	VG0934	M	4.58	<0.00002	231	0.192	120	0.000013	<0.005	<0.005	0.0036	0.0055	<0.005	<0.0001	0.0433	0.00177	0.00279	0.0296	<0.0001	<0.001	0.225	<0.00001	32.3	0.0082	0.00033	0.00126	<0.01
RSEM-R5B-EOP	2/19/2019 12:30	VG0989	D	4.9	<0.00002		0.188	109	0.000013	<0.005	<0.005	0.00374	0.0051	<0.005	<0.0001	0.0418	0.00151	0.0024	0.0303	<0.0001	<0.001	0.202	<0.00001		0.0058	0.00029	0.00108	<0.01
RSEM-R5B-EOP	2/19/2019 12:30	VG0987	M	5.08	<0.00002		0.19	108	0.000013	<0.005	<0.005	0.00368	0.005	<0.005	<0.0001	0.0411	0.0015	0.00232	0.0294	<0.0001	<0.001	0.199	<0.00001		0.0058	0.00028	0.00107	<0.01
RSEM-R5B-EOP	2/20/2019 12:00	VG2688	M	5.31	<0.00002	176	0.198	101	0.000011	<0.005	<0.005	0.00277	<0.005	<0.005	0.00017	0.0381	0.00145	0.00212	0.0309	<0.0001	<0.001	0.202	<0.00001	35.3	0.0049	0.00027	0.00101	<0.01
RSEM-R5B-EOP	2/21/2019 12:30	VG4543	M	4.97	<0.00002	155	0.205	84.1	0.000011	<0.005	<0.005	0.00269	<0.005	<0.005	<0.0001	0.0276	0.00112	0.00169	0.037	<0.0001	<0.001	0.161	0.000025	46.6	0.0039	0.00033	0.00097	<0.01
RSEM-R5B-EOP	2/22/2019 11:50	VG6142	M	4.98	<0.00002	144	0.213	80.3	<0.00001	<0.005	<0.005	0.00265	<0.005	<0.005	<0.0001	0.0278	0.00098	0.00155	0.0385	<0.0001	<0.001	0.188	0.000023	44.6	0.003	0.00028	0.00084	<0.01
RSEM-R5B-EOP	2/23/2019 13:30	VG8590	M	4.93	<0.00002	145	0.219	81.7	<0.00001	<0.005	<0.005	0.00276	<0.005	<0.005	<0.0001	0.0293	0.00096	0.00149	0.0393	<0.0001	<0.001	0.183	0.000018	45.0	0.0029	0.00031	0.00072	<0.01
RSEM-R5B-EOP	2/24/2019 13:40	VG8613	D	4.89	<0.00002	141	0.208	80.0	<0.00001	<0.005	<0.005	0.00255	<0.005	<0.005	<0.0001	0.0224	0.00094	0.00145	0.0435	<0.0001	<0.001	0.177	0.000021	43.6	0.0027	0.0003	0.00084	<0.01
RSEM-R5B-EOP	2/24/2019 13:40	VG8611	M	4.91	<0.00002	140	0.21	80.9	<0.00001	<0.005	<0.005	0.00258	<0.005	<0.005	<0.0001	0.0225	0.00094	0.00136	0.0459	<0.0001	<0.001	0.178	0.00002	44.3	0.0026	0.00031	0.00077	<0.01
RSEM-R5B-EOP	2/25/2019 12:30	VG8575	M	4.39	<0.00002	188	0.218	123	<0.00001	<0.005	<0.005	0.00259	<0.005	<0.005	<0.0001	0.0256	0.0011	0.00166	0.0596	<0.0001	<0.001	0.218	<0.00001	41.8	0.0025	0.00031	0.00085	<0.01
RSEM-R5B-EOP	2/26/2019 12:20	VH0047	D	4.86	<0.00002		0.238	124	<0.00001	<0.005	<0.005	0.00241	<0.005	<0.005	<0.0001	0.0257	0.001	0.00135	0.0679	<0.0001	<0.001	0.2	<0.00001		0.0018	0.00038	0.0006	<0.01
RSEM-R5B-EOP	2/26/2019 12:20	VH0049	M	4.52	<0.00002		0.233	120	<0.00001	<0.005	<0.005	0.00229	<0.005	<0.005	<0.0001	0.0246	0.00098	0.00127	0.0709	<0.0001	<0.001	0.189	<0.00001		0.0017	0.00039	0.0006	<0.01
RSEM-R5B-EOP	2/27/2019 11:50	VH2518	M	4.52	<0.00002	107	0.274	70.2	<0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001	0.0079	<0.0005	0.00053	0.136	<0.0001	<0.001	0.107	0.000017	75.3	<0.001	0.00051	<0.0005	<0.01
RSEM-R5B-EOP	2/28/2019 12:40	VH4367	D	4.28	<0.00002	99.0	0.334	63.4	0.000012	<0.005	<0.005	0.0017	<0.005	0.0076	<0.0001	0.0076	<0.0005	0.00044	0.117	<0.0001	<0.001	0.097	0.000033	76.9	<0.001	0.00104	0.0006	<0.01
RSEM-R5B-EOP	2/28/2019 12:40	VH4366	M	4.45	<0.00002	99.5	0.336	64.2	<0.00001	<0.005	<0.005	0.0017	<0.005	0.008	<0.0001	0.0078	<0.0005	0.00046	0.118	<0.0001	<0.001	0.1	0.00003	75.7	<0.001	0.00097	0.00063	<0.01
RSEM-R5B-EOP	3/1/2019 12:15	VH5674	M	3.79	<0.00002	85.7	0.298	49.7	<0.00001	<0.005	<0.005	0.00178	<0.005	0.0079	<0.0001	0.0085	<0.0005	0.00044	0.131	<0.0001	<0.001	0.081	0.000035	81.7	<0.001	0.00101	0.00055	<0.01
RSEM-R5B-EOP	3/2/2019 12:40	VH8129	D	4.14	<0.00002	78.9	0.301	43.0	<0.00001	<0.005	<0.005	0.00186	<0.005	0.0071	<0.0001	0.0097	<0.0005	0.00039	0.117	<0.0001	<0.001	0.073	0.000034	88.4	<0.001	0.00126	0.00051	<0.01
RSEM-R5B-EOP	3/2/2019 12:40	VH8128	M	4.02	<0.00002	75.5	0.298	40.9	<0.00001	<0.005	<0.005	0.00181	<0.005	0.0071	<0.0001	0.0105	<0.0005	0.00036	0.114	<0.0001	<0.001	0.073	0.000035	86.5	<0.001	0.0012	<0.0005	<0.01
RSEM-R5B-EOP	3/3/2019 14:25	VH7776	M	4.32	<0.00002	78.1	0.306	40.5	<0.00001	<0.005	<0.005	0.00191	<0.005	<0.005	<0.0001	0.0096	<0.0005	0.00039	0.121	<0.0001	<0.001	0.071	0.000022	87.8	<0.001	0.00068	<0.0005	<0.01
RSEM-R5B-EOP	3/8/2019 13:03	VI4436	M	4.86	<0.00002	88.9	0.272	42.7	<0.00001	0.01	<0.005	0.00202	<0.005	<0.005	<0.0001	0.0113	<0.0005	0.00047	0.11	<0.0001	<0.001	0.083	0.000032	89.6	<0.001	0.00045	<0.0005	<0.01
RSEM-R5B-EOP	3/9/2019 13:00	VI6896	M	4.97	<0.00002	91.7	0.308	42.5	<0.00001	<0.005	<0.005	0.0022	<0.005	<0.005	<0.0001	0.0086	<0.0005	0.00042	0.0947	<0.0001	<0.001	0.078	0.00002	91.2	<0.001	0.00047	0.00052	<0.01
RSEM-R5B-EOP	3/10/2019 13:45	VI6958	D	5.18	<0.00002	91.0	0.317	45.1	0.00001	<0.005	<0.005	0.00242	<0.005	0.0051	<0.0001	0.0096	<0.0005	0.00045	0.0868	<0.0001	<0.001	0.076	0.000026	99.8	<0.001	0.00076	<0.0005	<0.01
RSEM-R5B-EOP	3/10/2019 13:45	VI6957	M	5	<0.00002	87.4	0.314	43.7	<0.00001	<0.005	<0.005	0.00238	<0.005	<0.005	<0.0001	0.0098	<0.0005	0.0004	0.0852	<0.0001	<0.001	0.076	0.000026	89.7	<0.001	0.00078	<0.0005	<0.01
RSEM-R5B-EOP	3/11/2019 13:44	VI9560	M	5.14	<0.00002	193	0.197	106	0.000011	<0.005	<0.005	0.00279	<0.005	<0.005	<0.0001	0.0319	0.00146	0.00222	0.0353	<0.0001	<0.001	0.252	<0.00001	41.9	0.0039	0.00044	0.00084	<0.01
RSEM-R5B-EOP	3/12/2019 12:25	VI8446	D	4.88	<0.00002	200	0.196	108	0.000013	<0.005	<0.005	0.00285	<0.005	<0.005	<0.0001	0.0301	0.00149	0.00199	0.0347	<0.0001	<0.001	0.244	0.000021	39.2	0.0041	0.00056	0.00103	<0.01
RSEM-R5B-EOP	3/12/2019 12:25	VI8444	M	4.65	<0.00002	207	0.201	112	0.000013	<0.005	<0.005	0.00282	<0.005	<0.005	<0.0001	0.0298	0.00146	0.00202	0.034	<0.0001	<0.001	0.239	0.000022	40.5	0.004	0.00055	0.00093	<0.01
RSEM-R5B-EOP	3/13/2019 13:15	VJ2180	M	5.65	<0.00002	204	0.219	115	0.000025	<0.005	0.0084	0.00262	0.0054	0.011	0.00037	0.0146	0.0018	0.00209	0.112	<0.0001	<0.001	0.19	0.000033	36.5	0.0039	0.00104	0.00203	0.012
RSEM-R5B-EOP	3/14/2019 13:15	VJ4046	D	11.5	0.000024	129	0.205	78.6	0.00005	<0.005	0.0934	0.00209	0.0114	0.0214	0.00248	0.0195	0.00172	0.00161	0.145	<0.0001	<0.001	0.167	0.000098	42.3	0.0028	0.00296	0.0033	0.017
RSEM-R5B-EOP	3/14/2019 13:15	VJ4045	M	11.8	0.000031	130	0.209	77.8	0.000051	<0.005	0.0921	0.00211	0.0113	0.0215	0.00286	0.019	0.00176	0.00156	0.147	<0.0001	<0.001	0.149	0.000101	41.5	0.0027	0.00287	0.00324	0.018
RSEM-R5B-EOP	3/15/2019 11:55	VJ4023	M	8.25	<0.00002	113	0.199	67.3	0.000042	<0.005	0.0903	0.00197	0.0101	0.0246	0.00279	0.0411	0.0016	0.00129	0.119	<0.0001	<0.001	0.128	0.000106	36.7	0.0021	0.00344	0.00303	0.011

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	1/7/2019 11:25	VB3251	M	<0.0002	0.0632	33.0	0.0168	<0.000002	0.0149	0.0066		3.91	0.00398	4.2	<0.00002	168	0.244	114	0.000011	<0.005	<0.005	0.0031	<0.005	0.0063	<0.0001
RSEM-R5B-EOP	1/8/2019 12:55	VB4661	M	<0.0002	0.0637	36.5	0.0179	<0.000002	0.0159	0.0069		4.02	0.00391	4.25	<0.00002	169	0.266	117	0.000012	<0.005	<0.005	0.00311	<0.005	0.0066	<0.0001
RSEM-R5B-EOP	1/9/2019 12:20	VB6785	D	<0.0002	0.0697	36.3	0.0168	<0.000002	0.0144	0.0068		4.27	0.00424	4.85	<0.00002	179	0.262	128	0.000012	<0.005	<0.005	0.00332	<0.005	0.0064	<0.0001
RSEM-R5B-EOP	1/9/2019 12:20	VB6784	M	<0.0002	0.0679	37.0	0.0173	<0.000002	0.0171	0.007		4.27	0.00443	5.03	<0.00002	182	0.263	127	0.000013	<0.005	<0.005	0.00332	<0.005	0.0064	<0.0001
RSEM-R5B-EOP	1/10/2019 12:30	VB7974	M	<0.0002	0.071	35.0	0.0043	<0.000002	0.0136	0.0063		4.25	0.00475	5.05	<0.00002	165	0.264	136	0.000013	<0.005	<0.005	0.00319	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	1/11/2019 9:32	VB7979	M	<0.0002	0.0752	36.2	0.0059	<0.000002	0.0108	0.0075		4.12	0.00496	5.13	<0.00002	156	0.281	134	0.000013	<0.005	<0.005	0.00334	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	1/12/2019 12:10	VC0272	M	<0.0002	0.0743	36.9	0.0171	<0.000002	0.0092	0.0082		3.51	0.00435	3.8	<0.00002	154	0.271	112	0.000015	<0.005	<0.005	0.00311	<0.005	0.0064	<0.0001
RSEM-R5B-EOP	1/13/2019 12:05	VC0278	D	<0.0002	0.0761	36.5	0.0276	<0.000002	0.0083	0.0124		3.48	0.0043	4.05	<0.00002	151	0.262	114	0.000014	<0.005	<0.005	0.00295	<0.005	0.0141	<0.0001
RSEM-R5B-EOP	1/13/2019 12:05	VC0277	M	<0.0002	0.0771	36.9	0.0278	<0.000002	0.0084	0.0122		3.55	0.0041	3.98	<0.00002	153	0.263	114	0.000013	<0.005	<0.005	0.00293	<0.005	0.0137	<0.0001
RSEM-R5B-EOP	1/14/2019 12:04	VC1963	M	<0.0002	0.0724	35.9	0.0172	<0.000002	0.0087	0.0083		3.93	0.00386	4.24	<0.00002	154	0.256	115	0.000015	<0.005	<0.005	0.00293	<0.005	0.008	<0.0001
RSEM-R5B-EOP	1/15/2019 12:20	VC4152	M	<0.0002	0.0675	34.3	0.0129	<0.000002	0.0085	0.0063		3.77	0.00365	4.63	<0.00002	147	0.241	109	0.000011	<0.005	<0.005	0.0027	<0.005	0.0057	<0.0001
RSEM-R5B-EOP	1/16/2019 12:50	VC6537	D	<0.0002	0.067	33.8	0.0013	<0.000002	0.0098	0.0068		4.09	0.00336	4.67	<0.00002	143	0.248	105	0.000013	<0.005	<0.005	0.00284	<0.005	0.0053	<0.0001
RSEM-R5B-EOP	1/16/2019 12:50	VC6536	M	<0.0002	0.0689	34.0	0.0026	<0.000002	0.0096	0.0069		4.19	0.00337	4.74	<0.00002	146	0.249	108	0.000011	<0.005	<0.005	0.00281	<0.005	0.0055	<0.0001
RSEM-R5B-EOP	1/17/2019 12:20	VC7568	M	<0.0002	0.0678	33.6	0.0112	<0.000002	0.0098	0.007		4.20	0.00337	4.5	<0.00002	145	0.241	98.3	0.000012	<0.005	<0.005	0.00289	<0.005	0.0061	<0.0001
RSEM-R5B-EOP	1/18/2019 12:00	VC7590	M	<0.0002	0.0664	33.6	0.0117	<0.000002	0.0106	0.0063		4.22	0.00315	4.88	<0.00002	141	0.246	99.2	0.000011	<0.005	<0.005	0.0029	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	1/19/2019 13:50	VC9566	M	<0.0002	0.0618	35.6	0.0139	<0.000002	0.0091	0.0071		4.24	0.00321	4.62	<0.00002	148	0.22	92.1	0.000011	<0.005	<0.005	0.0028	<0.005	0.0074	<0.0001
RSEM-R5B-EOP	1/20/2019 13:40	VC9572	M	<0.0002	0.0621	34.3	0.0132	<0.000002	0.0086	0.0065		3.97	0.00308	4.6	<0.00002	140	0.22	88.2	0.000012	<0.005	<0.005	0.00296	<0.005	0.005	<0.0001
RSEM-R5B-EOP	1/21/2019 14:06	VD2273	M	<0.0002	0.0663	35.5	0.0139	<0.000002	0.0082	0.0061		4.10	0.00304	4.46	<0.00002	139	0.236	90.2	0.000011	<0.005	<0.005	0.0031	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	1/22/2019 13:25	VD2309	M	<0.0002	0.0649	35.0	0.0137	<0.000002	0.0087	0.0059		3.98	0.00308	4.46	<0.00002	137	0.225	88.0	0.000012	<0.005	<0.005	0.00314	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	1/23/2019 13:55	VD3813	M	<0.0002	0.072	33.0	<0.001	<0.000002	0.0114	0.0053		4.05	0.00309	4.29	<0.00002	146	0.247	87.9	0.000011	<0.005	<0.005	0.00298	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	1/24/2019 14:30	VD5542	M	<0.0002	0.0779	33.3	<0.001	<0.000002	0.0113	0.0056		4.12	0.00309	4.42	<0.00002	151	0.249	88.1	0.000015	<0.005	<0.005	0.00301	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	1/25/2019 11:57	VD5642	M	<0.0002	0.0738	35.9	0.0048	<0.000002	0.01	0.0061		4.15	0.00319	4.49	<0.00002	151	0.249	94.5	0.000012	<0.005	<0.005	0.00306	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	1/26/2019 16:50	VD7170	D	<0.0002	0.0695	37.0	0.0091	<0.000002	0.0118	0.0055		4.06	0.00292	4.47	<0.00002	171	0.287	107	0.000012	<0.005	<0.005	0.00293	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	1/26/2019 16:50	VD7165	M	<0.0002	0.0676	37.0	0.0091	<0.000002	0.0122	0.0055		4.07	0.0029	4.49	<0.00002	173	0.292	107	0.000011	<0.005	<0.005	0.00299	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	1/27/2019 14:03	VD7174	M	<0.0002	0.0698	38.3	0.0135	<0.000002	0.0121	0.0055		4.03	0.00285	4.39	<0.00002	188	0.291	117	0.000011	<0.005	<0.005	0.00307	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	1/28/2019 12:55	VD8612	M	<0.0002	0.0691	42.7	0.0197	<0.000002	0.0131	0.0062		4.04	0.00274	4.06	<0.00002	229	0.307	151	0.000012	<0.005	<0.005	0.00341	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	1/29/2019 12:00	VE0718	M	<0.0002	0.0837	40.6	0.0159	<0.000002	0.0143	0.0124		4.85	0.00339	4.22	<0.00002	229	0.307	177	0.000014	<0.005	<0.005	0.00337	<0.005	0.0051	<0.0001
RSEM-R5B-EOP	1/30/2019 13:50	VE2162	M	<0.0002	0.0701	37.7	0.0139	<0.000002	0.0141	0.0131		4.95	0.00336	3.8	<0.00002	210	0.276	161	<0.00001	<0.005	<0.005	0.00291	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	1/31/2019 13:15	VE3666	M	<0.0002	0.0745	33.2	<0.001	<0.000002	0.0156	0.0136		5.01	0.0035	4.06	<0.00002	204	0.235	154	0.00001	<0.005	<0.005	0.00281	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/1/2019 12:20	VE3673	M	<0.0002	0.0704	28.1	<0.001	<0.000002	0.0184	0.0116		4.90	0.00379	4.08	<0.00002	198	0.203	132	0.00001	<0.005	<0.005	0.00279	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/2/2019 13:21	VE5321	D	<0.0002	0.0711	27.0	0.028	<0.000002	0.0176	0.0166		5.00	0.00375	4.5	<0.00002	176	0.208	119	0.00001	<0.005	<0.005	0.00295	<0.005	0.0177	<0.0001
RSEM-R5B-EOP	2/2/2019 13:21	VE5320	M	<0.0002	0.0726	26.9	0.0278	<0.000002	0.0179	0.0164		4.93	0.00345	4.28	<0.00002	170	0.209	110	0.00001	<0.005	<0.005	0.00298	<0.005	0.0178	<0.0001
RSEM-R5B-EOP	2/3/2019 11:55	VE5317	M	<0.0002	0.082	30.3	0.0337	<0.000002	0.0195	0.0194		5.55	0.00424	5.08	<0.00002	190	0.239	132	0.000013	<0.005	<0.005	0.00336	<0.005	0.0252	<0.0001
RSEM-R5B-EOP	2/8/2019 12:00	VF1455	M	<0.0002	0.0689	24.8	0.0052	0.0000027	0.0197	0.0094		5.00	0.00416	4.64	<0.00002	179	0.198	88.1	0.00001	<0.005	<0.005	0.00307	<0.005	0.0082	<0.0001
RSEM-R5B-EOP	2/9/2019 14:00	VF3229	M	<0.0002	0.0634	22.2	0.0138	<0.000002	0.0193	0.0067		4.46	0.00383	4.24	<0.00002	163	0.199	72.7	<0.00001	<0.005	<0.005	0.00293	<0.005	0.005	<0.0001
RSEM-R5B-EOP	2/10/2019 12:45	VF3200	M	<0.0002	0.0627	21.1	0.0112	<0.000002	0.0182	0.0055		4.08	0.00351	4.07	<0.00002	159	0.187	66.9	<0.00001	<0.005	<0.005	0.00273	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/11/2019 14:40	VF4318	M	<0.0002	0.0545	19.7	0.01	0.0000034	0.0173	0.0052		3.80	0.00301	3.89	<0.00002	149	0.191	61.6	0.000014	<0.005	<0.005	0.00259	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/12/2019 11:15	VF6493	D	<0.0002	0.0607	19.5	0.0084	0.0000052	0.0181	0.0049		3.80	0.00318	4.22	<0.00002	156	0.192	62.8	<0.00001	<0.005	<0.005	0.00273	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/12/2019 11:15	VF6506	M	<0.0002	0.0621	19.7	0.0085	0.0000041	0.0185	0.0051		3.87	0.00312	4.36	<0.00002	159	0.195	63.6	<0.00001	<0.005	<0.005	0.00276	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/13/2019 12:45	VF7821	M	<0.0002	0.0587	21.3	0.0087	0.0000025	0.0303	0.0054		4.34	0.00351	3.92	<0.00002	174	0.19	72.9	<0.00001	<0.005	<0.005	0.00288	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/14/2019 0:38	VF9049	D	<0.0002	0.064	21.7	<0.001	0.0000037	0.0578	0.0055		6.84	0.00421	4.78	<0.00002	231	0.221	122	0.00001	<0.005	<0.005	0.00295	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/14/2019 12:38	VF9048	M	<0.0002	0.0635	21.8	<0.001	0.0000021	0.0569	0.0056		6.91	0.00427	4.82	<0.00002	229	0.223	123	0.000011	<0.005	<0.005	0.00299	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/15/2019 13:00	VF9054	M	<0.0002	0.0594	18.2	<0.001	0.0000037	0.0918	0.005		9.02	0.00466	5.28	<0.00002	271	0.209	156	<0.00001	<0.005	<0.005	0.00272	0.0052	<0.005	<0.0001
RSEM-R5B-EOP	2/16/2019 14:27	VF9496	D	<0.0002	0.0618	17.3	0.0056	0.0000027	0.104	0.0048		10.1	0.00496	5.71	<0.00002	296	0.2	167	<0.00001	<0.005	<0.005	0.00272	0.006	<0.005	<0.0001
RSEM-R5B-EOP	2/16/2019 14:27	VF9495	M	<0.0002	0.0621	17.1	0.0055	<0.000002	0.105	0.0048		9.95	0.00487	5.62	<0.00002	287	0.204	164	0.00001	<0.005	<0.005	0.00272	0.0059	<0.005	<0.0001
RSEM-R5B-EOP	2/17/2019 13:25	VG0949	M	<0.0002	0.0665	17.1	0.0055	0.0000052	0.105	0.0048		9.60	0.00485	5.23	<0.00002	290	0.188	159	0.000012	<0.005	<0.005	0.00349	0.0064	<0.005	<0.0001
RSEM-R5B-EOP	2/18/2019 12:00	VG0934	M	<0.0002	0.0576	23.3	0.0059	0.0000042	0.063	0.0046		6.92	0.00384	4.8	<0.00002	235	0.188	127	0.000012	<0.005	<0.005	0.00363	0.0055	<0.005	<0.0001
RSEM-R5B-EOP	2/19/2019 12:30	VG0989	D	<0.0002	0.0554	25.7	0.0057	0.0000053	0.0433	0.0046			0.00328	5.11	<0.00002		0.19	112	0.000013	<0.005	<0.005	0.00374	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/19/2019 12:30	VG0987	M	<0.0002	0.0536	25.5	0.0058	0.0000047	0.0444	0.0046			0.00323	4.88	<0.00002		0.192	112	0.000011	<0.005	<0.005	0.00367	<0.005	<0.005	0.00011
RSEM-R5B-EOP	2/20/2019 12:00	VG2688	M	<0.0002	0.0587	27.4	0.0058	<0.000002	0.0381	0.0048		6.10	0.00314	5.58	<0.00002	188	0.201	109	0.00001	<0.005	<0.005	0.00392	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/21/2019 12:30	VG4543	M	<0.0002	0.0599	27.7	0.0076	0.0000024	0.0277	0.0054		5.55	0.00311	5.42	<0.00002	167	0.213	91.5	0.000012	<0.005	<0.005	0.00281	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/22/2019 11:50	VG6142	M	<0.0002	0.0672	27.6	0.0059	0.0000026	0.0243	0.0049		5.30	0.00304	5.41	<0.00002	154	0.231	86.9	0.000011	<0.005	<0.005	0.00286	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/23/2019 13:30	VG8590	M	<0.0002	0.067	28.2	0.0061	<0.000002	0.0234	0.0049		5.15	0.003	5.06	<0.00002	152	0.223	85.9	<0.00001	<0.005	<0.005	0.00278	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/24/2019 13:40	VG8613	D	<0.0002	0.0634	27.2	0.0095	<0.000002	0.0234	0.0044		4.99	0.00293	4.85	<0.00002	148	0.218	84.3	<0.00001	<0.005	<0.005	0.00265	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/24/2019 13:40	VG8611	M	<0.0002	0.0635	27.5	0.0111	<0.000002	0.0231	0.0044		4.95	0.00293	4.79	<0.00002	149	0.218	83.7	<0.00001	<0.005	<0.005	0.00266	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/25/2019 12:30	VG8575	M	<0.0002	0.0573	29.1	0.0309	<0.000002	0.0449	0.004		4.87	0.0031	4.56	<0.00002	202	0.23	132	<0.00001	<0.005	<0.005	0.00259	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/26/2019 12:20	VH0047	D	<0.0002	0.0553	27.6	0.0356	<0.000002	0.0383	0.0037			0.00303	4.6	<0.00002		0.243	127	<0.00001	<0.005	<0.005	0.00242	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/26/2019 12:20	VH0049	M	<0.0002	0.0565	26.3	0.0358	<0.000002	0.0353	0.0037			0.00297	4.54	<0.00002		0.242	124	<0.00001	<0.005	<0.005	0.0023	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/27/2019 11:50	VH2518	M	<0.0002	0.0427	24.5	0.0434	<0.000002	0.0187	0.0036		3.16	0.00183	4.51	<0.00002	107	0.271	70.7	<0.00001	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	2/28/2019 12:40	VH4367	D	<0.0002	0.0538	26.4	0.0442	<0.000002	0.0196	0.0062		3.40	0.00201	4.19	<0.00002	107	0.297	66.5	<0.00001	<0.005	<0.005	0.00161	<0.005	0.0064	<0.0001
RSEM-R5B-EOP	2/28/2019 12:40	VH4366	M	<0.0002	0.0549	27.3	0.0422	<0.000002	0.015	0.0059		3.30	0.00198	4.24	<0.00002	105	0.293	66.2	<0.00001	<0.005	<0.005	0.00166	<0.005	0.0061	<0.0001
RSEM-R5B-EOP	3/1/2019 12:15	VH5674	M	<0.0002	0.0558	27.5	0.0391	<0.000002	0.0109	0.0071		3.27	0.00208	4.27	<0.00002	91.0	0.295	53.6	<0.00001	<0.005	<0.005	0.00173	<0.005	0.0066	<0.0001
RSEM-R5B-EOP	3/2/2019 12:40	VH8129	D	<0.0002	0.0642	26.3	0.0382	<0.000002	0.0072	0.0079		3.28	0.002	4.46	<0.00002	81.9	0.286	45.7	<0.00001	<0.005	<0.005	0.00185	<0.005	0.0061	<0.0001
RSEM-R5B-EOP	3/2/2019 12:40	VH8128	M	<0.0002	0.0639	26.5	0.0376	<0.000002	0.0075	0.0075		3.28	0.00213	4.53	<0.00002	80.6	0.281	46.0	<0.00001	<0.005	<0.005	0.00185	<0.005	0.0061	<0.0001
RSEM-R5B-EOP	3/3/2019 14:25	VH7776	M	<0.0002	0.0652	27.8	0.0288	<0.000002	0.0056	0.0061		3.42	0.00222	4.65	<0.00002	78.2	0.279	41.3	<0.00001	<0.005	<0.005	0.00183	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/8/2019 13:03	VI4436	M	<0.0002	0.0827	31.0	0.0198	<0.000002	0.0071	0.0067		3.89	0.00262	5.22	<0.00002	94.7	0.331	49.6	0.00001	<0.005	<0.005	0.00219	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/9/2019 13:00	VI6896	M	<0.0002	0.091	38.4	0.0134	<0.000002	0.0048	0.0064		4.58	0.00311	5.14	<0.00002	104	0.345	53.2	0.00001	<0.005	<0.005	0.0024	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/10/2019 13:45	VI6958	D	<0.0002	0.0934	37.0	0.0154	<0.000002	0.0042	0.0074		4.66	0.00356	5.61	<0.00002	93.2	0.356	51.5	0.000011	<0.005	<0.005	0.00253	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/10/2019 13:45	VI6957	M	<0.0002	0.0854	37.2	0.0154	<0.000002	0.004	0.0075		4.48	0.00331	4.98	<0.00002	96.2	0.353	48.2	0.00001	<0.005	<0.005	0.00247	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/11/2019 13:44	VI9560	M	<0.0002	0.065	29.4	0.0067	<0.000002	0.0373	0.005		6.02	0.00364	5.13	<0.00002	220	0.212	115	0.000012	<0.005	<0.005	0.00307	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/12/2019 12:25	VI8446	D	<0.0002	0.0617	26.7	0.0096	<0.000002	0.0344	0.0054		5.98	0.00325	4.57	<0.00002	209	0.196	112	0.000013	<0.005	<0.005	0.00292	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/12/2019 12:25	VI8444	M	<0.0002	0.0611	27.0	0.0093	<0.000002	0.0341	0.0052		5.72	0.0033	4.65	<0.00002	203	0.202	109	0.000012	<0.005	<0.005	0.00287	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/13/2019 13:15	VJ2180	M	<0.0002	0.0484	21.8	0.024	<0.000002	0.0341	0.0062		6.48	0.00325	4.35	<0.00002	194	0.234	113	0.000013	<0.005	<0.005	0.00271	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/14/2019 13:15	VJ4046	D	<0.0002	0.0507	18.1	0.0611	<0.000002	0.0201	0.0128		6.01	0.00318	3.89	<0.00002	142	0.209	85.4	0.000013	<0.005	<0.005	0.00211	<0.005	0.0081	<0.0001
RSEM-R5B-EOP	3/14/2019 13:15	VJ4045	M	<0.0002	0.05	17.2	0.0598	<0.000002	0.0193	0.0128		5.85	0.00303	3.69	<0.00002	145	0.212	81.8	0.000013	<0.005	<0.005	0.00212	<0.005	0.0084	<0.0001
RSEM-R5B-EOP	3/15/2019 11:55	VJ4023	M	<0.0002	0.047	16.1	0.0746	<0.000002	0.0159	0.0144		4.94	0.00307	3.08	<0.00002	118	0.192	74.2	0.000012	<0.005	<0.005	0.00181	<0.005	0.0065	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	3/16/2019 13:30	VJ7200	M	8.00	787	65.1	462	40.0	150	147	101	<1.0	124	<1.0	<1.0	48.4	0.440	0.65	204			0.33	0.0896	0.737	0.827	<0.0050
RSEM-R5B-EOP	3/17/2019 16:00	VJ7218	M	7.93	520	962	360	446	139	111	79.9	<1.0	97.4	<1.0	<1.0	26.2	0.280	0.35	140			0.27	0.0588	0.605	0.664	0.0099
RSEM-R5B-EOP	3/18/2019 10:40	VJ6966	D	7.95	689	131	414	93.6	104	103	84.1	<1.0	103	<1.0	<1.0	44.4	0.330	0.66	180			0.38	0.0959	0.740	0.836	0.0067
RSEM-R5B-EOP	3/18/2019 10:40	VJ6958	M	7.93	682	141	426	145	111	106	83.4	<1.0	102	<1.0	<1.0	46.0	0.330	0.63	168			0.35	0.0953	0.732	0.827	0.0093
RSEM-R5B-EOP	3/19/2019 12:00	VK0939	M	7.71	971	34.3	602	27.2	211	205	66.2	<1.0	80.8	<1.0	<1.0	46.3	0.490	0.74	318			0.45	0.0677	1.11	1.18	<0.0050
RSEM-R5B-EOP	3/20/2019 11:45	VK2375	M	7.86	726	51.9	418	57.6	123	124	77.7	<1.0	94.8	<1.0	<1.0	44.1	0.360	0.73	197			0.37	0.0921	0.758	0.850	<0.0050
RSEM-R5B-EOP	3/21/2019 11:10	VK3818	M	7.85	547	103	318	62.8	114	114	71.9	<1.0	87.7	<1.0	<1.0	27.4	0.290	0.47	132			0.28	0.0643	0.623	0.687	0.0132
RSEM-R5B-EOP	3/22/2019 9:50	VK3716	M	7.86	471	116	284	63.2	115	111	70.0	<1.0	85.4	<1.0	<1.0	21.7	0.250	0.34	118			0.22	0.0504	0.530	0.580	0.0142
RSEM-R5B-EOP	3/23/2019 13:15	VK6016	D	7.80	414	168	278	65.6	112	110	66.2	<1.0	80.7	<1.0	<1.0	14.1	0.280	0.20	111			0.18	0.0303	0.491	0.521	0.0134
RSEM-R5B-EOP	3/23/2019 13:15	VK6014	M	7.82	413	164	296	64.8	115	113	66.7	<1.0	81.4	<1.0	<1.0	14.2	0.280	0.20	109			0.18	0.0293	0.484	0.513	0.0213
RSEM-R5B-EOP	3/24/2019 14:00	VK5943	M	7.80	392	96.2	258	32.0	90.1	92.5	57.4	<1.0	70.1	<1.0	<1.0	9.34	0.260	0.12	114			0.24	0.0239	0.569	0.593	0.0100
RSEM-R5B-EOP	3/25/2019 12:45	VK7795	D	7.78	510	37.9	304	19.6	122	117	62.6	<1.0	76.3	<1.0	<1.0	12.7	0.280	0.20	150			0.21	0.0336	0.803	0.837	0.0094
RSEM-R5B-EOP	3/25/2019 12:45	VK7832	M	7.70	505	41.4	328	21.2	119	120	58.6	<1.0	71.5	<1.0	<1.0	13.1	0.270	0.21	158			0.22	0.0371	0.793	0.830	0.0082
RSEM-R5B-EOP	3/26/2019 11:50	VK9085	M	7.93	805	14.8	492	13.6	139	143	97.7	<1.0	119	<1.0	<1.0	40.3	0.390	0.68	189			0.39	0.0951	0.850	0.945	<0.0050
RSEM-R5B-EOP	3/27/2019 12:20	VL1979	D	8.06	815	39.6	486	23.6	132	132	122	<1.0	148	<1.0	<1.0	38.8	0.390	0.59	173			0.47	0.106	0.982	1.09	0.0052
RSEM-R5B-EOP	3/27/2019 12:20	VL1978	M	8.02	818	38.9	490	21.2	135	131	123	<1.0	150	<1.0	<1.0	36.8	0.380	0.58	199			0.47	0.106	0.983	1.09	<0.0050
RSEM-R5B-EOP	3/28/2019 11:00	VL3523	M	7.95	732	16.9	402	12.0	118	122	102	<1.0	124	<1.0	<1.0	28.4	0.350	0.49	190			0.40	0.0888	0.930	1.02	<0.0050
RSEM-R5B-EOP	3/29/2019 10:10	VL3531	D	7.75	495	29.3	314	22.4	85.5	83.8	73.8	<1.0	90.0	<1.0	<1.0	19.2	0.270	0.30	145			0.27	0.0688	0.645	0.714	0.0107
RSEM-R5B-EOP	3/29/2019 10:10	VL3528	M	7.90	499	31.9	302	18.0	88.1	84.0	76.2	<1.0	92.9	<1.0	<1.0	19.4	0.270	0.31	142			0.26	0.0703	0.654	0.724	0.0127
RSEM-R5B-EOP	3/30/2019 11:25	VL6530	D	7.99	431	38.4	244	19.2	94.2	97.0	74.6	<1.0	91.0	<1.0	<1.0	14.2	0.250	0.23	100			0.21	0.0611	0.499	0.560	0.0071
RSEM-R5B-EOP	3/30/2019 11:25	VL6529	M	7.76	431	38.3	256	16.4	95.0	91.2	73.4	<1.0	89.5	<1.0	<1.0	14.2	0.240	0.23	117			0.21	0.0623	0.515	0.577	0.0072
RSEM-R5B-EOP	3/31/2019 11:50	VL6669	M	8.04	539	15.3	318	16.0	174	168	125	<1.0	153	<1.0	<1.0	13.7	0.270	0.22	114			0.17	0.0444	0.469	0.514	<0.0050
RSEM-R5B-EOP	4/1/2019 11:55	VL8111	D	7.99	735	2.29	446	<16	147	149	127	<1.0	155	<1.0	<1.0	26.2	0.380	0.48	179			0.32	0.0760	0.736	0.812	<0.0030
RSEM-R5B-EOP	4/1/2019 11:55	VL8110	M	8.02	734	2.52	444	<16	153	147	130	<1.0	158	<1.0	<1.0	26.3	0.370	0.48	191			0.31	0.0729	0.704	0.777	<0.0030
RSEM-R5B-EOP	4/2/2019 13:05	VL9876	D	8.13	859	6.29	510	11.2	149	148	115	<1.0	140	<1.0	<1.0	34.4	0.400	0.61	227			0.32	0.0959	0.833	0.929	<0.0030
RSEM-R5B-EOP	4/2/2019 13:05	VL9875	M	8.12	860	5.53	538	10.8	148	147	112	<1.0	137	<1.0	<1.0	34.6	0.400	0.59	231			0.32	0.0918	0.840	0.932	<0.0030
RSEM-R5B-EOP	4/3/2019 11:00	VM2009	D	7.97	912	3.76	548	14.8	163	164	109	<1.0	133	<1.0	<1.0	28.6	0.430	0.52	236			0.31	0.0750	0.851	0.926	<0.0030
RSEM-R5B-EOP	4/3/2019 11:00	VM2008	M	7.96	910	3.53	558	16.4	162	163	109	<1.0	133	<1.0	<1.0	28.8	0.430	0.52	247			0.30	0.0773	0.870	0.947	0.0032
RSEM-R5B-EOP	4/4/2019 11:04	VM3409	D	8.02	1030	2.86	632	10.0	179	177	105	<1.0	129	<1.0	<1.0	28.0	0.450	0.50	326			0.30	0.0466	0.974	1.02	<0.0030
RSEM-R5B-EOP	4/4/2019 11:04	VM3408	M	7.94	1010	1.66	640	6.8	180	169	105	<1.0	128	<1.0	<1.0	27.7	0.450	0.51	311			0.31	0.0514	0.938	0.989	<0.0030
RSEM-R5B-EOP	4/5/2019 9:04	VM3337	M	8.11	1210	1.99	778	7.2	222	190	106	<1.0	129	<1.0	<1.0	28.7	0.480	0.41	373			0.33	0.0278	1.14	1.17	<0.0030
RSEM-R5B-EOP	4/6/2019 10:46	VM5384	D	8.02	1270	1.81	820	6.8	243	254	123	<1.0	150	<1.0	<1.0	29.3	0.510	0.41	452			0.34	0.0251	1.14	1.17	<0.0050
RSEM-R5B-EOP	4/6/2019 10:46	VM5385	M	8.03	1270	1.78	824	<4.0	242	251	123	<1.0	150	<1.0	<1.0	28.9	0.520	0.40	457			0.33	0.0246	1.14	1.16	<0.0050
RSEM-R5B-EOP	4/7/2019 11:14	VM5349	D	8.00	1190	2.85	744	6.8	242	250	132	<1.0	161	<1.0	<1.0	28.9	0.420	0.36	394			0.26	0.0168	1.08	1.10	<0.0050
RSEM-R5B-EOP	4/7/2019 11:14	VM5351	M	8.06	1190	2.69	754	6.4	240	254	134	<1.0	163	<1.0	<1.0	29.8	0.370	0.36	394			0.28	0.0180	1.05	1.06	<0.0050
RSEM-R5B-EOP	4/8/2019 13:03	VM6522	D	8.03	1010	2.81	630	8.4	215	215	119	<1.0	145	<1.0	<1.0	25.3	0.380	0.33	280			0.24	0.0178	0.913	0.930	<0.0050
RSEM-R5B-EOP	4/8/2019 13:03	VM6523	M	8.08	1030	2.80	632	9.6	215	223	126	<1.0	154	<1.0	<1.0	26.1	0.330	0.31	301			0.24	0.0157	0.950	0.965	<0.0050
RSEM-R5B-EOP	4/9/2019 10:55	VM8369	D	7.98	1040	1.40	638	<4.0	218	215	122	<1.0	149	<1.0	<1.0	27.5	0.410	0.38	294			0.21	0.0133	0.854	0.868	<0.0050
RSEM-R5B-EOP	4/9/2019 10:55	VM8370	M	7.90	1040	1.13	636	5.2	220	214	123	<1.0	150	<1.0	<1.0	29.5	0.330	0.41	306			0.23	0.0160	0.836	0.852	<0.0050
RSEM-R5B-EOP	4/10/2019 11:16	VN0768	D	7.89	1040	5.07	618	5.2	211	216	117	<1.0	143	<1.0	<1.0	27.0	0.340	0.37	314			0.21	<0.0050	0.908	0.908	<0.0030
RSEM-R5B-EOP	4/10/2019 11:16	VN0769	M	8.08	1040	4.66	606	<4.0	211	215	117	<1.0	143	<1.0	<1.0	27.2	0.340	0.36	325			0.23	0.0112	0.914	0.925	<0.0030
RSEM-R5B-EOP	4/11/2019 11:35	VN1891	D	8.07	1110	1.49	674	15.6	219	212	109	<1.0	133	<1.0	<1.0	28.2	0.350	0.39	359			0.22	0.0119	0.881	0.893	<0.0050
RSEM-R5B-EOP	4/11/2019 11:35	VN1892	M	7.96	1110	2.25	672	6.4	215	209	109	<1.0	133	<1.0	<1.0	28.5	0.350	0.38	356			0.22	0.0123	0.890	0.903	<0.0050
RSEM-R5B-EOP	4/12/2019 10:12	VN1933	D	8.02	1040	7.08	660	11.6	208	198	105	<1.0	128	<1.0	<1.0	28.8	0.340	0.39	330			0.21	0.0151	0.798	0.813	<0.0050
RSEM-R5B-EOP	4/12/2019 10:12	VN1935	M	7.98	1040	5.39	666	11.2	197	198	103	<1.0	125	<1.0	<1.0	27.7	0.350	0.40	321			0.20	0.0130	0.813	0.826	<0.0050
RSEM-R5B-EOP	4/13/2019 11:30	VN4404	D	7.92	1030	5.67	610	10.4	197	202	103	<1.0	125	<1.0	<1.0	28.2	0.360	0.38	331			0.27	0.0112	0.803	0.814	<0.0050
RSEM-R5B-EOP	4/13/2019 11:30	VN4405	M	7.80	1030	7.08	610	8.4	193	201	101	<1.0	124	<1.0	<1.0	28.0	0.380	0.38	318			0.17	0.0139	0.790	0.804	<0.0050
RSEM-R5B-EOP	4/14/2019 12:25	VN4394	D	7.93	1050	5.13	652	8.0	193	201	101	<1.0	123	<1.0	<1.0	28.2	0.360	0.38	347			0.17	0.0124	0.754	0.766	<0.0050
RSEM-R5B-EOP	4/14/2019 12:25	VN4395	M	8.00	1060	4.71	654	8.8	191	202	101	<1.0	123	<1.0	<1.0	28.1	0.360	0.38	351			0.17	0.0114	0.749	0.760	0.0062
RSEM-R5B-EOP	4/15/2019 12:00	VN6317	D	8.18	1060	7.62	648	12.4	210	192	104	<1.0	127	<1.0	<1.0	28.8	0.320	0.38	347			0.20	0.0135	0.720	0.734	<0.0050
RSEM-R5B-EOP	4/15/2019 12:00	VN6316	M	8.11	1060	9.34	658	11.6	217	193	104	<1.0	127	<1.0	<1.0	28.9	0.330	0.37	360			0.19	0.0116	0.687	0.699	<0.0050
RSEM-R5B-EOP	4/16/2019 12:23	VN8482	M	8.03	1050	3.43	650	11.6	200	197	109	<1.0	132	<1.0	<1.0	28.3	0.360	0.41	320			0.18	0.0189	0.727	0.746	0.0036
RSEM-R5B-EOP	4/17/2019 11:35	VN9789	M	8.20	1050	2.96	642	8.8	188	165	112	<1.0	137	<1.0	<1.0	29.9	0.320	0.45	318			0.20	0.0276	0.737	0.765	<0.0030
RSEM-R5B-EOP	4/18/2019 10:25	VN9666	M	8.24	1080	2.85	678	7.6	186	163	110	<1.0	134	<1.0	<1.0	38.7	0.340	0.54	330			0.20	0.0402	0.830	0.870	<0.0030
RSEM-R5B-EOP	4/19/2019 11:09	VO0357	M	8.08	1110	2.32	690	10.4	180	148	110	<1.0	135	<1.0	<1.0	42.9	0.320	0.61	324			0.20	0.0526	0.876	0.928	0.0031
RSEM-R5B-EOP	4/20/2019 11:26	VO0436	M	8.04	1140	2.91	688	9.6	174	174	111	<1.0	136	<1.0	<1.0	45.9	0.320	0.69	324			0.21	0.0629	0.936	0.999	0.0034
RSEM-R5B-EOP	4/21/2019 10:50	VO1980	M	8.27	1180	2.65	702	12.4	170	166	106	<1.0	129	<1.0	<1.0	49.5	0.340	0.71	353			0.21	0.0710	1.02	1.09	0.0031
RSEM-R5B-EOP	4/22/2019 11:38	VO3504	M	7.87	1220	2.79	708	18.8	186	179	108	<1.0	132	<1.0	<1.0	49.8	0.350	0.71	356			0.22	0.0714	0.864	0.935	0.0039
RSEM-R5B-EOP	4/23/2019 11:11	VO5420	D	8.27	1190	2.17	730	7.2	180	181	113	<1.0	138	<1.0	<1.0	53.0	0.340	0.75	387			0.19	0.0681	0.862	0.931	<0.0030
RSEM-R5B-EOP	4/23/2019 11:11	VO5417	M	8.25	1200	2.32	716	6.4	181	182	113	<1.0	138	<1.0	<1.0	53.3	0.330	0.75	388			0.19	0.0684	0.857	0.926	0.0031
RSEM-R5B-EOP	4/24/2019 13:25	VO7030	D	8.18	1210	3.52	730	10.8	194	196	130	<1.0	158	<1.0	<1.0	47.0	0.370	0.73	317			0.20	0.0559	0.974	1.03	<0.0030
RSEM-R5B-EOP	4/24/2019 13:25	VO7027	M	8.23	1220	2.51	738	13.2	196	200	128	<1.0	157	<1.0	<1.0	47.9	0.360	0.72	313			0.18	0.0650	1.01	1.08	<0.0030
RSEM-R5B-EOP	4/25/2019 11:40	VO8684	M	8.14	1220	3.46	734	5.6	213	209	142	<1.0	173	<1.0	<1.0	45.1	0.370	0.72	205			0.18	0.0609	0.982	1.04	<0.0030
RSEM-R5B-EOP	4/26/2019 10:25	VO8648	M	8.14	1210	4.07	718	6.0	210	213	149	<1.0	182	<1.0	<1.0	45.3	0.370	0.72	369			0.18	0.0526	0.972	1.02	<0.0030
RSEM-R5B-EOP	4/27/2019	VP1290	D	8.19	1210	2.66	746	4.4	203	205	142	<1.0	173	<1.0	<1.0	49.2	0.360	0.73	362			0.21	0.0562	0.951	1.01	<0.0030
RSEM-R5B-EOP	4/27/2019	VP1289	M	8.16	1240	1.59	742	5.2	196	211	141	<1.0	172	<1.0	<1.0	48.4	0.360	0.72	338			0.22	0.0491	0.949	0.999	<0.0030
RSEM-R5B-EOP	4/28/2019 10:30	VP1294	D	8.17	1250	1.83	736	<4.0	204	210	155	<1.0	189	<1.0	<1.0	48.4	0.380	0.70	325			0.22	0.0491	0.908	0.957	<0.0030
RSEM-R5B-EOP	4/28/2019 10:30	VP1293	M	8.15	1250	2.33	746	<4.0	203	209	157	<1.0	192	<1.0	<1.0	48.2	0.380	0.70	364			0.19	0.0496	0.893	0.942	<0.0030
RSEM-R5B-EOP	4/29/2019 10:30	VP3186	D	8.39	1230	1.88	718	<4.0	199	203	160	2.2	190	2.6	<1.0	49.9	0.370	0.69	319			0.22	0.0430	0.906	0.949	0.0036
RSEM-R5B-EOP	4/29/2019 10:30	VP3185	M	8.39	1220	1.85	738	5.2	197	204	162	2.3	192	2.7	<1.0	50.7	0.380	0.73	331			0.21	0.0450	0.887	0.932	0.0031
RSEM-R5B-EOP	4/30/2019 11:40	VP5202	D	8.27	1210	1.36	728	<4.0	199	205	172	<1.0	210	<1.0	<1.0	46.4	0.370	0.69	334			0.20	0.0532	0.864	0.918	0.0032
RSEM-R5B-EOP	4/30/2019 11:40	VP5201	M	8.18	1200	1.74	726	<4.0	193	201	169	<1.0	206	<1.0	<1.0	45.8	0.370	0.70	325			0.21	0.0429	0.863	0.906	<0.0030
RSEM-R5B-EOP	5/1/2019 11:40	VP6526	D	8.21	1230	1.94	746	<4.0	200	197	167	<1.0	204	<1.0	<1.0	45.1	0.370	0.69	326			0.23	0.0427	0.834	0.877	0.0041
RSEM-R5B-EOP	5/1/2019 11:40	VP6525	M	8.37	1230	1.85	756	<4.0	201	194	169	2.2	201	2.7	<1.0	44.9	0.370	0.69	333			0.23	0.0431	0.834	0.877	0.0032
RSEM-R5B-EOP	5/2/2019 12:10	VP8692	D	8.18	1290	2.38	772	4.0	206	209	176	<1.0	215	<1.0	<1.0	50.6	0.370	0.71	352			0.25	0.0422	0.834	0.877	<0.0030
RSEM-R5B-EOP	5/2/2019 12:10	VP8691	M	8.26	1300	2.68	812	5.2	217	211	176	<1.0	215	<1.0	<1.0	49.4	0.370	0.70	267			0.28	0.0410	0.837	0.878	0.0033

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	3/16/2019 13:30	VJ7200	M	8.2	7.9	1.89	0.00128	0.00144	0.106	<0.0001	<0.001	0.118	0.000337	34.3	0.004	0.00906	0.00862	1.93	0.00094	0.0431	15.6	0.146	0.0000038	0.0141	0.0348		5.01	0.00273
RSEM-R5B-EOP	3/17/2019 16:00	VJ7218	M	6.3	5.4	17.2	<0.0025	0.00659	0.407	0.00067	<0.005	<0.25	0.00052	33.4	0.0253	0.0106	0.0219	16	0.0077	0.038	13.6	0.291	0.0000043	0.0095	0.0376		7.62	0.00235
RSEM-R5B-EOP	3/18/2019 10:40	VJ6966	D	8.4	7.2	7.08	0.0014	0.00265	0.148	0.00023	<0.002	0.125	0.000176	23.4	0.0112	0.00383	0.0067	4.01	0.00215	0.0297	11.0	0.0961	0.0000031	0.0153	0.0151		5.75	0.00298
RSEM-R5B-EOP	3/18/2019 10:40	VJ6958	M	6.7	6.2	2.18	0.0014	0.00269	0.127	0.00011	<0.001	0.117	0.000184	25.3	0.0053	0.0037	0.00638	3.36	0.00196	0.0279	11.7	0.101	0.0000031	0.0151	0.0148		5.01	0.0028
RSEM-R5B-EOP	3/19/2019 12:00	VK0939	M	3.5	4.2	0.568	0.00122	0.00103	0.0806	<0.0001	<0.001	0.122	0.00054	53.6	0.0019	0.0149	0.00663	1.03	0.00053	0.0557	18.8	0.263	0.000002	0.0128	0.0531		4.49	0.00495
RSEM-R5B-EOP	3/20/2019 11:45	VK2375	M	6.2	4.8	1.43	0.00156	0.00206	0.142	<0.0001	<0.001	0.121	0.000078	29.9	0.004	0.00182	0.00512	1.55	0.00114	0.0304	11.7	0.0528	<0.000002	0.0152	0.0108		4.48	0.00372
RSEM-R5B-EOP	3/21/2019 11:10	VK3818	M	2.6	3.6	1.12	<0.001	0.00186	0.136	<0.0002	<0.002	<0.1	0.000079	29.2	0.0035	0.00152	0.0062	2.34	0.00141	0.0164	10.0	0.0624	0.0000027	0.0091	0.0087		3.76	0.00225
RSEM-R5B-EOP	3/22/2019 9:50	VK3716	M	2.6	3.2	1.08	<0.001	0.00166	0.12	<0.0002	<0.002	<0.1	0.000075	32.9	0.0062	0.00144	0.0056	2.5	0.00152	0.0136	8.07	0.0684	0.0000086	0.0069	0.0079		3.63	0.00212
RSEM-R5B-EOP	3/23/2019 13:15	VK6016	D	2.9	2.3	1.73	<0.0005	0.00203	0.149	0.00011	<0.001	<0.05	0.000096	31.3	0.0028	0.00159	0.00604	2.91	0.00207	0.0111	8.17	0.0794	<0.000002	0.005	0.0065		3.59	0.00226
RSEM-R5B-EOP	3/23/2019 13:15	VK6014	M	2.5	2.5	1.68	<0.0005	0.00207	0.147	0.00011	<0.001	<0.05	0.000096	32.7	0.0027	0.00159	0.00602	3.15	0.00211	0.0115	8.13	0.0811	<0.000002	0.0049	0.0067		3.61	0.0023
RSEM-R5B-EOP	3/24/2019 14:00	VK5943	M	2.2	2.3	1.14	<0.0005	0.00111	0.128	<0.0001	<0.001	<0.05	0.000058	25.6	0.0016	0.00126	0.0039	1.44	0.00114	0.0115	6.39	0.0517	0.0000047	0.0039	0.0049		2.94	0.00359
RSEM-R5B-EOP	3/25/2019 12:45	VK7795	D	2.2	1.9	0.991	0.00057	0.00095	0.107	<0.0001	<0.001	<0.05	0.000057	34.8	0.0018	0.00101	0.0026	1.02	0.00069	0.0145	8.63	0.0518	<0.000002	0.0052	0.005		2.72	0.00398
RSEM-R5B-EOP	3/25/2019 12:45	VK7832	M	2.4	1.9	0.55	0.00054	0.00107	0.102	<0.0001	<0.001	<0.05	0.000054	34.2	0.0014	0.00097	0.00274	1.16	0.00077	0.0141	8.17	0.0493	<0.000002	0.0053	0.0047		2.57	0.00395
RSEM-R5B-EOP	3/26/2019 11:50	VK9085	M	3.6	2.9	0.43	0.00162	0.00148	0.11	<0.0001	<0.001	0.12	0.000058	36.2	0.0023	0.00113	0.00261	0.503	0.00033	0.0267	11.8	0.0565	<0.000002	0.0159	0.0072		3.79	0.00496
RSEM-R5B-EOP	3/27/2019 12:20	VL1979	D	2.4	2.5	0.875	0.00161	0.00145	0.147	<0.0001	<0.001	0.117	0.000062	35.4	0.003	0.00133	0.00303	0.743	0.00059	0.0289	10.7	0.0554	<0.000002	0.0155	0.0062		3.37	0.00661
RSEM-R5B-EOP	3/27/2019 12:20	VL1978	M	2.8	2.6	0.85	0.00163	0.00147	0.145	<0.0001	<0.001	0.118	0.000055	36.0	0.0031	0.0014	0.00303	0.745	0.00052	0.0293	10.9	0.0565	<0.000002	0.0159	0.0063		3.39	0.00677
RSEM-R5B-EOP	3/28/2019 11:00	VL3523	M	2.0	1.9	1.26	0.00143	0.00122	0.121	<0.0001	<0.001	0.111	0.000046	31.4	0.0029	0.00095	0.00332	0.626	0.00039	0.0246	9.55	0.0455	<0.000002	0.0133	0.0047		3.31	0.00569
RSEM-R5B-EOP	3/29/2019 10:10	VL3531	D	1.7	1.2	0.814	0.00095	0.00111	0.11	<0.0001	<0.001	0.073	0.000048	22.5	0.0021	0.00094	0.00415	0.746	0.00052	0.019	7.10	0.0432	<0.000002	0.0086	0.0045		2.37	0.00358
RSEM-R5B-EOP	3/29/2019 10:10	VL3528	M	1.5	1.5	0.937	0.00093	0.00119	0.112	<0.0001	<0.001	0.073	0.000048	23.5	0.0022	0.00099	0.00405	1	0.00059	0.0189	7.15	0.0448	<0.000002	0.0086	0.0047		2.39	0.00369
RSEM-R5B-EOP	3/30/2019 11:25	VL6530	D	1.5	1.7	1.16	0.00068	0.00102	0.105	<0.0001	<0.001	0.052	0.000056	26.1	0.0023	0.00121	0.0061	1.07	0.00061	0.0126	7.06	0.0611	<0.000002	0.0064	0.0051		2.41	0.00283
RSEM-R5B-EOP	3/30/2019 11:25	VL6529	M	1.7	1.9	1.08	0.00068	0.00103	0.107	<0.0001	<0.001	0.053	0.00006	26.2	0.0023	0.00122	0.00643	1.08	0.00063	0.0127	7.21	0.0623	<0.000002	0.0065	0.0052		2.39	0.00271
RSEM-R5B-EOP	3/31/2019 11:50	VL6669	M	2.4	2.7	0.403	0.00062	0.00081	0.122	<0.0001	<0.001	<0.05	0.000076	50.1	0.0013	0.00171	0.00257	0.688	0.00039	0.0146	12.0	0.116	<0.000002	0.0059	0.0071		2.74	0.00235
RSEM-R5B-EOP	4/1/2019 11:55	VL8111	D	3.1	2.2	0.12	0.00142	0.00124	0.111	<0.0001	<0.001	0.102	0.000064	37.1	0.0018	0.00148	0.00463	0.224	<0.0002	0.0246	13.2	0.0855	<0.000002	0.0131	0.0079		3.09	0.00424
RSEM-R5B-EOP	4/1/2019 11:55	VL8110	M	2.4	2.4	0.118	0.00144	0.00118	0.11	<0.0001	<0.001	0.114	0.000063	40.2	0.0017	0.00146	0.00248	0.215	<0.0002	0.0259	12.9	0.0865	<0.000002	0.0132	0.0079		3.16	0.00444
RSEM-R5B-EOP	4/2/2019 13:05	VL9876	D	1.8	1.9	0.151	0.00184	0.00135	0.0994	<0.0001	<0.001	0.134	0.000052	35.2	0.002	0.00113	0.00246	0.318	0.00021	0.0326	14.9	0.0591	<0.000002	0.0167	0.0071		3.35	0.00585
RSEM-R5B-EOP	4/2/2019 13:05	VL9875	M	2.5	2.0	0.148	0.00184	0.00135	0.0983	<0.0001	<0.001	0.133	0.000049	36.2	0.0019	0.00107	0.0024	0.327	0.00021	0.0322	14.1	0.0574	<0.000002	0.0162	0.0069		3.29	0.00581
RSEM-R5B-EOP	4/3/2019 11:00	VM2009	D	1.6	2.1	0.135	0.00137	0.00091	0.0841	<0.0001	<0.001	0.125	0.000039	36.1	0.0013	0.0009	0.00274	0.256	<0.0002	0.0436	17.6	0.0456	0.0000129	0.0124	0.0065		2.87	0.00488
RSEM-R5B-EOP	4/3/2019 11:00	VM2008	M	1.8	1.9	0.151	0.00139	0.00094	0.0874	<0.0001	<0.001	0.124	0.000039	36.2	0.0013	0.00092	0.00173	0.284	<0.0002	0.0433	17.5	0.0463	0.0000129	0.0129	0.0066		2.86	0.00464
RSEM-R5B-EOP	4/4/2019 11:04	VM3409	D	1.7	1.5	0.11	0.00108	0.00067	0.0761	<0.0001	<0.001	0.116	0.00003	37.9	<0.001	0.00095	0.0014	0.173	<0.0002	0.0586	20.4	0.0375	<0.000002	0.0103	0.0087		2.80	0.00462
RSEM-R5B-EOP	4/4/2019 11:04	VM3408	M	1.9	1.6	0.119	0.00104	0.00065	0.0738	<0.0001	<0.001	0.108	0.00003	38.2	0.0027	0.00095	0.00145	0.195	<0.0002	0.0563	20.6	0.0366	<0.000002	0.01	0.0087		2.76	0.00457
RSEM-R5B-EOP	4/5/2019 9:04	VM3337	M	1.8	1.7	0.0864	0.00086	0.00055	0.065	<0.0001	<0.001	0.101	0.000029	46.4	<0.001	0.00123	0.00137	0.178	<0.0002	0.0762	25.8	0.0344	<0.000002	0.0084	0.0121		2.90	0.00501
RSEM-R5B-EOP	4/6/2019 10:46	VM5384	D	1.6	1.7	0.0952	0.00052	0.00047	0.0574	<0.0001	<0.001	0.123	0.000025	46.6	<0.001	0.00084	0.00103	0.235	<0.0002	0.0809	30.6	0.0308	<0.000002	0.0062	0.0107		3.34	0.00384
RSEM-R5B-EOP	4/6/2019 10:46	VM5385	M	2.1	1.7	0.0902	0.00052	0.00048	0.0593	<0.0001	<0.001	0.12	0.000023	46.9	<0.001	0.00084	0.00098	0.222	<0.0002	0.0827	30.4	0.0308	<0.000002	0.0059	0.0107		3.36	0.00376
RSEM-R5B-EOP	4/7/2019 11:14	VM5349	D	2.0	1.6	0.104	<0.0005	0.00051	0.0556	<0.0001	<0.001	0.106	0.000023	43.7	<0.001	0.00074	0.00114	0.256	<0.0002	0.0758	32.2	0.036	<0.000002	0.005	0.0095		3.63	0.00323
RSEM-R5B-EOP	4/7/2019 11:14	VM5351	M	2.0	1.8	0.0984	<0.0005	0.00049	0.0546	<0.0001	<0.001	0.115	0.000021	43.4	<0.001	0.00071	0.00109	0.226	<0.0002	0.0783	31.9	0.0356	<0.000002	0.0049	0.0096		3.52	0.00325
RSEM-R5B-EOP	4/8/2019 13:03	VM6522	D	1.7	1.6	0.216	<0.0005	0.0005	0.0556	<0.0001	<0.001	0.098	0.000024	38.7	<0.001	0.00076	0.00181	0.264	<0.0002	0.0708	28.9	0.0342	<0.000002	0.0043	0.0082		3.04	0.0027
RSEM-R5B-EOP	4/8/2019 13:03	VM6523	M	1.6	1.5	0.138	<0.0005	0.00049	0.0546	<0.0001	<0.001	0.097	0.000023	38.0	<0.001	0.00075	0.00166	0.19	<0.0002	0.0726	29.2	0.0335	<0.000002	0.0043	0.0082		3.08	0.00281
RSEM-R5B-EOP	4/9/2019 10:55	VM8369	D	1.8	1.7	0.146	<0.0005	0.00045	0.0425	<0.0001	<0.001	0.109	0.000024	36.1	<0.001	0.00072	0.0008	0.106	<0.0002	0.0805	31.0	0.0317	<0.000002	0.0043	0.0085		3.51	0.00266
RSEM-R5B-EOP	4/9/2019 10:55	VM8370	M	1.6	1.6	0.135	<0.0005	0.00046	0.0431	<0.0001	<0.001	0.111	0.000024	36.7	<0.001	0.00075	0.00085	0.102	<0.0002	0.0808	31.1	0.0311	<0.000002	0.0045	0.0084		3.53	0.00269
RSEM-R5B-EOP	4/10/2019 11:16	VN0768	D	1.3	1.1	0.121	<0.0005	0.00049	0.045	<0.0001	<0.001	0.103	0.000024	36.1	<0.001	0.00078	0.00105	0.174	<0.0002	0.0761	29.5	0.0309	<0.000002	0.0042	0.0078		3.24	0.00262
RSEM-R5B-EOP	4/10/2019 11:16	VN0769	M	1.8	1.8	0.142	<0.0005	0.00049	0.0436	<0.0001	<0.001	0.097	0.000023	36.6	<0.001	0.0008	0.00099	0.135	<0.0002	0.0723	29.1	0.0305	<0.000002	0.0041	0.0075		3.18	0.00267
RSEM-R5B-EOP	4/11/2019 11:35	VN1891	D	2.0	1.7	0.107	<0.0005	0.00045	0.0421	<0.0001	<0.001	0.102	0.000026	36.9	<0.001	0.00089	0.00115	0.165	<0.0002	0.0812	30.9	0.0287	<0.000002	0.0042	0.0082		3.50	0.00298
RSEM-R5B-EOP	4/11/2019 11:35	VN1892	M	1.7	1.7	0.118	<0.0005	0.00047	0.0415	<0.0001	<0.001	0.11	0.000024	35.9	<0.001	0.00085	0.00099	0.171	<0.0002	0.0805	30.5	0.0279	<0.000002	0.0041	0.0079		3.43	0.00273
RSEM-R5B-EOP	4/12/2019 10:12	VN1933	D	1.6	1.2	0.427	<0.0005	0.00048	0.0398	<0.0001	<0.001	0.096	0.000031	34.4	<0.001	0.00117	0.00152	0.515	0.00022	0.0729	29.6	0.0407	<0.000002	0.0039	0.0082		3.33	0.00277
RSEM-R5B-EOP	4/12/2019 10:12	VN1935	M	1.5	1.5	0.304	<0.0005	0.00054	0.0379	<0.0001	<0.001	0.094	0.000028	34.0	<0.001	0.00104	0.00134	0.429	<0.0002	0.0739	27.2	0.0378	<0.000002	0.0037	0.0078		3.09	0.00274
RSEM-R5B-EOP	4/13/2019 11:30	VN4404	D	1.4	1.3	0.106	<0.0005	0.00042	0.0338	<0.0001	<0.001	0.089	0.000022	32.7	<0.001	0.0009	0.00114	0.19	<0.0002	0.0702	28.0	0.0338	<0.000002	0.0041	0.0069		3.22	0.00281
RSEM-R5B-EOP	4/13/2019 11:30	VN4405	M	1.3	1.5	0.162	<0.0005	0.00042	0.0326	<0.0001	<0.001	0.088	0.000021	32.5	<0.001	0.00086	0.00145	0.254	<0.0002	0.0729	27.0	0.0315	<0.000002	0.0039	0.0066		3.00	0.00281
RSEM-R5B-EOP	4/14/2019 12:25	VN4394	D	1.6	1.6	0.125	<0.0005	0.0004	0.0305	<0.0001	<0.001	0.089	0.000021		<0.001	0.00086	0.00106	0.176	<0.0002	0.069		0.0278	<0.000002	0.004	0.007			0.00268
RSEM-R5B-EOP	4/14/2019 12:25	VN4395	M	1.5	1.4	0.105	<0.0005	0.0004	0.0314	<0.0001	<0.001	0.09	0.000022		<0.001	0.00081	0.00105	0.167	<0.0002	0.0708		0.0268	<0.000002	0.0041	0.0068			0.00277
RSEM-R5B-EOP	4/15/2019 12:00	VN6317	D	2.1	1.9	0.155	<0.0005	0.00057	0.0398	<0.0001	<0.001	0.114	0.000027	37.3	<0.001	0.00107	0.00125	0.34	<0.0002	0.0767	28.5	0.03	<0.000002	0.0042	0.0084		3.62	0.00262
RSEM-R5B-EOP	4/15/2019 12:00	VN6316	M	1.9	1.8	0.153	<0.0005	0.00056	0.0389	<0.0001	<0.001	0.118	0.00003	37.9	<0.001	0.00111	0.00128	0.323	<0.0002	0.0825	29.7	0.0318	<0.000002	0.0044	0.0088		3.68	0.00264
RSEM-R5B-EOP	4/16/2019 12:23	VN8482	M	1.7	1.6	0.132	0.00055	0.00055	0.0378	<0.0001	<0.001	0.101	0.000033	34.8	<0.001	0.00107	0.00127	0.203	<0.0002	0.0763	27.4	0.0259	<0.000002	0.0043	0.0085		3.35	0.00271
RSEM-R5B-EOP	4/17/2019 11:35	VN9789	M	2.1	1.7	0.149	0.00072	0.00066	0.0422	<0.0001	<0.001	0.123	0.00003	34.2	<0.001	0.00081	0.00124	0.203	<0.0002	0.0707	24.8	0.0193	<0.000002	0.0055	0.0078		3.33	0.00289
RSEM-R5B-EOP	4/18/2019 10:25	VN9666	M	2.5	2.1	0.115	0.00099	0.0008	0.0397	<0.0001	<0.001	0.137	0.000022	32.8	0.0011	0.00072	0.00152	0.177	<0.0002	0.0739	25.3	0.0152	<0.000002	0.0068	0.0081		3.54	0.00345
RSEM-R5B-EOP	4/19/2019 11:09	VO0357	M	2.2	1.7	0.17	0.00123	0.00088	0.0414	<0.0001	<0.001	0.147	0.000022	31.1	0.0013	0.00061	0.00171	0.164	<0.0002	0.0748	24.8	0.011	<0.000002	0.0079	0.0076		3.64	0.00386
RSEM-R5B-EOP	4/20/2019 11:26	VO0436	M	2.3	2.4	0.198	0.00142	0.00114	0.0418	<0.0001	<0.001	0.156	0.000021	28.8	0.0016	0.00061	0.00197	0.186	<0.0002	0.0733	24.8	0.0093	<0.000002	0.009	0.0077		3.80	0.00457
RSEM-R5B-EOP	4/21/2019 10:50	VO1980	M	2.3	1.7	0.114	0.00162	0.00135	0.0409	<0.0001	<0.001	0.168	0.000017	26.5	0.0017	0.00043	0.00188	0.137	<0.0002	0.0752	25.2	0.0061	<0.000002	0.0105	0.007		3.85	0.00554
RSEM-R5B-EOP	4/22/2019 11:38	VO3504	M	2.3	2.1	0.143	0.00156	0.00139	0.0415	<0.0001	<0.001	0.169	0.000043	31.5	0.0017	0.00106	0.00196	0.196	<0.0002	0.0757	26.0	0.0203	<0.000002	0.0106	0.009		3.93	0.00569
RSEM-R5B-EOP	4/23/2019 11:11	VO5420	D	2.4	2.1	0.105	0.00155	0.00115	0.0377	<0.0001	<0.001	0.152	0.000031	30.6	0.0016	0.0009	0.00176	0.111	<0.0002	0.0718	25.3	0.0176	<0.000002	0.0099	0.0082		3.75	0.00563
RSEM-R5B-EOP	4/23/2019 11:11	VO5417	M	2.4	2.1	0.0986	0.00155	0.00125	0.0387	<0.0001	<0.001	0.16	0.000033	31.5	0.0016	0.00088	0.00173	0.109	<0.0002	0.0735	24.9	0.018	<0.000002	0.01	0.0083		3.60	0.0056
RSEM-R5B-EOP	4/24/2019 13:25	VO7030	D	2.1	1.7	0.164	0.00144	0.00119	0.0389	<0.0001	<0.001	0.154	0.000043	37.2	0.0022	0.00129	0.00175	0.22	<0.0002	0.0766	24.6	0.0253	<0.000002	0.01	0.0094		3.71	0.00533
RSEM-R5B-EOP	4/24/2019 13:25	VO7027	M	2.0	1.6	0.148	0.0015	0.00119	0.0383	<0.0001	<0.001	0.171	0.000051	36.1	0.0017	0.00138	0.00248	0.179	<0.0002	0.0747	25.8	0.0263	<0.000002	0.0096	0.01		3.86	0.00553
RSEM-R5B-EOP	4/25/2019 11:40	VO8684	M	2.1	1.8	0.105	0.00141	0.00111	0.0366	<0.0001	<0.001	0.161	0.000041	41.8	0.0015	0.00141	0.00191	0.109	<0.0002	0.0819	26.3	0.0274	<0.000002	0.01	0.01		3.86	0.00518
RSEM-R5B-EOP	4/26/2019 10:25	VO8648	M	1.8	1.9	0.119	0.00141	0.00111	0.0371	<0.0001	<0.001	0.162	0.000043	41.7	0.0015	0.0014	0.00142	0.113	<0.0002	0.0829	25.7	0.0256	<0.000002	0.01	0.0098		3.82	0.00527
RSEM-R5B-EOP	4/27/2019	VP1290	D	2.3	2.0	0.0939	0.00142	0.00113	0.0359	<0.0001	<0.001	0.145	0.000046	39.9	0.0016	0.0013	0.00137	0.087	<0.0002	0.0748	25.2	0.0211	<0.000002	0.0097	0.0095		3.73	0.00529
RSEM-R5B-EOP	4/27/2019	VP1289	M	2.5	1.9	0.0989	0.00141	0.00113	0.0362	<0.0001	<0.001	0.15	0.000044	36.9	0.0016	0.0013	0.0013	0.076	<0.0002	0.074	25.3	0.0207	<0.000002	0.0098	0.0096		3.82	0.00506
RSEM-R5B-EOP	4/28/2019 10:30	VP1294	D	2.4	1.9	0.103	0.0014	0.00116	0.0397	<0.0001	<0.001	0.152	0.000061	38.6	0.0014	0.00171	0.00148	0.08	<0.0002	0.0769	26.1	0.0254	<0.000002	0.0098	0.0108		3.83	0.0051
RSEM-R5B-EOP	4/28/2019 10:30	VP1293	M	2.3	2.0	0.113	0.00139	0.00122	0.0393	<0.0001	<0.001	0.162	0.000062	38.8	0.0015	0.00171	0.00144	0.088	<0.0002	0.0763	25.8	0.0254	<0.000002	0.0098	0.011		3.82	0.00513
RSEM-R5B-EOP	4/29/2019 10:30	VP3186	D	1.7	1.7	0.115	0.00138	0.00121	0.0422	<0.0001	<0.001	0.14	0.000066	38.8	0.0013	0.00177	0.00141	0.083	<0.0002	0.0753	24.9	0.0271	<0.000002	0.0097	0.0108		3.79	0.00486
RSEM-R5B-EOP	4/29/2019 10:30	VP3185	M	1.7	1.8	0.113	0.00134	0.00111	0.0414	<0.0001	<0.001	0.134	0.000065	38.6	0.0013	0.00175	0.00309	0.076	<0.0002	0.0751	24.5	0.027	<0.000002	0.0096	0.0108		3.74	0.00474
RSEM-R5B-EOP	4/30/2019 11:40	VP5202	D	2.1	1.7	0.122	0.0015	0.00124	0.0454	<0.0001	<0.001	0.177	0.000075	39.6	0.0013	0.00188	0.00144	0.082	<0.0002	0.0833	24.4	0.0284	<0.000002	0.0101	0.0111		3.94	0.00495
RSEM-R5B-EOP	4/30/2019 11:40	VP5201	M	1.7	1.8	0.124	0.00146	0.0012	0.0437	<0.0001	<0.001	0.168	0.000074	38.9	0.0012	0.00178	0.00143	0.08	<0.0002	0.0802	23.3	0.0271	<0.000002	0.0099	0.0107		3.70	0.0048
RSEM-R5B-EOP	5/1/2019 11:40	VP6526	D	1.9	1.6	0.131	0.00151	0.0013	0.0493	<0.0001	<0.001	0.169	0.000067	40.4	0.0014	0.00182	0.00141	0.095	<0.0002	0.0828	24.1	0.0274	<0.000002	0.0106	0.011		3.88	0.00488
RSEM-R5B-EOP	5/1/2019 11:40	VP6525	M	1.8	1.6	0.112	0.00151	0.00125	0.049	<0.0001	<0.001	0.168	0.000072	40.5	0.0013	0.00176	0.0014	0.086	<0.0002	0.0826	24.3	0.0273	<0.000002	0.0102	0.0108		3.82	0.00487
RSEM-R5B-EOP	5/2/2019 12:10	VP8692	D	2.0	2.1	0.124	0.00148	0.00124	0.0482	<0.0001	<0.001	0.163	0.000058	41.1	0.0013	0.00163	0.0013	0.134	<0.0002	0.086	25.0	0.0267	<0.000002	0.0106	0.0101		3.71	0.00486
RSEM-R5B-EOP	5/2/2019 12:10	VP8691	M	2.0	2.3	0.125	0.00157	0.0014	0.0494	<0.0001	<0.001	0.182	0.000061	44.0	0.0012	0.00166	0.00131	0.128	<0.0002	0.0854	26.0	0.0269	<0.000002	0.0107	0.0106		3.90	0.00512

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	3/16/2019 13:30	VJ7200	M	5.75	<0.00002	94.6	0.17	70.1	0.000036	<0.005	0.0373	0.00148	<0.005	0.0408	0.00097	0.0443	0.00133	0.00041	0.0698	<0.0001	<0.001	0.112	0.000212	33.3	0.0019	0.00745	0.00395	<0.01
RSEM-R5B-EOP	3/17/2019 16:00	VJ7218	M	37.8	0.00014	59.3	0.163	37	0.000259	<0.025	0.549	0.0021	0.048	0.093	0.0115	0.0395	0.00089	0.00044	0.0755	<0.0001	<0.001	0.075	0.000053	27.7	0.0013	0.00161	0.00159	0.014
RSEM-R5B-EOP	3/18/2019 10:40	VJ6966	D	15.1	0.000052	88.8	0.14	53.1	0.000106	<0.01	0.188	0.00146	0.019	0.032	0.00565	0.03	0.0015	0.00087	0.0573	<0.0001	<0.001	0.109	0.000072	24.6	0.0026	0.00191	0.00185	0.012
RSEM-R5B-EOP	3/18/2019 10:40	VJ6958	M	5.76	0.000041	95.3	0.145	59.9	0.000058	<0.005	0.0378	0.00136	0.0077	0.029	0.00128	0.0322	0.00144	0.00088	0.0558	<0.0001	<0.001	0.11	0.000074	24.3	0.0025	0.00188	0.00192	0.015
RSEM-R5B-EOP	3/19/2019 12:00	VK0939	M	3.2	<0.00002	105	0.31	110	0.000026	<0.005	0.0122	0.00202	<0.005	0.0743	0.00038	0.0352	0.00117	0.0004	0.0571	<0.0001	<0.001	0.116	0.000463	50.8	<0.001	0.0134	0.00429	<0.01
RSEM-R5B-EOP	3/20/2019 11:45	VK2375	M	4.71	0.000022	89.2	0.21	64.9	0.000043	<0.005	0.0328	0.002	0.0053	0.011	0.00119	0.0178	0.00162	0.00107	0.0746	<0.0001	<0.001	0.119	0.000041	29.1	0.002	0.00088	0.00267	<0.01
RSEM-R5B-EOP	3/21/2019 11:10	VK3818	M	3.24	<0.00004	58.3	0.161	44.1	0.000038	<0.01	0.016	0.00159	<0.01	0.015	0.00041	0.0141	0.00101	0.00082	0.0795	<0.0001	<0.001	0.077	0.000032	29.7	0.0011	0.00047	0.00176	<0.01
RSEM-R5B-EOP	3/22/2019 9:50	VK3716	M	3.35	<0.00004	42.9	0.151	36.9	0.000044	<0.01	0.016	0.00145	<0.01	0.014	0.00034	0.0154	0.00073	0.00052	0.064	<0.0001	<0.001	0.06	0.000024	31.0	<0.001	0.00031	0.0013	<0.01
RSEM-R5B-EOP	3/23/2019 13:15	VK6016	D	3.67	0.000043	34.3	0.14	35.3	0.000054	<0.005	0.0206	0.00134	0.0051	0.0193	0.00043	0.012	<0.0005	0.00044	0.0542	<0.0001	<0.001	<0.05	0.00002	31.3	<0.001	0.00025	0.00125	0.012
RSEM-R5B-EOP	3/23/2019 13:15	VK6014	M	3.81	0.000044	36.4	0.139	35.5	0.000061	<0.005	0.0211	0.00134	0.005	0.0199	0.00043	0.0118	<0.0005	0.00044	0.0545	<0.0001	<0.001	<0.05	0.000019	32.5	<0.001	0.00026	0.00134	0.01
RSEM-R5B-EOP	3/24/2019 14:00	VK5943	M	2.59	0.000024	40.9	0.116	37.3	0.000038	<0.005	0.0146	0.00126	<0.005	0.0128	0.00035	0.0109	<0.0005	0.00039	0.0535	<0.0001	<0.001	<0.05	0.000023	26.9	<0.001	0.00042	0.0011	<0.01
RSEM-R5B-EOP	3/25/2019 12:45	VK7795	D	3.33	0.000023	47.8	0.145	49.8	0.000029	<0.005	0.0327	0.00137	<0.005	0.0124	0.0008	0.0152	0.00053	0.00045	0.0741	<0.0001	<0.001	<0.05	0.000031	33.2	<0.001	0.0006	0.00118	<0.01
RSEM-R5B-EOP	3/25/2019 12:45	VK7832	M	2.17	0.000025	46.1	0.136	50.2	0.000027	<0.005	0.0162	0.0013	<0.005	0.0075	0.00037	0.0151	0.00051	0.00052	0.0729	<0.0001	<0.001	<0.05	0.000034	34.4	<0.001	0.00061	0.00125	<0.01
RSEM-R5B-EOP	3/26/2019 11:50	VK9085	M	3.14	<0.00002	103	0.178	74.0	0.000017	<0.005	0.0127	0.00193	<0.005	0.006	0.00032	0.0283	0.00166	0.0012	0.0982	<0.0001	<0.001	0.124	0.000049	36.8	0.0016	0.00095	0.00169	<0.01
RSEM-R5B-EOP	3/27/2019 12:20	VL1979	D	4.06	<0.00002	107	0.184	70.6	0.000022	<0.005	0.0184	0.00215	<0.005	0.0077	0.00062	0.0069	0.00171	0.0011	0.11	<0.0001	<0.001	0.121	0.000045	35.0	0.0017	0.0009	0.00153	<0.01
RSEM-R5B-EOP	3/27/2019 12:20	VL1978	M	4.07	<0.00002	110	0.189	71.6	0.000022	<0.005	0.0219	0.00225	<0.005	0.0078	0.00056	0.007	0.0017	0.00113	0.108	<0.0001	<0.001	0.12	0.000043	34.7	0.0017	0.0009	0.00154	<0.01
RSEM-R5B-EOP	3/28/2019 11:00	VL3523	M	4.87	<0.00002	100	0.157	69.1	0.000025	<0.005	0.0389	0.00192	<0.005	0.0054	0.0013	0.0165	0.00153	0.00099	0.106	<0.0001	<0.001	0.108	0.000037	33.3	0.0014	0.00064	0.00229	<0.01
RSEM-R5B-EOP	3/29/2019 10:10	VL3531	D	3.18	<0.00002	64.6	0.122	43.5	0.00002	<0.005	0.0164	0.00152	<0.005	0.0076	0.00049	0.0187	0.00094	0.00065	0.0871	<0.0001	<0.001	0.069	0.000023	22.7	<0.001	0.0004	0.00181	<0.01
RSEM-R5B-EOP	3/29/2019 10:10	VL3528	M	3.14	<0.00002	64.8	0.119	43.4	0.000022	<0.005	0.0211	0.00157	<0.005	0.0081	0.00034	0.0186	0.00094	0.00064	0.087	<0.0001	<0.001	0.07	0.000023	22.6	<0.001	0.0004	0.0017	<0.01
RSEM-R5B-EOP	3/30/2019 11:25	VL6530	D	3.39	<0.00002	46.3	0.12	34.0	0.000024	<0.005	0.0279	0.00136	<0.005	0.0114	0.00089	0.0175	0.00069	0.00052	0.0785	<0.0001	<0.001	<0.05	0.000031	28.1	<0.001	0.00059	0.00264	<0.01
RSEM-R5B-EOP	3/30/2019 11:25	VL6529	M	3.14	<0.00002	47.5	0.114	34.6	0.000023	<0.005	0.0284	0.00138	<0.005	0.0121	0.00065	0.0168	0.00071	0.0005	0.0799	<0.0001	<0.001	<0.05	0.000031	26.0	<0.001	0.00058	0.00278	<0.01
RSEM-R5B-EOP	3/31/2019 11:50	VL6669	M	2.82	<0.00002	40.9	0.148	40.9	0.000016	<0.005	0.0126	0.00171	<0.005	0.0069	0.00026	0.0147	0.00062	0.0005	0.107	<0.0001	<0.001	<0.05	0.000056	48.4	<0.001	0.00143	0.00148	<0.01
RSEM-R5B-EOP	4/1/2019 11:55	VL8111	D	2.27	<0.00002	93.5	0.177	64.9	0.000011	<0.005	<0.005	0.00229	<0.005	0.006	<0.0001	0.0211	0.00141	0.00097	0.103	<0.0001	<0.001	0.102	0.000051	40.9	0.0014	0.00119	0.00155	<0.01
RSEM-R5B-EOP	4/1/2019 11:55	VL8110	M	2.45	<0.00002	97.3	0.177	65.8	0.00001	<0.005	<0.005	0.00232	<0.005	<0.005	<0.0001	0.0205	0.00142	0.00094	0.104	<0.0001	<0.001	0.096	0.000054	40.3	0.0014	0.00121	0.00165	<0.01
RSEM-R5B-EOP	4/2/2019 13:05	VL9876	D	2.52	<0.00002	126	0.198	89.5	0.000013	<0.005	<0.005	0.00269	<0.005	0.005	<0.0001	0.0243	0.00185	0.00109	0.0911	<0.0001	<0.001	0.128	0.000035	35.3	0.0016	0.00094	0.0015	<0.01
RSEM-R5B-EOP	4/2/2019 13:05	VL9875	M	2.58	<0.00002	121	0.195	85.7	0.000014	<0.005	<0.005	0.00269	<0.005	<0.005	<0.0001	0.0249	0.00187	0.00109	0.0918	<0.0001	<0.001	0.132	0.000039	34.7	0.0017	0.00095	0.00153	<0.01
RSEM-R5B-EOP	4/3/2019 11:00	VM2009	D	2.68	<0.00002	117	0.214	94.7	0.000012	<0.005	<0.005	0.00238	<0.005	<0.005	0.00011	0.0227	0.00141	0.00073	0.0802	<0.0001	<0.001	0.128	0.000031	36.1	0.001	0.00077	0.00105	<0.01
RSEM-R5B-EOP	4/3/2019 11:00	VM2008	M	2.66	<0.00002	117	0.219	94.5	0.000012	<0.005	<0.005	0.00241	<0.005	<0.005	0.00016	0.0219	0.00143	0.00076	0.0823	<0.0001	<0.001	0.128	0.000033	36.3	0.0011	0.00078	0.00108	<0.01
RSEM-R5B-EOP	4/4/2019 11:04	VM3409	D	2.55	<0.00002	135	0.225	112	0.000013	<0.005	<0.005	0.0024	<0.005	<0.005	<0.0001	0.0394	0.00105	0.00055	0.0711	<0.0001	<0.001	0.109	0.000025	37.9	<0.001	0.00077	0.00092	<0.01
RSEM-R5B-EOP	4/4/2019 11:04	VM3408	M	2.66	<0.00002	133	0.219	111	0.000012	<0.005	<0.005	0.00237	<0.005	<0.005	<0.0001	0.0279	0.00107	0.00055	0.0732	<0.0001	<0.001	0.113	0.000023	35.5	<0.001	0.0008	0.00093	<0.01
RSEM-R5B-EOP	4/5/2019 9:04	VM3337	M	3.05	<0.00002	165	0.271	137	0.000011	<0.005	<0.005	0.00255	<0.005	0.0101	<0.0001	0.0334	0.00082	0.00044	0.0596	<0.0001	<0.001	0.136	0.000021	38.1	<0.001	0.00092	0.00067	<0.01
RSEM-R5B-EOP	4/6/2019 10:46	VM5384	D	3.66	<0.00002	158	0.25	154	0.00001	<0.005	<0.005	0.00223	<0.005	0.0073	<0.0001	0.0168	0.0006	0.0003	0.0547	<0.0001	<0.001	0.114	0.00002	48.5	<0.001	0.00079	0.00052	<0.01
RSEM-R5B-EOP	4/6/2019 10:46	VM5385	M	3.64	<0.00002	156	0.253	153	0.00001	<0.005	<0.005	0.00223	<0.005	0.007	<0.0001	0.0167	0.00059	0.00029	0.0542	<0.0001	<0.001	0.1	0.000021	47.8	<0.001	0.0008	0.00055	<0.01
RSEM-R5B-EOP	4/7/2019 11:14	VM5349	D	4.06	<0.00002	150	0.23	141	<0.00001	<0.005	<0.005	0.00232	<0.005	0.0066	<0.0001	0.0183	<0.0005	0.00032	0.0497	<0.0001	<0.001	0.098	0.000017	44.1	<0.001	0.00063	0.00059	<0.01
RSEM-R5B-EOP	4/7/2019 11:14	VM5351	M	4.01	<0.00002	148	0.233	143	<0.00001	<0.005	<0.005	0.00227	<0.005	0.0076	<0.0001	0.0187	<0.0005	0.0003	0.05	<0.0001	<0.001	0.112	0.000017	44.7	<0.001	0.00068	0.00061	<0.01
RSEM-R5B-EOP	4/8/2019 13:03	VM6522	D	3.81	<0.00002	126	0.192	111	0.000012	<0.005	<0.005	0.00203	<0.005	0.0056	<0.0001	0.0426	<0.0005	0.00034	0.0544	<0.0001	<0.001	0.098	0.000018	37.4	<0.001	0.00054	0.0009	<0.01
RSEM-R5B-EOP	4/8/2019 13:03	VM6523	M	3.49	<0.00002	126	0.192	115	0.00001	<0.005	<0.005	0.00201	<0.005	0.006	<0.0001	0.0456	<0.0005	0.00033	0.0535	<0.0001	<0.001	0.11	0.000019	40.2	<0.001	0.00052	0.00089	<0.01
RSEM-R5B-EOP	4/9/2019 10:55	VM8369	D	4.02	<0.00002	136	0.193	125	<0.00001	<0.005	<0.005	0.00222	<0.005	<0.005	0.00014	0.0486	<0.0005	0.00037	0.0392	<0.0001	<0.001	0.093	0.000017	35.8	<0.001	0.00066	<0.0005	<0.01
RSEM-R5B-EOP	4/9/2019 10:55	VM8370	M	4.23	<0.00002	137	0.2	126	<0.00001	<0.005	<0.005	0.00222	<0.005	<0.005	<0.0001	0.047	<0.0005	0.00038	0.0391	<0.0001	<0.001	0.094	0.000018	35.6	<0.001	0.00066	<0.0005	<0.01
RSEM-R5B-EOP	4/10/2019 11:16	VN0768	D	3.69	<0.00002	132	0.184	122	0.00001	<0.005	<0.005	0.00209	<0.005	<0.005	<0.0001	0.0518	<0.0005	0.00039	0.0408	<0.0001	<0.001	0.109	0.000017	35.6	<0.001	0.0006	0.00053	<0.01
RSEM-R5B-EOP	4/10/2019 11:16	VN0769	M	3.55	<0.00002	127	0.182	116	<0.00001	<0.005	<0.005	0.00198	<0.005	<0.005	<0.0001	0.0501	<0.0005	0.00036	0.0401	<0.0001	<0.001	0.113	0.000017	36.9	<0.001	0.00061	0.00058	<0.01
RSEM-R5B-EOP	4/11/2019 11:35	VN1891	D	3.57	<0.00002	139	0.197	132	0.000012	<0.005	<0.005	0.00208	<0.005	<0.005	<0.0001	0.0432	<0.0005	0.00038	0.0385	<0.0001	<0.001	0.1	0.000016	34.3	<0.001	0.00061	0.00054	<0.01
RSEM-R5B-EOP	4/11/2019 11:35	VN1892	M	3.52	<0.00002	136	0.194	127	0.000012	<0.005	<0.005	0.00207	<0.005	<0.005	<0.0001	0.0376	<0.0005	0.00038	0.0364	<0.0001	<0.001	0.097	0.000018	35.8	<0.001	0.00059	0.00053	<0.01
RSEM-R5B-EOP	4/12/2019 10:12	VN1933	D	3.86	<0.00002	134	0.178	119	0.000014	<0.005	0.0159	0.00179	<0.005	0.0067	0.00022	0.0326	<0.0005	0.00027	0.0319	<0.0001	<0.001	0.089	0.000014	33.7	0.0013	0.00071	0.00064	<0.01
RSEM-R5B-EOP	4/12/2019 10:12	VN1935	M	3.6	<0.00002	124	0.174	111	0.000011	<0.005	0.0066	0.00178	<0.005	0.0069	0.00015	0.0324	<0.0005	0.00028	0.0317	<0.0001	<0.001	0.089	0.000013	33.3	<0.001	0.00072	0.0005	<0.01
RSEM-R5B-EOP	4/13/2019 11:30	VN4404	D	3.09	<0.00002	133	0.181	120	<0.00001	<0.005	<0.005	0.00169	<0.005	0.006	<0.0001	0.0303	<0.0005	0.00031	0.0297	<0.0001	<0.001	0.093	0.000013	33.8	<0.001	0.00067	0.00061	<0.01
RSEM-R5B-EOP	4/13/2019 11:30	VN4405	M	3.1	<0.00002	131	0.179	113	<0.00001	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001	0.0298	<0.0005	0.0003	0.03	<0.0001	<0.001	0.096	0.000014	34.0	<0.001	0.00066	0.0006	<0.01
RSEM-R5B-EOP	4/14/2019 12:25	VN4394	D	2.93	<0.00002		0.182	119	<0.00001	<0.005	<0.005	0.00166	<0.005	0.0068	<0.0001	0.0297	<0.0005	0.00033	0.028	<0.0001	<0.001	0.094	0.000011		<0.001	0.00064	0.00064	<0.01
RSEM-R5B-EOP	4/14/2019 12:25	VN4395	M	2.94	<0.00002		0.186	113	<0.00001	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001	0.0291	<0.0005	0.00032	0.028	<0.0001	<0.001	0.093	0.000011		<0.001	0.00065	0.00061	<0.01
RSEM-R5B-EOP	4/15/2019 12:00	VN6317	D	3.78	<0.00002	143	0.209	137	<0.00001	<0.005	<0.005	0.00184	<0.005	0.0067	<0.0001	0.029	<0.0005	0.00034	0.0296	<0.0001	<0.001	0.108	0.00001	34.2	<0.001	0.0007	0.00053	<0.01
RSEM-R5B-EOP	4/15/2019 12:00	VN6316	M	3.74	<0.00002	148	0.207	141	<0.00001	<0.005	<0.005	0.00195	<0.005	0.0067	<0.0001	0.0281	<0.0005	0.00037	0.0285	<0.0001	<0.001	0.112	0.00001	33.0	<0.001	0.00064	0.00055	<0.01
RSEM-R5B-EOP	4/16/2019 12:23	VN8482	M	3.24	<0.00002	135	0.192	127	<0.00001	<0.005	<0.005	0.00193	<0.005	0.0069	<0.0001	0.0344	0.00061	0.00042	0.0338	<0.0001	<0.001	0.12	0.000016	33.5	<0.001	<0.0002	0.00074	<0.01
RSEM-R5B-EOP	4/17/2019 11:35	VN9789	M	3.33	<0.00002	127	0.19	116	0.000011	<0.005	<0.005	0.00191	<0.005	0.0051	<0.0001	0.0352	0.00069	0.00048	0.0335	<0.0001	<0.001	0.105	0.000015	28.9	<0.001	0.00041	0.00076	<0.01
RSEM-R5B-EOP	4/18/2019 10:25	VN9666	M	3.4	<0.00002	144	0.191	122	0.00001	<0.005	<0.005	0.00217	<0.005	<0.005	<0.0001	0.0356	0.00096	0.00065	0.0336	<0.0001	<0.001	0.12	0.000013	28.4	<0.001	0.00033	0.00096	<0.01
RSEM-R5B-EOP	4/19/2019 11:09	VO0357	M	3.52	<0.00002	146	0.198	121	0.000012	<0.005	<0.005	0.0023	<0.005	<0.005	<0.0001	0.0356	0.00109	0.0007	0.0318	<0.0001	<0.001	0.14	<0.00001	24.4	<0.001	0.00033	0.00106	<0.01
RSEM-R5B-EOP	4/20/2019 11:26	VO0436	M	3.55	<0.00002	160	0.196	130	0.000012	<0.005	0.0091	0.0024	<0.005	<0.005	<0.0001	0.041	0.00152	0.00103	0.0383	<0.0001	<0.001	0.174	<0.00001	27.5	0.0014	0.00033	0.00131	<0.01
RSEM-R5B-EOP	4/21/2019 10:50	VO1980	M	3.77	<0.00002	179	0.204	134	0.000011	<0.005	<0.005	0.00263	<0.005	<0.005	<0.0001	0.036	0.00156	0.00122	0.0344	<0.0001	<0.001	0.163	<0.00001	26.5	0.0015	0.00026	0.00132	<0.01
RSEM-R5B-EOP	4/22/2019 11:38	VO3504	M	3.82	<0.00002	177	0.216	142	0.000015	<0.005	<0.005	0.00271	<0.005	<0.005	<0.0001	0.0437	0.00151	0.00117	0.032	<0.0001	<0.001	0.162	0.000021	30.6	0.0016	0.00076	0.0011	<0.01
RSEM-R5B-EOP	4/23/2019 11:11	VO5420	D	3.22	<0.00002	173	0.2	140	0.000016	<0.005	<0.005	0.0026	<0.005	<0.005	<0.0001	0.0442	0.00158	0.00118	0.0344	<0.0001	<0.001	0.159	0.000024	30.8	0.0015	0.00073	0.00128	<0.01
RSEM-R5B-EOP	4/23/2019 11:11	VO5417	M	3.39	<0.00002	163	0.2	137	0.000014	<0.005	<0.005	0.00259	<0.005	<0.005	<0.0001	0.0452	0.00159	0.00115	0.0344	<0.0001	<0.001	0.16	0.000023	30.4	0.0036	0.00078	0.0013	0.014
RSEM-R5B-EOP	4/24/2019 13:25	VO7030	D	3.71	<0.00002	162	0.215	126	0.000013	<0.005	0.0065	0.00266	<0.005	<0.005	<0.0001	0.0552	0.00153	0.00114	0.032	<0.0001	<0.001	0.162	0.000038	36.8	0.0014	0.00114	0.00122	<0.01
RSEM-R5B-EOP	4/24/2019 13:25	VO7027	M	3.41	<0.00002	173	0.227	132	0.000016	<0.005	<0.005	0.00275	<0.005	<0.005	<0.0001	0.0539	0.00147	0.00105	0.0314	<0.0001	<0.001	0.155	0.000036	37.1	0.0015	0.00114	0.00126	<0.01
RSEM-R5B-EOP	4/25/2019 11:40	VO8684	M	3.72	<0.00002	166	0.229	127	0.000014	<0.005	<0.005	0.0027	<0.005	<0.005	<0.0001	0.0563	0.00145	0.0011	0.034	<0.0001	<0.001	0.185	0.000047	38.9	0.0014	0.00121	0.00109	<0.01
RSEM-R5B-EOP	4/26/2019 10:25	VO8648	M	3.53	<0.00002	159	0.233	127	0.000014	<0.005	<0.005	0.00269	<0.005	<0.005	<0.0001	0.0547	0.00146	0.00104	0.034	<0.0001	<0.001	0.185	0.000044	40.8	0.0014	0.00111	0.00097	<0.01
RSEM-R5B-EOP	4/27/2019	VP1290	D	3.64	<0.00002	172	0.226	125	0.000011	<0.005	<0.005	0.00278	<0.005	<0.005	<0.0001	0.0545	0.00158	0.00114	0.0358	<0.0001	<0.001	0.185	0.000047	38.3	0.0015	0.00113	0.00105	<0.01
RSEM-R5B-EOP	4/27/2019	VP1289	M	3.45	<0.00002	170	0.228	125	0.000012	<0.005	<0.005	0.00278	<0.005	<0.005	<0.0001	0.056	0.00157	0.00116	0.0358	<0.0001	<0.001	0.188	0.000044	39.4	0.0016	0.00115	0.00106	<0.01
RSEM-R5B-EOP	4/28/2019 10:30	VP1294	D	3.37	<0.00002	173	0.235	127	0.000013	<0.005	<0.005	0.0029	<0.005	0.0067	<0.0001	0.0676	0.00156	0.00121	0.0391	<0.0001	<0.001	0.187	0.000056	39.9	0.0015	0.0015	0.00109	<0.01
RSEM-R5B-EOP	4/28/2019 10:30	VP1293	M	3.46	<0.00002	174	0.237	128	0.000013	<0.005	<0.005	0.00287	<0.005	0.0068	<0.0001	0.0691	0.00155	0.00113	0.0392	<0.0001	<0.001	0.186	0.000054	40.1	0.0015	0.00151	0.00107	<0.01
RSEM-R5B-EOP	4/29/2019 10:30	VP3186	D	3.42	<0.00002	168	0.235	119	0.000011	<0.005	<0.005	0.00294	<0.005	0.0079	<0.0001	0.0832	0.00148	0.00113	0.0409	<0.0001	<0.001	0.192	0.000062	39.4	0.0013	0.0016	0.00104	<0.01
RSEM-R5B-EOP	4/29/2019 10:30	VP3185	M	3.31	<0.00002	167	0.235	117	0.00001	<0.005	<0.005	0.00287	<0.005	0.0083	<0.0001	0.0814	0.00145	0.00112	0.0415	<0.0001	<0.001	0.184	0.000061	39.0	0.0013	0.00162	0.00105	<0.01
RSEM-R5B-EOP	4/30/2019 11:40	VP5202	D	3.43	<0.00002	168	0.233	126	0.00001	<0.005	<0.005	0.00276	<0.005	0.0088	<0.0001	0.0838	0.00145	0.0012	0.0418	<0.0001	<0.001	0.147	0.000059	40.0	0.0012	0.00167	0.00104	<0.01
RSEM-R5B-EOP	4/30/2019 11:40	VP5201	M	3.3	<0.00002	166	0.228	122	0.000011	<0.005	<0.005	0.00267	<0.005	0.0087	<0.0001	0.0857	0.00149	0.00118	0.042	<0.0001	<0.001	0.15	0.00006	39.2	0.0012	0.00164	0.00106	<0.01
RSEM-R5B-EOP	5/1/2019 11:40	VP6526	D	3.57	<0.00002	160	0.238	126	0.00001	<0.005	<0.005	0.0027	<0.005	0.0088	<0.0001	0.0787	0.00151	0.00118	0.0442	<0.0001	<0.001	0.172	0.000054	39.5	0.0013	0.0015	0.00095	<0.01
RSEM-R5B-EOP	5/1/2019 11:40	VP6525	M	3.53	<0.00002	169	0.238	128	0.000011	<0.005	<0.005	0.00271	<0.005	0.0085	<0.0001	0.0777	0.00148	0.00118	0.0442	<0.0001	<0.001	0.167	0.000054	39.3	0.0013	0.00152	0.00095	<0.01
RSEM-R5B-EOP	5/2/2019 12:10	VP8692	D	3.73	<0.00002	188	0.253	131	0.00001	<0.005	<0.005	0.00291	<0.005	0.0082	<0.0001	0.0726	0.00151	0.00122	0.0451	<0.0001	<0.001	0.181	0.000044	41.2	0.001	0.0013	0.00086	<0.01
RSEM-R5B-EOP	5/2/2019 12:10	VP8691	M	3.93	<0.00002	190	0.256	139	0.00001	<0.005	<0.005	0.00294	<0.005	0.0086	<0.0001	0.0706	0.00156	0.00119	0.0455	<0.0001	<0.001	0.19	0.000049	42.3	0.001	0.00128	0.00089	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	3/16/2019 13:30	VJ7200	M	<0.0002	0.0408	15.6	0.123	<0.000002	0.0146	0.0288		4.56	0.00259	2.61	<0.00002	100	0.164	68.8	0.00001	<0.005	<0.005	0.00135	<0.005	0.0138	<0.0001
RSEM-R5B-EOP	3/17/2019 16:00	VJ7218	M	<0.0002	0.0238	10.2	0.0673	<0.000002	0.01	0.0227		3.53	0.00184	2.01	<0.00002	62.5	0.124	43.1	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/18/2019 10:40	VJ6966	D	<0.0002	0.0254	10.1	0.0536	<0.000002	0.0176	0.009		4.23	0.00318	2.08	<0.00002	84.9	0.146	54.0	0.000011	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/18/2019 10:40	VJ6958	M	<0.0002	0.0247	11.1	0.0518	<0.000002	0.0158	0.0093		4.44	0.00297	2.26	<0.00002	98.5	0.138	59.2	0.000011	<0.005	<0.005	0.00117	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/19/2019 12:00	VK0939	M	<0.0002	0.0514	19.0	0.255	<0.000002	0.0124	0.0494		4.54	0.00472	2.05	<0.00002	103	0.266	110	0.000019	<0.005	<0.005	0.00189	<0.005	0.0587	<0.0001
RSEM-R5B-EOP	3/20/2019 11:45	VK2375	M	<0.0002	0.0264	12.5	0.033	<0.000002	0.0156	0.0083		4.13	0.00373	1.9	<0.00002	96.2	0.191	65.3	0.000011	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/21/2019 11:10	VK3818	M	<0.0002	0.0165	9.64	0.032	<0.000002	0.0101	0.0049		3.45	0.00247	1.58	<0.00002	62.1	0.159	45.5	<0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/22/2019 9:50	VK3716	M	<0.0002	0.0125	8.20	0.0341	<0.000002	0.0077	0.0031		3.24	0.00212	1.4	<0.00002	48.0	0.149	38.7	<0.00001	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/23/2019 13:15	VK6016	D	<0.0002	0.01	7.82	0.0359	<0.000002	0.0093	0.0021		3.25	0.00224	1.52	<0.00002	36.8	0.127	36.3	<0.00001	<0.005	<0.005	0.00118	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/23/2019 13:15	VK6014	M	<0.0002	0.0106	7.73	0.037	<0.000002	0.0052	0.0023		3.15	0.00225	1.61	<0.00002	35.7	0.131	37.5	<0.00001	<0.005	<0.005	0.0012	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/24/2019 14:00	VK5943	M	<0.0002	0.0108	6.13	0.0371	<0.000002	0.0093	0.0024		2.53	0.00372	1.2	<0.00002	39.6	0.109	40.3	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/25/2019 12:45	VK7795	D	<0.0002	0.0134	8.17	0.0402	<0.000002	0.0052	0.0035		2.33	0.00383	1.31	<0.00002	46.6	0.135	50.3	<0.00001	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/25/2019 12:45	VK7832	M	<0.0002	0.0144	8.32	0.0397	<0.000002	0.0052	0.0034		2.41	0.00388	1.3	<0.00002	47.9	0.134	51.0	<0.00001	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/26/2019 11:50	VK9085	M	<0.0002	0.0277	12.3	0.0533	<0.000002	0.0159	0.0066		3.81	0.00523	2.4	<0.00002	108	0.179	79.9	<0.00001	<0.005	<0.005	0.00189	<0.005	<0.005	0.00011
RSEM-R5B-EOP	3/27/2019 12:20	VL1979	D	<0.0002	0.028	10.9	0.0478	<0.000002	0.0161	0.0049		3.13	0.00687	2.33	<0.00002	111	0.188	72.2	<0.00001	<0.005	<0.005	0.00224	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/27/2019 12:20	VL1978	M	<0.0002	0.0279	10.8	0.0482	<0.000002	0.016	0.0049		3.14	0.00687	2.29	<0.00002	111	0.193	72.8	0.00001	<0.005	<0.005	0.00219	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/28/2019 11:00	VL3523	M	<0.0002	0.0244	9.53	0.0371	<0.000002	0.0139	0.0041		2.79	0.00605	1.95	<0.00002	97.6	0.153	66.9	0.000011	<0.005	<0.005	0.00193	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/29/2019 10:10	VL3531	D	<0.0002	0.0163	6.61	0.0252	<0.000002	0.0086	0.0028		2.19	0.00377	1.41	<0.00002	63.9	0.115	42.8	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/29/2019 10:10	VL3528	M	<0.0002	0.0168	6.73	0.0252	<0.000002	0.0088	0.0028		2.18	0.00372	1.43	<0.00002	65.2	0.118	43.5	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/30/2019 11:25	VL6530	D	<0.0002	0.0124	6.52	0.0436	<0.000002	0.0061	0.0032		2.17	0.00299	1.33	<0.00002	43.6	0.106	33.6	<0.00001	<0.005	<0.005	0.0013	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/30/2019 11:25	VL6529	M	<0.0002	0.0125	6.39	0.043	<0.000002	0.0063	0.0032		2.19	0.00291	1.25	<0.00002	43.6	0.105	33.9	<0.00001	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	3/31/2019 11:50	VL6669	M	<0.0002	0.014	11.6	0.105	<0.000002	0.0057	0.0061		2.65	0.00242	1.96	<0.00002	38.2	0.147	39.8	<0.00001	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/1/2019 11:55	VL8111	D	<0.0002	0.0242	11.4	0.0804	<0.000002	0.013	0.0065		3.15	0.00463	2.34	<0.00002	84.4	0.169	66.1	<0.00001	<0.005	<0.005	0.00223	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/1/2019 11:55	VL8110	M	<0.0002	0.0237	11.3	0.078	<0.000002	0.0127	0.0065		3.01	0.00484	2.27	<0.00002	84.6	0.164	64.5	<0.00001	<0.005	<0.005	0.00219	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/2/2019 13:05	VL9876	D	<0.0002	0.0325	14.5	0.0515	<0.000002	0.016	0.0064		3.27	0.00576	2.31	<0.00002	122	0.192	83.5	0.00001	<0.005	<0.005	0.00258	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/2/2019 13:05	VL9875	M	<0.0002	0.0325	14.7	0.0517	<0.000002	0.0163	0.0063		3.25	0.00567	2.31	<0.00002	123	0.194	82.1	<0.00001	<0.005	<0.005	0.00261	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/3/2019 11:00	VM2009	D	<0.0002	0.0404	17.9	0.0414	<0.000002	0.0129	0.0061		2.89	0.00477	2.35	<0.00002	120	0.215	95.6	<0.00001	<0.005	<0.005	0.00239	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/3/2019 11:00	VM2008	M	<0.0002	0.0378	17.6	0.0422	<0.000002	0.0129	0.0061		2.94	0.00474	2.39	<0.00002	119	0.217	96.5	<0.00001	<0.005	<0.005	0.0024	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/4/2019 11:04	VM3409	D	<0.0002	0.0539	20.0	0.033	<0.000002	0.0102	0.0077		2.76	0.00471	2.29	<0.00002	130	0.223	109	0.000011	<0.005	<0.005	0.00236	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/4/2019 11:04	VM3408	M	<0.0002	0.0557	19.6	0.0336	<0.000002	0.01	0.0078		2.92	0.00448	2.19	<0.00002	127	0.231	113	0.00001	<0.005	<0.005	0.00238	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/5/2019 9:04	VM3337	M	<0.0002	0.0796	22.9	0.0281	<0.000002	0.008	0.0106		2.80	0.00442	2.37	<0.00002	151	0.252	132	0.000011	<0.005	<0.005	0.00233	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/6/2019 10:46	VM5384	D	<0.0002	0.0934	32.3	0.0297	<0.000002	0.0061	0.0102		3.25	0.00424	3.35	<0.00002	173	0.268	155	<0.00001	<0.005	<0.005	0.00226	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/6/2019 10:46	VM5385	M	<0.0002	0.0867	31.9	0.0297	<0.000002	0.006	0.0099		3.27	0.00415	3.29	<0.00002	171	0.267	153	0.00001	<0.005	<0.005	0.00227	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/7/2019 11:14	VM5349	D	<0.0002	0.0852	33.9	0.0332	<0.000002	0.005	0.0092		3.38	0.00329	3.67	<0.00002	163	0.238	141	<0.00001	<0.005	<0.005	0.00225	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/7/2019 11:14	VM5351	M	<0.0002	0.0867	34.7	0.0345	<0.000002	0.005	0.0091		3.32	0.00322	3.65	<0.00002	158	0.247	144	<0.00001	<0.005	<0.005	0.00225	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/8/2019 13:03	VM6522	D	<0.0002	0.0721	29.4	0.0284	<0.000002	0.0043	0.0073		3.16	0.00275	3.55	<0.00002	129	0.191	122	<0.00001	<0.005	<0.005	0.00203	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/8/2019 13:03	VM6523	M	<0.0002	0.0757	29.7	0.0286	<0.000002	0.0045	0.0077		3.25	0.00266	3.86	<0.00002	132	0.197	123	<0.00001	<0.005	<0.005	0.00205	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/9/2019 10:55	VM8369	D	<0.0002	0.0734	30.4	0.0295	<0.000002	0.0045	0.008		3.35	0.00277	3.8	<0.00002	131	0.194	122	<0.00001	<0.005	<0.005	0.00217	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/9/2019 10:55	VM8370	M	<0.0002	0.0711	30.5	0.0293	<0.000002	0.0044	0.0079		3.36	0.00282	3.93	<0.00002	133	0.198	124	<0.00001	<0.005	<0.005	0.00214	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/10/2019 11:16	VN0768	D	<0.0002	0.0783	30.8	0.0247	<0.000002	0.0041	0.0072		3.23	0.0027	3.83	<0.00002	133	0.174	125	<0.00001	<0.005	<0.005	0.00201	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/10/2019 11:16	VN0769	M	<0.0002	0.0778	29.9	0.0233	<0.000002	0.0042	0.0071		3.20	0.00263	3.88	<0.00002	132	0.181	118	<0.00001	<0.005	<0.005	0.00202	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/11/2019 11:35	VN1891	D	<0.0002	0.0797	30.7	0.0197	<0.000002	0.0049	0.0074		3.09	0.00309	3.47	<0.00002	132	0.197	127	<0.00001	<0.005	<0.005	0.00202	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/11/2019 11:35	VN1892	M	<0.0002	0.0794	29.1	0.0192	<0.000002	0.0044	0.007		3.18	0.003	3.7	<0.00002	135	0.195	123	<0.00001	<0.005	<0.005	0.00198	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/12/2019 10:12	VN1933	D	<0.0002	0.0748	27.5	0.0308	<0.000002	0.0039	0.0063		3.16	0.00263	3.11	<0.00002	126	0.178	114	<0.00001	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/12/2019 10:12	VN1935	M	<0.0002	0.0731	27.8	0.0295	<0.000002	0.0037	0.0062		3.07	0.00253	3.12	<0.00002	123	0.174	113	<0.00001	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/13/2019 11:30	VN4404	D	<0.0002	0.0773	28.6	0.0262	<0.000002	0.0042	0.0062		3.14	0.0028	3.15	<0.00002	136	0.184	125	<0.00001	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/13/2019 11:30	VN4405	M	<0.0002	0.0776	28.2	0.0255	<0.000002	0.0042	0.0062		3.11	0.00292	3.18	<0.00002	133	0.181	120	<0.00001	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/14/2019 12:25	VN4394	D	<0.0002	0.0768	28.2	0.0216	<0.000002	0.0043	0.0063			0.00288	3.11	<0.00002		0.193	126	<0.00001	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/14/2019 12:25	VN4395	M	<0.0002	0.0803	28.4	0.0221	<0.000002	0.0043	0.0065			0.00288	3.03	<0.00002		0.187	129	<0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/15/2019 12:00	VN6317	D	<0.0002	0.0762	25.9	0.0217	<0.000002	0.0041	0.007		3.27	0.00261	3.22	<0.00002	130	0.197	129	<0.00001	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/15/2019 12:00	VN6316	M	<0.0002	0.0757	26.8	0.021	<0.000002	0.0041	0.0071		3.19	0.00269	3.16	<0.00002	133	0.198	128	<0.00001	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/16/2019 12:23	VN8482	M	<0.0002	0.0788	27.5	<0.001	<0.000002	0.0049	0.0069		3.36	0.00276	2.96	<0.00002	138	0.204	121	<0.00001	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/17/2019 11:35	VN9789	M	<0.0002	0.0668	22.5	0.0072	<0.000002	0.005	0.0063		2.92	0.00284	2.5	<0.00002	119	0.175	99.2	<0.00001	<0.005	<0.005	0.00176	<0.005	<0.005	0.00048
RSEM-R5B-EOP	4/18/2019 10:25	VN9666	M	<0.0002	0.0691	22.4	0.0039	<0.000002	0.0064	0.0063		3.04	0.00356	2.72	<0.00002	132	0.182	104	<0.00001	<0.005	<0.005	0.00193	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/19/2019 11:09	VO0357	M	<0.0002	0.0682	21.2	0.0028	<0.000002	0.0071	0.0059		2.87	0.00382	2.35	<0.00002	130	0.173	102	<0.00001	<0.005	<0.005	0.00196	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/20/2019 11:26	VO0436	M	<0.0002	0.0791	25.7	0.0016	<0.000002	0.0098	0.0069		3.63	0.00502	2.94	<0.00002	176	0.213	125	0.00001	<0.005	<0.005	0.00258	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/21/2019 10:50	VO1980	M	<0.0002	0.0749	24.1	0.0016	<0.000002	0.0099	0.0066		3.63	0.00532	3.31	<0.00002	169	0.19	123	0.00001	<0.005	<0.005	0.00257	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/22/2019 11:38	VO3504	M	<0.0002	0.0699	25.0	0.0128	<0.000002	0.0102	0.0076		3.80	0.0055	3.55	<0.00002	174	0.207	135	0.000012	<0.005	<0.005	0.00258	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/23/2019 11:11	VO5420	D	<0.0002	0.0727	25.2	0.0103	<0.000002	0.0107	0.0076		3.74	0.00575	3.13	<0.00002	176	0.218	130	0.00001	<0.005	<0.005	0.0027	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/23/2019 11:11	VO5417	M	<0.0002	0.0755	25.8	0.0107	<0.000002	0.0108	0.0085		3.64	0.00569	3.06	<0.00002	171	0.214	128	<0.00001	<0.005	<0.005	0.00268	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/24/2019 13:25	VO7030	D	<0.0002	0.0742	25.3	0.0172	<0.000002	0.01	0.0093		3.54	0.0055	3.22	<0.00002	167	0.217	124	0.000015	<0.005	<0.005	0.00269	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/24/2019 13:25	VO7027	M	<0.0002	0.0729	26.1	0.0174	<0.000002	0.01	0.0094		3.59	0.00573	3.2	<0.00002	169	0.218	128	0.000013	<0.005	<0.005	0.00263	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/25/2019 11:40	VO8684	M	<0.0002	0.0787	27.1	0.0199	<0.000002	0.0105	0.0094		3.84	0.0053	3.44	<0.00002	167	0.24	132	0.000016	<0.005	<0.005	0.00276	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/26/2019 10:25	VO8648	M	<0.0002	0.081	26.8	0.016	<0.000002	0.0104	0.0094		3.73	0.00541	3.56	<0.00002	168	0.236	132	0.000016	<0.005	<0.005	0.00273	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/27/2019	VP1290	D	<0.0002	0.0874	26.4	0.0127	<0.000002	0.0108	0.0095		3.86	0.0055	3.45	<0.00002	176	0.241	135	0.000013	<0.005	<0.005	0.00281	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/27/2019	VP1289	M	<0.0002	0.0841	27.2	0.0133	<0.000002	0.0107	0.0096		3.93	0.00562	3.63	<0.00002	178	0.235	135	0.000014	<0.005	<0.005	0.00281	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/28/2019 10:30	VP1294	D	<0.0002	0.0846	26.8	0.0164	<0.000002	0.0106	0.0104		3.85	0.00533	3.44	<0.00002	178	0.239	132	0.000012	<0.005	<0.005	0.00289	<0.005	0.0057	<0.0001
RSEM-R5B-EOP	4/28/2019 10:30	VP1293	M	<0.0002	0.0892	26.3	0.0165	<0.000002	0.0108	0.0107		3.87	0.00524	3.41	<0.00002	177	0.242	130	0.000013	<0.005	<0.005	0.00287	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/29/2019 10:30	VP3186	D	<0.0002	0.086	25.4	0.0193	<0.000002	0.0102	0.0105		3.78	0.00495	3.31	<0.00002	177	0.237	122	0.000013	<0.005	<0.005	0.00286	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/29/2019 10:30	VP3185	M	<0.0002	0.0847	25.8	0.0194	<0.000002	0.0104	0.0106		3.76	0.00493	3.36	<0.00002	174	0.236	123	0.000014	<0.005	<0.005	0.00285	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	4/30/2019 11:40	VP5202	D	<0.0002	0.0823	25.4	0.0183	<0.000002	0.0112	0.0108		3.90	0.00522	3.36	<0.00002	178	0.241	127	0.00001	<0.005	<0.005	0.00293	<0.005	0.0051	<0.0001
RSEM-R5B-EOP	4/30/2019 11:40	VP5201	M	<0.0002	0.0835	25.2	0.0181	<0.000002	0.0099	0.0107		3.92	0.00507	3.32	<0.00002	178	0.238	125	0.000011	<0.005	<0.005	0.00298	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/1/2019 11:40	VP6526	D	<0.0002	0.0852	23.8	0.0168	<0.000002	0.0101	0.0099		3.76	0.00486	3.31	<0.00002	164	0.225	126	0.000011	<0.005	<0.005	0.00267	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/1/2019 11:40	VP6525	M	<0.0002	0.083	23.4	0.0172	<0.000002	0.0102	0.0099		3.86	0.00487	3.26	<0.00002	167	0.227	124	0.00001	<0.005	<0.005	0.00269	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/2/2019 12:10	VP8692	D	<0.0002	0.0864	25.8	0.0136	<0.000002	0.0106	0.0092		3.80	0.005	3.6	<0.00002	192	0.249	134	0.000011	<0.005	<0.005	0.00296	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/2/2019 12:10	VP8691	M	<0.0002	0.0842	25.6	0.0141	<0.000002	0.0106	0.0092		3.71	0.00511	3.63	<0.00002	190	0.252	135	0.00001	<0.005	<0.005	0.00299	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	5/3/2019 10:10	VP8774	D	8.24	1300	3.14	776	4.8	201	212	175	<1.0	213	<1.0	<1.0	48.5	0.390	0.70	350			0.22	0.0419	0.791	0.833	<0.0030
RSEM-R5B-EOP	5/3/2019 10:10	VP8773	M	8.17	1300	3.17	764	<4.0	206	213	175	<1.0	214	<1.0	<1.0	49.5	0.390	0.70	337			0.38	0.0415	0.760	0.802	0.0031
RSEM-R5B-EOP	5/4/2019 11:15	VQ1565	M	8.00	1370	2.20	836	4.0	223	218	161	<1.0	196	<1.0	<1.0	49.2	0.400	0.79	402			0.29	0.0368	0.671	0.708	0.0038
RSEM-R5B-EOP	5/5/2019 14:00	VQ1488	M	8.24	1430	2.60	886	6.4	224	217	153	<1.0	187	<1.0	<1.0	51.5	0.420	0.80	430			0.27	0.0332	0.628	0.661	0.0032
RSEM-R5B-EOP	5/6/2019 10:48	VQ3925	D	8.35	1450	2.14	906	6.0	206	204	142	1.8	169	2.1	<1.0	50.1	0.420	0.83	479			0.29	0.0321	0.669	0.701	<0.0030
RSEM-R5B-EOP	5/6/2019 10:48	VQ3926	M	8.38	1460	2.10	894	6.0	205	201	139	2.1	165	2.5	<1.0	51.0	0.430	0.84	476			0.28	0.0322	0.666	0.699	<0.0030
RSEM-R5B-EOP	5/7/2019 10:50	VQ4252	D	8.48	1470	2.64	914	6.8	208	211	133	3.2	155	3.8	<1.0	51.5	0.420	0.87	485				0.0286	0.616	0.645	0.0037
RSEM-R5B-EOP	5/7/2019 10:50	VQ4254	M	7.97	1460	2.48	914	4.8	218	210	136	<1.0	165	<1.0	<1.0	51.0	0.420	0.86	478			0.23	0.0261	0.617	0.643	0.0041
RSEM-R5B-EOP	5/8/2019 11:05	VQ8084	D	8.28	1480	2.75	914	5.6	210	208	126	<1.0	154	<1.0	<1.0	50.9	0.420	0.90	521			0.18	0.0226	0.624	0.647	0.0030
RSEM-R5B-EOP	5/8/2019 11:05	VQ8085	M	8.37	1480	2.52	930	5.6	206	214	125	1.6	148	1.9	<1.0	51.1	0.420	0.90	505			0.20	0.0247	0.616	0.641	0.0049
RSEM-R5B-EOP	5/9/2019 11:07	VQ8362	D	8.09	1510	2.08	926	4.8	206	210	130	<1.0	159	<1.0	<1.0	53.0	0.410	0.92	476			0.15	0.0248	0.581	0.606	0.0047
RSEM-R5B-EOP	5/9/2019 11:07	VQ8363	M	8.06	1510	2.01	922	6.0	219	206	127	<1.0	155	<1.0	<1.0	53.5	0.400	0.91	462			0.16	0.0219	0.582	0.604	<0.0030
RSEM-R5B-EOP	5/10/2019 7:57	VQ9647	D	8.15	1500	2.33	940	<4.0	213	193	121	<1.0	148	<1.0	<1.0	51.7	0.390	0.91	467			0.13	0.0210	0.562	0.583	<0.0030
RSEM-R5B-EOP	5/10/2019 7:57	VQ9648	M	8.18	1500	2.70	938	<4.0	202	190	123	<1.0	150	<1.0	<1.0	51.6	0.390	0.92	436			0.16	0.0223	0.555	0.577	<0.0030
RSEM-R5B-EOP	5/11/2019 11:29	VR2467	D	8.08	1500	1.65	934	6.0	196	187	118	<1.0	144	<1.0	<1.0	54.4	0.390	1.0	481			0.094	0.0212	0.527	0.548	0.0033
RSEM-R5B-EOP	5/11/2019 11:29	VR2468	M	8.06	1500	2.18	942	6.8	196	189	119	<1.0	145	<1.0	<1.0	56.0	0.400	1.0	486			0.093	0.0210	0.505	0.526	0.0031
RSEM-R5B-EOP	5/12/2019 11:13	VR2428	D	8.08	1470	1.17	880	4.8	191	194	119	<1.0	146	<1.0	<1.0	54.8	0.400	0.98	476			0.16	0.0210	0.554	0.575	0.0032
RSEM-R5B-EOP	5/12/2019 11:13	VR2430	M	7.85	1470	1.24	892	5.2	192	194	115	<1.0	140	<1.0	<1.0	54.1	0.390	0.98	490			0.15	0.0210	0.558	0.579	0.0033
RSEM-R5B-EOP	5/13/2019 11:12	VR4432	D	8.05	1530	1.93	942	4.4	189	191	117	<1.0	143	<1.0	<1.0	55.8	0.380	1.0	540			0.098	0.0237	0.497	0.521	0.0042
RSEM-R5B-EOP	5/13/2019 11:12	VR4433	M	8.09	1520	1.95	952	<4.0	186	184	119	<1.0	146	<1.0	<1.0	54.4	0.390	1.0	456			0.093	0.0210	0.495	0.516	0.0038
RSEM-R5B-EOP	5/14/2019 11:35	VR6836	D	8.11	1560	1.72	980	<4.0	184	176	112	<1.0	136	<1.0	<1.0	53.6	0.380	1.0	574			0.10	0.0254	0.488	0.513	0.0052
RSEM-R5B-EOP	5/14/2019 14:22	VR6840	M	7.99	1570	1.85	990	<4.0	184	180	106	<1.0	129	<1.0	<1.0	53.7	0.380	1.0	561			0.11	0.0236	0.529	0.553	0.0070
RSEM-R5B-EOP	5/15/2019 11:17	VR8787	D	8.09	1610	1.77	1000	<4.0	175	187	110	<1.0	134	<1.0	<1.0	55.1	0.400	1.1	540			0.15	0.0264	0.475	0.501	0.0042
RSEM-R5B-EOP	5/15/2019 11:17	VR8788	M	8.02	1610	1.78	986	<4.0	175	189	109	<1.0	133	<1.0	<1.0	55.1	0.410	1.1	528			0.13	0.0269	0.428	0.455	0.0044
RSEM-R5B-EOP	5/16/2019 11:32	VS0879	D	8.17	1640	1.46	1040	4.8	183	183	108	<1.0	131	<1.0	<1.0	55.4	0.400	1.0	537			0.17	0.0253	0.525	0.550	0.0056
RSEM-R5B-EOP	5/16/2019 11:32	VS0880	M	8.09	1640	1.46	992	4.0	181	184	107	<1.0	130	<1.0	<1.0	54.4	0.410	1.0	541			0.11	0.0245	0.520	0.545	0.0047
RSEM-R5B-EOP	5/17/2019 9:45	VS0946	M	8.13	1660	2.29	1030	5.2	184	191	108	<1.0	132	<1.0	<1.0	51.8	0.420	1.1	574			0.13	0.0266	0.528	0.555	0.0044
RSEM-R5B-EOP	5/18/2019 14:15	VS1854	M	8.12	1610	5.91	1050	11.6	191	198	116	<1.0	142	<1.0	<1.0	48.3	0.460	0.91	575			0.14	0.0261	0.510	0.536	<0.0050
RSEM-R5B-EOP	5/19/2019 8:46	VS3006	M	7.93	1590	2.70	1010	9.6	204	202	120	<1.0	147	<1.0	<1.0	47.7	0.470	0.81	579			0.11	0.0229	0.481	0.504	<0.0050
RSEM-R5B-EOP	5/20/2019 11:24	VS3018	M	8.27	1570	2.87	968	8.4	209	211	129	<1.0	157	<1.0	<1.0	47.5	0.470	0.84	530			0.15	0.0264	0.490	0.516	<0.0050
RSEM-R5B-EOP	5/21/2019 11:30	VS5709	M	8.28	1600	2.77	994	9.2	182	198	120	<1.0	147	<1.0	<1.0	49.6	0.490	0.91	572			0.12	0.0236	0.509	0.533	<0.0050
RSEM-R5B-EOP	5/22/2019 11:35	VS7509	M	8.21	1610	2.47	1010	5.2	200	202	113	<1.0	137	<1.0	<1.0	46.8	0.420	1.1	563			0.10	0.0237	0.421	0.445	<0.0050
RSEM-R5B-EOP	5/23/2019 11:45	VS9391	M	8.17	1620	1.82	1030	4.8	207	199	107	<1.0	130	<1.0	<1.0	48.5	0.440	1.1	587			0.098	0.0191	0.411	0.430	<0.0050
RSEM-R5B-EOP	5/24/2019 10:40	VS9361	M	8.16	1600	0.98	1000	<4.0	188	199	98.7	<1.0	120	<1.0	<1.0	47.1	0.440	1.2	600			0.17	0.0208	0.433	0.454	<0.0050
RSEM-R5B-EOP	5/25/2019 9:25	VT2682	M	8.19	1610	1.22	998	<4.0	184	194	93.7	<1.0	114	<1.0	<1.0	51.7	0.430	1.2	500			0.079	0.0244	0.359	0.383	0.0198
RSEM-R5B-EOP	5/26/2019 13:30	VT2684	M	8.18	1560	1.91	1010	7.2	193	191	88.2	<1.0	108	<1.0	<1.0	52.1	0.430	1.1	597			0.092	0.0243	<0.020	<0.020	<0.0050
RSEM-R5B-EOP	5/27/2019 11:43	VT3952	M	7.96	1580	0.98	974	4.4	183	186	89.9	<1.0	110	<1.0	<1.0	50	0.430	1.2	620			0.053	0.0219	0.324	0.346	<0.0050
RSEM-R5B-EOP	5/28/2019 10:30	VT7527	M	7.87	1550	1.23	992	<4.0	180	184	90.7	<1.0	111	<1.0	<1.0	49	0.480	1.2	600			0.028	0.0188	0.313	0.332	<0.0050
RSEM-R5B-EOP	5/29/2019 10:50	VT7393	M	8.16	1130	3.53	730	4.0	302	310	143	<1.0	175	<1.0	<1.0	23	0.330	0.79	420			0.28	0.0102	0.089	0.099	<0.0050
RSEM-R5B-EOP	5/30/2019 9:45	VU0251	M	7.93	1580	1.53	1010	1.3	182	188	98.0	<1.0	120	<1.0	<1.0	47.8	0.450	1.2	550	<0.0019	<0.0019	0.020	0.0199	0.248	0.268	<0.0050
RSEM-R5B-EOP	5/30/2019 12:59	VU2392	M	7.93	1560	2.03	958	<4.0	182	195	101	<1.0	123	<1.0	<1.0	60.0	0.460	1.2	519			0.038	0.0216	0.257	0.279	<0.0050
RSEM-R5B-EOP	5/31/2019 9:15	VU2444	M	8.00	1550	4.68	944	<4.0	187	193	102	<1.0	125	<1.0	<1.0	73.3	0.450	1.2	530			0.026	0.0205	0.255	0.275	<0.0050
RSEM-R5B-EOP	6/1/2019 7:35	VU3344	M	8.11	1550	1.04	974	<4.0	183	187	100	<1.0	122	<1.0	<1.0	52.0	0.450	1.2	553			0.019	0.0158	0.227	0.242	<0.0050
RSEM-R5B-EOP	6/2/2019 10:19	VU6014	D	8.15	1510	0.78	944	<4.0	173	182	111	<1.0	136	<1.0	<1.0	46.9	0.420	1.3	554			<0.015	0.0092	0.098	0.107	<0.0050
RSEM-R5B-EOP	6/2/2019 10:19	VU6016	M	8.05	1530	0.80	944	<4.0	176	182	111	<1.0	135	<1.0	<1.0	51.3	0.430	1.3	514			<0.015	0.0073	0.096	0.103	<0.0050
RSEM-R5B-EOP	6/3/2019 10:30	VU5989	D	8.06	1520	0.68	966	<4.0	175	181	107	<1.0	131	<1.0	<1.0	44.9	0.430	1.3	386			<0.015	0.0110	0.131	0.142	<0.0050
RSEM-R5B-EOP	6/3/2019 10:30	VU5987	M	8.06	1520	0.68	956	<4.0	176	179	108	<1.0	132	<1.0	<1.0	46.0	0.420	1.3	517			<0.015	0.0119	0.154	0.166	<0.0050
RSEM-R5B-EOP	6/4/2019 10:25	VU7696	D	8.11	1460	2.06	924	<4.0	183	180	121	<1.0	147	<1.0	<1.0	46.8	0.410	1.2	463			0.022	0.0072	0.068	0.075	<0.0050
RSEM-R5B-EOP	6/4/2019 10:25	VU7697	M	8.11	1460	1.91	914	<4.0	185	183	120	<1.0	147	<1.0	<1.0	41.9	0.410	1.2	462			<0.015	0.0077	0.089	0.097	<0.0050
RSEM-R5B-EOP	6/5/2019 10:53	VV4612	D	8.14	1370	1.71	848	<4.0	194	189	134	<1.0	163	<1.0	<1.0	41.1	0.390	1.0	416			0.026	0.0097	0.142	0.152	<0.0050
RSEM-R5B-EOP	6/5/2019 10:53	VV4613	M	8.15	1380	1.63	846	4.8	188	191	135	<1.0	165	<1.0	<1.0	43.4	0.390	1.0	421			0.037	0.0105	0.137	0.148	<0.0050
RSEM-R5B-EOP	6/6/2019 11:24	VV6691	D	8.11	1330	0.99	874	<4.0	197	203	147	<1.0	179	<1.0	<1.0	38.4	0.390	1.0	404			<0.015	0.0055	0.090	0.095	<0.0050
RSEM-R5B-EOP	6/6/2019 11:24	VV6692	M	8.11	1340	1.02	842	<4.0	195	204	147	<1.0	180	<1.0	<1.0	41.5	0.380	1.0	395			0.027	0.0063	0.083	0.089	<0.0050
RSEM-R5B-EOP	6/7/2019 11:46	VV6766	D	8.16	1280	1.41	796	<4.0	212	209	156	<1.0	191	<1.0	<1.0	35.1	0.370	0.89	363			0.034	0.0112	0.163	0.175	<0.0050
RSEM-R5B-EOP	6/7/2019 11:46	VV6767	M	8.20	1260	1.38	816	<4.0	202	209	155	<1.0	190	<1.0	<1.0	35.6	0.380	0.88	370			0.040	0.0111	0.180	0.191	<0.0050
RSEM-R5B-EOP	6/8/2019 10:22	VV9722	D	8.05	1240	0.81	794	<4.0	209	216	153	<1.0	187	<1.0	<1.0	33.7	0.350	0.78	371			0.022	0.0117	0.156	0.168	<0.0050
RSEM-R5B-EOP	6/8/2019 10:22	VV9723	M	8.04	1240	0.77	784	<4.0	214	215	153	<1.0	187	<1.0	<1.0	34.3	0.360	0.75	380			0.026	0.0114	0.189	0.201	<0.0050
RSEM-R5B-EOP	6/9/2019 10:28	VV9806	D	8.12	1250	0.93	742	<4.0	223	219	138	<1.0	168	<1.0	<1.0	88.2	0.370	0.75	387			0.030	0.0127	0.210	0.223	<0.0050
RSEM-R5B-EOP	6/9/2019 10:28	VV9807	M	8.08	1250	1.03	870	<4.0	218	221	141	<1.0	172	<1.0	<1.0	33.9	0.370	0.74	395			0.051	0.0114	0.200	0.212	<0.0050
RSEM-R5B-EOP	6/10/2019 13:15	VW2552	M	8.26	1270	0.91	814	<4.0	204	211	126	<1.0	153	<1.0	<1.0	33.2	0.400	0.69	421			<0.015	0.0098	0.178	0.188	0.0112
RSEM-R5B-EOP	6/11/2019 11:15	VW4964	M	8.20	1280	0.69	808	<4.0	213	209	126	<1.0	154	<1.0	<1.0	34.0	0.390	0.71	376			<0.015	0.0099	0.121	0.131	<0.0050
RSEM-R5B-EOP	6/12/2019 14:15	VW8063	D	8.21	1290	0.82	810	<4.0	210	208	120	<1.0	146	<1.0	<1.0	36.0	0.400	0.67	458			<0.015	0.0111	0.098	0.109	<0.0050
RSEM-R5B-EOP	6/12/2019 14:15	VW8082	M	8.48	1270	0.81	808	<4.0	200	208	117	3.3	134	4.0	<1.0	39.2	0.390	0.68	419			0.055	0.0070	0.092	0.099	<0.0050
RSEM-R5B-EOP	6/13/2019 11:15	VX0003	M	8.03	1320	1.29	798	<4.0	215	217	127	<1.0	155	<1.0	<1.0	39.3	0.400	0.65	369			0.092	0.0051	0.043	0.049	<0.0050
RSEM-R5B-EOP	6/22/2019 10:30	VY6741	M	8.03	1250	1.11	798	<4.0	211	225	140	<1.0	171	<1.0	<1.0	38.5	0.410	0.62	380			0.018	<0.0050	0.033	0.033	<0.0050
RSEM-R5B-EOP	6/23/2019 10:40	VY6754	M	8.19	1250	1.04	832	<4.0	211	224	139	<1.0	170	<1.0	<1.0	39.2	0.390	0.55	376			<0.015	0.0072	0.081	0.089	<0.0050
RSEM-R5B-EOP	6/24/2019 12:05	VY9700	D	8.39	1220	3.06	788	6.0	202	207	127	2.1	150	2.5	<1.0	37.8	0.370	0.54	371			<0.015	0.0118	0.095	0.107	<0.0050
RSEM-R5B-EOP	6/24/2019 12:05	VY9701	M	8.38	1220	1.86	796	4.8	200	213	128	2.1	151	2.6	<1.0	37.3	0.360	0.55	367			<0.015	0.0099	0.089	0.099	<0.0050
RSEM-R5B-EOP	6/25/2019 11:15	VZ1745	D	7.99	1100	10.8	696	12.4	212	234	117	<1.0	143	<1.0	<1.0	35.6	0.350	0.52	342			0.039	0.0236	0.498	0.522	<0.0050
RSEM-R5B-EOP	6/25/2019 11:15	VZ1746	M	7.79	1090	11.1	700	12.8	217	234	118	<1.0	143	<1.0	<1.0	34.7	0.360	0.55	320			0.053	0.0227	0.496	0.519	0.0249
RSEM-R5B-EOP	6/26/2019 11:50	VZ5385	D	8.26	1130	7.17	726	10.0	226	232	106	<1.0	129	<1.0	<1.0	35.7	0.370	0.52	353			0.043	0.0321	0.696	0.728	<0.0050
RSEM-R5B-EOP	6/26/2019 11:50	VZ5386	M	7.99	1150	5.91	728	6.8	231	233	109	<1.0	132	<1.0	<1.0	37.1	0.370	0.53	336			0.045	0.0322	0.696	0.728	<0.0050
RSEM-R5B-EOP	6/27/2019 12:05	VZ7724	D	7.93	1200	2.59	768	<4.0	239	243	98.3	<1.0	120	<1.0	<1.0	38.6	0.400	0.52	379			0.048	0.0372	0.807	0.844	<0.0050
RSEM-R5B-EOP	6/27/2019 12:05	VZ7725	M	7.95	1200	2.72	782	<4.0	241	252	99.1	<1.0	121	<1.0	<1.0	38.4	0.410	0.54	408			0.041	0.0413	0.807	0.849	<0.0050
RSEM-R5B-EOP	6/28/2019 9:15	VZ7855	D	7.90	1200	2.07	784	<4.0	232	239	95.8	<1.0	117	<1.0	<1.0	38.6	0.400	0.52	425			0.025	0.0359	0.790	0.826	<0.0050
RSEM-R5B-EOP	6/28/2019 9:15	VZ7856	M	7.89	1180	2.12	806	4.0	222	241	95.4	<1.0	116	<1.0	<1.0	38.5	0.410	0.53	379			0.032	0.0359	0.803	0.839	<0.0050

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	5/3/2019 10:10	VP8774	D	2.2	1.6	0.119	0.00141	0.00121	0.0475	<0.0001	<0.001	0.175	0.000061	40.4	0.0011	0.00155	0.00135	0.105	<0.0002	0.0837	24.4	0.0252	<0.000002	0.0102	0.0101		3.66	0.00445
RSEM-R5B-EOP	5/3/2019 10:10	VP8773	M	2.1	2.1	0.123	0.00147	0.00129	0.0483	<0.0001	<0.001	0.178	0.000061	41.4	0.0012	0.00164	0.00134	0.116	<0.0002	0.0882	24.9	0.026	<0.000002	0.0105	0.0104		3.92	0.00459
RSEM-R5B-EOP	5/4/2019 11:15	VQ1565	M	1.8	1.7	0.116	0.00163	0.00125	0.0434	<0.0001	<0.001	0.2	0.000052	41.8	0.0014	0.00146	0.00138	0.151	<0.0002	0.0981	28.9	0.0276	<0.000002	0.0116	0.0102		3.92	0.00484
RSEM-R5B-EOP	5/5/2019 14:00	VQ1488	M	1.7	2.1	0.115	0.00156	0.00123	0.0374	<0.0001	<0.001	0.202	0.000046	39.1	0.0013	0.00129	0.00134	0.12	<0.0002	0.106	30.7	0.024	<0.000002	0.012	0.01		4.11	0.00464
RSEM-R5B-EOP	5/6/2019 10:48	VQ3925	D	1.8	2.2	0.0832	0.00143	0.00109	0.0348	<0.0001	<0.001	0.204	0.000031	35.7	0.0013	0.00099	0.00108	0.099	<0.0002	0.101	28.4	0.0171	<0.000002	0.0129	0.0087		4.00	0.00425
RSEM-R5B-EOP	5/6/2019 10:48	VQ3926	M	1.7	1.9	0.0983	0.00145	0.00109	0.035	<0.0001	<0.001	0.207	0.000031	36.4	0.0013	0.00102	0.0011	0.09	<0.0002	0.106	27.8	0.017	<0.000002	0.0133	0.0088		4.12	0.00435
RSEM-R5B-EOP	5/7/2019 10:50	VQ4252	D	1.9	1.9	0.104	0.00142	0.00102	0.0311	<0.0001	<0.001	0.22	0.000034	34.3	0.0013	0.00086	0.00121	0.113	<0.0002	0.108	29.7	0.014	<0.000002	0.0138	0.0077		3.87	0.00422
RSEM-R5B-EOP	5/7/2019 10:50	VQ4254	M	1.9	1.7	0.0965	0.00153	0.00112	0.0323	<0.0001	<0.001	0.241	0.000034	36.6	0.0016	0.00092	0.00154	0.174	<0.0002	0.115	30.7	0.0156	<0.000002	0.014	0.0084		4.14	0.00438
RSEM-R5B-EOP	5/8/2019 11:05	VQ8084	D	1.7	2.4	0.106	0.00147	0.00106	0.0304	<0.0001	<0.001	0.235	0.000025	34.8	0.0015	0.00073	0.00143	0.098	<0.0002	0.114	29.8	0.0111	<0.000002	0.0144	0.0069		4.15	0.00428
RSEM-R5B-EOP	5/8/2019 11:05	VQ8085	M	1.8	2.0	0.101	0.00139	0.00105	0.0299	<0.0001	<0.001	0.24	0.000024	34.1	0.0015	0.0007	0.00131	0.105	<0.0002	0.106	29.3	0.0105	<0.000002	0.0142	0.0065		4.11	0.00407
RSEM-R5B-EOP	5/9/2019 11:07	VQ8362	D	1.9	2.0	0.0886	0.00123	0.00095	0.0279	<0.0001	<0.001	0.247	0.000029	32.4	0.0015	0.00055	0.00126	0.096	<0.0002	0.131	30.5	0.0088	<0.000002	0.0144	0.005		4.12	0.00395
RSEM-R5B-EOP	5/9/2019 11:07	VQ8363	M	1.9	1.9	0.102	0.00125	0.00098	0.0287	<0.0001	<0.001	0.26	0.000034	34.1	0.0016	0.00059	0.00121	0.105	<0.0002	0.134	32.5	0.0098	<0.000002	0.0146	0.0053		4.42	0.0041
RSEM-R5B-EOP	5/10/2019 7:57	VQ9647	D	2.2	2.2	0.0751	0.00136	0.00098	0.0291	<0.0001	<0.001	0.247	0.000027	34.4	0.0019	0.0005	0.00127	0.079	<0.0002	0.137	31.0	0.0083	<0.000002	0.0159	0.0053		4.27	0.00405
RSEM-R5B-EOP	5/10/2019 7:57	VQ9648	M	2.2	2.3	0.0869	0.00126	0.00091	0.0272	<0.0001	<0.001	0.236	0.000028	33.1	0.0018	0.00053	0.00129	0.096	<0.0002	0.133	28.9	0.0088	<0.000002	0.0154	0.0051		4.12	0.00395
RSEM-R5B-EOP	5/11/2019 11:29	VR2467	D	2.3	2.0	0.0793	0.00122	0.0009	0.0248	<0.0001	<0.001	0.227	0.000031	28.1	0.0026	0.00053	0.00164	0.116	<0.0002	0.128	30.5	0.0076	<0.000002	0.0171	0.0043		4.51	0.00384
RSEM-R5B-EOP	5/11/2019 11:29	VR2468	M	1.8	1.7	0.0672	0.00125	0.00093	0.0237	<0.0001	<0.001	0.228	0.000028	28.2	0.0024	0.00037	0.00155	0.078	<0.0002	0.127	30.4	0.0056	<0.000002	0.0167	0.0039		4.47	0.00394
RSEM-R5B-EOP	5/12/2019 11:13	VR2428	D	2.0	1.9	0.054	0.00122	0.00081	0.0234	<0.0001	<0.001	0.212	0.000024	29.0	0.0021	0.00041	0.00143	0.06	<0.0002	0.123	28.8	0.006	<0.000002	0.0158	0.0044		4.26	0.00372
RSEM-R5B-EOP	5/12/2019 11:13	VR2430	M	2.0	2.1	0.0588	0.0012	0.00092	0.0233	<0.0001	<0.001	0.207	0.000025	28.9	0.0023	0.0004	0.00155	0.072	<0.0002	0.122	29.0	0.0063	<0.000002	0.0164	0.0044		4.21	0.00383
RSEM-R5B-EOP	5/13/2019 11:12	VR4432	D	2.4	2.3	0.0562	0.00118	0.00086	0.0226	<0.0001	<0.001	0.219	0.000021	26.4	0.0028	0.00032	0.0015	0.059	<0.0002	0.126	29.8	0.0049	<0.000002	0.0173	0.0033		4.59	0.0036
RSEM-R5B-EOP	5/13/2019 11:12	VR4433	M	2.3	2.2	0.0573	0.00119	0.00086	0.0229	<0.0001	<0.001	0.22	0.000024	25.8	0.0028	0.0003	0.00144	0.064	<0.0002	0.13	29.4	0.0048	<0.000002	0.0175	0.0034		4.42	0.00373
RSEM-R5B-EOP	5/14/2019 11:35	VR6836	D	2.2	2.0	0.0484	0.00134	0.00093	0.0209	<0.0001	<0.001	0.231	0.000023	25.4	0.0033	0.00032	0.00117	0.064	<0.0002	0.131	29.4	0.0047	<0.000002	0.0189	0.003		4.65	0.00371
RSEM-R5B-EOP	5/14/2019 14:22	VR6840	M	2.2	2.2	0.0454	0.00128	0.00098	0.0211	<0.0001	<0.001	0.235	0.000026	25.1	0.0033	0.00032	0.00135	0.063	<0.0002	0.132	29.4	0.0049	<0.000002	0.0187	0.0031		4.69	0.00365
RSEM-R5B-EOP	5/15/2019 11:17	VR8787	D	2.5	2.0	0.0588	0.00134	0.001	0.0197	<0.0001	<0.001	0.219	0.00003	24.3	0.0035	0.00033	0.0015	0.096	<0.0002	0.128	27.7	0.0052	<0.000002	0.0181	0.003		4.61	0.00377
RSEM-R5B-EOP	5/15/2019 11:17	VR8788	M	2.3	2.0	0.0577	0.00129	0.00102	0.0203	<0.0001	<0.001	0.218	0.000025	24.1	0.0034	0.00032	0.0013	0.077	<0.0002	0.129	27.9	0.0051	<0.000002	0.0182	0.003		4.56	0.0037
RSEM-R5B-EOP	5/16/2019 11:32	VS0879	D	2.5	2.2	0.0527	0.00135	0.00095	0.0199	<0.0001	<0.001	0.237	0.000026	24.7	0.0037	0.0004	0.00151	0.081	<0.0002	0.131	29.4	0.0058	<0.000002	0.0176	0.0031		4.80	0.00374
RSEM-R5B-EOP	5/16/2019 11:32	VS0880	M	2.5	2.3	0.051	0.00136	0.00098	0.0204	<0.0001	<0.001	0.239	0.000027	24.5	0.0036	0.00039	0.00184	0.081	<0.0002	0.131	29.0	0.0057	<0.000002	0.018	0.0039		4.61	0.00376
RSEM-R5B-EOP	5/17/2019 9:45	VS0946	M	2.5	2.2	0.067	0.00139	0.00097	0.0203	<0.0001	<0.001	0.242	0.00003	24.8	0.0036	0.0004	0.00124	0.103	<0.0002	0.136	29.5	0.0066	<0.000002	0.0176	0.0033		4.59	0.00352
RSEM-R5B-EOP	5/18/2019 14:15	VS1854	M	2.2	2.4	0.143	0.00125	0.001	0.0301	<0.0001	<0.001	0.236	0.000037	28.6	0.0032	0.00052	0.00147	0.233	<0.0002	0.119	29.0	0.0119	<0.000002	0.016	0.0033		4.46	0.00332
RSEM-R5B-EOP	5/19/2019 8:46	VS3006	M	2.3	2.3	0.203	0.00128	0.00099	0.0308	<0.0001	<0.001	0.239	0.000036	31.6	0.0033	0.0005	0.00154	0.267	<0.0002	0.119	30.4	0.0122	<0.000002	0.0159	0.0036		4.54	0.00326
RSEM-R5B-EOP	5/20/2019 11:24	VS3018	M	2.2	2.2	0.107	0.0012	0.00087	0.0374	<0.0001	<0.001	0.23	0.000034	32.6	0.0025	0.0005	0.0013	0.167	<0.0002	0.117	30.9	0.012	<0.000002	0.0148	0.0034		4.45	0.00317
RSEM-R5B-EOP	5/21/2019 11:30	VS5709	M	2.6	2.3	0.115	0.00109	0.00078	0.033	<0.0001	<0.001	0.233	0.000031	27.2	0.0022	0.00039	0.00145	0.192	<0.0002	0.111	27.8	0.0102	<0.000002	0.016	0.0031		3.97	0.00297
RSEM-R5B-EOP	5/22/2019 11:35	VS7509	M	2.6	2.4	0.0967	0.00113	0.00075	0.0315	<0.0001	<0.001	0.213	0.000029	32.5	0.0023	0.00039	0.0016	0.112	<0.0002	0.114	28.9	0.0086	<0.000002	0.0169	0.0031		5.05	0.00294
RSEM-R5B-EOP	5/23/2019 11:45	VS9391	M	2.6	2.8	0.0661	0.00121	0.00081	0.0302	<0.0001	<0.001	0.229	0.00003	33.8	0.0021	0.00032	0.00134	0.091	<0.0002	0.118	29.8	0.0065	<0.000002	0.0195	0.003		4.84	0.00323
RSEM-R5B-EOP	5/24/2019 10:40	VS9361	M	2.7	2.8	0.0438	0.00115	0.00074	0.0272	<0.0001	<0.001	0.213	0.000024	31.0	0.0019	0.0003	0.00126	0.055	<0.0002	0.109	26.8	0.0057	<0.000002	0.0192	0.0024		4.99	0.00308
RSEM-R5B-EOP	5/25/2019 9:25	VT2682	M	2.8	2.5	0.0422	0.00116	0.0007	0.0243	<0.0001	<0.001	0.216	0.00002	30.2	0.0017	0.00022	0.00127	0.048	<0.0002	0.113	26.4	0.0043	<0.000002	0.0207	0.002		4.69	0.00295
RSEM-R5B-EOP	5/26/2019 13:30	VT2684	M	2.8	2.8	0.0507	0.00117	0.00072	0.0245	<0.0001	<0.001	0.217	0.000028	32.9	0.0018	0.00037	0.00155	0.105	<0.0002	0.11	27.0	0.0065	<0.000002	0.021	0.0024		4.80	0.00318
RSEM-R5B-EOP	5/27/2019 11:43	VT3952	M	2.9	2.7	0.0296	0.00116	0.00068	0.0228	<0.0001	<0.001	0.205	0.000025	30.7	0.0016	0.00029	0.00141	0.045	<0.0002	0.111	25.8	0.0046	<0.000002	0.0214	0.0021		4.63	0.00304
RSEM-R5B-EOP	5/28/2019 10:30	VT7527	M	2.8	2.7	0.029	0.00111	0.00073	0.0229	<0.0001	<0.001	0.223	0.000025	29.0	0.0015	0.00022	0.0012	0.033	<0.0002	0.119	26.2	0.0042	<0.000002	0.0228	0.0018		4.82	0.00296
RSEM-R5B-EOP	5/29/2019 10:50	VT7393	M	2.2	2.2	0.0884	0.00343	0.00179	0.145	<0.0001	<0.001	0.095	0.000011	78.8	<0.001	0.00036	0.00075	0.06	<0.0002	0.0272	25.6	0.0113	<0.000002	0.0229	0.0029		3.49	0.00424
RSEM-R5B-EOP	5/30/2019 9:45	VU0251	M	2.8	2.8	0.0513	0.00121	0.000851	0.0238	<0.00001	<0.00001	0.207	0.0000123	27.5	0.00125	0.00025	0.00125	0.0481	0.000042	0.112	27.6	0.00712	<0.000002	0.0237	0.002	0.013	4.99	0.00321
RSEM-R5B-EOP	5/30/2019 12:59	VU2392	M	3.5	2.6	0.0579	0.00119	0.00082	0.0257	<0.0001	<0.001	0.207	0.00002	26.5	0.0015	0.00027	0.00186	0.076	<0.0002	0.109	28.2	0.0089	<0.000002	0.0248	0.0021		5.01	0.00303
RSEM-R5B-EOP	5/31/2019 9:15	VU2444	M	3.0	3.0	0.0872	0.00113	0.00086	0.0282	<0.0001	<0.001	0.219	0.000018	26.7	0.0013	0.00033	0.00165	0.128	<0.0002	0.113	29.3	0.0112	<0.000002	0.0249	0.0024		5.13	0.00296
RSEM-R5B-EOP	6/1/2019 7:35	VU3344	M	2.7	2.6	0.0356	0.00108	0.00083	0.0244	<0.0001	<0.001	0.219	0.000015	26.1	0.0012	0.00024	0.00159	0.031	<0.0002	0.112	28.6	0.0083	<0.000002	0.0245	0.0019		4.95	0.00295
RSEM-R5B-EOP	6/2/2019 10:19	VU6014	D	3.7	5.2	0.025	0.00103	0.00096	0.0258	<0.0001	<0.001	0.191	0.000021	25.5	0.0013	0.00024	0.00145	0.027	<0.0002	0.11	26.5	0.0132	<0.000002	0.0253	0.002		4.99	0.00317
RSEM-R5B-EOP	6/2/2019 10:19	VU6016	M	3.8	4.8	0.0263	0.00107	0.00102	0.0267	<0.0001	<0.001	0.197	0.000018	26.1	0.0012	0.00024	0.00167	0.028	<0.0002	0.114	27.0	0.0134	<0.000002	0.028	0.002		5.07	0.00321
RSEM-R5B-EOP	6/3/2019 10:30	VU5989	D	3.5	3.4	0.0273	0.00105	0.00094	0.0265	<0.0001	<0.001	0.2	0.000019	26.1	0.0013	0.00024	0.00137	0.03	<0.0002	0.114	26.6	0.0117	<0.000002	0.0279	0.002		5.04	0.00322
RSEM-R5B-EOP	6/3/2019 10:30	VU5987	M	3.5	3.6	0.03	0.00107	0.00093	0.0268	<0.0001	<0.001	0.201	0.000019	26.5	0.0013	0.00024	0.00141	0.03	<0.0002	0.117	26.6	0.0118	<0.000002	0.0256	0.002		5.01	0.00325
RSEM-R5B-EOP	6/4/2019 10:25	VU7696	D	3.7	4.1	0.037	0.00094	0.00082	0.0281	<0.0001	<0.001	0.218	0.000013	26.1	0.0012	0.00028	0.00211	0.055	<0.0002	0.105	28.6	0.0151	<0.000002	0.0225	0.0022		4.76	0.00274
RSEM-R5B-EOP	6/4/2019 10:25	VU7697	M	3.7	4.4	0.0338	0.00099	0.00085	0.0286	<0.0001	<0.001	0.225	0.000012	26.4	0.0011	0.00029	0.00223	0.059	<0.0002	0.106	28.8	0.0158	<0.000002	0.0233	0.0022		4.82	0.00277
RSEM-R5B-EOP	6/5/2019 10:53	VV4612	D	3.9	4.2	0.0515	0.00093	0.00089	0.0395	<0.0001	<0.001	0.199	0.000015	30.6	0.0013	0.0003	0.0017	0.067	<0.0002	0.109	28.5	0.0175	<0.000002	0.0222	0.002		4.87	0.00282
RSEM-R5B-EOP	6/5/2019 10:53	VV4613	M	3.9	4.1	0.0534	0.00092	0.00087	0.038	<0.0001	<0.001	0.191	0.000014	29.7	0.0014	0.00029	0.0019	0.067	<0.0002	0.104	27.7	0.0168	<0.000002	0.0212	0.002		4.86	0.00273
RSEM-R5B-EOP	6/6/2019 11:24	VV6691	D	3.6	4.5	0.0274	0.00093	0.00077	0.0386	<0.0001	<0.001	0.175	0.000013	32.4	0.0013	0.00028	0.00164	0.049	<0.0002	0.092	28.1	0.0197	<0.000002	0.0187	0.0021		4.43	0.00254
RSEM-R5B-EOP	6/6/2019 11:24	VV6692	M	3.7	3.5	0.0294	0.00099	0.0008	0.0394	<0.0001	<0.001	0.183	0.000028	32.2	0.0013	0.00027	0.00179	0.041	<0.0002	0.0951	27.7	0.0198	<0.000002	0.0199	0.002		4.46	0.00275
RSEM-R5B-EOP	6/7/2019 11:46	VV6766	D	4.0	4.4	0.0388	0.0009	0.00074	0.0512	<0.0001	<0.001	0.179	0.000014	36.9	0.0013	0.00028	0.00142	0.058	<0.0002	0.0889	29.2	0.0176	<0.000002	0.017	0.0021		4.34	0.00243
RSEM-R5B-EOP	6/7/2019 11:46	VV6767	M	3.4	3.3	0.0658	0.00091	0.00077	0.0501	<0.0001	<0.001	0.175	0.000016	35.8	0.0011	0.00028	0.00143	0.065	<0.0002	0.0888	27.3	0.0173	<0.000002	0.0161	0.002		4.26	0.00231
RSEM-R5B-EOP	6/8/2019 10:22	VV9722	D	3.4	3.1	0.0229	0.00082	0.00071	0.0523	<0.0001	<0.001	0.174	0.000012	38.3	<0.001	0.00025	0.00138	0.042	<0.0002	0.0916	27.7	0.0154	<0.000002	0.0148	0.0022		4.36	0.00263
RSEM-R5B-EOP	6/8/2019 10:22	VV9723	M	3.4	3.3	0.0249	0.00086	0.00071	0.0538	<0.0001	<0.001	0.18	0.000014	40.2	<0.001	0.00023	0.00137	0.04	<0.0002	0.0957	27.6	0.0151	<0.000002	0.0152	0.0022		4.21	0.00247
RSEM-R5B-EOP	6/9/2019 10:28	VV9806	D	3.5	3.1	0.0207	0.00084	0.0007	0.0456	<0.0001	<0.001	0.178	0.000014	38.4	<0.001	0.00021	0.00134	0.034	<0.0002	0.0967	30.8	0.0112	<0.000002	0.0164	0.002		4.19	0.00248
RSEM-R5B-EOP	6/9/2019 10:28	VV9807	M	4.2	3.4	0.0237	0.00082	0.00065	0.0449	<0.0001	<0.001	0.174	0.000013	36.8	<0.001	0.00022	0.00205	0.036	<0.0002	0.0932	30.6	0.0114	<0.000002	0.0134	0.0021		4.42	0.00237
RSEM-R5B-EOP	6/10/2019 13:15	VW2552	M	3.5	3.1	0.0358	0.00079	0.00064	0.035	<0.0001	<0.001	0.18	<0.00001	32.7	<0.001	0.00021	0.00135	0.038	<0.0002	0.0957	29.8	0.0111	<0.000002	0.012	0.0019		3.97	0.00251
RSEM-R5B-EOP	6/11/2019 11:15	VW4964	M	3.5	3.1	0.0213	0.00085	0.00065	0.0338	<0.0001	<0.001	0.193	<0.00001	33.7	<0.001	0.00023	0.00135	0.031	<0.0002	0.105	31.3	0.0159	<0.000002	0.0125	0.002		4.31	0.00282
RSEM-R5B-EOP	6/12/2019 14:15	VW8063	D	3.6	3.1	0.0271	0.00079	0.00068	0.0282	<0.0001	<0.001	0.188	0.000022	30.8	<0.001	0.00022	0.0013	0.034	<0.0002	0.111	32.2	0.0132	<0.000002	0.0113	0.0017		4.11	0.0025
RSEM-R5B-EOP	6/12/2019 14:15	VW8082	M	3.1	2.8	0.0305	0.00077	0.00069	0.0285	<0.0001	<0.001	0.186	<0.00001	30.0	<0.001	0.00023	0.00146	0.037	<0.0002	0.0987	30.4	0.0142	<0.000002	0.0111	0.0018		3.97	0.00249
RSEM-R5B-EOP	6/13/2019 11:15	VX0003	M	3.4	3.8	0.025	0.00076	0.00076	0.0302	<0.0001	<0.001	0.19	0.000018	33.2	<0.001	0.00052	0.00167	0.058	<0.0002	0.108	32.0	0.093	<0.000002	0.0113	0.0026		4.17	0.00251
RSEM-R5B-EOP	6/22/2019 10:30	VY6741	M	5.9	5.3	0.0342	0.00063	0.00096	0.0229	<0.0001	<0.001	0.187	<0.00001	33.5	<0.001	0.00045	0.00191	0.103	<0.0002	0.1	31.0	0.0223	<0.000002	0.0098	0.0028		3.68	0.00192
RSEM-R5B-EOP	6/23/2019 10:40	VY6754	M	4.7	4.8	0.0213	0.00061	0.00081	0.0216	<0.0001	<0.001	0.184	<0.00001	31.9	<0.001	0.00027	0.00175	0.067	<0.0002	0.102	31.9	0.0152	<0.000002	0.0083	0.0021		3.85	0.00206
RSEM-R5B-EOP	6/24/2019 12:05	VY9700	D	4.1	3.6	0.057	0.00055	0.00072	0.0189	<0.0001	<0.001	0.185	0.000016	30.4	<0.001	0.00037	0.00211	0.137	<0.0002	0.0937	30.6	0.017	<0.000002	0.0076	0.0023		3.72	0.00208
RSEM-R5B-EOP	6/24/2019 12:05	VY9701	M	4.0	3.6	0.0566	0.00057	0.00071	0.019	<0.0001	<0.001	0.187	0.000016	29.9	<0.001	0.00037	0.00261	0.139	<0.0002	0.0923	30.5	0.0172	<0.000002	0.0075	0.0023		3.67	0.00206
RSEM-R5B-EOP	6/25/2019 11:15	VZ1745	D	2.5	2.8	0.175	0.00053	0.00069	0.051	<0.0001	<0.001	0.161	0.000016	40.1	<0.001	0.00035	0.00157	0.218	<0.0002	0.0799	27.2	0.0273	<0.000002	0.0067	0.0024		4.02	0.00237
RSEM-R5B-EOP	6/25/2019 11:15	VZ1746	M	2.8	3.3	0.192	0.00053	0.00069	0.0513	<0.0001	<0.001	0.159	0.000015	40.3	<0.001	0.00037	0.00171	0.234	<0.0002	0.077	28.4	0.0283	<0.000002	0.0064	0.0024		4.04	0.00232
RSEM-R5B-EOP	6/26/2019 11:50	VZ5385	D	2.6	3.9	0.0925	0.00057	0.00069	0.0443	<0.0001	<0.001	0.175	0.000016	42.3	<0.001	0.00031	0.00138	0.17	<0.0002	0.0864	29.3	0.0232	<0.000002	0.0065	0.0025		4.10	0.00261
RSEM-R5B-EOP	6/26/2019 11:50	VZ5386	M	2.6	3.6	0.0895	0.00055	0.0007	0.044	<0.0001	<0.001	0.176	0.000015	43.4	<0.001	0.00032	0.00145	0.167	<0.0002	0.0885	29.8	0.0237	<0.000002	0.0067	0.0026		4.14	0.00263
RSEM-R5B-EOP	6/27/2019 12:05	VZ7724	D	3.3	2.7	0.0621	0.00063	0.00066	0.0303	<0.0001	<0.001	0.177	0.000015	43.0	<0.001	0.00027	0.00136	0.084	<0.0002	0.0928	32.1	0.0174	<0.000002	0.0066	0.0022		4.46	0.0034
RSEM-R5B-EOP	6/27/2019 12:05	VZ7725	M	3.0	2.9	0.0711	0.0006	0.00066	0.0313	<0.0001	<0.001	0.17	0.000015	43.8	<0.001	0.00026	0.00151	0.089	<0.0002	0.094	31.9	0.0175	<0.000002	0.0074	0.0022		4.51	0.00319
RSEM-R5B-EOP	6/28/2019 9:15	VZ7855	D	2.8	2.7	0.0453	0.00062	0.00061	0.0249	<0.0001	<0.001	0.175	0.000015	40.2	<0.001	0.00022	0.00106	0.057	<0.0002	0.0927	32.0	0.019	<0.000002	0.0068	0.0019		4.28	0.00367
RSEM-R5B-EOP	6/28/2019 9:15	VZ7856	M	2.8	2.9	0.0423	0.0006	0.0006	0.0248	<0.0001	<0.001	0.167	0.000017	38.0	<0.001	0.00022	0.00124	0.052	<0.0002	0.0885	30.9	0.0186	<0.000002	0.0067	0.0019		4.22	0.00355

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	5/3/2019 10:10	VP8774	D	3.36	<0.00002	169	0.246	133	0.000011	<0.005	<0.005	0.00266	<0.005	0.0071	<0.0001	0.0679	0.00145	0.00114	0.0424	<0.0001	<0.001	0.187	0.000041	42.1	<0.001	0.00125	0.00092	<0.01
RSEM-R5B-EOP	5/3/2019 10:10	VP8773	M	3.41	<0.00002	174	0.252	136	0.000012	<0.005	<0.005	0.0028	<0.005	0.0073	<0.0001	0.0666	0.00147	0.00112	0.042	<0.0001	<0.001	0.183	0.000044	42.6	0.001	0.00122	0.00087	<0.01
RSEM-R5B-EOP	5/4/2019 11:15	VQ1565	M	3.58	<0.00002	216	0.257	162	0.000017	<0.005	<0.005	0.00324	<0.005	0.0058	<0.0001	0.0525	0.00156	0.00114	0.0355	<0.0001	<0.001	0.205	0.000032	39.9	0.0011	0.00117	0.00092	<0.01
RSEM-R5B-EOP	5/5/2019 14:00	VQ1488	M	3.41	<0.00002	225	0.253	183	0.000015	<0.005	<0.005	0.00331	<0.005	<0.005	<0.0001	0.0498	0.00149	0.00111	0.0308	<0.0001	<0.001	0.215	0.000028	38.1	0.0011	0.00107	0.00083	<0.01
RSEM-R5B-EOP	5/6/2019 10:48	VQ3925	D	3.17	<0.00002	222	0.257	164	0.000011	<0.005	<0.005	0.00306	<0.005	<0.005	<0.0001	0.0421	0.00147	0.00105	0.0312	<0.0001	<0.001	0.2	0.000017	36.7	0.0011	0.00075	0.00069	<0.01
RSEM-R5B-EOP	5/6/2019 10:48	VQ3926	M	3.14	<0.00002	215	0.261	167	0.000012	<0.005	<0.005	0.00317	<0.005	<0.005	<0.0001	0.0439	0.00147	0.00108	0.0318	<0.0001	<0.001	0.199	0.000017	35.9	0.0011	0.00076	0.00062	<0.01
RSEM-R5B-EOP	5/7/2019 10:50	VQ4252	D	3.17	<0.00002	218	0.243	176	0.000016	<0.005	<0.005	0.00322	<0.005	<0.005	<0.0001	0.04	0.00142	0.00104	0.0298	<0.0001	<0.001	0.192	0.000017	35.9	0.0012	0.00055	0.00082	<0.01
RSEM-R5B-EOP	5/7/2019 10:50	VQ4254	M	3.38	<0.00002	233	0.259	191	0.000015	<0.005	<0.005	0.00332	<0.005	<0.005	<0.0001	0.0565	0.0014	0.00108	0.0295	<0.0001	<0.001	0.197	0.000017	35.9	0.0012	0.00055	0.00087	<0.01
RSEM-R5B-EOP	5/8/2019 11:05	VQ8084	D	3.12	<0.00002	234	0.247	190	0.000016	<0.005	<0.005	0.00313	<0.005	<0.005	<0.0001	0.036	0.00142	0.00096	0.0272	<0.0001	<0.001	0.23	0.000012	33.8	0.0013	0.00037	0.0009	<0.01
RSEM-R5B-EOP	5/8/2019 11:05	VQ8085	M	3.03	<0.00002	232	0.235	178	0.000013	<0.005	<0.005	0.00295	<0.005	<0.005	<0.0001	0.0363	0.00144	0.00096	0.0272	<0.0001	<0.001	0.218	0.00001	35.1	0.0013	0.0004	0.00088	<0.01
RSEM-R5B-EOP	5/9/2019 11:07	VQ8362	D	2.92	<0.00002	228	0.238	178	0.000013	<0.005	<0.005	0.00266	<0.005	<0.005	<0.0001	0.0343	0.00135	0.00089	0.0263	<0.0001	<0.001	0.227	0.000015	33.7	0.0015	0.00033	0.00091	<0.01
RSEM-R5B-EOP	5/9/2019 11:07	VQ8363	M	3.09	<0.00002	249	0.243	190	0.000014	<0.005	<0.005	0.00274	<0.005	<0.005	<0.0001	0.0335	0.00133	0.00098	0.0257	<0.0001	<0.001	0.218	0.000014	33.8	0.0015	0.00031	0.00104	<0.01
RSEM-R5B-EOP	5/10/2019 7:57	VQ9647	D	3.02	<0.00002	248	0.24	184	0.000013	<0.005	<0.005	0.00277	<0.005	<0.005	<0.0001	0.0267	0.00129	0.0009	0.025	<0.0001	<0.001	0.178	0.00002	31.6	0.0016	<0.0002	0.00083	<0.01
RSEM-R5B-EOP	5/10/2019 7:57	VQ9648	M	2.97	<0.00002	227	0.228	176	0.000012	<0.005	<0.005	0.00263	<0.005	<0.005	<0.0001	0.026	0.00129	0.00092	0.0252	<0.0001	<0.001	0.182	0.000018	31.7	0.0016	<0.0002	0.00089	<0.01
RSEM-R5B-EOP	5/11/2019 11:29	VR2467	D	2.39	<0.00002	244	0.21	185	0.000017	<0.005	<0.005	0.0025	<0.005	<0.005	<0.0001	0.0259	0.00122	0.00083	0.0218	<0.0001	<0.001	0.222	0.000015	27.4	0.0067	0.00024	0.00119	0.022
RSEM-R5B-EOP	5/11/2019 11:29	VR2468	M	2.42	<0.00002	243	0.206	182	0.000015	<0.005	<0.005	0.00245	<0.005	<0.005	<0.0001	0.0314	0.0012	0.00085	0.0218	<0.0001	<0.001	0.222	0.000016	28.0	0.0024	<0.0002	0.00108	<0.01
RSEM-R5B-EOP	5/12/2019 11:13	VR2428	D	2.53	<0.00002	226	0.21	173	0.000015	<0.005	<0.005	0.0024	<0.005	<0.005	<0.0001	0.0286	0.00125	0.00082	0.0221	<0.0001	<0.001	0.211	0.000014	29.7	0.0021	<0.0002	0.00101	<0.01
RSEM-R5B-EOP	5/12/2019 11:13	VR2430	M	2.54	<0.00002	232	0.209	171	0.000015	<0.005	<0.005	0.00244	<0.005	<0.005	0.00012	0.0283	0.00123	0.00083	0.0221	<0.0001	<0.001	0.215	0.000015	28.9	0.0021	<0.0002	0.00109	<0.01
RSEM-R5B-EOP	5/13/2019 11:12	VR4432	D	2.21	<0.00002	251	0.193	183	0.000015	<0.005	<0.005	0.00221	<0.005	<0.005	<0.0001	0.0219	0.00125	0.00089	0.0222	<0.0001	<0.001	0.221	0.00002	27.1	0.0027	<0.0002	0.00103	<0.01
RSEM-R5B-EOP	5/13/2019 11:12	VR4433	M	2.17	<0.00002	247	0.188	182	0.000018	<0.005	<0.005	0.00225	<0.005	<0.005	<0.0001	0.0222	0.00122	0.00089	0.0224	<0.0001	<0.001	0.219	0.000022	26.3	0.0026	<0.0002	0.00104	<0.01
RSEM-R5B-EOP	5/14/2019 11:35	VR6836	D	2.36	<0.00002	263	0.183	184	0.000017	<0.005	<0.005	0.00203	<0.005	<0.005	<0.0001	0.0194	0.00124	0.0009	0.0189	<0.0001	<0.001	0.233	0.000018	24.9	0.003	<0.0002	0.00094	<0.01
RSEM-R5B-EOP	5/14/2019 14:22	VR6840	M	2.31	<0.00002	256	0.184	188	0.000016	<0.005	<0.005	0.00203	<0.005	<0.005	<0.0001	0.0196	0.00124	0.00088	0.0191	<0.0001	<0.001	0.249	0.000021	25.2	0.003	<0.0002	0.00097	<0.01
RSEM-R5B-EOP	5/15/2019 11:17	VR8787	D	2.66	<0.00002	252	0.169	189	0.000017	<0.005	<0.005	0.00206	<0.005	<0.005	<0.0001	0.0176	0.00141	0.00095	0.0187	<0.0001	<0.001	0.248	0.00002	25.1	0.0034	<0.0002	0.00107	<0.01
RSEM-R5B-EOP	5/15/2019 11:17	VR8788	M	2.41	<0.00002	254	0.168	195	0.000016	<0.005	<0.005	0.00206	<0.005	<0.005	<0.0001	0.0168	0.00144	0.00094	0.0189	<0.0001	<0.001	0.239	0.000021	25.0	0.0035	<0.0002	0.00092	<0.01
RSEM-R5B-EOP	5/16/2019 11:32	VS0879	D	2.31	<0.00002	270	0.165	206	0.000017	<0.005	<0.005	0.00203	<0.005	<0.005	<0.0001	0.0164	0.00138	0.00096	0.0193	<0.0001	<0.001	0.236	0.000019	25.0	0.0035	<0.0002	0.00101	<0.01
RSEM-R5B-EOP	5/16/2019 11:32	VS0880	M	2.3	<0.00002	259	0.167	193	0.000016	<0.005	<0.005	0.00208	<0.005	<0.005	<0.0001	0.0163	0.00142	0.00096	0.02	<0.0001	<0.001	0.24	0.00002	24.8	0.0036	<0.0002	0.00107	<0.01
RSEM-R5B-EOP	5/17/2019 9:45	VS0946	M	2.41	<0.00002	267	0.164	205	0.000016	<0.005	<0.005	0.00212	<0.005	<0.005	<0.0001	0.0162	0.0014	0.00093	0.0191	<0.0001	<0.001	0.24	0.000019	25.2	0.0035	0.00021	0.00098	<0.01
RSEM-R5B-EOP	5/18/2019 14:15	VS1854	M	2.79	<0.00002	253	0.166	187	0.000019	<0.005	<0.005	0.00205	<0.005	<0.005	<0.0001	0.0151	0.00134	0.00087	0.0244	<0.0001	<0.001	0.245	0.000028	29.3	0.0029	<0.0002	0.00088	<0.01
RSEM-R5B-EOP	5/19/2019 8:46	VS3006	M	2.94	<0.00002	281	0.174	205	0.000019	<0.005	0.008	0.00215	<0.005	<0.005	<0.0001	0.0146	0.00124	0.00084	0.027	<0.0001	<0.001	0.231	0.000025	31.4	0.0027	<0.0002	0.00089	<0.01
RSEM-R5B-EOP	5/20/2019 11:24	VS3018	M	2.78	<0.00002	259	0.186	184	0.000015	<0.005	<0.005	0.00225	<0.005	<0.005	<0.0001	0.0201	0.00116	0.00085	0.0342	<0.0001	<0.001	0.236	0.000023	33.8	0.0022	<0.0002	0.00083	<0.01
RSEM-R5B-EOP	5/21/2019 11:30	VS5709	M	2.54	<0.00002	230	0.19	197	0.000016	<0.005	<0.005	0.00213	<0.005	<0.005	<0.0001	0.0179	0.00114	0.00073	0.0286	<0.0001	<0.001	0.213	0.000018	31.9	0.0021	<0.0002	0.00095	<0.01
RSEM-R5B-EOP	5/22/2019 11:35	VS7509	M	2.23	<0.00002	260	0.199	201	0.000016	<0.005	<0.005	0.00201	<0.005	0.0057	<0.0001	0.0169	0.00115	0.0007	0.0291	<0.0001	<0.001	0.218	0.00002	33.6	0.0019	<0.0002	0.00091	<0.01
RSEM-R5B-EOP	5/23/2019 11:45	VS9391	M	1.9	<0.00002	259	0.213	204	0.000015	<0.005	<0.005	0.00214	<0.005	<0.005	<0.0001	0.0136	0.00113	0.00072	0.0281	<0.0001	<0.001	0.215	0.000024	32.2	0.0018	<0.0002	0.00114	<0.01
RSEM-R5B-EOP	5/24/2019 10:40	VS9361	M	1.81	<0.00002	249	0.209	203	0.000017	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001	0.0155	0.00112	0.00073	0.0267	<0.0001	<0.001	0.217	0.000018	32.9	0.002	<0.0002	0.00099	<0.01
RSEM-R5B-EOP	5/25/2019 9:25	VT2682	M	1.74	<0.00002	230	0.199	195	0.000014	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001	0.0175	0.00118	0.00067	0.0247	<0.0001	<0.001	0.228	0.000021	32.5	0.0018	<0.0002	0.00099	<0.01
RSEM-R5B-EOP	5/26/2019 13:30	VT2684	M	1.93	<0.00002	242	0.205	195	0.000015	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001	0.0122	0.00119	0.00068	0.0231	<0.0001	<0.001	0.234	0.000017	31.4	0.0017	<0.0002	0.001	<0.01
RSEM-R5B-EOP	5/27/2019 11:43	VT3952	M	1.59	<0.00002	232	0.19	187	0.000017	<0.005	<0.005	0.00138	<0.005	<0.005	<0.0001	0.0142	0.00123	0.0007	0.023	<0.0001	<0.001	0.226	0.000017	28.8	0.0016	<0.0002	0.00112	<0.01
RSEM-R5B-EOP	5/28/2019 10:30	VT7527	M	1.26	<0.00002	232	0.19	195	0.000017	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001	0.0144	0.00117	0.00068	0.0224	<0.0001	<0.001	0.234	0.000014	28.7	0.0014	<0.0002	0.00111	<0.01
RSEM-R5B-EOP	5/29/2019 10:50	VT7393	M	1.72	<0.00002	109	0.461	136	0.000022	<0.005	<0.005	0.00526	<0.005	<0.005	0.00013	0.0039	0.00349	0.00171	0.144	<0.0001	<0.001	0.096	<0.00001	78.7	<0.001	0.00027	0.00057	<0.01
RSEM-R5B-EOP	5/30/2019 9:45	VU0251	M	1.09	<0.00001	241	0.208	188	0.0000183	0.00028	<0.002	0.00136	0.00294	0.0012	<0.0001	0.025	0.00115	0.000781	0.0211	<0.00001	<0.000005	0.222	0.0000184	28.1	0.00114	0.000202	0.00113	0.0169
RSEM-R5B-EOP	5/30/2019 12:59	VU2392	M	1.2	<0.00002	240	0.189	186	0.000018	<0.005	<0.005	0.00136	<0.005	<0.005	<0.0001	0.054	0.00169	0.00079	0.0243	<0.0001	<0.001	0.238	0.000019	28.6	0.0012	<0.0002	0.0014	<0.01
RSEM-R5B-EOP	5/31/2019 9:15	VU2444	M	1.17	<0.00002	244	0.183	186	0.000018	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001	0.0209	0.00119	0.00083	0.0258	<0.0001	<0.001	0.243	0.000014	28.4	0.0011	<0.0002	0.00115	<0.01
RSEM-R5B-EOP	6/1/2019 7:35	VU3344	M	0.845	<0.00002	237	0.173	183	0.000016	<0.005	<0.005	0.00136	<0.005	<0.005	<0.0001	0.0184	0.00116	0.00082	0.0241	<0.0001	<0.001	0.208	<0.00001	26.4	0.0011	<0.0002	0.0013	<0.01
RSEM-R5B-EOP	6/2/2019 10:19	VU6014	D	0.476	<0.00002	219	0.162	180	0.000014	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001	0.0163	0.00104	0.00094	0.0249	<0.0001	<0.001	0.208	0.000017	26.1	0.0011	<0.0002	0.00124	<0.01
RSEM-R5B-EOP	6/2/2019 10:19	VU6016	M	0.489	<0.00002	226	0.171	185	0.000014	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001	0.0169	0.00106	0.00095	0.0253	<0.0001	<0.001	0.212	0.00002	26.0	0.0011	<0.0002	0.00124	0.01
RSEM-R5B-EOP	6/3/2019 10:30	VU5989	D	0.67	<0.00002	223	0.173	185	0.000013	<0.005	<0.005	0.00138	<0.005	<0.005	<0.0001	0.0158	0.00107	0.00091	0.025	<0.0001	<0.001	0.211	0.000019	26.1	0.0011	<0.0002	0.00113	<0.01
RSEM-R5B-EOP	6/3/2019 10:30	VU5987	M	0.688	<0.00002	221	0.175	185	0.000015	<0.005	<0.005	0.0014	<0.005	<0.005	<0.0001	0.0156	0.00106	0.00092	0.0251	<0.0001	<0.001	0.206	0.000018	25.9	0.0011	<0.0002	0.00145	<0.01
RSEM-R5B-EOP	6/4/2019 10:25	VU7696	D	0.422	<0.00002	227	0.13	153	0.000015	<0.005	<0.005	0.00138	<0.005	<0.005	<0.0001	0.0158	0.001	0.00093	0.029	<0.0001	<0.001	0.205	0.000014	26.4	0.0011	0.00022	0.00153	0.011
RSEM-R5B-EOP	6/4/2019 10:25	VU7697	M	0.419	<0.00002	233	0.131	156	0.000014	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001	0.0161	0.00099	0.00095	0.0289	<0.0001	<0.001	0.203	0.000015	26.6	0.0011	0.00021	0.00158	0.01
RSEM-R5B-EOP	6/5/2019 10:53	VV4612	D	0.897	<0.00002	216	0.141	160	<0.00001	<0.005	0.0063	0.00146	<0.005	<0.005	<0.0001	0.014	0.00094	0.00082	0.0386	<0.0001	<0.001	0.183	<0.00001	30.4	0.0011	0.00021	0.00142	0.013
RSEM-R5B-EOP	6/5/2019 10:53	VV4613	M	0.897	<0.00002	210	0.137	155	0.000011	<0.005	<0.005	0.0014	<0.005	<0.005	<0.0001	0.0143	0.00094	0.00083	0.0383	<0.0001	<0.001	0.183	<0.00001	30.5	0.0011	<0.0002	0.00167	0.013
RSEM-R5B-EOP	6/6/2019 11:24	VV6691	D	0.689	<0.00002	206	0.122	147	0.000013	<0.005	<0.005	0.0014	<0.005	<0.005	<0.0001	0.0176	0.00101	0.0008	0.0403	<0.0001	<0.001	0.214	<0.00001	33.5	<0.001	<0.0002	0.00142	0.013
RSEM-R5B-EOP	6/6/2019 11:24	VV6692	M	0.686	<0.00002	210	0.127	141	0.000013	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001	0.0125	0.00095	0.00082	0.0412	<0.0001	<0.001	0.213	0.000011	34.2	<0.001	<0.0002	0.00151	0.015
RSEM-R5B-EOP	6/7/2019 11:46	VV6766	D	1.21	<0.00002	190	0.133	137	0.000012	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001	0.0121	0.0009	0.00074	0.0503	<0.0001	<0.001	0.197	<0.00001	36.9	<0.001	<0.0002	0.00123	0.012
RSEM-R5B-EOP	6/7/2019 11:46	VV6767	M	1.12	<0.00002	180	0.132	130	0.000012	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001	0.0118	0.00089	0.00072	0.0502	<0.0001	<0.001	0.197	<0.00001	36.9	<0.001	<0.0002	0.0012	0.012
RSEM-R5B-EOP	6/8/2019 10:22	VV9722	D	1.13	<0.00002	175	0.144	132	0.000012	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001	0.0121	0.00087	0.00066	0.0501	<0.0001	<0.001	0.189	<0.00001	38.2	<0.001	<0.0002	0.0011	0.013
RSEM-R5B-EOP	6/8/2019 10:22	VV9723	M	1.15	<0.00002	168	0.145	131	0.000012	<0.005	<0.005	0.00129	<0.005	<0.005	<0.0001	0.011	0.00084	0.00069	0.0496	<0.0001	<0.001	0.191	<0.00001	37.9	<0.001	<0.0002	0.00122	0.012
RSEM-R5B-EOP	6/9/2019 10:28	VV9806	D	1.06	<0.00002	176	0.144	138	0.000013	<0.005	<0.005	0.00124	<0.005	<0.005	<0.0001	0.0128	0.00082	0.00067	0.0457	<0.0001	<0.001	0.175	0.00001	38.4	<0.001	<0.0002	0.00123	0.012
RSEM-R5B-EOP	6/9/2019 10:28	VV9807	M	1.04	<0.00002	180	0.141	142	0.000013	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001	0.0128	0.00084	0.00069	0.0471	<0.0001	<0.001	0.18	0.00001	40.0	<0.001	<0.0002	0.00166	0.011
RSEM-R5B-EOP	6/10/2019 13:15	VW2552	M	0.755	<0.00002	179	0.143	142	0.000015	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	0.0136	0.0008	0.00067	0.036	<0.0001	<0.001	0.194	<0.00001	34.9	<0.001	<0.0002	0.00102	0.011
RSEM-R5B-EOP	6/11/2019 11:15	VW4964	M	0.644	<0.00002	187	0.14	152	0.000015	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001	0.0114	0.00083	0.00063	0.031	<0.0001	<0.001	0.191	<0.00001	32.6	<0.001	<0.0002	0.00114	0.011
RSEM-R5B-EOP	6/12/2019 14:15	VW8063	D	0.59	<0.00002	184	0.146	152	0.000011	<0.005	<0.005	0.00105	<0.005	<0.005	<0.0001	0.0138	0.00079	0.00066	0.0283	<0.0001	<0.001	0.168	<0.00001	30.8	<0.001	<0.0002	0.00129	0.013
RSEM-R5B-EOP	6/12/2019 14:15	VW8082	M	0.51	<0.00002	182	0.13	142	0.000014	<0.005	<0.005	0.00108	<0.005	<0.005	<0.0001	0.0157	0.00081	0.00069	0.0279	<0.0001	<0.001	0.187	<0.00001	31.1	<0.001	<0.0002	0.00123	0.012
RSEM-R5B-EOP	6/13/2019 11:15	VX0003	M	0.433	<0.00002	192	0.131	149	0.000012	<0.005	<0.005	0.001	<0.005	<0.005	<0.0001	0.0082	0.00081	0.00068	0.0299	<0.0001	<0.001	0.198	<0.00001	35.1	<0.001	<0.0002	0.00128	0.019
RSEM-R5B-EOP	6/22/2019 10:30	VY6741	M	0.638	<0.00002	175	0.125	129	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001	0.0131	0.00068	0.00104	0.0237	<0.0001	<0.001	0.181	<0.00001	37.4	<0.001	0.00035	0.00157	0.056
RSEM-R5B-EOP	6/23/2019 10:40	VY6754	M	1.1	<0.00002	178	0.118	131	<0.00001	<0.005	<0.005	0.0011	<0.005	<0.005	<0.0001	0.0134	0.00068	0.00088	0.022	<0.0001	<0.001	0.19	<0.00001	34.5	<0.001	0.00026	0.00136	0.044
RSEM-R5B-EOP	6/24/2019 12:05	VY9700	D	1.34	<0.00002	167	0.111	131	<0.00001	<0.005	<0.005	0.00097	<0.005	<0.005	<0.0001	0.0108	0.0006	0.00071	0.0171	<0.0001	<0.001	0.182	<0.00001	31.3	<0.001	0.00024	0.00158	0.03
RSEM-R5B-EOP	6/24/2019 12:05	VY9701	M	1.32	<0.00002	170	0.11	133	<0.00001	<0.005	<0.005	0.00095	<0.005	<0.005	<0.0001	0.0117	0.00059	0.00073	0.0174	<0.0001	<0.001	0.184	<0.00001	31.7	<0.001	0.00024	0.00171	0.033
RSEM-R5B-EOP	6/25/2019 11:15	VZ1745	D	2.74	<0.00002	141	0.175	117	0.000014	<0.005	<0.005	0.00119	<0.005	<0.005	0.0002	0.0114	0.00055	0.00064	0.0424	<0.0001	<0.001	0.154	0.000012	45.4	<0.001	0.00021	0.001	<0.01
RSEM-R5B-EOP	6/25/2019 11:15	VZ1746	M	2.73	<0.00002	142	0.168	120	0.000015	<0.005	0.0062	0.00117	<0.005	<0.005	0.00013	0.0116	0.00054	0.0006	0.0429	<0.0001	<0.001	0.163	0.00001	45.0	<0.001	0.00021	0.00099	<0.01
RSEM-R5B-EOP	6/26/2019 11:50	VZ5385	D	2.89	<0.00002	151	0.201	131	0.000013	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001	0.0122	0.00055	0.00059	0.0381	<0.0001	<0.001	0.171	<0.00001	43.3	<0.001	<0.0002	0.001	<0.01
RSEM-R5B-EOP	6/26/2019 11:50	VZ5386	M	2.99	<0.00002	155	0.205	132	0.000015	<0.005	<0.005	0.00135	<0.005	<0.005	<0.0001	0.0125	0.00055	0.00059	0.0395	<0.0001	<0.001	0.18	0.000012	43.0	<0.001	0.0002	0.00099	<0.01
RSEM-R5B-EOP	6/27/2019 12:05	VZ7724	D	2.76	<0.00002	163	0.201	144	0.000015	<0.005	<0.005	0.00138	<0.005	<0.005	<0.0001	0.0134	0.00061	0.0006	0.0286	<0.0001	<0.001	0.187	<0.00001	44.9	<0.001	<0.0002	0.00093	<0.01
RSEM-R5B-EOP	6/27/2019 12:05	VZ7725	M	2.94	<0.00002	161	0.2	144	0.000014	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001	0.0136	0.00062	0.00054	0.0288	<0.0001	<0.001	0.188	<0.00001	49.1	<0.001	<0.0002	0.00104	<0.01
RSEM-R5B-EOP	6/28/2019 9:15	VZ7855	D	2.61	<0.00002	164	0.221	146	0.000013	<0.005	<0.005	0.0013	<0.005	<0.005	<0.0001	0.0106	0.00063	0.00057	0.0247	<0.0001	<0.001	0.188	<0.00001	42.5	<0.001	<0.0002	0.00086	<0.01
RSEM-R5B-EOP	6/28/2019 9:15	VZ7856	M	2.46	<0.00002	159	0.213	141	0.000013	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001	0.0105	0.00063	0.00057	0.024	<0.0001	<0.001	0.188	<0.00001	43.7	<0.001	<0.0002	0.00097	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	5/3/2019 10:10	VP8774	D	<0.0002	0.0878	25.8	0.0127	<0.000002	0.0104	0.0096		3.78	0.00479	3.38	<0.00002	187	0.256	135	0.000011	<0.005	<0.005	0.00297	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/3/2019 10:10	VP8773	M	<0.0002	0.0857	25.8	0.0129	<0.000002	0.0105	0.009		3.75	0.00494	3.38	<0.00002	187	0.254	135	0.00001	<0.005	<0.005	0.00294	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/4/2019 11:15	VQ1565	M	<0.0002	0.0901	28.8	0.0158	<0.000002	0.0119	0.0091		3.65	0.00446	3.16	<0.00002	221	0.246	151	0.000014	<0.005	<0.005	0.0031	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/5/2019 14:00	VQ1488	M	<0.0002	0.0987	29.7	0.0106	<0.000002	0.0119	0.0091		3.70	0.00448	2.95	<0.00002	228	0.245	154	0.000016	<0.005	<0.005	0.00318	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/6/2019 10:48	VQ3925	D	<0.0002	0.102	27.4	0.0054	<0.000002	0.0126	0.0077		3.78	0.00442	3.13	<0.00002	211	0.257	165	0.00001	<0.005	<0.005	0.00315	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/6/2019 10:48	VQ3926	M	<0.0002	0.1	27.1	0.0053	<0.000002	0.013	0.0076		4.00	0.00446	3.06	<0.00002	214	0.252	163	<0.00001	<0.005	<0.005	0.00318	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/7/2019 10:50	VQ4252	D	<0.0002	0.109	29.5	0.0014	<0.000002	0.015	0.0067		3.97	0.0045	3.22	<0.00002	231	0.257	178	0.000014	<0.005	<0.005	0.00318	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/7/2019 10:50	VQ4254	M	<0.0002	0.113	29.2	0.0013	<0.000002	0.0145	0.0067		4.05	0.00448	3.29	<0.00002	228	0.26	179	0.000014	<0.005	<0.005	0.00311	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/8/2019 11:05	VQ8084	D	<0.0002	0.112	29.9	<0.001	<0.000002	0.0143	0.0058		4.13	0.00438	2.87	<0.00002	234	0.241	187	0.000013	<0.005	<0.005	0.00296	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/8/2019 11:05	VQ8085	M	<0.0002	0.114	30.7	<0.001	<0.000002	0.0144	0.0056		4.09	0.00428	2.9	<0.00002	233	0.236	185	0.000013	<0.005	<0.005	0.00288	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/9/2019 11:07	VQ8362	D	<0.0002	0.115	30.6	<0.001	<0.000002	0.0154	0.0051		4.15	0.00392	2.67	<0.00002	229	0.247	171	0.000014	<0.005	<0.005	0.00279	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/9/2019 11:07	VQ8363	M	<0.0002	0.12	29.6	<0.001	<0.000002	0.0152	0.0051		4.10	0.00415	2.65	<0.00002	225	0.24	174	0.000014	<0.005	<0.005	0.00274	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/10/2019 7:57	VQ9647	D	<0.0002	0.117	27.6	0.0014	<0.000002	0.016	0.0046		4.22	0.00402	2.58	<0.00002	212	0.256	177	0.000012	<0.005	<0.005	0.00275	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/10/2019 7:57	VQ9648	M	<0.0002	0.116	27.0	0.0014	<0.000002	0.016	0.0047		4.20	0.00407	2.72	<0.00002	212	0.261	180	0.000013	<0.005	<0.005	0.00277	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/11/2019 11:29	VR2467	D	<0.0002	0.124	28.9	<0.001	<0.000002	0.018	0.0054		4.26	0.00358	2.23	<0.00002	238	0.202	175	0.000015	<0.005	<0.005	0.00239	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/11/2019 11:29	VR2468	M	<0.0002	0.127	28.9	<0.001	<0.000002	0.017	0.0034		4.31	0.00371	2.25	<0.00002	239	0.203	175	0.000015	<0.005	<0.005	0.00247	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/12/2019 11:13	VR2428	D	<0.0002	0.12	29.2	<0.001	<0.000002	0.0165	0.0038		4.15	0.00362	2.54	<0.00002	230	0.209	174	0.000013	<0.005	<0.005	0.00249	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/12/2019 11:13	VR2430	M	<0.0002	0.121	29.6	<0.001	<0.000002	0.0165	0.0038		4.21	0.00373	2.52	<0.00002	234	0.209	174	0.000014	<0.005	<0.005	0.00246	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/13/2019 11:12	VR4432	D	<0.0002	0.12	29.8	<0.001	<0.000002	0.0179	0.0029		4.49	0.00396	2.27	<0.00002	254	0.196	187	0.000014	<0.005	<0.005	0.00229	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/13/2019 11:12	VR4433	M	<0.0002	0.117	28.7	<0.001	<0.000002	0.0178	0.0028		4.49	0.00385	2.23	<0.00002	247	0.193	184	0.000013	<0.005	<0.005	0.00227	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/14/2019 11:35	VR6836	D	<0.0002	0.125	27.7	<0.001	<0.000002	0.0178	0.0023		4.57	0.00387	2.25	<0.00002	245	0.182	191	0.000012	<0.005	<0.005	0.00204	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/14/2019 14:22	VR6840	M	<0.0002	0.126	28.5	<0.001	<0.000002	0.0223	0.0024		4.58	0.0038	2.3	<0.00002	245	0.189	188	0.000012	<0.005	<0.005	0.00204	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/15/2019 11:17	VR8787	D	<0.0002	0.139	30.1	<0.001	<0.000002	0.0191	0.0026		4.68	0.00369	2.37	<0.00002	265	0.177	193	0.000016	<0.005	<0.005	0.00203	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/15/2019 11:17	VR8788	M	<0.0002	0.131	30.8	<0.001	<0.000002	0.0194	0.0026		4.72	0.00363	2.39	<0.00002	269	0.177	201	0.000014	<0.005	<0.005	0.00203	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/16/2019 11:32	VS0879	D	<0.0002	0.136	29.2	<0.001	<0.000002	0.0196	0.0028		4.78	0.00359	2.26	<0.00002	270	0.178	201	0.000015	<0.005	<0.005	0.00209	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/16/2019 11:32	VS0880	M	<0.0002	0.132	29.7	<0.001	<0.000002	0.0193	0.0027		4.72	0.00369	2.23	<0.00002	260	0.177	193	0.000015	<0.005	<0.005	0.00204	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/17/2019 9:45	VS0946	M	<0.0002	0.136	31.1	<0.001	<0.000002	0.0191	0.0028		4.83	0.0035	2.36	<0.00002	272	0.172	203	0.000014	<0.005	<0.005	0.00212	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/18/2019 14:15	VS1854	M	<0.0002	0.127	30.3	0.0029	<0.000002	0.0165	0.0027		4.13	0.0033	2.67	<0.00002	256	0.171	184	0.000015	<0.005	<0.005	0.00214	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/19/2019 8:46	VS3006	M	<0.0002	0.123	30.0	<0.001	<0.000002	0.0151	0.0028		4.44	0.0032	2.63	<0.00002	257	0.172	190	0.000015	<0.005	<0.005	0.00216	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/20/2019 11:24	VS3018	M	<0.0002	0.117	30.8	<0.001	<0.000002	0.0149	0.0027		4.38	0.00294	2.86	<0.00002	261	0.182	191	0.000013	<0.005	<0.005	0.00228	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/21/2019 11:30	VS5709	M	<0.0002	0.113	28.7	<0.001	<0.000002	0.0166	0.0026		4.79	0.00293	2.43	<0.00002	249	0.201	200	0.000015	<0.005	<0.005	0.00213	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/22/2019 11:35	VS7509	M	<0.0002	0.118	28.6	<0.001	<0.000002	0.0184	0.0026		5.07	0.00301	2.23	<0.00002	255	0.205	207	0.000014	<0.005	<0.005	0.00202	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/23/2019 11:45	VS9391	M	<0.0002	0.118	28.8	0.0011	<0.000002	0.026	0.0023		4.74	0.00269	1.91	<0.00002	231	0.206	203	0.000012	<0.005	<0.005	0.00189	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/24/2019 10:40	VS9361	M	<0.0002	0.114	28.5	<0.001	<0.000002	0.0198	0.0021		5.11	0.00303	1.86	<0.00002	249	0.211	204	0.000015	<0.005	<0.005	0.0017	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/25/2019 9:25	VT2682	M	<0.0002	0.116	27.5	<0.001	<0.000002	0.0211	0.0019		4.87	0.00315	1.76	<0.00002	241	0.209	199	0.000017	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/26/2019 13:30	VT2684	M	<0.0002	0.116	27.4	<0.001	<0.000002	0.0222	0.0018		5.01	0.00305	1.71	<0.00002	242	0.2	197	0.000016	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/27/2019 11:43	VT3952	M	<0.0002	0.119	27.6	<0.001	<0.000002	0.0231	0.0018		4.96	0.00309	1.37	<0.00002	239	0.206	194	0.000016	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/28/2019 10:30	VT7527	M	<0.0002	0.121	27.2	<0.001	<0.000002	0.0231	0.0019		4.89	0.00299	1.21	<0.00002	236	0.196	193	0.000015	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/29/2019 10:50	VT7393	M	<0.0002	0.0276	27.6	0.0025	<0.000002	0.0234	0.0029		3.92	0.00436	1.59	<0.00002	118	0.475	137	0.000022	<0.005	<0.005	0.00533	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/30/2019 9:45	VU0251	M	0.0000165	0.12	28.5	0.00575	<0.000002	0.0225	0.00183	0.0064	4.78	0.00307	0.986	<0.000005	252	0.181	184	0.0000146	0.00027	<0.0005	0.00138	0.00247	0.001	<0.0001
RSEM-R5B-EOP	5/30/2019 12:59	VU2392	M	<0.0002	0.115	30.0	0.0011	<0.000002	0.0259	0.002		5.16	0.00304	1.17	<0.00002	251	0.171	192	0.000017	<0.005	<0.005	0.00136	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	5/31/2019 9:15	VU2444	M	<0.0002	0.113	29.6	0.0011	<0.000002	0.0252	0.0018		5.07	0.00316	1.07	<0.00002	252	0.16	192	0.000018	<0.005	<0.005	0.00138	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/1/2019 7:35	VU3344	M	<0.0002	0.111	29.3	0.0034	<0.000002	0.0253	0.0018		5.06	0.00307	0.782	<0.00002	248	0.17	185	0.000017	<0.005	<0.005	0.00135	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/2/2019 10:19	VU6014	D	<0.0002	0.11	28.4	0.008	<0.000002	0.027	0.0019		4.99	0.00331	0.399	<0.00002	243	0.158	184	0.000014	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/2/2019 10:19	VU6016	M	<0.0002	0.109	28.6	0.0069	<0.000002	0.0276	0.0019		4.98	0.00334	0.393	<0.00002	242	0.159	183	0.000015	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/3/2019 10:30	VU5989	D	<0.0002	0.12	28.1	0.0059	<0.000002	0.0275	0.0019		5.00	0.00325	0.63	<0.00002	240	0.17	188	0.000013	<0.005	<0.005	0.00138	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/3/2019 10:30	VU5987	M	<0.0002	0.114	27.8	0.006	<0.000002	0.0255	0.0023		4.98	0.00332	0.606	<0.00002	234	0.171	185	0.000013	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/4/2019 10:25	VU7696	D	<0.0002	0.108	27.8	0.0099	<0.000002	0.024	0.0018		4.92	0.00316	0.438	<0.00002	232	0.147	175	0.000012	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/4/2019 10:25	VU7697	M	<0.0002	0.108	28.4	0.0087	<0.000002	0.0241	0.0019		4.94	0.00317	0.422	<0.00002	232	0.149	174	0.000012	<0.005	<0.005	0.0014	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/5/2019 10:53	VV4612	D	<0.0002	0.0982	27.4	0.0092	<0.000002	0.0236	0.002		4.88	0.00273	0.786	<0.00002	207	0.139	158	0.000011	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/5/2019 10:53	VV4613	M	<0.0002	0.0997	27.8	0.0093	<0.000002	0.0216	0.0019		4.91	0.00274	0.785	<0.00002	209	0.139	160	0.000012	<0.005	<0.005	0.0014	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/6/2019 11:24	VV6691	D	<0.0002	0.101	29.0	0.0066	<0.000002	0.0208	0.0021		4.76	0.00263	0.635	<0.00002	211	0.14	152	0.000013	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/6/2019 11:24	VV6692	M	<0.0002	0.102	28.8	0.0051	<0.000002	0.0217	0.0022		4.68	0.00264	0.642	<0.00002	210	0.139	153	0.000013	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/7/2019 11:46	VV6766	D	<0.0002	0.0962	28.5	0.0058	<0.000002	0.0184	0.0021		4.36	0.00255	1.1	<0.00002	189	0.146	141	0.000013	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/7/2019 11:46	VV6767	M	<0.0002	0.0945	28.3	0.0057	<0.000002	0.0174	0.0021		4.39	0.00249	1.11	<0.00002	188	0.142	138	0.000012	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/8/2019 10:22	VV9722	D	<0.0002	0.1	29.2	0.0105	<0.000002	0.0151	0.0021		4.21	0.00245	1.06	<0.00002	180	0.149	134	0.000012	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/8/2019 10:22	VV9723	M	<0.0002	0.0997	29.3	0.0101	<0.000002	0.0153	0.0021		4.19	0.00245	1.07	<0.00002	182	0.147	134	0.000013	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/9/2019 10:28	VV9806	D	<0.0002	0.0972	29.9	0.0082	<0.000002	0.0177	0.0019		4.57	0.00265	1.12	<0.00002	178	0.144	150	0.000012	<0.005	<0.005	0.0012	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/9/2019 10:28	VV9807	M	<0.0002	0.1	29.5	0.0081	<0.000002	0.0138	0.002		4.52	0.00263	1.13	<0.00002	180	0.15	148	0.000015	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/10/2019 13:15	VW2552	M	<0.0002	0.105	30.0	0.0075	<0.000002	0.0128	0.0017		4.47	0.00252	0.88	<0.00002	181	0.143	161	0.000014	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/11/2019 11:15	VW4964	M	<0.0002	0.1	31.1	0.0074	<0.000002	0.012	0.0019		4.03	0.0026	0.576	<0.00002	184	0.142	145	0.000013	<0.005	<0.005	0.00112	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/12/2019 14:15	VW8063	D	<0.0002	0.0958	31.9	0.009	<0.000002	0.0115	0.0017		4.14	0.0026	0.47	<0.00002	186	0.135	145	0.000012	<0.005	<0.005	0.0011	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/12/2019 14:15	VW8082	M	<0.0002	0.105	31.7	0.0085	<0.000002	0.0115	0.0016		4.13	0.00263	0.506	<0.00002	188	0.136	150	0.000014	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/13/2019 11:15	VX0003	M	<0.0002	0.106	31.4	0.0065	<0.000002	0.011	0.002		4.12	0.00242	0.412	<0.00002	188	0.13	149	0.000014	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/22/2019 10:30	VY6741	M	<0.0002	0.106	32.0	0.0157	<0.000002	0.0104	0.0027		3.97	0.00202	0.701	<0.00002	179	0.132	146	<0.00001	<0.005	<0.005	0.00124	<0.005	<0.005	0.00013
RSEM-R5B-EOP	6/23/2019 10:40	VY6754	M	<0.0002	0.109	33.6	0.0081	<0.000002	0.0089	0.002		4.16	0.00236	1.26	<0.00002	183	0.122	151	<0.00001	<0.005	<0.005	0.00113	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/24/2019 12:05	VY9700	D	<0.0002	0.0998	31.3	0.0075	<0.000002	0.0077	0.0019		3.80	0.00208	1.39	<0.00002	173	0.114	133	<0.00001	<0.005	<0.005	0.00101	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/24/2019 12:05	VY9701	M	<0.0002	0.101	32.4	0.0081	<0.000002	0.0078	0.0019		3.94	0.00203	1.43	<0.00002	178	0.116	134	<0.00001	<0.005	<0.005	0.00102	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/25/2019 11:15	VZ1745	D	<0.0002	0.0865	29.3	0.0166	<0.000002	0.0065	0.0021		4.11	0.00235	2.57	<0.00002	154	0.155	129	0.000012	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/25/2019 11:15	VZ1746	M	<0.0002	0.0844	29.6	0.0153	<0.000002	0.0061	0.002		4.08	0.00242	2.6	<0.00002	150	0.157	124	0.000013	<0.005	<0.005	0.00108	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/26/2019 11:50	VZ5385	D	<0.0002	0.0919	29.9	0.0119	<0.000002	0.0065	0.002		4.32	0.00269	2.81	<0.00002	154	0.186	135	0.000011	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/26/2019 11:50	VZ5386	M	<0.0002	0.0911	30.6	0.0121	<0.000002	0.0067	0.0021		4.36	0.00267	2.83	<0.00002	148	0.186	132	0.000013	<0.005	<0.005	0.00138	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/27/2019 12:05	VZ7724	D	<0.0002	0.0985	31.7	0.0015	<0.000002	0.0072	0.0017		4.64	0.00331	2.99	<0.00002	160	0.208	145	0.000014	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/27/2019 12:05	VZ7725	M	<0.0002	0.098	31.5	0.0013	<0.000002	0.0078	0.0018		4.63	0.00332	3.26	<0.00002	159	0.21	145	0.000013	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/28/2019 9:15	VZ7855	D	<0.0002	0.0999	32.3	<0.001	<0.000002	0.0071	0.0016		4.50	0.00368	2.87	<0.00002	169	0.213	150	0.000011	<0.005	<0.005	0.00135	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/28/2019 9:15	VZ7856	M	<0.0002	0.0998	32.0	<0.001	<0.000002	0.0071	0.0016		4.67	0.00376	2.95	<0.00002	170	0.218	152	0.000014	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	6/29/2019 13:30	VZ9026	M	7.89	1220	2.61	814	4.0	232	228	96.7	<1.0	118	<1.0	<1.0	37.0	0.400	0.52	401			<0.015	0.0385	0.798	0.837	<0.0050
RSEM-R5B-EOP	6/29/2019 13:40	VZ9027	D	7.89	1220	2.53	804	6.8	232	226	98.2	<1.0	120	<1.0	<1.0	37.7	0.400	0.51	402			<0.015	0.0372	0.790	0.827	<0.0050
RSEM-R5B-EOP	6/30/2019 11:55	WA1430	M	7.85	1090	10.9	708	20.8	222	223	90.3	<1.0	110	<1.0	<1.0	38.2	0.400	0.50	349			0.15	0.0435	0.861	0.905	<0.0050
RSEM-R5B-EOP	7/1/2019 14:30	WA1411	M	7.70	954	44.5	622	34.4	219	226	74.8	<1.0	91.2	<1.0	<1.0	29.6	0.400	0.47	307			0.046	0.0422	0.878	0.921	<0.0050
RSEM-R5B-EOP	7/2/2019 11:58	WA3427	M	7.74	985	14	728	14.8	243	262	71.3	<1.0	87.0	<1.0	<1.0	29.5	0.420	0.46	310			0.098	0.0499	0.888	0.938	<0.0050
RSEM-R5B-EOP	7/3/2019 11:20	WA5874	D	7.70	1180	3.8	864	8.4	257	295	71.8	<1.0	87.6	<1.0	<1.0	38.5	0.480	0.58	419			0.066	0.0737	0.983	1.06	<0.0050
RSEM-R5B-EOP	7/3/2019 11:20	WA5875	M	7.64	1170	4.4	862	5.6	262	291	68.5	<1.0	83.6	<1.0	<1.0	37.5	0.480	0.60	410			0.085	0.0751	1.01	1.08	<0.0050
RSEM-R5B-EOP	7/4/2019 11:30	WA7977	D	8.07	1510	3.5	1040	7.2	316	311	65.5	<1.0	79.9	<1.0	<1.0	52.8	0.550	0.79	606			0.063	0.114	1.11	1.23	<0.0050
RSEM-R5B-EOP	7/4/2019 11:30	WA7978	M	8.08	1500	4.3	1040	5.6	317	320	65.7	<1.0	80.1	<1.0	<1.0	53.6	0.550	0.81	546			0.069	0.118	1.12	1.24	<0.0050
RSEM-R5B-EOP	7/5/2019 7:15	WA8009	D	7.98	1700	1.8	1220	4.0	359	348	60.6	<1.0	74.0	<1.0	<1.0	65	0.620	0.98	710			0.071	0.146	1.24	1.39	<0.0050
RSEM-R5B-EOP	7/5/2019 7:15	WA8010	M	7.73	1690	1.9	1190	6.4	350	363	63.3	<1.0	77.3	<1.0	<1.0	64	0.640	0.95	710			0.082	0.144	1.24	1.39	<0.0050
RSEM-R5B-EOP	7/6/2019 12:00	WB1461	D	7.79	1790	3.2	1260	6.4	361	366	66.2	<1.0	80.8	<1.0	<1.0	63.8	0.660	1.1	711			0.072	0.141	1.28	1.42	<0.0050
RSEM-R5B-EOP	7/6/2019 12:00	WB1462	M	7.76	1770	2.5	1260	5.6	363	371	64.1	<1.0	78.1	<1.0	<1.0	57.7	0.660	1.1	699			0.070	0.143	1.28	1.42	<0.0050
RSEM-R5B-EOP	7/7/2019 10:50	WB1496	D	8.00	1810	3.1	1260	6.0	373	391	65.6	<1.0	80.0	<1.0	<1.0	64.0	0.680	1.1	738			0.077	0.135	1.28	1.41	<0.0050
RSEM-R5B-EOP	7/7/2019 10:50	WB1497	M	8.02	1800	3.1	1260	6.8	371	374	66.6	<1.0	81.2	<1.0	<1.0	60.8	0.640	1.1	741			0.085	0.135	1.27	1.41	<0.0050
RSEM-R5B-EOP	7/8/2019 11:30	WB4632	D	7.59	1860	2.7	1310	7.6	402	387	66.9	<1.0	81.6	<1.0	<1.0	68.0	0.640	1.0	767			0.096	0.136	1.20	1.34	<0.0050
RSEM-R5B-EOP	7/8/2019 11:30	WB4633	M	7.69	1810	2.9	1300	4.4	398	382	67.1	<1.0	81.8	<1.0	<1.0	66.6	0.650	1.0	758			0.12	0.138	1.19	1.33	<0.0050
RSEM-R5B-EOP	7/9/2019 12:40	WB6313	M	7.94	1850	2.4	1320	4.4	361	346	75.0	<1.0	91.5	<1.0	<1.0	56.8	0.630	0.96	748			0.15	0.133	1.26	1.40	<0.0050
RSEM-R5B-EOP	7/10/2019 10:15	WB8319	M	8.10	1860	2.1	1240	<4.0	382	370	80.3	<1.0	97.9	<1.0	<1.0	54.7	0.580	0.94	757			0.11	0.132	1.29	1.42	<0.0050
RSEM-R5B-EOP	7/11/2019 10:50	WC0492	M	7.85	1840	1.9	1270	<4.0	355	373	80.4	<1.0	98.1	<1.0	<1.0	58.7	0.580	0.89	731			0.098	0.118	1.28	1.39	<0.0050
RSEM-R5B-EOP	7/12/2019 9:50	WC0450	M	7.80	1880	1.5	1300	<4.0	372	385	72.5	<1.0	88.4	<1.0	<1.0	54.2	0.600	0.89	757			0.084	0.111	1.31	1.43	<0.0050
RSEM-R5B-EOP	7/13/2019 11:05	WC4184	M	7.63	1860	1.5	1290	<4.0	385	447	69.2	<1.0	84.4	<1.0	<1.0	54.6	0.520	0.92	802			0.10	0.0927	1.24	1.33	<0.0050
RSEM-R5B-EOP	7/14/2019 12:10	WC4348	M	7.75	1840	1.2	1270	<4.0	438	504	65.5	<1.0	80.0	<1.0	<1.0	49.9	0.510	0.92	843			0.045	0.0985	1.36	1.46	<0.0050
RSEM-R5B-EOP	7/15/2019 10:25	WC7550	M	8.07	1930	0.67	1370	<4.0	473	503	98.6	<1.0	120	<1.0	<1.0	42.9	0.600	0.81	872			0.074	0.0957	1.22	1.32	<0.0050
RSEM-R5B-EOP	7/16/2019 10:26	WC9628	M	8.10	1850	2.1	1390	8.4	496	501	89.3	<1.0	109	<1.0	<1.0	45.0	0.530	0.80	805			0.085	0.103	1.19	1.29	<0.0050
RSEM-R5B-EOP	7/17/2019 12:10	WD1672	M	7.99	1810	1.0	1250	6.0	465	431	102	<1.0	125	<1.0	<1.0	51.9	0.460	1.0	716			0.13	0.0986	1.07	1.16	<0.0050
RSEM-R5B-EOP	7/18/2019 11:50	WD4010	M	8.01	1810	1.3	1230	<4.0	410	410	103	<1.0	125	<1.0	<1.0	64.7	0.430	1.0	675			0.14	0.0931	1.07	1.17	<0.0050
RSEM-R5B-EOP	7/19/2019 11:16	WD4020	M	8.09	1800	1.0	1260	4.0	360	366	108	<1.0	131	<1.0	<1.0	61.6	0.400	1.1	600			0.14	0.0933	1.05	1.14	<0.0050
RSEM-R5B-EOP	7/20/2019 12:45	WD7108	M	8.11	1720	4.5	1160	6.0	329	326	118	<1.0	144	<1.0	<1.0	63.2	0.360	0.99	570			0.11	0.0821	1.01	1.09	<0.0050
RSEM-R5B-EOP	7/21/2019 11:15	WD7081	M	8.29	1680	2.7	1120	4.0	304	298	124	<1.0	151	<1.0	<1.0	63.2	0.340	0.97	566			0.095	0.0819	0.960	1.04	<0.0050
RSEM-R5B-EOP	7/22/2019 10:56	WD8942	D	8.46	1670	1.0	1100	<4.0	272	256	124	2.7	145	3.2	<1.0	64.9	0.340	0.93	600			0.072	0.0951	0.912	1.01	<0.0050
RSEM-R5B-EOP	7/22/2019 10:56	WD8943	M	8.46	1670	1.0	1100	<4.0	265	256	123	2.6	144	3.1	<1.0	67.1	0.320	0.95	598			0.071	0.0927	0.915	1.01	<0.0050
RSEM-R5B-EOP	7/23/2019 12:00	WE1023	D	8.46	1660	1.5	1100	4.0	232	249	122	2.3	143	2.8	<1.0	62.9	0.340	0.96	515			0.019	0.0941	0.773	0.867	<0.0050
RSEM-R5B-EOP	7/23/2019 12:00	WE1024	M	8.55	1650	1.5	1090	<4.0	232	249	121	3.4	140	4.1	<1.0	62.8	0.370	0.99	514			0.034	0.0927	0.760	0.853	<0.0050
RSEM-R5B-EOP	7/24/2019 11:30	WE3033	D	8.35	1650	1.3	1070	<4.0	244	247	134	1.3	160	1.5	<1.0	74.7	0.390	1.1	591			0.072	0.0840	0.668	0.752	<0.0050
RSEM-R5B-EOP	7/24/2019 11:30	WE3034	M	8.33	1640	1.2	1050	<4.0	244	254	133	1.1	160	1.3	<1.0	70.0	0.380	1.1	560			0.071	0.0826	0.662	0.745	<0.0050
RSEM-R5B-EOP	7/25/2019 11:40	WE4838	D	8.26	1550	2.2	992	<4.0	265	264	170	<1.0	208	<1.0	<1.0	66.3	0.400	1.1	511			0.017	0.0697	0.660	0.730	<0.0050
RSEM-R5B-EOP	7/25/2019 11:40	WE4839	M	8.27	1540	2.2	988	<4.0	274	262	169	<1.0	207	<1.0	<1.0	67.3	0.410	1.1	493			0.017	0.0700	0.671	0.741	<0.0050
RSEM-R5B-EOP	7/26/2019 9:00	WE4704	D	8.35	1510	1.7	978	<4.0	271	267	179	1.5	214	1.8	<1.0	64.7	0.410	1.0	449			0.018	0.0592	0.574	0.633	<0.0050
RSEM-R5B-EOP	7/26/2019 9:00	WE4705	M	8.38	1520	1.7	968	<4.0	270	266	179	2.0	214	2.4	<1.0	63.7	0.420	1.0	514			0.018	0.0589	0.554	0.613	<0.0050
RSEM-R5B-EOP	7/27/2019 10:30	WE7073	D	8.34	1490	1.9	984	<4.0	259	258	182	2.0	218	2.4	<1.0	62.7	0.400	0.96	497			0.028	0.0478	0.429	0.476	<0.0050
RSEM-R5B-EOP	7/27/2019 10:30	WE7074	M	8.32	1490	2.0	962	<4.0	254	247	184	1.6	220	1.9	<1.0	64.5	0.400	0.94	417			0.030	0.0493	0.436	0.486	<0.0050
RSEM-R5B-EOP	7/28/2019 10:30	WE7120	D	8.30	1400	2.2	890	4.0	239	247	189	<1.0	231	<1.0	<1.0	59.7	0.360	0.90	388			0.031	0.0338	0.337	0.371	<0.0050
RSEM-R5B-EOP	7/28/2019 10:30	WE7121	M	8.28	1390	2.2	872	4.0	244	245	189	<1.0	230	<1.0	<1.0	55.1	0.370	0.91	455			0.034	0.0353	0.337	0.373	<0.0050
RSEM-R5B-EOP	7/29/2019 9:40	WE7139	D	8.30	1380	1.5	886	<4.0	245	254	190	1.0	229	1.2	<1.0	60.8	0.360	0.89	389			0.035	0.0264	0.294	0.320	<0.0050
RSEM-R5B-EOP	7/29/2019 9:40	WE7140	M	8.31	1390	1.5	862	<4.0	244	253	192	1.6	230	1.9	<1.0	58.2	0.350	0.92	390			0.039	0.0246	0.292	0.317	<0.0050
RSEM-R5B-EOP	7/30/2019 11:00	WF2070	M	8.27	1370	2.8	890	4.8	229	249	193	<1.0	235	<1.0	<1.0	60.9	0.350	0.89	416			0.041	0.0184	0.219	0.237	<0.0050
RSEM-R5B-EOP	7/31/2019 10:20	WF4361	M	8.17	1360	1.8	814	4.8	239	234	190	<1.0	232	<1.0	<1.0	56.2	0.330	0.88	415			0.047	0.0175	0.190	0.208	<0.0050
RSEM-R5B-EOP	8/1/2019 11:10	WF6257	M	8.29	1400	1.6	870	2.8	224	238	190	<1.0	240	<1.0	<1.0	61	0.34	0.88	390			0.044	0.0137	0.142	0.156	<0.0030
RSEM-R5B-EOP	8/2/2019 9:10	WF6281	M	8.16	1400	1.7	850	<1.0	221	209	190	<1.0	240	<1.0	<1.0	57	0.34	0.88	410			0.041	0.0116	0.147	0.159	0.0032
RSEM-R5B-EOP	8/3/2019 11:13	WF7645	M	8.22	1410	1.9	874	<4.0	214	224	202	<1.0	246	<1.0	<1.0	54.9	0.310	0.81	382			0.045	0.0093	<0.020	<0.020	<0.0050
RSEM-R5B-EOP	8/4/2019 12:35	WF7660	M	8.09	1380	1.2	872	<4.0	233	231	212	<1.0	258	<1.0	<1.0	50.0	0.320	0.78	369			0.037	0.0084	0.118	0.127	<0.0050
RSEM-R5B-EOP	8/5/2019 10:10	WF9949	M	8.11	1360	1.5	846	<4.0	219	225	216	<1.0	263	<1.0	<1.0	51.0	0.340	0.79	404			0.051	0.0094	0.123	0.133	0.0065
RSEM-R5B-EOP	8/6/2019 10:40	WG2803	M	8.14	1360	1.9	858	<4.0	216	222	217	<1.0	264	<1.0	<1.0	56.2	0.340	0.77	401			0.070	<0.0050	0.106	0.106	<0.0050
RSEM-R5B-EOP	8/7/2019 15:22	WG4502	M	8.35	1390	1.3	860	<4.0	238	233	223	2.1	267	2.5	<1.0	55.1	0.300	0.75	343			0.064	0.0082	0.114	0.122	<0.0050
RSEM-R5B-EOP	8/8/2019 11:05	WG6503	M	8.29	1400	2.0	890	3.6	246	249	230	<1.0	270	<1.0	<1.0	52	0.28	0.75	410			0.078	0.0053	0.116	0.121	0.0035
RSEM-R5B-EOP	8/9/2019 10:00	WG6541	M	8.20	1400	2.4	910	6.4	267	281	220	<1.0	270	<1.0	<1.0	48	0.26	0.78	430			0.065	<0.0050	0.142	0.142	<0.0030
RSEM-R5B-EOP	8/9/2019 10:10	WG6542	D	8.38	1400	2.2	920	7.2	270	280	220	3.4	260	4.1	<1.0	50	0.26	0.78	430			0.058	0.0068	0.153	0.160	<0.0030
RSEM-R5B-EOP	8/10/2019 10:45	WH0272	M	8.07	1470	1.3	952	<4.0	297	307	213	<1.0	260	<1.0	<1.0	45.9	0.250	0.88	435			0.055	0.0083	0.190	0.198	<0.0050
RSEM-R5B-EOP	8/10/2019 10:55	WH0273	D	8.14	1460	1.4	966	<4.0	306	307	209	<1.0	255	<1.0	<1.0	48.3	0.250	0.87	439			0.054	0.0120	0.212	0.224	<0.0050
RSEM-R5B-EOP	8/11/2019 10:30	WH0296	M	8.12	1490	1.0	982	<4.0	320	313	211	<1.0	258	<1.0	<1.0	57.7	0.250	0.91	445			0.053	0.0101	0.181	0.191	<0.0050
RSEM-R5B-EOP	8/11/2019 10:40	WH0297	D	8.18	1490	1.1	984	<4.0	320	312	211	<1.0	257	<1.0	<1.0	52.8	0.250	0.91	451			0.055	0.0112	0.200	0.211	<0.0050
RSEM-R5B-EOP	8/12/2019 13:20	WH2474	M	8.41	1540	0.99	1040	<4.0	318	331	201	3.6	236	4.3	<1.0	54.2	0.250	0.91	511			0.029	0.0131	0.208	0.221	<0.0050
RSEM-R5B-EOP	8/12/2019 13:45	WH2475	D	8.37	1530	1.1	1040	<4.0	323	338	200	2.9	237	3.5	<1.0	52.2	0.270	0.92	505			0.028	0.0147	0.204	0.218	<0.0050
RSEM-R5B-EOP	8/13/2019 12:20	WH4519	D	8.20	1550	0.87	1060	<4.0	320	333	193	<1.0	236	<1.0	<1.0	57.2	0.240	0.90	516			0.024	0.0116	0.200	0.211	<0.0050
RSEM-R5B-EOP	8/13/2019 12:20	WH4521	M	8.24	1540	0.89	1050	<4.0	317	332	193	<1.0	236	<1.0	<1.0	57.7	0.240	0.91	520			0.028	0.0125	0.198	0.210	<0.0050
RSEM-R5B-EOP	8/14/2019 12:55	WH7022	D	8.29	1540	1.0	1020	<4.0	315	329	187	<1.0	229	<1.0	<1.0	54.5	0.250	0.89	503			0.024	0.0086	0.192	0.201	<0.0050
RSEM-R5B-EOP	8/14/2019 12:55	WH7023	M	8.21	1540	1.1	1030	<4.0	315	330	185	<1.0	226	<1.0	<1.0	56.9	0.250	0.89	500			0.020	0.0104	0.193	0.203	<0.0050
RSEM-R5B-EOP	8/15/2019 9:30	WH8385	D	8.33	1500	1.4	1000	3.6	303	309	190	1.9	220	2.3	<1.0	59	0.25	0.87	510			0.022	0.0079	0.169	0.177	0.0057
RSEM-R5B-EOP	8/15/2019 9:30	WH8386	M	8.23	1600	3.0	1000	6.8	309	306	170	<1.0	210	<1.0	<1.0	67	0.25	0.87	490			0.024	0.0080	0.171	0.179	<0.0030
RSEM-R5B-EOP	8/16/2019 9:30	WH8423	D	8.17	1300	17	800	20	250	251	150	<1.0	190	<1.0	<1.0	53	0.27	0.74	370			0.016	0.0173	0.250	0.268	<0.0030
RSEM-R5B-EOP	8/16/2019 9:30	WH8424	M	8.22	1300	15	800	24	251	252	160	<1.0	200	<1.0	<1.0	54	0.27	0.75	360			0.016	0.0181	0.252	0.270	<0.0030
RSEM-R5B-EOP	8/17/2019 12:45	WI0632	D	8.24	1210	6.0	808	4.0	222	222	146	<1.0	178	<1.0	<1.0	54	0.310	0.86	330			0.13	0.0320	0.462	0.494	<0.0050
RSEM-R5B-EOP	8/17/2019 12:45	WI0633	M	8.23	1190	6.8	798	4.8	227	219	145	<1.0	177	<1.0	<1.0	53	0.310	0.85	330			0.12	0.0311	0.461	0.492	<0.0050
RSEM-R5B-EOP	8/18/2019 16:35	WI0684	D	7.93	1180	15	826	16.4	256	255	106	<1.0	129	<1.0	<1.0	61	0.410	0.93	360			0.20	0.0759	0.870	0.946	<0.0050
RSEM-R5B-EOP	8/18/2019 16:35	WI0685	M	7.90	1170	17	840	18.8	255	260	105	<1.0	128	<1.0	<1.0	61	0.410	0.93	370			0.21	0.0763	0.879	0.955	<0.0050

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	6/29/2019 13:30	VZ9026	M	3.0	3.0	0.0728	0.00062	0.0006	0.0286	<0.0001	<0.001	0.173	0.000018	40.7	<0.001	0.00023	0.001	0.087	<0.0002	0.0902	31.7	0.0149	<0.000002	0.0068	0.0018		4.25	0.00418
RSEM-R5B-EOP	6/29/2019 13:40	VZ9027	D	2.8	3.0	0.0613	0.00062	0.00062	0.0295	<0.0001	<0.001	0.176	0.000018	40.9	<0.001	0.00023	0.00101	0.083	<0.0002	0.0905	31.5	0.0151	<0.000002	0.0068	0.0018		4.29	0.00417
RSEM-R5B-EOP	6/30/2019 11:55	WA1430	M	2.7	3.6	0.212	0.0006	0.0008	0.0834	<0.0001	<0.001	0.15	0.000022	47.6	0.0015	0.00043	0.00143	0.342	0.00029	0.0739	25.2	0.0332	<0.000002	0.0079	0.0024		3.86	0.00405
RSEM-R5B-EOP	7/1/2019 14:30	WA1411	M	2.9	3.1	0.979	0.00068	0.0011	0.128	<0.0001	<0.001	0.13	0.000051	53.4	0.003	0.00081	0.00239	1.04	0.00068	0.0565	20.9	0.0423	<0.000002	0.0073	0.0042		3.84	0.00401
RSEM-R5B-EOP	7/2/2019 11:58	WA3427	M	3.9	2.6	0.142	0.00073	0.00072	0.114	<0.0001	<0.001	0.138	0.000047	60.7	0.0022	0.00106	0.00184	0.199	<0.0002	0.057	22.1	0.0584	0.0000027	0.0081	0.0065		4.04	0.00444
RSEM-R5B-EOP	7/3/2019 11:20	WA5874	D	3.1	2.8	0.0975	0.00091	0.00067	0.0799	<0.0001	<0.001	0.152	0.000034	60.5	0.0022	0.0008	0.00136	0.097	<0.0002	0.0634	25.8	0.0395	<0.000002	0.0094	0.0059		4.37	0.0058
RSEM-R5B-EOP	7/3/2019 11:20	WA5875	M	3.6	3.0	0.094	0.00092	0.00068	0.0813	<0.0001	<0.001	0.162	0.000036	62.0	0.0022	0.00078	0.00151	0.086	<0.0002	0.066	26.0	0.0392	<0.000002	0.0099	0.0059		4.47	0.00586
RSEM-R5B-EOP	7/4/2019 11:30	WA7977	D	2.2	2.4	0.0951	0.00125	0.0008	0.0539	<0.0001	<0.001	0.194	0.000021	75.9	0.0025	0.00043	0.0012	0.11	<0.0002	0.0997	30.6	0.0245	<0.000002	0.0125	0.0039		5.76	0.00784
RSEM-R5B-EOP	7/4/2019 11:30	WA7978	M	2.4	3.1	0.095	0.00123	0.00077	0.0536	<0.0001	<0.001	0.197	0.000018	75.8	0.0026	0.00045	0.00133	0.113	<0.0002	0.0976	31.1	0.0255	<0.000002	0.0124	0.004		5.99	0.00773
RSEM-R5B-EOP	7/5/2019 7:15	WA8009	D	2.1	2.4	0.0738	0.00138	0.00071	0.0432	<0.0001	<0.001	0.227	0.000017	87.6	0.0023	0.00037	0.00091	0.09	<0.0002	0.121	34.0	0.022	<0.000002	0.0142	0.0031		6.53	0.0089
RSEM-R5B-EOP	7/5/2019 7:15	WA8010	M	2.3	2.4	0.0742	0.00137	0.00071	0.0435	<0.0001	<0.001	0.229	0.000017	83.2	0.0024	0.00038	0.0011	0.084	<0.0002	0.119	34.5	0.0219	0.0000022	0.0139	0.003		6.56	0.00864
RSEM-R5B-EOP	7/6/2019 12:00	WB1461	D	2.7	2.7	0.0799	0.00134	0.00074	0.0409	<0.0001	<0.001	0.248	0.000017	84.3	0.0019	0.00039	0.00112	0.109	<0.0002	0.125	36.4	0.0281	<0.000002	0.0146	0.0028		6.52	0.00841
RSEM-R5B-EOP	7/6/2019 12:00	WB1462	M	2.6	2.6	0.0772	0.00132	0.00072	0.0401	<0.0001	<0.001	0.248	0.000021	85.8	0.0019	0.0004	0.00115	0.105	<0.0002	0.125	36.2	0.0277	<0.000002	0.0146	0.0027		6.44	0.00854
RSEM-R5B-EOP	7/7/2019 10:50	WB1496	D	2.8	2.7	0.0702	0.00128	0.00075	0.0401	<0.0001	<0.001	0.258	0.000021	87.2	0.0014	0.00045	0.00097	0.103	<0.0002	0.126	37.7	0.0384	<0.000002	0.0146	0.0026		6.36	0.00828
RSEM-R5B-EOP	7/7/2019 10:50	WB1497	M	3.0	2.7	0.0663	0.00129	0.00073	0.0401	<0.0001	<0.001	0.255	0.000015	86.0	0.0014	0.00044	0.00119	0.104	<0.0002	0.126	37.8	0.0392	<0.000002	0.0141	0.0026		6.29	0.00818
RSEM-R5B-EOP	7/8/2019 11:30	WB4632	D	2.5	2.8	0.0862	0.00133	0.00081	0.039	<0.0001	<0.001	0.257	0.000019	91.5	0.0012	0.0005	0.00107	0.115	<0.0002	0.137	42.0	0.0614	<0.000002	0.0122	0.0028		6.77	0.00815
RSEM-R5B-EOP	7/8/2019 11:30	WB4633	M	2.7	2.8	0.077	0.00134	0.00076	0.0405	<0.0001	<0.001	0.256	0.000022	89.3	0.0013	0.00054	0.00127	0.143	<0.0002	0.138	42.5	0.0621	<0.000002	0.0136	0.0027		6.83	0.00741
RSEM-R5B-EOP	7/9/2019 12:40	WB6313	M	2.5	2.2	0.052	0.00111	0.00069	0.0399	<0.0001	<0.001	0.234	0.000019	79.8	<0.001	0.00042	0.00059	0.091	<0.0002	0.135	39.3	0.0488	<0.000002	0.0117	0.0022		5.91	0.00747
RSEM-R5B-EOP	7/10/2019 10:15	WB8319	M	2.6	2.4	0.0483	0.00113	0.00067	0.0412	<0.0001	<0.001	0.242	0.000021	84.7	<0.001	0.00042	0.00059	0.099	<0.0002	0.129	41.5	0.0417	<0.000002	0.0115	0.0022		5.75	0.00692
RSEM-R5B-EOP	7/11/2019 10:50	WC0492	M	2.3	2.8	0.0643	0.0011	0.00067	0.0353	<0.0002	<0.002	0.234	0.000028	75.9	<0.002	0.00079	<0.001	0.115	<0.0004	0.124	40.2	0.0474	<0.000002	0.0103	0.0038		5.65	0.00673
RSEM-R5B-EOP	7/12/2019 9:50	WC0450	M	2.3	2.6	0.0366	0.00104	0.00068	0.0301	<0.0001	<0.001	0.25	0.000016	79.5	<0.001	0.00036	0.00077	0.093	<0.0002	0.125	42.1	0.0348	<0.000002	0.0109	0.002		5.70	0.00641
RSEM-R5B-EOP	7/13/2019 11:05	WC4184	M	2.6	0.97	0.0422	0.00102	0.00072	0.0262	<0.0001	<0.001	0.253	0.000019	81.4	<0.001	0.00051	0.00089	0.088	<0.0002	0.126	44.1	0.0336	<0.000002	0.0106	0.0021		5.52	0.00692
RSEM-R5B-EOP	7/14/2019 12:10	WC4348	M	3.1	2.4	0.0415	0.001	0.0007	0.027	<0.0001	<0.001	0.232	0.000022	97.0	<0.001	0.00052	0.00104	0.071	<0.0002	0.118	47.5	0.0316	<0.000002	0.0105	0.0024		5.53	0.0071
RSEM-R5B-EOP	7/15/2019 10:25	WC7550	M	2.4	2.9	0.0299	0.00078	0.00064	0.036	<0.0001	<0.001	0.229	0.000015	106	0.0028	0.00173	0.00127	0.045	<0.0002	0.117	50.3	0.0733	<0.000002	0.0097	0.0112		5.34	0.00521
RSEM-R5B-EOP	7/16/2019 10:26	WC9628	M	2.3	3.0	0.083	0.00087	0.00076	0.0481	<0.0001	<0.001	0.228	0.00002	116	<0.001	0.00125	0.00116	0.129	<0.0002	0.108	49.9	0.0676	0.0000061	0.0116	0.008		5.46	0.00559
RSEM-R5B-EOP	7/17/2019 12:10	WD1672	M	2.6	3.1	0.0454	0.00104	0.00072	0.0382	<0.0001	<0.001	0.243	0.000018	108	<0.001	0.00081	0.00106	0.11	<0.0002	0.105	47.7	0.0635	<0.000002	0.0126	0.0047		5.84	0.00515
RSEM-R5B-EOP	7/18/2019 11:50	WD4010	M	2.4	3.3	0.0364	0.00106	0.00082	0.0307	<0.0001	<0.001	0.228	0.000023	93.7	<0.001	0.00072	0.00097	0.107	<0.0002	0.102	42.7	0.0555	<0.000002	0.0139	0.0044		5.28	0.00497
RSEM-R5B-EOP	7/19/2019 11:16	WD4020	M	2.7	3.8	0.0482	0.00113	0.00081	0.0272	<0.0001	<0.001	0.218	0.000014	79.0	<0.001	0.00046	0.00105	0.116	<0.0002	0.0965	39.5	0.0471	<0.000002	0.0139	0.0032		5.35	0.00464
RSEM-R5B-EOP	7/20/2019 12:45	WD7108	M	2.4	2.8	0.0761	0.00107	0.00085	0.0351	<0.0001	<0.001	0.217	0.000016	70.2	<0.001	0.00054	0.00111	0.174	<0.0002	0.0967	37.4	0.035	<0.000002	0.0132	0.0029		5.22	0.00407
RSEM-R5B-EOP	7/21/2019 11:15	WD7081	M	3.4	3.3	0.0633	0.00112	0.00089	0.0323	<0.0001	<0.001	0.223	0.000014	62.2	<0.001	0.00046	0.0012	0.148	<0.0002	0.0979	36.1	0.0287	<0.000002	0.0129	0.0026		5.10	0.00381
RSEM-R5B-EOP	7/22/2019 10:56	WD8942	D	3.2	3.5	0.0261	0.00123	0.00101	0.0214	<0.0001	<0.001	0.23	0.00001	51.9	0.0207	0.00064	0.00528	0.187	<0.0002	0.104	34.5	0.0277	<0.000002	0.0146	0.0123		5.13	0.00399
RSEM-R5B-EOP	7/22/2019 10:56	WD8943	M	3.4	3.6	0.0258	0.0012	0.00097	0.0213	<0.0001	<0.001	0.222	<0.00001	50.8	<0.001	0.00042	0.00104	0.105	<0.0002	0.101	33.4	0.0242	<0.000002	0.0141	0.0021		5.06	0.00395
RSEM-R5B-EOP	7/23/2019 12:00	WE1023	D	3.6	3.7	0.0333	0.0011	0.00113	0.0171	<0.0002	<0.002	0.214	<0.00002	41.2	<0.002	0.00052	<0.001	0.12	<0.0004	0.0958	31.3	0.0207	<0.000002	0.0136	0.0027		4.85	0.00411
RSEM-R5B-EOP	7/23/2019 12:00	WE1024	M	3.9	3.8	0.0339	0.0011	0.0012	0.0171	<0.0002	<0.002	0.216	<0.00002	41.2	<0.002	0.0005	0.0011	0.127	<0.0004	0.0981	31.4	0.0211	0.0000022	0.0136	0.0028		4.94	0.00395
RSEM-R5B-EOP	7/24/2019 11:30	WE3033	D	3.8	3.4	0.0364	0.00116	0.00124	0.0202	<0.0001	<0.001	0.205	<0.00001	45.0	<0.001	0.00057	0.00108	0.135	<0.0002	0.0855	31.9	0.0328	<0.000002	0.0142	0.003		4.97	0.00373
RSEM-R5B-EOP	7/24/2019 11:30	WE3034	M	3.8	3.4	0.0405	0.00116	0.00126	0.0209	<0.0001	<0.001	0.203	0.000013	45.6	<0.001	0.00059	0.00199	0.137	<0.0002	0.0845	31.7	0.0347	<0.000002	0.0143	0.0032		4.94	0.00378
RSEM-R5B-EOP	7/25/2019 11:40	WE4838	D	3.4	3.6	0.0605	0.00091	0.00116	0.0288	<0.0001	<0.001	0.216	0.00001	52.9	<0.001	0.00078	0.00103	0.151	<0.0002	0.0918	32.1	0.0509	<0.000002	0.0125	0.0048		4.90	0.00315
RSEM-R5B-EOP	7/25/2019 11:40	WE4839	M	3.6	3.6	0.0572	0.00099	0.00118	0.0299	<0.0001	<0.001	0.227	0.000012	55.1	<0.001	0.00082	0.00159	0.149	<0.0002	0.0946	33.2	0.0532	<0.000002	0.0134	0.0053		5.08	0.00335
RSEM-R5B-EOP	7/26/2019 9:00	WE4704	D	3.3	3.5	0.0529	0.00089	0.00117	0.0303	<0.0001	<0.001	0.222	<0.00001	56.7	<0.001	0.00081	0.00092	0.135	<0.0002	0.0919	31.5	0.0549	<0.000002	0.0117	0.0056		4.69	0.0029
RSEM-R5B-EOP	7/26/2019 9:00	WE4705	M	3.4	3.5	0.0521	0.00089	0.00116	0.0301	<0.0001	<0.001	0.219	0.00001	55.9	<0.001	0.00082	0.00092	0.137	<0.0002	0.0901	31.7	0.0551	<0.000002	0.0115	0.0055		4.78	0.00289
RSEM-R5B-EOP	7/27/2019 10:30	WE7073	D	3.3	3.2	0.0535	0.00094	0.00127	0.0306	<0.0001	<0.001	0.207	0.000012	52.1	<0.001	0.00068	0.00078	0.141	<0.0002	0.0868	31.2	0.0516	<0.000002	0.0108	0.0048		4.56	0.00269
RSEM-R5B-EOP	7/27/2019 10:30	WE7074	M	3.4	3.5	0.0538	0.00094	0.00128	0.0305	<0.0001	<0.001	0.208	<0.00001	51.2	<0.001	0.00067	0.00086	0.14	<0.0002	0.0866	30.7	0.051	<0.000002	0.0112	0.0047		4.52	0.0028
RSEM-R5B-EOP	7/28/2019 10:30	WE7120	D	2.9	3.1	0.0565	0.00085	0.00116	0.0351	<0.0001	<0.001	0.196	0.000015	48.0	<0.001	0.00059	0.00082	0.142	<0.0002	0.0831	28.9	0.0468	<0.000002	0.0094	0.004		4.38	0.00233
RSEM-R5B-EOP	7/28/2019 10:30	WE7121	M	3.0	3.1	0.0656	0.00089	0.00126	0.036	<0.0001	<0.001	0.2	0.000015	49.5	<0.001	0.0006	0.00087	0.153	<0.0002	0.0875	29.3	0.0478	<0.000002	0.011	0.0042		4.48	0.00251
RSEM-R5B-EOP	7/29/2019 9:40	WE7139	D	2.9	3.3	0.0596	0.0008	0.00118	0.0414	<0.0001	<0.001	0.195	0.000011	50.4	<0.001	0.00062	0.0008	0.122	<0.0002	0.0852	28.9	0.0514	<0.000002	0.0088	0.0042		4.47	0.00212
RSEM-R5B-EOP	7/29/2019 9:40	WE7140	M	3.1	3.3	0.0548	0.00082	0.00119	0.0403	<0.0001	<0.001	0.189	0.000013	50.3	<0.001	0.00062	0.00081	0.117	<0.0002	0.0845	28.8	0.0504	<0.000002	0.0089	0.0041		4.38	0.0022
RSEM-R5B-EOP	7/30/2019 11:00	WF2070	M	3.2	3.1	0.0647	0.00074	0.00119	0.0406	<0.0001	<0.001	0.186	0.000011	46.1	<0.001	0.00061	0.00075	0.148	<0.0002	0.086	27.7	0.0461	<0.000002	0.008	0.0039		4.40	0.00207
RSEM-R5B-EOP	7/31/2019 10:20	WF4361	M	3.7	3.7	0.06	0.00078	0.00128	0.0402	<0.0001	<0.001	0.218	0.000011	47.1	<0.001	0.0006	0.00091	0.146	<0.0002	0.0918	29.5	0.0457	<0.000002	0.0084	0.0039		4.66	0.00202
RSEM-R5B-EOP	8/1/2019 11:10	WF6257	M	3.3	3.3	0.0562	0.00072	0.00119	0.0371	<0.0001	<0.001	0.216	0.000011	44.0	<0.001	0.00053	0.00079	0.128	<0.0002	0.0922	27.6	0.0405	<0.000002	0.0078	0.0038		4.38	0.00204
RSEM-R5B-EOP	8/2/2019 9:10	WF6281	M	3.0	3.1	0.0535	0.00074	0.00112	0.0364	<0.0001	<0.001	0.228	0.000011	42.0	<0.001	0.00052	0.0008	0.13	<0.0002	0.0979	28.3	0.0379	<0.000002	0.0081	0.0035		4.64	0.00202
RSEM-R5B-EOP	8/3/2019 11:13	WF7645	M	3.2	3.4	0.0548	0.00066	0.00111	0.0419	<0.0001	<0.001	0.211	<0.00001	40.9	0.001	0.00055	0.00079	0.146	<0.0002	0.105	27.2	0.0386	<0.000002	0.0079	0.0034		4.54	0.00181
RSEM-R5B-EOP	8/4/2019 12:35	WF7660	M	3.6	3.2	0.0504	0.00062	0.00105	0.0397	<0.0001	<0.001	0.204	<0.00001	50.0	<0.001	0.00051	0.001	0.151	<0.0002	0.0994	26.3	0.0344	<0.000002	0.0078	0.0032		4.58	0.00209
RSEM-R5B-EOP	8/5/2019 10:10	WF9949	M	3.5	3.5	0.0502	0.00063	0.00113	0.0424	<0.0001	<0.001	0.199	<0.00001	41.8	<0.001	0.00052	0.00074	0.123	<0.0002	0.0879	27.9	0.0368	<0.000002	0.0075	0.0032		4.46	0.00178
RSEM-R5B-EOP	8/6/2019 10:40	WG2803	M	3.2	3.4	0.0591	0.00065	0.00127	0.0448	<0.0001	<0.001	0.199	<0.00001	40.8	<0.001	0.00055	0.00078	0.145	<0.0002	0.0896	27.7	0.0433	<0.000002	0.0078	0.0033		4.48	0.00176
RSEM-R5B-EOP	8/7/2019 15:22	WG4502	M	3.0	3.0	0.0502	0.00068	0.00127	0.0493	<0.0001	<0.001	0.205	<0.00001	42.6	0.0011	0.00054	0.00073	0.15	<0.0002	0.102	32.0	0.0501	<0.000002	0.0085	0.0032		4.81	0.00191
RSEM-R5B-EOP	8/8/2019 11:05	WG6503	M	2.9	2.7	0.0529	0.00066	0.00124	0.0568	<0.0001	<0.001	0.187	<0.00001	44.0	0.0014	0.00052	0.00088	0.214	<0.0002	0.101	33.1	0.0562	<0.000002	0.0082	0.0033		4.65	0.00167
RSEM-R5B-EOP	8/9/2019 10:00	WG6541	M	2.9	2.9	0.0429	0.00068	0.00109	0.064	<0.0001	<0.001	0.175	<0.00001	46.8	<0.001	0.00047	0.00068	0.158	<0.0002	0.0954	36.5	0.0556	<0.000002	0.0077	0.0028		4.38	0.00154
RSEM-R5B-EOP	8/9/2019 10:10	WG6542	D	2.7	2.8	0.0502	0.00067	0.00106	0.0634	<0.0001	<0.001	0.176	<0.00001	47.4	<0.001	0.00049	0.0006	0.165	<0.0002	0.0928	36.8	0.0558	<0.000002	0.0077	0.0029		4.42	0.00156
RSEM-R5B-EOP	8/10/2019 10:45	WH0272	M	2.9	3.1	0.035	0.00069	0.00088	0.0672	<0.0001	<0.001	0.161	<0.00001	54.6	<0.001	0.00058	0.00068	0.121	<0.0002	0.0918	38.9	0.0584	<0.000002	0.0075	0.0034		4.41	0.00147
RSEM-R5B-EOP	8/10/2019 10:55	WH0273	D	2.3	2.8	0.0372	0.00071	0.00091	0.0687	<0.0001	<0.001	0.2	<0.00001	58.0	<0.001	0.00061	0.0006	0.122	<0.0002	0.1	39.1	0.06	<0.000002	0.0081	0.0035		4.54	0.00161
RSEM-R5B-EOP	8/11/2019 10:30	WH0296	M	2.4	2.7	0.0353	0.00071	0.00091	0.0693	<0.0001	<0.001	0.173	<0.00001	60.4	<0.001	0.00061	0.00055	0.112	<0.0002	0.099	41.1	0.0626	<0.000002	0.0077	0.0038		4.91	0.00157
RSEM-R5B-EOP	8/11/2019 10:40	WH0297	D	2.7	2.6	0.034	0.0007	0.00091	0.0678	<0.0001	<0.001	0.168	<0.00001	59.0	<0.001	0.00061	0.00057	0.114	<0.0002	0.094	42.0	0.0608	<0.000002	0.0078	0.004		4.70	0.00155
RSEM-R5B-EOP	8/12/2019 13:20	WH2474	M	3.1	2.6	0.0503	0.00082	0.00088	0.0589	<0.0001	<0.001	0.175	<0.00001	54.4	<0.001	0.00055	0.0007	0.086	<0.0002	0.0804	44.1	0.0487	<0.000002	0.0071	0.0036		4.31	0.00161
RSEM-R5B-EOP	8/12/2019 13:45	WH2475	D	2.6	2.9	0.0459	0.00083	0.0009	0.0589	<0.0001	<0.001	0.183	<0.00001	55.1	<0.001	0.00054	0.00059	0.084	<0.0002	0.0901	45.1	0.0484	<0.000002	0.0073	0.0035		4.34	0.00164
RSEM-R5B-EOP	8/13/2019 12:20	WH4519	D	2.7	2.8	0.0283	0.00087	0.00091	0.0532	<0.0001	<0.001	0.189	<0.00001	54.3	<0.001	0.00044	0.00065	0.086	<0.0002	0.0926	44.9	0.0455	<0.000002	0.0079	0.0032		4.43	0.00179
RSEM-R5B-EOP	8/13/2019 12:20	WH4521	M	2.8	2.9	0.0261	0.00086	0.00091	0.0531	<0.0001	<0.001	0.187	<0.00001	52.8	<0.001	0.00043	0.00095	0.079	<0.0002	0.0889	45.0	0.0432	<0.000002	0.0078	0.003		4.39	0.00179
RSEM-R5B-EOP	8/14/2019 12:55	WH7022	D	2.9	2.7	0.0303	0.00096	0.00098	0.0476	<0.0001	<0.001	0.184	<0.00001	51.1	<0.001	0.00046	0.00077	0.095	<0.0002	0.0902	45.6	0.0414	<0.000002	0.0089	0.0032		4.62	0.00185
RSEM-R5B-EOP	8/14/2019 12:55	WH7023	M	3.1	2.7	0.0341	0.00096	0.00103	0.048	<0.0001	<0.001	0.183	<0.00001	51.2	<0.001	0.00044	0.00091	0.1	<0.0002	0.0909	45.3	0.0398	<0.000002	0.0076	0.0031		4.57	0.00187
RSEM-R5B-EOP	8/15/2019 9:30	WH8385	D	2.6	2.6	0.0488	0.00094	0.00099	0.0452	<0.0001	<0.001	0.19	<0.00001	49.3	<0.001	0.00047	0.001	0.131	<0.0002	0.098	43.7	0.0429	<0.000002	0.0076	0.003		4.60	0.00177
RSEM-R5B-EOP	8/15/2019 9:30	WH8386	M	2.6	2.6	0.0932	0.00096	0.00103	0.0481	<0.0001	<0.001	0.195	0.000022	49.8	<0.001	0.00065	0.00107	0.224	<0.0002	0.0958	44.7	0.045	<0.000002	0.0081	0.0035		4.70	0.00177
RSEM-R5B-EOP	8/16/2019 9:30	WH8423	D	2.6	2.4	0.274	0.00115	0.00134	0.068	<0.0001	<0.001	0.181	0.000023	49.1	<0.001	0.00056	0.00158	0.454	0.00032	0.0802	31.0	0.0379	<0.000002	0.0074	0.0029		4.40	0.002
RSEM-R5B-EOP	8/16/2019 9:30	WH8424	M	2.6	2.8	0.279	0.00118	0.00135	0.0674	<0.0001	<0.001	0.182	0.000026	49.6	<0.001	0.00056	0.00167	0.469	0.00033	0.0793	30.9	0.0382	<0.000002	0.0098	0.0029		4.44	0.00202
RSEM-R5B-EOP	8/17/2019 12:45	WI0632	D	2.2	2.4	0.141	0.00149	0.00141	0.0691	<0.0001	<0.001	0.177	0.000035	47.4	<0.001	0.00105	0.00127	0.173	<0.0002	0.0793	25.2	0.0388	<0.000002	0.0092	0.0052		4.28	0.00273
RSEM-R5B-EOP	8/17/2019 12:45	WI0633	M	2.1	2.2	0.129	0.00153	0.00142	0.0704	<0.0001	<0.001	0.183	0.000034	47.8	<0.001	0.0011	0.00134	0.159	<0.0002	0.0829	26.2	0.0404	<0.000002	0.0096	0.0054		4.43	0.00282
RSEM-R5B-EOP	8/18/2019 16:35	WI0684	D	2.1	2.3	0.3	0.00157	0.00116	0.0936	<0.0001	<0.001	0.169	0.000105	62.1	0.0013	0.00325	0.00248	0.376	0.00025	0.0692	24.5	0.0881	<0.000002	0.0133	0.0142		4.65	0.004
RSEM-R5B-EOP	8/18/2019 16:35	WI0685	M	2.2	1.8	0.325	0.00156	0.00119	0.0931	<0.0001	<0.001	0.167	0.000102	61.4	0.0013	0.00325	0.00253	0.425	0.00027	0.0689	24.7	0.0883	<0.000002	0.0135	0.0142		4.62	0.00403

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	6/29/2019 13:30	VZ9026	M	2.58	<0.00002	163	0.235	146	0.000012	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001	0.0099	0.0006	0.00052	0.0259	<0.0001	<0.001	0.182	<0.00001	41.2	<0.001	<0.0002	0.00073	<0.01
RSEM-R5B-EOP	6/29/2019 13:40	VZ9027	D	2.66	<0.00002	164	0.234	147	0.000012	<0.005	<0.005	0.00131	<0.005	<0.005	<0.0001	0.0101	0.00061	0.00054	0.0262	<0.0001	<0.001	0.178	<0.00001	41.3	<0.001	<0.0002	0.00072	<0.01
RSEM-R5B-EOP	6/30/2019 11:55	WA1430	M	3.01	<0.00002	132	0.24	121	0.000015	<0.005	0.0054	0.00133	<0.005	<0.005	0.00022	0.007	0.00058	0.00054	0.0702	<0.0001	<0.001	0.153	0.000011	47.3	0.0011	<0.0002	0.0008	<0.01
RSEM-R5B-EOP	7/1/2019 14:30	WA1411	M	4.44	<0.00002	99.8	0.258	104	0.000027	<0.005	0.0281	0.00142	<0.005	0.0064	0.00122	0.0138	0.00065	0.00056	0.0979	<0.0001	<0.001	0.131	0.000023	55.2	0.0016	0.0002	0.00112	<0.01
RSEM-R5B-EOP	7/2/2019 11:58	WA3427	M	2.77	<0.00002	104	0.305	121	0.000016	<0.005	<0.005	0.00158	<0.005	<0.005	0.00013	0.0316	0.0008	0.00064	0.117	<0.0001	<0.001	0.138	0.000036	67.9	0.0019	0.00048	0.00103	<0.01
RSEM-R5B-EOP	7/3/2019 11:20	WA5874	D	2.75	<0.00002	139	0.317	147	0.000015	<0.005	<0.005	0.00147	<0.005	0.0115	<0.0001	0.0389	0.00093	0.00064	0.0744	<0.0001	<0.001	0.163	0.000027	73.6	0.0022	0.00053	0.001	<0.01
RSEM-R5B-EOP	7/3/2019 11:20	WA5875	M	2.81	<0.00002	141	0.324	149	0.000015	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001	0.0375	0.00096	0.00064	0.0742	<0.0001	<0.001	0.156	0.000027	71.2	0.0021	0.0005	0.00116	<0.01
RSEM-R5B-EOP	7/4/2019 11:30	WA7977	D	3.85	<0.00002	205	0.4	202	0.000017	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001	0.0266	0.00123	0.00069	0.0492	<0.0001	<0.001	0.193	0.000012	73.1	0.0023	<0.0002	0.00082	<0.01
RSEM-R5B-EOP	7/4/2019 11:30	WA7978	M	3.84	<0.00002	209	0.393	207	0.000018	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001	0.0273	0.00128	0.00069	0.0507	<0.0001	<0.001	0.198	0.000014	75.7	0.0024	0.0002	0.00086	<0.01
RSEM-R5B-EOP	7/5/2019 7:15	WA8009	D	4.05	<0.00002	240	0.465	243	0.000018	<0.005	<0.005	0.00124	<0.005	<0.005	<0.0001	0.0178	0.00138	0.00071	0.0391	<0.0001	<0.001	0.22	0.00001	80.9	0.0022	0.00027	0.00072	<0.01
RSEM-R5B-EOP	7/5/2019 7:15	WA8010	M	3.85	<0.00002	241	0.463	242	0.000022	<0.005	<0.005	0.00125	<0.005	<0.005	<0.0001	0.0191	0.00142	0.00069	0.0401	<0.0001	<0.001	0.229	0.000011	87.1	0.0023	0.00025	0.00083	<0.01
RSEM-R5B-EOP	7/6/2019 12:00	WB1461	D	3.71	<0.00002	256	0.539	260	0.000024	<0.005	<0.005	0.00113	<0.005	<0.005	<0.0001	0.0139	0.00133	0.00068	0.0365	<0.0001	<0.001	0.231	0.000013	87.1	0.0016	0.00029	0.00072	<0.01
RSEM-R5B-EOP	7/6/2019 12:00	WB1462	M	3.71	<0.00002	249	0.538	259	0.000023	<0.005	<0.005	0.00112	<0.005	<0.005	<0.0001	0.0135	0.00132	0.00065	0.036	<0.0001	<0.001	0.233	0.000015	88.7	0.0017	0.0003	0.00088	<0.01
RSEM-R5B-EOP	7/7/2019 10:50	WB1496	D	3.55	<0.00002	253	0.535	260	0.000021	<0.005	<0.005	0.00106	<0.005	<0.005	0.00019	0.0128	0.00125	0.0007	0.0368	<0.0001	<0.001	0.228	<0.00001	92.6	0.0014	0.00036	0.00078	0.012
RSEM-R5B-EOP	7/7/2019 10:50	WB1497	M	3.57	<0.00002	254	0.541	258	0.00002	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001	0.013	0.00129	0.00061	0.0368	<0.0001	<0.001	0.235	0.000011	86.6	0.0014	0.00037	0.00089	0.011
RSEM-R5B-EOP	7/8/2019 11:30	WB4632	D	3.74	<0.00002	285	0.483	287	0.000019	<0.005	<0.005	0.00096	<0.005	<0.005	<0.0001	0.0103	0.0013	0.00078	0.0379	<0.0001	<0.001	0.258	0.000014	86.4	0.001	0.00033	0.00056	0.016
RSEM-R5B-EOP	7/8/2019 11:30	WB4633	M	3.71	<0.00002	282	0.482	285	0.000019	<0.005	<0.005	0.00096	<0.005	<0.005	0.00014	0.0098	0.0013	0.00071	0.0373	<0.0001	<0.001	0.249	0.000017	85.4	0.0011	0.00033	0.00065	0.015
RSEM-R5B-EOP	7/9/2019 12:40	WB6313	M	3.39	<0.00002	261	0.518	252	0.000015	<0.005	<0.005	0.00092	<0.005	<0.005	<0.0001	0.0081	0.0011	0.00066	0.0355	<0.0001	<0.001	0.232	0.000011	78.3	<0.001	0.00032	<0.0005	0.016
RSEM-R5B-EOP	7/10/2019 10:15	WB8319	M	3.72	<0.00002	268	0.509	250	0.000017	<0.005	<0.005	0.00099	<0.005	<0.005	<0.0001	0.0073	0.00105	0.00066	0.0401	<0.0001	<0.001	0.236	0.000015	81.2	<0.001	0.00034	<0.0005	0.015
RSEM-R5B-EOP	7/11/2019 10:50	WC0492	M	3.32	<0.00004	254	0.484	253	<0.00002	<0.01	<0.01	0.00099	<0.01	<0.01	<0.0002	0.009	0.00105	0.00066	0.0343	<0.0001	<0.001	0.235	0.000011	79.0	<0.001	<0.0002	<0.0005	0.014
RSEM-R5B-EOP	7/12/2019 9:50	WC0450	M	3.32	<0.00002	258	0.51	256	0.000016	<0.005	<0.005	0.0011	<0.005	<0.005	<0.0001	0.0148	0.00113	0.00064	0.0285	<0.0001	<0.001	0.249	0.000012	82.5	<0.001	0.00023	0.00052	0.014
RSEM-R5B-EOP	7/13/2019 11:05	WC4184	M	3.02	<0.00002	257	0.454	258	0.000018	<0.005	<0.005	0.00112	<0.005	<0.005	<0.0001	0.0084	0.00106	0.00075	0.0258	<0.0001	<0.001	0.265	0.00001	98.7	<0.001	<0.0002	0.00064	0.016
RSEM-R5B-EOP	7/14/2019 12:10	WC4348	M	2.82	<0.00002	238	0.476	262	0.000021	<0.005	<0.005	0.00121	<0.005	<0.005	<0.0001	0.0093	0.00105	0.00071	0.0267	<0.0001	<0.001	0.239	0.000018	116	<0.001	0.00032	0.0008	0.011
RSEM-R5B-EOP	7/15/2019 10:25	WC7550	M	2.77	<0.00002	238	0.574	271	0.000022	<0.005	<0.005	0.00186	<0.005	<0.005	<0.0001	0.021	0.00083	0.00068	0.0379	<0.0001	<0.001	0.241	0.000016	116	<0.001	0.00172	0.00069	0.011
RSEM-R5B-EOP	7/16/2019 10:26	WC9628	M	2.82	<0.00002	232	0.579	275	0.000022	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001	0.0152	0.00088	0.00062	0.0413	<0.0001	<0.001	0.246	0.000016	113	<0.001	0.00106	0.00086	0.011
RSEM-R5B-EOP	7/17/2019 12:10	WD1672	M	2.97	<0.00002	252	0.512	276	0.000019	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001	0.0113	0.00097	0.0008	0.0354	<0.0001	<0.001	0.206	0.000011	99.7	<0.001	0.00067	0.00074	0.024
RSEM-R5B-EOP	7/18/2019 11:50	WD4010	M	2.92	<0.00002	238	0.538	249	0.000022	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001	0.01	0.00105	0.00076	0.0292	<0.0001	<0.001	0.23	0.000015	94.7	<0.001	0.00046	0.00059	0.026
RSEM-R5B-EOP	7/19/2019 11:16	WD4020	M	3.02	<0.00002	250	0.474	242	0.000015	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001	0.0096	0.00112	0.00083	0.0268	<0.0001	<0.001	0.228	<0.00001	81.5	<0.001	0.00038	0.0007	0.025
RSEM-R5B-EOP	7/20/2019 12:45	WD7108	M	3.37	<0.00002	259	0.399	226	0.000012	<0.005	<0.005	0.00136	<0.005	<0.005	<0.0001	0.0111	0.00109	0.00077	0.031	<0.0001	<0.001	0.22	<0.00001	68.8	<0.001	0.00039	0.00053	0.028
RSEM-R5B-EOP	7/21/2019 11:15	WD7081	M	3.33	<0.00002	257	0.356	217	0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001	0.014	0.00108	0.00082	0.0293	<0.0001	<0.001	0.221	<0.00001	60.0	<0.001	0.00037	0.00076	0.036
RSEM-R5B-EOP	7/22/2019 10:56	WD8942	D	3.25	<0.00002	267	0.327	213	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	0.0127	0.00109	0.00096	0.02	<0.0001	<0.001	0.207	<0.00001	48.1	<0.001	0.00037	0.00076	0.05
RSEM-R5B-EOP	7/22/2019 10:56	WD8943	M	3.16	<0.00002	256	0.324	202	0.000012	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	0.0126	0.00109	0.00091	0.0201	<0.0001	<0.001	0.21	<0.00001	48.3	<0.001	0.00038	0.00084	0.05
RSEM-R5B-EOP	7/23/2019 12:00	WE1023	D	2.97	<0.00004	246	0.275	194	<0.00002	<0.01	<0.01	0.00143	<0.01	<0.01	<0.0002	0.0164	0.00124	0.00111	0.017	<0.0001	<0.001	0.238	<0.00001	46.0	<0.001	0.00048	0.00084	0.068
RSEM-R5B-EOP	7/23/2019 12:00	WE1024	M	3	<0.00004	248	0.279	193	<0.00002	<0.01	<0.01	0.00142	<0.01	<0.01	<0.0002	0.0167	0.00122	0.00111	0.0174	<0.0001	<0.001	0.235	<0.00001	45.5	<0.001	0.00049	0.00086	0.067
RSEM-R5B-EOP	7/24/2019 11:30	WE3033	D	3.04	<0.00002	241	0.309	194	<0.00001	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001	0.018	0.00123	0.00124	0.0196	<0.0001	<0.001	0.216	<0.00001	44.3	<0.001	0.00051	0.00083	0.074
RSEM-R5B-EOP	7/24/2019 11:30	WE3034	M	3.04	<0.00002	243	0.318	196	<0.00001	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001	0.0181	0.00123	0.0012	0.0193	<0.0001	<0.001	0.218	<0.00001	47.2	<0.001	0.0005	0.00085	0.073
RSEM-R5B-EOP	7/25/2019 11:40	WE4838	D	3.22	<0.00002	229	0.327	167	<0.00001	<0.005	<0.005	0.00183	<0.005	<0.005	<0.0001	0.0204	0.00103	0.00113	0.0271	<0.0001	<0.001	0.217	<0.00001	52.1	<0.001	0.00036	0.00073	0.05
RSEM-R5B-EOP	7/25/2019 11:40	WE4839	M	3.26	<0.00002	236	0.334	173	<0.00001	<0.005	<0.005	0.00188	<0.005	<0.005	<0.0001	0.0201	0.00103	0.00116	0.027	<0.0001	<0.001	0.217	<0.00001	52.4	<0.001	0.00035	0.00077	0.049
RSEM-R5B-EOP	7/26/2019 9:00	WE4704	D	3.07	<0.00002	222	0.326	161	<0.00001	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001	0.0248	0.001	0.00117	0.029	<0.0001	<0.001	0.213	<0.00001	54.8	<0.001	0.00066	0.00073	0.055
RSEM-R5B-EOP	7/26/2019 9:00	WE4705	M	3.07	<0.00002	222	0.327	165	<0.00001	<0.005	<0.005	0.00179	<0.005	<0.005	<0.0001	0.0234	0.00098	0.00117	0.0292	<0.0001	<0.001	0.209	<0.00001	54.6	<0.001	0.00066	0.00067	0.052
RSEM-R5B-EOP	7/27/2019 10:30	WE7073	D	2.83	<0.00002	214	0.301	154	<0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001	0.0248	0.00098	0.00115	0.028	<0.0001	<0.001	0.26	0.00001	51.8	<0.001	0.00062	0.00066	0.065
RSEM-R5B-EOP	7/27/2019 10:30	WE7074	M	2.82	<0.00002	214	0.3	153	<0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001	0.0229	0.00098	0.00115	0.028	<0.0001	<0.001	0.263	<0.00001	49.7	<0.001	0.00058	0.00076	0.067
RSEM-R5B-EOP	7/28/2019 10:30	WE7120	D	2.77	<0.00002	200	0.279	139	<0.00001	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001	0.0179	0.00093	0.00111	0.0343	<0.0001	<0.001	0.212	<0.00001	50.0	<0.001	0.0005	0.00062	0.051
RSEM-R5B-EOP	7/28/2019 10:30	WE7121	M	2.86	<0.00002	205	0.289	143	<0.00001	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001	0.0175	0.00091	0.00111	0.0334	<0.0001	<0.001	0.214	<0.00001	50.6	<0.001	0.00047	0.00061	0.051
RSEM-R5B-EOP	7/29/2019 9:40	WE7139	D	2.79	<0.00002	196	0.3	136	<0.00001	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001	0.0185	0.00087	0.00111	0.0395	<0.0001	<0.001	0.211	<0.00001	53.1	<0.001	0.00057	0.00057	0.045
RSEM-R5B-EOP	7/29/2019 9:40	WE7140	M	2.71	<0.00002	196	0.295	135	<0.00001	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001	0.0185	0.00088	0.00109	0.0395	<0.0001	<0.001	0.211	<0.00001	52.8	<0.001	0.00057	0.00074	0.043
RSEM-R5B-EOP	7/30/2019 11:00	WF2070	M	2.7	<0.00002	194	0.28	133	<0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001	0.0184	0.00083	0.00115	0.0394	<0.0001	<0.001	0.217	<0.00001	52.2	<0.001	0.00053	<0.0005	0.052
RSEM-R5B-EOP	7/31/2019 10:20	WF4361	M	2.85	<0.00002	212	0.291	138	<0.00001	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001	0.0173	0.00079	0.00116	0.0369	<0.0001	<0.001	0.208	<0.00001	47.8	<0.001	0.00047	0.00055	0.057
RSEM-R5B-EOP	8/1/2019 11:10	WF6257	M	2.7	<0.00002	206	0.263	135	<0.00001	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001	0.0159	0.00078	0.00113	0.0357	<0.0001	<0.001	0.208	<0.00001	45.9	<0.001	0.00021	0.00052	0.041
RSEM-R5B-EOP	8/2/2019 9:10	WF6281	M	2.69	<0.00002	223	0.253	142	<0.00001	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001	0.0154	0.00074	0.00106	0.0329	<0.0001	<0.001	0.222	<0.00001	39.2	<0.001	0.00021	0.00063	0.046
RSEM-R5B-EOP	8/3/2019 11:13	WF7645	M	2.86	<0.00002	202	0.258	133	<0.00001	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	0.0156	0.00075	0.0011	0.0382	<0.0001	<0.001	0.217	<0.00001	42.5	<0.001	0.0004	<0.0005	0.048
RSEM-R5B-EOP	8/4/2019 12:35	WF7660	M	2.71	<0.00002	194	0.254	127	<0.00001	<0.005	<0.005	0.00176	<0.005	<0.005	<0.0001	0.0156	0.00071	0.00113	0.0368	<0.0001	<0.001	0.211	<0.00001	45.8	<0.001	0.00038	0.00062	0.047
RSEM-R5B-EOP	8/5/2019 10:10	WF9949	M	2.66	<0.00002	204	0.235	129	<0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001	0.0184	0.00069	0.00111	0.0416	<0.0001	<0.001	0.217	<0.00001	43.2	<0.001	0.00051	0.00059	0.047
RSEM-R5B-EOP	8/6/2019 10:40	WG2803	M	2.74	<0.00002	203	0.223	128	<0.00001	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	0.0177	0.00065	0.00125	0.0431	<0.0001	<0.001	0.207	<0.00001	41.5	<0.001	0.00045	<0.0005	0.063
RSEM-R5B-EOP	8/7/2019 15:22	WG4502	M	3	<0.00002	212	0.219	139	<0.00001	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	0.0165	0.00067	0.00125	0.0476	<0.0001	<0.001	0.206	<0.00001	42.0	<0.001	0.00045	<0.0005	0.058
RSEM-R5B-EOP	8/8/2019 11:05	WG6503	M	2.98	<0.00002	206	0.223	138	<0.00001	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001	0.0145	0.00066	0.00119	0.0552	<0.0001	<0.001	0.197	<0.00001	44.0	<0.001	0.00025	<0.0005	0.059
RSEM-R5B-EOP	8/9/2019 10:00	WG6541	M	2.93	<0.00002	197	0.222	141	<0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	0.012	0.00071	0.00112	0.0638	<0.0001	<0.001	0.17	<0.00001	48.5	<0.001	<0.0002	<0.0005	0.048
RSEM-R5B-EOP	8/9/2019 10:10	WG6542	D	2.96	<0.00002	201	0.22	144	<0.00001	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001	0.0129	0.0007	0.00117	0.0642	<0.0001	<0.001	0.17	<0.00001	48.5	<0.001	0.00039	<0.0005	0.047
RSEM-R5B-EOP	8/10/2019 10:45	WH0272	M	2.97	<0.00002	188	0.251	165	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	0.0131	0.00067	0.00092	0.0685	<0.0001	<0.001	0.167	0.00001	56.9	<0.001	0.00053	<0.0005	0.051
RSEM-R5B-EOP	8/10/2019 10:55	WH0273	D	3.18	<0.00002	188	0.269	170	<0.00001	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001	0.0126	0.00066	0.00093	0.0684	<0.0001	<0.001	0.164	<0.00001	56.0	<0.001	0.00057	<0.0005	0.049
RSEM-R5B-EOP	8/11/2019 10:30	WH0296	M	3	<0.00002	190	0.289	172	<0.00001	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001	0.0129	0.00067	0.00093	0.0684	<0.0001	<0.001	0.171	<0.00001	60.7	<0.001	0.00055	<0.0005	0.051
RSEM-R5B-EOP	8/11/2019 10:40	WH0297	D	3.08	<0.00002	195	0.267	166	<0.00001	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001	0.0136	0.00066	0.00089	0.0684	<0.0001	<0.001	0.177	<0.00001	58.2	<0.001	0.00055	<0.0005	0.05
RSEM-R5B-EOP	8/12/2019 13:20	WH2474	M	2.53	<0.00002	203	0.251	166	<0.00001	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001	0.024	0.00079	0.00112	0.0626	<0.0001	<0.001	0.179	<0.00001	59.8	<0.001	0.00052	0.00051	0.044
RSEM-R5B-EOP	8/12/2019 13:45	WH2475	D	2.67	<0.00002	201	0.254	171	<0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001	0.026	0.00079	0.00105	0.0622	<0.0001	<0.001	0.188	<0.00001	60.4	<0.001	0.00051	<0.0005	0.04
RSEM-R5B-EOP	8/13/2019 12:20	WH4519	D	2.64	<0.00002	211	0.254	172	<0.00001	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001	0.0142	0.00091	0.00092	0.0544	<0.0001	<0.001	0.192	<0.00001	56.2	<0.001	0.0004	<0.0005	0.032
RSEM-R5B-EOP	8/13/2019 12:20	WH4521	M	2.55	<0.00002	210	0.25	174	<0.00001	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001	0.0267	0.00088	0.0009	0.0541	<0.0001	<0.001	0.198	<0.00001	55.4	<0.001	0.00039	0.00064	0.033
RSEM-R5B-EOP	8/14/2019 12:55	WH7022	D	2.38	<0.00002	216	0.248	175	0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001	0.0164	0.00095	0.00096	0.0474	<0.0001	<0.001	0.22	<0.00001	53.9	<0.001	0.00036	0.00058	0.044
RSEM-R5B-EOP	8/14/2019 12:55	WH7023	M	2.46	<0.00002	214	0.245	171	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001	0.0164	0.00097	0.00097	0.0466	<0.0001	<0.001	0.217	<0.00001	53.8	<0.001	0.00037	0.00062	0.044
RSEM-R5B-EOP	8/15/2019 9:30	WH8385	D	2.44	<0.00002	220	0.243	172	<0.00001	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001	0.0153	0.00094	0.00097	0.0431	<0.0001	<0.001	0.19	<0.00001	49.8	<0.001	0.0003	0.0006	0.038
RSEM-R5B-EOP	8/15/2019 9:30	WH8386	M	2.48	<0.00002	220	0.245	173	0.000011	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001	0.0146	0.00096	0.00101	0.0431	<0.0001	<0.001	0.194	<0.00001	48.9	<0.001	0.00023	0.00061	0.036
RSEM-R5B-EOP	8/16/2019 9:30	WH8423	D	3.02	<0.00002	168	0.252	130	0.000014	<0.005	<0.005	0.00158	<0.005	<0.005	0.00013	0.0203	0.0012	0.00112	0.0537	<0.0001	<0.001	0.186	<0.00001	49.5	<0.001	0.00022	0.00084	<0.01
RSEM-R5B-EOP	8/16/2019 9:30	WH8424	M	3.26	<0.00002	171	0.254	128	0.000014	<0.005	0.0051	0.00158	<0.005	<0.005	0.00018	0.0211	0.00116	0.00108	0.0537	<0.0001	<0.001	0.186	<0.00001	49.0	<0.001	0.00023	0.00085	<0.01
RSEM-R5B-EOP	8/17/2019 12:45	WI0632	D	2.87	<0.00002	163	0.266	122	0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	0.00012	0.0301	0.00154	0.00126	0.0644	<0.0001	<0.001	0.181	0.000021	48.2	<0.001	0.00091	0.00093	<0.01
RSEM-R5B-EOP	8/17/2019 12:45	WI0633	M	2.86	<0.00002	172	0.27	127	0.00001	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001	0.0304	0.00156	0.00134	0.0646	<0.0001	<0.001	0.177	0.000024	47.7	<0.001	0.00091	0.00091	<0.01
RSEM-R5B-EOP	8/18/2019 16:35	WI0684	D	3.02	<0.00002	150	0.348	129	0.000015	<0.005	0.0062	0.00205	<0.005	0.0068	0.00024	0.0491	0.0016	0.00093	0.0834	<0.0001	<0.001	0.17	0.000084	62.2	<0.001	0.00293	0.00156	<0.01
RSEM-R5B-EOP	8/18/2019 16:35	WI0685	M	3.19	<0.00002	150	0.346	127	0.000014	<0.005	0.0068	0.00203	<0.005	0.0072	0.00029	0.0486	0.0016	0.00095	0.0825	<0.0001	<0.001	0.171	0.000082	63.6	<0.001	0.00292	0.00154	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	6/29/2019 13:30	VZ9026	M	<0.0002	0.095	30.4	0.0045	<0.000002	0.007	0.0015		4.20	0.00408	2.72	<0.00002	161	0.243	145	<0.00001	<0.005	<0.005	0.00131	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/29/2019 13:40	VZ9027	D	<0.0002	0.0904	29.8	0.0043	<0.000002	0.0069	0.0015		4.07	0.00395	2.75	<0.00002	159	0.246	143	<0.00001	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	6/30/2019 11:55	WA1430	M	<0.0002	0.071	25.4	0.0102	<0.000002	0.0073	0.0018		3.85	0.00418	2.63	<0.00002	134	0.236	121	<0.00001	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/1/2019 14:30	WA1411	M	<0.0002	0.0556	21.5	0.0161	<0.000002	0.0076	0.0028		3.64	0.00424	2.55	<0.00002	106	0.253	110	0.00001	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/2/2019 11:58	WA3427	M	<0.0002	0.0585	22.4	0.028	<0.000002	0.0086	0.006		4.14	0.00466	2.8	<0.00002	106	0.296	125	0.000015	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/3/2019 11:20	WA5874	D	<0.0002	0.0733	27.1	0.0255	<0.000002	0.0094	0.0057		4.85	0.00632	3.38	<0.00002	152	0.307	168	0.000012	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/3/2019 11:20	WA5875	M	<0.0002	0.0707	27.4	0.0235	<0.000002	0.0095	0.0058		4.87	0.006	3.31	<0.00002	154	0.324	167	0.000013	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/4/2019 11:30	WA7977	D	<0.0002	0.0983	31.2	0.0012	<0.000002	0.0125	0.0033		5.91	0.0079	3.61	<0.00002	205	0.393	210	0.000016	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/4/2019 11:30	WA7978	M	<0.0002	0.0987	31.8	0.0017	<0.000002	0.0124	0.0035		6.06	0.00813	3.7	<0.00002	210	0.395	206	0.000016	<0.005	<0.005	0.00136	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/5/2019 7:15	WA8009	D	<0.0002	0.116	35.5	0.004	<0.000002	0.0138	0.0029		6.61	0.00861	3.7	<0.00002	246	0.452	247	0.000018	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/5/2019 7:15	WA8010	M	<0.0002	0.119	35.3	0.0028	<0.000002	0.0143	0.0028		6.61	0.00892	3.96	<0.00002	245	0.46	246	0.000021	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/6/2019 12:00	WB1461	D	<0.0002	0.133	36.0	0.0058	<0.000002	0.014	0.0024		6.80	0.00847	3.63	<0.00002	249	0.497	259	0.000022	<0.005	<0.005	0.00112	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/6/2019 12:00	WB1462	M	<0.0002	0.133	36.4	0.0084	<0.000002	0.0136	0.0025		6.98	0.00816	3.7	<0.00002	253	0.491	263	0.000023	<0.005	<0.005	0.00112	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/7/2019 10:50	WB1496	D	<0.0002	0.133	38.9	0.0178	<0.000002	0.014	0.0024		7.12	0.00812	3.78	<0.00002	264	0.495	276	0.000023	<0.005	<0.005	0.00106	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/7/2019 10:50	WB1497	M	<0.0002	0.131	38.4	0.018	<0.000002	0.0137	0.0033		7.13	0.00815	3.52	<0.00002	257	0.488	275	0.000022	<0.005	<0.005	0.00107	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/8/2019 11:30	WB4632	D	<0.0002	0.143	41.7	0.041	<0.000002	0.0131	0.0024		7.13	0.00768	3.6	<0.00002	278	0.505	302	0.000016	<0.005	<0.005	0.00104	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/8/2019 11:30	WB4633	M	<0.0002	0.139	41.0	0.0419	<0.000002	0.0135	0.0024		6.79	0.00783	3.54	<0.00002	272	0.499	282	0.000017	<0.005	<0.005	0.00099	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/9/2019 12:40	WB6313	M	<0.0002	0.127	36.5	0.0442	<0.000002	0.0114	0.002		5.64	0.00676	3.34	<0.00002	246	0.515	236	0.000013	<0.005	<0.005	0.00093	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/10/2019 10:15	WB8319	M	<0.0002	0.132	40.7	0.0365	<0.000002	0.0113	0.002		5.85	0.00737	3.43	<0.00002	263	0.536	257	0.000014	<0.005	<0.005	0.00095	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/11/2019 10:50	WC0492	M	<0.0002	0.131	42.7	0.0066	<0.000002	0.0106	0.0022		5.72	0.00678	3.42	<0.00002	264	0.49	256	0.000015	<0.005	<0.005	0.00101	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/12/2019 9:50	WC0450	M	<0.0002	0.134	43.5	0.0146	<0.000002	0.0112	0.0019		5.72	0.00653	3.41	<0.00002	272	0.524	264	0.000016	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/13/2019 11:05	WC4184	M	<0.0002	0.131	48.6	0.0023	<0.000002	0.0113	0.0016		6.73	0.00699	3.62	<0.00002	288	0.499	321	0.000017	<0.005	<0.005	0.00118	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/14/2019 12:10	WC4348	M	<0.0002	0.127	51.9	0.0101	<0.000002	0.0117	0.0021		6.65	0.00727	3.31	<0.00002	248	0.533	318	0.000021	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/15/2019 10:25	WC7550	M	<0.0002	0.123	51.8	0.0729	<0.000002	0.0105	0.0106		5.54	0.00566	2.99	<0.00002	245	0.615	280	0.000023	<0.005	<0.005	0.00201	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/16/2019 10:26	WC9628	M	<0.0002	0.114	52.9	0.0588	<0.000002	0.011	0.0073		5.93	0.00568	2.77	<0.00002	244	0.533	290	0.000021	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/17/2019 12:10	WD1672	M	<0.0002	0.0964	44.3	0.0543	<0.000002	0.0129	0.0045		5.35	0.00535	2.79	<0.00002	222	0.558	256	0.000017	<0.005	<0.005	0.00124	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/18/2019 11:50	WD4010	M	<0.0002	0.103	42.3	0.0439	<0.000002	0.0134	0.0039		5.31	0.00485	2.9	<0.00002	235	0.546	251	0.000018	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/19/2019 11:16	WD4020	M	<0.0002	0.0989	39.4	0.0299	<0.000002	0.0141	0.003		5.44	0.00447	3.04	<0.00002	250	0.494	239	0.000016	<0.005	<0.005	0.00136	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/20/2019 12:45	WD7108	M	<0.0002	0.101	37.4	0.0261	<0.000002	0.0134	0.0032		5.17	0.00416	3.17	<0.00002	260	0.405	225	0.000012	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/21/2019 11:15	WD7081	M	<0.0002	0.102	36.0	0.0169	<0.000002	0.0131	0.0023		5.06	0.00375	3.18	<0.00002	258	0.364	222	0.000011	<0.005	<0.005	0.0014	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/22/2019 10:56	WD8942	D	<0.0002	0.102	32.9	0.0171	<0.000002	0.0141	0.0019		4.85	0.00405	2.9	<0.00002	249	0.305	197	0.000012	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/22/2019 10:56	WD8943	M	<0.0002	0.102	32.9	0.0176	<0.000002	0.0138	0.0019		4.85	0.00398	2.94	<0.00002	249	0.309	196	0.000011	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/23/2019 12:00	WE1023	D	<0.0002	0.105	32.7	0.0164	<0.000002	0.0149	0.0025		4.97	0.00396	3.22	<0.00002	262	0.309	198	<0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/23/2019 12:00	WE1024	M	<0.0002	0.105	33.0	0.0166	<0.000002	0.0152	0.0025		5.14	0.00404	3.15	<0.00002	265	0.308	201	<0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/24/2019 11:30	WE3033	D	<0.0002	0.0984	33.2	0.0251	<0.000002	0.0131	0.0029		5.44	0.0038	3.24	<0.00002	245	0.277	210	<0.00001	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/24/2019 11:30	WE3034	M	<0.0002	0.098	33.1	0.0234	<0.000002	0.0131	0.0027		5.44	0.00372	3.35	<0.00002	242	0.283	210	<0.00001	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/25/2019 11:40	WE4838	D	<0.0002	0.0919	32.4	0.0116	<0.000002	0.0124	0.0045		4.78	0.00328	3.06	<0.00002	220	0.311	170	<0.00001	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/25/2019 11:40	WE4839	M	<0.0002	0.0898	31.8	0.0121	<0.000002	0.0129	0.0045		4.72	0.00328	3	<0.00002	221	0.308	167	<0.00001	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/26/2019 9:00	WE4704	D	<0.0002	0.0872	31.6	0.0343	<0.000002	0.0115	0.0051		4.61	0.00302	2.84	<0.00002	217	0.314	161	<0.00001	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/26/2019 9:00	WE4705	M	<0.0002	0.0857	31.5	0.0325	<0.000002	0.0116	0.0051		4.57	0.00298	2.8	<0.00002	214	0.314	161	<0.00001	<0.005	<0.005	0.00185	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/27/2019 10:30	WE7073	D	<0.0002	0.0963	31.1	0.0422	<0.000002	0.0113	0.0048		4.47	0.00272	2.93	<0.00002	223	0.317	156	<0.00001	<0.005	<0.005	0.00177	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/27/2019 10:30	WE7074	M	<0.0002	0.0935	29.9	0.0383	<0.000002	0.0115	0.0048		4.31	0.00272	2.91	<0.00002	210	0.304	151	<0.00001	<0.005	<0.005	0.00174	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/28/2019 10:30	WE7120	D	<0.0002	0.0869	29.7	0.0388	<0.000002	0.0097	0.0041		4.57	0.00245	2.91	<0.00002	211	0.295	144	<0.00001	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/28/2019 10:30	WE7121	M	<0.0002	0.0872	28.8	0.0365	<0.000002	0.0109	0.0039		4.46	0.00243	2.95	<0.00002	203	0.29	144	<0.00001	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/29/2019 9:40	WE7139	D	<0.0002	0.0869	29.4	0.0454	<0.000002	0.0089	0.0043		4.53	0.00222	2.9	<0.00002	202	0.315	141	<0.00001	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/29/2019 9:40	WE7140	M	<0.0002	0.0867	29.4	0.0467	0.0000031	0.009	0.0042		4.47	0.00221	2.88	<0.00002	202	0.319	142	<0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/30/2019 11:00	WF2070	M	<0.0002	0.0893	28.7	0.0433	<0.000002	0.0087	0.004		4.58	0.00214	3	<0.00002	206	0.303	144	<0.00001	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	7/31/2019 10:20	WF4361	M	<0.0002	0.0931	27.8	0.0384	<0.000002	0.0082	0.0037		4.69	0.00215	2.8	<0.00002	202	0.266	146	<0.00001	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/1/2019 11:10	WF6257	M	<0.0002	0.0912	30.0	0.0088	<0.000002	0.0076	0.0033		4.94	0.00196	2.85	<0.00002	210	0.255	156	<0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/2/2019 9:10	WF6281	M	<0.0002	0.0929	27.0	0.012	<0.000002	0.0078	0.0032		4.32	0.00202	2.36	<0.00002	201	0.236	135	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/3/2019 11:13	WF7645	M	<0.0002	0.0975	28.7	0.0323	<0.000002	0.0075	0.0028		5.04	0.00187	2.95	<0.00002	216	0.226	152	<0.00001	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/4/2019 12:35	WF7660	M	<0.0002	0.094	28.4	0.027	<0.000002	0.0077	0.003		4.98	0.00185	3.13	<0.00002	214	0.223	146	<0.00001	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/5/2019 10:10	WF9949	M	<0.0002	0.0981	28.5	0.0359	<0.000002	0.008	0.0033		4.65	0.00182	2.8	<0.00002	210	0.244	137	<0.00001	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/6/2019 10:40	WG2803	M	<0.0002	0.0943	28.6	0.0378	<0.000002	0.0079	0.0031		4.73	0.00186	2.73	<0.00002	214	0.237	134	<0.00001	<0.005	<0.005	0.00174	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/7/2019 15:22	WG4502	M	<0.0002	0.102	31.1	0.0432	<0.000002	0.0084	0.0029		4.69	0.00183	2.88	<0.00002	210	0.229	136	<0.00001	<0.005	<0.005	0.00175	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/8/2019 11:05	WG6503	M	<0.0002	0.0962	33.7	0.0254	<0.000002	0.0084	0.0028		4.67	0.00163	2.93	<0.00002	211	0.22	143	<0.00001	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/9/2019 10:00	WG6541	M	<0.0002	0.0942	38.8	0.0143	<0.000002	0.0079	0.0027		4.56	0.00172	2.81	<0.00002	207	0.225	149	<0.00001	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/9/2019 10:10	WG6542	D	<0.0002	0.0902	38.6	0.0307	<0.000002	0.008	0.0026		4.60	0.00177	2.78	<0.00002	208	0.224	150	<0.00001	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/10/2019 10:45	WH0272	M	<0.0002	0.0876	40.0	0.0539	<0.000002	0.0073	0.0036		4.75	0.0016	2.96	<0.00002	197	0.234	171	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/10/2019 10:55	WH0273	D	<0.0002	0.0869	40.5	0.055	<0.000002	0.0072	0.0037		4.72	0.0016	2.92	<0.00002	196	0.24	168	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/11/2019 10:30	WH0296	M	<0.0002	0.0862	39.2	0.0575	<0.000002	0.0072	0.0041		4.85	0.0016	3	<0.00002	197	0.244	170	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	0.00016
RSEM-R5B-EOP	8/11/2019 10:40	WH0297	D	<0.0002	0.0878	40.4	0.056	<0.000002	0.0073	0.0041		4.72	0.00158	2.82	<0.00002	198	0.251	167	<0.00001	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/12/2019 13:20	WH2474	M	<0.0002	0.094	44.2	0.049	<0.000002	0.0077	0.0034		4.98	0.00165	2.93	<0.00002	212	0.275	193	<0.00001	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/12/2019 13:45	WH2475	D	<0.0002	0.105	45.5	0.0482	<0.000002	0.008	0.0033		4.89	0.00168	2.92	<0.00002	203	0.281	190	<0.00001	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/13/2019 12:20	WH4519	D	<0.0002	0.0962	46.8	0.0405	<0.000002	0.0081	0.003		4.61	0.00182	2.72	<0.00002	219	0.262	183	<0.00001	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/13/2019 12:20	WH4521	M	<0.0002	0.0965	47.1	0.0401	<0.000002	0.0082	0.003		4.62	0.00183	2.76	<0.00002	224	0.265	181	<0.00001	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/14/2019 12:55	WH7022	D	<0.0002	0.106	47.3	0.0297	<0.000002	0.009	0.0029		4.78	0.00185	2.69	<0.00002	230	0.249	186	<0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/14/2019 12:55	WH7023	M	<0.0002	0.104	47.7	0.0284	<0.000002	0.0078	0.0029		4.79	0.00178	2.66	<0.00002	230	0.252	185	<0.00001	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/15/2019 9:30	WH8385	D	<0.0002	0.0955	45.0	0.0114	<0.000002	0.008	0.0027		4.54	0.002	2.38	<0.00002	215	0.241	176	<0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/15/2019 9:30	WH8386	M	<0.0002	0.095	44.6	0.004	<0.000002	0.0085	0.0026		4.53	0.00202	2.41	<0.00002	212	0.242	174	<0.00001	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/16/2019 9:30	WH8423	D	<0.0002	0.0795	31.0	0.0076	<0.000002	0.0075	0.0021		4.37	0.00205	2.59	<0.00002	170	0.25	128	<0.00001	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/16/2019 9:30	WH8424	M	<0.0002	0.0805	31.5	0.0074	<0.000002	0.0101	0.0021		4.42	0.00207	2.61	<0.00002	172	0.25	130	<0.00001	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/17/2019 12:45	WI0632	D	<0.0002	0.0818	24.6	0.0284	<0.000002	0.0093	0.005		4.38	0.00263	2.77	<0.00002	166	0.275	123	<0.00001	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/17/2019 12:45	WI0633	M	<0.0002	0.0817	24.3	0.0285	<0.000002	0.0094	0.0049		4.25	0.00258	2.79	<0.00002	162	0.28	119	<0.00001	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/18/2019 16:35	WI0684	D	<0.0002	0.0717	24.3	0.0776	<0.000002	0.0136	0.013		4.64	0.00402	2.66	<0.00002	149	0.375	129	0.000012	<0.005	<0.005	0.00201	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/18/2019 16:35	WI0685	M	<0.0002	0.0706	24.7	0.0783	<0.000002	0.0138	0.0132		4.58	0.00405	2.76	<0.00002	150	0.371	130	0.000012	<0.005	<0.005	0.00201	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	8/19/2019 0:55	WI2766	D	8.00	1300	5.3		6.4	293	297	99.2	<1.0	121	<1.0	<1.0	64	0.470	0.97	440			0.30	0.0922	1.07	1.16	<0.0030
RSEM-R5B-EOP	8/19/2019 0:55	WI2767	M	8.00	1300	4.8		4.8	291	298	99.2	<1.0	121	<1.0	<1.0	60	0.480	0.97	400			0.29	0.0939	1.08	1.18	0.0044
RSEM-R5B-EOP	8/20/2019 11:00	WI5435	D	8.07	1500	2.4	1000	7.2	332	352	93.6	<1.0	114	<1.0	<1.0	64	0.55	1.0	530			0.061	0.121	1.32	1.44	<0.0030
RSEM-R5B-EOP	8/20/2019 11:00	WI5436	M	8.09	1500	2.3	1000	6.0	334	352	95.5	<1.0	116	<1.0	<1.0	64	0.56	1.0	510			0.059	0.121	1.33	1.45	<0.0030
RSEM-R5B-EOP	8/21/2019 10:45	WI5128	D	8.04	1600	1.5	1200	4.4	394	409	92	<1.0	110	<1.0	<1.0	65	0.63	1.0	610			0.37	0.119	1.42	1.54	0.0045
RSEM-R5B-EOP	8/21/2019 10:45	WI5129	M	8.05	1600	1.6	1100	3.6	398	409	91	<1.0	110	<1.0	<1.0	65	0.63	1.0	610			0.39	0.121	1.42	1.54	0.0030
RSEM-R5B-EOP	8/22/2019 11:50	WI9243	D	8.13	1800	2.2	1300	3.3	484	475	110	<1.0	140	<1.0	<1.0	58	0.68	0.93	760			0.080	0.102	1.50	1.60	0.0058
RSEM-R5B-EOP	8/22/2019 11:50	WI9244	M	8.15	1800	2.1	1300	4.0	477	471	120	<1.0	140	<1.0	<1.0	58	0.69	0.93	760			0.082	0.103	1.51	1.61	0.0055
RSEM-R5B-EOP	8/23/2019 9:05	WI9308	D	8.56	2000	0.90	1400	<1.0	516	518	130	7.4	140	8.9	<1.0	58	0.73	0.91	820			0.078	0.0987	1.47	1.56	0.0041
RSEM-R5B-EOP	8/23/2019 9:05	WI9309	M	8.21	2000	0.87	1400	1.4	521	522	130	<1.0	160	<1.0	<1.0	58	0.73	0.90	820			0.085	0.0961	1.46	1.56	0.0040
RSEM-R5B-EOP	8/24/2019 10:20	WJ3005	D	8.22	2000	0.83	1600	2.8	536	542	130	<1.0	150	<1.0	<1.0	60	0.7	0.97	810			0.33	0.0885	1.31	1.4	<0.0030
RSEM-R5B-EOP	8/24/2019 10:20	WJ3006	M	8.17	2000	0.71	1600	3.2	546	546	120	<1.0	150	<1.0	<1.0	60	0.72	0.98	820			0.33	0.0883	1.3	1.39	<0.0030
RSEM-R5B-EOP	8/25/2019 11:15	WJ3019	D	8.31	2000	1.3	1500	1.7	520	553	130	<1.0	160	<1.0	<1.0	58	0.72	0.95	800			0.25	0.0783	1.21	1.29	<0.0030
RSEM-R5B-EOP	8/25/2019 11:15	WJ3020	M	8.33	2000	1.2	1500	1.7	513	541	130	<1.0	160	<1.0	<1.0	52	0.72	0.95	810			0.27	0.0806	1.27	1.35	<0.0030
RSEM-R5B-EOP	8/26/2019 10:55	WJ5213	D	8.10	1900	1.0	1500	<4.0	493	508	130	<1.0	160	<1.0	<1.0	53	0.71	0.89	790			0.19	0.0697	1.15	1.22	<0.0030
RSEM-R5B-EOP	8/26/2019 10:55	WJ5214	M	8.11	1900	1.1	1500	<4.0	520	520	120	<1.0	150	<1.0	<1.0	54	0.71	0.88	800			0.19	0.0700	1.15	1.22	<0.0030
RSEM-R5B-EOP	8/27/2019 11:25	WJ7309	M	8.25	1900	1.9	1400	<4.0	497	486	120	<1.0	140	<1.0	<1.0	57	0.63	0.83	790			0.14	0.0764	1.25	1.33	<0.0030
RSEM-R5B-EOP	8/28/2019 11:17	WJ9545	M	8.22	1900	1.8	1400	3.6	455	448	120	<1.0	150	<1.0	<1.0	55	0.65	0.88	780			0.25	0.0894	1.31	1.4	<0.0030
RSEM-R5B-EOP	9/3/2019 12:05	WK8380	M	7.85	2000	0.24	1400	<4.0	251	252	71	<1.0	87	<1.0	<1.0	92	0.53	1.1	780			0.54	0.0821	1.29	1.37	<0.0030
RSEM-R5B-EOP	9/4/2019 11:45	WL0769	M	7.54	1900	1.2	1300	<4.0	227	233	76	<1.0	93	<1.0	<1.0	79	0.48	1.1	820			0.47	0.0767	1.25	1.33	<0.0030
RSEM-R5B-EOP	9/5/2019 11:10	WL2424	M	7.58	1900	0.49	1300	<4.0	232	236	82	<1.0	100	<1.0	<1.0	71	0.48	1.0	720			0.45	0.0777	1.18	1.26	<0.0030
RSEM-R5B-EOP	9/6/2019 12:00	WL3941	M	7.90	1900	0.38	1400	<4.0	216	223	88	<1.0	110	<1.0	<1.0	89	0.44	1.2	780			0.16	0.0704	1.10	1.18	<0.0030
RSEM-R5B-EOP	9/7/2019 11:30	WL4971	M	7.62	2000	0.38	1300	<4.0	204	211	93	<1.0	110	<1.0	<1.0	110	0.41	1.5	660			0.20	0.0651	1.02	1.09	<0.0030
RSEM-R5B-EOP	9/8/2019 11:15	WL5047	M	7.65	2000	0.65	1400	<4.0	197	200	100	<1.0	120	<1.0	<1.0	120	0.40	1.7	640			0.20	0.0616	0.969	1.03	<0.0030
RSEM-R5B-EOP	9/9/2019 10:45	WL7028	M	7.73	2000	0.96	1300	<4.0	192	184	100	<1.0	130	<1.0	<1.0	120	0.41	1.9	660			0.14	0.0667	0.960	1.03	<0.0030
RSEM-R5B-EOP	9/10/2019 11:00	WL9314	M	7.86	1900	1.0	1200	<4.0	166	188	110	<1.0	140	<1.0	<1.0	110	0.39	1.7	610			0.13	0.0792	1.01	1.09	<0.0030
RSEM-R5B-EOP	9/11/2019 10:40	WM1910	M	7.99	1900	1.3	1100	<4.0	168	164	130	<1.0	160	<1.0	<1.0	110	0.45	1.8	610			0.16	0.120	1.06	1.18	<0.0030
RSEM-R5B-EOP	9/16/2019 11:15	WN0357	M	8.16	1700	6.7	1100	10	265	275	150	<1.0	180	<1.0	<1.0	69	0.40	1.1	550			0.19	0.0649	0.914	0.979	<0.0030
RSEM-R5B-EOP	9/17/2019 13:45	WN2861	M	8.28	1500	1.8	1000	6.0	265	280	130	<1.0	160	<1.0	<1.0	63	0.38	0.95	550			0.094	0.0519	0.777	0.828	<0.0030
RSEM-R5B-EOP	9/18/2019 10:30	WN2815	M	8.18	1400	1.8	960	<4.0	260	282	120	<1.0	150	<1.0	<1.0	49	0.39	0.84	460			0.10	0.0460	0.768	0.814	<0.0030
RSEM-R5B-EOP	9/19/2019 11:20	WN7482	M	8.03	1500	0.60	950	<4.0	305	309	100	<1.0	120	<1.0	<1.0	44	0.45	0.81	520			0.17	0.0419	0.883	0.925	<0.0030
RSEM-R5B-EOP	9/20/2019 10:30	WN7564	M	8.06	1500	0.68	990	<4.0	319	322	95	<1.0	120	<1.0	<1.0	44	0.46	0.82	530			0.17	0.0456	0.973	1.02	<0.0030
RSEM-R5B-EOP	9/21/2019 11:05	WO1836	M	7.98	1600	1.8	1100	5.6	342	337	87	<1.0	110	<1.0	<1.0	48	0.52	0.89	620			0.16	0.0636	1.23	1.29	<0.0030
RSEM-R5B-EOP	9/22/2019 9:30	WO2181	M	7.48	1700	1.7	1100	4.0	344	332	86	<1.0	100	<1.0	<1.0	52	0.55	0.96	610			0.15	0.0669	1.23	1.29	<0.0030
RSEM-R5B-EOP	9/23/2019 10:50	WO4835	M	7.80	1700	1.7	1200	<4.0	352	356	87	<1.0	110	<1.0	<1.0	52	0.59	0.93	690			0.21	0.0789	1.32	1.40	<0.0030
RSEM-R5B-EOP	9/24/2019 10:20	WO4819	M	7.80	1700	1.4	1200	<4.0	331	357	88	<1.0	110	<1.0	<1.0	56	0.60	0.97	700			0.16	0.0858	1.36	1.44	<0.0030
RSEM-R5B-EOP	9/25/2019 9:30	WO6408	M	8.09	1800	1.7	1200	<4.0	354	355	120	<1.0	140	<1.0	<1.0	54	0.59	0.94	720			0.37	0.0834	1.17	1.26	<0.0030
RSEM-R5B-EOP	9/26/2019 9:55	WP1623	M	8.27	1800	1.2	1200	<4.0	391	373	160	<1.0	190	<1.0	<1.0	52	0.57	0.97	690			0.39	0.0760	1.20	1.28	<0.0030
RSEM-R5B-EOP	9/27/2019 11:00	WP3485	M	8.22	1800	1.8	1300	4.0	365	371	170	<1.0	200	<1.0	<1.0	53	0.59	0.90	670			0.38	0.0756	1.08	1.16	<0.0030
RSEM-R5B-EOP	9/28/2019 10:45	WP3451	M	8.17	1800	1.9	1300	<4.0	363	374	160	<1.0	200	<1.0	<1.0	54	0.53	0.97	700			0.39	0.0792	1.05	1.13	<0.0030
RSEM-R5B-EOP	9/29/2019 11:00	WP5510	M	7.94	1800	1.8	1300	<4.0	359	358	150	<1.0	180	<1.0	<1.0	52	0.46	0.92	700			0.38	0.0792	1.03	1.11	<0.0030
RSEM-R5B-EOP	9/30/2019 9:10	WP5289	M	7.98	1800	2.0	1200	<4.0	351	355	160	<1.0	200	<1.0	<1.0	51	0.44	0.92	680			0.35	0.0730	1.01	1.08	<0.0030
RSEM-R5B-EOP	10/1/2019 12:55	WP9958	M	8.27	1600	2.9	1100	5.2	360	355	210	<1.0	260	<1.0	<1.0	45	0.44	0.68	440			0.27	0.0496	0.914	0.963	<0.0030
RSEM-R5B-EOP	10/1/2019 13:05	WP9959	D	8.27	1600	2.8	1100	4.8	358	353	220	<1.0	260	<1.0	<1.0	45	0.45	0.67	470			0.25	0.0482	0.936	0.984	<0.0030
RSEM-R5B-EOP	10/2/2019 11:30	WQ2273	M	8.32	1700	2.0	1100	<4.0	328	355	200	1.3	240	1.6	<1.0	45	0.42	0.73	530			0.30	0.0566	0.901	0.958	0.037
RSEM-R5B-EOP	10/2/2019 11:40	WQ2274	D	8.33	1700	2.2	1100	<4.0	333	350	200	1.5	240	1.8	<1.0	44	0.42	0.72	520			0.29	0.0574	0.893	0.950	<0.0030
RSEM-R5B-EOP	10/3/2019 12:45	WQ4503	M	8.29	1700	0.83	1200	<4.0	354	360	180	<1.0	220	<1.0	<1.0	57	0.42	0.77	640			0.22	0.0659	0.853	0.919	<0.0030
RSEM-R5B-EOP	10/3/2019 12:55	WQ4504	D	8.18	1700	0.82	1200	<4.0	356	360	180	<1.0	210	<1.0	<1.0	46	0.41	0.80	580			0.20	0.0658	0.862	0.928	<0.0030
RSEM-R5B-EOP	10/4/2019 11:10	WQ4426	M	8.14	1900	0.84	1300	<4.0	396	372	160	<1.0	200	<1.0	<1.0	52	0.40	0.83	670			0.32	0.0720	0.873	0.945	<0.0030
RSEM-R5B-EOP	10/4/2019 11:20	WQ4427	D	8.13	1900	0.70	1300	<4.0	387	378	160	<1.0	190	<1.0	<1.0	50	0.41	0.86	700			0.38	0.0709	0.877	0.948	<0.0030
RSEM-R5B-EOP	10/5/2019 11:55	WQ7323	M	8.37	1800	1.7	1200	2.2	361	366	170	2.2	200	2.7	<1.0	46	0.38	0.81	670			0.30	0.059	0.88	0.94	<0.0030
RSEM-R5B-EOP	10/5/2019 12:05	WQ7324	D	8.38	1800	1.8	1200	2.3	368	385	170	2.7	200	3.2	<1.0	48	0.38	0.82	690			0.30	0.061	0.89	0.95	<0.0030
RSEM-R5B-EOP	10/6/2019 11:50	WQ7679	M	8.35	1800	2.5	1200	2.1	370	374	170	2.2	200	2.6	<1.0	47	0.37	0.80	670			0.25	0.056	0.90	0.95	<0.0030
RSEM-R5B-EOP	10/6/2019 12:00	WQ7680	D	8.37	1800	1.5	1200	2.4	398	384	170	2.9	200	3.5	<1.0	48	0.37	0.79	660			0.26	0.054	0.88	0.94	<0.0030
RSEM-R5B-EOP	10/7/2019 12:25	WQ9658	M	8.37	1700	1.5	1100	3.8	368	360	170	2.4	210	2.9	<1.0	45	0.35	0.76	620			0.22	0.053	0.85	0.90	<0.0030
RSEM-R5B-EOP	10/7/2019 12:35	WQ9659	D	8.34	1700	2.3	1100	4.5	349	369	170	2.1	200	2.6	<1.0	46	0.36	0.77	620			0.21	0.055	0.84	0.89	<0.0030
RSEM-R5B-EOP	10/8/2019 11:55	WR3472	M	8.34	1700	2.0	1100	2.0	353	366	170	1.7	210	2.0	<1.0	45	0.36	0.73	610			0.14	0.073	0.83	0.90	<0.0030
RSEM-R5B-EOP	10/9/2019 15:10	WR5599	M	6.95	1700	0.97	960	3.1	346	356	170	<1.0	200	<1.0	<1.0	46	0.37	0.73	600			0.16	0.042	0.85	0.89	0.0032
RSEM-R5B-EOP	10/11/2019 10:20	WR7603	M	8.26	1700	0.67	1100	2.7	348	354	170	<1.0	210	<1.0	<1.0	44	0.35	0.77	610			0.11	0.037	0.83	0.87	<0.0030
RSEM-R5B-EOP	10/13/2019 11:15	WS2498	M	8.47	1600	1.2	1200	2.3	343	330	180	4.2	210	5.0	<1.0	43	0.38	0.75	580			0.11	0.034	0.82	0.86	<0.0030
RSEM-R5B-EOP	10/14/2019 10:45	WS2601	M	8.05	1500	1.2	1000	2.3	328	324	180	<1.0	230	<1.0	<1.0	43	0.36	0.70	540			0.091	0.034	0.77	0.80	<0.0030
RSEM-R5B-EOP	10/15/2019 10:30	WS4272	M	7.61	1500	0.81	950	3.1	280	312	180	<1.0	220	<1.0	<1.0	43	0.31	0.71	480			0.072	0.031	0.78	0.81	<0.0030
RSEM-R5B-EOP	10/16/2019 11:15	WS6067	M	8.27	1400	0.87	930	2.9	283	290	190	<1.0	230	<1.0	<1.0	43	0.30	0.68	460			0.13	0.034	0.80	0.84	<0.0030
RSEM-R5B-EOP	10/17/2019 10:55	WS9492	M	8.43	1400	0.76	940	1.5	263	278	180	3.1	220	3.7	<1.0	45	0.31	0.68	460			0.072	0.035	0.80	0.84	<0.0030
RSEM-R5B-EOP	10/18/2019 13:00	WT0850	M	8.05	1400	0.75	880	<4.0	254	264	170	<1.0	210	<1.0	<1.0	47	0.29	0.72	470			0.076	0.0343	0.808	0.842	<0.0030
RSEM-R5B-EOP	10/19/2019 11:00	WT3628	M	8.16	1500	1.8	950	2.1	238	258	170	<1.0	210	<1.0	<1.0	49	0.32	0.73	480			0.26	0.041	0.79	0.83	0.0031
RSEM-R5B-EOP	10/20/2019 12:00	WT3701	M	8.09	1500	2.2	960	4.6	255	237	160	<1.0	200	<1.0	<1.0	50	0.35	0.88	480			0.33	0.034	0.79	0.83	<0.0030
RSEM-R5B-EOP	10/21/2019 10:00	WT4451	M	8.02	1500	3.6	940	4.4	263	237	160	<1.0	190	<1.0	<1.0	55	0.36	1.1	510			0.36	0.036	0.82	0.85	<0.0030
RSEM-R5B-EOP	10/22/2019 13:45	WT8958	M	8.19	1600	2.7	1100	3.5	262	255	140	<1.0	170	<1.0	<1.0	62	0.48	1.5	560			0.40	0.044	0.85	0.89	<0.0030
RSEM-R5B-EOP	10/22/2019 13:55	WT8959	D	8.04	1600	2.4	1100	4.7	265	257	140	<1.0	170	<1.0	<1.0	61	0.41	1.7	550			0.40	<0.050	0.86	0.86	0.0031
RSEM-R5B-EOP	10/23/2019 12:15	WU1853	M	8.20	1700	2.2	1100	4.9	265	272	160	<1.0	200	<1.0	<1.0	65	0.48	1.6	610			0.36	0.054	0.91	0.97	<0.0030
RSEM-R5B-EOP	10/23/2019 12:25	WU1854	D	8.34	1700	2.1	1100	5.6	265	269	130	<1.0	160	<1.0	<1.0	62	0.41	1.5	610			0.36	0.051	0.91	0.96	<0.0030
RSEM-R5B-EOP	10/24/2019 15:00	WU4167	M	8.13	1800	1.7	1200	4.3	292	287	120	<1.0	150	<1.0	<1.0	67	0.53	2.0	660			0.31	0.052	1.0	1.1	<0.0030
RSEM-R5B-EOP	10/24/2019 15:10	WU4168	D	8.14	1800	1.6	1200	3.3	294	288	120	<1.0	140	<1.0	<1.0	65	0.54	1.6	660			0.30	0.053	1.0	1.1	<0.0030
RSEM-R5B-EOP	10/25/2019 14:35	WU5354	M	7.95	1810	57	1250	43.2	317	305	120	<1.0	140	<1.0	<1.0	62	0.58	1.5	590			0.36	0.0602	1.07	1.13	<0.0030
RSEM-R5B-EOP	10/25/2019 14:45	WU5355	D	7.78	1790	58	1260	44.4	317	307	110	<1.0	140	<1.0	<1.0	67	0.62	1.5	710			0.38	0.0633	1.10	1.17	<0.0030

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	8/19/2019 0:55	WI2766	D	2.3	2.5	0.153	0.00162	0.00087	0.0871	<0.0001	<0.001	0.168	0.000159	70.9	0.001	0.005	0.00267	0.121	<0.0002	0.0674	28.1	0.118	<0.000002	0.0151	0.0212		4.80	0.00473
RSEM-R5B-EOP	8/19/2019 0:55	WI2767	M	2.0	2.3	0.156	0.00164	0.00085	0.0855	<0.0001	<0.001	0.169	0.000148	70.4	<0.001	0.00499	0.00264	0.112	<0.0002	0.0684	27.9	0.116	<0.000002	0.015	0.0207		4.74	0.00465
RSEM-R5B-EOP	8/20/2019 11:00	WI5435	D	2.1	2.1	0.133	0.0017	0.0008	0.0752	<0.0001	<0.001	0.173	0.000195	81.4	<0.001	0.00693	0.00261	0.089	<0.0002	0.0766	31.3	0.139	<0.000002	0.0174	0.0273		5.23	0.00575
RSEM-R5B-EOP	8/20/2019 11:00	WI5436	M	2.0	2.3	0.119	0.00171	0.00079	0.075	<0.0001	<0.001	0.173	0.0002	81.4	<0.001	0.00704	0.00287	0.092	<0.0002	0.077	31.8	0.14	<0.000002	0.0192	0.0293		5.24	0.00583
RSEM-R5B-EOP	8/21/2019 10:45	WI5128	D	1.9	2.2	0.109	0.00163	0.00069	0.0673	<0.0001	<0.001	0.185	0.00029	95.8	<0.001	0.00976	0.00237	0.091	<0.0002	0.0971	37.6	0.179	<0.000002	0.0172	0.0369		5.70	0.00672
RSEM-R5B-EOP	8/21/2019 10:45	WI5129	M	2.1	2.3	0.124	0.00163	0.00067	0.0692	<0.0001	<0.001	0.192	0.000281	96.7	<0.001	0.00986	0.0024	0.094	<0.0002	0.0983	38.1	0.181	<0.000002	0.0176	0.0372		5.77	0.00696
RSEM-R5B-EOP	8/22/2019 11:50	WI9243	D	2.0	1.9	0.126	0.00137	0.00063	0.0566	<0.0001	<0.001	0.224	0.00033	118	0.001	0.0148	0.00193	0.167	<0.0002	0.136	46.2	0.299	0.0000043	0.014	0.0536		5.94	0.0065
RSEM-R5B-EOP	8/22/2019 11:50	WI9244	M	1.9	1.8	0.12	0.00131	0.00062	0.0564	<0.0001	<0.001	0.224	0.000323	116	<0.001	0.0145	0.00194	0.159	<0.0002	0.134	45.1	0.286	<0.000002	0.0136	0.0523		5.67	0.00623
RSEM-R5B-EOP	8/23/2019 9:05	WI9308	D	2.0	1.7	0.0885	0.00114	0.00055	0.0547	<0.0001	<0.001	0.244	0.000382	125	<0.001	0.0184	0.00163	0.056	<0.0002	0.141	49.1	0.36	0.000002	0.0122	0.0666		5.66	0.00594
RSEM-R5B-EOP	8/23/2019 9:05	WI9309	M	2.1	1.9	0.0896	0.00114	0.00054	0.0531	<0.0001	<0.001	0.24	0.000398	125	<0.001	0.0189	0.00166	0.057	<0.0002	0.14	50.6	0.377	<0.000002	0.0122	0.0682		5.65	0.00598
RSEM-R5B-EOP	8/24/2019 10:20	WJ3005	D	1.8	2.2	0.0735	0.00106	0.00056	0.0512	<0.0001	<0.001	0.255	0.000302	129	<0.001	0.0156	0.00136	0.043	<0.0002	0.157	52	0.338	<0.000002	0.0117	0.0607		5.69	0.00622
RSEM-R5B-EOP	8/24/2019 10:20	WJ3006	M	1.9	2.1	0.0775	0.00108	0.00056	0.0512	<0.0001	<0.001	0.254	0.000301	130	<0.001	0.016	0.0014	0.043	<0.0002	0.156	53.7	0.337	<0.000002	0.0117	0.0619		5.72	0.00609
RSEM-R5B-EOP	8/25/2019 11:15	WJ3019	D	2.0	1.8	0.0761	0.00094	0.00066	0.0468	<0.0001	<0.001	0.223	0.0002	124	<0.001	0.0134	0.00124	0.068	<0.0002	0.137	51.2	0.288	<0.000002	0.0106	0.054		5.61	0.00528
RSEM-R5B-EOP	8/25/2019 11:15	WJ3020	M	2.2	2.1	0.0698	0.00094	0.00065	0.0457	<0.0001	<0.001	0.218	0.000192	121	<0.001	0.0132	0.00116	0.056	<0.0002	0.135	51.0	0.284	0.0000037	0.0105	0.0532		5.49	0.00531
RSEM-R5B-EOP	8/26/2019 10:55	WJ5213	D	2.0	2.4	0.063	0.00087	0.00057	0.0403	<0.0001	<0.001	0.211	0.000085	117	<0.001	0.00891	0.00097	0.05	<0.0002	0.138	48.5	0.199	<0.000002	0.0098	0.041		5.31	0.00523
RSEM-R5B-EOP	8/26/2019 10:55	WJ5214	M	2.0	2.3	0.0734	0.00086	0.00061	0.0409	<0.0001	<0.001	0.212	0.000086	124	<0.001	0.00926	0.00101	0.052	<0.0002	0.141	50.9	0.206	<0.000002	0.0098	0.0435		5.53	0.00528
RSEM-R5B-EOP	8/27/2019 11:25	WJ7309	M	2.1	2	0.0786	0.00121	0.00064	0.0446	<0.0001	<0.001	0.23	0.000037	117	<0.001	0.00452	0.00101	0.076	<0.0002	0.135	49.7	0.103	<0.000002	0.0115	0.0254		5.88	0.00665
RSEM-R5B-EOP	8/28/2019 11:17	WJ9545	M	2.1	2.2	0.0636	0.00172	0.00078	0.0642	<0.0001	<0.001	0.224	0.000019	106	<0.001	0.00213	0.00085	0.072	<0.0002	0.136	46.5	0.0546	<0.000002	0.0128	0.0146		5.91	0.00653
RSEM-R5B-EOP	9/3/2019 12:05	WK8380	M	1.9	2.2	0.0053	0.00173	0.00065	0.0127	<0.0001	<0.001	0.246	<0.00001	35.6	0.0018	0.00033	0.00058	0.251	<0.0002	0.156	39.3	0.0059	<0.000002	0.0113	0.0025		5.45	0.00446
RSEM-R5B-EOP	9/4/2019 11:45	WL0769	M	1.9	2.3	0.0222	0.00156	0.00065	0.012	<0.0001	<0.001	0.225	<0.00001	30.5	0.0026	0.0003	0.00061	0.404	<0.0002	0.146	36.6	0.0055	<0.000002	0.011	0.0022		5.13	0.00407
RSEM-R5B-EOP	9/5/2019 11:10	WL2424	M	2.0	2.8	0.0127	0.00168	0.00078	0.0109	<0.0001	<0.001	0.249	<0.00001	29.2	0.0023	0.00037	0.00053	0.274	<0.0002	0.155	38.5	0.0068	<0.000002	0.0118	0.0026		5.63	0.00391
RSEM-R5B-EOP	9/6/2019 12:00	WL3941	M	1.7	2.2	0.007	0.00156	0.00082	0.0089	<0.0001	<0.001	0.241	<0.00001	25.8	0.0021	0.00026	<0.0005	0.021	<0.0002	0.15	36.7	0.0044	<0.000002	0.0116	0.0022		5.77	0.0034
RSEM-R5B-EOP	9/7/2019 11:30	WL4971	M	1.6	2.4	0.0095	0.0015	0.00081	0.0075	<0.0002	<0.002	0.244	<0.00002	23.6	<0.002	<0.0004	<0.001	0.021	<0.0004	0.14	35.1	0.0039	<0.000002	0.0106	<0.002		5.83	0.0031
RSEM-R5B-EOP	9/8/2019 11:15	WL5047	M	1.8	2.5	0.0209	0.00139	0.001	0.0087	<0.0001	<0.001	0.243	<0.00001	22.1	0.002	0.00024	0.00072	0.017	<0.0002	0.141	34.4	0.0046	<0.000002	0.0107	0.0024		5.67	0.00275
RSEM-R5B-EOP	9/9/2019 10:45	WL7028	M	2.0	2.6	0.0396	0.00157	0.00124	0.0102	<0.0001	<0.001	0.271	<0.00001	21.5	0.0022	0.00022	0.00077	0.026	<0.0002	0.146	33.5	0.0046	<0.000002	0.0111	0.0026		6.01	0.00296
RSEM-R5B-EOP	9/10/2019 11:00	WL9314	M	1.9	2.8	0.0259	0.00169	0.00142	0.0122	<0.0001	<0.001	0.214	<0.00001	19.1	0.0022	0.00022	0.00073	0.02	<0.0002	0.121	28.7	0.005	<0.000002	0.0136	0.0024		5.40	0.00362
RSEM-R5B-EOP	9/11/2019 10:40	WM1910	M	2.1	2.7	0.0362	0.00281	0.00236	0.0144	<0.0001	<0.001	0.22	<0.00001	19.4	0.0021	0.00021	0.00075	0.022	<0.0002	0.117	29.1	0.0027	0.0000023	0.0266	0.0022		5.50	0.00824
RSEM-R5B-EOP	9/16/2019 11:15	WN0357	M	2.1	3.1	0.1	0.00161	0.00089	0.0478	<0.0001	<0.001	0.225	0.000029	47.8	0.001	0.00076	0.00126	0.17	<0.0002	0.109	35.2	0.0203	<0.000002	0.0148	0.0053		4.66	0.00519
RSEM-R5B-EOP	9/17/2019 13:45	WN2861	M	1.5	2.9	0.0661	0.00129	0.00081	0.0611	<0.0001	<0.001	0.193	0.000052	53.0	<0.001	0.00149	0.00109	0.083	<0.0002	0.0873	32.2	0.0342	<0.000002	0.0122	0.0084		4.41	0.0041
RSEM-R5B-EOP	9/18/2019 10:30	WN2815	M	2.0	2.5	0.0612	0.00105	0.00066	0.0619	<0.0001	<0.001	0.155	0.000076	53.4	<0.001	0.00216	0.0014	0.039	<0.0002	0.077	30.9	0.0475	<0.000002	0.01	0.0108		4.31	0.00354
RSEM-R5B-EOP	9/19/2019 11:20	WN7482	M	1.7	2.2	0.0625	0.00109	0.00055	0.057	<0.0001	<0.001	0.187	0.000088	64.3	0.0013	0.00197	0.00114	0.027	<0.0002	0.0898	34.9	0.0408	0.0000026	0.0099	0.0104		5.20	0.00385
RSEM-R5B-EOP	9/20/2019 10:30	WN7564	M	1.6	2.8	0.0512	0.00115	0.00055	0.0532	<0.0001	<0.001	0.183	0.000077	67.0	0.0014	0.00165	0.00106	0.021	<0.0002	0.0928	36.9	0.0317	<0.000002	0.0107	0.0093		5.55	0.0043
RSEM-R5B-EOP	9/21/2019 11:05	WO1836	M	1.6	2.7	0.0551	0.00137	0.00064	0.0484	<0.0001	<0.001	0.181	0.000054	71.8	0.0015	0.00093	0.00089	0.074	<0.0002	0.0973	39.6	0.0178	0.0000041	0.0144	0.0062		5.71	0.00683
RSEM-R5B-EOP	9/22/2019 9:30	WO2181	M	1.6	2.6	0.0514	0.00152	0.00062	0.0475	<0.0001	<0.001	0.183	0.000044	71.9	0.0014	0.00072	0.00131	0.046	<0.0002	0.101	40.0	0.0134	<0.000002	0.0156	0.0055		5.79	0.00751
RSEM-R5B-EOP	9/23/2019 10:50	WO4835	M	1.8	2.8	0.0574	0.00182	0.00066	0.0461	<0.0001	<0.001	0.217	0.00003	70.2	0.0015	0.00053	0.00086	0.08	<0.0002	0.111	42.9	0.011	0.0000025	0.0176	0.0045		5.83	0.00909
RSEM-R5B-EOP	9/24/2019 10:20	WO4819	M	1.4	3.0	0.0358	0.00188	0.00062	0.0422	<0.0001	<0.001	0.204	0.000026	63.7	0.0013	0.0004	0.00072	0.036	<0.0002	0.111	41.7	0.0081	0.0000022	0.0179	0.0036		6.04	0.00927
RSEM-R5B-EOP	9/25/2019 9:30	WO6408	M	1.9	2.6	0.057	0.00181	0.00052	0.0439	<0.0001	<0.001	0.206	0.00005	67.5	<0.001	0.00191	0.00087	0.075	<0.0002	0.117	45.0	0.0415	<0.000002	0.0175	0.0086		5.42	0.00865
RSEM-R5B-EOP	9/26/2019 9:55	WP1623	M	1.4	2.9	0.0756	0.00161	0.00059	0.0507	<0.0001	<0.001	0.227	0.000086	80.8	<0.001	0.0039	0.00101	0.093	<0.0002	0.13	46.0	0.0802	<0.000002	0.0147	0.0161		5.40	0.00763
RSEM-R5B-EOP	9/27/2019 11:00	WP3485	M	1.6	2.3	0.0629	0.00138	0.00042	0.05	<0.0001	<0.001	0.236	0.000074	74.1	<0.001	0.00315	0.0009	0.074	<0.0002	0.122	43.8	0.0632	<0.000002	0.0129	0.0144		4.75	0.00631
RSEM-R5B-EOP	9/28/2019 10:45	WP3451	M	1.6	2.7	0.0656	0.00138	0.00044	0.0527	<0.0001	<0.001	0.214	0.000056	72.3	<0.001	0.00219	0.00088	0.067	<0.0002	0.114	44.4	0.0437	<0.000002	0.0123	0.0108		4.75	0.00597
RSEM-R5B-EOP	9/29/2019 11:00	WP5510	M	2.0	2.9	0.0562	0.00138	0.00046	0.0534	<0.0001	<0.001	0.221	0.000036	69.4	<0.001	0.00142	0.00084	0.069	<0.0002	0.112	45.2	0.0292	<0.000002	0.0122	0.008		4.71	0.00577
RSEM-R5B-EOP	9/30/2019 9:10	WP5289	M	1.6	2.8	0.0611	0.00126	0.00043	0.0555	<0.0001	<0.001	0.223	0.000046	68.7	<0.001	0.00211	0.00087	0.083	<0.0002	0.11	43.6	0.0434	<0.000002	0.0114	0.0102		4.61	0.00515
RSEM-R5B-EOP	10/1/2019 12:55	WP9958	M	1.5	2.7	0.0864	0.00091	0.00047	0.0661	<0.0001	<0.001	0.17	0.000074	75.7	<0.001	0.00474	0.00098	0.151	<0.0002	0.0867	41.6	0.0943	<0.000002	0.008	0.0191		4.15	0.00362
RSEM-R5B-EOP	10/1/2019 13:05	WP9959	D	2.0	2.7	0.0879	0.00088	0.00048	0.066	<0.0001	<0.001	0.171	0.000078	75.1	<0.001	0.00481	0.001	0.158	<0.0002	0.0904	41.5	0.0948	<0.000002	0.008	0.0195		4.12	0.00373
RSEM-R5B-EOP	10/2/2019 11:30	WQ2273	M	1.7	3.0	0.0693	0.0011	0.00059	0.0553	<0.0001	<0.001	0.195	0.000053	66.9	0.0025	0.00342	0.00097	0.124	<0.0002	0.101	39.1	0.0671	<0.000002	0.0098	0.0151		4.23	0.00342
RSEM-R5B-EOP	10/2/2019 11:40	WQ2274	D	1.8	2.9	0.0724	0.00112	0.00059	0.0553	<0.0001	<0.001	0.194	0.000054	67.9	0.0013	0.00342	0.00099	0.105	<0.0002	0.103	39.6	0.0649	<0.000002	0.0098	0.0147		4.27	0.00341
RSEM-R5B-EOP	10/3/2019 12:45	WQ4503	M	1.3	2.5	0.0577	0.00131	0.00062	0.0488	<0.0001	<0.001	0.206	0.000042	69.2	0.0018	0.00252	0.00093	0.06	<0.0002	0.0985	44.0	0.0496	<0.000002	0.0118	0.0126		4.63	0.00351
RSEM-R5B-EOP	10/3/2019 12:55	WQ4504	D	1.5	3.2	0.0525	0.00132	0.00061	0.0488	<0.0001	<0.001	0.2	0.000043	69.1	0.0018	0.0025	0.00093	0.061	<0.0002	0.0925	44.6	0.0492	<0.000002	0.0118	0.0127		4.61	0.00353
RSEM-R5B-EOP	10/4/2019 11:10	WQ4426	M	1.3	2.8	0.0469	0.00143	0.00071	0.0424	<0.0001	<0.001	0.197	0.000035	72.9	0.0021	0.00192	0.0007	0.047	<0.0002	0.101	51.9	0.0402	<0.000002	0.0127	0.0097		5.37	0.0037
RSEM-R5B-EOP	10/4/2019 11:20	WQ4427	D	1.6	2.7	0.0527	0.00145	0.00069	0.0438	<0.0001	<0.001	0.218	0.000037	72.6	0.0022	0.00182	0.0007	0.046	<0.0002	0.107	49.9	0.0385	<0.000002	0.0132	0.0092		5.17	0.00365
RSEM-R5B-EOP	10/5/2019 11:55	WQ7323	M	1.7	1.6	0.0479	0.00126	0.0006	0.0449	<0.0001	<0.001	0.196	0.000038	63.4	0.0017	0.00211	0.00087	0.038	<0.0002	0.0968	49.3	0.0423	<0.000002	0.0117	0.0111		4.60	0.00354
RSEM-R5B-EOP	10/5/2019 12:05	WQ7324	D	1.7	1.7	0.0577	0.00127	0.00062	0.0443	<0.0001	<0.001	0.202	0.000036	64.2	0.0017	0.00215	0.00093	0.04	<0.0002	0.103	50.5	0.0428	<0.000002	0.0117	0.0109		4.67	0.00361
RSEM-R5B-EOP	10/6/2019 11:50	WQ7679	M	1.7	1.7	0.0468	0.0012	0.00063	0.0461	<0.0001	<0.001	0.197	0.000041	70.8	0.0015	0.0022	0.00078	0.05	<0.0002	0.105	47.0	0.0416	<0.000002	0.0114	0.0114		4.74	0.00338
RSEM-R5B-EOP	10/6/2019 12:00	WQ7680	D	1.8	1.6	0.0462	0.00122	0.0006	0.0462	<0.0001	<0.001	0.192	0.000039	77.2	0.0017	0.00228	0.00083	0.046	<0.0002	0.0996	50.0	0.0444	<0.000002	0.0118	0.0118		5.05	0.00398
RSEM-R5B-EOP	10/7/2019 12:25	WQ9658	M	1.7	1.5	0.0627	0.00118	0.00064	0.0464	<0.0001	<0.001	0.205	0.000046	67.0	0.0015	0.00239	0.001	0.079	<0.0002	0.109	48.7	0.0497	<0.000002	0.0108	0.0121		4.97	0.00343
RSEM-R5B-EOP	10/7/2019 12:35	WQ9659	D	1.7	1.5	0.0696	0.00115	0.00055	0.0459	<0.0001	<0.001	0.203	0.000041	62.4	0.0016	0.00227	0.00097	0.082	<0.0002	0.108	47.0	0.0475	<0.000002	0.0107	0.0115		4.79	0.0031
RSEM-R5B-EOP	10/8/2019 11:55	WR3472	M	1.6	1.4	0.0876	0.00113	0.00061	0.0445	<0.0001	<0.001	0.212	0.000037	66.4	0.0018	0.00209	0.00092	0.112	<0.0002	0.108	45.6	0.0433	<0.000002	0.0105	0.0113		4.75	0.0034
RSEM-R5B-EOP	10/9/2019 15:10	WR5599	M	1.7	0.88	0.0447	0.00108	0.0005	0.0398	<0.0001	<0.001	0.208	0.00003	64.6	0.0014	0.00193	0.0009	0.041	<0.0002	0.1	44.8	0.0408	<0.000002	0.0098	0.0115		4.46	0.00304
RSEM-R5B-EOP	10/11/2019 10:20	WR7603	M	1.6	1.5	0.0394	0.00103	0.00049	0.0366	<0.0001	<0.001	0.219	0.000023	64.9	0.0013	0.00159	0.00092	0.046	<0.0002	0.104	45.2	0.0332	<0.000002	0.0101	0.0105		4.50	0.00303
RSEM-R5B-EOP	10/13/2019 11:15	WS2498	M	1.6	1.3	0.0403	0.00103	0.00051	0.0368	<0.0001	<0.001	0.183	0.000024	61.0	0.0014	0.00171	0.00089	0.031	<0.0002	0.0955	46.2	0.0328	<0.000002	0.0096	0.0101		4.64	0.00305
RSEM-R5B-EOP	10/14/2019 10:45	WS2601	M	1.4	1.7	0.0451	0.00099	0.00057	0.0358	<0.0001	<0.001	0.167	0.00002	58.9	0.0014	0.00141	0.00101	0.042	<0.0002	0.085	43.8	0.027	<0.000002	0.0086	0.0087		4.57	0.00302
RSEM-R5B-EOP	10/15/2019 10:30	WS4272	M	1.7	1.6	0.039	0.001	0.00063	0.0315	<0.0001	<0.001	0.155	0.000016	52.6	0.0012	0.00086	0.00074	0.031	<0.0002	0.0781	36.1	0.0161	<0.000002	0.0075	0.0066		4.06	0.00274
RSEM-R5B-EOP	10/16/2019 11:15	WS6067	M	1.4	1.8	0.0306	0.00118	0.0008	0.032	<0.0001	<0.001	0.167	0.000013	47.7	0.0013	0.00067	0.0008	0.025	<0.0002	0.0881	39.9	0.0114	<0.000002	0.0083	0.006		4.23	0.00323
RSEM-R5B-EOP	10/17/2019 10:55	WS9492	M	1.5	1.2	0.0321	0.00125	0.00086	0.0283	<0.0001	<0.001	0.167	0.000013	42.6	0.0013	0.00046	0.00084	0.018	<0.0002	0.0928	38.1	0.0071	<0.000002	0.0085	0.006		4.07	0.00307
RSEM-R5B-EOP	10/18/2019 13:00	WT0850	M	1.8	3.0	0.032	0.00122	0.00086	0.0267	<0.0001	<0.001	0.171	0.000011	40.0	0.0013	0.00037	0.00078	0.019	<0.0002	0.0953	37.4	0.0054	<0.000002	0.0082	0.0062		3.94	0.00304
RSEM-R5B-EOP	10/19/2019 11:00	WT3628	M	1.1	1.7	0.0649	0.0012	0.0008	0.0263	<0.0001	<0.001	0.152	0.000016	38.1	0.0014	0.00037	0.00104	0.06	<0.0002	0.0826	34.8	0.0063	<0.000002	0.008	0.0066		3.78	0.00288
RSEM-R5B-EOP	10/20/2019 12:00	WT3701	M	1.4	1.8	0.0798	0.0012	0.00087	0.0339	<0.0002	<0.002	0.176	0.000044	43.3	0.0043	0.00109	0.0013	0.091	<0.0004	0.0998	35.7	0.0176	<0.000002	0.0113	0.009		4.57	0.00325
RSEM-R5B-EOP	10/21/2019 10:00	WT4451	M	1.6	1.6	0.0841	0.0012	0.00092	0.0348	<0.0002	<0.002	0.183	0.000061	44.7	0.0077	0.00136	0.0014	0.074	<0.0004	0.106	36.8	0.0212	<0.000002	0.0162	0.0099		5.47	0.00382
RSEM-R5B-EOP	10/22/2019 13:45	WT8958	M	1.7	1.8	0.125	0.00137	0.00098	0.0395	<0.0001	<0.001	0.182	0.000068	47.4	0.0119	0.00146	0.00144	0.084	<0.0002	0.109	35.0	0.0236	<0.000002	0.025	0.01		6.77	0.00508
RSEM-R5B-EOP	10/22/2019 13:55	WT8959	D	1.7	2.2	0.089	0.00138	0.00096	0.0391	<0.0001	<0.001	0.183	0.000062	47.6	0.0119	0.00148	0.0015	0.085	<0.0002	0.109	35.5	0.0238	<0.000002	0.0251	0.0107		6.71	0.00516
RSEM-R5B-EOP	10/23/2019 12:15	WU1853	M	2.2	2.1	0.0753	0.00135	0.00095	0.0377	<0.0001	<0.001	0.181	0.000066	50.0	0.0127	0.00137	0.00132	0.07	<0.0002	0.104	34.1	0.0229	<0.000002	0.0278	0.0101		7.14	0.00563
RSEM-R5B-EOP	10/23/2019 12:25	WU1854	D	1.7	2.0	0.0835	0.00133	0.00099	0.0377	<0.0001	<0.001	0.179	0.000062	49.8	0.0128	0.00135	0.00132	0.081	<0.0002	0.105	34.2	0.0231	<0.000002	0.0282	0.01		7.12	0.00569
RSEM-R5B-EOP	10/24/2019 15:00	WU4167	M	2.1	2.1	0.0658	0.00142	0.00098	0.0361	<0.0001	<0.001	0.212	0.000067	57.7	0.0136	0.00131	0.00142	0.057	<0.0002	0.104	35.8	0.0215	<0.000002	0.0311	0.0117		7.76	0.00633
RSEM-R5B-EOP	10/24/2019 15:10	WU4168	D	2.1	1.7	0.0751	0.00146	0.00098	0.0359	<0.0001	<0.001	0.212	0.000067	58.3	0.0137	0.00132	0.00148	0.068	<0.0002	0.104	36.1	0.0219	<0.000002	0.0316	0.0119		7.92	0.00639
RSEM-R5B-EOP	10/25/2019 14:35	WU5354	M	2.0	2.1	1.01	0.0014	0.00173	0.0816	<0.0001	<0.001	0.206	0.000075	64.6	0.0104	0.00157	0.00297	1.87	0.0009	0.112	37.8	0.0526	<0.000002	0.029	0.0121		7.85	0.00675
RSEM-R5B-EOP	10/25/2019 14:45	WU5355	D	1.8	2.0	1.04	0.00141	0.00175	0.0811	<0.0001	<0.001	0.215	0.000081	64.5	0.0104	0.00158	0.00295	1.82	0.00087	0.112	37.8	0.0516	<0.000002	0.0291	0.0123		7.97	0.00693

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	8/19/2019 0:55	WI2766	D	2.97	<0.00002	154	0.399	140	0.000015	<0.005	<0.005	0.00228	<0.005	0.0096	0.00072	0.0588	0.00168	0.00085	0.0864	<0.0001	<0.001	0.169	0.000145	72.1	<0.001	0.00505	0.0021	<0.01
RSEM-R5B-EOP	8/19/2019 0:55	WI2767	M	2.84	<0.00002	156	0.396	140	0.000013	<0.005	<0.005	0.00224	<0.005	0.0086	0.00015	0.0583	0.0017	0.00085	0.0867	<0.0001	<0.001	0.166	0.000149	72.8	<0.001	0.00497	0.00209	<0.01
RSEM-R5B-EOP	8/20/2019 11:00	WI5435	D	2.78	<0.00002	166	0.479	170	0.000018	<0.005	<0.005	0.00234	<0.005	0.0148	<0.0001	0.0674	0.00177	0.00074	0.0736	<0.0001	<0.001	0.19	0.0002	86.3	<0.001	0.00678	0.00205	<0.01
RSEM-R5B-EOP	8/20/2019 11:00	WI5436	M	2.76	<0.00002	169	0.479	172	0.000016	<0.005	<0.005	0.00237	<0.005	0.0121	<0.0001	0.0669	0.00178	0.00072	0.0749	<0.0001	<0.001	0.187	0.00019	86.0	<0.001	0.00675	0.00201	<0.01
RSEM-R5B-EOP	8/21/2019 10:45	WI5128	D	2.85	<0.00002	192	0.562	211	0.000017	<0.005	<0.005	0.00233	<0.005	0.0256	<0.0001	0.0761	0.00169	0.00064	0.0664	<0.0001	<0.001	0.201	0.000278	98.9	<0.001	0.00917	0.00167	<0.01
RSEM-R5B-EOP	8/21/2019 10:45	WI5129	M	2.88	<0.00002	193	0.56	213	0.000017	<0.005	<0.005	0.00235	<0.005	0.0255	<0.0001	0.0754	0.00168	0.00067	0.0664	<0.0001	<0.001	0.204	0.000272	99.7	<0.001	0.00914	0.00167	<0.01
RSEM-R5B-EOP	8/22/2019 11:50	WI9243	D	3.25	<0.00002	231	0.649	255	0.000023	<0.005	<0.005	0.00246	<0.005	0.0347	<0.0001	0.0734	0.00135	0.00054	0.0543	<0.0001	<0.001	0.21	0.000314	114	<0.001	0.0139	0.00122	<0.01
RSEM-R5B-EOP	8/22/2019 11:50	WI9244	M	3.14	<0.00002	224	0.63	248	0.000022	<0.005	<0.005	0.00242	<0.005	0.0342	<0.0001	0.0733	0.00135	0.00055	0.0535	<0.0001	<0.001	0.211	0.000316	114	<0.001	0.0138	0.00128	<0.01
RSEM-R5B-EOP	8/23/2019 9:05	WI9308	D	3.21	<0.00002	237	0.687	271	0.000023	<0.005	<0.005	0.0028	<0.005	0.0338	<0.0001	0.0672	0.00119	0.00053	0.0524	<0.0001	<0.001	0.233	0.000371	126	<0.001	0.0178	0.00125	<0.01
RSEM-R5B-EOP	8/23/2019 9:05	WI9309	M	3.13	<0.00002	242	0.692	267	0.000024	<0.005	<0.005	0.00286	<0.005	0.0345	<0.0001	0.0674	0.00114	0.00054	0.0518	<0.0001	<0.001	0.233	0.000379	126	<0.001	0.0185	0.00127	<0.01
RSEM-R5B-EOP	8/24/2019 10:20	WJ3005	D	3.14	<0.00002	249	0.696	286	0.000023	<0.005	<0.005	0.00301	<0.005	0.0214	<0.0001	0.059	0.00104	0.00056	0.0502	<0.0001	<0.001	0.26	0.000264	129	<0.001	0.0157	0.00104	<0.01
RSEM-R5B-EOP	8/24/2019 10:20	WJ3006	M	3.08	<0.00002	252	0.7	287	0.000023	<0.005	<0.005	0.00303	<0.005	0.022	<0.0001	0.0572	0.00109	0.00056	0.0494	<0.0001	<0.001	0.251	0.00027	132	<0.001	0.0154	0.00106	<0.01
RSEM-R5B-EOP	8/25/2019 11:15	WJ3019	D	2.82	<0.00002	229	0.681	276	0.000021	<0.005	<0.005	0.00306	<0.005	0.0135	<0.0001	0.052	0.00096	0.00059	0.0457	<0.0001	<0.001	0.245	0.000166	131	<0.001	0.0129	0.00094	0.011
RSEM-R5B-EOP	8/25/2019 11:15	WJ3020	M	2.79	<0.00002	229	0.669	274	0.000021	<0.005	<0.005	0.00304	<0.005	0.0131	<0.0001	0.0513	0.00097	0.00059	0.0452	<0.0001	<0.001	0.249	0.000169	129	<0.001	0.0128	0.00098	0.013
RSEM-R5B-EOP	8/26/2019 10:55	WJ5213	D	2.63	<0.00002	215	0.672	257	0.000019	<0.005	<0.005	0.0028	<0.005	0.0064	<0.0001	0.0417	0.00092	0.0006	0.0409	<0.0001	<0.001	0.222	0.000083	120	<0.001	0.00899	0.00085	0.012
RSEM-R5B-EOP	8/26/2019 10:55	WJ5214	M	2.71	<0.00002	224	0.684	268	0.000021	<0.005	<0.005	0.00288	<0.005	0.0069	<0.0001	0.0432	0.00094	0.00058	0.0404	<0.0001	<0.001	0.224	0.000078	124	<0.001	0.00899	0.00084	0.011
RSEM-R5B-EOP	8/27/2019 11:25	WJ7309	M	3.16	<0.00002	250	0.724	270	0.000021	<0.005	<0.005	0.00252	<0.005	<0.005	<0.0001	0.0315	0.00121	0.00058	0.0419	<0.0001	<0.001	0.23	<0.00001	113	<0.001	0.00402	0.00071	<0.01
RSEM-R5B-EOP	8/28/2019 11:17	WJ9545	M	3.27	<0.00002	250	0.718	274	0.000022	<0.005	<0.005	0.00204	<0.005	<0.005	<0.0001	0.0232	0.00172	0.00075	0.0602	<0.0001	<0.001	0.232	0.000015	101	<0.001	0.0017	0.00065	<0.01
RSEM-R5B-EOP	9/3/2019 12:05	WK8380	M	3.98	<0.00002	322	0.306	260	0.000017	<0.005	<0.005	0.00089	<0.005	<0.005	<0.0001	0.0055	0.00183	0.00055	0.013	<0.0001	<0.001	0.237	<0.00001	35.9	0.001	0.0003	<0.0005	0.059
RSEM-R5B-EOP	9/4/2019 11:45	WL0769	M	3.88	<0.00002	311	0.242	230	0.000017	<0.005	<0.005	0.00081	0.0053	<0.005	<0.0001	<0.003	0.00167	0.00056	0.0121	<0.0001	<0.001	0.207	<0.00001	32.4	0.0011	0.00026	<0.0005	0.034
RSEM-R5B-EOP	9/5/2019 11:10	WL2424	M	4.25	<0.00002	337	0.22	242	0.000016	<0.005	<0.005	0.00088	0.0061	<0.005	<0.0001	<0.006	0.0017	0.00072	0.0104	<0.0002	<0.002	0.25	<0.00002	29.9	<0.002	<0.0004	<0.001	0.02
RSEM-R5B-EOP	9/6/2019 12:00	WL3941	M	4.27	<0.00002	334	0.186	234	0.000014	<0.005	<0.005	0.00082	0.0064	<0.005	<0.0001	0.0049	0.00165	0.0008	0.0085	<0.0001	<0.001	0.253	<0.00001	26.5	0.0021	0.00023	0.00055	<0.01
RSEM-R5B-EOP	9/7/2019 11:30	WL4971	M	4.12	<0.00004	336	0.156	237	<0.00002	<0.01	<0.01	0.00078	<0.01	<0.01	<0.0002	0.0043	0.0015	0.00081	0.0074	<0.0001	<0.001	0.252	<0.00001	24.0	0.0019	<0.0002	<0.0005	<0.01
RSEM-R5B-EOP	9/8/2019 11:15	WL5047	M	4.24	<0.00002	351	0.175	224	0.000015	<0.005	<0.005	0.00142	0.0058	<0.005	<0.0001	0.017	0.00152	0.00099	0.0083	<0.0001	<0.001	0.254	<0.00001	21.8	0.002	<0.0002	<0.0005	<0.01
RSEM-R5B-EOP	9/9/2019 10:45	WL7028	M	4.88	<0.00002	342	0.193	226	0.000015	<0.005	<0.005	0.00207	0.0057	<0.005	<0.0001	0.0106	0.00152	0.00131	0.0095	<0.0001	<0.001	0.237	<0.00001	21.0	0.0022	<0.0002	0.00053	<0.01
RSEM-R5B-EOP	9/10/2019 11:00	WL9314	M	4.34	<0.00002	312	0.181	198	0.000014	<0.005	<0.005	0.00227	<0.005	<0.005	<0.0001	0.0132	0.0018	0.00151	0.0119	<0.0001	<0.001	0.258	<0.00001	22.5	0.0029	0.00021	0.00061	<0.01
RSEM-R5B-EOP	9/11/2019 10:40	WM1910	M	4.28	<0.00002	341	0.189	201	0.000015	<0.005	<0.005	0.00299	0.0051	<0.005	<0.0001	0.0138	0.00275	0.0025	0.0135	<0.0001	<0.001	0.249	<0.00001	18.9	0.002	<0.0002	0.0006	<0.01
RSEM-R5B-EOP	9/16/2019 11:15	WN0357	M	3.57	<0.00002	255	0.255	194	0.000017	<0.005	<0.005	0.00243	<0.005	<0.005	0.00011	0.0171	0.00167	0.00101	0.0459	<0.0001	<0.001	0.215	0.000017	54.5	<0.001	0.00053	0.00069	<0.01
RSEM-R5B-EOP	9/17/2019 13:45	WN2861	M	3.02	<0.00002	222	0.255	174	0.000015	<0.005	<0.005	0.00217	<0.005	<0.005	<0.0001	0.0314	0.00133	0.0008	0.06	<0.0001	<0.001	0.188	0.000046	56.9	<0.001	0.00138	0.00085	<0.01
RSEM-R5B-EOP	9/18/2019 10:30	WN2815	M	2.73	<0.00002	186	0.275	160	0.000012	<0.005	<0.005	0.00218	<0.005	0.0067	<0.0001	0.0438	0.00114	0.00067	0.0672	<0.0001	<0.001	0.173	0.000076	60.8	<0.001	0.00201	0.00088	<0.01
RSEM-R5B-EOP	9/19/2019 11:20	WN7482	M	3.16	<0.00002	207	0.308	201	0.000013	<0.005	<0.005	0.00204	<0.005	0.0081	<0.0001	0.043	0.00108	0.00057	0.0549	<0.0001	<0.001	0.176	0.000074	62.6	0.0012	0.0015	0.0008	<0.01
RSEM-R5B-EOP	9/20/2019 10:30	WN7564	M	3.18	<0.00002	206	0.335	204	0.000014	<0.005	<0.005	0.00192	<0.005	0.0065	<0.0001	0.0353	0.00114	0.00058	0.0508	<0.0001	<0.001	0.164	0.000069	65.6	0.0013	0.00141	0.00083	<0.01
RSEM-R5B-EOP	9/21/2019 11:05	WO1836	M	2.97	<0.00002	218	0.417	215	0.000016	<0.005	<0.005	0.0017	<0.005	0.0054	<0.0001	0.0213	0.00148	0.00056	0.0466	<0.0001	<0.001	0.196	0.000051	71.0	0.0016	0.00085	0.00068	<0.01
RSEM-R5B-EOP	9/22/2019 9:30	WO2181	M	2.89	<0.00002	223	0.425	221	0.000016	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001	0.0144	0.00167	0.00056	0.0478	<0.0001	<0.001	0.2	0.000047	67.3	0.0016	0.00069	0.00073	<0.01
RSEM-R5B-EOP	9/23/2019 10:50	WO4835	M	3.03	<0.00002	244	0.439	234	0.000019	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	0.0149	0.00187	0.00063	0.0453	<0.0001	<0.001	0.222	0.00003	74.8	0.0013	0.00046	0.00064	<0.01
RSEM-R5B-EOP	9/24/2019 10:20	WO4819	M	3.4	<0.00002	246	0.41	248	0.000017	<0.005	<0.005	0.00181	<0.005	<0.005	<0.0001	0.0108	0.00198	0.0006	0.0432	<0.0001	<0.001	0.223	0.000021	72.3	0.0012	0.00036	0.0006	<0.01
RSEM-R5B-EOP	9/25/2019 9:30	WO6408	M	3.04	<0.00002	258	0.443	243	0.000018	<0.005	<0.005	0.00206	<0.005	0.0061	<0.0001	0.018	0.00174	0.00056	0.042	<0.0001	<0.001	0.216	0.000036	68.6	<0.001	0.00156	0.00058	<0.01
RSEM-R5B-EOP	9/26/2019 9:55	WP1623	M	3.63	<0.00002	268	0.477	248	0.000018	<0.005	<0.005	0.00233	<0.005	0.0114	<0.0001	0.0314	0.00153	0.00049	0.0458	<0.0001	<0.001	0.223	0.000069	75.4	<0.001	0.0034	0.00062	<0.01
RSEM-R5B-EOP	9/27/2019 11:00	WP3485	M	3.18	<0.00002	251	0.443	223	0.000015	<0.005	<0.005	0.00238	<0.005	0.0102	<0.0001	0.0313	0.00142	0.00048	0.0491	<0.0001	<0.001	0.215	0.000059	72.4	<0.001	0.00309	0.00063	<0.01
RSEM-R5B-EOP	9/28/2019 10:45	WP3451	M	3.29	<0.00002	253	0.434	230	0.000015	<0.005	<0.005	0.00261	<0.005	0.0082	<0.0001	0.0264	0.00142	0.00047	0.0522	<0.0001	<0.001	0.217	0.000042	71.0	<0.001	0.00211	0.00059	<0.01
RSEM-R5B-EOP	9/29/2019 11:00	WP5510	M	3.27	<0.00002	258	0.423	231	0.000013	<0.005	<0.005	0.00276	<0.005	0.0063	<0.0001	0.0204	0.00138	0.00047	0.0514	<0.0001	<0.001	0.216	0.000033	67.4	<0.001	0.00127	0.00059	<0.01
RSEM-R5B-EOP	9/30/2019 9:10	WP5289	M	3.32	<0.00002	249	0.412	219	0.000013	<0.005	<0.005	0.00281	<0.005	0.0084	<0.0001	0.0204	0.00131	0.00046	0.0532	<0.0001	<0.001	0.218	0.000043	68.4	<0.001	0.00189	0.00062	<0.01
RSEM-R5B-EOP	10/1/2019 12:55	WP9958	M	3.63	<0.00002	215	0.406	181	0.000015	<0.005	<0.005	0.00281	<0.005	0.0157	<0.0001	0.0352	0.00094	0.00049	0.0674	<0.0001	<0.001	0.192	0.000073	72.9	<0.001	0.0049	0.00078	<0.01
RSEM-R5B-EOP	10/1/2019 13:05	WP9959	D	3.62	<0.00002	218	0.404	184	0.000016	<0.005	<0.005	0.00274	<0.005	0.016	<0.0001	0.0336	0.00093	0.00042	0.0654	<0.0001	<0.001	0.18	0.000067	72.7	<0.001	0.00473	0.00071	<0.01
RSEM-R5B-EOP	10/2/2019 11:30	WQ2273	M	3.89	<0.00002	221	0.361	201	0.000012	<0.005	<0.005	0.00267	<0.005	0.0118	<0.0001	0.0311	0.00111	0.00055	0.0547	<0.0001	<0.001	0.214	0.000051	72.9	0.0013	0.00319	0.00085	<0.01
RSEM-R5B-EOP	10/2/2019 11:40	WQ2274	D	4.01	<0.00002	219	0.37	197	0.000012	<0.005	<0.005	0.00275	<0.005	0.0113	<0.0001	0.0313	0.00112	0.00054	0.0546	<0.0001	<0.001	0.212	0.000051	71.5	0.0013	0.00323	0.00063	<0.01
RSEM-R5B-EOP	10/3/2019 12:45	WQ4503	M	3.36	<0.00002	250	0.401	215	0.000013	<0.005	<0.005	0.00289	<0.005	0.0089	<0.0001	0.0298	0.00122	0.0006	0.0486	<0.0001	<0.001	0.185	0.000036	67.8	0.0017	0.00193	0.00062	<0.01
RSEM-R5B-EOP	10/3/2019 12:55	WQ4504	D	3.32	<0.00002	252	0.402	218	0.000013	<0.005	<0.005	0.00297	<0.005	0.0136	<0.0001	0.0295	0.00124	0.00061	0.0486	<0.0001	<0.001	0.187	0.000038	66.0	0.0017	0.0021	0.00061	<0.01
RSEM-R5B-EOP	10/4/2019 11:10	WQ4426	M	4.3	<0.00002	274	0.42	277	0.000014	<0.005	<0.005	0.00304	<0.005	0.0068	<0.0001	0.028	0.00132	0.00064	0.0402	<0.0001	<0.001	0.194	0.000031	64.0	0.0019	0.0016	0.0006	<0.01
RSEM-R5B-EOP	10/4/2019 11:20	WQ4427	D	4.19	<0.00002	262	0.432	265	0.000015	<0.005	<0.005	0.00315	<0.005	0.0068	<0.0001	0.0297	0.00134	0.00067	0.04	<0.0001	<0.001	0.196	0.000029	65.0	0.0019	0.00164	0.0006	<0.01
RSEM-R5B-EOP	10/5/2019 11:55	WQ7323	M	3.4	<0.00002	252	0.422	222	0.000012	<0.005	<0.005	0.00308	<0.005	0.0075	0.00011	0.0635	0.00142	0.00066	0.0464	<0.0001	<0.001	0.211	0.000036	66.0	0.0017	0.00202	0.00064	0.02
RSEM-R5B-EOP	10/5/2019 12:05	WQ7324	D	3.43	<0.00002	256	0.424	225	0.000013	<0.005	<0.005	0.00307	<0.005	0.0078	<0.0001	0.0552	0.00143	0.00064	0.0471	<0.0001	<0.001	0.215	0.000037	73.1	0.0017	0.00205	0.00062	0.018
RSEM-R5B-EOP	10/6/2019 11:50	WQ7679	M	3.72	<0.00002	246	0.38	234	0.000012	<0.005	<0.005	0.00282	<0.005	0.0067	<0.0001	0.029	0.00133	0.00063	0.0486	<0.0001	<0.001	0.221	0.000035	71.0	0.0015	0.002	0.00062	<0.01
RSEM-R5B-EOP	10/6/2019 12:00	WQ7680	D	4.14	<0.00002	261	0.381	256	0.000013	<0.005	<0.005	0.00287	<0.005	0.0074	<0.0001	0.0287	0.00129	0.00063	0.0476	<0.0001	<0.001	0.221	0.000036	73.9	0.0016	0.00198	0.00066	<0.01
RSEM-R5B-EOP	10/7/2019 12:25	WQ9658	M	3.53	<0.00002	257	0.39	242	0.000014	<0.005	<0.005	0.0029	<0.005	0.0079	<0.0001	0.0292	0.00115	0.00056	0.0398	<0.0001	<0.001	0.205	0.000035	62.7	0.0015	0.00224	0.00071	<0.01
RSEM-R5B-EOP	10/7/2019 12:35	WQ9659	D	3.38	<0.00002	253	0.381	235	0.000013	<0.005	<0.005	0.00287	<0.005	0.0075	<0.0001	0.0287	0.00115	0.00054	0.0391	<0.0001	<0.001	0.202	0.000033	66.9	0.0016	0.00213	0.00068	<0.01
RSEM-R5B-EOP	10/8/2019 11:55	WR3472	M	3.57	<0.00002	243	0.381	230	0.000013	<0.005	<0.005	0.0029	<0.005	0.0081	<0.0001	0.0279	0.00111	0.00057	0.0375	<0.0001	<0.001	0.201	0.000034	65.5	0.0015	0.00194	0.00072	<0.01
RSEM-R5B-EOP	10/9/2019 15:10	WR5599	M	2.82	<0.00002	233	0.383	207	0.000011	<0.005	<0.005	0.00287	<0.005	0.0073	<0.0001	0.0179	0.00107	0.00054	0.0374	<0.0001	<0.001	0.207	0.000032	65.2	0.0014	0.00211	0.00076	<0.01
RSEM-R5B-EOP	10/11/2019 10:20	WR7603	M	2.79	<0.00002	233	0.388	209	0.000012	<0.005	<0.005	0.00301	<0.005	0.0051	<0.0001	0.0249	0.00107	0.00047	0.0364	<0.0001	<0.001	0.209	0.00002	65.0	0.0013	0.00155	0.00075	<0.01
RSEM-R5B-EOP	10/13/2019 11:15	WS2498	M	2.77	<0.00002	229	0.395	204	0.000013	<0.005	<0.005	0.00297	<0.005	0.0058	<0.0001	0.0225	0.00101	0.00048	0.0361	<0.0001	<0.001	0.155	0.000022	59.0	0.0014	0.00164	0.00083	<0.01
RSEM-R5B-EOP	10/14/2019 10:45	WS2601	M	2.86	<0.00002	208	0.358	180	0.00001	<0.005	<0.005	0.00297	<0.005	0.0079	<0.0001	0.0179	0.00101	0.00052	0.0354	<0.0001	<0.001	0.146	0.000021	58.4	0.0013	0.00135	0.00071	<0.01
RSEM-R5B-EOP	10/15/2019 10:30	WS4272	M	2.75	<0.00002	181	0.289	147	<0.00001	<0.005	<0.005	0.00279	<0.005	<0.005	<0.0001	0.0183	0.0011	0.00071	0.0342	<0.0001	<0.001	0.169	0.000016	54.9	0.0013	0.00095	0.0008	<0.01
RSEM-R5B-EOP	10/16/2019 11:15	WS6067	M	3.31	<0.00002	205	0.285	159	<0.00001	<0.005	<0.005	0.00312	<0.005	<0.005	<0.0001	0.0166	0.00118	0.00079	0.0311	<0.0001	<0.001	0.198	0.000014	52.1	0.0013	0.00052	0.00063	<0.01
RSEM-R5B-EOP	10/17/2019 10:55	WS9492	M	3.53	<0.00002	212	0.267	161	<0.00001	<0.005	<0.005	0.00322	<0.005	<0.005	0.00011	0.018	0.0013	0.00087	0.029	<0.0001	<0.001	0.188	0.000014	47.3	0.0014	0.00043	<0.0005	<0.01
RSEM-R5B-EOP	10/18/2019 13:00	WT0850	M	3.57	<0.00002	217	0.252	161	<0.00001	<0.005	<0.005	0.00323	<0.005	<0.005	<0.0001	0.0197	0.00127	0.00086	0.0264	<0.0001	<0.001	0.199	0.000015	44.1	0.0012	0.00035	0.00066	<0.01
RSEM-R5B-EOP	10/19/2019 11:00	WT3628	M	3.41	<0.00002	202	0.239	155	<0.00001	<0.005	<0.005	0.00314	<0.005	<0.005	<0.0001	0.0205	0.00131	0.00098	0.0264	<0.0001	<0.001	0.178	0.000012	40.9	0.0016	0.00033	0.00082	<0.01
RSEM-R5B-EOP	10/20/2019 12:00	WT3701	M	3.81	<0.00004	223	0.27	168	<0.00002	<0.01	<0.01	0.00339	<0.01	<0.01	<0.0002	0.0264	0.00117	0.00071	0.0299	<0.0001	<0.001	0.158	0.000044	39.9	0.0039	0.00084	0.00076	<0.01
RSEM-R5B-EOP	10/21/2019 10:00	WT4451	M	4.03	<0.00004	243	0.286	182	<0.00002	<0.01	<0.01	0.00339	<0.01	<0.01	<0.0002	0.0321	0.00119	0.00076	0.0308	<0.0001	<0.001	0.162	0.000054	41.4	0.0072	0.00111	0.00093	<0.01
RSEM-R5B-EOP	10/22/2019 13:45	WT8958	M	4.31	<0.00002	248	0.331	196	0.000013	<0.005	<0.005	0.00334	<0.005	0.0084	0.00016	0.031	0.00132	0.00083	0.0344	<0.0001	<0.001	0.194	0.000061	48.2	0.0112	0.00087	0.00106	<0.01
RSEM-R5B-EOP	10/22/2019 13:55	WT8959	D	4.41	<0.00002	247	0.342	199	0.000014	<0.005	<0.005	0.00341	<0.005	0.0091	<0.0001	0.033	0.00135	0.00085	0.035	<0.0001	<0.001	0.202	0.00006	48.7	0.0114	0.00081	0.00104	<0.01
RSEM-R5B-EOP	10/23/2019 12:15	WU1853	M	4.18	<0.00002	246	0.357	204	0.000014	<0.005	<0.005	0.00338	<0.005	0.0083	<0.0001	0.0369	0.0014	0.00089	0.0356	<0.0001	<0.001	0.211	0.000063	52.5	0.0129	0.00114	0.00108	<0.01
RSEM-R5B-EOP	10/23/2019 12:25	WU1854	D	4.13	<0.00002	246	0.363	203	0.000013	<0.005	<0.005	0.00338	<0.005	0.0084	<0.0001	0.036	0.00139	0.00087	0.0357	<0.0001	<0.001	0.215	0.00006	52.4	0.0126	0.00115	0.00105	<0.01
RSEM-R5B-EOP	10/24/2019 15:00	WU4167	M	4.11	<0.00002	274	0.388	224	0.000015	<0.005	<0.005	0.00344	<0.005	0.0088	<0.0001	0.0358	0.00146	0.00099	0.0357	<0.0001	<0.001	0.189	0.000062	54.1	0.0129	0.00116	0.00116	<0.01
RSEM-R5B-EOP	10/24/2019 15:10	WU4168	D	4.06	<0.00002	278	0.391	227	0.000015	<0.005	<0.005	0.00348	<0.005	0.0088	<0.0001	0.0355	0.00144	0.00101	0.0353	<0.0001	<0.001	0.191	0.000058	54.0	0.0129	0.00116	0.00114	<0.01
RSEM-R5B-EOP	10/25/2019 14:35	WU5354	M	6.14	<0.00002	279	0.415	236	0.000037	<0.005	0.0256	0.00371	<0.005	0.0105	0.00102	0.014	0.00146	0.00092	0.0492	<0.0001	<0.001	0.196	0.000047	59.9	0.0084	0.00081	0.00085	<0.01
RSEM-R5B-EOP	10/25/2019 14:45	WU5355	D	6.1	<0.00002	282	0.421	239	0.000036	<0.005	0.0239	0.00367	<0.005	0.0103	0.00079	0.0141	0.00143	0.0009	0.0491	<0.0001	<0.001	0.196	0.00004	59.5	0.0084	0.00081	0.00204	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	8/19/2019 0:55	WI2766	D	<0.0002	0.0706	28.3	0.116	<0.000002	0.0162	0.0212		4.99	0.00502	2.71	<0.00002	156	0.425	151	0.000012	<0.005	<0.005	0.00226	<0.005	0.0067	<0.0001
RSEM-R5B-EOP	8/19/2019 0:55	WI2767	M	<0.0002	0.0704	28.1	0.115	<0.000002	0.0163	0.021		4.95	0.00498	2.68	<0.00002	154	0.421	149	0.000012	<0.005	<0.005	0.00227	<0.005	0.0068	<0.0001
RSEM-R5B-EOP	8/20/2019 11:00	WI5435	D	<0.0002	0.0843	33.2	0.142	<0.000002	0.0184	0.0276		5.57	0.00648	2.84	<0.00002	182	0.495	188	0.000015	<0.005	<0.005	0.00242	<0.005	0.0106	<0.0001
RSEM-R5B-EOP	8/20/2019 11:00	WI5436	M	<0.0002	0.0842	33.4	0.142	<0.000002	0.0205	0.0271		5.51	0.00637	2.82	<0.00002	184	0.486	183	0.000014	<0.005	<0.005	0.0024	<0.005	0.0108	<0.0001
RSEM-R5B-EOP	8/21/2019 10:45	WI5128	D	<0.0002	0.108	39.3	0.177	<0.000002	0.0177	0.0354		5.83	0.00693	2.97	<0.00002	203	0.588	223	0.000017	<0.005	<0.005	0.00237	<0.005	0.0212	<0.0001
RSEM-R5B-EOP	8/21/2019 10:45	WI5129	M	<0.0002	0.106	38.9	0.175	<0.000002	0.0176	0.035		5.76	0.00706	3.04	<0.00002	204	0.566	220	0.000017	<0.005	<0.005	0.00235	<0.005	0.0213	<0.0001
RSEM-R5B-EOP	8/22/2019 11:50	WI9243	D	<0.0002	0.118	46.3	0.275	<0.000002	0.0141	0.0509		5.84	0.0065	3.05	<0.00002	230	0.642	253	0.000026	<0.005	<0.005	0.00242	<0.005	0.0218	<0.0001
RSEM-R5B-EOP	8/22/2019 11:50	WI9244	M	<0.0002	0.119	45.2	0.271	<0.000002	0.0138	0.0503		5.68	0.0064	3.03	<0.00002	227	0.638	248	0.000025	<0.005	<0.005	0.00245	<0.005	0.0219	<0.0001
RSEM-R5B-EOP	8/23/2019 9:05	WI9308	D	<0.0002	0.134	49.5	0.353	<0.000002	0.0122	0.0653		5.61	0.0061	3.13	<0.00002	243	0.688	269	0.000024	<0.005	<0.005	0.00284	<0.005	0.0279	<0.0001
RSEM-R5B-EOP	8/23/2019 9:05	WI9309	M	<0.0002	0.131	50.3	0.365	<0.000002	0.0122	0.0674		5.78	0.0062	3.13	<0.00002	247	0.688	276	0.000024	<0.005	<0.005	0.00285	<0.005	0.0287	<0.0001
RSEM-R5B-EOP	8/24/2019 10:20	WJ3005	D	<0.0002	0.155	53.4	0.337	<0.000002	0.0117	0.0622		5.95	0.00594	3.1	<0.00002	253	0.733	300	0.000025	<0.005	<0.005	0.00302	<0.005	0.0175	<0.0001
RSEM-R5B-EOP	8/24/2019 10:20	WJ3006	M	<0.0002	0.155	52.6	0.332	<0.000002	0.0126	0.0609		5.73	0.00599	3.1	<0.00002	246	0.704	283	0.000024	<0.005	<0.005	0.00303	<0.005	0.0174	<0.0001
RSEM-R5B-EOP	8/25/2019 11:15	WJ3019	D	<0.0002	0.152	55.0	0.283	<0.000002	0.0108	0.0558		5.82	0.00581	2.97	<0.00002	250	0.699	286	0.00002	<0.005	<0.005	0.0031	<0.005	0.0091	<0.0001
RSEM-R5B-EOP	8/25/2019 11:15	WJ3020	M	<0.0002	0.148	53.3	0.286	<0.000002	0.0108	0.0551		5.77	0.00573	2.96	<0.00002	247	0.685	286	0.000022	<0.005	<0.005	0.00312	<0.005	0.0094	<0.0001
RSEM-R5B-EOP	8/26/2019 10:55	WJ5213	D	<0.0002	0.137	50.4	0.196	<0.000002	0.0105	0.0424		5.44	0.00562	2.53	<0.00002	228	0.676	266	0.000021	<0.005	<0.005	0.00301	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/26/2019 10:55	WJ5214	M	<0.0002	0.137	51.4	0.194	<0.000002	0.0105	0.0429		5.51	0.0055	2.49	<0.00002	229	0.686	269	0.000021	<0.005	<0.005	0.00299	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/27/2019 11:25	WJ7309	M	<0.0002	0.142	49.2	0.0857	<0.000002	0.0129	0.0241		5.7	0.00611	2.81	<0.00002	234	0.675	265	0.000021	<0.005	<0.005	0.00242	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	8/28/2019 11:17	WJ9545	M	<0.0002	0.136	47.7	0.0352	<0.000002	0.0131	0.0139		5.84	0.00652	3.13	<0.00002	262	0.665	269	0.000022	<0.005	<0.005	0.00208	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	9/3/2019 12:05	WK8380	M	<0.0002	0.149	39.4	0.0049	<0.000002	0.0117	0.0022		5.37	0.00463	3.99	<0.00002	332	0.296	253	0.000019	<0.005	<0.005	0.00097	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	9/4/2019 11:45	WL0769	M	<0.0002	0.13	36.8	0.0042	<0.000002	0.0112	0.0018		5.43	0.00409	3.94	<0.00002	305	0.26	244	0.000017	<0.005	<0.005	0.00079	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	9/5/2019 11:10	WL2424	M	<0.0004	0.15	39.1	0.0021	<0.000002	0.0111	0.0022		5.85	0.00383	4.21	<0.00004	322	0.218	251	0.000021	<0.01	<0.01	0.00087	<0.01	<0.01	<0.0002
RSEM-R5B-EOP	9/6/2019 12:00	WL3941	M	<0.0002	0.15	38.2	0.0037	<0.000002	0.0111	0.0018		6.39	0.00318	4.38	<0.00002	346	0.169	250	0.000014	<0.005	<0.005	0.00078	0.0067	<0.005	<0.0001
RSEM-R5B-EOP	9/7/2019 11:30	WL4971	M	<0.0002	0.146	36.7	0.0021	<0.000002	0.0108	0.0016		5.71	0.00306	4.23	<0.00002	359	0.162	236	0.000015	<0.005	<0.005	0.00078	0.006	<0.005	<0.0001
RSEM-R5B-EOP	9/8/2019 11:15	WL5047	M	<0.0002	0.141	35.4	0.003	<0.000002	0.0106	0.0022		5.67	0.00283	4.13	<0.00002	362	0.172	224	0.000015	<0.005	<0.005	0.00139	0.0057	<0.005	<0.0001
RSEM-R5B-EOP	9/9/2019 10:45	WL7028	M	<0.0002	0.13	32.0	0.0011	0.0000032	0.0118	0.0022		5.79	0.00303	4.39	<0.00002	352	0.2	224	0.000012	<0.005	<0.005	0.00208	0.0056	<0.005	<0.0001
RSEM-R5B-EOP	9/10/2019 11:00	WL9314	M	<0.0002	0.131	32.0	0.0033	<0.000002	0.0136	0.0027		6.34	0.00404	5.08	<0.00002	347	0.168	229	0.000014	<0.005	<0.005	0.00224	0.0055	<0.005	<0.0001
RSEM-R5B-EOP	9/11/2019 10:40	WM1910	M	<0.0002	0.127	28.4	0.0019	<0.000002	0.0268	0.002		5.30	0.00865	4.65	<0.00002	338	0.181	209	0.000012	<0.005	<0.005	0.00291	0.0051	<0.005	<0.0001
RSEM-R5B-EOP	9/16/2019 11:15	WN0357	M	<0.0002	0.1	33.7	0.0094	<0.000002	0.0156	0.0045		5.29	0.00504	3.63	<0.00002	253	0.26	208	0.000015	<0.005	<0.005	0.00233	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	9/17/2019 13:45	WN2861	M	<0.0002	0.0902	33.5	0.0275	<0.000002	0.0123	0.008		5.15	0.00401	3.24	<0.00002	227	0.256	206	0.000014	<0.005	<0.005	0.00219	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	9/18/2019 10:30	WN2815	M	<0.0002	0.0815	31.7	0.0406	<0.000002	0.0104	0.0104		4.81	0.0037	3.13	0.000029	192	0.265	181	0.000012	<0.005	<0.005	0.00206	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	9/19/2019 11:20	WN7482	M	<0.0002	0.0898	37.2	0.0261	<0.000002	0.0102	0.0092		5.06	0.00431	3.15	<0.00002	211	0.338	196	0.000013	<0.005	<0.005	0.00205	<0.005	0.0052	<0.0001
RSEM-R5B-EOP	9/20/2019 10:30	WN7564	M	<0.0002	0.082	38.5	0.0211	<0.000002	0.0107	0.0091		5.37	0.0047	3.03	<0.00002	209	0.357	208	0.000013	<0.005	<0.005	0.00195	<0.005	0.0054	<0.0001
RSEM-R5B-EOP	9/21/2019 11:05	WO1836	M	<0.0002	0.104	38.8	0.0115	<0.000002	0.014	0.0065		5.93	0.00668	3.51	<0.00002	225	0.387	228	0.000014	<0.005	<0.005	0.00182	<0.005	0.0061	<0.0001
RSEM-R5B-EOP	9/22/2019 9:30	WO2181	M	<0.0002	0.108	39.9	0.0122	<0.000002	0.0158	0.0059		6.01	0.00672	3.15	<0.00002	229	0.415	234	0.000017	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	9/23/2019 10:50	WO4835	M	<0.0002	0.114	41.1	0.0062	<0.000002	0.0182	0.0043		5.89	0.00896	3.18	<0.00002	245	0.449	239	0.000016	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	9/24/2019 10:20	WO4819	M	<0.0002	0.119	42.9	0.0044	<0.000002	0.0192	0.0039		5.76	0.00938	3.13	<0.00002	253	0.459	249	0.000016	<0.005	<0.005	0.00179	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	9/25/2019 9:30	WO6408	M	<0.0002	0.122	44.6	0.0259	<0.000002	0.0169	0.0079		5.39	0.0089	2.93	<0.00002	259	0.458	240	0.000016	<0.005	<0.005	0.00204	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	9/26/2019 9:55	WP1623	M	<0.0002	0.135	44.8	0.0679	<0.000002	0.014	0.0141		5.13	0.0071	3.52	<0.00002	248	0.503	237	0.000016	<0.005	<0.005	0.00234	<0.005	0.0074	<0.0001
RSEM-R5B-EOP	9/27/2019 11:00	WP3485	M	<0.0002	0.118	46.2	0.0577	<0.000002	0.0132	0.014		4.92	0.00659	3.13	<0.00002	257	0.457	231	0.000016	<0.005	<0.005	0.00244	<0.005	0.0071	<0.0001
RSEM-R5B-EOP	9/28/2019 10:45	WP3451	M	<0.0002	0.119	47.7	0.0379	<0.000002	0.0129	0.0104		4.96	0.00641	3.26	<0.00002	262	0.458	237	0.000014	<0.005	<0.005	0.00265	<0.005	0.0057	<0.0001
RSEM-R5B-EOP	9/29/2019 11:00	WP5510	M	<0.0002	0.105	46.2	0.0231	<0.000002	0.012	0.0078		4.82	0.00587	3.13	<0.00002	257	0.42	237	0.000012	<0.005	<0.005	0.00255	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	9/30/2019 9:10	WP5289	M	<0.0002	0.108	44.7	0.0364	<0.000002	0.0112	0.0098		4.70	0.00515	3.3	<0.00002	248	0.412	231	0.000012	<0.005	<0.005	0.00276	<0.005	0.0067	<0.0001
RSEM-R5B-EOP	10/1/2019 12:55	WP9958	M	<0.0002	0.114	41.9	0.0901	<0.000002	0.0084	0.02		4.50	0.004	3.56	<0.00002	230	0.403	196	0.000013	<0.005	<0.005	0.00276	<0.005	0.0131	<0.0001
RSEM-R5B-EOP	10/1/2019 13:05	WP9959	D	<0.0002	0.111	41.7	0.0882	<0.000002	0.0083	0.0194		4.44	0.00408	3.61	<0.00002	228	0.38	197	0.000013	<0.005	<0.005	0.00263	<0.005	0.0129	<0.0001
RSEM-R5B-EOP	10/2/2019 11:30	WQ2273	M	<0.0002	0.106	41.9	0.0595	<0.000002	0.0104	0.0155		4.42	0.00327	3.86	<0.00002	237	0.398	196	0.000012	<0.005	<0.005	0.00283	<0.005	0.0097	<0.0001
RSEM-R5B-EOP	10/2/2019 11:40	WQ2274	D	<0.0002	0.0986	41.6	0.058	<0.000002	0.0104	0.0151		4.40	0.0033	3.77	<0.00002	238	0.395	196	0.000012	<0.005	<0.005	0.00276	<0.005	0.0096	<0.0001
RSEM-R5B-EOP	10/3/2019 12:45	WQ4503	M	<0.0002	0.0918	46.3	0.0343	<0.000002	0.0112	0.0116		4.73	0.00353	3.65	<0.00002	248	0.432	207	0.000013	<0.005	<0.005	0.00307	<0.005	0.0067	<0.0001
RSEM-R5B-EOP	10/3/2019 12:55	WQ4504	D	<0.0002	0.096	47.3	0.0384	<0.000002	0.0114	0.0117		4.80	0.00352	3.71	<0.00002	251	0.437	212	0.000012	<0.005	<0.005	0.0031	<0.005	0.0069	<0.0001
RSEM-R5B-EOP	10/4/2019 11:10	WQ4426	M	<0.0002	0.0934	51.5	0.0278	<0.000002	0.012	0.0094		4.87	0.00362	3.43	<0.00002	262	0.45	232	<0.00001	<0.005	<0.005	0.00322	<0.005	0.0052	<0.0001
RSEM-R5B-EOP	10/4/2019 11:20	WQ4427	D	<0.0002	0.0936	52.4	0.0293	<0.000002	0.0121	0.0094		4.88	0.00369	3.53	<0.00002	268	0.449	234	0.000011	<0.005	<0.005	0.00318	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	10/5/2019 11:55	WQ7323	M	<0.0002	0.112	49.0	0.0398	<0.000002	0.012	0.0105		5.06	0.00338	3.74	<0.00002	255	0.415	254	0.000013	<0.005	<0.005	0.00306	<0.005	0.006	<0.0001
RSEM-R5B-EOP	10/5/2019 12:05	WQ7324	D	<0.0002	0.111	49.1	0.0394	<0.000002	0.0123	0.0104		5.10	0.00375	4.31	<0.00002	260	0.423	251	0.000013	<0.005	<0.005	0.00315	<0.005	0.006	<0.0001
RSEM-R5B-EOP	10/6/2019 11:50	WQ7679	M	<0.0002	0.116	47.8	0.0352	<0.000002	0.012	0.0107		5.08	0.00359	3.89	<0.00002	251	0.419	253	0.000016	<0.005	<0.005	0.00312	<0.005	0.0056	<0.0001
RSEM-R5B-EOP	10/6/2019 12:00	WQ7680	D	<0.0002	0.119	48.5	0.0358	<0.000002	0.0115	0.011		5.22	0.00354	3.94	<0.00002	256	0.411	252	0.000014	<0.005	<0.005	0.00307	<0.005	0.0055	<0.0001
RSEM-R5B-EOP	10/7/2019 12:25	WQ9658	M	<0.0002	0.094	49.3	0.0361	<0.000002	0.0103	0.0128		4.57	0.00331	3	<0.00002	267	0.349	219	0.000011	<0.005	<0.005	0.00274	<0.005	0.0051	<0.0001
RSEM-R5B-EOP	10/7/2019 12:35	WQ9659	D	<0.0002	0.0955	49.2	0.0354	<0.000002	0.01	0.0121		4.52	0.00348	3.18	<0.00002	257	0.353	218	0.000011	<0.005	<0.005	0.00272	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	10/8/2019 11:55	WR3472	M	<0.0002	0.0955	49.1	0.0319	<0.000002	0.0096	0.012		4.57	0.00342	3.17	<0.00002	255	0.342	212	0.000011	<0.005	<0.005	0.00269	<0.005	0.0053	<0.0001
RSEM-R5B-EOP	10/9/2019 15:10	WR5599	M	<0.0002	0.0957	46.9	0.0399	<0.000002	0.0098	0.0123		4.57	0.00343	2.96	<0.00002	245	0.354	214	0.000012	<0.005	<0.005	0.00268	<0.005	0.0074	<0.0001
RSEM-R5B-EOP	10/11/2019 10:20	WR7603	M	<0.0002	0.106	46.7	0.0277	<0.000002	0.01	0.0106		4.62	0.00312	2.65	<0.00002	240	0.374	210	0.000011	<0.005	<0.005	0.00299	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	10/13/2019 11:15	WS2498	M	<0.0002	0.0778	44.3	0.0268	<0.000002	0.0095	0.0103		4.68	0.00305	2.43	<0.00002	216	0.4	193	0.000012	<0.005	<0.005	0.00292	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	10/14/2019 10:45	WS2601	M	<0.0002	0.0693	43.2	0.0219	<0.000002	0.0088	0.0089		4.64	0.00299	2.56	<0.00002	205	0.36	175	0.000011	<0.005	<0.005	0.00291	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	10/15/2019 10:30	WS4272	M	<0.0002	0.0886	42.6	0.0144	<0.000002	0.0085	0.0072		4.42	0.00329	3.1	<0.00002	203	0.333	167	<0.00001	<0.005	<0.005	0.00311	<0.005	0.0096	<0.0001
RSEM-R5B-EOP	10/16/2019 11:15	WS6067	M	<0.0002	0.0976	38.9	0.0072	<0.000002	0.0086	0.0061		4.27	0.0031	3.3	<0.00002	205	0.289	166	<0.00001	<0.005	<0.005	0.00315	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	10/17/2019 10:55	WS9492	M	<0.0002	0.0982	38.7	0.0039	<0.000002	0.0086	0.0063		4.28	0.00319	3.85	<0.00002	221	0.248	172	<0.00001	<0.005	<0.005	0.00324	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	10/18/2019 13:00	WT0850	M	<0.0002	0.104	37.4	0.003	<0.000002	0.0087	0.0061		4.08	0.00308	3.86	<0.00002	222	0.259	168	<0.00001	<0.005	<0.005	0.00328	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	10/19/2019 11:00	WT3628	M	<0.0002	0.101	37.8	0.0033	<0.000002	0.0085	0.0066		4.14	0.00308	3.94	<0.00002	228	0.233	181	<0.00001	<0.005	<0.005	0.0032	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	10/20/2019 12:00	WT3701	M	<0.0002	0.094	33.4	0.0119	<0.000002	0.0107	0.0081		4.33	0.00301	3.54	<0.00002	203	0.262	161	<0.00001	<0.005	<0.005	0.00316	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	10/21/2019 10:00	WT4451	M	<0.0002	0.098	32.6	0.0156	<0.000002	0.0154	0.009		5.08	0.00354	3.58	<0.00002	211	0.278	170	<0.00001	<0.005	<0.005	0.00317	<0.005	0.0058	<0.0001
RSEM-R5B-EOP	10/22/2019 13:45	WT8958	M	<0.0002	0.107	32.7	0.0145	<0.000002	0.0244	0.0096		6.40	0.00461	3.79	<0.00002	239	0.309	185	0.000012	<0.005	<0.005	0.00333	<0.005	0.0071	<0.0001
RSEM-R5B-EOP	10/22/2019 13:55	WT8959	D	<0.0002	0.107	32.9	0.0132	<0.000002	0.0246	0.0097		6.41	0.00482	3.8	<0.00002	241	0.313	188	0.000013	<0.005	<0.005	0.00326	<0.005	0.007	<0.0001
RSEM-R5B-EOP	10/23/2019 12:15	WU1853	M	<0.0002	0.105	34.3	0.0158	<0.000002	0.0285	0.0104		7.26	0.00546	3.81	<0.00002	256	0.349	207	0.000013	<0.005	<0.005	0.00332	<0.005	0.0071	<0.0001
RSEM-R5B-EOP	10/23/2019 12:25	WU1854	D	<0.0002	0.102	33.5	0.0168	<0.000002	0.0283	0.0102		7.02	0.00557	3.77	<0.00002	248	0.344	197	0.000012	<0.005	<0.005	0.00331	<0.005	0.007	<0.0001
RSEM-R5B-EOP	10/24/2019 15:00	WU4167	M	<0.0002	0.106	36.9	0.0158	<0.000002	0.0314	0.0109		7.91	0.00685	4.2	<0.00002	272	0.408	227	0.000014	<0.005	<0.005	0.00344	<0.005	0.0074	<0.0001
RSEM-R5B-EOP	10/24/2019 15:10	WU4168	D	<0.0002	0.107	37.2	0.0158	<0.000002	0.031	0.0111		7.89	0.00681	4.26	<0.00002	273	0.403	227	0.000013	<0.005	<0.005	0.00346	<0.005	0.0076	<0.0001
RSEM-R5B-EOP	10/25/2019 14:35	WU5354	M	<0.0002	0.116	37.7	0.0241	<0.000002	0.0289	0.0088		7.64	0.00703	4.42	<0.00002	273	0.425	239	0.000017	<0.005	<0.005	0.00359	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	10/25/2019 14:45	WU5355	D	<0.0002	0.115	38.4	0.0239	<0.000002	0.0288	0.0088		7.69	0.00705	4.45	<0.00002	277	0.437	241	0.000017	<0.005	<0.005	0.00359	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	10/26/2019 12:20	WU7026	M	7.57	1800	5.5	1200	4.2	305	318	110	<1.0	130	<1.0	<1.0	60	0.51	1.5	690			0.35	0.068	1.1	1.1	0.0031
RSEM-R5B-EOP	10/26/2019 12:30	WU7027	D	7.52	1800	5.5	1100	6.0	304	316	110	<1.0	140	<1.0	<1.0	61	0.51	1.5	700			0.36	0.063	1.1	1.1	0.0032
RSEM-R5B-EOP	10/27/2019 11:25	WU7137	M	7.48	1800	1.1	1200	4.1	329	340	100	<1.0	130	<1.0	<1.0	59	0.53	1.4	700			0.30	0.060	1.1	1.2	<0.0030
RSEM-R5B-EOP	10/27/2019 11:35	WU7138	D	7.51	1800	1.1	1200	2.2	319	341	110	<1.0	140	<1.0	<1.0	57	0.53	1.4	690			0.39	0.063	1.1	1.2	0.0031
RSEM-R5B-EOP	10/28/2019 10:35	WU7147	M	7.34	1800	1.8	1300	<1.0	334	370	110	<1.0	130	<1.0	<1.0	57	0.56	1.3	750			0.37	0.063	1.2	1.3	<0.0030
RSEM-R5B-EOP	10/28/2019 10:45	WU7148	D	7.29	1900	1.4	1300	1.7	333	372	110	<1.0	130	<1.0	<1.0	57	0.56	1.3	740			0.31	0.063	1.2	1.3	<0.0030
RSEM-R5B-EOP	10/29/2019 11:00	WU9590	M	7.89	1900	0.75	1300	<1.0	365	415	100	<1.0	120	<1.0	<1.0	60	0.65	1.4	790			0.39	0.071	1.3	1.4	<0.0030
RSEM-R5B-EOP	10/30/2019 11:00	WV3961	M	7.64	2100	1.1	1400	3.5	385	377	110	<1.0	140	<1.0	<1.0	59	0.73	1.2	840			0.54	0.074	1.4	1.5	0.0032
RSEM-R5B-EOP	10/30/2019 11:10	WV3962	D	7.67	2000	1.3	1400	4.1	383	374	120	<1.0	140	<1.0	<1.0	59	0.73	1.2	840			0.46	0.072	1.4	1.5	0.0031
RSEM-R5B-EOP	10/31/2019 11:30	WV6744	M	7.64	2060	1.8	1390	2.1	396	400	110	<1.0	130	<1.0	<1.0	58	0.74	1.1	860			0.32	0.071	1.5	1.6	<0.0030
RSEM-R5B-EOP	10/31/2019 11:40	WV6745	D	7.65	2060	1.6	1420	1.6	405	408	110	<1.0	130	<1.0	<1.0	59	0.74	1.1	850			0.34	0.070	1.5	1.6	<0.0030
RSEM-R5B-EOP	11/1/2019 11:30	WV7043	M	7.27	2100	2.9	1400	4.9	425	414	110	<1.0	140	<1.0	<1.0	59	0.73	1.1	880			0.39	0.064	1.5	1.6	<0.0030
RSEM-R5B-EOP	11/1/2019 11:40	WV7044	D	7.27	2100	2.4	1400	3.4	444	415	110	<1.0	140	<1.0	<1.0	59	0.71	1.1	850			0.25	0.067	1.6	1.6	<0.0030
RSEM-R5B-EOP	11/2/2019 12:50	WW1207	M	7.58	2000	1.6	1400	4.6	414	430	110	<1.0	130	<1.0	<1.0	58	0.71	0.95	860			0.41	0.063	1.6	1.7	<0.0030
RSEM-R5B-EOP	11/2/2019 13:00	WW1208	D	7.56	2100	1.5	1400	4.2	422	430	130	<1.0	150	<1.0	<1.0	57	0.73	0.95	840			0.32	0.063	1.6	1.7	<0.0030
RSEM-R5B-EOP	11/3/2019 12:40	WW1179	M	7.68	2000	2.1	1400	4.3	415	422	120	<1.0	150	<1.0	<1.0	55	0.69	0.92	830			0.25	0.061	1.6	1.6	<0.0030
RSEM-R5B-EOP	11/3/2019 12:50	WW1180	D	7.69	2000	2.3	1400	5.1	418	425	120	<1.0	150	<1.0	<1.0	57	0.68	0.92	840			0.28	0.060	1.6	1.6	<0.0030
RSEM-R5B-EOP	11/4/2019 11:50	WW5971	M	7.80	1930	1.6	1400	2.3	407	411	120	<1.0	140	<1.0	<1.0	55	0.62	0.89	780			0.40	0.056	1.5	1.6	<0.0030
RSEM-R5B-EOP	11/4/2019 12:00	WW5972	D	7.90	1920	1.6	1380	3.2	407	409	110	<1.0	140	<1.0	<1.0	53	0.61	0.88	780			0.64	0.058	1.5	1.6	<0.0030
RSEM-R5B-EOP	11/5/2019 13:30	WW6753	M	7.69	1810	1.8	1270	2.8	360	379	120	<1.0	140	<1.0	<1.0	54	0.56	0.88	750			0.41	0.052	1.4	1.5	<0.0030
RSEM-R5B-EOP	11/6/2019 11:00	WW9549	M	7.61	1850	2.1	1280	2.7	364	361	130	<1.0	160	<1.0	<1.0	52	0.54	0.89	730			0.27	0.057	1.4	1.5	<0.0030
RSEM-R5B-EOP	11/7/2019 10:40	WX2022	M	7.63	1820	1.4	1220	1.2	348	357	130	<1.0	160	<1.0	<1.0	51	0.52	0.84	630			0.36	0.055	1.4	1.4	<0.0030
RSEM-R5B-EOP	11/8/2019 10:35	WX1857	M	7.84	1760	1.7	1200	3.2	343	349	130	<1.0	160	<1.0	<1.0	52	0.51	0.82	690			0.31	0.048	1.3	1.3	<0.0030
RSEM-R5B-EOP	11/9/2019 14:00	WX3315	M	8.25	1720	2.1	1180	<4.0	329	334	150	<1.0	190	<1.0	<1.0	50	0.49	0.76	610			0.24	0.0556	1.23	1.28	<0.0030
RSEM-R5B-EOP	11/10/2019 11:20	WX5924	M	8.04	1640	1.5	1120	3.6	323	349	160	<1.0	200	<1.0	<1.0	50	0.48	0.78	590			0.29	0.053	1.2	1.3	0.0030
RSEM-R5B-EOP	11/11/2019 10:30	WX5915	M	7.73	1610	1.7	1080	3.3	312	341	160	<1.0	200	<1.0	<1.0	52	0.47	0.78	590			0.21	0.054	1.2	1.2	0.0032
RSEM-R5B-EOP	11/12/2019 11:30	WX7837	M	8.16	1560	2.0	1050	4.5	316	319	170	<1.0	210	<1.0	<1.0	52	0.50	0.79	520			0.20	0.053	1.1	1.2	<0.0030
RSEM-R5B-EOP	11/12/2019 11:40	WX7838	D	8.18	1560	1.9	1040	1.5	313	321	170	<1.0	210	<1.0	<1.0	51	0.51	0.79	510			0.19	0.053	1.1	1.2	<0.0030
RSEM-R5B-EOP	11/13/2019 11:15	WY0306	M	8.19	1500	1.5	970	1.7	303	312	180	<1.0	220	<1.0	<1.0	51	0.50	0.81	490			0.24	0.047	1.1	1.1	<0.0030
RSEM-R5B-EOP	11/13/2019 11:25	WY0307	D	8.25	1510	1.7	1000	1.7	301	312	180	<1.0	210	<1.0	<1.0	52	0.49	0.81	480			0.24	0.048	1.1	1.1	<0.0030
RSEM-R5B-EOP	11/14/2019 11:15	WY2283	M	8.19	1480	1.3	931	1.8	290	304	180	<1.0	220	<1.0	<1.0	52	0.42	0.79	490			0.22	0.047	1.1	1.1	<0.0030
RSEM-R5B-EOP	11/14/2019 11:25	WY2284	D	8.16	1480	1.4	940	1.1	282	309	180	<1.0	220	<1.0	<1.0	53	0.41	0.80	490			0.25	0.049	1.1	1.1	<0.0030
RSEM-R5B-EOP	11/15/2019 11:00	WY2331	M	8.20	1460	2.0	934	3.1	292	300	190	<1.0	230	<1.0	<1.0	50	0.40	0.83	470			0.23	0.096	1.0	1.1	<0.0030
RSEM-R5B-EOP	11/15/2019 11:10	WY2332	D	8.16	1450	1.8	932	3.4	294	301	180	<1.0	220	<1.0	<1.0	51	0.40	0.83	460			0.18	0.050	1.0	1.1	<0.0030
RSEM-R5B-EOP	11/16/2019 11:20	WY5249	M	8.20	1310	1.9	865	2.5	299	298	180	<1.0	220	<1.0	<1.0	47	0.46	0.72	400			0.15	0.034	0.94	0.97	<0.0030
RSEM-R5B-EOP	11/16/2019 11:30	WY5250	D	8.18	1300	1.8	878	2.3	301	301	190	<1.0	240	<1.0	<1.0	47	0.45	0.74	400			0.16	0.036	0.95	0.98	<0.0030
RSEM-R5B-EOP	11/17/2019 12:10	WY5452	M	8.15	1330	1.0	859	2.3	313	318	160	<1.0	200	<1.0	<1.0	47	0.50	0.73	430			0.094	0.028	0.94	0.96	<0.0030
RSEM-R5B-EOP	11/18/2019 11:50	WY7743	M	8.08	1380	2.4	929	6.9	318	323	140	<1.0	170	<1.0	<1.0	49	0.56	0.75	480			0.17	0.030	0.94	0.97	<0.0030
RSEM-R5B-EOP	11/18/2019 12:00	WY7744	D	8.06	1360	2.6	923	7.1	322	324	140	<1.0	170	<1.0	<1.0	50	0.47	0.76	470			0.16	0.028	0.93	0.95	<0.0030
RSEM-R5B-EOP	11/19/2019 13:00	WY9700	M	8.05	1380	2.8	946	3.9	317	322	140	<1.0	170	<1.0	<1.0	50	0.49	0.74	510			0.16	0.031	0.96	0.99	<0.0030
RSEM-R5B-EOP	11/19/2019 13:10	WY9701	D	7.92	1380	2.5	945	4.5	324	329	130	<1.0	160	<1.0	<1.0	50	0.50	0.73	510			0.17	0.024	0.89	0.91	<0.0030
RSEM-R5B-EOP	11/20/2019 11:00	WZ2230	M	8.05	1370	2.1	930	2.7	331	332	130	<1.0	160	<1.0	<1.0	48	0.49	0.75	510			0.18	0.026	0.90	0.93	<0.0030
RSEM-R5B-EOP	11/20/2019 11:10	WZ2231	D	7.87	1400	2.6	924	2.3	324	331	140	<1.0	170	<1.0	<1.0	50	0.48	0.74	520			0.13	0.024	0.89	0.91	<0.0030
RSEM-R5B-EOP	11/21/2019 13:45	WZ4245	M	8.03	1390	1.3	930	2.8	340	338	140	<1.0	170	<1.0	<1.0	44	0.55	0.72	450			0.37	0.031	0.94	0.97	<0.0030
RSEM-R5B-EOP	11/21/2019 13:55	WZ4244	D	7.99	1400	1.9	934	2.9	341	344	140	<1.0	170	<1.0	<1.0	46	0.55	0.72	460			0.37	0.032	0.96	0.99	<0.0030
RSEM-R5B-EOP	11/22/2019 12:10	WZ4475	M	8.20	1410	1.5	928	<1.0	342	343	140	<1.0	170	<1.0	<1.0	46	0.46	0.72	450			0.12	0.030	0.92	0.95	<0.0030
RSEM-R5B-EOP	11/22/2019 12:20	WZ4476	D	8.07	1400	1.5	944	1.5	343	339	140	<1.0	170	<1.0	<1.0	47	0.55	0.72	470			0.11	0.029	0.90	0.93	<0.0030
RSEM-R5B-EOP	11/23/2019 11:10	WZ7696	M	7.73	1380	1.3	932	3.6	353	361	150	<1.0	180	<1.0	<1.0	46	0.50	0.67	490			0.11	0.028	0.90	0.93	<0.0030
RSEM-R5B-EOP	11/23/2019 11:20	WZ7697	D	7.74	1380	1.3	927	2.9	356	365	160	<1.0	190	<1.0	<1.0	47	0.50	0.66	500			0.070	0.027	0.90	0.93	<0.0030
RSEM-R5B-EOP	11/24/2019 14:25	WZ7712	M	8.10	1420	0.92	965	3.5	376	384	170	<1.0	200	<1.0	<1.0	47	0.51	0.69	490			0.33	0.026	0.92	0.95	<0.0030
RSEM-R5B-EOP	11/24/2019 14:35	WZ7713	D	8.08	1420	0.97	970	2.3	368	378	160	<1.0	200	<1.0	<1.0	48	0.51	0.68	520			0.35	0.026	0.91	0.94	<0.0030
RSEM-R5B-EOP	11/25/2019 16:10	XA1642	M	7.90	1540	1.1	1050	1.5	403	413	170	<1.0	208	<1.0	<1.0	46.8	0.529	0.735	555			0.475	0.035	1.00	1.03	0.0043
RSEM-R5B-EOP	11/25/2019 16:20	XA1643	D	7.84	1550	1.1	1080	1.7	400	421	169	<1.0	206	<1.0	<1.0	47.6	0.517	0.721	552			0.451	0.032	0.996	1.03	0.0045
RSEM-R5B-EOP	11/26/2019 15:10	XA1649	M	7.91	1690	1.9	1180	3.0	440	454	170	<1.0	210	<1.0	<1.0	49	0.57	0.78	630			0.54	0.039	1.1	1.1	0.0035
RSEM-R5B-EOP	11/26/2019 15:20	XA1650	D	7.82	1690	2.0	1150	2.1	439	446	170	<1.0	210	<1.0	<1.0	50	0.57	0.77	630			0.55	0.035	1.1	1.1	0.0043
RSEM-R5B-EOP	11/27/2019 14:10	XA4488	M	8.14	1870	1.4	1300	2.5	472	468	160	<1.0	200	<1.0	<1.0	56	0.60	0.79	720			0.64	0.040	1.1	1.2	<0.0030
RSEM-R5B-EOP	11/27/2019 14:20	XA4489	D	8.12	1860	1.4	1320	2.8	475	464	160	<1.0	200	<1.0	<1.0	57	0.61	0.81	730			0.60	0.048	1.1	1.2	<0.0030
RSEM-R5B-EOP	11/28/2019 14:10	XA6241	M	7.82	1950	2.1	1380	2.3	488	499	138	<1.0	168	<1.0	<1.0	57.4	0.671	0.860	770			0.662	0.040	1.17	1.21	<0.0030
RSEM-R5B-EOP	11/28/2019 14:20	XA6242	D	8.10	1980	2.1	1390	1.9	487	494	161	<1.0	196	<1.0	<1.0	58.7	0.624	0.856	851			0.655	0.040	1.17	1.21	<0.0030
RSEM-R5B-EOP	11/29/2019 11:40	XA6568	M	8.15	2100	1.1	1500	1.1	511	504	170	<1.0	200	<1.0	<1.0	63	0.67	0.91	870			0.74	0.045	1.2	1.3	<0.0030
RSEM-R5B-EOP	11/29/2019 11:50	XA6569	D	8.16	2100	1.5	1510	2.0	511	516	170	<1.0	200	<1.0	<1.0	64	0.67	0.91	870			0.75	0.045	1.2	1.3	<0.0030
RSEM-R5B-EOP	11/30/2019 12:55	XA8973	M	8.16	2170	1.2	1540	1.1	551	542	190	<1.0	230	<1.0	<1.0	64	0.71	0.89	900			0.75	0.044	1.3	1.3	0.0038
RSEM-R5B-EOP	11/30/2019 13:05	XA8974	D	8.17	2200	1.3	1550	<1.0	547	538	180	<1.0	220	<1.0	<1.0	65	0.72	0.92	920			0.75	0.045	1.3	1.3	<0.0030
RSEM-R5B-EOP	12/1/2019 13:50	XA8823	M	8.15	2310	1.2	1620	1.0	565	562	190	<1.0	230	<1.0	<1.0	68	0.79	0.96	960			0.84	0.048	1.3	1.4	<0.0030
RSEM-R5B-EOP	12/1/2019 14:00	XA8824	D	8.16	2310	1.1	1670	1.2	581	561	190	<1.0	230	<1.0	<1.0	69	0.76	0.97	970			0.83	0.048	1.3	1.4	<0.0030
RSEM-R5B-EOP	12/2/2019 12:05	XB0711	M	7.98	2330	1.5	1720	3.6	551	580	190	<1.0	230	<1.0	<1.0	73	0.72	0.99	1000			0.84	0.052	1.3	1.4	<0.0030
RSEM-R5B-EOP	12/2/2019 12:15	XB0712	D	7.99	2330	1.7	1730	3.0	561	570	180	<1.0	220	<1.0	<1.0	74	0.71	0.98	1000			0.85	0.053	1.3	1.4	<0.0030
RSEM-R5B-EOP	12/3/2019 11:25	XB3094	M	7.95	2310	1.2	1700	<1.0	558	551	188	<1.0	229	<1.0	<1.0	72.5	0.680	0.936	1020			0.848	0.052	1.27	1.33	<0.0030
RSEM-R5B-EOP	12/3/2019 11:35	XB3095	D	8.04	2330	1.1	1700	<1.0	539	551	187	<1.0	228	<1.0	<1.0	71.8	0.704	0.992	1010			0.832	0.052	1.24	1.30	<0.0030
RSEM-R5B-EOP	12/4/2019 12:40	XB4970	M	8.00	2310	1.2	1710	1.9	522	564	180	<1.0	219	<1.0	<1.0	72.4	0.704	0.935	1010			0.856	0.060	1.23	1.29	<0.0030
RSEM-R5B-EOP	12/4/2019 12:50	XB4971	D	8.05	2320	1.1	1700	1.5	527	549	179	<1.0	219	<1.0	<1.0	73.0	0.704	0.963	1010			0.852	0.061	1.23	1.29	<0.0030
RSEM-R5B-EOP	12/5/2019 13:25	XB6929	M	8.07	2360	1.0	1680	<1.0	544	536	188	<1.0	230	<1.0	<1.0	65.0	0.823	0.979	1000			0.646	0.051	1.17	1.23	<0.0030
RSEM-R5B-EOP	12/5/2019 13:35	XB6930	D	8.06	2370	1.1	1670	<1.0	539	546	183	<1.0	223	<1.0	<1.0	64.7	0.774	0.947	985			0.561	0.051	1.18	1.23	<0.0030
RSEM-R5B-EOP	12/6/2019 11:45	XB6919	M	8.02	2360	1.1	1710	<1.0	549	549	190	<1.0	232	<1.0	<1.0	66.0	0.782	0.975	1000			0.545	0.049	1.19	1.24	<0.0030
RSEM-R5B-EOP	12/6/2019 11:55	XB6920	D	8.05	2390	1.1	1740	<1.0	554	547	183	<1.0	223	<1.0	<1.0	67.2	0.827	0.999	1010			0.667	0.055	1.20	1.25	<0.0030
RSEM-R5B-EOP	12/7/2019 11:50	XB9797	M	7.83	2350	0.87	1710	4.4	544	543	186	<1.0	227	<1.0	<1.0	76.2	0.704	0.972	1050			0.517				<0.0030

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	10/26/2019 12:20	WU7026	M	2.5	2.3	0.104	0.00135	0.00084	0.0572	<0.0001	<0.001	0.19	0.000048	60.6	0.0078	0.00131	0.00126	0.164	<0.0002	0.106	37.3	0.0345	<0.000002	0.0266	0.0117		7.34	0.0064
RSEM-R5B-EOP	10/26/2019 12:30	WU7027	D	2.2	2.1	0.106	0.00137	0.00093	0.0568	<0.0001	<0.001	0.19	0.000052	58.6	0.0082	0.00136	0.00132	0.146	<0.0002	0.107	38.2	0.0358	<0.000002	0.0268	0.0124		7.61	0.00624
RSEM-R5B-EOP	10/27/2019 11:25	WU7137	M	2.0	1.9	0.0583	0.00128	0.0007	0.0582	<0.0001	<0.001	0.188	0.000081	68.1	0.0051	0.0021	0.00122	0.063	<0.0002	0.107	38.6	0.0471	<0.000002	0.0235	0.0152		6.89	0.00618
RSEM-R5B-EOP	10/27/2019 11:35	WU7138	D	2.4	1.9	0.0498	0.00127	0.00066	0.0575	<0.0001	<0.001	0.178	0.00008	65.7	0.0053	0.00216	0.00122	0.06	<0.0002	0.0968	37.6	0.0477	<0.000002	0.0235	0.0157		6.78	0.00598
RSEM-R5B-EOP	10/28/2019 10:35	WU7147	M	2.6	0.87	0.0473	0.00131	0.00057	0.0513	<0.0001	<0.001	0.181	0.000103	69.0	0.0031	0.00256	0.00127	0.036	<0.0002	0.101	39.4	0.05	<0.000002	0.0212	0.0177		6.62	0.00635
RSEM-R5B-EOP	10/28/2019 10:45	WU7148	D	2.4	2.3	0.0452	0.00131	0.00058	0.0515	<0.0001	<0.001	0.18	0.000103	68.2	0.0032	0.00261	0.00146	0.037	<0.0002	0.0955	39.4	0.0509	<0.000002	0.0211	0.0181		6.74	0.00639
RSEM-R5B-EOP	10/29/2019 11:00	WU9590	M	1.9	2.0	0.0428	0.00142	0.00059	0.0424	<0.0001	<0.001	0.199	0.000092	72.4	0.0022	0.00204	0.00119	0.028	<0.0002	0.115	44.6	0.0375	<0.000002	0.02	0.014		6.95	0.00669
RSEM-R5B-EOP	10/30/2019 11:00	WV3961	M	2.3	2.3	0.04	0.00171	0.00057	0.0423	<0.0001	<0.001	0.232	0.000078	81.7	0.0024	0.00188	0.00163	0.029	<0.0002	0.136	43.8	0.0381	0.000003	0.0191	0.0134		7.54	0.00745
RSEM-R5B-EOP	10/30/2019 11:10	WV3962	D	2.2	2.1	0.0396	0.00161	0.00061	0.0416	<0.0001	<0.001	0.226	0.000085	81.2	0.0024	0.00187	0.00157	0.031	<0.0002	0.133	43.7	0.0344	<0.000002	0.0189	0.0136		7.49	0.00773
RSEM-R5B-EOP	10/31/2019 11:30	WV6744	M	2.0	1.9	0.0449	0.00153	0.00058	0.0341	<0.0001	<0.001	0.205	0.00008	83.8	0.0015	0.0021	0.00105	0.043	<0.0002	0.129	45.2	0.0343	<0.000002	0.0182	0.012		6.56	0.00772
RSEM-R5B-EOP	10/31/2019 11:40	WV6745	D	2.1	1.9	0.0413	0.00155	0.0006	0.0349	<0.0001	<0.001	0.21	0.000081	85.5	0.0015	0.00213	0.00105	0.047	<0.0002	0.131	46.6	0.0348	<0.000002	0.0185	0.0121		6.63	0.00753
RSEM-R5B-EOP	11/1/2019 11:30	WV7043	M	2.0	2.0	0.051	0.00155	0.00053	0.033	<0.0001	<0.001	0.21	0.000091	91.7	0.0011	0.00261	0.00102	0.051	<0.0002	0.137	47.5	0.0413	<0.000002	0.0172	0.0129		6.47	0.00765
RSEM-R5B-EOP	11/1/2019 11:40	WV7044	D	2.0	2.1	0.0519	0.00152	0.00058	0.0338	<0.0001	<0.001	0.221	0.000093	94.8	0.0013	0.00275	0.00108	0.055	<0.0002	0.145	50.3	0.0433	<0.000002	0.0179	0.0136		6.74	0.00797
RSEM-R5B-EOP	11/2/2019 12:50	WW1207	M	1.7	1.6	0.0426	0.00127	0.00045	0.0303	<0.0001	<0.001	0.197	0.000071	85.6	<0.001	0.00233	0.00092	0.048	<0.0002	0.132	48.5	0.0376	<0.000002	0.0152	0.0107		6.05	0.00664
RSEM-R5B-EOP	11/2/2019 13:00	WW1208	D	2.3	1.7	0.0464	0.0013	0.00045	0.031	<0.0001	<0.001	0.206	0.000075	87.1	<0.001	0.0024	0.001	0.057	<0.0002	0.137	49.7	0.0385	<0.000002	0.0154	0.0112		6.19	0.00677
RSEM-R5B-EOP	11/3/2019 12:40	WW1179	M	2.1	1.8	0.0378	0.00117	0.00041	0.0296	<0.0001	<0.001	0.201	0.000057	85.3	<0.001	0.00187	0.00088	0.042	<0.0002	0.135	49.1	0.0303	<0.000002	0.014	0.009		5.89	0.00639
RSEM-R5B-EOP	11/3/2019 12:50	WW1180	D	1.7	1.7	0.0371	0.00119	0.00042	0.0293	<0.0001	<0.001	0.204	0.000057	85.9	<0.001	0.00187	0.00086	0.043	<0.0002	0.139	49.5	0.0304	<0.000002	0.0142	0.0088		5.93	0.0064
RSEM-R5B-EOP	11/4/2019 11:50	WW5971	M	2.3	2.0	0.0351	0.00107	0.00041	0.0293	<0.0001	<0.001	0.191	0.000044	82.2	<0.001	0.00135	0.00078	0.053	<0.0002	0.138	48.9	0.0236	<0.000002	0.0125	0.0068		5.65	0.00606
RSEM-R5B-EOP	11/4/2019 12:00	WW5972	D	2.0	1.8	0.034	0.0011	0.00039	0.0295	<0.0001	<0.001	0.19	0.000042	82.7	<0.001	0.00136	0.0008	0.053	<0.0002	0.135	48.7	0.0239	0.0000031	0.0127	0.007		5.68	0.00605
RSEM-R5B-EOP	11/5/2019 13:30	WW6753	M	1.4	1.4	0.0412	0.00099	0.00037	0.0289	<0.0001	<0.001	0.178	0.000031	72.1	<0.001	0.00112	0.00079	0.058	<0.0002	0.128	43.8	0.0217	<0.000002	0.0108	0.006		5.04	0.00511
RSEM-R5B-EOP	11/6/2019 11:00	WW9549	M	1.4	2.0	0.0447	0.00097	0.0004	0.0296	<0.0001	<0.001	0.188	0.000041	74.3	<0.001	0.00114	0.00084	0.061	<0.0002	0.128	43.3	0.022	<0.000002	0.0109	0.006		5.04	0.00508
RSEM-R5B-EOP	11/7/2019 10:40	WX2022	M	2.0	1.7	0.0436	0.00094	0.00037	0.0303	<0.0001	<0.001	0.178	0.000036	70.7	0.001	0.0011	0.00083	0.048	<0.0002	0.122	41.5	0.0207	<0.000002	0.0103	0.0058		4.91	0.00476
RSEM-R5B-EOP	11/8/2019 10:35	WX1857	M	1.5	1.5	0.049	0.00101	0.00038	0.0349	<0.0001	<0.001	0.189	0.000041	70.6	0.0013	0.00115	0.001	0.068	<0.0002	0.131	40.4	0.0217	<0.000002	0.0106	0.0062		5.12	0.00454
RSEM-R5B-EOP	11/9/2019 14:00	WX3315	M	1.7	1.8	0.055	0.00099	0.00046	0.0366	<0.0001	<0.001	0.186	0.000036	69.4	0.0017	0.00104	0.00125	0.083	<0.0002	0.126	37.8	0.0199	<0.000002	0.0105	0.0057		4.92	0.00453
RSEM-R5B-EOP	11/10/2019 11:20	WX5924	M	1.6	1.3	0.049	0.00098	0.00042	0.0385	<0.0001	<0.001	0.175	0.000037	69.1	0.0021	0.00098	0.00115	0.053	<0.0002	0.118	36.4	0.018	<0.000002	0.0109	0.0059		5.04	0.00418
RSEM-R5B-EOP	11/11/2019 10:30	WX5915	M	1.7	1.4	0.0431	0.00087	0.00046	0.0391	<0.0001	<0.001	0.14	0.000032	64.8	0.0023	0.00086	0.00106	0.041	<0.0002	0.0981	36.4	0.0163	<0.000002	0.0104	0.005		4.98	0.00376
RSEM-R5B-EOP	11/12/2019 11:30	WX7837	M	1.8	1.7	0.0422	0.0009	0.00053	0.0407	<0.0001	<0.001	0.146	0.000035	65.3	0.0036	0.00086	0.00111	0.046	<0.0002	0.0986	37.1	0.0165	<0.000002	0.0116	0.0056		5.41	0.00389
RSEM-R5B-EOP	11/12/2019 11:40	WX7838	D	1.9	1.7	0.0456	0.00091	0.00054	0.0409	<0.0001	<0.001	0.141	0.000036	64.5	0.0031	0.00087	0.00115	0.044	<0.0002	0.0956	37.0	0.0164	0.0000047	0.0116	0.0054		5.33	0.00386
RSEM-R5B-EOP	11/13/2019 11:15	WY0306	M	2.0	1.7	0.0481	0.00096	0.00058	0.0404	<0.0001	<0.001	0.156	0.000035	64.8	0.0035	0.00079	0.00115	0.045	<0.0002	0.0999	34.3	0.0151	<0.000002	0.0116	0.0054		5.23	0.00359
RSEM-R5B-EOP	11/13/2019 11:25	WY0307	D	1.7	1.6	0.0475	0.00088	0.00057	0.0393	<0.0001	<0.001	0.157	0.000038	63.5	0.0037	0.0008	0.00117	0.046	<0.0002	0.0984	34.6	0.0152	<0.000002	0.0116	0.0054		5.26	0.00372
RSEM-R5B-EOP	11/14/2019 11:15	WY2283	M	1.6	1.9	0.0418	0.00084	0.00054	0.0384	<0.0001	<0.001	0.144	0.000029	60.6	0.0039	0.00072	0.00122	0.042	<0.0002	0.0916	33.6	0.0139	<0.000002	0.0113	0.0052		5.34	0.00358
RSEM-R5B-EOP	11/14/2019 11:25	WY2284	D	1.7	1.7	0.0413	0.0008	0.00055	0.0377	<0.0001	<0.001	0.143	0.00003	59.4	0.0037	0.00068	0.00117	0.046	<0.0002	0.0914	32.6	0.0132	<0.000002	0.0108	0.005		5.18	0.00348
RSEM-R5B-EOP	11/15/2019 11:00	WY2331	M	1.6	1.3	0.0541	0.00081	0.00058	0.0406	<0.0001	<0.001	0.144	0.000033	61.1	0.0043	0.00071	0.00147	0.048	<0.0002	0.0893	33.8	0.0138	<0.000002	0.0116	0.0053		5.51	0.00356
RSEM-R5B-EOP	11/15/2019 11:10	WY2332	D	1.5	1.3	0.0513	0.00082	0.00058	0.041	<0.0001	<0.001	0.146	0.00003	62.4	0.0044	0.00069	0.00138	0.057	<0.0002	0.0887	33.5	0.0137	<0.000002	0.0116	0.0051		5.47	0.00359
RSEM-R5B-EOP	11/16/2019 11:20	WY5249	M	2.2	1.8	0.0501	0.00078	0.00058	0.0388	<0.0001	<0.001	0.125	0.000026	63.0	0.0047	0.00054	0.00116	0.045	<0.0002	0.0726	34.5	0.0106	<0.000002	0.0107	0.0046		5.83	0.00325
RSEM-R5B-EOP	11/16/2019 11:30	WY5250	D	2.0	1.8	0.0478	0.00075	0.00055	0.0391	<0.0001	<0.001	0.123	0.000024	63.3	0.0046	0.00053	0.00112	0.044	<0.0002	0.0699	34.7	0.0105	0.0000037	0.0105	0.0045		5.90	0.0032
RSEM-R5B-EOP	11/17/2019 12:10	WY5452	M	2.3	2.0	0.0361	0.0007	0.00045	0.0347	<0.0001	<0.001	0.129	0.000021	66.5	0.0032	0.00043	0.00094	0.041	<0.0002	0.0956	35.8	0.0081	0.0000026	0.0096	0.0037		5.51	0.00289
RSEM-R5B-EOP	11/18/2019 11:50	WY7743	M	3.0	2.8	0.0762	0.00069	0.00043	0.0332	<0.0001	<0.001	0.135	0.000025	67.5	0.002	0.00058	0.00084	0.094	<0.0002	0.123	36.2	0.0122	0.0000038	0.0086	0.0038		5.26	0.00254
RSEM-R5B-EOP	11/18/2019 12:00	WY7744	D	3.0	2.8	0.0741	0.00066	0.00041	0.0331	<0.0001	<0.001	0.136	0.000028	68.9	0.002	0.0006	0.00087	0.097	<0.0002	0.124	36.5	0.0123	<0.000002	0.0085	0.0038		5.30	0.00252
RSEM-R5B-EOP	11/19/2019 13:00	WY9700	M	3.2	2.2	0.0558	0.00063	0.00041	0.0347	<0.0001	<0.001	0.142	0.000039	67.9	0.0016	0.00073	0.00069	0.095	<0.0002	0.132	35.8	0.0154	<0.000002	0.0081	0.0046		5.17	0.00246
RSEM-R5B-EOP	11/19/2019 13:10	WY9701	D	3.1	2.3	0.0506	0.00064	0.00041	0.035	<0.0001	<0.001	0.148	0.000039	69.6	0.0016	0.00075	0.00072	0.09	<0.0002	0.134	36.4	0.0156	<0.000002	0.0081	0.0045		5.26	0.00252
RSEM-R5B-EOP	11/20/2019 11:00	WZ2230	M	3.1	2.4	0.0416	0.00067	0.0004	0.0362	<0.0001	<0.001	0.15	0.000039	70.8	0.0016	0.00079	0.00067	0.059	<0.0002	0.14	37.3	0.0163	<0.000002	0.0083	0.0048		5.39	0.00257
RSEM-R5B-EOP	11/20/2019 11:10	WZ2231	D	3.2	2.8	0.0398	0.00066	0.00039	0.035	<0.0001	<0.001	0.147	0.000036	69.3	0.0015	0.00078	0.00067	0.055	<0.0002	0.138	36.7	0.016	<0.000002	0.0083	0.0048		5.34	0.00245
RSEM-R5B-EOP	11/21/2019 13:45	WZ4245	M	2.8	2.8	0.031	0.00065	0.00039	0.0404	<0.0001	<0.001	0.139	0.000061	74.5	0.0014	0.00124	0.00063	0.042	<0.0002	0.14	37.4	0.0253	<0.000002	0.0082	0.0072		5.48	0.00266
RSEM-R5B-EOP	11/21/2019 13:55	WZ4244	D	3.0	2.7	0.0335	0.00065	0.00038	0.0406	<0.0001	<0.001	0.139	0.000055	74.2	0.0013	0.00125	0.00063	0.04	<0.0002	0.139	37.8	0.0255	0.0000023	0.0082	0.0074		5.53	0.00267
RSEM-R5B-EOP	11/22/2019 12:10	WZ4475	M	2.7	2.2	0.0217	0.00065	0.0004	0.0402	<0.0001	<0.001	0.143	0.00006	74.5	0.0014	0.00124	0.00076	0.022	<0.0002	0.137	37.8	0.0246	<0.000002	0.0082	0.0072		5.57	0.0027
RSEM-R5B-EOP	11/22/2019 12:20	WZ4476	D	2.6	2.9	0.0214	0.00064	0.0004	0.0397	<0.0001	<0.001	0.142	0.000059	75.8	0.0013	0.00122	0.00062	0.023	<0.0002	0.137	37.3	0.0244	0.0000021	0.0082	0.0072		5.51	0.0027
RSEM-R5B-EOP	11/23/2019 11:10	WZ7696	M	3.3	2.3	0.0425	0.00063	0.00038	0.047	<0.0001	<0.001	0.123	0.000061	76.8	0.0015	0.00133	0.00078	0.053	<0.0002	0.118	39.2	0.0275	<0.000002	0.0079	0.0079		5.89	0.00305
RSEM-R5B-EOP	11/23/2019 11:20	WZ7697	D	3.2	2.7	0.0481	0.00062	0.00038	0.0476	<0.0001	<0.001	0.124	0.000056	77.8	0.0015	0.00136	0.00074	0.047	<0.0002	0.12	39.2	0.0274	<0.000002	0.0082	0.008		5.79	0.00307
RSEM-R5B-EOP	11/24/2019 14:25	WZ7712	M	3.2	3.0	0.0344	0.00062	0.0004	0.0515	<0.0001	<0.001	0.129	0.000057	82.3	0.0016	0.00152	0.00082	0.046	<0.0002	0.113	41.3	0.0302	<0.000002	0.0079	0.009		6.00	0.00323
RSEM-R5B-EOP	11/24/2019 14:35	WZ7713	D	3.1	3.0	0.0344	0.00062	0.00039	0.0504	<0.0001	<0.001	0.126	0.000057	81.3	0.0015	0.00149	0.00081	0.048	<0.0002	0.11	40.1	0.0291	<0.000002	0.0079	0.0088		5.79	0.00327
RSEM-R5B-EOP	11/25/2019 16:10	XA1642	M	3.15	2.90	0.0404	0.00073	0.00041	0.0604	<0.0001	<0.001	0.128	0.000058	89.9	0.0016	0.00152	0.00085	0.053	<0.0002	0.1	43.4	0.0305	<0.000002	0.0084	0.0097		6.07	0.00382
RSEM-R5B-EOP	11/25/2019 16:20	XA1643	D	3.14	2.85	0.0374	0.00072	0.00041	0.0603	<0.0001	<0.001	0.127	0.00006	87.5	0.0016	0.00153	0.00088	0.052	<0.0002	0.103	44.0	0.0308	<0.000002	0.0083	0.0095		6.02	0.00382
RSEM-R5B-EOP	11/26/2019 15:10	XA1649	M	3.2	3.1	0.0353	0.00083	0.00045	0.0629	<0.0001	<0.001	0.14	0.000063	96.7	0.0015	0.00153	0.00091	0.047	<0.0002	0.107	48.3	0.0298	<0.000002	0.0091	0.0107		6.35	0.00422
RSEM-R5B-EOP	11/26/2019 15:20	XA1650	D	3.2	3.1	0.0607	0.00083	0.00044	0.0625	<0.0001	<0.001	0.139	0.000064	95.7	0.0015	0.00154	0.00087	0.047	<0.0002	0.107	48.6	0.0298	<0.000002	0.009	0.0107		6.29	0.00418
RSEM-R5B-EOP	11/27/2019 14:10	XA4488	M	3.5	3.6	0.0344	0.00099	0.00047	0.0615	<0.0001	<0.001	0.169	0.000062	105	0.0016	0.00152	0.00093	0.039	<0.0002	0.129	51.1	0.0298	<0.000002	0.0104	0.012		6.94	0.00473
RSEM-R5B-EOP	11/27/2019 14:20	XA4489	D	3.5	3.8	0.0381	0.00098	0.00048	0.0605	<0.0001	<0.001	0.169	0.000056	107	0.0015	0.00151	0.00091	0.04	<0.0002	0.128	50.4	0.0288	0.000002	0.0105	0.0118		6.80	0.00487
RSEM-R5B-EOP	11/28/2019 14:10	XA6241	M	4.09	3.29	0.0295	0.0011	0.00049	0.0577	<0.0001	<0.001	0.164	0.000057	104	0.0015	0.00151	0.00102	0.03	<0.0002	0.127	55.4	0.0282	<0.000002	0.0108	0.0126		6.92	0.00481
RSEM-R5B-EOP	11/28/2019 14:20	XA6242	D	3.85	3.43	0.0289	0.00109	0.00051	0.0587	<0.0001	<0.001	0.167	0.000057	104	0.0015	0.00149	0.00102	0.031	<0.0002	0.131	55.3	0.0282	<0.000002	0.011	0.0127		6.82	0.00489
RSEM-R5B-EOP	11/29/2019 11:40	XA6568	M	3.8	3.2	0.0254	0.00118	0.00054	0.0552	<0.0001	<0.001	0.169	0.000052	108	0.0015	0.00144	0.00096	0.028	<0.0002	0.136	58.6	0.0273	<0.000002	0.0116	0.0134		7.11	0.00516
RSEM-R5B-EOP	11/29/2019 11:50	XA6569	D	4.0	3.5	0.0252	0.00121	0.00054	0.0553	<0.0001	<0.001	0.168	0.000047	108	0.0015	0.00144	0.00096	0.028	<0.0002	0.134	58.7	0.027	<0.000002	0.0115	0.0133		7.05	0.00508
RSEM-R5B-EOP	11/30/2019 12:55	XA8973	M	4.0	4.4	0.029	0.00127	0.00056	0.0563	<0.0001	<0.001	0.201	0.000048	115	0.0014	0.00154	0.00089	0.038	<0.0002	0.131	64.0	0.0287	<0.000002	0.012	0.0142		7.36	0.00519
RSEM-R5B-EOP	11/30/2019 13:05	XA8974	D	4.2	4.1	0.0263	0.00128	0.00056	0.0564	<0.0001	<0.001	0.195	0.000054	112	0.0014	0.00157	0.00097	0.04	<0.0002	0.13	64.9	0.0292	<0.000002	0.0122	0.0145		7.39	0.00525
RSEM-R5B-EOP	12/1/2019 13:50	XA8823	M	4.2	4.0	0.0248	0.0014	0.00068	0.0583	<0.0002	<0.002	0.23	0.000048	123	<0.002	0.00297	0.001	0.054	<0.0004	0.155	62.8	0.0485	<0.000002	0.0129	0.0258		7.60	0.00545
RSEM-R5B-EOP	12/1/2019 14:00	XA8824	D	4.3	4.0	0.0263	0.0015	0.00067	0.0609	<0.0002	<0.002	0.235	0.000052	124	<0.002	0.00306	0.0011	0.053	<0.0004	0.157	65.6	0.0491	<0.000002	0.0135	0.0268		7.82	0.00571
RSEM-R5B-EOP	12/2/2019 12:05	XB0711	M	4.7	4.2	0.0338	0.00144	0.0007	0.0558	<0.0001	<0.001	0.22	0.000038	120	0.0012	0.00384	0.00081	0.052	<0.0002	0.148	61.0	0.0568	0.0000023	0.0136	0.0334		7.30	0.0049
RSEM-R5B-EOP	12/2/2019 12:15	XB0712	D	4.5	4.4	0.0275	0.00148	0.00073	0.0557	<0.0001	<0.001	0.214	0.000041	121	0.0012	0.00386	0.00082	0.052	<0.0002	0.142	62.6	0.0569	<0.000002	0.0136	0.0338		7.49	0.00494
RSEM-R5B-EOP	12/3/2019 11:25	XB3094	M	4.20	4.13	0.0285	0.00146	0.0007	0.0574	<0.0001	<0.001	0.22	0.000037	122	0.0012	0.00368	0.00082	0.044	<0.0002	0.144	61.6	0.0554	<0.000002	0.0135	0.0328		7.35	0.00497
RSEM-R5B-EOP	12/3/2019 11:35	XB3095	D	4.72	4.05	0.024	0.00139	0.00068	0.0544	<0.0001	<0.001	0.213	0.00004	117	0.0011	0.00351	0.00096	0.042	<0.0002	0.137	59.7	0.0526	<0.000002	0.0129	0.0312		7.12	0.0047
RSEM-R5B-EOP	12/4/2019 12:40	XB4970	M	4.05	3.94	0.0259	0.00141	0.00069	0.0543	<0.0001	<0.001	0.203	0.000037	107	0.001	0.00367	0.00086	0.037	<0.0002	0.139	62.1	0.0518	<0.000002	0.0126	0.0339		6.91	0.0049
RSEM-R5B-EOP	12/4/2019 12:50	XB4971	D	4.39	4.09	0.0282	0.00146	0.00072	0.0551	<0.0001	<0.001	0.208	0.000038	108	0.0016	0.00385	0.00094	0.042	<0.0002	0.137	62.6	0.0542	<0.000002	0.013	0.0354		7.02	0.00501
RSEM-R5B-EOP	12/5/2019 13:25	XB6929	M	4.93	3.85	0.0291	0.00149	0.00069	0.0558	<0.0001	<0.001	0.218	0.00004	110	0.0011	0.00385	0.0009	0.039	<0.0002	0.143	65.8	0.0531	<0.000002	0.0135	0.0357		7.05	0.00513
RSEM-R5B-EOP	12/5/2019 13:35	XB6930	D	4.94	3.90	0.0285	0.00147	0.00073	0.0551	<0.0001	<0.001	0.214	0.000034	108	0.0011	0.00387	0.00094	0.04	<0.0002	0.14	65.5	0.0531	0.0000047	0.0133	0.0356		6.91	0.00509
RSEM-R5B-EOP	12/6/2019 11:45	XB6919	M	4.79	5.09	0.034	<0.0025	0.00074	0.0557	<0.0005	<0.005	<0.25	<0.00005	112	<0.005	0.0042	<0.0025	<0.05	<0.001	0.145	65.5	0.0552	<0.000002	0.0129	0.0388		7.14	0.00481
RSEM-R5B-EOP	12/6/2019 11:55	XB6920	D	4.65	4.68	0.0258	0.00153	0.00076	0.0568	<0.0001	<0.001	0.221	0.000041	110	0.0013	0.00386	0.00097	0.038	<0.0002	0.144	67.7	0.0532	<0.000002	0.0139	0.036		7.18	0.00528
RSEM-R5B-EOP	12/7/2019 11:50	XB9797	M	3.87	4.48	0.0286	0.00151	0.00076	0.0553	<0.0001	<0.001	0.219	0.000042	113	0.0115	0.00342	0.00092	0.121	<0.0002	0.147	63.4	0.0506	0.0000022	0.0137	0.037		7.33	0.00477

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	10/26/2019 12:20	WU7026	M	4.19	<0.00002	258	0.445	231	0.000018	<0.005	<0.005	0.00349	<0.005	<0.005	<0.0001	0.0279	0.00144	0.00079	0.0533	<0.0001	<0.001	0.206	0.000047	67.3	0.0075	0.00098	0.00092	<0.01
RSEM-R5B-EOP	10/26/2019 12:30	WU7027	D	4.21	<0.00002	262	0.46	234	0.000019	<0.005	<0.005	0.00355	<0.005	<0.005	<0.0001	0.0226	0.00138	0.00079	0.0531	<0.0001	<0.001	0.211	0.000048	67.2	0.0074	0.00098	0.00094	<0.01
RSEM-R5B-EOP	10/27/2019 11:25	WU7137	M	3.99	<0.00002	247	0.456	225	0.000017	<0.005	<0.005	0.00356	<0.005	0.0109	<0.0001	0.0267	0.0013	0.00067	0.0562	<0.0001	<0.001	0.197	0.000082	73.7	0.0049	0.00197	0.001	<0.01
RSEM-R5B-EOP	10/27/2019 11:35	WU7138	D	3.72	<0.00002	239	0.44	218	0.000017	<0.005	<0.005	0.00352	<0.005	0.0112	<0.0001	0.0251	0.00127	0.00067	0.0564	<0.0001	<0.001	0.205	0.000082	73.0	0.0049	0.00193	0.00098	<0.01
RSEM-R5B-EOP	10/28/2019 10:35	WU7147	M	3.8	<0.00002	250	0.48	230	0.000017	<0.005	<0.005	0.00335	<0.005	0.0173	0.0001	0.0326	0.00131	0.00061	0.0505	<0.0001	<0.001	0.225	0.000104	78.7	0.0029	0.00235	0.00106	<0.01
RSEM-R5B-EOP	10/28/2019 10:45	WU7148	D	3.7	<0.00002	244	0.467	232	0.000018	<0.005	<0.005	0.00339	<0.005	0.0183	<0.0001	0.0322	0.00129	0.00062	0.0502	<0.0001	<0.001	0.222	0.000103	78.4	0.0029	0.00237	0.00108	<0.01
RSEM-R5B-EOP	10/29/2019 11:00	WU9590	M	3.97	<0.00002	289	0.493	256	0.000018	<0.005	<0.005	0.0032	<0.005	0.0148	<0.0001	0.0324	0.00155	0.00066	0.0436	<0.0001	<0.001	0.23	0.0001	87.0	0.0026	0.00252	0.00125	<0.01
RSEM-R5B-EOP	10/30/2019 11:00	WV3961	M	4.48	<0.00002	299	0.543	305	0.000016	<0.005	<0.005	0.00308	<0.005	0.0142	0.00014	0.0224	0.00167	0.00067	0.039	<0.0001	<0.001	0.223	0.000072	79.5	0.0023	0.00171	0.0014	<0.01
RSEM-R5B-EOP	10/30/2019 11:10	WV3962	D	4.37	<0.00002	299	0.532	304	0.000013	<0.005	<0.005	0.00302	<0.005	0.015	<0.0001	0.0203	0.00164	0.00056	0.0392	<0.0001	<0.001	0.222	0.000076	79.5	0.0021	0.00177	0.00135	<0.01
RSEM-R5B-EOP	10/31/2019 11:30	WV6744	M	3.99	<0.00002	296	0.502	277	0.000018	<0.005	<0.005	0.00251	<0.005	0.0133	<0.0001	0.016	0.00153	0.00055	0.034	<0.0001	<0.001	0.211	0.000079	84.1	0.0015	0.0019	0.00091	<0.01
RSEM-R5B-EOP	10/31/2019 11:40	WV6745	D	4.03	<0.00002	301	0.521	279	0.000017	<0.005	<0.005	0.00251	<0.005	0.0135	<0.0001	0.0159	0.00152	0.00059	0.0338	<0.0001	<0.001	0.21	0.000078	85.0	0.0015	0.00192	0.0009	<0.01
RSEM-R5B-EOP	11/1/2019 11:30	WV7043	M	4.2	<0.00002	295	0.541	283	0.000019	<0.005	<0.005	0.00238	<0.005	0.0145	<0.0001	0.0148	0.00142	0.0005	0.0306	<0.0001	<0.001	0.204	0.000079	86.4	0.0011	0.0025	0.00086	<0.01
RSEM-R5B-EOP	11/1/2019 11:40	WV7044	D	4.33	<0.00002	310	0.562	294	0.000019	<0.005	<0.005	0.00246	<0.005	0.0151	<0.0001	0.0151	0.00141	0.00046	0.0314	<0.0001	<0.001	0.21	0.000082	87.0	0.0011	0.00246	0.00083	<0.01
RSEM-R5B-EOP	11/2/2019 12:50	WW1207	M	4.43	<0.00002	281	0.543	274	0.000017	<0.005	<0.005	0.00213	<0.005	0.0118	<0.0001	0.0133	0.00132	0.00041	0.0289	<0.0001	<0.001	0.219	0.000071	92.5	<0.001	0.00225	0.00072	<0.01
RSEM-R5B-EOP	11/2/2019 13:00	WW1208	D	4.46	<0.00002	287	0.548	281	0.000019	<0.005	<0.005	0.00218	<0.005	0.0122	<0.0001	0.013	0.00135	0.0004	0.029	<0.0001	<0.001	0.21	0.000072	92.8	<0.001	0.0022	0.00072	<0.01
RSEM-R5B-EOP	11/3/2019 12:40	WW1179	M	4.47	<0.00002	281	0.54	276	0.000018	<0.005	<0.005	0.00197	<0.005	0.0091	<0.0001	0.0119	0.00124	0.00037	0.028	<0.0001	<0.001	0.21	0.000063	90.5	<0.001	0.00176	0.00068	<0.01
RSEM-R5B-EOP	11/3/2019 12:50	WW1180	D	4.36	<0.00002	283	0.542	276	0.000016	<0.005	<0.005	0.00198	<0.005	0.0093	<0.0001	0.0114	0.00123	0.00036	0.0278	<0.0001	<0.001	0.212	0.00006	89.5	<0.001	0.00177	0.00067	<0.01
RSEM-R5B-EOP	11/4/2019 11:50	WW5971	M	4.19	<0.00002	291	0.516	269	0.000016	<0.005	<0.005	0.00187	<0.005	0.0068	<0.0001	0.0103	0.00111	0.00035	0.0261	<0.0001	<0.001	0.201	0.000038	85.1	<0.001	0.00026	0.00058	<0.01
RSEM-R5B-EOP	11/4/2019 12:00	WW5972	D	4.06	<0.00002	290	0.518	269	0.000016	<0.005	<0.005	0.00186	<0.005	0.0068	<0.0001	0.0103	0.00112	0.00035	0.0264	<0.0001	<0.001	0.199	0.000038	84.1	<0.001	0.0004	0.00059	<0.01
RSEM-R5B-EOP	11/5/2019 13:30	WW6753	M	3.97	<0.00002	265	0.444	236	0.000014	<0.005	<0.005	0.00178	<0.005	0.0056	0.00014	0.0116	0.00104	0.00035	0.0284	<0.0001	<0.001	0.18	0.00003	78.9	<0.001	<0.0002	0.00057	<0.01
RSEM-R5B-EOP	11/6/2019 11:00	WW9549	M	4.01	<0.00002	261	0.428	233	0.000014	<0.005	<0.005	0.00183	<0.005	0.0057	<0.0001	0.012	0.00096	0.00037	0.0298	<0.0001	<0.001	0.169	0.000032	73.8	<0.001	0.00077	0.00067	<0.01
RSEM-R5B-EOP	11/7/2019 10:40	WX2022	M	3.89	<0.00002	254	0.407	225	0.000012	<0.005	<0.005	0.0018	<0.005	0.0055	<0.0001	0.0114	0.00098	0.00037	0.0294	<0.0001	<0.001	0.184	0.000037	71.9	0.001	0.00108	0.00071	<0.01
RSEM-R5B-EOP	11/8/2019 10:35	WX1857	M	4.12	<0.00002	250	0.4	236	0.000015	<0.005	<0.005	0.00184	<0.005	0.0062	<0.0001	0.0131	0.00093	0.00037	0.0309	<0.0001	<0.001	0.18	0.000033	71.7	0.0011	0.00104	0.00073	<0.01
RSEM-R5B-EOP	11/9/2019 14:00	WX3315	M	4.3	<0.00002	234	0.375	217	0.000013	<0.005	<0.005	0.00198	<0.005	0.0061	<0.0001	0.0163	0.001	0.00042	0.035	<0.0001	<0.001	0.191	0.000039	70.1	0.0015	0.00101	0.00084	<0.01
RSEM-R5B-EOP	11/10/2019 11:20	WX5924	M	4.27	<0.00002	232	0.367	209	0.000012	<0.005	<0.005	0.00201	<0.005	0.0057	<0.0001	0.0169	0.00098	0.00045	0.0364	<0.0001	<0.001	0.171	0.000036	76.2	0.002	0.00091	0.00085	<0.01
RSEM-R5B-EOP	11/11/2019 10:30	WX5915	M	4.15	<0.00002	218	0.37	178	0.000012	<0.005	<0.005	0.00212	<0.005	0.0053	<0.0001	0.0181	0.00094	0.00049	0.0378	<0.0001	<0.001	0.169	0.000035	72.2	0.0023	0.00043	0.00083	<0.01
RSEM-R5B-EOP	11/12/2019 11:30	WX7837	M	4.47	<0.00002	218	0.367	180	0.000013	<0.005	<0.005	0.00232	<0.005	0.0053	<0.0001	0.0158	0.00091	0.00052	0.0384	<0.0001	<0.001	0.156	0.000034	66.9	0.0029	0.00072	0.00088	<0.01
RSEM-R5B-EOP	11/12/2019 11:40	WX7838	D	4.2	<0.00002	216	0.362	175	0.000012	<0.005	<0.005	0.0023	<0.005	0.0054	<0.0001	0.0159	0.00091	0.00052	0.038	<0.0001	<0.001	0.155	0.000033	66.9	0.003	0.00073	0.00089	<0.01
RSEM-R5B-EOP	11/13/2019 11:15	WY0306	M	4.65	<0.00002	203	0.345	168	0.00001	<0.005	<0.005	0.00227	<0.005	0.0053	<0.0001	0.0172	0.00088	0.00055	0.0388	<0.0001	<0.001	0.158	0.000032	66.3	0.0036	0.00068	0.00093	<0.01
RSEM-R5B-EOP	11/13/2019 11:25	WY0307	D	4.5	<0.00002	204	0.337	169	0.00001	<0.005	<0.005	0.00222	<0.005	0.0052	<0.0001	0.0169	0.00089	0.00055	0.0389	<0.0001	<0.001	0.153	0.000034	66.3	0.0035	0.0007	0.00092	<0.01
RSEM-R5B-EOP	11/14/2019 11:15	WY2283	M	4.33	<0.00002	199	0.325	160	<0.00001	<0.005	<0.005	0.00226	<0.005	0.0051	<0.0001	0.0153	0.00089	0.00055	0.0395	<0.0001	<0.001	0.155	0.000032	64.4	0.0038	0.00069	0.00097	<0.01
RSEM-R5B-EOP	11/14/2019 11:25	WY2284	D	4.25	<0.00002	193	0.315	154	<0.00001	<0.005	<0.005	0.00217	<0.005	<0.005	0.00026	0.015	0.0009	0.00056	0.0392	<0.0001	<0.001	0.156	0.000031	65.0	0.0039	0.00069	0.00097	<0.01
RSEM-R5B-EOP	11/15/2019 11:00	WY2331	M	4.55	<0.00002	195	0.318	154	<0.00001	<0.005	<0.005	0.0023	<0.005	0.0054	<0.0001	0.0155	0.00086	0.00057	0.0404	<0.0001	<0.001	0.147	0.000027	63.3	0.0042	0.00065	0.00094	<0.01
RSEM-R5B-EOP	11/15/2019 11:10	WY2332	D	4.52	<0.00002	196	0.318	152	<0.00001	<0.005	<0.005	0.00226	<0.005	<0.005	<0.0001	0.0152	0.00089	0.00057	0.0405	<0.0001	<0.001	0.149	0.000027	63.0	0.0042	0.00065	0.00097	<0.01
RSEM-R5B-EOP	11/16/2019 11:20	WY5249	M	4.97	<0.00002	169	0.329	141	0.00001	<0.005	<0.005	0.00256	<0.005	<0.005	<0.0001	0.0128	0.0008	0.00056	0.0377	<0.0001	<0.001	0.132	0.000024	63.2	0.0045	0.00045	0.00091	<0.01
RSEM-R5B-EOP	11/16/2019 11:30	WY5250	D	4.96	<0.00002	170	0.327	141	0.000011	<0.005	<0.005	0.00257	<0.005	<0.005	<0.0001	0.0132	0.00081	0.00055	0.0377	<0.0001	<0.001	0.134	0.000021	64.2	0.0045	0.00045	0.0009	<0.01
RSEM-R5B-EOP	11/17/2019 12:10	WY5452	M	4.65	<0.00002	166	0.348	149	0.00001	<0.005	<0.005	0.00223	<0.005	<0.005	<0.0001	0.0101	0.00072	0.00045	0.0333	<0.0001	<0.001	0.136	0.000021	67.4	0.0031	0.00041	0.0007	<0.01
RSEM-R5B-EOP	11/18/2019 11:50	WY7743	M	4.25	<0.00002	174	0.358	167	0.00001	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	0.0061	0.00069	0.00038	0.031	<0.0001	<0.001	0.144	0.000022	69.1	0.0019	0.00051	0.00055	<0.01
RSEM-R5B-EOP	11/18/2019 12:00	WY7744	D	4.31	<0.00002	175	0.354	172	0.00001	<0.005	<0.005	0.00175	<0.005	0.0052	<0.0001	0.007	0.00068	0.00036	0.031	<0.0001	<0.001	0.147	0.000022	68.5	0.0019	0.0005	0.00056	<0.01
RSEM-R5B-EOP	11/19/2019 13:00	WY9700	M	3.89	<0.00002	176	0.337	159	0.000011	<0.005	<0.005	0.00149	<0.005	0.0062	<0.0001	0.0061	0.00067	0.0004	0.0341	<0.0001	<0.001	0.135	0.000033	69.1	0.0015	0.00071	0.0005	<0.01
RSEM-R5B-EOP	11/19/2019 13:10	WY9701	D	3.92	<0.00002	179	0.337	163	0.000011	<0.005	<0.005	0.00153	<0.005	0.0059	<0.0001	0.0069	0.00069	0.00038	0.0346	<0.0001	<0.001	0.139	0.000036	70.8	0.0015	0.00071	0.0005	<0.01
RSEM-R5B-EOP	11/20/2019 11:00	WZ2230	M	4	<0.00002	184	0.346	169	<0.00001	<0.005	<0.005	0.00155	<0.005	0.0063	<0.0001	0.0067	0.00069	0.00037	0.0351	<0.0001	<0.001	0.138	0.000035	71.5	0.0014	0.00069	<0.0005	<0.01
RSEM-R5B-EOP	11/20/2019 11:10	WZ2231	D	3.88	<0.00002	182	0.341	165	<0.00001	<0.005	<0.005	0.00155	<0.005	0.0062	<0.0001	0.0075	0.00066	0.00038	0.035	<0.0001	<0.001	0.136	0.000036	71.3	0.0015	0.00071	0.00052	<0.01
RSEM-R5B-EOP	11/21/2019 13:45	WZ4245	M	4.02	<0.00002	173	0.373	169	<0.00001	<0.005	<0.005	0.00162	<0.005	0.0103	<0.0001	0.0082	0.00065	0.00035	0.0383	<0.0001	<0.001	0.14	0.000055	72.3	0.0014	0.00115	0.00055	<0.01
RSEM-R5B-EOP	11/21/2019 13:55	WZ4244	D	3.85	<0.00002	173	0.369	166	<0.00001	<0.005	<0.005	0.00159	<0.005	0.0105	<0.0001	0.0074	0.00065	0.00033	0.0382	<0.0001	<0.001	0.141	0.000057	72.6	0.0013	0.00119	0.00053	<0.01
RSEM-R5B-EOP	11/22/2019 12:10	WZ4475	M	3.9	<0.00002	176	0.364	166	<0.00001	<0.005	<0.005	0.00162	<0.005	0.0105	<0.0001	0.008	0.00065	0.00033	0.039	<0.0001	<0.001	0.138	0.000058	73.4	0.0013	0.00118	0.00054	<0.01
RSEM-R5B-EOP	11/22/2019 12:20	WZ4476	D	3.95	<0.00002	175	0.372	165	<0.00001	<0.005	<0.005	0.0016	<0.005	0.0101	<0.0001	0.0073	0.00066	0.00032	0.0396	<0.0001	<0.001	0.138	0.000055	72.2	0.0013	0.00119	0.00053	<0.01
RSEM-R5B-EOP	11/23/2019 11:10	WZ7696	M	3.98	<0.00002	166	0.388	162	0.000011	<0.005	<0.005	0.00177	<0.005	0.0114	<0.0001	0.008	0.00066	0.00038	0.0466	<0.0001	<0.001	0.133	0.000056	81.2	0.0014	0.00127	0.00052	<0.01
RSEM-R5B-EOP	11/23/2019 11:20	WZ7697	D	4.04	<0.00002	165	0.39	160	0.000011	<0.005	<0.005	0.0018	<0.005	0.0112	<0.0001	0.0076	0.00067	0.00036	0.0464	<0.0001	<0.001	0.135	0.000059	82.6	0.0014	0.0013	0.00054	<0.01
RSEM-R5B-EOP	11/24/2019 14:25	WZ7712	M	4.16	<0.00002	172	0.408	165	0.000012	<0.005	<0.005	0.00187	<0.005	0.0121	<0.0001	0.0082	0.00065	0.00035	0.0494	<0.0001	<0.001	0.128	0.000057	88.2	0.0014	0.00138	0.00063	<0.01
RSEM-R5B-EOP	11/24/2019 14:35	WZ7713	D	4.06	<0.00002	166	0.391	162	0.000011	<0.005	<0.005	0.00185	<0.005	0.0123	<0.0001	0.0083	0.00067	0.00035	0.0494	<0.0001	<0.001	0.126	0.000053	86.3	0.0014	0.0014	0.00062	<0.01
RSEM-R5B-EOP	11/25/2019 16:10	XA1642	M	4.42	<0.00002	183	0.457	184	0.000013	<0.005	<0.005	0.00184	<0.005	0.0126	<0.0001	0.0114	0.00077	0.00037	0.0597	<0.0001	<0.001	0.13	0.000057	95.7	0.0014	0.0012	0.00064	<0.01
RSEM-R5B-EOP	11/25/2019 16:20	XA1643	D	4.35	<0.00002	185	0.45	184	0.000012	<0.005	<0.005	0.00183	<0.005	0.0131	<0.0001	0.0101	0.00076	0.00039	0.0609	<0.0001	<0.001	0.134	0.000061	97.3	0.0015	0.00127	0.00067	<0.01
RSEM-R5B-EOP	11/26/2019 15:10	XA1649	M	4.58	<0.00002	213	0.495	211	0.000014	<0.005	<0.005	0.00195	<0.005	0.0132	<0.0001	0.0104	0.00089	0.00042	0.0631	<0.0001	<0.001	0.145	0.00006	104	0.0014	0.0014	0.00071	<0.01
RSEM-R5B-EOP	11/26/2019 15:20	XA1650	D	4.48	<0.00002	211	0.5	209	0.000014	<0.005	<0.005	0.00194	<0.005	0.0128	<0.0001	0.0086	0.00085	0.00039	0.0614	<0.0001	<0.001	0.143	0.00006	102	0.0015	0.00135	0.0007	<0.01
RSEM-R5B-EOP	11/27/2019 14:10	XA4488	M	4.95	<0.00002	243	0.57	247	0.000017	<0.005	<0.005	0.00209	<0.005	0.0127	<0.0001	0.0095	0.00098	0.00046	0.06	<0.0001	<0.001	0.175	0.000058	105	0.0015	0.00139	0.00074	<0.01
RSEM-R5B-EOP	11/27/2019 14:20	XA4489	D	4.94	<0.00002	245	0.567	239	0.000016	<0.005	<0.005	0.00202	<0.005	0.0123	<0.0001	0.0088	0.00097	0.00044	0.0588	<0.0001	<0.001	0.171	0.000059	105	0.0014	0.0014	0.00073	<0.01
RSEM-R5B-EOP	11/28/2019 14:10	XA6241	M	4.92	<0.00002	262	0.559	258	0.000017	<0.005	<0.005	0.00227	<0.005	0.0121	<0.0001	0.0075	0.00107	0.00049	0.0574	<0.0001	<0.001	0.175	0.000055	110	0.0015	0.00145	0.00084	<0.01
RSEM-R5B-EOP	11/28/2019 14:20	XA6242	D	4.97	<0.00002	260	0.571	257	0.000018	<0.005	<0.005	0.00228	<0.005	0.012	<0.0001	0.0085	0.00109	0.00051	0.0571	<0.0001	<0.001	0.174	0.000059	108	0.0015	0.00145	0.00089	<0.01
RSEM-R5B-EOP	11/29/2019 11:40	XA6568	M	5.08	<0.00002	283	0.609	279	0.000018	<0.005	<0.005	0.00244	<0.005	0.0105	<0.0001	0.0076	0.00116	0.00053	0.054	<0.0001	<0.001	0.189	0.00005	111	0.0013	0.00133	0.00077	<0.01
RSEM-R5B-EOP	11/29/2019 11:50	XA6569	D	5.14	<0.00002	282	0.605	276	0.000019	<0.005	<0.005	0.0024	<0.005	0.0104	<0.0001	0.0088	0.0013	0.00055	0.0522	<0.0002	<0.002	0.196	0.000056	114	<0.002	0.00141	<0.001	<0.02
RSEM-R5B-EOP	11/30/2019 12:55	XA8973	M	5.4	<0.00002	310	0.616	305	0.000017	<0.005	<0.005	0.00271	<0.005	0.0097	<0.0001	0.0074	0.00125	0.00059	0.057	<0.0001	<0.001	0.177	0.000044	115	0.0013	0.00157	0.00081	<0.01
RSEM-R5B-EOP	11/30/2019 13:05	XA8974	D	5.23	<0.00002	319	0.617	305	0.000018	<0.005	<0.005	0.00276	<0.005	0.0101	<0.0001	0.0075	0.00125	0.0006	0.0557	<0.0001	<0.001	0.175	0.000044	113	0.0013	0.00156	0.00077	<0.01
RSEM-R5B-EOP	12/1/2019 13:50	XA8823	M	5.82	<0.00004	325	0.674	329	<0.00002	<0.01	<0.01	0.00315	<0.01	<0.01	<0.0002	0.0072	0.0014	0.00059	0.0578	<0.0001	<0.001	0.186	0.000043	119	0.0012	0.00285	0.00077	<0.01
RSEM-R5B-EOP	12/1/2019 14:00	XA8824	D	5.87	<0.00004	340	0.693	340	<0.00002	<0.01	<0.01	0.00315	<0.01	0.011	<0.0002	0.0073	0.00139	0.00061	0.0575	<0.0001	<0.001	0.187	0.00004	119	0.0012	0.00286	0.00075	<0.01
RSEM-R5B-EOP	12/2/2019 12:05	XB0711	M	5.9	<0.00002	326	0.744	330	0.00002	<0.005	<0.005	0.00335	<0.005	0.0073	<0.0001	0.0073	0.00153	0.0007	0.0544	<0.0001	<0.001	0.224	0.000043	119	0.0012	0.004	0.00073	<0.01
RSEM-R5B-EOP	12/2/2019 12:15	XB0712	D	5.88	<0.00002	331	0.739	338	0.00002	<0.005	<0.005	0.00332	<0.005	0.0072	<0.0001	0.007	0.00152	0.00068	0.0547	<0.0001	<0.001	0.215	0.000042	116	0.0012	0.00403	0.00073	<0.01
RSEM-R5B-EOP	12/3/2019 11:25	XB3094	M	5.93	<0.00002	328	0.723	332	0.00002	<0.005	<0.005	0.00332	<0.005	0.0075	<0.0001	0.0079	0.00142	0.00071	0.055	<0.0001	<0.001	0.221	0.000036	121	0.0011	0.00365	0.00068	<0.01
RSEM-R5B-EOP	12/3/2019 11:35	XB3095	D	5.8	<0.00002	320	0.698	318	0.000018	<0.005	<0.005	0.00318	<0.005	0.0069	<0.0001	0.0083	0.00144	0.00076	0.0562	<0.0001	<0.001	0.214	0.000038	121	0.0011	0.00368	0.0007	<0.01
RSEM-R5B-EOP	12/4/2019 12:40	XB4970	M	5.63	<0.00002	323	0.647	317	0.000016	<0.005	<0.005	0.00344	<0.005	0.0064	<0.0001	0.0258	0.0015	0.00078	0.0578	<0.0002	<0.002	0.238	0.00004	120	<0.002	0.00398	<0.001	0.021
RSEM-R5B-EOP	12/4/2019 12:50	XB4971	D	5.5	<0.00002	331	0.653	321	0.000017	<0.005	<0.005	0.00356	<0.005	0.0069	<0.0001	0.0129	0.0016	0.00074	0.0549	<0.0002	<0.002	0.234	0.000032	116	<0.002	0.00396	<0.001	<0.02
RSEM-R5B-EOP	12/5/2019 13:25	XB6929	M	5.67	<0.00002	346	0.655	324	0.00002	<0.005	<0.005	0.00364	<0.005	0.0067	<0.0001	0.0096	0.00147	0.00072	0.055	<0.0001	<0.001	0.203	0.000032	110	0.001	0.00357	0.00074	<0.01
RSEM-R5B-EOP	12/5/2019 13:35	XB6930	D	5.64	<0.00002	347	0.639	316	0.000018	<0.005	<0.005	0.0036	<0.005	0.0067	<0.0001	0.0096	0.00155	0.00077	0.0557	<0.0001	<0.001	0.211	0.000037	112	0.0011	0.0038	0.00075	<0.01
RSEM-R5B-EOP	12/6/2019 11:45	XB6919	M	5.7	<0.0001	350	0.612	321	<0.00005	<0.025	<0.025	0.00363	<0.025	<0.025	<0.0005	0.0097	0.00147	0.0007	0.0542	<0.0001	<0.001	0.204	0.000036	112	0.001	0.00347	0.00076	<0.01
RSEM-R5B-EOP	12/6/2019 11:55	XB6920	D	5.83	<0.00002	355	0.673	334	0.000017	<0.005	<0.005	0.00372	<0.005	0.0068	<0.0001	0.0097	0.00152	0.00075	0.055	<0.0001	<0.001	0.208	0.000035	111	0.001	0.00348	0.00074	<0.01
RSEM-R5B-EOP	12/7/2019 11:50	XB9797	M	5.8	<0.00002	341	0.693	337	0.00002	<0.005	<0.005	0.00374	<0.005	0.0074	<0.0001	0.0099	0.00154	0.00069	0.0556	<0.0001	<0.001	0.2	0.000031	110	0.001	0.00331	0.00079	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	10/26/2019 12:20	WU7026	M	<0.0002	0.112	36.5	0.0256	<0.000002	0.0273	0.0109		7.57	0.00654	4.22	<0.00002	266	0.421	235	0.000016	<0.005	<0.005	0.00354	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	10/26/2019 12:30	WU7027	D	<0.0002	0.11	36.1	0.0246	<0.000002	0.0274	0.0109		7.47	0.00644	4.13	<0.00002	266	0.422	232	0.000017	<0.005	<0.005	0.00356	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	10/27/2019 11:25	WU7137	M	<0.0002	0.111	38.0	0.0428	<0.000002	0.0244	0.0145		7.12	0.00647	4.03	<0.00002	261	0.439	238	0.000016	<0.005	<0.005	0.00354	<0.005	0.0097	<0.0001
RSEM-R5B-EOP	10/27/2019 11:35	WU7138	D	<0.0002	0.11	38.5	0.0417	<0.000002	0.024	0.0144		7.13	0.00646	4.03	<0.00002	259	0.431	239	0.000017	<0.005	<0.005	0.00351	<0.005	0.0097	<0.0001
RSEM-R5B-EOP	10/28/2019 10:35	WU7147	M	<0.0002	0.12	42.1	0.0455	<0.000002	0.022	0.0163		7.13	0.00689	4.17	<0.00002	280	0.468	256	0.000017	<0.005	<0.005	0.00339	<0.005	0.0152	<0.0001
RSEM-R5B-EOP	10/28/2019 10:45	WU7148	D	<0.0002	0.12	42.7	0.046	<0.000002	0.022	0.0164		7.19	0.00686	4.13	<0.00002	287	0.475	260	0.000017	<0.005	<0.005	0.00333	<0.005	0.0156	<0.0001
RSEM-R5B-EOP	10/29/2019 11:00	WU9590	M	<0.0002	0.137	47.9	0.0435	<0.000002	0.0219	0.0167		7.99	0.00742	4.89	<0.00002	325	0.506	327	0.000021	<0.005	<0.005	0.00333	<0.005	0.0184	<0.0001
RSEM-R5B-EOP	10/30/2019 11:00	WV3961	M	<0.0002	0.132	43.3	0.0275	<0.000002	0.0198	0.0125		7.27	0.00709	4.31	<0.00002	296	0.499	303	0.000021	<0.005	<0.005	0.00293	<0.005	0.01	<0.0001
RSEM-R5B-EOP	10/30/2019 11:10	WV3962	D	<0.0002	0.13	42.7	0.0299	<0.000002	0.0191	0.0128		7.28	0.00739	4.22	<0.00002	294	0.509	297	0.000018	<0.005	<0.005	0.00294	<0.005	0.0117	<0.0001
RSEM-R5B-EOP	10/31/2019 11:30	WV6744	M	<0.0002	0.125	46.2	0.0304	<0.000002	0.0189	0.0118		6.79	0.00727	4.64	<0.00002	288	0.555	286	0.000018	<0.005	<0.005	0.00269	<0.005	0.0128	<0.0001
RSEM-R5B-EOP	10/31/2019 11:40	WV6745	D	<0.0002	0.124	47.5	0.03	<0.000002	0.0191	0.012		6.75	0.00728	4.61	<0.00002	290	0.546	287	0.000018	<0.005	<0.005	0.0027	<0.005	0.0129	<0.0001
RSEM-R5B-EOP	11/1/2019 11:30	WV7043	M	<0.0002	0.128	48.0	0.0386	<0.000002	0.0172	0.0125		6.42	0.00711	4.48	<0.00002	284	0.551	287	0.000018	<0.005	<0.005	0.00246	<0.005	0.0135	<0.0001
RSEM-R5B-EOP	11/1/2019 11:40	WV7044	D	<0.0002	0.141	48.0	0.038	<0.000002	0.0172	0.0124		6.46	0.00715	4.65	<0.00002	285	0.555	278	0.000018	<0.005	<0.005	0.00246	<0.005	0.0134	<0.0001
RSEM-R5B-EOP	11/2/2019 12:50	WW1207	M	<0.0002	0.148	48.4	0.0362	<0.000002	0.0157	0.0109		6.36	0.00734	4.48	<0.00002	291	0.574	296	0.000018	<0.005	<0.005	0.00219	<0.005	0.0112	<0.0001
RSEM-R5B-EOP	11/2/2019 13:00	WW1208	D	<0.0002	0.145	48.2	0.0352	<0.000002	0.0159	0.0108		6.25	0.00736	4.38	<0.00002	292	0.561	295	0.000018	<0.005	<0.005	0.00215	<0.005	0.0114	<0.0001
RSEM-R5B-EOP	11/3/2019 12:40	WW1179	M	<0.0002	0.148	47.5	0.0289	<0.000002	0.0143	0.0086		5.99	0.00694	4.44	<0.00002	283	0.545	292	0.000018	<0.005	<0.005	0.00199	<0.005	0.0085	<0.0001
RSEM-R5B-EOP	11/3/2019 12:50	WW1180	D	<0.0002	0.146	48.9	0.029	<0.000002	0.0145	0.0086		5.98	0.00695	4.36	<0.00002	292	0.546	292	0.000017	<0.005	<0.005	0.00199	<0.005	0.0085	<0.0001
RSEM-R5B-EOP	11/4/2019 11:50	WW5971	M	<0.0002	0.133	48.2	0.0047	<0.000002	0.0126	0.0068		5.58	0.00628	4.18	<0.00002	287	0.483	265	0.000015	<0.005	<0.005	0.00171	<0.005	0.0055	<0.0001
RSEM-R5B-EOP	11/4/2019 12:00	WW5972	D	<0.0002	0.129	48.4	0.0073	<0.000002	0.0127	0.0066		5.57	0.00634	4.04	<0.00002	292	0.483	261	0.000016	<0.005	<0.005	0.00172	<0.005	0.0056	<0.0001
RSEM-R5B-EOP	11/5/2019 13:30	WW6753	M	<0.0002	0.131	44.2	<0.001	<0.000002	0.0117	0.0058		5.38	0.00513	4.21	<0.00002	261	0.486	247	0.000015	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/6/2019 11:00	WW9549	M	<0.0002	0.121	42.8	0.0149	<0.000002	0.0111	0.0061		5.21	0.00491	3.99	<0.00002	253	0.448	235	0.000012	<0.005	<0.005	0.00183	<0.005	0.0053	<0.0001
RSEM-R5B-EOP	11/7/2019 10:40	WX2022	M	<0.0002	0.126	43.1	0.0204	<0.000002	0.0108	0.0059		5.09	0.00497	3.81	<0.00002	265	0.41	228	0.000012	<0.005	<0.005	0.0018	<0.005	0.0053	<0.0001
RSEM-R5B-EOP	11/8/2019 10:35	WX1857	M	<0.0002	0.124	41.2	0.0195	<0.000002	0.0105	0.0063		4.89	0.00465	4.19	<0.00002	253	0.406	219	0.000012	<0.005	<0.005	0.00188	<0.005	0.0053	<0.0001
RSEM-R5B-EOP	11/9/2019 14:00	WX3315	M	<0.0002	0.125	38.6	0.018	<0.000002	0.0104	0.0055		4.82	0.00429	4.25	<0.00002	232	0.36	209	0.000013	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/10/2019 11:20	WX5924	M	<0.0002	0.123	38.5	0.0172	<0.000002	0.011	0.0054		5.60	0.00418	5.02	<0.00002	230	0.379	215	0.000012	<0.005	<0.005	0.00213	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/11/2019 10:30	WX5915	M	<0.0002	0.11	39.0	0.0079	<0.000002	0.0114	0.0052		5.22	0.00441	4.64	<0.00002	239	0.372	199	0.00001	<0.005	<0.005	0.00211	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/12/2019 11:30	WX7837	M	<0.0002	0.104	36.8	0.0128	<0.000002	0.0115	0.0053		5.13	0.00389	4.57	<0.00002	218	0.345	176	0.000011	<0.005	<0.005	0.00217	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/12/2019 11:40	WX7838	D	<0.0002	0.102	37.3	0.0128	<0.000002	0.0116	0.0053		5.25	0.00398	4.56	<0.00002	223	0.35	182	0.000011	<0.005	<0.005	0.0022	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/13/2019 11:15	WY0306	M	<0.0002	0.101	35.5	0.0124	<0.000002	0.0117	0.0053		5.47	0.00392	5.06	<0.00002	212	0.352	175	<0.00001	<0.005	<0.005	0.00228	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/13/2019 11:25	WY0307	D	<0.0002	0.0982	35.6	0.0126	<0.000002	0.0119	0.0052		5.44	0.0039	4.88	<0.00002	213	0.348	175	<0.00001	<0.005	<0.005	0.00231	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/14/2019 11:15	WY2283	M	<0.0002	0.1	34.8	0.0134	<0.000002	0.0117	0.0052		5.52	0.00339	5.11	<0.00002	202	0.349	163	<0.00001	<0.005	<0.005	0.00236	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/14/2019 11:25	WY2284	D	<0.0002	0.101	35.6	0.0134	<0.000002	0.012	0.0053		5.54	0.00354	5.08	<0.00002	207	0.345	168	<0.00001	<0.005	<0.005	0.00239	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/15/2019 11:00	WY2331	M	<0.0002	0.0978	34.5	0.0125	<0.000002	0.0119	0.005		5.61	0.00333	5	<0.00002	196	0.335	158	<0.00001	<0.005	<0.005	0.00236	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/15/2019 11:10	WY2332	D	<0.0002	0.0969	35.0	0.0125	<0.000002	0.0119	0.0052		5.71	0.00331	4.95	<0.00002	199	0.334	157	<0.00001	<0.005	<0.005	0.00237	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/16/2019 11:20	WY5249	M	<0.0002	0.0785	34.1	0.0083	<0.000002	0.0107	0.0044		5.83	0.0032	4.93	<0.00002	170	0.315	137	<0.00001	<0.005	<0.005	0.00259	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/16/2019 11:30	WY5250	D	<0.0002	0.0797	34.2	0.0087	<0.000002	0.0109	0.0043		5.85	0.00326	4.93	<0.00002	171	0.318	139	<0.00001	<0.005	<0.005	0.0026	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/17/2019 12:10	WY5452	M	<0.0002	0.104	36.4	0.0072	<0.000002	0.0093	0.0036		5.46	0.00286	4.56	<0.00002	167	0.332	146	<0.00001	<0.005	<0.005	0.00225	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/18/2019 11:50	WY7743	M	<0.0002	0.135	36.5	0.0097	<0.000002	0.0087	0.0036		5.29	0.00248	4.15	<0.00002	178	0.343	167	<0.00001	<0.005	<0.005	0.00176	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/18/2019 12:00	WY7744	D	<0.0002	0.135	37.1	0.0094	<0.000002	0.0086	0.0035		5.29	0.00255	4.1	<0.00002	179	0.344	164	<0.00001	<0.005	<0.005	0.00178	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	11/19/2019 13:00	WY9700	M	<0.0002	0.137	36.4	0.0133	<0.000002	0.0083	0.0044		5.21	0.00244	3.8	<0.00002	177	0.344	165	<0.00001	<0.005	<0.005	0.00157	<0.005	0.0052	<0.0001
RSEM-R5B-EOP	11/19/2019 13:10	WY9701	D	<0.0002	0.137	36.9	0.0135	<0.000002	0.0084	0.0045		5.33	0.00251	3.82	<0.00002	182	0.346	165	<0.00001	<0.005	<0.005	0.00157	<0.005	0.0053	<0.0001
RSEM-R5B-EOP	11/20/2019 11:00	WZ2230	M	<0.0002	0.144	37.3	0.012	<0.000002	0.0083	0.0047		5.39	0.00247	3.85	<0.00002	183	0.348	168	<0.00001	<0.005	<0.005	0.00154	<0.005	0.0054	<0.0001
RSEM-R5B-EOP	11/20/2019 11:10	WZ2231	D	<0.0002	0.139	37.2	0.013	<0.000002	0.0083	0.0047		5.40	0.0025	3.8	<0.00002	182	0.348	167	<0.00001	<0.005	<0.005	0.00156	<0.005	0.0054	<0.0001
RSEM-R5B-EOP	11/21/2019 13:45	WZ4245	M	<0.0002	0.141	38.3	0.023	<0.000002	0.0079	0.007		5.46	0.00265	4.03	<0.00002	171	0.37	168	<0.00001	<0.005	<0.005	0.00161	<0.005	0.0099	<0.0001
RSEM-R5B-EOP	11/21/2019 13:55	WZ4244	D	<0.0002	0.139	39.5	0.0232	0.0000027	0.0078	0.0073		5.45	0.00264	4.05	<0.00002	175	0.368	168	<0.00001	<0.005	<0.005	0.00158	<0.005	0.0099	<0.0001
RSEM-R5B-EOP	11/22/2019 12:10	WZ4475	M	<0.0002	0.137	38.7	0.0238	<0.000002	0.0078	0.0072		5.58	0.00269	4.01	<0.00002	171	0.367	169	<0.00001	<0.005	<0.005	0.0016	<0.005	0.0099	<0.0001
RSEM-R5B-EOP	11/22/2019 12:20	WZ4476	D	<0.0002	0.137	38.6	0.0238	<0.000002	0.0079	0.0071		5.54	0.00258	3.98	<0.00002	171	0.373	167	0.00001	<0.005	<0.005	0.00158	<0.005	0.0099	<0.0001
RSEM-R5B-EOP	11/23/2019 11:10	WZ7696	M	<0.0002	0.132	38.4	0.0265	<0.000002	0.0081	0.0078		5.85	0.00316	4.23	<0.00002	163	0.405	169	<0.00001	<0.005	<0.005	0.00177	<0.005	0.0105	<0.0001
RSEM-R5B-EOP	11/23/2019 11:20	WZ7697	D	<0.0002	0.128	38.5	0.0267	<0.000002	0.0081	0.0078		5.93	0.00324	4.43	<0.00002	163	0.399	170	<0.00001	<0.005	<0.005	0.00173	<0.005	0.0106	<0.0001
RSEM-R5B-EOP	11/24/2019 14:25	WZ7712	M	<0.0002	0.109	39.8	0.0278	<0.000002	0.008	0.0085		6.09	0.0033	4.2	<0.00002	171	0.403	169	<0.00001	<0.005	<0.005	0.00175	<0.005	0.0107	<0.0001
RSEM-R5B-EOP	11/24/2019 14:35	WZ7713	D	<0.0002	0.108	39.5	0.0274	<0.000002	0.008	0.0084		6.07	0.00339	4.1	<0.00002	172	0.4	167	<0.00001	<0.005	<0.005	0.00175	<0.005	0.0107	<0.0001
RSEM-R5B-EOP	11/25/2019 16:10	XA1642	M	<0.0002	0.105	42.2	0.0231	<0.000002	0.0086	0.0094		6.31	0.00372	4.43	<0.00002	188	0.445	192	<0.00001	<0.005	<0.005	0.00179	<0.005	0.011	<0.0001
RSEM-R5B-EOP	11/25/2019 16:20	XA1643	D	<0.0002	0.103	43.3	0.0248	<0.000002	0.0086	0.0096		6.49	0.00382	4.46	<0.00002	193	0.454	196	0.000011	<0.005	<0.005	0.00183	<0.005	0.0112	<0.0001
RSEM-R5B-EOP	11/26/2019 15:10	XA1649	M	<0.0002	0.114	47.4	0.0275	<0.000002	0.0094	0.0105		6.62	0.00421	4.64	<0.00002	219	0.496	220	0.000012	<0.005	<0.005	0.00195	<0.005	0.0115	<0.0001
RSEM-R5B-EOP	11/26/2019 15:20	XA1650	D	<0.0002	0.11	46.3	0.0254	<0.000002	0.0093	0.0112		6.59	0.00425	4.58	<0.00002	216	0.493	215	0.000012	<0.005	<0.005	0.0019	<0.005	0.0114	<0.0001
RSEM-R5B-EOP	11/27/2019 14:10	XA4488	M	<0.0002	0.129	50.0	0.0263	<0.000002	0.0104	0.0118		6.73	0.00475	4.8	<0.00002	243	0.574	242	0.000015	<0.005	<0.005	0.00207	<0.005	0.0115	<0.0001
RSEM-R5B-EOP	11/27/2019 14:20	XA4489	D	<0.0002	0.121	49.3	0.027	<0.000002	0.0105	0.0116		6.58	0.00476	4.68	<0.00002	241	0.562	238	0.000015	<0.005	<0.005	0.00199	<0.005	0.0114	<0.0001
RSEM-R5B-EOP	11/28/2019 14:10	XA6241	M	<0.0002	0.129	54.4	0.0269	0.0000023	0.0109	0.0128		6.94	0.0049	4.78	<0.00002	266	0.588	260	0.000017	<0.005	<0.005	0.00219	<0.005	0.0117	<0.0001
RSEM-R5B-EOP	11/28/2019 14:20	XA6242	D	<0.0002	0.128	54.4	0.0269	<0.000002	0.0109	0.0129		7.04	0.00485	4.68	<0.00002	270	0.577	262	0.000017	<0.005	<0.005	0.0022	<0.005	0.0121	<0.0001
RSEM-R5B-EOP	11/29/2019 11:40	XA6568	M	<0.0002	0.137	54.8	0.0254	<0.000002	0.0122	0.0128		7.06	0.00525	4.88	<0.00002	285	0.633	280	0.000014	<0.005	<0.005	0.0023	<0.005	0.0097	<0.0001
RSEM-R5B-EOP	11/29/2019 11:50	XA6569	D	<0.0004	0.135	56.2	0.0261	<0.000002	0.0117	0.0138		7.08	0.00524	4.67	<0.00004	290	0.592	277	<0.00002	<0.01	<0.01	0.00234	<0.01	0.011	<0.0002
RSEM-R5B-EOP	11/30/2019 12:55	XA8973	M	<0.0002	0.138	62.1	0.0281	<0.000002	0.0125	0.0144		7.46	0.00551	5.29	<0.00002	307	0.658	298	0.000016	<0.005	<0.005	0.00287	<0.005	0.0089	<0.0001
RSEM-R5B-EOP	11/30/2019 13:05	XA8974	D	<0.0002	0.135	61.9	0.028	<0.000002	0.0124	0.0145		7.41	0.00551	5.3	<0.00002	304	0.652	291	0.000015	<0.005	<0.005	0.00291	<0.005	0.0089	<0.0001
RSEM-R5B-EOP	12/1/2019 13:50	XA8823	M	<0.0002	0.143	64.7	0.0446	<0.000002	0.0132	0.0231		7.41	0.00579	5.48	<0.00002	329	0.694	312	0.000019	<0.005	<0.005	0.00339	<0.005	0.008	<0.0001
RSEM-R5B-EOP	12/1/2019 14:00	XA8824	D	<0.0002	0.144	64.2	0.0438	<0.000002	0.0133	0.0231		7.42	0.00572	5.44	<0.00002	327	0.698	313	0.000019	<0.005	<0.005	0.00334	<0.005	0.0082	<0.0001
RSEM-R5B-EOP	12/2/2019 12:05	XB0711	M	<0.0002	0.135	68.8	0.0567	<0.000002	0.0137	0.0338		7.60	0.00561	5.63	<0.00002	355	0.683	336	0.000019	<0.005	<0.005	0.00359	<0.005	0.0071	<0.0001
RSEM-R5B-EOP	12/2/2019 12:15	XB0712	D	<0.0002	0.126	68.0	0.0576	<0.000002	0.0134	0.0342		7.46	0.00537	5.28	<0.00002	356	0.663	329	0.000018	<0.005	<0.005	0.0036	<0.005	0.0071	<0.0001
RSEM-R5B-EOP	12/3/2019 11:25	XB3094	M	<0.0002	0.142	60.2	0.0538	<0.000002	0.0135	0.0327		7.27	0.00488	5.9	<0.00002	319	0.734	325	0.000019	<0.005	<0.005	0.00337	<0.005	0.0067	<0.0001
RSEM-R5B-EOP	12/3/2019 11:35	XB3095	D	<0.0002	0.139	60.1	0.0533	<0.000002	0.0135	0.0328		7.38	0.00486	5.83	<0.00002	323	0.731	330	0.000019	<0.005	<0.005	0.00335	<0.005	0.0069	<0.0001
RSEM-R5B-EOP	12/4/2019 12:40	XB4970	M	<0.0004	0.153	63.8	0.0568	<0.000002	0.0136	0.0373		7.46	0.00526	6.22	<0.00004	343	0.717	338	<0.00002	<0.01	<0.01	0.00362	<0.01	<0.01	<0.0002
RSEM-R5B-EOP	12/4/2019 12:50	XB4971	D	<0.0004	0.147	63.3	0.0542	<0.000002	0.0134	0.0369		7.25	0.00494	5.77	<0.00004	340	0.695	323	<0.00002	<0.01	<0.01	0.00358	<0.01	<0.01	<0.0002
RSEM-R5B-EOP	12/5/2019 13:25	XB6929	M	<0.0002	0.142	63.6	0.0501	<0.000002	0.0135	0.0338		7.02	0.00513	5.74	<0.00002	335	0.678	326	0.000017	<0.005	<0.005	0.0038	<0.005	0.0061	<0.0001
RSEM-R5B-EOP	12/5/2019 13:35	XB6930	D	<0.0002	0.143	64.8	0.0521	<0.000002	0.014	0.0348		7.22	0.00522	5.98	<0.00002	340	0.698	334	0.000018	<0.005	<0.005	0.00363	<0.005	0.0062	<0.0001
RSEM-R5B-EOP	12/6/2019 11:45	XB6919	M	<0.0002	0.147	65.5	0.0492	<0.000002	0.0137	0.0332		7.22	0.00521	5.87	<0.00002	349	0.679	337	0.000017	<0.005	<0.005	0.00384	<0.005	0.0061	<0.0001
RSEM-R5B-EOP	12/6/2019 11:55	XB6920	D	<0.0002	0.148	65.8	0.0494	<0.000002	0.0137	0.0332		7.13	0.0052	5.8	<0.00002	352	0.664	332	0.000017	<0.005	<0.005	0.00387	<0.005	0.0062	<0.0001
RSEM-R5B-EOP	12/7/2019 11:50	XB9797	M	<0.0002	0.152	64.9	0.0482	0.0000024	0.0138	0.0327		7.23	0.00504	6.01	<0.00002	342	0.688	328	0.000018	<0.005	<0.005	0.00388	<0.005	0.0066	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	12/7/2019 12:00	XB9798	D	7.70	2350	0.98	1690	3.7	529	541	187	<1.0	229	<1.0	<1.0	73.6	0.707	0.973	1060			0.419				<0.0030
RSEM-R5B-EOP	12/8/2019 11:15	XC0035	M	7.78	2320	1.0	1690	<1.0	541	533	184	<1.0	225	<1.0	<1.0	74.8	0.694	0.982	1030			0.532	0.057	1.19	1.25	<0.0030
RSEM-R5B-EOP	12/8/2019 11:25	XC0036	D	7.75	2330	1.1	1690	1.1	547	536	184	<1.0	225	<1.0	<1.0	73.3	0.711	0.972	1020			0.506	0.051	1.18	1.23	<0.0030
RSEM-R5B-EOP	12/9/2019 10:45	XB9974	M	7.75	2300	0.80	1710	3.5	550	525	183	<1.0	223	<1.0	<1.0	75.4	0.677	0.965	1020			0.891	0.054	1.21	1.27	<0.0030
RSEM-R5B-EOP	12/9/2019 10:55	XB9975	D	8.07	2330	0.79	1660	5.6	543	529	186	<1.0	228	<1.0	<1.0	71.9	0.680	0.961	1020			0.890	0.053	1.19	1.24	<0.0030
RSEM-R5B-EOP	12/10/2019 11:20	XC4116	M	7.82	2270	0.96	1630	3.1	529	493	192	<1.0	234	<1.0	<1.0	73.6	0.607	0.936	958			0.466	0.047	1.27	1.32	0.0036
RSEM-R5B-EOP	12/10/2019 11:30	XC4117	D	7.83	2260	0.86	1670	4.1	515	496	190	<1.0	232	<1.0	<1.0	75.8	0.613	0.953	970			0.571	0.051	1.27	1.32	<0.0030
RSEM-R5B-EOP	12/11/2019 13:40	XC6933	M	7.96	2220	1.2	1640	2.9	490	503	199	<1.0	243	<1.0	<1.0	73.5	0.679	0.947	919			1.30	0.038	1.21	1.25	<0.0030
RSEM-R5B-EOP	12/11/2019 13:50	XC6934	D	7.97	2220	1.5	1640	3.9	512	506	196	<1.0	239	<1.0	<1.0	73.8	0.691	0.965	916			1.29	0.059	1.24	1.30	<0.0030
RSEM-R5B-EOP	12/12/2019 11:50	XC8843	M	7.84	2220	0.99	1620	3.7	548	561	205	<1.0	250	<1.0	<1.0	72.6	0.641	0.880	869			0.475	0.046	1.27	1.32	<0.0030
RSEM-R5B-EOP	12/12/2019 12:00	XC8844	D	7.90	2230	0.89	1670	2.4	534	589	201	<1.0	245	<1.0	<1.0	73.4	0.636	0.883	864			1.28	0.050	1.31	1.36	<0.0030
RSEM-R5B-EOP	12/13/2019 14:00	XD3143	M	7.85	2140	0.66	1480	<1.0	507	536	211	<1.0	258	<1.0	<1.0	69.3	0.618	0.987	792			0.377	0.030	1.22	1.25	0.0030
RSEM-R5B-EOP	12/13/2019 14:10	XD3144	D	7.85	2140	1.1	1450	1.1	532	554	211	<1.0	258	<1.0	<1.0	68.5	0.589	0.982	775			0.325	0.032	1.19	1.22	0.0032
RSEM-R5B-EOP	12/14/2019 11:50	XD1661	M	8.04	2080	0.67	1370	3.7	533	522	217	<1.0	264	<1.0	<1.0	70.6	0.579	0.937	777			0.342	0.028	1.18	1.21	<0.0030
RSEM-R5B-EOP	12/14/2019 12:00	XD1662	D	7.87	2090	0.60	1340	2.8	539	516	216	<1.0	263	<1.0	<1.0	70.8	0.579	0.937	730			0.368	0.026	1.16	1.19	<0.0030
RSEM-R5B-EOP	12/15/2019 11:50	XD3218	M	7.99	2020	1.7	1410	<1.0	520	516	222	<1.0	271	<1.0	<1.0	66.7	0.573	0.890	699			0.587	0.028	1.16	1.19	<0.0030
RSEM-R5B-EOP	12/15/2019 12:00	XD3219	D	7.92	1990	1.2	1330	2.3	491	497	218	<1.0	266	<1.0	<1.0	65.2	0.570	0.890	699			0.210	0.029	1.19	1.22	0.0033
RSEM-R5B-EOP	12/16/2019 17:10	XD3849	M	7.89	1880	1.3	1360	3.3	430	425	231	<1.0	281	<1.0	<1.0	64.2	0.505	0.876	645			0.346	0.016	1.11	1.12	<0.0030
RSEM-R5B-EOP	12/16/2019 17:20	XD3850	D	7.90	1890	1.4	1430	2.0	427	424	230	<1.0	281	<1.0	<1.0	63.5	0.507	0.870	628			0.311	<0.010	1.06	1.06	<0.0030
RSEM-R5B-EOP	12/17/2019 12:50	XD5462	M	8.00	1830	1.0	1290	2.4	415	410	230	<1.0	280	<1.0	<1.0	62.4	0.527	0.859	646			0.614	<0.010	0.966	0.966	0.0031
RSEM-R5B-EOP	12/17/2019 13:00	XD5463	D	7.99	1820	1.1	1230	<1.0	418	427	231	<1.0	281	<1.0	<1.0	64.4	0.505	0.862	639			0.615	0.014	0.994	1.01	<0.0030
RSEM-R5B-EOP	12/18/2019 12:20	XD7326	M	7.93	1780	1.0	1260	3.7	410	416	230	<1.0	280	<1.0	<1.0	62.9	0.457	0.807	619			0.620	0.049	1.12	1.17	<0.0030
RSEM-R5B-EOP	12/18/2019 12:30	XD7327	D	7.92	1790	1.2	1270	2.6	385	396	229	<1.0	279	<1.0	<1.0	64.1	0.453	0.806	619			0.532	<0.010	0.951	0.951	<0.0030
RSEM-R5B-EOP	12/19/2019 12:20	XD9296	M	7.91	1720	1.2	1130	4.0	348	360	223	<1.0	272	<1.0	<1.0	58.9	0.468	0.771	562			0.598	0.033	0.986	1.02	<0.0030
RSEM-R5B-EOP	12/19/2019 12:30	XD9297	D	7.86	1720	0.99	1150	3.5	349	357	223	<1.0	272	<1.0	<1.0	58.1	0.472	0.801	555			0.623	0.033	0.983	1.02	<0.0030
RSEM-R5B-EOP	12/20/2019 11:40	XD9300	M	7.82	1630	1.4	1100	3.9	329	343	222	<1.0	271	<1.0	<1.0	55.5	0.451	0.755	515			0.564	0.033	0.960	0.993	<0.0030
RSEM-R5B-EOP	12/20/2019 11:50	XD9301	D	7.87	1630	0.98	1080	3.9	328	346	224	<1.0	273	<1.0	<1.0	58.0	0.446	0.772	517			0.570	0.033	0.961	0.994	<0.0030
RSEM-R5B-EOP	12/21/2019 12:45	XE2845	M	7.97	1560	1.3	1020	3.5	340	345	229	<1.0	280	<1.0	<1.0	56.2	0.437	0.693	495			0.488	0.029	0.979	1.01	<0.0030
RSEM-R5B-EOP	12/21/2019 12:55	XE2846	D	7.91	1550	0.96	1040	3.9	340	346	234	<1.0	285	<1.0	<1.0	53.8	0.435	0.679	493			0.490	0.033	0.984	1.02	0.0031
RSEM-R5B-EOP	12/22/2019 11:10	XE2822	M	7.94	1510	1.4	992	3.8	321	336	237	<1.0	290	<1.0	<1.0	52.8	0.414	0.664	466			0.469	0.026	0.941	0.968	0.0032
RSEM-R5B-EOP	12/22/2019 11:20	XE2823	D	7.87	1500	1.1	1010	3.5	335	341	238	<1.0	291	<1.0	<1.0	52.8	0.427	0.663	465			0.467	0.027	0.958	0.985	<0.0030
RSEM-R5B-EOP	12/23/2019 10:00	XE3021	M	7.83	1490	1.1	960	2.5	329	335	239	<1.0	292	<1.0	<1.0	54.8	0.404	0.652	434			0.454	0.024	0.928	0.951	<0.0030
RSEM-R5B-EOP	12/23/2019 10:10	XE3022	D	7.86	1490	0.98	956	3.1	332	336	240	<1.0	293	<1.0	<1.0	54.0	0.414	0.653	449			0.442	0.024	0.934	0.958	<0.0030
RSEM-R5B-EOP	12/24/2019 10:12	XE3578	D	8.20	1470	1.1	980	4.8	327	334	228	<1.0	278	<1.0	<1.0	57.4	0.390	0.693	368			0.458	0.0261	0.982	1.01	<0.0030
RSEM-R5B-EOP	12/24/2019 10:15	XE3577	M	8.21	1470	1.1	988	3.2	321	338	228	<1.0	279	<1.0	<1.0	59.9	0.390	0.676	439			0.471	0.0264	0.976	1.00	<0.0030
RSEM-R5B-EOP	12/25/2019 14:25	XE3941	M	7.94	1460	1.4	940	3.1	319	324	236	<1.0	289	<1.0	<1.0	49.6	0.386	0.698	417			0.421	0.027	0.975	1.00	<0.0030
RSEM-R5B-EOP	12/25/2019 14:40	XE3942	D	7.87	1460	1.3	952	3.1	325	320	239	<1.0	291	<1.0	<1.0	51.7	0.386	0.669	417			0.443	0.026	0.978	1.00	<0.0030
RSEM-R5B-EOP	12/26/2019 12:50	XE3945	M	7.89	1440	1.1	936	2.3	330	325	237	<1.0	290	<1.0	<1.0	49.6	0.379	0.672	405			0.400	0.025	0.988	1.01	0.0033
RSEM-R5B-EOP	12/26/2019 13:00	XE3946	D	7.84	1440	1.2	952	2.7	322	327	239	<1.0	291	<1.0	<1.0	53.6	0.382	0.669	406			0.399	0.026	1.00	1.03	<0.0030
RSEM-R5B-EOP	12/27/2019 11:00	XE3951	M	7.83	1440	1.2	924	3.3	326	327	240	<1.0	293	<1.0	<1.0	51.0	0.375	0.673	403			0.417	0.024	1.01	1.03	<0.0030
RSEM-R5B-EOP	12/27/2019 11:10	XE3952	D	7.89	1440	1.3	924	1.6	324	330	243	<1.0	297	<1.0	<1.0	50.7	0.374	0.671	404			0.408	0.024	1.01	1.03	<0.0030
RSEM-R5B-EOP	12/28/2019 13:30	XE5441	M	8.08	1410	2.0	828	2.3	323	322	256	<1.0	313	<1.0	<1.0	51.3	0.379	0.642	396			0.400	0.026	1.01	1.03	0.0032
RSEM-R5B-EOP	12/28/2019 13:40	XE5442	D	8.06	1420	1.9	864	2.5	312	322	255	<1.0	311	<1.0	<1.0	51.2	0.377	0.627	398			0.385	0.025	0.989	1.01	<0.0030
RSEM-R5B-EOP	12/29/2019 13:30	XE5389	M	8.10	1430	1.9	916	2.5	316	319	250	<1.0	305	<1.0	<1.0	52.9	0.388	0.656	410			0.408	0.026	0.995	1.02	<0.0030
RSEM-R5B-EOP	12/29/2019 13:40	XE5390	D	8.10	1430	2.2	920	1.7	321	318	253	<1.0	309	<1.0	<1.0	51.6	0.382	0.623	410			0.403	0.026	0.984	1.01	<0.0030
RSEM-R5B-EOP	12/30/2019 10:30	XE5421	M	8.13	1400	1.1	905	2.8	318	323	258	<1.0	315	<1.0	<1.0	51.1	0.370	0.678	383			0.379	0.024	1.02	1.04	<0.0030
RSEM-R5B-EOP	12/30/2019 10:40	XE5422	D	8.08	1400	1.1	899	2.2	320	325	257	<1.0	314	<1.0	<1.0	50.2	0.369	0.666	391			0.392	0.023	1.01	1.03	<0.0030
RSEM-R5B-EOP	12/31/2019 10:30	XE7173	M	7.99	1400	0.83	904	1.9	320	324	256	<1.0	312	<1.0	<1.0	52.4	0.368	0.657	361			0.363	0.021	0.969	0.990	0.0030
RSEM-R5B-EOP	12/31/2019 10:45	XE7174	D	8.01	1410	1.2	888	2.1	326	335	258	<1.0	314	<1.0	<1.0	53.3	0.370	0.653	358			0.370	0.021	0.971	0.992	0.0032
RSEM-R5B-SP	2/4/2019 13:22	VE6893	M	8.28	1950	1.39	1260	<4.0	311	323	322	<1.0	392	<1.0	<1.0	108	0.600	1.6	547			0.53	0.141	1.65	1.79	0.0033
RSEM-R5B-SP	2/5/2019 11:15	VE6875	M	8.22	2590	1.36	1720	<4.0	422	447	443	<1.0	540	<1.0	<1.0	147	0.760	2.3	741			0.70	0.159	2.55	2.71	0.0039
RSEM-R5B-SP	2/6/2019 14:15	VE9932	M	7.88	772	0.58	398	<4.0	120	127	112	<1.0	136	<1.0	<1.0	38.5	0.270	0.66	193			0.24	0.0464	0.648	0.694	0.0035
RSEM-R5B-SP	2/7/2019 12:00	VF0006	M	7.94	665	0.70	350	<4.0	99.1	106	98.3	<1.0	120	<1.0	<1.0	28.9	0.250	0.43	166			0.18	0.0386	0.565	0.604	<0.0030
RSEM-R5B-SP	3/4/2019 15:20	VI1286	M	8.19	952	1.61	580	<4.0	325	334	342	<1.0	418	<1.0	<1.0	39.6	0.220	0.38	131			0.12	0.0089	0.935	0.944	<0.0050
RSEM-R5B-SP	3/5/2019 13:40	VI1637	D	8.24	983	1.18	628	<4.0	354	368	358	<1.0	436	<1.0	<1.0	35.7	0.240	0.38	146			0.13	0.0073	0.964	0.972	<0.0050
RSEM-R5B-SP	3/5/2019 13:40	VI1636	M	8.25	976	1.20	618	<4.0	347	360	351	<1.0	428	<1.0	<1.0	36.4	0.220	0.38	144			0.14	0.0067	0.974	0.980	<0.0050
RSEM-R5B-SP	3/6/2019 15:10	VI3122	M	8.22	1000	1.71	618	2.0	331	326	355	<1.0	433	<1.0	<1.0	36.2	0.250	0.37	153			0.15	0.0067	0.989	0.995	0.0053
RSEM-R5B-SP	3/7/2019 15:45	VI4427	D	8.19	1030	0.54	640	1.9	355	364	355	<1.0	433	<1.0	<1.0	38.1	0.260	0.36	152			0.14	0.0083	1.04	1.05	0.0063
RSEM-R5B-SP	3/7/2019 15:45	VI4425	M	8.19	1040	1.16	640	2.4	359	351	362	<1.0	442	<1.0	<1.0	38.9	0.280	0.40	143			0.16	0.0100	1.03	1.04	0.0062
RSEM-R5B-SP	6/14/2019 9:20	VW9967	M	7.98	1310	1.00	820	<4.0	207	216	127	<1.0	155	<1.0	<1.0	40.2	0.400	0.63	394			0.016	<0.0050	<0.020	<0.020	<0.0050
RSEM-R5B-SP	6/15/2019 12:00	VX3565	M	8.04	1260	0.87	768	<4.0	206	213	123	<1.0	150	<1.0	<1.0	32.5	0.410	0.62	387			0.040	<0.0050	<0.020	<0.020	<0.0050
RSEM-R5B-SP	6/16/2019 12:10	VX3550	M	8.22	1640	5.7	1070	5.2	277	281	128	<1.0	156	<1.0	<1.0	61.7	0.630	1.3	462			0.088	0.0277	1.08	1.11	<0.0050
RSEM-R5B-SP	6/17/2019 11:45	VX5942	M	8.03	1290	0.88	810	<4.0	201	200	125	<1.0	153	<1.0	<1.0	37.0	0.400	0.63	426			0.025	<0.0050	<0.020	<0.020	<0.0050
RSEM-R5B-SP	6/18/2019 11:25	VX8830	M	8.16	1280	1.17	828	<4.0	203	207	120	<1.0	147	<1.0	<1.0	42.5	0.420	0.62	423			<0.015	<0.0050	<0.020	<0.020	<0.0050
RSEM-R5B-SP	6/19/2019 10:45	VY1841	M	8.23	1290	1.40	832	<4.0	207	210	126	<1.0	154	<1.0	<1.0	42	0.420	0.63	400			0.016	<0.0050	<0.020	<0.020	<0.0050
RSEM-R5B-SP	6/20/2019 10:50	VY4149	M	8.37	1290	2.26	844	1.2	213	213	129	1.7	153	2.1	<1.0	42	0.420	0.61	390			<0.015	<0.0050	<0.020	<0.020	<0.0050
RSEM-R5B-SP	6/21/2019 9:00	VY4160	M	8.38	1270	1.96	802	<4.0	216	216	135	1.5	161	1.8	<1.0	42.0	0.420	0.63	400			0.017	<0.0050	<0.020	<0.020	<0.0050
RSEM-R5B-SP	10/10/2019 13:10	WR7645	M	8.41	1700	0.99	1100	3.9	344	357	180	2.4	210	2.9	<1.0	46	0.37	0.73	610			0.12	0.040	0.82	0.86	<0.0030
RSEM-R5B-SP	10/12/2019 11:25	WR9608	M	8.20	1600	0.86	1100	<4.0	339	353	180	<1.0	220	<1.0	<1.0	49	0.37	0.73	620			0.11	0.0416	0.776	0.817	<0.0030
RSEM-R5B-W	10/25/2019 14:00	WU5353	M	8.01	906	>4000	652	4260	782	369	130	<1.0	160	<1.0	<1.0	30	0.36	0.54	290			0.14	0.0193	0.917	0.936	0.014
RSEM-R6E-EOP	3/14/2019 16:17	VJ4047	M	7.73	571	26.3	330	30.0	175	175	80.7	<1.0	98.5	<1.0	<1.0	83.7	0.180	0.62	76.3			0.49	0.239	0.720	0.960	0.0332
RSEM-R6E-EOP	3/15/2019 10:30	VJ4025	M	7.91	564	21.4	330	12.4	163	174	74.1	<1.0	90.5	<1.0	<1.0	87.9	0.260	0.64	73.5			0.34	0.0668	0.544	0.610	0.0119
RSEM-R6E-EOP	3/16/2019 12:55	VJ7198	M	7.73	500	28.6	300	15.2	152	154	62.1	<1.0	75.7	<1.0	<1.0	82.5	0.210	0.77	58.6			0.27	0.0573	0.358	0.416	<0.0050
RSEM-R6E-EOP	3/17/2019 11:25	VJ7214	M	7.75	532	21.7	322	14.0	167	170	67.9	<1.0	82.9	<1.0	<1.0	83.1	0.210	0.78	59.9			0.24	0.0563	0.466	0.522	<0.0050
RSEM-R6E-EOP	3/18/2019 12:11	VJ6959	M	7.55	453	39.4	264	36.8	147	144	56.5	<1.0	68.9	<1.0	<1.0	69.8	0.220	0.70	52.9			0.22	0.0480	0.384	0.432	<0.0050
RSEM-R6E-EOP	3/19/2019 13:30	VK0938	D	7.68	481	28.3	286	18.4	153	148	50.3	<1.0	61.4	<1.0	<1.0	72.2	0.250	0.75	69.4			0.25	0.0297	0.337	0.366	<0.0050

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	12/7/2019 12:00	XB9798	D	4.50	4.14	0.0282	0.00149	0.00074	0.0547	<0.0001	<0.001	0.216	0.000038	111	0.0011	0.0034	0.00092	0.039	<0.0002	0.147	60.7	0.0515	<0.000002	0.0138	0.0334		7.11	0.00469
RSEM-R5B-EOP	12/8/2019 11:15	XC0035	M	4.42	4.59	0.0256	0.0015	0.00071	0.0527	<0.0001	<0.001	0.221	0.000046	109	0.0011	0.00322	0.00092	0.033	<0.0002	0.148	65.4	0.0456	<0.000002	0.0137	0.0314		6.93	0.00511
RSEM-R5B-EOP	12/8/2019 11:25	XC0036	D	3.84	4.25	0.0268	0.00151	0.00074	0.0527	<0.0001	<0.001	0.222	0.000039	108	0.0011	0.00331	0.00091	0.033	<0.0002	0.15	67.1	0.0465	<0.000002	0.0134	0.0319		7.10	0.00495
RSEM-R5B-EOP	12/9/2019 10:45	XB9974	M	4.42	4.18	0.0288	0.0015	0.00073	0.0509	<0.0001	<0.001	0.228	0.000037	108	0.0011	0.00288	0.00091	0.031	<0.0002	0.159	67.9	0.0413	<0.000002	0.0134	0.0286		7.24	0.00507
RSEM-R5B-EOP	12/9/2019 10:55	XB9975	D	4.40	4.34	0.0262	0.0015	0.00076	0.0505	<0.0001	<0.001	0.228	0.000043	107	0.001	0.00287	0.0009	0.032	<0.0002	0.156	66.7	0.0407	<0.000002	0.0136	0.0281		7.10	0.00504
RSEM-R5B-EOP	12/10/2019 11:20	XC4116	M	4.06	4.37	0.0223	0.00145	0.00065	0.0451	<0.0001	<0.001	0.219	0.000037	104	<0.001	0.00217	0.00092	0.03	<0.0002	0.13	65.4	0.032	<0.000002	0.0122	0.0226		6.86	0.00471
RSEM-R5B-EOP	12/10/2019 11:30	XC4117	D	3.95	3.51	0.0222	0.00146	0.00065	0.0441	<0.0001	<0.001	0.205	0.000034	102	<0.001	0.00224	0.00091	0.031	<0.0002	0.116	63.1	0.033	0.0000034	0.0122	0.0235		6.78	0.00459
RSEM-R5B-EOP	12/11/2019 13:40	XC6933	M	3.60	3.67	0.0238	0.00136	0.00072	0.0433	<0.0001	<0.001	0.223	0.000028	101	<0.001	0.00175	0.00083	0.022	<0.0002	0.154	57.8	0.0265	<0.000002	0.012	0.0192		6.52	0.00451
RSEM-R5B-EOP	12/11/2019 13:50	XC6934	D	3.65	3.73	0.0222	0.00139	0.00071	0.0435	<0.0001	<0.001	0.228	0.00003	104	<0.001	0.00181	0.00087	0.024	<0.0002	0.156	61.3	0.0267	<0.000002	0.0123	0.0198		6.75	0.00478
RSEM-R5B-EOP	12/12/2019 11:50	XC8843	M	3.52	3.14	0.0214	0.00147	0.00073	0.0433	<0.0001	<0.001	0.218	0.000037	115	0.001	0.00186	0.00094	0.029	<0.0002	0.159	63.7	0.0279	<0.000002	0.0118	0.021		7.34	0.00425
RSEM-R5B-EOP	12/12/2019 12:00	XC8844	D	3.59	3.36	0.0197	0.00145	0.00069	0.0429	<0.0001	<0.001	0.208	0.000034	110	0.001	0.00176	0.00089	0.029	<0.0002	0.153	62.8	0.0272	<0.000002	0.0114	0.0202		7.29	0.00455
RSEM-R5B-EOP	12/13/2019 14:00	XD3143	M	3.34	2.70	0.0224	0.00141	0.00071	0.0455	<0.0001	<0.001	0.203	0.000037	97.6	0.001	0.00148	0.00094	0.024	<0.0002	0.153	63.9	0.0231	<0.000002	0.0113	0.0176		7.34	0.00399
RSEM-R5B-EOP	12/13/2019 14:10	XD3144	D	3.45	2.85	0.0277	0.00136	0.00075	0.0437	<0.0001	<0.001	0.2	0.00003	108	<0.001	0.00152	0.00092	0.025	<0.0002	0.151	63.5	0.0236	<0.000002	0.0111	0.0177		7.66	0.00427
RSEM-R5B-EOP	12/14/2019 11:50	XD1661	M	2.99	2.44	0.0258	0.00138	0.00077	0.0447	<0.0001	<0.001	0.201	0.000033	107	<0.001	0.00138	0.00098	0.031	<0.0002	0.148	64.7	0.0233	<0.000002	0.0109	0.017		7.36	0.00426
RSEM-R5B-EOP	12/14/2019 12:00	XD1662	D	3.50	2.52	0.0272	0.00137	0.00075	0.0453	<0.0001	<0.001	0.201	0.000036	115	<0.001	0.00128	0.00091	0.031	<0.0002	0.147	61.1	0.0221	<0.000002	0.0107	0.0159		6.94	0.00432
RSEM-R5B-EOP	12/15/2019 11:50	XD3218	M	2.48	2.48	0.0259	0.00134	0.00076	0.0485	<0.0001	<0.001	0.195	0.000034	109	0.0013	0.00124	0.00106	0.064	<0.0002	0.144	59.8	0.0234	<0.000002	0.01	0.0149		7.11	0.00399
RSEM-R5B-EOP	12/15/2019 12:00	XD3219	D	2.83	2.48	0.0291	0.00141	0.00076	0.0511	<0.0001	<0.001	0.196	0.000029	102	<0.001	0.00119	0.00099	0.046	<0.0002	0.144	57.3	0.0228	<0.000002	0.0103	0.0146		7.07	0.00403
RSEM-R5B-EOP	12/16/2019 17:10	XD3849	M	2.65	2.63	0.0328	0.00126	0.00073	0.0543	<0.0001	<0.001	0.18	0.000023	84.7	0.0043	0.00106	0.001	0.081	<0.0002	0.117	53.2	0.0213	<0.000002	0.0092	0.0132		5.92	0.00394
RSEM-R5B-EOP	12/16/2019 17:20	XD3850	D	2.57	2.32	0.0372	0.0012	0.00072	0.0526	<0.0001	<0.001	0.178	0.000026	83.3	<0.001	0.00098	0.001	0.062	<0.0002	0.117	53.2	0.0215	<0.000002	0.009	0.0118		5.90	0.00391
RSEM-R5B-EOP	12/17/2019 12:50	XD5462	M	2.51	2.43	0.0348	0.00126	0.00079	0.0549	<0.0001	<0.001	0.184	0.000025	86.4	<0.001	0.00093	0.001	0.061	<0.0002	0.128	48.5	0.0205	<0.000002	0.0092	0.0114		6.00	0.0037
RSEM-R5B-EOP	12/17/2019 13:00	XD5463	D	2.70	2.38	0.0432	0.00123	0.00077	0.0543	<0.0001	<0.001	0.184	0.000031	87.3	<0.001	0.00097	0.00112	0.059	<0.0002	0.128	48.7	0.0212	<0.000002	0.0089	0.0116		5.95	0.00376
RSEM-R5B-EOP	12/18/2019 12:20	XD7326	M	2.86	2.87	0.0286	0.00122	0.00078	0.0515	<0.0001	<0.001	0.187	0.000021	82.5	<0.001	0.00086	0.00104	0.051	<0.0002	0.13	49.5	0.02	<0.000002	0.0084	0.0114		5.85	0.00347
RSEM-R5B-EOP	12/18/2019 12:30	XD7327	D	2.78	2.40	0.0342	0.00121	0.00074	0.053	<0.0001	<0.001	0.183	0.000024	80.7	<0.001	0.00084	0.00099	0.05	<0.0002	0.131	44.6	0.0188	<0.000002	0.0085	0.0104		5.42	0.00356
RSEM-R5B-EOP	12/19/2019 12:20	XD9296	M	2.93	2.08	0.027	0.0011	0.00073	0.0526	<0.0001	<0.001	0.166	0.000022	65.2	<0.001	0.00081	0.00098	0.042	<0.0002	0.109	45.0	0.0176	0.0000024	0.008	0.0098		5.02	0.00318
RSEM-R5B-EOP	12/19/2019 12:30	XD9297	D	2.85	2.56	0.029	0.00112	0.0007	0.0519	<0.0001	<0.001	0.17	0.000023	64.4	<0.001	0.00084	0.00101	0.042	<0.0002	0.108	45.7	0.0176	<0.000002	0.008	0.0099		5.01	0.00314
RSEM-R5B-EOP	12/20/2019 11:40	XD9300	M	2.39	2.23	0.0296	0.00104	0.00076	0.054	0.0001	<0.001	0.16	0.000128	61.6	0.001	0.00082	0.00108	0.044	<0.0002	0.101	42.5	0.0175	<0.000002	0.0073	0.0094		4.67	0.00305
RSEM-R5B-EOP	12/20/2019 11:50	XD9301	D	2.32	2.37	0.0274	0.00101	0.00069	0.0528	<0.0001	<0.001	0.163	0.000022	61.2	<0.001	0.00078	0.00102	0.043	<0.0002	0.101	42.7	0.0172	<0.000002	0.0073	0.0095		4.68	0.00294
RSEM-R5B-EOP	12/21/2019 12:45	XE2845	M	2.65	2.53	0.0382	0.00098	0.00074	0.0536	<0.0001	<0.001	0.161	0.000021	65.3	<0.001	0.00076	0.00108	0.037	<0.0002	0.105	42.9	0.0165	0.0000021	0.0068	0.0098		4.61	0.00287
RSEM-R5B-EOP	12/21/2019 12:55	XE2846	D	2.75	2.79	0.043	0.00098	0.00073	0.0525	<0.0001	<0.001	0.161	0.000022	64.3	<0.001	0.00079	0.00113	0.039	<0.0002	0.102	43.7	0.0166	<0.000002	0.0069	0.01		4.69	0.00292
RSEM-R5B-EOP	12/22/2019 11:10	XE2822	M	3.14	2.25	0.0324	0.0009	0.0007	0.0488	<0.0001	<0.001	0.153	0.000021	61.3	<0.001	0.00068	0.00106	0.036	<0.0002	0.0996	40.7	0.0145	<0.000002	0.0063	0.0091		4.43	0.0027
RSEM-R5B-EOP	12/22/2019 11:20	XE2823	D	3.17	1.96	0.0348	0.00094	0.00074	0.0497	<0.0001	<0.001	0.16	0.000022	64.1	<0.001	0.00069	0.00111	0.038	<0.0002	0.1	42.6	0.0146	<0.000002	0.0065	0.0094		4.55	0.00284
RSEM-R5B-EOP	12/23/2019 10:00	XE3021	M	2.30	3.01	0.0293	0.00092	0.00073	0.0468	<0.0001	<0.001	0.157	0.000022	62.7	<0.001	0.00065	0.00107	0.037	<0.0002	0.0992	41.9	0.0133	<0.000002	0.0064	0.0096		4.49	0.00276
RSEM-R5B-EOP	12/23/2019 10:10	XE3022	D	2.72	2.38	0.0259	0.00092	0.00076	0.0469	<0.0001	<0.001	0.163	0.000024	62.2	<0.001	0.00066	0.00108	0.033	<0.0002	0.099	43.0	0.0134	<0.000002	0.0065	0.0095		4.53	0.00284
RSEM-R5B-EOP	12/24/2019 10:12	XE3578	D	2.65	1.8	0.0316	0.0009	0.00073	0.0449	<0.0001	<0.001	0.158	0.00002	62.8	<0.001	0.00061	0.00105	0.036	<0.0002	0.101	41.2	0.0124	<0.000002	0.0063	0.0094		4.46	0.00274
RSEM-R5B-EOP	12/24/2019 10:15	XE3577	M	3.04	2.6	0.0291	0.00089	0.00076	0.0449	<0.0001	<0.001	0.156	0.00002	61.3	<0.001	0.00061	0.00103	0.035	<0.0002	0.0983	40.7	0.0123	<0.000002	0.0064	0.0092		4.42	0.00275
RSEM-R5B-EOP	12/25/2019 14:25	XE3941	M	2.18	2.40	0.03	0.00094	0.0008	0.042	<0.0001	<0.001	0.161	0.000019	62.8	0.0011	0.00055	0.00095	0.032	<0.0002	0.0951	39.4	0.0113	<0.000002	0.0067	0.0092		4.31	0.00285
RSEM-R5B-EOP	12/25/2019 14:40	XE3942	D	2.26	2.31	0.0275	0.00091	0.00081	0.0427	<0.0001	<0.001	0.165	0.000022	63.8	<0.001	0.00056	0.00097	0.031	<0.0002	0.0975	40.3	0.0115	<0.000002	0.0067	0.0093		4.31	0.00289
RSEM-R5B-EOP	12/26/2019 12:50	XE3945	M	2.48	2.32	0.0232	0.00091	0.00082	0.0415	<0.0001	<0.001	0.168	0.00002	65.3	<0.001	0.00053	0.001	0.028	<0.0002	0.096	40.6	0.0108	<0.000002	0.0066	0.0094		4.40	0.00298
RSEM-R5B-EOP	12/26/2019 13:00	XE3946	D	2.61	2.29	0.0267	0.00088	0.00079	0.0412	<0.0001	<0.001	0.16	0.000017	63.9	<0.001	0.00052	0.00096	0.026	<0.0002	0.0926	39.5	0.0106	<0.000002	0.0067	0.0092		4.29	0.00289
RSEM-R5B-EOP	12/27/2019 11:00	XE3951	M	2.30	2.26	0.0281	0.00088	0.00082	0.0408	<0.0001	<0.001	0.168	0.000016	64.7	0.001	0.0005	0.00095	0.027	<0.0002	0.0956	39.8	0.0102	<0.000002	0.0065	0.0091		4.39	0.00294
RSEM-R5B-EOP	12/27/2019 11:10	XE3952	D	2.08	2.39	0.028	0.00089	0.00083	0.0407	<0.0001	<0.001	0.164	0.000019	64.6	<0.001	0.00049	0.00094	0.028	<0.0002	0.093	39.6	0.0099	<0.000002	0.0066	0.0089		4.34	0.00294
RSEM-R5B-EOP	12/28/2019 13:30	XE5441	M	2.03	1.54	0.0306	0.00086	0.00082	0.0405	<0.0001	<0.001	0.153	0.000017	63.4	0.0018	0.00048	0.00106	0.045	<0.0002	0.0912	40.1	0.0094	0.0000025	0.0065	0.009		4.46	0.00273
RSEM-R5B-EOP	12/28/2019 13:40	XE5442	D	1.98	1.60	0.0338	0.00083	0.0008	0.0395	<0.0001	<0.001	0.159	0.00002	61.4	0.0011	0.00045	0.00097	0.03	<0.0002	0.0902	38.5	0.009	<0.000002	0.0064	0.0085		4.34	0.00271
RSEM-R5B-EOP	12/29/2019 13:30	XE5389	M	2.30	1.79	0.0276	0.00086	0.00084	0.0407	<0.0001	<0.001	0.159	0.000018	61.5	0.0014	0.0005	0.001	0.035	<0.0002	0.0937	39.4	0.0098	<0.000002	0.0065	0.0091		4.43	0.00275
RSEM-R5B-EOP	12/29/2019 13:40	XE5390	D	2.29	1.79	0.0283	0.00087	0.00083	0.0408	<0.0001	<0.001	0.163	0.000017	62.4	0.0011	0.00051	0.00102	0.031	<0.0002	0.0955	40.1	0.0098	0.0000022	0.0067	0.0091		4.46	0.00273
RSEM-R5B-EOP	12/30/2019 10:30	XE5421	M	2.16	1.79	0.0313	0.00083	0.00079	0.0404	<0.0001	<0.001	0.157	0.000019	63.2	0.0011	0.00044	0.00112	0.031	<0.0002	0.0891	38.8	0.0088	0.0000021	0.0064	0.0086		4.39	0.00272
RSEM-R5B-EOP	12/30/2019 10:40	XE5422	D	1.77	1.67	0.0286	0.00084	0.00076	0.0406	<0.0001	<0.001	0.157	0.000019	63.6	0.0012	0.00045	0.00097	0.031	<0.0002	0.0885	39.3	0.0088	0.0000028	0.0064	0.0085		4.46	0.00274
RSEM-R5B-EOP	12/31/2019 10:30	XE7173	M	2.75	2.63	0.0428	0.00081	0.0008	0.0396	<0.0001	<0.001	0.154	0.00002	64.4	0.0012	0.00042	0.00095	0.029	<0.0002	0.0854	38.8	0.0084	0.0000028	0.0064	0.0083		4.42	0.00279
RSEM-R5B-EOP	12/31/2019 10:45	XE7174	D	1.78	2.31	0.0361	0.00081	0.00082	0.0414	<0.0001	<0.001	0.152	0.000018	65.9	0.0014	0.00043	0.00095	0.029	<0.0002	0.0877	39.3	0.0085	<0.000002	0.0064	0.0084		4.48	0.00277
RSEM-R5B-SP	2/4/2019 13:22	VE6893	M	4.4	6.0	0.0972	0.00215	0.00193	0.0319	<0.0001	<0.001	0.272	0.000202	52.8	0.0022	0.00388	0.0027	0.049	<0.0002	0.108	43.6	0.0437	<0.000002	0.0279	0.0264		7.95	0.00584
RSEM-R5B-SP	2/5/2019 11:15	VE6875	M	5.9	7.7	0.118	0.00296	0.00261	0.0441	<0.0001	<0.001	0.371	0.000262	71.6	0.003	0.00516	0.00359	0.049	<0.0002	0.151	58.9	0.0574	<0.000002	0.0378	0.0356		11.6	0.00767
RSEM-R5B-SP	2/6/2019 14:15	VE9932	M	2.5	0.90	0.0809	0.00093	0.00083	0.0163	<0.0001	<0.001	0.099	0.000083	20.6	<0.001	0.00142	0.00188	0.103	<0.0002	0.0361	16.7	0.0171	<0.000002	0.0103	0.0103		3.18	0.00235
RSEM-R5B-SP	2/7/2019 12:00	VF0006	M	2.2	1.6	0.069	0.00121	0.00073	0.0156	<0.0001	<0.001	0.082	0.000061	16.7	<0.001	0.00108	0.00196	0.075	<0.0002	0.0301	13.9	0.0141	<0.000002	0.0084	0.0086		2.43	0.00202
RSEM-R5B-SP	3/4/2019 15:20	VI1286	M	2.2	2.6	0.0338	<0.0005	0.00041	0.123	<0.0001	<0.001	0.068	0.00002	84.2	<0.001	0.00054	0.00267	0.052	<0.0002	0.0641	27.9	0.027	<0.000002	0.0055	0.006		3.30	0.00229
RSEM-R5B-SP	3/5/2019 13:40	VI1637	D	2.0	2.6	0.0494	<0.0005	0.00045	0.12	<0.0001	<0.001	0.075	0.000028	93.5	<0.001	0.00066	0.00422	0.054	<0.0002	0.0723	29.3	0.0293	<0.000002	0.0062	0.0063		3.68	0.00226
RSEM-R5B-SP	3/5/2019 13:40	VI1636	M	1.6	2.3	0.0426	<0.0005	0.00042	0.118	<0.0001	<0.001	0.075	0.000025	91.8	<0.001	0.00064	0.00422	0.055	<0.0002	0.0696	28.7	0.028	<0.000002	0.0061	0.0062		3.56	0.00225
RSEM-R5B-SP	3/6/2019 15:10	VI3122	M	2.2	2.1	0.0278	<0.0005	0.00045	0.117	<0.0001	<0.001	0.074	0.000029	85.3	<0.001	0.00076	0.00436	0.038	<0.0002	0.0672	28.7	0.0311	<0.000002	0.0072	0.0064		3.48	0.00238
RSEM-R5B-SP	3/7/2019 15:45	VI4427	D	2.1	2.2	0.0244	<0.0005	0.00038	0.115	<0.0001	<0.001	0.076	0.000028	90.5	<0.001	0.00066	0.00483	0.04	<0.0002	0.071	31.4	0.0279	<0.000002	0.0064	0.0064		3.82	0.00252
RSEM-R5B-SP	3/7/2019 15:45	VI4425	M	2.3	2.0	0.031	<0.0005	0.00041	0.119	<0.0001	<0.001	0.076	0.000029	92.6	<0.001	0.00065	0.00456	0.044	<0.0002	0.0743	31.1	0.0287	<0.000002	0.0066	0.0065		3.77	0.00251
RSEM-R5B-SP	6/14/2019 9:20	VW9967	M	4.0	3.8	0.0222	0.00078	0.00075	0.0218	<0.0001	<0.001	0.191	0.00001	31.7	<0.001	0.00029	0.00165	0.052	<0.0002	0.107	31.0	0.0258	<0.000002	0.0112	0.002		4.04	0.00258
RSEM-R5B-SP	6/15/2019 12:00	VX3565	M	4.5	4.1	0.0231	0.00073	0.00077	0.0169	<0.0001	<0.001	0.195	0.000011	31.3	<0.001	0.00034	0.00163	0.053	<0.0002	0.102	31.0	0.0296	<0.000002	0.0109	0.0021		3.77	0.0023
RSEM-R5B-SP	6/16/2019 12:10	VX3550	M	4.1	4.5	0.19	0.00305	0.00152	0.0654	<0.0001	<0.001	0.269	0.000026	57.8	0.0019	0.00026	0.00217	0.122	<0.0002	0.0466	32.1	0.005	<0.000002	0.0332	0.0036		5.78	0.00885
RSEM-R5B-SP	6/17/2019 11:45	VX5942	M	5.6	4.8	0.0283	0.00074	0.00089	0.0146	<0.0001	<0.001	0.191	0.000016	29.7	<0.001	0.00035	0.00217	0.065	<0.0002	0.105	30.8	0.0242	<0.000002	0.0111	0.0021		3.88	0.00224
RSEM-R5B-SP	6/18/2019 11:25	VX8830	M	5.8	5.0	0.0266	0.0007	0.00093	0.0165	<0.0001	<0.001	0.192	<0.00001	28.9	<0.001	0.00049	0.00201	0.07	<0.0002	0.105	31.8	0.0271	<0.000002	0.0113	0.0028		4.01	0.00215
RSEM-R5B-SP	6/19/2019 10:45	VY1841	M	6.4	6.5	0.0296	0.00071	0.00099	0.0171	<0.0001	<0.001	0.192	0.000012	30.8	<0.001	0.00063	0.00196	0.084	<0.0002	0.108	31.7	0.0389	<0.000002	0.0112	0.0032		4.00	0.00219
RSEM-R5B-SP	6/20/2019 10:50	VY4149	M	6.3	5.9	0.0395	0.0007	0.00108	0.0193	<0.0001	<0.001	0.206	0.000012	31.9	<0.001	0.00051	0.00229	0.107	<0.0002	0.108	32.3	0.0301	<0.000002	0.0115	0.003		4.06	0.00217
RSEM-R5B-SP	6/21/2019 9:00	VY4160	M	5.9	6.0	0.0417	0.00069	0.00103	0.0215	<0.0001	<0.001	0.2	<0.00001	33.2	<0.001	0.00037	0.00197	0.108	<0.0002	0.105	32.5	0.0231	<0.000002	0.0108	0.0025		3.95	0.00198
RSEM-R5B-SP	10/10/2019 13:10	WR7645	M	1.8	1.4	0.0455	0.00104	0.00047	0.0386	<0.0001	<0.001	0.201	0.000028	65.2	0.0013	0.00188	0.00088	0.037	<0.0002	0.1	44.0	0.0376	<0.000002	0.0098	0.0109		4.49	0.00294
RSEM-R5B-SP	10/12/2019 11:25	WR9608	M	1.3	2.8	0.0578	0.00102	0.00051	0.0385	<0.0001	<0.001	0.201	0.000024	62.6	0.0014	0.00177	0.00164	0.071	<0.0002	0.0989	44.5	0.0351	<0.000002	0.0095	0.0105		4.42	0.00296
RSEM-R5B-W	10/25/2019 14:00	WU5353	M	14	8.2	50	<0.005	0.0355	3.2	0.0032	<0.01	<0.5	0.00401	226	0.089	0.0599	0.165	139	0.0739	0.076	52.7	2.84	0.0000036	<0.01	0.183		15.4	0.0034
RSEM-R6E-EOP	3/14/2019 16:17	VJ4047	M	12	10	0.8	0.00058	0.00086	0.128	<0.0001	<0.001	<0.05	0.000065	55.4	0.0093	0.00112	0.00318	0.768	0.00043	0.0121	8.81	0.061	<0.000002	0.0295	0.0041		7.58	0.00105
RSEM-R6E-EOP	3/15/2019 10:30	VJ4025	M	11	11	0.836	0.00061	0.00083	0.113	<0.0001	<0.001	<0.05	0.000044	53.5	0.0111	0.00066	0.0029	0.733	0.00035	0.0117	7.16	0.0289	<0.000002	0.0273	0.0044		7.34	0.00092
RSEM-R6E-EOP	3/16/2019 12:55	VJ7198	M	8.3	6.3	0.688	0.00057	0.00089	0.0939	<0.0001	<0.001	<0.05	0.00004	50.7	0.0068	0.00053	0.00229	0.778	0.0004	0.0096	6.29	0.0277	<0.000002	0.0169	0.0033		5.84	0.00065
RSEM-R6E-EOP	3/17/2019 11:25	VJ7214	M	7.7	7.0	0.647	0.00061	0.00083	0.0968	<0.0001	<0.001	<0.05	0.000045	54.8	0.0067	0.00065	0.00229	0.648	0.00033	0.0105	7.26	0.0347	<0.000002	0.0158	0.0045		6.00	0.0007
RSEM-R6E-EOP	3/18/2019 12:11	VJ6959	M	4.2	3.8	1.08	0.00052	0.00087	0.0977	<0.0001	<0.001	<0.05	0.000075	47.9	0.0044	0.00167	0.0027	1.17	0.0006	0.0111	6.77	0.0585	0.0000022	0.0079	0.0074		4.19	0.00051
RSEM-R6E-EOP	3/19/2019 13:30	VK0938	D	3.0	3.2	0.476	<0.0005	0.00061	0.0916	<0.0001	<0.001	<0.05	0.000066	49.3	0.0047	0.00177	0.0022	0.675	0.00037	0.0132	7.24	0.073	<0.000002	0.0103	0.0085		4.12	0.00057

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	12/7/2019 12:00	XB9798	D	5.84	<0.00002	328	0.692	325	0.00002	<0.005	<0.005	0.00392	<0.005	0.0075	<0.0001	0.0096	0.00151	0.00073	0.0546	<0.0001	<0.001	0.198	0.00003	110	0.001	0.0033	0.00078	<0.01
RSEM-R5B-EOP	12/8/2019 11:15	XC0035	M	5.66	<0.00002	345	0.658	323	0.000016	<0.005	<0.005	0.00363	<0.005	0.0071	<0.0001	0.0107	0.00152	0.00074	0.0521	<0.0001	<0.001	0.197	0.000033	109	<0.001	0.00306	0.00082	<0.01
RSEM-R5B-EOP	12/8/2019 11:25	XC0036	D	5.73	<0.00002	353	0.658	328	0.000017	<0.005	<0.005	0.00357	<0.005	0.0072	<0.0001	0.0109	0.00151	0.00079	0.0524	<0.0001	<0.001	0.2	0.00003	109	<0.001	0.00303	0.00076	<0.01
RSEM-R5B-EOP	12/9/2019 10:45	XB9974	M	5.85	<0.00002	355	0.652	332	0.000017	<0.005	<0.005	0.00352	<0.005	0.0072	<0.0001	0.0117	0.00146	0.00073	0.0486	<0.0001	<0.001	0.2	0.000032	106	<0.001	0.00265	0.00077	<0.01
RSEM-R5B-EOP	12/9/2019 10:55	XB9975	D	5.93	<0.00002	347	0.645	326	0.000017	<0.005	<0.005	0.00357	<0.005	0.007	<0.0001	0.0115	0.00151	0.00075	0.0493	<0.0001	<0.001	0.197	0.00003	107	<0.001	0.00266	0.00076	<0.01
RSEM-R5B-EOP	12/10/2019 11:20	XC4116	M	5.11	<0.00002	334	0.597	303	0.000016	<0.005	<0.005	0.0036	<0.005	0.0073	<0.0001	0.0108	0.00136	0.00067	0.0425	<0.0001	<0.001	0.203	0.000033	102	<0.001	0.00206	0.00071	<0.01
RSEM-R5B-EOP	12/10/2019 11:30	XC4117	D	4.85	<0.00002	341	0.58	299	0.000015	<0.005	<0.005	0.00358	<0.005	0.0072	<0.0001	0.0115	0.00137	0.00066	0.0429	<0.0001	<0.001	0.204	0.000032	104	<0.001	0.00207	0.00069	<0.01
RSEM-R5B-EOP	12/11/2019 13:40	XC6933	M	5.92	<0.00002	309	0.624	294	0.000016	<0.005	<0.005	0.00328	<0.005	0.0061	<0.0001	0.0126	0.0014	0.00075	0.0429	<0.0001	<0.001	0.225	0.000032	102	<0.001	0.00176	0.00078	<0.01
RSEM-R5B-EOP	12/11/2019 13:50	XC6934	D	5.93	<0.00002	321	0.633	307	0.000016	<0.005	<0.005	0.00329	<0.005	0.0062	<0.0001	0.0122	0.00142	0.00073	0.0423	<0.0001	<0.001	0.225	0.000033	103	<0.001	0.00173	0.00074	<0.01
RSEM-R5B-EOP	12/12/2019 11:50	XC8843	M	5.63	<0.00002	333	0.551	321	0.000016	<0.005	<0.005	0.0033	<0.005	0.0072	<0.0001	<0.003	0.00149	0.00069	0.0435	<0.0001	<0.001	0.222	0.000027	130	<0.001	0.00174	0.00063	<0.01
RSEM-R5B-EOP	12/12/2019 12:00	XC8844	D	5.87	<0.00002	324	0.526	309	0.000017	<0.005	<0.005	0.00322	<0.005	0.0071	<0.0001	<0.003	0.00152	0.00067	0.0454	<0.0001	<0.001	0.242	0.00003	141	<0.001	0.00177	0.00064	<0.01
RSEM-R5B-EOP	12/13/2019 14:00	XD3143	M	5.38	<0.00002	329	0.547	303	0.000016	<0.005	<0.005	0.00332	<0.005	0.0066	<0.0001	0.0125	0.0015	0.00069	0.0456	<0.0001	<0.001	0.223	0.000034	112	<0.001	0.00142	0.00075	<0.01
RSEM-R5B-EOP	12/13/2019 14:10	XD3144	D	5.88	<0.00002	324	0.525	311	0.000017	<0.005	<0.005	0.00327	<0.005	0.007	<0.0001	0.0121	0.00146	0.0007	0.0446	<0.0001	<0.001	0.219	0.000033	117	<0.001	0.00143	0.0008	<0.01
RSEM-R5B-EOP	12/14/2019 11:50	XD1661	M	5.99	<0.00002	324	0.502	304	0.000018	<0.005	<0.005	0.00324	<0.005	0.0066	<0.0001	0.0115	0.00142	0.00074	0.0458	<0.0001	<0.001	0.212	0.00003	107	0.001	0.0013	0.0008	<0.01
RSEM-R5B-EOP	12/14/2019 12:00	XD1662	D	6.09	<0.00002	313	0.512	292	0.000017	<0.005	<0.005	0.00336	<0.005	0.0063	<0.0001	0.0117	0.00141	0.00071	0.0445	<0.0001	<0.001	0.224	0.000033	107	<0.001	0.00124	0.00076	<0.01
RSEM-R5B-EOP	12/15/2019 11:50	XD3218	M	6.01	<0.00002	307	0.48	275	0.000015	<0.005	<0.005	0.00326	<0.005	0.0062	<0.0001	0.012	0.00142	0.00076	0.0498	<0.0001	<0.001	0.201	0.000029	105	<0.001	0.00118	0.00087	<0.01
RSEM-R5B-EOP	12/15/2019 12:00	XD3219	D	5.93	<0.00002	298	0.473	282	0.000015	<0.005	<0.005	0.00331	<0.005	0.0062	<0.0001	0.0119	0.00139	0.00073	0.0483	<0.0001	<0.001	0.205	0.000031	103	<0.001	0.00115	0.00083	<0.01
RSEM-R5B-EOP	12/16/2019 17:10	XD3849	M	5.4	<0.00002	271	0.442	222	0.000014	<0.005	<0.005	0.0036	<0.005	0.0056	<0.0001	0.0107	0.0012	0.00072	0.0515	<0.0001	<0.001	0.179	0.000023	82.3	<0.001	0.00089	0.00077	<0.01
RSEM-R5B-EOP	12/16/2019 17:20	XD3850	D	5.24	<0.00002	271	0.441	220	0.000013	<0.005	<0.005	0.00353	<0.005	0.0055	<0.0001	0.0105	0.00122	0.00074	0.0514	<0.0001	<0.001	0.176	0.000024	82.3	<0.001	0.00087	0.00077	<0.01
RSEM-R5B-EOP	12/17/2019 12:50	XD5462	M	5.62	<0.00002	267	0.385	223	0.000014	<0.005	<0.005	0.00339	<0.005	0.0055	<0.0001	0.0116	0.00132	0.0008	0.0559	<0.0001	<0.001	0.207	0.000025	80.4	<0.001	0.00091	0.0008	<0.01
RSEM-R5B-EOP	12/17/2019 13:00	XD5463	D	5.75	<0.00002	267	0.394	223	0.000015	<0.005	<0.005	0.00338	<0.005	0.0058	0.0001	0.0113	0.0013	0.00073	0.055	<0.0001	<0.001	0.208	0.000028	89.8	<0.001	0.00088	0.00077	<0.01
RSEM-R5B-EOP	12/18/2019 12:20	XD7326	M	5.54	<0.00002	273	0.364	225	0.000015	<0.005	<0.005	0.00325	<0.005	0.0053	<0.0001	0.0105	0.00125	0.00078	0.0526	<0.0001	<0.001	0.2	0.000022	87.3	<0.001	0.00086	0.00091	<0.01
RSEM-R5B-EOP	12/18/2019 12:30	XD7327	D	5.68	<0.00002	248	0.366	205	0.000013	<0.005	<0.005	0.00329	<0.005	<0.005	<0.0001	0.0103	0.00121	0.00073	0.0508	<0.0001	<0.001	0.195	0.000021	83.7	<0.001	0.00081	0.00079	<0.01
RSEM-R5B-EOP	12/19/2019 12:20	XD9296	M	4.77	<0.00002	240	0.358	178	0.000013	<0.005	<0.005	0.00345	<0.005	<0.005	<0.0001	0.0088	0.00117	0.00072	0.0539	<0.0001	<0.001	0.182	0.000021	70.6	<0.001	0.00081	0.00093	<0.01
RSEM-R5B-EOP	12/19/2019 12:30	XD9297	D	4.64	<0.00002	243	0.346	180	0.000013	<0.005	<0.005	0.00343	<0.005	<0.005	<0.0001	0.0087	0.00112	0.00079	0.0535	<0.0001	<0.001	0.182	0.000022	71.0	<0.001	0.0008	0.00093	<0.01
RSEM-R5B-EOP	12/20/2019 11:40	XD9300	M	4.45	<0.00002	222	0.322	162	0.000014	<0.005	<0.005	0.00351	<0.005	<0.005	<0.0001	0.009	0.00107	0.00079	0.0554	<0.0001	<0.001	0.177	0.000021	68.1	<0.001	0.00078	0.00095	<0.01
RSEM-R5B-EOP	12/20/2019 11:50	XD9301	D	4.51	<0.00002	225	0.318	162	0.000012	<0.005	<0.005	0.00336	<0.005	<0.005	<0.0001	0.009	0.00107	0.00074	0.0548	<0.0001	<0.001	0.174	0.000019	68.8	<0.001	0.00078	0.00096	<0.01
RSEM-R5B-EOP	12/21/2019 12:45	XE2845	M	5.1	<0.00002	215	0.313	162	0.000012	<0.005	<0.005	0.00333	<0.005	<0.005	<0.0001	0.0085	0.00098	0.00072	0.051	<0.0001	<0.001	0.171	0.00002	68.1	<0.001	0.00067	0.00087	<0.01
RSEM-R5B-EOP	12/21/2019 12:55	XE2846	D	5.04	<0.00002	220	0.321	163	0.000012	<0.005	<0.005	0.00332	<0.005	<0.005	<0.0001	0.0086	0.00097	0.00077	0.0518	<0.0001	<0.001	0.177	0.000021	68.0	<0.001	0.00066	0.00084	<0.01
RSEM-R5B-EOP	12/22/2019 11:10	XE2822	M	4.87	<0.00002	201	0.303	150	0.000011	<0.005	<0.005	0.0032	<0.005	<0.005	<0.0001	0.0085	0.00096	0.00075	0.0492	<0.0001	<0.001	0.166	0.000017	67.3	<0.001	0.00061	0.00085	<0.01
RSEM-R5B-EOP	12/22/2019 11:20	XE2823	D	5.03	<0.00002	207	0.313	154	0.00001	<0.005	<0.005	0.00331	<0.005	<0.005	<0.0001	0.0084	0.00094	0.00074	0.0488	<0.0001	<0.001	0.17	0.000023	68.3	<0.001	0.0006	0.00085	<0.01
RSEM-R5B-EOP	12/23/2019 10:00	XE3021	M	4.98	<0.00002	204	0.305	149	0.00001	<0.005	<0.005	0.00339	<0.005	<0.005	<0.0001	0.0085	0.00093	0.00074	0.0451	<0.0001	<0.001	0.169	0.000018	66.6	<0.001	0.00056	0.00083	<0.01
RSEM-R5B-EOP	12/23/2019 10:10	XE3022	D	4.99	<0.00002	210	0.306	150	0.00001	<0.005	<0.005	0.0034	<0.005	<0.005	<0.0001	0.0085	0.00092	0.00073	0.0451	<0.0001	<0.001	0.168	0.00002	66.2	<0.001	0.00056	0.00083	<0.01
RSEM-R5B-EOP	12/24/2019 10:12	XE3578	D	5.24	<0.00002	200	0.3	145	0.00001	<0.005	<0.005	0.0034	<0.005	<0.005	<0.0001	0.009	0.00094	0.00076	0.0445	<0.0001	<0.001	0.17	0.000018	66.0	<0.001	0.00056	0.00086	<0.01
RSEM-R5B-EOP	12/24/2019 10:15	XE3577	M	5.1	<0.00002	199	0.298	144	0.000011	<0.005	<0.005	0.00336	<0.005	<0.005	<0.0001	0.0087	0.00095	0.00074	0.0447	<0.0001	<0.001	0.159	0.000019	66.6	<0.001	0.00056	0.00093	<0.01
RSEM-R5B-EOP	12/25/2019 14:25	XE3941	M	4.87	<0.00002	193	0.315	141	0.000011	<0.005	<0.005	0.00316	<0.005	0.006	<0.0001	0.0087	0.00088	0.00079	0.0405	<0.0001	<0.001	0.165	0.000016	64.1	<0.001	0.00052	0.00081	<0.01
RSEM-R5B-EOP	12/25/2019 14:40	XE3942	D	4.97	<0.00002	202	0.315	144	0.000011	<0.005	<0.005	0.00321	<0.005	<0.005	<0.0001	0.0096	0.00088	0.00081	0.0407	<0.0001	<0.001	0.164	0.000027	62.0	<0.001	0.00052	0.00085	<0.01
RSEM-R5B-EOP	12/26/2019 12:50	XE3945	M	5.05	<0.00002	201	0.314	141	0.00001	<0.005	<0.005	0.00318	<0.005	<0.005	<0.0001	0.0083	0.00091	0.0008	0.0402	<0.0001	<0.001	0.167	0.000018	64.7	<0.001	0.00048	0.0008	<0.01
RSEM-R5B-EOP	12/26/2019 13:00	XE3946	D	4.84	<0.00002	196	0.311	139	0.000012	<0.005	<0.005	0.00313	<0.005	<0.005	<0.0001	0.0086	0.0009	0.00076	0.04	<0.0001	<0.001	0.168	0.000017	64.7	<0.001	0.00049	0.0008	<0.01
RSEM-R5B-EOP	12/27/2019 11:00	XE3951	M	4.96	<0.00002	195	0.305	139	<0.00001	<0.005	<0.005	0.00316	<0.005	<0.005	<0.0001	0.0082	0.00089	0.0008	0.0394	<0.0001	<0.001	0.169	0.000018	64.4	<0.001	0.00046	0.0008	<0.01
RSEM-R5B-EOP	12/27/2019 11:10	XE3952	D	4.9	<0.00002	194	0.307	135	0.000011	<0.005	<0.005	0.00314	<0.005	<0.005	<0.0001	0.0089	0.00091	0.0008	0.0399	<0.0001	<0.001	0.169	0.000017	65.0	<0.001	0.00048	0.00082	<0.01
RSEM-R5B-EOP	12/28/2019 13:30	XE5441	M	5.15	<0.00002	187	0.285	131	0.00001	<0.005	<0.005	0.00334	<0.005	0.0055	<0.0001	0.0077	0.00085	0.00076	0.0381	<0.0001	<0.001	0.158	0.000018	65.5	0.001	0.00042	0.00078	<0.01
RSEM-R5B-EOP	12/28/2019 13:40	XE5442	D	4.99	<0.00002	182	0.277	127	0.00001	<0.005	<0.005	0.00325	<0.005	<0.005	<0.0001	0.0077	0.00084	0.00073	0.0383	<0.0001	<0.001	0.157	0.000015	65.3	0.0011	0.00043	0.00083	<0.01
RSEM-R5B-EOP	12/29/2019 13:30	XE5389	M	5.01	<0.00002	190	0.285	131	0.000012	<0.005	<0.005	0.00327	<0.005	<0.005	<0.0001	0.0078	0.00082	0.00074	0.0386	<0.0001	<0.001	0.158	0.000017	64.2	<0.001	0.00045	0.00083	<0.01
RSEM-R5B-EOP	12/29/2019 13:40	XE5390	D	5.06	<0.00002	192	0.286	134	0.000011	<0.005	<0.005	0.00334	<0.005	<0.005	<0.0001	0.0078	0.00084	0.00075	0.0389	<0.0001	<0.001	0.162	0.00002	63.8	<0.001	0.00045	0.0008	<0.01
RSEM-R5B-EOP	12/30/2019 10:30	XE5421	M	5.05	<0.00002	180	0.279	126	0.000011	<0.005	<0.005	0.00328	<0.005	<0.005	<0.0001	0.0081	0.00082	0.00075	0.0385	<0.0001	<0.001	0.152	0.000016	65.4	0.0011	0.00041	0.0008	<0.01
RSEM-R5B-EOP	12/30/2019 10:40	XE5422	D	5.12	<0.00002	181	0.279	126	0.000011	<0.005	<0.005	0.0033	<0.005	<0.005	<0.0001	0.0077	0.0008	0.00075	0.0382	<0.0001	<0.001	0.154	0.000018	66.9	0.0011	0.00041	0.00083	<0.01
RSEM-R5B-EOP	12/31/2019 10:30	XE7173	M	5.13	<0.00002	176	0.282	122	0.00001	<0.005	<0.005	0.00327	<0.005	<0.005	<0.0001	0.0089	0.00086	0.00076	0.0391	<0.0001	<0.001	0.145	0.000017	66.5	0.0012	0.00038	0.0008	<0.01
RSEM-R5B-EOP	12/31/2019 10:45	XE7174	D	5.06	<0.00002	179	0.287	124	0.000011	<0.005	<0.005	0.00333	<0.005	<0.005	<0.0001	0.0086	0.00082	0.00075	0.0383	<0.0001	<0.001	0.144	0.000017	69.1	0.0011	0.00036	0.0008	<0.01
RSEM-R5B-SP	2/4/2019 13:22	VE6893	M	6.27	<0.00002	293	0.317	170	0.000019	<0.005	<0.005	0.00477	<0.005	0.0319	<0.0001	0.0661	0.00209	0.00208	0.0317	<0.0001	<0.001	0.282	0.000194	55.0	0.002	0.00379	0.00213	<0.01
RSEM-R5B-SP	2/5/2019 11:15	VE6875	M	8.63	<0.00002	416	0.416	235	0.000023	<0.005	<0.005	0.00623	0.006	0.0422	<0.0001	0.0886	0.0029	0.00286	0.0431	<0.0002	<0.002	0.399	0.000265	78.8	0.0034	0.00506	0.0041	<0.02
RSEM-R5B-SP	2/6/2019 14:15	VE9932	M	2.23	<0.00002	109	0.119	62.7	<0.00001	<0.005	<0.005	0.00175	<0.005	0.0149	<0.0001	0.021	0.00084	0.00084	0.0149	<0.0001	<0.001	0.107	0.000062	22.4	<0.001	0.00133	0.00134	<0.01
RSEM-R5B-SP	2/7/2019 12:00	VF0006	M	1.62	<0.00002	86.7	0.0999	52.3	<0.00001	<0.005	<0.005	0.0015	<0.005	0.0112	<0.0001	0.0136	0.00069	0.00073	0.0146	<0.0001	<0.001	0.089	0.00005	18.2	<0.001	0.00102	0.00145	<0.01
RSEM-R5B-SP	3/4/2019 15:20	VI1286	M	4.67	<0.00002	75.6	0.308	39.1	<0.00001	<0.005	<0.005	0.0019	<0.005	0.0056	<0.0001	0.0092	<0.0005	0.00037	0.123	<0.0001	<0.001	0.066	0.000014	84.7	<0.001	0.00053	0.00218	<0.01
RSEM-R5B-SP	3/5/2019 13:40	VI1637	D	4.94	<0.00002	86.9	0.292	46.6	<0.00001	<0.005	<0.005	0.00201	<0.005	0.0067	<0.0001	0.0086	<0.0005	0.00039	0.126	<0.0001	<0.001	0.069	0.000022	97.7	<0.001	0.00065	0.00376	<0.01
RSEM-R5B-SP	3/5/2019 13:40	VI1636	M	4.97	<0.00002	82.2	0.291	42.7	<0.00001	<0.005	<0.005	0.00199	<0.005	0.0069	<0.0001	0.0084	<0.0005	0.0004	0.127	<0.0001	<0.001	0.08	0.000022	93.0	<0.001	0.00064	0.00409	<0.01
RSEM-R5B-SP	3/6/2019 15:10	VI3122	M	4.73	<0.00002	84.3	0.326	44.3	<0.00001	<0.005	<0.005	0.00199	<0.005	0.0064	<0.0001	0.0088	<0.0005	0.0004	0.114	<0.0001	<0.001	0.069	0.000023	85.8	<0.001	0.00075	0.00404	<0.01
RSEM-R5B-SP	3/7/2019 15:45	VI4427	D	4.89	<0.00002	92.4	0.281	44.3	<0.00001	<0.005	<0.005	0.002	<0.005	0.0058	<0.0001	0.01	<0.0005	0.00042	0.125	<0.0001	<0.001	0.081	0.000024	93.8	<0.001	0.00059	0.00417	<0.01
RSEM-R5B-SP	3/7/2019 15:45	VI4425	M	5.02	<0.00002	92.6	0.291	43.6	<0.00001	<0.005	<0.005	0.00202	<0.005	0.0064	<0.0001	0.0094	<0.0005	0.00041	0.123	<0.0001	<0.001	0.087	0.000023	89.8	<0.001	0.00061	0.00393	<0.01
RSEM-R5B-SP	6/14/2019 9:20	VW9967	M	0.23	<0.00002	195	0.13	150	0.000013	<0.005	<0.005	0.0011	<0.005	0.0087	0.00026	0.0099	0.0008	0.00076	0.022	<0.0001	<0.001	0.198	<0.00001	32.4	<0.001	<0.0002	0.00135	0.021
RSEM-R5B-SP	6/15/2019 12:00	VX3565	M	0.16	<0.00002	181	0.13	143	0.000012	<0.005	<0.005	0.00111	<0.005	<0.005	<0.0001	0.0106	0.00071	0.00073	0.0152	<0.0001	<0.001	0.188	<0.00001	32.0	<0.001	0.00029	0.0014	0.032
RSEM-R5B-SP	6/16/2019 12:10	VX3550	M	0.657	<0.00002	232	0.435	179	0.000023	<0.005	<0.005	0.00619	<0.005	<0.005	0.00014	0.0082	0.00307	0.00146	0.06	<0.0001	<0.001	0.272	0.000013	58.1	0.0015	<0.0002	0.00166	<0.01
RSEM-R5B-SP	6/17/2019 11:45	VX5942	M	0.134	<0.00002	185	0.131	146	0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001	0.0131	0.00071	0.00084	0.0144	<0.0001	<0.001	0.189	0.000013	29.1	<0.001	0.00032	0.00154	0.031
RSEM-R5B-SP	6/18/2019 11:25	VX8830	M	0.155	<0.00002	192	0.136	145	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001	0.013	0.00074	0.00091	0.0149	<0.0001	<0.001	0.2	<0.00001	30.1	<0.001	0.00039	0.00162	0.035
RSEM-R5B-SP	6/19/2019 10:45	VY1841	M	0.134	<0.00002	194	0.138	144	<0.00001	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001	0.0135	0.00071	0.00104	0.0153	<0.0001	<0.001	0.189	0.000011	31.7	<0.001	0.00056	0.00164	0.048
RSEM-R5B-SP	6/20/2019 10:50	VY4149	M	0.18	<0.00002	191	0.142	148	<0.00001	<0.005	<0.005	0.00132	<0.005	<0.005	0.0001	0.0148	0.00072	0.00105	0.0185	<0.0001	<0.001	0.206	<0.00001	31.5	<0.001	0.00029	0.00181	0.052
RSEM-R5B-SP	6/21/2019 9:00	VY4160	M	0.298	<0.00002	189	0.142	147	<0.00001	<0.005	<0.005	0.00131	<0.005	<0.005	<0.0001	0.0144	0.00067	0.00103	0.0207	<0.0001	<0.001	0.205	<0.00001	33.5	<0.001	0.00028	0.00164	0.056
RSEM-R5B-SP	10/10/2019 13:10	WR7645	M	2.79	<0.00002	230	0.383	203	0.000013	<0.005	<0.005	0.00292	<0.005	0.006	<0.0001	0.025	0.00108	0.00051	0.0377	<0.0001	<0.001	0.2	0.000026	65.8	0.0013	0.00183	0.00071	<0.01
RSEM-R5B-SP	10/12/2019 11:25	WR9608	M	2.56	<0.00002	231	0.369	205	0.000012	<0.005	<0.005	0.00286	<0.005	0.0059	<0.0001	0.0262	0.00109	0.0005	0.0382	<0.0001	<0.001	0.199	0.000023	64.6	0.0013	0.00171	0.00111	<0.01
RSEM-R5B-W	10/25/2019 14:00	WU5353	M	64	0.00115	48.5	0.688	108	0.00116	<0.05	0.335	0.0101	0.148	0.615	0.0048	0.013	0.00056	0.00078	0.0977	<0.0001	<0.001	0.078	0.000026	108	<0.001	0.00036	0.00185	<0.01
RSEM-R6E-EOP	3/14/2019 16:17	VJ4047	M	5.22	<0.00002	39.3	0.439	26.1	0.000023	<0.005	0.0301	0.00074	<0.005	0.0089	0.00074	0.0118	0.00053	0.0005	0.111	<0.0001	<0.001	<0.05	0.000036	55.6	0.0078	0.00022	0.0019	<0.01
RSEM-R6E-EOP	3/15/2019 10:30	VJ4025	M	4.76	<0.00002	32.6	0.484	21.6	0.000021	<0.005	0.0262	0.00083	<0.005	0.005	0.00063	0.0383	0.00059	0.00051	0.0986	<0.0001	<0.001	<0.05	0.000031	56.7	0.0095	0.00038	0.00182	<0.01
RSEM-R6E-EOP	3/16/2019 12:55	VJ7198	M	4.31	<0.00002	23.1	0.465	17.7	0.00002	<0.005	0.0188	0.0007	<0.005	<0.005	0.00035	0.0231	0.00055	0.00045	0.0796	<0.0001	<0.001	<0.05	0.000034	50.9	0.0064	0.00028	0.00151	<0.01
RSEM-R6E-EOP	3/17/2019 11:25	VJ7214	M	4.7	<0.00002	25.0	0.478	20.2	0.000019	<0.005	0.0183	0.00075	<0.005	<0.005	0.00056	0.0369	0.00058	0.00051	0.0859	<0.0001	<0.001	<0.05	0.000037	55.9	0.006	0.00043	0.00174	<0.01
RSEM-R6E-EOP	3/18/2019 12:11	VJ6959	M	4.2	<0.00002	18.9	0.411	18.0	0.000025	<0.005	0.0381	0.0008	<0.005	0.0113	0.00058	0.0779	<0.0005	0.00037	0.0771	<0.0001	<0.001	<0.05	0.000057	46.2	0.0032	0.00132	0.00167	<0.01
RSEM-R6E-EOP	3/19/2019 13:30	VK0938	D	2.69	<0.00002	19.0	0.461	21.1	0.000014	<0.005	0.0126	0.001	<0.005	0.0065	0.00033	0.0862	<0.0005	0.00028	0.0784	<0.0001	<0.001	<0.05	0.000045	47.7	0.0038	0.00123	0.00121	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R5B-EOP	12/7/2019 12:00	XB9798	D	<0.0002	0.15	64.5	0.0475	<0.000002	0.0137	0.0324		7.19	0.00501	5.82	<0.00002	336	0.668	321	0.000017	<0.005	<0.005	0.00386	<0.005	0.0065	<0.0001
RSEM-R5B-EOP	12/8/2019 11:15	XC0035	M	<0.0002	0.148	63.6	0.0438	<0.000002	0.0137	0.03		7.14	0.00499	5.81	<0.00002	337	0.666	321	0.000018	<0.005	<0.005	0.0038	<0.005	0.0066	<0.0001
RSEM-R5B-EOP	12/8/2019 11:25	XC0036	D	<0.0002	0.151	63.8	0.0436	<0.000002	0.0135	0.0298		7.18	0.005	5.75	<0.00002	339	0.674	319	0.000017	<0.005	<0.005	0.00384	<0.005	0.0068	<0.0001
RSEM-R5B-EOP	12/9/2019 10:45	XB9974	M	<0.0002	0.154	63.2	0.0381	<0.000002	0.0132	0.0267		7.11	0.0048	5.75	<0.00002	331	0.654	314	0.000017	<0.005	<0.005	0.00372	<0.005	0.0068	<0.0001
RSEM-R5B-EOP	12/9/2019 10:55	XB9975	D	<0.0002	0.151	63.9	0.0387	<0.000002	0.0133	0.0264		7.13	0.00486	5.76	<0.00002	335	0.652	317	0.000016	<0.005	<0.005	0.00372	<0.005	0.0068	<0.0001
RSEM-R5B-EOP	12/10/2019 11:20	XC4116	M	<0.0002	0.144	57.7	0.0309	<0.000002	0.0122	0.0216		6.54	0.00441	5.42	<0.00002	301	0.624	292	0.000016	<0.005	<0.005	0.00357	<0.005	0.0065	<0.0001
RSEM-R5B-EOP	12/10/2019 11:30	XC4117	D	<0.0002	0.14	57.5	0.0306	<0.000002	0.0121	0.0218		6.66	0.00443	5.48	<0.00002	302	0.612	293	0.000016	<0.005	<0.005	0.0035	<0.005	0.0066	<0.0001
RSEM-R5B-EOP	12/11/2019 13:40	XC6933	M	<0.0002	0.148	60.1	0.0251	<0.000002	0.0121	0.0196		6.75	0.00476	5.74	<0.00002	321	0.622	306	0.000015	<0.005	<0.005	0.0033	<0.005	0.0062	<0.0001
RSEM-R5B-EOP	12/11/2019 13:50	XC6934	D	<0.0002	0.15	60.4	0.0244	<0.000002	0.0124	0.0194		6.88	0.00478	5.77	<0.00002	324	0.62	303	0.000016	<0.005	<0.005	0.00329	<0.005	0.0059	<0.0001
RSEM-R5B-EOP	12/12/2019 11:50	XC8843	M	<0.0002	0.154	57.4	0.0247	<0.000002	0.0114	0.0191		6.90	0.00479	5.76	<0.00002	312	0.538	287	0.000016	<0.005	<0.005	0.00327	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/12/2019 12:00	XC8844	D	<0.0002	0.165	57.5	0.0255	<0.000002	0.0123	0.0196		7.12	0.00507	6.28	<0.00002	307	0.581	293	0.000017	<0.005	<0.005	0.00331	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/13/2019 14:00	XD3143	M	<0.0002	0.158	62.6	0.0225	<0.000002	0.0118	0.017		7.48	0.00473	6.59	<0.00002	319	0.558	323	0.000017	<0.005	<0.005	0.00356	<0.005	0.0066	<0.0001
RSEM-R5B-EOP	12/13/2019 14:10	XD3144	D	<0.0002	0.151	63.8	0.0232	<0.000002	0.0112	0.0176		7.53	0.00459	6.34	<0.00002	325	0.526	328	0.000017	<0.005	<0.005	0.00342	<0.005	0.0068	<0.0001
RSEM-R5B-EOP	12/14/2019 11:50	XD1661	M	<0.0002	0.151	62.1	0.0221	<0.000002	0.011	0.0162		7.59	0.00434	6.12	<0.00002	316	0.509	309	0.000017	<0.005	<0.005	0.00339	<0.005	0.0065	<0.0001
RSEM-R5B-EOP	12/14/2019 12:00	XD1662	D	<0.0002	0.153	60.3	0.0206	<0.000002	0.0107	0.0152		7.12	0.00434	6.08	<0.00002	303	0.507	303	0.000015	<0.005	<0.005	0.00341	<0.005	0.0061	<0.0001
RSEM-R5B-EOP	12/15/2019 11:50	XD3218	M	<0.0002	0.144	61.4	0.0229	<0.000002	0.0105	0.0147		6.98	0.0045	6.15	<0.00002	310	0.483	290	0.000016	<0.005	<0.005	0.00346	<0.005	0.0064	<0.0001
RSEM-R5B-EOP	12/15/2019 12:00	XD3219	D	<0.0002	0.144	57.9	0.0222	<0.000002	0.0103	0.0143		6.90	0.00429	6	<0.00002	296	0.47	286	0.000016	<0.005	<0.005	0.00338	<0.005	0.0066	<0.0001
RSEM-R5B-EOP	12/16/2019 17:10	XD3849	M	<0.0002	0.118	53.3	0.0184	<0.000002	0.009	0.0116		5.84	0.00402	5.29	<0.00002	270	0.435	220	0.000014	<0.005	<0.005	0.00351	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/16/2019 17:20	XD3850	D	<0.0002	0.116	53.0	0.0175	<0.000002	0.0091	0.0115		5.92	0.00406	5.19	<0.00002	273	0.424	218	0.000013	<0.005	<0.005	0.00351	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/17/2019 12:50	XD5462	M	<0.0002	0.135	50.8	0.0197	<0.000002	0.0091	0.0115		6.21	0.00373	5.55	<0.00002	272	0.398	239	0.000014	<0.005	<0.005	0.00347	<0.005	0.0052	<0.0001
RSEM-R5B-EOP	12/17/2019 13:00	XD5463	D	<0.0002	0.132	49.4	0.0191	<0.000002	0.0092	0.0112		6.29	0.00385	5.99	<0.00002	253	0.4	233	0.000013	<0.005	<0.005	0.00346	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/18/2019 12:20	XD7326	M	<0.0002	0.132	48.1	0.0183	<0.000002	0.0086	0.0109		6.01	0.00374	6.08	<0.00002	259	0.37	226	0.000014	<0.005	<0.005	0.00329	<0.005	0.0051	<0.0001
RSEM-R5B-EOP	12/18/2019 12:30	XD7327	D	<0.0002	0.127	45.5	0.017	<0.000002	0.0084	0.0103		5.50	0.00366	6.09	<0.00002	240	0.364	214	0.000014	<0.005	<0.005	0.0032	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/19/2019 12:20	XD9296	M	<0.0002	0.126	44.7	0.0172	<0.000002	0.009	0.0103		5.19	0.00345	5.69	<0.00002	242	0.4	196	0.000014	<0.005	<0.005	0.00322	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/19/2019 12:30	XD9297	D	<0.0002	0.126	43.7	0.0171	<0.000002	0.0084	0.0098		5.14	0.0034	5.64	<0.00002	239	0.396	193	0.000013	<0.005	<0.005	0.00324	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/20/2019 11:40	XD9300	M	<0.0002	0.12	42.0	0.0171	<0.000002	0.0077	0.0097		4.97	0.00323	5.61	<0.00002	227	0.365	179	0.000012	<0.005	<0.005	0.00315	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/20/2019 11:50	XD9301	D	<0.0002	0.12	42.3	0.017	<0.000002	0.0078	0.0096		4.89	0.00322	5.63	<0.00002	227	0.375	182	0.000013	<0.005	<0.005	0.00318	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/21/2019 12:45	XE2845	M	<0.0002	0.107	42.6	0.0148	<0.000002	0.0071	0.0093		4.78	0.00302	4.97	<0.00002	220	0.335	164	0.000012	<0.005	<0.005	0.0032	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/21/2019 12:55	XE2846	D	<0.0002	0.109	42.8	0.0146	<0.000002	0.007	0.0092		4.69	0.00316	5.01	<0.00002	219	0.337	166	0.000012	<0.005	<0.005	0.0032	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/22/2019 11:10	XE2822	M	<0.0002	0.106	40.8	0.013	<0.000002	0.0066	0.0087		4.57	0.00286	5.2	<0.00002	205	0.329	157	0.000012	<0.005	<0.005	0.00321	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/22/2019 11:20	XE2823	D	<0.0002	0.103	41.5	0.0129	<0.000002	0.0067	0.009		4.67	0.00294	5.08	<0.00002	207	0.332	156	0.000011	<0.005	<0.005	0.00319	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/23/2019 10:00	XE3021	M	<0.0002	0.0989	41.0	0.0114	<0.000002	0.0064	0.0089		4.50	0.00293	5.01	<0.00002	205	0.318	149	0.00001	<0.005	<0.005	0.00321	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/23/2019 10:10	XE3022	D	<0.0002	0.0969	41.6	0.0116	<0.000002	0.0064	0.0089		4.60	0.0029	4.92	<0.00002	206	0.316	153	0.000011	<0.005	<0.005	0.00318	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/24/2019 10:12	XE3578	D	<0.0002	0.103	41.0	0.0116	<0.000002	0.0065	0.0089		4.62	0.0029	5.07	<0.00002	206	0.325	150	0.000012	<0.005	<0.005	0.00325	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/24/2019 10:15	XE3577	M	<0.0002	0.104	41.6	0.012	<0.000002	0.0064	0.0093		4.64	0.00283	5.03	<0.00002	207	0.316	152	0.000011	<0.005	<0.005	0.00327	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/25/2019 14:25	XE3941	M	<0.0002	0.105	39.9	0.0102	<0.000002	0.0065	0.0093		4.51	0.00282	5	<0.00002	202	0.308	141	0.000011	<0.005	<0.005	0.00339	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/25/2019 14:40	XE3942	D	<0.0002	0.104	40.2	0.0102	<0.000002	0.0065	0.009		4.60	0.00292	4.83	<0.00002	200	0.307	142	0.000014	<0.005	<0.005	0.00337	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/26/2019 12:50	XE3945	M	<0.0002	0.0963	39.8	0.0096	<0.000002	0.0067	0.0091		4.28	0.00293	5.04	<0.00002	196	0.311	143	0.00001	<0.005	<0.005	0.00331	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/26/2019 13:00	XE3946	D	<0.0002	0.0954	40.2	0.0094	<0.000002	0.0067	0.009		4.33	0.00293	5	<0.00002	197	0.308	142	0.00001	<0.005	<0.005	0.00329	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/27/2019 11:00	XE3951	M	<0.0002	0.0942	40.3	0.0093	<0.000002	0.0065	0.009		4.31	0.00299	4.93	<0.00002	196	0.311	141	0.000011	<0.005	<0.005	0.00317	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/27/2019 11:10	XE3952	D	<0.0002	0.0937	40.8	0.0092	<0.000002	0.0066	0.0091		4.44	0.00297	4.95	<0.00002	200	0.306	141	0.000011	<0.005	<0.005	0.00321	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/28/2019 13:30	XE5441	M	<0.0002	0.0894	38.6	0.0085	<0.000002	0.0064	0.0084		4.47	0.00299	4.81	<0.00002	185	0.299	129	0.00001	<0.005	<0.005	0.00319	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/28/2019 13:40	XE5442	D	<0.0002	0.0901	38.6	0.0084	<0.000002	0.0063	0.0083		4.50	0.00307	4.78	<0.00002	186	0.296	128	0.000011	<0.005	<0.005	0.00318	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/29/2019 13:30	XE5389	M	<0.0002	0.0958	38.6	0.0091	<0.000002	0.0064	0.0087		4.45	0.00293	4.93	<0.00002	189	0.302	133	0.00001	<0.005	<0.005	0.00323	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/29/2019 13:40	XE5390	D	<0.0002	0.0946	38.4	0.009	<0.000002	0.0065	0.0086		4.50	0.00294	4.83	<0.00002	190	0.3	133	0.000012	<0.005	<0.005	0.00322	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/30/2019 10:30	XE5421	M	<0.0002	0.088	38.6	0.0082	<0.000002	0.0064	0.0082		4.57	0.00297	4.82	<0.00002	184	0.301	127	0.000011	<0.005	<0.005	0.00325	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/30/2019 10:40	XE5422	D	<0.0002	0.0875	38.4	0.0081	<0.000002	0.0062	0.0083		4.52	0.00295	4.93	<0.00002	183	0.297	125	0.00001	<0.005	<0.005	0.00321	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/31/2019 10:30	XE7173	M	<0.0002	0.0836	38.3	0.0074	<0.000002	0.0064	0.0084		4.58	0.00284	5.12	<0.00002	178	0.293	127	0.000011	<0.005	<0.005	0.00321	<0.005	<0.005	<0.0001
RSEM-R5B-EOP	12/31/2019 10:45	XE7174	D	<0.0002	0.0843	39.3	0.0074	<0.000002	0.0063	0.0084		4.60	0.00285	5.22	<0.00002	180	0.289	126	0.000011	<0.005	<0.005	0.00327	<0.005	<0.005	<0.0001
RSEM-R5B-SP	2/4/2019 13:22	VE6893	M	<0.0002	0.113	45.2	0.0413	<0.000002	0.0286	0.0252		7.99	0.00624	6.8	<0.00002	287	0.362	179	0.000012	<0.005	<0.005	0.00469	<0.005	0.03	<0.0001
RSEM-R5B-SP	2/5/2019 11:15	VE6875	M	<0.0004	0.157	60.7	0.0576	<0.000002	0.0389	0.0358		11.9	0.00879	9.47	<0.00004	416	0.486	252	<0.00002	<0.01	<0.01	0.00631	<0.01	0.043	<0.0002
RSEM-R5B-SP	2/6/2019 14:15	VE9932	M	<0.0002	0.046	17.3	0.0144	<0.000002	0.0108	0.0102		3.42	0.00258	2.65	<0.00002	117	0.128	72.2	<0.00001	<0.005	<0.005	0.00184	<0.005	0.0103	<0.0001
RSEM-R5B-SP	2/7/2019 12:00	VF0006	M	<0.0002	0.0364	14.7	0.0113	<0.000002	0.0088	0.0088		2.54	0.00217	1.91	<0.00002	91.7	0.103	55.7	<0.00001	<0.005	<0.005	0.00156	<0.005	0.0082	<0.0001
RSEM-R5B-SP	3/4/2019 15:20	VI1286	M	<0.0002	0.0597	29.7	0.0243	<0.000002	0.0055	0.0062		3.38	0.00237	4.06	<0.00002	82.4	0.294	39.2	0.000011	<0.005	<0.005	0.00196	<0.005	<0.005	<0.0001
RSEM-R5B-SP	3/5/2019 13:40	VI1637	D	<0.0002	0.0672	30.1	0.0286	<0.000002	0.0065	0.0065		3.59	0.00266	5.27	<0.00002	91.4	0.301	46.6	<0.00001	<0.005	<0.005	0.00199	<0.005	0.0069	<0.0001
RSEM-R5B-SP	3/5/2019 13:40	VI1636	M	<0.0002	0.0726	31.1	0.0292	<0.000002	0.0065	0.0066		3.83	0.00257	5.02	<0.00002	90.9	0.299	48.2	<0.00001	<0.005	<0.005	0.00201	<0.005	0.0071	<0.0001
RSEM-R5B-SP	3/6/2019 15:10	VI3122	M	<0.0002	0.0683	27.2	0.0303	<0.000002	0.0075	0.0066		3.17	0.00265	4.32	<0.00002	82.8	0.29	42.2	<0.00001	<0.005	<0.005	0.00222	<0.005	0.0059	<0.0001
RSEM-R5B-SP	3/7/2019 15:45	VI4427	D	<0.0002	0.081	31.6	0.0268	<0.000002	0.0073	0.0067		3.96	0.00263	5.28	<0.00002	94.5	0.335	47.3	<0.00001	<0.005	<0.005	0.00221	<0.005	0.0059	<0.0001
RSEM-R5B-SP	3/7/2019 15:45	VI4425	M	<0.0002	0.0742	30.8	0.0269	<0.000002	0.007	0.0068		3.94	0.00254	5.1	<0.00002	97.9	0.332	49.2	<0.00001	<0.005	<0.005	0.00213	<0.005	0.0065	<0.0001
RSEM-R5B-SP	6/14/2019 9:20	VW9967	M	<0.0002	0.105	32.7	0.0142	<0.000002	0.0113	0.0019		4.15	0.0029	0.192	<0.00002	197	0.13	155	0.000013	<0.005	<0.005	0.00111	<0.005	<0.005	<0.0001
RSEM-R5B-SP	6/15/2019 12:00	VX3565	M	<0.0002	0.0953	32.4	0.0245	<0.000002	0.0106	0.0025		4.04	0.00229	0.114	<0.00002	196	0.131	136	0.000011	<0.005	<0.005	0.00108	<0.005	<0.005	<0.0001
RSEM-R5B-SP	6/16/2019 12:10	VX3550	M	<0.0002	0.0454	33.0	<0.001	<0.000002	0.0323	0.0033		5.91	0.00894	0.321	<0.00002	245	0.43	176	0.000021	<0.005	<0.005	0.0062	<0.005	<0.005	<0.0001
RSEM-R5B-SP	6/17/2019 11:45	VX5942	M	<0.0002	0.0996	30.8	0.0202	<0.000002	0.0109	0.0022		3.85	0.00226	0.1	<0.00002	185	0.13	142	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001
RSEM-R5B-SP	6/18/2019 11:25	VX8830	M	<0.0002	0.107	32.0	0.0197	<0.000002	0.0112	0.0023		3.97	0.00223	0.128	<0.00002	191	0.135	151	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001
RSEM-R5B-SP	6/19/2019 10:45	VY1841	M	<0.0002	0.105	31.8	0.033	<0.000002	0.0111	0.0035		4.26	0.00212	0.122	<0.00002	192	0.124	167	<0.00001	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001
RSEM-R5B-SP	6/20/2019 10:50	VY4149	M	<0.0002	0.104	32.5	0.0059	<0.000002	0.0114	0.0027		4.06	0.00217	0.135	<0.00002	196	0.14	155	<0.00001	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001
RSEM-R5B-SP	6/21/2019 9:00	VY4160	M	<0.0002	0.0991	32.3	0.0066	<0.000002	0.0109	0.0024		3.86	0.00207	0.251	<0.00002	188	0.141	145	<0.00001	<0.005	<0.005	0.0013	<0.005	<0.005	<0.0001
RSEM-R5B-SP	10/10/2019 13:10	WR7645	M	<0.0002	0.1	46.8	0.0323	<0.000002	0.01	0.0111		4.59	0.0032	2.69	<0.00002	243	0.375	208	0.000011	<0.005	<0.005	0.00288	<0.005	<0.005	<0.0001
RSEM-R5B-SP	10/12/2019 11:25	WR9608	M	<0.0002	0.104	46.5	0.0302	<0.000002	0.0099	0.0106		4.60	0.00316	2.61	<0.00002	238	0.382	209	0.000011	<0.005	<0.005	0.00299	<0.005	<0.005	<0.0001
RSEM-R5B-W	10/25/2019 14:00	WU5353	M	<0.0002	0.0129	23.9	0.0759	<0.000002	0.0102	0.0026		6.76	0.00242	3.14	<0.00002	45.3	0.362	100	0.000013	<0.005	<0.005	0.00375	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/14/2019 16:17	VJ4047	M	<0.0002	0.0113	8.75	0.0052	<0.000002	0.0295	0.0028		7.36	0.00088	3.22	<0.00002	39.0	0.425	24.0	0.000013	<0.005	<0.005	0.00074	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/15/2019 10:30	VJ4025	M	<0.0002	0.0113	7.74	0.0151	<0.000002	0.027	0.0033		7.71	0.00081	3.61	<0.00002	35.2	0.485	25.3	0.000011	<0.005	<0.005	0.00076	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/16/2019 12:55	VJ7198	M	<0.0002	0.0092	6.65	0.0161	<0.000002	0.0176	0.0026		6.03	0.00064	2.9	<0.00002	25.5	0.466	17.9	0.00001	<0.005	<0.005	0.00066	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/17/2019 11:25	VJ7214	M	<0.0002	0.0104	7.38	0.0258	<0.000002	0.0168	0.0039		5.88	0.00075	3.19	<0.00002	26.5	0.492	20.5	0.00001	<0.005	<0.005	0.00077	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/18/2019 12:11	VJ6959	M	<0.0002	0.0102	7.02	0.0408	<0.000002	0.0083	0.0065		4.13	0.00047	2.21	<0.00002	20.4	0.418	18.5	0.00001	<0.005	<0.005	0.00073	<0.005	0.0056	<0.0001
RSEM-R6E-EOP	3/19/2019 13:30	VK0938	D	<0.0002	0.0123	7.14	0.0555	<0.000002	0.0104	0.0072		4.21	0.0005	1.81	<0.00002	18.4	0.432	21.5	<0.00001	<0.005	<0.005	0.00095	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	3/19/2019 13:30	VK0936	M	7.65	478	28.7	300	15.2	156	152	52.6	<1.0	64.2	<1.0	<1.0	71.7	0.250	0.76	68.9			0.24	0.0330	0.332	0.365	<0.0050
RSEM-R6E-EOP	3/20/2019	VK2374	M	7.76	515	15.6	304	10.8	163	172	60.9	<1.0	74.3	<1.0	<1.0	71.1	0.280	0.84	80.7			0.19	0.0503	0.360	0.411	<0.0050
RSEM-R6E-EOP	3/21/2019 12:10	VK3816	M	7.49	531	13.1	312	13.2	175	180	62.9	<1.0	76.8	<1.0	<1.0	65.3	0.290	0.81	92.7			0.24	0.0418	0.400	0.442	<0.0050
RSEM-R6E-EOP	3/21/2019 12:15	VK3820	D	7.61	532	15.5	314	10.8	172	177	61.2	<1.0	74.7	<1.0	<1.0	66.2	0.350	0.81	95.8			0.21	0.0383	0.393	0.431	0.0078
RSEM-R6E-EOP	3/22/2019 10:40	VK3715	M	7.68	524	14.5	292	9.2	169	175	65.3	<1.0	79.6	<1.0	<1.0	59.6	0.280	0.75	95.6			0.20	0.0403	0.399	0.439	<0.0050
RSEM-R6E-EOP	3/23/2019 15:10	VK6013	M	7.79	561	24.6	338	16.4	190	191	68.1	<1.0	83.1	<1.0	<1.0	59.7	0.330	0.64	112			0.23	0.0343	0.405	0.440	<0.0050
RSEM-R6E-EOP	3/24/2019 13:15	VK5945	D	7.87	546	15.4	314	10.0	174	194	72.4	<1.0	88.4	<1.0	<1.0	55.5	0.300	0.73	115			0.20	0.0278	0.417	0.445	<0.0050
RSEM-R6E-EOP	3/24/2019 13:15	VK5942	M	7.79	552	14.9	324	9.2	183	187	70.9	<1.0	86.4	<1.0	<1.0	56.0	0.360	0.71	113			0.49	0.0309	0.407	0.438	<0.0050
RSEM-R6E-EOP	3/25/2019 14:40	VK7834	M	7.84	548	16.3	322	8.4	185	179	74.7	<1.0	91.2	<1.0	<1.0	52.3	0.350	0.67	110			0.18	0.0257	0.427	0.453	<0.0050
RSEM-R6E-EOP	3/26/2019 13:20	VK9082	D	7.97	536	8.60	328	9.6	181	181	78.5	<1.0	95.8	<1.0	<1.0	51.6	0.270	0.65	116			0.17	0.0215	0.426	0.448	<0.0050
RSEM-R6E-EOP	3/26/2019 13:20	VK9081	M	7.96	536	10.0	326	9.2	185	185	79.2	<1.0	96.6	<1.0	<1.0	53.5	0.280	0.64	99.9			0.17	0.0226	0.423	0.445	<0.0050
RSEM-R6E-EOP	3/27/2019 15:15	VL1982	M	7.86	533	14.8	306	16.0	181	182	81.4	<1.0	99.3	<1.0	<1.0	51.8	0.020	0.64	113			0.16	0.0186	0.434	0.452	<0.0050
RSEM-R6E-EOP	3/28/2019 12:30	VL3524	M	7.99	599	3.68	306	6.8	218	217	99.5	<1.0	121	<1.0	<1.0	53.6	0.300	0.67	114			0.16	0.0215	0.497	0.518	<0.0050
RSEM-R6E-EOP	3/29/2019 9:30	VL3530	M	8.00	611	2.96	362	8.0	235	223	121	<1.0	147	<1.0	<1.0	55.8	0.290	0.68	125			0.15	0.0161	0.546	0.562	<0.0050
RSEM-R6E-EOP	3/30/2019 0:45	VL6532	M	8.09	613	7.93	348	6.8	230	221	130	<1.0	159	<1.0	<1.0	50.9	0.280	0.70	100			0.13	0.0250	0.584	0.609	<0.0050
RSEM-R6E-EOP	3/31/2019 12:50	VL6670	M	7.96	625	3.09	374	6.0	241	234	134	<1.0	164	<1.0	<1.0	52.5	0.280	0.73	107			0.13	0.0255	0.590	0.615	<0.0050
RSEM-R6E-EOP	4/1/2019 13:25	VL8112	M	8.01	592	2.41	352	<16	218	216	135	<1.0	164	<1.0	<1.0	50.4	0.270	0.66	105			0.12	0.0220	0.556	0.578	0.0036
RSEM-R6E-EOP	4/2/2019 9:45	VL9873	M	8.13	575	4.93	342	5.6	227	222	128	<1.0	156	<1.0	<1.0	48.5	0.250	0.63	95.6			0.098	0.0220	0.540	0.562	0.0031
RSEM-R6E-EOP	4/3/2019 12:25	VM2010	M	8.09	600	6.62	352	6.4	217	223	140	<1.0	171	<1.0	<1.0	48.3	0.270	0.63	101			0.12	0.0210	0.583	0.604	0.0032
RSEM-R6E-EOP	4/4/2019 12:56	VM3412	M	8.11	614	3.16	402	6.8	219	213	150	<1.0	183	<1.0	<1.0	45.9	0.260	0.66	95.8			0.11	0.0168	0.569	0.586	<0.0030
RSEM-R6E-EOP	4/5/2019 9:25	VM3336	M	8.30	639	1.92	352	<4.0	217	227	152	<1.0	186	<1.0	<1.0	46.4	0.250	0.63	106			0.095	0.0085	0.595	0.604	0.0046
RSEM-R6E-EOP	4/6/2019 12:10	VM5387	M	8.01	365	43.4	206	56.8	142	137	112	<1.0	137	<1.0	<1.0	23.8	0.190	0.34	34.1			0.059	0.0074	0.300	0.307	<0.0050
RSEM-R6E-EOP	4/7/2019 13:10	VM5353	M	8.00	390	38.2	214	42.0	156	147	109	<1.0	133	<1.0	<1.0	26.5	0.190	0.38	43.4			0.044	0.0070	0.344	0.351	<0.0050
RSEM-R6E-EOP	4/8/2019 9:55	VM6525	M	8.14	514	19.1	300	29.6	200	198	128	<1.0	156	<1.0	<1.0	37.9	0.250	0.49	75.3			0.065	0.0287	0.443	0.472	<0.0050
RSEM-R6E-EOP	4/9/2019 12:19	VM8372	M	8.07	515	9.12	294	22.0	202	197	132	<1.0	161	<1.0	<1.0	38.1	0.260	0.51	78.2			0.048	0.0191	0.410	0.429	<0.0050
RSEM-R6E-EOP	4/10/2019 12:45	VN0771	M	8.05	529	16.8	282	17.2	202	203	131	<1.0	160	<1.0	<1.0	36.2	0.220	0.51	85.8			0.061	0.0200	0.468	0.488	<0.0030
RSEM-R6E-EOP	4/11/2019 13:33	VN1894	M	8.08	532	8.34	324	19.6	208	206	133	<1.0	162	<1.0	<1.0	36.2	0.220	0.52	84.3			0.032	0.0181	0.440	0.458	<0.0050
RSEM-R6E-EOP	4/12/2019 10:47	VN1937	M	8.05	527	6.50	324	17.6	195	197	134	<1.0	164	<1.0	<1.0	37.1	0.220	0.52	84.5			0.076	0.0136	0.438	0.452	<0.0050
RSEM-R6E-EOP	4/13/2019 12:28	VN4407	M	8.15	535	8.74	296	14.4	190	198	133	<1.0	163	<1.0	<1.0	39.4	0.220	0.53	83.9			0.033	0.0119	0.444	0.456	<0.0050
RSEM-R6E-EOP	4/14/2019 13:21	VN4397	M	8.20	550	7.60	290	8.8	205	201	140	<1.0	171	<1.0	<1.0	40.5	0.240	0.54	84.1			0.016	0.0073	0.443	0.450	<0.0050
RSEM-R6E-EOP	4/15/2019 14:15	VN6318	M	8.29	560	5.90	314	8.4	218	194	135	<1.0	165	<1.0	<1.0	43.0	0.230	0.52	87.1			0.084	0.0070	0.424	0.431	<0.0050
RSEM-R6E-EOP	4/16/2019 9:45	VN8480	M	8.17	552	2.60	312	4.8	203	201	140	<1.0	171	<1.0	<1.0	40.1	0.240	0.53	88.0			0.025	0.0076	0.402	0.410	0.12
RSEM-R6E-EOP	4/17/2019 10:25	VN9787	M	8.39	618	2.77	350	8.8	229	192	142	1.8	169	2.2	<1.0	49.0	0.260	0.66	100			0.022	0.0074	0.430	0.438	<0.0030
RSEM-R6E-EOP	4/18/2019 11:15	VN9664	M	8.40	595	4.53	342	9.2	218	192	139	1.9	165	2.3	<1.0	45.2	0.240	0.60	96.1			0.021	0.0081	0.376	0.384	<0.0030
RSEM-R6E-EOP	4/19/2019 12:46	VO0359	D	8.21	590	4.36	338	14.8	216	179	143	<1.0	175	<1.0	<1.0	45.2	0.240	0.61	91.6			0.020	0.0077	0.375	0.382	<0.0030
RSEM-R6E-EOP	4/19/2019 12:46	VO0358	M	8.18	591	4.54	332	13.6	229	180	140	<1.0	171	<1.0	<1.0	47.3	0.240	0.61	99.9			0.028	0.0073	0.378	0.385	0.0036
RSEM-R6E-EOP	4/20/2019 12:23	VO0437	M	8.18	597	5.23	324	13.2	222	227	138	<1.0	169	<1.0	<1.0	46.5	0.250	0.60	98.4			0.021	0.0075	0.382	0.390	<0.0030
RSEM-R6E-EOP	4/21/2019 11:30	VO1981	M	8.23	591	3.71	334	8.8	215	211	133	<1.0	163	<1.0	<1.0	45.6	0.250	0.56	101			0.063	0.0076	0.324	0.331	<0.0030
RSEM-R6E-EOP	4/23/2019 12:35	VO5419	M	8.34	591	3.64	328	7.2	208	204	131	1.5	156	1.8	<1.0	49.8	0.250	0.60	98.2			0.018	<0.0050	0.234	0.234	<0.0030
RSEM-R6E-EOP	4/24/2019 14:19	VO7032	M	8.19	600	4.61	326	12.0	209	209	135	<1.0	165	<1.0	<1.0	44.9	0.250	0.61	101			<0.015	0.0058	0.285	0.291	<0.0030
RSEM-R6E-EOP	4/25/2019 12:30	VO8683	M	8.13	609	6.89	324	8.0	203	207	137	<1.0	168	<1.0	<1.0	43.4	0.250	0.62	103			<0.015	0.0086	0.287	0.296	<0.0030
RSEM-R6E-EOP	4/26/2019 11:05	VO8646	M	8.18	610	7.26	326	6.8	202	208	139	<1.0	170	<1.0	<1.0	43.3	0.250	0.61	105			0.037	0.0079	0.300	0.308	<0.0030
RSEM-R6E-EOP	4/27/2019 13:15	VP1292	M	8.13	623	4.22	348	5.6	204	209	139	<1.0	170	<1.0	<1.0	45.8	0.250	0.61	99.2			<0.015	0.0096	0.302	0.312	<0.0030
RSEM-R6E-EOP	4/28/2019 13:00	VP1296	M	8.14	630	4.47	342	6.4	202	203	139	<1.0	170	<1.0	<1.0	46.4	0.260	0.64	97.5			<0.015	0.0071	0.338	0.345	<0.0030
RSEM-R6E-EOP	4/29/2019 12:00	VP3187	M	8.29	622	4.28	348	4.8	203	203	134	<1.0	163	<1.0	<1.0	47.4	0.260	0.64	116			0.022	0.0066	0.375	0.381	<0.0030
RSEM-R6E-EOP	4/30/2019 14:05	VP5203	M	7.98	629	3.57	360	<4.0	197	204	133	<1.0	163	<1.0	<1.0	44.3	0.260	0.67	120			0.022	0.0089	0.388	0.397	<0.0030
RSEM-R6E-EOP	5/1/2019 13:20	VP6528	M	8.21	654	4.22	378	4.4	199	200	134	<1.0	163	<1.0	<1.0	42.7	0.260	0.70	125			0.035	0.0135	0.429	0.443	<0.0030
RSEM-R6E-EOP	5/2/2019 14:10	VP8695	M	8.16	679	6.03	368	8.4	210	210	136	<1.0	166	<1.0	<1.0	48.0	0.260	0.73	129			0.046	0.0100	0.464	0.474	<0.0030
RSEM-R6E-EOP	5/3/2019 9:35	VP8772	M	7.98	676	5.67	354	5.6	203	205	137	<1.0	167	<1.0	<1.0	47.6	0.260	0.74	133			0.044	0.0116	0.461	0.473	<0.0030
RSEM-R6E-EOP	5/4/2019 9:55	VQ1563	M	8.53	668	3.58	384	4.0	214	212	142	4.2	163	5.0	<1.0	48.4	0.270	0.74	104			0.027	0.0068	0.457	0.464	<0.0030
RSEM-R6E-EOP	5/5/2019 12:50	VQ1490	M	8.06	684	3.82	388	4.8	217	212	133	<1.0	163	<1.0	<1.0	52.6	0.270	0.80	129			0.031	0.0062	0.502	0.508	<0.0030
RSEM-R6E-EOP	5/6/2019 12:15	VQ3928	M	8.24	708	3.22	410	5.2	223	214	131	<1.0	160	<1.0	<1.0	54.4	0.280	0.84	135			0.028	0.0070	0.659	0.666	<0.0030
RSEM-R6E-EOP	5/7/2019 11:58	VQ4256	M	8.26	718	3.46	416	<4.0	231	224	133	<1.0	162	<1.0	<1.0	55.7	0.270	0.89	140			0.040	0.0109	0.717	0.728	0.0060
RSEM-R6E-EOP	5/8/2019 13:19	VQ9189	M	8.05	733	2.46	422	<4.0	210	216	135	<1.0	164	<1.0	<1.0	54.8	0.260	0.89	154			0.040	0.0109	0.756	0.767	<0.0030
RSEM-R6E-EOP	5/9/2019 12:54	VQ8350	M	8.19	721	2.61	400	5.2	218	222	131	<1.0	160	<1.0	<1.0	55.7	0.270	0.89	153			0.028	0.0090	0.816	0.825	0.37
RSEM-R6E-EOP	5/10/2019 9:30	VQ9650	M	8.13	726	2.76	414	<4.0	212	208	128	<1.0	156	<1.0	<1.0	57.1	0.260	0.89	140			0.084	0.0097	0.773	0.783	0.0074
RSEM-R6E-EOP	5/11/2019 12:40	VR2470	M	8.06	749	3.82	416	<4.0	212	210	127	<1.0	155	<1.0	<1.0	61.7	0.280	0.98	164			0.059	0.0161	0.913	0.929	<0.0030
RSEM-R6E-EOP	5/12/2019 12:14	VR2432	M	8.02	715	4.08	386	4.8	205	210	129	<1.0	157	<1.0	<1.0	61.1	0.270	0.89	150			0.029	0.0146	0.830	0.845	<0.0030
RSEM-R6E-EOP	5/13/2019 12:32	VR4435	M	8.09	770	5.76	422	4.0	213	214	129	<1.0	157	<1.0	<1.0	62.6	0.290	1.0	170			0.072	0.0168	0.909	0.925	0.0034
RSEM-R6E-EOP	5/14/2019 11:35	VR6838	M	8.06	785	5.50	472	4.4	221	211	123	<1.0	150	<1.0	<1.0	61.3	0.290	1.1	178			0.085	0.0171	0.930	0.947	0.0036
RSEM-R6E-EOP	5/15/2019 13:10	VR8790	M	8.07	803	5.69	452	5.6	224	221	127	<1.0	155	<1.0	<1.0	62.6	0.330	1.1	179			0.095	0.0173	0.895	0.913	0.0035
RSEM-R6E-EOP	5/16/2019 13:25	VS0882	M	8.21	808	4.56	458	4.4	222	221	126	<1.0	154	<1.0	<1.0	63.2	0.310	1.1	170			0.093	0.0194	1.01	1.02	0.0037
RSEM-R6E-EOP	5/17/2019 9:21	VS0948	M	8.22	809	5.57	456	8.0	218	220	129	<1.0	157	<1.0	<1.0	61.8	0.310	1.1	185			0.082	0.0168	1.02	1.03	0.0055
RSEM-R6E-EOP	5/18/2019 14:55	VS1855	M	8.25	797	7.00	482	8.4	227	226	132	<1.0	161	<1.0	<1.0	57.7	0.330	1.1	184			0.084	0.0207	0.993	1.01	<0.0050
RSEM-R6E-EOP	5/19/2019 9:34	VS3008	M	8.23	819	4.72	476	12.8	235	232	135	<1.0	165	<1.0	<1.0	63.1	0.320	1.1	169			0.097	0.0191	1.04	1.06	<0.0050
RSEM-R6E-EOP	5/20/2019 12:49	VS3017	M	8.24	810	4.84	470	8.0	218	226	137	<1.0	167	<1.0	<1.0	59.1	0.340	1.0	161			0.069	0.0187	1.02	1.03	<0.0050
RSEM-R6E-EOP	5/21/2019 13:00	VS5710	M	8.07	806	9.42	488	15.6	215	229	134	<1.0	164	<1.0	<1.0	71.2	0.350	1.1	163			0.10	0.0163	1.11	1.12	<0.0050
RSEM-R6E-EOP	5/22/2019 14:40	VS7510	M	8.32	842	8.23	488	<4.0	222	234	139	<1.0	169	<1.0	<1.0	66.4	0.300	1.2	172			0.076	0.0188	0.985	1.00	<0.0050
RSEM-R6E-EOP	5/23/2019 12:40	VS9392	M	8.29	841	7.05	494	8.0	236	233	139	<1.0	170	<1.0	<1.0	71.1	0.310	1.2	167			0.080	0.0187	1.06	1.08	<0.0050
RSEM-R6E-EOP	5/24/2019 11:50	VS9362	M	8.26	835	6.86	490	8.4	233	237	142	<1.0	174	<1.0	<1.0	66.5	0.300	1.2	166			0.072	0.0178	1.06	1.08	<0.0050
RSEM-R6E-EOP	6/8/2019 11:43	VV9725	M	8.16	819	4.67	474	<4.0	233	223	126	<1.0	154	<1.0	<1.0	76.6	0.310	1.2	150			0.020	0.0126	0.702	0.715	<0.0050
RSEM-R6E-EOP	6/9/2019 11:41	VV9809	M	7.88	798	5.67	480	6.0	217	225	116	<1.0	141	<1.0	<1.0	74.8	0.310	1.2	165			<0.015	0.0142	0.646	0.660	<0.0050
RSEM-R6E-EOP	6/12/2019 9:50	VW8056	M	8.12	785	5.41	452	<4.0	193	203	101	<1.0	124	<1.0	<1.0	73.1	0.320	1.2	165			<0.015	0.0122	0.454	0.466	<0.0050
RSEM-R6E-EOP	6/14/2019 10:00	VW9965	M	8.05	763	4.54	412	<4.0	174	181	86.0	<1.0	105	<1.0	<1.0	77.7	0.310	1.2	161			<0.015	0.0092	0.274	0.283	<0.0050
RSEM-R6E-EOP	6/15/2019 12:50	VX3563	M	8.19	738	6.97	410	<4.0	170	169	83.2	<1.0	102	<1.0	<1.0	66.5	0.320	1.2	161			<0.015	0.0092	0.243	0.252	<0.0050
RSEM-R6E-EOP	6/16/2019 13:05	VX3548	M	8.18	735	5.4	410	<4.0	164	169	83.0	<1.0	101	<1.0	<1.0	67.5	0.340	1.2	145			<0.015	0.0094	0.212	0.222	<0.0050

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	3/19/2019 13:30	VK0936	M	4.3	3.0	0.486	<0.0005	0.00067	0.093	<0.0001	<0.001	<0.05	0.000071	50.1	0.0048	0.00184	0.00233	0.722	0.00039	0.0134	7.45	0.0753	<0.000002	0.0105	0.0089		4.19	0.00057
RSEM-R6E-EOP	3/20/2019	VK2374	M	4.2	3.0	0.581	0.00051	0.00048	0.0925	<0.0001	<0.001	<0.05	0.000063	51.4	0.0045	0.00221	0.00196	0.419	0.00024	0.0154	8.37	0.0824	<0.000002	0.0106	0.0103		4.14	0.00066
RSEM-R6E-EOP	3/21/2019 12:10	VK3816	M	3.7	3.1	0.317	<0.0005	0.00041	0.0912	<0.0001	<0.001	<0.05	0.000065	54.2	0.0058	0.00254	0.00227	0.391	0.00022	0.016	9.52	0.0878	0.0000085	0.0139	0.0123		4.61	0.00075
RSEM-R6E-EOP	3/21/2019 12:15	VK3820	D	3.5	2.8	0.303	<0.0005	0.0004	0.0913	<0.0001	<0.001	<0.05	0.000066	53.4	0.0054	0.00255	0.00205	0.386	0.00023	0.0157	9.38	0.0899	0.0000089	0.0138	0.0123		4.54	0.00073
RSEM-R6E-EOP	3/22/2019 10:40	VK3715	M	2.6	3.5	0.306	<0.0005	0.00046	0.0907	<0.0001	<0.001	<0.05	0.000062	52.6	0.0061	0.0023	0.00201	0.481	0.00025	0.0148	9.07	0.0839	<0.000002	0.0176	0.0112		4.53	0.00074
RSEM-R6E-EOP	3/23/2019 15:10	VK6013	M	2.9	2.4	0.37	0.00051	0.00059	0.0962	<0.0001	<0.001	<0.05	0.000079	57.8	0.0065	0.00226	0.00214	0.556	0.00033	0.017	11.1	0.0966	<0.000002	0.0205	0.0118		5.04	0.00098
RSEM-R6E-EOP	3/24/2019 13:15	VK5945	D	2.9	3.0	0.232	<0.0005	0.0004	0.0905	<0.0001	<0.001	<0.05	0.000068	51.8	0.0056	0.00198	0.00164	0.287	0.0002	0.0155	10.9	0.0872	<0.000002	0.0187	0.0103		4.93	0.00094
RSEM-R6E-EOP	3/24/2019 13:15	VK5942	M	2.7	2.5	0.254	<0.0005	0.00044	0.093	<0.0001	<0.001	<0.05	0.000069	55.4	0.0058	0.00202	0.00169	0.293	0.00021	0.0154	10.9	0.0902	<0.000002	0.0191	0.0106		5.28	0.00097
RSEM-R6E-EOP	3/25/2019 14:40	VK7834	M	2.6	2.0	0.312	<0.0005	0.00053	0.0895	<0.0001	<0.001	<0.05	0.000054	57.8	0.0054	0.00216	0.00168	0.415	0.00022	0.0156	9.81	0.0916	<0.000002	0.0221	0.0106		4.50	0.00098
RSEM-R6E-EOP	3/26/2019 13:20	VK9082	D	2.1	1.7	0.336	<0.0005	0.00042	0.0878	<0.0001	<0.001	<0.05	0.000061	55.2	0.0052	0.00219	0.00162	0.373	0.00022	0.0154	10.5	0.0896	<0.000002	0.0152	0.0103		4.12	0.00093
RSEM-R6E-EOP	3/26/2019 13:20	VK9081	M	1.6	2.1	0.329	<0.0005	0.00038	0.0893	<0.0001	<0.001	<0.05	0.000066	57.6	0.0049	0.00217	0.00154	0.444	0.00022	0.0157	10.1	0.0888	<0.000002	0.0156	0.0099		4.11	0.00099
RSEM-R6E-EOP	3/27/2019 15:15	VL1982	M	1.7	1.9	0.348	<0.0005	0.00044	0.094	<0.0001	<0.001	<0.05	0.000063	54.8	0.0047	0.00227	0.00162	0.375	0.00042	0.0166	10.6	0.095	<0.000002	0.0147	0.0107		4.09	0.00092
RSEM-R6E-EOP	3/28/2019 12:30	VL3524	M	1.9	2.1	0.136	<0.0005	0.00037	0.0926	<0.0001	<0.001	<0.05	0.000069	65.2	0.004	0.00256	0.0013	0.16	<0.0002	0.0175	13.3	0.103	<0.000002	0.0139	0.0114		4.49	0.00098
RSEM-R6E-EOP	3/29/2019 9:30	VL3530	M	1.4	1.4	0.145	<0.0005	0.00035	0.103	<0.0001	<0.001	<0.05	0.000075	69.3	0.0034	0.00304	0.00128	0.165	<0.0002	0.0202	15.1	0.116	<0.000002	0.0126	0.0132		4.24	0.00101
RSEM-R6E-EOP	3/30/2019 0:45	VL6532	M	2.0	1.6	0.125	<0.0005	0.0004	0.132	<0.0001	<0.001	<0.05	0.000068	67.3	0.0024	0.00184	0.00131	0.18	<0.0002	0.0153	15.0	0.0953	<0.000002	0.0109	0.0085		3.88	0.00106
RSEM-R6E-EOP	3/31/2019 12:50	VL6670	M	1.7	1.8	0.208	<0.0005	0.0004	0.14	<0.0001	<0.001	<0.05	0.000068	73.3	0.0045	0.0014	0.00135	0.21	0.00025	0.0149	14.0	0.0907	<0.000002	0.011	0.0067		4.00	0.00124
RSEM-R6E-EOP	4/1/2019 13:25	VL8112	M	2.0	1.8	0.093	<0.0005	0.00043	0.144	<0.0001	<0.001	0.052	0.000059	63.1	0.0023	0.00106	0.00123	0.133	<0.0002	0.0143	14.7	0.0771	<0.000002	0.0105	0.0056		3.95	0.00114
RSEM-R6E-EOP	4/2/2019 9:45	VL9873	M	1.7	1.7	0.108	<0.0005	0.00043	0.143	<0.0001	<0.001	<0.05	0.000064	66.4	0.0023	0.00115	0.00126	0.185	<0.0002	0.0157	14.8	0.0785	0.0000063	0.01	0.0058		3.93	0.00113
RSEM-R6E-EOP	4/3/2019 12:25	VM2010	M	1.9	1.7	0.139	<0.0005	0.00039	0.145	<0.0001	<0.001	<0.05	0.000061	63.7	0.002	0.00123	0.00119	0.221	<0.0002	0.0138	14.2	0.0765	0.0000111	0.0091	0.0061		3.49	0.00102
RSEM-R6E-EOP	4/4/2019 12:56	VM3412	M	1.8	1.2	0.0977	<0.0005	0.00036	0.146	<0.0001	<0.001	<0.05	0.000058	64.1	0.0018	0.00132	0.00103	0.147	<0.0002	0.0145	14.4	0.0765	<0.000002	0.0083	0.0067		3.56	0.00112
RSEM-R6E-EOP	4/5/2019 9:25	VM3336	M	1.7	1.7	0.0807	<0.0005	0.00034	0.143	<0.0001	<0.001	<0.05	0.000058	63.5	0.0016	0.0013	0.00102	0.077	<0.0002	0.0141	14.2	0.0733	<0.000002	0.0083	0.0062		3.41	0.00103
RSEM-R6E-EOP	4/6/2019 12:10	VM5387	M	2.5	2.2	3.43	<0.0005	0.00163	0.134	0.00012	<0.001	<0.05	0.000114	41.3	0.0057	0.00201	0.0045	2.91	0.00154	0.0121	9.53	0.0726	<0.000002	0.004	0.0093		3.67	0.00061
RSEM-R6E-EOP	4/7/2019 13:10	VM5353	M	<0.50	2.1	3.14	<0.0005	0.00138	0.141	0.00011	<0.001	<0.05	0.000103	46.0	0.0049	0.00186	0.00395	2.45	0.00129	0.0123	10.0	0.0729	<0.000002	0.0047	0.0082		3.35	0.0007
RSEM-R6E-EOP	4/8/2019 9:55	VM6525	M	1.3	1.6	0.754	<0.0005	0.00079	0.147	<0.0001	<0.001	<0.05	0.000079	59.5	0.0028	0.00139	0.00219	0.927	0.00058	0.0132	12.6	0.0737	<0.000002	0.0068	0.0071		3.61	0.00088
RSEM-R6E-EOP	4/9/2019 12:19	VM8372	M	1.6	1.5	0.609	<0.0005	0.00062	0.146	<0.0001	<0.001	<0.05	0.000064	60.2	0.0026	0.00119	0.00175	0.751	0.00042	0.0137	12.4	0.0674	<0.000002	0.0068	0.0064		3.58	0.00087
RSEM-R6E-EOP	4/10/2019 12:45	VN0771	M	1.6	1.7	0.242	<0.0005	0.00051	0.146	<0.0001	<0.001	<0.05	0.000058	60.4	0.0021	0.00118	0.00161	0.513	0.00031	0.0146	12.4	0.0617	<0.000002	0.0069	0.006		3.45	0.00092
RSEM-R6E-EOP	4/11/2019 13:33	VN1894	M	1.5	1.6	0.277	<0.0005	0.0005	0.141	<0.0001	<0.001	<0.05	0.000054	62.7	0.0022	0.00115	0.00156	0.523	0.00033	0.0144	12.4	0.0571	<0.000002	0.0067	0.0067		3.32	0.00088
RSEM-R6E-EOP	4/12/2019 10:47	VN1937	M	1.4	1.5	0.528	<0.0005	0.00053	0.137	<0.0001	<0.001	<0.05	0.000053	57.5	0.0025	0.00126	0.00172	0.561	0.00031	0.0141	12.5	0.0539	<0.000002	0.0067	0.0064		3.29	0.00086
RSEM-R6E-EOP	4/13/2019 12:28	VN4407	M	1.5	1.4	0.166	<0.0005	0.00041	0.129	<0.0001	<0.001	<0.05	0.000049	54.6	0.0018	0.00115	0.00168	0.299	<0.0002	0.014	13.0	0.0419	<0.000002	0.0073	0.0062		3.21	0.00091
RSEM-R6E-EOP	4/14/2019 13:21	VN4397	M	1.4	1.5	0.107	<0.0005	0.00035	0.128	<0.0001	<0.001	<0.05	0.000045		0.0017	0.00104	0.00124	0.142	<0.0002	0.0148		0.0326	<0.000002	0.0075	0.0059			0.00096
RSEM-R6E-EOP	4/15/2019 14:15	VN6318	M	1.7	1.7	0.126	<0.0005	0.00046	0.152	<0.0001	<0.001	0.058	0.000049	63.9	0.0019	0.00108	0.00155	0.189	<0.0002	0.0177	14.3	0.0315	<0.000002	0.0083	0.006		3.82	0.00113
RSEM-R6E-EOP	4/16/2019 9:45	VN8480	M	1.3	1.5	0.0944	<0.0005	0.00031	0.128	<0.0001	<0.001	<0.05	0.000039	58.5	0.0017	0.00092	0.00112	0.109	<0.0002	0.0155	14.0	0.0241	<0.000002	0.0067	0.0055		3.32	0.00083
RSEM-R6E-EOP	4/17/2019 10:25	VN9787	M	2.0	1.5	0.14	<0.0005	0.00035	0.142	<0.0001	<0.001	0.058	0.00005	67.1	0.0016	0.00127	0.00122	0.171	<0.0002	0.0196	15.0	0.0316	<0.000002	0.0072	0.0072		3.43	0.00089
RSEM-R6E-EOP	4/18/2019 11:15	VN9664	M	2.1	2.2	0.114	<0.0005	0.00036	0.139	<0.0001	<0.001	0.054	0.000046	62.4	0.0017	0.00107	0.00142	0.149	<0.0002	0.0186	15.2	0.0257	<0.000002	0.0074	0.0065		3.53	0.00095
RSEM-R6E-EOP	4/19/2019 12:46	VO0359	D	1.7	0.97	0.243	<0.0005	0.00041	0.141	<0.0001	<0.001	0.056	0.000045	61.9	0.0017	0.00097	0.00128	0.288	<0.0002	0.0179	14.8	0.0235	<0.000002	0.0072	0.0062		3.55	0.00093
RSEM-R6E-EOP	4/19/2019 12:46	VO0358	M	1.8	1.6	0.345	<0.0005	0.00043	0.139	<0.0001	<0.001	0.055	0.000042	66.4	0.0019	0.001	0.00136	0.332	<0.0002	0.0182	15.3	0.0244	<0.000002	0.0071	0.0063		3.63	0.00094
RSEM-R6E-EOP	4/20/2019 12:23	VO0437	M	1.8	2.4	0.214	<0.0005	0.00041	0.145	<0.0001	<0.001	0.058	0.000037	64.8	0.0018	0.00097	0.00124	0.226	<0.0002	0.0192	14.6	0.0214	<0.000002	0.0076	0.006		3.63	0.00091
RSEM-R6E-EOP	4/21/2019 11:30	VO1981	M	1.7	1.4	0.119	<0.0005	0.00037	0.134	<0.0001	<0.001	0.056	0.000034	60.0	0.0016	0.00111	0.00132	0.151	<0.0002	0.0183	15.8	0.0267	<0.000002	0.007	0.0057		3.48	0.00095
RSEM-R6E-EOP	4/23/2019 12:35	VO5419	M	1.9	1.6	0.128	<0.0005	0.00036	0.128	<0.0001	<0.001	0.057	0.000024	57.7	0.0015	0.00069	0.00123	0.15	<0.0002	0.0194	15.5	0.0123	<0.000002	0.0068	0.0053		3.34	0.00109
RSEM-R6E-EOP	4/24/2019 14:19	VO7032	M	1.7	1.7	0.173	<0.0005	0.00037	0.134	<0.0001	<0.001	0.065	0.000026	56.9	0.002	0.0011	0.00144	0.202	<0.0002	0.0199	16.3	0.0283	<0.000002	0.0074	0.0056		3.70	0.00106
RSEM-R6E-EOP	4/25/2019 12:30	VO8683	M	1.7	1.8	0.157	<0.0005	0.00038	0.129	<0.0001	<0.001	0.067	0.000024	55.0	0.0017	0.00066	0.00164	0.201	<0.0002	0.0204	15.9	0.0131	<0.000002	0.0077	0.0053		3.50	0.00094
RSEM-R6E-EOP	4/26/2019 11:05	VO8646	M	1.7	1.9	0.155	<0.0005	0.0004	0.131	<0.0001	<0.001	0.078	0.000011	55.2	0.0018	0.00058	0.00129	0.2	<0.0002	0.0212	15.7	0.0115	<0.000002	0.0082	0.005		3.89	0.00099
RSEM-R6E-EOP	4/27/2019 13:15	VP1292	M	1.9	1.7	0.106	<0.0005	0.00042	0.126	<0.0001	<0.001	0.065	0.000016	54.7	0.0022	0.00054	0.00144	0.141	<0.0002	0.0202	16.5	0.0101	<0.000002	0.0083	0.005		4.07	0.00106
RSEM-R6E-EOP	4/28/2019 13:00	VP1296	M	2.4	1.8	0.128	<0.0005	0.00043	0.125	<0.0001	<0.001	0.068	0.000024	54.1	0.0026	0.00054	0.0013	0.147	<0.0002	0.0209	16.3	0.0105	<0.000002	0.0097	0.0049		4.57	0.00109
RSEM-R6E-EOP	4/29/2019 12:00	VP3187	M	1.9	1.8	0.116	<0.0005	0.0004	0.124	<0.0001	<0.001	0.068	0.000015	54.3	0.0028	0.00048	0.00127	0.108	<0.0002	0.0208	16.4	0.0089	<0.000002	0.0103	0.0047		4.89	0.00114
RSEM-R6E-EOP	4/30/2019 14:05	VP5203	M	1.9	2.1	0.0905	<0.0005	0.0004	0.124	<0.0001	<0.001	0.074	0.000017	53.3	0.0031	0.00045	0.00125	0.102	<0.0002	0.0227	15.6	0.008	<0.000002	0.0117	0.0046		5.12	0.00117
RSEM-R6E-EOP	5/1/2019 13:20	VP6528	M	2.1	1.8	0.0986	<0.0005	0.0004	0.13	<0.0001	<0.001	0.072	0.000018	54.3	0.0034	0.00043	0.00126	0.097	<0.0002	0.0221	15.4	0.0075	<0.000002	0.0129	0.0045		5.02	0.00121
RSEM-R6E-EOP	5/2/2019 14:10	VP8695	M	2.3	2.5	0.114	<0.0005	0.00044	0.125	<0.0001	<0.001	0.076	0.000016	56.7	0.0039	0.00048	0.00147	0.167	<0.0002	0.0226	16.6	0.0093	<0.000002	0.0143	0.0046		5.51	0.00132
RSEM-R6E-EOP	5/3/2019 9:35	VP8772	M	2.4	2.3	0.122	<0.0005	0.00045	0.131	<0.0001	<0.001	0.075	0.000018	55.7	0.0037	0.00041	0.00132	0.141	<0.0002	0.0233	15.5	0.008	<0.000002	0.0145	0.0044		5.47	0.00119
RSEM-R6E-EOP	5/4/2019 9:55	VQ1563	M	2.2	2.2	0.146	<0.0005	0.00041	0.119	<0.0001	<0.001	0.076	0.000017	57.2	0.0039	0.00041	0.00138	0.128	<0.0002	0.0248	17.3	0.0069	<0.000002	0.0143	0.0044		5.67	0.00127
RSEM-R6E-EOP	5/5/2019 12:50	VQ1490	M	2.0	2.1	0.154	<0.0005	0.00042	0.12	<0.0001	<0.001	0.081	0.000018	56.6	0.0041	0.00047	0.00154	0.139	<0.0002	0.0248	18.3	0.008	<0.000002	0.0143	0.0047		5.90	0.00125
RSEM-R6E-EOP	5/6/2019 12:15	VQ3928	M	2.2	2.2	0.122	0.00058	0.00042	0.124	<0.0001	<0.001	0.078	0.000012	60.1	0.0041	0.00053	0.00161	0.124	<0.0002	0.0243	17.6	0.008	<0.000002	0.0139	0.005		5.97	0.00136
RSEM-R6E-EOP	5/7/2019 11:58	VQ4256	M	2.2	2.3	0.122	<0.0005	0.00046	0.12	<0.0001	<0.001	0.092	0.00002	60.4	0.0044	0.00059	0.00161	0.106	<0.0002	0.026	19.4	0.0086	<0.000002	0.0141	0.0054		6.06	0.00148
RSEM-R6E-EOP	5/8/2019 13:19	VQ9189	M	2.4	2.5	0.0944	<0.0005	0.00039	0.108	<0.0001	<0.001	0.085	0.000018	54.1	0.0042	0.00058	0.0016	0.107	<0.0002	0.0244	18.3	0.0074	<0.000002	0.0135	0.005		5.40	0.00128
RSEM-R6E-EOP	5/9/2019 12:54	VQ8350	M	2.1	3.7	0.0951	<0.0005	0.00039	0.117	<0.0001	<0.001	0.107	0.000016	54.3	0.0039	0.00048	0.00135	0.069	<0.0002	0.0292	20.0	0.0058	<0.000002	0.013	0.0046		6.29	0.00139
RSEM-R6E-EOP	5/10/2019 9:30	VQ9650	M	2.2	2.3	0.105	<0.0005	0.0004	0.11	<0.0001	<0.001	0.104	0.000013	55.7	0.004	0.00045	0.00143	0.076	<0.0002	0.0291	17.8	0.0056	<0.000002	0.0136	0.0046		5.49	0.00134
RSEM-R6E-EOP	5/11/2019 12:40	VR2470	M	1.7	1.9	0.128	<0.0005	0.00044	0.108	<0.0001	<0.001	0.099	0.000011	53.5	0.0038	0.00044	0.00173	0.12	<0.0002	0.0272	19.1	0.0066	<0.000002	0.0146	0.0045		5.75	0.00128
RSEM-R6E-EOP	5/12/2019 12:14	VR2432	M	2.4	1.8	0.177	<0.0005	0.00044	0.111	<0.0001	<0.001	0.094	0.000016	52.3	0.0041	0.00045	0.0018	0.156	<0.0002	0.0265	18.1	0.0075	<0.000002	0.0136	0.0045		5.60	0.00132
RSEM-R6E-EOP	5/13/2019 12:32	VR4435	M	2.4	2.5	0.147	<0.0005	0.00045	0.114	<0.0001	<0.001	0.098	0.000013	53.6	0.0038	0.0004	0.00156	0.138	<0.0002	0.0278	19.2	0.0065	<0.000002	0.0164	0.0045		5.82	0.00143
RSEM-R6E-EOP	5/14/2019 11:35	VR6838	M	2.0	2.3	0.14	<0.0005	0.00051	0.119	<0.0001	<0.001	0.117	0.000015	54.5	0.0041	0.00042	0.00196	0.209	<0.0002	0.0283	20.6	0.0081	0.0000027	0.0193	0.0047		6.05	0.00148
RSEM-R6E-EOP	5/15/2019 13:10	VR8790	M	2.4	2.8	0.233	0.00063	0.00053	0.117	<0.0001	<0.001	0.112	0.000016	55.7	0.0037	0.00042	0.00197	0.239	<0.0002	0.0283	20.6	0.0083	<0.000002	0.0191	0.0043		6.11	0.00144
RSEM-R6E-EOP	5/16/2019 13:25	VS0882	M	2.5	2.3	0.192	<0.0005	0.00052	0.118	<0.0001	<0.001	0.112	0.000013	56.0	0.0037	0.00041	0.00183	0.216	<0.0002	0.0294	19.9	0.0087	<0.000002	0.0185	0.0043		5.95	0.00155
RSEM-R6E-EOP	5/17/2019 9:21	VS0948	M	2.4	2.4	0.213	<0.0005	0.00054	0.116	<0.0001	<0.001	0.111	0.000015	55.0	0.0035	0.00041	0.00171	0.256	<0.0002	0.0289	19.5	0.0085	<0.000002	0.0183	0.0043		5.67	0.00145
RSEM-R6E-EOP	5/18/2019 14:55	VS1855	M	2.4	2.5	0.237	<0.0005	0.00059	0.12	<0.0001	<0.001	0.121	0.000018	57.7	0.0031	0.00042	0.00175	0.316	<0.0002	0.028	20.1	0.0108	<0.000002	0.0173	0.004		5.48	0.00136
RSEM-R6E-EOP	5/19/2019 9:34	VS3008	M	3.1	2.2	0.339	<0.0005	0.00059	0.124	<0.0001	<0.001	0.135	0.000023	59.8	0.0031	0.00045	0.00303	0.304	<0.0002	0.0297	20.7	0.0111	<0.000002	0.0167	0.0044		5.79	0.00144
RSEM-R6E-EOP	5/20/2019 12:49	VS3017	M	2.2	2.5	0.179	<0.0005	0.00055	0.121	<0.0001	<0.001	0.12	0.000016	54.6	0.0033	0.00036	0.00161	0.229	<0.0002	0.0258	19.7	0.0089	<0.000002	0.0162	0.0039		5.46	0.00137
RSEM-R6E-EOP	5/21/2019 13:00	VS5710	M	2.5	2.3	0.337	<0.0005	0.00069	0.127	<0.0001	<0.001	0.166	0.000048	53.0	0.0032	0.00052	0.00211	0.453	0.00027	0.0317	20.1	0.016	<0.000002	0.0162	0.0048		4.88	0.0015
RSEM-R6E-EOP	5/22/2019 14:40	VS7510	M	2.3	2.2	0.253	<0.0005	0.00058	0.116	<0.0001	<0.001	0.126	0.000016	55.1	0.003	0.0004	0.0018	0.261	<0.0002	0.0275	20.5	0.0103	<0.000002	0.0146	0.0045		5.55	0.00129
RSEM-R6E-EOP	5/23/2019 12:40	VS9392	M	2.4	2.6	0.239	<0.0005	0.00061	0.12	<0.0001	<0.001	0.131	0.000017	60.3	0.0029	0.00044	0.00192	0.311	<0.0002	0.0304	20.8	0.0112	<0.000002	0.0159	0.0047		5.41	0.00131
RSEM-R6E-EOP	5/24/2019 11:50	VS9362	M	2.5	2.4	0.218	<0.0005	0.00052	0.117	<0.0001	<0.001	0.132	0.000018	59.3	0.0033	0.00038	0.00178	0.205	<0.0002	0.0297	20.6	0.0097	<0.000002	0.0144	0.0046		5.65	0.0013
RSEM-R6E-EOP	6/8/2019 11:43	VV9725	M	2.7	2.6	0.153	<0.0005	0.00056	0.0767	<0.0001	<0.001	0.162	<0.00001	55.8	0.0013	0.00027	0.00148	0.164	<0.0002	0.0337	22.7	0.0131	<0.000002	0.0118	0.003		5.24	0.00104
RSEM-R6E-EOP	6/9/2019 11:41	VV9809	M	2.9	2.6	0.163	<0.0005	0.00055	0.0726	<0.0001	<0.001	0.156	<0.00001	49.9	0.0013	0.00026	0.00168	0.172	<0.0002	0.033	22.5	0.0109	<0.000002	0.0114	0.0028		4.90	0.00113
RSEM-R6E-EOP	6/12/2019 9:50	VW8056	M	2.7	2.7	0.156	<0.0005	0.00056	0.064	<0.0001	<0.001	0.163	0.000011	39.8	0.0013	0.00027	0.00171	0.172	<0.0002	0.0329	22.6	0.0101	<0.000002	0.0144	0.0028		4.92	0.00101
RSEM-R6E-EOP	6/14/2019 10:00	VW9965	M	2.6	2.4	0.257	<0.0005	0.00061	0.0474	<0.0001	<0.001	0.168	<0.00001	33.7	0.0013	0.00025	0.00182	0.218	<0.0002	0.0327	21.9	0.0103	<0.000002	0.0101	0.0025		4.94	0.00095
RSEM-R6E-EOP	6/15/2019 12:50	VX3563	M	3.2	3.7	0.17	<0.0005	0.00061	0.0477	<0.0001	<0.001	0.167	<0.00001	31.9	0.0011	0.00025	0.00167	0.213	<0.0002	0.0325	21.8	0.0111	<0.000002	0.0102	0.0025		4.54	0.00091
RSEM-R6E-EOP	6/16/2019 13:05	VX3548	M	3.4	3.4	0.181	<0.0005	0.00057	0.045	<0.0001	<0.001	0.168	<0.00001	30.3	0.001	0.00024	0.00165	0.19	<0.0002	0.0303	21.5	0.0098	<0.000002	0.01	0.0023		4.62	0.00089

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	3/19/2019 13:30	VK0936	M	2.76	<0.00002	19.3	0.471	21.6	0.000021	<0.005	0.0104	0.00101	<0.005	0.0065	0.00034	0.0881	<0.0005	0.00028	0.0781	<0.0001	<0.001	<0.05	0.000043	49.1	0.0038	0.00127	0.00121	<0.01
RSEM-R6E-EOP	3/20/2019	VK2374	M	3.28	<0.00002	21.0	0.482	25.0	0.000084	<0.005	0.019	0.00114	<0.005	0.0066	0.0004	0.0651	<0.0005	0.00027	0.0821	<0.0001	<0.001	<0.05	0.000048	53.9	0.004	0.00196	0.00134	<0.01
RSEM-R6E-EOP	3/21/2019 12:10	VK3816	M	2.49	<0.00002	21.7	0.441	28.9	0.000016	<0.005	0.0068	0.0012	<0.005	0.0181	0.00024	0.0163	0.00051	0.00026	0.0837	<0.0001	<0.001	<0.05	0.000062	56.3	0.0046	0.00228	0.00141	<0.01
RSEM-R6E-EOP	3/21/2019 12:15	VK3820	D	2.23	<0.00002	22.6	0.455	29.3	0.000017	<0.005	0.0063	0.00122	<0.005	0.0072	0.00023	0.0177	<0.0005	0.00025	0.0826	<0.0001	<0.001	<0.05	0.000066	54.9	0.0047	0.00225	0.0013	<0.01
RSEM-R6E-EOP	3/22/2019 10:40	VK3715	M	2.31	<0.00002	21.6	0.429	29.2	0.000019	<0.005	0.0071	0.00119	<0.005	0.0064	0.00012	0.0176	<0.0005	0.00027	0.0827	<0.0001	<0.001	<0.05	0.000056	54.3	0.0053	0.00197	0.00119	<0.01
RSEM-R6E-EOP	3/23/2019 15:10	VK6013	M	2.72	<0.00002	26.9	0.436	37.4	0.000017	<0.005	0.0097	0.00122	<0.005	0.0071	0.00023	0.0438	<0.0005	0.00029	0.0847	<0.0001	<0.001	<0.05	0.000062	58.7	0.0059	0.00194	0.0012	<0.01
RSEM-R6E-EOP	3/24/2019 13:15	VK5945	D	2.31	<0.00002	26.8	0.404	35.8	0.000014	<0.005	0.0055	0.00116	<0.005	0.0052	0.00017	0.0554	<0.0005	0.00029	0.0851	<0.0001	<0.001	<0.05	0.000061	60.2	0.0055	0.00182	0.00109	<0.01
RSEM-R6E-EOP	3/24/2019 13:15	VK5942	M	2.47	<0.00002	27.4	0.423	36.8	0.000012	<0.005	0.0067	0.0012	<0.005	0.0056	0.00021	0.0373	<0.0005	0.00031	0.0868	<0.0001	<0.001	<0.05	0.000059	57.8	0.0053	0.0018	0.0011	<0.01
RSEM-R6E-EOP	3/25/2019 14:40	VK7834	M	2.8	<0.00002	24.2	0.401	35.2	0.000013	<0.005	0.0109	0.00118	<0.005	0.0053	0.00018	0.0318	<0.0005	0.00033	0.0854	<0.0001	<0.001	<0.05	0.00005	54.7	0.0051	0.00183	0.00104	<0.01
RSEM-R6E-EOP	3/26/2019 13:20	VK9082	D	2.92	<0.00002	23.0	0.385	32.9	0.000015	<0.005	0.011	0.00115	<0.005	0.0073	0.00027	0.0302	<0.0005	0.00028	0.086	<0.0001	<0.001	<0.05	0.000057	55.0	0.0046	0.00197	0.00098	<0.01
RSEM-R6E-EOP	3/26/2019 13:20	VK9081	M	2.66	<0.00002	23.4	0.393	32.8	0.000015	<0.005	0.0096	0.00117	<0.005	<0.005	0.00023	0.0302	<0.0005	0.0003	0.0871	<0.0001	<0.001	<0.05	0.00006	56.7	0.0044	0.00189	0.00099	<0.01
RSEM-R6E-EOP	3/27/2019 15:15	VL1982	M	2.74	<0.00002	23.5	0.414	32.4	0.000014	<0.005	0.0087	0.00122	<0.005	0.0055	0.0002	0.0277	<0.0005	0.00026	0.0875	<0.0001	<0.001	<0.05	0.000053	55.2	0.004	0.0019	0.00093	<0.01
RSEM-R6E-EOP	3/28/2019 12:30	VL3524	M	2.67	<0.00002	27.8	0.445	41.9	0.000013	<0.005	<0.005	0.00131	<0.005	<0.005	<0.0001	0.0324	<0.0005	0.00027	0.0908	<0.0001	<0.001	<0.05	0.000058	66.1	0.0038	0.00242	0.00093	<0.01
RSEM-R6E-EOP	3/29/2019 9:30	VL3530	M	3.05	<0.00002	27.5	0.462	36.7	0.000012	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001	0.0289	<0.0005	0.00028	0.0994	<0.0001	<0.001	<0.05	0.000066	65.8	0.0029	0.00271	0.00093	<0.01
RSEM-R6E-EOP	3/30/2019 0:45	VL6532	M	2.7	<0.00002	26.8	0.422	33.3	<0.00001	<0.005	<0.005	0.0016	<0.005	<0.005	0.0001	0.0133	<0.0005	0.0003	0.125	<0.0001	<0.001	<0.05	0.000059	66.1	0.002	0.00159	0.00083	<0.01
RSEM-R6E-EOP	3/31/2019 12:50	VL6670	M	3.03	<0.00002	25.0	0.436	32.3	0.00001	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001	0.0104	<0.0005	0.0003	0.136	<0.0001	<0.001	<0.05	0.000058	70.8	0.0021	0.00123	0.00086	<0.01
RSEM-R6E-EOP	4/1/2019 13:25	VL8112	M	2.78	<0.00002	28.4	0.409	32.4	<0.00001	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001	0.0111	<0.0005	0.00037	0.138	<0.0001	<0.001	<0.05	0.000052	65.4	0.002	0.00087	0.00085	<0.01
RSEM-R6E-EOP	4/2/2019 9:45	VL9873	M	2.83	<0.00002	27.7	0.407	33.3	0.000011	<0.005	0.0052	0.00161	<0.005	<0.005	<0.0001	0.0127	<0.0005	0.00031	0.133	<0.0001	<0.001	<0.05	0.000052	64.7	0.002	0.00097	0.00085	<0.01
RSEM-R6E-EOP	4/3/2019 12:25	VM2010	M	2.8	<0.00002	26.1	0.392	29.3	0.000011	<0.005	<0.005	0.00154	<0.005	<0.005	0.00012	0.0136	<0.0005	0.0003	0.143	<0.0001	<0.001	<0.05	0.000056	65.0	0.0017	0.00112	0.00081	<0.01
RSEM-R6E-EOP	4/4/2019 12:56	VM3412	M	2.75	<0.00002	27.3	0.4	28.4	0.000012	<0.005	<0.005	0.00152	<0.005	<0.005	0.00012	0.0147	<0.0005	0.00031	0.145	<0.0001	<0.001	<0.05	0.000051	62.0	0.0139	0.00137	0.00076	0.047
RSEM-R6E-EOP	4/5/2019 9:25	VM3336	M	2.59	<0.00002	25.8	0.385	30.6	<0.00001	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001	0.0139	<0.0005	0.00029	0.142	<0.0001	<0.001	<0.05	0.000052	66.2	0.0015	0.00125	0.00076	<0.01
RSEM-R6E-EOP	4/6/2019 12:10	VM5387	M	8.16	0.000033	14.4	0.229	12.8	0.000062	<0.005	0.113	0.00093	0.0108	0.0205	0.00407	0.0182	<0.0005	0.00021	0.0781	<0.0001	<0.001	<0.05	0.000029	40.3	<0.001	0.0007	0.00111	<0.01
RSEM-R6E-EOP	4/7/2019 13:10	VM5353	M	9.07	0.000025	15.9	0.258	15.6	0.000051	<0.005	0.103	0.00104	0.009	0.0179	0.00193	0.0196	<0.0005	0.00025	0.0916	<0.0001	<0.001	<0.05	0.000031	43.6	<0.001	0.00072	0.00156	<0.01
RSEM-R6E-EOP	4/8/2019 9:55	VM6525	M	3.97	<0.00002	22.0	0.327	25.0	0.000023	<0.005	0.0304	0.00123	<0.005	0.0095	0.00063	0.168	<0.0005	0.00045	0.139	<0.0001	<0.001	<0.05	0.000094	58.9	0.0018	0.00119	0.00154	0.267
RSEM-R6E-EOP	4/9/2019 12:19	VM8372	M	3.86	<0.00002	22.6	0.329	25.8	0.000019	<0.005	0.0212	0.00125	<0.005	0.0063	0.00083	0.017	<0.0005	0.00027	0.127	<0.0001	<0.001	<0.05	0.000037	58.5	0.0016	0.00089	0.00082	<0.01
RSEM-R6E-EOP	4/10/2019 12:45	VN0771	M	2.61	<0.00002	24.0	0.327	26.5	0.000016	<0.005	0.0059	0.00126	<0.005	<0.005	0.00017	0.0217	<0.0005	0.0003	0.125	<0.0001	<0.001	<0.05	0.000032	59.3	0.002	0.00088	0.00088	0.013
RSEM-R6E-EOP	4/11/2019 13:33	VN1894	M	2.69	0.000023	22.8	0.337	27.0	0.000016	<0.005	0.0059	0.00121	<0.005	<0.005	0.00012	0.0207	<0.0005	0.00028	0.134	<0.0001	<0.001	<0.05	0.000028	60.5	0.0014	0.00069	0.0008	<0.01
RSEM-R6E-EOP	4/12/2019 10:47	VN1937	M	3.39	<0.00002	23.7	0.322	22.2	0.000016	<0.005	0.0186	0.00121	<0.005	<0.005	0.00038	0.0211	<0.0005	0.00025	0.122	<0.0001	<0.001	<0.05	0.000029	58.7	0.0017	0.00055	0.00079	<0.01
RSEM-R6E-EOP	4/13/2019 12:28	VN4407	M	2.13	<0.00002	26.2	0.325	25.7	0.00001	<0.005	<0.005	0.00124	<0.005	<0.005	0.00017	0.0204	<0.0005	0.00029	0.124	<0.0001	<0.001	<0.05	0.000033	57.2	0.0015	0.00077	0.00085	<0.01
RSEM-R6E-EOP	4/14/2019 13:21	VN4397	M	2.21	<0.00002		0.349	26.9	<0.00001	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001	0.0219	<0.0005	0.00026	0.124	<0.0001	<0.001	<0.05	0.000032		0.0014	0.00078	0.00087	<0.01
RSEM-R6E-EOP	4/15/2019 14:15	VN6318	M	2.71	<0.00002	30.6	0.379	29.8	0.000011	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001	0.0242	<0.0005	0.00032	0.131	<0.0001	<0.001	<0.05	0.000033	56.8	0.0018	0.00073	0.00097	<0.01
RSEM-R6E-EOP	4/16/2019 9:45	VN8480	M	2.23	<0.00002	27.3	0.328	27.8	0.00001	<0.005	<0.005	0.0012	<0.005	<0.005	0.00014	0.0231	<0.0005	0.00027	0.136	<0.0001	<0.001	<0.05	0.000033	58.3	0.0015	0.0005	0.0008	<0.01
RSEM-R6E-EOP	4/17/2019 10:25	VN9787	M	2.57	<0.00002	30.8	0.398	30.1	0.000011	<0.005	<0.005	0.0014	<0.005	<0.005	0.00011	0.0232	<0.0005	0.00025	0.118	<0.0001	<0.001	0.052	0.000025	53.8	0.0011	0.00079	0.0007	<0.01
RSEM-R6E-EOP	4/18/2019 11:15	VN9664	M	2.2	<0.00002	30.3	0.369	29.9	0.000012	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001	0.0236	<0.0005	0.00025	0.125	<0.0001	<0.001	0.05	0.000027	54.8	0.0013	0.00064	0.00072	<0.01
RSEM-R6E-EOP	4/19/2019 12:46	VO0359	D	2.64	<0.00002	30.1	0.362	29.7	0.000012	<0.005	0.0065	0.00132	<0.005	<0.005	0.00011	0.0223	<0.0005	0.00024	0.115	<0.0001	<0.001	<0.05	0.000023	50.6	0.0011	0.0006	0.00073	<0.01
RSEM-R6E-EOP	4/19/2019 12:46	VO0358	M	2.7	<0.00002	30.6	0.363	29.9	0.000013	<0.005	0.0067	0.00135	<0.005	<0.005	0.00014	0.0218	<0.0005	0.00025	0.116	<0.0001	<0.001	<0.05	0.000024	50.7	0.0013	0.00059	0.00072	<0.01
RSEM-R6E-EOP	4/20/2019 12:23	VO0437	M	2.61	<0.00002	29.9	0.389	31.9	0.000013	<0.005	0.0067	0.00142	<0.005	<0.005	0.00028	0.0307	<0.0005	0.0003	0.147	<0.0001	<0.001	0.068	0.000026	60.9	0.0017	0.0007	0.00174	<0.01
RSEM-R6E-EOP	4/21/2019 11:30	VO1981	M	2.18	<0.00002	31.9	0.374	30.7	0.000011	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001	0.0297	<0.0005	0.00027	0.127	<0.0001	<0.001	0.056	0.00002	60.2	0.0014	0.00052	0.00096	<0.01
RSEM-R6E-EOP	4/23/2019 12:35	VO5419	M	1.89	<0.00002	34.4	0.351	32.8	0.00001	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001	0.0312	<0.0005	0.00029	0.128	<0.0001	<0.001	0.068	0.000012	55.0	0.0013	0.00043	0.00089	<0.01
RSEM-R6E-EOP	4/24/2019 14:19	VO7032	M	1.94	<0.00002	37.8	0.368	32.1	0.000012	<0.005	<0.005	0.00136	<0.005	<0.005	<0.0001	0.0293	<0.0005	0.00032	0.117	<0.0001	<0.001	0.063	0.00001	57.2	0.0013	0.00038	0.00127	<0.01
RSEM-R6E-EOP	4/25/2019 12:30	VO8683	M	1.76	<0.00002	35.9	0.362	31.2	0.000012	<0.005	<0.005	0.00135	<0.005	<0.005	0.00016	0.0298	<0.0005	0.00033	0.127	<0.0001	<0.001	0.072	0.000011	55.8	0.0014	0.00028	0.00087	<0.01
RSEM-R6E-EOP	4/26/2019 11:05	VO8646	M	1.86	<0.00002	37.4	0.371	32.9	0.00001	<0.005	0.006	0.00138	<0.005	<0.005	0.00025	0.0303	<0.0005	0.00036	0.126	<0.0001	<0.001	0.073	0.000011	55.4	0.0014	0.00032	0.00088	<0.01
RSEM-R6E-EOP	4/27/2019 13:15	VP1292	M	1.71	<0.00002	40.2	0.379	34.3	<0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	0.0001	0.0317	<0.0005	0.00033	0.128	<0.0001	<0.001	0.077	0.000012	56.3	0.0017	0.00034	0.00105	<0.01
RSEM-R6E-EOP	4/28/2019 13:00	VP1296	M	1.71	<0.00002	41.2	0.387	36.7	<0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001	0.0308	<0.0005	0.00034	0.126	<0.0001	<0.001	0.076	0.000013	53.3	0.0024	0.00034	0.00101	<0.01
RSEM-R6E-EOP	4/29/2019 12:00	VP3187	M	1.71	<0.00002	42.6	0.391	36.8	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001	0.0292	<0.0005	0.00037	0.121	<0.0001	<0.001	0.078	0.00001	53.6	0.0028	0.00032	0.001	<0.01
RSEM-R6E-EOP	4/30/2019 14:05	VP5203	M	1.51	<0.00002	41.7	0.382	38.1	0.00001	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001	0.0295	<0.0005	0.00035	0.12	<0.0001	<0.001	0.073	<0.00001	54.2	0.003	0.0003	0.00101	<0.01
RSEM-R6E-EOP	5/1/2019 13:20	VP6528	M	1.54	<0.00002	43.7	0.408	41.8	0.00001	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001	0.0299	<0.0005	0.00035	0.123	<0.0001	<0.001	0.076	0.00001	54.6	0.0034	0.00029	0.00096	<0.01
RSEM-R6E-EOP	5/2/2019 14:10	VP8695	M	1.49	<0.00002	52.5	0.415	45.7	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	0.0309	<0.0005	0.00039	0.119	<0.0001	<0.001	0.079	<0.00001	56.9	0.0034	0.0002	0.00095	<0.01
RSEM-R6E-EOP	5/3/2019 9:35	VP8772	M	1.52	<0.00002	47.4	0.415	44.9	<0.00001	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001	0.03	<0.0005	0.00037	0.118	<0.0001	<0.001	0.08	<0.00001	55.0	0.0035	0.00022	0.00099	<0.01
RSEM-R6E-EOP	5/4/2019 9:55	VQ1563	M	1.62	<0.00002	51.6	0.421	48.2	0.000015	<0.005	<0.005	0.00145	<0.005	<0.005	0.00015	0.0291	<0.0005	0.00037	0.114	<0.0001	<0.001	0.076	<0.00001	56.0	0.0038	0.00026	0.00108	<0.01
RSEM-R6E-EOP	5/5/2019 12:50	VQ1490	M	1.49	<0.00002	55.6	0.452	50.4	0.000015	<0.005	<0.005	0.00146	<0.005	<0.005	0.00011	0.0302	<0.0005	0.00036	0.111	<0.0001	<0.001	0.079	<0.00001	55.0	0.004	0.00032	0.0011	<0.01
RSEM-R6E-EOP	5/6/2019 12:15	VQ3928	M	1.45	<0.00002	53.9	0.484	45.3	<0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	0.00014	0.0321	<0.0005	0.00034	0.123	<0.0001	<0.001	0.082	<0.00001	57.1	0.0035	0.00038	0.00138	<0.01
RSEM-R6E-EOP	5/7/2019 11:58	VQ4256	M	1.4	<0.00002	57.3	0.503	50.4	0.000013	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001	0.0384	<0.0005	0.00038	0.119	<0.0001	<0.001	0.088	0.00001	59.5	0.0039	0.00041	0.00117	<0.01
RSEM-R6E-EOP	5/8/2019 13:19	VQ9189	M	1.2	<0.00002	55.3	0.449	45.6	0.000012	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001	0.034	<0.0005	0.00034	0.115	<0.0001	<0.001	0.08	<0.00001	57.4	0.0039	0.00025	0.0011	<0.01
RSEM-R6E-EOP	5/9/2019 12:54	VQ8350	M	1.3	<0.00002	61.7	0.511	49.0	0.000012	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001	0.0351	<0.0005	0.00037	0.115	<0.0001	<0.001	0.088	<0.00001	57.5	0.004	0.00037	0.00134	<0.01
RSEM-R6E-EOP	5/10/2019 9:30	VQ9650	M	1.21	<0.00002	56.0	0.461	46.0	0.000012	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001	0.0358	<0.0005	0.00041	0.113	<0.0001	<0.001	0.083	<0.00001	54.3	0.0037	0.00027	0.00118	<0.01
RSEM-R6E-EOP	5/11/2019 12:40	VR2470	M	1.06	<0.00002	64.4	0.477	52.2	0.000016	<0.005	<0.005	0.00149	<0.005	<0.005	0.00018	0.0379	<0.0005	0.00038	0.107	<0.0001	<0.001	0.095	<0.00001	52.5	0.0038	0.00029	0.00126	<0.01
RSEM-R6E-EOP	5/12/2019 12:14	VR2432	M	1.17	<0.00002	57.5	0.475	46.0	0.000017	<0.005	<0.005	0.00148	<0.005	<0.005	0.00026	0.0377	<0.0005	0.00037	0.109	<0.0001	<0.001	0.092	<0.00001	52.7	0.0039	0.00023	0.00122	<0.01
RSEM-R6E-EOP	5/13/2019 12:32	VR4435	M	0.999	<0.00002	68.8	0.483	53.0	0.000015	<0.005	<0.005	0.00155	<0.005	<0.005	0.00015	0.0379	<0.0005	0.00042	0.112	<0.0001	<0.001	0.108	0.000011	53.5	0.0036	0.00025	0.00122	<0.01
RSEM-R6E-EOP	5/14/2019 11:35	VR6838	M	0.919	<0.00002	73.6	0.495	59.2	0.000017	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001	0.0378	<0.0005	0.00041	0.112	<0.0001	<0.001	0.116	0.000012	52.9	0.0034	0.00021	0.0012	<0.01
RSEM-R6E-EOP	5/15/2019 13:10	VR8790	M	1.11	<0.00002	79.1	0.501	63.9	0.000019	<0.005	<0.005	0.00158	<0.005	<0.005	0.00014	0.038	0.00054	0.00046	0.114	<0.0001	<0.001	0.119	<0.00001	54.8	0.0034	0.00024	0.00125	<0.01
RSEM-R6E-EOP	5/16/2019 13:25	VS0882	M	1.02	<0.00002	75.9	0.494	61.0	0.000017	<0.005	<0.005	0.00159	<0.005	<0.005	0.00024	0.0359	<0.0005	0.00046	0.114	<0.0001	<0.001	0.118	0.00001	54.2	0.0033	0.00024	0.00136	<0.01
RSEM-R6E-EOP	5/17/2019 9:21	VS0948	M	1.04	<0.00002	72.6	0.483	58.0	0.000021	<0.005	<0.005	0.00165	<0.005	<0.005	0.00014	0.0345	<0.0005	0.00044	0.116	<0.0001	<0.001	0.115	0.00001	53.5	0.0035	0.00023	0.00127	<0.01
RSEM-R6E-EOP	5/18/2019 14:55	VS1855	M	1.25	<0.00002	74.2	0.482	57.0	0.00002	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001	0.0356	<0.0005	0.00045	0.115	<0.0001	<0.001	0.126	0.00001	56.0	0.0031	<0.0002	0.00118	<0.01
RSEM-R6E-EOP	5/19/2019 9:34	VS3008	M	1.66	<0.00002	74.5	0.516	58.3	0.000021	<0.005	0.008	0.00166	<0.005	0.0062	0.0002	0.0394	<0.0005	0.00044	0.121	<0.0001	<0.001	0.123	0.000011	58.7	0.0026	<0.0002	0.00177	<0.01
RSEM-R6E-EOP	5/20/2019 12:49	VS3017	M	1.11	<0.00002	72.8	0.467	53.9	0.000019	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001	0.0352	<0.0005	0.00042	0.12	<0.0001	<0.001	0.127	<0.00001	56.0	0.0028	<0.0002	0.00115	<0.01
RSEM-R6E-EOP	5/21/2019 13:00	VS5710	M	1.48	<0.00002	71.9	0.527	61.8	0.000023	<0.005	0.0062	0.00167	<0.005	<0.005	0.00021	0.0368	<0.0005	0.00047	0.116	<0.0001	<0.001	0.123	0.000011	58.5	0.0025	<0.0002	0.00124	<0.01
RSEM-R6E-EOP	5/22/2019 14:40	VS7510	M	1.3	<0.00002	73.3	0.508	56.5	0.00002	<0.005	0.0052	0.00155	<0.005	<0.005	0.00015	0.0357	<0.0005	0.00045	0.115	<0.0001	<0.001	0.122	<0.00001	59.6	0.0026	<0.0002	0.00125	<0.01
RSEM-R6E-EOP	5/23/2019 12:40	VS9392	M	1.33	<0.00002	75.2	0.548	56.9	0.000021	<0.005	0.0051	0.00167	<0.005	<0.005	0.00021	0.0344	<0.0005	0.00077	0.112	<0.0001	<0.001	0.121	<0.00001	59.7	0.0023	<0.0002	0.00116	0.011
RSEM-R6E-EOP	5/24/2019 11:50	VS9362	M	1.21	<0.00002	74.0	0.516	57.6	0.00002	<0.005	<0.005	0.00151	<0.005	<0.005	0.00015	0.0347	<0.0005	0.00045	0.113	<0.0001	<0.001	0.133	<0.00001	60.3	0.0025	<0.0002	0.00129	<0.01
RSEM-R6E-EOP	6/8/2019 11:43	VV9725	M	1.53	<0.00002	75.7	0.611	54.4	0.000018	<0.005	<0.005	0.00153	<0.005	<0.005	0.00011	0.0322	<0.0005	0.00046	0.0707	<0.0001	<0.001	0.169	<0.00001	51.5	<0.001	<0.0002	0.00117	<0.01
RSEM-R6E-EOP	6/9/2019 11:41	VV9809	M	1.4	<0.00002	75.9	0.587	50.3	0.000019	<0.005	<0.005	0.00158	<0.005	<0.005	0.00017	0.0354	<0.0005	0.00048	0.071	<0.0001	<0.001	0.164	<0.00001	53.0	0.001	<0.0002	0.00122	<0.01
RSEM-R6E-EOP	6/12/2019 9:50	VW8056	M	1.15	<0.00002	76.5	0.571	54.0	0.000012	<0.005	<0.005	0.00167	<0.005	<0.005	0.00012	0.0373	<0.0005	0.0005	0.0585	<0.0001	<0.001	0.179	<0.00001	43.0	<0.001	<0.0002	0.00131	<0.01
RSEM-R6E-EOP	6/14/2019 10:00	VW9965	M	1.43	<0.00002	77.7	0.506	52.9	0.000017	<0.005	<0.005	0.00144	<0.005	<0.005	0.00021	0.035	<0.0005	0.00048	0.0463	<0.0001	<0.001	0.184	<0.00001	33.9	<0.001	<0.0002	0.00133	<0.01
RSEM-R6E-EOP	6/15/2019 12:50	VX3563	M	1.35	<0.00002	74.5	0.489	52.0	0.000016	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001	0.0297	<0.0005	0.00049	0.0429	<0.0001	<0.001	0.154	<0.00001	31.7	<0.001	<0.0002	0.00122	<0.01
RSEM-R6E-EOP	6/16/2019 13:05	VX3548	M	1.22	<0.00002	75.0	0.477	47.8	0.000014	<0.005	<0.005	0.00141	<0.005	<0.005	0.00014	0.0314	<0.0005	0.00047	0.0433	<0.0001	<0.001	0.168	<0.00001	31.1	<0.001	<0.0002	0.00123	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	3/19/2019 13:30	VK0936	M	<0.0002	0.0122	7.03	0.0561	<0.000002	0.0102	0.0071		4.33	0.00053	1.85	<0.00002	18.7	0.437	21.3	<0.00001	<0.005	<0.005	0.00094	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/20/2019	VK2374	M	<0.0002	0.0144	9.01	0.0731	<0.000002	0.011	0.0098		4.28	0.00068	1.97	<0.00002	23.4	0.466	26.1	0.000011	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/21/2019 12:10	VK3816	M	<0.0002	0.0147	9.63	0.0854	0.0000065	0.0141	0.0113		4.42	0.00074	1.93	<0.00002	23.3	0.456	29.8	0.000012	<0.005	<0.005	0.00118	<0.005	0.0073	<0.0001
RSEM-R6E-EOP	3/21/2019 12:15	VK3820	D	<0.0002	0.0146	9.73	0.0853	<0.000002	0.0144	0.0112		4.41	0.00077	1.86	<0.00002	23.6	0.447	29.8	0.000012	<0.005	<0.005	0.00118	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/22/2019 10:40	VK3715	M	<0.0002	0.0139	9.61	0.0778	<0.000002	0.0181	0.0101		4.43	0.00077	1.88	<0.00002	23.7	0.432	31.0	0.000011	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/23/2019 15:10	VK6013	M	<0.0002	0.0163	10.9	0.0837	<0.000002	0.0212	0.0104		5.03	0.00091	2.3	<0.00002	26.9	0.434	39.7	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/24/2019 13:15	VK5945	D	<0.0002	0.0159	10.6	0.0829	<0.000002	0.0194	0.0096		4.85	0.00102	2.41	<0.00002	26.8	0.424	37.3	<0.00001	<0.005	<0.005	0.00118	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/24/2019 13:15	VK5942	M	<0.0002	0.0164	10.4	0.0811	<0.000002	0.0233	0.0098		4.74	0.00098	2.3	<0.00002	26.7	0.419	35.8	0.00001	<0.005	<0.005	0.00121	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/25/2019 14:40	VK7834	M	<0.0002	0.0152	10.3	0.0807	<0.000002	0.0176	0.0097		4.39	0.00089	2.1	<0.00002	24.7	0.4	35.6	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/26/2019 13:20	VK9082	D	<0.0002	0.0165	10.6	0.084	<0.000002	0.0163	0.0095		4.44	0.00096	2.1	<0.00002	25.1	0.399	35.5	0.00001	<0.005	<0.005	0.00118	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/26/2019 13:20	VK9081	M	<0.0002	0.0163	10.4	0.0819	<0.000002	0.0164	0.0095		4.30	0.00096	2.14	<0.00002	23.0	0.409	35.2	0.000012	<0.005	<0.005	0.0012	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/27/2019 15:15	VL1982	M	<0.0002	0.0171	10.6	0.0811	<0.000002	0.015	0.0096		4.07	0.00085	2.16	<0.00002	24.0	0.415	33.3	0.00001	<0.005	<0.005	0.00124	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/28/2019 12:30	VL3524	M	<0.0002	0.0178	12.6	0.0941	<0.000002	0.0146	0.0113		4.39	0.00098	2.37	<0.00002	26.0	0.436	39.9	0.000012	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/29/2019 9:30	VL3530	M	<0.0002	0.0186	14.3	0.102	<0.000002	0.0125	0.0122		4.02	0.00099	2.49	<0.00002	27.1	0.443	35.9	0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/30/2019 0:45	VL6532	M	<0.0002	0.0143	13.7	0.0872	<0.000002	0.0109	0.0074		3.89	0.00109	2.3	<0.00002	22.7	0.41	31.3	0.000011	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	3/31/2019 12:50	VL6670	M	<0.0002	0.0147	13.9	0.0807	<0.000002	0.0109	0.0061		4.12	0.00114	2.53	<0.00002	23.9	0.424	31.1	<0.00001	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/1/2019 13:25	VL8112	M	<0.0002	0.014	12.9	0.0704	<0.000002	0.0102	0.0049		3.87	0.00114	2.66	<0.00002	25.9	0.379	31.0	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/2/2019 9:45	VL9873	M	<0.0002	0.0153	14.6	0.069	0.0000023	0.0099	0.0053		3.83	0.00108	2.6	<0.00002	27.2	0.393	32.3	<0.00001	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/3/2019 12:25	VM2010	M	<0.0002	0.0147	14.7	0.0704	<0.000002	0.0092	0.0057		3.61	0.00105	2.58	<0.00002	26.9	0.411	31.1	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/4/2019 12:56	VM3412	M	<0.0002	0.0141	14.2	0.0705	<0.000002	0.0083	0.009		3.46	0.0011	2.32	<0.00002	26.1	0.398	29.6	<0.00001	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/5/2019 9:25	VM3336	M	<0.0002	0.0148	15.0	0.0709	<0.000002	0.0082	0.006		3.29	0.00107	2.65	<0.00002	27.1	0.396	30.2	<0.00001	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/6/2019 12:10	VM5387	M	<0.0002	0.0097	8.86	0.0321	<0.000002	0.0039	0.0042		2.44	0.00055	1.48	<0.00002	14.0	0.224	12.2	<0.00001	<0.005	<0.005	0.00075	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/7/2019 13:10	VM5353	M	<0.0002	0.0098	9.31	0.0336	<0.000002	0.0043	0.0042		2.46	0.0007	1.61	<0.00002	15.7	0.245	15.4	<0.00001	<0.005	<0.005	0.00085	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/8/2019 9:55	VM6525	M	0.00036	0.0132	12.3	0.0676	<0.000002	0.0064	0.0062		3.45	0.0008	2.46	<0.00002	21.0	0.33	24.3	0.000012	<0.005	<0.005	0.00119	<0.005	0.0062	0.00015
RSEM-R6E-EOP	4/9/2019 12:19	VM8372	M	<0.0002	0.0124	12.4	0.0499	<0.000002	0.007	0.0051		3.29	0.00096	2.28	<0.00002	22.7	0.338	25.0	<0.00001	<0.005	<0.005	0.00125	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/10/2019 12:45	VN0771	M	<0.0002	0.014	13.4	0.0437	<0.000002	0.0072	0.0066		3.39	0.00102	2.24	<0.00002	25.2	0.331	25.4	<0.00001	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/11/2019 13:33	VN1894	M	<0.0002	0.0149	13.2	0.0311	<0.000002	0.0075	0.0049		3.27	0.00094	2.34	<0.00002	24.5	0.342	26.6	<0.00001	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/12/2019 10:47	VN1937	M	<0.0002	0.0142	12.3	0.0147	<0.000002	0.0064	0.0049		3.01	0.00083	2.12	<0.00002	22.9	0.311	22.7	<0.00001	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/13/2019 12:28	VN4407	M	<0.0002	0.0149	13.3	0.0185	<0.000002	0.0074	0.0054		3.30	0.00096	2.09	<0.00002	27.7	0.332	27.2	<0.00001	<0.005	<0.005	0.0012	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/14/2019 13:21	VN4397	M	<0.0002	0.0156	13.4	0.0157	<0.000002	0.0075	0.0053			0.00097	2.1	<0.00002		0.338	26.9	<0.00001	<0.005	<0.005	0.00121	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/15/2019 14:15	VN6318	M	<0.0002	0.0166	12.8	0.0111	<0.000002	0.0074	0.0052		3.39	0.00104	2.27	<0.00002	28.6	0.339	28.4	<0.00001	<0.005	<0.005	0.00124	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/16/2019 9:45	VN8480	M	<0.0002	0.0147	13.5	0.0053	<0.000002	0.0073	0.0049		3.25	0.00093	2.02	<0.00002	26.6	0.339	26.1	<0.00001	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/17/2019 10:25	VN9787	M	<0.0002	0.016	13.9	0.013	<0.000002	0.0061	0.0055		2.98	0.0009	1.76	<0.00002	28.3	0.33	26.3	<0.00001	<0.005	<0.005	0.00118	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/18/2019 11:15	VN9664	M	<0.0002	0.0155	13.4	0.0085	<0.000002	0.0068	0.005		3.06	0.00093	1.85	<0.00002	27.4	0.342	25.7	<0.00001	<0.005	<0.005	0.00121	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/19/2019 12:46	VO0359	D	<0.0002	0.015	12.9	0.0066	<0.000002	0.0064	0.0048		2.88	0.00085	1.65	<0.00002	26.6	0.319	24.2	<0.00001	<0.005	<0.005	0.00115	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/19/2019 12:46	VO0358	M	<0.0002	0.0145	12.9	0.0069	<0.000002	0.006	0.0048		2.85	0.00087	1.66	<0.00002	26.6	0.315	24.7	<0.00001	<0.005	<0.005	0.00113	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/20/2019 12:23	VO0437	M	<0.0002	0.0203	18.2	0.0063	<0.000002	0.008	0.0062		3.84	0.00104	1.89	<0.00002	37.0	0.397	33.3	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/21/2019 11:30	VO1981	M	<0.0002	0.0188	14.8	0.0033	<0.000002	0.007	0.0052		3.20	0.001	1.85	<0.00002	32.8	0.36	30.3	<0.00001	<0.005	<0.005	0.00136	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/23/2019 12:35	VO5419	M	<0.0002	0.0194	16.2	0.0021	<0.000002	0.0081	0.0048		3.45	0.00096	1.67	<0.00002	35.2	0.366	31.3	<0.00001	<0.005	<0.005	0.0014	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/24/2019 14:19	VO7032	M	<0.0002	0.0195	16.1	0.0018	<0.000002	0.0074	0.0049		3.47	0.00098	1.66	<0.00002	36.2	0.354	30.8	0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/25/2019 12:30	VO8683	M	<0.0002	0.0207	16.3	<0.001	<0.000002	0.0083	0.0045		3.78	0.00101	1.69	<0.00002	36.9	0.377	34.1	<0.00001	<0.005	<0.005	0.00138	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/26/2019 11:05	VO8646	M	<0.0002	0.0211	16.8	<0.001	<0.000002	0.0085	0.0045		3.91	0.00105	1.67	<0.00002	36.3	0.368	34.1	0.00001	<0.005	<0.005	0.00136	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/27/2019 13:15	VP1292	M	<0.0002	0.0228	16.7	0.0011	<0.000002	0.009	0.0049		4.12	0.00109	1.64	<0.00002	41.3	0.378	35.3	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/28/2019 13:00	VP1296	M	<0.0002	0.0231	17.0	0.001	<0.000002	0.0105	0.0045		4.45	0.00109	1.49	<0.00002	42.0	0.395	36.5	0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/29/2019 12:00	VP3187	M	<0.0002	0.0234	16.8	<0.001	<0.000002	0.0114	0.0043		4.79	0.00109	1.48	<0.00002	44.4	0.403	36.3	<0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	4/30/2019 14:05	VP5203	M	<0.0002	0.0215	16.7	<0.001	<0.000002	0.0117	0.0044		5.06	0.00118	1.45	<0.00002	44.7	0.402	39.5	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/1/2019 13:20	VP6528	M	<0.0002	0.0229	15.4	<0.001	<0.000002	0.0127	0.004		5.24	0.00121	1.39	<0.00002	43.4	0.392	41.0	<0.00001	<0.005	<0.005	0.00135	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/2/2019 14:10	VP8695	M	<0.0002	0.0231	16.6	<0.001	<0.000002	0.0143	0.0039		5.44	0.00136	1.4	<0.00002	50.6	0.417	44.9	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/3/2019 9:35	VP8772	M	<0.0002	0.0237	16.5	<0.001	<0.000002	0.0142	0.0039		5.43	0.00127	1.31	<0.00002	51.0	0.417	45.2	<0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/4/2019 9:55	VQ1563	M	<0.0002	0.0229	17.5	<0.001	<0.000002	0.0136	0.0041		5.22	0.00129	1.16	<0.00002	54.2	0.404	43.4	0.000012	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/5/2019 12:50	VQ1490	M	<0.0002	0.0238	18.1	0.001	<0.000002	0.0137	0.0045		5.60	0.00136	1.13	<0.00002	57.5	0.44	46.8	0.00001	<0.005	<0.005	0.00135	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/6/2019 12:15	VQ3928	M	<0.0002	0.0237	17.3	0.0011	<0.000002	0.0136	0.0043		5.83	0.00137	1.24	<0.00002	52.1	0.463	45.3	<0.00001	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/7/2019 11:58	VQ4256	M	<0.0002	0.0264	18.4	0.0012	<0.000002	0.0145	0.0047		6.05	0.00139	1.32	<0.00002	56.1	0.507	48.5	0.000011	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/8/2019 13:19	VQ9189	M	<0.0002	0.0235	17.8	<0.001	<0.000002	0.0143	0.0044		6.32	0.00137	1.11	<0.00002	52.5	0.547	47.7	<0.00001	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/9/2019 12:54	VQ8350	M	<0.0002	0.0262	18.9	<0.001	<0.000002	0.0134	0.0048		5.57	0.00135	1.07	<0.00002	56.3	0.494	45.9	0.000014	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/10/2019 9:30	VQ9650	M	<0.0002	0.0237	17.6	<0.001	<0.000002	0.0139	0.0044		6.31	0.00143	1.01	<0.00002	52.7	0.522	48.6	<0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/11/2019 12:40	VR2470	M	<0.0002	0.0273	19.1	0.0012	<0.000002	0.015	0.0041		5.72	0.00138	0.845	<0.00002	63.8	0.469	51.4	0.000014	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/12/2019 12:14	VR2432	M	<0.0002	0.0269	19.1	<0.001	<0.000002	0.0135	0.0043		5.73	0.00129	0.912	<0.00002	59.4	0.473	47.3	0.000012	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/13/2019 12:32	VR4435	M	<0.0002	0.0276	19.5	0.0012	<0.000002	0.0169	0.004		5.76	0.00144	0.815	<0.00002	71.5	0.473	55.2	0.000012	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/14/2019 11:35	VR6838	M	<0.0002	0.0277	19.1	<0.001	<0.000002	0.0181	0.0038		5.87	0.00151	0.775	<0.00002	69.7	0.494	57.2	0.000013	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/15/2019 13:10	VR8790	M	<0.0002	0.0277	20.5	0.0012	<0.000002	0.0192	0.0039		6.19	0.00142	0.749	<0.00002	77.2	0.486	61.1	0.000016	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/16/2019 13:25	VS0882	M	<0.0002	0.029	20.8	0.0017	<0.000002	0.02	0.004		6.14	0.00144	0.717	<0.00002	77.3	0.496	59.7	0.000014	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/17/2019 9:21	VS0948	M	<0.0002	0.0294	20.9	0.0012	<0.000002	0.0196	0.0038		6.08	0.00137	0.702	<0.00002	77.1	0.51	58.6	0.000016	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/18/2019 14:55	VS1855	M	<0.0002	0.028	20.9	<0.001	<0.000002	0.0172	0.0034		5.66	0.00147	0.859	<0.00002	80.5	0.479	57.4	0.000015	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/19/2019 9:34	VS3008	M	<0.0002	0.0278	20.9	<0.001	<0.000002	0.0165	0.0035		5.67	0.00135	0.937	<0.00002	77.3	0.514	59.5	0.000016	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/20/2019 12:49	VS3017	M	<0.0002	0.0282	20.9	<0.001	<0.000002	0.0169	0.0033		5.61	0.00139	0.892	<0.00002	75.4	0.491	59.8	0.000017	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/21/2019 13:00	VS5710	M	<0.0002	0.0286	20.2	<0.001	<0.000002	0.016	0.0039		5.90	0.0013	0.894	<0.00002	74.7	0.548	58.4	0.000015	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/22/2019 14:40	VS7510	M	<0.0002	0.0289	20.6	0.0011	<0.000002	0.0157	0.0039		5.97	0.00136	0.878	<0.00002	74.5	0.526	60.7	0.000019	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/23/2019 12:40	VS9392	M	<0.0002	0.0307	20.5	0.0015	<0.000002	0.0148	0.0034		5.49	0.0013	0.931	<0.00002	70.0	0.515	57.6	0.000015	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	5/24/2019 11:50	VS9362	M	<0.0002	0.0316	21.0	0.0013	<0.000002	0.0152	0.0036		5.84	0.00133	0.929	<0.00002	76.0	0.551	60.1	0.000017	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	6/8/2019 11:43	VV9725	M	<0.0002	0.0345	23.0	0.0051	<0.000002	0.0114	0.0026		4.90	0.00109	1.19	<0.00002	75.5	0.588	50.5	0.000018	<0.005	<0.005	0.00165	<0.005	<0.005	0.00014
RSEM-R6E-EOP	6/9/2019 11:41	VV9809	M	<0.0002	0.0329	22.5	0.0043	<0.000002	0.0111	0.0024		5.39	0.00108	1.25	<0.00002	76.7	0.588	57.3	0.000016	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	6/12/2019 9:50	VW8056	M	<0.0002	0.0341	23.2	0.0029	<0.000002	0.014	0.0023		5.07	0.00104	1.05	<0.00002	80.0	0.564	54.3	0.000016	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	6/14/2019 10:00	VW9965	M	<0.0002	0.0339	23.3	<0.001	<0.000002	0.0105	0.002		5.03	0.00141	1.07	<0.00002	80.5	0.527	55.0	0.000016	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	6/15/2019 12:50	VX3563	M	<0.0002	0.0283	21.9	0.0016	<0.000002	0.0097	0.0019		4.64	0.00093	0.982	<0.00002	78.3	0.482	45.5	0.000015	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	6/16/2019 13:05	VX3548	M	<0.0002	0.0306	22.3	0.0011	<0.000002	0.01	0.0018		4.71	0.00093	0.995	<0.00002	77.9	0.485	46.9	0.000013	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	6/24/2019 12:52	VY9703	M	8.15	1070	16.5	690	23.2	351	360	103	<1.0	126	<1.0	<1.0	133	0.410	2.0	136			0.059	0.0177	0.342	0.359	<0.0050
RSEM-R6E-EOP	6/25/2019 12:20	VZ1748	M	8.02	1120	12.2	724	16.0	398	425	106	<1.0	129	<1.0	<1.0	156	0.430	2.5	183			0.085	0.0226	0.572	0.595	<0.0050
RSEM-R6E-EOP	6/26/2019 12:56	VZ5388	M	8.12	1150	6.70	720	6.4	414	436	103	<1.0	125	<1.0	<1.0	147	0.420	2.6	215			0.080	0.0312	0.797	0.829	<0.0050
RSEM-R6E-EOP	6/27/2019 13:00	VZ7727	M	7.97	1170	5.15	760	6.4	484	473	113	<1.0	138	<1.0	<1.0	154	0.450	2.4	226			0.073	0.0324	0.853	0.886	<0.0050
RSEM-R6E-EOP	6/28/2019 6:53	VZ7858	M	7.88	1200	3.21	792	4.8	439	476	112	<1.0	137	<1.0	<1.0	158	0.440	2.5	234			0.080	0.0364	0.812	0.848	<0.0050
RSEM-R6E-EOP	6/29/2019 14:30	VZ9024	M	8.00	1190	69.1	804	101	452	453	113	<1.0	138	<1.0	<1.0	158	0.440	2.4	218			0.061	0.0289	0.823	0.852	<0.0050
RSEM-R6E-EOP	6/30/2019 14:00	WA1428	M	7.93	1270	5.86	912	10.8	479	484	104	<1.0	127	<1.0	<1.0	177	0.460	2.7	224			0.15	0.0406	0.890	0.930	<0.0050
RSEM-R6E-EOP	6/30/2019 14:05	WA1431	D	7.91	1230	4.85	928	9.6	488	495	107	<1.0	130	<1.0	<1.0	177	0.480	2.7	233			0.30	0.0400	0.888	0.928	<0.0050
RSEM-R6E-EOP	7/1/2019 13:35	WA1408	M	7.72	1160	8.49	900	12.4	455	466	90.7	<1.0	111	<1.0	<1.0	174	0.500	2.6	234			0.10	0.0456	0.949	0.994	<0.0050
RSEM-R6E-EOP	7/2/2019 13:30	WA3425	M	7.91	1170	5.7	932	10.0	461	498	92.8	<1.0	113	<1.0	<1.0	169	0.500	2.4	222			0.057	0.0461	1.04	1.09	<0.0050
RSEM-R6E-EOP	7/3/2019 12:25	WA5877	M	7.85	1140	3.6	890	7.6	447	503	90.7	<1.0	111	<1.0	<1.0	165	0.510	2.3	250			0.055	0.0453	1.06	1.11	<0.0050
RSEM-R6E-EOP	7/4/2019 12:50	WA7980	M	8.16	1100	4.3	844	9.2	457	451	93.8	<1.0	114	<1.0	<1.0	159	0.470	2.2	227			0.035	0.0410	0.975	1.02	<0.0050
RSEM-R6E-EOP	7/5/2019 10:37	WA8012	M	8.00	1040	1.8	798	9.2	431	435	83.3	<1.0	102	<1.0	<1.0	150	0.450	2.1	230			0.028	0.0362	0.893	0.929	<0.0050
RSEM-R6E-EOP	7/6/2019 13:35	WB1464	M	7.90	976	7.1	660	16.8	380	391	71.8	<1.0	87.6	<1.0	<1.0	139	0.430	2.0	233			0.025	0.0344	0.720	0.754	<0.0050
RSEM-R6E-EOP	7/7/2019 8:55	WB1486	M	7.25	951	1.3	662	<4.0	359	366	51.8	<1.0	63.2	<1.0	<1.0	127	0.420	1.9	232			0.023	0.0295	0.569	0.598	<0.0050
RSEM-R6E-EOP	7/8/2019 9:20	WB4602	M	7.53	905	1.7	616	6.0	357	362	43.2	<1.0	52.7	<1.0	<1.0	131	0.410	1.9	215			0.023	0.0275	0.374	0.402	<0.0050
RSEM-R6E-EOP	7/9/2019 13:10	WB6314	M	7.88	900	2.7	622	5.6	312	313	49.1	<1.0	59.9	<1.0	<1.0	114	0.420	1.9	210			0.047	0.0213	0.188	0.210	<0.0050
RSEM-R6E-EOP	7/9/2019 13:20	WB6315	D	7.82	906	2.5	608	<4.0	317	312	51.7	<1.0	63.1	<1.0	<1.0	115	0.410	1.9	215			<0.015	0.0207	0.186	0.207	<0.0050
RSEM-R6E-EOP	7/10/2019 11:05	WB8320	M	7.87	880	2.7	524	<4.0	316	314	47.9	<1.0	58.4	<1.0	<1.0	115	0.400	1.8	196			<0.015	0.0182	0.146	0.164	<0.0050
RSEM-R6E-EOP	7/10/2019 11:15	WB8321	D	7.83	883	2.7	542	<4.0	317	315	45.8	<1.0	55.8	<1.0	<1.0	122	0.390	1.8	206			0.022	0.0200	0.140	0.160	<0.0050
RSEM-R6E-EOP	7/11/2019 12:35	WC0497	M	7.45	861	1.8	540	<4.0	299	298	39.0	<1.0	47.6	<1.0	<1.0	114	0.380	1.8	191			0.022	0.0154	0.086	0.102	<0.0050
RSEM-R6E-EOP	7/12/2019 11:05	WC0454	M	7.41	842	2.1	526	<4.0	290	292	34.7	<1.0	42.3	<1.0	<1.0	115	0.390	1.8	189			0.019	0.0146	0.061	0.076	<0.0050
RSEM-R6E-EOP	7/13/2019 13:05	WC4190	M	7.34	822	1.4	518	<4.0	274	313	32.6	<1.0	39.8	<1.0	<1.0	110	0.350	1.8	193			0.025	0.0095	0.069	0.078	<0.0050
RSEM-R6E-EOP	7/14/2019 13:30	WC4188	M	7.51	803	2.8	494	<4.0	272	307	36.8	<1.0	44.9	<1.0	<1.0	110	0.340	1.7	187			0.024	0.0098	0.066	0.076	<0.0050
RSEM-R6E-EOP	7/15/2019 11:55	WC7554	M	7.55	813	1.2	470	<4.0	259	278	33.0	<1.0	40.3	<1.0	<1.0	106	0.350	1.7	183			0.026	0.0089	0.044	0.053	<0.0050
RSEM-R6E-EOP	7/16/2019 11:35	WC9632	M	7.84	796	0.87	548	<4.0	267	264	44.5	<1.0	54.3	<1.0	<1.0	103	0.340	1.6	191			<0.015	<0.0050	0.039	0.039	<0.0050
RSEM-R6E-EOP	7/17/2019 13:40	WD1676	M	7.73	790	1.2	500	<4.0	283	250	43.8	<1.0	53.4	<1.0	<1.0	103	0.340	1.6	178			0.016	0.0052	0.033	0.038	<0.0050
RSEM-R6E-EOP	7/18/2019 13:05	WD4018	M	7.87	784	2.5	500	63.2	259	263	58.0	<1.0	70.8	<1.0	<1.0	101	0.350	1.5	172			0.017	<0.0050	0.025	0.025	<0.0050
RSEM-R6E-EOP	7/19/2019 12:30	WD4024	M	8.03	812	1.6	532	4.8	284	281	67.8	<1.0	82.7	<1.0	<1.0	113	0.350	1.7	171			0.069	<0.0050	0.029	0.029	<0.0050
RSEM-R6E-EOP	7/20/2019 14:05	WD7112	M	7.84	857	2.1	536	4.8	297	293	64.5	<1.0	78.7	<1.0	<1.0	112	<0.020	1.8	168			0.038	<0.0050	<0.020	<0.020	<0.0050
RSEM-R6E-EOP	7/21/2019 14:00	WD7084	M	7.84	858	2.1	530	<4.0	293	297	61.1	<1.0	74.6	<1.0	<1.0	125	0.320	1.9	169			0.036	<0.0050	0.021	0.021	<0.0050
RSEM-R6E-EOP	7/22/2019 12:20	WD8945	M	7.87	849	3.3	532	<4.0	282	270	61.6	<1.0	75.2	<1.0	<1.0	123	0.330	1.8	164			0.040	<0.0050	0.030	0.030	<0.0050
RSEM-R6E-EOP	7/23/2019 13:35	WE1026	M	7.81	820	2.3	514	4.0	269	275	56.9	<1.0	69.4	<1.0	<1.0	110	<0.020	1.9	167			0.034	<0.0050	<0.020	<0.020	<0.0050
RSEM-R6E-EOP	7/24/2019 12:40	WE3036	M	7.93	829	3.1	518	<4.0	265	270	59.6	<1.0	72.7	<1.0	<1.0	126	0.330	1.8	157			0.026	0.0058	<0.020	0.024	<0.0050
RSEM-R6E-EOP	7/25/2019 12:45	WE4846	M	8.03	928	4.2	598	<4.0	326	315	76.4	<1.0	93.2	<1.0	<1.0	148	0.340	2.2	153			<0.015	<0.0050	0.044	0.044	<0.0050
RSEM-R6E-EOP	7/26/2019 9:55	WE4707	M	8.00	932	5.2	582	<4.0	329	316	79.7	<1.0	97.2	<1.0	<1.0	145	0.340	2.2	153			<0.015	<0.0050	0.043	0.043	<0.0050
RSEM-R6E-EOP	7/27/2019 11:45	WE7076	M	7.90	944	4.2	594	<4.0	320	322	82.0	<1.0	100	<1.0	<1.0	146	0.360	2.3	164			<0.015	0.0050	0.021	0.026	<0.0050
RSEM-R6E-EOP	7/28/2019 12:10	WE7123	M	7.98	1020	5.5	696	6.4	353	364	96.8	<1.0	118	<1.0	<1.0	165	0.330	2.5	159			<0.015	0.0076	0.115	0.123	<0.0050
RSEM-R6E-EOP	7/29/2019 9:20	WE7142	M	7.97	1020	3.8	642	6.0	355	376	99.7	<1.0	122	<1.0	<1.0	155	0.330	2.5	159			0.017	0.0056	0.105	0.111	<0.0050
RSEM-R6E-EOP	7/30/2019 12:20	WF2073	M	7.90	1020	7.1	674	6.4	341	373	108	<1.0	132	<1.0	<1.0	163	0.330	2.4	156			0.017	0.0085	0.178	0.187	<0.0050
RSEM-R6E-EOP	7/31/2019 11:55	WF4366	M	7.85	1020	8.5	666	6.4	373	381	111	<1.0	136	<1.0	<1.0	150	0.320	2.4	150			0.023	<0.0050	0.245	0.245	<0.0050
RSEM-R6E-EOP	8/1/2019 12:20	WF6260	M	7.99	1000	6.6	660	5.6	369	384	120	<1.0	140	<1.0	<1.0	160	0.31	2.3	150			0.030	0.0112	0.226	0.237	0.0036
RSEM-R6E-EOP	8/2/2019 10:20	WF6285	M	8.05	1000	8.4	650	5.2	378	353	120	<1.0	150	<1.0	<1.0	140	0.33	2.3	150			0.049	0.0131	0.303	0.316	0.0045
RSEM-R6E-EOP	8/3/2019 12:35	WF7649	M	8.07	1020	7.6	648	4.4	351	368	129	<1.0	157	<1.0	<1.0	146	0.310	2.2	144			0.064	0.0136	0.134	0.148	<0.0050
RSEM-R6E-EOP	8/4/2019 14:00	WF7664	M	7.94	1010	8.1	672	<4.0	351	363	133	<1.0	162	<1.0	<1.0	132	0.310	2.2	134			0.090	0.0158	0.304	0.320	<0.0050
RSEM-R6E-EOP	8/5/2019 12:10	WF9954	M	8.01	974	6.5	632	6.4	348	361	140	<1.0	170	<1.0	<1.0	137	0.330	2.1	132			0.10	0.0141	0.347	0.361	0.0085
RSEM-R6E-EOP	8/6/2019 12:25	WG2808	M	7.97	985	5.3	622	8.0	344	358	143	<1.0	174	<1.0	<1.0	142	0.320	2.0	135			0.12	0.0142	0.311	0.325	0.0079
RSEM-R6E-EOP	8/7/2019 13:55	WG4501	M	8.20	969	4.3	592	6.4	362	362	159	<1.0	193	<1.0	<1.0	128	0.310	1.9	138			0.13	0.0175	0.307	0.325	<0.0050
RSEM-R6E-EOP	8/8/2019 12:45	WG6507	M	8.11	1000	6.2	630	5.6	376	384	160	<1.0	200	<1.0	<1.0	140	0.32	2.1	140			0.16	0.0170	0.332	0.349	0.0049
RSEM-R6E-EOP	8/9/2019 10:50	WG6545	M	8.16	1200	7.0	820	18	431	449	160	<1.0	200	<1.0	<1.0	180	0.33	2.9	140			0.16	0.0208	0.442	0.463	0.0059
RSEM-R6E-EOP	8/10/2019 12:40	WH0276	M	8.01	1170	7.0	816	12.4	460	442	166	<1.0	202	<1.0	<1.0	179	0.330	2.8	132			0.16	0.0261	0.585	0.611	0.0161
RSEM-R6E-EOP	8/11/2019 11:50	WH0300	M	8.06	1160	6.5	814	10.0	453	437	167	<1.0	204	<1.0	<1.0	184	0.330	2.8	139			0.18	0.0316	0.692	0.724	0.0081
RSEM-R6E-EOP	8/12/2019 14:35	WH2472	M	8.07	1150	6.1	818	19.2	403	452	167	<1.0	203	<1.0	<1.0	164	0.320	2.7	139			0.086	0.0383	0.798	0.836	<0.0050
RSEM-R6E-EOP	8/13/2019 13:55	WH4522	M	8.17	1120	5.7	800	6.8	430	440	169	<1.0	207	<1.0	<1.0	161	0.320	2.6	141			0.085	0.0424	0.879	0.922	0.0083
RSEM-R6E-EOP	8/14/2019 14:35	WH7025	M	8.06	1120	3.1	792	4.0	415	440	168	<1.0	205	<1.0	<1.0	166	0.330	2.5	140			0.082	0.0467	0.926	0.972	<0.0050
RSEM-R6E-EOP	8/15/2019 10:30	WH8388	M	8.19	1100	2.9	800	2.4	430	429	160	<1.0	200	<1.0	<1.0	180	0.33	2.5	140			0.097	0.0449	0.896	0.941	<0.0030
RSEM-R6E-EOP	8/16/2019 10:45	WH8426	M	8.13	1300	7.7	930	11	489	497	150	<1.0	180	<1.0	<1.0	220	0.35	3.4	150			0.070	0.0565	1.04	1.10	<0.0030
RSEM-R6E-EOP	8/17/2019 10:25	WI0635	M	8.12	1340	2.8	1170	<4.0	529	528	143	<1.0	174	<1.0	<1.0	210	0.360	3.9	150			0.32	0.0582	1.15	1.21	<0.0050
RSEM-R6E-EOP	8/18/2019 14:15	WI0687	M	8.03	1370	6.0	1290	11.2	529	554	123	<1.0	150	<1.0	<1.0	250	0.390	3.9	170			0.28	0.0699	1.40	1.47	<0.0050
RSEM-R6E-EOP	8/19/2019 10:05	WI2769	M	8.09	1400	4.7		12.8	532	534	125	<1.0	152	<1.0	<1.0	210	0.430	3.8	180			0.26	0.0740	1.53	1.61	0.0030
RSEM-R6E-EOP	8/20/2019 10:30	WI5438	M	8.23	1300	9.5	880	13.6	450	461	141	<1.0	172	<1.0	<1.0	190	0.43	3.2	180			0.037	0.0791	1.41	1.49	<0.0030
RSEM-R6E-EOP	8/21/2019 11:45	WI5131	M	8.20	1300	3.0	880	4.0	443	468	140	<1.0	170	<1.0	<1.0	190	0.44	3.2	170			0.23	0.0752	1.57	1.64	<0.0030
RSEM-R6E-EOP	8/22/2019 11:10	WI9246	M	8.23	1200	3.5	800	2.5	456	469	150	<1.0	180	<1.0	<1.0	170	0.44	2.8	170			0.043	0.0725	1.64	1.71	0.0031
RSEM-R6E-EOP	8/23/2019 10:00	WI9311	M	8.24	1200	1.7	700	2.6	457	456	150	<1.0	180	<1.0	<1.0	160	0.43	2.7	170			0.046	0.0673	1.67	1.73	<0.0030
RSEM-R6E-EOP	8/24/2019 11:20	WJ3010	M	8.13	1200	2.3	900	7.2	462	462	150	<1.0	190	<1.0	<1.0	170	0.36	3	170			0.14	0.0565	1.65	1.71	0.0032
RSEM-R6E-EOP	8/25/2019 12:20	WJ3022	M	8.22	1100	3.4	790	5.6	443	456	160	<1.0	190	<1.0	<1.0	170	0.40	2.7	170			0.12	0.0519	1.66	1.72	<0.0030
RSEM-R6E-EOP	8/26/2019 12:35	WJ5216	M	8.03	1100	3.1	760	5.6	414	414	160	<1.0	190	<1.0	<1.0	170	0.37	2.4	170			0.099	0.0486	1.72	1.77	<0.0030
RSEM-R6E-EOP	8/27/2019 13:20	WJ7314	M	8.2	1100	2.3	720	6.8	407	388	150	<1.0	190	<1.0	<1.0	160	0.37	2.3	170			0.068	0.0411	1.58	1.63	<0.0030
RSEM-R6E-EOP	8/28/2019 12:35	WJ9546	M	8.16	1000	2.3	670	3.2	406	392	150	<1.0	180	<1.0	<1.0	150	0.35	2.1	160			0.082	0.0387	1.61	1.65	<0.0030
RSEM-R6E-EOP	8/28/2019 12:45	WJ9547	D	8.05	1000	2.3	690	2.8	403	395	150	<1.0	180	<1.0	<1.0	150	0.36	2.1	160			0.067	0.0362	1.62	1.66	<0.0030
RSEM-R6E-EOP	8/29/2019 14:10	WK2432	M	8.11	1000	2.5	680	<4.0	386	383	140	<1.0	170	<1.0	<1.0	140	0.36	2.1	150			0.065	0.0317	1.61	1.64	0.0037
RSEM-R6E-EOP	8/29/2019 14:20	WK2433	D	8.15	1000	2.4	680	<4.0	380	388	140	<1.0	170	<1.0	<1.0	140	0.36	2.1	150			0.06	0.034	1.6	1.64	0.0037
RSEM-R6E-EOP	8/30/2019 9:45	WK2404	M	8.14	990	2.5	700	4.4	365	368	140	<1.0	170	<1.0	<1.0	130	0.34	2	140			0.051	0.0332	1.54	1.57	<0.0030
RSEM-R6E-EOP	8/30/2019 9:55	WK2405	D	8.13	990	2.6	710	<4.0	370	378	140	<1.0	170	<1.0	<1.0	130	0.35	2	140			0.055	0.0259	1.53	1.56	0.0038
RSEM-R6E-EOP	8/31/2019 11:45	WK4118	M	8.2	960	1.7	620	<4.0	346	356	140	<1.0	170	<1.0	<1.0	130	0.33	1.9	140			0.043	0.0291	1.44	1.47	<0.0030
RSEM-R6E-EOP	8/31/2019 11:55	WK4119	D	8.21	960	1.6	620	<4.0	348	353	140	<1.0	170	<1.0	<1.0	120	0.34	1.9	140			0.036	0.03	1.42	1.45	<0.0030

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	6/24/2019 12:52	VY9703	M	4.1	3.7	0.395	0.00051	0.00096	0.0886	<0.0001	<0.001	0.171	0.000059	97.3	0.0015	0.0017	0.0025	0.728	0.00039	0.0358	26.1	0.107	<0.000002	0.0103	0.0102		6.19	0.00132
RSEM-R6E-EOP	6/25/2019 12:20	VZ1748	M	3.3	4.0	0.336	0.00057	0.00078	0.0975	<0.0001	<0.001	0.156	0.00007	116	0.0015	0.00201	0.00268	0.455	0.00025	0.0349	26.5	0.113	<0.000002	0.0102	0.0119		6.80	0.00142
RSEM-R6E-EOP	6/26/2019 12:56	VZ5388	M	3.9	4.7	0.154	0.00054	0.0007	0.096	<0.0001	<0.001	0.155	0.000061	121	0.0018	0.00204	0.00175	0.221	<0.0002	0.0396	26.9	0.103	<0.000002	0.01	0.0123		6.71	0.00139
RSEM-R6E-EOP	6/27/2019 13:00	VZ7727	M	3.7	3.8	0.18	0.00057	0.00072	0.104	<0.0001	<0.001	0.165	0.000052	144	0.0011	0.00187	0.00186	0.242	<0.0002	0.0411	30.2	0.0971	<0.000002	0.0098	0.0119		7.49	0.00144
RSEM-R6E-EOP	6/28/2019 6:53	VZ7858	M	3.7	3.6	0.13	0.00054	0.00069	0.0964	<0.0001	<0.001	0.152	0.000054	128	0.0011	0.00168	0.0015	0.111	<0.0002	0.0402	28.8	0.0982	<0.000002	0.0099	0.0116		6.94	0.00141
RSEM-R6E-EOP	6/29/2019 14:30	VZ9024	M	3.6	3.5	0.938	0.0006	0.00164	0.132	<0.0001	<0.001	0.156	0.000091	131	0.0022	0.002	0.00334	1.82	0.00094	0.0406	30.3	0.107	<0.000002	0.0094	0.0125		6.96	0.00137
RSEM-R6E-EOP	6/30/2019 14:00	WA1428	M	3.2	3.4	0.122	0.00059	0.00068	0.102	<0.0001	<0.001	0.14	0.000045	148	0.0012	0.00102	0.00142	0.171	<0.0002	0.0373	26.6	0.0778	<0.000002	0.0092	0.0075		6.93	0.00138
RSEM-R6E-EOP	6/30/2019 14:05	WA1431	D	3.4	3.2	0.133	0.0006	0.00072	0.105	<0.0001	<0.001	0.141	0.000052	151	0.0012	0.00108	0.00139	0.195	<0.0002	0.0371	26.7	0.0793	<0.000002	0.0094	0.0076		7.06	0.00143
RSEM-R6E-EOP	7/1/2019 13:35	WA1408	M	3.1	3.3	0.127	0.00057	0.00062	0.0998	<0.0001	<0.001	0.123	0.000056	143	0.0011	0.00124	0.0014	0.183	<0.0002	0.0343	23.9	0.0888	<0.000002	0.0084	0.0078		6.74	0.00134
RSEM-R6E-EOP	7/2/2019 13:30	WA3425	M	3.3	2.9	0.107	0.00058	0.0006	0.0904	<0.0001	<0.001	0.137	0.000041	143	0.0011	0.00112	0.00135	0.136	<0.0002	0.0363	25.6	0.0762	<0.000002	0.0089	0.0083		7.46	0.0014
RSEM-R6E-EOP	7/3/2019 12:25	WA5877	M	3.1	3.1	0.094	0.00059	0.00061	0.0853	<0.0001	<0.001	0.129	0.000027	136	0.0011	0.00086	0.00123	0.104	<0.0002	0.0342	26.3	0.0478	<0.000002	0.009	0.008		7.37	0.00139
RSEM-R6E-EOP	7/4/2019 12:50	WA7980	M	2.8	2.9	0.131	0.00059	0.00062	0.0828	<0.0001	<0.001	0.129	0.000014	138	0.0012	0.00062	0.00133	0.152	<0.0002	0.0362	27.4	0.0376	0.0000028	0.0084	0.007		7.52	0.00131
RSEM-R6E-EOP	7/5/2019 10:37	WA8012	M	2.6	3.1	0.107	0.00056	0.00064	0.0672	<0.0001	<0.001	0.129	<0.00001	130	0.0011	0.00037	0.00128	0.12	<0.0002	0.0353	26.0	0.02	0.0000024	0.0082	0.0058		7.06	0.0013
RSEM-R6E-EOP	7/6/2019 13:35	WB1464	M	3.2	3.0	0.147	0.00054	0.00075	0.0853	<0.0001	<0.001	0.13	0.000074	110	0.0014	0.00146	0.00151	0.205	<0.0002	0.0316	25.5	0.025	<0.000002	0.009	0.0061		6.70	0.00119
RSEM-R6E-EOP	7/7/2019 8:55	WB1486	M	3.0	3.0	0.073	0.00052	0.00054	0.0479	<0.0001	<0.001	0.134	0.000018	102	0.0012	0.0005	0.00114	0.053	<0.0002	0.032	25.3	0.0084	<0.000002	0.0087	0.0047		6.50	0.00118
RSEM-R6E-EOP	7/8/2019 9:20	WB4602	M	2.7	3.1	0.0748	0.00051	0.00052	0.0314	<0.0001	<0.001	0.135	<0.00001	98.2	0.0018	0.00023	0.00123	0.067	<0.0002	0.0329	27.2	0.0043	<0.000002	0.0083	0.0046		6.96	0.00112
RSEM-R6E-EOP	7/9/2019 13:10	WB6314	M	2.8	3.0	0.1	<0.0005	0.00061	0.0288	<0.0001	<0.001	0.127	0.000011	84.3	0.0011	0.00033	0.00108	0.116	<0.0002	0.0326	24.6	0.0074	<0.000002	0.0081	0.0035		5.99	0.00114
RSEM-R6E-EOP	7/9/2019 13:20	WB6315	D	2.8	2.8	0.101	<0.0005	0.0006	0.0274	<0.0001	<0.001	0.136	0.000011	85.5	0.0012	0.00026	0.00109	0.112	<0.0002	0.0342	25.1	0.0068	<0.000002	0.0083	0.0035		6.16	0.00112
RSEM-R6E-EOP	7/10/2019 11:05	WB8320	M	2.9	2.6	0.115	<0.0005	0.00056	0.024	<0.0001	<0.001	0.133	<0.00001	84.1	0.001	0.00026	0.00113	0.126	<0.0002	0.0312	25.8	0.0056	<0.000002	0.0079	0.0035		5.95	0.00108
RSEM-R6E-EOP	7/10/2019 11:15	WB8321	D	3.2	2.8	0.12	0.0005	0.00054	0.0247	<0.0001	<0.001	0.132	0.00001	84.5	0.0011	0.00029	0.00113	0.132	<0.0002	0.0318	25.7	0.0058	<0.000002	0.0081	0.0035		5.92	0.0011
RSEM-R6E-EOP	7/11/2019 12:35	WC0497	M	2.6	2.8	0.0736	<0.0005	0.00055	0.0183	<0.0001	<0.001	0.136	<0.00001	77.5	0.001	0.00021	0.00099	0.054	<0.0002	0.0317	25.5	0.0036	<0.000002	0.0081	0.0031		5.94	0.00108
RSEM-R6E-EOP	7/12/2019 11:05	WC0454	M	2.8	3.1	0.0724	<0.0005	0.00057	0.0147	<0.0001	<0.001	0.142	<0.00001	73.2	0.0011	0.00025	0.00159	0.056	<0.0002	0.0316	26.0	0.0036	<0.000002	0.0079	0.003		5.96	0.00102
RSEM-R6E-EOP	7/13/2019 13:05	WC4190	M	3.3	2.7	0.0682	<0.0005	0.00052	0.0126	<0.0001	<0.001	0.143	<0.00001	69.8	<0.001	0.00032	0.00118	0.072	<0.0002	0.0303	24.1	0.0042	<0.000002	0.0074	0.0024		5.27	0.00106
RSEM-R6E-EOP	7/14/2019 13:30	WC4188	M	3.6	2.2	0.0901	<0.0005	0.00061	0.0146	<0.0001	<0.001	0.157	0.000013	67.1	<0.001	0.0004	0.00116	0.099	<0.0002	0.0315	25.3	0.0057	<0.000002	0.0074	0.0025		5.20	0.00101
RSEM-R6E-EOP	7/15/2019 11:55	WC7554	M	3.5	3.8	0.0416	<0.0005	0.00059	0.0125	<0.0001	<0.001	0.137	0.00001	64.1	<0.001	0.00039	0.00097	0.052	<0.0002	0.0296	24.1	0.0056	<0.000002	0.0073	0.0026		5.38	0.00098
RSEM-R6E-EOP	7/16/2019 11:35	WC9632	M	3.8	4.3	0.0351	<0.0005	0.00065	0.0162	<0.0001	<0.001	0.142	<0.00001	66.9	<0.001	0.0005	0.00103	0.049	<0.0002	0.029	24.2	0.0068	<0.000002	0.0077	0.0027		5.25	0.00102
RSEM-R6E-EOP	7/17/2019 13:40	WD1676	M	4.1	4.2	0.0519	<0.0005	0.00068	0.0173	<0.0001	<0.001	0.156	0.000018	70.9	<0.001	0.00062	0.00118	0.07	<0.0002	0.032	25.7	0.0076	0.0000053	0.0071	0.0025		5.87	0.00096
RSEM-R6E-EOP	7/18/2019 13:05	WD4018	M	4.8	4.4	0.0453	<0.0005	0.00072	0.0234	<0.0001	<0.001	0.139	0.000024	63.4	<0.001	0.00077	0.00125	0.08	<0.0002	0.0296	24.5	0.013	<0.000002	0.0068	0.004		5.14	0.00091
RSEM-R6E-EOP	7/19/2019 12:30	WD4024	M	5.0	5.5	0.0625	<0.0005	0.00076	0.0291	<0.0001	<0.001	0.142	0.000027	71.5	<0.001	0.00095	0.00123	0.123	<0.0002	0.0315	25.7	0.0217	<0.000002	0.0068	0.0052		5.43	0.00091
RSEM-R6E-EOP	7/20/2019 14:05	WD7112	M	5.4	5.5	0.0728	<0.0005	0.00081	0.0311	<0.0001	<0.001	0.149	0.000026	74.9	<0.001	0.00095	0.00218	0.161	<0.0002	0.0326	26.6	0.0228	0.0000057	0.0066	0.0053		5.60	0.00087
RSEM-R6E-EOP	7/21/2019 14:00	WD7084	M	4.8	5.7	0.0647	<0.0005	0.0008	0.031	<0.0001	<0.001	0.15	0.00002	73.7	<0.001	0.00087	0.00132	0.158	<0.0002	0.0331	26.5	0.0161	<0.000002	0.0065	0.0051		5.67	0.00084
RSEM-R6E-EOP	7/22/2019 12:20	WD8945	M	5.0	5.2	0.113	<0.0005	0.0009	0.0322	<0.0001	<0.001	0.154	0.000027	70.2	<0.001	0.00089	0.00124	0.217	<0.0002	0.0341	25.8	0.0179	<0.000002	0.0064	0.005		5.49	0.00086
RSEM-R6E-EOP	7/23/2019 13:35	WE1026	M	5.4	5.4	0.0745	<0.0005	0.00092	0.0302	<0.0001	<0.001	0.153	0.000018	65.9	<0.001	0.00079	0.00116	0.156	<0.0002	0.0333	25.3	0.0144	<0.000002	0.0062	0.0045		5.57	0.0008
RSEM-R6E-EOP	7/24/2019 12:40	WE3036	M	5.2	5.3	0.104	<0.0005	0.00105	0.033	<0.0001	<0.001	0.142	0.000024	64.5	<0.001	0.00087	0.00123	0.246	<0.0002	0.0299	25.3	0.0217	<0.000002	0.0064	0.0045		5.47	0.00079
RSEM-R6E-EOP	7/25/2019 12:45	WE4846	M	5.6	5.2	0.13	<0.0005	0.00108	0.054	<0.0001	<0.001	0.164	0.000022	86.0	<0.001	0.00095	0.00127	0.315	<0.0002	0.0358	26.9	0.0461	<0.000002	0.0063	0.0053		6.24	0.00082
RSEM-R6E-EOP	7/26/2019 9:55	WE4707	M	5.6	5.6	0.129	<0.0005	0.00118	0.0565	<0.0001	<0.001	0.165	0.000021	86.1	<0.001	0.00092	0.00128	0.337	<0.0002	0.0369	27.8	0.0468	<0.000002	0.0064	0.0054		6.28	0.00082
RSEM-R6E-EOP	7/27/2019 11:45	WE7076	M	5.7	5.4	0.13	<0.0005	0.00126	0.0592	<0.0001	<0.001	0.155	0.000023	83.4	<0.001	0.00085	0.00128	0.339	<0.0002	0.0352	27.0	0.048	<0.000002	0.0061	0.0051		6.07	0.00075
RSEM-R6E-EOP	7/28/2019 12:10	WE7123	M	5.1	4.6	0.216	<0.0005	0.00135	0.0847	<0.0001	<0.001	0.156	0.000027	96.9	<0.001	0.00091	0.00119	0.375	<0.0002	0.0362	27.0	0.0687	<0.000002	0.006	0.0052		6.65	0.00072
RSEM-R6E-EOP	7/29/2019 9:20	WE7142	M	5.5	5.3	0.141	<0.0005	0.00138	0.0903	<0.0001	<0.001	0.153	0.000025	96.8	<0.001	0.00094	0.00136	0.371	<0.0002	0.0362	27.5	0.0738	<0.000002	0.0061	0.0054		6.83	0.00076
RSEM-R6E-EOP	7/30/2019 12:20	WF2073	M	5.3	5.7	0.211	<0.0005	0.00144	0.101	<0.0001	<0.001	0.151	0.000022	92.7	<0.001	0.00092	0.00107	0.438	0.00021	0.0352	26.5	0.0764	<0.000002	0.0063	0.0051		6.84	0.00075
RSEM-R6E-EOP	7/31/2019 11:55	WF4366	M	6.4	6.1	0.201	<0.0005	0.00154	0.114	<0.0001	<0.001	0.175	0.000024	102	<0.001	0.00103	0.0013	0.565	0.00028	0.0371	28.9	0.1	<0.000002	0.0064	0.0059		7.13	0.00069
RSEM-R6E-EOP	8/1/2019 12:20	WF6260	M	5.8	5.3	0.278	<0.0005	0.00161	0.121	<0.0001	<0.001	0.173	0.000023	100	<0.001	0.00097	0.00107	0.518	0.00026	0.0382	28.7	0.116	<0.000002	0.0065	0.0055		7.28	0.00071
RSEM-R6E-EOP	8/2/2019 10:20	WF6285	M	5.4	5.2	0.32	<0.0005	0.00179	0.136	<0.0001	<0.001	0.181	0.000023	103	<0.001	0.00101	0.00112	0.63	0.00029	0.0382	29.3	0.128	<0.000002	0.0066	0.0058		7.29	0.0007
RSEM-R6E-EOP	8/3/2019 12:35	WF7649	M	5.8	5.5	0.269	<0.0005	0.00167	0.142	<0.0001	<0.001	0.157	0.000019	96.9	<0.001	0.00098	0.00108	0.626	0.00031	0.0377	26.6	0.126	<0.000002	0.0063	0.0056		7.01	0.00053
RSEM-R6E-EOP	8/4/2019 14:00	WF7664	M	6.0	5.1	0.304	<0.0005	0.00169	0.151	<0.0001	<0.001	0.159	0.000019	96.9	<0.001	0.00098	0.00109	0.64	0.00035	0.0387	26.5	0.135	<0.000002	0.0064	0.0056		7.04	0.00057
RSEM-R6E-EOP	8/5/2019 12:10	WF9954	M	5.5	5.3	0.295	<0.0005	0.00182	0.151	<0.0001	<0.001	0.162	0.000021	94.2	<0.001	0.00115	0.001	0.586	0.00032	0.0334	27.3	0.135	<0.000002	0.0062	0.006		6.72	0.00063
RSEM-R6E-EOP	8/6/2019 12:25	WG2808	M	5.5	5.1	0.233	<0.0005	0.00187	0.153	<0.0001	<0.001	0.157	0.000018	93.8	<0.001	0.00119	0.00094	0.554	0.00029	0.0324	26.7	0.153	<0.000002	0.0061	0.0061		6.66	0.00059
RSEM-R6E-EOP	8/7/2019 13:55	WG4501	M	4.3	4.3	0.204	<0.0005	0.00191	0.168	<0.0001	<0.001	0.163	0.000015	98.4	<0.001	0.00117	0.00094	0.504	0.00029	0.0355	28.2	0.153	<0.000002	0.0064	0.0066		6.73	0.00059
RSEM-R6E-EOP	8/8/2019 12:45	WG6507	M	4.3	3.9	0.195	<0.0005	0.00178	0.167	<0.0001	<0.001	0.156	0.000014	105	<0.001	0.00106	0.00083	0.509	0.00027	0.037	27.3	0.139	<0.000002	0.0061	0.0065		6.50	0.00057
RSEM-R6E-EOP	8/9/2019 10:50	WG6545	M	3.8	4.0	0.219	<0.0005	0.00158	0.172	<0.0001	<0.001	0.154	0.000025	126	<0.001	0.00129	0.00115	0.521	0.0003	0.0383	28.3	0.133	0.0000022	0.006	0.0075		7.29	0.0006
RSEM-R6E-EOP	8/10/2019 12:40	WH0276	M	3.7	3.7	0.197	<0.0005	0.00153	0.183	<0.0001	<0.001	0.163	0.000019	137	<0.001	0.00131	0.00101	0.481	0.00028	0.038	28.7	0.13	<0.000002	0.0071	0.0081		8.03	0.00061
RSEM-R6E-EOP	8/11/2019 11:50	WH0300	M	3.6	3.8	0.198	<0.0005	0.00145	0.184	<0.0001	<0.001	0.158	0.000017	132	<0.001	0.00119	0.00096	0.44	0.00026	0.0379	29.9	0.117	<0.000002	0.0069	0.0081		7.80	0.00061
RSEM-R6E-EOP	8/12/2019 14:35	WH2472	M	3.6	3.5	0.261	<0.0005	0.00136	0.168	<0.0001	<0.001	0.154	0.000019	116	<0.001	0.0011	0.00104	0.522	0.0003	0.0349	27.4	0.101	<0.000002	0.0063	0.0073		7.01	0.00055
RSEM-R6E-EOP	8/13/2019 13:55	WH4522	M	3.4	3.8	0.105	<0.0005	0.00118	0.17	<0.0001	<0.001	0.167	0.000014	124	<0.001	0.00088	0.00087	0.272	<0.0002	0.0356	29.3	0.0908	<0.000002	0.0069	0.0071		7.40	0.00065
RSEM-R6E-EOP	8/14/2019 14:35	WH7025	M	3.2	3.2	0.0864	<0.0005	0.00121	0.167	<0.0001	<0.001	0.151	<0.00001	119	<0.001	0.00076	0.00083	0.193	<0.0002	0.0336	28.8	0.0755	<0.000002	0.0074	0.0066		7.43	0.00061
RSEM-R6E-EOP	8/15/2019 10:30	WH8388	M	3.1	3.0	0.0715	<0.0005	0.0011	0.17	<0.0001	<0.001	0.163	<0.00001	123	<0.001	0.00072	0.00087	0.145	<0.0002	0.0362	29.9	0.0744	<0.000002	0.0077	0.0064		7.71	0.00062
RSEM-R6E-EOP	8/16/2019 10:45	WH8426	M	3.3	3.0	0.147	0.0006	0.0011	0.171	<0.0001	<0.001	0.159	0.000038	150	0.0021	0.00117	0.00144	0.232	<0.0002	0.0367	27.6	0.0769	<0.000002	0.0118	0.008		10.1	0.00094
RSEM-R6E-EOP	8/17/2019 10:25	WI0635	M	2.8	3.1	0.116	0.00056	0.00101	0.172	<0.0001	<0.001	0.161	0.000031	165	0.0021	0.00112	0.00121	0.15	<0.0002	0.0376	28.5	0.0696	<0.000002	0.0123	0.0078		10.7	0.00097
RSEM-R6E-EOP	8/18/2019 14:15	WI0687	M	2.8	2.8	0.167	0.00064	0.00086	0.168	<0.0001	<0.001	0.146	0.000065	166	0.002	0.00248	0.00155	0.249	<0.0002	0.0365	28.0	0.096	<0.000002	0.0108	0.0132		10.3	0.00095
RSEM-R6E-EOP	8/19/2019 10:05	WI2769	M	2.6	2.5	0.361	0.0007	0.00094	0.166	<0.0001	<0.001	0.154	0.000093	165	0.0032	0.00395	0.00197	0.44	0.00026	0.0395	28.9	0.126	<0.000002	0.0124	0.0191		10.4	0.00117
RSEM-R6E-EOP	8/20/2019 10:30	WI5438	M	2.6	2.9	0.197	0.00086	0.00108	0.145	<0.0001	<0.001	0.16	0.000068	139	0.0037	0.00374	0.00161	0.159	<0.0002	0.0405	25.2	0.102	<0.000002	0.0151	0.0182		10.0	0.00144
RSEM-R6E-EOP	8/21/2019 11:45	WI5131	M	2.6	2.9	0.157	0.0008	0.00086	0.141	<0.0001	<0.001	0.153	0.000073	136	0.0033	0.00368	0.00151	0.097	<0.0002	0.0399	25.2	0.0853	<0.000002	0.0142	0.0183		9.57	0.00132
RSEM-R6E-EOP	8/22/2019 11:10	WI9246	M	2.5	2.3	0.139	0.00079	0.00082	0.146	<0.0001	<0.001	0.157	0.000077	138	0.0029	0.00385	0.00148	0.089	<0.0002	0.0388	26.7	0.0863	<0.000002	0.0136	0.0197		9.27	0.0013
RSEM-R6E-EOP	8/23/2019 10:00	WI9311	M	2.4	2.5	0.131	0.00076	0.00079	0.145	<0.0001	<0.001	0.157	0.000056	139	0.0026	0.00353	0.00147	0.078	<0.0002	0.0391	26.9	0.0772	<0.000002	0.0129	0.0191		9.07	0.00122
RSEM-R6E-EOP	8/24/2019 11:20	WJ3010	M	2.4	2.2	0.144	0.00068	0.0007	0.147	<0.0001	<0.001	0.151	0.000035	138	0.0028	0.00287	0.00196	0.102	<0.0002	0.0375	28.3	0.06	<0.000002	0.0122	0.017		8.91	0.00124
RSEM-R6E-EOP	8/25/2019 12:20	WJ3022	M	2.4	2.3	0.134	0.00064	0.00073	0.145	<0.0001	<0.001	0.138	0.000015	132	0.0028	0.00244	0.00136	0.104	<0.0002	0.0358	27.3	0.0473	0.000004	0.0125	0.0154		9.00	0.00114
RSEM-R6E-EOP	8/26/2019 12:35	WJ5216	M	2.2	2.4	0.15	0.0006	0.0007	0.141	<0.0001	<0.001	0.133	<0.00001	123	0.0025	0.00191	0.0013	0.129	<0.0002	0.0361	26.1	0.0358	<0.000002	0.0114	0.0136		8.43	0.0011
RSEM-R6E-EOP	8/27/2019 13:20	WJ7314	M	2.1	2.1	0.128	0.00059	0.00063	0.131	<0.0001	<0.001	0.145	0.000011	117	0.0023	0.00154	0.00108	0.074	<0.0002	0.0335	27.6	0.0273	<0.000002	0.0113	0.0128		7.98	0.00105
RSEM-R6E-EOP	8/28/2019 12:35	WJ9546	M	2.3	2.1	0.133	0.00054	0.00061	0.134	<0.0001	<0.001	0.139	<0.00001	118	0.0023	0.00144	0.00108	0.077	<0.0002	0.0346	26.9	0.0235	<0.000002	0.011	0.0124		8.31	0.00099
RSEM-R6E-EOP	8/28/2019 12:45	WJ9547	D	2.1	2.2	0.121	0.00056	0.00063	0.134	<0.0001	<0.001	0.14	<0.00001	117	0.0022	0.00142	0.00109	0.081	<0.0002	0.0346	27.2	0.0231	<0.000002	0.0109	0.0123		8.3	0.00103
RSEM-R6E-EOP	8/29/2019 14:10	WK2432	M	2.1	2.2	0.116	0.00052	0.00061	0.118	<0.0001	<0.001	0.135	<0.00001	109	0.0021	0.00123	0.00109	0.074	<0.0002	0.0332	27.8	0.0184	<0.000002	0.0099	0.0119		7.51	0.00097
RSEM-R6E-EOP	8/29/2019 14:20	WK2433	D	2	2	0.112	0.00053	0.00059	0.116	<0.0001	<0.001	0.135	<0.00001	107	0.002	0.00121	0.00105	0.075	<0.0002	0.0336	27.3	0.0185	<0.000002	0.0101	0.0118		7.33	0.001
RSEM-R6E-EOP	8/30/2019 9:45	WK2404	M	2	2	0.12	<0.0005	0.00058	0.11	<0.0001	<0.001	0.135	<0.00001	101	0.0018	0.00101	0.0011	0.079	<0.0002	0.0339	27.3	0.0154	<0.000002	0.0091	0.0109		7.05	0.0009
RSEM-R6E-EOP	8/30/2019 9:55	WK2405	D	2	2.2	0.117	0.00053	0.00057	0.112	<0.0001	<0.001	0.137	<0.00001	102	0.0019	0.00106	0.00108	0.083	<0.0002	0.0342	27.8	0.0154	<0.000002	0.0093	0.0111		7.24	0.00094
RSEM-R6E-EOP	8/31/2019 11:45	WK4118	M	2	1.6	0.117	0.00061	0.00054	0.102	<0.0001	<0.001	0.131	<0.00001	94.2	0.0016	0.0008	0.00101	0.062	<0.0002	0.0318	26.9	0.0116	<0.000002	0.0086	0.0099		6.74	0.00087
RSEM-R6E-EOP	8/31/2019 11:55	WK4119	D	2.1	1.9	0.106	0.00051	0.00056	0.102	<0.0001	<0.001	0.132	<0.00001	94.5	0.0016	0.00083	0.00103	0.058	<0.0002	0.0309	27.2	0.0119	<0.000002	0.0086	0.0101		6.88	0.00089

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	6/24/2019 12:52	VY9703	M	2.92	<0.00002	66.3	0.995	69.6	0.000026	<0.005	0.0088	0.00215	<0.005	0.0054	0.00023	0.0437	<0.0005	0.00063	0.074	<0.0001	<0.001	0.166	0.000034	101	<0.001	0.00124	0.00146	0.014
RSEM-R6E-EOP	6/25/2019 12:20	VZ1748	M	2.48	<0.00002	61.2	1.2	67.0	0.000026	<0.005	0.0075	0.00239	<0.005	0.0054	0.00019	0.0453	0.00054	0.00062	0.0866	<0.0001	<0.001	0.153	0.00005	123	<0.001	0.00169	0.00135	0.011
RSEM-R6E-EOP	6/26/2019 12:56	VZ5388	M	2.36	<0.00002	61.0	1.23	71.2	0.000023	<0.005	<0.005	0.00243	<0.005	<0.005	<0.0001	0.0492	0.00055	0.0006	0.0929	<0.0001	<0.001	0.163	0.000048	128	<0.001	0.00167	0.00125	<0.01
RSEM-R6E-EOP	6/27/2019 13:00	VZ7727	M	2.72	<0.00002	64.7	1.17	80.3	0.000026	<0.005	<0.005	0.00268	<0.005	<0.005	<0.0001	0.045	0.00052	0.00058	0.0952	<0.0001	<0.001	0.163	0.000027	142	<0.001	<0.0002	0.00113	<0.01
RSEM-R6E-EOP	6/28/2019 6:53	VZ7858	M	2.27	<0.00002	60.1	1.3	77.7	0.000024	<0.005	<0.005	0.00265	<0.005	<0.005	<0.0001	0.0432	0.00055	0.00062	0.0958	<0.0001	<0.001	0.17	0.000037	142	<0.001	0.00091	0.00107	<0.01
RSEM-R6E-EOP	6/29/2019 14:30	VZ9024	M	4.04	0.000021	60.6	1.28	80.8	0.000042	<0.005	0.0241	0.00283	<0.005	0.0335	0.00061	0.0283	0.00052	0.00065	0.0967	<0.0001	<0.001	0.158	0.000031	133	<0.001	0.00109	0.00156	<0.01
RSEM-R6E-EOP	6/30/2019 14:00	WA1428	M	2.68	<0.00002	48.9	1.29	79.3	0.000027	<0.005	<0.005	0.00257	<0.005	<0.005	<0.0001	0.0298	0.00059	0.00061	0.0969	<0.0001	<0.001	0.14	0.000035	149	0.001	0.00082	0.00105	<0.01
RSEM-R6E-EOP	6/30/2019 14:05	WA1431	D	2.72	<0.00002	50.0	1.31	79.1	0.000026	<0.005	<0.005	0.00267	<0.005	<0.005	<0.0001	0.0313	0.00059	0.00063	0.0999	<0.0001	<0.001	0.14	0.000039	154	0.001	0.00087	0.001	<0.01
RSEM-R6E-EOP	7/1/2019 13:35	WA1408	M	2.71	<0.00002	41.8	1.23	75.0	0.000027	<0.005	<0.005	0.00246	<0.005	<0.005	<0.0001	0.0376	0.00063	0.00051	0.0962	<0.0001	<0.001	0.127	0.000045	145	<0.001	0.00113	0.001	<0.01
RSEM-R6E-EOP	7/2/2019 13:30	WA3425	M	2.84	<0.00002	44.6	1.24	79.7	0.000028	<0.005	<0.005	0.00256	<0.005	<0.005	<0.0001	0.0474	0.00063	0.00054	0.09	<0.0001	<0.001	0.131	0.000026	157	<0.001	0.00099	0.00096	<0.01
RSEM-R6E-EOP	7/3/2019 12:25	WA5877	M	2.65	<0.00002	44.3	1.16	80.2	0.000027	<0.005	<0.005	0.00252	<0.005	<0.005	<0.0001	0.0512	0.0006	0.00053	0.0792	<0.0001	<0.001	0.135	0.000017	156	<0.001	0.00073	0.00095	<0.01
RSEM-R6E-EOP	7/4/2019 12:50	WA7980	M	3.19	<0.00002	47.2	1.06	80.3	0.000028	<0.005	<0.005	0.00253	<0.005	<0.005	<0.0001	0.049	0.00056	0.00053	0.0766	<0.0001	<0.001	0.13	<0.00001	137	<0.001	0.00041	0.00095	<0.01
RSEM-R6E-EOP	7/5/2019 10:37	WA8012	M	3.24	<0.00002	44.9	0.99	74.8	0.000026	<0.005	<0.005	0.00238	<0.005	<0.005	<0.0001	0.0479	0.00053	0.00049	0.0631	<0.0001	<0.001	0.128	<0.00001	129	<0.001	0.00025	0.001	<0.01
RSEM-R6E-EOP	7/6/2019 13:35	WB1464	M	3.18	<0.00002	43.8	0.967	71.0	0.000024	<0.005	<0.005	0.00243	<0.005	<0.005	0.00017	0.0456	0.00052	0.00046	0.0512	<0.0001	<0.001	0.118	<0.00001	117	0.0011	0.0002	0.00085	<0.01
RSEM-R6E-EOP	7/7/2019 8:55	WB1486	M	3.05	<0.00002	43.7	0.925	72.5	0.000022	<0.005	<0.005	0.00226	<0.005	<0.005	<0.0001	0.0349	0.00052	0.00047	0.0405	<0.0001	<0.001	0.123	<0.00001	107	0.0011	<0.0002	0.0009	<0.01
RSEM-R6E-EOP	7/8/2019 9:20	WB4602	M	3.27	<0.00002	47.8	0.83	76.7	0.000019	<0.005	<0.005	0.00214	<0.005	<0.005	<0.0001	0.0405	0.00053	0.00051	0.0306	<0.0001	<0.001	0.138	<0.00001	101	0.0012	<0.0002	0.00107	<0.01
RSEM-R6E-EOP	7/9/2019 13:10	WB6314	M	3.1	<0.00002	43.7	0.824	65.8	0.000016	<0.005	<0.005	0.00198	<0.005	<0.005	<0.0001	0.0325	<0.0005	0.0005	0.0234	<0.0001	<0.001	0.129	<0.00001	85.5	<0.001	<0.0002	0.00079	<0.01
RSEM-R6E-EOP	7/9/2019 13:20	WB6315	D	3.19	<0.00002	44.8	0.839	67.2	0.000017	<0.005	<0.005	0.00203	<0.005	<0.005	<0.0001	0.0325	<0.0005	0.00051	0.0235	<0.0001	<0.001	0.129	0.000011	84.6	<0.001	<0.0002	0.00082	<0.01
RSEM-R6E-EOP	7/10/2019 11:05	WB8320	M	3.35	<0.00002	46.3	0.767	65.6	0.000017	<0.005	<0.005	0.00196	<0.005	<0.005	<0.0001	0.0415	<0.0005	0.00051	0.0216	<0.0001	<0.001	0.135	<0.00001	83.7	<0.001	<0.0002	0.00087	<0.01
RSEM-R6E-EOP	7/10/2019 11:15	WB8321	D	3.32	<0.00002	46.6	0.767	65.5	0.000017	<0.005	0.0052	0.00205	<0.005	<0.005	<0.0001	0.0404	<0.0005	0.00051	0.0212	<0.0001	<0.001	0.14	<0.00001	84.0	<0.001	<0.0002	0.0008	<0.01
RSEM-R6E-EOP	7/11/2019 12:35	WC0497	M	3.1	<0.00002	45.5	0.786	66.7	0.00001	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001	0.0352	<0.0005	0.00056	0.0197	<0.0001	<0.001	0.137	<0.00001	77.2	<0.001	<0.0002	0.00084	<0.01
RSEM-R6E-EOP	7/12/2019 11:05	WC0454	M	3.16	<0.00002	45.8	0.758	67.8	<0.00001	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001	0.0322	<0.0005	0.0005	0.0131	<0.0001	<0.001	0.141	<0.00001	74.8	<0.001	<0.0002	0.001	<0.01
RSEM-R6E-EOP	7/13/2019 13:05	WC4190	M	3.25	<0.00002	45.6	0.627	63.1	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001	0.0362	0.00051	0.00055	0.0117	<0.0001	<0.001	0.159	<0.00001	79.9	<0.001	<0.0002	0.001	0.011
RSEM-R6E-EOP	7/14/2019 13:30	WC4188	M	3.23	<0.00002	47.8	0.623	59.2	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001	0.0237	0.0005	0.00061	0.0141	<0.0001	<0.001	0.159	0.000012	79.9	<0.001	0.00023	0.00096	0.015
RSEM-R6E-EOP	7/15/2019 11:55	WC7554	M	3.18	<0.00002	45.8	0.666	57.5	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001	0.0203	<0.0005	0.00059	0.0122	<0.0001	<0.001	0.142	<0.00001	69.5	<0.001	0.00036	0.00088	0.018
RSEM-R6E-EOP	7/16/2019 11:35	WC9632	M	3.24	<0.00002	47.1	0.643	58.7	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	0.0193	<0.0005	0.00061	0.0162	<0.0001	<0.001	0.152	0.00001	65.9	<0.001	0.00043	0.00078	0.022
RSEM-R6E-EOP	7/17/2019 13:40	WD1676	M	3.67	<0.00002	48.6	0.619	63.8	<0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001	0.0164	<0.0005	0.00067	0.0167	<0.0001	<0.001	0.133	0.000013	61.3	<0.001	0.00052	0.00087	0.025
RSEM-R6E-EOP	7/18/2019 13:05	WD4018	M	3.23	<0.00002	44.9	0.654	55.4	<0.00001	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001	0.0195	<0.0005	0.00068	0.0225	<0.0001	<0.001	0.141	0.000017	65.0	<0.001	0.0005	0.00094	0.035
RSEM-R6E-EOP	7/19/2019 12:30	WD4024	M	3.45	<0.00002	47.0	0.777	57.8	<0.00001	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001	0.0242	<0.0005	0.00072	0.0282	<0.0001	<0.001	0.146	0.000021	70.8	<0.001	0.00051	0.00087	0.046
RSEM-R6E-EOP	7/20/2019 14:05	WD7112	M	3.33	<0.00002	48.4	0.891	56.0	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	0.00016	0.0239	<0.0005	0.00076	0.0298	<0.0001	<0.001	0.15	0.000024	73.4	<0.001	0.00074	0.00107	0.07
RSEM-R6E-EOP	7/21/2019 14:00	WD7084	M	3.52	<0.00002	48.0	0.943	55.1	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	0.0246	<0.0005	0.00078	0.0286	<0.0001	<0.001	0.155	0.000021	74.4	<0.001	0.00072	0.00099	0.075
RSEM-R6E-EOP	7/22/2019 12:20	WD8945	M	3.3	<0.00002	47.3	0.918	51.6	<0.00001	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001	0.0248	<0.0005	0.00081	0.0293	<0.0001	<0.001	0.145	0.000018	67.1	<0.001	0.00068	0.00093	0.073
RSEM-R6E-EOP	7/23/2019 13:35	WE1026	M	3.44	<0.00002	47.0	0.882	53.0	<0.00001	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001	0.0233	<0.0005	0.00082	0.0292	<0.0001	<0.001	0.153	0.000018	67.8	<0.001	0.00067	0.00105	0.079
RSEM-R6E-EOP	7/24/2019 12:40	WE3036	M	3.32	<0.00002	45.8	0.874	51.5	<0.00001	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001	0.0249	<0.0005	0.00094	0.0293	<0.0001	<0.001	0.155	0.000014	64.2	<0.001	0.00057	0.0009	0.069
RSEM-R6E-EOP	7/25/2019 12:45	WE4846	M	3.62	<0.00002	48.8	1.21	50.2	<0.00001	<0.005	<0.005	0.00155	<0.005	0.0065	0.00015	0.0207	<0.0005	0.001	0.0504	<0.0001	<0.001	0.153	0.000016	81.8	<0.001	0.00045	0.00091	0.083
RSEM-R6E-EOP	7/26/2019 9:55	WE4707	M	4.06	<0.00002	49.3	1.23	51.2	<0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	0.00016	0.026	<0.0005	0.00104	0.0519	<0.0001	<0.001	0.158	0.000016	82.5	<0.001	0.00062	0.00097	0.103
RSEM-R6E-EOP	7/27/2019 11:45	WE7076	M	3.5	<0.00002	47.2	1.21	49.3	<0.00001	<0.005	<0.005	0.00142	<0.005	<0.005	0.0001	0.0217	<0.0005	0.00104	0.0552	<0.0001	<0.001	0.176	0.000019	83.4	<0.001	0.00068	0.00093	0.126
RSEM-R6E-EOP	7/28/2019 12:10	WE7123	M	3.72	<0.00002	46.3	1.43	47.9	0.000012	<0.005	0.0058	0.00147	<0.005	<0.005	0.00021	0.0221	<0.0005	0.00119	0.0816	<0.0001	<0.001	0.165	0.000015	98.9	<0.001	0.00074	0.00135	0.127
RSEM-R6E-EOP	7/29/2019 9:20	WE7142	M	3.8	<0.00002	46.4	1.44	48.6	0.000011	<0.005	0.007	0.00149	<0.005	0.0105	0.00016	0.0208	<0.0005	0.0012	0.0895	<0.0001	<0.001	0.166	0.000022	102	<0.001	0.00077	0.00104	0.135
RSEM-R6E-EOP	7/30/2019 12:20	WF2073	M	3.84	<0.00002	48.0	1.33	47.3	0.000012	<0.005	<0.005	0.00149	<0.005	<0.005	0.00022	0.0213	<0.0005	0.00131	0.0984	<0.0001	<0.001	0.176	0.000012	103	<0.001	0.00071	0.00086	0.136
RSEM-R6E-EOP	7/31/2019 11:55	WF4366	M	4.02	<0.00002	50.8	1.43	49.5	0.00001	<0.005	<0.005	0.00151	<0.005	<0.005	0.00014	0.0166	<0.0005	0.0014	0.113	<0.0001	<0.001	0.185	0.000012	106	<0.001	0.00067	0.00074	0.14
RSEM-R6E-EOP	8/1/2019 12:20	WF6260	M	4.13	<0.00002	50.2	1.33	47.7	0.000012	<0.005	0.0053	0.00158	<0.005	<0.005	0.00027	0.0119	<0.0005	0.00136	0.118	<0.0001	<0.001	0.176	0.000011	104	<0.001	0.00022	0.00054	0.095
RSEM-R6E-EOP	8/2/2019 10:20	WF6285	M	4.45	<0.00002	51.5	1.37	48.3	0.00001	<0.005	0.0072	0.00162	<0.005	<0.005	0.00036	0.0128	<0.0005	0.00145	0.12	<0.0001	<0.001	0.17	<0.00001	96.2	<0.001	0.00025	0.00068	0.11
RSEM-R6E-EOP	8/3/2019 12:35	WF7649	M	4.23	<0.00002	45.5	1.36	44.5	<0.00001	<0.005	0.006	0.00164	<0.005	<0.005	0.00029	0.0128	<0.0005	0.00149	0.134	<0.0001	<0.001	0.168	0.000011	101	<0.001	0.00064	<0.0005	0.128
RSEM-R6E-EOP	8/4/2019 14:00	WF7664	M	4.19	<0.00002	45.7	1.39	44.9	<0.00001	<0.005	0.0061	0.00169	<0.005	<0.005	0.00049	0.0128	<0.0005	0.00147	0.141	<0.0001	<0.001	0.171	<0.00001	98.7	<0.001	0.00064	0.00053	0.13
RSEM-R6E-EOP	8/5/2019 12:10	WF9954	M	4.03	<0.00002	48.9	1.21	45.4	<0.00001	<0.005	0.0056	0.00153	<0.005	<0.005	0.00049	0.0157	<0.0005	0.0015	0.145	<0.0001	<0.001	0.177	<0.00001	98.6	<0.001	0.0009	0.00059	0.131
RSEM-R6E-EOP	8/6/2019 12:25	WG2808	M	3.93	<0.00002	46.4	1.21	45.0	<0.00001	<0.005	0.005	0.00158	<0.005	<0.005	0.00028	0.0133	<0.0005	0.00156	0.146	<0.0001	<0.001	0.168	<0.00001	96.7	<0.001	0.00087	0.0006	0.131
RSEM-R6E-EOP	8/7/2019 13:55	WG4501	M	4.22	<0.00002	47.8	1.2	46.4	<0.00001	<0.005	<0.005	0.00166	<0.005	<0.005	0.00042	0.017	<0.0005	0.00156	0.159	<0.0001	<0.001	0.16	<0.00001	99.2	<0.001	0.00097	<0.0005	0.129
RSEM-R6E-EOP	8/8/2019 12:45	WG6507	M	4.17	<0.00002	45.2	1.32	43.4	<0.00001	<0.005	<0.005	0.00165	<0.005	<0.005	0.00028	0.0155	<0.0005	0.00148	0.17	<0.0001	<0.001	0.169	0.000011	108	<0.001	0.0008	0.00051	0.098
RSEM-R6E-EOP	8/9/2019 10:50	WG6545	M	4.12	<0.00002	46.0	1.71	43.9	0.000011	<0.005	<0.005	0.0017	<0.005	<0.005	0.00017	0.0177	<0.0005	0.00144	0.171	<0.0001	<0.001	0.156	0.000013	131	<0.001	0.00091	0.00058	0.066
RSEM-R6E-EOP	8/10/2019 12:40	WH0276	M	4.67	<0.00002	44.5	1.78	49.0	0.000012	<0.005	0.0052	0.0018	<0.005	<0.005	0.00045	0.017	<0.0005	0.00119	0.178	<0.0001	<0.001	0.149	0.000017	132	<0.001	0.00105	0.00063	0.06
RSEM-R6E-EOP	8/11/2019 11:50	WH0300	M	4.4	<0.00002	46.4	1.72	48.5	0.000014	<0.005	<0.005	0.00182	<0.005	<0.005	0.00019	0.0183	<0.0005	0.0012	0.172	<0.0001	<0.001	0.158	0.000015	130	<0.001	0.00101	0.00061	0.054
RSEM-R6E-EOP	8/12/2019 14:35	WH2472	M	4.17	<0.00002	45.2	1.44	43.8	0.000015	<0.005	0.0075	0.00166	<0.005	<0.005	0.00026	0.0211	<0.0005	0.00164	0.181	<0.0001	<0.001	0.164	<0.00001	133	<0.001	0.00086	0.00055	0.037
RSEM-R6E-EOP	8/13/2019 13:55	WH4522	M	4.05	<0.00002	49.2	1.55	46.5	0.000014	<0.005	<0.005	0.00179	<0.005	0.0074	0.00011	0.0184	<0.0005	0.0011	0.169	<0.0001	<0.001	0.166	0.000011	127	<0.001	0.00075	0.00066	0.029
RSEM-R6E-EOP	8/14/2019 14:35	WH7025	M	3.72	<0.00002	48.1	1.51	45.6	0.000016	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	0.0202	<0.0005	0.0011	0.166	<0.0001	<0.001	0.178	<0.00001	125	<0.001	0.00059	0.00067	0.015
RSEM-R6E-EOP	8/15/2019 10:30	WH8388	M	3.64	<0.00002	49.5	1.52	46.2	0.000017	<0.005	<0.005	0.0018	<0.005	<0.005	<0.0001	0.0181	<0.0005	0.00107	0.166	<0.0001	<0.001	0.161	<0.00001	123	<0.001	0.00055	0.00066	0.015
RSEM-R6E-EOP	8/16/2019 10:45	WH8426	M	3.93	<0.00002	44.8	1.98	51.3	0.000028	<0.005	<0.005	0.00187	<0.005	0.0053	0.00012	0.0304	0.00058	0.00095	0.166	<0.0001	<0.001	0.169	0.000026	152	0.0019	0.00093	0.00109	<0.01
RSEM-R6E-EOP	8/17/2019 10:25	WI0635	M	3.87	<0.00002	43.0	2.14	53.0	0.00003	<0.005	<0.005	0.00197	<0.005	<0.005	0.0001	0.0286	0.00056	0.00088	0.17	<0.0001	<0.001	0.157	0.000022	164	0.0018	0.00105	0.00093	<0.01
RSEM-R6E-EOP	8/18/2019 14:15	WI0687	M	3.87	<0.00002	40.1	2.09	51.9	0.000026	<0.005	<0.005	0.00212	<0.005	0.0069	0.00016	0.043	0.00064	0.00072	0.163	<0.0001	<0.001	0.15	0.00005	175	0.0017	0.00241	0.00113	<0.01
RSEM-R6E-EOP	8/19/2019 10:05	WI2769	M	4.36	<0.00002	46.6	2.03	58.4	0.000032	<0.005	0.0089	0.00245	<0.005	0.0069	0.00019	0.0578	0.00068	0.0008	0.16	<0.0001	<0.001	0.149	0.000072	167	0.0024	0.00366	0.00122	<0.01
RSEM-R6E-EOP	8/20/2019 10:30	WI5438	M	4.09	<0.00002	58.8	1.66	59.6	0.000025	<0.005	<0.005	0.0023	<0.005	<0.005	0.00016	0.0618	0.00088	0.00094	0.139	<0.0001	<0.001	0.163	0.00006	143	0.0034	0.00331	0.00108	<0.01
RSEM-R6E-EOP	8/21/2019 11:45	WI5131	M	3.93	<0.00002	56.5	1.56	58.8	0.000024	<0.005	<0.005	0.0023	<0.005	<0.005	<0.0001	0.079	0.00082	0.00083	0.141	<0.0001	<0.001	0.164	0.000065	143	0.0031	0.00345	0.00127	<0.01
RSEM-R6E-EOP	8/22/2019 11:10	WI9246	M	3.9	<0.00002	57.6	1.52	57.7	0.000025	<0.005	<0.005	0.0024	<0.005	<0.005	<0.0001	0.0873	0.00077	0.00078	0.141	<0.0001	<0.001	0.151	0.000053	142	0.0026	0.00354	0.00109	<0.01
RSEM-R6E-EOP	8/23/2019 10:00	WI9311	M	3.91	<0.00002	57.0	1.49	59.5	0.000026	<0.005	<0.005	0.00238	<0.005	<0.005	<0.0001	0.0849	0.00075	0.00075	0.138	<0.0001	<0.001	0.15	0.00002	137	0.0025	0.003	0.0011	<0.01
RSEM-R6E-EOP	8/24/2019 11:20	WJ3010	M	4.26	<0.00002	53.1	1.35	57.6	0.000025	<0.005	<0.005	0.00222	<0.005	<0.005	<0.0001	0.0779	0.00069	0.00068	0.146	<0.0001	<0.001	0.153	0.000023	138	0.0027	0.00268	0.00112	<0.01
RSEM-R6E-EOP	8/25/2019 12:20	WJ3022	M	4.2	<0.00002	50.3	1.33	55.8	0.000025	<0.005	<0.005	0.00218	<0.005	<0.005	<0.0001	0.0742	0.00066	0.00067	0.144	<0.0001	<0.001	0.153	0.00001	136	0.0026	0.00213	0.00104	<0.01
RSEM-R6E-EOP	8/26/2019 12:35	WJ5216	M	4.24	<0.00002	47.6	1.26	52.6	0.000024	<0.005	<0.005	0.00205	<0.005	<0.005	0.00012	0.0691	0.0006	0.00063	0.14	<0.0001	<0.001	0.136	<0.00001	122	0.0024	0.00176	0.00108	<0.01
RSEM-R6E-EOP	8/27/2019 13:20	WJ7314	M	3.94	<0.00002	48.9	1.19	51.2	0.000024	<0.005	<0.005	0.00207	<0.005	<0.005	<0.0001	0.0705	0.00053	0.00057	0.125	<0.0001	<0.001	0.131	<0.00001	113	0.002	0.00133	0.00081	<0.01
RSEM-R6E-EOP	8/28/2019 12:35	WJ9546	M	4.04	<0.00002	47.3	1.27	53.4	0.000025	<0.005	<0.005	0.00204	<0.005	<0.005	<0.0001	0.0706	0.00058	0.00059	0.123	<0.0001	<0.001	0.147	<0.00001	111	0.0019	0.0009	0.00081	<0.01
RSEM-R6E-EOP	8/28/2019 12:45	WJ9547	D	4.04	<0.00002	47.4	1.25	53.9	0.000023	<0.005	<0.005	0.00202	<0.005	<0.005	<0.0001	0.0703	0.00057	0.00057	0.125	<0.0001	<0.001	0.147	<0.00001	112	0.0019	0.00093	0.00079	<0.01
RSEM-R6E-EOP	8/29/2019 14:10	WK2432	M	3.75	<0.00002	48.7	1.05	51.2	0.000019	<0.005	<0.005	0.00192	<0.005	<0.005	<0.0001	0.0709	0.00056	0.00056	0.118	<0.0001	<0.001	0.147	<0.00001	106	0.0018	0.00094	0.00082	<0.01
RSEM-R6E-EOP	8/29/2019 14:20	WK2433	D	3.76	<0.00002	47.9	1.05	48.2	0.000019	<0.005	<0.005	0.00187	<0.005	<0.005	<0.0001	0.0719	0.00056	0.00056	0.119	<0.0001	<0.001	0.148	<0.00001	108	0.0018	0.00095	0.00082	<0.01
RSEM-R6E-EOP	8/30/2019 9:45	WK2404	M	3.76	<0.00002	46.8	0.972	48.2	0.000019	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001	0.0683	0.00054	0.00056	0.113	<0.0001	<0.001	0.141	<0.00001	101	0.0016	0.00078	0.00084	<0.01
RSEM-R6E-EOP	8/30/2019 9:55	WK2405	D	3.81	<0.00002	48.5	1	50.1	0.00002	<0.005	<0.005	0.00186	<0.005	<0.005	<0.0001	0.0711	0.00054	0.00056	0.113	<0.0001	<0.001	0.142	<0.00001	104	0.0016	0.00083	0.00083	<0.01
RSEM-R6E-EOP	8/31/2019 11:45	WK4118	M	3.85	<0.00002	46.1	0.909	46.2	0.000017	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001	0.0675	<0.0005	0.00055	0.102	<0.0001	<0.001	0.144	<0.00001	97.6	0.0014	0.00068	0.00077	<0.01
RSEM-R6E-EOP	8/31/2019 11:55	WK4119	D	3.55	<0.00002	46.9	0.933	48.1	0.000018	<0.005	<0.005	0.00174	<0.005	<0.005	<0.0001	0.0655	<0.0005	0.00057	0.104	<0.0001	<0.001	0.151	<0.00001	96.5	0.0014	0.00067	0.00078	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	6/24/2019 12:52	VY9703	M	<0.0002	0.0392	26.5	0.083	<0.000002	0.0105	0.0087		6.48	0.00124	1.75	<0.00002	70.1	1.02	69.8	0.000017	<0.005	<0.005	0.00221	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	6/25/2019 12:20	VZ1748	M	<0.0002	0.0387	28.3	0.0921	<0.000002	0.0098	0.0106		7.13	0.00147	2.12	<0.00002	69.2	1.09	75.9	0.000022	<0.005	<0.005	0.00225	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	6/26/2019 12:56	VZ5388	M	<0.0002	0.042	28.0	0.0851	<0.000002	0.0105	0.0105		7.46	0.00135	2.31	<0.00002	62.5	1.17	76.0	0.000024	<0.005	<0.005	0.00252	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	6/27/2019 13:00	VZ7727	M	<0.0002	0.0432	29.2	<0.001	<0.000002	0.0103	0.0095		7.68	0.00152	2.55	<0.00002	63.9	1.22	81.7	0.000023	<0.005	<0.005	0.00265	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	6/28/2019 6:53	VZ7858	M	<0.0002	0.0432	29.7	0.0235	<0.000002	0.01	0.0101		7.67	0.00145	2.5	<0.00002	63.9	1.23	84.3	0.000024	<0.005	<0.005	0.00276	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	6/29/2019 14:30	VZ9024	M	<0.0002	0.0398	29.2	0.0651	<0.000002	0.0093	0.0091		6.72	0.00125	2.59	<0.00002	60.1	1.29	80.3	0.000017	<0.005	<0.005	0.00274	<0.005	0.0377	<0.0001
RSEM-R6E-EOP	6/30/2019 14:00	WA1428	M	<0.0002	0.0369	27.0	0.0553	<0.000002	0.0094	0.0072		7.03	0.00146	2.56	<0.00002	49.3	1.28	79.4	0.000022	<0.005	<0.005	0.0026	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	6/30/2019 14:05	WA1431	D	<0.0002	0.0367	27.1	0.0539	<0.000002	0.0095	0.0073		7.08	0.00139	2.59	<0.00002	49.3	1.3	80.8	0.000022	<0.005	<0.005	0.00263	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/1/2019 13:35	WA1408	M	<0.0002	0.0349	25.3	0.0776	<0.000002	0.0089	0.0078		7.00	0.00141	2.51	<0.00002	43.6	1.25	76.7	0.000024	<0.005	<0.005	0.00253	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/2/2019 13:30	WA3425	M	<0.0002	0.0376	25.7	0.0576	<0.000002	0.0091	0.0079		7.69	0.00137	2.93	<0.00002	43.7	1.19	81.0	0.00003	<0.005	<0.005	0.0026	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/3/2019 12:25	WA5877	M	<0.0002	0.037	27.6	0.0359	<0.000002	0.0088	0.0075		7.82	0.00148	3.1	<0.00002	48.1	1.09	87.8	0.000026	<0.005	<0.005	0.00253	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/4/2019 12:50	WA7980	M	<0.0002	0.0357	26.8	0.0093	<0.000002	0.0082	0.0062		7.28	0.00131	3.05	<0.00002	46.6	1.04	79.9	0.000026	<0.005	<0.005	0.00243	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/5/2019 10:37	WA8012	M	<0.0002	0.0353	27.2	0.0023	<0.000002	0.0081	0.0054		7.34	0.00128	3.18	<0.00002	47.6	0.975	82.3	0.000026	<0.005	<0.005	0.00237	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/6/2019 13:35	WB1464	M	<0.0002	0.0355	24.2	0.0012	<0.000002	0.0086	0.0039		6.72	0.00116	3.28	<0.00002	41.9	0.947	71.4	0.000022	<0.005	<0.005	0.00233	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/7/2019 8:55	WB1486	M	<0.0002	0.0344	23.8	0.0029	<0.000002	0.0086	0.0039		6.51	0.00112	3.25	<0.00002	40.8	0.888	70.0	0.000024	<0.005	<0.005	0.00227	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/8/2019 9:20	WB4602	M	<0.0002	0.0334	26.5	0.0016	<0.000002	0.0086	0.0036		6.92	0.00112	3.48	<0.00002	46.6	0.857	75.1	0.00002	<0.005	<0.005	0.00226	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/9/2019 13:10	WB6314	M	<0.0002	0.0313	24.2	0.0029	<0.000002	0.008	0.003		5.78	0.00106	3.06	<0.00002	42.8	0.832	64.9	0.000011	<0.005	<0.005	0.00194	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/9/2019 13:20	WB6315	D	<0.0002	0.0311	24.5	0.0034	<0.000002	0.0081	0.0031		5.80	0.00107	3.02	<0.00002	41.9	0.826	62.5	0.000012	<0.005	<0.005	0.00204	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/10/2019 11:05	WB8320	M	<0.0002	0.033	25.6	0.0018	<0.000002	0.008	0.0031		6.11	0.00109	3.2	<0.00002	45.7	0.845	67.9	0.000013	<0.005	<0.005	0.00196	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/10/2019 11:15	WB8321	D	<0.0002	0.0329	25.5	0.0019	<0.000002	0.0081	0.003		6.04	0.00115	3.15	<0.00002	46.1	0.831	67.3	0.000013	<0.005	<0.005	0.00192	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/11/2019 12:35	WC0497	M	<0.0002	0.0329	25.5	0.0018	<0.000002	0.0078	0.0029		5.75	0.00107	3.16	<0.00002	45.9	0.766	63.9	0.000011	<0.005	<0.005	0.00193	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/12/2019 11:05	WC0454	M	<0.0002	0.0338	25.6	0.0017	<0.000002	0.0078	0.0028		5.64	0.00103	3.21	<0.00002	46.5	0.725	65.0	<0.00001	<0.005	<0.005	0.00179	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/13/2019 13:05	WC4190	M	<0.0002	0.0339	27.6	<0.001	<0.000002	0.0079	0.0023		6.64	0.00102	3.7	<0.00002	51.2	0.706	75.1	<0.00001	<0.005	<0.005	0.00175	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/14/2019 13:30	WC4188	M	<0.0002	0.0339	26.1	<0.001	<0.000002	0.0074	0.0022		6.11	0.00103	3.75	<0.00002	49.0	0.678	69.2	<0.00001	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/15/2019 11:55	WC7554	M	<0.0002	0.0317	25.4	0.0025	0.0000023	0.0091	0.0024		5.74	0.001	3.29	<0.00002	47.8	0.694	60.7	<0.00001	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/16/2019 11:35	WC9632	M	<0.0002	0.0325	24.1	0.003	<0.000002	0.0074	0.0022		5.65	0.00096	3.28	<0.00002	47.4	0.621	59.6	<0.00001	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/17/2019 13:40	WD1676	M	<0.0002	0.0303	23.7	0.0047	<0.000002	0.0071	0.0026		5.28	0.00092	3.18	<0.00002	44.4	0.647	58.2	<0.00001	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/18/2019 13:05	WD4018	M	<0.0002	0.0299	24.4	0.0021	<0.000002	0.0068	0.0036		5.17	0.00087	3.28	<0.00002	44.8	0.663	55.1	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/19/2019 12:30	WD4024	M	<0.0002	0.0317	25.2	0.0019	<0.000002	0.0066	0.0044		5.35	0.00084	3.33	<0.00002	45.9	0.78	53.8	<0.00001	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/20/2019 14:05	WD7112	M	<0.0002	0.0321	26.7	0.0151	<0.000002	0.0065	0.0051		5.61	0.00083	3.14	<0.00002	48.3	0.893	57.2	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/21/2019 14:00	WD7084	M	<0.0002	0.0332	27.0	0.0108	<0.000002	0.0068	0.005		5.71	0.00086	3.25	<0.00002	49.1	0.936	55.0	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/22/2019 12:20	WD8945	M	<0.0002	0.034	24.8	0.0097	<0.000002	0.0062	0.0043		5.37	0.00083	3.1	<0.00002	45.7	0.874	51.0	<0.00001	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/23/2019 13:35	WE1026	M	<0.0002	0.0329	25.6	0.0094	<0.000002	0.0064	0.0044		5.44	0.00083	3.28	<0.00002	47.1	0.896	50.7	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/24/2019 12:40	WE3036	M	<0.0002	0.0336	26.6	0.0026	<0.000002	0.0061	0.004		6.39	0.00079	3.45	<0.00002	48.0	0.815	58.8	<0.00001	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/25/2019 12:45	WE4846	M	<0.0002	0.0344	27.0	0.0037	<0.000002	0.0062	0.0046		6.07	0.00079	3.25	<0.00002	46.5	1.16	50.4	<0.00001	<0.005	<0.005	0.00151	<0.005	0.0134	<0.0001
RSEM-R6E-EOP	7/26/2019 9:55	WE4707	M	<0.0002	0.0348	26.7	0.0218	<0.000002	0.0061	0.0045		6.10	0.00076	3.26	<0.00002	46.5	1.14	49.5	<0.00001	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/27/2019 11:45	WE7076	M	<0.0002	0.0365	27.6	0.0365	<0.000002	0.006	0.0048		6.28	0.00074	3.42	0.000044	48.9	1.18	50.4	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/28/2019 12:10	WE7123	M	<0.0002	0.0358	28.3	0.0561	<0.000002	0.0071	0.0051		6.95	0.00076	3.59	<0.00002	48.7	1.47	50.7	0.00001	<0.005	<0.005	0.00156	<0.005	<0.005	0.00014
RSEM-R6E-EOP	7/29/2019 9:20	WE7142	M	<0.0002	0.0355	29.3	0.0668	<0.000002	0.0063	0.0052		7.06	0.00077	3.67	<0.00002	49.5	1.5	51.3	0.00001	<0.005	<0.005	0.00156	<0.005	0.0129	<0.0001
RSEM-R6E-EOP	7/30/2019 12:20	WF2073	M	<0.0002	0.0369	28.1	0.0684	<0.000002	0.0069	0.005		7.20	0.00077	3.8	<0.00002	52.6	1.42	50.9	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	7/31/2019 11:55	WF4366	M	<0.0002	0.0395	28.2	0.0726	<0.000002	0.0065	0.0053		7.76	0.00077	3.9	<0.00002	50.3	1.48	52.5	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/1/2019 12:20	WF6260	M	<0.0002	0.0362	30.0	0.0032	<0.000002	0.0061	0.0042		7.36	0.00067	3.89	<0.00002	51.0	1.34	50.3	<0.00001	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/2/2019 10:20	WF6285	M	<0.0002	0.0377	27.5	0.003	<0.000002	0.0062	0.0045		6.88	0.00066	3.45	<0.00002	47.7	1.25	47.1	<0.00001	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/3/2019 12:35	WF7649	M	<0.0002	0.0378	28.0	0.108	<0.000002	0.0062	0.0044		7.36	0.00065	3.94	<0.00002	48.2	1.31	48.4	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	0.00015
RSEM-R6E-EOP	8/4/2019 14:00	WF7664	M	<0.0002	0.0364	28.4	0.108	<0.000002	0.0062	0.0042		7.32	0.0006	3.91	<0.00002	46.8	1.24	49.5	<0.00001	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/5/2019 12:10	WF9954	M	<0.0002	0.037	27.8	0.124	<0.000002	0.0065	0.0057		6.82	0.00066	3.79	<0.00002	48.9	1.26	46.3	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/6/2019 12:25	WG2808	M	<0.0002	0.0348	28.2	0.132	<0.000002	0.0061	0.0056		6.90	0.00059	3.64	<0.00002	49.7	1.23	45.7	<0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/7/2019 13:55	WG4501	M	<0.0002	0.0343	27.9	0.138	<0.000002	0.0061	0.006		6.47	0.00054	3.79	<0.00002	47.4	1.2	44.2	<0.00001	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/8/2019 12:45	WG6507	M	<0.0002	0.0376	28.0	0.132	<0.000002	0.0062	0.0061		6.86	0.00055	3.86	<0.00002	48.1	1.32	47.3	<0.00001	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/9/2019 10:50	WG6545	M	<0.0002	0.0366	29.6	0.108	<0.000002	0.0065	0.0071		7.59	0.00069	3.83	<0.00002	48.1	1.75	47.2	<0.00001	<0.005	<0.005	0.00175	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/10/2019 12:40	WH0276	M	<0.0002	0.0348	27.4	0.114	<0.000002	0.0062	0.0083		7.93	0.00062	4.13	<0.00002	45.5	1.6	47.7	<0.00001	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/11/2019 11:50	WH0300	M	<0.0002	0.0359	27.3	0.103	<0.000002	0.0066	0.008		7.91	0.00059	4.03	<0.00002	45.9	1.6	49.3	0.000011	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/12/2019 14:35	WH2472	M	<0.0002	0.0381	29.2	0.0882	<0.000002	0.0073	0.0066		8.20	0.00061	4.45	<0.00002	46.2	1.68	51.8	0.000011	<0.005	<0.005	0.00177	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/13/2019 13:55	WH4522	M	<0.0002	0.0363	30.0	0.0819	<0.000002	0.007	0.0068		7.34	0.00064	3.94	<0.00002	49.5	1.56	46.9	0.000013	<0.005	<0.005	0.0018	<0.005	0.0062	<0.0001
RSEM-R6E-EOP	8/14/2019 14:35	WH7025	M	<0.0002	0.0399	30.7	0.0604	<0.000002	0.0075	0.0063		7.79	0.00059	3.96	<0.00002	51.3	1.52	49.3	0.000014	<0.005	<0.005	0.00183	<0.005	0.0057	<0.0001
RSEM-R6E-EOP	8/15/2019 10:30	WH8388	M	<0.0002	0.0363	29.4	0.0307	<0.000002	0.0078	0.006		7.59	0.00065	3.7	<0.00002	48.4	1.5	47.9	0.000016	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/16/2019 10:45	WH8426	M	<0.0002	0.0371	28.5	0.048	<0.000002	0.0122	0.0074		10.3	0.00093	3.7	<0.00002	47.0	1.96	51.6	0.000024	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/17/2019 10:25	WI0635	M	<0.0002	0.0373	28.8	0.0661	<0.000002	0.0124	0.0078		10.9	0.00095	3.81	<0.00002	43.8	2.23	53.2	0.000028	<0.005	<0.005	0.00199	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/18/2019 14:15	WI0687	M	<0.0002	0.0393	28.5	0.0901	<0.000002	0.0116	0.0133		10.3	0.00097	3.78	<0.00002	40.8	2.27	52.2	0.000028	<0.005	<0.005	0.00214	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/19/2019 10:05	WI2769	M	<0.0002	0.0414	28.2	0.114	<0.000002	0.0131	0.018		10.8	0.00121	3.67	<0.00002	45.2	2.12	59.4	0.000026	<0.005	<0.005	0.0024	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/20/2019 10:30	WI5438	M	<0.0002	0.0407	25.5	0.089	<0.000002	0.0155	0.0171		9.93	0.00159	3.87	<0.00002	61.1	1.65	60.6	0.000022	<0.005	<0.005	0.00232	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/21/2019 11:45	WI5131	M	<0.0002	0.042	27.0	0.0767	<0.000002	0.0149	0.0182		9.78	0.00144	3.85	<0.00002	60.4	1.58	60.6	0.000023	<0.005	<0.005	0.00237	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/22/2019 11:10	WI9246	M	<0.0002	0.0335	27.7	0.068	<0.000002	0.0136	0.0193		9.51	0.00137	3.79	<0.00002	59.7	1.51	59.5	0.000026	<0.005	<0.005	0.00238	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/23/2019 10:00	WI9311	M	<0.0002	0.0356	27.9	0.0529	<0.000002	0.0129	0.0183		9.30	0.00128	3.79	<0.00002	58.3	1.45	60.2	0.000025	<0.005	<0.005	0.00235	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/24/2019 11:20	WJ3010	M	<0.0002	0.0374	28.5	0.0503	<0.000002	0.0126	0.0164		9.02	0.00126	4.1	<0.00002	53.5	1.41	57.7	0.000024	<0.005	<0.005	0.00229	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/25/2019 12:20	WJ3022	M	<0.0002	0.0372	28.1	0.0369	<0.000002	0.0126	0.0148		8.95	0.00125	4.17	<0.00002	52.7	1.33	56.3	0.000024	<0.005	<0.005	0.0022	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/26/2019 12:35	WJ5216	M	<0.0002	0.0354	26.3	0.0275	<0.000002	0.0118	0.0135		8.34	0.00113	3.73	<0.00002	48.1	1.21	53.4	0.000023	<0.005	<0.005	0.00214	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/27/2019 13:20	WJ7314	M	<0.0002	0.0341	25.9	0.0161	<0.000002	0.0104	0.0119		7.85	0.001	3.68	<0.00002	47	1.12	49.7	0.000023	<0.005	<0.005	0.00202	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/28/2019 12:35	WJ9546	M	<0.0002	0.0355	27.8	0.0062	<0.000002	0.0109	0.0115		8.09	0.00105	3.87	<0.00002	49.5	1.19	52.5	0.000024	<0.005	<0.005	0.00201	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/28/2019 12:45	WJ9547	D	<0.0002	0.0361	28.1	0.0066	<0.000002	0.0109	0.0116		8.14	0.00103	3.87	<0.00002	49.9	1.17	52.8	0.000023	<0.005	<0.005	0.00204	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/29/2019 14:10	WK2432	M	<0.0002	0.0349	28.5	0.0068	<0.000002	0.0102	0.0114		7.66	0.00103	3.66	<0.00002	50.7	1.08	53.3	0.000021	<0.005	<0.005	0.002	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/29/2019 14:20	WK2433	D	<0.0002	0.0344	28.8	0.007	<0.000002	0.0102	0.0115		7.76	0.00108	3.68	<0.00002	50.7	1.09	52.3	0.000022	<0.005	<0.005	0.00202	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/30/2019 9:45	WK2404	M	<0.0002	0.0335	27.9	0.0058	<0.000002	0.0097	0.0105		7.5	0.00094	3.66	<0.00002	49.7	1.03	50.6	0.000021	<0.005	<0.005	0.00194	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/30/2019 9:55	WK2405	D	<0.0002	0.0334	28.6	0.006	<0.000002	0.0096	0.0108		7.53	0.00095	3.72	<0.00002	49.5	1.04	52	0.000022	<0.005	<0.005	0.00197	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/31/2019 11:45	WK4118	M	<0.0002	0.0348	27.3	0.0059	<0.000002	0.0088	0.0095		7.28	0.0009	3.8	<0.00002	47.8	0.979	49.3	0.000017	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	8/31/2019 11:55	WK4119	D	<0.0002	0.0357	27.1	0.0051	<0.000002	0.009	0.0094		7.22	0.00086	3.81	<0.00002	46.9	0.996	49.3	0.000018	<0.005	<0.005	0.00178	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	9/1/2019 11:45	WK4241	M	8.20	930	1.8	600	<4.0	344	334	140	<1.0	170	<1.0	<1.0	120	0.33	1.8	130			0.034	0.0262	1.37	1.39	<0.0030
RSEM-R6E-EOP	9/1/2019 11:55	WK4243	D	8.09	930	1.7	600	<4.0	334	344	140	<1.0	170	<1.0	<1.0	120	0.33	1.8	140			0.042	0.0264	1.33	1.36	<0.0030
RSEM-R6E-EOP	9/2/2019 11:50	WK6468	M	7.97	900	1.9	570	<4.0	317	314	130	<1.0	160	<1.0	<1.0	110	0.32	1.7	130			0.039	0.0212	1.21	1.23	<0.0030
RSEM-R6E-EOP	9/2/2019 12:00	WK6469	D	8.01	900	1.8	580	<4.0	313	315	130	<1.0	160	<1.0	<1.0	110	0.32	1.8	140			0.050	0.0180	1.22	1.24	<0.0030
RSEM-R6E-EOP	9/3/2019 13:05	WK8382	M	8.19	870	1.4	560	<4.0	304	315	130	<1.0	160	<1.0	<1.0	130	0.30	1.7	140			0.041	0.0225	1.08	1.10	0.0038
RSEM-R6E-EOP	9/3/2019 13:08	WK8383	D	8.20	880	1.4	550	<4.0	302	314	130	<1.0	160	<1.0	<1.0	120	0.30	1.7	140			0.051	0.0198	1.08	1.10	<0.0030
RSEM-R6E-EOP	9/4/2019 13:15	WL0770	M	8.05	850	1.8	510	4.0	298	297	130	<1.0	160	<1.0	<1.0	120	0.29	1.6	140			0.045	0.0192	0.982	1.00	<0.0030
RSEM-R6E-EOP	9/4/2019 13:30	WL0771	D	8.04	850	1.9	490	<4.0	295	297	130	<1.0	160	<1.0	<1.0	110	0.29	1.6	140			0.049	0.0167	0.994	1.01	0.0033
RSEM-R6E-EOP	9/5/2019 12:30	WL2425	M	8.02	830	1.9	520	<4.0	300	298	140	<1.0	170	<1.0	<1.0	96	0.30	1.5	130			<0.015	0.0170	0.852	0.869	0.022
RSEM-R6E-EOP	9/5/2019 12:35	WL2426	D	8.07	830	1.8	510	<4.0	297	299	140	<1.0	160	<1.0	<1.0	96	0.27	1.4	130			<0.015	0.0162	0.883	0.899	<0.0030
RSEM-R6E-EOP	9/6/2019 13:15	WL3942	M	8.20	780	1.9	530	4.8	289	313	130	<1.0	160	<1.0	<1.0	97	0.28	1.4	130			<0.015	0.0139	0.765	0.779	<0.0030
RSEM-R6E-EOP	9/6/2019 13:25	WL3943	D	8.23	800	2.0	530	<4.0	292	314	130	<1.0	160	<1.0	<1.0	97	0.28	1.4	130			<0.015	0.0173	0.759	0.777	<0.0030
RSEM-R6E-EOP	9/7/2019 12:10	WL4972	M	8.02	770	1.5	490	4.4	267	276	130	<1.0	150	<1.0	<1.0	98	0.27	1.3	130			<0.015	0.0153	0.680	0.695	<0.0030
RSEM-R6E-EOP	9/7/2019 12:20	WL4973	D	8.05	770	1.6	520	4.8	272	279	130	<1.0	160	<1.0	<1.0	97	0.27	1.3	130			<0.015	0.0156	0.673	0.689	<0.0030
RSEM-R6E-EOP	9/8/2019 13:00	WL5048	M	8.07	810	2.6	520	37.6	304	301	140	<1.0	160	<1.0	<1.0	100	0.27	1.4	120			0.019	0.0179	0.699	0.717	<0.0030
RSEM-R6E-EOP	9/8/2019 13:15	WL5049	D	8.06	800	2.7	520	28.0	296	298	140	<1.0	160	<1.0	<1.0	100	0.27	1.4	110			0.050	0.0159	0.701	0.717	<0.0030
RSEM-R6E-EOP	9/9/2019 9:45	WL7024	M	8.16	920	2.7	630	<4.0	343	346	160	<1.0	190	<1.0	<1.0	120	0.30	1.9	130			0.039	0.0348	1.04	1.08	<0.0030
RSEM-R6E-EOP	9/9/2019 10:00	WL7025	D	8.11	920	3.0	620	13.2	355	346	150	<1.0	190	<1.0	<1.0	110	0.30	1.9	130			0.052	0.0339	1.04	1.07	<0.0030
RSEM-R6E-EOP	9/10/2019 12:25	WL9318	M	8.07	900	1.9	530	<4.0	330	374	150	<1.0	180	<1.0	<1.0	120	0.28	1.8	140			0.031	0.0302	1.11	1.14	<0.0030
RSEM-R6E-EOP	9/11/2019 12:10	WM1913	M	8.09	890	1.6	550	<4.0	355	356	150	<1.0	180	<1.0	<1.0	110	0.29	1.8	130			0.20	0.0349	1.15	1.18	<0.0030
RSEM-R6E-EOP	9/11/2019 12:20	WM1914	D	8.08	900	1.8	570	<4.0	344	347	150	<1.0	180	<1.0	<1.0	110	0.29	1.8	130			0.038	0.0354	1.16	1.20	<0.0030
RSEM-R6E-EOP	9/12/2019 11:05	WM1921	M	8.16	880	2.0	590	6.4	329	333	140	<1.0	180	<1.0	<1.0	100	0.30	1.7	130			0.048	0.0294	1.13	1.16	<0.0030
RSEM-R6E-EOP	9/12/2019 11:15	WM1922	D	8.19	880	1.8	580	<4.0	321	333	140	<1.0	170	<1.0	<1.0	100	0.30	1.7	130			0.025	0.0307	1.16	1.19	<0.0030
RSEM-R6E-EOP	9/13/2019 10:55	WM4306	M	8.12	880	1.8	550	4.5	345	333	150	<1.0	190	<1.0	<1.0	100	0.30	1.6	120			0.024	0.0293	1.31	1.34	<0.0030
RSEM-R6E-EOP	9/13/2019 11:05	WM4307	D	8.25	890	1.7	550	3.1	340	333	160	<1.0	200	<1.0	<1.0	100	0.30	1.6	110			0.021	0.0280	1.29	1.32	<0.0030
RSEM-R6E-EOP	9/14/2019 11:45	WM7482	M	8.15	850	3.0	550	5.6	340	319	170	<1.0	200	<1.0	<1.0	100	0.26	1.6	130			0.061	0.0253	1.18	1.21	<0.0030
RSEM-R6E-EOP	9/14/2019 11:55	WM7483	D	8.18	850	2.7	510	<4.0	341	322	170	<1.0	200	<1.0	<1.0	96	0.26	1.6	120			0.057	0.0239	1.16	1.18	<0.0030
RSEM-R6E-EOP	9/15/2019 11:20	WM7502	M	8.15	840	2.8	530	4.0	326	319	160	<1.0	200	<1.0	<1.0	89	0.26	1.6	120			0.046	0.0242	1.19	1.22	<0.0030
RSEM-R6E-EOP	9/15/2019 11:30	WM7503	D	8.14	840	2.6	510	<4.0	324	320	160	<1.0	200	<1.0	<1.0	89	0.26	1.5	130			0.046	0.0268	1.18	1.20	<0.0030
RSEM-R6E-EOP	9/16/2019 12:35	WN0358	M	8.04	840	8.7	550	22	323	346	130	<1.0	160	<1.0	<1.0	96	0.30	1.6	140			0.094	0.0447	0.989	1.03	<0.0030
RSEM-R6E-EOP	9/16/2019 12:45	WN0359	D	8.04	840	7.6	560	22	324	344	130	<1.0	160	<1.0	<1.0	97	0.31	1.6	150			0.10	0.0463	0.988	1.03	<0.0030
RSEM-R6E-EOP	9/17/2019 14:40	WN2863	M	8.18	840	7.2	540	8.8	339	361	140	<1.0	170	<1.0	<1.0	100	0.31	1.6	130			0.062	0.0475	0.974	1.02	0.0034
RSEM-R6E-EOP	9/18/2019 11:00	WN2816	M	8.23	840	6.3	540	8.4	321	354	150	<1.0	180	<1.0	<1.0	87	0.32	1.5	130			0.26	0.0455	0.990	1.04	<0.0030
RSEM-R6E-EOP	9/19/2019 12:05	WN7483	M	8.28	850	2.8	510	5.6	316	326	160	<1.0	190	<1.0	<1.0	82	0.31	1.6	140			0.067	0.0348	1.01	1.05	0.0049
RSEM-R6E-EOP	9/20/2019 11:00	WN7565	M	8.25	840	2.9	520	6.8	311	315	150	<1.0	190	<1.0	<1.0	77	0.31	1.4	140			0.060	0.0325	0.991	1.02	<0.0030
RSEM-R6E-EOP	9/21/2019 12:10	WO1838	M	8.30	840	7.7	490	11.2	244	253	170	<1.0	210	<1.0	<1.0	69	0.26	1.4	150			0.040	0.0333	0.812	0.845	<0.0030
RSEM-R6E-EOP	9/22/2019 11:45	WO2182	M	8.26	840	8.0	490	10.4	250	245	180	<1.0	220	<1.0	<1.0	69	0.27	1.3	140			0.043	0.0315	0.767	0.798	<0.0030
RSEM-R6E-EOP	9/23/2019 11:40	WO4836	M	8.25	830	5.5	490	5.2	253	264	190	<1.0	230	<1.0	<1.0	68	0.28	1.3	130			<0.015	0.0286	0.787	0.816	<0.0030
RSEM-R6E-EOP	9/24/2019 11:00	WO4820	M	8.27	830	7.1	500	6.8	255	267	200	<1.0	240	<1.0	<1.0	66	0.27	1.3	130			<0.015	0.0302	0.775	0.805	<0.0030
RSEM-R6E-EOP	9/24/2019 11:10	WO4821	D	8.30	820	7.0	480	7.6	254	264	200	<1.0	240	<1.0	<1.0	67	0.28	1.2	140			0.019	0.0276	0.783	0.810	<0.0030
RSEM-R6E-EOP	9/25/2019 11:45	WO6409	M	8.25	820	5.3	480	4.8	247	241	190	<1.0	230	<1.0	<1.0	68	0.28	1.3	140			0.042	0.0238	0.504	0.528	<0.0030
RSEM-R6E-EOP	9/25/2019 12:00	WO6410	D	8.24	810	5.2	470	5.2	247	263	190	<1.0	230	<1.0	<1.0	69	0.28	1.2	130			0.046	0.0234	0.670	0.693	<0.0030
RSEM-R6E-EOP	9/26/2019 10:10	WP1624	M	8.25	810	4.3	500	4.4	274	244	190	<1.0	230	<1.0	<1.0	68	0.29	1.3	130			0.055	0.0213	0.718	0.739	0.0034
RSEM-R6E-EOP	9/26/2019 10:20	WP1625	D	8.21	810	4.3	510	6.4	266	243	190	<1.0	230	<1.0	<1.0	69	0.29	1.3	140			0.071	0.0234	0.700	0.724	<0.0030
RSEM-R6E-EOP	9/27/2019 11:45	WP3488	M	8.27	830	6.3	390	5.6	247	244	190	<1.0	240	<1.0	<1.0	68	0.30	1.3	130			0.055	0.0250	0.682	0.707	<0.0030
RSEM-R6E-EOP	9/27/2019 11:55	WP3489	D	8.27	830	4.9	510	5.6	248	246	200	<1.0	240	<1.0	<1.0	69	0.31	1.3	140			0.051	0.0242	0.689	0.713	<0.0030
RSEM-R6E-EOP	9/28/2019 12:10	WP3454	M	8.30	840	4.9	520	4.8	247	243	200	<1.0	240	<1.0	<1.0	68	0.31	1.3	140			0.055	0.0253	0.671	0.696	<0.0030
RSEM-R6E-EOP	9/29/2019 10:20	WP5511	M	8.29	830	5.0	510	<4.0	247	242	200	<1.0	250	<1.0	<1.0	64	0.16	1.3	130			0.10	0.0230	0.685	0.708	<0.0030
RSEM-R6E-EOP	9/30/2019 9:15	WP5290	M	8.32	830	3.5	500	4.4	243	243	210	1.0	250	1.2	<1.0	64	0.27	1.3	130			0.068	0.0248	0.704	0.729	<0.0030
RSEM-R6E-EOP	9/30/2019 9:25	WP5291	D	8.32	830	3.7	510	<4.0	239	240	210	1.1	250	1.4	<1.0	64	0.27	1.2	130			0.077	0.0234	0.705	0.729	<0.0030
RSEM-R6E-EOP	10/1/2019 14:15	WP9961	M	8.35	820	3.1	490	4.4	233	237	200	2.0	240	2.4	<1.0	59	0.30	1.2	130			0.075	0.0245	0.707	0.731	<0.0030
RSEM-R6E-EOP	10/2/2019 13:25	WQ2277	M	8.28	810	2.8	480	<4.0	235	239	200	<1.0	240	<1.0	<1.0	59	0.29	1.1	130			0.066	0.0220	0.697	0.719	<0.0030
RSEM-R6E-EOP	10/3/2019 14:05	WQ4507	M	8.26	810	2.4	540	<4.0	237	223	200	<1.0	240	<1.0	<1.0	60	0.30	1.2	130			0.029	0.0212	0.664	0.685	<0.0030
RSEM-R6E-EOP	10/4/2019 11:55	WQ4429	M	8.25	800	2.5	470	<4.0	255	231	200	<1.0	250	<1.0	<1.0	58	0.29	1.1	120			0.055	0.0222	0.683	0.705	<0.0030
RSEM-R6E-EOP	10/5/2019 13:00	WQ7326	M	8.29	810	3.7	470	2.9	239	263	200	<1.0	250	<1.0	<1.0	52	0.27	1.1	120			0.072	0.023	0.72	0.75	<0.0030
RSEM-R6E-EOP	10/6/2019 13:00	WQ7682	M	8.29	810	4.2	480	3.1	269	272	210	<1.0	250	<1.0	<1.0	52	0.27	1.2	120			0.070	0.024	0.70	0.72	<0.0030
RSEM-R6E-EOP	10/7/2019 14:35	WQ9662	M	8.30	800	3.3	480	4.3	247	247	210	<1.0	250	<1.0	<1.0	54	0.26	1.1	120			0.070	0.019	0.67	0.68	<0.0030
RSEM-R6E-EOP	10/8/2019 13:20	WR3474	M	8.24	800	4.9	460	3.6	254	248	210	<1.0	250	<1.0	<1.0	55	0.27	1.1	120			0.064	0.019	0.66	0.68	<0.0030
RSEM-R6E-EOP	10/9/2019 13:30	WR5598	M	8.20	810	4.2	340	3.1	259	239	220	<1.0	260	<1.0	<1.0	55	0.29	1.1	120			0.070	0.017	0.67	0.69	0.0030
RSEM-R6E-EOP	10/10/2019 14:30	WR7646	M	8.30	800	3.0	460	3.7	272	266	210	<1.0	260	<1.0	<1.0	55	0.28	1.1	120			0.067	0.017	0.70	0.72	<0.0030
RSEM-R6E-EOP	10/11/2019 11:20	WR7604	M	8.20	800	3.3	460	2.3	287	273	210	<1.0	260	<1.0	<1.0	54	0.26	1.0	120			0.067	0.018	0.71	0.73	<0.0030
RSEM-R6E-EOP	10/12/2019 12:40	WR9609	M	8.19	800	3.0	480	5.2	277	277	220	<1.0	270	<1.0	<1.0	57	0.28	1.0	130			0.037	0.0175	0.733	0.750	<0.0030
RSEM-R6E-EOP	10/13/2019 11:40	WS2497	M	8.19	820	3.4	500	2.5	273	257	210	<1.0	260	<1.0	<1.0	55	0.26	1.1	130			0.051	0.018	0.81	0.83	<0.0030
RSEM-R6E-EOP	10/14/2019 11:40	WS2602	M	7.83	850	3.5	490	2.0	266	261	230	<1.0	280	<1.0	<1.0	55	0.30	1.1	130			0.059	0.018	0.76	0.78	<0.0030
RSEM-R6E-EOP	10/15/2019 10:15	WS4271	M	7.96	840	5.9	490	6.7	255	258	220	<1.0	270	<1.0	<1.0	54	0.27	1.1	130			0.032	0.018	0.86	0.87	<0.0030
RSEM-R6E-EOP	10/16/2019 12:00	WS6069	M	8.17	840	14	490	15	241	255	230	<1.0	280	<1.0	<1.0	55	0.29	1.1	110			0.056	0.023	0.83	0.85	<0.0030
RSEM-R6E-EOP	10/17/2019 12:30	WS9494	M	8.35	710	25	420	28	255	278	230	1.8	270	2.1	<1.0	40	0.27	0.67	82			0.075	<0.010	0.73	0.73	0.0051
RSEM-R6E-EOP	10/19/2019 12:45	WT3629	M	8.17	660	12	390	16	274	286	200	<1.0	250	<1.0	<1.0	44	0.26	0.58	64			0.074	0.013	0.78	0.79	0.0038
RSEM-R6E-EOP	10/25/2019 15:50	WU5358	M	8.09	793	16	498	19.2	282	260	210	<1.0	260	<1.0	<1.0	66	0.31	1.1	120			0.11	0.0360	1.05	1.09	<0.0030
RSEM-R6E-EOP	10/26/2019 15:10	WU7029	M	8.10	820	7.7	480	7.0	271	287	200	<1.0	240	<1.0	<1.0	69	0.28	1.2	120			0.12	0.052	1.1	1.2	<0.0030
RSEM-R6E-EOP	10/27/2019 12:45	WU7140	M	7.93	840	16	500	13	274	288	200	<1.0	240	<1.0	<1.0	66	0.29	1.2	130			0.064	0.041	1.1	1.2	0.014
RSEM-R6E-EOP	10/28/2019 11:35	WU7150	M	8.02	840	6.5	500	4.0	277	287	200	<1.0	240	<1.0	<1.0	64	0.29	1.2	130			0.081	0.038	1.1	1.1	<0.0030
RSEM-R6E-EOP	10/29/2019 11:40	WU9591	M	8.13	830	5.0	510	2.8	278	290	240	<1.0	290	<1.0	<1.0	64	0.30	1.2	130			0.10	0.036	1.1	1.2	0.0033
RSEM-R6E-EOP	10/29/2019 12:00	WU9592	D	8.07	860	4.8	500	1.9	268	310	220	<1.0	270	<1.0	<1.0	65	0.31	1.2	130			0.10	0.035	1.1	1.2	<0.0030
RSEM-R6E-EOP	10/30/2019 12:10	WV3964	M	8.15	840	5.2	490	3.4	288	284	220	<1.0	270	<1.0	<1.0	58	0.32	1.1	120			0.094	0.032	1.2	1.2	<0.0030
RSEM-R6E-EOP	10/31/2019 12:55	WV6747	M	8.17	833	5.0	482	2.5	291	283	220	<1.0	260	<1.0	<1.0	57	0.31	1.0	120			0.049	0.030	1.2	1.2	0.0031

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	9/1/2019 11:45	WK4241	M	2.2	1.9	0.106	<0.0005	0.00057	0.099	<0.0001	<0.001	0.149	<0.00001	93.5	0.0015	0.00068	0.001	0.059	<0.0002	0.0342	26.9	0.0099	<0.000002	0.0085	0.009		6.83	0.00084
RSEM-R6E-EOP	9/1/2019 11:55	WK4243	D	1.9	1.9	0.109	<0.0005	0.00057	0.0997	<0.0001	<0.001	0.145	<0.00001	89.5	0.0015	0.0007	0.00102	0.058	<0.0002	0.0333	26.8	0.0102	<0.000002	0.0086	0.0093		6.91	0.00079
RSEM-R6E-EOP	9/2/2019 11:50	WK6468	M	2.0	2.2	0.105	<0.0005	0.00053	0.0891	<0.0001	<0.001	0.127	<0.00001	84.1	0.0014	0.00056	0.00101	0.06	<0.0002	0.031	25.9	0.0084	<0.000002	0.0077	0.008		6.32	0.0008
RSEM-R6E-EOP	9/2/2019 12:00	WK6469	D	2.1	2.1	0.102	<0.0005	0.00053	0.0879	<0.0001	<0.001	0.126	<0.00001	83.4	0.0013	0.00055	0.00097	0.058	<0.0002	0.0301	25.4	0.0083	<0.000002	0.0077	0.008		6.23	0.00079
RSEM-R6E-EOP	9/3/2019 13:05	WK8382	M	1.9	2.8	0.0905	<0.0005	0.00052	0.0861	<0.0001	<0.001	0.133	<0.00001	79.0	0.0013	0.00047	0.001	0.051	<0.0002	0.0314	26.0	0.0077	<0.000002	0.0074	0.0078		6.29	0.00078
RSEM-R6E-EOP	9/3/2019 13:08	WK8383	D	2.1	2.6	0.0942	<0.0005	0.00054	0.0835	<0.0001	<0.001	0.13	<0.00001	79.1	0.0013	0.00047	0.00098	0.05	<0.0002	0.0306	25.4	0.0078	<0.000002	0.0074	0.0078		6.21	0.00076
RSEM-R6E-EOP	9/4/2019 13:15	WL0770	M	2.1	2.8	0.0955	<0.0005	0.00054	0.0794	<0.0001	<0.001	0.132	<0.00001	76.6	0.0013	0.00044	0.00101	0.064	<0.0002	0.0302	25.9	0.0082	<0.000002	0.0071	0.007		5.92	0.00083
RSEM-R6E-EOP	9/4/2019 13:30	WL0771	D	2.2	2.8	0.0962	<0.0005	0.00055	0.0789	<0.0001	<0.001	0.134	<0.00001	76.0	0.0013	0.00044	0.001	0.072	<0.0002	0.0296	25.5	0.0086	<0.000002	0.0072	0.007		5.89	0.00082
RSEM-R6E-EOP	9/5/2019 12:30	WL2425	M	1.3	2.9	0.118	<0.0005	0.00053	0.0839	<0.0001	<0.001	0.14	<0.00001	76.6	<0.001	0.00054	0.00104	0.124	<0.0002	0.0314	26.4	0.0119	<0.000002	0.0067	0.0075		5.63	0.00076
RSEM-R6E-EOP	9/5/2019 12:35	WL2426	D	2.2	2.6	0.124	<0.0005	0.00053	0.084	<0.0001	<0.001	0.135	<0.00001	76.1	0.0013	0.00054	0.00106	0.091	<0.0002	0.0309	25.9	0.0118	<0.000002	0.0067	0.0075		5.63	0.00073
RSEM-R6E-EOP	9/6/2019 13:15	WL3942	M	2.2	2.1	0.101	<0.0005	0.0005	0.0766	<0.0001	<0.001	0.127	<0.00001	72.8	<0.001	0.00038	0.00098	0.065	<0.0002	0.0294	25.9	0.0094	<0.000002	0.0065	0.0067		5.57	0.00071
RSEM-R6E-EOP	9/6/2019 13:25	WL3943	D	2.1	2.3	0.102	<0.0005	0.00052	0.0778	<0.0001	<0.001	0.132	<0.00001	74.2	<0.001	0.00039	0.00101	0.059	<0.0002	0.0306	25.9	0.0092	<0.000002	0.0065	0.0067		5.52	0.00072
RSEM-R6E-EOP	9/7/2019 12:10	WL4972	M	2.1	2.7	0.0789	<0.0005	0.00047	0.0702	<0.0001	<0.001	0.116	<0.00001	66.9	<0.001	0.0003	0.0009	0.046	<0.0002	0.0266	24.2	0.0072	<0.000002	0.0058	0.0058		5.08	0.00066
RSEM-R6E-EOP	9/7/2019 12:20	WL4973	D	2.1	2.6	0.0834	<0.0005	0.00049	0.0703	<0.0001	<0.001	0.119	<0.00001	68.5	<0.001	0.0003	0.00093	0.05	<0.0002	0.0269	24.4	0.0074	<0.000002	0.0061	0.0059		5.12	0.00071
RSEM-R6E-EOP	9/8/2019 13:00	WL5048	M	2.8	3.2	0.141	<0.0005	0.00061	0.108	<0.0001	<0.001	0.127	0.000017	79.3	0.001	0.00069	0.00129	0.157	<0.0002	0.0283	25.6	0.0184	<0.000002	0.0065	0.0068		5.79	0.00073
RSEM-R6E-EOP	9/8/2019 13:15	WL5049	D	2.6	2.8	0.101	<0.0005	0.0006	0.0974	<0.0001	<0.001	0.13	<0.00001	76.5	<0.001	0.00053	0.00109	0.092	<0.0002	0.0289	25.4	0.0144	<0.000002	0.0064	0.0064		5.60	0.00071
RSEM-R6E-EOP	9/9/2019 9:45	WL7024	M	3.1	2.9	0.103	<0.0005	0.00059	0.104	<0.0001	<0.001	0.114	0.000028	96.7	0.0017	0.00114	0.00119	0.084	<0.0002	0.0277	24.7	0.0287	<0.000002	0.0095	0.0086		7.31	0.00087
RSEM-R6E-EOP	9/9/2019 10:00	WL7025	D	3.8	3.0	0.194	<0.0005	0.00076	0.183	<0.0001	<0.001	0.116	0.000047	101	0.0018	0.00206	0.00166	0.257	<0.0002	0.0285	25.2	0.0441	<0.000002	0.0096	0.0108		7.65	0.00089
RSEM-R6E-EOP	9/10/2019 12:25	WL9318	M	2.4	3.4	0.0838	<0.0005	0.00057	0.0994	<0.0001	<0.001	0.108	0.00001	91.9	0.0014	0.00103	0.00111	0.049	<0.0002	0.027	24.3	0.0239	<0.000002	0.0086	0.0082		6.83	0.00077
RSEM-R6E-EOP	9/11/2019 12:10	WM1913	M	2.3	3.3	0.0865	<0.0005	0.00058	0.105	<0.0001	<0.001	0.103	0.000012	98.7	0.0014	0.0012	0.00118	0.047	<0.0002	0.0268	26.3	0.0258	0.0000023	0.009	0.0093		7.08	0.00088
RSEM-R6E-EOP	9/11/2019 12:20	WM1914	D	2.8	3.4	0.0819	<0.0005	0.00055	0.103	<0.0001	<0.001	0.102	<0.00001	96.0	0.0014	0.00118	0.00119	0.047	<0.0002	0.0259	25.5	0.0249	<0.000002	0.0088	0.0092		6.89	0.00087
RSEM-R6E-EOP	9/12/2019 11:05	WM1921	M	2.6	3.4	0.109	<0.0005	0.00057	0.101	<0.0001	<0.001	0.106	<0.00001	90.2	0.0013	0.00132	0.00127	0.059	<0.0002	0.0275	25.1	0.0243	<0.000002	0.0078	0.0102		6.42	0.0008
RSEM-R6E-EOP	9/12/2019 11:15	WM1922	D	2.4	3.3	0.105	<0.0005	0.00058	0.0977	<0.0001	<0.001	0.107	<0.00001	88.1	0.0013	0.00122	0.0012	0.051	<0.0002	0.0276	24.6	0.0228	<0.000002	0.0077	0.0101		6.33	0.00073
RSEM-R6E-EOP	9/13/2019 10:55	WM4306	M	2.6	3.6	0.121	<0.0005	0.00057	0.108	<0.0001	<0.001	0.103	<0.00001	94.2	0.0014	0.00123	0.00126	0.086	<0.0002	0.0264	26.6	0.0232	0.0000027	0.0079	0.0103		6.53	0.00076
RSEM-R6E-EOP	9/13/2019 11:05	WM4307	D	3.2	3.4	0.126	<0.0005	0.00057	0.108	<0.0001	<0.001	0.103	<0.00001	93.0	0.0014	0.00122	0.00126	0.087	<0.0002	0.0276	26.1	0.0233	<0.000002	0.008	0.0101		6.52	0.00078
RSEM-R6E-EOP	9/14/2019 11:45	WM7482	M	2.4	3.4	0.141	<0.0005	0.00055	0.109	<0.0001	<0.001	0.126	<0.00001	91.1	0.0013	0.00105	0.00133	0.107	<0.0002	0.0304	27.2	0.0218	<0.000002	0.0073	0.0096		6.07	0.00076
RSEM-R6E-EOP	9/14/2019 11:55	WM7483	D	2.4	3.5	0.165	<0.0005	0.00055	0.11	<0.0001	<0.001	0.126	<0.00001	91.5	0.0013	0.00104	0.00123	0.101	<0.0002	0.031	27.5	0.0212	<0.000002	0.0072	0.0095		5.86	0.00074
RSEM-R6E-EOP	9/15/2019 11:20	WM7502	M	2.3	3.2	0.123	<0.0005	0.00056	0.109	<0.0001	<0.001	0.112	<0.00001	89.3	0.0012	0.00079	0.00127	0.099	<0.0002	0.0278	25.0	0.0172	<0.000002	0.007	0.0084		6.02	0.00073
RSEM-R6E-EOP	9/15/2019 11:30	WM7503	D	2.3	3.5	0.117	<0.0005	0.00058	0.111	<0.0001	<0.001	0.112	<0.00001	88.4	0.0013	0.0008	0.00113	0.108	<0.0002	0.0281	25.1	0.0172	<0.000002	0.0071	0.0084		6.02	0.00073
RSEM-R6E-EOP	9/16/2019 12:35	WN0358	M	2.2	3.2	0.241	<0.0005	0.00056	0.105	<0.0001	<0.001	0.097	0.000039	93.9	0.0037	0.0011	0.00171	0.382	0.00028	0.0255	21.5	0.0424	<0.000002	0.0092	0.008		6.64	0.00097
RSEM-R6E-EOP	9/16/2019 12:45	WN0359	D	2.2	3.1	0.293	<0.0005	0.00062	0.107	<0.0001	<0.001	0.099	0.000034	94.5	0.0039	0.00111	0.00183	0.531	0.00034	0.0258	21.4	0.0432	<0.000002	0.0091	0.0081		6.53	0.00099
RSEM-R6E-EOP	9/17/2019 14:40	WN2863	M	2.1	3.8	0.162	<0.0005	0.00064	0.105	<0.0001	<0.001	0.094	0.000032	99.8	0.0033	0.00123	0.0016	0.205	<0.0002	0.0228	21.7	0.0397	<0.000002	0.0091	0.0087		6.47	0.00095
RSEM-R6E-EOP	9/18/2019 11:00	WN2816	M	2.4	3.5	0.2	0.00053	0.00074	0.1	<0.0001	<0.001	0.095	0.000056	94.7	0.0033	0.0013	0.00138	0.205	<0.0002	0.0227	20.4	0.0398	<0.000002	0.0099	0.0084		6.44	0.00104
RSEM-R6E-EOP	9/19/2019 12:05	WN7483	M	2.1	2.6	0.146	0.00059	0.00073	0.1	<0.0001	<0.001	0.106	0.000019	90.3	0.0034	0.00124	0.00136	0.101	<0.0002	0.0244	22.0	0.034	<0.000002	0.0107	0.0084		7.05	0.00112
RSEM-R6E-EOP	9/20/2019 11:00	WN7565	M	2.3	3.2	0.154	0.000055	0.00071	0.0976	<0.0001	<0.001	0.112	0.000016	89.0	0.003	0.00108	0.00119	0.113	<0.0002	0.0256	21.5	0.0271	0.0000031	0.0107	0.0077		6.71	0.00107
RSEM-R6E-EOP	9/21/2019 12:10	WO1838	M	2.4	3.5	0.274	0.00086	0.00131	0.103	<0.0001	<0.001	0.136	0.000019	69.3	0.0037	0.00076	0.00173	0.274	0.00025	0.0244	17.3	0.0227	0.0000035	0.0162	0.0057		6.57	0.00139
RSEM-R6E-EOP	9/22/2019 11:45	WO2182	M	2.5	3.5	0.237	0.00085	0.00131	0.107	<0.0001	<0.001	0.139	0.000017	71.1	0.0034	0.00068	0.00149	0.228	<0.0002	0.0246	17.6	0.0226	0.0000047	0.0162	0.0053		6.58	0.00141
RSEM-R6E-EOP	9/23/2019 11:40	WO4836	M	2.8	3.9	0.295	0.00084	0.00118	0.104	<0.0001	<0.001	0.152	0.000011	70.8	0.0034	0.00067	0.00144	0.213	<0.0002	0.026	18.6	0.0262	0.0000034	0.015	0.0056		6.30	0.00139
RSEM-R6E-EOP	9/24/2019 11:00	WO4820	M	3.0	3.4	0.297	0.00079	0.00121	0.105	<0.0001	<0.001	0.149	<0.00001	71.7	0.0032	0.00064	0.0014	0.257	<0.0002	0.0257	18.4	0.026	<0.000002	0.0143	0.0053		6.08	0.00129
RSEM-R6E-EOP	9/24/2019 11:10	WO4821	D	2.5	3.5	0.292	0.00082	0.00125	0.106	<0.0001	<0.001	0.15	0.00001	71.5	0.003	0.00065	0.00143	0.268	<0.0002	0.0255	18.4	0.0257	0.0000026	0.0145	0.0053		6.05	0.00128
RSEM-R6E-EOP	9/25/2019 11:45	WO6409	M	2.3	3.5	0.166	0.00077	0.00108	0.0989	<0.0001	<0.001	0.132	0.000018	69.0	0.0031	0.00058	0.00139	0.17	<0.0002	0.024	18.2	0.022	<0.000002	0.0146	0.0052		5.99	0.00122
RSEM-R6E-EOP	9/25/2019 12:00	WO6410	D	2.1	3.5	0.208	0.00078	0.00115	0.0987	<0.0001	<0.001	0.139	<0.00001	69.6	0.0028	0.00055	0.00125	0.158	<0.0002	0.0255	17.9	0.0208	0.0000027	0.0145	0.0049		6.01	0.00127
RSEM-R6E-EOP	9/26/2019 10:10	WP1624	M	2.8	3.5	0.165	0.00081	0.00117	0.105	<0.0001	<0.001	0.146	0.000013	78.5	0.0029	0.00058	0.00126	0.175	<0.0002	0.0269	18.9	0.0222	<0.000002	0.0144	0.0054		6.44	0.00126
RSEM-R6E-EOP	9/26/2019 10:20	WP1625	D	2.7	3.6	0.135	0.00084	0.00117	0.103	<0.0001	<0.001	0.145	0.000012	75.6	0.0028	0.00057	0.00128	0.144	<0.0002	0.0263	18.7	0.0219	<0.000002	0.0141	0.0052		6.25	0.00117
RSEM-R6E-EOP	9/27/2019 11:45	WP3488	M	2.7	3.5	0.164	0.0008	0.00106	0.0978	<0.0001	<0.001	0.147	0.000014	70.5	0.0031	0.00071	0.0013	0.182	<0.0002	0.0242	17.3	0.0261	<0.000002	0.0151	0.0057		5.92	0.00122
RSEM-R6E-EOP	9/27/2019 11:55	WP3489	D	2.5	3.7	0.166	0.00078	0.00106	0.0973	<0.0001	<0.001	0.147	0.000012	70.5	0.003	0.00072	0.00133	0.182	<0.0002	0.0241	17.6	0.0268	<0.000002	0.015	0.0056		5.98	0.00126
RSEM-R6E-EOP	9/28/2019 12:10	WP3454	M	2.6	3.7	0.162	0.00087	0.0011	0.102	<0.0001	<0.001	0.148	0.000017	70.9	0.0039	0.00081	0.00135	0.175	<0.0002	0.0244	17.0	0.0295	0.0000025	0.0165	0.0059		6.34	0.00135
RSEM-R6E-EOP	9/29/2019 10:20	WP5511	M	2.9	2.5	0.163	0.00087	0.00109	0.103	<0.0001	<0.001	0.15	0.000015	71.4	0.0046	0.00082	0.00134	0.166	<0.0002	0.0244	16.6	0.0314	<0.000002	0.0174	0.0058		6.36	0.00131
RSEM-R6E-EOP	9/30/2019 9:15	WP5290	M	2.5	3.6	0.146	0.00089	0.00104	0.107	<0.0001	<0.001	0.153	0.000015	70.5	0.0049	0.0008	0.00128	0.126	<0.0002	0.0238	16.2	0.0309	<0.000002	0.018	0.0055		6.35	0.00132
RSEM-R6E-EOP	9/30/2019 9:25	WP5291	D	2.5	3.6	0.146	0.00088	0.00108	0.106	<0.0001	<0.001	0.147	0.000016	69.2	0.005	0.00081	0.0013	0.133	<0.0002	0.0236	16.1	0.0307	<0.000002	0.0177	0.0055		6.44	0.00135
RSEM-R6E-EOP	10/1/2019 14:15	WP9961	M	2.6	3.3	0.117	0.00086	0.00112	0.112	<0.0001	<0.001	0.127	0.000011	66.4	0.0053	0.00076	0.00126	0.113	<0.0002	0.0192	16.3	0.028	<0.000002	0.0189	0.0052		6.43	0.00131
RSEM-R6E-EOP	10/2/2019 13:25	WQ2277	M	2.5	3.7	0.128	0.00091	0.00116	0.112	<0.0001	<0.001	0.167	<0.00001	66.6	0.0056	0.00071	0.00136	0.107	<0.0002	0.0278	16.7	0.0257	<0.000002	0.0188	0.0052		6.76	0.00129
RSEM-R6E-EOP	10/3/2019 14:05	WQ4507	M	2.1	3.7	0.109	0.00088	0.00106	0.109	<0.0001	<0.001	0.149	<0.00001	67.9	0.0054	0.00064	0.0012	0.092	<0.0002	0.0227	16.3	0.0227	<0.000002	0.0194	0.005		6.55	0.00138
RSEM-R6E-EOP	10/4/2019 11:55	WQ4429	M	2.2	3.5	0.117	0.00086	0.00112	0.126	<0.0001	<0.001	0.154	<0.00001	74.7	0.0052	0.00063	0.00114	0.115	<0.0002	0.0275	16.8	0.0246	<0.000002	0.0189	0.0045		6.64	0.00121
RSEM-R6E-EOP	10/5/2019 13:00	WQ7326	M	2.6	2.4	0.126	0.00077	0.00104	0.126	<0.0001	<0.001	0.137	0.000013	68.4	0.0052	0.00069	0.00117	0.111	<0.0002	0.0242	16.7	0.0249	<0.000002	0.0175	0.005		6.20	0.00126
RSEM-R6E-EOP	10/6/2019 13:00	WQ7682	M	2.7	2.5	0.14	0.0008	0.0012	0.131	<0.0001	<0.001	0.142	<0.00001	78.7	0.0056	0.00069	0.0013	0.138	<0.0002	0.0251	17.6	0.0263	<0.000002	0.0184	0.005		6.96	0.00126
RSEM-R6E-EOP	10/7/2019 14:35	WQ9662	M	2.6	2.4	0.135	0.00085	0.00109	0.134	<0.0001	<0.001	0.153	0.000017	69.9	0.0054	0.00062	0.00119	0.126	<0.0002	0.0256	17.7	0.0273	<0.000002	0.0179	0.0048		6.63	0.00122
RSEM-R6E-EOP	10/8/2019 13:20	WR3474	M	2.6	2.1	0.16	0.00085	0.00109	0.136	<0.0001	<0.001	0.154	0.000019	73.1	0.0054	0.00069	0.00121	0.181	<0.0002	0.0257	17.5	0.0282	<0.000002	0.0182	0.0049		6.42	0.00129
RSEM-R6E-EOP	10/9/2019 13:30	WR5598	M	3.0	2.2	0.112	0.00075	0.00101	0.129	<0.0001	<0.001	0.138	0.000011	75.2	0.0053	0.00073	0.00114	0.115	<0.0002	0.0224	17.4	0.027	<0.000002	0.0174	0.0053		6.23	0.00114
RSEM-R6E-EOP	10/10/2019 14:30	WR7646	M	2.5	2.3	0.115	0.0007	0.00087	0.132	<0.0001	<0.001	0.131	0.000012	79.1	0.0054	0.00082	0.0011	0.109	<0.0002	0.0227	18.0	0.0284	<0.000002	0.0166	0.0057		6.29	0.00109
RSEM-R6E-EOP	10/11/2019 11:20	WR7604	M	2.5	1.7	0.115	0.00068	0.0009	0.138	<0.0001	<0.001	0.139	0.000014	84.0	0.0057	0.00092	0.00125	0.108	<0.0002	0.0243	18.8	0.0293	<0.000002	0.0172	0.0063		6.58	0.00111
RSEM-R6E-EOP	10/12/2019 12:40	WR9609	M	2.6	3.9	0.141	0.00069	0.00088	0.134	<0.0001	<0.001	0.133	0.000016	81.0	0.006	0.00096	0.00122	0.222	<0.0002	0.0239	18.1	0.0282	<0.000002	0.0176	0.0064		6.55	0.00121
RSEM-R6E-EOP	10/13/2019 11:40	WS2497	M	2.3	2.2	0.166	0.00073	0.00101	0.132	<0.0001	<0.001	0.124	0.000017	78.8	0.0064	0.00102	0.00127	0.126	<0.0002	0.0233	18.6	0.0267	<0.000002	0.0187	0.0065		6.91	0.00122
RSEM-R6E-EOP	10/14/2019 11:40	WS2602	M	2.3	2.1	0.119	0.00075	0.00098	0.13	<0.0001	<0.001	0.127	0.000018	76.6	0.0063	0.00098	0.00125	0.102	<0.0002	0.0238	18.2	0.025	<0.000002	0.0188	0.0065		6.88	0.00122
RSEM-R6E-EOP	10/15/2019 10:15	WS4271	M	2.4	2.2	0.203	0.00075	0.00098	0.129	<0.0001	<0.001	0.126	0.000022	74.6	0.0054	0.00112	0.00137	0.176	<0.0002	0.0225	16.7	0.0255	<0.000002	0.0173	0.0068		6.13	0.0011
RSEM-R6E-EOP	10/16/2019 12:00	WS6069	M	1.9	2.2	0.25	0.00095	0.00136	0.144	<0.0001	<0.001	0.142	0.00003	69.5	0.0048	0.0011	0.00168	0.35	0.00029	0.0235	16.3	0.0312	<0.000002	0.0198	0.0061		6.18	0.0012
RSEM-R6E-EOP	10/17/2019 12:30	WS9494	M	2.0	2.2	0.42	0.00072	0.00152	0.173	<0.0001	<0.001	0.097	0.000043	74.5	0.0028	0.00116	0.00181	0.809	0.00054	0.0172	16.7	0.0653	<0.000002	0.0121	0.0058		4.41	0.00082
RSEM-R6E-EOP	10/19/2019 12:45	WT3629	M	2.9	2.0	0.459	<0.0005	0.00095	0.155	<0.0001	<0.001	<0.05	0.000027	82.9	0.0016	0.00082	0.0014	0.486	0.00028	0.0096	16.3	0.0653	<0.000002	0.0061	0.0048		3.29	0.00055
RSEM-R6E-EOP	10/25/2019 15:50	WU5358	M	2.8	2.9	0.44	0.00114	0.0017	0.148	<0.0001	<0.001	0.133	0.000038	86.1	0.0071	0.00163	0.00202	0.612	0.00032	0.0191	16.3	0.0511	<0.000002	0.0236	0.0082		6.47	0.00142
RSEM-R6E-EOP	10/26/2019 15:10	WU7029	M	3.5	3.2	0.163	0.00107	0.00156	0.139	<0.0001	<0.001	0.117	0.000043	81.4	0.0086	0.00177	0.00166	0.175	<0.0002	0.0182	16.5	0.0487	<0.000002	0.0255	0.0091		6.73	0.00134
RSEM-R6E-EOP	10/27/2019 12:45	WU7140	M	3.1	2.5	0.416	0.0012	0.00175	0.148	<0.0001	<0.001	0.129	0.000069	82.2	0.0099	0.00273	0.0023	0.435	0.0003	0.0199	16.6	0.06	<0.000002	0.028	0.0119		7.38	0.00156
RSEM-R6E-EOP	10/28/2019 11:35	WU7150	M	3.2	3.0	0.206	0.00119	0.00149	0.142	<0.0001	<0.001	0.134	0.000059	83.2	0.0101	0.00259	0.00187	0.164	<0.0002	0.0205	16.9	0.0528	<0.000002	0.0285	0.0117		7.53	0.00164
RSEM-R6E-EOP	10/29/2019 11:40	WU9591	M	2.5	3.7	0.186	0.00112	0.00143	0.142	<0.0001	<0.001	0.129	0.000058	83.2	0.0097	0.00265	0.00187	0.12	<0.0002	0.0196	17.1	0.0492	<0.000002	0.0266	0.0117		7.33	0.00154
RSEM-R6E-EOP	10/29/2019 12:00	WU9592	D	2.5	2.7	0.175	0.0011	0.00136	0.139	<0.0001	<0.001	0.124	0.000054	79.8	0.0093	0.00254	0.00178	0.126	<0.0002	0.0189	16.7	0.0473	<0.000002	0.0257	0.0113		7.17	0.00142
RSEM-R6E-EOP	10/30/2019 12:10	WV3964	M	2.8	2.9	0.209	0.00106	0.00133	0.155	<0.0001	<0.001	0.121	0.000055	85.7	0.0101	0.00279	0.00201	0.16	0.00021	0.0207	18.0	0.0546	<0.000002	0.0223	0.0127		7.44	0.0016
RSEM-R6E-EOP	10/31/2019 12:55	WV6747	M	2.3	2.5	0.156	0.00096	0.00124	0.146	<0.0001	<0.001	0.111	0.000051	86.8	0.0078	0.00241	0.00157	0.107	<0.0002	0.02	17.9	0.0437	<0.000002	0.0223	0.0108		6.45	0.00149

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	9/1/2019 11:45	WK4241	M	3.84	<0.00002	46.4	0.941	46.4	0.000019	<0.005	<0.005	0.00174	<0.005	<0.005	<0.0001	0.0635	<0.0005	0.00054	0.0975	<0.0001	<0.001	0.147	<0.00001	90.2	0.0013	0.00055	0.00077	<0.01
RSEM-R6E-EOP	9/1/2019 11:55	WK4243	D	3.67	<0.00002	46.6	0.933	47.8	0.000018	<0.005	<0.005	0.00174	<0.005	<0.005	<0.0001	0.0635	<0.0005	0.00055	0.0992	<0.0001	<0.001	0.151	<0.00001	92.7	0.0013	0.00053	0.00076	<0.01
RSEM-R6E-EOP	9/2/2019 11:50	WK6468	M	3.34	<0.00002	43.7	0.822	43.4	0.000019	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001	0.0595	<0.0005	0.00048	0.0873	<0.0001	<0.001	0.13	<0.00001	82.8	0.0012	0.00044	0.00082	<0.01
RSEM-R6E-EOP	9/2/2019 12:00	WK6469	D	3.38	<0.00002	43.2	0.832	42.9	0.00002	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001	0.0603	<0.0005	0.00049	0.0871	<0.0001	<0.001	0.13	<0.00001	82.5	0.0012	0.00044	0.00078	<0.01
RSEM-R6E-EOP	9/3/2019 13:05	WK8382	M	3.25	<0.00002	44.6	0.816	43.4	0.000021	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	0.058	<0.0005	0.00053	0.0866	<0.0001	<0.001	0.136	<0.00001	83.3	0.0011	0.00038	0.00084	<0.01
RSEM-R6E-EOP	9/3/2019 13:08	WK8383	D	3.3	<0.00002	43.2	0.819	42.7	0.000022	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	0.0575	<0.0005	0.00051	0.0865	<0.0001	<0.001	0.136	<0.00001	81.9	0.0011	0.00039	0.00085	<0.01
RSEM-R6E-EOP	9/4/2019 13:15	WL0770	M	3.22	<0.00002	42.2	0.772	40.2	0.000018	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	0.0561	<0.0005	0.0005	0.0803	<0.0001	<0.001	0.121	<0.00001	77.2	0.001	0.00038	0.00082	<0.01
RSEM-R6E-EOP	9/4/2019 13:30	WL0771	D	3.21	<0.00002	42.0	0.772	39.0	0.000018	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001	0.0587	<0.0005	0.0005	0.0813	<0.0001	<0.001	0.122	<0.00001	77.8	<0.001	0.00036	0.0008	<0.01
RSEM-R6E-EOP	9/5/2019 12:30	WL2425	M	3.45	<0.00002	42.8	0.721	39.8	0.000019	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	0.0597	<0.0005	0.0005	0.0799	<0.0001	<0.001	0.126	<0.00001	76.3	<0.001	0.00034	0.0008	<0.01
RSEM-R6E-EOP	9/5/2019 12:35	WL2426	D	3.4	<0.00002	42.1	0.715	40.6	0.000018	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001	0.0603	<0.0005	0.00049	0.0805	<0.0001	<0.001	0.127	<0.00001	76.5	<0.001	0.00037	0.00082	<0.01
RSEM-R6E-EOP	9/6/2019 13:15	WL3942	M	3.33	<0.00002	41.7	0.696	39.7	0.000017	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001	0.0637	<0.0005	0.0005	0.0772	<0.0001	<0.001	0.142	<0.00001	79.9	<0.001	0.00029	0.0009	<0.01
RSEM-R6E-EOP	9/6/2019 13:25	WL3943	D	3.36	<0.00002	41.9	0.716	39.5	0.000018	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001	0.0659	<0.0005	0.00047	0.0787	<0.0001	<0.001	0.14	<0.00001	81.5	<0.001	0.00031	0.00092	0.01
RSEM-R6E-EOP	9/7/2019 12:10	WL4972	M	3.11	<0.00002	36.9	0.645	36.2	0.000014	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001	0.0562	<0.0005	0.00051	0.0712	<0.0001	<0.001	0.132	<0.00001	68.4	<0.001	0.00024	0.00077	<0.01
RSEM-R6E-EOP	9/7/2019 12:20	WL4973	D	3.16	<0.00002	38.2	0.655	37.3	0.000013	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001	0.0566	<0.0005	0.00048	0.0711	<0.0001	<0.001	0.133	<0.00001	68.9	<0.001	0.00024	0.00078	<0.01
RSEM-R6E-EOP	9/8/2019 13:00	WL5048	M	3.5	<0.00002	39.4	0.739	38.8	0.000017	<0.005	<0.005	0.00151	<0.005	<0.005	0.00013	0.0507	<0.0005	0.00055	0.0764	<0.0001	<0.001	0.135	<0.00001	78.1	<0.001	0.00021	0.0008	0.011
RSEM-R6E-EOP	9/8/2019 13:15	WL5049	D	3.48	<0.00002	39.1	0.736	37.8	0.000018	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001	0.0497	<0.0005	0.00052	0.0767	<0.0001	<0.001	0.137	<0.00001	76.9	<0.001	0.00029	0.00081	0.01
RSEM-R6E-EOP	9/9/2019 9:45	WL7024	M	3.92	<0.00002	37.2	0.885	41.7	0.000021	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001	0.0574	<0.0005	0.00057	0.0996	<0.0001	<0.001	0.121	0.000013	97.0	0.0016	0.00101	0.00096	<0.01
RSEM-R6E-EOP	9/9/2019 10:00	WL7025	D	4.07	<0.00002	37.5	0.926	42.1	0.000023	<0.005	<0.005	0.00168	<0.005	0.0051	<0.0001	0.05	<0.0005	0.00057	0.101	<0.0001	<0.001	0.123	<0.00001	97.6	0.0016	0.00041	0.00081	<0.01
RSEM-R6E-EOP	9/10/2019 12:25	WL9318	M	3.87	<0.00002	35.6	0.842	40.4	0.000018	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	0.061	<0.0005	0.00058	0.1	<0.0001	<0.001	0.122	<0.00001	106	0.0014	0.00101	0.001	<0.01
RSEM-R6E-EOP	9/11/2019 12:10	WM1913	M	3.69	<0.00002	38.8	0.88	40.8	0.000019	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001	0.0642	<0.0005	0.00059	0.103	<0.0001	<0.001	0.123	<0.00001	99.4	0.0014	0.0011	0.00093	<0.01
RSEM-R6E-EOP	9/11/2019 12:20	WM1914	D	3.63	<0.00002	37.3	0.86	39.7	0.000021	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001	0.0637	<0.0005	0.00059	0.101	<0.0001	<0.001	0.122	<0.00001	96.3	0.0013	0.00109	0.00096	<0.01
RSEM-R6E-EOP	9/12/2019 11:05	WM1921	M	3.94	<0.00002	36.2	0.799	40.3	0.000019	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001	0.0715	<0.0005	0.00053	0.0933	<0.0001	<0.001	0.111	<0.00001	90.0	0.0011	0.00121	0.00107	<0.01
RSEM-R6E-EOP	9/12/2019 11:15	WM1922	D	3.87	<0.00002	35.5	0.802	39.2	0.000018	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001	0.0722	<0.0005	0.00056	0.0942	<0.0001	<0.001	0.115	<0.00001	89.6	0.0011	0.00118	0.00103	<0.01
RSEM-R6E-EOP	9/13/2019 10:55	WM4306	M	3.92	<0.00002	38.6	0.789	40.0	0.00002	<0.005	<0.005	0.00176	<0.005	<0.005	<0.0001	0.0758	<0.0005	0.00055	0.105	<0.0001	<0.001	0.099	<0.00001	90.0	0.0013	0.00092	0.00102	<0.01
RSEM-R6E-EOP	9/13/2019 11:05	WM4307	D	3.91	<0.00002	38.1	0.77	39.6	0.000019	<0.005	<0.005	0.00174	<0.005	<0.005	<0.0001	0.0748	<0.0005	0.00054	0.103	<0.0001	<0.001	0.1	<0.00001	90.3	0.0014	0.00093	0.00097	<0.01
RSEM-R6E-EOP	9/14/2019 11:45	WM7482	M	4.26	<0.00002	39.0	0.685	41.1	0.000018	<0.005	<0.005	0.00166	<0.005	<0.005	0.00012	0.066	<0.0005	0.00049	0.103	<0.0001	<0.001	0.105	<0.00001	86.3	0.0012	0.00087	0.00112	<0.01
RSEM-R6E-EOP	9/14/2019 11:55	WM7483	D	4.29	<0.00002	38.4	0.676	40.5	0.000017	<0.005	<0.005	0.00165	<0.005	<0.005	0.00013	0.0682	<0.0005	0.00053	0.105	<0.0001	<0.001	0.107	<0.00001	86.4	0.0012	0.00088	0.00098	<0.01
RSEM-R6E-EOP	9/15/2019 11:20	WM7502	M	3.98	<0.00002	36.6	0.68	38.1	0.000014	<0.005	<0.005	0.00157	<0.005	<0.005	0.00023	0.0653	<0.0005	0.0003	0.0993	<0.0001	<0.001	0.11	<0.00001	84.7	0.0013	0.00075	0.00096	<0.01
RSEM-R6E-EOP	9/15/2019 11:30	WM7503	D	3.96	<0.00002	36.4	0.693	37.9	0.000014	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001	0.0665	<0.0005	0.0003	0.0998	<0.0001	<0.001	0.113	<0.00001	85.3	0.0013	0.00075	0.00095	<0.01
RSEM-R6E-EOP	9/16/2019 12:35	WN0358	M	3.78	<0.00002	31.0	0.713	45.9	0.000022	<0.005	<0.005	0.00163	<0.005	<0.005	0.00016	0.0522	0.00051	0.00055	0.104	<0.0001	<0.001	0.093	0.000015	102	0.0033	0.00069	0.00085	<0.01
RSEM-R6E-EOP	9/16/2019 12:45	WN0359	D	3.85	<0.00002	30.8	0.722	45.6	0.000022	<0.005	0.0074	0.00162	<0.005	<0.005	0.00019	0.0488	<0.0005	0.00052	0.102	<0.0001	<0.001	0.096	0.000013	102	0.0034	0.00067	0.00084	<0.01
RSEM-R6E-EOP	9/17/2019 14:40	WN2863	M	3.66	<0.00002	32.3	0.725	46.5	0.000019	<0.005	<0.005	0.00157	<0.005	<0.005	0.00012	0.0527	<0.0005	0.00058	0.0992	<0.0001	<0.001	0.094	0.000019	107	0.0032	0.00098	0.0009	<0.01
RSEM-R6E-EOP	9/18/2019 11:00	WN2816	M	3.9	<0.00002	38.3	0.678	45.9	0.000023	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001	0.0596	0.00054	0.00068	0.0989	<0.0001	<0.001	0.104	0.000017	107	0.0031	0.00102	0.00088	<0.01
RSEM-R6E-EOP	9/19/2019 12:05	WN7483	M	4.06	<0.00002	48.2	0.59	50.5	0.000015	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001	0.0734	0.00057	0.00073	0.0953	<0.0001	<0.001	0.119	<0.00001	93.0	0.0031	0.00077	0.00093	0.013
RSEM-R6E-EOP	9/20/2019 11:00	WN7565	M	4.09	<0.00002	45.7	0.594	49.6	0.000017	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001	0.064	0.00055	0.00074	0.0896	<0.0001	<0.001	0.104	<0.00001	89.6	0.003	0.00073	0.0009	<0.01
RSEM-R6E-EOP	9/21/2019 12:10	WO1838	M	4.1	<0.00002	71.7	0.45	44.2	0.000017	<0.005	<0.005	0.00142	<0.005	<0.005	0.00019	0.0704	0.00091	0.00115	0.0932	<0.0001	<0.001	0.15	<0.00001	72.6	0.0036	0.00052	0.00113	<0.01
RSEM-R6E-EOP	9/22/2019 11:45	WO2182	M	4.14	<0.00002	74.9	0.441	43.8	0.000016	<0.005	<0.005	0.00147	<0.005	<0.005	0.00015	0.0634	0.00092	0.00114	0.102	<0.0001	<0.001	0.156	<0.00001	69.2	0.0034	0.00047	0.00114	<0.01
RSEM-R6E-EOP	9/23/2019 11:40	WO4836	M	4.65	<0.00002	74.6	0.446	44.1	0.000019	<0.005	0.0061	0.00152	<0.005	<0.005	0.0003	0.059	0.00086	0.00113	0.0992	<0.0001	<0.001	0.148	<0.00001	76.1	0.0027	0.00046	0.00097	<0.01
RSEM-R6E-EOP	9/24/2019 11:00	WO4820	M	4.69	<0.00002	71.5	0.441	42.6	0.000019	<0.005	0.0088	0.0015	<0.005	<0.005	0.00036	0.0546	0.0008	0.0011	0.101	<0.0001	<0.001	0.148	<0.00001	76.3	0.0025	0.00044	0.00096	<0.01
RSEM-R6E-EOP	9/24/2019 11:10	WO4821	D	4.62	<0.00002	71.5	0.432	42.1	0.000018	<0.005	0.0084	0.0015	<0.005	<0.005	0.00018	0.0548	0.00081	0.0011	0.102	<0.0001	<0.001	0.146	<0.00001	76.0	0.0025	0.00045	0.00092	<0.01
RSEM-R6E-EOP	9/25/2019 11:45	WO6409	M	4.25	<0.00002	68.9	0.432	42.1	0.000018	<0.005	<0.005	0.00154	<0.005	<0.005	0.00018	0.0519	0.00076	0.00107	0.0942	<0.0001	<0.001	0.139	<0.00001	66.6	0.0026	<0.0002	0.00083	<0.01
RSEM-R6E-EOP	9/25/2019 12:00	WO6410	D	4.47	<0.00002	67.9	0.458	41.4	0.000015	<0.005	<0.005	0.00153	<0.005	<0.005	0.00018	0.0491	0.00082	0.0011	0.1	<0.0001	<0.001	0.145	<0.00001	76.2	0.0025	0.00045	0.00089	<0.01
RSEM-R6E-EOP	9/26/2019 10:10	WP1624	M	4.7	<0.00002	70.7	0.453	45.5	0.000017	<0.005	<0.005	0.0015	<0.005	<0.005	0.00011	0.0492	0.00076	0.00103	0.095	<0.0001	<0.001	0.141	<0.00001	68.0	0.0022	0.00026	0.00083	<0.01
RSEM-R6E-EOP	9/26/2019 10:20	WP1625	D	4.39	<0.00002	71.4	0.442	43.3	0.000016	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001	0.0496	0.00076	0.00105	0.096	<0.0001	<0.001	0.142	<0.00001	68.5	0.0022	0.00025	0.00083	<0.01
RSEM-R6E-EOP	9/27/2019 11:45	WP3488	M	4.08	<0.00002	69.7	0.432	41.0	0.000012	<0.005	<0.005	0.00146	<0.005	<0.005	0.00013	0.0503	0.00081	0.0011	0.0944	<0.0001	<0.001	0.143	<0.00001	68.3	0.0029	0.00055	0.00094	<0.01
RSEM-R6E-EOP	9/27/2019 11:55	WP3489	D	4.11	<0.00002	71.2	0.43	41.6	0.000013	<0.005	<0.005	0.00143	<0.005	<0.005	0.00017	0.0495	0.00082	0.00113	0.0937	<0.0001	<0.001	0.143	<0.00001	68.8	0.0029	0.00053	0.00095	<0.01
RSEM-R6E-EOP	9/28/2019 12:10	WP3454	M	4.2	<0.00002	75.6	0.421	40.9	0.000012	<0.005	<0.005	0.00144	<0.005	<0.005	0.00036	0.0494	0.00086	0.00112	0.0973	<0.0001	<0.001	0.143	<0.00001	67.6	0.0037	0.00067	0.001	<0.01
RSEM-R6E-EOP	9/29/2019 10:20	WP5511	M	4.33	<0.00002	76.8	0.411	41.8	0.000011	<0.005	<0.005	0.00142	<0.005	<0.005	0.00015	0.0489	0.00083	0.00109	0.0987	<0.0001	<0.001	0.148	<0.00001	69.1	0.004	0.00067	0.00096	<0.01
RSEM-R6E-EOP	9/30/2019 9:15	WP5290	M	4.36	<0.00002	76.5	0.393	41.3	0.000011	<0.005	<0.005	0.00132	<0.005	<0.005	0.00012	0.0512	0.00088	0.00109	0.106	<0.0001	<0.001	0.148	0.000011	69.6	0.0044	0.00069	0.00098	<0.01
RSEM-R6E-EOP	9/30/2019 9:25	WP5291	D	4.28	<0.00002	76.2	0.388	39.7	0.000011	<0.005	<0.005	0.00132	<0.005	<0.005	0.00011	0.0512	0.00088	0.00107	0.105	<0.0001	<0.001	0.146	<0.00001	69.0	0.0044	0.00068	0.00095	<0.01
RSEM-R6E-EOP	10/1/2019 14:15	WP9961	M	4.35	<0.00002	77.3	0.396	39.8	0.000016	<0.005	<0.005	0.00129	<0.005	<0.005	<0.0001	0.0539	0.00095	0.00113	0.116	<0.0001	<0.001	0.151	0.00001	67.4	0.0052	0.0007	0.00107	<0.01
RSEM-R6E-EOP	10/2/2019 13:25	WQ2277	M	4.53	<0.00002	80.1	0.37	44.1	0.000013	<0.005	<0.005	0.00127	<0.005	<0.005	0.0001	0.0485	0.00092	0.00108	0.109	<0.0001	<0.001	0.163	<0.00001	67.8	0.0051	0.00058	0.00098	<0.01
RSEM-R6E-EOP	10/3/2019 14:05	WQ4507	M	4.49	<0.00002	78.0	0.373	39.5	0.000013	<0.005	<0.005	0.00124	<0.005	<0.005	<0.0001	0.0465	0.00078	0.00109	0.105	<0.0001	<0.001	0.13	<0.00001	61.9	0.0051	0.00046	0.00092	<0.01
RSEM-R6E-EOP	10/4/2019 11:55	WQ4429	M	5.15	<0.00002	72.0	0.398	43.5	0.000013	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001	0.0465	0.00075	0.001	0.113	<0.0001	<0.001	0.129	<0.00001	64.5	0.0049	0.00047	0.00092	<0.01
RSEM-R6E-EOP	10/5/2019 13:00	WQ7326	M	4.57	<0.00002	70.7	0.393	37.3	0.000012	<0.005	<0.005	0.00127	<0.005	<0.005	0.00012	0.149	0.00086	0.00108	0.135	<0.0001	<0.001	0.152	0.00001	76.5	0.0052	0.00063	0.00099	0.097
RSEM-R6E-EOP	10/6/2019 13:00	WQ7682	M	5.08	<0.00002	77.9	0.37	43.8	0.000014	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001	0.0536	0.00088	0.0011	0.134	<0.0001	<0.001	0.153	<0.00001	80.2	0.005	0.00053	0.0009	<0.01
RSEM-R6E-EOP	10/7/2019 14:35	WQ9662	M	4.87	<0.00002	77.3	0.375	44.8	0.000013	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001	0.0527	0.00084	0.00103	0.121	<0.0001	<0.001	0.155	<0.00001	69.2	0.0054	0.00023	0.00086	<0.01
RSEM-R6E-EOP	10/8/2019 13:20	WR3474	M	4.78	<0.00002	75.2	0.384	42.4	0.000014	<0.005	<0.005	0.00122	<0.005	<0.005	0.00011	0.0511	0.00084	0.00105	0.123	<0.0001	<0.001	0.153	<0.00001	68.3	0.0054	0.00022	0.00097	<0.01
RSEM-R6E-EOP	10/9/2019 13:30	WR5598	M	4.29	<0.00002	67.9	0.392	37.9	0.000011	<0.005	<0.005	0.00121	<0.005	<0.005	<0.0001	0.0483	0.00075	0.001	0.123	<0.0001	<0.001	0.141	<0.00001	67.3	0.0049	0.00037	0.00082	<0.01
RSEM-R6E-EOP	10/10/2019 14:30	WR7646	M	4.39	<0.00002	64.2	0.411	37.7	0.000013	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001	0.0433	0.0007	0.00089	0.127	<0.0001	<0.001	0.128	<0.00001	75.7	0.005	0.00068	0.00089	<0.01
RSEM-R6E-EOP	10/11/2019 11:20	WR7604	M	4.7	<0.00002	64.1	0.442	40.7	0.000014	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001	0.0441	0.00067	0.00085	0.126	<0.0001	<0.001	0.122	<0.00001	78.2	0.0053	0.00074	0.00091	0.011
RSEM-R6E-EOP	10/12/2019 12:40	WR9609	M	4.55	<0.00002	63.3	0.422	40.1	0.000012	<0.005	<0.005	0.00128	<0.005	<0.005	0.00011	0.0451	0.00071	0.00089	0.131	<0.0001	<0.001	0.133	<0.00001	79.6	0.0058	0.00084	0.001	<0.01
RSEM-R6E-EOP	10/13/2019 11:40	WS2497	M	4.69	<0.00002	67.9	0.428	41.3	0.000014	<0.005	<0.005	0.00133	<0.005	<0.005	0.00012	0.0416	0.00074	0.00089	0.129	<0.0001	<0.001	0.107	<0.00001	73.3	0.006	0.00091	0.00104	<0.01
RSEM-R6E-EOP	10/14/2019 11:40	WS2602	M	4.76	<0.00002	69.3	0.431	41.4	0.000013	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001	0.0366	0.00076	0.00087	0.128	<0.0001	<0.001	0.108	0.00001	74.6	0.0062	0.00092	0.00107	<0.01
RSEM-R6E-EOP	10/15/2019 10:15	WS4271	M	4.64	<0.00002	67.7	0.379	36.5	0.000012	<0.005	<0.005	0.00126	<0.005	<0.005	0.00014	0.0449	0.00079	0.00096	0.128	<0.0001	<0.001	0.126	<0.00001	74.1	0.0054	0.00104	0.00106	<0.01
RSEM-R6E-EOP	10/16/2019 12:00	WS6069	M	4.89	<0.00002	79.4	0.362	38.2	0.000014	<0.005	<0.005	0.00125	<0.005	0.0056	0.00019	0.0449	0.00103	0.00124	0.139	<0.0001	<0.001	0.164	0.000016	75.1	0.0044	0.00071	0.00099	<0.01
RSEM-R6E-EOP	10/17/2019 12:30	WS9494	M	5.03	<0.00002	54.5	0.328	27.7	0.000013	<0.005	0.0111	0.00121	<0.005	0.0067	0.00045	0.0321	0.00073	0.00104	0.145	<0.0001	<0.001	0.103	0.00001	85.1	0.002	0.00056	<0.0005	<0.01
RSEM-R6E-EOP	10/19/2019 12:45	WT3629	M	4.37	<0.00002	24.6	0.355	19.5	0.000011	<0.005	0.0213	0.00113	<0.005	<0.005	0.00034	0.0227	<0.0005	0.00069	0.142	<0.0001	<0.001	0.052	<0.00001	87.7	<0.001	0.00049	0.00064	<0.01
RSEM-R6E-EOP	10/25/2019 15:50	WU5358	M	5.08	<0.00002	62.6	0.391	36.7	0.000017	<0.005	0.0108	0.00136	<0.005	0.0064	0.00034	0.0611	0.00109	0.00151	0.137	<0.0001	<0.001	0.124	0.000019	77.4	0.0062	0.00127	0.00107	<0.01
RSEM-R6E-EOP	10/26/2019 15:10	WU7029	M	4.44	<0.00002	55.7	0.444	37.3	0.000013	<0.005	<0.005	0.0014	<0.005	0.0053	0.00016	0.0626	0.00111	0.00141	0.134	<0.0001	<0.001	0.127	0.00003	87.3	0.0086	0.00151	0.00121	<0.01
RSEM-R6E-EOP	10/27/2019 12:45	WU7140	M	4.9	<0.00002	63.6	0.442	40.5	0.000018	<0.005	0.0076	0.0015	<0.005	0.0107	0.00025	0.0779	0.00114	0.00152	0.134	<0.0001	<0.001	0.138	0.000047	87.5	0.0095	0.00226	0.00141	<0.01
RSEM-R6E-EOP	10/28/2019 11:35	WU7150	M	4.5	<0.00002	65.3	0.425	41.0	0.000014	<0.005	<0.005	0.00147	<0.005	0.0076	0.00014	0.0806	0.00118	0.00153	0.135	<0.0001	<0.001	0.142	0.000051	86.9	0.0098	0.00238	0.00141	<0.01
RSEM-R6E-EOP	10/29/2019 11:40	WU9591	M	4.34	<0.00002	65.9	0.415	39.8	0.000013	<0.005	<0.005	0.00154	<0.005	0.0069	0.00012	0.0802	0.00121	0.0015	0.144	<0.0001	<0.001	0.135	0.000054	86.0	0.0105	0.0028	0.0015	<0.01
RSEM-R6E-EOP	10/29/2019 12:00	WU9592	D	4.2	<0.00002	64.1	0.401	38.0	0.000013	<0.005	<0.005	0.00147	<0.005	0.0067	0.00012	0.0863	0.00119	0.00158	0.147	<0.0001	<0.001	0.142	0.000051	94.6	0.0107	0.00287	0.00158	<0.01
RSEM-R6E-EOP	10/30/2019 12:10	WV3964	M	4.53	<0.00002	61.0	0.402	41.4	0.000017	<0.005	<0.005	0.00151	<0.005	0.0086	0.00017	0.0784	0.00105	0.00127	0.149	<0.0001	<0.001	0.119	0.000044	84.4	0.0092	0.00255	0.00152	<0.01
RSEM-R6E-EOP	10/31/2019 12:55	WV6747	M	4.24	<0.00002	58.4	0.376	37.8	0.000011	<0.005	<0.005	0.0014	<0.005	0.0072	<0.0001	0.0722	0.00094	0.00116	0.145	<0.0001	<0.001	0.11	0.00004	83.5	0.0081	0.00229	0.00132	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	9/1/2019 11:45	WK4241	M	<0.0002	0.0332	26.5	0.0044	0.0000021	0.0083	0.0087		6.92	0.00084	3.63	<0.00002	45.8	0.926	46.8	0.000017	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/1/2019 11:55	WK4243	D	<0.0002	0.0339	27.4	0.0046	<0.000002	0.0085	0.009		7.12	0.00087	3.67	<0.00002	47.2	0.924	47.3	0.000017	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/2/2019 11:50	WK6468	M	<0.0002	0.0291	26.1	0.0038	<0.000002	0.0076	0.0081		6.46	0.00086	3.24	<0.00002	45.3	0.869	44.2	0.000021	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/2/2019 12:00	WK6469	D	<0.0002	0.0288	26.3	0.0036	<0.000002	0.0076	0.0081		6.32	0.00082	3.26	<0.00002	44.2	0.853	44.1	0.00002	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/3/2019 13:05	WK8382	M	<0.0002	0.0313	26.0	0.0029	<0.000002	0.0077	0.0074		6.24	0.00085	3.35	<0.00002	44.4	0.823	40.9	0.000019	<0.005	<0.005	0.0017	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/3/2019 13:08	WK8383	D	<0.0002	0.0315	26.5	0.0032	<0.000002	0.0077	0.0075		6.43	0.00084	3.27	<0.00002	44.6	0.833	42.9	0.00002	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/4/2019 13:15	WL0770	M	<0.0002	0.0281	25.2	0.0048	<0.000002	0.0073	0.0069		6.12	0.00076	3.26	<0.00002	41.8	0.802	42.0	0.00002	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/4/2019 13:30	WL0771	D	<0.0002	0.0281	24.9	0.0043	<0.000002	0.0072	0.0068		6.11	0.00077	3.25	<0.00002	41.0	0.801	41.4	0.000021	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/5/2019 12:30	WL2425	M	<0.0002	0.0292	26.0	0.0027	<0.000002	0.0065	0.0068		5.68	0.00071	3.23	<0.00002	41.0	0.738	41.1	0.000019	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/5/2019 12:35	WL2426	D	<0.0002	0.0293	26.2	0.0028	<0.000002	0.0065	0.0069		5.81	0.00075	3.26	<0.00002	42.1	0.731	42.0	0.000019	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/6/2019 13:15	WL3942	M	<0.0002	0.0307	27.7	0.0045	<0.000002	0.0065	0.0065		6.06	0.00068	3.67	<0.00002	43.1	0.688	43.1	0.000019	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/6/2019 13:25	WL3943	D	<0.0002	0.033	26.8	0.0041	<0.000002	0.0064	0.0064		5.86	0.00068	3.7	<0.00002	41.3	0.703	40.7	0.000019	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/7/2019 12:10	WL4972	M	<0.0002	0.0302	25.5	0.0029	<0.000002	0.006	0.0058		5.26	0.0007	3.25	<0.00002	40.0	0.652	39.6	0.000017	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/7/2019 12:20	WL4973	D	<0.0002	0.0301	25.9	0.0029	<0.000002	0.0061	0.0059		5.29	0.00068	3.27	<0.00002	40.5	0.652	39.2	0.000018	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/8/2019 13:00	WL5048	M	<0.0002	0.0291	25.9	0.0052	<0.000002	0.0065	0.0055		5.62	0.00077	3.32	<0.00002	40.6	0.705	39.0	0.000016	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/8/2019 13:15	WL5049	D	<0.0002	0.029	25.8	0.0062	<0.000002	0.0067	0.0057		5.60	0.00075	3.33	<0.00002	39.9	0.714	38.0	0.000017	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/9/2019 9:45	WL7024	M	<0.0002	0.0276	25.1	0.0214	0.0000041	0.0101	0.0079		7.24	0.00094	3.79	<0.00002	38.2	0.873	42.3	0.000017	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/9/2019 10:00	WL7025	D	<0.0002	0.0276	24.9	0.0142	0.0000035	0.01	0.007		7.31	0.00097	3.83	<0.00002	37.7	0.874	40.9	0.000016	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/10/2019 12:25	WL9318	M	<0.0002	0.0268	26.8	0.0209	<0.000002	0.0089	0.0083		7.82	0.0009	4.21	<0.00002	39.7	0.806	45.5	0.000018	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/11/2019 12:10	WM1913	M	<0.0002	0.0289	26.2	0.021	<0.000002	0.0094	0.0091		7.10	0.00094	4.13	<0.00002	39.0	0.885	44.8	0.000019	<0.005	<0.005	0.00169	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/11/2019 12:20	WM1914	D	<0.0002	0.0291	25.9	0.0208	<0.000002	0.0092	0.009		7.04	0.00092	4.03	<0.00002	38.6	0.869	42.9	0.000019	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/12/2019 11:05	WM1921	M	<0.0002	0.0268	26.4	0.018	<0.000002	0.008	0.0105		6.49	0.00077	3.73	<0.00002	37.9	0.743	41.4	0.000019	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/12/2019 11:15	WM1922	D	<0.0002	0.0274	26.6	0.0175	<0.000002	0.008	0.0102		6.42	0.00079	3.81	<0.00002	37.1	0.751	41.0	0.000018	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/13/2019 10:55	WM4306	M	<0.0002	0.0265	26.2	0.0104	<0.000002	0.0079	0.0095		6.55	0.00082	3.84	<0.00002	38.1	0.775	40.0	0.000025	<0.005	<0.005	0.0017	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/13/2019 11:05	WM4307	D	<0.0002	0.026	26.2	0.0113	<0.000002	0.008	0.0095		6.38	0.0008	3.81	<0.00002	37.5	0.786	39.5	0.00002	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/14/2019 11:45	WM7482	M	<0.0002	0.0249	25.2	0.0157	<0.000002	0.0071	0.0089		5.83	0.00072	3.71	<0.00002	36.7	0.68	39.2	0.000015	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/14/2019 11:55	WM7483	D	<0.0002	0.0256	25.7	0.0158	0.000003	0.0071	0.0089		5.87	0.00072	3.74	<0.00002	36.4	0.684	38.9	0.000014	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/15/2019 11:20	WM7502	M	<0.0002	0.0265	26.1	0.0136	0.0000026	0.0067	0.0085		5.83	0.00074	3.93	<0.00002	37.7	0.654	40.2	0.000016	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/15/2019 11:30	WM7503	D	<0.0002	0.027	25.9	0.0136	<0.000002	0.0068	0.0085		5.82	0.00076	3.96	<0.00002	38.0	0.653	40.0	0.000016	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/16/2019 12:35	WN0358	M	<0.0002	0.0254	22.2	0.0224	<0.000002	0.0097	0.0066		7.67	0.00095	3.74	<0.00002	32.0	0.758	52.4	0.000016	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/16/2019 12:45	WN0359	D	<0.0002	0.0246	21.8	0.0216	<0.000002	0.0095	0.0066		7.61	0.00087	3.69	<0.00002	32.2	0.746	50.3	0.000018	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/17/2019 14:40	WN2863	M	<0.0002	0.0244	22.4	0.0287	<0.000002	0.009	0.0083		7.54	0.00104	3.89	<0.00002	33.1	0.71	54.1	0.000016	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/18/2019 11:00	WN2816	M	<0.0002	0.0257	21.2	0.0269	<0.000002	0.0101	0.0076		7.14	0.00106	4.08	<0.00002	39.0	0.654	48.7	0.000016	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/19/2019 12:05	WN7483	M	<0.0002	0.0265	22.7	0.0128	<0.000002	0.0113	0.0071		6.76	0.00117	4.15	<0.00002	50.9	0.651	50.3	0.000016	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/20/2019 11:00	WN7565	M	<0.0002	0.0226	22.2	0.0106	<0.000002	0.0111	0.0071		6.49	0.00116	3.88	<0.00002	46.7	0.61	50.9	0.000015	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/21/2019 12:10	WO1838	M	<0.0002	0.0283	17.4	0.0076	<0.000002	0.016	0.0052		6.91	0.00156	4.75	<0.00002	74.7	0.431	47.7	0.000013	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/22/2019 11:45	WO2182	M	<0.0002	0.0265	17.6	0.0087	<0.000002	0.0165	0.0049		6.81	0.00136	4.39	<0.00002	77.2	0.431	48.0	0.000014	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/23/2019 11:40	WO4836	M	<0.0002	0.0257	18.0	0.0116	<0.000002	0.0155	0.005		6.26	0.00137	4.46	<0.00002	73.5	0.464	44.4	0.000013	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/24/2019 11:00	WO4820	M	<0.0002	0.0256	18.5	0.0123	<0.000002	0.0154	0.0047		6.07	0.00133	4.46	<0.00002	72.5	0.459	44.2	0.000013	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/24/2019 11:10	WO4821	D	<0.0002	0.0253	18.0	0.0121	<0.000002	0.0153	0.0047		6.04	0.00129	4.48	<0.00002	71.1	0.449	43.0	0.000013	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/25/2019 11:45	WO6409	M	<0.0002	0.0253	18.0	<0.001	<0.000002	0.0144	0.0041		5.98	0.00128	4.16	<0.00002	68.9	0.441	41.9	0.000013	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/25/2019 12:00	WO6410	D	<0.0002	0.0271	17.6	0.0113	<0.000002	0.0152	0.0046		6.12	0.00124	4.58	<0.00002	68.2	0.476	42.1	0.000013	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/26/2019 10:10	WP1624	M	<0.0002	0.0281	18.0	0.0019	<0.000002	0.0138	0.0043		6.09	0.0012	4.56	<0.00002	65.7	0.471	42.8	0.000013	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/26/2019 10:20	WP1625	D	<0.0002	0.0284	17.6	0.0017	<0.000002	0.014	0.0041		6.07	0.00121	4.61	<0.00002	64.4	0.472	41.9	0.000013	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/27/2019 11:45	WP3488	M	<0.0002	0.0244	17.8	0.0121	<0.000002	0.0157	0.0052		6.17	0.00129	4.01	<0.00002	72.0	0.446	41.6	0.000012	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/27/2019 11:55	WP3489	D	<0.0002	0.0246	18.0	0.011	<0.000002	0.0156	0.0053		6.20	0.00128	3.97	<0.00002	71.9	0.448	42.1	0.000012	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/28/2019 12:10	WP3454	M	<0.0002	0.0246	17.9	0.0184	<0.000002	0.017	0.0055		6.57	0.00138	4.07	<0.00002	76.3	0.43	42.6	0.000011	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/29/2019 10:20	WP5511	M	<0.0002	0.0236	16.9	0.0208	0.0000025	0.0169	0.0052		6.43	0.00137	4.05	<0.00002	76.4	0.405	42.9	<0.00001	<0.005	<0.005	0.00135	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/30/2019 9:15	WP5290	M	<0.0002	0.0236	16.8	0.0217	<0.000002	0.0178	0.0053		6.58	0.00141	4.22	<0.00002	77.8	0.394	42.1	0.000011	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	9/30/2019 9:25	WP5291	D	<0.0002	0.023	16.5	0.0218	<0.000002	0.0174	0.0051		6.47	0.00136	4.23	<0.00002	77.2	0.382	41.3	0.000011	<0.005	<0.005	0.00129	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/1/2019 14:15	WP9961	M	<0.0002	0.0279	16.6	0.0211	<0.000002	0.0196	0.0052		7.24	0.00146	4.44	<0.00002	82.0	0.386	42.6	0.000012	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/2/2019 13:25	WQ2277	M	<0.0002	0.0244	16.8	0.0162	<0.000002	0.0193	0.0048		6.68	0.00124	4.63	<0.00002	80.6	0.387	41.2	0.00001	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/3/2019 14:05	WQ4507	M	<0.0002	0.0215	16.6	0.0078	<0.000002	0.0177	0.0044		6.63	0.00129	4.51	<0.00002	76.2	0.402	38.2	<0.00001	<0.005	<0.005	0.00125	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/4/2019 11:55	WQ4429	M	<0.0002	0.022	16.9	0.008	<0.000002	0.0173	0.0045		6.46	0.00122	4.44	<0.00002	73.5	0.405	37.5	0.00001	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/5/2019 13:00	WQ7326	M	<0.0002	0.0267	17.5	0.0218	<0.000002	0.0179	0.0046		7.12	0.00124	5.32	<0.00002	74.1	0.385	42.4	0.000014	<0.005	<0.005	0.00126	<0.005	<0.005	0.0001
RSEM-R6E-EOP	10/6/2019 13:00	WQ7682	M	<0.0002	0.0271	17.6	0.0154	<0.000002	0.0187	0.0043		7.09	0.00131	5.27	<0.00002	74.9	0.387	41.9	0.000012	<0.005	<0.005	0.00125	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/7/2019 14:35	WQ9662	M	<0.0002	0.0236	17.9	0.0016	<0.000002	0.0179	0.0045		6.29	0.00122	4.32	<0.00002	79.3	0.343	39.5	0.00001	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/8/2019 13:20	WR3474	M	<0.0002	0.0229	18.9	0.0013	<0.000002	0.0177	0.0048		6.61	0.00119	4.18	<0.00002	79.5	0.352	40.3	0.000011	<0.005	<0.005	0.00116	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/9/2019 13:30	WR5598	M	<0.0002	0.0227	17.3	0.0041	<0.000002	0.0168	0.0047		6.07	0.00113	4.01	<0.00002	70.9	0.35	38.6	0.000011	<0.005	<0.005	0.00118	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/10/2019 14:30	WR7646	M	<0.0002	0.0225	18.8	0.0131	<0.000002	0.017	0.0056		6.36	0.00117	4.14	<0.00002	65.9	0.403	37.3	<0.00001	<0.005	<0.005	0.00125	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/11/2019 11:20	WR7604	M	<0.0002	0.0221	18.8	0.0154	<0.000002	0.0165	0.0059		6.36	0.00114	4.21	<0.00002	65.3	0.406	37.7	<0.00001	<0.005	<0.005	0.00125	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/12/2019 12:40	WR9609	M	<0.0002	0.0238	18.9	0.0158	<0.000002	0.0176	0.0063		6.73	0.00123	4.36	<0.00002	65.9	0.415	40.1	0.000011	<0.005	<0.005	0.0013	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/13/2019 11:40	WS2497	M	<0.0002	0.0193	17.9	0.0164	<0.000002	0.0186	0.0064		6.82	0.00118	4.12	<0.00002	65.7	0.436	39.5	0.000012	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/14/2019 11:40	WS2602	M	<0.0002	0.0196	18.1	0.0194	<0.000002	0.0189	0.0066		6.92	0.0012	4.09	<0.00002	68.3	0.431	40.0	0.000011	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/15/2019 10:15	WS4271	M	<0.0002	0.0233	17.7	0.0203	<0.000002	0.0186	0.0067		6.49	0.00128	4.47	<0.00002	70.9	0.42	39.3	0.000011	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/16/2019 12:00	WS6069	M	<0.0002	0.0252	16.5	0.0161	<0.000002	0.021	0.0057		6.40	0.0013	4.9	<0.00002	82.3	0.359	39.8	0.000011	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/17/2019 12:30	WS9494	M	<0.0002	0.0167	16.0	0.032	<0.000002	0.013	0.0045		4.28	0.00087	4.8	<0.00002	53.4	0.295	27.2	<0.00001	<0.005	<0.005	0.00114	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/19/2019 12:45	WT3629	M	<0.0002	0.0113	16.2	0.0458	<0.000002	0.0057	0.0037		3.24	0.00048	4.26	<0.00002	24.7	0.325	19.6	<0.00001	<0.005	<0.005	0.00106	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/25/2019 15:50	WU5358	M	<0.0002	0.02	16.3	0.0304	<0.000002	0.0241	0.0068		6.43	0.00139	4.78	<0.00002	62.3	0.405	36.8	0.000011	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/26/2019 15:10	WU7029	M	<0.0002	0.02	16.7	0.0324	<0.000002	0.0266	0.0083		7.12	0.0014	4.3	<0.00002	59.7	0.44	40.3	0.000012	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/27/2019 12:45	WU7140	M	<0.0002	0.0212	16.9	0.0387	<0.000002	0.0282	0.0108		7.60	0.0016	4.43	<0.00002	66.6	0.415	43.0	0.000013	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/28/2019 11:35	WU7150	M	<0.0002	0.021	16.9	0.0401	<0.000002	0.0292	0.0112		7.74	0.00171	4.34	<0.00002	69.7	0.411	44.4	0.000012	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/29/2019 11:40	WU9591	M	<0.0002	0.0238	18.3	0.0424	<0.000002	0.0274	0.012		7.67	0.00176	4.83	<0.00002	69.6	0.399	44.5	0.000014	<0.005	<0.005	0.00153	<0.005	0.0058	<0.0001
RSEM-R6E-EOP	10/29/2019 12:00	WU9592	D	0.00027	0.0236	17.9	0.0443	<0.000002	0.0292	0.0124		7.92	0.00181	5.24	<0.00002	69.7	0.41	46.1	0.000013	<0.005	<0.005	0.00156	<0.005	0.006	<0.0001
RSEM-R6E-EOP	10/30/2019 12:10	WV3964	M	<0.0002	0.0204	17.7	0.0412	<0.000002	0.0227	0.0118		7.19	0.00141	4.27	<0.00002	60.4	0.396	41.1	0.000013	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	10/31/2019 12:55	WV6747	M	<0.0002	0.0186	18.1	0.0352	<0.000002	0.023	0.0107		6.76	0.00142	4.45	<0.00002	57.9	0.393	38.8	0.00001	<0.005	<0.005	0.00144	<0.005	0.0051	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	11/1/2019 12:15	WV7046	M	8.13	810	14	480	13	304	291	230	<1.0	270	<1.0	<1.0	55	0.28	0.94	87			0.032	0.025	1.2	1.3	<0.0030
RSEM-R6E-EOP	11/2/2019 14:00	WW1210	M	8.18	810	39	480	31	244	244	220	<1.0	270	<1.0	<1.0	50	0.27	0.88	120			0.028	0.030	0.99	1.0	<0.0030
RSEM-R6E-EOP	11/4/2019 12:50	WW5974	M	8.02	1220	8.8	767	7.1	467	468	210	<1.0	260	<1.0	<1.0	190	0.25	2.9	100			0.16	0.021	1.1	1.1	0.0030
RSEM-R6E-EOP	11/5/2019 13:55	WW6754	M	8.05	1040	5.9	625	5.1	388	397	250	<1.0	310	<1.0	<1.0	150	0.25	2.3	100			0.10	0.021	0.98	1.0	<0.0030
RSEM-R6E-EOP	11/6/2019 12:50	WW9551	M	8.16	965	5.8	581	5.4	330	324	220	<1.0	270	<1.0	<1.0	110	0.26	1.9	110			0.072	0.025	0.99	1.0	<0.0030
RSEM-R6E-EOP	11/7/2019 12:30	WX2023	M	8.08	1030	5.5	593	5.5	323	340	220	<1.0	270	<1.0	<1.0	120	0.24	2.0	110			0.067	0.022	0.98	1.0	<0.0030
RSEM-R6E-EOP	11/8/2019 11:35	WX1858	M	8.15	1030	2.7	602	7.8	335	339	220	<1.0	270	<1.0	<1.0	130	0.27	2.0	110			0.065	0.023	0.99	1.0	<0.0030
RSEM-R6E-EOP	11/9/2019 13:30	WX3314	M	8.18	1040	4.3	606	4.8	349	355	220	<1.0	270	<1.0	<1.0	120	0.27	2.0	130			0.067	0.0249	1.03	1.05	<0.0030
RSEM-R6E-EOP	11/10/2019 12:15	WX5925	M	8.08	1040	3.0	608	5.7	331	353	230	<1.0	280	<1.0	<1.0	130	0.24	2.0	120			0.077	0.015	2.6	2.6	0.0033
RSEM-R6E-EOP	11/11/2019 10:50	WX5916	M	8.11	1030	3.7	589	3.9	320	336	240	<1.0	290	<1.0	<1.0	120	0.25	2.0	120			0.30	0.025	1.1	1.1	0.0034
RSEM-R6E-EOP	11/12/2019 12:35	WX7840	M	8.20	1030	2.3	598	2.3	330	348	230	<1.0	280	<1.0	<1.0	120	0.28	2.0	110			0.054	0.024	1.1	1.1	0.0031
RSEM-R6E-EOP	11/13/2019 12:40	WY0310	M	8.20	1030	1.7	588	2.1	338	340	230	<1.0	280	<1.0	<1.0	120	0.29	1.7	120			0.061	0.022	1.1	1.1	<0.0030
RSEM-R6E-EOP	11/14/2019 12:45	WY2286	M	8.05	1010	1.4	579	3.5	325	349	230	<1.0	280	<1.0	<1.0	120	0.24	1.9	100			0.060	0.023	1.1	1.2	<0.0030
RSEM-R6E-EOP	11/15/2019 12:15	WY2334	M	8.10	1000	1.5	588	2.5	331	346	230	<1.0	270	<1.0	<1.0	120	0.25	1.9	150			0.069	0.020	1.2	1.2	<0.0030
RSEM-R6E-EOP	11/16/2019 12:45	WY5252	M	8.25	1000	1.1	584	2.0	346	348	250	<1.0	300	<1.0	<1.0	110	0.33	1.8	120			0.060	0.019	1.2	1.3	<0.0030
RSEM-R6E-EOP	11/17/2019 13:15	WY5453	M	8.24	986	1.2	588	4.1	335	343	230	<1.0	280	<1.0	<1.0	110	0.32	1.7	120			0.076	0.019	1.2	1.2	<0.0030
RSEM-R6E-EOP	11/18/2019 13:25	WY7746	M	8.01	1060	7.0	636	15	411	408	200	<1.0	240	<1.0	<1.0	150	0.30	2.2	120			0.13	0.028	1.3	1.3	<0.0030
RSEM-R6E-EOP	11/19/2019 14:30	WY9704	M	8.07	1110	9.2	708	12	361	376	190	<1.0	240	<1.0	<1.0	150	0.33	2.2	160			0.12	0.036	1.2	1.2	<0.0030
RSEM-R6E-EOP	11/20/2019 11:40	WZ2233	M	8.10	1120	11	654	8.7	343	346	200	<1.0	250	<1.0	<1.0	140	0.32	2.2	160			0.10	0.030	1.1	1.1	<0.0030
RSEM-R6E-EOP	11/21/2019 15:15	WZ4247	M	8.17	1140	7.8	665	7.1	345	337	200	<1.0	250	<1.0	<1.0	140	0.37	2.3	160			0.079	0.038	1.1	1.2	<0.0030
RSEM-R6E-EOP	11/22/2019 11:20	WZ4473	M	8.11	1130	6.8	677	7.5	353	342	200	<1.0	250	<1.0	<1.0	140	0.36	2.3	150			0.10	0.034	1.1	1.1	<0.0030
RSEM-R6E-EOP	11/23/2019 14:30	WZ7700	M	7.89	1090	4.9	661	6.3	337	356	200	<1.0	250	<1.0	<1.0	140	0.33	2.2	160			0.18	0.029	1.1	1.1	<0.0030
RSEM-R6E-EOP	11/24/2019 13:10	WZ7711	M	8.12	1080	3.6	647	4.4	351	356	210	<1.0	260	<1.0	<1.0	130	0.32	2.0	150			0.18	0.026	1.1	1.2	0.0031
RSEM-R6E-EOP	11/25/2019 13:30	XA1641	M	7.99	1070	3.1	626	3.4	355	364	219	<1.0	267	<1.0	<1.0	126	0.307	1.97	148			0.204	0.028	1.18	1.21	0.0043
RSEM-R6E-EOP	11/26/2019 13:00	XA1648	M	7.92	1020	4.4	599	4.6	344	364	230	<1.0	280	<1.0	<1.0	100	0.30	1.6	140			0.18	0.021	1.3	1.4	0.0047
RSEM-R6E-EOP	11/27/2019 13:00	XA4487	M	8.22	1000	12	589	12	300	301	230	<1.0	280	<1.0	<1.0	91	0.30	1.4	160			0.17	0.023	1.2	1.2	0.0037
RSEM-R6E-EOP	11/28/2019 11:15	XA6239	M	8.16	1020	12	590	6.5	294	298	226	<1.0	276	<1.0	<1.0	89.6	0.299	1.50	156			0.174	0.024	1.16	1.18	<0.0030
RSEM-R6E-EOP	11/29/2019 11:10	XA6567	M	8.06	1040	9.1	614	5.5	297	296	250	<1.0	310	<1.0	<1.0	92	0.30	1.5	160			0.18	0.025	1.2	1.3	0.0035
RSEM-R6E-EOP	11/30/2019 14:05	XA8976	M	8.24	1050	6.7	610	4.2	313	304	270	<1.0	330	<1.0	<1.0	92	0.33	1.5	160			0.19	0.024	1.2	1.3	0.0037
RSEM-R6E-EOP	12/1/2019 10:25	XA8822	M	8.25	1070	6.4	636	4.4	314	305	260	<1.0	320	<1.0	<1.0	95	0.34	1.5	170			0.17	0.025	1.3	1.3	0.0031
RSEM-R6E-EOP	12/2/2019 13:30	XB0714	M	8.16	1060	7.4	637	7.1	307	314	240	<1.0	290	<1.0	<1.0	100	0.29	1.6	170			0.18	0.027	1.3	1.3	<0.0030
RSEM-R6E-EOP	12/3/2019 12:55	XB3098	M	8.09	1080	5.8	655	4.9	311	308	255	<1.0	311	<1.0	<1.0	100	0.287	1.55	168			0.282	0.027	1.30	1.33	<0.0030
RSEM-R6E-EOP	12/4/2019 14:05	XB4973	M	8.12	1080	6.2	662	4.5	311	309	250	<1.0	305	<1.0	<1.0	101	0.308	1.50	170			0.175	0.030	1.31	1.34	0.0036
RSEM-R6E-EOP	12/5/2019 14:35	XB6931	M	8.13	1080	5.6	644	3.9	304	309	297	<1.0	363	<1.0	<1.0	91.8	0.333	1.53	167			0.116	0.025	1.28	1.30	<0.0030
RSEM-R6E-EOP	12/6/2019 13:05	XB6922	M	8.17	1100	5.6	643	2.7	308	317	269	<1.0	328	<1.0	<1.0	94.4	0.365	1.50	173			0.137	0.023	1.29	1.31	<0.0030
RSEM-R6E-EOP	12/7/2019 13:05	XB9800	M	8.03	1090	5.8	658	5.7	305	314	278	<1.0	339	<1.0	<1.0	98.0	0.312	1.44	167			0.127				<0.0030
RSEM-R6E-EOP	12/8/2019 12:30	XC0038	M	8.00	1100	5.7	655	3.5	310	312	282	<1.0	344	<1.0	<1.0	93.9	0.317	1.41	169			0.097	0.021	1.30	1.32	<0.0030
RSEM-R6E-EOP	12/9/2019 11:50	XB9977	M	8.04	1110	5.6	641	6.0	318	315	291	<1.0	356	<1.0	<1.0	92.6	0.307	1.38	170			0.179	0.021	1.23	1.25	<0.0030
RSEM-R6E-EOP	12/10/2019 10:10	XC4115	M	8.02	1130	4.9	693	7.0	322	304	299	<1.0	365	<1.0	<1.0	89.7	0.302	1.33	169			0.093	0.019	1.27	1.29	0.0032
RSEM-R6E-EOP	12/11/2019 12:10	XC6932	M	8.07	1120	5.1	721	6.1	323	324	309	<1.0	377	<1.0	<1.0	87.2	0.350	1.32	167			0.457	0.016	1.27	1.29	<0.0030
RSEM-R6E-EOP	12/12/2019 13:20	XC8846	M	7.99	1110	5.1	720	3.8	348	377	302	<1.0	368	<1.0	<1.0	84.6	0.316	1.15	154			0.396	0.019	1.27	1.29	<0.0030
RSEM-R6E-EOP	12/13/2019 12:30	XD3142	M	7.97	1100	4.2	587	2.8	350	361	303	<1.0	370	<1.0	<1.0	82.8	0.319	1.31	150			0.081	<0.010	1.20	1.20	0.0032
RSEM-R6E-EOP	12/14/2019 12:50	XD1660	M	7.93	1080	3.1	571	4.4	337	357	302	<1.0	368	<1.0	<1.0	77.6	0.305	1.24	145			0.057	<0.010	1.09	1.09	0.0031
RSEM-R6E-EOP	12/15/2019 15:10	XD3217	M	8.03	1070	2.8	634	4.7	341	335	306	<1.0	373	<1.0	<1.0	74.6	0.307	1.18	139			0.092	<0.010	1.11	1.11	0.0031
RSEM-R6E-EOP	12/16/2019 14:40	XD3847	M	7.86	1060	3.7	670	5.0	303	302	308	<1.0	376	<1.0	<1.0	73.1	0.288	1.12	134			0.056	<0.010	1.04	1.04	0.0036
RSEM-R6E-EOP	12/17/2019 14:10	XD5465	M	7.99	1050	2.3	981	1.7	324	345	311	<1.0	380	<1.0	<1.0	66.5	0.302	1.13	144			0.210	<0.010	0.924	0.924	0.0032
RSEM-R6E-EOP	12/18/2019 13:30	XD7330	M	7.95	1040	3.3	660	4.4	320	330	308	<1.0	375	<1.0	<1.0	69.3	0.257	1.12	141			0.210	<0.010	0.897	0.897	0.0034
RSEM-R6E-EOP	12/19/2019 13:20	XD9299	M	7.94	1020	3.5	560	3.6	292	305	307	<1.0	375	<1.0	<1.0	65.0	0.272	1.06	135			0.213	0.016	0.937	0.953	<0.0030
RSEM-R6E-EOP	12/20/2019 12:50	XD9303	M	7.96	1020	2.3	616	5.1	278	300	310	<1.0	379	<1.0	<1.0	63.1	0.275	1.05	133			0.183	0.018	0.923	0.940	<0.0030
RSEM-R6E-EOP	12/21/2019 14:25	XE2848	M	7.97	1010	3.0	600	3.1	285	295	312	<1.0	380	<1.0	<1.0	64.0	0.284	1.01	129			0.182	0.016	0.897	0.913	0.0033
RSEM-R6E-EOP	12/22/2019 12:20	XE2825	M	7.96	1010	3.4	620	4.9	285	292	307	<1.0	375	<1.0	<1.0	63.9	0.282	1.00	128			0.175	0.015	0.868	0.883	<0.0030
RSEM-R6E-EOP	12/23/2019 9:20	XE3024	M	7.89	1020	3.1	564	2.3	286	293	310	<1.0	378	<1.0	<1.0	65.2	0.280	1.01	129			0.182	0.013	0.811	0.824	<0.0030
RSEM-R6E-EOP	12/24/2019 10:50	XE3580	M	8.29	988	1.8	612	6.0	272	288	294	<1.0	359	<1.0	<1.0	64.9	0.250	0.981	132			0.176	0.0162	0.835	0.851	<0.0030
RSEM-R6E-EOP	12/25/2019 16:00	XE3944	M	8.02	1000	1.5	588	2.5	294	287	309	<1.0	377	<1.0	<1.0	57.8	0.264	0.981	124			0.168	0.015	0.851	0.866	<0.0030
RSEM-R6E-EOP	12/26/2019 14:00	XE3948	M	7.96	1000	2.0	604	1.6	295	291	305	<1.0	372	<1.0	<1.0	60.0	0.260	0.974	128			0.159	0.015	0.831	0.846	0.0090
RSEM-R6E-EOP	12/27/2019 10:30	XE3954	M	8.00	1020	1.8	600	1.5	294	288	305	<1.0	372	<1.0	<1.0	60.1	0.269	1.01	127			0.174	0.015	0.796	0.810	<0.0030
RSEM-R6E-EOP	12/28/2019 14:30	XE5444	M	8.08	1070	3.7	616	6.1	273	273	319	<1.0	389	<1.0	<1.0	65.1	0.287	1.07	147			0.243	0.016	0.660	0.676	<0.0030
RSEM-R6E-EOP	12/29/2019 14:30	XE5392	M	8.08	1070	3.5	644	3.9	274	278	323	<1.0	394	<1.0	<1.0	66.5	0.284	1.07	142			0.233	0.015	0.703	0.718	<0.0030
RSEM-R6E-EOP	12/30/2019 9:50	XE5424	M	8.08	1060	3.0	623	5.0	268	269	321	<1.0	392	<1.0	<1.0	65.1	0.284	1.05	148			0.238	0.016	0.673	0.689	<0.0030
RSEM-R6E-EOP	12/31/2019 10:00	XE7176	M	8.03	1090	4.0	640	2.6	269	268	314	<1.0	383	<1.0	<1.0	66.0	0.294	1.14	143			0.235	0.016	0.630	0.646	<0.0030
RSEM-R6-EP-US-SD	1/16/2019 14:25	VC6520	M	8.14	707	14.5	416	22.4	280	265	265	<1.0	323	<1.0	<1.0	27.3	0.320	0.41	70.1			0.041	<0.0050	1.04	1.04	0.0072
RSEM-R6-EP-US-SD	2/15/2019 11:08	VF9055	M	8.22	693	2.31	378	8.0	238	238	277	<1.0	338	<1.0	<1.0	29.1	0.230	0.40	50.7			0.056	0.0060	0.977	0.983	<0.0050
RSEM-R6-EP-US-SD	7/19/2019 8:00	WD4019	M	7.68	6380	9300	7230	5730	3860	3000	89.1	<1.0	109	<1.0	<1.0	1750	0.400	30	238			0.72	0.0329	1.38	1.42	<0.0050
RSEM-R6E-SP	1/1/2019 12:40	VA5879	M	8.24	1040	0.66	636	<4.0	405	378	370	<1.0	452	<1.0	<1.0	44.3	0.380	0.71	138			0.11	0.0164	1.39	1.41	0.0064
RSEM-R6E-SP	1/2/2019 12:20	VA7316	M	8.18	1000	0.64	524	<4.0	390	363	354	<1.0	431	<1.0	<1.0	43.9	0.400	0.66	136			0.099	0.0135	1.50	1.51	0.0195
RSEM-R6E-SP	1/3/2019 13:45	VA8828	M	8.28	1000	0.65	572	<4.0	363	369	366	<1.0	446	<1.0	<1.0	44.9	0.390	0.68	129			0.095	0.0124	1.44	1.46	0.0066
RSEM-R6E-SP	1/4/2019 12:45	VA8825	M	8.15	1010	0.40	564	<4.0	385	367	364	<1.0	444	<1.0	<1.0	43.8	0.400	0.68	137			0.094	0.0114	1.44	1.45	0.0088
RSEM-R6E-SP	1/5/2019 13:15	VB1442	M	8.12	954	0.79	566	<4.0	357	385	355	<1.0	433	<1.0	<1.0	34.5	0.400	0.53	110			0.070	0.0068	1.45	1.46	0.0081
RSEM-R6E-SP	1/6/2019 12:00	VB1449	M	8.09	924	0.79	554	<4.0	356	363	347	<1.0	424	<1.0	<1.0	32.7	0.400	0.39	107			0.062	0.0055	1.41	1.41	0.0079
RSEM-R6E-SP	1/7/2019 10:30	VB3249	M	8.22	911	0.46	564	<4.0	352	338	355	<1.0	433	<1.0	<1.0	36.9	0.390	0.59	108			0.058	<0.0050	1.41	1.41	0.0084
RSEM-R6E-SP	1/8/2019 11:30	VB4659	M	8.22	915	1.11	526	<4.0	367	346	344	<1.0	420	<1.0	<1.0	37.9	0.390	0.55	111			0.067	0.0074	1.36	1.37	0.0064
RSEM-R6E-SP	1/9/2019 11:20	VB6782	M	8.22	900	0.87	516	<4.0	329	344	334	<1.0	408	<1.0	<1.0	32.5	0.350	0.54	99.4			0.063	<0.0050	1.31	1.31	0.0055
RSEM-R6E-SP	1/10/2019 11:30	VB7972	M	8.32	874	0.77	514	<4.0	331	308	325	2.2	391	2.6	<1.0	31.3	0.370	0.57	105			0.064	<0.0050	1.31	1.31	0.0070
RSEM-R6E-SP	1/11/2019 12:20	VB7977	M	8.33	885	0.79	518	<4.0	338	310	330	2.8	396	3.3	<1.0	31.8	0.400	0.55	109			0.060	0.0102	1.32	1.33	0.0081
RSEM-R6E-SP	1/12/2019 10:55	VC0270	M	8.22	902	4.25	518	11.0	344	316	317	<1.0	387	<1.0	<1.0	37.1	0.360	0.60	122			0.068	0.0124	1.24	1.26	0.0054
RSEM-R6E-SP	1/13/2019 11:00	VC0275	M	8.25	891	1.07	526	5.8	334	311	317	<1.0	387	<1.0	<1.0	36.5	0.350	0.54	121			0.075	0.0105	1.22	1.24	0.0057

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	11/1/2019 12:15	WV7046	M	2.3	2.4	0.332	0.00092	0.00129	0.161	<0.0001	<0.001	0.107	0.000059	90.0	0.0069	0.00231	0.00187	0.363	0.00024	0.0197	19.1	0.0465	<0.000002	0.0192	0.0106		6.02	0.00137
RSEM-R6E-EOP	11/2/2019 14:00	WW1210	M	2.8	2.5	1.95	0.00133	0.00228	0.177	<0.0001	<0.001	0.142	0.000054	71.1	0.0085	0.00172	0.00313	1.46	0.00082	0.0217	16.1	0.0488	<0.000002	0.0252	0.0076		6.85	0.00167
RSEM-R6E-EOP	11/4/2019 12:50	WW5974	M	2.2	1.7	0.279	0.0008	0.00121	0.202	<0.0001	<0.001	0.115	0.000045	148	0.0044	0.00158	0.00144	0.257	<0.0002	0.0268	23.7	0.0508	<0.000002	0.017	0.0078		8.64	0.00124
RSEM-R6E-EOP	11/5/2019 13:55	WW6754	M	1.8	1.9	0.454	0.00087	0.00124	0.19	<0.0001	<0.001	0.118	0.00005	120	0.0037	0.00172	0.00139	0.242	<0.0002	0.0255	21.3	0.057	<0.000002	0.0173	0.0077		7.06	0.00126
RSEM-R6E-EOP	11/6/2019 12:50	WW9551	M	2.1	2.3	0.249	0.00095	0.00136	0.166	<0.0001	<0.001	0.133	0.000044	101	0.0034	0.00155	0.00129	0.191	<0.0002	0.0232	18.8	0.0404	<0.000002	0.0201	0.0071		6.50	0.0014
RSEM-R6E-EOP	11/7/2019 12:30	WX2023	M	2.5	2.1	0.185	0.00102	0.0014	0.156	<0.0001	<0.001	0.142	0.000037	98.2	0.0036	0.0014	0.00124	0.134	<0.0002	0.0246	18.8	0.0352	<0.000002	0.0217	0.0066		6.94	0.00153
RSEM-R6E-EOP	11/8/2019 11:35	WX1858	M	2.2	2.1	0.218	0.00119	0.0015	0.171	<0.0001	<0.001	0.162	0.000039	102	0.0041	0.00148	0.00137	0.147	<0.0002	0.0285	19.5	0.038	<0.000002	0.0236	0.007		8.09	0.00156
RSEM-R6E-EOP	11/9/2019 13:30	WX3314	M	2.4	2.3	0.252	0.00122	0.00149	0.174	<0.0001	<0.001	0.163	0.000042	107	0.0042	0.00142	0.00136	0.136	<0.0002	0.0293	19.9	0.0342	<0.000002	0.0236	0.0071		8.08	0.00167
RSEM-R6E-EOP	11/10/2019 12:15	WX5925	M	2.2	1.8	0.176	0.00116	0.00146	0.167	<0.0001	<0.001	0.167	0.000036	101	0.0039	0.00138	0.0013	0.101	<0.0002	0.0292	19.3	0.0324	0.0000038	0.0234	0.0068		7.51	0.0015
RSEM-R6E-EOP	11/11/2019 10:50	WX5916	M	2.2	1.9	0.11	0.00103	0.00133	0.159	<0.0001	<0.001	0.13	0.000032	96.2	0.0035	0.00125	0.0012	0.058	<0.0002	0.0248	19.4	0.0305	<0.000002	0.0219	0.0063		7.36	0.00144
RSEM-R6E-EOP	11/12/2019 12:35	WX7840	M	2.3	2.3	0.136	0.00109	0.00138	0.164	<0.0001	<0.001	0.136	0.000038	99.2	0.0036	0.00133	0.00123	0.057	<0.0002	0.0248	20.0	0.0322	0.0000028	0.023	0.0071		7.43	0.00148
RSEM-R6E-EOP	11/13/2019 12:40	WY0310	M	2.2	2.1	0.117	0.00103	0.00132	0.156	<0.0001	<0.001	0.144	0.000037	103	0.0033	0.00126	0.0011	0.062	<0.0002	0.0256	19.9	0.0316	<0.000002	0.0214	0.0069		6.97	0.00146
RSEM-R6E-EOP	11/14/2019 12:45	WY2286	M	2.4	2.1	0.0904	0.00094	0.00123	0.152	<0.0001	<0.001	0.139	0.000033	97.5	0.003	0.00124	0.00108	0.047	<0.0002	0.0247	19.8	0.0311	<0.000002	0.0201	0.007		6.92	0.00142
RSEM-R6E-EOP	11/15/2019 12:15	WY2334	M	1.6	1.9	0.0844	0.00092	0.00122	0.154	<0.0001	<0.001	0.137	0.000039	98.9	0.0029	0.00125	0.00105	0.037	<0.0002	0.0247	20.5	0.0312	<0.000002	0.0197	0.0072		6.74	0.00142
RSEM-R6E-EOP	11/16/2019 12:45	WY5252	M	2.3	1.6	0.0899	0.00091	0.00112	0.153	<0.0001	<0.001	0.126	0.00004	103	0.0029	0.00133	0.00106	0.035	<0.0002	0.0243	21.5	0.0324	<0.000002	0.0195	0.0076		6.66	0.00135
RSEM-R6E-EOP	11/17/2019 13:15	WY5453	M	2.5	1.6	0.0916	0.00081	0.00101	0.145	<0.0001	<0.001	0.12	0.000034	98.8	0.0026	0.00133	0.00109	0.048	<0.0002	0.023	21.5	0.0347	<0.000002	0.0176	0.0076		6.37	0.00128
RSEM-R6E-EOP	11/18/2019 13:25	WY7746	M	2.3	2.2	0.241	0.00059	0.00087	0.139	<0.0001	<0.001	0.105	0.000041	124	0.0057	0.00178	0.00141	0.329	<0.0002	0.0251	24.6	0.0718	<0.000002	0.016	0.0096		7.70	0.00116
RSEM-R6E-EOP	11/19/2019 14:30	WY9704	M	2.7	2.8	0.333	0.00087	0.00128	0.121	<0.0001	<0.001	0.137	0.000101	108	0.0076	0.00341	0.00199	0.338	<0.0002	0.0302	21.9	0.0676	0.0000028	0.0242	0.0144		9.04	0.00157
RSEM-R6E-EOP	11/20/2019 11:40	WZ2233	M	3.0	2.6	0.324	0.00107	0.00147	0.122	<0.0001	<0.001	0.155	0.000097	102	0.0086	0.00323	0.00215	0.221	<0.0002	0.0329	21.1	0.0606	0.0000028	0.0296	0.0135		9.90	0.00189
RSEM-R6E-EOP	11/21/2019 15:15	WZ4247	M	3.0	2.6	0.255	0.00113	0.00164	0.122	<0.0001	<0.001	0.171	0.000092	103	0.0093	0.0034	0.0021	0.18	<0.0002	0.0365	21.4	0.0627	<0.000002	0.0328	0.0139		10.4	0.00199
RSEM-R6E-EOP	11/22/2019 11:20	WZ4473	M	2.3	2.3	0.234	0.00113	0.00156	0.125	<0.0001	<0.001	0.166	0.000091	105	0.0091	0.00343	0.002	0.159	<0.0002	0.036	21.9	0.0644	0.000003	0.0319	0.0141		10.3	0.00191
RSEM-R6E-EOP	11/23/2019 14:30	WZ7700	M	2.4	2.2	0.226	0.00097	0.00134	0.125	<0.0001	<0.001	0.137	0.000084	100	0.0082	0.00322	0.00187	0.113	<0.0002	0.03	21.0	0.0613	<0.000002	0.028	0.0134		9.33	0.00176
RSEM-R6E-EOP	11/24/2019 13:10	WZ7711	M	2.4	2.3	0.162	0.00093	0.00121	0.127	<0.0001	<0.001	0.14	0.00008	103	0.0078	0.00334	0.00186	0.092	<0.0002	0.0301	22.5	0.0621	<0.000002	0.0254	0.0141		9.22	0.0016
RSEM-R6E-EOP	11/25/2019 13:30	XA1641	M	2.03	2.05	0.146	0.00083	0.00117	0.131	<0.0001	<0.001	0.128	0.000083	103	0.007	0.00313	0.0017	0.087	<0.0002	0.0275	23.6	0.0587	0.0000037	0.0239	0.0136		8.53	0.00157
RSEM-R6E-EOP	11/26/2019 13:00	XA1648	M	2.0	1.8	0.177	0.00068	0.00099	0.138	<0.0001	<0.001	0.115	0.00036	99.0	0.0053	0.00361	0.00177	0.137	<0.0002	0.0258	23.6	0.065	0.000002	0.0191	0.0151		7.24	0.00136
RSEM-R6E-EOP	11/27/2019 13:00	XA4487	M	2.3	1.8	0.293	0.00103	0.00142	0.129	<0.0001	<0.001	0.151	0.000105	86.3	0.0045	0.00298	0.00198	0.221	<0.0002	0.0297	20.6	0.0544	0.0000028	0.0213	0.0127		7.28	0.00171
RSEM-R6E-EOP	11/28/2019 11:15	XA6239	M	2.31	2.05	0.442	0.00111	0.00151	0.131	<0.0001	<0.001	0.15	0.000095	81.9	0.0049	0.00311	0.00214	0.263	0.00021	0.0299	21.7	0.0553	<0.000002	0.0228	0.0129		7.77	0.00175
RSEM-R6E-EOP	11/29/2019 11:10	XA6567	M	2.2	1.6	0.369	0.00112	0.0015	0.133	<0.0001	<0.001	0.143	0.000086	83.3	0.0048	0.00315	0.00209	0.202	<0.0002	0.0296	21.7	0.0555	<0.000002	0.0227	0.0133		7.86	0.00189
RSEM-R6E-EOP	11/30/2019 14:05	XA8976	M	2.6	2.1	0.247	0.00115	0.0015	0.136	<0.0001	<0.001	0.167	0.000096	86.8	0.0046	0.00301	0.00186	0.117	<0.0002	0.032	23.2	0.0535	<0.000002	0.0235	0.0129		7.95	0.00177
RSEM-R6E-EOP	12/1/2019 10:25	XA8822	M	2.2	2.2	0.27	0.00112	0.00156	0.135	<0.0001	<0.001	0.174	0.00009	89.5	0.0046	0.00292	0.00194	0.151	<0.0002	0.0329	21.9	0.0521	<0.000002	0.0242	0.0129		7.99	0.00186
RSEM-R6E-EOP	12/2/2019 13:30	XB0714	M	2.5	2.1	0.25	0.00115	0.00158	0.13	<0.0001	<0.001	0.173	0.000083	88.2	0.0043	0.0026	0.00176	0.16	<0.0002	0.0329	21.2	0.0518	<0.000002	0.024	0.0118		8.03	0.00176
RSEM-R6E-EOP	12/3/2019 12:55	XB3098	M	2.54	2.55	0.243	0.00114	0.00157	0.131	<0.0001	<0.001	0.177	0.000064	88.8	0.004	0.0023	0.00182	0.143	<0.0002	0.0341	21.7	0.0525	<0.000002	0.0234	0.011		8.13	0.00168
RSEM-R6E-EOP	12/4/2019 14:05	XB4973	M	2.31	2.54	0.225	0.00116	0.00159	0.134	<0.0001	<0.001	0.169	0.000066	87.2	0.0043	0.00246	0.002	0.134	<0.0002	0.0322	22.8	0.0558	0.0000022	0.0234	0.0114		8.20	0.00176
RSEM-R6E-EOP	12/5/2019 14:35	XB6931	M	2.77	3.11	0.285	0.00113	0.00157	0.133	<0.0001	<0.001	0.172	0.000073	84.3	0.0041	0.00243	0.00202	0.186	<0.0002	0.033	22.8	0.0539	<0.000002	0.0231	0.0115		7.90	0.00176
RSEM-R6E-EOP	12/6/2019 13:05	XB6922	M	3.11	2.73	0.226	0.00108	0.00152	0.132	<0.0001	<0.001	0.169	0.000068	84.6	0.004	0.00248	0.00197	0.157	<0.0002	0.0326	23.4	0.0545	<0.000002	0.0219	0.0114		7.79	0.00174
RSEM-R6E-EOP	12/7/2019 13:05	XB9800	M	2.25	2.44	0.19	0.0011	0.00142	0.131	<0.0001	<0.001	0.16	0.000059	87.0	0.0035	0.00229	0.0019	0.15	<0.0002	0.0337	21.4	0.0555	<0.000002	0.0215	0.0111		7.48	0.00168
RSEM-R6E-EOP	12/8/2019 12:30	XC0038	M	2.46	2.34	0.211	0.00108	0.00148	0.135	<0.0001	<0.001	0.167	0.000054	85.8	0.0035	0.00243	0.00184	0.164	<0.0002	0.0351	23.2	0.0577	0.0000077	0.0211	0.0114		7.42	0.00169
RSEM-R6E-EOP	12/9/2019 11:50	XB9977	M	2.63	2.02	0.213	0.00103	0.00145	0.136	<0.0001	<0.001	0.175	0.000055	87.5	0.003	0.00232	0.00167	0.152	<0.0002	0.038	24.2	0.0666	<0.000002	0.02	0.0109		7.19	0.00166
RSEM-R6E-EOP	12/10/2019 10:10	XC4115	M	2.16	2.41	0.164	0.00103	0.00134	0.136	<0.0001	<0.001	0.169	0.000054	88.8	0.0026	0.00225	0.00152	0.153	<0.0002	0.0329	24.3	0.0755	<0.000002	0.0187	0.0106		6.83	0.00161
RSEM-R6E-EOP	12/11/2019 12:10	XC6932	M	1.48	2.02	0.168	0.00103	0.00139	0.136	<0.0001	<0.001	0.172	0.000053	90.8	0.0026	0.00228	0.0015	0.127	<0.0002	0.0384	23.5	0.0739	0.0000023	0.0191	0.0105		7.04	0.00161
RSEM-R6E-EOP	12/12/2019 13:20	XC8846	M	2.35	2.27	0.15	0.00102	0.00131	0.145	<0.0001	<0.001	0.168	0.00005	99.6	0.0024	0.00219	0.00153	0.113	<0.0002	0.0391	24.0	0.0763	<0.000002	0.0181	0.0107		7.06	0.00152
RSEM-R6E-EOP	12/13/2019 12:30	XD3142	M	2.05	1.94	0.157	0.00099	0.00129	0.143	<0.0001	<0.001	0.156	0.000053	102	0.0024	0.00202	0.00148	0.124	<0.0002	0.0384	23.4	0.0696	<0.000002	0.017	0.01		6.74	0.00141
RSEM-R6E-EOP	12/14/2019 12:50	XD1660	M	2.13	1.55	0.211	0.00095	0.00127	0.146	<0.0001	<0.001	0.162	0.000042	96.0	0.0023	0.00202	0.00154	0.154	0.0002	0.0378	23.6	0.0756	<0.000002	0.0159	0.0098		6.94	0.00141
RSEM-R6E-EOP	12/15/2019 15:10	XD3217	M	2.31	1.85	0.174	0.00093	0.00125	0.157	<0.0001	<0.001	0.161	0.000041	96.7	0.002	0.00186	0.00135	0.131	<0.0002	0.0382	24.2	0.0764	<0.000002	0.0163	0.009		6.54	0.00141
RSEM-R6E-EOP	12/16/2019 14:40	XD3847	M	2.10	1.80	0.164	0.00083	0.00109	0.148	<0.0001	<0.001	0.151	0.000031	83.1	0.0018	0.00161	0.00134	0.171	<0.0002	0.0321	23.2	0.0653	<0.000002	0.0152	0.0079		5.88	0.00135
RSEM-R6E-EOP	12/17/2019 14:10	XD5465	M	2.20	1.70	0.173	0.0009	0.00108	0.157	<0.0001	<0.001	0.162	0.000038	93.4	0.0017	0.00148	0.00129	0.16	<0.0002	0.0356	22.1	0.0684	<0.000002	0.0151	0.0072		5.84	0.00134
RSEM-R6E-EOP	12/18/2019 13:30	XD7330	M	2.10	2.14	0.143	0.00087	0.00107	0.155	<0.0001	<0.001	0.154	0.000032	93.3	0.0017	0.00132	0.00127	0.156	<0.0002	0.0342	21.1	0.0695	<0.000002	0.0145	0.0071		5.56	0.0014
RSEM-R6E-EOP	12/19/2019 13:20	XD9299	M	3.34	1.74	0.139	0.00079	0.00103	0.152	<0.0001	<0.001	0.145	0.000034	81.4	0.0016	0.0012	0.00122	0.136	<0.0002	0.0314	21.5	0.0608	<0.000002	0.0158	0.0059		5.49	0.00127
RSEM-R6E-EOP	12/20/2019 12:50	XD9303	M	2.31	1.83	0.132	0.00077	0.00104	0.145	<0.0001	<0.001	0.137	0.000027	78.0	0.0016	0.00105	0.00118	0.142	<0.0002	0.0297	20.1	0.0573	<0.000002	0.0135	0.0055		5.28	0.00122
RSEM-R6E-EOP	12/21/2019 14:25	XE2848	M	2.79	2.39	0.171	0.0008	0.00109	0.148	<0.0001	<0.001	0.146	0.000025	79.5	0.0017	0.00105	0.00132	0.134	<0.0002	0.0312	20.9	0.0599	<0.000002	0.0135	0.0055		5.40	0.00124
RSEM-R6E-EOP	12/22/2019 12:20	XE2825	M	2.55	2.25	0.145	0.00082	0.00106	0.146	<0.0001	<0.001	0.145	0.000026	78.8	0.0017	0.00101	0.0013	0.126	<0.0002	0.0316	21.3	0.0593	<0.000002	0.0134	0.0054		5.52	0.00122
RSEM-R6E-EOP	12/23/2019 9:20	XE3024	M	2.39	2.57	0.135	0.00081	0.00107	0.15	<0.0001	<0.001	0.147	0.000026	79.9	0.0015	0.00102	0.00125	0.121	<0.0002	0.034	21.1	0.0689	<0.000002	0.0133	0.0052		5.24	0.00123
RSEM-R6E-EOP	12/24/2019 10:50	XE3580	M	2.55	2.4	0.136	0.00076	0.00104	0.144	<0.0001	<0.001	0.141	0.000025	75.9	0.0015	0.0009	0.00121	0.105	<0.0002	0.0307	19.9	0.0516	<0.000002	0.0126	0.0049		4.93	0.00118
RSEM-R6E-EOP	12/25/2019 16:00	XE3944	M	2.40	2.04	0.113	0.00082	0.0011	0.147	<0.0001	<0.001	0.157	0.000021	83.1	0.0016	0.00085	0.00117	0.069	<0.0002	0.0319	21.0	0.0516	<0.000002	0.0139	0.0049		5.14	0.00136
RSEM-R6E-EOP	12/26/2019 14:00	XE3948	M	1.97	2.04	0.118	0.00081	0.0011	0.152	<0.0001	<0.001	0.155	0.000021	83.3	0.0016	0.00088	0.00116	0.077	<0.0002	0.0301	21.2	0.0545	<0.000002	0.0138	0.005		5.14	0.00129
RSEM-R6E-EOP	12/27/2019 10:30	XE3954	M	2.86	2.07	0.113	0.00084	0.00116	0.152	<0.0001	<0.001	0.158	0.00002	82.7	0.0014	0.00096	0.00115	0.064	<0.0002	0.0326	21.2	0.063	<0.000002	0.0141	0.0052		5.26	0.00135
RSEM-R6E-EOP	12/28/2019 14:30	XE5444	M	1.62	1.23	0.178	0.00101	0.00134	0.143	<0.0001	<0.001	0.177	0.00002	74.8	0.001	0.00112	0.00148	0.15	<0.0002	0.0379	21.0	0.083	0.0000024	0.0156	0.0054		5.69	0.00132
RSEM-R6E-EOP	12/29/2019 14:30	XE5392	M	2.21	1.20	0.148	0.00091	0.00129	0.144	<0.0001	<0.001	0.171	0.000021	74.7	0.0011	0.0011	0.00129	0.148	<0.0002	0.0372	21.2	0.096	0.0000021	0.0143	0.0053		5.60	0.00126
RSEM-R6E-EOP	12/30/2019 9:50	XE5424	M	1.85	1.80	0.17	0.00106	0.00135	0.142	<0.0001	<0.001	0.186	0.000024	73.2	0.001	0.0011	0.00141	0.127	<0.0002	0.0386	20.8	0.0754	0.0000024	0.0159	0.0054		5.73	0.00134
RSEM-R6E-EOP	12/31/2019 10:00	XE7176	M	2.17	2.41	0.166	0.00111	0.00132	0.138	<0.0001	<0.001	0.19	0.000022	73.5	<0.001	0.00119	0.00132	0.108	<0.0002	0.0406	20.7	0.0758	<0.000002	0.016	0.0056		5.72	0.00135
RSEM-R6-EP-US-SD	1/16/2019 14:25	VC6520	M	<1.0	1.3	0.502	<0.0005	0.00089	0.145	<0.0001	<0.001	0.074	0.000093	78.4	0.0017	0.00097	0.00249	1.4	0.00124	0.0188	20.5	0.0651	<0.000002	0.0033	0.0037		2.93	0.00101
RSEM-R6-EP-US-SD	2/15/2019 11:08	VF9055	M	3.8	3.2	0.0263	0.00449	0.0143	0.122	<0.0001	<0.001	0.078	0.000031	64.1	<0.001	<0.0002	0.00051	0.048	<0.0002	0.0226	19.0	0.004	0.0000042	0.0034	0.0049		2.79	0.00101
RSEM-R6-EP-US-SD	7/19/2019 8:00	WD4019	M	14	14	55.7	<0.0025	0.0342	4.13	0.00348	<0.005	0.514	0.00592	1300	0.119	0.0688	0.18	136	0.0759	0.246	150	3.7	<0.000002	0.0057	0.227		57.5	0.00219
RSEM-R6E-SP	1/1/2019 12:40	VA5879	M	1.1	1.6	0.0147	<0.0005	0.00048	0.103	<0.0001	<0.001	0.133	0.000025	113	<0.001	0.0007	0.00665	0.022	<0.0002	0.0335	29.9	0.0772	<0.000002	0.0068	0.0058		4.84	0.00157
RSEM-R6E-SP	1/2/2019 12:20	VA7316	M	2.6	2.9	0.0159	<0.0005	0.00041	0.104	<0.0001	<0.001	0.135	0.000026	110	<0.001	0.00061	0.0023	0.024	<0.0002	0.0336	28.0	0.0687	<0.000002	0.0064	0.0054		4.73	0.00139
RSEM-R6E-SP	1/3/2019 13:45	VA8828	M	0.65	<0.50	0.0121	<0.0005	0.0004	0.0988	<0.0001	<0.001	0.134	0.000023	99.4	<0.001	0.00055	0.00089	0.015	<0.0002	0.0335	27.9	0.0641	<0.000002	0.0058	0.0056		4.50	0.00144
RSEM-R6E-SP	1/4/2019 12:45	VA8825	M	<0.50	<0.50	0.0151	<0.0005	0.00041	0.101	<0.0001	<0.001	0.141	0.000025	105	<0.001	0.00061	0.001	0.026	<0.0002	0.036	30.1	0.0649	<0.000002	0.006	0.0066		4.60	0.00157
RSEM-R6E-SP	1/5/2019 13:15	VB1442	M	0.59	2.4	0.0208	<0.0005	0.00034	0.0923	<0.0001	<0.001	0.113	0.000023	101	<0.001	0.00044	0.00086	0.018	<0.0002	0.0288	25.5	0.0449	<0.000002	0.005	0.0045		4.15	0.00135
RSEM-R6E-SP	1/6/2019 12:00	VB1449	M	0.95	<0.50	0.0149	<0.0005	0.00034	0.0921	<0.0001	<0.001	0.113	0.000021	100	<0.001	0.00039	0.00073	0.017	<0.0002	0.0285	25.8	0.0382	<0.000002	0.0052	0.0042		4.17	0.00128
RSEM-R6E-SP	1/7/2019 10:30	VB3249	M	1.0	1.8	0.0147	<0.0005	0.00035	0.0957	<0.0001	<0.001	0.118	0.000023	99.1	<0.001	0.00039	0.00071	0.015	<0.0002	0.0294	25.4	0.0342	<0.000002	0.005	0.004		4.01	0.00144
RSEM-R6E-SP	1/8/2019 11:30	VB4659	M	1.2	1.6	0.0211	<0.0005	0.00036	0.107	<0.0001	<0.001	0.114	0.000025	105	0.0013	0.00047	0.00087	0.054	<0.0002	0.0312	25.7	0.0365	<0.000002	0.0054	0.0049		4.13	0.00134
RSEM-R6E-SP	1/9/2019 11:20	VB6782	M	0.92	1.7	0.0233	<0.0005	0.00031	0.104	<0.0001	<0.001	0.113	0.000027	92.9	<0.001	0.00048	0.00077	0.033	<0.0002	0.0292	23.7	0.0331	<0.000002	0.0051	0.0047		3.88	0.00125
RSEM-R6E-SP	1/10/2019 11:30	VB7972	M	0.95	1.4	0.0316	<0.0005	0.00035	0.0996	<0.0001	<0.001	0.112	0.000027	91.5	<0.001	0.00049	0.00098	0.043	<0.0002	0.0296	25.0	0.0321	<0.000002	0.0049	0.0046		3.83	0.0013
RSEM-R6E-SP	1/11/2019 12:20	VB7977	M	1.1	1.2	0.0255	<0.0005	0.0004	0.0993	<0.0001	<0.001	0.12	0.000026	95.1	<0.001	0.00047	0.00116	0.04	<0.0002	0.0295	24.3	0.0326	<0.000002	0.005	0.0045		3.78	0.00138
RSEM-R6E-SP	1/12/2019 10:55	VC0270	M	1.8	2.1	0.246	<0.0005	0.00059	0.109	<0.0001	<0.001	0.116	0.000039	95.4	<0.001	0.00089	0.00149	0.303	<0.0002	0.0305	25.6	0.0513	<0.000002	0.0052	0.0067		4.15	0.00148
RSEM-R6E-SP	1/13/2019 11:00	VC0275	M	1.7	3.1	0.023	<0.0005	0.00043	0.105	<0.0001	<0.001	0.113	0.000031	92.0	<0.001	0.00067	0.00103	0.05	<0.0002	0.029	25.3	0.0483	<0.000002	0.0055	0.0061		4.06	0.00133

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	11/1/2019 12:15	WV7046	M	4.78	<0.00002	56.3	0.379	36.2	0.000013	<0.005	0.007	0.00136	<0.005	0.0091	0.00021	0.0646	0.00082	0.00105	0.151	<0.0001	<0.001	0.105	0.000031	84.8	0.0062	0.00187	0.00114	<0.01
RSEM-R6E-EOP	11/2/2019 14:00	WW1210	M	9.41	<0.00002	75.9	0.309	35.8	0.000034	<0.005	0.0681	0.00147	0.0097	0.0131	0.00254	0.0455	0.00128	0.00165	0.138	<0.0001	<0.001	0.142	0.000013	71.9	0.0054	0.00085	0.00101	<0.01
RSEM-R6E-EOP	11/4/2019 12:50	WW5974	M	4.78	<0.00002	59.2	2.31	31.0	0.000039	<0.005	0.0085	0.00125	<0.005	0.0066	0.00015	0.047	0.00083	0.00108	0.195	<0.0001	<0.001	0.127	<0.00001	147	0.0039	0.00114	0.00082	<0.01
RSEM-R6E-EOP	11/5/2019 13:55	WW6754	M	5.22	<0.00002	63.9	1.56	32.0	0.000025	<0.005	0.0054	0.00121	<0.005	0.0074	0.00019	0.065	0.00084	0.00106	0.202	<0.0001	<0.001	0.118	0.00003	124	0.0032	0.00144	0.00082	<0.01
RSEM-R6E-EOP	11/6/2019 12:50	WW9551	M	5.15	<0.00002	69.5	1.02	32.8	0.000018	<0.005	<0.005	0.00117	<0.005	0.0073	0.00019	0.0727	0.00092	0.0013	0.17	<0.0001	<0.001	0.128	0.000012	97.1	0.0032	0.00129	0.00084	<0.01
RSEM-R6E-EOP	11/7/2019 12:30	WX2023	M	5.23	<0.00002	76.6	1.06	35.7	0.000017	<0.005	<0.005	0.00122	<0.005	0.0065	0.00012	0.0648	0.00105	0.00138	0.158	<0.0001	<0.001	0.146	0.000032	104	0.0035	0.00132	0.00096	<0.01
RSEM-R6E-EOP	11/8/2019 11:35	WX1858	M	5.36	<0.00002	83.6	1.1	39.5	0.000022	<0.005	<0.005	0.00124	<0.005	0.0074	<0.0001	0.0631	0.00112	0.00147	0.157	<0.0001	<0.001	0.158	0.000027	102	0.0036	0.00124	0.00095	<0.01
RSEM-R6E-EOP	11/9/2019 13:30	WX3314	M	5.54	<0.00002	83.3	1.1	37.6	0.000022	<0.005	<0.005	0.00125	<0.005	0.0068	0.00039	0.069	0.00109	0.00141	0.16	<0.0001	<0.001	0.159	0.000037	110	0.0035	0.00127	0.00098	<0.01
RSEM-R6E-EOP	11/10/2019 12:15	WX5925	M	5.14	<0.00002	78.7	1.09	38.3	0.000019	<0.005	<0.005	0.00125	<0.005	0.006	<0.0001	0.07	0.00116	0.00148	0.169	<0.0001	<0.001	0.15	0.000033	109	0.0034	0.00117	0.00094	<0.01
RSEM-R6E-EOP	11/11/2019 10:50	WX5916	M	4.92	<0.00002	77.0	1.09	34.8	0.000018	<0.005	<0.005	0.00127	<0.005	0.0055	<0.0001	0.0666	0.00111	0.00138	0.165	<0.0001	<0.001	0.155	<0.00001	101	0.0034	0.00101	0.00087	<0.01
RSEM-R6E-EOP	11/12/2019 12:35	WX7840	M	4.81	<0.00002	78.5	1.09	36.2	0.000019	<0.005	<0.005	0.00133	<0.005	0.0056	<0.0001	0.0601	0.00108	0.00139	0.16	<0.0001	<0.001	0.15	0.000026	105	0.0033	0.00118	0.00091	<0.01
RSEM-R6E-EOP	11/13/2019 12:40	WY0310	M	5.25	<0.00002	75.6	1.04	36.1	0.000017	<0.005	<0.005	0.00123	<0.005	0.0055	0.00024	0.0632	0.00102	0.00133	0.157	<0.0001	<0.001	0.146	<0.00001	101	0.0032	0.00109	0.00083	<0.01
RSEM-R6E-EOP	11/14/2019 12:45	WY2286	M	4.55	<0.00002	74.0	0.99	35.5	0.000013	<0.005	<0.005	0.00118	<0.005	0.0056	<0.0001	0.0591	0.00101	0.00127	0.161	<0.0001	<0.001	0.147	0.000033	105	0.003	0.00121	0.00087	<0.01
RSEM-R6E-EOP	11/15/2019 12:15	WY2334	M	4.54	<0.00002	74.6	0.973	35.0	0.000014	<0.005	<0.005	0.00124	<0.005	0.0053	<0.0001	0.0561	0.00094	0.00123	0.157	<0.0001	<0.001	0.145	0.000031	104	0.0029	0.00121	0.00086	<0.01
RSEM-R6E-EOP	11/16/2019 12:45	WY5252	M	4.87	<0.00002	71.7	0.998	37.7	0.000019	<0.005	<0.005	0.00129	<0.005	0.0056	<0.0001	0.0551	0.00089	0.00114	0.151	<0.0001	<0.001	0.138	0.000035	103	0.0028	0.00123	0.00088	<0.01
RSEM-R6E-EOP	11/17/2019 13:15	WY5453	M	4.58	<0.00002	68.3	0.958	36.6	0.000016	<0.005	<0.005	0.00125	<0.005	0.0057	<0.0001	0.0491	0.00082	0.00104	0.147	<0.0001	<0.001	0.131	0.000031	101	0.0026	0.00123	0.00084	<0.01
RSEM-R6E-EOP	11/18/2019 13:25	WY7746	M	4.78	<0.00002	55.9	1.32	38.1	0.000018	<0.005	0.0065	0.00138	<0.005	0.0059	0.00019	0.0291	0.00059	0.00075	0.131	<0.0001	<0.001	0.106	0.000019	122	0.0054	0.00154	0.00085	<0.01
RSEM-R6E-EOP	11/19/2019 14:30	WY9704	M	4.7	<0.00002	80.5	1.11	46.9	0.000021	<0.005	0.006	0.00141	<0.005	0.0152	0.00027	0.0836	0.00091	0.00109	0.118	<0.0001	<0.001	0.133	0.000092	113	0.0074	0.00337	0.00129	<0.01
RSEM-R6E-EOP	11/20/2019 11:40	WZ2233	M	4.89	<0.00002	95.9	1.07	51.1	0.000018	<0.005	<0.005	0.00146	<0.005	0.0151	0.00018	0.109	0.00113	0.00139	0.115	<0.0001	<0.001	0.152	0.000075	103	0.0083	0.00298	0.00137	<0.01
RSEM-R6E-EOP	11/21/2019 15:15	WZ4247	M	5.27	<0.00002	98.7	1.12	52.8	0.000016	<0.005	<0.005	0.00159	<0.005	0.0139	0.00018	0.101	0.00115	0.00142	0.112	<0.0001	<0.001	0.159	0.000074	98.9	0.0089	0.00319	0.00156	<0.01
RSEM-R6E-EOP	11/22/2019 11:20	WZ4473	M	5.3	<0.00002	96.8	1.14	53.0	0.000016	<0.005	<0.005	0.00158	<0.005	0.0131	0.00014	0.0968	0.00108	0.00135	0.116	<0.0001	<0.001	0.157	0.000072	100	0.0086	0.00323	0.00153	<0.01
RSEM-R6E-EOP	11/23/2019 14:30	WZ7700	M	4.82	<0.00002	84.9	1.03	47.3	0.000018	<0.005	<0.005	0.00157	<0.005	0.0121	0.00014	0.0873	0.00098	0.00129	0.125	<0.0001	<0.001	0.148	0.000075	106	0.0079	0.00306	0.0013	<0.01
RSEM-R6E-EOP	11/24/2019 13:10	WZ7711	M	4.6	<0.00002	83.5	1	47.9	0.000017	<0.005	<0.005	0.00159	<0.005	0.0128	0.00012	0.0837	0.00093	0.00113	0.123	<0.0001	<0.001	0.138	0.000073	106	0.007	0.00285	0.0013	<0.01
RSEM-R6E-EOP	11/25/2019 13:30	XA1641	M	4.61	<0.00002	81.1	0.99	46.8	0.000016	<0.005	<0.005	0.0015	<0.005	0.0121	<0.0001	0.081	0.00084	0.00104	0.127	<0.0001	<0.001	0.127	0.000073	109	0.0065	0.00281	0.00121	<0.01
RSEM-R6E-EOP	11/26/2019 13:00	XA1648	M	4.48	<0.00002	70.7	0.818	44.3	0.000014	<0.005	<0.005	0.00146	<0.005	0.0175	0.00011	0.0911	0.00072	0.00089	0.134	<0.0001	<0.001	0.119	0.000094	108	0.0049	0.00337	0.0012	<0.01
RSEM-R6E-EOP	11/27/2019 13:00	XA4487	M	5.06	<0.00002	90.6	0.621	47.0	0.000015	<0.005	<0.005	0.00139	<0.005	0.0165	0.0002	0.122	0.00103	0.00131	0.122	<0.0001	<0.001	0.164	0.00007	86.7	0.0042	0.00259	0.00117	<0.01
RSEM-R6E-EOP	11/28/2019 11:15	XA6239	M	5.38	<0.00002	99.4	0.593	49.9	0.000017	<0.005	0.0071	0.00151	<0.005	0.0168	0.00031	0.113	0.00113	0.00144	0.119	<0.0001	<0.001	0.154	0.000067	84.9	0.0044	0.00267	0.00127	<0.01
RSEM-R6E-EOP	11/29/2019 11:10	XA6567	M	5.22	<0.00002	98.7	0.595	49.3	0.000016	<0.005	0.0051	0.00153	<0.005	0.0166	0.00024	0.106	0.00105	0.00144	0.12	<0.0001	<0.001	0.159	0.000073	85.0	0.0042	0.00265	0.00122	<0.01
RSEM-R6E-EOP	11/30/2019 14:05	XA8976	M	5.41	<0.00002	107	0.606	52.7	0.000014	<0.005	<0.005	0.00158	<0.005	0.0155	0.00016	0.111	0.00112	0.00145	0.127	<0.0001	<0.001	0.143	0.000074	85.8	0.0045	0.00289	0.00132	<0.01
RSEM-R6E-EOP	12/1/2019 10:25	XA8822	M	5.84	<0.00002	104	0.645	51.6	0.000015	<0.005	<0.005	0.00153	<0.005	0.0158	0.00019	0.112	0.00111	0.00147	0.125	<0.0001	<0.001	0.148	0.000075	86.0	0.0044	0.00282	0.0013	<0.01
RSEM-R6E-EOP	12/2/2019 13:30	XB0714	M	5.57	<0.00002	105	0.644	51.0	0.000015	<0.005	<0.005	0.0015	<0.005	0.0134	0.00015	0.116	0.00115	0.00154	0.125	<0.0001	<0.001	0.173	0.000069	86.4	0.0042	0.00244	0.00128	<0.01
RSEM-R6E-EOP	12/3/2019 12:55	XB3098	M	5.62	<0.00002	109	0.63	51.2	0.000015	<0.005	<0.005	0.00147	<0.005	0.0121	0.00035	0.0995	0.00112	0.00153	0.122	<0.0001	<0.001	0.178	0.000059	88.9	0.0037	0.00203	0.00122	<0.01
RSEM-R6E-EOP	12/4/2019 14:05	XB4973	M	5.36	<0.00002	109	0.614	51.6	0.000014	<0.005	<0.005	0.00161	<0.005	0.0124	0.00014	0.0942	0.00116	0.00152	0.124	<0.0001	<0.001	0.173	0.000057	88.0	0.0038	0.00218	0.00133	<0.01
RSEM-R6E-EOP	12/5/2019 14:35	XB6931	M	5.45	<0.00002	111	0.584	50.0	0.000014	<0.005	<0.005	0.00159	<0.005	0.0116	0.00016	0.0969	0.00113	0.00148	0.124	<0.0001	<0.001	0.166	0.000057	85.8	0.0037	0.00206	0.00134	<0.01
RSEM-R6E-EOP	12/6/2019 13:05	XB6922	M	5.36	<0.00002	110	0.574	50.5	0.000015	<0.005	<0.005	0.00156	<0.005	0.0118	0.00019	0.0935	0.00112	0.0015	0.127	<0.0001	<0.001	0.164	0.000056	87.8	0.0035	0.00214	0.00132	<0.01
RSEM-R6E-EOP	12/7/2019 13:05	XB9800	M	5.6	<0.00002	100	0.579	46.6	0.000015	<0.005	<0.005	0.00172	<0.005	0.012	0.00015	0.0841	0.00111	0.00143	0.131	<0.0001	<0.001	0.157	0.000057	87.8	0.0033	0.00211	0.00128	<0.01
RSEM-R6E-EOP	12/8/2019 12:30	XC0038	M	5.9	<0.00002	112	0.547	50.7	0.000013	<0.005	<0.005	0.00162	<0.005	0.0113	0.00016	0.0819	0.00108	0.00142	0.131	<0.0001	<0.001	0.158	0.000052	87.1	0.003	0.00212	0.00121	<0.01
RSEM-R6E-EOP	12/9/2019 11:50	XB9977	M	6.1	<0.00002	118	0.561	52.8	0.000013	<0.005	<0.005	0.00167	<0.005	0.0111	0.00014	0.0809	0.00104	0.00135	0.129	<0.0001	<0.001	0.156	0.000038	86.7	0.0026	0.00212	0.00102	<0.01
RSEM-R6E-EOP	12/10/2019 10:10	XC4115	M	5.48	<0.00002	120	0.532	52.3	0.000011	<0.005	<0.005	0.00171	<0.005	0.0114	0.00013	0.0716	0.00097	0.00125	0.124	<0.0001	<0.001	0.155	0.00004	85.9	0.0022	0.00205	0.00094	<0.01
RSEM-R6E-EOP	12/11/2019 12:10	XC6932	M	6.29	<0.00002	116	0.568	54.1	0.000013	<0.005	<0.005	0.00163	<0.005	0.0105	0.00012	0.0747	0.00099	0.00132	0.131	<0.0001	<0.001	0.171	0.000041	91.0	0.0023	0.00202	0.00104	<0.01
RSEM-R6E-EOP	12/12/2019 13:20	XC8846	M	5.93	<0.00002	118	0.489	52.5	0.000011	<0.005	<0.005	0.00154	<0.005	0.0107	<0.0001	0.0248	0.00106	0.00132	0.147	<0.0001	<0.001	0.186	0.000032	114	0.0022	0.00198	0.00083	<0.01
RSEM-R6E-EOP	12/13/2019 12:30	XD3142	M	5.72	<0.00002	114	0.466	51.3	0.000012	<0.005	<0.005	0.00149	<0.005	0.0102	0.00014	0.0775	0.00107	0.0013	0.151	<0.0001	<0.001	0.185	0.000046	104	0.0023	0.00196	0.001	<0.01
RSEM-R6E-EOP	12/14/2019 12:50	XD1660	M	5.92	<0.00002	117	0.451	52.0	0.000016	<0.005	<0.005	0.00148	<0.005	0.0104	0.00013	0.0712	0.00103	0.00118	0.155	<0.0001	<0.001	0.177	0.000044	103	0.002	0.00187	0.00096	<0.01
RSEM-R6E-EOP	12/15/2019 15:10	XD3217	M	5.99	<0.00002	118	0.446	49.3	0.000011	<0.005	<0.005	0.00154	<0.005	0.009	<0.0001	0.0693	0.001	0.00116	0.156	<0.0001	<0.001	0.174	0.000038	94.7	0.0019	0.00173	0.0009	<0.01
RSEM-R6E-EOP	12/16/2019 14:40	XD3847	M	5.45	<0.00002	110	0.422	44.5	0.00001	<0.005	<0.005	0.00158	<0.005	0.0079	0.00012	0.0564	0.00088	0.00105	0.147	<0.0001	<0.001	0.145	0.000029	83.3	0.0015	0.00148	0.00087	<0.01
RSEM-R6E-EOP	12/17/2019 14:10	XD5465	M	5.97	<0.00002	111	0.407	44.0	0.000013	<0.005	<0.005	0.00153	<0.005	0.0078	0.00015	0.0614	0.0009	0.00105	0.156	<0.0001	<0.001	0.165	0.000028	102	0.0015	0.00137	0.00077	<0.01
RSEM-R6E-EOP	12/18/2019 13:30	XD7330	M	5.86	<0.00002	105	0.399	41.6	0.000012	<0.005	<0.005	0.00151	<0.005	0.007	0.00014	0.0561	0.00088	0.00108	0.154	<0.0001	<0.001	0.169	0.000027	95.2	0.0014	0.00131	0.00084	<0.01
RSEM-R6E-EOP	12/19/2019 13:20	XD9299	M	5.3	<0.00002	103	0.398	39.5	0.000011	<0.005	<0.005	0.00156	<0.005	0.0062	0.00011	0.0463	0.00081	0.00105	0.15	<0.0001	<0.001	0.155	0.000025	86.5	0.0014	0.00115	0.00085	<0.01
RSEM-R6E-EOP	12/20/2019 12:50	XD9303	M	5.13	<0.00002	97.3	0.376	37.4	0.000011	<0.005	<0.005	0.00151	<0.005	0.0057	0.00015	0.0435	0.00084	0.00109	0.149	<0.0001	<0.001	0.153	0.000024	86.0	0.0014	0.00104	0.00084	<0.01
RSEM-R6E-EOP	12/21/2019 14:25	XE2848	M	5.83	<0.00002	104	0.378	39.8	0.00001	<0.005	<0.005	0.0015	<0.005	0.0059	0.00016	0.0507	0.00081	0.00105	0.145	<0.0001	<0.001	0.158	0.000022	82.9	0.0014	0.00086	0.00084	<0.01
RSEM-R6E-EOP	12/22/2019 12:20	XE2825	M	5.95	<0.00002	107	0.369	41.1	0.000011	<0.005	<0.005	0.00153	<0.005	0.006	0.00016	0.0535	0.00083	0.00104	0.146	<0.0001	<0.001	0.158	0.000021	82.5	0.0014	0.00088	0.00081	<0.01
RSEM-R6E-EOP	12/23/2019 9:20	XE3024	M	5.82	<0.00002	104	0.381	39.4	0.00001	<0.005	0.0081	0.00155	<0.005	0.0052	0.00015	0.0569	0.00084	0.00106	0.145	<0.0001	<0.001	0.158	0.000017	82.9	0.0012	0.00089	0.0009	<0.01
RSEM-R6E-EOP	12/24/2019 10:50	XE3580	M	5.66	<0.00002	100	0.341	38.0	0.00001	<0.005	<0.005	0.00148	<0.005	0.0051	0.00011	0.0584	0.00082	0.00102	0.145	<0.0001	<0.001	0.162	0.000018	81.0	0.0013	0.00083	0.00081	<0.01
RSEM-R6E-EOP	12/25/2019 16:00	XE3944	M	5.66	<0.00002	108	0.377	41.4	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	0.00011	0.0571	0.0008	0.00108	0.145	<0.0001	<0.001	0.155	0.00002	81.1	0.0013	0.00081	0.00084	<0.01
RSEM-R6E-EOP	12/26/2019 14:00	XE3948	M	5.54	<0.00002	111	0.37	40.4	0.000011	<0.005	<0.005	0.00146	<0.005	0.0051	0.00011	0.0569	0.00083	0.00111	0.148	<0.0001	<0.001	0.155	0.000018	82.4	0.0013	0.00081	0.00078	<0.01
RSEM-R6E-EOP	12/27/2019 10:30	XE3954	M	5.46	<0.00002	115	0.375	43.0	0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	0.00011	0.0612	0.00083	0.00108	0.146	<0.0001	<0.001	0.162	0.000015	80.6	0.0012	0.00085	0.00078	<0.01
RSEM-R6E-EOP	12/28/2019 14:30	XE5444	M	5.77	<0.00002	124	0.352	44.6	0.000012	<0.005	<0.005	0.00159	<0.005	0.0063	0.00012	0.0521	0.00097	0.00122	0.135	<0.0001	<0.001	0.183	0.000017	76.2	<0.001	0.00102	0.00082	<0.01
RSEM-R6E-EOP	12/29/2019 14:30	XE5392	M	5.47	<0.00002	120	0.372	43.5	0.000011	<0.005	<0.005	0.00159	<0.005	0.0062	0.00011	0.0487	0.00092	0.00115	0.14	<0.0001	<0.001	0.173	0.000017	77.7	<0.001	0.00102	0.00072	<0.01
RSEM-R6E-EOP	12/30/2019 9:50	XE5424	M	5.43	<0.00002	126	0.346	44.8	0.000012	<0.005	<0.005	0.00159	<0.005	0.0064	0.00012	0.056	0.00102	0.00123	0.136	<0.0001	<0.001	0.181	0.000018	74.6	<0.001	0.00101	0.00081	<0.01
RSEM-R6E-EOP	12/31/2019 10:00	XE7176	M	5.5	<0.00002	127	0.342	45.2	0.000013	<0.005	<0.005	0.00161	<0.005	0.0068	0.00016	0.068	0.00115	0.00127	0.137	<0.0001	<0.001	0.194	0.000016	74.0	<0.001	0.00106	0.00088	<0.01
RSEM-R6-EP-US-SD	1/16/2019 14:25	VC6520	M	3.89	<0.00002	48.7	0.453	21.1	0.000019	<0.005	0.0132	0.00138	<0.005	0.011	0.00033	0.0093	<0.0005	0.00021	0.0952	<0.0001	<0.001	0.09	<0.00001	74.0	<0.001	<0.0002	<0.0005	<0.01
RSEM-R6-EP-US-SD	2/15/2019 11:08	VF9055	M	3.94	<0.00002	50.4	0.378	16.5	<0.00001	<0.005	<0.005	0.00119	<0.005	0.0469	<0.0001	0.0035	0.00444	0.0141	0.12	<0.0001	<0.001	0.075	0.000014	63.0	<0.001	<0.0002	<0.0005	<0.01
RSEM-R6-EP-US-SD	7/19/2019 8:00	WD4019	M	80.7	0.00082	95.0	25.6	93	0.00127	<0.025	0.506	0.0118	0.152	1.09	0.00443	<0.015	<0.0025	0.00053	0.537	<0.0005	<0.005	0.441	0.000173	1040	<0.005	0.0027	<0.0025	<0.05
RSEM-R6E-SP	1/1/2019 12:40	VA5879	M	5.2	<0.00002	81.5	0.587	46.0	0.000017	<0.005	<0.005	0.00189	<0.005	0.0287	<0.0001	0.0195	<0.0005	0.00043	0.0931	<0.0001	<0.001	0.127	0.000023	103	<0.001	0.00066	0.00101	0.012
RSEM-R6E-SP	1/2/2019 12:20	VA7316	M	5.15	<0.00002	76.3	0.588	44.6	0.000018	<0.005	<0.005	0.00182	<0.005	0.059	<0.0001	0.0074	<0.0005	0.00041	0.0941	<0.0001	<0.001	0.117	0.000022	99.8	<0.001	0.00057	0.00197	<0.01
RSEM-R6E-SP	1/3/2019 13:45	VA8828	M	4.58	<0.00002	74.9	0.592	40.2	0.000011	<0.005	<0.005	0.00176	<0.005	0.0565	<0.0001	0.0067	<0.0005	0.00042	0.0939	<0.0001	<0.001	0.121	0.000022	102	<0.001	0.00053	0.00081	<0.01
RSEM-R6E-SP	1/4/2019 12:45	VA8825	M	4.74	<0.00002	80.8	0.606	43.8	<0.00001	<0.005	<0.005	0.00184	<0.005	0.035	<0.0001	0.0056	<0.0005	0.00042	0.0955	<0.0001	<0.001	0.118	0.000022	100	<0.001	0.00056	0.00063	<0.01
RSEM-R6E-SP	1/5/2019 13:15	VB1442	M	4.65	<0.00002	68.9	0.504	36.9	0.000014	<0.005	<0.005	0.00154	<0.005	0.0277	<0.0001	0.0072	<0.0005	0.00039	0.0966	<0.0001	<0.001	0.124	0.000025	109	<0.001	0.00042	0.00062	<0.01
RSEM-R6E-SP	1/6/2019 12:00	VB1449	M	4.69	<0.00002	70.0	0.493	35.4	0.000013	<0.005	<0.005	0.00153	<0.005	0.0353	<0.0001	0.0065	<0.0005	0.00036	0.0977	<0.0001	<0.001	0.122	0.000024	103	<0.001	0.00035	0.0006	<0.01
RSEM-R6E-SP	1/7/2019 10:30	VB3249	M	4.7	<0.00002	68.8	0.49	31.4	0.000012	<0.005	<0.005	0.00153	<0.005	0.0382	<0.0001	0.0083	<0.0005	0.00032	0.0943	<0.0001	<0.001	0.109	0.000019	95.9	<0.001	0.00034	0.0007	<0.01
RSEM-R6E-SP	1/8/2019 11:30	VB4659	M	4.79	<0.00002	72.1	0.517	34.8	0.000015	<0.005	<0.005	0.00167	<0.005	0.0381	<0.0001	0.0051	<0.0005	0.00035	0.0966	<0.0001	<0.001	0.113	0.000025	95.7	<0.001	0.00042	0.00068	<0.01
RSEM-R6E-SP	1/9/2019 11:20	VB6782	M	4.49	<0.00002	65.1	0.507	35.2	0.000014	<0.005	<0.005	0.00151	<0.005	0.0483	<0.0001	0.0056	<0.0005	0.00032	0.0999	<0.0001	<0.001	0.108	0.000025	98.0	<0.001	0.00046	0.00084	<0.01
RSEM-R6E-SP	1/10/2019 11:30	VB7972	M	4.33	<0.00002	64.2	0.493	33.6	0.000013	<0.005	<0.005	0.00158	<0.005	0.0552	<0.0001	0.0036	<0.0005	0.00034	0.0915	<0.0001	<0.001	0.119	<0.00001	85.7	<0.001	0.00028	<0.0005	<0.01
RSEM-R6E-SP	1/11/2019 12:20	VB7977	M	4.51	<0.00002	63.4	0.491	33.9	0.000014	<0.005	<0.005	0.00153	<0.005	0.0744	<0.0001	0.0033	<0.0005	0.00037	0.0913	<0.0001	<0.001	0.123	<0.00001	85.6	<0.001	0.0003	<0.0005	<0.01
RSEM-R6E-SP	1/12/2019 10:55	VC0270	M	4.41	<0.00002	68.5	0.509	38.3	0.000017	<0.005	0.0054	0.00167	<0.005	0.0541	0.00038	0.0136	<0.0005	0.00033	0.089	<0.0001	<0.001	0.112	0.000029	87.7	<0.001	0.00059	0.00082	<0.01
RSEM-R6E-SP	1/13/2019 11:00	VC0275	M	4.15	<0.00002	69.6	0.512	38.7	0.000012	<0.005	<0.005	0.00164	<0.005	0.0436	<0.0001	0.0063	<0.0005	0.00034	0.0898	<0.0001	<0.001	0.115	0.000027	83.5	<0.001	0.0006	0.0007	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-EOP	11/1/2019 12:15	WV7046	M	<0.0002	0.02	19.1	0.029	<0.000002	0.0194	0.0093		6.06	0.00125	4.69	<0.00002	54.4	0.386	36.0	<0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	11/2/2019 14:00	WW1210	M	<0.0002	0.0211	15.7	0.0112	<0.000002	0.0254	0.0054		6.45	0.00181	5.09	<0.00002	78.0	0.301	37.3	<0.00001	<0.005	<0.005	0.00137	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	11/4/2019 12:50	WW5974	M	<0.0002	0.0288	24.2	0.0278	<0.000002	0.0172	0.0072		8.42	0.00134	4.49	<0.00002	59.4	2.2	31.0	0.000033	<0.005	<0.005	0.00117	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	11/5/2019 13:55	WW6754	M	<0.0002	0.0264	21.3	0.0411	<0.000002	0.0179	0.0073		7.26	0.00115	4.76	<0.00002	61.1	1.62	32.3	0.000022	<0.005	<0.005	0.00119	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	11/6/2019 12:50	WW9551	M	<0.0002	0.0248	19.9	0.025	<0.000002	0.0202	0.0065		6.90	0.00135	5.17	<0.00002	70.5	1.11	35.0	0.000017	<0.005	<0.005	0.00122	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	11/7/2019 12:30	WX2023	M	<0.0002	0.025	19.8	0.0257	<0.000002	0.0227	0.0066		7.28	0.00161	5.02	<0.00002	80.3	1.09	36.6	0.000016	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	11/8/2019 11:35	WX1858	M	<0.0002	0.028	20.4	0.0233	<0.000002	0.0239	0.0064		7.51	0.00164	5.33	<0.00002	83.7	1.12	37.1	0.000015	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	11/9/2019 13:30	WX3314	M	<0.0002	0.0275	19.3	0.0237	<0.000002	0.0228	0.0066		7.30	0.00161	5.53	<0.00002	78.1	1.02	37.6	0.000018	<0.005	<0.005	0.0012	<0.005	0.0051	<0.0001
RSEM-R6E-EOP	11/10/2019 12:15	WX5925	M	<0.0002	0.0302	19.8	0.0233	<0.000002	0.0237	0.0064		8.02	0.00141	5.48	<0.00002	79.4	1.1	41.8	0.00002	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	11/11/2019 10:50	WX5916	M	<0.0002	0.0271	20.6	0.0156	<0.000002	0.0234	0.0064		7.55	0.00161	5.33	<0.00002	84.3	1.09	39.0	0.000016	<0.005	<0.005	0.00124	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	11/12/2019 12:35	WX7840	M	<0.0002	0.0264	20.8	0.0221	0.0000029	0.023	0.0066		7.35	0.00151	5.07	<0.00002	81.9	1.08	38.0	0.000017	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	11/13/2019 12:40	WY0310	M	<0.0002	0.0273	21.2	0.0186	<0.000002	0.0222	0.0068		7.34	0.0015	5.26	<0.00002	79.8	1.08	38.3	0.000016	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	11/14/2019 12:45	WY2286	M	<0.0002	0.0276	21.3	0.0256	<0.000002	0.0212	0.0069		7.14	0.00139	5.16	<0.00002	77.5	1.07	37.2	0.000015	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	11/15/2019 12:15	WY2334	M	<0.0002	0.0276	21.2	0.0256	<0.000002	0.0206	0.0069		6.83	0.00133	5.04	<0.00002	74.0	1.03	36.2	0.000015	<0.005	<0.005	0.00127	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	11/16/2019 12:45	WY5252	M	<0.0002	0.0264	21.9	0.0263	<0.000002	0.0195	0.0075		6.73	0.0014	4.76	<0.00002	75.4	0.993	37.2	0.000017	<0.005	<0.005	0.00132	<0.005	0.0051	<0.0001
RSEM-R6E-EOP	11/17/2019 13:15	WY5453	M	<0.0002	0.0254	21.8	0.0277	<0.000002	0.0181	0.0075		6.43	0.00128	4.59	<0.00002	71.5	0.931	36.0	0.000016	<0.005	<0.005	0.00127	<0.005	0.005	<0.0001
RSEM-R6E-EOP	11/18/2019 13:25	WY7746	M	<0.0002	0.0266	24.8	0.0568	<0.000002	0.0162	0.0089		7.73	0.00116	4.38	<0.00002	56.7	1.3	38.9	0.000016	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	11/19/2019 14:30	WY9704	M	<0.0002	0.0313	22.6	0.0542	<0.000002	0.0256	0.0142		9.40	0.0016	4.35	<0.00002	82.7	1.16	48.7	0.000015	<0.005	<0.005	0.00148	<0.005	0.0106	<0.0001
RSEM-R6E-EOP	11/20/2019 11:40	WZ2233	M	<0.0002	0.0352	21.4	0.0433	<0.000002	0.0299	0.013		10.1	0.00188	4.56	<0.00002	96.6	1.06	52.1	0.000014	<0.005	<0.005	0.00151	<0.005	0.0077	<0.0001
RSEM-R6E-EOP	11/21/2019 15:15	WZ4247	M	<0.0002	0.0329	21.8	0.0476	<0.000002	0.0311	0.0134		10.1	0.00187	4.75	<0.00002	99.4	1.09	52.4	0.000016	<0.005	<0.005	0.00153	<0.005	0.0098	<0.0001
RSEM-R6E-EOP	11/22/2019 11:20	WZ4473	M	<0.0002	0.0334	22.5	0.0503	<0.000002	0.0299	0.0138		9.90	0.00182	4.73	<0.00002	95.4	1.09	52.1	0.000017	<0.005	<0.005	0.00156	<0.005	0.0099	<0.0001
RSEM-R6E-EOP	11/23/2019 14:30	WZ7700	M	<0.0002	0.0341	22.2	0.0505	<0.000002	0.0283	0.0132		9.54	0.00177	4.93	<0.00002	86.4	1.1	50.3	0.000014	<0.005	<0.005	0.00155	<0.005	0.0096	<0.0001
RSEM-R6E-EOP	11/24/2019 13:10	WZ7711	M	<0.0002	0.0291	22.2	0.047	<0.000002	0.0255	0.0129		9.03	0.00163	4.5	<0.00002	85.8	0.978	48.3	0.000014	<0.005	<0.005	0.00143	<0.005	0.0092	<0.0001
RSEM-R6E-EOP	11/25/2019 13:30	XA1641	M	<0.0002	0.0289	22.7	0.0456	<0.000002	0.024	0.0129		8.80	0.00156	4.58	<0.00002	81.4	0.972	47.6	0.000013	<0.005	<0.005	0.00144	<0.005	0.0091	<0.0001
RSEM-R6E-EOP	11/26/2019 13:00	XA1648	M	<0.0002	0.0273	23.2	0.0545	<0.000002	0.0192	0.0147		7.50	0.00142	4.58	<0.00002	73.1	0.78	45.4	0.000011	<0.005	<0.005	0.00144	<0.005	0.0133	<0.0001
RSEM-R6E-EOP	11/27/2019 13:00	XA4487	M	<0.0002	0.0308	20.5	0.0383	<0.000002	0.0219	0.012		7.24	0.00173	4.79	<0.00002	92.2	0.634	46.9	0.000011	<0.005	<0.005	0.00142	<0.005	0.0089	<0.0001
RSEM-R6E-EOP	11/28/2019 11:15	XA6239	M	<0.0002	0.0294	21.0	0.0374	<0.000002	0.0226	0.0123		7.73	0.00178	4.53	<0.00002	101	0.601	48.3	0.000013	<0.005	<0.005	0.00146	<0.005	0.0103	<0.0001
RSEM-R6E-EOP	11/29/2019 11:10	XA6567	M	<0.0002	0.0303	20.2	0.0374	<0.000002	0.0229	0.012		7.37	0.00174	4.53	<0.00002	94.9	0.599	48.4	<0.00001	<0.005	<0.005	0.00146	<0.005	0.0103	<0.0001
RSEM-R6E-EOP	11/30/2019 14:05	XA8976	M	<0.0002	0.0289	21.9	0.0388	<0.000002	0.0233	0.0126		8.03	0.00178	4.66	<0.00002	102	0.621	50.7	0.000012	<0.005	<0.005	0.00166	<0.005	0.011	<0.0001
RSEM-R6E-EOP	12/1/2019 10:25	XA8822	M	<0.0002	0.0296	21.9	0.0378	<0.000002	0.0239	0.0124		8.17	0.00186	4.7	<0.00002	102	0.625	50.1	0.000014	<0.005	<0.005	0.0017	<0.005	0.0106	<0.0001
RSEM-R6E-EOP	12/2/2019 13:30	XB0714	M	<0.0002	0.0333	23.8	0.0368	0.0000032	0.0242	0.0115		8.45	0.00184	5.1	<0.00002	113	0.607	54.1	0.000012	<0.005	<0.005	0.00157	<0.005	0.0093	<0.0001
RSEM-R6E-EOP	12/3/2019 12:55	XB3098	M	<0.0002	0.0332	20.9	0.0359	<0.000002	0.024	0.0101		7.96	0.00177	5.37	<0.00002	106	0.638	51.1	0.000013	<0.005	<0.005	0.0015	<0.005	0.0075	<0.0001
RSEM-R6E-EOP	12/4/2019 14:05	XB4973	M	<0.0002	0.0335	21.6	0.0402	<0.000002	0.0241	0.0108		7.96	0.00178	5.34	<0.00002	108	0.634	49.9	0.000015	<0.005	<0.005	0.00155	<0.005	0.0079	<0.0001
RSEM-R6E-EOP	12/5/2019 14:35	XB6931	M	<0.0002	0.0339	23.1	0.0363	<0.000002	0.023	0.0104		7.83	0.00176	5.36	<0.00002	109	0.598	51.0	0.000013	<0.005	<0.005	0.00164	<0.005	0.0074	<0.0001
RSEM-R6E-EOP	12/6/2019 13:05	XB6922	M	<0.0002	0.0341	23.8	0.0386	<0.000002	0.0223	0.0108		7.91	0.00178	5.42	<0.00002	111	0.589	51.3	0.000012	<0.005	<0.005	0.00168	<0.005	0.0078	<0.0001
RSEM-R6E-EOP	12/7/2019 13:05	XB9800	M	<0.0002	0.0351	23.0	0.0399	<0.000002	0.0217	0.0108		7.75	0.00163	5.5	<0.00002	108	0.577	49.3	0.000012	<0.005	<0.005	0.0017	<0.005	0.0081	<0.0001
RSEM-R6E-EOP	12/8/2019 12:30	XC0038	M	<0.0002	0.0364	23.0	0.0442	<0.000002	0.0211	0.0109		7.54	0.00169	5.74	<0.00002	110	0.57	49.9	0.000013	<0.005	<0.005	0.00176	<0.005	0.008	<0.0001
RSEM-R6E-EOP	12/9/2019 11:50	XB9977	M	<0.0002	0.0366	24.0	0.054	<0.000002	0.02	0.0105		7.27	0.00163	5.71	<0.00002	116	0.536	51.4	0.000012	<0.005	<0.005	0.00175	<0.005	0.008	<0.0001
RSEM-R6E-EOP	12/10/2019 10:10	XC4115	M	<0.0002	0.0363	21.9	0.0635	<0.000002	0.0183	0.0102		6.67	0.00152	5.57	<0.00002	107	0.523	49.5	0.00001	<0.005	<0.005	0.00174	<0.005	0.0082	<0.0001
RSEM-R6E-EOP	12/11/2019 12:10	XC6932	M	<0.0002	0.0369	23.4	0.0601	<0.000002	0.0188	0.01		6.83	0.0017	5.93	<0.00002	115	0.553	51.1	0.000011	<0.005	<0.005	0.00161	<0.005	0.0072	<0.0001
RSEM-R6E-EOP	12/12/2019 13:20	XC8846	M	<0.0002	0.0405	22.2	0.0633	<0.000002	0.0182	0.0093		6.88	0.00172	5.74	<0.00002	111	0.507	49.7	0.000012	<0.005	<0.005	0.00167	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	12/13/2019 12:30	XD3142	M	<0.0002	0.0413	24.5	0.0622	<0.000002	0.0188	0.0101		7.50	0.00162	6.53	<0.00002	117	0.5	58.7	0.000012	<0.005	<0.005	0.00164	<0.005	0.0079	0.00011
RSEM-R6E-EOP	12/14/2019 12:50	XD1660	M	<0.0002	0.0398	24.0	0.0672	<0.000002	0.0177	0.0093		6.88	0.00149	5.98	<0.00002	118	0.469	55.0	0.000011	<0.005	<0.005	0.00161	<0.005	0.0077	<0.0001
RSEM-R6E-EOP	12/15/2019 15:10	XD3217	M	<0.0002	0.04	23.9	0.0684	<0.000002	0.017	0.0087		6.74	0.00154	5.96	<0.00002	118	0.462	53.7	0.000011	<0.005	<0.005	0.00164	<0.005	0.0081	<0.0001
RSEM-R6E-EOP	12/16/2019 14:40	XD3847	M	<0.0002	0.0306	22.9	0.0567	<0.000002	0.0153	0.0084		5.94	0.00145	5.11	<0.00002	110	0.422	44.1	<0.00001	<0.005	<0.005	0.0016	<0.005	0.0057	<0.0001
RSEM-R6E-EOP	12/17/2019 14:10	XD5465	M	<0.0002	0.0353	22.1	0.0593	<0.000002	0.0152	0.007		6.22	0.00145	6.15	<0.00002	106	0.405	49.7	0.00001	<0.005	<0.005	0.00153	<0.005	0.0056	<0.0001
RSEM-R6E-EOP	12/18/2019 13:30	XD7330	M	<0.0002	0.0346	22.5	0.0672	<0.000002	0.0153	0.0067		6.22	0.00129	5.71	<0.00002	109	0.406	49.9	0.00001	<0.005	<0.005	0.00153	<0.005	0.0054	<0.0001
RSEM-R6E-EOP	12/19/2019 13:20	XD9299	M	<0.0002	0.0321	21.5	0.0569	<0.000002	0.0153	0.0061		5.75	0.00132	6.04	<0.00002	107	0.429	42.8	0.000011	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	12/20/2019 12:50	XD9303	M	<0.0002	0.0315	20.7	0.0549	<0.000002	0.0146	0.0057		5.67	0.00128	6.15	<0.00002	103	0.425	42.8	0.000011	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	12/21/2019 14:25	XE2848	M	<0.0002	0.0294	21.3	0.0486	<0.000002	0.0139	0.0052		5.54	0.00131	5.47	<0.00002	108	0.392	41.9	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	12/22/2019 12:20	XE2825	M	<0.0002	0.0295	20.8	0.0522	<0.000002	0.0137	0.005		5.48	0.00128	5.65	<0.00002	105	0.388	41.0	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	12/23/2019 9:20	XE3024	M	<0.0002	0.0295	20.8	0.0625	<0.000002	0.0136	0.0049		5.48	0.00129	5.5	<0.00002	106	0.402	40.9	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	12/24/2019 10:50	XE3580	M	<0.0002	0.0305	20.7	0.0497	<0.000002	0.0134	0.0048		5.36	0.00125	5.64	<0.00002	107	0.374	41.3	<0.00001	<0.005	<0.005	0.0015	<0.005	<0.005	0.00011
RSEM-R6E-EOP	12/25/2019 16:00	XE3944	M	<0.0002	0.0336	20.5	0.0477	<0.000002	0.0132	0.0047		5.22	0.00131	5.49	<0.00002	107	0.362	39.9	0.00001	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	12/26/2019 14:00	XE3948	M	<0.0002	0.0313	20.8	0.0499	<0.000002	0.0135	0.0049		5.09	0.00128	5.49	<0.00002	107	0.371	41.4	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	0.00011
RSEM-R6E-EOP	12/27/2019 10:30	XE3954	M	<0.0002	0.0324	21.1	0.058	<0.000002	0.0141	0.0049		5.23	0.0013	5.35	<0.00002	113	0.365	42.8	<0.00001	<0.005	<0.005	0.00144	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	12/28/2019 14:30	XE5444	M	<0.0002	0.0365	20.0	0.0783	<0.000002	0.0154	0.005		5.75	0.00143	5.02	<0.00002	125	0.369	43.8	0.00001	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	12/29/2019 14:30	XE5392	M	<0.0002	0.0373	20.5	0.0882	<0.000002	0.0143	0.0051		5.57	0.00134	5.28	<0.00002	118	0.39	42.6	0.000011	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	12/30/2019 9:50	XE5424	M	<0.0002	0.0376	20.0	0.0727	<0.000002	0.0157	0.005		5.73	0.00141	5.07	<0.00002	125	0.36	44.8	0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001
RSEM-R6E-EOP	12/31/2019 10:00	XE7176	M	<0.0002	0.0385	20.3	0.0721	<0.000002	0.016	0.0055		5.63	0.00141	5.39	<0.00002	128	0.347	46.6	0.000011	<0.005	<0.005	0.00157	<0.005	<0.005	0.0001
RSEM-R6-EP-US-SD	1/16/2019 14:25	VC6520	M	<0.0002	0.0226	19.4	0.0037	<0.000002	0.0037	0.0012		2.98	0.00106	3.73	<0.00002	48.5	0.406	24.0	<0.00001	<0.005	<0.005	0.00124	<0.005	<0.005	<0.0001
RSEM-R6-EP-US-SD	2/15/2019 11:08	VF9055	M	<0.0002	0.0221	19.7	0.0028	0.0000042	0.0035	0.0035		2.82	0.00095	3.66	<0.00002	52.5	0.365	16.5	<0.00001	<0.005	<0.005	0.00122	<0.005	0.0387	<0.0001
RSEM-R6-EP-US-SD	7/19/2019 8:00	WD4019	M	<0.001	0.172	98.3	0.238	<0.000002	0.0091	0.0242		52.3	0.00138	6.04	<0.0001	92.7	24.1	90	0.000245	<0.025	<0.025	0.00342	<0.025	<0.025	<0.0005
RSEM-R6E-SP	1/1/2019 12:40	VA5879	M	<0.0002	0.03	29.4	0.074	<0.000002	0.0058	0.0056		4.52	0.00154	4.65	<0.00002	80.4	0.524	45.8	0.000016	<0.005	<0.005	0.00172	<0.005	0.0268	<0.0001
RSEM-R6E-SP	1/2/2019 12:20	VA7316	M	<0.0002	0.0292	27.7	0.0662	<0.000002	0.0057	0.0054		4.52	0.00143	4.58	<0.00002	76.2	0.579	40.7	0.000015	<0.005	<0.005	0.00158	<0.005	0.0546	<0.0001
RSEM-R6E-SP	1/3/2019 13:45	VA8828	M	<0.0002	0.0303	27.9	0.0607	<0.000002	0.0058	0.0054		4.40	0.00132	4.72	<0.00002	75.8	0.625	39.9	0.000017	<0.005	<0.005	0.00157	<0.005	0.0565	<0.0001
RSEM-R6E-SP	1/4/2019 12:45	VA8825	M	<0.0002	0.0304	28.6	0.0607	<0.000002	0.0059	0.0053		4.46	0.00144	4.64	<0.00002	78.2	0.626	41.0	0.000014	<0.005	<0.005	0.00159	<0.005	0.0312	<0.0001
RSEM-R6E-SP	1/5/2019 13:15	VB1442	M	<0.0002	0.031	27.0	0.0458	<0.000002	0.0054	0.0044		4.39	0.00137	5.09	<0.00002	71.3	0.521	37.4	0.000013	<0.005	<0.005	0.00159	<0.005	0.0278	<0.0001
RSEM-R6E-SP	1/6/2019 12:00	VB1449	M	<0.0002	0.0307	25.7	0.0359	<0.000002	0.0053	0.0039		4.14	0.00132	4.94	<0.00002	68.7	0.513	34.8	0.000014	<0.005	<0.005	0.00158	<0.005	0.0338	<0.0001
RSEM-R6E-SP	1/7/2019 10:30	VB3249	M	<0.0002	0.0289	23.9	0.0315	<0.000002	0.0049	0.0039		3.76	0.00141	4.46	<0.00002	66.2	0.482	31.4	0.000012	<0.005	<0.005	0.00146	<0.005	0.0364	<0.0001
RSEM-R6E-SP	1/8/2019 11:30	VB4659	M	<0.0002	0.0285	26.0	0.0326	<0.000002	0.0051	0.0046		3.82	0.0013	4.38	<0.00002	67.3	0.506	33.6	0.000011	<0.005	<0.005	0.0015	<0.005	0.035	<0.0001
RSEM-R6E-SP	1/9/2019 11:20	VB6782	M	<0.0002	0.0292	24.1	0.0325	<0.000002	0.005	0.0046		3.91	0.00132	4.66	<0.00002	66.1	0.495	35.4	0.000013	<0.005	<0.005	0.00151	<0.005	0.0431	<0.0001
RSEM-R6E-SP	1/10/2019 11:30	VB7972	M	<0.0002	0.0298	22.8	0.0105	<0.000002	0.0048	0.0037		3.88	0.00141	4.93	<0.00002	59.1	0.463	37.3	0.000012	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001
RSEM-R6E-SP	1/11/2019 12:20	VB7977	M	<0.0002	0.0292	23.5	0.014	<0.000002	0.0049	0.0039		3.92	0.00151	4.94	<0.00002	61.9	0.47	39.4	0.000012	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001
RSEM-R6E-SP	1/12/2019 10:55	VC0270	M	<0.0002	0.0287	23.5	0.0375	<0.000002	0.0067	0.0055		3.38	0.00131	3.87	<0.00002	62.6	0.474	34.5	0.000012	<0.005	<0.005	0.00155	<0.005	0.044	<0.0001
RSEM-R6E-SP	1/13/2019 11:00	VC0275	M	<0.0002	0.029	25.0	0.0444	<0.000002	0.0052	0.0053		3.57	0.00131	3.65	<0.00002	66.5	0.487	35.6	0.000013	<0.005	<0.005	0.00159	<0.005	0.041	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-SP	1/14/2019 11:25	VC1961	M	8.11	881	0.76	500	<4.0	303	327	321	<1.0	392	<1.0	<1.0	35.8	0.360	0.54	111			0.062	0.0066	1.23	1.24	0.0053
RSEM-R6E-SP	1/15/2019 11:30	VC4150	M	8.31	910	0.59	502	<4.0	321	323	324	1.8	391	2.1	<1.0	38.5	0.350	0.59	125			0.074	0.0205	1.21	1.23	0.0061
RSEM-R6E-SP	1/16/2019 10:50	VC6534	M	8.18	965	1.02	580	<4.0	341	347	314	<1.0	383	<1.0	<1.0	42.6	0.380	0.62	153			0.10	0.0054	1.21	1.21	0.0066
RSEM-R6E-SP	1/17/2019 11:15	VC7566	M	8.27	1120	1.19	716	6.8	393	368	321	<1.0	392	<1.0	<1.0	47.1	0.370	0.80	205			0.14	0.0268	1.11	1.13	<0.0050
RSEM-R6E-SP	1/18/2019 10:30	VC7591	M	8.35	1280	1.57	804	<4.0	437	442	342	3.9	408	4.6	<1.0	54.4	0.390	0.91	263			0.17	0.0399	1.10	1.14	0.0101
RSEM-R6E-SP	1/19/2019 12:20	VC9564	M	8.24	1310	1.29	822	<4.0	413	441	351	<1.0	429	<1.0	<1.0	56.1	0.380	0.90	234			0.18	0.0319	1.10	1.13	<0.0050
RSEM-R6E-SP	1/20/2019 11:39	VC9574	D	8.25	1310	1.49	822	<4.0	435	415	327	<1.0	399	<1.0	<1.0	56.9	0.380	0.93	264			0.18	0.0332	0.985	1.02	<0.0050
RSEM-R6E-SP	1/20/2019 11:39	VC9573	M	8.25	1330	1.93	832	6.0	452	431	331	<1.0	404	<1.0	<1.0	56.3	0.380	0.93	275			0.13	0.0300	0.984	1.01	<0.0050
RSEM-R6E-SP	1/21/2019 13:20	VD2271	M	8.18	1230	0.51	776	<4.0	408	399	354	<1.0	432	<1.0	<1.0	53.5	0.360	0.83	217			0.17	0.0290	1.02	1.05	0.0035
RSEM-R6E-SP	1/22/2019 12:15	VD2307	M	8.10	1300	2.23	848	6.0	425	415	324	<1.0	395	<1.0	<1.0	58.7	0.390	0.90	228			0.20	0.0324	0.974	1.01	0.0043
RSEM-R6E-SP	1/23/2019 12:15	VD3811	M	7.94	1350	0.79	872	7.6	456	450	341	<1.0	416	<1.0	<1.0	60.8	0.340	0.96	310			0.19	0.0298	1.06	1.09	0.0040
RSEM-R6E-SP	1/24/2019 13:35	VD5540	M	8.38	1250	13.6	814	25.6	389	413	315	4.5	373	5.3	<1.0	54.3	0.340	0.75	216			0.55	0.0313	0.972	1.00	0.015
RSEM-R6E-SP	1/25/2019 11:00	VD5640	M	7.64	205	5.35	112	14.0	60.0	52.0	39.1	<1.0	47.7	<1.0	<1.0	10.5	0.090	0.11	46.9			0.65	0.0117	0.255	0.266	0.026
RSEM-R6E-SP	1/26/2019 16:00	VD7163	M	7.98	649	4.39	386	6.0	179	181	124	<1.0	152	<1.0	<1.0	26.8	0.140	0.51	146			0.69	0.0277	0.816	0.843	0.024
RSEM-R6E-SP	1/27/2019 13:10	VD7172	M	7.98	353	27.0	198	15.2	116	123	80.5	<1.0	98.2	<1.0	<1.0	32.4	0.150	0.28	33.3			0.12	0.0354	0.626	0.662	0.0035
RSEM-R6E-SP	1/28/2019 12:15	VD8610	M	8.10	402	65.5	224	48.0	129	141	94.4	<1.0	115	<1.0	<1.0	29.8	0.150	0.30	48.0			0.17	0.0295	0.718	0.748	0.0041
RSEM-R6E-SP	1/29/2019 11:35	VE0717	M	7.84	425	12.1	252	15.2	151	147	92.9	<1.0	113	<1.0	<1.0	38.6	0.170	0.41	63.8			0.19	0.0376	0.789	0.827	0.0034
RSEM-R6E-SP	1/30/2019 13:00	VE2163	D	8.06	433	7.71	238	7.6	145	143	97.4	<1.0	119	<1.0	<1.0	36.8	0.170	0.42	60.9			0.18	0.0347	0.691	0.725	0.0034
RSEM-R6E-SP	1/30/2019 13:00	VE2160	M	7.91	428	7.77	238	6.0	138	144	95.2	<1.0	116	<1.0	<1.0	36.0	0.170	0.42	56.3			0.19	0.0334	0.636	0.669	0.0037
RSEM-R6E-SP	1/31/2019 12:25	VE3664	M	8.06	457	8.03	248	8.4	149	148	103	<1.0	125	<1.0	<1.0	40.9	0.190	0.45	54.2			0.18	0.0364	0.805	0.841	0.0039
RSEM-R6E-SP	2/1/2019 11:15	VE3671	M	8.15	499	3.72	286	10.0	160	160	111	<1.0	135	<1.0	<1.0	41.9	0.210	0.49	64.7			0.18	0.0365	0.853	0.889	<0.0030
RSEM-R6E-SP	2/2/2019 12:00	VE5318	M	8.08	523	6.38	282	4.8	188	175	122	<1.0	149	<1.0	<1.0	45.6	0.210	0.53	73.9			0.18	0.0418	0.932	0.974	<0.0030
RSEM-R6E-SP	2/3/2019 11:30	VE5315	M	8.09	559	6.27	314	<4.0	192	191	133	<1.0	162	<1.0	<1.0	49.0	0.210	0.57	77.3			0.18	0.0418	0.991	1.03	<0.0030
RSEM-R6E-SP	2/4/2019 12:30	VE6891	M	8.11	631	5.30	360	<4.0	202	211	146	<1.0	178	<1.0	<1.0	55.2	0.230	0.63	92.1			0.20	0.0453	1.12	1.17	0.0030
RSEM-R6E-SP	2/5/2019 10:30	VE6872	D	8.10	683	4.47	392	5.2	215	228	158	<1.0	193	<1.0	<1.0	58.8	0.240	0.67	99.9			0.22	0.0515	1.20	1.25	0.0031
RSEM-R6E-SP	2/5/2019 10:30	VE6871	M	8.12	686	4.48	388	4.4	216	225	160	<1.0	195	<1.0	<1.0	56.6	0.240	0.69	92.9			0.22	0.0460	1.20	1.25	0.0031
RSEM-R6E-SP	2/6/2019 13:25	VE9930	M	7.92	738	3.52	418	4.8	247	258	172	<1.0	210	<1.0	<1.0	63.1	0.250	0.65	115			0.24	0.0505	1.26	1.31	0.0031
RSEM-R6E-SP	2/7/2019 11:00	VF0004	M	7.97	804	3.12	438	<4.0	270	279	191	<1.0	233	<1.0	<1.0	64.5	0.270	0.74	139			0.26	0.0538	1.27	1.33	<0.0030
RSEM-R6E-SP	2/8/2019 11:00	VF1452	D	8.06	860	3.21	532	6.4	297	297	205	<1.0	250	<1.0	<1.0	67.5	0.300	0.62	147			0.28	0.0543	1.38	1.43	<0.0030
RSEM-R6E-SP	2/8/2019 11:00	VF1451	M	8.13	867	3.03	518	<4.0	288	298	206	<1.0	251	<1.0	<1.0	67.2	0.300	0.65	141			0.28	0.0554	1.38	1.44	<0.0030
RSEM-R6E-SP	2/9/2019 13:00	VF3227	M	8.06	928	2.80	552	<4.0	308	315	233	<1.0	284	<1.0	<1.0	71.5	0.310	0.85	165			0.28	0.0530	1.39	1.44	<0.0030
RSEM-R6E-SP	2/10/2019 13:30	VF3198	M	8.07	985	1.86	594	<4.0	326	336	240	<1.0	293	<1.0	<1.0	72.5	0.320	0.89	169			0.28	0.0525	1.37	1.42	<0.0030
RSEM-R6E-SP	2/11/2019 13:55	VF4316	M	8.04	1050	1.30	630	<4.0	332	344	259	<1.0	316	<1.0	<1.0	73.0	0.340	0.94	183			0.28	0.0497	1.38	1.43	0.0034
RSEM-R6E-SP	2/12/2019 13:17	VF6504	M	8.03	1090	1.26	674	<4.0	359	374	263	<1.0	321	<1.0	<1.0	80.4	0.360	0.96	210			0.28	0.0522	1.38	1.44	<0.0050
RSEM-R6E-SP	2/13/2019 11:35	VF7819	M	7.99	1130	0.87	712	<4.0	380	378	274	<1.0	334	<1.0	<1.0	76.3	0.370	1.0	217			0.29	0.0534	1.34	1.40	<0.0050
RSEM-R6E-SP	2/14/2019 11:37	VF9046	M	8.26	1160	0.89	712	<4.0	375	394	287	<1.0	350	<1.0	<1.0	75.2	0.330	0.99	212			0.28	0.0548	1.41	1.47	<0.0050
RSEM-R6E-SP	2/15/2019 11:25	VF9052	M	8.33	1200	1.00	726	<4.0	383	391	296	2.2	356	2.6	<1.0	75.9	0.340	1.0	219			0.30	0.0519	1.42	1.47	<0.0050
RSEM-R6E-SP	2/16/2019 12:30	VF9493	M	8.08	1220	1.09	780	<4.0	381	394	304	<1.0	370	<1.0	<1.0	69.3	0.340	0.98	263			0.26	0.0407	1.27	1.31	<0.0050
RSEM-R6E-SP	2/17/2019 12:17	VG0947	M	8.17	1280	3.58	800	5.2	397	399	325	<1.0	397	<1.0	<1.0	63.7	0.360	1.1	231			0.24	0.0266	1.11	1.13	<0.0050
RSEM-R6E-SP	2/18/2019 13:25	VG0932	M	8.08	1360	27.7	868	25.2	411	442	341	<1.0	416	<1.0	<1.0	63.0	0.380	1.1	304			0.22	0.0236	1.07	1.09	0.0125
RSEM-R6E-SP	2/19/2019 11:30	VG0985	M	8.12	1380	15.1	853	15.6	424	419	348	<1.0	424	<1.0	<1.0	65.3	0.390	1.1	286			0.22	0.0250	1.10	1.13	<0.0050
RSEM-R6E-SP	2/20/2019 11:20	VG2863	M	8.15	1380	22.6	878	27.2	443	454	346	<1.0	422	<1.0	<1.0	67.5	0.380	1.1	299			0.21	0.0237	1.03	1.05	<0.0050
RSEM-R6E-SP	2/21/2019 10:45	VG4541	D	8.07	1350	11.7	878	9.6	444	460	327	<1.0	399	<1.0	<1.0	78.0	0.360	1.1	306			0.21	0.0167	1.21	1.22	<0.0050
RSEM-R6E-SP	2/21/2019 10:45	VG4539	M	8.15	1370	11.9	866	11.2	435	462	339	<1.0	413	<1.0	<1.0	78.2	0.370	1.1	272			0.20	0.0177	1.18	1.20	<0.0050
RSEM-R6E-SP	2/22/2019 11:10	VG6140	M	8.18	1400	9.88	1100	9.2	434	460	353	<1.0	430	<1.0	<1.0	81.0	0.370	1.2	290			0.21	0.0161	1.24	1.26	<0.0050
RSEM-R6E-SP	2/23/2019 12:10	VG8588	M	8.13	1420	7.74	874	7.2	435	453	346	<1.0	423	<1.0	<1.0	67.6	0.380	1.1	323			0.19	0.0161	1.27	1.28	<0.0050
RSEM-R6E-SP	2/24/2019 12:00	VG8609	M	8.14	1400	6.35	902	5.2	452	469	352	<1.0	429	<1.0	<1.0	69.4	0.390	1.2	305			0.19	0.0161	1.29	1.31	<0.0050
RSEM-R6E-SP	2/25/2019 0:55	VG8573	M	8.10	1430	8.39	924	8.0	444	465	354	<1.0	432	<1.0	<1.0	68.5	0.390	1.2	291			0.19	0.0128	1.33	1.34	<0.0050
RSEM-R6E-SP	2/26/2019 11:15	VH0045	M	8.04	1440	9.00	934	10.4	468	472	361	<1.0	441	<1.0	<1.0	70.2	0.400	1.1	303			0.17	0.0179	1.39	1.40	<0.0050
RSEM-R6E-SP	2/27/2019 11:10	VH2516	M	8.09	1430	11.9	966	14.0	487	502	324	<1.0	395	<1.0	<1.0	73.3	0.360	1.2	340			0.13	0.0141	1.31	1.33	<0.0050
RSEM-R6E-SP	2/28/2019 11:45	VH4364	M	8.10	1420	8.47	944	10.4	499	507	315	<1.0	385	<1.0	<1.0	76.1	0.430	1.2	293			0.14	0.0130	1.40	1.41	<0.0050
RSEM-R6E-SP	3/1/2019 11:35	VH5672	M	8.12	1510	28.7	998	30.8	481	517	356	<1.0	434	<1.0	<1.0	77.3	0.380	1.3	295			0.098	0.0202	1.53	1.55	<0.0050
RSEM-R6E-SP	3/2/2019 11:50	VH8126	M	8.15	1560	2.66	956	4.4	492	503	376	<1.0	458	<1.0	<1.0	76.8	0.410	1.2	326			0.12	0.0069	1.66	1.66	<0.0050
RSEM-R6E-SP	3/3/2019 13:45	VH7774	M	8.07	1550	6.64	990	6.8	492	506	389	<1.0	475	<1.0	<1.0	77.5	0.440	1.2	352			0.083	0.0096	1.70	1.71	<0.0050
RSEM-R6E-SP	3/4/2019 16:15	VI1284	M	8.15	1560	4.18	1060	<4.0	509	532	362	<1.0	441	<1.0	<1.0	86.0	0.390	1.3	358			0.080	0.0123	1.67	1.68	<0.0050
RSEM-R6E-SP	3/5/2019 12:25	VI1634	M	8.17	1610	2.97	1080	7.2	539	591	384	<1.0	468	<1.0	<1.0	80.4	0.390	1.3	327			0.10	0.0095	1.73	1.74	<0.0050
RSEM-R6E-SP	3/6/2019 13:15	VI3120	M	8.08	1630	3.08	1120	1.1	531	531	370	<1.0	452	<1.0	<1.0	81.0	0.410	1.3	352			0.079	0.0098	1.83	1.84	<0.0050
RSEM-R6E-SP	3/7/2019 13:35	VI4423	M	8.04	1690	2.86	970	3.3	556	564	388	<1.0	473	<1.0	<1.0	85.6	0.380	1.3	365			0.088	0.0083	1.87	1.88	0.0055
RSEM-R6E-SP	3/8/2019 11:57	VI4434	M	8.04	1710	3.01	1160	<4.0	603	601	392	<1.0	478	<1.0	<1.0	89.3	0.490	1.4	420			0.078	0.0072	1.92	1.93	0.0073
RSEM-R6E-SP	3/9/2019 11:47	VI6894	M	8.02	1730	2.73	1180	<4.0	609	627	399	<1.0	487	<1.0	<1.0	91.3	0.480	1.5	415			0.078	0.0087	1.90	1.91	0.0057
RSEM-R6E-SP	3/10/2019 12:15	VI6955	M	8.11	1770	2.84	1220	<4.0	616	631	417	<1.0	509	<1.0	<1.0	89.3	0.480	1.5	389			0.069	0.0097	2.11	2.12	0.0059
RSEM-R6E-SP	3/11/2019 12:30	VI9558	M	8.00	1500	7.73	898	8.4	477	504	361	<1.0	441	<1.0	<1.0	72.3	0.360	0.99	352			0.080	0.0992	1.75	1.85	0.0135
RSEM-R6E-SP	3/12/2019 11:15	VI8442	M	7.72	224	22.4	134	14.0	54.4	56.3	40.3	<1.0	49.1	<1.0	<1.0	14.5	0.057	0.14	43.1			0.25	0.196	0.691	0.887	0.0328
RSEM-R6E-SP	3/13/2019 11:18	VJ2178	M	7.64	301	38.4	224	21.6	90.3	78.2	50.3	<1.0	61.4	<1.0	<1.0	23.6	0.100	0.29	50.7			0.27	0.126	0.899	1.03	0.0271
RSEM-R6E-SP	3/15/2019 11:00	VJ4027	D	7.76	572	23.2	362	11.2	177	170	75.6	<1.0	92.2	<1.0	<1.0	88.0	0.210	0.64	75.9			0.33	0.0623	0.563	0.625	0.0116
RSEM-R6E-SP	3/15/2019 11:00	VJ4021	M	7.62	570	24.3	348	16.4	169	166	72.1	<1.0	88.0	<1.0	<1.0	88.1	0.210	0.62	76.1			0.34	0.0636	0.548	0.611	0.0130
RSEM-R6E-SP	4/22/2019 12:55	VO3502	M	8.11	590	4.50	310	17.6	214	212	136	<1.0	166	<1.0	<1.0	46.2	0.260	0.60	99.9			<0.015	0.0101	0.243	0.253	0.0034
RSEM-R6E-SP	5/25/2019 12:35	VT2679	M	8.28	836	7.97	486	7.2	225	231	141	<1.0	172	<1.0	<1.0	72.2	0.300	1.1	170			0.093	0.0205	0.974	0.994	0.0165
RSEM-R6E-SP	5/26/2019 14:25	VT2685	M	8.26	833	7.38	484	6.8	232	238	143	<1.0	174	<1.0	<1.0	67.9	0.300	1.1	170			0.073	0.0198	1.09	1.11	<0.0050
RSEM-R6E-SP	5/27/2019 12:30	VT3953	M	8.08	834	5.38	476	5.2	232	231	182	<1.0	222	<1.0	<1.0	69	0.300	1.1	170			0.064	0.0197	0.976	0.996	<0.0050
RSEM-R6E-SP	5/28/2019 11:10	VT7528	M	8.16	822	5.79	504	6.4	218	230	147	<1.0	179	<1.0	<1.0	69	0.370	1.1	170			0.046	0.0177	0.957	0.974	<0.0050
RSEM-R6E-SP	5/29/2019 11:32	VT7392	M	8.24	819	7.06	478	7.2	228	224	142	<1.0	174	<1.0	<1.0	69	0.330	1.1	160			0.072	0.0179	0.878	0.896	<0.0050
RSEM-R6E-SP	5/30/2019 12:37	VU2390	M	8.17	822	6.87	456	<4.0	221	231	141	<1.0	172	<1.0	<1.0	66.7	0.330	1.1	158			0.048	0.0199	0.955	0.975	<0.0050
RSEM-R6E-SP	5/31/2019 10:15	VU2443	M	8.14	818	6.75	442	6.0	213	232	140	<1.0	171	<1.0	<1.0	66.8	0.330	1.1	158			0.047	0.0187	0.818	0.837	<0.0050
RSEM-R6E-SP	6/1/2019 11:22	VU3338	M	8.24	807	5.65	438	6.8	211	224	141	<1.0	172	<1.0	<1.0	65.1	0.330	1.1	169			0.040	0.0182	0.957	0.975	<0.0050
RSEM-R6E-SP	6/2/2019 9:43	VU6018	M	8.16	799	5.38	448	8.4	206	208	134	<1.0	163	<1.0	<1.0	68.0	0.310	1.1	167			0.032	0.0151	0.935	0.950	<0.0050

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-SP	1/14/2019 11:25	VC1961	M	2.1	2.1	0.0217	<0.0005	0.00035	0.0892	<0.0001	<0.001	0.106	0.000025	81.8	<0.001	0.00051	0.00076	0.032	<0.0002	0.0271	24.0	0.0389	<0.000002	0.0048	0.0049		3.64	0.00129
RSEM-R6E-SP	1/15/2019 11:30	VC4150	M	1.7	0.76	0.0163	<0.0005	0.0004	0.0911	<0.0001	<0.001	0.111	0.000025	88.8	<0.001	0.00055	0.00098	0.029	<0.0002	0.0277	24.2	0.0466	<0.000002	0.0052	0.0047		3.96	0.00144
RSEM-R6E-SP	1/16/2019 10:50	VC6534	M	1.3	1.9	0.0229	<0.0005	0.00047	0.0981	<0.0001	<0.001	0.109	0.00003	91.5	<0.001	0.00081	0.00117	0.049	<0.0002	0.0269	27.5	0.0652	<0.000002	0.0061	0.0059		4.08	0.00154
RSEM-R6E-SP	1/17/2019 11:15	VC7566	M	1.5	1.5	0.0347	0.00051	0.00064	0.095	<0.0001	<0.001	0.126	0.000036	98.8	<0.001	0.00151	0.00188	0.145	<0.0002	0.0313	35.4	0.122	<0.000002	0.0076	0.0082		4.48	0.00199
RSEM-R6E-SP	1/18/2019 10:30	VC7591	M	1.8	1.9	0.0437	0.0006	0.00077	0.104	<0.0001	<0.001	0.137	0.000046	108	0.0011	0.002	0.00222	0.213	<0.0002	0.0338	40.6	0.167	<0.000002	0.0087	0.0099		4.93	0.00223
RSEM-R6E-SP	1/19/2019 12:20	VC9564	M	2.1	2.5	0.0373	0.00065	0.00076	0.121	<0.0001	<0.001	0.142	0.00005	107	0.0011	0.00184	0.00206	0.036	<0.0002	0.0354	35.5	0.159	<0.000002	0.0093	0.0091		4.72	0.00217
RSEM-R6E-SP	1/20/2019 11:39	VC9574	D	2.0	2.7	0.0413	0.00063	0.00078	0.105	<0.0001	<0.001	0.157	0.000048	103	0.0012	0.00239	0.00155	0.036	<0.0002	0.035	43.0	0.197	<0.000002	0.0098	0.0109		4.66	0.00227
RSEM-R6E-SP	1/20/2019 11:39	VC9573	M	2.4	2.7	0.0387	0.00066	0.00081	0.107	<0.0001	<0.001	0.156	0.000053	111	0.0012	0.00228	0.00179	0.048	<0.0002	0.0351	42.3	0.197	<0.000002	0.0099	0.0107		4.69	0.00242
RSEM-R6E-SP	1/21/2019 13:20	VD2271	M	1.5	1.8	0.0323	0.00057	0.00071	0.104	<0.0001	<0.001	0.136	0.000045	102	<0.001	0.00174	0.00123	0.016	<0.0002	0.0334	37.2	0.152	<0.000002	0.0088	0.0086		4.62	0.00213
RSEM-R6E-SP	1/22/2019 12:15	VD2307	M	1.8	1.7	0.0839	0.00079	0.00079	0.113	<0.0001	<0.001	0.149	0.000055	106	0.0013	0.00208	0.00208	0.132	<0.0002	0.0359	38.8	0.179	<0.000002	0.0097	0.0096		4.88	0.00212
RSEM-R6E-SP	1/23/2019 12:15	VD3811	M	2.2	2.9	0.0351	0.00069	0.00079	0.115	<0.0001	<0.001	0.158	0.000051	115	<0.001	0.00207	0.00284	0.036	<0.0002	0.0413	41.3	0.181	<0.000002	0.0111	0.0105		5.01	0.00231
RSEM-R6E-SP	1/24/2019 13:35	VD5540	M	2.4	1.7	0.123	0.00069	0.00088	0.109	<0.0001	<0.001	0.135	0.000057	96.0	0.0015	0.002	0.00408	0.356	0.00026	0.0329	36.3	0.167	<0.000002	0.0093	0.0097		4.20	0.00213
RSEM-R6E-SP	1/25/2019 11:00	VD5640	M	0.80	0.73	0.0854	<0.0005	0.00025	0.0271	<0.0001	<0.001	<0.05	0.000019	14.8	<0.001	0.00036	0.00648	0.191	<0.0002	0.0055	5.59	0.0262	<0.000002	0.0014	0.0017		0.831	0.0003
RSEM-R6E-SP	1/26/2019 16:00	VD7163	M	2.0	1.9	0.0711	<0.0005	0.00048	0.0439	<0.0001	<0.001	0.085	0.000018	37.8	<0.001	0.00074	0.00398	0.099	<0.0002	0.0175	20.6	0.0522	<0.000002	0.0053	0.0041		2.50	0.00109
RSEM-R6E-SP	1/27/2019 13:10	VD7172	M	4.2	3.3	0.509	<0.0005	0.00074	0.0851	<0.0001	<0.001	<0.05	0.000049	36.3	0.0043	0.00094	0.00226	0.732	0.00045	0.0074	6.24	0.037	<0.000002	0.0049	0.0049		2.86	0.00046
RSEM-R6E-SP	1/28/2019 12:15	VD8610	M	4.0	4.6	0.734	<0.0005	0.00126	0.103	<0.0001	<0.001	<0.05	0.000073	38.6	0.0039	0.00139	0.00332	1.56	0.00095	0.0082	7.90	0.0477	<0.000002	0.0051	0.0059		2.81	0.00056
RSEM-R6E-SP	1/29/2019 11:35	VE0717	M	5.2	5.7	0.371	<0.0005	0.00063	0.0783	<0.0001	<0.001	<0.05	0.000043	45.3	0.0033	0.00082	0.00235	0.334	0.00025	0.0099	9.15	0.0302	<0.000002	0.0057	0.0046		3.08	0.00059
RSEM-R6E-SP	1/30/2019 13:00	VE2163	D	4.5	3.8	0.299	<0.0005	0.00065	0.0916	<0.0001	<0.001	<0.05	0.000045	43.5	0.0036	0.00083	0.0023	0.253	<0.0002	0.0101	8.92	0.0306	<0.000002	0.0061	0.0051		3.46	0.00062
RSEM-R6E-SP	1/30/2019 13:00	VE2160	M	4.6	3.8	0.228	<0.0005	0.0006	0.0869	<0.0001	<0.001	<0.05	0.000043	41.2	0.0034	0.00078	0.00198	0.212	<0.0002	0.0096	8.45	0.0285	<0.000002	0.0058	0.0047		3.21	0.00064
RSEM-R6E-SP	1/31/2019 12:25	VE3664	M	4.7	3.7	0.16	<0.0005	0.00059	0.0831	<0.0001	<0.001	<0.05	0.000039	44.0	0.0033	0.00083	0.00229	0.201	<0.0002	0.0107	9.48	0.0292	<0.000002	0.0059	0.0049		3.31	0.00059
RSEM-R6E-SP	2/1/2019 11:15	VE3671	M	4.9	4.2	0.141	<0.0005	0.00059	0.0889	<0.0001	<0.001	<0.05	0.000041	47.5	0.0035	0.00084	0.00258	0.186	<0.0002	0.0112	10.1	0.0301	<0.000002	0.0064	0.0051		3.63	0.00064
RSEM-R6E-SP	2/2/2019 12:00	VE5318	M	4.8	4.3	0.164	<0.0005	0.00063	0.102	<0.0001	<0.001	0.051	0.000048	56.4	0.0037	0.00086	0.00302	0.142	<0.0002	0.013	11.4	0.0333	<0.000002	0.0067	0.0052		4.26	0.00073
RSEM-R6E-SP	2/3/2019 11:30	VE5315	M	5.3	4.8	0.14	<0.0005	0.00067	0.108	<0.0001	<0.001	0.051	0.000045	58.0	0.0036	0.00085	0.00293	0.099	<0.0002	0.0137	11.4	0.0329	<0.000002	0.0071	0.0052		4.31	0.00083
RSEM-R6E-SP	2/4/2019 12:30	VE6891	M	4.7	5.8	0.139	0.000555	0.00064	0.113	<0.0001	<0.001	0.056	0.000047	59.6	0.0042	0.001	0.00364	0.11	<0.0002	0.0146	13.0	0.0375	<0.000002	0.0079	0.0063		4.42	0.00083
RSEM-R6E-SP	2/5/2019 10:30	VE6872	D	4.9	6.2	0.136	0.00059	0.00069	0.117	<0.0001	<0.001	0.062	0.000045	62.8	0.0043	0.00103	0.00378	0.105	<0.0002	0.0157	14.1	0.0409	<0.000002	0.0083	0.0066		4.79	0.00098
RSEM-R6E-SP	2/5/2019 10:30	VE6871	M	4.9	3.6	0.147	0.0006	0.00078	0.116	<0.0001	<0.001	0.061	0.000047	62.8	0.0045	0.00106	0.00371	0.106	<0.0002	0.0156	14.3	0.0407	<0.000002	0.0085	0.0068		4.83	0.0009
RSEM-R6E-SP	2/6/2019 13:25	VE9930	M	6.1	5.8	0.0891	0.00063	0.00081	0.13	<0.0001	<0.001	0.062	0.000059	72.3	0.0045	0.00112	0.00347	0.101	<0.0002	0.0147	16.0	0.0456	<0.000002	0.0096	0.0069		5.15	0.00103
RSEM-R6E-SP	2/7/2019 11:00	VF0004	M	6.0	5.5	0.0879	0.00068	0.00084	0.135	<0.0001	<0.001	0.072	0.000063	77.7	0.0044	0.0012	0.0034	0.074	<0.0002	0.0162	18.4	0.0566	<0.000002	0.0102	0.0072		5.33	0.00119
RSEM-R6E-SP	2/8/2019 11:00	VF1452	D	6.0	5.0	0.0928	0.0007	0.00089	0.146	<0.0001	<0.001	0.104	0.000061	84.2	0.0046	0.00138	0.00369	0.054	<0.0002	0.0217	21.1	0.0669	0.0000036	0.0108	0.0081		5.86	0.00133
RSEM-R6E-SP	2/8/2019 11:00	VF1451	M	5.8	4.1	0.077	0.00068	0.00086	0.142	<0.0001	<0.001	0.083	0.000057	81.8	0.0044	0.00133	0.00357	0.05	<0.0002	0.0206	20.4	0.065	0.0000037	0.0105	0.0078		5.60	0.00122
RSEM-R6E-SP	2/9/2019 13:00	VF3227	M	5.3	4.8	0.0765	0.0007	0.00087	0.144	<0.0001	<0.001	0.094	0.000054	86.9	0.0044	0.00146	0.00354	0.052	<0.0002	0.022	22.1	0.076	0.0000037	0.0107	0.0085		5.70	0.00142
RSEM-R6E-SP	2/10/2019 13:30	VF3198	M	5.1	5.0	0.0659	0.0007	0.00089	0.142	<0.0001	<0.001	0.097	0.00006	90.3	0.0042	0.00154	0.00307	0.044	<0.0002	0.0232	24.5	0.0868	0.0000043	0.0108	0.0093		5.65	0.00147
RSEM-R6E-SP	2/11/2019 13:55	VF4316	M	4.7	<0.50	0.05	0.00071	0.00089	0.142	<0.0001	<0.001	0.102	0.000063	90.8	0.004	0.00157	0.00273	0.026	<0.0002	0.0231	25.6	0.0912	0.0000031	0.0111	0.009		5.73	0.00154
RSEM-R6E-SP	2/12/2019 13:17	VF6504	M	5.2	4.5	0.0675	0.00077	0.00091	0.152	<0.0001	<0.001	0.115	0.000064	97.5	0.0041	0.00168	0.00262	0.052	<0.0002	0.0293	28.2	0.103	0.0000032	0.012	0.0094		5.99	0.00163
RSEM-R6E-SP	2/13/2019 11:35	VF7819	M	6.2	4.7	0.0543	0.00079	0.0009	0.153	<0.0001	<0.001	0.123	0.000065	104	0.0041	0.00171	0.00219	0.02	<0.0002	0.031	29.4	0.109	0.0000044	0.0123	0.0097		6.08	0.00176
RSEM-R6E-SP	2/14/2019 11:37	VF9046	M	3.7	4.4	0.0454	0.00075	0.00087	0.146	<0.0001	<0.001	0.113	0.000062	102	0.0039	0.00174	0.00193	0.018	<0.0002	0.0278	29.0	0.112	<0.000002	0.0119	0.0097		6.03	0.00177
RSEM-R6E-SP	2/15/2019 11:25	VF9052	M	4.2	4.1	0.0435	0.00077	0.00086	0.145	<0.0001	<0.001	0.118	0.000061	104	0.0039	0.00179	0.00188	0.015	<0.0002	0.0286	30.1	0.115	0.0000031	0.0121	0.0099		6.13	0.00182
RSEM-R6E-SP	2/16/2019 12:30	VF9493	M	3.4	3.7	0.0367	0.00065	0.00081	0.132	<0.0001	<0.001	0.138	0.000057	98.1	0.0031	0.00191	0.00172	0.015	<0.0002	0.0272	33.0	0.128	<0.000002	0.0114	0.01		5.43	0.00184
RSEM-R6E-SP	2/17/2019 12:17	VG0947	M	3.5	3.0	0.0579	0.00072	0.00074	0.126	<0.0001	<0.001	0.126	0.000055	99.4	0.0019	0.00182	0.00176	0.06	<0.0002	0.0359	36.1	0.149	<0.000002	0.0111	0.0101		4.82	0.00205
RSEM-R6E-SP	2/18/2019 13:25	VG0932	M	2.5	3.0	0.3	0.00069	0.00099	0.129	<0.0001	<0.001	0.142	0.000072	100	0.0016	0.00206	0.00243	0.675	0.00039	0.0371	38.9	0.167	0.000006	0.0107	0.0107		4.82	0.00221
RSEM-R6E-SP	2/19/2019 11:30	VG0985	M	2.9	2.1	0.206	0.00067	0.00079	0.119	<0.0001	<0.001	0.142	0.000057		0.0014	0.00179	0.00168	0.294	0.00021	0.0356		0.153	0.0000026	0.0105	0.0102			0.00208
RSEM-R6E-SP	2/20/2019 11:20	VG2863	M	2.4	2.7	0.273	0.00065	0.00088	0.118	<0.0001	<0.001	0.167	0.000071	112	0.0015	0.00184	0.00189	0.396	0.00033	0.0363	39.8	0.158	0.0000026	0.0104	0.0096		4.89	0.00206
RSEM-R6E-SP	2/21/2019 10:45	VG4541	D	1.9	2.1	0.104	0.00064	0.0007	0.113	<0.0001	<0.001	0.141	0.000062	113	0.0015	0.00156	0.00176	0.219	<0.0002	0.0344	39.3	0.143	<0.000002	0.0106	0.0098		4.96	0.00208
RSEM-R6E-SP	2/21/2019 10:45	VG4539	M	2.6	2.1	0.0879	0.00063	0.00067	0.109	<0.0001	<0.001	0.141	0.000058	110	0.0012	0.00151	0.00154	0.188	<0.0002	0.0342	39.1	0.14	0.0000046	0.0103	0.0094		4.86	0.00202
RSEM-R6E-SP	2/22/2019 11:10	VG6140	M	2.0	2.4	0.107	0.00063	0.00064	0.0987	<0.0001	<0.001	0.16	0.000057	110	0.0011	0.00133	0.00148	0.161	<0.0002	0.036	38.4	0.123	0.0000064	0.0101	0.009		4.81	0.00196
RSEM-R6E-SP	2/23/2019 12:10	VG8588	M	2.2	2.8	0.0647	0.00063	0.00056	0.0976	<0.0001	<0.001	0.151	0.000051	109	0.0011	0.00122	0.0015	0.11	<0.0002	0.0356	39.2	0.113	<0.000002	0.0102	0.009		4.88	0.00201
RSEM-R6E-SP	2/24/2019 12:00	VG8609	M	2.4	2.7	0.078	0.00062	0.00063	0.099	<0.0001	<0.001	0.166	0.000056	115	0.0012	0.00116	0.00158	0.114	<0.0002	0.0381	40.3	0.107	<0.000002	0.0106	0.0086		5.08	0.00204
RSEM-R6E-SP	2/25/2019 0:55	VG8573	M	2.6	2.9	0.114	0.00062	0.0006	0.0962	<0.0001	<0.001	0.151	0.000053	112	0.0012	0.0011	0.00167	0.13	<0.0002	0.0355	39.9	0.101	<0.000002	0.0104	0.009		4.99	0.00206
RSEM-R6E-SP	2/26/2019 11:15	VH0045	M	2.1	2.3	0.124	0.00061	0.00062	0.102	<0.0001	<0.001	0.156	0.000056		0.0012	0.00102	0.00147	0.176	<0.0002	0.037		0.0964	<0.000002	0.0101	0.0086			0.00216
RSEM-R6E-SP	2/27/2019 11:10	VH2516	M	2.2	3.1	0.168	0.00063	0.00068	0.104	<0.0001	<0.001	0.165	0.000061	126	0.0012	0.00094	0.0016	0.239	<0.0002	0.0406	42.0	0.0883	<0.000002	0.0105	0.0085		5.68	0.00218
RSEM-R6E-SP	2/28/2019 11:45	VH4364	M	2.2	3.0	0.128	0.00069	0.00065	0.103	<0.0001	<0.001	0.172	0.000062	128	0.0012	0.00091	0.0018	0.235	<0.0002	0.0437	43.9	0.0871	<0.000002	0.0116	0.0091		5.46	0.00238
RSEM-R6E-SP	3/1/2019 11:35	VH5672	M	2.4	2.9	0.559	0.00064	0.001	0.111	<0.0001	<0.001	0.149	0.00007	120	0.002	0.00113	0.00252	0.81	0.00052	0.0347	44.3	0.0905	<0.000002	0.0114	0.0097		5.60	0.00225
RSEM-R6E-SP	3/2/2019 11:50	VH8126	M	2.7	2.5	0.0543	0.00065	0.00057	0.0922	<0.0001	<0.001	0.162	0.000051	124	0.0011	0.00074	0.00168	0.078	<0.0002	0.0382	44.4	0.0707	<0.000002	0.0115	0.0088		5.39	0.00223
RSEM-R6E-SP	3/3/2019 13:45	VH7774	M	2.6	3.0	0.148	0.00064	0.00066	0.0953	<0.0001	<0.001	0.17	0.000055	124	0.0012	0.00075	0.00198	0.225	<0.0002	0.0402	44.1	0.0692	<0.000002	0.0113	0.0088		5.36	0.00225
RSEM-R6E-SP	3/4/2019 16:15	VI1284	M	2.9	3.2	0.0536	0.00064	0.00053	0.0925	<0.0001	<0.001	0.172	0.000048	128	0.0011	0.00059	0.00186	0.06	<0.0002	0.0398	45.8	0.0563	<0.000002	0.0118	0.0087		5.62	0.0023
RSEM-R6E-SP	3/5/2019 12:25	VI1634	M	2.9	2.9	0.0885	0.0007	0.00059	0.0955	<0.0001	<0.001	0.193	0.000049	138	0.0011	0.00054	0.00223	0.084	<0.0002	0.0432	47.3	0.0529	<0.000002	0.0115	0.0091		5.88	0.00223
RSEM-R6E-SP	3/6/2019 13:15	VI3120	M	2.6	3.6	0.109	0.00068	0.00057	0.095	<0.0001	<0.001	0.179	0.000043	133	0.0011	0.00049	0.00189	0.058	<0.0002	0.0413	48.3	0.0453	<0.000002	0.0122	0.0088		5.86	0.00238
RSEM-R6E-SP	3/7/2019 13:35	VI4423	M	3.2	4.1	0.0628	0.00069	0.00052	0.09	<0.0001	<0.001	0.184	0.000048	138	0.0011	0.00046	0.00213	0.069	<0.0002	0.0436	51.0	0.039	<0.000002	0.0115	0.009		5.95	0.00217
RSEM-R6E-SP	3/8/2019 11:57	VI4434	M	3.3	3.2	0.0845	0.00072	0.00055	0.0979	<0.0001	<0.001	0.228	0.00005	152	0.0012	0.00042	0.00216	0.077	<0.0002	0.0473	54.2	0.0357	<0.000002	0.0125	0.0094		6.29	0.00259
RSEM-R6E-SP	3/9/2019 11:47	VI6894	M	3.6	3.8	0.0682	0.00073	0.00063	0.0985	<0.0001	<0.001	0.213	0.000046	153	0.0011	0.00038	0.0026	0.058	<0.0002	0.0486	54.8	0.0318	<0.000002	0.0131	0.0093		6.45	0.00274
RSEM-R6E-SP	3/10/2019 12:15	VI6955	M	3.2	4.2	0.0758	0.00072	0.00057	0.0943	<0.0001	<0.001	0.201	0.00004	155	0.0012	0.00035	0.00227	0.066	<0.0002	0.0473	56.0	0.0277	<0.000002	0.0126	0.0092		6.46	0.00256
RSEM-R6E-SP	3/11/2019 12:30	VI9558	M	3.1	2.9	0.173	0.00064	0.00054	0.0831	<0.0001	<0.001	0.187	0.000039	120	0.0011	0.00032	0.00204	0.135	<0.0002	0.0391	43.0	0.0225	<0.000002	0.01	0.0077		5.49	0.00213
RSEM-R6E-SP	3/12/2019 11:15	VI8442	M	4.2	3.6	1.66	<0.0005	0.00069	0.0725	<0.0001	<0.001	<0.05	0.00004	13.2	0.0024	0.0006	0.00377	0.93	0.00063	0.0064	5.23	0.0253	<0.000002	0.0023	0.0024		2.12	0.00041
RSEM-R6E-SP	3/13/2019 11:18	VJ2178	M	4.5	3.5	0.421	<0.0005	0.00081	0.09	<0.0001	<0.001	<0.05	0.000044	24.4	0.0014	0.00067	0.00365	0.898	0.00061	0.0072	7.11	0.0334	<0.000002	0.0046	0.0028		2.89	0.00054
RSEM-R6E-SP	3/15/2019 11:00	VJ4027	D	8.7	11	0.798	0.00061	0.00078	0.109	<0.0001	<0.001	<0.05	0.000044	58.6	0.0106	0.00063	0.00279	0.782	0.00034	0.0114	7.44	0.0275	<0.000002	0.0257	0.0041		7.64	0.00085
RSEM-R6E-SP	3/15/2019 11:00	VJ4021	M	11	11	0.829	0.00058	0.00077	0.107	<0.0001	<0.001	<0.05	0.000044	55.9	0.0105	0.00064	0.0027	0.847	0.00033	0.0114	7.18	0.0273	<0.000002	0.0262	0.004		7.44	0.00091
RSEM-R6E-SP	4/22/2019 12:55	VO3502	M	1.7	1.5	0.122	<0.0005	0.00037	0.143	<0.0001	<0.001	0.061	0.000026	59.2	0.0016	0.00077	0.00125	0.134	<0.0002	0.0198	16.1	0.0139	<0.000002	0.0072	0.0056		3.59	0.00099
RSEM-R6E-SP	5/25/2019 12:35	VT2679	M	2.6	2.5	0.206	<0.0005	0.00056	0.111	<0.0001	<0.001	0.132	0.000017	57.7	0.0024	0.00033	0.00169	0.225	<0.0002	0.0294	19.7	0.0086	<0.000002	0.0141	0.0039		5.15	0.00123
RSEM-R6E-SP	5/26/2019 14:25	VT2685	M	2.7	2.6	0.204	<0.0005	0.00051	0.116	<0.0001	<0.001	0.136	0.00002	59.5	0.0024	0.00037	0.00177	0.235	<0.0002	0.0316	20.3	0.0085	<0.000002	0.0141	0.0039		4.90	0.00122
RSEM-R6E-SP	5/27/2019 12:30	VT3953	M	2.4	2.5	0.192	<0.0005	0.00051	0.114	<0.0001	<0.001	0.135	0.000016	58.9	0.0023	0.00031	0.00172	0.213	<0.0002	0.0302	20.6	0.0077	<0.000002	0.0136	0.0036		5.19	0.00119
RSEM-R6E-SP	5/28/2019 11:10	VT7528	M	2.6	2.7	0.227	<0.0005	0.00056	0.108	<0.0001	<0.001	0.136	0.000029	56.4	0.0021	0.00037	0.00156	0.258	<0.0002	0.0309	18.9	0.0098	<0.000002	0.0136	0.0033		4.96	0.00115
RSEM-R6E-SP	5/29/2019 11:32	VT7392	M	2.6	2.8	0.224	0.00058	0.00052	0.108	<0.0001	<0.001	0.153	0.000011	57.1	0.0021	0.00024	0.00159	0.202	<0.0002	0.0323	20.7	0.0075	<0.000002	0.0134	0.003		5.30	0.00117
RSEM-R6E-SP	5/30/2019 12:37	VU2390	M	3.0	2.5	0.256	<0.0005	0.00066	0.11	<0.0001	<0.001	0.138	0.000021	53.1	0.0023	0.00046	0.00203	0.434	0.00026	0.0296	21.3	0.0154	<0.000002	0.0134	0.0034		5.10	0.00113
RSEM-R6E-SP	5/31/2019 10:15	VU2443	M	2.7	2.6	0.187	<0.0005	0.00059	0.102	<0.0001	<0.001	0.139	<0.00001	51.5	0.0019	0.00026	0.00174	0.236	<0.0002	0.0292	20.6	0.0095	<0.000002	0.0133	0.0027		4.94	0.00111
RSEM-R6E-SP	6/1/2019 11:22	VU3338	M	2.7	2.7	0.18	<0.0005	0.00058	0.0956	<0.0001	<0.001	0.141	<0.00001	50.5	0.0019	0.00022	0.00141	0.168	<0.0002	0.03	20.6	0.0084	<0.000002	0.0128	0.0023		5.03	0.0011
RSEM-R6E-SP	6/2/2019 9:43	VU6018	M	2.8	4.0	0.152	<0.0005	0.00062	0.0975	<0.0001	<0.001	0.143	<0.00001	50.0	0.0017	0.00021	0.0014	0.173	<0.0002	0.0313	19.7	0.0091	<0.000002	0.013	0.0023		5.12	0.00111

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-SP	1/14/2019 11:25	VC1961	M	3.63	<0.00002	65.1	0.45	34.3	0.000011	<0.005	<0.005	0.00145	<0.005	0.0229	<0.0001	0.0118	<0.0005	0.00033	0.0922	<0.0001	<0.001	0.106	0.000024	91.6	<0.001	0.00048	0.00076	<0.01
RSEM-R6E-SP	1/15/2019 11:30	VC4150	M	4.27	<0.00002	66.8	0.473	40.7	0.000013	<0.005	<0.005	0.00159	<0.005	0.11	<0.0001	0.0074	<0.0005	0.0004	0.0873	<0.0001	<0.001	0.106	0.000032	89.2	<0.001	0.00049	0.0007	<0.01
RSEM-R6E-SP	1/16/2019 10:50	VC6534	M	4.03	<0.00002	78.6	0.51	47.4	0.000012	<0.005	<0.005	0.00185	<0.005	0.28	<0.0001	0.007	<0.0005	0.00046	0.0964	<0.0001	<0.001	0.123	0.000026	94.4	<0.001	0.00075	0.00089	<0.01
RSEM-R6E-SP	1/17/2019 11:15	VC7566	M	4.39	<0.00002	103	0.488	78.7	0.000013	<0.005	<0.005	0.00217	<0.005	0.233	<0.0001	0.0562	0.00052	0.00063	0.103	<0.0001	<0.001	0.14	0.000037	96.4	<0.001	0.00131	0.00149	<0.01
RSEM-R6E-SP	1/18/2019 10:30	VC7591	M	4.62	<0.00002	122	0.539	94.9	0.000013	<0.005	<0.005	0.00267	<0.005	0.229	<0.0001	0.011	0.00063	0.00069	0.112	<0.0001	<0.001	0.152	0.000048	116	<0.001	0.00166	0.00149	<0.01
RSEM-R6E-SP	1/19/2019 12:20	VC9564	M	4.37	<0.00002	104	0.593	94.5	0.000016	<0.005	<0.005	0.00296	<0.005	0.0361	0.00011	0.0137	0.00062	0.00077	0.107	<0.0001	<0.001	0.137	0.000039	112	<0.001	0.00184	0.00203	<0.01
RSEM-R6E-SP	1/20/2019 11:39	VC9574	D	4.32	<0.00002	127	0.572	111	0.000015	<0.005	<0.005	0.00302	<0.005	0.0334	<0.0001	0.0169	0.00062	0.00075	0.1	<0.0001	<0.001	0.135	0.000048	101	0.0011	0.00209	0.00135	<0.01
RSEM-R6E-SP	1/20/2019 11:39	VC9573	M	4.58	<0.00002	126	0.565	107	0.000015	<0.005	<0.005	0.00295	<0.005	0.037	<0.0001	0.0156	0.00062	0.00073	0.101	<0.0001	<0.001	0.131	0.00005	107	0.001	0.00209	0.00151	<0.01
RSEM-R6E-SP	1/21/2019 13:20	VD2271	M	4.35	<0.00002	112	0.534	92.0	0.000015	<0.005	<0.005	0.00281	<0.005	0.0078	<0.0001	0.0258	0.00059	0.00068	0.104	<0.0001	<0.001	0.142	0.000047	101	<0.001	0.00173	0.00116	0.017
RSEM-R6E-SP	1/22/2019 12:15	VD2307	M	4.51	<0.00002	121	0.569	106	0.000017	<0.005	<0.005	0.00285	<0.005	0.334	<0.0001	0.0129	0.00075	0.00073	0.102	<0.0001	<0.001	0.147	0.000051	106	<0.001	0.00194	0.00139	<0.01
RSEM-R6E-SP	1/23/2019 12:15	VD3811	M	4.14	<0.00002	124	0.668	110	0.000013	<0.005	<0.005	0.00318	<0.005	0.0318	<0.0001	0.0155	0.00072	0.0008	0.115	<0.0001	<0.001	0.173	0.000046	112	<0.001	0.00193	0.00209	<0.01
RSEM-R6E-SP	1/24/2019 13:35	VD5540	M	3.8	<0.00002	108	0.549	92.1	0.000014	<0.005	<0.005	0.00298	<0.005	0.0551	0.00017	0.0073	0.00067	0.00076	0.103	<0.0001	<0.001	0.146	0.000047	103	<0.001	0.00167	0.00241	<0.01
RSEM-R6E-SP	1/25/2019 11:00	VD5640	M	0.632	<0.00002	17.5	0.0782	15.0	<0.00001	<0.005	<0.005	0.00038	<0.005	0.0208	<0.0001	0.0075	<0.0005	0.00018	0.0204	<0.0001	<0.001	<0.05	<0.00001	11.9	<0.001	<0.0002	0.00282	0.012
RSEM-R6E-SP	1/26/2019 16:00	VD7163	M	1.87	<0.00002	62.6	0.254	50.1	<0.00001	<0.005	<0.005	0.0012	<0.005	0.0137	<0.0001	0.0049	<0.0005	0.00051	0.0423	<0.0001	<0.001	0.084	0.000017	38.3	<0.001	0.00071	0.00356	<0.01
RSEM-R6E-SP	1/27/2019 13:10	VD7172	M	3.1	<0.00002	15.7	0.255	11.9	0.000014	<0.005	0.0134	0.00059	<0.005	0.0086	0.00051	0.0432	<0.0005	0.00042	0.0677	<0.0001	<0.001	<0.05	0.000032	38.5	0.0027	0.00054	0.00114	<0.01
RSEM-R6E-SP	1/28/2019 12:15	VD8610	M	3.35	<0.00002	18.6	0.253	14.5	0.000029	<0.005	0.0148	0.00078	<0.005	0.0124	0.00049	0.0309	<0.0005	0.00043	0.0785	<0.0001	<0.001	<0.05	0.000032	42.5	0.0025	0.0005	0.00101	<0.01
RSEM-R6E-SP	1/29/2019 11:35	VE0717	M	3.52	<0.00002	23.7	0.334	17.7	0.000012	<0.005	0.0089	0.00063	<0.005	0.0102	0.00026	0.0408	<0.0005	0.0005	0.0842	<0.0001	<0.001	<0.05	0.000035	44.1	0.0031	0.00067	0.00155	<0.01
RSEM-R6E-SP	1/30/2019 13:00	VE2163	D	3.28	<0.00002	23.7	0.335	19.7	0.000015	<0.005	0.0069	0.00072	<0.005	0.0089	0.00026	0.0367	<0.0005	0.00047	0.0773	<0.0001	<0.001	<0.05	0.00003	42.4	0.003	0.00068	0.00166	<0.01
RSEM-R6E-SP	1/30/2019 13:00	VE2160	M	3.19	<0.00002	22.2	0.316	18.2	0.000012	<0.005	0.0068	0.00068	<0.005	0.0084	0.00016	0.0365	<0.0005	0.00048	0.0785	<0.0001	<0.001	<0.05	0.00003	43.0	0.0029	0.00067	0.0016	<0.01
RSEM-R6E-SP	1/31/2019 12:25	VE3664	M	2.9	<0.00002	24.9	0.296	19.0	<0.00001	<0.005	<0.005	0.00073	<0.005	0.0102	0.00014	0.0388	<0.0005	0.00047	0.083	<0.0001	<0.001	0.072	0.000033	44.4	0.0031	0.00072	0.00169	<0.01
RSEM-R6E-SP	2/1/2019 11:15	VE3671	M	2.92	<0.00002	27.0	0.311	20.1	<0.00001	<0.005	<0.005	0.00078	<0.005	0.0141	0.00011	0.0389	<0.0005	0.00051	0.0898	<0.0001	<0.001	0.067	0.000034	47.7	0.0033	0.00075	0.00187	<0.01
RSEM-R6E-SP	2/2/2019 12:00	VE5318	M	3.97	<0.00002	29.4	0.347	25.4	0.000012	<0.005	<0.005	0.00087	<0.005	0.0205	<0.0001	0.0362	<0.0005	0.00062	0.0944	<0.0001	<0.001	0.052	0.000036	53.5	0.0033	0.00075	0.00212	<0.01
RSEM-R6E-SP	2/3/2019 11:30	VE5315	M	3.96	<0.00002	30.1	0.368	25.1	0.000012	<0.005	<0.005	0.00089	<0.005	0.0266	<0.0001	0.0393	0.0005	0.00063	0.103	<0.0001	<0.001	0.052	0.00004	57.2	0.0037	0.00086	0.0025	<0.01
RSEM-R6E-SP	2/4/2019 12:30	VE6891	M	3.98	<0.00002	36.1	0.394	26.3	0.000014	<0.005	<0.005	0.00102	<0.005	0.0319	0.00013	0.0396	0.00057	0.00067	0.112	<0.0001	<0.001	0.061	0.000046	62.7	0.0039	0.00091	0.00268	<0.01
RSEM-R6E-SP	2/5/2019 10:30	VE6872	D	4.25	<0.00002	38.1	0.413	31.5	0.000013	<0.005	<0.005	0.00108	<0.005	0.0367	0.0001	0.0406	0.0006	0.00073	0.119	<0.0001	<0.001	0.065	0.00005	67.1	0.0041	0.001	0.00277	<0.01
RSEM-R6E-SP	2/5/2019 10:30	VE6871	M	4.16	<0.00002	39.6	0.418	32.0	0.000014	<0.005	<0.005	0.00106	<0.005	0.0372	0.0001	0.0435	0.0006	0.00074	0.121	<0.0001	<0.001	0.065	0.000048	66.1	0.0041	0.001	0.0029	0.01
RSEM-R6E-SP	2/6/2019 13:25	VE9930	M	4	<0.00002	44.2	0.48	34.0	0.000012	<0.005	<0.005	0.0013	<0.005	0.0425	<0.0001	0.042	0.00065	0.00075	0.134	<0.0001	<0.001	0.069	0.000054	76.5	0.0044	0.00109	0.00301	<0.01
RSEM-R6E-SP	2/7/2019 11:00	VF0004	M	4.15	<0.00002	51.0	0.517	40.6	0.000013	<0.005	<0.005	0.00149	<0.005	0.0426	<0.0001	0.04	0.00069	0.00075	0.137	<0.0001	<0.001	0.077	0.000054	82.0	0.0044	0.0012	0.00288	<0.01
RSEM-R6E-SP	2/8/2019 11:00	VF1452	D	5.2	<0.00002	57.8	0.587	48.3	0.000014	<0.005	<0.005	0.00168	<0.005	0.0456	<0.0001	0.0396	0.00073	0.00082	0.144	<0.0001	<0.001	0.085	0.00006	85.7	0.0045	0.00127	0.00298	<0.01
RSEM-R6E-SP	2/8/2019 11:00	VF1451	M	4.83	<0.00002	55.9	0.56	46.3	0.000015	<0.005	<0.005	0.0016	<0.005	0.0441	<0.0001	0.0422	0.00073	0.00086	0.145	<0.0001	<0.001	0.084	0.000056	86.2	0.0044	0.00126	0.00286	<0.01
RSEM-R6E-SP	2/9/2019 13:00	VF3227	M	5.01	<0.00002	61.5	0.577	51.2	0.000014	<0.005	<0.005	0.00177	<0.005	0.0381	<0.0001	0.0341	0.00073	0.00091	0.143	<0.0001	<0.001	0.099	0.000061	88.6	0.0043	0.00138	0.00288	<0.01
RSEM-R6E-SP	2/10/2019 13:30	VF3198	M	4.91	<0.00002	67.7	0.585	57.1	0.000013	<0.005	<0.005	0.00195	<0.005	0.03	<0.0001	0.03	0.00073	0.00087	0.144	<0.0001	<0.001	0.103	0.000056	93.2	0.004	0.00156	0.00269	<0.01
RSEM-R6E-SP	2/11/2019 13:55	VF4316	M	4.66	<0.00002	73.0	0.578	59.5	0.000014	<0.005	<0.005	0.00207	<0.005	0.0221	<0.0001	0.0316	0.00074	0.00087	0.144	<0.0001	<0.001	0.109	0.000062	93.6	0.004	0.0016	0.00242	<0.01
RSEM-R6E-SP	2/12/2019 13:17	VF6504	M	5.6	<0.00002	79.1	0.669	66.5	0.000024	<0.005	<0.005	0.00233	<0.005	0.0177	<0.0001	0.0328	0.00077	0.00089	0.15	<0.0001	<0.001	0.117	0.000061	102	0.0041	0.00163	0.00212	<0.01
RSEM-R6E-SP	2/13/2019 11:35	VF7819	M	5.77	<0.00002	82.6	0.692	70.2	0.00003	<0.005	<0.005	0.00237	<0.005	0.0134	<0.0001	0.032	0.00077	0.00089	0.149	<0.0001	<0.001	0.119	0.000063	101	0.0042	0.00176	0.00196	<0.01
RSEM-R6E-SP	2/14/2019 11:37	VF9046	M	5.62	<0.00002	82.3	0.684	74.1	0.000012	<0.005	<0.005	0.00242	<0.005	0.0097	<0.0001	0.0338	0.0008	0.00089	0.151	<0.0001	<0.001	0.121	0.000068	106	0.004	0.00168	0.00164	<0.01
RSEM-R6E-SP	2/15/2019 11:25	VF9052	M	5.59	<0.00002	87.3	0.7	77.7	0.000012	<0.005	<0.005	0.00244	<0.005	0.0082	<0.0001	0.029	0.00084	0.00102	0.144	<0.0001	<0.001	0.119	0.000061	105	0.0039	0.00168	0.00148	<0.01
RSEM-R6E-SP	2/16/2019 12:30	VF9493	M	4.45	<0.00002	95.6	0.62	79.5	0.000014	<0.005	<0.005	0.00261	<0.005	0.0081	<0.0001	0.0223	0.00072	0.00076	0.131	<0.0001	<0.001	0.122	0.000057	103	0.003	0.00176	0.00143	<0.01
RSEM-R6E-SP	2/17/2019 12:17	VG0947	M	4.07	<0.00002	107	0.623	92.1	0.000016	<0.005	<0.005	0.00381	<0.005	0.0099	<0.0001	0.0153	0.00071	0.00075	0.12	<0.0001	<0.001	0.128	0.000048	99.5	0.0017	0.00169	0.00133	<0.01
RSEM-R6E-SP	2/18/2019 13:25	VG0932	M	4.09	<0.00002	114	0.647	98.0	0.000024	<0.005	0.0103	0.00407	<0.005	0.0128	0.00026	0.0057	0.00072	0.00063	0.108	<0.0001	<0.001	0.136	0.000053	111	0.001	0.00153	0.0011	<0.01
RSEM-R6E-SP	2/19/2019 11:30	VG0985	M	4.1	<0.00002		0.647	98.4	0.000021	<0.005	<0.005	0.00405	<0.005	0.009	0.0002	0.0102	0.00073	0.00067	0.115	<0.0001	<0.001	0.143	0.00005		0.0012	0.0016	0.00124	<0.01
RSEM-R6E-SP	2/20/2019 11:20	VG2863	M	5.04	<0.00002	115	0.718	104	0.000021	<0.005	0.0059	0.00327	<0.005	0.0079	0.00027	0.0052	0.00066	0.00063	0.104	<0.0001	<0.001	0.162	<0.00001	115	0.0011	0.00149	0.00106	<0.01
RSEM-R6E-SP	2/21/2019 10:45	VG4541	D	4.64	<0.00002	116	0.705	101	0.000016	<0.005	<0.005	0.00334	<0.005	0.0075	0.00011	0.0045	0.00131	0.00063	0.106	<0.0001	<0.001	0.151	0.000054	122	0.001	0.00137	0.00113	<0.01
RSEM-R6E-SP	2/21/2019 10:45	VG4539	M	4.54	<0.00002	113	0.686	99.9	0.000015	<0.005	<0.005	0.00323	<0.005	0.0071	0.00011	0.0045	0.00066	0.00062	0.105	<0.0001	<0.001	0.151	0.000052	121	0.001	0.00136	0.00118	<0.01
RSEM-R6E-SP	2/22/2019 11:10	VG6140	M	4.55	<0.00002	112	0.689	101	0.000012	<0.005	<0.005	0.0032	<0.005	0.0071	0.00017	0.0205	0.00065	0.00057	0.0993	<0.0001	<0.001	0.162	0.000044	117	<0.001	0.00117	0.00117	<0.01
RSEM-R6E-SP	2/23/2019 12:10	VG8588	M	4.46	<0.00002	116	0.715	102	0.00001	<0.005	<0.005	0.0032	<0.005	0.0065	<0.0001	0.0037	0.00062	0.00053	0.0931	<0.0001	<0.001	0.17	0.000054	114	0.001	0.00111	0.00116	<0.01
RSEM-R6E-SP	2/24/2019 12:00	VG8609	M	4.85	<0.00002	119	0.759	105	0.000013	<0.005	<0.005	0.00337	<0.005	0.0069	<0.0001	0.0041	0.00065	0.00052	0.0947	<0.0001	<0.001	0.179	0.000049	118	0.001	0.00108	0.00126	<0.01
RSEM-R6E-SP	2/25/2019 0:55	VG8573	M	4.59	<0.00002	119	0.72	103	0.000012	<0.005	<0.005	0.00329	<0.005	0.0068	0.00018	0.0035	0.00063	0.00051	0.0938	<0.0001	<0.001	0.172	0.000047	118	<0.001	0.00101	0.00117	<0.01
RSEM-R6E-SP	2/26/2019 11:15	VH0045	M	5.23	<0.00002		0.685	112	0.000018	<0.005	<0.005	0.00329	<0.005	0.0062	0.00014	0.003	0.00066	0.00057	0.0957	<0.0001	<0.001	0.163	0.00005		<0.001	0.00093	0.00108	<0.01
RSEM-R6E-SP	2/27/2019 11:10	VH2516	M	5.53	<0.00002	127	0.747	125	0.000022	<0.005	<0.005	0.00336	<0.005	0.0057	0.00012	0.0036	0.00063	0.00054	0.0959	<0.0001	<0.001	0.178	0.000052	130	<0.001	0.00083	0.00106	<0.01
RSEM-R6E-SP	2/28/2019 11:45	VH4364	M	5.68	<0.00002	130	0.87	120	0.000017	<0.005	<0.005	0.00361	<0.005	0.0067	0.00021	0.0032	0.00067	0.00051	0.0928	<0.0001	<0.001	0.191	0.000051	125	<0.001	0.00076	0.00127	<0.01
RSEM-R6E-SP	3/1/2019 11:35	VH5672	M	5.57	<0.00002	134	0.823	115	0.000025	<0.005	0.0197	0.00372	<0.005	0.008	0.00058	<0.003	0.00067	0.00047	0.0904	<0.0001	<0.001	0.183	0.000049	130	<0.001	0.00055	0.00126	<0.01
RSEM-R6E-SP	3/2/2019 11:50	VH8126	M	4.97	<0.00002	131	0.813	116	0.000014	<0.005	<0.005	0.00353	<0.005	0.0053	0.00019	<0.003	0.00067	0.00049	0.0897	<0.0001	<0.001	0.178	0.000046	127	<0.001	0.00063	0.0014	<0.01
RSEM-R6E-SP	3/3/2019 13:45	VH7774	M	5.27	<0.00002	130	0.838	116	0.000014	<0.005	<0.005	0.00352	<0.005	0.0062	0.00014	0.0033	0.00066	0.00053	0.0874	<0.0001	<0.001	0.169	0.000049	130	<0.001	0.00058	0.00147	<0.01
RSEM-R6E-SP	3/4/2019 16:15	VI1284	M	5.33	<0.00002	137	0.868	122	0.00001	<0.005	<0.005	0.00363	<0.005	0.0062	0.00018	<0.003	0.00066	0.00053	0.0935	<0.0001	<0.001	0.17	0.000044	132	<0.001	0.00056	0.00166	<0.01
RSEM-R6E-SP	3/5/2019 12:25	VI1634	M	5.42	<0.00002	151	0.795	134	0.000017	<0.005	<0.005	0.00373	<0.005	0.0068	0.00012	<0.003	0.00071	0.00052	0.0949	<0.0001	<0.001	0.21	0.000039	155	0.001	0.00053	0.00182	<0.01
RSEM-R6E-SP	3/6/2019 13:15	VI3120	M	5.41	<0.00002	143	0.933	128	0.000011	<0.005	<0.005	0.0039	<0.005	0.0053	<0.0001	<0.003	0.00066	0.00084	0.0896	<0.0001	<0.001	0.184	0.00004	134	0.001	0.00045	0.00171	<0.01
RSEM-R6E-SP	3/7/2019 13:35	VI4423	M	5.22	<0.00002	144	0.804	129	0.000016	<0.005	<0.005	0.00393	<0.005	0.006	0.00011	<0.003	0.00071	0.00054	0.0954	<0.0001	<0.001	0.187	0.000045	145	<0.001	0.00038	0.00189	<0.01
RSEM-R6E-SP	3/8/2019 11:57	VI4434	M	5.91	<0.00002	163	0.858	137	0.000018	<0.005	<0.005	0.00417	<0.005	0.006	0.00013	<0.003	0.00069	0.00054	0.0959	<0.0001	<0.001	0.193	0.000041	155	<0.001	0.00033	0.00178	<0.01
RSEM-R6E-SP	3/9/2019 11:47	VI6894	M	5.88	<0.00002	164	0.925	150	0.000017	<0.005	<0.005	0.00424	<0.005	0.0067	0.00016	<0.003	0.00069	0.00054	0.096	<0.0001	<0.001	0.215	0.000039	146	0.0011	0.00035	0.00188	<0.01
RSEM-R6E-SP	3/10/2019 12:15	VI6955	M	5.78	<0.00002	163	0.924	150	0.000015	<0.005	<0.005	0.00405	<0.005	0.0058	0.0002	<0.003	0.00068	0.00059	0.0938	<0.0001	<0.001	0.209	0.00004	147	0.0012	0.00033	0.00203	<0.01
RSEM-R6E-SP	3/11/2019 12:30	VI9558	M	4.89	<0.00002	131	0.756	123	0.000016	<0.005	<0.005	0.00344	<0.005	0.0067	0.0001	0.0033	0.0006	0.00074	0.0841	<0.0001	<0.001	0.205	0.000036	125	<0.001	0.00026	0.00154	<0.01
RSEM-R6E-SP	3/12/2019 11:15	VI8442	M	3.88	<0.00002	16.9	0.0747	13.0	0.000025	<0.005	0.0533	0.00046	<0.005	0.0084	0.00193	0.0085	<0.0005	0.00027	0.0531	<0.0001	<0.001	<0.05	0.00002	13.5	<0.001	0.00031	0.00238	<0.01
RSEM-R6E-SP	3/13/2019 11:18	VJ2178	M	1.77	<0.00002	24.0	0.145	16.9	0.000019	<0.005	0.0087	0.00055	<0.005	0.01	0.00022	0.0091	<0.0005	0.00036	0.0694	<0.0001	<0.001	<0.05	0.00002	20.8	<0.001	0.00031	0.00175	<0.01
RSEM-R6E-SP	3/15/2019 11:00	VJ4027	D	5.71	<0.00002	33.9	0.466	23.5	0.000021	<0.005	0.0299	0.00077	<0.005	<0.005	0.00041	0.0384	0.00062	0.00053	0.1	<0.0001	<0.001	<0.05	0.00003	55.7	0.0093	0.00034	0.00177	<0.01
RSEM-R6E-SP	3/15/2019 11:00	VJ4021	M	5.51	<0.00002	31.7	0.457	23.2	0.00002	<0.005	0.0222	0.00074	<0.005	<0.005	0.00046	0.0383	0.00059	0.00052	0.0994	<0.0001	<0.001	<0.05	0.000031	54.7	0.0091	0.00033	0.00176	<0.01
RSEM-R6E-SP	4/22/2019 12:55	VO3502	M	2.25	<0.00002	34.2	0.371	32.5	0.000012	<0.005	<0.005	0.00135	<0.005	<0.005	<0.0001	0.031	<0.0005	0.00031	0.128	<0.0001	<0.001	0.056	0.000012	59.0	0.0013	0.0005	0.00079	<0.01
RSEM-R6E-SP	5/25/2019 12:35	VT2679	M	1.24	<0.00002	68.0	0.505	52.1	0.000018	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001	0.0319	<0.0005	0.00042	0.113	<0.0001	<0.001	0.131	<0.00001	58.8	0.0023	<0.0002	0.0012	<0.01
RSEM-R6E-SP	5/26/2019 14:25	VT2685	M	1.36	<0.00002	69.5	0.524	53.8	0.00002	<0.005	<0.005	0.00154	<0.005	<0.005	0.00011	0.0329	<0.0005	0.00042	0.112	<0.0001	<0.001	0.137	0.000013	59.5	0.0022	<0.0002	0.00133	<0.01
RSEM-R6E-SP	5/27/2019 12:30	VT3953	M	1.36	<0.00002	70.4	0.528	54.2	0.00002	<0.005	<0.005	0.0015	<0.005	<0.005	0.00013	0.0321	<0.0005	0.0004	0.106	<0.0001	<0.001	0.151	<0.00001	57.8	0.002	<0.0002	0.00117	<0.01
RSEM-R6E-SP	5/28/2019 11:10	VT7528	M	1.25	<0.00002	64.8	0.515	53.4	0.00002	<0.005	<0.005	0.00154	<0.005	<0.005	0.00025	0.0312	<0.0005	0.00042	0.106	<0.0001	<0.001	0.154	<0.00001	56.4	0.0019	<0.0002	0.00116	<0.01
RSEM-R6E-SP	5/29/2019 11:32	VT7392	M	1.34	<0.00002	71.2	0.505	56.0	0.000019	<0.005	0.0052	0.00155	<0.005	<0.005	0.00022	0.0309	<0.0005	0.00044	0.103	<0.0001	<0.001	0.15	<0.00001	55.0	0.0018	<0.0002	0.00114	<0.01
RSEM-R6E-SP	5/30/2019 12:37	VU2390	M	1.24	<0.00002	73.6	0.571	52.3	0.000022	<0.005	0.0066	0.00156	<0.005	<0.005	0.00033	0.0427	0.00062	0.00047	0.102	<0.0001	<0.001	0.149	<0.00001	55.0	0.0017	<0.0002	0.00119	<0.01
RSEM-R6E-SP	5/31/2019 10:15	VU2443	M	1.17	<0.00002	72.6	0.557	51.6	0.00002	<0.005	<0.005	0.00156	<0.005	<0.005	0.00012	0.0376	0.00055	0.00047	0.0992	<0.0001	<0.001	0.158	<0.00001	55.5	0.0017	<0.0002	0.00133	<0.01
RSEM-R6E-SP	6/1/2019 11:22	VU3338	M	1.19	<0.00002	72.2	0.56	51.1	0.000016	<0.005	0.0091	0.00148	<0.005	<0.005	0.00028	0.0305	<0.0005	0.00046	0.0944	<0.0001	<0.001	0.16	<0.00001	52.3	0.0015	<0.0002	0.00119	<0.01
RSEM-R6E-SP	6/2/2019 9:43	VU6018	M	1.25	<0.00002	69.7	0.58	51.6	0.000016	<0.005	<0.005	0.00151	<0.005	<0.005	0.00014	0.0286	<0.0005	0.00051	0.0887	<0.0001	<0.001	0.148	<0.00001	48.9	0.0015	<0.0002	0.00105	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-SP	1/14/2019 11:25	VC1961	M	<0.0002	0.0286	24.0	0.0382	<0.000002	0.005	0.0048		3.81	0.00141	4.29	<0.00002	65.6	0.462	34.5	0.000012	<0.005	<0.005	0.0015	<0.005	0.0225	<0.0001
RSEM-R6E-SP	1/15/2019 11:30	VC4150	M	<0.0002	0.0283	24.4	0.0418	<0.000002	0.005	0.0045		3.77	0.00143	4.27	<0.00002	67.5	0.464	36.7	0.000014	<0.005	<0.005	0.00153	<0.005	0.113	<0.0001
RSEM-R6E-SP	1/16/2019 10:50	VC6534	M	<0.0002	0.0302	26.9	0.0634	<0.000002	0.0062	0.0056		4.22	0.00169	4.41	<0.00002	77.7	0.501	49.9	0.000014	<0.005	<0.005	0.0018	<0.005	0.262	<0.0001
RSEM-R6E-SP	1/17/2019 11:15	VC7566	M	<0.0002	0.0333	30.9	0.11	<0.000002	0.0078	0.0073		4.40	0.00198	4.07	<0.00002	94.7	0.524	72.4	0.000014	<0.005	<0.005	0.00236	<0.005	0.208	<0.0001
RSEM-R6E-SP	1/18/2019 10:30	VC7591	M	<0.0002	0.0365	37.3	0.148	<0.000002	0.0098	0.0087		5.04	0.00221	4.94	<0.00002	112	0.594	97.1	0.000015	<0.005	<0.005	0.00291	<0.005	0.195	<0.0001
RSEM-R6E-SP	1/19/2019 12:20	VC9564	M	<0.0002	0.034	39.0	0.158	<0.000002	0.0096	0.0093		4.68	0.00225	4.67	<0.00002	114	0.568	96.2	0.000013	<0.005	<0.005	0.00288	<0.005	0.0376	<0.0001
RSEM-R6E-SP	1/20/2019 11:39	VC9574	D	<0.0002	0.0336	39.6	0.182	<0.000002	0.0095	0.0099		4.63	0.00218	4.09	<0.00002	116	0.549	103	0.000014	<0.005	<0.005	0.00287	<0.005	0.0308	<0.0001
RSEM-R6E-SP	1/20/2019 11:39	VC9573	M	<0.0002	0.0332	39.6	0.187	<0.000002	0.0094	0.0104		4.68	0.00229	4.38	<0.00002	118	0.554	104	0.000014	<0.005	<0.005	0.00296	<0.005	0.0299	<0.0001
RSEM-R6E-SP	1/21/2019 13:20	VD2271	M	<0.0002	0.034	36.0	0.15	<0.000002	0.0088	0.0083		4.52	0.00227	4.28	<0.00002	106	0.56	86.4	0.000014	<0.005	<0.005	0.00273	<0.005	0.0068	<0.0001
RSEM-R6E-SP	1/22/2019 12:15	VD2307	M	<0.0002	0.0353	36.8	0.169	<0.000002	0.0092	0.0092		4.74	0.00214	4.33	<0.00002	116	0.571	98.6	0.000015	<0.005	<0.005	0.00281	<0.005	0.333	<0.0001
RSEM-R6E-SP	1/23/2019 12:15	VD3811	M	<0.0002	0.0446	41.1	0.17	<0.000002	0.0107	0.0102		4.95	0.0024	4.37	<0.00002	123	0.67	110	0.000013	<0.005	<0.005	0.00323	<0.005	0.0248	<0.0001
RSEM-R6E-SP	1/24/2019 13:35	VD5540	M	<0.0002	0.0353	38.1	0.153	<0.000002	0.01	0.0095		4.54	0.00218	3.92	<0.00002	113	0.614	100	0.000014	<0.005	<0.005	0.00295	<0.005	0.0405	<0.0001
RSEM-R6E-SP	1/25/2019 11:00	VD5640	M	<0.0002	0.005	5.43	0.0149	<0.000002	0.0014	0.0012		0.777	0.00031	0.586	<0.00002	16.9	0.0685	14.3	<0.00001	<0.005	<0.005	0.00034	<0.005	0.0068	<0.0001
RSEM-R6E-SP	1/26/2019 16:00	VD7163	M	<0.0002	0.0181	20.7	0.0497	<0.000002	0.0052	0.0039		2.56	0.00111	1.76	<0.00002	63.8	0.255	51.3	<0.00001	<0.005	<0.005	0.00122	<0.005	0.0128	<0.0001
RSEM-R6E-SP	1/27/2019 13:10	VD7172	M	<0.0002	0.0076	6.60	0.021	<0.000002	0.0054	0.0036		2.76	0.00048	2.48	<0.00002	16.8	0.3	13.4	<0.00001	<0.005	<0.005	0.00051	<0.005	<0.005	<0.0001
RSEM-R6E-SP	1/28/2019 12:15	VD8610	M	<0.0002	0.0088	8.42	0.0202	<0.000002	0.0055	0.0035		2.86	0.00056	2.71	<0.00002	20.8	0.313	16.9	<0.00001	<0.005	<0.005	0.00062	<0.005	<0.005	<0.0001
RSEM-R6E-SP	1/29/2019 11:35	VE0717	M	<0.0002	0.0105	8.84	0.0232	<0.000002	0.0061	0.0045		3.30	0.00062	3.01	<0.00002	23.0	0.327	18.4	<0.00001	<0.005	<0.005	0.00071	<0.005	<0.005	<0.0001
RSEM-R6E-SP	1/30/2019 13:00	VE2163	D	<0.0002	0.0092	8.97	0.0228	<0.000002	0.0058	0.0044		3.22	0.00055	2.5	<0.00002	24.1	0.285	18.1	<0.00001	<0.005	<0.005	0.0007	<0.005	0.0055	<0.0001
RSEM-R6E-SP	1/30/2019 13:00	VE2160	M	<0.0002	0.0089	9.00	0.0233	<0.000002	0.0058	0.0045		3.22	0.00055	2.53	<0.00002	23.8	0.286	18.1	<0.00001	<0.005	<0.005	0.0007	<0.005	0.0053	<0.0001
RSEM-R6E-SP	1/31/2019 12:25	VE3664	M	<0.0002	0.0107	9.08	0.0243	<0.000002	0.0062	0.0046		3.20	0.00055	2.87	<0.00002	24.7	0.301	19.8	<0.00001	<0.005	<0.005	0.00073	<0.005	0.0069	<0.0001
RSEM-R6E-SP	2/1/2019 11:15	VE3671	M	<0.0002	0.0116	10.0	0.0264	<0.000002	0.0064	0.0047		3.48	0.00062	3.11	<0.00002	26.3	0.314	21.0	0.00001	<0.005	<0.005	0.00077	<0.005	0.0096	<0.0001
RSEM-R6E-SP	2/2/2019 12:00	VE5318	M	<0.0002	0.0128	10.1	0.0279	<0.000002	0.0071	0.0048		3.76	0.00065	3.51	<0.00002	27.1	0.361	23.6	0.000012	<0.005	<0.005	0.00086	<0.005	0.0177	<0.0001
RSEM-R6E-SP	2/3/2019 11:30	VE5315	M	<0.0002	0.0137	11.8	0.0321	<0.000002	0.0074	0.0055		4.34	0.00071	3.73	<0.00002	32.5	0.38	25.9	0.000011	<0.005	<0.005	0.00091	<0.005	0.0266	<0.0001
RSEM-R6E-SP	2/4/2019 12:30	VE6891	M	<0.0002	0.0153	13.3	0.0357	<0.000002	0.0084	0.0058		4.47	0.0008	3.98	<0.00002	36.1	0.445	28.5	<0.00001	<0.005	<0.005	0.00107	<0.005	0.0279	<0.0001
RSEM-R6E-SP	2/5/2019 10:30	VE6872	D	<0.0002	0.0158	14.7	0.0397	<0.000002	0.009	0.0061		4.80	0.0009	4.25	<0.00002	39.5	0.471	31.5	<0.00001	<0.005	<0.005	0.00115	<0.005	0.0341	<0.0001
RSEM-R6E-SP	2/5/2019 10:30	VE6871	M	<0.0002	0.0157	14.6	0.0401	<0.000002	0.009	0.0062		4.78	0.00089	4.24	<0.00002	39.6	0.477	31.3	<0.00001	<0.005	<0.005	0.00114	<0.005	0.0347	<0.0001
RSEM-R6E-SP	2/6/2019 13:25	VE9930	M	<0.0002	0.0179	16.2	0.0455	<0.000002	0.0095	0.0068		5.26	0.00099	4.92	<0.00002	44.2	0.494	34.3	0.000013	<0.005	<0.005	0.00127	<0.005	0.0412	<0.0001
RSEM-R6E-SP	2/7/2019 11:00	VF0004	M	<0.0002	0.0203	18.0	0.0572	<0.000002	0.0098	0.0074		5.38	0.00117	5.19	<0.00002	50.1	0.513	42.5	0.000016	<0.005	<0.005	0.0015	<0.005	0.042	<0.0001
RSEM-R6E-SP	2/8/2019 11:00	VF1452	D	<0.0002	0.0219	20.1	0.0638	0.000004	0.0103	0.0081		5.82	0.00121	5.22	<0.00002	55.6	0.547	50.1	0.000017	<0.005	<0.005	0.00165	<0.005	0.042	<0.0001
RSEM-R6E-SP	2/8/2019 11:00	VF1451	M	<0.0002	0.0226	20.1	0.062	0.0000027	0.0105	0.0079		5.69	0.00121	5.27	<0.00002	57.1	0.549	46.1	0.000016	<0.005	<0.005	0.00165	<0.005	0.0419	<0.0001
RSEM-R6E-SP	2/9/2019 13:00	VF3227	M	<0.0002	0.0238	22.9	0.075	0.0000029	0.0111	0.0085		5.71	0.00133	5.11	<0.00002	62.8	0.578	52.0	0.000013	<0.005	<0.005	0.00186	<0.005	0.0371	<0.0001
RSEM-R6E-SP	2/10/2019 13:30	VF3198	M	<0.0002	0.0255	25.2	0.0878	0.0000026	0.0118	0.0088		5.84	0.00143	5.01	<0.00002	70.1	0.595	58.7	0.000013	<0.005	<0.005	0.00206	<0.005	0.0284	<0.0001
RSEM-R6E-SP	2/11/2019 13:55	VF4316	M	<0.0002	0.0254	26.9	0.0933	0.0000025	0.0115	0.0091		5.89	0.00148	4.86	<0.00002	74.9	0.622	63.6	0.000013	<0.005	<0.005	0.00212	<0.005	0.0225	<0.0001
RSEM-R6E-SP	2/12/2019 13:17	VF6504	M	<0.0002	0.0296	29.3	0.101	<0.000002	0.0119	0.0095		6.06	0.00159	5.6	<0.00002	81.4	0.662	68.0	0.000013	<0.005	<0.005	0.00232	<0.005	0.017	<0.0001
RSEM-R6E-SP	2/13/2019 11:35	VF7819	M	<0.0002	0.0271	30.5	0.107	<0.000002	0.0122	0.0098		6.24	0.00163	5.09	<0.00002	87.0	0.658	72.0	0.000014	<0.005	<0.005	0.0024	<0.005	0.0131	<0.0001
RSEM-R6E-SP	2/14/2019 11:37	VF9046	M	<0.0002	0.0303	31.5	0.107	<0.000002	0.0126	0.0099		6.22	0.00177	5.63	<0.00002	88.9	0.699	76.5	0.000013	<0.005	<0.005	0.00249	<0.005	0.0085	<0.0001
RSEM-R6E-SP	2/15/2019 11:25	VF9052	M	<0.0002	0.0294	31.1	0.107	0.0000032	0.0123	0.0097		6.05	0.00175	5.5	<0.00002	91.1	0.667	78.3	<0.00001	<0.005	<0.005	0.00251	<0.005	0.0083	<0.0001
RSEM-R6E-SP	2/16/2019 12:30	VF9493	M	<0.0002	0.03	33.2	0.123	<0.000002	0.0115	0.0098		5.62	0.00185	4.94	<0.00002	97.7	0.652	84.3	<0.00001	<0.005	<0.005	0.00268	<0.005	0.0069	<0.0001
RSEM-R6E-SP	2/17/2019 12:17	VG0947	M	<0.0002	0.0343	36.6	0.141	<0.000002	0.0188	0.0099		4.75	0.00199	4.1	<0.00002	109	0.628	90.0	0.000017	<0.005	<0.005	0.00384	<0.005	0.0085	<0.0001
RSEM-R6E-SP	2/18/2019 13:25	VG0932	M	<0.0002	0.0389	40.2	0.145	<0.000002	0.0106	0.0095		4.69	0.00215	4.18	<0.00002	119	0.643	98.4	0.000015	<0.005	<0.005	0.00422	<0.005	0.0074	<0.0001
RSEM-R6E-SP	2/19/2019 11:30	VG0985	M	<0.0002	0.0382	40.9	0.15	<0.000002	0.0112	0.0099			0.00204	3.78	<0.00002		0.66	104	0.000014	<0.005	<0.005	0.00426	<0.005	0.0076	<0.0001
RSEM-R6E-SP	2/20/2019 11:20	VG2863	M	<0.0002	0.0362	40.9	0.145	<0.000002	0.0108	0.009		5.02	0.00223	4.65	<0.00002	118	0.712	106	0.000012	<0.005	<0.005	0.00331	<0.005	0.0055	<0.0001
RSEM-R6E-SP	2/21/2019 10:45	VG4541	D	<0.0002	0.0364	37.8	0.127	0.0000021	0.0109	0.0088		4.82	0.00211	4.77	<0.00002	114	0.705	95.4	0.000018	<0.005	<0.005	0.00337	<0.005	0.0141	<0.0001
RSEM-R6E-SP	2/21/2019 10:45	VG4539	M	<0.0002	0.0354	38.6	0.13	<0.000002	0.011	0.0092		5.06	0.00211	4.7	<0.00002	118	0.675	100	0.000018	<0.005	<0.005	0.00326	<0.005	0.005	<0.0001
RSEM-R6E-SP	2/22/2019 11:10	VG6140	M	<0.0002	0.0392	41.0	0.12	0.0000036	0.011	0.009		5.14	0.00212	4.86	<0.00002	121	0.76	108	0.000015	<0.005	<0.005	0.00344	<0.005	0.0057	<0.0001
RSEM-R6E-SP	2/23/2019 12:10	VG8588	M	<0.0002	0.0386	40.9	0.109	<0.000002	0.0107	0.0085		5.19	0.00205	4.73	<0.00002	121	0.745	108	0.000013	<0.005	<0.005	0.00334	<0.005	0.0056	<0.0001
RSEM-R6E-SP	2/24/2019 12:00	VG8609	M	<0.0002	0.0396	42.2	0.103	<0.000002	0.011	0.0088		5.28	0.00216	4.89	<0.00002	125	0.754	111	0.000011	<0.005	<0.005	0.00337	<0.005	0.0057	<0.0001
RSEM-R6E-SP	2/25/2019 0:55	VG8573	M	<0.0002	0.0392	41.7	0.0981	<0.000002	0.0173	0.0086		5.21	0.00213	4.76	<0.00002	123	0.764	109	0.000012	<0.005	<0.005	0.00333	<0.005	0.0052	<0.0001
RSEM-R6E-SP	2/26/2019 11:15	VH0045	M	<0.0002	0.0388	40.9	0.0929	<0.000002	0.0107	0.0086			0.00226	4.93	<0.00002		0.724	117	0.000016	<0.005	<0.005	0.00341	<0.005	<0.005	<0.0001
RSEM-R6E-SP	2/27/2019 11:10	VH2516	M	<0.0002	0.0401	42.8	0.0832	<0.000002	0.0112	0.0082		5.68	0.00216	5.4	<0.00002	131	0.771	123	0.000015	<0.005	<0.005	0.00347	<0.005	<0.005	<0.0001
RSEM-R6E-SP	2/28/2019 11:45	VH4364	M	<0.0002	0.0409	47.0	0.0768	<0.000002	0.0107	0.0091		5.59	0.00229	4.84	<0.00002	139	0.735	118	0.000017	<0.005	<0.005	0.00349	<0.005	<0.005	<0.0001
RSEM-R6E-SP	3/1/2019 11:35	VH5672	M	<0.0002	0.0401	46.7	0.0652	<0.000002	0.0109	0.0085		5.55	0.00227	4.85	<0.00002	140	0.747	124	0.000016	<0.005	<0.005	0.00353	<0.005	<0.005	<0.0001
RSEM-R6E-SP	3/2/2019 11:50	VH8126	M	<0.0002	0.0405	45.0	0.0674	<0.000002	0.0113	0.0084		5.43	0.00201	4.99	<0.00002	137	0.735	121	0.000017	<0.005	<0.005	0.00351	<0.005	<0.005	<0.0001
RSEM-R6E-SP	3/3/2019 13:45	VH7774	M	<0.0002	0.0403	43.9	0.0598	<0.000002	0.0109	0.0086		5.45	0.0022	5.01	<0.00002	140	0.727	126	0.000016	<0.005	<0.005	0.0036	<0.005	<0.005	<0.0001
RSEM-R6E-SP	3/4/2019 16:15	VI1284	M	<0.0002	0.0369	49.2	0.0542	<0.000002	0.0121	0.009		5.84	0.00244	4.64	<0.00002	150	0.829	123	0.000014	<0.005	<0.005	0.00386	<0.005	0.0053	<0.0001
RSEM-R6E-SP	3/5/2019 12:25	VI1634	M	<0.0002	0.0421	49.5	0.0526	<0.000002	0.012	0.0094		6.49	0.00276	6	<0.00002	155	0.824	139	0.000016	<0.005	<0.005	0.0038	<0.005	0.0062	<0.0001
RSEM-R6E-SP	3/6/2019 13:15	VI3120	M	<0.0002	0.0434	47.5	0.0439	<0.000002	0.0126	0.0092		5.87	0.00244	4.91	<0.00002	145	0.93	122	0.000014	<0.005	<0.005	0.00415	<0.005	0.0053	<0.0001
RSEM-R6E-SP	3/7/2019 13:35	VI4423	M	<0.0002	0.0459	48.9	0.038	<0.000002	0.0133	0.0095		6.05	0.00258	5.56	<0.00002	154	1.02	131	0.000016	<0.005	<0.005	0.00413	<0.005	0.0063	<0.0001
RSEM-R6E-SP	3/8/2019 11:57	VI4434	M	<0.0002	0.0471	51.7	0.0321	<0.000002	0.0133	0.0098		6.48	0.0026	5.97	<0.00002	163	1.02	146	0.000015	<0.005	<0.005	0.00418	<0.005	0.006	<0.0001
RSEM-R6E-SP	3/9/2019 11:47	VI6894	M	<0.0002	0.0472	63.4	0.0329	<0.000002	0.0134	0.0094		7.34	0.0026	5.96	<0.00002	189	1.1	177	0.000016	<0.005	<0.005	0.00434	<0.005	0.0053	<0.0001
RSEM-R6E-SP	3/10/2019 12:15	VI6955	M	<0.0002	0.0471	64.3	0.0284	<0.000002	0.0138	0.0099		7.42	0.00275	5.72	<0.00002	177	1.17	173	0.000016	<0.005	<0.005	0.00446	<0.005	0.0053	0.00012
RSEM-R6E-SP	3/11/2019 12:30	VI9558	M	<0.0002	0.0432	46.3	0.0199	<0.000002	0.0113	0.0079		5.54	0.00226	4.73	<0.00002	141	0.845	126	0.000013	<0.005	<0.005	0.00373	<0.005	0.0064	0.0001
RSEM-R6E-SP	3/12/2019 11:15	VI8442	M	<0.0002	0.0049	5.45	0.0147	<0.000002	0.0024	0.0014		1.81	0.00042	0.469	<0.00002	19.1	0.0735	14.1	<0.00001	<0.005	<0.005	0.00039	<0.005	<0.005	<0.0001
RSEM-R6E-SP	3/13/2019 11:18	VJ2178	M	<0.0002	0.0065	6.39	0.0205	0.000002	0.0052	0.0016		2.75	0.00053	0.897	<0.00002	21.6	0.146	16.0	<0.00001	<0.005	<0.005	0.00055	<0.005	<0.005	<0.0001
RSEM-R6E-SP	3/15/2019 11:00	VJ4027	D	<0.0002	0.0108	7.49	0.0137	<0.000002	0.0261	0.0032		7.47	0.00089	3.58	<0.00002	35.3	0.474	23.5	0.000011	<0.005	<0.005	0.00072	<0.005	<0.005	<0.0001
RSEM-R6E-SP	3/15/2019 11:00	VJ4021	M	<0.0002	0.0109	7.22	0.013	<0.000002	0.0264	0.003		7.38	0.00088	3.48	<0.00002	34.0	0.484	24.0	0.000012	<0.005	<0.005	0.00074	<0.005	<0.005	<0.0001
RSEM-R6E-SP	4/22/2019 12:55	VO3502	M	<0.0002	0.0185	15.7	0.0018	<0.000002	0.0071	0.0049		3.48	0.00094	2	<0.00002	33.0	0.363	31.7	<0.00001	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001
RSEM-R6E-SP	5/25/2019 12:35	VT2679	M	<0.0002	0.0296	20.4	<0.001	<0.000002	0.0168	0.0034		5.35	0.00123	0.913	<0.00002	73.0	0.55	56.6	0.000017	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001
RSEM-R6E-SP	5/26/2019 14:25	VT2685	M	<0.0002	0.0292	21.8	0.0012	<0.000002	0.0146	0.0031		5.38	0.00126	0.956	<0.00002	75.0	0.547	55.8	0.000017	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RSEM-R6E-SP	5/27/2019 12:30	VT3953	M	<0.0002	0.0305	21.0	<0.001	<0.000002	0.0144	0.003		5.45	0.00121	0.941	<0.00002	73.3	0.551	53.5	0.000017	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RSEM-R6E-SP	5/28/2019 11:10	VT7528	M	<0.0002	0.0315	21.7	0.0013	<0.000002	0.0139	0.0028		5.43	0.00122	0.924	<0.00002	74.1	0.544	54.9	0.000017	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001
RSEM-R6E-SP	5/29/2019 11:32	VT7392	M	<0.0002	0.0317	21.2	0.0017	<0.000002	0.0187	0.0026		5.25	0.00127	0.908	<0.00002	71.6	0.532	54.4	0.000017	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001
RSEM-R6E-SP	5/30/2019 12:37	VU2390	M	<0.0002	0.0322	22.6	<0.001	<0.000002	0.014	0.0023		5.39	0.00117	0.889	<0.00002	79.6	0.513	54.5	0.000017	<0.005	<0.005	0.00151	<0.005	<0.005	<0.0001
RSEM-R6E-SP	5/31/2019 10:15	VU2443	M	<0.0002	0.0322	22.7	<0.001	<0.000002	0.0136	0.0024		5.46	0.00122	0.946	<0.00002	80.7	0.511	56.4	0.000016	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/1/2019 11:22	VU3338	M	<0.0002	0.0322	22.7	0.0036	<0.000002	0.0133	0.0021		5.32	0.00117	0.938	<0.00002	80.0	0.516	55.3	0.000017	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/2/2019 9:43	VU6018	M	<0.0002	0.0305	21.0	0.0037	<0.000002	0.013	0.0019		4.97	0.00114	0.924	<0.00002	75.4	0.54	51.6	0.000014	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-SP	6/3/2019 9:25	VU5985	M	8.27	791	5.79	446	9.2	196	203	132	<1.0	161	<1.0	<1.0	66.0	0.300	1.1	161			0.025	0.0150	0.895	0.910	<0.0050
RSEM-R6E-SP	6/4/2019 11:50	VU7695	M	8.31	834	5.36	490	<4.0	231	226	130	<1.0	159	<1.0	<1.0	79.1	0.310	1.3	152			0.028	0.0143	0.832	0.846	<0.0050
RSEM-R6E-SP	6/5/2019 12:15	VV4611	M	8.28	843	4.67	482	<4.0	222	228	130	<1.0	159	<1.0	<1.0	82.1	0.330	1.2	163			0.024	0.0178	0.863	0.881	<0.0050
RSEM-R6E-SP	6/6/2019 12:34	VV6690	M	8.11	836	5.45	502	<4.0	235	231	130	<1.0	159	<1.0	<1.0	78.0	0.330	1.3	165			0.019	0.0138	0.779	0.793	<0.0050
RSEM-R6E-SP	6/7/2019 12:30	VV6765	M	8.15	840	4.73	478	<4.0	231	231	130	<1.0	159	<1.0	<1.0	78.1	0.330	1.3	162			0.034	0.0150	0.700	0.715	<0.0050
RSEM-R6E-SP	6/10/2019 14:05	VW2553	M	8.31	799	6.33	440	5.2	203	220	111	<1.0	135	<1.0	<1.0	71.4	0.310	1.2	149			<0.015	0.0140	0.587	0.601	<0.0050
RSEM-R6E-SP	6/11/2019 12:25	VW4963	M	8.28	792	5.39	440	6.4	207	192	107	<1.0	130	<1.0	<1.0	72.1	0.310	1.2	155			0.046	0.0118	0.452	0.464	<0.0050
RSEM-R6E-SP	6/13/2019 12:20	VX0001	M	8.10	779	7.48	438	8.0	188	181	89.8	<1.0	110	<1.0	<1.0	76.8	0.320	1.2	158			0.017	0.0124	0.338	0.350	<0.0050
RSEM-R6E-SP	6/17/2019 14:50	VX5940	M	7.82	733	4.97	412	<4.0	163	163	80.3	<1.0	98.0	<1.0	<1.0	74.6	0.310	1.1	158			<0.015	0.0086	0.181	0.190	<0.0050
RSEM-R6E-SP	6/18/2019 12:25	VX8832	M	8.08	725	6.41	422	5.6	160	166	84.6	<1.0	103	<1.0	<1.0	90.9	0.330	1.1	153			0.039	0.0078	0.160	0.168	0.0067
RSEM-R6E-SP	6/19/2019 11:55	VY1842	M	8.19	724	8.59	406	4.8	165	171	87.9	<1.0	107	<1.0	<1.0	77	0.330	1.1	160			<0.015	0.0110	0.111	0.122	<0.0050
RSEM-R6E-SP	6/20/2019 11:45	VY4150	M	8.22	733	8.05	430	4.0	169	170	92.6	<1.0	113	<1.0	<1.0	74	0.330	1.1	150			<0.015	0.0081	0.091	0.099	0.0051
RSEM-R6E-SP	6/21/2019 9:25	VY4161	M	8.20	733	7.66	416	4.4	170	173	99.0	<1.0	121	<1.0	<1.0	74.0	0.340	1.1	141			0.026	0.0056	0.091	0.096	<0.0050
RSEM-R6E-SP	6/22/2019 11:15	VY6742	M	7.90	730	6.38	418	4.0	177	183	107	<1.0	130	<1.0	<1.0	72.6	0.340	0.99	144			<0.015	0.0065	0.085	0.092	<0.0050
RSEM-R6E-SP	6/23/2019 11:20	VY6755	M	7.90	728	6.41	442	<4.0	177	181	101	<1.0	123	<1.0	<1.0	88.7	0.340	1.0	138			0.029	0.0075	0.065	0.072	<0.0050
RSEM-R6E-SP	10/22/2019 15:25	WT8961	M	8.41	760	9.1	470	13	281	275	210	3.0	240	3.6	<1.0	64	0.30	1.0	95			0.091	<0.050	1.1	1.1	0.0072
RSEM-R6E-SP	10/23/2019 13:30	WU1856	M	8.45	760	4.1	480	4.0	264	272	230	11	250	13	<1.0	62	0.26	0.97	94			0.061	0.014	1.0	1.0	<0.0030
RSEM-R6E-SP	10/24/2019 16:25	WU4170	M	8.21	790	6.5	460	8.7	285	269	210	<1.0	260	<1.0	<1.0	58	0.30	0.94	100			0.050	0.025	1.1	1.2	<0.0030
RSEM-R6E-SP	11/3/2019 17:00	WW1182	M	7.63	1600	7.9	980	10	597	623	220	<1.0	270	<1.0	<1.0	290	0.25	4.4	100			0.086	0.023	1.0	1.1	<0.0030
RSEM-R6W-EOP	1/27/2019 12:40	VD7175	D	8.24	1480	15.7	882	8.8	103	104	290	<1.0	354	<1.0	<1.0	115	0.530	1.9	238			0.53	0.221	0.621	0.842	0.019
RSEM-R6W-EOP	1/27/2019 12:40	VD7173	M	8.34	1470	15.8	876	8.0	103	104	292	2.1	351	2.5	<1.0	115	0.540	1.9	283			0.52	0.215	0.638	0.853	0.018
RSEM-R6W-EOP	1/28/2019 11:55	VD8613	M	8.47	1500	21.0	886	10.0	104	103	299	5.4	352	6.5	<1.0	113	0.540	2.0	214			0.50	0.214	0.580	0.794	0.071
RSEM-R6W-EOP	1/29/2019 11:22	VE0661	M	8.32	1430	15.4	848	13.6	100	93.8	296	1.5	357	1.8	<1.0	112	0.530	1.8	216			0.48	0.205	0.583	0.787	0.019
RSEM-R6W-EOP	3/26/2019 13:40	VK9084	M	8.15	712	92.1	444	44.0	90.2	87.8	131	<1.0	160	<1.0	<1.0	56.9	0.290	0.88	133			0.35	0.106	0.821	0.927	0.0087
RSEM-R6W-EOP	3/27/2019 15:05	VL1981	M	8.17	869	39.6	512	20.8	106	98.8	167	<1.0	204	<1.0	<1.0	62.7	0.330	0.99	157			0.43	0.181	1.12	1.31	0.0065
RSEM-R6W-EOP	3/28/2019 12:45	VL3526	D	8.23	910	17.6	490	14.0	143	144	189	<1.0	230	<1.0	<1.0	57.9	0.310	0.97	173			0.38	0.171	1.22	1.39	<0.0050
RSEM-R6W-EOP	3/28/2019 12:45	VL3525	M	8.20	909	18.1	542	15.6	142	140	187	<1.0	228	<1.0	<1.0	57.3	0.310	0.89	163			0.37	0.171	1.21	1.38	<0.0050
RSEM-R6W-EOP	3/29/2019 9:40	VL3529	M	8.15	959	8.22	566	12.8	161	156	201	<1.0	246	<1.0	<1.0	61.5	0.310	0.94	198			0.35	0.181	1.37	1.55	<0.0050
RSEM-R6W-EOP	3/30/2019 0:55	VL6533	M	7.96	1030	5.05	620	5.2	194	187	206	<1.0	251	<1.0	<1.0	55.4	0.300	0.98	150			0.31	0.164	1.59	1.75	<0.0050
RSEM-R6W-EOP	3/31/2019 13:05	VL6671	M	8.01	1010	2.40	600	<4.0	199	196	199	<1.0	243	<1.0	<1.0	53.3	0.270	0.91	211			0.27	0.150	1.60	1.75	<0.0050
RSEM-R6W-EOP	4/1/2019 13:40	VL8113	M	8.06	1120	1.62	728	<16	243	237	227	<1.0	277	<1.0	<1.0	54.9	0.260	0.94	249			0.25	0.134	1.78	1.91	<0.0030
RSEM-R6W-EOP	4/2/2019 9:55	VL9874	M	8.25	1180	4.34	732	9.2	294	299	230	<1.0	281	<1.0	<1.0	52.8	0.230	0.91	248			0.18	0.121	2.03	2.15	<0.0030
RSEM-R6W-EOP	4/3/2019 12:35	VM2011	M	8.30	1190	5.40	736	10.0	311	310	224	<1.0	273	<1.0	<1.0	47.6	0.210	0.82	290			0.12	0.100	2.25	2.35	<0.0030
RSEM-R6W-EOP	4/4/2019 13:08	VM3413	M	8.17	1160	4.84	754	7.2	304	323	225	<1.0	274	<1.0	<1.0	42.5	0.190	0.79	296			0.12	0.0822	2.22	2.30	<0.0030
RSEM-R6W-EOP	4/5/2019 9:37	VM3335	M	8.32	1190	7.63	756	11.2	336	306	222	1.6	267	1.9	<1.0	41.2	0.180	0.66	301			0.10	0.0747	2.23	2.31	0.0033
RSEM-R6W-EOP	4/6/2019 12:20	VM5386	M	8.21	1190	5.87	762	6.4	327	332	227	<1.0	277	<1.0	<1.0	43.8	0.210	0.70	282			0.10	0.0795	2.14	2.22	<0.0050
RSEM-R6W-EOP	4/7/2019 13:21	VM5352	M	8.26	1280	5.29	774	8.0	294	306	230	<1.0	281	<1.0	<1.0	66.3	0.260	0.96	283			0.19	0.166	2.68	2.85	<0.0050
RSEM-R6W-EOP	4/8/2019 10:05	VM6524	M	8.30	1440	5.26	876	8.8	272	278	242	<1.0	295	<1.0	<1.0	104	0.340	1.4	238			0.34	0.318	3.82	4.14	<0.0050
RSEM-R6W-EOP	4/9/2019 12:33	VM8371	M	8.16	1440	5.85	898	8.8	263	259	251	<1.0	307	<1.0	<1.0	104	0.350	1.6	276			0.33	0.322	3.81	4.13	<0.0050
RSEM-R6W-EOP	4/10/2019 13:40	VN0843	M	8.30	1470	8.14	892	12.4	260	269	256	<1.0	312	<1.0	<1.0	96.8	0.330	1.6	297			0.32	0.351	3.75	4.10	0.0032
RSEM-R6W-EOP	4/11/2019 13:42	VN1893	M	8.32	1410	13.6	852	17.2	262	247	251	1.4	303	1.7	<1.0	86.1	0.330	1.5	304			0.29	0.361	2.79	3.15	<0.0050
RSEM-R6W-EOP	4/12/2019 10:56	VN1936	M	8.23	1330	11.6	852	10.8	242	229	243	<1.0	296	<1.0	<1.0	82.7	0.320	1.4	287			0.28	0.337	2.37	2.71	<0.0050
RSEM-R6W-EOP	4/13/2019 12:48	VN4406	M	8.29	1290	8.95	738	9.2	211	219	230	<1.0	280	<1.0	<1.0	85.7	0.330	1.4	270			0.27	0.301	2.01	2.31	<0.0050
RSEM-R6W-EOP	4/14/2019 13:30	VN4396	M	8.30	1240	8.19	730	7.2	186	187	221	<1.0	270	<1.0	<1.0	82.5	0.360	1.3	216			0.34	0.272	1.57	1.85	<0.0050
RSEM-R6W-EOP	4/15/2019 14:30	VN6319	M	8.33	1230	7.50	724	7.6	202	180	211	1.4	254	1.7	<1.0	85.3	0.320	1.3	265			0.37	0.259	1.50	1.76	<0.0050
RSEM-R6W-EOP	4/16/2019 10:00	VN8481	M	8.19	1220	4.11	722	4.8	190	190	215	<1.0	263	<1.0	<1.0	77.1	0.360	1.3	247			0.37	0.241	1.48	1.73	0.0056
RSEM-R6W-EOP	4/26/2019 11:20	VO8649	D	8.12	1180	14.7	702	15.6	207	212	216	<1.0	263	<1.0	<1.0	67.3	0.310	1.1	257			0.18	0.167	1.34	1.51	<0.0030
RSEM-R6W-EOP	4/26/2019 11:20	VO8647	M	8.34	1180	14.2	680	15.2	210	207	221	1.8	265	2.2	<1.0	67.1	0.300	1.2	215			0.17	0.178	1.34	1.52	<0.0030
RSEM-R6W-EOP	4/27/2019 13:00	VP1291	M	8.33	1180	6.19	682	8.8	226	214	218	1.1	264	1.3	<1.0	68.9	0.300	1.2	225			0.17	0.157	1.29	1.45	<0.0030
RSEM-R6W-EOP	4/28/2019 12:45	VP1295	M	8.31	1190	5.04	720	6.0	218	222	220	<1.0	268	<1.0	<1.0	68.1	0.290	1.2	269			0.17	0.140	1.25	1.39	0.0031
RSEM-R6W-EOP	4/29/2019 12:10	VP3188	M	8.37	1160	5.52	706	4.8	227	220	211	2.1	252	2.5	<1.0	69.8	0.270	1.1	245			0.14	0.130	1.32	1.45	0.0032
RSEM-R6W-EOP	4/30/2019 14:15	VP5204	M	8.18	1150	12.5	704	13.2	239	239	220	<1.0	268	<1.0	<1.0	62.9	0.260	1.1	227			0.13	0.120	1.34	1.46	<0.0030
RSEM-R6W-EOP	5/1/2019 13:10	VP6527	M	8.34	1170	7.82	708	6.8	236	229	211	2.2	252	2.6	<1.0	61.1	0.250	1.1	233			0.13	0.110	1.29	1.40	0.0035
RSEM-R6W-EOP	5/2/2019 14:00	VP8694	M	8.29	1200	7.25	736	8.4	238	240	211	<1.0	258	<1.0	<1.0	68.6	0.240	1.1	276			0.10	0.0993	1.32	1.42	<0.0030
RSEM-R6W-EOP	5/3/2019 9:25	VP8771	M	8.25	1200	7.72	688	7.2	235	247	209	<1.0	255	<1.0	<1.0	66.6	0.240	1.2	256			0.099	0.0946	1.29	1.39	0.0032
RSEM-R6W-EOP	5/4/2019 9:40	VQ1566	D	8.24	1180	11.2	732	12.0	263	256	213	<1.0	260	<1.0	<1.0	63.5	0.240	1.1	269			0.13	0.0873	1.10	1.19	0.0044
RSEM-R6W-EOP	5/4/2019 9:40	VQ1564	M	8.35	1180	12.5	720	13.2	251	252	216	2.1	258	2.5	<1.0	64.5	0.240	1.1	259			0.079	0.0895	0.754	0.843	0.0037
RSEM-R6W-EOP	5/5/2019 13:00	VQ1489	M	8.28	1160	11.3	704	10.8	262	255	215	<1.0	263	<1.0	<1.0	62.2	0.230	1.1	240			0.15	0.0833	0.842	0.925	0.0033
RSEM-R6W-EOP	5/6/2019 12:28	VQ3927	M	8.37	1140	7.15	716	10.8	255	250	207	2.7	246	3.3	<1.0	56.2	0.230	1.0	276			0.064	0.0746	1.24	1.32	0.0036
RSEM-R6W-EOP	5/7/2019 12:15	VQ4255	M	8.36	1110	8.08	678	11.6	272	266	213	2.8	253	3.3	<1.0	50.7	0.220	0.94	287			0.033	0.0671	1.19	1.26	0.0041
RSEM-R6W-EOP	5/8/2019 13:28	VQ9188	M	8.31	1090	8.79	678	13.2	261	263	220	<1.0	268	<1.0	<1.0	48.2	0.190	0.88	255			0.11	0.0602	1.11	1.17	<0.0030
RSEM-R6W-EOP	5/9/2019 13:04	VQ8349	M	8.34	1080	5.75	656	12.8	264	260	215	1.6	259	1.9	<1.0	49.8	0.200	0.91	248			0.050	0.0593	1.05	1.11	0.0066
RSEM-R6W-EOP	5/10/2019 9:42	VQ9649	M	8.38	1050	10.4	642	7.6	251	243	201	2.5	239	3.0	<1.0	47.7	0.190	<0.010	201			0.041	0.0593	0.989	1.05	<0.0030
RSEM-R6W-EOP	5/11/2019 12:51	VR2469	M	8.25	976	8.35	618	11.6	228	233	200	<1.0	244	<1.0	<1.0	47.9	0.190	0.87	222			0.037	0.0483	0.890	0.939	0.0033
RSEM-R6W-EOP	5/12/2019 12:23	VR2431	M	8.27	977	9.24	600	12.0	234	232	198	<1.0	241	<1.0	<1.0	48.3	0.190	0.88	228			0.039	0.0500	0.925	0.975	0.0031
RSEM-R6W-EOP	5/13/2019 12:45	VR4434	M	8.27	977	7.76	570	8.0	231	232	204	<1.0	249	<1.0	<1.0	46.7	0.180	0.84	203			0.041	0.0464	0.830	0.877	0.0062
RSEM-R6W-EOP	5/14/2019 14:18	VR6839	M	8.21	947	9.75	590	9.2	242	230	198	<1.0	241	<1.0	<1.0	42.2	0.170	0.83	226			0.030	0.0426	0.775	0.817	0.0079
RSEM-R6W-EOP	5/15/2019 13:02	VR8789	M	8.21	926	13.0	564	19.2	238	250	196	<1.0	239	<1.0	<1.0	38.4	0.190	0.77	217			0.072	0.0388	0.625	0.663	0.0055
RSEM-R6W-EOP	5/16/2019 13:14	VS0881	M	8.33	933	16.2	590	19.2	242	245	196	1.3	236	1.5	<1.0	36.9	0.200	0.80	243			0.063	0.0410	0.646	0.687	0.0065
RSEM-R6W-EOP	5/17/2019 9:11	VS0947	M	8.32	945	13.9	606	15.2	244	251	193	<1.0	235	<1.0	<1.0	34.6	0.200	0.87	216			0.10	0.0373	0.616	0.653	0.0067
RSEM-R6W-EOP	5/18/2019 15:05	VS1856	M	8.37	929	10.4	580	10.0	237	248	192	2.0	229	2.4	<1.0	35.9	0.200	0.84	235			0.098	0.0301	0.564	0.594	<0.0050
RSEM-R6W-EOP	5/19/2019 9:23	VS3007	M	8.39	797	11.9	504	22.8	211	208	170	2.3	202	2.7	<1.0	36.0	0.200	0.67	213			0.065	0.0333	0.504	0.537	<0.0050
RSEM-R6W-EOP	5/20/2019 13:01	VS3016	M	8.36	913	7.14	558	13.6	235	238	193	2.3	230	2.8	<1.0	33.3	0.200	0.84	224			0.080	0.0317	0.560	0.592	<0.0050
RSEM-R6W-EOP	5/21/2019 13:05	VS5711	M	8.22	789	18.2	482	18.4	174	194	163	<1.0	199	<1.0	<1.0	29.1	0.210	0.71	180			0.072	0.0314	0.491	0.523	0.0070
RSEM-R6W-EOP	5/22/2019 14:50	VS7511	M	8.38	772	14.0	468	11.6	190	189	159	2.4	188	2.9	<1.0	28.3	0.180	0.66	173			0.041	0.0287	0.404	0.433	0.0088
RSEM-R6W-EOP	5/23/2019 12:50	VS9393	M	8.34	745	14.6	466	12.8	187	181	161	1.8	193	2.1	<1.0	27.5	0.180	0.64	162			0.067	0.0265	0.406	0.432	<0.0050

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-SP	6/3/2019 9:25	VU5985	M	3.0	3.3	0.145	<0.0005	0.00059	0.0916	<0.0001	<0.001	0.141	<0.00001	47.2	0.0017	0.00023	0.00211	0.171	<0.0002	0.0311	18.9	0.0099	<0.000002	0.0126	0.0023		4.91	0.0011
RSEM-R6E-SP	6/4/2019 11:50	VU7695	M	2.7	3.2	0.111	<0.0005	0.00055	0.088	<0.0001	<0.001	0.156	0.000013	55.7	0.0015	0.00029	0.00162	0.178	<0.0002	0.0302	22.4	0.0166	<0.000002	0.0117	0.0027		4.94	0.00108
RSEM-R6E-SP	6/5/2019 12:15	VV4611	M	3.0	3.3	0.16	<0.0005	0.00054	0.0865	<0.0001	<0.001	0.151	0.000024	53.3	0.0016	0.00029	0.00151	0.171	<0.0002	0.0305	21.5	0.0153	<0.000002	0.0161	0.0027		5.13	0.00104
RSEM-R6E-SP	6/6/2019 12:34	VV6690	M	2.7	3.0	0.168	<0.0005	0.00056	0.0843	<0.0001	<0.001	0.172	<0.00001	55.4	0.0016	0.00027	0.00159	0.186	<0.0002	0.034	23.5	0.0159	<0.000002	0.0131	0.0029		5.16	0.00108
RSEM-R6E-SP	6/7/2019 12:30	VV6765	M	2.8	3.3	0.161	<0.0005	0.00055	0.0786	<0.0001	<0.001	0.16	<0.00001	54.9	0.0016	0.00025	0.00159	0.163	<0.0002	0.0319	22.7	0.013	<0.000002	0.0113	0.0028		5.06	0.00098
RSEM-R6E-SP	6/10/2019 14:05	VW2553	M	2.8	2.8	0.215	<0.0005	0.00052	0.0635	<0.0001	<0.001	0.158	<0.00001	45.3	0.0013	0.00027	0.00165	0.178	<0.0002	0.0309	21.9	0.0117	<0.000002	0.0105	0.003		4.64	0.00101
RSEM-R6E-SP	6/11/2019 12:25	VW4963	M	2.8	2.6	0.156	<0.0005	0.00051	0.0648	<0.0001	<0.001	0.173	<0.00001	45.1	0.0012	0.00026	0.00176	0.173	<0.0002	0.0339	23.0	0.0121	<0.000002	0.0109	0.0029		5.08	0.00109
RSEM-R6E-SP	6/13/2019 12:20	VX0001	M	2.8	3.1	0.275	<0.0005	0.00064	0.0558	<0.0001	<0.001	0.164	0.000012	38.6	0.0019	0.00038	0.0027	0.297	0.0002	0.0331	22.3	0.0133	<0.000002	0.0107	0.0034		5.00	0.00093
RSEM-R6E-SP	6/17/2019 14:50	VX5940	M	4.1	3.3	0.163	<0.0005	0.00061	0.0452	<0.0001	<0.001	0.164	<0.00001	29.6	<0.001	0.00027	0.00173	0.187	<0.0002	0.032	21.7	0.0109	<0.000002	0.0106	0.0024		4.68	0.00087
RSEM-R6E-SP	6/18/2019 12:25	VX8832	M	4.1	3.3	0.187	<0.0005	0.00063	0.0455	<0.0001	<0.001	0.155	0.000011	28.9	<0.001	0.00033	0.00171	0.232	<0.0002	0.0298	21.2	0.0155	<0.000002	0.0097	0.0025		4.49	0.00082
RSEM-R6E-SP	6/19/2019 11:55	VY1842	M	4.5	4.9	0.196	<0.0005	0.00065	0.0501	<0.0001	<0.001	0.167	<0.00001	30.6	<0.001	0.00033	0.00181	0.246	<0.0002	0.032	21.4	0.0207	<0.000002	0.0099	0.0025		4.70	0.00085
RSEM-R6E-SP	6/20/2019 11:45	VY4150	M	4.1	4.0	0.182	<0.0005	0.0007	0.0503	<0.0001	<0.001	0.181	<0.00001	31.8	<0.001	0.00036	0.00184	0.248	<0.0002	0.0327	21.9	0.024	<0.000002	0.01	0.0027		4.70	0.00083
RSEM-R6E-SP	6/21/2019 9:25	VY4161	M	4.2	4.3	0.199	<0.0005	0.00069	0.0529	<0.0001	<0.001	0.177	0.000013	32.7	<0.001	0.00033	0.00274	0.268	0.00022	0.0318	21.6	0.0256	<0.000002	0.0093	0.0026		4.44	0.00081
RSEM-R6E-SP	6/22/2019 11:15	VY6742	M	4.4	4.1	0.183	<0.0005	0.00068	0.0526	<0.0001	<0.001	0.18	<0.00001	34.5	<0.001	0.00037	0.00175	0.221	<0.0002	0.0336	22.0	0.0242	<0.000002	0.0096	0.0026		4.52	0.0008
RSEM-R6E-SP	6/23/2019 11:20	VY6755	M	4.1	4.0	0.19	<0.0005	0.00072	0.0551	<0.0001	<0.001	0.179	<0.00001	34.8	<0.001	0.00035	0.00185	0.251	<0.0002	0.0326	22.0	0.0244	<0.000002	0.0097	0.0027		4.50	0.00081
RSEM-R6E-SP	10/22/2019 15:25	WT8961	M	2.3	2.8	0.186	0.00085	0.0012	0.156	<0.0001	<0.001	0.101	0.000054	83.7	0.0031	0.00194	0.00155	0.176	<0.0002	0.0175	17.5	0.053	<0.000002	0.0142	0.0085		4.81	0.00095
RSEM-R6E-SP	10/23/2019 13:30	WU1856	M	2.3	2.5	0.122	0.0008	0.00116	0.144	<0.0001	<0.001	0.098	0.000037	79.4	0.0028	0.00155	0.00124	0.091	<0.0002	0.0174	16.0	0.043	<0.000002	0.0142	0.0071		4.63	0.00095
RSEM-R6E-SP	10/24/2019 16:25	WU4170	M	2.8	2.5	0.281	0.00093	0.00139	0.158	<0.0001	<0.001	0.117	0.000045	85.8	0.0043	0.00196	0.00162	0.29	<0.0002	0.0181	17.2	0.0498	<0.000002	0.018	0.0091		5.28	0.00114
RSEM-R6E-SP	11/3/2019 17:00	WW1182	M	2.3	2.1	0.307	0.00087	0.00124	0.228	<0.0001	<0.001	0.136	0.000058	192	0.0048	0.0016	0.00158	0.283	<0.0002	0.0355	28.5	0.0669	<0.000002	0.0182	0.0081		10.9	0.00127
RSEM-R6W-EOP	1/27/2019 12:40	VD7175	D	2.5	2.5	0.526	0.00283	0.00677	0.0735	<0.0001	<0.001	0.315	0.000032	22.9	0.0045	0.00052	0.00309	0.503	0.0004	0.0406	11.1	0.0174	0.0000029	0.0458	0.0025		6.52	0.00492
RSEM-R6W-EOP	1/27/2019 12:40	VD7173	M	2.8	3.6	0.573	0.00288	0.00675	0.0757	<0.0001	<0.001	0.328	0.000034	23.2	0.0046	0.00053	0.00289	0.503	0.00039	0.0414	10.8	0.0173	0.0000028	0.0471	0.0024		6.41	0.00497
RSEM-R6W-EOP	1/28/2019 11:55	VD8613	M	2.4	2.5	0.752	0.00298	0.00719	0.0804	<0.0001	<0.001	0.337	0.000036	23.3	0.0049	0.00065	0.00306	0.702	0.00055	0.0418	11.1	0.021	0.0000056	0.0473	0.0028		6.51	0.0051
RSEM-R6W-EOP	1/29/2019 11:22	VE0661	M	3.4	4.9	0.787	0.00296	0.00677	0.0714	<0.0001	<0.001	0.364	0.000019	22.9	0.0053	0.00054	0.00259	0.473	0.00039	0.046	10.4	0.0174	0.0000029	0.0479	0.0023		6.87	0.00472
RSEM-R6W-EOP	3/26/2019 13:40	VK9084	M	2.9	2.3	1.96	0.00178	0.00357	0.397	0.0001	<0.001	0.134	0.000087	25.7	0.0052	0.00111	0.00517	2.18	0.0014	0.0198	6.34	0.0453	<0.000002	0.0182	0.0043		4.33	0.00438
RSEM-R6W-EOP	3/27/2019 15:05	VL1981	M	3.2	2.5	0.888	0.00264	0.00465	0.598	<0.0001	<0.001	0.172	0.000041	30.1	0.0052	0.00064	0.00288	0.819	0.00064	0.0269	7.59	0.0238	<0.000002	0.024	0.0028		4.48	0.00712
RSEM-R6W-EOP	3/28/2019 12:45	VL3526	D	2.8	2.3	1.29	0.00246	0.00359	0.471	<0.0001	<0.001	0.182	0.000046	41.5	0.0054	0.00059	0.0022	0.791	0.00041	0.0232	9.51	0.0409	<0.000002	0.0219	0.0024		4.72	0.0077
RSEM-R6W-EOP	3/28/2019 12:45	VL3525	M	2.4	2.5	1.27	0.00239	0.00335	0.455	<0.0001	<0.001	0.178	0.000048	41.3	0.0051	0.00058	0.00195	0.793	0.0004	0.0237	9.52	0.041	<0.000002	0.0215	0.0024		4.65	0.00764
RSEM-R6W-EOP	3/29/2019 9:40	VL3529	M	2.4	2.2	0.282	0.00247	0.00306	0.42	<0.0001	<0.001	0.166	0.000047	46.0	0.0047	0.00054	0.00175	0.307	0.00022	0.026	11.2	0.0441	<0.000002	0.0225	0.0022		4.59	0.00871
RSEM-R6W-EOP	3/30/2019 0:55	VL6533	M	2.1	2.2	0.166	0.00233	0.00274	0.382	<0.0001	<0.001	0.156	0.000034	55.1	0.0049	0.00052	0.00149	0.14	<0.0002	0.0219	13.6	0.036	<0.000002	0.0225	0.0021		4.70	0.01
RSEM-R6W-EOP	3/31/2019 13:05	VL6671	M	2.2	2.0	0.0664	0.00206	0.00242	0.322	<0.0001	<0.001	0.142	0.000028	58.2	0.0045	0.00048	0.00122	0.073	<0.0002	0.0238	13.0	0.0324	<0.000002	0.0198	0.0019		4.64	0.0101
RSEM-R6W-EOP	4/1/2019 13:40	VL8113	M	2.8	1.9	0.129	0.00206	0.00249	0.299	<0.0001	<0.001	0.182	0.000023	68.3	0.0049	0.00051	0.00139	0.058	<0.0002	0.0259	17.7	0.0296	<0.000002	0.0201	0.0021		4.70	0.0109
RSEM-R6W-EOP	4/2/2019 9:55	VL9874	M	2.3	1.9	0.127	0.00195	0.00227	0.254	<0.0001	<0.001	0.161	0.000025	84.9	0.0052	0.00059	0.00182	0.181	<0.0002	0.026	19.9	0.0282	0.0000058	0.0185	0.0027		4.84	0.012
RSEM-R6W-EOP	4/3/2019 12:35	VM2011	M	2.1	2.1	0.224	0.00159	0.00198	0.191	<0.0001	<0.001	0.141	0.000024	89.4	0.0051	0.00056	0.00152	0.201	<0.0002	0.0246	21.4	0.0228	<0.000002	0.0152	0.0022		4.58	0.0118
RSEM-R6W-EOP	4/4/2019 13:08	VM3413	M	2.2	1.4	0.192	0.00148	0.00166	0.171	<0.0001	<0.001	0.12	0.000019	88.2	0.005	0.00058	0.00182	0.186	<0.0002	0.02	20.4	0.0215	<0.000002	0.0139	0.0022		4.53	0.0116
RSEM-R6W-EOP	4/5/2019 9:37	VM3335	M	3.0	1.7	0.216	0.00149	0.00187	0.165	<0.0001	<0.001	0.103	0.000028	101	0.0057	0.00074	0.00222	0.346	0.0003	0.0187	20.1	0.0253	<0.000002	0.0142	0.0026		4.15	0.0126
RSEM-R6W-EOP	4/6/2019 12:20	VM5386	M	2.3	2.4	0.257	0.00131	0.00173	0.165	<0.0001	<0.001	0.127	0.000021	95.2	0.0043	0.00055	0.00161	0.189	<0.0002	0.0208	21.6	0.0194	<0.000002	0.0122	0.0024		4.49	0.0108
RSEM-R6W-EOP	4/7/2019 13:21	VM5352	M	2.4	2.4	0.279	0.00171	0.00221	0.218	<0.0001	<0.001	0.155	0.000017	84.8	0.0039	0.00056	0.00386	0.172	<0.0002	0.0261	19.9	0.0168	<0.000002	0.0155	0.0027		4.42	0.0102
RSEM-R6W-EOP	4/8/2019 10:05	VM6524	M	3.3	2.8	0.255	0.00238	0.00281	0.261	<0.0001	<0.001	0.197	<0.00001	77.4	0.0037	0.00071	0.00808	0.196	<0.0002	0.0391	19.2	0.0166	<0.000002	0.0205	0.0037		4.11	0.011
RSEM-R6W-EOP	4/9/2019 12:33	VM8371	M	3.3	3.1	0.307	0.00223	0.00277	0.266	<0.0001	<0.001	0.205	0.000016	73.4	0.0033	0.00063	0.00696	0.188	<0.0002	0.0414	19.3	0.0152	<0.000002	0.0204	0.0036		4.46	0.00979
RSEM-R6W-EOP	4/10/2019 13:40	VN0843	M	3.2	2.9	0.182	0.00217	0.00269	0.252	<0.0001	<0.001	0.213	0.000014	74.1	0.0034	0.00068	0.00664	0.221	<0.0002	0.038	18.3	0.0138	<0.000002	0.0191	0.0036		4.07	0.0102
RSEM-R6W-EOP	4/11/2019 13:42	VN1893	M	2.7	2.3	0.336	0.00223	0.00286	0.269	<0.0001	<0.001	0.208	0.000013	72.5	0.0032	0.00074	0.00691	0.341	0.00026	0.0369	19.7	0.0147	<0.000002	0.0186	0.0036		4.30	0.00937
RSEM-R6W-EOP	4/12/2019 10:56	VN1936	M	2.8	2.4	0.845	0.00238	0.00273	0.233	<0.0001	<0.001	0.201	0.000012	65.5	0.0039	0.00065	0.00713	0.359	0.00023	0.0362	19.0	0.0138	<0.000002	0.0181	0.004		4.33	0.00876
RSEM-R6W-EOP	4/13/2019 12:48	VN4406	M	2.3	2.2	0.299	0.00263	0.00321	0.214	<0.0001	<0.001	0.191	<0.00001	55.9	0.0028	0.0005	0.00692	0.188	<0.0002	0.0339	17.5	0.0105	<0.000002	0.0205	0.003		4.01	0.00886
RSEM-R6W-EOP	4/14/2019 13:30	VN4396	M	3.3	2.0	0.265	0.00278	0.00347	0.275	<0.0001	<0.001	0.192	0.000012		0.0026	0.00042	0.0069	0.173	<0.0002	0.0318		0.01	<0.000002	0.0202	0.0027			0.0085
RSEM-R6W-EOP	4/15/2019 14:30	VN6319	M	2.4	2.4	0.205	0.00329	0.00387	0.333	<0.0001	<0.001	0.261	<0.00001	55.7	0.0027	0.00039	0.00591	0.13	<0.0002	0.0372	15.3	0.009	<0.000002	0.0206	0.0024		4.42	0.0088
RSEM-R6W-EOP	4/16/2019 10:00	VN8481	M	2.1	2.1	0.278	0.00285	0.00355	0.283	<0.0001	<0.001	0.211	<0.00001	51.3	0.0026	0.00034	0.00545	0.108	<0.0002	0.0347	14.9	0.0082	<0.000002	0.0177	0.0024		3.95	0.00776
RSEM-R6W-EOP	4/26/2019 11:20	VO8649	D	2.3	2.3	0.609	0.00275	0.00297	0.288	<0.0001	<0.001	0.221	<0.00001	56.8	0.0031	0.00037	0.00306	0.351	0.00021	0.0356	15.9	0.0059	<0.000002	0.0184	0.0022		4.08	0.00756
RSEM-R6W-EOP	4/26/2019 11:20	VO8647	M	2.5	2.3	0.724	0.00277	0.00312	0.297	<0.0001	<0.001	0.21	<0.00001	56.9	0.0032	0.00036	0.00315	0.359	0.0002	0.0334	16.6	0.0061	<0.000002	0.0184	0.0023		4.16	0.00776
RSEM-R6W-EOP	4/27/2019 13:00	VP1291	M	2.7	2.6	0.187	0.00246	0.00283	0.246	<0.0001	<0.001	0.186	<0.00001	63.8	0.0026	0.00033	0.00261	0.173	<0.0002	0.0303	16.1	0.0046	<0.000002	0.0167	0.0021		3.86	0.00774
RSEM-R6W-EOP	4/28/2019 12:45	VP1295	M	3.1	2.8	0.144	0.00248	0.00274	0.236	<0.0001	<0.001	0.184	0.00001	59.6	0.0029	0.00029	0.00216	0.096	<0.0002	0.0294	16.7	0.0038	<0.000002	0.0166	0.002		4.03	0.00752
RSEM-R6W-EOP	4/29/2019 12:10	VP3188	M	2.6	2.4	0.213	0.00244	0.00273	0.232	<0.0001	<0.001	0.168	<0.00001	62.8	0.003	0.00029	0.00202	0.119	<0.0002	0.0305	17.1	0.0043	<0.000002	0.0168	0.0019		4.38	0.00784
RSEM-R6W-EOP	4/30/2019 14:15	VP5204	M	2.7	2.8	0.287	0.00242	0.0027	0.227	<0.0001	<0.001	0.186	<0.00001	67.5	0.004	0.00037	0.00214	0.253	0.00021	0.0331	17.1	0.0065	<0.000002	0.0172	0.002		4.48	0.00774
RSEM-R6W-EOP	5/1/2019 13:10	VP6527	M	2.8	2.6	0.149	0.00229	0.0027	0.209	<0.0001	<0.001	0.178	<0.00001	66.6	0.0041	0.0003	0.00177	0.115	<0.0002	0.0295	16.9	0.0047	<0.000002	0.0174	0.0017		4.71	0.00759
RSEM-R6W-EOP	5/2/2019 14:00	VP8694	M	3.0	3.2	0.136	0.00232	0.00273	0.18	<0.0001	<0.001	0.185	<0.00001	65.2	0.0047	0.00028	0.00176	0.09	<0.0002	0.0307	18.4	0.0044	<0.000002	0.0173	0.0017		5.37	0.00797
RSEM-R6W-EOP	5/3/2019 9:25	VP8771	M	3.0	2.7	0.175	0.00224	0.00273	0.194	<0.0001	<0.001	0.182	<0.00001	64.6	0.0051	0.00029	0.00179	0.109	<0.0002	0.0316	18.0	0.0047	<0.000002	0.0175	0.0017		5.33	0.00749
RSEM-R6W-EOP	5/4/2019 9:40	VQ1566	D	2.6	2.8	0.317	0.00232	0.00272	0.17	<0.0001	<0.001	0.178	0.000011	70.8	0.0057	0.00036	0.00213	0.225	0.00023	0.0326	20.9	0.0073	<0.000002	0.0161	0.0019		5.42	0.0078
RSEM-R6W-EOP	5/4/2019 9:40	VQ1564	M	2.7	2.9	0.355	0.00231	0.00267	0.167	<0.0001	<0.001	0.179	0.00001	67.1	0.0055	0.00036	0.00212	0.24	0.00024	0.0315	20.3	0.0071	<0.000002	0.0169	0.0019		5.46	0.00806
RSEM-R6W-EOP	5/5/2019 13:00	VQ1489	M	2.7	3.0	0.273	0.00217	0.00254	0.155	<0.0001	<0.001	0.167	<0.00001	70.3	0.0055	0.00038	0.0022	0.195	0.00022	0.0313	21.0	0.0072	<0.000002	0.0156	0.002		5.38	0.00791
RSEM-R6W-EOP	5/6/2019 12:28	VQ3927	M	2.6	2.7	0.24	0.00204	0.00228	0.154	<0.0001	<0.001	0.162	<0.00001	70.9	0.005	0.00034	0.00195	0.193	<0.0002	0.0283	18.9	0.0068	<0.000002	0.015	0.0018		4.98	0.0071
RSEM-R6W-EOP	5/7/2019 12:15	VQ4255	M	3.0	2.6	0.259	0.00183	0.00219	0.138	<0.0001	<0.001	0.166	0.000011	76.0	0.0047	0.00037	0.00208	0.232	0.00022	0.0264	20.0	0.0087	<0.000002	0.0135	0.0018		4.78	0.00708
RSEM-R6W-EOP	5/8/2019 13:28	VQ9188	M	3.3	3.1	0.226	0.00171	0.00205	0.131	<0.0001	<0.001	0.146	0.000017	72.4	0.0044	0.00044	0.00241	0.268	0.00024	0.0238	19.5	0.0112	<0.000002	0.0127	0.0022		4.43	0.00644
RSEM-R6W-EOP	5/9/2019 13:04	VQ8349	M	3.5	3.3	0.229	0.00168	0.00202	0.136	<0.0001	<0.001	0.16	0.000015	70.2	0.0053	0.00035	0.00194	0.203	<0.0002	0.0272	21.5	0.0106	<0.000002	0.0134	0.0019		5.50	0.00631
RSEM-R6W-EOP	5/10/2019 9:42	VQ9649	M	3.7	3.9	0.25	0.00171	0.00202	0.119	<0.0001	<0.001	0.164	0.000013	69.5	0.0059	0.00035	0.00228	0.233	0.0002	0.0286	18.7	0.0098	<0.000002	0.0144	0.002		5.24	0.00605
RSEM-R6W-EOP	5/11/2019 12:51	VR2469	M	3.4	3.3	0.287	0.00154	0.0016	0.101	<0.0001	<0.001	0.122	0.000015	61.5	0.0059	0.00032	0.00237	0.214	<0.0002	0.0231	18.0	0.0077	<0.000002	0.0132	0.0018		4.95	0.00513
RSEM-R6W-EOP	5/12/2019 12:23	VR2431	M	3.8	3.4	0.284	0.00155	0.00181	0.106	<0.0001	<0.001	0.127	0.000019	64.0	0.0062	0.00035	0.00205	0.254	0.0002	0.0243	18.0	0.0084	<0.000002	0.014	0.0019		4.95	0.00536
RSEM-R6W-EOP	5/13/2019 12:45	VR4434	M	3.7	3.8	0.202	0.00146	0.00168	0.104	<0.0001	<0.001	0.115	0.000019	62.8	0.0055	0.00029	0.00208	0.168	<0.0002	0.0229	17.9	0.0068	<0.000002	0.0126	0.0018		4.59	0.00485
RSEM-R6W-EOP	5/14/2019 14:18	VR6839	M	3.6	3.8	0.209	0.00152	0.0019	0.116	<0.0001	<0.001	0.132	0.000026	64.9	0.0055	0.00041	0.00208	0.29	0.00021	0.0235	19.3	0.0088	<0.000002	0.0129	0.0023		4.83	0.00531
RSEM-R6W-EOP	5/15/2019 13:02	VR8789	M	4.2	3.7	0.896	0.00148	0.00198	0.13	<0.0001	<0.001	0.12	0.000027	65.8	0.0064	0.00052	0.00253	0.53	0.00037	0.0231	17.9	0.0123	<0.000002	0.0128	0.0027		4.53	0.0047
RSEM-R6W-EOP	5/16/2019 13:14	VS0881	M	4.3	4.0	0.386	0.00138	0.00187	0.126	<0.0001	<0.001	0.121	0.000024	66.9	0.0058	0.00053	0.00265	0.447	0.00035	0.0217	18.1	0.0132	<0.000002	0.0138	0.0027		4.39	0.00443
RSEM-R6W-EOP	5/17/2019 9:11	VS0947	M	4.4	3.9	0.327	0.00154	0.00184	0.123	<0.0001	<0.001	0.112	0.000025	68.8	0.0055	0.00047	0.00303	0.437	0.00033	0.0219	17.7	0.0121	<0.000002	0.0161	0.0026		4.84	0.00421
RSEM-R6W-EOP	5/18/2019 15:05	VS1856	M	3.9	4.2	0.248	0.00121	0.00181	0.121	<0.0001	<0.001	0.126	0.00002	65.7	0.0049	0.00038	0.0023	0.281	0.00022	0.0197	17.7	0.009	<0.000002	0.0152	0.0019		4.26	0.00387
RSEM-R6W-EOP	5/19/2019 9:23	VS3007	M	4.2	4.2	0.997	0.00135	0.00236	0.125	<0.0001	<0.001	0.118	0.000026	56.8	0.0083	0.00049	0.00305	0.669	0.0005	0.0196	16.7	0.0133	<0.000002	0.0145	0.0022		4.68	0.00371
RSEM-R6W-EOP	5/20/2019 13:01	VS3016	M	4.1	3.9	0.263	0.00126	0.00204	0.126	<0.0001	<0.001	0.135	0.00002	64.2	0.0056	0.00038	0.0025	0.298	0.00026	0.0203	18.1	0.0095	<0.000002	0.0157	0.002		4.24	0.00403
RSEM-R6W-EOP	5/21/2019 13:05	VS5711	M	4.3	4.0	0.448	0.00129	0.00207	0.11	<0.0001	<0.001	0.117	0.000021	46.0	0.007	0.00034	0.00257	0.48	0.00037	0.0188	14.5	0.0096	<0.000002	0.0128	0.002		3.49	0.00326
RSEM-R6W-EOP	5/22/2019 14:50	VS7511	M	4.4	4.3	0.633	0.0013	0.00214	0.106	<0.0001	<0.001	0.108	0.000019	51.1	0.0078	0.00037	0.00274	0.429	0.00033	0.0185	15.2	0.0084	<0.000002	0.0122	0.002		4.27	0.00326
RSEM-R6W-EOP	5/23/2019 12:50	VS9393	M	4.7	4.7	0.404	0.00131	0.00214	0.103	<0.0001	<0.001	0.101	0.000023	51.8	0.0071	0.0004	0.00314	0.546	0.0004	0.0183	14.0	0.0114	0.0000028	0.0121	0.0021		3.68	0.00308

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-SP	6/3/2019 9:25	VU5985	M	1.29	<0.00002	66.9	0.558	49.9	0.000014	<0.005	<0.005	0.00149	<0.005	<0.005	0.00018	0.0287	<0.0005	0.00053	0.0859	<0.0001	<0.001	0.152	<0.00001	47.7	0.0013	<0.0002	0.00103	<0.01
RSEM-R6E-SP	6/4/2019 11:50	VU7695	M	1.16	<0.00002	74.9	0.585	47.2	0.000019	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001	0.0285	<0.0005	0.00053	0.0849	<0.0001	<0.001	0.154	<0.00001	54.7	0.0012	<0.0002	0.00104	<0.01
RSEM-R6E-SP	6/5/2019 12:15	VV4611	M	1.29	<0.00002	74.5	0.636	50.5	0.000029	<0.005	<0.005	0.00155	<0.005	<0.005	0.00013	0.0274	<0.0005	0.00051	0.0839	<0.0001	<0.001	0.147	<0.00001	55.2	0.0013	<0.0002	0.00119	<0.01
RSEM-R6E-SP	6/6/2019 12:34	VV6690	M	1.46	<0.00002	77.4	0.636	52.0	0.000021	<0.005	<0.005	0.00168	<0.005	<0.005	0.00013	0.0288	<0.0005	0.0005	0.0803	<0.0001	<0.001	0.17	<0.00001	54.2	0.0011	<0.0002	0.00115	<0.01
RSEM-R6E-SP	6/7/2019 12:30	VV6765	M	1.46	<0.00002	74.7	0.585	47.9	0.000021	<0.005	<0.005	0.00161	<0.005	<0.005	0.00016	0.0296	<0.0005	0.0005	0.0765	<0.0001	<0.001	0.168	<0.00001	54.0	0.0011	<0.0002	0.00124	<0.01
RSEM-R6E-SP	6/10/2019 14:05	VW2553	M	1.39	<0.00002	74.1	0.549	50.1	0.000019	<0.005	<0.005	0.00154	<0.005	<0.005	0.00015	0.0375	<0.0005	0.00047	0.064	<0.0001	<0.001	0.161	<0.00001	51.3	<0.001	<0.0002	0.00106	<0.01
RSEM-R6E-SP	6/11/2019 12:25	VW4963	M	1.28	<0.00002	78.1	0.573	53.9	0.000018	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001	0.0338	<0.0005	0.00045	0.0556	<0.0001	<0.001	0.157	<0.00001	40.9	<0.001	<0.0002	0.00134	<0.01
RSEM-R6E-SP	6/13/2019 12:20	VX0001	M	1.47	<0.00002	80.5	0.521	54.0	0.00002	<0.005	0.0069	0.00152	<0.005	<0.005	0.00037	0.0394	<0.0005	0.00047	0.048	<0.0001	<0.001	0.165	<0.00001	36.4	<0.001	<0.0002	0.00169	<0.01
RSEM-R6E-SP	6/17/2019 14:50	VX5940	M	1.35	<0.00002	75.4	0.507	50.3	0.000015	<0.005	<0.005	0.00148	<0.005	<0.005	0.0002	0.0181	<0.0005	0.00052	0.0407	<0.0001	<0.001	0.167	<0.00001	29.1	<0.001	<0.0002	0.00129	0.01
RSEM-R6E-SP	6/18/2019 12:25	VX8832	M	1.47	<0.00002	74.5	0.468	47.3	0.000015	<0.005	<0.005	0.0014	<0.005	<0.005	0.00016	0.0245	<0.0005	0.00054	0.0445	<0.0001	<0.001	0.173	<0.00001	30.1	<0.001	<0.0002	0.00132	0.011
RSEM-R6E-SP	6/19/2019 11:55	VY1842	M	1.57	<0.00002	75.2	0.493	49.3	0.000013	<0.005	<0.005	0.00145	<0.005	<0.005	0.00013	0.0292	<0.0005	0.0006	0.0456	<0.0001	<0.001	0.167	<0.00001	31.9	<0.001	0.00022	0.00138	0.015
RSEM-R6E-SP	6/20/2019 11:45	VY4150	M	1.67	<0.00002	75.6	0.5	47.7	0.000014	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001	0.0268	<0.0005	0.00061	0.0475	<0.0001	<0.001	0.186	<0.00001	32.0	<0.001	<0.0002	0.00135	0.011
RSEM-R6E-SP	6/21/2019 9:25	VY4161	M	1.67	<0.00002	74.2	0.467	46.0	0.000013	<0.005	<0.005	0.00141	<0.005	<0.005	0.00018	0.0184	<0.0005	0.0006	0.0502	<0.0001	<0.001	0.187	<0.00001	33.2	<0.001	<0.0002	0.00128	0.013
RSEM-R6E-SP	6/22/2019 11:15	VY6742	M	1.77	<0.00002	75.4	0.495	46.4	0.000012	<0.005	<0.005	0.00141	<0.005	<0.005	0.0002	0.0155	<0.0005	0.00065	0.052	<0.0001	<0.001	0.18	<0.00001	36.1	<0.001	0.00026	0.00137	0.023
RSEM-R6E-SP	6/23/2019 11:20	VY6755	M	1.77	<0.00002	75.7	0.492	46.2	0.000013	<0.005	<0.005	0.00142	<0.005	<0.005	0.00019	0.0247	<0.0005	0.0007	0.0517	<0.0001	<0.001	0.182	<0.00001	35.8	<0.001	0.00026	0.00141	0.023
RSEM-R6E-SP	10/22/2019 15:25	WT8961	M	4.97	<0.00002	51.7	0.399	31.1	0.00001	<0.005	<0.005	0.00129	<0.005	0.007	0.00012	0.0702	0.00084	0.00108	0.146	<0.0001	<0.001	0.106	0.000014	82.6	0.0027	0.00124	0.00094	<0.01
RSEM-R6E-SP	10/23/2019 13:30	WU1856	M	4.84	<0.00002	48.6	0.384	29.6	<0.00001	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001	0.0656	0.00083	0.00108	0.143	<0.0001	<0.001	0.105	0.000015	81.7	0.0026	0.00142	0.00095	<0.01
RSEM-R6E-SP	10/24/2019 16:25	WU4170	M	4.78	<0.00002	57.7	0.363	33.4	0.000011	<0.005	<0.005	0.00126	<0.005	0.0063	0.00019	0.0749	0.00092	0.00134	0.151	<0.0001	<0.001	0.11	0.000029	79.2	0.0037	0.00159	0.00101	<0.01
RSEM-R6E-SP	11/3/2019 17:00	WW1182	M	5.2	<0.00002	61.0	3.63	32.4	0.000061	<0.005	0.0078	0.00131	<0.005	0.0079	0.00026	0.0174	0.00091	0.00109	0.237	<0.0001	<0.001	0.145	0.000054	203	0.0042	0.00138	0.00097	<0.01
RSEM-R6W-EOP	1/27/2019 12:40	VD7175	D	4.74	<0.00002	272	0.164	88.3	0.000016	<0.005	0.0087	0.00318	0.0112	0.0054	0.00038	0.108	0.00297	0.00687	0.0598	<0.0001	<0.001	0.373	<0.00001	23.1	0.0037	<0.0002	0.00169	<0.01
RSEM-R6W-EOP	1/27/2019 12:40	VD7173	M	4.89	<0.00002	262	0.164	86.3	0.000017	<0.005	0.0112	0.00317	0.0112	<0.005	0.00062	0.108	0.00299	0.00678	0.0597	<0.0001	<0.001	0.374	<0.00001	22.8	0.0037	<0.0002	0.00177	<0.01
RSEM-R6W-EOP	1/28/2019 11:55	VD8613	M	5.23	<0.00002	277	0.167	88.1	0.000021	<0.005	0.0143	0.00342	0.012	0.0053	0.00056	0.127	0.00307	0.00707	0.0585	<0.0001	<0.001	0.38	<0.00001	22.8	0.0037	<0.0002	0.00149	<0.01
RSEM-R6W-EOP	1/29/2019 11:22	VE0661	M	5.88	<0.00002	296	0.182	86.6	0.000017	<0.005	0.0116	0.00299	0.012	0.0056	0.00048	0.0876	0.00317	0.00666	0.0619	<0.0001	<0.001	0.355	<0.00001	21.8	0.0046	<0.0002	0.00182	<0.01
RSEM-R6W-EOP	3/26/2019 13:40	VK9084	M	6.54	0.00003	105	0.216	41.2	0.000037	<0.005	0.041	0.00209	0.007	0.0123	0.00139	0.01	0.00204	0.00253	0.337	<0.0001	<0.001	0.148	0.000033	24.7	0.0027	<0.0002	0.00181	<0.01
RSEM-R6W-EOP	3/27/2019 15:05	VL1981	M	5.23	<0.00002	138	0.301	55.6	0.000022	<0.005	0.014	0.00281	<0.005	<0.005	0.00054	0.0079	0.0027	0.00401	0.547	<0.0001	<0.001	0.172	0.000027	27.7	0.0037	0.00025	0.00138	<0.01
RSEM-R6W-EOP	3/28/2019 12:45	VL3526	D	7.15	<0.00002	139	0.297	63.6	0.000025	<0.005	0.0396	0.00289	0.0052	<0.005	0.00099	0.0075	0.00257	0.0031	0.459	<0.0001	<0.001	0.186	0.000034	42.2	0.0037	0.00031	0.00119	<0.01
RSEM-R6W-EOP	3/28/2019 12:45	VL3525	M	7.02	<0.00002	133	0.294	65.6	0.000027	<0.005	0.0409	0.00283	<0.005	<0.005	0.00098	0.0069	0.00253	0.0028	0.459	<0.0001	<0.001	0.185	0.000031	40.5	0.0038	0.00032	0.00121	<0.01
RSEM-R6W-EOP	3/29/2019 9:40	VL3529	M	4.77	<0.00002	137	0.351	66.0	0.000016	<0.005	0.0063	0.00309	<0.005	<0.005	0.0002	0.0051	0.00247	0.00286	0.412	<0.0001	<0.001	0.169	0.000035	44.3	0.004	0.00037	0.00115	<0.01
RSEM-R6W-EOP	3/30/2019 0:55	VL6533	M	3.89	<0.00002	138	0.36	72.9	0.000013	<0.005	<0.005	0.0033	<0.005	<0.005	0.00012	0.0071	0.00237	0.00268	0.391	<0.0001	<0.001	0.146	0.000028	54.0	0.0045	0.00044	0.00113	<0.01
RSEM-R6W-EOP	3/31/2019 13:05	VL6671	M	3.46	<0.00002	119	0.344	72.5	0.000011	<0.005	<0.005	0.00318	<0.005	<0.005	<0.0001	0.0081	0.00209	0.00232	0.322	<0.0001	<0.001	0.129	0.000023	57.4	0.0041	0.0004	0.00103	<0.01
RSEM-R6W-EOP	4/1/2019 13:40	VL8113	M	4.07	<0.00002	145	0.383	92.5	0.000012	<0.005	<0.005	0.00354	<0.005	<0.005	<0.0001	0.0106	0.00199	0.00232	0.308	<0.0001	<0.001	0.172	0.000026	68.8	0.0044	0.00044	0.00104	<0.01
RSEM-R6W-EOP	4/2/2019 9:55	VL9874	M	4.53	<0.00002	142	0.427	101	0.000014	<0.005	<0.005	0.00371	<0.005	<0.005	0.00014	0.0189	0.00196	0.00213	0.246	<0.0001	<0.001	0.162	0.000019	85.6	0.005	0.00052	0.00109	<0.01
RSEM-R6W-EOP	4/3/2019 12:35	VM2011	M	5	<0.00002	126	0.451	105	0.000012	<0.005	0.005	0.00347	<0.005	<0.005	0.00028	0.0244	0.00163	0.00182	0.185	<0.0001	<0.001	0.141	0.000019	88.5	0.0047	0.00048	0.00106	<0.01
RSEM-R6W-EOP	4/4/2019 13:08	VM3413	M	4.56	<0.00002	121	0.397	103	0.000014	<0.005	0.0094	0.00344	<0.005	<0.005	0.00026	0.0239	0.00143	0.00162	0.16	<0.0001	<0.001	0.124	0.000015	96.4	0.0045	0.00048	0.0012	<0.01
RSEM-R6W-EOP	4/5/2019 9:37	VM3335	M	4.37	<0.00002	111	0.443	96.9	0.000016	<0.005	0.0056	0.00367	<0.005	0.0173	0.00022	0.0236	0.00144	0.00157	0.151	<0.0001	<0.001	0.133	0.000013	88.9	0.0044	0.0004	0.00117	<0.01
RSEM-R6W-EOP	4/6/2019 12:20	VM5386	M	5.01	<0.00002	122	0.403	117	0.000013	<0.005	0.0092	0.0033	<0.005	<0.005	0.00034	0.0215	0.0014	0.00159	0.147	<0.0001	<0.001	0.106	0.000017	96.9	0.0043	0.00048	0.0012	<0.01
RSEM-R6W-EOP	4/7/2019 13:21	VM5352	M	4.88	<0.00002	155	0.383	111	<0.00001	<0.005	<0.005	0.00329	<0.005	<0.005	0.00016	0.0215	0.0018	0.00216	0.194	<0.0001	<0.001	0.138	0.000013	88.9	0.0035	0.00053	0.00389	<0.01
RSEM-R6W-EOP	4/8/2019 10:05	VM6524	M	4.63	0.00002	203	0.367	109	0.000012	<0.005	0.0067	0.00318	<0.005	<0.005	0.00044	0.0281	0.00226	0.00277	0.278	<0.0001	<0.001	0.195	<0.00001	79.6	0.0029	0.00054	0.0076	0.02
RSEM-R6W-EOP	4/9/2019 12:33	VM8371	M	5.25	0.00002	200	0.357	117	0.00001	<0.005	0.0076	0.00315	<0.005	<0.005	0.00019	0.0235	0.00224	0.00262	0.258	<0.0001	<0.001	0.19	<0.00001	72.3	0.0027	0.00055	0.00664	<0.01
RSEM-R6W-EOP	4/10/2019 13:40	VN0843	M	4.62	0.000021	198	0.338	107	0.000012	<0.005	<0.005	0.00303	<0.005	<0.005	0.00015	0.0261	0.0023	0.00269	0.238	<0.0001	<0.001	0.219	0.000013	75.7	0.0028	0.00057	0.00594	<0.01
RSEM-R6W-EOP	4/11/2019 13:42	VN1893	M	4.94	0.00002	195	0.336	111	0.000015	<0.005	0.0062	0.00303	<0.005	<0.005	0.00027	0.0291	0.00225	0.00288	0.245	<0.0001	<0.001	0.19	<0.00001	66.0	0.0024	0.00047	0.00613	<0.01
RSEM-R6W-EOP	4/12/2019 10:56	VN1936	M	5.59	<0.00002	189	0.32	96.7	0.000022	<0.005	0.0228	0.00302	0.0053	<0.005	0.00052	0.0555	0.00235	0.00252	0.212	<0.0001	<0.001	0.207	<0.00001	62.1	0.0026	0.00046	0.00609	<0.01
RSEM-R6W-EOP	4/13/2019 12:48	VN4406	M	4.01	<0.00002	185	0.317	97.8	0.000013	<0.005	<0.005	0.00292	<0.005	<0.005	0.00019	0.0761	0.00265	0.00333	0.204	<0.0001	<0.001	0.19	<0.00001	58.7	0.0024	0.00039	0.00661	<0.01
RSEM-R6W-EOP	4/14/2019 13:30	VN4396	M	3.68	<0.00002		0.316	96.8	0.000011	<0.005	0.0063	0.00285	<0.005	0.0062	0.00022	0.0777	0.00294	0.00363	0.286	<0.0001	<0.001	0.199	<0.00001		0.0023	0.00032	0.00616	<0.01
RSEM-R6W-EOP	4/15/2019 14:30	VN6319	M	3.94	<0.00002	192	0.339	103	0.000013	<0.005	<0.005	0.00314	<0.005	<0.005	0.00012	0.0843	0.00292	0.00369	0.291	<0.0001	<0.001	0.22	<0.00001	49.6	0.0024	0.0003	0.00532	<0.01
RSEM-R6W-EOP	4/16/2019 10:00	VN8481	M	3.98	<0.00002	174	0.298	94.7	0.000011	<0.005	0.0077	0.00281	<0.005	<0.005	0.00025	0.0801	0.0032	0.00358	0.317	<0.0001	<0.001	0.244	<0.00001	50.6	0.0022	0.00027	0.00545	<0.01
RSEM-R6W-EOP	4/26/2019 11:20	VO8649	D	6.14	<0.00002	166	0.32	90.1	0.000014	<0.005	0.0212	0.00296	0.0051	<0.005	0.00046	0.0549	0.00283	0.0031	0.259	<0.0001	<0.001	0.24	<0.00001	58.1	0.0022	0.00021	0.00222	<0.01
RSEM-R6W-EOP	4/26/2019 11:20	VO8647	M	4.76	<0.00002	172	0.33	91.5	0.000014	<0.005	0.0174	0.00292	0.0054	<0.005	0.00057	0.0788	0.00286	0.00312	0.268	<0.0001	<0.001	0.227	<0.00001	55.5	0.0023	0.00021	0.00251	<0.01
RSEM-R6W-EOP	4/27/2019 13:00	VP1291	M	4.07	<0.00002	159	0.322	85.9	<0.00001	<0.005	<0.005	0.00288	<0.005	<0.005	0.00015	0.0521	0.00272	0.00291	0.246	<0.0001	<0.001	0.224	<0.00001	57.5	0.0025	0.00024	0.00205	<0.01
RSEM-R6W-EOP	4/28/2019 12:45	VP1295	M	3.83	<0.00002	155	0.321	90.0	0.00001	<0.005	<0.005	0.00294	<0.005	<0.005	0.00014	0.0512	0.00267	0.00278	0.24	<0.0001	<0.001	0.221	<0.00001	59.8	0.0029	0.00025	0.00178	<0.01
RSEM-R6W-EOP	4/29/2019 12:10	VP3188	M	4.19	<0.00002	153	0.347	92.4	<0.00001	<0.005	<0.005	0.00311	<0.005	<0.005	0.00016	0.0472	0.00251	0.00253	0.222	<0.0001	<0.001	0.212	<0.00001	58.7	0.0028	0.00026	0.00159	<0.01
RSEM-R6W-EOP	4/30/2019 14:15	VP5204	M	5.17	<0.00002	148	0.333	98.2	0.00001	<0.005	0.0064	0.00287	<0.005	<0.005	0.0003	0.0513	0.00227	0.00262	0.195	<0.0001	<0.001	0.164	<0.00001	65.5	0.0036	0.00025	0.00133	<0.01
RSEM-R6W-EOP	5/1/2019 13:10	VP6527	M	5.28	<0.00002	141	0.33	96.0	<0.00001	<0.005	<0.005	0.00271	<0.005	<0.005	0.00017	0.0502	0.00238	0.00265	0.196	<0.0001	<0.001	0.179	<0.00001	64.5	0.0041	0.00024	0.00137	<0.01
RSEM-R6W-EOP	5/2/2019 14:00	VP8694	M	5.63	<0.00002	159	0.342	101	<0.00001	<0.005	<0.005	0.00292	<0.005	<0.005	0.00015	0.0502	0.00232	0.00266	0.171	<0.0001	<0.001	0.186	<0.00001	65.3	0.0045	0.00022	0.00125	<0.01
RSEM-R6W-EOP	5/3/2019 9:25	VP8771	M	6.21	<0.00002	144	0.331	100	<0.00001	<0.005	<0.005	0.00274	<0.005	<0.005	0.0003	0.05	0.0023	0.00271	0.163	<0.0001	<0.001	0.186	<0.00001	68.5	0.0047	0.00021	0.00127	<0.01
RSEM-R6W-EOP	5/4/2019 9:40	VQ1566	D	6.61	<0.00002	154	0.338	107	0.000011	<0.005	0.0069	0.00297	0.0051	<0.005	0.00041	0.0396	0.00212	0.00241	0.149	<0.0001	<0.001	0.188	<0.00001	68.6	0.0051	0.00023	0.00137	<0.01
RSEM-R6W-EOP	5/4/2019 9:40	VQ1564	M	6.54	<0.00002	153	0.346	102	0.000014	<0.005	0.01	0.00291	0.0053	<0.005	0.00039	0.0385	0.00219	0.00251	0.143	<0.0001	<0.001	0.176	<0.00001	67.2	0.0052	0.00022	0.00134	<0.01
RSEM-R6W-EOP	5/5/2019 13:00	VQ1489	M	6.44	<0.00002	148	0.346	105	0.000012	<0.005	0.0101	0.0029	<0.005	<0.005	0.00035	0.0361	0.00207	0.00233	0.137	<0.0001	<0.001	0.174	<0.00001	69.0	0.0049	0.00024	0.00139	<0.01
RSEM-R6W-EOP	5/6/2019 12:28	VQ3927	M	5.73	<0.00002	134	0.34	93.4	<0.00001	<0.005	0.0074	0.00278	<0.005	<0.005	0.00033	0.0306	0.00191	0.00229	0.135	<0.0001	<0.001	0.155	<0.00001	69.1	0.0045	0.00022	0.00126	<0.01
RSEM-R6W-EOP	5/7/2019 12:15	VQ4255	M	6.24	<0.00002	129	0.317	98.7	0.000012	<0.005	0.0064	0.00285	<0.005	<0.005	0.00028	0.0285	0.00184	0.00221	0.13	<0.0001	<0.001	0.144	<0.00001	73.9	0.0044	0.00024	0.00139	<0.01
RSEM-R6W-EOP	5/8/2019 13:28	VQ9188	M	5.67	<0.00002	122	0.304	86.0	0.000012	<0.005	0.0062	0.0026	<0.005	0.0067	0.00028	0.0369	0.00173	0.00202	0.122	<0.0001	<0.001	0.125	<0.00001	73.6	0.0042	<0.0002	0.00141	<0.01
RSEM-R6W-EOP	5/9/2019 13:04	VQ8349	M	6.44	<0.00002	131	0.307	93.4	<0.00001	<0.005	0.005	0.0026	<0.005	<0.005	0.00025	0.0481	0.00169	0.00193	0.114	<0.0001	<0.001	0.14	<0.00001	72.7	0.0052	0.00026	0.00141	<0.01
RSEM-R6W-EOP	5/10/2019 9:42	VQ9649	M	6.45	<0.00002	118	0.288	87.9	0.000011	<0.005	0.007	0.00261	<0.005	<0.005	0.00026	0.05	0.00169	0.00189	0.112	<0.0001	<0.001	0.119	<0.00001	67.5	0.0054	<0.0002	0.00139	<0.01
RSEM-R6W-EOP	5/11/2019 12:51	VR2469	M	5.46	<0.00002	114	0.27	78.6	0.000013	<0.005	0.0085	0.00223	<0.005	<0.005	0.00023	0.0572	0.00147	0.00159	0.0921	<0.0001	<0.001	0.117	<0.00001	63.3	0.0065	<0.0002	0.0061	0.02
RSEM-R6W-EOP	5/12/2019 12:23	VR2431	M	5.75	<0.00002	117	0.278	77.8	0.000012	<0.005	0.0076	0.0023	<0.005	<0.005	0.00029	0.0566	0.00158	0.00163	0.0968	<0.0001	<0.001	0.126	<0.00001	62.9	0.006	<0.0002	0.00442	<0.01
RSEM-R6W-EOP	5/13/2019 12:45	VR4434	M	5.34	<0.00002	110	0.271	74.9	0.000012	<0.005	<0.005	0.00226	<0.005	<0.005	0.00027	0.0531	0.00157	0.00177	0.104	<0.0001	<0.001	0.136	0.000014	63.2	0.0054	<0.0002	0.00173	<0.01
RSEM-R6W-EOP	5/14/2019 14:18	VR6839	M	5.54	<0.00002	117	0.286	78.9	0.000013	<0.005	<0.005	0.0023	<0.005	<0.005	0.00028	0.0482	0.00141	0.00171	0.0999	<0.0001	<0.001	0.137	0.000016	63.1	0.005	0.00021	0.0014	<0.01
RSEM-R6W-EOP	5/15/2019 13:02	VR8789	M	7.22	<0.00002	104	0.265	77.8	0.000022	<0.005	0.0285	0.00231	0.0064	0.008	0.00325	0.0388	0.00147	0.00183	0.113	<0.0001	<0.001	0.123	0.000015	68.3	0.0051	0.00027	0.00145	<0.01
RSEM-R6W-EOP	5/16/2019 13:14	VS0881	M	5.83	<0.00002	103	0.263	72.3	0.000016	<0.005	0.0073	0.00223	<0.005	0.0053	0.00033	0.035	0.00135	0.00183	0.119	<0.0001	<0.001	0.121	0.000014	67.8	0.0051	0.00027	0.00153	<0.01
RSEM-R6W-EOP	5/17/2019 9:11	VS0947	M	5.81	<0.00002	104	0.267	77.9	0.000017	<0.005	0.0066	0.00224	<0.005	0.0057	0.00041	0.0347	0.00137	0.00167	0.117	<0.0001	<0.001	0.123	0.000012	69.5	0.0052	0.00028	0.002	<0.01
RSEM-R6W-EOP	5/18/2019 15:05	VS1856	M	5.83	<0.00002	103	0.262	75.4	0.000014	<0.005	<0.005	0.00209	<0.005	<0.005	0.00024	0.0352	0.00129	0.00174	0.113	<0.0001	<0.001	0.128	0.000013	69.1	0.0048	0.00021	0.00161	<0.01
RSEM-R6W-EOP	5/19/2019 9:23	VS3007	M	9.79	<0.00002	98.4	0.241	69.0	0.000024	<0.005	0.0345	0.00206	0.0072	0.0067	0.00126	0.0422	0.00135	0.00202	0.103	<0.0001	<0.001	0.123	<0.00001	56.1	0.0067	<0.0002	0.00152	<0.01
RSEM-R6W-EOP	5/20/2019 13:01	VS3016	M	6.06	<0.00002	102	0.263	75.5	0.000016	<0.005	0.0056	0.00217	<0.005	<0.005	0.00023	0.0384	0.00126	0.00182	0.111	<0.0001	<0.001	0.122	0.000013	65.4	0.0051	<0.0002	0.00155	<0.01
RSEM-R6W-EOP	5/21/2019 13:05	VS5711	M	7.7	<0.00002	81.2	0.227	60.6	0.000017	<0.005	0.0095	0.00181	0.0056	0.006	0.00055	0.0381	0.00132	0.00199	0.0968	<0.0001	<0.001	0.108	<0.00001	52.9	0.0069	<0.0002	0.00171	<0.01
RSEM-R6W-EOP	5/22/2019 14:50	VS7511	M	8.26	<0.00002	87.3	0.214	60.0	0.000018	<0.005	0.0182	0.0018	0.0066	0.0053	0.00105	0.0406	0.00131	0.00187	0.0953	<0.0001	<0.001	0.111	<0.00001	51.7	0.0068	<0.0002	0.00179	<0.01
RSEM-R6W-EOP	5/23/2019 12:50	VS9393	M	7.11	<0.00002	78.3	0.216	52.0	0.000017	<0.005	0.011	0.00178	0.0054	0.0056	0.00034	0.0348	0.00126	0.00202	0.0892	<0.0001	<0.001	0.101	<0.00001	48.7	0.0061	<0.0002	0.00175	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6E-SP	6/3/2019 9:25	VU5985	M	<0.0002	0.0333	20.4	0.0044	<0.000002	0.0128	0.0019		4.95	0.00111	0.996	<0.00002	72.8	0.542	52.1	0.000014	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/4/2019 11:50	VU7695	M	<0.0002	0.0317	21.7	0.0092	<0.000002	0.0124	0.0021		5.06	0.00116	0.999	<0.00002	74.0	0.659	53.3	0.000013	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/5/2019 12:15	VV4611	M	<0.0002	0.0304	22.0	0.0089	<0.000002	0.014	0.0024		5.41	0.00116	1.09	<0.00002	75.0	0.683	53.9	0.000015	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/6/2019 12:34	VV6690	M	<0.0002	0.0326	23.3	0.0013	<0.000002	0.0209	0.0024		5.20	0.00105	1.2	<0.00002	78.2	0.622	53.7	0.000019	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/7/2019 12:30	VV6765	M	<0.0002	0.0328	23.4	<0.001	<0.000002	0.0124	0.0026		5.13	0.00107	1.21	<0.00002	75.7	0.624	52.9	0.000017	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/10/2019 14:05	VW2553	M	<0.0002	0.0333	22.4	0.0042	<0.000002	0.0113	0.0023		5.26	0.00103	1.27	<0.00002	75.3	0.578	55.6	0.000017	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/11/2019 12:25	VW4963	M	<0.0002	0.0311	21.8	0.0031	<0.000002	0.0106	0.0023		4.58	0.00099	1.05	<0.00002	74.5	0.552	50.1	0.000017	<0.005	<0.005	0.00153	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/13/2019 12:20	VX0001	M	<0.0002	0.0313	21.8	<0.001	<0.000002	0.0102	0.002		4.70	0.00094	1.05	<0.00002	74.4	0.496	52.2	0.000015	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/17/2019 14:50	VX5940	M	<0.0002	0.0321	21.9	0.0057	<0.000002	0.0103	0.002		4.65	0.00085	1.12	<0.00002	75.7	0.483	49.8	0.000011	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/18/2019 12:25	VX8832	M	<0.0002	0.033	22.1	0.0062	<0.000002	0.0101	0.002		4.71	0.00085	1.22	<0.00002	77.0	0.487	49.9	0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/19/2019 11:55	VY1842	M	<0.0002	0.0321	22.2	0.0079	<0.000002	0.0096	0.0019		4.97	0.00092	1.36	<0.00002	76.1	0.456	53.2	0.000012	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/20/2019 11:45	VY4150	M	<0.0002	0.0331	21.9	<0.001	<0.000002	0.0102	0.0019		4.68	0.00086	1.33	<0.00002	77.2	0.473	48.7	0.000012	<0.005	<0.005	0.00142	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/21/2019 9:25	VY4161	M	<0.0002	0.0321	22.0	0.0055	<0.000002	0.0099	0.0021		4.57	0.00082	1.37	<0.00002	76.9	0.47	48.0	0.00001	<0.005	<0.005	0.00143	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/22/2019 11:15	VY6742	M	<0.0002	0.0332	22.6	0.0164	<0.000002	0.0099	0.0023		4.69	0.00089	1.52	<0.00002	75.9	0.479	49.5	0.000012	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001
RSEM-R6E-SP	6/23/2019 11:20	VY6755	M	<0.0002	0.0346	22.2	0.0114	<0.000002	0.0099	0.0021		4.71	0.00085	1.52	<0.00002	75.8	0.476	48.4	0.000012	<0.005	<0.005	0.0014	<0.005	<0.005	<0.0001
RSEM-R6E-SP	10/22/2019 15:25	WT8961	M	<0.0002	0.0172	16.6	0.0248	<0.000002	0.0145	0.0075		4.65	0.00095	4.33	<0.00002	50.3	0.373	29.7	<0.00001	<0.005	<0.005	0.00128	<0.005	<0.005	<0.0001
RSEM-R6E-SP	10/23/2019 13:30	WU1856	M	<0.0002	0.0166	16.4	0.0332	<0.000002	0.0145	0.0075		4.57	0.00096	4.23	<0.00002	49.5	0.369	29.6	<0.00001	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001
RSEM-R6E-SP	10/24/2019 16:25	WU4170	M	<0.0002	0.0186	17.2	0.033	<0.000002	0.0178	0.0078		5.27	0.0012	4.61	<0.00002	56.1	0.372	32.5	<0.00001	<0.005	<0.005	0.00123	<0.005	<0.005	<0.0001
RSEM-R6E-SP	11/3/2019 17:00	WW1182	M	<0.0002	0.0399	28.1	0.056	<0.000002	0.0188	0.0077		11.1	0.00136	4.68	<0.00002	62.4	3.71	33.8	0.000057	<0.005	<0.005	0.00131	<0.005	0.0059	<0.0001
RSEM-R6W-EOP	1/27/2019 12:40	VD7175	D	<0.0002	0.0456	11.3	<0.001	<0.000002	0.0506	0.0016		6.70	0.00484	4.49	<0.00002	288	0.202	94.7	<0.00001	<0.005	<0.005	0.00292	0.0096	<0.005	<0.0001
RSEM-R6W-EOP	1/27/2019 12:40	VD7173	M	<0.0002	0.0472	11.4	<0.001	<0.000002	0.0496	0.0016		6.65	0.00489	4.49	<0.00002	291	0.197	93.1	<0.00001	<0.005	<0.005	0.00295	0.0097	<0.005	<0.0001
RSEM-R6W-EOP	1/28/2019 11:55	VD8613	M	<0.0002	0.0458	11.2	<0.001	<0.000002	0.05	0.0015		6.62	0.00486	4.6	<0.00002	292	0.199	94.8	<0.00001	<0.005	<0.005	0.00303	0.0099	<0.005	<0.0001
RSEM-R6W-EOP	1/29/2019 11:22	VE0661	M	<0.0002	0.0463	9.57	0.0016	<0.000002	0.0464	0.0016		7.01	0.00481	4.74	<0.00002	273	0.161	87.6	0.00001	<0.005	<0.005	0.00319	0.0108	<0.005	<0.0001
RSEM-R6W-EOP	3/26/2019 13:40	VK9084	M	<0.0002	0.0189	6.35	0.0128	<0.000002	0.0199	0.0013		4.35	0.00462	2.67	<0.00002	117	0.222	46.4	<0.00001	<0.005	<0.005	0.00205	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	3/27/2019 15:05	VL1981	M	<0.0002	0.0247	7.16	0.0128	<0.000002	0.0239	0.0016		4.05	0.00695	3.26	<0.00002	136	0.276	53.7	<0.00001	<0.005	<0.005	0.00278	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	3/28/2019 12:45	VL3526	D	<0.0002	0.0222	9.32	0.0287	<0.000002	0.0225	0.0017		4.13	0.00813	3.48	<0.00002	131	0.285	64.1	0.000012	<0.005	<0.005	0.00284	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	3/28/2019 12:45	VL3525	M	<0.0002	0.0235	9.57	0.0307	<0.000002	0.0225	0.0017		4.26	0.00796	3.34	<0.00002	137	0.288	62.4	0.000011	<0.005	<0.005	0.00291	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	3/29/2019 9:40	VL3529	M	<0.0002	0.0245	11.1	0.0348	<0.000002	0.0225	0.0018		4.31	0.00888	3.7	<0.00002	138	0.328	65.0	0.000011	<0.005	<0.005	0.00316	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	3/30/2019 0:55	VL6533	M	<0.0002	0.0245	12.7	0.0324	<0.000002	0.0217	0.0018		4.68	0.0101	3.36	<0.00002	126	0.342	72.7	0.000013	<0.005	<0.005	0.00336	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	3/31/2019 13:05	VL6671	M	<0.0002	0.0208	12.9	0.0292	<0.000002	0.0196	0.0017		4.41	0.0102	3.33	<0.00002	115	0.338	70.3	0.000011	<0.005	<0.005	0.00315	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/1/2019 13:40	VL8113	M	<0.0002	0.026	15.7	0.0277	<0.000002	0.0197	0.0019		4.82	0.0117	4.04	<0.00002	145	0.37	94.2	0.000012	<0.005	<0.005	0.00352	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/2/2019 9:55	VL9874	M	<0.0002	0.0262	20.7	0.0257	0.0000062	0.0185	0.0021		4.93	0.0126	4.35	<0.00002	145	0.419	108	0.000013	<0.005	<0.005	0.00379	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/3/2019 12:35	VM2011	M	<0.0002	0.0216	21.6	0.0195	<0.000002	0.0153	0.0019		4.57	0.0115	4.31	<0.00002	128	0.433	105	<0.00001	<0.005	<0.005	0.00343	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/4/2019 13:08	VM3413	M	<0.0002	0.0193	19.9	0.0172	<0.000002	0.0135	0.0019		4.57	0.0127	4.25	<0.00002	113	0.416	100	<0.00001	<0.005	<0.005	0.00342	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/5/2019 9:37	VM3335	M	<0.0002	0.0192	20.4	0.0148	<0.000002	0.0131	0.0019		4.56	0.0111	3.95	<0.00002	111	0.429	104	0.00001	<0.005	<0.005	0.00345	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/6/2019 12:20	VM5386	M	<0.0002	0.0211	21.9	0.0169	<0.000002	0.0126	0.002		4.25	0.0113	4.19	<0.00002	131	0.408	113	0.00001	<0.005	<0.005	0.00343	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/7/2019 13:21	VM5352	M	<0.0002	0.029	20.4	0.0143	<0.000002	0.0156	0.0027		4.04	0.0112	4.23	<0.00002	162	0.381	110	<0.00001	<0.005	<0.005	0.00325	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/8/2019 10:05	VM6524	M	<0.0002	0.0403	19.3	0.0127	<0.000002	0.0204	0.0035		4.26	0.0109	4.65	<0.00002	210	0.357	118	<0.00001	<0.005	<0.005	0.00321	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/9/2019 12:33	VM8371	M	<0.0002	0.0354	19.1	0.0118	<0.000002	0.0208	0.0034		4.26	0.0103	4.42	<0.00002	207	0.357	115	<0.00001	<0.005	<0.005	0.00319	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/10/2019 13:40	VN0843	M	<0.0002	0.0406	19.5	0.0073	<0.000002	0.0195	0.0032		4.38	0.0101	4.83	0.000024	195	0.345	121	0.00001	<0.005	<0.005	0.00302	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/11/2019 13:42	VN1893	M	<0.0002	0.039	19.9	0.0075	<0.000002	0.0192	0.003		4.07	0.00987	4.45	<0.00002	197	0.349	112	<0.00001	<0.005	<0.005	0.00299	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/12/2019 10:56	VN1936	M	<0.0002	0.0348	18.0	0.0064	<0.000002	0.018	0.0028		4.03	0.00882	3.9	<0.00002	180	0.311	100	0.000012	<0.005	<0.005	0.00298	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/13/2019 12:48	VN4406	M	<0.0002	0.0348	17.5	0.0056	<0.000002	0.0202	0.0028		3.94	0.00939	3.88	<0.00002	196	0.31	103	<0.00001	<0.005	<0.005	0.00288	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/14/2019 13:30	VN4396	M	<0.0002	0.0376	15.6	0.0055	<0.000002	0.0207	0.0023			0.00882	3.36	<0.00002		0.308	99.9	<0.00001	<0.005	<0.005	0.00288	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/15/2019 14:30	VN6319	M	<0.0002	0.0367	13.7	0.0053	<0.000002	0.0192	0.0022		3.86	0.00863	3.62	<0.00002	171	0.305	95.5	<0.00001	<0.005	<0.005	0.00274	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/16/2019 10:00	VN8481	M	<0.0002	0.0368	15.4	0.0035	<0.000002	0.0199	0.0023		3.96	0.00865	3.46	<0.00002	177	0.324	92.7	0.000012	<0.005	<0.005	0.00292	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/26/2019 11:20	VO8649	D	<0.0002	0.0347	16.3	<0.001	<0.000002	0.0187	0.0018		3.91	0.00806	3.68	<0.00002	159	0.323	92.0	0.00001	<0.005	<0.005	0.00284	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/26/2019 11:20	VO8647	M	<0.0002	0.034	16.7	<0.001	<0.000002	0.0198	0.0019		3.93	0.00793	3.46	<0.00002	162	0.319	93.0	0.00001	<0.005	<0.005	0.00288	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/27/2019 13:00	VP1291	M	<0.0002	0.0345	17.1	0.001	<0.000002	0.0181	0.002		3.88	0.00762	3.52	<0.00002	168	0.323	92.0	<0.00001	<0.005	<0.005	0.00287	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/28/2019 12:45	VP1295	M	<0.0002	0.0336	17.7	0.0018	<0.000002	0.0184	0.002		4.17	0.00769	3.78	<0.00002	160	0.339	94.4	<0.00001	<0.005	<0.005	0.00294	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/29/2019 12:10	VP3188	M	<0.0002	0.0322	17.7	0.0024	<0.000002	0.0185	0.0018		4.16	0.00722	3.6	<0.00002	157	0.327	90.3	<0.00001	<0.005	<0.005	0.00289	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	4/30/2019 14:15	VP5204	M	<0.0002	0.0291	18.3	0.0029	<0.000002	0.0169	0.0016		4.49	0.00784	4.62	<0.00002	153	0.338	96.6	<0.00001	<0.005	<0.005	0.00299	<0.005	<0.005	0.00011
RSEM-R6W-EOP	5/1/2019 13:10	VP6527	M	<0.0002	0.0313	16.6	0.0025	<0.000002	0.0176	0.0016		4.74	0.00754	4.98	<0.00002	142	0.317	96.1	<0.00001	<0.005	<0.005	0.00276	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/2/2019 14:00	VP8694	M	<0.0002	0.0309	18.7	0.0013	<0.000002	0.0175	0.0017		5.16	0.00815	5.67	<0.00002	154	0.333	101	<0.00001	<0.005	<0.005	0.00295	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/3/2019 9:25	VP8771	M	<0.0002	0.0305	18.5	0.0014	<0.000002	0.0171	0.0015		5.35	0.00839	6.26	<0.00002	155	0.329	104	<0.00001	<0.005	<0.005	0.00294	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/4/2019 9:40	VQ1566	D	<0.0002	0.0293	20.6	0.0022	<0.000002	0.0157	0.0016		5.14	0.00749	5.63	<0.00002	161	0.316	100	<0.00001	<0.005	<0.005	0.0028	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/4/2019 9:40	VQ1564	M	<0.0002	0.0304	20.5	0.0023	<0.000002	0.0158	0.0017		5.11	0.00795	5.58	<0.00002	158	0.318	98.1	0.00001	<0.005	<0.005	0.00275	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/5/2019 13:00	VQ1489	M	<0.0002	0.0295	20.2	0.0022	<0.000002	0.0162	0.0016		5.12	0.00754	5.61	<0.00002	158	0.326	98.3	<0.00001	<0.005	<0.005	0.00278	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/6/2019 12:28	VQ3927	M	<0.0002	0.0274	18.9	0.0023	<0.000002	0.0142	0.0014		4.90	0.00731	5.45	<0.00002	134	0.325	94.1	<0.00001	<0.005	<0.005	0.00267	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/7/2019 12:15	VQ4255	M	<0.0002	0.0274	19.9	0.003	<0.000002	0.0141	0.0015		4.97	0.00722	5.84	<0.00002	138	0.335	97.3	<0.00001	<0.005	<0.005	0.00283	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/8/2019 13:28	VQ9188	M	<0.0002	0.0231	19.1	<0.001	<0.000002	0.0131	0.0016		4.79	0.00654	5.44	<0.00002	117	0.342	92.6	<0.00001	<0.005	<0.005	0.00297	<0.005	<0.005	0.00011
RSEM-R6W-EOP	5/9/2019 13:04	VQ8349	M	<0.0002	0.0258	19.0	0.0045	<0.000002	0.0134	0.0016		5.03	0.00616	5.44	<0.00002	127	0.298	85.8	0.00001	<0.005	<0.005	0.00263	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/10/2019 9:42	VQ9649	M	<0.0002	0.022	18.0	<0.001	<0.000002	0.0143	0.0016		5.19	0.00607	5.51	<0.00002	115	0.319	88.0	<0.00001	<0.005	<0.005	0.00269	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/11/2019 12:51	VR2469	M	0.00021	0.0236	18.3	0.0011	<0.000002	0.013	0.002		4.95	0.00522	5.24	<0.00002	117	0.262	78.8	<0.00001	<0.005	<0.005	0.00222	<0.005	<0.005	0.0001
RSEM-R6W-EOP	5/12/2019 12:23	VR2431	M	<0.0002	0.0237	18.2	<0.001	<0.000002	0.0137	0.0017		4.98	0.0053	5.27	<0.00002	119	0.265	78.7	<0.00001	<0.005	<0.005	0.00227	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/13/2019 12:45	VR4434	M	<0.0002	0.0221	18.2	0.0015	<0.000002	0.0132	0.0015		4.78	0.00529	5.2	<0.00002	113	0.282	80.4	<0.00001	<0.005	<0.005	0.00229	<0.005	<0.005	0.0001
RSEM-R6W-EOP	5/14/2019 14:18	VR6839	M	<0.0002	0.0228	17.7	0.002	<0.000002	0.0124	0.0016		4.52	0.00506	5.08	<0.00002	106	0.286	75.7	<0.00001	<0.005	<0.005	0.00239	<0.005	<0.005	0.00011
RSEM-R6W-EOP	5/15/2019 13:02	VR8789	M	<0.0002	0.022	19.2	0.0033	<0.000002	0.0133	0.0019		4.40	0.00465	5.68	<0.00002	107	0.275	74.8	0.000011	<0.005	<0.005	0.00228	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/16/2019 13:14	VS0881	M	<0.0002	0.0218	18.5	0.0035	<0.000002	0.0144	0.002		4.25	0.0045	5.27	<0.00002	101	0.274	71.1	0.00001	<0.005	<0.005	0.0022	<0.005	<0.005	0.0001
RSEM-R6W-EOP	5/17/2019 9:11	VS0947	M	<0.0002	0.021	18.9	0.0032	<0.000002	0.0169	0.0021		4.96	0.0043	5.22	<0.00002	107	0.277	77.2	0.00001	<0.005	<0.005	0.0022	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/18/2019 15:05	VS1856	M	<0.0002	0.0201	18.4	0.0026	<0.000002	0.0155	0.0016		4.38	0.00398	5.85	<0.00002	108	0.269	79.3	0.00001	<0.005	<0.005	0.00215	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/19/2019 9:23	VS3007	M	<0.0002	0.0192	16.5	<0.001	<0.000002	0.0144	0.0013		4.35	0.00357	7.45	<0.00002	93.5	0.23	65.1	0.00001	<0.005	<0.005	0.0019	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/20/2019 13:01	VS3016	M	<0.0002	0.02	18.3	<0.001	<0.000002	0.015	0.0015		4.36	0.00406	5.96	<0.00002	104	0.264	76.0	0.000011	<0.005	<0.005	0.0021	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/21/2019 13:05	VS5711	M	<0.0002	0.0187	15.1	<0.001	<0.000002	0.0138	0.0014		4.32	0.00337	6.99	<0.00002	87.4	0.226	64.0	<0.00001	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/22/2019 14:50	VS7511	M	<0.0002	0.0187	14.5	0.0011	<0.000002	0.0127	0.0014		4.19	0.00323	7.36	<0.00002	84.3	0.219	61.5	0.00001	<0.005	<0.005	0.00175	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/23/2019 12:50	VS9393	M	<0.0002	0.0185	14.5	0.0018	<0.000002	0.0114	0.0012		3.64	0.00286	6.64	<0.00002	73.4	0.211	55.5	<0.00001	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	5/24/2019 11:45	VS9363	M	8.24	727	13.3	442	16.8	185	190	167	<1.0	204	<1.0	<1.0	25.9	0.180	0.59	160			0.038	0.0218	0.366	0.387	<0.0050
RSEM-R6W-EOP	5/25/2019 12:50	VT2678	M	8.27	714	18.1	434	15.6	179	193	172	<1.0	210	<1.0	<1.0	24.1	0.170	0.55	160			0.069	0.0292	0.289	0.318	0.0050
RSEM-R6W-EOP	5/26/2019 14:35	VT2686	M	8.24	707	12.3	436	11.6	195	199	176	<1.0	215	<1.0	<1.0	23.5	0.160	0.52	150			0.067	0.0227	0.324	0.346	<0.0050
RSEM-R6W-EOP	5/27/2019 12:40	VT3954	M	8.16	703	11.4	418	7.2	214	198	182	<1.0	222	<1.0	<1.0	23	0.170	0.51	150			0.038	0.0234	0.268	0.291	<0.0050
RSEM-R6W-EOP	5/28/2019 11:25	VT7529	M	8.18	695	11.3	418	4.8	192	210	188	<1.0	229	<1.0	<1.0	22	0.200	0.48	140			0.038	0.0200	0.237	0.257	<0.0050
RSEM-R6W-EOP	5/29/2019 11:20	VT7394	M	8.19	682	10.7	434	<4.0	188	200	186	<1.0	227	<1.0	<1.0	22	0.190	0.46	140			<0.015	0.0196	0.208	0.227	<0.0050
RSEM-R6W-EOP	5/30/2019 12:24	VU2394	M	8.28	676	9.45	378	4.8	191	199	182	<1.0	222	<1.0	<1.0	21.1	0.170	0.42	138			0.038	0.0199	0.187	0.207	<0.0050
RSEM-R6W-EOP	5/31/2019 10:05	VU2445	M	8.30	666	11.3	388	6.8	191	196	181	<1.0	221	<1.0	<1.0	22.0	0.170	0.41	136			0.024	0.0204	0.174	0.195	<0.0050
RSEM-R6W-EOP	6/1/2019 11:09	VU3339	M	8.06	653	7.11	376	6.8	190	200	179	<1.0	218	<1.0	<1.0	21.7	0.170	0.41	136			0.033	0.0132	0.195	0.208	<0.0050
RSEM-R6W-EOP	6/2/2019 9:30	VU6017	M	8.16	668	8.99	422	8.8	186	190	186	<1.0	226	<1.0	<1.0	21.7	0.160	0.45	130			0.031	0.0135	0.158	0.171	<0.0050
RSEM-R6W-EOP	6/3/2019 9:12	VU5988	M	8.31	682	10.7	410	10.0	189	190	187	2.2	223	2.7	<1.0	25.5	0.160	0.45	139			0.11	0.0148	0.155	0.169	<0.0050
RSEM-R6W-EOP	6/4/2019 12:15	VU7698	M	8.18	692	18.5	424	11.2	196	193	191	<1.0	233	<1.0	<1.0	23.8	0.170	0.48	148			0.040	0.0179	0.173	0.191	<0.0050
RSEM-R6W-EOP	6/5/2019 12:03	VV4614	M	8.30	711	13.6	434	11.6	190	199	187	<1.0	228	<1.0	<1.0	24.1	0.180	0.46	145			0.040	0.0178	0.177	0.195	<0.0050
RSEM-R6W-EOP	6/6/2019 12:22	VV6693	M	8.28	725	8.48	462	4.8	203	207	197	<1.0	240	<1.0	<1.0	25.2	0.190	0.49	150			0.048	0.0146	0.157	0.172	<0.0050
RSEM-R6W-EOP	6/7/2019 12:22	VV6768	M	8.18	757	11.1	476	7.2	204	209	200	<1.0	244	<1.0	<1.0	26.4	0.190	0.54	149			0.054	0.0155	0.164	0.180	<0.0050
RSEM-R6W-EOP	6/8/2019 11:34	VV9724	M	8.21	754	12.5	462	7.6	212	206	201	<1.0	245	<1.0	<1.0	26.6	0.180	0.52	159			0.052	0.0168	0.179	0.196	<0.0050
RSEM-R6W-EOP	6/9/2019 11:30	VV9808	M	8.23	745	8.73	454	5.6	205	206	199	<1.0	242	<1.0	<1.0	22.9	0.180	0.51	157			0.065	0.0145	0.151	0.166	<0.0050
RSEM-R6W-EOP	6/10/2019 14:15	VW2554	M	8.38	730	7.14	446	<4.0	192	210	192	2.9	227	3.5	<1.0	25.6	0.180	0.51	140			0.034	0.0138	0.147	0.161	<0.0050
RSEM-R6W-EOP	6/11/2019 12:35	VW4962	M	8.42	726	6.78	450	6.0	197	192	192	4.5	223	5.4	<1.0	26.0	0.170	0.49	150			0.036	0.0135	0.132	0.145	<0.0050
RSEM-R6W-EOP	6/12/2019 9:40	VW8055	M	8.30	714	8.36	438	7.2	181	210	186	<1.0	227	<1.0	<1.0	25.8	0.180	0.48	139			0.048	0.0130	0.117	0.130	<0.0050
RSEM-R6W-EOP	6/13/2019 12:30	VX0002	M	8.33	715	6.97	422	6.0	178	187	176	1.8	210	2.2	<1.0	26.1	0.180	0.49	140			0.041	0.0133	0.103	0.116	<0.0050
RSEM-R6W-EOP	6/14/2019 10:20	VW9966	M	8.28	709	4.05	410	<4.0	179	181	173	<1.0	212	<1.0	<1.0	25.3	0.180	0.49	148			0.054	0.0100	0.103	0.113	<0.0050
RSEM-R6W-EOP	6/15/2019 12:40	VX3564	M	8.34	689	6.82	404	4.0	173	177	174	2.0	207	2.4	<1.0	25.1	0.180	0.51	146			0.047	0.0115	0.109	0.121	<0.0050
RSEM-R6W-EOP	6/16/2019 12:45	VX3549	M	8.34	689	4.1	414	<4.0	167	174	174	1.9	208	2.3	<1.0	25.7	0.180	0.51	137			0.035	0.0118	0.107	0.118	<0.0050
RSEM-R6W-EOP	6/17/2019 13:10	VX5941	M	8.34	688	3.77	422	<4.0	168	169	176	1.4	212	1.7	<1.0	26.5	0.180	0.53	145			0.033	0.0124	0.104	0.117	<0.0050
RSEM-R6W-EOP	6/18/2019 12:55	VX8833	M	8.37	688	6.82	420	10.8	167	168	173	2.3	205	2.8	<1.0	27.5	0.180	0.53	142			0.028	0.0129	0.086	0.098	<0.0050
RSEM-R6W-EOP	6/18/2019 13:05	VX8834	D	8.39	687	6.78	424	12.8	169	169	223	2.7	266	3.3	<1.0	26.6	0.190	0.53	143			0.14	0.0138	0.092	0.106	<0.0050
RSEM-R6W-EOP	6/19/2019 12:25	VY1843	M	8.42	700	6.78	422	<4.0	166	171	177	3.7	208	4.4	<1.0	29	0.180	0.57	140			0.021	0.0155	0.101	0.116	<0.0050
RSEM-R6W-EOP	6/19/2019 12:35	VY1844	D	8.44	702	6.79	408	5.2	168	172	175	2.8	207	3.3	<1.0	28	0.180	0.57	150			0.028	0.0169	0.101	0.118	<0.0050
RSEM-R6W-EOP	6/20/2019 12:15	VY4151	M	8.47	747	6.31	460	3.6	169	175	218	4.8	254	5.7	<1.0	33	0.190	0.63	160			0.035	0.0229	0.136	0.159	<0.0050
RSEM-R6W-EOP	6/20/2019 12:25	VY4152	D	8.44	748	6.26	464	1.6	172	175	180	3.4	211	4.1	<1.0	35	0.190	0.63	140			0.040	0.0209	0.137	0.158	<0.0050
RSEM-R6W-EOP	6/21/2019 9:55	VY4162	M	8.49	770	6.45	454	<4.0	165	170	182	4.5	211	5.3	<1.0	44.7	0.190	0.66	167			0.038	0.0267	0.144	0.170	<0.0050
RSEM-R6W-EOP	6/21/2019 10:05	VY4163	D	8.48	771	6.55	458	32.0	166	171	182	4.4	211	5.3	<1.0	35.8	0.190	0.65	163			0.028	0.0256	0.138	0.164	<0.0050
RSEM-R6W-EOP	6/22/2019 12:00	VY6743	M	8.32	777	5.09	472	4.0	171	179	185	1.1	223	1.3	<1.0	32.7	0.200	0.64	163			0.041	0.0233	0.123	0.147	<0.0050
RSEM-R6W-EOP	6/22/2019 12:10	VY6744	D	8.26	770	5.08	474	<4.0	171	177	183	<1.0	223	<1.0	<1.0	33.3	0.200	0.64	162			0.038	0.0224	0.126	0.148	<0.0050
RSEM-R6W-EOP	6/23/2019 12:00	VY6756	M	8.31	777	4.54	498	<4.0	167	180	185	<1.0	226	<1.0	<1.0	50.4	0.200	0.66	166			0.019	0.0212	0.116	0.137	<0.0050
RSEM-R6W-EOP	6/23/2019 12:10	VY6757	D	8.28	783	4.53	492	<4.0	169	176	181	<1.0	221	<1.0	<1.0	70.1	0.200	0.65	155			0.035	0.0205	0.118	0.138	<0.0050
RSEM-R6W-EOP	6/24/2019 13:01	VY9702	M	8.40	782	11.9	472	9.6	167	171	177	3.2	208	3.9	<1.0	33.4	0.200	0.72	166			0.050	0.0232	0.138	0.161	<0.0050
RSEM-R6W-EOP	6/25/2019 12:30	VZ1747	M	8.28	803	34.2	500	22.0	164	175	180	<1.0	220	<1.0	<1.0	40.8	0.210	0.90	162			0.13	0.0426	0.247	0.289	<0.0050
RSEM-R6W-EOP	6/26/2019 12:45	VZ5387	M	8.24	813	30.3	498	20.8	161	165	175	<1.0	213	<1.0	<1.0	44.2	0.210	0.99	166			0.028	0.0555	0.402	0.458	<0.0050
RSEM-R6W-EOP	6/27/2019 12:50	VZ7726	M	8.22	825	18.9	500	11.6	181	171	173	<1.0	211	<1.0	<1.0	44.9	0.210	0.93	169			0.034	0.0574	0.479	0.537	0.0068
RSEM-R6W-EOP	6/28/2019 7:03	VZ7857	M	8.17	818	12.0	492	7.6	160	167	170	<1.0	208	<1.0	<1.0	45.7	0.220	0.96	171			0.036	0.0587	0.469	0.528	0.0062
RSEM-R6W-EOP	6/29/2019 14:40	VZ9025	M	8.14	829	13.5	522	13.6	157	155	169	<1.0	207	<1.0	<1.0	45.7	0.210	0.97	175			0.045	0.0601	0.479	0.539	0.0056
RSEM-R6W-EOP	6/30/2019 14:12	WA1429	M	8.21	840	10.3	506	20.8	148	150	171	<1.0	209	<1.0	<1.0	51.2	0.220	0.98	174			0.083	0.0615	0.481	0.542	<0.0050
RSEM-R6W-EOP	7/1/2019 13:45	WA1409	M	8.06	828	72.6	516	40.4	147	147	162	<1.0	198	<1.0	<1.0	53.0	0.230	0.99	177			0.069	0.0654	0.564	0.629	<0.0050
RSEM-R6W-EOP	7/1/2019 13:55	WA1410	D	8.10	828	74.2	514	38.4	151	148	160	<1.0	196	<1.0	<1.0	51.0	0.230	1.0	175			0.045	0.0661	0.565	0.631	<0.0050
RSEM-R6W-EOP	7/2/2019 13:40	WA3426	M	8.13	857	96	570	58.4	154	164	157	<1.0	191	<1.0	<1.0	51.0	0.240	1.0	185			0.036	0.0782	0.782	0.861	<0.0050
RSEM-R6W-EOP	7/3/2019 12:15	WA5876	M	8.14	887	61	582	33.6	151	166	160	<1.0	196	<1.0	<1.0	53.0	0.250	1.0	196			0.046	0.0906	0.828	0.918	<0.0050
RSEM-R6W-EOP	7/4/2019 12:40	WA7979	M	8.24	976	51	620	22.8	161	157	158	<1.0	193	<1.0	<1.0	63.1	0.280	1.2	219			0.078	0.132	0.862	0.994	<0.0050
RSEM-R6W-EOP	7/5/2019 10:27	WA8011	M	8.30	978	28	624	<4.0	163	167	166	<1.0	202	<1.0	<1.0	67	0.270	1.2	220			0.082	0.148	0.841	0.989	<0.0050
RSEM-R6W-EOP	7/6/2019 13:24	WB1463	M	8.15	980	22	604	14.0	160	164	174	<1.0	213	<1.0	<1.0	61.3	0.280	1.3	254			0.085	0.142	0.813	0.955	<0.0050
RSEM-R6W-EOP	7/7/2019 9:05	WB1485	M	8.11	988	15	622	9.2	160	168	172	<1.0	210	<1.0	<1.0	60.7	0.280	1.2	236			0.073	0.136	0.799	0.935	<0.0050
RSEM-R6W-EOP	7/8/2019 9:30	WB4603	M	8.10	1030	13	614	12.4	172	173	178	<1.0	217	<1.0	<1.0	63.2	0.280	1.3	226			0.10	0.141	0.732	0.873	<0.0050
RSEM-R6W-EOP	7/9/2019 13:50	WB6317	M	8.40	1090	22	668	18.0	171	161	181	1.8	216	2.1	<1.0	54.7	0.260	1.2	246			0.23	0.127	0.708	0.836	<0.0050
RSEM-R6W-EOP	7/10/2019 11:35	WB8323	M	8.30	1090	15	670	7.2	173	171	180	<1.0	220	<1.0	<1.0	62.7	0.260	1.2	238			0.12	0.128	0.708	0.836	<0.0050
RSEM-R6W-EOP	7/11/2019 11:55	WC0494	M	8.18	1080	13	662	6.8	166	168	186	<1.0	227	<1.0	<1.0	63.7	0.260	1.1	254			0.10	0.114	0.687	0.801	<0.0050
RSEM-R6W-EOP	7/11/2019 12:05	WC0495	D	8.18	1060	13	638	8.8	166	169	186	<1.0	227	<1.0	<1.0	57.1	0.250	1.1	260			0.10	0.113	0.684	0.798	<0.0050
RSEM-R6W-EOP	7/12/2019 10:30	WC0451	M	8.23	1060	11	642	7.6	172	171	186	<1.0	226	<1.0	<1.0	56.6	0.250	1.1	243			0.35	0.110	0.613	0.723	<0.0050
RSEM-R6W-EOP	7/12/2019 10:40	WC0452	D	8.20	1050	11	652	5.6	171	170	185	<1.0	226	<1.0	<1.0	57.2	0.250	1.1	243			0.090	0.105	0.619	0.724	<0.0050
RSEM-R6W-EOP	7/13/2019 12:30	WC4185	M	8.19	1040	9.0	634	8.8	152	190	186	<1.0	227	<1.0	<1.0	60.2	0.240	1.1	253			0.16	0.0879	0.573	0.661	<0.0050
RSEM-R6W-EOP	7/13/2019 12:40	WC4350	D	8.20	1030	9.5	652	10.0	160	190	185	<1.0	225	<1.0	<1.0	61.4	0.240	1.1	262			0.13	0.0914	0.574	0.665	<0.0050
RSEM-R6W-EOP	7/14/2019 13:00	WC4349	M	8.01	1030	7.6	626	6.8	167	189	182	<1.0	223	<1.0	<1.0	58.2	0.240	1.1	264			0.12	0.0827	0.530	0.613	<0.0050
RSEM-R6W-EOP	7/14/2019 13:10	WC4186	D	8.03	1020	7.5	632	6.8	165	187	182	<1.0	222	<1.0	<1.0	57.7	0.230	1.1	246			0.13	0.0840	0.529	0.613	<0.0050
RSEM-R6W-EOP	7/15/2019 11:20	WC7551	M	8.40	1010	5.7	600	<4.0	164	172	181	2.7	215	3.2	<1.0	52.3	0.220	1.0	254			0.11	0.0745	0.479	0.554	<0.0050
RSEM-R6W-EOP	7/15/2019 11:30	WC7552	D	8.37	1010	5.9	590	<4.0	161	172	182	2.5	216	3.0	<1.0	48.7	0.220	1.0	252			0.10	0.0715	0.480	0.551	<0.0050
RSEM-R6W-EOP	7/16/2019 11:05	WC9629	M	8.53	987	5.2	660	4.4	172	176	188	4.9	217	5.8	<1.0	51.0	0.230	1.0	223			0.084	0.0699	0.444	0.514	<0.0050
RSEM-R6W-EOP	7/16/2019 11:15	WC9630	D	8.53	989	5.2	648	5.6	174	187	186	5.0	215	5.9	<1.0	51.4	0.230	0.99	231			0.089	0.0696	0.480	0.549	<0.0050
RSEM-R6W-EOP	7/17/2019 13:00	WD1673	M	8.42	981	5.1	584	7.2	182	163	190	2.8	225	3.3	<1.0	52.5	0.230	1.0	176			0.063	0.0638	0.422	0.486	<0.0050
RSEM-R6W-EOP	7/17/2019 13:10	WD1674	D	8.42	984	5.0	596	7.2	185	162	191	2.5	227	3.0	<1.0	59.9	0.220	1.0	183			0.076	0.0625	0.415	0.478	<0.0050
RSEM-R6W-EOP	7/18/2019 12:35	WD4011	M	8.43	980	6.4	572	6.8	168	173	194	2.9	229	3.4	<1.0	57.8	0.220	0.98	215			0.086	0.0584	0.433	0.492	<0.0050
RSEM-R6W-EOP	7/18/2019 12:45	WD4012	D	8.44	979	6.3	574	5.2	173	171	194	3.0	229	3.6	<1.0	51.5	0.220	0.99	169			0.093	0.0592	0.430	0.489	<0.0050
RSEM-R6W-EOP	7/19/2019 12:00	WD4021	M	8.43	971	4.8	572	5.2	162	171	194	3.0	229	3.6	<1.0	59.2	0.220	0.99	211			0.086	0.0569	0.421	0.478	<0.0050
RSEM-R6W-EOP	7/19/2019 12:10	WD4022	D	8.43	982	5.0	596	7.2	165	171	193	2.8	229	3.3	<1.0	51.7	0.220	0.97	237			0.085	0.0553	0.416	0.471	<0.0050
RSEM-R6W-EOP	7/20/2019 13:35	WD7109	M	8.49	980	8.4	590	6.4	171	169	190	4.1	222	4.9	<1.0	51.3	0.220	1.0	183			0.094	0.0561	0.422	0.478	<0.0050
RSEM-R6W-EOP	7/20/2019 13:45	WD7110	D	8.49	983	8.4	600	7.2	166	165	188	4.0	220	4.8	<1.0	53.7	0.210	1.0	199			0.080	0.0546	0.420	0.475	<0.0050
RSEM-R6W-EOP	7/21/2019 12:00	WD7082	M	8.49	980	6.6	592	4.8	164	163	187	4.2	218	5.0	<1.0	56.5	0.220	1.0	208			0.083	0.0525	0.408	0.460	<0.0050

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	5/24/2019 11:45	VS9363	M	4.4	4.7	0.792	0.00121	0.00209	0.114	<0.0001	<0.001	0.097	0.000028	51.6	0.0071	0.0005	0.00307	0.633	0.00049	0.0172	13.6	0.0153	0.0000034	0.0106	0.0022		3.87	0.00263
RSEM-R6W-EOP	5/25/2019 12:50	VT2678	M	4.7	4.7	0.407	0.00111	0.00201	0.104	<0.0001	<0.001	0.089	0.000027	50.8	0.0054	0.00047	0.00293	0.552	0.00045	0.0158	12.6	0.0176	<0.000002	0.0092	0.002		3.33	0.00241
RSEM-R6W-EOP	5/26/2019 14:35	VT2686	M	4.8	4.8	0.288	0.00118	0.00177	0.109	<0.0001	<0.001	0.091	0.000026	56.7	0.0055	0.00043	0.00304	0.371	0.00034	0.0172	12.9	0.0164	<0.000002	0.01	0.0021		3.30	0.00238
RSEM-R6W-EOP	5/27/2019 12:40	VT3954	M	4.6	4.3	0.354	0.00112	0.00178	0.11	<0.0001	<0.001	0.098	0.000029	64.1	0.0053	0.00047	0.00305	0.44	0.00032	0.0167	13.2	0.0177	<0.000002	0.0093	0.0021		3.31	0.00238
RSEM-R6W-EOP	5/28/2019 11:25	VT7529	M	4.8	4.6	0.405	0.00102	0.00171	0.106	<0.0001	<0.001	0.095	0.000033	56.6	0.0048	0.00038	0.00285	0.347	0.00033	0.0168	12.3	0.016	<0.000002	0.0086	0.0019		3.14	0.00209
RSEM-R6W-EOP	5/29/2019 11:20	VT7394	M	4.4	4.3	0.409	0.001	0.00154	0.103	<0.0001	<0.001	0.093	0.000034	55.0	0.0041	0.00036	0.00245	0.358	0.00029	0.0166	12.2	0.0146	<0.000002	0.008	0.002		2.80	0.00203
RSEM-R6W-EOP	5/30/2019 12:24	VU2394	M	4.3	3.6	0.216	0.00105	0.00159	0.101	<0.0001	<0.001	0.095	0.000029	54.6	0.0039	0.00033	0.00281	0.276	0.00025	0.0159	13.3	0.0127	<0.000002	0.0079	0.0019		2.98	0.0021
RSEM-R6W-EOP	5/31/2019 10:05	VU2445	M	7.5	7.3	0.259	0.001	0.00156	0.0981	<0.0001	<0.001	0.093	0.000032	54.9	0.0037	0.00034	0.00258	0.328	0.0003	0.0153	13.2	0.013	<0.000002	0.0074	0.0019		2.81	0.00192
RSEM-R6W-EOP	6/1/2019 11:09	VU3339	M	7.5	7.6	0.303	0.00098	0.00153	0.0956	<0.0001	<0.001	0.092	0.000027	54.3	0.0036	0.00029	0.00241	0.266	0.00022	0.0157	13.2	0.0109	<0.000002	0.0075	0.0019		2.98	0.00198
RSEM-R6W-EOP	6/2/2019 9:30	VU6017	M	7.7	8.3	0.334	0.001	0.00165	0.102	<0.0001	<0.001	0.094	0.000029	54.3	0.0034	0.00032	0.00263	0.327	0.0003	0.0164	12.3	0.0115	<0.000002	0.008	0.0019		3.37	0.00201
RSEM-R6W-EOP	6/3/2019 9:12	VU5988	M	8.8	7.9	0.318	0.00115	0.00171	0.103	<0.0001	<0.001	0.1	0.00004	55.2	0.0034	0.00036	0.00557	0.36	0.00037	0.0176	12.5	0.014	<0.000002	0.0081	0.0024		3.83	0.00203
RSEM-R6W-EOP	6/4/2019 12:15	VU7698	M	6.9	7.4	0.264	0.00103	0.00165	0.0959	<0.0001	<0.001	0.099	0.000027	55.7	0.0035	0.00042	0.00341	0.479	0.0004	0.0153	13.9	0.0147	<0.000002	0.008	0.0021		3.44	0.00192
RSEM-R6W-EOP	6/5/2019 12:03	VV4614	M	6.8	7.2	0.642	0.00107	0.00173	0.102	<0.0001	<0.001	0.101	0.000025	53.7	0.0043	0.00038	0.0032	0.494	0.00037	0.016	13.6	0.0128	<0.000002	0.0085	0.0022		3.63	0.00194
RSEM-R6W-EOP	6/6/2019 12:22	VV6693	M	6.0	6.6	0.388	0.00121	0.00169	0.0975	<0.0001	<0.001	0.126	0.000022	57.1	0.0038	0.00032	0.00302	0.349	0.00031	0.0191	14.6	0.0109	<0.000002	0.0092	0.0019		3.72	0.00205
RSEM-R6W-EOP	6/7/2019 12:22	VV6768	M	5.8	6.9	0.361	0.00111	0.00174	0.096	<0.0001	<0.001	0.124	0.000022	57.0	0.0036	0.00034	0.00314	0.373	0.00032	0.0194	14.9	0.011	0.0000024	0.0092	0.002		3.67	0.00207
RSEM-R6W-EOP	6/8/2019 11:34	VV9724	M	5.2	5.5	0.319	0.00112	0.00164	0.1	<0.0001	<0.001	0.118	0.000019	60.2	0.0032	0.00031	0.00298	0.358	0.0003	0.0196	14.8	0.0099	<0.000002	0.0088	0.0019		3.78	0.00205
RSEM-R6W-EOP	6/9/2019 11:30	VV9808	M	5.7	5.4	0.327	0.00113	0.00167	0.0913	<0.0001	<0.001	0.122	0.000018	57.2	0.0031	0.00028	0.00335	0.297	0.00027	0.0189	15.0	0.0084	<0.000002	0.009	0.0018		3.74	0.00213
RSEM-R6W-EOP	6/10/2019 14:15	VW2554	M	4.4	4.7	0.369	0.00101	0.00148	0.0855	<0.0001	<0.001	0.112	0.000012	53.2	0.0029	0.00025	0.00275	0.25	0.00021	0.0182	14.3	0.0077	<0.000002	0.0082	0.0017		3.40	0.00183
RSEM-R6W-EOP	6/11/2019 12:35	VW4962	M	4.4	4.1	0.222	0.00103	0.00149	0.0898	<0.0001	<0.001	0.11	0.000016	55.4	0.0025	0.00027	0.00257	0.263	0.00023	0.019	14.3	0.0078	<0.000002	0.0082	0.0017		3.28	0.00175
RSEM-R6W-EOP	6/12/2019 9:40	VW8055	M	4.1	4.1	0.264	0.00104	0.00153	0.0903	<0.0001	<0.001	0.113	0.000012	49.6	0.0032	0.00028	0.00288	0.288	0.00028	0.0189	13.8	0.0082	0.000002	0.0084	0.0017		3.21	0.00178
RSEM-R6W-EOP	6/13/2019 12:30	VX0002	M	3.9	4.4	0.201	0.00106	0.00156	0.0832	<0.0001	<0.001	0.113	0.000013	49.1	0.0035	0.00022	0.00294	0.172	0.00021	0.0192	13.5	0.0063	<0.000002	0.0081	0.0016		3.42	0.0016
RSEM-R6W-EOP	6/14/2019 10:20	VW9966	M	3.8	4.4	0.259	0.00107	0.00147	0.0799	<0.0001	<0.001	0.113	0.00001	48.8	0.0036	0.0002	0.00253	0.18	<0.0002	0.0184	13.8	0.0055	<0.000002	0.0081	0.0015		3.41	0.00163
RSEM-R6W-EOP	6/15/2019 12:40	VX3564	M	3.7	4.0	0.219	0.00101	0.0016	0.0809	<0.0001	<0.001	0.118	0.000013	47.1	0.0031	0.00022	0.00274	0.204	0.00021	0.0184	13.5	0.0063	<0.000002	0.0084	0.0015		3.17	0.00169
RSEM-R6W-EOP	6/16/2019 12:45	VX3549	M	3.8	3.7	0.241	0.00098	0.00147	0.0761	<0.0001	<0.001	0.112	0.00001	44.7	0.0032	<0.0002	0.00231	0.164	<0.0002	0.0176	13.4	0.005	<0.000002	0.0082	0.0023		3.40	0.00156
RSEM-R6W-EOP	6/17/2019 13:10	VX5941	M	3.5	3.6	0.22	0.00103	0.00147	0.0808	<0.0001	<0.001	0.114	<0.00001	45.4	0.0032	<0.0002	0.00226	0.145	<0.0002	0.0184	13.2	0.0048	<0.000002	0.0086	0.0014		3.41	0.00158
RSEM-R6W-EOP	6/18/2019 12:55	VX8833	M	3.5	3.7	0.286	0.00104	0.00149	0.0809	<0.0001	<0.001	0.113	0.000012	45.1	0.003	0.00022	0.00235	0.222	0.00022	0.0182	13.2	0.0061	<0.000002	0.0086	0.0014		3.45	0.00151
RSEM-R6W-EOP	6/18/2019 13:05	VX8834	D	3.6	3.6	0.298	0.00103	0.00152	0.0819	<0.0001	<0.001	0.112	0.000015	45.6	0.003	0.00023	0.00255	0.239	0.00024	0.0181	13.3	0.0067	0.000002	0.0085	0.0016		3.57	0.00153
RSEM-R6W-EOP	6/19/2019 12:25	VY1843	M	3.5	4.7	0.249	0.00105	0.00156	0.0835	<0.0001	<0.001	0.115	<0.00001	45.2	0.0031	0.00021	0.00239	0.18	0.0002	0.0186	12.9	0.0059	<0.000002	0.0088	0.0014		3.65	0.00165
RSEM-R6W-EOP	6/19/2019 12:35	VY1844	D	4.3	4.3	0.248	0.00103	0.00147	0.0923	<0.0001	<0.001	0.115	0.000012	45.9	0.0031	0.00021	0.00244	0.173	0.0002	0.0187	12.9	0.006	<0.000002	0.009	0.0014		3.64	0.00165
RSEM-R6W-EOP	6/20/2019 12:15	VY4151	M	3.3	3.6	0.25	0.00113	0.00158	0.0833	<0.0001	<0.001	0.133	<0.00001	46.0	0.0037	0.00021	0.00252	0.208	0.00021	0.0209	13.1	0.0059	<0.000002	0.0107	0.0015		4.02	0.00172
RSEM-R6W-EOP	6/20/2019 12:25	VY4152	D	3.3	3.6	0.254	0.00118	0.00161	0.084	<0.0001	<0.001	0.135	<0.00001	46.6	0.0038	0.00021	0.0025	0.196	0.00021	0.0211	13.5	0.0061	<0.000002	0.0109	0.0017		4.07	0.00177
RSEM-R6W-EOP	6/21/2019 9:55	VY4162	M	3.3	3.4	0.252	0.00114	0.00155	0.0833	<0.0001	<0.001	0.131	<0.00001	44.8	0.0038	<0.0002	0.00221	0.169	<0.0002	0.0211	12.9	0.0052	<0.000002	0.0108	0.0014		3.94	0.00175
RSEM-R6W-EOP	6/21/2019 10:05	VY4163	D	3.4	3.5	0.342	0.00115	0.00156	0.082	<0.0001	<0.001	0.134	<0.00001	45.4	0.0039	<0.0002	0.00223	0.214	<0.0002	0.0213	12.8	0.0055	<0.000002	0.0106	0.0014		4.00	0.00169
RSEM-R6W-EOP	6/22/2019 12:00	VY6743	M	3.3	3.5	0.252	0.00115	0.00159	0.0814	<0.0001	<0.001	0.138	<0.00001	46.5	0.0039	<0.0002	0.00227	0.158	<0.0002	0.0227	13.3	0.0047	<0.000002	0.0111	0.0013		4.15	0.00179
RSEM-R6W-EOP	6/22/2019 12:10	VY6744	D	3.4	3.4	0.26	0.00119	0.0016	0.082	<0.0001	<0.001	0.14	<0.00001	46.7	0.0039	<0.0002	0.0022	0.163	<0.0002	0.0229	13.2	0.0047	<0.000002	0.0115	0.0013		4.10	0.00172
RSEM-R6W-EOP	6/23/2019 12:00	VY6756	M	3.3	4.0	0.252	0.00118	0.00154	0.0791	<0.0001	<0.001	0.138	<0.00001	45.2	0.0039	<0.0002	0.0024	0.146	<0.0002	0.0223	13.2	0.0042	<0.000002	0.0111	0.0013		4.12	0.00179
RSEM-R6W-EOP	6/23/2019 12:10	VY6757	D	3.2	3.4	0.263	0.00122	0.00154	0.0804	<0.0001	<0.001	0.142	<0.00001	45.1	0.004	<0.0002	0.00231	0.146	<0.0002	0.023	13.6	0.0042	<0.000002	0.0114	0.0013		4.21	0.00173
RSEM-R6W-EOP	6/24/2019 13:01	VY9702	M	3.3	3.2	0.338	0.00124	0.0016	0.0881	<0.0001	<0.001	0.146	0.000015	45.0	0.0043	0.00028	0.00315	0.324	0.00026	0.0209	13.2	0.0083	<0.000002	0.0117	0.0016		4.29	0.00189
RSEM-R6W-EOP	6/25/2019 12:30	VZ1747	M	3.6	3.6	0.804	0.00155	0.00217	0.112	<0.0001	<0.001	0.16	0.000024	45.1	0.0064	0.00055	0.0038	0.756	0.00054	0.0219	12.6	0.017	<0.000002	0.0146	0.0025		5.12	0.00333
RSEM-R6W-EOP	6/26/2019 12:45	VZ5387	M	4.1	5.1	0.462	0.00176	0.00249	0.111	<0.0001	<0.001	0.191	0.000023	45.0	0.0066	0.00056	0.00337	0.749	0.00052	0.0259	11.8	0.0178	<0.000002	0.0164	0.0023		5.73	0.00407
RSEM-R6W-EOP	6/27/2019 12:50	VZ7726	M	4.3	4.8	0.436	0.00192	0.00243	0.106	<0.0001	<0.001	0.19	0.000022	52.6	0.0072	0.00045	0.00304	0.634	0.00041	0.0268	12.2	0.0137	<0.000002	0.0174	0.0021		6.84	0.00456
RSEM-R6W-EOP	6/28/2019 7:03	VZ7857	M	4.7	4.4	0.321	0.00193	0.00236	0.0985	<0.0001	<0.001	0.182	0.000035	44.5	0.0072	0.00038	0.00274	0.347	0.0003	0.0258	11.9	0.0111	<0.000002	0.0185	0.0019		6.53	0.00456
RSEM-R6W-EOP	6/29/2019 14:40	VZ9025	M	4.8	4.7	0.645	0.00186	0.00245	0.101	<0.0001	<0.001	0.188	0.000045	43.9	0.0075	0.00051	0.00418	0.692	0.00049	0.0258	11.4	0.0159	<0.000002	0.0184	0.0022		6.82	0.0042
RSEM-R6W-EOP	6/30/2019 14:12	WA1429	M	4.3	6.4	0.621	0.00171	0.00236	0.109	<0.0001	<0.001	0.185	0.000031	42.2	0.0072	0.00058	0.00328	0.742	0.0006	0.0251	10.4	0.0208	0.000002	0.0172	0.0023		6.50	0.0039
RSEM-R6W-EOP	7/1/2019 13:45	WA1409	M	4.0	4.3	0.894	0.00185	0.00276	0.134	<0.0001	<0.001	0.193	0.00005	42.4	0.0081	0.00085	0.00399	1.13	0.00093	0.0256	9.93	0.0333	<0.000002	0.018	0.003		7.18	0.004
RSEM-R6W-EOP	7/1/2019 13:55	WA1410	D	4.6	4.5	1.22	0.00188	0.00302	0.138	<0.0001	<0.001	0.197	0.000052	43.9	0.0088	0.00095	0.00451	1.65	0.00113	0.0263	10.2	0.0364	<0.000002	0.0187	0.0033		7.38	0.00415
RSEM-R6W-EOP	7/2/2019 13:40	WA3426	M	4.7	4.7	1.28	0.00205	0.00393	0.167	<0.0001	<0.001	0.24	0.000085	44.6	0.0114	0.00161	0.00663	2.88	0.0019	0.0283	10.3	0.0577	0.0000027	0.0216	0.0055		8.64	0.00484
RSEM-R6W-EOP	7/3/2019 12:15	WA5876	M	4.9	4.9	0.769	0.0021	0.0033	0.145	<0.0002	<0.002	0.237	0.000066	43.6	0.01	0.00102	0.0104	1.63	0.00144	0.0298	10.3	0.0323	0.0000032	0.0221	0.0038		8.42	0.00559
RSEM-R6W-EOP	7/4/2019 12:40	WA7979	M	4.2	4.7	0.877	0.0023	0.0033	0.144	<0.0001	<0.001	0.227	0.000044	46.3	0.0116	0.00092	0.0043	1.46	0.00097	0.0358	10.9	0.0273	0.000004	0.0233	0.0035		9.43	0.00604
RSEM-R6W-EOP	7/5/2019 10:27	WA8011	M	4.1	4.4	0.717	0.00225	0.00303	0.134	<0.0001	<0.001	0.221	0.000031	47.1	0.0107	0.00068	0.00357	0.96	0.00066	0.0369	11.1	0.0196	0.0000037	0.0235	0.003		9.06	0.00612
RSEM-R6W-EOP	7/6/2019 13:24	WB1463	M	4.3	4.3	0.386	0.00217	0.00288	0.125	<0.0001	<0.001	0.245	0.000024	46.7	0.0094	0.00051	0.00285	0.554	0.00044	0.034	10.6	0.0144	0.000003	0.0243	0.0024		8.05	0.00594
RSEM-R6W-EOP	7/7/2019 9:05	WB1485	M	4.5	4.3	0.391	0.00221	0.00278	0.118	<0.0001	<0.001	0.238	0.000018	46.0	0.0097	0.0004	0.00306	0.508	0.00038	0.0339	10.9	0.0108	0.0000029	0.0249	0.0022		8.18	0.00595
RSEM-R6W-EOP	7/8/2019 9:30	WB4603	M	4.0	4.7	0.377	0.00221	0.00256	0.116	<0.0001	<0.001	0.222	0.000022	49.7	0.0098	0.00037	0.00269	0.419	0.00032	0.0359	11.6	0.0107	0.0000021	0.0238	0.0022		8.80	0.00573
RSEM-R6W-EOP	7/9/2019 13:50	WB6317	M	3.8	4.1	0.742	0.00206	0.00279	0.122	<0.0001	<0.001	0.224	0.000031	48.5	0.0096	0.00051	0.00301	0.735	0.00051	0.04	12.0	0.0157	<0.000002	0.0248	0.0024		8.16	0.00524
RSEM-R6W-EOP	7/10/2019 11:35	WB8323	M	4.0	4.3	0.691	0.00204	0.00252	0.11	<0.0001	<0.001	0.229	0.000017	49.1	0.009	0.00037	0.00231	0.567	0.00033	0.0387	12.2	0.0103	0.0000021	0.0236	0.0021		7.96	0.00495
RSEM-R6W-EOP	7/11/2019 11:55	WC0494	M	3.6	3.8	0.559	0.00198	0.00238	0.103	<0.0001	<0.001	0.215	0.000017	47.2	0.0083	0.00031	0.00208	0.422	0.00031	0.0357	11.7	0.0083	<0.000002	0.0235	0.0019		7.64	0.00455
RSEM-R6W-EOP	7/11/2019 12:05	WC0495	D	3.5	3.7	0.574	0.00201	0.00238	0.105	<0.0001	<0.001	0.224	0.000017	47.3	0.0086	0.00032	0.00208	0.443	0.00029	0.0363	11.7	0.0087	<0.000002	0.0234	0.0019		7.72	0.00465
RSEM-R6W-EOP	7/12/2019 10:30	WC0451	M	3.5	3.7	0.521	0.00192	0.00229	0.1	<0.0001	<0.001	0.215	0.000016	48.7	0.0081	0.00031	0.00204	0.389	0.00026	0.0349	12.3	0.0089	<0.000002	0.0232	0.0019		7.48	0.00423
RSEM-R6W-EOP	7/12/2019 10:40	WC0452	D	3.2	3.8	0.535	0.00195	0.00236	0.101	<0.0001	<0.001	0.219	0.000018	48.5	0.0083	0.0003	0.0023	0.359	0.0003	0.0353	12.2	0.0087	<0.000002	0.0229	0.0019		7.60	0.00422
RSEM-R6W-EOP	7/13/2019 12:30	WC4185	M	3.3	2.3	0.44	0.00176	0.00193	0.0911	<0.0001	<0.001	0.207	0.000016	42.8	0.0074	0.00027	0.002	0.253	0.0002	0.0334	11.0	0.0066	<0.000002	0.02	0.0013		6.24	0.00371
RSEM-R6W-EOP	7/13/2019 12:40	WC4350	D	3.5	3.7	0.327	0.00172	0.00201	0.09	<0.0001	<0.001	0.196	0.000015	45.2	0.007	0.00025	0.00191	0.235	<0.0002	0.034	11.5	0.0066	<0.000002	0.0207	0.0016		6.58	0.00383
RSEM-R6W-EOP	7/14/2019 13:00	WC4349	M	3.4	3.1	0.471	0.00177	0.00201	0.0923	<0.0001	<0.001	0.214	0.000016	46.8	0.0078	0.00026	0.00201	0.263	<0.0002	0.0338	12.1	0.0059	<0.000002	0.0198	0.0013		6.38	0.0038
RSEM-R6W-EOP	7/14/2019 13:10	WC4186	D	3.4	1.8	0.402	0.00178	0.00211	0.0889	<0.0001	<0.001	0.213	0.000016	46.6	0.0076	0.00027	0.002	0.249	<0.0002	0.0341	11.9	0.0057	<0.000002	0.0209	0.0013		6.57	0.00389
RSEM-R6W-EOP	7/15/2019 11:20	WC7551	M	3.3	4.1	0.283	0.00159	0.0019	0.0857	<0.0001	<0.001	0.193	0.000013	46.1	0.0062	<0.0002	0.00168	0.135	<0.0002	0.0323	11.8	0.0046	<0.000002	0.0192	0.0014		6.35	0.00323
RSEM-R6W-EOP	7/15/2019 11:30	WC7552	D	3.2	3.8	0.333	0.00161	0.00189	0.0849	<0.0001	<0.001	0.196	<0.00001	45.0	0.0063	0.00021	0.0017	0.169	<0.0002	0.0328	11.9	0.0048	<0.000002	0.0194	0.0014		6.28	0.00327
RSEM-R6W-EOP	7/16/2019 11:05	WC9629	M	3.1	3.9	0.27	0.00166	0.00194	0.0874	<0.0001	<0.001	0.193	0.000011	48.6	0.0061	0.00021	0.00183	0.152	<0.0002	0.0313	12.3	0.0047	<0.000002	0.0201	0.0015		6.26	0.00341
RSEM-R6W-EOP	7/16/2019 11:15	WC9630	D	3.0	3.8	0.282	0.00168	0.00196	0.0908	<0.0001	<0.001	0.201	0.000011	49.1	0.0063	0.00022	0.00186	0.147	<0.0002	0.0318	12.4	0.0045	<0.000002	0.0203	0.0015		6.38	0.00346
RSEM-R6W-EOP	7/17/2019 13:00	WD1673	M	3.2	3.5	0.351	0.00164	0.00188	0.0882	<0.0001	<0.001	0.202	0.000015	51.2	0.0068	0.00023	0.0024	0.178	<0.0002	0.0345	13.3	0.0058	<0.000002	0.0193	0.0011		6.80	0.00293
RSEM-R6W-EOP	7/17/2019 13:10	WD1674	D	3.1	3.6	0.311	0.00158	0.0018	0.0872	<0.0001	<0.001	0.198	0.000015	52.4	0.0065	<0.0002	0.00191	0.149	<0.0002	0.0338	13.0	0.0055	<0.000002	0.0194	0.001		6.94	0.00307
RSEM-R6W-EOP	7/18/2019 12:35	WD4011	M	2.7	4.1	0.307	0.00149	0.00179	0.0875	<0.0001	<0.001	0.173	0.000011	47.3	0.0063	0.00021	0.00211	0.203	<0.0002	0.0303	12.2	0.0063	<0.000002	0.0181	0.0017		6.09	0.00288
RSEM-R6W-EOP	7/18/2019 12:45	WD4012	D	2.8	4.1	0.331	0.0015	0.00183	0.0898	<0.0001	<0.001	0.178	<0.00001	48.8	0.0064	0.00022	0.0019	0.215	<0.0002	0.031	12.4	0.0064	<0.000002	0.0192	0.0015		6.15	0.00295
RSEM-R6W-EOP	7/19/2019 12:00	WD4021	M	3.1	4.2	0.326	0.00146	0.00172	0.0856	<0.0001	<0.001	0.171	0.000011	45.1	0.0061	0.00021	0.0019	0.199	<0.0002	0.0293	12.1	0.0062	<0.000002	0.0181	0.0014		5.94	0.00274
RSEM-R6W-EOP	7/19/2019 12:10	WD4022	D	3.2	4.0	0.337	0.00148	0.00176	0.0864	<0.0001	<0.001	0.175	0.000011	46.5	0.0062	0.00021	0.00193	0.21	<0.0002	0.0303	11.8	0.0063	<0.000002	0.0183	0.0014		5.94	0.00276
RSEM-R6W-EOP	7/20/2019 13:35	WD7109	M	2.8	3.7	0.373	0.00154	0.00179	0.0882	<0.0001	<0.001	0.185	0.00001	47.1	0.0065	0.00024	0.00208	0.197	<0.0002	0.0317	12.8	0.0066	<0.000002	0.0191	0.0015		6.38	0.00277
RSEM-R6W-EOP	7/20/2019 13:45	WD7110	D	3.2	3.3	0.42	0.00153	0.00178	0.0873	<0.0001	<0.001	0.19	0.000012	45.6	0.0066	0.00024	0.00209	0.22	<0.0002	0.0316	12.7	0.0065	0.0000077	0.0189	0.0015		6.44	0.00273
RSEM-R6W-EOP	7/21/2019 12:00	WD7082	M	3.5	3.8	0.337	0.00164	0.00185	0.0869	<0.0001	<0.001	0.193	<0.00001	45.0	0.0065	0.00021	0.002	0.168	<0.0002	0.0329	12.5	0.0056	<0.000002	0.0192	0.0015		6.50	0.00269

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	5/24/2019 11:45	VS9363	M	7.93	<0.00002	74.5	0.216	51.7	0.000022	<0.005	0.0273	0.00161	0.006	0.0067	0.00064	0.0328	0.00121	0.00185	0.0993	<0.0001	<0.001	0.102	0.000012	53.1	0.006	<0.0002	0.00174	0.013
RSEM-R6W-EOP	5/25/2019 12:50	VT2678	M	6.5	<0.00002	65.0	0.2	45.8	0.000017	<0.005	0.0117	0.0015	<0.005	0.0073	0.00032	0.0308	0.0012	0.00172	0.0992	<0.0001	<0.001	0.098	0.000016	54.5	0.0053	0.00022	0.00197	<0.01
RSEM-R6W-EOP	5/26/2019 14:35	VT2686	M	6.59	<0.00002	67.1	0.214	46.3	0.000017	<0.005	0.0089	0.00153	<0.005	0.007	0.00038	0.0242	0.00115	0.00161	0.102	<0.0001	<0.001	0.1	0.000018	57.6	0.0049	0.00025	0.00197	<0.01
RSEM-R6W-EOP	5/27/2019 12:40	VT3954	M	6.83	<0.00002	67.7	0.228	47.0	0.000017	<0.005	0.0099	0.00152	<0.005	0.0072	0.00048	0.0293	0.00114	0.00146	0.101	<0.0001	<0.001	0.098	0.000019	57.0	0.0044	0.00024	0.00201	<0.01
RSEM-R6W-EOP	5/28/2019 11:25	VT7529	M	5.76	<0.00002	58.5	0.218	44.8	0.00002	<0.005	0.0131	0.00155	<0.005	0.0081	0.00063	0.0305	0.0011	0.00155	0.0985	<0.0001	<0.001	0.092	0.000019	59.1	0.0041	0.00024	0.00224	<0.01
RSEM-R6W-EOP	5/29/2019 11:20	VT7394	M	5.37	<0.00002	56.7	0.216	42.6	0.000016	<0.005	0.0105	0.0015	<0.005	0.0054	0.00056	0.0316	0.00105	0.00146	0.097	<0.0001	<0.001	0.095	0.00002	57.5	0.0037	0.00022	0.0019	<0.01
RSEM-R6W-EOP	5/30/2019 12:24	VU2394	M	5.49	<0.00002	62.6	0.24	41.9	0.000014	<0.005	0.0054	0.00156	<0.005	0.0061	0.00031	0.0534	0.00127	0.00147	0.0959	<0.0001	<0.001	0.095	0.00002	56.9	0.0036	<0.0002	0.00201	0.013
RSEM-R6W-EOP	5/31/2019 10:05	VU2445	M	5.53	<0.00002	60.3	0.233	39.7	0.000015	<0.005	0.0055	0.00153	<0.005	0.0067	0.00028	0.0413	0.00111	0.00141	0.0942	<0.0001	<0.001	0.094	0.00002	56.0	0.0032	<0.0002	0.00184	0.013
RSEM-R6W-EOP	6/1/2019 11:09	VU3339	M	5.24	<0.00002	60.5	0.24	41.2	0.000014	<0.005	0.0082	0.00151	<0.005	0.0059	0.00047	0.0389	0.00106	0.00137	0.0904	<0.0001	<0.001	0.093	0.000022	56.4	0.0031	<0.0002	0.002	0.012
RSEM-R6W-EOP	6/2/2019 9:30	VU6017	M	5.28	<0.00002	58.1	0.251	42.5	0.000013	<0.005	0.0068	0.0015	<0.005	0.0086	0.00059	0.0389	0.00099	0.00144	0.088	<0.0001	<0.001	0.097	0.000018	54.2	0.0027	<0.0002	0.00182	0.015
RSEM-R6W-EOP	6/3/2019 9:12	VU5988	M	5.18	<0.00002	59.3	0.256	43.6	0.000012	<0.005	0.0074	0.00152	<0.005	0.0146	0.00048	0.0415	0.00108	0.00146	0.0895	<0.0001	<0.001	0.1	0.00003	54.5	0.0026	<0.0002	0.00411	0.016
RSEM-R6W-EOP	6/4/2019 12:15	VU7698	M	5.2	<0.00002	68.6	0.218	39.7	0.000015	<0.005	0.0059	0.00156	<0.005	0.0093	0.00025	0.038	0.00107	0.00159	0.0871	<0.0001	<0.001	0.107	0.000016	54.8	0.003	<0.0002	0.00201	0.013
RSEM-R6W-EOP	6/5/2019 12:03	VV4614	M	5.78	<0.00002	68.1	0.241	43.9	0.000016	<0.005	0.0167	0.00157	<0.005	0.0081	0.00092	0.0359	0.0011	0.00158	0.0898	<0.0001	<0.001	0.104	0.00001	56.4	0.0031	<0.0002	0.00209	0.01
RSEM-R6W-EOP	6/6/2019 12:22	VV6693	M	5.87	<0.00002	74.2	0.237	46.1	0.000017	<0.005	0.0096	0.00175	<0.005	0.0068	0.00044	0.0424	0.00118	0.00156	0.0908	<0.0001	<0.001	0.127	0.000011	58.1	0.0031	<0.0002	0.00213	<0.01
RSEM-R6W-EOP	6/7/2019 12:22	VV6768	M	5.67	<0.00002	77.4	0.237	47.2	0.000016	<0.005	0.0097	0.00177	<0.005	0.0068	0.00036	0.0434	0.00115	0.00148	0.0879	<0.0001	<0.001	0.128	0.00001	58.5	0.0029	<0.0002	0.00213	<0.01
RSEM-R6W-EOP	6/8/2019 11:34	VV9724	M	5.65	<0.00002	78.4	0.234	50.4	0.000015	<0.005	0.0071	0.00167	<0.005	0.0063	0.00034	0.0427	0.00116	0.00149	0.0854	<0.0001	<0.001	0.127	<0.00001	57.4	0.0027	<0.0002	0.00211	0.013
RSEM-R6W-EOP	6/9/2019 11:30	VV9808	M	5.25	<0.00002	80.0	0.224	48.5	0.000013	<0.005	0.0059	0.00173	<0.005	0.0066	0.00033	0.0463	0.00112	0.0015	0.0868	<0.0001	<0.001	0.12	0.00001	57.9	0.0024	<0.0002	0.00233	0.014
RSEM-R6W-EOP	6/10/2019 14:15	VW2554	M	4.61	<0.00002	77.6	0.228	46.0	0.000014	<0.005	0.0092	0.00169	<0.005	0.0062	0.00045	0.0485	0.00101	0.00139	0.0814	<0.0001	<0.001	0.117	<0.00001	60.4	0.0022	<0.0002	0.00168	<0.01
RSEM-R6W-EOP	6/11/2019 12:35	VW4962	M	4.35	<0.00002	75.5	0.225	48.0	0.000014	<0.005	<0.005	0.00161	<0.005	<0.005	0.00022	0.0469	0.00099	0.00127	0.0764	<0.0001	<0.001	0.109	<0.00001	53.5	0.002	<0.0002	0.00181	<0.01
RSEM-R6W-EOP	6/12/2019 9:40	VW8055	M	4.8	<0.00002	73.7	0.228	45.9	<0.00001	<0.005	0.0057	0.0017	<0.005	0.0051	0.00031	0.0507	0.00113	0.00166	0.094	<0.0001	<0.001	0.118	0.000013	59.1	0.0039	0.00023	0.00252	0.385
RSEM-R6W-EOP	6/13/2019 12:30	VX0002	M	5.19	<0.00002	75.4	0.206	47.7	0.000012	<0.005	<0.005	0.00155	<0.005	<0.005	0.00024	0.0567	0.00108	0.0014	0.0778	<0.0001	<0.001	0.118	<0.00001	52.4	0.0029	<0.0002	0.002	<0.01
RSEM-R6W-EOP	6/14/2019 10:20	VW9966	M	5.33	<0.00002	77.8	0.207	47.6	0.00001	<0.005	0.006	0.00153	<0.005	<0.005	0.00022	0.0621	0.0011	0.00147	0.077	<0.0001	<0.001	0.113	<0.00001	48.6	0.0031	<0.0002	0.00187	<0.01
RSEM-R6W-EOP	6/15/2019 12:40	VX3564	M	4.96	<0.00002	75.5	0.208	46.2	0.000012	<0.005	<0.005	0.00151	<0.005	<0.005	0.0002	0.0539	0.00097	0.00141	0.0707	<0.0001	<0.001	0.102	<0.00001	48.0	0.0027	<0.0002	0.00171	<0.01
RSEM-R6W-EOP	6/16/2019 12:45	VX3549	M	4.58	<0.00002	76.5	0.206	42.4	0.000011	<0.005	<0.005	0.00149	<0.005	<0.005	0.00028	0.0605	0.00101	0.00137	0.0721	<0.0001	<0.001	0.105	<0.00001	47.3	0.0027	<0.0002	0.00172	<0.01
RSEM-R6W-EOP	6/17/2019 13:10	VX5941	M	4.59	<0.00002	75.2	0.217	43.8	0.000012	<0.005	<0.005	0.00159	<0.005	0.0118	0.00018	0.0702	0.00101	0.00135	0.0721	<0.0001	<0.001	0.115	<0.00001	45.5	0.0026	<0.0002	0.00167	<0.01
RSEM-R6W-EOP	6/18/2019 12:55	VX8833	M	4.57	<0.00002	77.3	0.213	42.5	0.000013	<0.005	0.0053	0.00153	<0.005	<0.005	0.0004	0.0719	0.00105	0.00138	0.076	<0.0001	<0.001	0.118	<0.00001	46.0	0.0026	<0.0002	0.00172	<0.01
RSEM-R6W-EOP	6/18/2019 13:05	VX8834	D	4.59	<0.00002	78.8	0.213	43.9	0.000013	<0.005	0.0051	0.00156	<0.005	<0.005	0.00033	0.0721	0.00105	0.00138	0.0771	<0.0001	<0.001	0.118	<0.00001	46.1	0.0026	<0.0002	0.00167	<0.01
RSEM-R6W-EOP	6/19/2019 12:25	VY1843	M	4.5	<0.00002	79.4	0.211	43.6	0.000011	<0.005	<0.005	0.00153	<0.005	<0.005	0.00033	0.0808	0.00111	0.00142	0.0803	<0.0001	<0.001	0.119	<0.00001	47.1	0.0028	<0.0002	0.00172	<0.01
RSEM-R6W-EOP	6/19/2019 12:35	VY1844	D	4.39	<0.00002	79.7	0.215	44.3	0.00001	<0.005	<0.005	0.00154	<0.005	0.0199	0.0002	0.0831	0.00112	0.00142	0.0792	<0.0001	<0.001	0.126	<0.00001	47.0	0.0028	<0.0002	0.0017	0.01
RSEM-R6W-EOP	6/20/2019 12:15	VY4151	M	4.52	<0.00002	87.0	0.224	50.0	0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	0.00025	0.0975	0.00118	0.00153	0.0787	<0.0001	<0.001	0.137	<0.00001	47.8	0.0033	<0.0002	0.00172	<0.01
RSEM-R6W-EOP	6/20/2019 12:25	VY4152	D	4.61	<0.00002	91.5	0.232	51.3	0.000011	<0.005	<0.005	0.0016	<0.005	<0.005	0.00024	0.101	0.00124	0.00158	0.0792	<0.0001	<0.001	0.136	<0.00001	47.3	0.0034	<0.0002	0.00169	<0.01
RSEM-R6W-EOP	6/21/2019 9:55	VY4162	M	4.36	<0.00002	91.2	0.212	49.4	0.000011	<0.005	<0.005	0.00156	<0.005	<0.005	0.00022	0.0985	0.00116	0.00153	0.0751	<0.0001	<0.001	0.139	<0.00001	46.1	0.0035	<0.0002	0.00169	<0.01
RSEM-R6W-EOP	6/21/2019 10:05	VY4163	D	4.46	<0.00002	92.8	0.208	48.6	0.000013	<0.005	0.0056	0.00156	<0.005	<0.005	0.00025	0.1	0.00117	0.00144	0.0756	<0.0001	<0.001	0.139	<0.00001	46.4	0.0035	<0.0002	0.00166	<0.01
RSEM-R6W-EOP	6/22/2019 12:00	VY6743	M	4.43	<0.00002	95.5	0.222	50.8	0.000011	<0.005	<0.005	0.00156	<0.005	<0.005	0.0003	0.103	0.00127	0.00158	0.0782	<0.0001	<0.001	0.139	<0.00001	48.0	0.0037	<0.0002	0.00174	<0.01
RSEM-R6W-EOP	6/22/2019 12:10	VY6744	D	4.52	<0.00002	94.9	0.225	50.0	0.00001	<0.005	<0.005	0.00161	<0.005	<0.005	0.00028	0.104	0.00126	0.00152	0.08	<0.0001	<0.001	0.14	<0.00001	48.5	0.0036	<0.0002	0.00158	<0.01
RSEM-R6W-EOP	6/23/2019 12:00	VY6756	M	4.2	<0.00002	96.0	0.219	49.9	0.00001	<0.005	<0.005	0.00159	<0.005	<0.005	0.00016	0.104	0.00123	0.00165	0.0773	<0.0001	<0.001	0.143	<0.00001	49.1	0.0036	<0.0002	0.00171	<0.01
RSEM-R6W-EOP	6/23/2019 12:10	VY6757	D	4.23	<0.00002	98.7	0.227	50.3	<0.00001	<0.005	<0.005	0.00162	<0.005	<0.005	0.00019	0.1	0.00121	0.00163	0.0754	<0.0001	<0.001	0.14	<0.00001	47.3	0.0035	<0.0002	0.00162	<0.01
RSEM-R6W-EOP	6/24/2019 13:01	VY9702	M	4.12	<0.00002	98.3	0.231	51.2	0.000014	<0.005	0.0054	0.00155	<0.005	<0.005	0.00022	0.0884	0.0012	0.00154	0.0751	<0.0001	<0.001	0.143	<0.00001	46.6	0.0037	<0.0002	0.00225	<0.01
RSEM-R6W-EOP	6/25/2019 12:30	VZ1747	M	5.13	<0.00002	104	0.245	51.7	0.000021	<0.005	0.0186	0.00164	0.006	0.0074	0.00066	0.0649	0.00155	0.00188	0.0777	<0.0001	<0.001	0.165	<0.00001	48.4	0.0049	<0.0002	0.00178	<0.01
RSEM-R6W-EOP	6/26/2019 12:45	VZ5387	M	5.19	<0.00002	107	0.259	52.5	0.000017	<0.005	0.0101	0.00167	0.0055	0.0066	0.00036	0.0583	0.00181	0.00222	0.0815	<0.0001	<0.001	0.176	<0.00001	45.9	0.0057	<0.0002	0.00187	<0.01
RSEM-R6W-EOP	6/27/2019 12:50	VZ7726	M	6.01	<0.00002	111	0.23	57.3	0.000018	<0.005	0.0081	0.0017	0.0058	0.0053	0.00041	0.069	0.00189	0.00209	0.0856	<0.0001	<0.001	0.188	<0.00001	48.6	0.0062	<0.0002	0.00167	<0.01
RSEM-R6W-EOP	6/28/2019 7:03	VZ7857	M	4.75	<0.00002	113	0.249	56.6	0.000016	<0.005	0.0056	0.00171	<0.005	<0.005	0.00029	0.0717	0.00188	0.00216	0.0849	<0.0001	<0.001	0.197	<0.00001	47.6	0.0063	<0.0002	0.00171	<0.01
RSEM-R6W-EOP	6/29/2019 14:40	VZ9025	M	5.45	<0.00002	109	0.249	55.8	0.000022	<0.005	0.0209	0.00166	0.005	0.0406	0.00059	0.0681	0.00186	0.00207	0.0806	<0.0001	<0.001	0.201	<0.00001	44.2	0.0066	<0.0002	0.00248	0.015
RSEM-R6W-EOP	6/30/2019 14:12	WA1429	M	5.58	<0.00002	104	0.245	54.1	0.00002	<0.005	0.014	0.0016	0.0059	0.0073	0.0006	0.0562	0.00185	0.00202	0.0809	<0.0001	<0.001	0.192	<0.00001	42.2	0.0065	<0.0002	0.00185	<0.01
RSEM-R6W-EOP	7/1/2019 13:45	WA1409	M	6.45	<0.00002	105	0.256	54.6	0.000025	<0.005	0.0253	0.00166	0.007	0.01	0.00108	0.0366	0.00194	0.00213	0.084	<0.0001	<0.001	0.212	<0.00001	42.5	0.0072	<0.0002	0.00177	<0.01
RSEM-R6W-EOP	7/1/2019 13:55	WA1410	D	7.5	<0.00002	108	0.263	56.4	0.000032	<0.005	0.032	0.00172	0.008	0.012	0.0011	0.0362	0.00196	0.00209	0.0839	<0.0001	<0.001	0.201	<0.00001	43.0	0.0072	<0.0002	0.00181	<0.01
RSEM-R6W-EOP	7/2/2019 13:40	WA3426	M	7.72	0.000022	119	0.281	64.9	0.000046	<0.005	0.0233	0.00183	0.0091	0.0191	0.00062	0.0289	0.00224	0.00234	0.0894	<0.0001	<0.001	0.224	0.000011	49.0	0.0088	<0.0002	0.00182	0.016
RSEM-R6W-EOP	7/3/2019 12:15	WA5876	M	6.59	<0.00004	124	0.26	66.6	0.000032	<0.01	0.012	0.00177	<0.01	0.017	0.00041	0.0345	0.00228	0.00244	0.0897	<0.0001	<0.001	0.226	0.00001	48.8	0.0094	<0.0002	0.0019	0.015
RSEM-R6W-EOP	7/4/2019 12:40	WA7979	M	7.76	<0.00002	152	0.245	79.3	0.000035	<0.005	0.0176	0.00187	0.0079	0.0106	0.00058	0.0491	0.00237	0.00247	0.0935	<0.0001	<0.001	0.227	<0.00001	46.0	0.0095	<0.0002	0.00181	<0.01
RSEM-R6W-EOP	7/5/2019 10:27	WA8011	M	7.34	<0.00002	154	0.245	80.6	0.000028	<0.005	0.015	0.00186	0.0072	0.0073	0.00052	0.061	0.00234	0.0026	0.101	<0.0001	<0.001	0.229	<0.00001	49.0	0.0094	<0.0002	0.00169	<0.01
RSEM-R6W-EOP	7/6/2019 13:24	WB1463	M	6.13	<0.00002	144	0.27	76.1	0.000022	<0.005	0.0057	0.00186	0.006	<0.005	0.0003	0.0672	0.00223	0.00243	0.101	<0.0001	<0.001	0.226	<0.00001	48.5	0.0087	<0.0002	0.00158	<0.01
RSEM-R6W-EOP	7/7/2019 9:05	WB1485	M	6.12	<0.00002	148	0.27	79.0	0.000021	<0.005	0.0063	0.00185	0.006	0.0057	0.00049	0.069	0.00227	0.00249	0.104	<0.0001	<0.001	0.217	<0.00001	49.9	0.0086	<0.0002	0.0016	<0.01
RSEM-R6W-EOP	7/8/2019 9:30	WB4603	M	6.44	<0.00002	161	0.238	83.9	0.000019	<0.005	0.0063	0.00175	0.0062	<0.005	0.00025	0.0756	0.00236	0.00234	0.107	<0.0001	<0.001	0.243	<0.00001	50.1	0.0093	<0.0002	0.00151	0.011
RSEM-R6W-EOP	7/9/2019 13:50	WB6317	M	6.37	<0.00002	169	0.277	88.9	0.000025	<0.005	0.0161	0.00183	0.0067	0.0061	0.00058	0.0939	0.00202	0.00225	0.0909	<0.0001	<0.001	0.22	<0.00001	46.5	0.0079	<0.0002	0.00123	<0.01
RSEM-R6W-EOP	7/10/2019 11:35	WB8323	M	6.36	<0.00002	172	0.259	87.6	0.00002	<0.005	0.014	0.00179	0.0065	<0.005	0.00088	0.107	0.00201	0.00235	0.0932	<0.0001	<0.001	0.216	<0.00001	48.3	0.008	<0.0002	0.00127	<0.01
RSEM-R6W-EOP	7/11/2019 11:55	WC0494	M	5.6	<0.00002	163	0.269	84.7	0.000019	<0.005	0.011	0.00176	0.006	<0.005	0.00051	0.119	0.00198	0.00219	0.0899	<0.0001	<0.001	0.222	0.00001	47.3	0.0079	<0.0002	0.00134	<0.01
RSEM-R6W-EOP	7/11/2019 12:05	WC0495	D	5.93	<0.00002	162	0.269	88.1	0.000018	<0.005	0.0109	0.00172	0.006	<0.005	0.00056	0.121	0.00197	0.00215	0.0901	<0.0001	<0.001	0.229	0.000011	47.5	0.008	<0.0002	0.00133	<0.01
RSEM-R6W-EOP	7/12/2019 10:30	WC0451	M	5.63	<0.00002	161	0.277	87.8	0.000019	<0.005	0.0102	0.00178	0.0059	<0.005	0.00044	0.13	0.00188	0.00207	0.0857	<0.0001	<0.001	0.214	<0.00001	48.6	0.0072	<0.0002	0.00133	<0.01
RSEM-R6W-EOP	7/12/2019 10:40	WC0452	D	5.5	<0.00002	164	0.276	88.2	0.000018	<0.005	0.011	0.00172	0.0058	<0.005	0.00043	0.128	0.0019	0.00204	0.0859	<0.0001	<0.001	0.214	<0.00001	48.4	0.007	<0.0002	0.00128	<0.01
RSEM-R6W-EOP	7/13/2019 12:30	WC4185	M	4.59	<0.00002	153	0.219	77.4	0.000017	<0.005	0.0071	0.00154	0.0052	<0.005	0.00029	0.145	0.00191	0.00209	0.0881	<0.0001	<0.001	0.229	0.000011	55.2	0.0073	<0.0002	0.00146	<0.01
RSEM-R6W-EOP	7/13/2019 12:40	WC4350	D	4.57	<0.00002	149	0.256	79.0	0.000015	<0.005	<0.005	0.00157	<0.005	<0.005	0.00032	0.148	0.00189	0.00213	0.0897	<0.0001	<0.001	0.23	<0.00001	55.3	0.0073	<0.0002	0.00137	<0.01
RSEM-R6W-EOP	7/14/2019 13:00	WC4349	M	5.01	<0.00002	156	0.225	77.7	0.000016	<0.005	0.0083	0.00156	0.0051	<0.005	0.00039	0.151	0.00183	0.002	0.0885	<0.0001	<0.001	0.223	0.000011	53.5	0.0072	<0.0002	0.00142	<0.01
RSEM-R6W-EOP	7/14/2019 13:10	WC4186	D	4.8	<0.00002	157	0.228	81.4	0.000017	<0.005	0.0073	0.00158	0.0051	<0.005	0.00021	0.151	0.00187	0.00204	0.087	<0.0001	<0.001	0.225	0.00001	54.5	0.0068	<0.0002	0.00135	<0.01
RSEM-R6W-EOP	7/15/2019 11:20	WC7551	M	4.47	<0.00002	145	0.243	74.5	0.000014	<0.005	<0.005	0.00162	<0.005	<0.005	0.00019	0.15	0.00169	0.00192	0.0814	<0.0001	<0.001	0.199	<0.00001	48.4	0.0064	<0.0002	0.0013	<0.01
RSEM-R6W-EOP	7/15/2019 11:30	WC7552	D	4.39	<0.00002	148	0.247	74.4	0.000014	<0.005	<0.005	0.00159	<0.005	<0.005	0.00025	0.147	0.00168	0.00191	0.082	<0.0001	<0.001	0.201	<0.00001	48.3	0.0064	<0.0002	0.00133	<0.01
RSEM-R6W-EOP	7/16/2019 11:05	WC9629	M	4.42	<0.00002	148	0.25	75.4	0.000015	<0.005	<0.005	0.00162	<0.005	<0.005	0.00014	0.152	0.00164	0.0018	0.0807	<0.0001	<0.001	0.2	<0.00001	50.2	0.0058	<0.0002	0.00135	<0.01
RSEM-R6W-EOP	7/16/2019 11:15	WC9630	D	4.41	<0.00002	152	0.248	76.5	0.000016	<0.005	<0.005	0.00165	<0.005	<0.005	0.00019	0.157	0.00166	0.00183	0.0838	<0.0001	<0.001	0.205	<0.00001	54.2	0.0058	<0.0002	0.00128	<0.01
RSEM-R6W-EOP	7/17/2019 13:00	WD1673	M	4.74	<0.00002	151	0.23	84.3	0.000017	<0.005	<0.005	0.00167	<0.005	<0.005	0.00028	0.164	0.00156	0.00185	0.0791	<0.0001	<0.001	0.177	<0.00001	45.5	0.0057	<0.0002	0.0013	<0.01
RSEM-R6W-EOP	7/17/2019 13:10	WD1674	D	4.77	<0.00002	153	0.231	86.5	0.000015	<0.005	<0.005	0.0016	<0.005	<0.005	0.00011	0.164	0.00157	0.00186	0.0789	<0.0001	<0.001	0.174	<0.00001	45.1	0.0058	<0.0002	0.00124	<0.01
RSEM-R6W-EOP	7/18/2019 12:35	WD4011	M	4.29	<0.00002	139	0.246	71.8	0.000016	<0.005	<0.005	0.00159	<0.005	<0.005	0.00016	0.171	0.00152	0.00171	0.0833	<0.0001	<0.001	0.188	<0.00001	49.3	0.0057	<0.0002	0.00134	<0.01
RSEM-R6W-EOP	7/18/2019 12:45	WD4012	D	4.43	<0.00002	140	0.255	74.3	0.000016	<0.005	<0.005	0.00163	<0.005	<0.005	0.0004	0.174	0.00148	0.00171	0.0837	<0.0001	<0.001	0.187	<0.00001	47.9	0.0059	<0.0002	0.00127	<0.01
RSEM-R6W-EOP	7/19/2019 12:00	WD4021	M	4.23	<0.00002	137	0.241	72.2	0.000013	<0.005	<0.005	0.00157	<0.005	<0.005	0.00015	0.179	0.00147	0.00171	0.0807	<0.0001	<0.001	0.186	<0.00001	48.3	0.0058	<0.0002	0.00126	<0.01
RSEM-R6W-EOP	7/19/2019 12:10	WD4022	D	4.28	<0.00002	138	0.244	71.2	0.000015	<0.005	0.0051	0.00159	<0.005	<0.005	0.00015	0.176	0.00151	0.00167	0.0818	<0.0001	<0.001	0.19	<0.00001	48.0	0.0058	<0.0002	0.0013	<0.01
RSEM-R6W-EOP	7/20/2019 13:35	WD7109	M	4.47	<0.00002	148	0.258	75.6	0.000014	<0.005	0.0055	0.00156	<0.005	<0.005	0.0003	0.178	0.00158	0.00169	0.0795	<0.0001	<0.001	0.197	<0.00001	46.3	0.0061	<0.0002	0.00147	<0.01
RSEM-R6W-EOP	7/20/2019 13:45	WD7110	D	4.38	<0.00002	149	0.245	74.8	0.000013	<0.005	0.0056	0.00155	<0.005	<0.005	0.00032	0.177	0.00158	0.00172	0.0791	<0.0001	<0.001	0.198	<0.00001	45.5	0.0061	<0.0002	0.00145	<0.01
RSEM-R6W-EOP	7/21/2019 12:00	WD7082	M	4.41	<0.00002	143	0.257	74.1	0.000014	<0.005	<0.005	0.00155	<0.005	<0.005	0.00018	0.171	0.00163	0.00176	0.0779	<0.0001	<0.001	0.192	<0.00001	44.3	0.0063	<0.0002	0.00151	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	5/24/2019 11:45	VS9363	M	<0.0002	0.0178	13.8	0.0052	<0.000002	0.0111	0.0015		3.85	0.00278	6.57	<0.00002	76.0	0.218	55.0	0.00001	<0.005	<0.005	0.0017	<0.005	<0.005	0.0001
RSEM-R6W-EOP	5/25/2019 12:50	VT2678	M	<0.0002	0.0169	13.7	0.0077	<0.000002	0.0104	0.0015		3.61	0.00251	6.11	<0.00002	71.0	0.228	50.9	0.000012	<0.005	<0.005	0.0016	<0.005	<0.005	0.00012
RSEM-R6W-EOP	5/26/2019 14:35	VT2686	M	<0.0002	0.0165	13.4	0.0087	<0.000002	0.0101	0.0015		3.35	0.00247	6.14	<0.00002	68.8	0.227	47.0	0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	5/27/2019 12:40	VT3954	M	<0.0002	0.0172	13.7	0.0102	<0.000002	0.0096	0.0016		3.47	0.00234	5.52	<0.00002	66.0	0.23	47.7	0.000012	<0.005	<0.005	0.00159	<0.005	<0.005	0.00014
RSEM-R6W-EOP	5/28/2019 11:25	VT7529	M	<0.0002	0.0172	15.1	0.0102	<0.000002	0.0089	0.0017		3.85	0.00226	5.73	<0.00002	72.3	0.222	50.1	0.000012	<0.005	<0.005	0.00159	<0.005	<0.005	0.00016
RSEM-R6W-EOP	5/29/2019 11:20	VT7394	M	<0.0002	0.0166	13.7	0.0096	<0.000002	0.0085	0.0017		3.18	0.00218	5.08	<0.00002	64.7	0.226	43.8	0.00001	<0.005	<0.005	0.00153	<0.005	<0.005	0.00015
RSEM-R6W-EOP	5/30/2019 12:24	VU2394	M	<0.0002	0.0166	13.8	0.0042	<0.000002	0.0081	0.0014		2.97	0.00221	5.1	<0.00002	68.2	0.22	41.7	0.00001	<0.005	<0.005	0.0015	<0.005	<0.005	0.00011
RSEM-R6W-EOP	5/31/2019 10:05	VU2445	M	<0.0002	0.0166	13.7	0.0039	<0.000002	0.0077	0.0015		2.87	0.00207	4.98	<0.00002	64.8	0.215	41.4	0.000011	<0.005	<0.005	0.00149	<0.005	<0.005	0.00014
RSEM-R6W-EOP	6/1/2019 11:09	VU3339	M	<0.0002	0.0164	14.3	0.0064	<0.000002	0.0089	0.0016		2.96	0.00201	4.71	<0.00002	65.8	0.212	42.2	<0.00001	<0.005	<0.005	0.00151	<0.005	<0.005	0.00013
RSEM-R6W-EOP	6/2/2019 9:30	VU6017	M	<0.0002	0.0159	13.1	0.0062	<0.000002	0.008	0.0014		3.28	0.00208	4.29	<0.00002	63.2	0.233	41.5	<0.00001	<0.005	<0.005	0.00148	<0.005	<0.005	0.00015
RSEM-R6W-EOP	6/3/2019 9:12	VU5988	M	<0.0002	0.0182	13.1	0.0066	<0.000002	0.0082	0.0016		3.68	0.00203	4.56	<0.00002	63.7	0.244	44.1	<0.00001	<0.005	<0.005	0.00154	<0.005	0.0069	0.00017
RSEM-R6W-EOP	6/4/2019 12:15	VU7698	M	<0.0002	0.0171	13.7	0.0062	<0.000002	0.0086	0.0014		3.46	0.00209	5.01	<0.00002	68.4	0.247	45.3	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	0.00017
RSEM-R6W-EOP	6/5/2019 12:03	VV4614	M	<0.0002	0.0162	14.0	0.0052	<0.000002	0.009	0.0015		3.67	0.00208	5.13	<0.00002	70.3	0.258	46.5	0.000012	<0.005	<0.005	0.00161	<0.005	<0.005	0.00017
RSEM-R6W-EOP	6/6/2019 12:22	VV6693	M	<0.0002	0.0186	15.2	0.0025	<0.000002	0.0096	0.0015		3.74	0.00212	5.2	<0.00002	76.5	0.245	49.3	0.000011	<0.005	<0.005	0.00177	<0.005	<0.005	0.00015
RSEM-R6W-EOP	6/7/2019 12:22	VV6768	M	<0.0002	0.019	15.2	0.0022	<0.000002	0.0094	0.0015		3.76	0.00212	5.09	<0.00002	80.3	0.238	48.5	0.000011	<0.005	<0.005	0.00177	<0.005	<0.005	0.00012
RSEM-R6W-EOP	6/8/2019 11:34	VV9724	M	<0.0002	0.0208	15.3	0.0025	<0.000002	0.0094	0.0014		3.68	0.00206	4.85	<0.00002	81.7	0.248	49.5	0.00001	<0.005	<0.005	0.00182	<0.005	<0.005	0.00014
RSEM-R6W-EOP	6/9/2019 11:30	VV9808	M	<0.0002	0.0204	15.0	0.0024	<0.000002	0.009	0.0014		4.04	0.00197	5.11	<0.00002	81.7	0.237	54.6	<0.00001	<0.005	<0.005	0.00167	<0.005	<0.005	0.00017
RSEM-R6W-EOP	6/10/2019 14:15	VW2554	M	<0.0002	0.0197	14.4	0.0021	<0.000002	0.0089	0.0012		3.69	0.00188	4.85	<0.00002	77.7	0.231	53.3	0.00001	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/11/2019 12:35	VW4962	M	<0.0002	0.0181	14.1	0.0014	<0.000002	0.0079	0.0013		3.15	0.00188	4	<0.00002	76.7	0.221	45.9	<0.00001	<0.005	<0.005	0.0016	<0.005	<0.005	0.00011
RSEM-R6W-EOP	6/12/2019 9:40	VW8055	M	0.00026	0.0203	15.3	0.0054	<0.000002	0.0088	0.0017		3.81	0.00193	6.75	<0.00002	81.3	0.23	49.3	0.000019	<0.005	<0.005	0.00168	0.0052	<0.005	0.00011
RSEM-R6W-EOP	6/13/2019 12:30	VX0002	M	<0.0002	0.0186	13.7	<0.001	<0.000002	0.0085	0.0019		3.35	0.00175	5.3	<0.00002	77.0	0.206	47.7	0.00001	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/14/2019 10:20	VW9966	M	<0.0002	0.0185	14.4	<0.001	<0.000002	0.0083	0.0012		3.46	0.00194	4.91	<0.00002	79.0	0.209	47.6	<0.00001	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/15/2019 12:40	VX3564	M	<0.0002	0.0156	13.8	<0.001	<0.000002	0.0081	0.0011		3.27	0.00169	4.39	<0.00002	78.5	0.204	41.3	<0.00001	<0.005	<0.005	0.00152	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/16/2019 12:45	VX3549	M	<0.0002	0.0161	13.6	<0.001	<0.000002	0.0082	0.0011		3.29	0.00167	4.25	<0.00002	79.5	0.211	41.4	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/17/2019 13:10	VX5941	M	<0.0002	0.0182	13.6	0.0011	<0.000002	0.0085	0.0011		3.36	0.00164	4.27	<0.00002	76.7	0.211	43.8	<0.00001	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/18/2019 12:55	VX8833	M	<0.0002	0.0191	13.0	<0.001	<0.000002	0.009	0.0011		3.54	0.00163	4.38	<0.00002	77.9	0.22	44.1	<0.00001	<0.005	<0.005	0.00158	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/18/2019 13:05	VX8834	D	<0.0002	0.0191	13.2	<0.001	<0.000002	0.009	0.001		3.52	0.00164	4.41	<0.00002	77.8	0.218	43.9	<0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/19/2019 12:25	VY1843	M	<0.0002	0.0198	13.0	0.0014	<0.000002	0.0092	0.0011		3.68	0.0016	4.57	<0.00002	78.2	0.199	49.0	<0.00001	<0.005	<0.005	0.00146	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/19/2019 12:35	VY1844	D	<0.0002	0.0199	13.3	0.0012	<0.000002	0.0096	0.0011		3.82	0.00169	4.54	<0.00002	79.8	0.201	50.5	<0.00001	<0.005	<0.005	0.00145	<0.005	<0.005	0.00012
RSEM-R6W-EOP	6/20/2019 12:15	VY4151	M	<0.0002	0.0207	13.6	<0.001	<0.000002	0.0108	0.0011		3.98	0.00177	4.3	<0.00002	94.2	0.215	51.3	<0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/20/2019 12:25	VY4152	D	<0.0002	0.021	13.9	<0.001	<0.000002	0.0109	0.0011		4.11	0.00178	4.34	<0.00002	96.5	0.217	52.9	<0.00001	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/21/2019 9:55	VY4162	M	<0.0002	0.0211	13.3	<0.001	<0.000002	0.0112	0.001		4.12	0.00176	4.11	<0.00002	96.0	0.215	52.0	<0.00001	<0.005	<0.005	0.00155	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/21/2019 10:05	VY4163	D	<0.0002	0.0213	13.5	<0.001	<0.000002	0.0111	0.001		4.20	0.00178	4.16	<0.00002	97.5	0.214	52.6	<0.00001	<0.005	<0.005	0.00154	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/22/2019 12:00	VY6743	M	<0.0002	0.0233	14.5	<0.001	<0.000002	0.0118	0.001		4.51	0.00184	4.32	<0.00002	101	0.218	56.0	<0.00001	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/22/2019 12:10	VY6744	D	<0.0002	0.0234	13.5	<0.001	<0.000002	0.0118	<0.001		4.30	0.00177	4.35	<0.00002	97.0	0.219	52.8	0.000011	<0.005	<0.005	0.00162	<0.005	<0.005	0.00019
RSEM-R6W-EOP	6/23/2019 12:00	VY6756	M	<0.0002	0.0233	14.0	<0.001	<0.000002	0.0116	<0.001		4.42	0.00188	4.28	<0.00002	101	0.216	55.9	0.000011	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/23/2019 12:10	VY6757	D	<0.0002	0.0227	14.0	<0.001	<0.000002	0.0115	<0.001		4.42	0.00184	4.13	<0.00002	102	0.214	57.1	0.00001	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/24/2019 13:01	VY9702	M	<0.0002	0.0223	13.3	0.0015	<0.000002	0.012	0.001		4.24	0.00192	3.87	<0.00002	99.3	0.229	51.8	<0.00001	<0.005	<0.005	0.00159	<0.005	<0.005	0.00011
RSEM-R6W-EOP	6/25/2019 12:30	VZ1747	M	<0.0002	0.0239	13.2	0.0018	<0.000002	0.0138	0.0011		5.06	0.00343	4.3	<0.00002	113	0.222	55.4	<0.00001	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/26/2019 12:45	VZ5387	M	<0.0002	0.0261	12.3	0.0015	<0.000002	0.0167	0.001		6.06	0.00424	4.72	<0.00002	109	0.232	55.0	0.000011	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/27/2019 12:50	VZ7726	M	<0.0002	0.0275	12.0	<0.001	<0.000002	0.0185	0.0012		7.11	0.0042	5.08	<0.00002	115	0.241	58.6	<0.00001	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/28/2019 7:03	VZ7857	M	<0.0002	0.0276	11.8	<0.001	<0.000002	0.0187	0.0011		6.86	0.00426	5.06	<0.00002	112	0.24	56.8	0.000011	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	6/29/2019 14:40	VZ9025	M	<0.0002	0.0266	10.9	0.0043	<0.000002	0.0188	0.0013		6.74	0.00409	4.82	<0.00002	113	0.263	57.6	0.00001	<0.005	<0.005	0.00157	<0.005	0.0192	<0.0001
RSEM-R6W-EOP	6/30/2019 14:12	WA1429	M	<0.0002	0.0252	10.7	0.0017	<0.000002	0.0191	0.0011		6.57	0.00415	4.58	<0.00002	110	0.249	53.4	0.000012	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/1/2019 13:45	WA1409	M	<0.0002	0.0255	10.0	0.0017	<0.000002	0.0198	0.0011		7.16	0.00419	5	<0.00002	110	0.247	56.0	0.000013	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/1/2019 13:55	WA1410	D	<0.0002	0.0251	9.99	0.0015	<0.000002	0.0198	0.0011		7.07	0.00421	5.02	<0.00002	110	0.252	55.6	0.000012	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/2/2019 13:40	WA3426	M	<0.0002	0.0285	10.1	0.0019	<0.000002	0.0232	0.0014		8.67	0.00497	6.4	<0.00002	121	0.25	67.6	0.000013	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/3/2019 12:15	WA5876	M	<0.0002	0.0292	10.8	0.0018	<0.000002	0.0248	0.0014		8.84	0.00562	6.45	<0.00002	133	0.236	77.1	0.000012	<0.005	<0.005	0.00174	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/4/2019 12:40	WA7979	M	<0.0002	0.0349	10.2	<0.001	<0.000002	0.0236	0.0014		8.90	0.00629	6.33	<0.00002	150	0.238	78.8	0.000016	<0.005	<0.005	0.00176	0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/5/2019 10:27	WA8011	M	<0.0002	0.036	10.8	<0.001	<0.000002	0.0242	0.0014		8.80	0.00649	6.52	<0.00002	153	0.242	80.0	0.000015	<0.005	<0.005	0.00182	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/6/2019 13:24	WB1463	M	<0.0002	0.036	10.5	<0.001	<0.000002	0.0239	0.0014		8.53	0.00597	6.11	<0.00002	143	0.246	76.3	0.000015	<0.005	<0.005	0.00184	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/7/2019 9:05	WB1485	M	<0.0002	0.0357	10.6	<0.001	0.0000028	0.0241	0.0013		8.49	0.00582	6.24	<0.00002	140	0.246	76.7	0.000015	<0.005	<0.005	0.00184	<0.005	<0.005	0.00016
RSEM-R6W-EOP	7/8/2019 9:30	WB4603	M	<0.0002	0.0371	11.6	<0.001	<0.000002	0.0252	0.0014		8.75	0.00546	6	<0.00002	161	0.25	88.5	0.000014	<0.005	<0.005	0.00185	0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/9/2019 13:50	WB6317	M	<0.0002	0.0368	10.9	<0.001	<0.000002	0.0239	0.0013		7.45	0.00492	5.06	<0.00002	159	0.267	80.1	0.000011	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/10/2019 11:35	WB8323	M	<0.0002	0.038	12.1	<0.001	0.0000024	0.0243	0.0012		8.00	0.00507	5.26	<0.00002	172	0.288	91.4	0.000012	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/11/2019 11:55	WC0494	M	<0.0002	0.0384	12.2	<0.001	<0.000002	0.0234	0.0012		7.73	0.00465	5.08	<0.00002	168	0.263	88.0	0.000013	<0.005	<0.005	0.00172	<0.005	<0.005	0.00015
RSEM-R6W-EOP	7/11/2019 12:05	WC0495	D	<0.0002	0.0399	12.3	<0.001	<0.000002	0.0235	0.0012		7.61	0.00472	5.16	<0.00002	169	0.262	88.0	0.000013	<0.005	<0.005	0.00172	<0.005	<0.005	0.0001
RSEM-R6W-EOP	7/12/2019 10:30	WC0451	M	<0.0002	0.0376	12.1	<0.001	<0.000002	0.0221	0.0012		7.09	0.00417	4.93	<0.00002	163	0.255	85.1	0.000012	<0.005	<0.005	0.00167	<0.005	<0.005	0.00013
RSEM-R6W-EOP	7/12/2019 10:40	WC0452	D	<0.0002	0.0364	12.0	<0.001	<0.000002	0.0223	0.0012		6.94	0.0041	4.88	<0.00002	161	0.252	83.4	0.000012	<0.005	<0.005	0.00165	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/13/2019 12:30	WC4185	M	<0.0002	0.0388	12.6	<0.001	<0.000002	0.022	<0.001		7.50	0.00402	5.28	<0.00002	163	0.251	92.5	0.000014	<0.005	<0.005	0.00176	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/13/2019 12:40	WC4350	D	<0.0002	0.0376	12.7	<0.001	<0.000002	0.0224	<0.001		7.88	0.00415	5.44	<0.00002	170	0.247	100	0.000015	<0.005	<0.005	0.00172	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/14/2019 13:00	WC4349	M	<0.0002	0.0367	13.5	<0.001	<0.000002	0.0214	<0.001		7.74	0.00381	5.12	<0.00002	169	0.242	95.8	0.000014	<0.005	<0.005	0.00171	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/14/2019 13:10	WC4186	D	<0.0002	0.0362	12.2	<0.001	<0.000002	0.0226	<0.001		7.02	0.00376	5.12	<0.00002	157	0.242	87.2	0.000015	<0.005	<0.005	0.00168	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/15/2019 11:20	WC7551	M	<0.0002	0.0337	12.3	<0.001	0.0000022	0.0204	0.0012		6.58	0.00353	4.41	<0.00002	153	0.26	78.4	0.000013	<0.005	<0.005	0.0017	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/15/2019 11:30	WC7552	D	<0.0002	0.0339	12.4	<0.001	0.0000022	0.0201	0.0012		6.62	0.0034	4.4	<0.00002	153	0.258	79.4	0.000013	<0.005	<0.005	0.00173	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/16/2019 11:05	WC9629	M	<0.0002	0.0329	12.4	<0.001	<0.000002	0.021	0.001		6.75	0.00344	4.51	<0.00002	153	0.225	81.2	0.000011	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/16/2019 11:15	WC9630	D	<0.0002	0.0341	12.4	<0.001	<0.000002	0.0188	0.001		6.66	0.00341	4.93	<0.00002	151	0.227	77.7	0.000012	<0.005	<0.005	0.00166	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/17/2019 13:00	WD1673	M	<0.0002	0.032	12.1	<0.001	<0.000002	0.0194	0.0011		6.25	0.00314	4.22	<0.00002	139	0.251	75.2	0.000011	<0.005	<0.005	0.00151	<0.005	<0.005	0.00012
RSEM-R6W-EOP	7/17/2019 13:10	WD1674	D	<0.0002	0.0321	11.9	<0.001	<0.000002	0.0195	0.0011		6.24	0.00315	4.22	<0.00002	138	0.25	75.4	0.000011	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/18/2019 12:35	WD4011	M	<0.0002	0.0321	12.1	<0.001	<0.000002	0.0187	0.0011		6.04	0.0028	4.31	<0.00002	139	0.258	74.9	0.000013	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/18/2019 12:45	WD4012	D	<0.0002	0.0326	12.4	<0.001	<0.000002	0.0185	0.0011		6.14	0.00281	4.17	<0.00002	142	0.253	75.4	0.000013	<0.005	<0.005	0.00162	<0.005	<0.005	0.00015
RSEM-R6W-EOP	7/19/2019 12:00	WD4021	M	<0.0002	0.0314	12.2	<0.001	<0.000002	0.0185	0.0011		6.07	0.00277	4.21	<0.00002	141	0.25	74.1	0.000012	<0.005	<0.005	0.00162	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/19/2019 12:10	WD4022	D	<0.0002	0.0318	12.3	<0.001	<0.000002	0.0185	0.0011		6.05	0.00272	4.19	<0.00002	140	0.251	72.4	0.000012	<0.005	<0.005	0.00159	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/20/2019 13:35	WD7109	M	<0.0002	0.0323	12.8	<0.001	<0.000002	0.0192	0.0011		6.44	0.00279	4.11	<0.00002	150	0.255	75.8	0.000013	<0.005	<0.005	0.00156	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/20/2019 13:45	WD7110	D	<0.0002	0.0322	12.6	<0.001	<0.000002	0.0192	0.0011		6.38	0.00277	4.03	<0.00002	147	0.253	76.0	0.000012	<0.005	<0.005	0.00157	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/21/2019 12:00	WD7082	M	<0.0002	0.0322	12.8	<0.001	<0.000002	0.0193	0.0011		6.57	0.00274	4.04	<0.00002	150	0.252	75.2	0.000013	<0.005	<0.005	0.00156	<0.005	<0.005	0.00011

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L		mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	7/21/2019 12:10	WD7083	D	8.49	980	6.6	600	5.6	165	165	186	4.1	217	4.9	<1.0	57.7	0.220	1.0	227			0.079	0.0530	0.407	0.460	<0.0050
RSEM-R6W-EOP	7/22/2019 12:09	WD8944	M	8.56	973	8.7	584	8.4	161	151	185	5.1	213	6.1	<1.0	58.7	0.220	0.89	200			0.080	0.0465	0.385	0.431	<0.0050
RSEM-R6W-EOP	7/23/2019 13:25	WE1025	M	8.48	982	6.4	592	5.6	151	157	186	3.8	218	4.6	<1.0	49.4	0.240	0.92	190			0.40	0.0439	0.344	0.388	<0.0050
RSEM-R6W-EOP	7/24/2019 12:30	WE3035	M	8.50	1010	2.8	600	8.4	157	157	190	4.3	221	5.1	<1.0	55.7	0.230	1.1	196			0.085	0.0444	0.352	0.397	<0.0050
RSEM-R6W-EOP	7/25/2019 12:35	WE4842	M	8.46	1000	9.9	588	5.2	153	150	189	3.2	222	3.9	<1.0	63.1	0.250	1.2	207			0.019	0.0454	0.376	0.421	<0.0050
RSEM-R6W-EOP	7/26/2019 9:42	WE4706	M	8.44	1020	9.2	628	6.8	147	149	187	3.0	221	3.6	<1.0	63.9	0.260	1.3	241			<0.015	0.0460	0.378	0.424	<0.0050
RSEM-R6W-EOP	7/27/2019 11:30	WE7075	M	8.46	1030	8.9	622	10.0	142	141	182	3.7	213	4.5	<1.0	58.5	0.260	1.4	205			<0.015	0.0525	0.372	0.425	<0.0050
RSEM-R6W-EOP	7/28/2019 12:00	WE7122	M	8.45	1030	13	618	12.0	144	148	180	3.6	210	4.3	<1.0	58.7	0.260	1.4	184			0.024	0.0552	0.381	0.436	<0.0050
RSEM-R6W-EOP	7/29/2019 9:10	WE7141	M	8.43	1020	8.4	604	10.0	141	145	180	3.3	212	3.9	<1.0	60.4	0.260	1.4	183			0.025	0.0573	0.377	0.434	<0.0050
RSEM-R6W-EOP	7/30/2019 11:50	WF2071	M	8.43	1010	10	612	10.0	135	146	183	2.9	216	3.5	<1.0	66.6	0.270	1.4	199			0.018	0.0430	0.356	0.399	<0.0050
RSEM-R6W-EOP	7/30/2019 12:00	WF2072	D	8.36	1010	10	610	10.0	138	144	183	1.6	219	1.9	<1.0	67.0	0.270	1.4	241			0.019	0.0413	0.336	0.377	<0.0050
RSEM-R6W-EOP	7/31/2019 11:20	WF4363	M	8.38	995	7.8	574	7.6	144	152	179	2.9	212	3.4	<1.0	66.0	<0.020	1.4	218			0.020	0.0327	0.367	0.400	<0.0050
RSEM-R6W-EOP	7/31/2019 11:30	WF4364	D	8.41	995	7.5	574	7.6	146	149	179	3.0	212	3.6	<1.0	61.7	<0.020	1.4	228			0.017	0.0390	0.361	0.400	<0.0050
RSEM-R6W-EOP	8/1/2019 12:00	WF6258	M	8.35	980	6.8	580	6.4	143	150	180	1.2	220	1.5	<1.0	63	0.24	1.4	190			0.018	0.0350	0.316	0.351	<0.0030
RSEM-R6W-EOP	8/1/2019 12:10	WF6259	D	8.37	980	6.8	580	7.2	144	149	190	1.6	220	1.9	<1.0	61	0.24	1.4	190			0.018	0.0346	0.322	0.357	<0.0030
RSEM-R6W-EOP	8/2/2019 9:50	WF6282	M	8.36	950	6.2	560	2.0	143	134	190	1.5	220	1.8	<1.0	63	0.24	1.3	200			0.015	0.0306	0.309	0.340	<0.0030
RSEM-R6W-EOP	8/2/2019 10:00	WF6283	D	8.36	950	6.2	570	3.2	146	136	190	1.4	220	1.7	<1.0	59	0.23	1.3	200			0.016	0.0301	0.282	0.312	<0.0030
RSEM-R6W-EOP	8/3/2019 12:05	WF7646	M	8.37	952	5.5	562	<4.0	144	148	187	1.7	223	2.1	<1.0	58.2	<0.020	1.3	176			<0.015	0.0255	<0.020	<0.020	0.0056
RSEM-R6W-EOP	8/3/2019 12:15	WF7647	D	8.38	953	5.2	566	<4.0	142	153	187	1.9	223	2.3	<1.0	56.3	0.230	1.3	183			<0.015	0.0258	<0.020	<0.020	<0.0050
RSEM-R6W-EOP	8/4/2019 13:30	WF7661	M	8.42	953	3.6	562	<4.0	139	149	185	3.3	218	3.9	<1.0	53.7	0.230	1.3	184			0.015	0.0263	0.247	0.273	<0.0050
RSEM-R6W-EOP	8/4/2019 13:40	WF7662	D	8.42	954	3.3	562	<4.0	141	149	185	3.3	218	3.9	<1.0	53.6	0.230	1.3	183			<0.015	0.0257	0.248	0.273	<0.0050
RSEM-R6W-EOP	8/5/2019 11:40	WF9951	M	8.39	952	2.9	572	<4.0	139	144	187	1.9	223	2.3	<1.0	57.7	0.240	1.3	194			0.017	0.0230	0.240	0.263	0.0055
RSEM-R6W-EOP	8/5/2019 11:50	WF9952	D	8.40	950	2.8	558	<4.0	142	142	186	2.1	222	2.6	<1.0	56.9	0.240	1.3	175			0.017	0.0227	0.248	0.270	<0.0050
RSEM-R6W-EOP	8/6/2019 11:55	WG2805	M	8.34	961	3.8	574	4.4	138	143	186	1.4	224	1.7	<1.0	64.8	0.240	1.3	183			0.023	0.0227	0.209	0.232	0.0071
RSEM-R6W-EOP	8/6/2019 12:05	WG2806	D	8.34	959	3.8	574	4.0	143	144	187	1.5	225	1.8	<1.0	66.5	0.240	1.3	185			0.020	0.0241	0.213	0.237	<0.0050
RSEM-R6W-EOP	8/7/2019 13:25	WG4498	M	8.42	970	3.6	602	6.0	146	142	188	3.1	222	3.7	<1.0	67.6	0.230	1.4	190			0.019	0.0247	0.206	0.231	<0.0050
RSEM-R6W-EOP	8/7/2019 13:35	WG4499	D	8.38	972	3.7	574	5.2	142	146	188	2.2	224	2.6	<1.0	65.3	0.220	1.4	182			0.021	0.0260	0.208	0.234	<0.0050
RSEM-R6W-EOP	8/8/2019 12:15	WG6504	M	8.34	970	3.7	570	5.2	140	144	180	1.9	220	2.3	<1.0	63	0.23	1.4	190			0.019	0.0231	0.199	0.222	<0.0030
RSEM-R6W-EOP	8/8/2019 12:25	WG6505	D	8.38	970	3.9	580	4.0	140	143	190	2.9	220	3.4	<1.0	65	0.23	1.4	190			<0.015	0.0238	0.201	0.225	<0.0030
RSEM-R6W-EOP	8/9/2019 10:40	WG6544	M	8.36	980	5.3	570	8.4	136	140	180	2.4	210	2.9	<1.0	68	0.24	1.5	180			0.021	0.0297	0.215	0.245	<0.0030
RSEM-R6W-EOP	8/10/2019 12:30	WH0275	M	8.32	966	6.2	618	4.8	131	133	177	1.7	212	2.0	<1.0	63.9	0.250	1.6	180			0.022	0.0320	0.240	0.272	<0.0050
RSEM-R6W-EOP	8/11/2019 11:40	WH0299	M	8.30	979	7.7	574	8.0	133	131	176	<1.0	214	<1.0	<1.0	66.5	0.250	1.7	192			0.021	0.0360	0.239	0.275	<0.0050
RSEM-R6W-EOP	8/12/2019 14:45	WH2473	M	8.37	960	7.1	604	6.0	128	133	179	2.5	212	3.0	<1.0	69.1	0.250	1.6	190			<0.015	0.0354	0.210	0.246	<0.0050
RSEM-R6W-EOP	8/13/2019 14:05	WH4523	M	8.30	970	8.2	614	6.8	134	138	183	1.2	221	1.5	<1.0	70.7	0.250	1.7	184			0.020	0.0362	0.213	0.249	0.0109
RSEM-R6W-EOP	8/14/2019 14:35	WH7024	M	8.30	975	6.9	620	4.4	138	143	184	<1.0	224	<1.0	<1.0	76.5	0.260	1.6	185			<0.015	0.0340	0.224	0.258	<0.0050
RSEM-R6W-EOP	8/15/2019 10:20	WH8387	M	8.38	980	5.6	580	5.2	140	139	190	2.6	220	3.2	<1.0	74	0.25	1.6	170			<0.015	0.0284	0.211	0.239	<0.0030
RSEM-R6W-EOP	8/16/2019 10:35	WH8440	M	8.24	920	86	570	64.0	155	146	180	<1.0	220	<1.0	<1.0	80	0.23	1.5	180			<0.015	0.0285	0.229	0.257	<0.0030
RSEM-R6W-EOP	8/17/2019 10:10	WI0634	M	8.39	920	120	578	122	158	144	180	2.3	214	2.8	<1.0	73	0.240	1.6	170			0.053	0.0463	0.338	0.384	<0.0050
RSEM-R6W-EOP	8/18/2019 14:05	WI0686	M	8.21	901	130	566	113	160	147	177	<1.0	216	<1.0	<1.0	79	0.240	1.6	170			0.065	0.0632	0.366	0.430	<0.0050
RSEM-R6W-EOP	8/23/2019 9:55	WI9310	M	8.35	1000	33	600	5.1	154	154	190	1.8	230	2.1	<1.0	78	0.28	1.7	180			0.037	0.113	0.571	0.684	0.0040
RSEM-R6W-EOP	8/24/2019 11:10	WJ3008	M	8.29	1100	25	690	19	158	156	200	<1.0	240	<1.0	<1.0	82	0.25	1.9	190			0.15	0.0931	0.559	0.652	<0.0030
RSEM-R6W-EOP	8/25/2019 12:10	WJ3021	M	8.34	1100	26	680	7.1	157	159	210	1.6	250	1.9	<1.0	78	0.28	1.8	190			0.16	0.0979	0.573	0.671	0.0057
RSEM-R6W-EOP	8/26/2019 12:25	WJ5215	M	8.22	1100	21	700	13.2	151	151	200	<1.0	250	<1.0	<1.0	76	0.28	1.8	190			0.19	0.0923	0.508	0.600	<0.0030
RSEM-R6W-EOP	8/27/2019 12:50	WJ7311	M	8.21	1100	15	670	6	156	153	200	<1.0	250	<1.0	<1.0	90	0.27	1.8	200			0.13	0.0906	0.544	0.635	<0.0030
RSEM-R6W-EOP	8/27/2019 13:00	WJ7312	D	8.27	1100	15	660	9.6	158	152	200	<1.0	250	<1.0	<1.0	83	0.27	1.9	180			0.14	0.0885	0.525	0.613	<0.0030
RSEM-R6W-EOP	8/28/2019 13:05	WJ9549	M	8.33	1100	13	640	7.2	149	148	200	1.6	250	1.9	<1.0	88	0.28	1.9	200			0.19	0.0916	0.516	0.607	<0.0030
RSEM-R6W-EOP	8/29/2019 14:40	WK2435	M	8.3	1100	2.4	690	8.4	144	145	200	<1.0	240	<1.0	<1.0	79	0.28	2	190			0.18	0.0848	0.529	0.613	0.0038
RSEM-R6W-EOP	8/30/2019 10:15	WK2407	M	8.32	1100	12	690	6.4	150	147	200	1	240	1.2	<1.0	84	0.28	2	200			0.17	0.0862	0.526	0.612	0.0031
RSEM-R6W-EOP	8/31/2019 12:15	WK4121	M	8.28	1100	10	700	5.2	147	149	210	<1.0	260	<1.0	<1.0	81	0.28	2	190			0.16	0.078	0.525	0.603	<0.0030
RSEM-R6W-EOP	9/1/2019 12:15	WK4242	M	8.28	1100	8.9	690	6.0	158	152	220	<1.0	260	<1.0	<1.0	84	0.28	1.9	190			0.16	0.0766	0.497	0.573	<0.0030
RSEM-R6W-EOP	9/2/2019 11:40	WK6467	M	8.25	1100	8.1	690	7.2	145	150	210	<1.0	260	<1.0	<1.0	80	0.28	2.0	190			0.14	0.0666	0.475	0.542	<0.0030
RSEM-R6W-EOP	9/3/2019 13:15	WK8385	M	8.34	1100	7.7	670	6.8	155	160	220	1.9	260	2.2	<1.0	91	0.27	1.8	200			0.12	0.0586	0.429	0.488	0.0095
RSEM-R6W-EOP	9/4/2019 13:50	WL0773	M	8.28	1100	6.9	650	<4.0	155	161	220	<1.0	270	<1.0	<1.0	83	0.25	1.7	190			0.13	0.0508	0.369	0.419	0.0088
RSEM-R6W-EOP	9/5/2019 12:50	WL2428	M	8.25	1100	7.0	610	4.8	158	163	220	<1.0	270	<1.0	<1.0	75	0.26	1.7	180			0.14	0.0491	0.380	0.429	<0.0030
RSEM-R6W-EOP	9/6/2019 13:40	WL3945	M	8.23	1000	7.9	620	5.6	160	169	220	<1.0	270	<1.0	<1.0	72	0.25	1.6	180			0.049	0.0418	0.351	0.393	0.0031
RSEM-R6W-EOP	9/7/2019 12:40	WL4975	M	8.12	960	7.2	590	5.6	155	161	220	<1.0	260	<1.0	<1.0	71	0.23	1.5	160			0.073	0.0372	0.334	0.371	<0.0030
RSEM-R6W-EOP	9/8/2019 13:40	WL5051	M	8.10	900	19	550	18.8	157	163	210	<1.0	260	<1.0	<1.0	64	0.22	1.3	140			0.075	0.0338	0.329	0.363	0.0040
RSEM-R6W-EOP	9/9/2019 10:20	WL7027	M	8.21	880	24	530	16.8	158	156	210	<1.0	250	<1.0	<1.0	57	0.21	1.4	140			0.034	0.0262	0.331	0.357	<0.0030
RSEM-R6W-EOP	9/10/2019 11:55	WL9315	M	8.18	860	20	550	16.4	156	183	200	<1.0	250	<1.0	<1.0	58	0.22	1.3	150			0.068	0.0251	0.327	0.352	0.0055
RSEM-R6W-EOP	9/10/2019 12:05	WL9316	D	8.17	850	20	490	16.4	159	171	210	<1.0	250	<1.0	<1.0	61	0.21	1.3	140			0.051	0.0252	0.324	0.349	0.0062
RSEM-R6W-EOP	9/11/2019 12:40	WM1916	M	8.31	840	19	500	13.6	160	155	200	1.1	240	1.3	<1.0	51	0.21	1.3	130			0.056	0.0260	0.317	0.343	0.0056
RSEM-R6W-EOP	9/12/2019 11:35	WM1924	M	8.27	800	19	490	14.0	144	146	190	<1.0	230	<1.0	<1.0	50	0.21	1.2	130			0.11	0.0266	0.268	0.295	<0.0030
RSEM-R6W-EOP	9/13/2019 13:05	WM4310	M	8.22	810	14	480	8.8	151	148	190	<1.0	240	<1.0	<1.0	54	0.22	1.2	110			0.072	0.0292	0.290	0.319	0.0033
RSEM-R6W-EOP	9/14/2019 12:15	WM7485	M	8.16	800	17	460	8.4	148	140	200	<1.0	240	<1.0	<1.0	58	0.20	1.3	130			0.14	0.0261	0.146	0.172	0.0037
RSEM-R6W-EOP	9/15/2019 11:50	WM7505	M	8.19	810	17	490	8.8	144	138	200	<1.0	240	<1.0	<1.0	54	0.21	1.3	110			0.13	0.0237	0.303	0.326	0.0035
RSEM-R6W-EOP	9/16/2019 13:05	WN0361	M	8.18	770	110	480	69	137	142	190	<1.0	230	<1.0	<1.0	52	0.21	1.2	110			0.13	0.0280	0.319	0.347	<0.0030
RSEM-R6-WP-IN	1/27/2019 13:36	VD7176	M	7.62	1190	164	744	96.8	72.0	67.7	277	<1.0	338	<1.0	<1.0	80.5	0.470	1.4	188			0.47	0.199	0.538	0.736	0.0034
RSEM-R6-WP-IN	1/29/2019 15:24	VE0719	M	8.83	1400	86.6	878	76.0	89.7	69.7	295	16.0	320	19.2	<1.0	116	0.570	2.1	226			0.71	0.598	1.13	1.73	0.034
RSEM-R6-WP-IN	2/7/2019 11:40	VF0007	M	9.04	1030	74.8	610	61.6	85.8	69.5	236	19.0	241	22.8	<1.0	76.9	0.450	1.3	162			0.44	0.0418	0.206	0.248	0.025
RSEM-R6-WP-IN	2/20/2019 11:45	VG2861	M	8.91	1240	481	778	432	148	73.9	290	18.6	308	22.3	<1.0	99.2	0.540	1.6	220			0.51	0.116	0.203	0.320	0.0789
RSEM-R6-WP-IN	3/26/2019 12:50	VK9080	M	8.15	1370	10000	900	7010	381	228	292	<1.0	356	<1.0	<1.0	71.3	0.350	1.2	275			0.82	0.265	2.33	2.59	<0.0050
RSEM-R6-WP-IN	4/10/2019 12:05	VN0772	M	8.23	1110	2.87	660	<4.0	197	191	232	<1.0	284	<1.0	<1.0	51.3	0.400	0.91	236			0.12	0.0634	0.382	0.445	<0.0030
RSEM-R6-WP-IN	5/22/2019 13:40	VS7479	M	8.31	680	230	396	194	204	181	189	1.1	228	1.3	<1.0	24.3	0.180	0.54	134			0.10	0.0184	0.277	0.295	0.0116
RSEM-R6-WP-IN	7/11/2019 11:20	WC0493	M	8.14	950	360	568	258	211	169	188	<1.0	230	<1.0	<1.0	46.8	0.190	0.87	215			0.11	0.0819	0.406	0.488	<0.0050
RSEM-R6-WP-W-Sump	2/6/2019 13:40	VE9884	M	6.70	23.8	53.7	20	67.2	13.1	9.07	4.4	<1.0	5.4	<1.0	<1.0	0.76	0.026	0.90	4.1			0.094	0.0240	0.240	0.264	0.0057
RSEM-R6W-SP	1/1/2019 12:30	VA5880	M	8.49	1510	18.0	912	11.5	138	130	282	5.3	332	6.3	<1.0	115	0.490	1.8	266			0.68	0.263	0.640	0.902	0.0238

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	7/21/2019 12:10	WD7083	D	3.2	4.0	0.354	0.0016	0.00187	0.0887	<0.0001	<0.001	0.196	<0.00001	45.2	0.0066	0.00022	0.00205	0.177	<0.0002	0.0329	12.6	0.0056	<0.000002	0.0199	0.0014		6.52	0.00266
RSEM-R6W-EOP	7/22/2019 12:09	WD8944	M	3.0	3.9	0.411	0.0017	0.00195	0.0878	<0.0001	<0.001	0.195	0.000012	43.8	0.007	0.00027	0.00219	0.24	<0.0002	0.0336	12.5	0.0073	<0.000002	0.0199	0.0015		6.67	0.00289
RSEM-R6W-EOP	7/23/2019 13:25	WE1025	M	3.4	3.5	0.352	0.00164	0.0019	0.0806	<0.0001	<0.001	0.189	<0.00001	40.1	0.0062	0.00022	0.00217	0.182	<0.0002	0.0328	12.3	0.0054	0.0000025	0.0192	0.0014		6.80	0.00278
RSEM-R6W-EOP	7/24/2019 12:30	WE3035	M	3.0	3.2	0.294	0.00173	0.00201	0.0844	<0.0001	<0.001	0.184	0.000013	41.8	0.0062	0.00024	0.00256	0.213	0.0002	0.0302	12.8	0.0063	0.0000022	0.0199	0.0014		6.82	0.00267
RSEM-R6W-EOP	7/25/2019 12:35	WE4842	M	3.3	3.7	0.436	0.00188	0.00203	0.0843	<0.0001	<0.001	0.213	0.000014	40.8	0.0083	0.00025	0.00256	0.299	0.00023	0.0351	12.5	0.0077	<0.000002	0.0217	0.0015		7.40	0.00301
RSEM-R6W-EOP	7/26/2019 9:42	WE4706	M	3.2	3.6	0.481	0.00186	0.00205	0.0847	<0.0001	<0.001	0.215	<0.00001	39.7	0.01	0.00024	0.00252	0.284	0.00022	0.0348	11.7	0.0072	<0.000002	0.0235	0.0014		7.63	0.00327
RSEM-R6W-EOP	7/27/2019 11:30	WE7075	M	3.3	3.5	0.51	0.00224	0.00216	0.0861	<0.0001	<0.001	0.209	0.000016	38.3	0.0121	0.00025	0.00236	0.28	0.00022	0.0346	11.3	0.0075	<0.000002	0.0271	0.0014		8.06	0.00361
RSEM-R6W-EOP	7/28/2019 12:00	WE7122	M	3.1	3.4	0.536	0.00229	0.00227	0.0904	<0.0001	<0.001	0.212	0.000019	39.2	0.0123	0.00032	0.00241	0.346	0.00027	0.0347	11.3	0.01	<0.000002	0.0274	0.0015		8.36	0.00366
RSEM-R6W-EOP	7/29/2019 9:10	WE7141	M	3.2	3.4	0.56	0.00234	0.00223	0.0884	<0.0001	<0.001	0.207	0.00001	38.4	0.0133	0.00029	0.00285	0.327	0.00028	0.0357	11.0	0.0089	<0.000002	0.0283	0.0015		8.49	0.00371
RSEM-R6W-EOP	7/30/2019 11:50	WF2071	M	3.1	3.6	0.435	0.00219	0.00217	0.0835	<0.0001	<0.001	0.198	0.000013	36.8	0.0131	0.00027	0.00209	0.255	0.00021	0.0328	10.3	0.0076	<0.000002	0.0273	0.0013		8.40	0.00376
RSEM-R6W-EOP	7/30/2019 12:00	WF2072	D	3.1	3.5	0.469	0.00223	0.00223	0.086	<0.0001	<0.001	0.204	<0.00001	37.7	0.0134	0.00027	0.00212	0.247	0.00021	0.0336	10.6	0.0077	<0.000002	0.0281	0.0013		8.60	0.00377
RSEM-R6W-EOP	7/31/2019 11:20	WF4363	M	3.1	3.8	0.382	0.00224	0.00221	0.0852	<0.0001	<0.001	0.219	0.000025	39.3	0.0138	0.00026	0.00228	0.248	0.00021	0.0326	11.1	0.0077	<0.000002	0.0286	0.0098		8.68	0.00371
RSEM-R6W-EOP	7/31/2019 11:30	WF4364	D	3.0	3.8	0.389	0.00219	0.00219	0.0847	<0.0001	<0.001	0.212	0.000013	40.2	0.0138	0.00026	0.00224	0.262	<0.0002	0.0318	11.1	0.0078	<0.000002	0.0293	0.0014		8.62	0.00365
RSEM-R6W-EOP	8/1/2019 12:00	WF6258	M	2.8	3.2	0.478	0.0022	0.0022	0.0827	<0.0001	<0.001	0.214	<0.00001	39.0	0.0123	0.00022	0.00208	0.25	<0.0002	0.0327	11.0	0.0068	<0.000002	0.0276	0.0014		8.38	0.00359
RSEM-R6W-EOP	8/1/2019 12:10	WF6259	D	3.1	3.1	0.425	0.00221	0.00211	0.0816	<0.0001	<0.001	0.209	0.000013	39.2	0.0123	0.00021	0.00207	0.196	<0.0002	0.0325	11.1	0.0063	<0.000002	0.0275	0.0014		8.33	0.00345
RSEM-R6W-EOP	8/2/2019 9:50	WF6282	M	2.9	3.1	0.394	0.00205	0.00199	0.0796	<0.0001	<0.001	0.205	0.000012	38.9	0.011	0.0002	0.00199	0.18	<0.0002	0.031	11.2	0.0058	<0.000002	0.0257	0.0012		8.11	0.0032
RSEM-R6W-EOP	8/2/2019 10:00	WF6283	D	2.9	2.9	0.358	0.00203	0.00198	0.078	<0.0001	<0.001	0.206	<0.00001	40.1	0.0107	0.0002	0.0022	0.171	<0.0002	0.0314	11.1	0.0056	<0.000002	0.0258	0.0013		7.94	0.0032
RSEM-R6W-EOP	8/3/2019 12:05	WF7646	M	3.3	3.3	0.342	0.00194	0.00188	0.0798	<0.0001	<0.001	0.198	<0.00001	39.7	0.0099	<0.0002	0.00213	0.153	<0.0002	0.0337	10.9	0.0054	<0.000002	0.0251	0.0013		7.80	0.00273
RSEM-R6W-EOP	8/3/2019 12:15	WF7647	D	3.3	3.4	0.324	0.00191	0.00188	0.0787	<0.0001	<0.001	0.193	<0.00001	39.0	0.0098	<0.0002	0.00192	0.14	<0.0002	0.0332	10.9	0.0049	0.0000022	0.0251	0.0012		7.78	0.00276
RSEM-R6W-EOP	8/4/2019 13:30	WF7661	M	3.3	3.4	0.333	0.00191	0.00186	0.0775	<0.0001	<0.001	0.186	<0.00001	38.0	0.0098	<0.0002	0.0019	0.114	<0.0002	0.0323	10.8	0.0038	<0.000002	0.0254	0.0012		7.93	0.00279
RSEM-R6W-EOP	8/4/2019 13:40	WF7662	D	3.2	3.2	0.321	0.00194	0.00194	0.0784	<0.0001	<0.001	0.19	<0.00001	38.6	0.0097	<0.0002	0.00193	0.117	<0.0002	0.0321	10.8	0.0039	<0.000002	0.0255	0.0011		7.94	0.00277
RSEM-R6W-EOP	8/5/2019 11:40	WF9951	M	3.1	3.6	0.312	0.00192	0.00194	0.0764	<0.0001	<0.001	0.194	<0.00001	36.8	0.0095	<0.0002	0.00186	0.09	<0.0002	0.0287	11.5	0.0031	<0.000002	0.0255	0.001		8.04	0.00294
RSEM-R6W-EOP	8/5/2019 11:50	WF9952	D	3.2	3.4	0.307	0.00197	0.00196	0.0759	<0.0001	<0.001	0.2	<0.00001	37.5	0.0096	<0.0002	0.00187	0.105	<0.0002	0.0298	11.6	0.0033	<0.000002	0.0261	0.001		8.15	0.00302
RSEM-R6W-EOP	8/6/2019 11:55	WG2805	M	2.9	3.5	0.366	0.00187	0.00189	0.075	<0.0001	<0.001	0.192	0.00001	36.7	0.009	<0.0002	0.00184	0.116	<0.0002	0.0286	11.3	0.0036	<0.000002	0.0259	0.0011		7.87	0.00272
RSEM-R6W-EOP	8/6/2019 12:05	WG2806	D	3.0	3.5	0.342	0.00194	0.00193	0.0792	<0.0001	<0.001	0.194	<0.00001	37.9	0.0092	<0.0002	0.00202	0.115	<0.0002	0.0292	11.6	0.0036	<0.000002	0.0261	0.0012		8.25	0.00281
RSEM-R6W-EOP	8/7/2019 13:25	WG4498	M	3.0	3.3	0.374	0.00194	0.00193	0.0793	<0.0001	<0.001	0.204	<0.00001	39.1	0.009	<0.0002	0.002	0.121	<0.0002	0.0318	11.7	0.0045	<0.000002	0.0276	0.0012		8.18	0.00277
RSEM-R6W-EOP	8/7/2019 13:35	WG4499	D	3.0	3.3	0.356	0.00189	0.00189	0.0777	<0.0001	<0.001	0.201	<0.00001	38.0	0.009	<0.0002	0.00197	0.122	<0.0002	0.0313	11.5	0.0042	<0.000002	0.0267	0.0011		8.16	0.0027
RSEM-R6W-EOP	8/8/2019 12:15	WG6504	M	3.0	3.0	0.294	0.00188	0.00187	0.0754	<0.0001	<0.001	0.199	<0.00001	37.8	0.0092	<0.0002	0.00193	0.093	<0.0002	0.0317	11.0	0.0037	<0.000002	0.0264	0.0011		8.02	0.00257
RSEM-R6W-EOP	8/8/2019 12:25	WG6505	D	2.9	2.9	0.309	0.00192	0.00189	0.0753	<0.0001	<0.001	0.199	<0.00001	38.1	0.0092	<0.0002	0.00187	0.1	<0.0002	0.0315	10.9	0.0035	<0.000002	0.0271	0.001		8.05	0.00261
RSEM-R6W-EOP	8/9/2019 10:40	WG6544	M	3.0	3.2	0.347	0.00211	0.00201	0.078	<0.0001	<0.001	0.205	<0.00001	37.2	0.0125	<0.0002	0.00221	0.127	<0.0002	0.032	10.4	0.0046	<0.000002	0.0298	0.0011		8.87	0.00298
RSEM-R6W-EOP	8/10/2019 12:30	WH0275	M	2.9	3.0	0.41	0.00233	0.00211	0.0785	<0.0001	<0.001	0.232	<0.00001	36.5	0.0151	0.0002	0.00207	0.185	<0.0002	0.0322	9.71	0.0055	<0.000002	0.0344	0.0011		9.75	0.0034
RSEM-R6W-EOP	8/11/2019 11:40	WH0299	M	3.0	3.0	0.419	0.00235	0.00222	0.083	<0.0001	<0.001	0.244	<0.00001	37.4	0.0157	0.00023	0.00224	0.233	<0.0002	0.0339	9.62	0.0068	<0.000002	0.0365	0.0012		10.2	0.00344
RSEM-R6W-EOP	8/12/2019 14:45	WH2473	M	3.3	3.5	0.427	0.0023	0.00219	0.0842	<0.0001	<0.001	0.227	0.000015	35.3	0.0147	0.00021	0.00199	0.182	<0.0002	0.0325	9.79	0.0055	<0.000002	0.0343	0.0011		9.37	0.0033
RSEM-R6W-EOP	8/13/2019 14:05	WH4523	M	3.8	3.6	0.346	0.00218	0.00215	0.0845	<0.0001	<0.001	0.217	0.000014	37.2	0.0131	0.00021	0.00238	0.192	<0.0002	0.0301	9.84	0.007	<0.000002	0.0329	0.0013		9.08	0.00327
RSEM-R6W-EOP	8/14/2019 14:35	WH7024	M	3.5	3.4	0.371	0.00223	0.00215	0.0862	<0.0001	<0.001	0.203	0.000017	38.1	0.0133	0.00021	0.00216	0.194	<0.0002	0.0301	10.3	0.0064	<0.000002	0.0338	0.0013		9.06	0.00313
RSEM-R6W-EOP	8/15/2019 10:20	WH8387	M	3.4	3.4	0.315	0.00203	0.00197	0.0841	<0.0001	<0.001	0.206	0.000015	39.1	0.012	<0.0002	0.00211	0.153	<0.0002	0.0316	10.3	0.0053	<0.000002	0.032	0.0012		9.06	0.0028
RSEM-R6W-EOP	8/16/2019 10:35	WH8440	M	3.1	3.8	2.7	0.0024	0.00322	0.152	<0.0002	<0.002	0.199	0.000084	45.3	0.0136	0.00127	0.0055	2.49	0.00162	0.0311	10.2	0.0571	0.0000028	0.0262	0.0046		8.85	0.00267
RSEM-R6W-EOP	8/17/2019 10:10	WI0634	M	3.5	3.9	5.08	0.002	0.00443	0.202	<0.0002	<0.002	0.222	0.000134	45.5	0.0168	0.00211	0.0078	5.04	0.00258	0.034	10.9	0.0883	0.0000047	0.0282	0.0074		9.86	0.00292
RSEM-R6W-EOP	8/18/2019 14:05	WI0686	M	3.6	3.9	2.23	0.002	0.00422	0.169	<0.0002	<0.002	0.22	0.000119	46.6	0.0127	0.00186	0.007	3.97	0.00217	0.0316	10.5	0.0781	0.0000049	0.0274	0.0063		9.46	0.00302
RSEM-R6W-EOP	8/23/2019 9:55	WI9310	M	3.7	3.6	0.578	0.00217	0.00279	0.11	<0.0001	<0.001	0.265	0.000031	44.7	0.0116	0.00053	0.00311	0.763	0.00051	0.0373	10.3	0.0196	0.0000035	0.0348	0.0024		10.6	0.00346
RSEM-R6W-EOP	8/24/2019 11:10	WJ3008	M	3.8	3.7	0.592	0.00221	0.00282	0.112	<0.0001	<0.001	0.283	0.000036	45.9	0.0123	0.00049	0.00308	0.702	0.00049	0.0392	10.5	0.0191	0.0000042	0.0362	0.0025		11.2	0.00354
RSEM-R6W-EOP	8/25/2019 12:10	WJ3021	M	4.0	3.9	0.63	0.00217	0.00277	0.109	<0.0001	<0.001	0.243	0.000025	46.3	0.0114	0.00049	0.00298	0.708	0.00047	0.037	10.1	0.0168	0.0000051	0.0366	0.0023		11.2	0.00344
RSEM-R6W-EOP	8/26/2019 12:25	WJ5215	M	4.0	4.3	0.707	0.002	0.00259	0.105	<0.0001	<0.001	0.238	<0.00001	44.1	0.0108	0.00041	0.00286	0.607	0.00041	0.0398	10.1	0.015	0.0000021	0.0347	0.0021		10.7	0.00305
RSEM-R6W-EOP	8/27/2019 12:50	WJ7311	M	4.2	3.9	0.426	0.00208	0.00272	0.101	<0.0001	<0.001	0.257	0.00002	44.9	0.0113	0.00032	0.00237	0.337	0.00026	0.0368	10.6	0.0111	0.0000025	0.0384	0.0019		11.3	0.00348
RSEM-R6W-EOP	8/27/2019 13:00	WJ7312	D	1.9	3.9	0.412	0.00208	0.00267	0.102	<0.0001	<0.001	0.255	0.000017	46.2	0.0112	0.0003	0.00227	0.325	0.00026	0.0368	10.4	0.0106	0.0000027	0.0385	0.0018		10.9	0.00351
RSEM-R6W-EOP	8/28/2019 13:05	WJ9549	M	4.2	4	0.405	0.00205	0.0026	0.103	<0.0001	<0.001	0.242	0.000014	43.6	0.0125	0.00029	0.00229	0.375	0.00029	0.0373	9.75	0.01	0.0000026	0.0396	0.0017		11.4	0.00322
RSEM-R6W-EOP	8/29/2019 14:40	WK2435	M	3.5	3.7	0.35	0.00204	0.00245	0.0986	<0.0001	<0.001	0.239	0.000021	41.2	0.0138	0.00028	0.00213	0.292	0.00023	0.0368	10	0.0096	0.0000055	0.0396	0.0017		11.2	0.00335
RSEM-R6W-EOP	8/30/2019 10:15	WK2407	M	3.6	3.9	0.353	0.00209	0.00252	0.1	<0.0001	<0.001	0.246	0.000023	43.2	0.0136	0.00026	0.00221	0.316	0.00023	0.0391	10.2	0.0086	0.0000027	0.0411	0.0018		11.4	0.00347
RSEM-R6W-EOP	8/31/2019 12:15	WK4121	M	3.7	3.2	0.349	0.00201	0.00235	0.0988	<0.0001	<0.001	0.233	0.00002	41.8	0.013	0.00025	0.002	0.287	0.00021	0.0361	10.3	0.0092	0.0000057	0.0405	0.0016		11	0.00327
RSEM-R6W-EOP	9/1/2019 12:15	WK4242	M	3.5	3.3	0.297	0.00198	0.00242	0.104	<0.0001	<0.001	0.266	0.000021	45.7	0.0127	0.00023	0.0019	0.19	<0.0002	0.0405	10.8	0.0092	0.0000028	0.0406	0.0015		11.3	0.00315
RSEM-R6W-EOP	9/2/2019 11:40	WK6467	M	3.4	3.5	0.304	0.00185	0.00225	0.0958	<0.0001	<0.001	0.223	0.000015	41.4	0.0115	0.00022	0.00176	0.2	<0.0002	0.0351	10.0	0.0084	<0.000002	0.0373	0.0015		10.1	0.00291
RSEM-R6W-EOP	9/3/2019 13:15	WK8385	M	3.3	4.0	0.268	0.00176	0.00213	0.1	<0.0001	<0.001	0.242	0.000021	44.2	0.0108	0.00023	0.00177	0.174	<0.0002	0.0372	10.9	0.0104	<0.000002	0.0359	0.0015		9.81	0.00275
RSEM-R6W-EOP	9/4/2019 13:50	WL0773	M	3.3	4.6	0.27	0.00162	0.00213	0.0967	<0.0001	<0.001	0.229	0.000022	44.1	0.0096	0.00022	0.00185	0.212	<0.0002	0.0346	10.9	0.0101	0.0000022	0.0348	0.0014		9.07	0.00274
RSEM-R6W-EOP	9/5/2019 12:50	WL2428	M	3.2	3.8	0.351	0.00154	0.00213	0.103	<0.0001	<0.001	0.228	0.000017	45.3	0.009	0.00025	0.0019	0.302	0.0002	0.0353	10.9	0.0117	<0.000002	0.0341	0.0016		8.85	0.00252
RSEM-R6W-EOP	9/6/2019 13:40	WL3945	M	3.1	3.2	0.294	0.00153	0.00206	0.102	<0.0001	<0.001	0.217	0.000018	45.9	0.0083	0.00023	0.00178	0.214	<0.0002	0.0334	10.9	0.011	<0.000002	0.0333	0.0015		8.56	0.00236
RSEM-R6W-EOP	9/7/2019 12:40	WL4975	M	2.9	4.0	0.241	0.00135	0.00193	0.101	<0.0001	<0.001	0.195	0.000017	44.8	0.0069	0.00021	0.00167	0.162	<0.0002	0.0299	10.5	0.0103	<0.000002	0.0305	0.0013		7.66	0.00218
RSEM-R6W-EOP	9/8/2019 13:40	WL5051	M	2.8	3.9	0.667	0.00133	0.00203	0.114	<0.0001	<0.001	0.187	0.000031	45.0	0.0064	0.00041	0.00241	0.537	0.00041	0.0266	10.9	0.019	<0.000002	0.0263	0.0019		7.22	0.00199
RSEM-R6W-EOP	9/9/2019 10:20	WL7027	M	3.2	3.5	0.471	0.0013	0.00215	0.116	<0.0001	<0.001	0.173	0.000039	46.0	0.0061	0.00046	0.00252	0.719	0.00049	0.0265	10.5	0.0212	0.000002	0.0255	0.002		7.11	0.00185
RSEM-R6W-EOP	9/10/2019 11:55	WL9315	M	3.0	3.7	0.377	0.00128	0.00198	0.111	<0.0001	<0.001	0.172	0.000028	45.2	0.0056	0.00038	0.0023	0.53	0.0004	0.0261	10.4	0.0177	<0.000002	0.025	0.0018		6.93	0.00178
RSEM-R6W-EOP	9/10/2019 12:05	WL9316	D	3.0	3.7	0.342	0.00128	0.00193	0.113	<0.0001	<0.001	0.171	0.000027	46.3	0.0055	0.00037	0.00232	0.444	0.00037	0.0256	10.5	0.0173	0.0000035	0.0251	0.0017		6.94	0.00179
RSEM-R6W-EOP	9/11/2019 12:40	WM1916	M	3.0	4.2	0.346	0.00126	0.00195	0.111	<0.0001	<0.001	0.16	0.000027	47.1	0.0052	0.00037	0.00226	0.506	0.00041	0.0242	10.3	0.0161	0.0000032	0.0251	0.0018		6.87	0.00174
RSEM-R6W-EOP	9/12/2019 11:35	WM1924	M	3.4	4.3	0.363	0.00116	0.00188	0.102	<0.0001	<0.001	0.156	0.000031	42.0	0.0047	0.00036	0.00222	0.516	0.00038	0.0232	9.42	0.0144	0.0000031	0.0222	0.0017		6.25	0.00161
RSEM-R6W-EOP	9/13/2019 13:05	WM4310	M	4.7	4.6	0.39	0.00123	0.00198	0.106	<0.0001	<0.001	0.156	0.000028	44.0	0.0047	0.00036	0.00236	0.544	0.00041	0.0237	10.0	0.0145	0.0000049	0.0244	0.0018		6.74	0.00167
RSEM-R6W-EOP	9/14/2019 12:15	WM7485	M	3.1	4.3	0.516	0.00129	0.00204	0.102	<0.0001	<0.001	0.203	0.000029	43.0	0.0046	0.00039	0.00244	0.633	0.00041	0.0294	9.98	0.0149	<0.000002	0.025	0.002		6.64	0.00169
RSEM-R6W-EOP	9/15/2019 11:50	WM7505	M	3.3	4.3	0.451	0.00125	0.00206	0.11	<0.0001	<0.001	0.18	0.000026	42.9	0.0039	0.00035	0.00226	0.662	0.00041	0.026	8.86	0.0141	0.0000044	0.0247	0.0019		6.66	0.00158
RSEM-R6W-EOP	9/16/2019 13:05	WN0361	M	3.4	4.8	1.64	0.00128	0.00315	0.173	0.0001	<0.001	0.181	0.000098	40.4	0.0071	0.00169	0.00641	3.22	0.002	0.0269	8.87	0.069	0.0000027	0.0219	0.0055		6.49	0.00167
RSEM-R6-WP-IN	1/27/2019 13:36	VD7176	M	6.2	3.8	3.19	0.00279	0.00907	0.246	0.00013	<0.001	0.291	0.000125	19.2	0.013	0.00339	0.0126	4.84	0.00362	0.0341	5.81	0.08	0.0000063	0.0411	0.0093		9.46	0.0047
RSEM-R6-WP-IN	1/29/2019 15:24	VE0719	M	3.8	3.8	3.71	0.00288	0.0095	0.159	0.00016	<0.001	0.376	0.000089	22.7	0.0093	0.00233	0.0108	3.45	0.00247	0.0458	8.00	0.0566	0.0000123	0.0515	0.0078		6.93	0.00636
RSEM-R6-WP-IN	2/7/2019 11:40	VF0007	M	4.6	<2.5	1.63	0.0022	0.00614	0.112	<0.0001	<0.001	0.246	0.000091	22.2	0.004	0.00161	0.00557	2.56	0.00181	0.0281	7.38	0.0421	0.000007	0.0297	0.0054		3.74	0.00337
RSEM-R6-WP-IN	2/20/2019 11:45	VG2861	M	2.5	2.8	4.56	0.00248	0.0122	0.319	0.00032	<0.001	0.324	0.000279	41.9	0.0084	0.00607	0.0151	10.1	0.00731	0.0421	10.7	0.26	0.0000206	0.0287	0.0148		4.02	0.00317
RSEM-R6-WP-IN	3/26/2019 12:50	VK9080	M	<13	3.8	29.9	<0.0025	0.0309	3.53	0.00212	<0.005	0.312	0.000968	104	0.0529	0.0292	0.108	54.6	0.0385	0.097	29.6	0.56	<0.000002	0.0215	0.0795		11.1	0.0182
RSEM-R6-WP-IN	4/10/2019 12:05	VN0772	M	1.3	1.7	0.0686	0.00183	0.00265	0.269	<0.0001	<0.001	0.225	0.000011	45.3	0.0027	0.00022	0.00125	0.081	<0.0002	0.0346	20.2	0.007	<0.000002	0.0181	0.0022		4.07	0.00299
RSEM-R6-WP-IN	5/22/2019 13:40	VS7479	M	5.7	5.1	2.95	0.0013	0.00437	0.27	0.00019	<0.001	0.117	0.000172	60.5	0.0109	0.00311	0.0116	5.56	0.00396	0.0207	12.9	0.113	0.0000025	0.0092	0.0086		3.96	0.00219
RSEM-R6-WP-IN	7/11/2019 11:20	WC0493	M	3.5	3.1	4.41	0.0015	0.00619	0.247	0.00021	<0.002	0.164	0.000243	60.4	0.0119	0.0039	0.0121	8.38	0.00462	0.0343	14.7	0.159	0.0000049	0.0162	0.0118		6.02	0.00246
RSEM-R6-WP-W-Sump	2/6/2019 13:40	VE9884	M	<0.50	0.82	1.97	<0.0005	0.00089	0.0945	<0.0001	<0.001	<0.05	0.000058	3.86	0.0029	0.00076	0.00292	1.9	0.00129	<0.002	0.831	0.0323	<0.000002	<0.001	0.0024		0.711	<0.0001
RSEM-R6W-SP	1/1/2019 12:30	VA5880	M	1.7	2.2	0.406	0.00258	0.006	0.0812	<0.0001	<0.001	0.337	0.000014	31.2	0.0049	0.00064	0.00224	0.303	0.00036	0.0444	14.7	0.0396	0.0000036	0.0439	0.0026		7.18	0.00564

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	7/21/2019 12:10	WD7083	D	4.47	<0.00002	147	0.26	77.1	0.000015	<0.005	<0.005	0.00161	<0.005	<0.005	0.00028	0.173	0.00161	0.00181	0.0786	<0.0001	<0.001	0.195	<0.00001	45.0	0.0064	<0.0002	0.00151	<0.01
RSEM-R6W-EOP	7/22/2019 12:09	WD8944	M	4.56	<0.00002	148	0.252	75.0	0.000014	<0.005	0.0062	0.00162	0.0052	<0.005	0.00027	0.156	0.00155	0.00176	0.0743	<0.0001	<0.001	0.183	<0.00001	40.6	0.0058	<0.0002	0.00138	<0.01
RSEM-R6W-EOP	7/23/2019 13:25	WE1025	M	4.46	<0.00002	144	0.237	75.7	0.000015	<0.005	<0.005	0.00161	<0.005	<0.005	0.00024	0.156	0.00172	0.00179	0.0743	<0.0001	<0.001	0.198	<0.00001	42.7	0.0064	<0.0002	0.00167	<0.01
RSEM-R6W-EOP	7/24/2019 12:30	WE3035	M	4.28	<0.00002	146	0.243	76.1	0.000016	<0.005	<0.005	0.00164	<0.005	<0.005	0.00025	0.153	0.00176	0.00188	0.0776	<0.0001	<0.001	0.203	<0.00001	41.9	0.0059	<0.0002	0.00164	0.011
RSEM-R6W-EOP	7/25/2019 12:35	WE4842	M	4.67	0.000021	153	0.262	75.4	0.000013	<0.005	0.0063	0.00168	0.0059	<0.005	0.00025	0.174	0.00189	0.0019	0.0732	<0.0001	<0.001	0.194	<0.00001	39.8	0.0075	<0.0002	0.00167	<0.01
RSEM-R6W-EOP	7/26/2019 9:42	WE4706	M	4.89	<0.00002	152	0.27	75.1	0.000015	<0.005	0.0091	0.00161	0.0064	0.0057	0.00026	0.197	0.00205	0.00196	0.0751	<0.0001	<0.001	0.203	<0.00001	39.8	0.0093	<0.0002	0.00171	<0.01
RSEM-R6W-EOP	7/27/2019 11:30	WE7075	M	4.87	<0.00002	155	0.28	76.3	0.000018	<0.005	0.0065	0.00146	0.0069	0.0133	0.00029	0.238	0.00222	0.00195	0.0718	<0.0001	<0.001	0.227	<0.00001	38.2	0.012	<0.0002	0.0017	<0.01
RSEM-R6W-EOP	7/28/2019 12:00	WE7122	M	5.06	<0.00002	154	0.296	75.5	0.000019	<0.005	0.0071	0.00146	0.0072	<0.005	0.00036	0.21	0.00228	0.00214	0.0758	<0.0001	<0.001	0.223	<0.00001	40.2	0.0123	<0.0002	0.00164	<0.01
RSEM-R6W-EOP	7/29/2019 9:10	WE7141	M	5.38	<0.00002	153	0.294	73.8	0.000019	<0.005	0.0064	0.00151	0.0067	<0.005	0.0003	0.215	0.0024	0.00215	0.0779	<0.0001	<0.001	0.225	<0.00001	39.5	0.0135	<0.0002	0.00188	<0.01
RSEM-R6W-EOP	7/30/2019 11:50	WF2071	M	4.92	<0.00002	145	0.274	69.9	0.000018	<0.005	<0.005	0.0014	0.0066	<0.005	0.00028	0.214	0.00237	0.00214	0.0783	<0.0001	<0.001	0.231	<0.00001	40.4	0.0141	<0.0002	0.0017	<0.01
RSEM-R6W-EOP	7/30/2019 12:00	WF2072	D	5.11	<0.00002	149	0.277	71.2	0.000017	<0.005	0.0057	0.00144	0.0068	<0.005	0.00029	0.209	0.00243	0.00213	0.0766	<0.0001	<0.001	0.224	<0.00001	39.6	0.0138	<0.0002	0.00148	<0.01
RSEM-R6W-EOP	7/31/2019 11:20	WF4363	M	4.96	<0.00002	153	0.296	72.5	0.000016	<0.005	<0.005	0.00144	0.0072	<0.005	0.00016	0.237	<0.0025	0.00203	0.0784	<0.0005	<0.005	<0.25	<0.00005	41.4	0.013	<0.001	<0.0025	<0.05
RSEM-R6W-EOP	7/31/2019 11:30	WF4364	D	5.01	<0.00002	152	0.297	70.0	0.000016	<0.005	<0.005	0.00143	0.0072	<0.005	0.00015	0.229	0.00241	0.00209	0.0796	<0.0001	<0.001	0.247	<0.00001	41.2	0.0127	<0.0002	0.00158	<0.01
RSEM-R6W-EOP	8/1/2019 12:00	WF6258	M	5.02	<0.00002	147	0.276	70.3	0.000016	<0.005	0.0102	0.00149	0.0071	<0.005	0.00029	0.199	0.00228	0.00199	0.0759	<0.0001	<0.001	0.214	<0.00001	40.6	0.0113	<0.0002	0.00133	<0.01
RSEM-R6W-EOP	8/1/2019 12:10	WF6259	D	4.87	<0.00002	148	0.273	68.4	0.000016	<0.005	0.0057	0.00149	0.0069	<0.005	0.00019	0.202	0.00226	0.00201	0.0767	<0.0001	<0.001	0.215	<0.00001	40.4	0.0109	<0.0002	0.0013	<0.01
RSEM-R6W-EOP	8/2/2019 9:50	WF6282	M	4.6	<0.00002	144	0.26	66.3	0.000014	<0.005	<0.005	0.00145	0.0063	<0.005	0.00019	0.19	0.00206	0.00213	0.0688	<0.0001	<0.001	0.183	0.000011	36.4	0.0096	<0.0002	0.00169	<0.01
RSEM-R6W-EOP	8/2/2019 10:00	WF6283	D	4.67	<0.00002	142	0.258	69.0	0.000014	<0.005	<0.005	0.00145	0.0063	<0.005	0.00017	0.186	0.00204	0.00182	0.0702	<0.0001	<0.001	0.213	<0.00001	36.5	0.0098	<0.0002	0.00151	<0.01
RSEM-R6W-EOP	8/3/2019 12:05	WF7646	M	4.53	<0.00002	130	0.286	62.1	0.000015	<0.005	0.0059	0.00155	0.0057	<0.005	0.00015	0.182	0.00207	0.00194	0.075	<0.0001	<0.001	0.204	<0.00001	39.5	0.009	<0.0002	0.00138	<0.01
RSEM-R6W-EOP	8/3/2019 12:15	WF7647	D	4.39	<0.00002	128	0.278	61.5	0.000015	<0.005	<0.005	0.00155	0.0056	<0.005	0.00017	0.185	0.00201	0.002	0.0714	<0.0001	<0.001	0.196	<0.00001	42.3	0.0088	<0.0002	0.00125	<0.01
RSEM-R6W-EOP	8/4/2019 13:30	WF7661	M	4.18	<0.00002	131	0.281	62.4	0.000014	<0.005	<0.005	0.00155	0.0055	<0.005	0.00015	0.193	0.00208	0.00188	0.0742	<0.0001	<0.001	0.204	<0.00001	39.3	0.009	<0.0002	0.00134	<0.01
RSEM-R6W-EOP	8/4/2019 13:40	WF7662	D	4.23	<0.00002	132	0.283	62.8	0.000014	<0.005	<0.005	0.00156	0.0056	<0.005	0.00016	0.189	0.00208	0.00205	0.0726	<0.0001	<0.001	0.199	<0.00001	40.7	0.0088	<0.0002	0.00132	<0.01
RSEM-R6W-EOP	8/5/2019 11:40	WF9951	M	3.82	<0.00002	142	0.258	65.6	0.000017	<0.005	<0.005	0.00145	0.0058	<0.005	0.0001	0.207	0.00201	0.00196	0.0734	<0.0001	<0.001	0.214	<0.00001	38.9	0.0096	<0.0002	0.00152	<0.01
RSEM-R6W-EOP	8/5/2019 11:50	WF9952	D	3.99	<0.00002	146	0.266	67.2	0.000015	<0.005	<0.005	0.00144	0.0058	<0.005	0.00016	0.232	0.0019	0.00194	0.0731	<0.0001	<0.001	0.206	<0.00001	38.2	0.0094	<0.0002	0.00178	0.029
RSEM-R6W-EOP	8/6/2019 11:55	WG2805	M	4	<0.00002	140	0.262	65.3	0.000014	<0.005	<0.005	0.00149	0.0056	<0.005	0.00018	0.208	0.00195	0.0019	0.0726	<0.0001	<0.001	0.206	<0.00001	38.0	0.0091	<0.0002	0.00182	<0.01
RSEM-R6W-EOP	8/6/2019 12:05	WG2806	D	4.15	<0.00002	143	0.265	67.2	0.000014	<0.005	<0.005	0.00152	0.0057	<0.005	0.00016	0.21	0.00196	0.0019	0.0722	<0.0001	<0.001	0.203	<0.00001	38.1	0.0091	<0.0002	0.00157	<0.01
RSEM-R6W-EOP	8/7/2019 13:25	WG4498	M	4.2	<0.00002	145	0.276	68.2	0.000014	<0.005	<0.005	0.00152	0.0059	<0.005	0.00018	0.206	0.00194	0.00195	0.0729	<0.0001	<0.001	0.212	<0.00001	38.1	0.0088	<0.0002	0.00153	<0.01
RSEM-R6W-EOP	8/7/2019 13:35	WG4499	D	4.12	<0.00002	143	0.269	67.1	0.000016	<0.005	<0.005	0.00149	0.0057	<0.005	0.00017	0.21	0.00195	0.00192	0.0751	<0.0001	<0.001	0.215	<0.00001	39.6	0.0087	<0.0002	0.00154	<0.01
RSEM-R6W-EOP	8/8/2019 12:15	WG6504	M	3.97	<0.00002	139	0.273	63.6	0.000013	<0.005	<0.005	0.00147	0.0055	<0.005	0.00011	0.219	0.00201	0.0019	0.0778	<0.0001	<0.001	0.214	<0.00001	39.1	0.0089	<0.0002	0.00146	<0.01
RSEM-R6W-EOP	8/8/2019 12:25	WG6505	D	4.02	<0.00002	140	0.276	65.1	0.000014	<0.005	<0.005	0.00149	0.0055	<0.005	0.00013	0.219	0.00198	0.0019	0.0758	<0.0001	<0.001	0.214	<0.00001	39.1	0.0088	<0.0002	0.00142	<0.01
RSEM-R6W-EOP	8/9/2019 10:40	WG6544	M	4.49	<0.00002	143	0.282	64.5	0.000013	<0.005	<0.005	0.00144	0.0065	<0.005	0.00021	0.231	0.0022	0.00211	0.0758	<0.0001	<0.001	0.2	<0.00001	38.2	0.0123	<0.0002	0.00158	<0.01
RSEM-R6W-EOP	8/10/2019 12:30	WH0275	M	5.23	<0.00002	141	0.276	70.7	0.000015	<0.005	0.0053	0.00139	0.0074	<0.005	0.00032	0.225	0.00224	0.00215	0.0736	<0.0001	<0.001	0.229	<0.00001	36.7	0.0144	<0.0002	0.00166	<0.01
RSEM-R6W-EOP	8/11/2019 11:40	WH0299	M	5.62	<0.00002	141	0.284	68.5	0.000014	<0.005	<0.005	0.00139	0.0076	<0.005	0.00022	0.205	0.00233	0.00219	0.0773	<0.0001	<0.001	0.225	0.00001	37.0	0.0155	<0.0002	0.00201	<0.01
RSEM-R6W-EOP	8/12/2019 14:45	WH2473	M	5	<0.00002	148	0.266	65.5	0.000014	<0.005	<0.005	0.00137	0.0058	<0.005	0.00036	0.216	0.0023	0.00247	0.0779	<0.0001	<0.001	0.229	<0.00001	37.1	0.0143	<0.0002	0.00148	<0.01
RSEM-R6W-EOP	8/13/2019 14:05	WH4523	M	4.54	<0.00002	148	0.263	62.4	0.000012	<0.005	<0.005	0.00136	0.0067	<0.005	0.00019	0.198	0.00225	0.00213	0.0796	<0.0001	<0.001	0.226	<0.00001	38.5	0.0131	<0.0002	0.00161	<0.01
RSEM-R6W-EOP	8/14/2019 14:35	WH7024	M	4.47	<0.00002	148	0.27	64.0	0.000015	<0.005	<0.005	0.00139	0.0061	<0.005	0.0002	0.2	0.0022	0.00206	0.0821	<0.0001	<0.001	0.234	<0.00001	40.0	0.0124	<0.0002	0.00157	<0.01
RSEM-R6W-EOP	8/15/2019 10:20	WH8387	M	4.29	<0.00002	147	0.268	63.1	0.000012	<0.005	<0.005	0.00139	0.0062	<0.005	0.00013	0.187	0.00205	0.002	0.0787	<0.0001	<0.001	0.205	0.000012	38.7	0.0121	<0.0002	0.00151	<0.01
RSEM-R6W-EOP	8/16/2019 10:35	WH8440	M	10.1	<0.00004	126	0.301	56.5	0.000052	<0.01	0.075	0.00154	0.011	0.02	0.00155	0.0844	0.00188	0.00198	0.0811	<0.0001	<0.001	0.203	<0.00001	42.7	0.0094	<0.0002	0.00149	<0.01
RSEM-R6W-EOP	8/17/2019 10:10	WI0634	M	16.6	0.000044	128	0.31	55.9	0.000087	<0.01	0.182	0.00172	0.02	0.032	0.00421	0.0667	0.00199	0.00212	0.0813	<0.0001	<0.001	0.216	<0.00001	42.1	0.0091	<0.0002	0.00145	<0.01
RSEM-R6W-EOP	8/18/2019 14:05	WI0686	M	8.19	<0.00004	130	0.302	56.5	0.00005	<0.01	0.048	0.00166	0.011	0.027	0.00245	0.0697	0.00199	0.00218	0.0805	<0.0001	<0.001	0.222	<0.00001	43.3	0.0093	<0.0002	0.00154	<0.01
RSEM-R6W-EOP	8/23/2019 9:55	WI9310	M	5.61	<0.00002	162	0.298	67.5	0.000022	<0.005	0.0105	0.0017	0.0069	0.0071	0.00062	0.11	0.0022	0.00247	0.0863	<0.0001	<0.001	0.259	<0.00001	45.0	0.0108	<0.0002	0.00143	<0.01
RSEM-R6W-EOP	8/24/2019 11:10	WJ3008	M	6.14	<0.00002	170	0.305	70.3	0.000023	<0.005	0.0136	0.00174	0.0071	0.0068	0.00046	0.117	0.00221	0.0025	0.0881	<0.0001	<0.001	0.271	0.00001	45.5	0.0111	<0.0002	0.00161	<0.01
RSEM-R6W-EOP	8/25/2019 12:10	WJ3021	M	6.3	<0.00002	161	0.291	70.0	0.000023	<0.005	0.0116	0.00173	0.0051	0.0075	0.00055	0.13	0.00223	0.00253	0.0884	<0.0001	<0.001	0.274	0.000012	46.5	0.0109	<0.0002	0.00165	<0.01
RSEM-R6W-EOP	8/26/2019 12:25	WJ5215	M	6.37	<0.00002	158	0.292	68.3	0.000022	<0.005	0.0176	0.00158	0.0066	0.0064	0.00093	0.138	0.00207	0.00236	0.0882	<0.0001	<0.001	0.241	<0.00001	44.1	0.01	<0.0002	0.00169	<0.01
RSEM-R6W-EOP	8/27/2019 12:50	WJ7311	M	5.56	<0.00002	180	0.306	73.7	0.000018	<0.005	0.0073	0.00167	0.0066	<0.005	0.00037	0.148	0.00197	0.00237	0.0859	<0.0001	<0.001	0.248	<0.00001	44.5	0.0099	<0.0002	0.00152	<0.01
RSEM-R6W-EOP	8/27/2019 13:00	WJ7312	D	5.54	<0.00002	174	0.308	69.8	0.000017	<0.005	0.0085	0.00169	0.0064	<0.005	0.00036	0.15	0.00198	0.00237	0.0867	<0.0001	<0.001	0.255	<0.00001	44.4	0.0098	<0.0002	0.0015	<0.01
RSEM-R6W-EOP	8/28/2019 13:05	WJ9549	M	5.7	<0.00002	160	0.321	71.3	0.000019	<0.005	<0.005	0.0016	0.0059	<0.005	0.00029	0.155	0.00211	0.00245	0.0886	<0.0001	<0.001	0.249	0.000014	42.7	0.011	<0.0002	0.0014	<0.01
RSEM-R6W-EOP	8/29/2019 14:40	WK2435	M	5.47	<0.00002	175	0.284	72	0.000014	<0.005	<0.005	0.0015	0.0066	<0.005	0.00022	0.148	0.00214	0.00232	0.0908	<0.0001	<0.001	0.255	<0.00001	41.3	0.0131	<0.0002	0.00145	<0.01
RSEM-R6W-EOP	8/30/2019 10:15	WK2407	M	5.68	<0.00002	176	0.291	74.4	0.000015	<0.005	<0.005	0.00153	0.0067	<0.005	0.00025	0.145	0.00209	0.00237	0.0897	<0.0001	<0.001	0.252	<0.00001	42.2	0.0127	<0.0002	0.00145	<0.01
RSEM-R6W-EOP	8/31/2019 12:15	WK4121	M	5.28	<0.00002	170	0.276	70.7	0.000013	<0.005	<0.005	0.00147	0.0065	<0.005	0.0002	0.138	0.00202	0.00234	0.0928	<0.0001	<0.001	0.261	0.000013	43	0.0125	<0.0002	0.00135	<0.01
RSEM-R6W-EOP	9/1/2019 12:15	WK4242	M	5.71	<0.00002	178	0.302	73.7	0.000013	<0.005	<0.005	0.00157	0.0063	<0.005	0.00023	0.128	0.00197	0.00227	0.095	<0.0001	<0.001	0.267	0.000013	44.1	0.0116	<0.0002	0.0013	<0.01
RSEM-R6W-EOP	9/2/2019 11:40	WK6467	M	5.06	<0.00002	163	0.268	63.8	0.000014	<0.005	<0.005	0.00146	0.006	<0.005	0.00025	0.122	0.00184	0.00213	0.09	<0.0001	<0.001	0.238	<0.00001	42.6	0.0114	<0.0002	0.00136	<0.01
RSEM-R6W-EOP	9/3/2019 13:15	WK8385	M	5.38	<0.00002	162	0.281	66.6	0.000015	<0.005	<0.005	0.00145	0.0053	<0.005	0.00024	0.119	0.00184	0.00217	0.0968	<0.0001	<0.001	0.228	0.00001	46.3	0.0103	<0.0002	0.0013	<0.01
RSEM-R6W-EOP	9/4/2019 13:50	WL0773	M	5.1	<0.00002	157	0.257	60.2	0.000014	<0.005	<0.005	0.00145	0.0053	<0.005	0.00021	0.113	0.00172	0.002	0.0964	<0.0001	<0.001	0.204	0.000015	46.6	0.0092	<0.0002	0.00139	<0.01
RSEM-R6W-EOP	9/5/2019 12:50	WL2428	M	5.25	<0.00002	156	0.258	59.0	0.000017	<0.005	0.0067	0.00144	0.0056	<0.005	0.0003	0.108	0.00163	0.00202	0.0946	<0.0001	<0.001	0.221	0.000018	46.4	0.0082	<0.0002	0.00128	<0.01
RSEM-R6W-EOP	9/6/2019 13:40	WL3945	M	5.12	<0.00002	149	0.258	58.3	0.000015	<0.005	<0.005	0.00144	0.0053	<0.005	0.00024	0.108	0.00158	0.00189	0.0982	<0.0001	<0.001	0.237	<0.00001	48.9	0.0079	<0.0002	0.00135	<0.01
RSEM-R6W-EOP	9/7/2019 12:40	WL4975	M	4.65	<0.00002	133	0.249	53.7	0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	0.00021	0.103	0.00146	0.00194	0.0961	<0.0001	<0.001	0.215	<0.00001	45.9	0.0066	<0.0002	0.00123	<0.01
RSEM-R6W-EOP	9/8/2019 13:40	WL5051	M	5.19	<0.00002	122	0.238	49.4	0.000018	<0.005	0.0108	0.00135	0.0053	0.0065	0.00047	0.0777	0.00142	0.00189	0.0963	<0.0001	<0.001	0.208	<0.00001	46.9	0.0057	<0.0002	0.00125	<0.01
RSEM-R6W-EOP	9/9/2019 10:20	WL7027	M	5.11	<0.00002	115	0.242	45.6	0.000019	<0.005	0.0089	0.00138	<0.005	0.0067	0.00033	0.0692	0.00135	0.00183	0.0941	<0.0001	<0.001	0.187	<0.00001	45.4	0.0053	<0.0002	0.00119	<0.01
RSEM-R6W-EOP	9/10/2019 11:55	WL9315	M	4.99	<0.00002	112	0.242	44.5	0.000017	<0.005	0.0064	0.00137	<0.005	0.006	0.00029	0.0709	0.00135	0.00178	0.0947	<0.0001	<0.001	0.199	<0.00001	54.5	0.0049	<0.0002	0.00121	<0.01
RSEM-R6W-EOP	9/10/2019 12:05	WL9316	D	5.01	<0.00002	112	0.239	45.0	0.000015	<0.005	0.0055	0.00136	<0.005	0.0058	0.00031	0.0732	0.00134	0.00178	0.0942	<0.0001	<0.001	0.196	<0.00001	49.9	0.0049	<0.0002	0.00126	<0.01
RSEM-R6W-EOP	9/11/2019 12:40	WM1916	M	4.61	<0.00002	112	0.241	41.8	0.000017	<0.005	0.0059	0.00141	<0.005	0.0071	0.00029	0.0706	0.00131	0.00187	0.0928	<0.0001	<0.001	0.183	0.000013	45.5	0.0046	<0.0002	0.00114	<0.01
RSEM-R6W-EOP	9/12/2019 11:35	WM1924	M	4.5	<0.00002	100	0.215	39.1	0.000018	<0.005	0.0059	0.00125	<0.005	0.0062	0.00028	0.0749	0.00125	0.00166	0.0846	<0.0001	<0.001	0.168	0.000014	42.6	0.0041	<0.0002	0.00126	<0.01
RSEM-R6W-EOP	9/13/2019 13:05	WM4310	M	4.48	<0.00002	111	0.226	39.6	0.000017	<0.005	0.0063	0.00135	<0.005	0.0064	0.00076	0.088	0.00125	0.00171	0.089	<0.0001	<0.001	0.151	0.000011	43.1	0.004	<0.0002	0.00131	<0.01
RSEM-R6W-EOP	9/14/2019 12:15	WM7485	M	5.3	<0.00002	113	0.207	41.8	0.000018	<0.005	0.0097	0.00129	<0.005	0.0069	0.00032	0.083	0.00122	0.00168	0.0835	<0.0001	<0.001	0.174	0.00001	40.6	0.0037	<0.0002	0.0013	<0.01
RSEM-R6W-EOP	9/15/2019 11:50	WM7505	M	4.69	<0.00002	108	0.213	37.9	0.000017	<0.005	0.0087	0.00119	<0.005	0.0064	0.00042	0.0888	0.00124	0.00147	0.0842	<0.0001	<0.001	0.185	0.000012	39.9	0.0035	<0.0002	0.00132	<0.01
RSEM-R6W-EOP	9/16/2019 13:05	WN0361	M	6.82	0.000023	102	0.203	36.2	0.000045	<0.005	0.0329	0.00129	0.0085	0.0256	0.00056	0.0621	0.00139	0.0019	0.102	<0.0001	<0.001	0.192	<0.00001	42.9	0.0042	<0.0002	0.00127	<0.01
RSEM-R6-WP-IN	1/27/2019 13:36	VD7176	M	7.7	0.000059	216	0.129	56.8	0.000069	<0.005	0.0309	0.00311	0.0209	0.0329	0.00079	0.0732	0.00333	0.00547	0.0685	<0.0001	<0.001	0.333	0.000021	18.5	0.0073	0.00034	0.00213	0.012
RSEM-R6-WP-IN	1/29/2019 15:24	VE0719	M	8.93	0.000044	302	0.165	77.6	0.000059	<0.005	0.0446	0.00355	0.0189	0.0213	0.00196	0.404	0.00345	0.00823	0.0613	<0.0001	<0.001	0.377	<0.00001	16.7	0.0052	0.00039	0.00431	0.045
RSEM-R6-WP-IN	2/7/2019 11:40	VF0007	M	4.79	0.000029	185	0.136	52.5	0.000036	<0.005	0.0206	0.00283	0.0098	0.0155	0.00043	0.275	0.00253	0.00446	0.0446	<0.0001	<0.001	0.274	<0.00001	16.6	0.0019	0.00025	0.00127	0.026
RSEM-R6-WP-IN	2/20/2019 11:45	VG2861	M	9.99	0.000116	215	0.199	65.9	0.000132	<0.005	0.0642	0.00376	0.0201	0.0424	0.00085	0.172	0.00289	0.00585	0.0462	<0.0001	<0.001	0.334	<0.00001	16.5	0.0014	<0.0002	0.0011	0.032
RSEM-R6-WP-IN	3/26/2019 12:50	VK9080	M	44.1	0.00055	207	0.667	116	0.0005	<0.025	0.088	0.00819	0.065	0.32	0.00189	0.0107	0.00391	0.00438	0.145	<0.0001	<0.001	0.278	0.00002	64.7	0.0059	0.00078	0.00105	<0.01
RSEM-R6-WP-IN	4/10/2019 12:05	VN0772	M	4.84	<0.00002	167	0.288	91.0	0.00001	<0.005	<0.005	0.00266	<0.005	<0.005	<0.0001	0.0073	0.00181	0.00255	0.248	<0.0001	<0.001	0.258	<0.00001	43.2	0.0025	<0.0002	0.00095	<0.01
RSEM-R6-WP-IN	5/22/2019 13:40	VS7479	M	10.6	0.000079	70.1	0.232	42.2	0.000085	<0.005	0.0571	0.00166	0.0118	0.0455	0.00097	0.0272	0.00119	0.00179	0.105	<0.0001	<0.001	0.109	0.000017	52.9	0.0059	0.00038	0.00187	0.023
RSEM-R6-WP-IN	7/11/2019 11:20	WC0493	M	10.6	<0.00004	141	0.278	76.2	0.000105	<0.01	0.103	0.00184	0.016	0.072	0.00169	0.0708	0.00128	0.00143	0.0803	<0.0001	<0.001	0.161	0.000016	47.6	0.0046	<0.0002	0.00121	<0.01
RSEM-R6-WP-W-Sump	2/6/2019 13:40	VE9884	M	3.54	<0.00002	0.382	0.0141	<3.0	0.000022	<0.005	0.0568	0.0002	0.0056	0.0218	0.00166	0.0125	<0.0005	<0.0001	0.029	<0.0001	<0.001	<0.05	<0.00001	3.06	<0.001	<0.0002	<0.0005	<0.01
RSEM-R6W-SP	1/1/2019 12:30	VA5880	M	5.4	<0.00002	275	0.192	103	0.000014	<0.005	<0.005	0.00267	0.0104	0.0136	0.00019	0.188	0.00259	0.00601	0.0661	<0.0001	<0.001	0.307	<0.00001	28.7	0.0043	0.00029	0.00138	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-EOP	7/21/2019 12:10	WD7083	D	<0.0002	0.0323	12.7	<0.001	<0.000002	0.0193	0.0011		6.62	0.0027	4.15	<0.00002	149	0.252	76.3	0.000013	<0.005	<0.005	0.0016	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/22/2019 12:09	WD8944	M	<0.0002	0.0333	12.2	<0.001	<0.000002	0.0189	<0.001		6.35	0.00274	3.91	<0.00002	139	0.235	71.9	0.000013	<0.005	<0.005	0.00163	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/23/2019 13:25	WE1025	M	<0.0002	0.0332	12.3	<0.001	<0.000002	0.0193	0.001		6.60	0.00282	4.11	<0.00002	148	0.244	75.2	<0.00001	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/24/2019 12:30	WE3035	M	<0.0002	0.0342	12.8	<0.001	<0.000002	0.0186	<0.001		7.70	0.00268	4.49	<0.00002	150	0.22	85.4	0.000014	<0.005	<0.005	0.00164	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	7/25/2019 12:35	WE4842	M	<0.0002	0.0325	12.2	<0.001	<0.000002	0.0221	<0.001		7.00	0.00303	4.06	<0.00002	146	0.245	74.5	0.000014	<0.005	<0.005	0.00166	<0.005	<0.005	0.0001
RSEM-R6W-EOP	7/26/2019 9:42	WE4706	M	<0.0002	0.0334	12.0	<0.001	<0.000002	0.024	<0.001		7.60	0.00335	4.28	<0.00002	151	0.263	76.7	0.000014	<0.005	<0.005	0.00163	<0.005	<0.005	0.00015
RSEM-R6W-EOP	7/27/2019 11:30	WE7075	M	<0.0002	0.0355	11.0	<0.001	<0.000002	0.0265	<0.001		7.98	0.00368	4.59	<0.00002	153	0.267	76.7	0.000014	<0.005	<0.005	0.00148	0.0063	<0.005	<0.0001
RSEM-R6W-EOP	7/28/2019 12:00	WE7122	M	<0.0002	0.0338	11.5	<0.001	<0.000002	0.0275	<0.001		8.44	0.00361	4.8	<0.00002	159	0.307	79.3	0.000016	<0.005	<0.005	0.00152	0.0066	<0.005	<0.0001
RSEM-R6W-EOP	7/29/2019 9:10	WE7141	M	<0.0002	0.0332	11.3	<0.001	<0.000002	0.0286	<0.001		8.68	0.00382	4.82	<0.00002	157	0.304	76.5	0.000014	<0.005	<0.005	0.00151	0.0069	<0.005	0.00013
RSEM-R6W-EOP	7/30/2019 11:50	WF2071	M	<0.0002	0.0333	10.9	<0.001	<0.000002	0.0292	<0.001		8.95	0.00384	4.98	<0.00002	159	0.293	77.9	0.000013	<0.005	<0.005	0.00148	0.007	<0.005	<0.0001
RSEM-R6W-EOP	7/30/2019 12:00	WF2072	D	<0.0002	0.0328	11.0	<0.001	<0.000002	0.0291	<0.001		8.86	0.00388	4.94	<0.00002	159	0.294	77.6	0.000013	<0.005	<0.005	0.00147	0.007	<0.005	<0.0001
RSEM-R6W-EOP	7/31/2019 11:20	WF4363	M	<0.001	0.037	11.8	<0.005	<0.000002	0.0271	<0.005		9.58	0.00421	4.99	<0.0001	162	0.289	78	<0.00005	<0.025	<0.025	0.00138	<0.025	<0.025	<0.0005
RSEM-R6W-EOP	7/31/2019 11:30	WF4364	D	<0.0002	0.036	11.1	<0.001	<0.000002	0.0294	<0.001		9.21	0.00397	5	<0.00002	156	0.292	77.1	0.000013	<0.005	<0.005	0.00142	0.0065	<0.005	<0.0001
RSEM-R6W-EOP	8/1/2019 12:00	WF6258	M	<0.0002	0.0336	11.7	<0.001	<0.000002	0.027	<0.001		9.19	0.00336	4.95	<0.00002	151	0.264	76.1	0.000014	<0.005	<0.005	0.00142	0.0062	<0.005	<0.0001
RSEM-R6W-EOP	8/1/2019 12:10	WF6259	D	<0.0002	0.0334	11.6	<0.001	<0.000002	0.0271	<0.001		9.11	0.00321	4.88	<0.00002	147	0.262	75.9	0.000015	<0.005	<0.005	0.00146	0.0059	<0.005	<0.0001
RSEM-R6W-EOP	8/2/2019 9:50	WF6282	M	<0.0002	0.031	10.5	<0.001	<0.000002	0.0239	<0.001		7.43	0.00322	3.98	<0.00002	136	0.23	63.8	0.000013	<0.005	<0.005	0.00124	0.0052	<0.005	<0.0001
RSEM-R6W-EOP	8/2/2019 10:00	WF6283	D	<0.0002	0.0306	10.8	<0.001	<0.000002	0.0251	<0.001		7.51	0.00315	3.92	<0.00002	136	0.241	65.2	0.000013	<0.005	<0.005	0.00128	0.0054	<0.005	<0.0001
RSEM-R6W-EOP	8/3/2019 12:05	WF7646	M	<0.0002	0.032	12.0	<0.001	<0.000002	0.0244	<0.001		8.67	0.0029	4.41	<0.00002	144	0.249	74.0	0.000013	<0.005	<0.005	0.00146	0.0053	<0.005	<0.0001
RSEM-R6W-EOP	8/3/2019 12:15	WF7647	D	<0.0002	0.032	11.5	<0.001	<0.000002	0.0246	<0.001		8.64	0.00292	4.6	<0.00002	139	0.245	70.2	0.000012	<0.005	<0.005	0.00143	0.0051	<0.005	<0.0001
RSEM-R6W-EOP	8/4/2019 13:30	WF7661	M	<0.0002	0.0324	12.2	<0.001	<0.000002	0.0261	<0.001		8.80	0.00288	4.32	<0.00002	144	0.25	72.0	0.000013	<0.005	<0.005	0.00153	0.0052	<0.005	<0.0001
RSEM-R6W-EOP	8/4/2019 13:40	WF7662	D	<0.0002	0.0324	11.5	<0.001	<0.000002	0.0248	<0.001		8.57	0.00299	4.45	<0.00002	133	0.244	70.5	0.000014	<0.005	<0.005	0.00141	0.0051	<0.005	<0.0001
RSEM-R6W-EOP	8/5/2019 11:40	WF9951	M	<0.0002	0.0315	11.4	<0.001	<0.000002	0.0269	<0.001		8.19	0.00302	4.03	<0.00002	144	0.273	68.1	0.000011	<0.005	<0.005	0.00149	0.0057	<0.005	<0.0001
RSEM-R6W-EOP	8/5/2019 11:50	WF9952	D	<0.0002	0.0314	11.4	0.0027	<0.000002	0.0262	0.001		7.96	0.00283	4.02	<0.00002	143	0.266	65.2	0.000012	<0.005	<0.005	0.00144	0.0055	<0.005	<0.0001
RSEM-R6W-EOP	8/6/2019 11:55	WG2805	M	<0.0002	0.0305	11.6	<0.001	<0.000002	0.0262	<0.001		8.10	0.00298	3.84	<0.00002	145	0.271	66.9	0.000013	<0.005	<0.005	0.0015	0.0054	<0.005	<0.0001
RSEM-R6W-EOP	8/6/2019 12:05	WG2806	D	<0.0002	0.0307	11.8	<0.001	<0.000002	0.0265	<0.001		8.26	0.00291	3.82	<0.00002	148	0.268	66.8	0.000013	<0.005	<0.005	0.0015	0.0053	<0.005	<0.0001
RSEM-R6W-EOP	8/7/2019 13:25	WG4498	M	<0.0002	0.0316	11.4	<0.001	<0.000002	0.0266	<0.001		8.00	0.00271	3.74	<0.00002	145	0.284	65.4	0.000011	<0.005	<0.005	0.00151	0.0052	<0.005	<0.0001
RSEM-R6W-EOP	8/7/2019 13:35	WG4499	D	<0.0002	0.0318	11.3	<0.001	<0.000002	0.0265	<0.001		8.16	0.00279	3.87	<0.00002	146	0.278	65.9	0.000011	<0.005	<0.005	0.00153	0.0052	<0.005	<0.0001
RSEM-R6W-EOP	8/8/2019 12:15	WG6504	M	<0.0002	0.0329	11.3	<0.001	<0.000002	0.0279	<0.001		8.48	0.00263	3.94	<0.00002	148	0.279	71.3	0.00001	<0.005	<0.005	0.00147	0.0052	<0.005	<0.0001
RSEM-R6W-EOP	8/8/2019 12:25	WG6505	D	<0.0002	0.0325	11.1	<0.001	<0.000002	0.028	<0.001		8.40	0.00264	3.93	<0.00002	148	0.272	70.1	0.000011	<0.005	<0.005	0.00146	0.0051	<0.005	<0.0001
RSEM-R6W-EOP	8/9/2019 10:40	WG6544	M	<0.0002	0.0303	10.8	<0.001	<0.000002	0.0309	<0.001		8.96	0.0033	4.15	<0.00002	149	0.283	67.7	0.000012	<0.005	<0.005	0.00141	0.0065	<0.005	<0.0001
RSEM-R6W-EOP	8/10/2019 12:30	WH0275	M	<0.0002	0.0294	10.0	<0.001	<0.000002	0.0326	<0.001		9.90	0.00339	4.8	<0.00002	143	0.253	68.6	0.000011	<0.005	<0.005	0.00135	0.007	<0.005	<0.0001
RSEM-R6W-EOP	8/11/2019 11:40	WH0299	M	<0.0002	0.0298	9.41	<0.001	<0.000002	0.0337	<0.001		10.3	0.00353	4.95	<0.00002	143	0.252	70.4	0.000011	<0.005	<0.005	0.00138	0.0076	<0.005	<0.0001
RSEM-R6W-EOP	8/12/2019 14:45	WH2473	M	<0.0002	0.0331	9.92	<0.001	<0.000002	0.0353	<0.001		10.2	0.00333	5.01	<0.00002	144	0.278	72.2	0.000011	<0.005	<0.005	0.0014	0.0071	<0.005	<0.0001
RSEM-R6W-EOP	8/13/2019 14:05	WH4523	M	<0.0002	0.0324	10.3	<0.001	<0.000002	0.0346	<0.001		9.29	0.00333	4.56	<0.00002	154	0.276	67.1	0.000011	<0.005	<0.005	0.00143	0.0067	<0.005	0.0001
RSEM-R6W-EOP	8/14/2019 14:35	WH7024	M	<0.0002	0.0356	10.5	<0.001	<0.000002	0.0337	<0.001		9.28	0.00307	4.66	<0.00002	153	0.273	66.3	0.00001	<0.005	<0.005	0.00143	0.0061	<0.005	<0.0001
RSEM-R6W-EOP	8/15/2019 10:20	WH8387	M	<0.0002	0.0308	10.3	<0.001	<0.000002	0.0333	<0.001		8.72	0.00305	4.15	<0.00002	145	0.263	62.9	0.000011	<0.005	<0.005	0.0014	0.0055	<0.005	<0.0001
RSEM-R6W-EOP	8/16/2019 10:35	WH8440	M	<0.0002	0.0296	9.56	<0.001	0.0000031	0.028	<0.001		8.28	0.00261	4.28	<0.00002	129	0.279	56.3	0.00001	<0.005	<0.005	0.00139	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	8/17/2019 10:10	WI0634	M	<0.0002	0.029	9.47	<0.001	<0.000002	0.0291	<0.001		8.70	0.00276	4.51	<0.00002	129	0.301	53.9	0.000013	<0.005	<0.005	0.00145	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	8/18/2019 14:05	WI0686	M	<0.0002	0.0298	9.54	<0.001	<0.000002	0.0297	0.0011		9.18	0.00283	4.49	<0.00002	131	0.301	57.6	0.000013	<0.005	<0.005	0.00149	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	8/23/2019 9:55	WI9310	M	<0.0002	0.033	10.0	<0.001	<0.000002	0.0353	0.0013		10.8	0.00357	4.93	<0.00002	162	0.3	67.5	0.000015	<0.005	<0.005	0.00165	0.0055	<0.005	<0.0001
RSEM-R6W-EOP	8/24/2019 11:10	WJ3008	M	<0.0002	0.0386	10.2	0.0016	<0.000002	0.0368	0.0013		11.3	0.00362	5.31	<0.00002	167	0.304	71.6	0.000014	<0.005	<0.005	0.0017	0.0057	<0.005	<0.0001
RSEM-R6W-EOP	8/25/2019 12:10	WJ3021	M	<0.0002	0.0391	10.3	0.0025	<0.000002	0.0368	0.0013		11.4	0.00353	5.37	<0.00002	176	0.299	73.7	0.000014	<0.005	<0.005	0.00165	0.0058	<0.005	0.0001
RSEM-R6W-EOP	8/26/2019 12:25	WJ5215	M	<0.0002	0.0371	9.90	0.0021	<0.000002	0.0368	0.0013		10.6	0.00335	4.66	<0.00002	162	0.274	68.2	0.000014	<0.005	<0.005	0.00161	0.0052	<0.005	0.00012
RSEM-R6W-EOP	8/27/2019 12:50	WJ7311	M	<0.0002	0.0393	10.1	0.0019	<0.000002	0.0362	0.0012		10.5	0.0033	4.91	<0.00002	164	0.282	68.7	0.000013	<0.005	<0.005	0.00158	0.0051	<0.005	0.00013
RSEM-R6W-EOP	8/27/2019 13:00	WJ7312	D	<0.0002	0.0393	10	0.002	<0.000002	0.0364	0.0012		10.5	0.00333	4.93	<0.00002	164	0.277	68.7	0.000015	<0.005	<0.005	0.00163	<0.005	<0.005	0.00012
RSEM-R6W-EOP	8/28/2019 13:05	WJ9549	M	<0.0002	0.0391	10.1	<0.001	<0.000002	0.0395	0.0011		11.3	0.00325	5.32	<0.00002	173	0.302	71	0.000015	<0.005	<0.005	0.00156	0.0056	<0.005	0.00011
RSEM-R6W-EOP	8/29/2019 14:40	WK2435	M	<0.0002	0.0368	10.3	<0.001	<0.000002	0.0413	0.0011		11.4	0.00345	5.05	<0.00002	177	0.282	70.9	0.000014	<0.005	<0.005	0.00155	0.0061	<0.005	0.00015
RSEM-R6W-EOP	8/30/2019 10:15	WK2407	M	<0.0002	0.0373	10.2	<0.001	<0.000002	0.0408	0.0011		11.6	0.00335	5.1	<0.00002	177	0.283	72.4	0.000014	<0.005	<0.005	0.00155	0.0059	<0.005	<0.0001
RSEM-R6W-EOP	8/31/2019 12:15	WK4121	M	<0.0002	0.0402	10.1	0.0016	<0.000002	0.0412	0.0011		11.4	0.00318	5.36	<0.00002	173	0.292	71.7	0.000011	<0.005	<0.005	0.0015	0.0059	<0.005	0.00014
RSEM-R6W-EOP	9/1/2019 12:15	WK4242	M	<0.0002	0.0387	10.2	0.0024	<0.000002	0.0398	0.001		11.1	0.00303	5.27	<0.00002	170	0.293	71.2	0.000011	<0.005	<0.005	0.00151	0.0056	<0.005	<0.0001
RSEM-R6W-EOP	9/2/2019 11:40	WK6467	M	<0.0002	0.0346	10.7	0.0026	<0.000002	0.0371	0.0011		10.1	0.00296	4.92	<0.00002	167	0.277	68.3	0.000016	<0.005	<0.005	0.00144	0.0059	<0.005	0.00011
RSEM-R6W-EOP	9/3/2019 13:15	WK8385	M	<0.0002	0.0358	10.8	0.0039	<0.000002	0.0377	0.0011		9.89	0.00302	5.27	<0.00002	166	0.273	64.6	0.000013	<0.005	<0.005	0.00156	0.0053	<0.005	<0.0001
RSEM-R6W-EOP	9/4/2019 13:50	WL0773	M	<0.0002	0.0302	10.8	0.0047	<0.000002	0.0358	0.0011		9.61	0.00257	4.85	<0.00002	156	0.275	63.1	0.000013	<0.005	<0.005	0.00146	0.0051	<0.005	<0.0001
RSEM-R6W-EOP	9/5/2019 12:50	WL2428	M	<0.0002	0.0333	11.4	0.0018	<0.000002	0.0335	0.001		8.84	0.00257	4.89	<0.00002	155	0.267	61.4	0.000014	<0.005	<0.005	0.00148	0.0052	<0.005	0.00011
RSEM-R6W-EOP	9/6/2019 13:40	WL3945	M	<0.0002	0.0347	11.4	0.005	<0.000002	0.0327	0.0011		9.07	0.00216	5.25	<0.00002	152	0.25	59.8	0.000012	<0.005	<0.005	0.00138	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	9/7/2019 12:40	WL4975	M	<0.0002	0.033	11.2	0.0038	<0.000002	0.031	0.0011		7.97	0.00236	4.73	<0.00002	144	0.242	56.5	0.000012	<0.005	<0.005	0.0014	<0.005	<0.005	0.00012
RSEM-R6W-EOP	9/8/2019 13:40	WL5051	M	<0.0002	0.0291	11.3	0.0051	0.000003	0.0286	0.0011		7.43	0.00217	4.38	<0.00002	134	0.234	51.2	0.000011	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	9/9/2019 10:20	WL7027	M	<0.0002	0.0257	10.4	0.002	<0.000002	0.0274	<0.001		6.98	0.00204	4.25	<0.00002	118	0.237	46.5	<0.00001	<0.005	<0.005	0.00134	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	9/10/2019 11:55	WL9315	M	<0.0002	0.0267	11.3	0.0046	<0.000002	0.0254	0.001		7.86	0.00186	5.23	<0.00002	122	0.217	50.0	0.000012	<0.005	<0.005	0.00133	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	9/10/2019 12:05	WL9316	D	<0.0002	0.0268	11.3	0.0048	<0.000002	0.0255	0.0011		7.69	0.00188	4.83	<0.00002	121	0.214	48.9	0.000011	<0.005	<0.005	0.00132	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	9/11/2019 12:40	WM1916	M	<0.0002	0.0248	9.99	0.0038	<0.000002	0.026	<0.001		6.87	0.00188	4.45	<0.00002	113	0.239	44.5	<0.00001	<0.005	<0.005	0.00135	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	9/12/2019 11:35	WM1924	M	<0.0002	0.0229	9.73	0.0032	<0.000002	0.0234	0.0011		6.34	0.00161	4.04	<0.00002	104	0.203	40.9	<0.00001	<0.005	<0.005	0.00126	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	9/13/2019 13:05	WM4310	M	<0.0002	0.0225	9.78	<0.001	<0.000002	0.0249	<0.001		6.66	0.00166	4.07	<0.00002	110	0.225	39.6	0.000012	<0.005	<0.005	0.00127	<0.005	<0.005	0.0001
RSEM-R6W-EOP	9/14/2019 12:15	WM7485	M	<0.0002	0.024	9.30	0.0024	0.000003	0.0245	0.001		6.41	0.00164	3.94	<0.00002	108	0.204	39.3	0.000011	<0.005	<0.005	0.00124	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	9/15/2019 11:50	WM7505	M	<0.0002	0.0255	9.32	0.0025	<0.000002	0.0242	0.0011		6.40	0.0016	4.06	<0.00002	111	0.2	40.1	0.00001	<0.005	<0.005	0.00121	<0.005	<0.005	<0.0001
RSEM-R6W-EOP	9/16/2019 13:05	WN0361	M	<0.0002	0.0262	8.38	<0.001	<0.000002	0.024	0.0011		7.67	0.00163	4.76	<0.00002	110	0.202	42.2	0.000011	<0.005	<0.005	0.00113	<0.005	<0.005	<0.0001
RSEM-R6-WP-IN	1/27/2019 13:36	VD7176	M	<0.0002	0.035	5.24	0.0142	<0.000002	0.0463	0.0015		9.53	0.00444	4.98	<0.00002	240	0.136	62.5	0.00001	<0.005	<0.005	0.00259	0.0121	<0.005	<0.0001
RSEM-R6-WP-IN	1/29/2019 15:24	VE0719	M	<0.0002	0.0438	6.79	0.0025	0.0000025	0.0539	0.0027		6.49	0.0065	4.2	<0.00002	282	0.132	76.7	0.000012	<0.005	<0.005	0.00356	0.0116	<0.005	<0.0001
RSEM-R6-WP-IN	2/7/2019 11:40	VF0007	M	<0.0002	0.0322	6.80	0.0015	<0.000002	0.0299	0.0015		3.60	0.00355	3.4	<0.00002	192	0.111	51.8	<0.00001	<0.005	<0.005	0.00286	0.0064	<0.005	<0.0001
RSEM-R6-WP-IN	2/20/2019 11:45	VG2861	M	<0.0002	0.0388	7.98	0.0014	<0.000002	0.0339	0.0012		3.56	0.00353	3.51	<0.00002	226	0.123	68.6	0.00001	<0.005	<0.005	0.00331	0.0066	<0.005	0.00013
RSEM-R6-WP-IN	3/26/2019 12:50	VK9080	M	<0.0002	0.04	16.2	0.0435	<0.000002	0.0407	0.0038		5.58	0.0164	5.42	<0.00002	208	0.484	108	0.000021	<0.005	<0.005	0.00482	<0.005	<0.005	0.00017
RSEM-R6-WP-IN	4/10/2019 12:05	VN0772	M	<0.0002	0.0351	20.1	0.0011	<0.000002	0.0175	0.0023		3.87	0.00277	4.82	<0.00002	162	0.287	94.0	<0.00001	<0.005	<0.005	0.00271	<0.005	<0.005	<0.0001
RSEM-R6-WP-IN	5/22/2019 13:40	VS7479	M	<0.0002	0.0182	11.9	0.0187	<0.000002	0.0096	0.002		3.63	0.00206	5.98	<0.00002	71.7	0.202	45.7	0.000011	<0.005	<0.005	0.00138	<0.005	<0.005	0.00015
RSEM-R6-WP-IN	7/11/2019 11:20	WC0493	M	<0.0002	0.0325	12.1	0.0014	<0.000002	0.0168	0.0014		5.07	0.00218	3.76	<0.00002	141	0.239	72.0	0.000017	<0.005	<0.005	0.00147	<0.005	<0.005	<0.0001
RSEM-R6-WP-W-Sump	2/6/2019 13:40	VE9884	M	<0.0002	<0.002	0.351	0.0051	<0.000002	<0.001	<0.001		0.130	<0.0001	<0.1	<0.00002	0.360	0.0087	<3.0	<0.00001	<0.005	<0.005	<0.0001	<0.005	<0.005	<0.0001
RSEM-R6W-SP	1/1/2019 12:30	VA5880	M	<0.0002	0.0426	14.2	0.0224	<0.000002	0.0448	0.0018		7.00	0.00595	5	<0.00002	276	0.187	101	0.00001	<0.005	<0.005	0.0027	0.0093	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-SP	1/2/2019 12:30	VA7317	M	8.54	1480	19.2	890	16.3	134	126	279	7.7	322	9.3	<1.0	113	0.520	1.9	280			0.64	0.265	0.676	0.942	0.0191
RSEM-R6W-SP	1/3/2019 13:50	VA8829	M	8.34	1470	14.0	870	9.8	126	125	274	1.8	330	2.2	<1.0	114	0.400	2.0	264			0.63	0.250	0.621	0.871	0.0218
RSEM-R6W-SP	1/4/2019 12:40	VA8826	M	8.29	1440	11.1	846	6.8	125	123	273	<1.0	333	<1.0	<1.0	114	0.490	2.0	267			0.59	0.232	0.611	0.843	0.0203
RSEM-R6W-SP	1/5/2019 13:20	VB1443	M	8.24	1450	1.20	868	8.5	124	127	276	<1.0	336	<1.0	<1.0	107	0.490	1.7	257			0.66	0.239	0.595	0.834	0.0236
RSEM-R6W-SP	1/6/2019 11:55	VB1450	M	8.30	1470	9.00	902	7.8	128	117	283	<1.0	345	<1.0	<1.0	108	0.510	1.8	266			0.70	0.238	0.601	0.838	0.0212
RSEM-R6W-SP	1/7/2019 10:45	VB3250	M	8.19	1490	7.93	910	6.6	128	121	285	<1.0	348	<1.0	<1.0	113	0.510	2.1	262			0.63	0.230	0.615	0.845	0.0217
RSEM-R6W-SP	1/8/2019 11:40	VB4660	M	8.20	1500	8.40	884	7.0	143	130	287	<1.0	351	<1.0	<1.0	112	0.500	2.0	262			0.66	0.236	0.602	0.838	0.0201
RSEM-R6W-SP	1/9/2019 11:30	VB6783	M	8.25	1550	7.67	900	11.5	135	135	303	<1.0	369	<1.0	<1.0	105	0.490	3.2	267			0.67	0.243	0.611	0.853	0.0196
RSEM-R6W-SP	1/10/2019 11:40	VB7973	M	8.33	1530	6.73	900	5.3	127	135	296	2.3	355	2.8	<1.0	105	0.520	1.9	273			0.64	0.235	0.621	0.855	0.0199
RSEM-R6W-SP	1/11/2019 12:35	VB7978	M	8.38	1500	11.5	878	8.8	131	131	296	3.8	352	4.6	<1.0	101	0.500	2.0	293			0.58	0.225	0.621	0.846	0.0213
RSEM-R6W-SP	1/12/2019 11:25	VC0271	M	8.30	1520	10.5	904	8.0	135	119	301	<1.0	367	<1.0	<1.0	114	0.490	1.9	269			0.62	0.223	0.597	0.820	0.0181
RSEM-R6W-SP	1/13/2019 11:25	VC0276	M	8.30	1520	15.8	890	12.0	118	118	301	<1.0	367	<1.0	<1.0	112	0.510	1.9	268			0.60	0.228	0.612	0.840	0.0193
RSEM-R6W-SP	1/14/2019 11:40	VC1962	M	8.12	1480	19.0	866	12.0	120	114	286	<1.0	350	<1.0	<1.0	111	0.490	1.9	246			0.60	0.209	0.587	0.797	0.0207
RSEM-R6W-SP	1/15/2019 11:38	VC4151	M	8.39	1300	7.87	790	<4.0	94.7	97.5	253	3.0	301	3.6	<1.0	105	0.450	1.8	203			0.50	0.196	0.518	0.713	0.0214
RSEM-R6W-SP	1/16/2019 11:50	VC6535	M	8.25	1440	45.0	876	27.2	103	105	277	<1.0	338	<1.0	<1.0	106	0.540	2.0	252			0.63	0.216	0.588	0.804	0.0234
RSEM-R6W-SP	1/17/2019 11:40	VC7567	M	8.42	1410	17.6	826	18.4	107	98.2	274	3.8	325	4.6	<1.0	106	0.550	2.0	237			0.50	0.215	0.584	0.799	0.0227
RSEM-R6W-SP	1/18/2019 10:45	VC7592	M	8.44	1470	20.6	880	17.2	102	107	285	4.8	336	5.8	<1.0	111	0.530	2.1	286			0.60	0.226	0.592	0.818	0.0248
RSEM-R6W-SP	1/19/2019 12:15	VC9565	M	8.47	1460	1.13	858	18.4	104	108	288	4.3	341	5.1	<1.0	109	0.530	1.9	246			0.57	0.196	0.602	0.798	0.0268
RSEM-R6W-SP	1/20/2019 11:25	VC9571	M	8.50	1500	26.5	882	16.0	113	108	297	5.9	348	7.1	<1.0	113	0.530	2.0	237			0.55	0.206	0.614	0.820	0.0240
RSEM-R6W-SP	1/21/2019 13:05	VD2272	M	8.38	1520	23.3	908	15.2	114	107	299	3.3	357	3.9	<1.0	115	0.530	2.0	216			0.63	0.217	0.616	0.833	0.017
RSEM-R6W-SP	1/22/2019 12:40	VD2308	M	8.40	1510	20.6	930	12.4	111	107	299	3.8	355	4.5	<1.0	116	0.550	2.0	213			0.56	0.217	0.608	0.825	0.016
RSEM-R6W-SP	1/23/2019 12:40	VD3814	D	8.37	1490	19.0	930	10.8	115	111	299	3.0	357	3.6	<1.0	118	0.550	1.9	248			0.59	0.237	0.622	0.859	0.017
RSEM-R6W-SP	1/23/2019 12:40	VD3812	M	8.33	1470	19.4	908	13.2	112	110	293	2.6	351	3.1	<1.0	121	0.520	2.0	262			0.59	0.231	0.620	0.850	0.016
RSEM-R6W-SP	1/24/2019 13:25	VD5541	M	8.44	1530	19.6	878	12.0	106	111	301	4.8	355	5.8	<1.0	116	0.560	1.9	246			0.57	0.234	0.615	0.849	0.017
RSEM-R6W-SP	1/25/2019 11:18	VD5641	M	8.32	1500	15.2	852	11.6	114	110	289	1.6	348	1.9	<1.0	118	0.540	2.0	224			0.50	0.235	0.614	0.850	0.017
RSEM-R6W-SP	1/26/2019 15:45	VD7164	M	8.42	1500	18.7	884	20.8	111	111	290	4.1	344	4.9	<1.0	114	0.530	1.9	266			0.48	0.211	0.616	0.827	0.014
RSEM-R6W-SP	1/30/2019 13:10	VE2161	M	8.28	1150	11.0	640	15.2	74.2	79.2	223	<1.0	272	<1.0	<1.0	89.2	0.410	1.6	223			0.48	0.170	0.565	0.735	0.0036
RSEM-R6W-SP	1/31/2019 12:30	VE3665	M	8.32	1220	5.47	708	7.6	79.4	78.0	245	<1.0	299	<1.0	<1.0	100	0.470	1.8	210			0.52	0.183	0.601	0.784	<0.0030
RSEM-R6W-SP	2/1/2019 11:35	VE3672	M	8.41	1320	4.06	774	7.6	82.4	79.9	265	3.5	315	4.2	<1.0	103	0.520	1.9	237			0.52	0.199	0.608	0.808	<0.0030
RSEM-R6W-SP	2/2/2019 12:25	VE5319	M	8.36	1450	5.36	824	6.4	80.1	92.6	307	2.6	369	3.1	<1.0	113	0.550	2.1	222			0.49	0.221	0.667	0.888	0.0065
RSEM-R6W-SP	2/3/2019 11:21	VE5316	M	8.42	1490	6.61	882	<4.0	99.6	95.2	319	4.3	378	5.2	<1.0	113	0.610	2.1	236			0.57	0.206	0.583	0.789	0.020
RSEM-R6W-SP	2/4/2019 0:35	VE6892	M	8.35	1510	5.25	896	4.0	94.5	95.4	314	2.3	378	2.7	<1.0	116	0.570	2.2	232			0.55	0.208	0.611	0.819	0.019
RSEM-R6W-SP	2/5/2019 10:50	VE6873	M	8.37	1530	4.16	908	<4.0	96.1	99.8	315	3.4	377	4.0	<1.0	116	0.580	2.2	223			0.51	0.204	0.626	0.830	0.023
RSEM-R6W-SP	2/6/2019 13:15	VE9931	M	8.20	1520	2.76	862	<4.0	98.0	99.6	312	<1.0	381	<1.0	<1.0	117	0.580	2.0	271			0.59	0.201	0.619	0.820	0.020
RSEM-R6W-SP	2/7/2019 11:20	VF0005	M	8.20	1450	1.77	856	<4.0	93.5	95.1	297	<1.0	362	<1.0	<1.0	113	0.560	2.0	218			0.55	0.198	0.587	0.784	0.018
RSEM-R6W-SP	2/8/2019 11:25	VF1454	M	8.35	1440	1.66	848	<4.0	95.9	94.2	293	2.0	353	2.4	<1.0	110	0.550	1.8	247			0.58	0.191	0.626	0.817	0.019
RSEM-R6W-SP	2/9/2019 13:15	VF3228	M	8.26	1500	1.74	916	<4.0	98.9	98.0	313	<1.0	382	<1.0	<1.0	121	0.570	2.2	250			0.58	0.204	0.665	0.869	0.022
RSEM-R6W-SP	2/10/2019 13:40	VF3199	M	8.30	1550	1.60	900	<4.0	101	102	327	<1.0	399	<1.0	<1.0	122	0.600	2.2	241			0.61	0.210	0.663	0.874	0.020
RSEM-R6W-SP	2/11/2019 14:15	VF4317	M	8.21	1570	1.29	878	<4.0	103	101	327	<1.0	399	<1.0	<1.0	119	0.610	2.2	230			0.62	0.210	0.643	0.853	0.018
RSEM-R6W-SP	2/12/2019 12:57	VF6505	M	8.21	1520	1.48	914	6.4	107	105	315	<1.0	384	<1.0	<1.0	122	0.590	2.2	270			0.61	0.205	0.610	0.816	0.0211
RSEM-R6W-SP	2/13/2019 12:00	VF7820	M	8.13	1600	1.28	934	<4.0	108	106	351	<1.0	429	<1.0	<1.0	126	0.660	2.2	253			0.61	0.212	0.668	0.880	0.0251
RSEM-R6W-SP	2/14/2019 12:00	VF9047	M	8.46	1560	1.50	908	<4.0	98.8	104	331	6.0	389	7.2	<1.0	116	0.570	2.0	217			0.59	0.207	0.708	0.914	0.0195
RSEM-R6W-SP	2/15/2019 11:50	VF9053	M	8.49	1600	2.58	936	4.0	101	103	339	6.4	399	7.7	<1.0	118	0.600	2.1	268			0.58	0.198	0.750	0.948	0.0196
RSEM-R6W-SP	2/16/2019 12:50	VF9494	M	8.25	1590	2.12	936	<4.0	101	106	337	<1.0	411	<1.0	<1.0	119	0.560	2.1	258			0.57	0.191	0.730	0.921	0.0189
RSEM-R6W-SP	2/17/2019 11:53	VG0948	M	8.32	1570	2.11	924	<4.0	104	103	334	1.6	404	1.9	<1.0	118	0.570	2.3	274			0.57	0.191	0.737	0.928	0.0149
RSEM-R6W-SP	2/18/2019 14:08	VG0933	M	8.30	1640	2.14	936	<4.0	105	106	353	<1.0	431	<1.0	<1.0	122	0.590	2.3	279			0.56	0.198	0.784	0.981	0.0171
RSEM-R6W-SP	2/19/2019 11:50	VG0986	M	8.25	1630	1.83	926	<4.0	103	106	346	<1.0	422	<1.0	<1.0	122	0.600	2.3	276			0.57	0.195	0.782	0.977	0.0183
RSEM-R6W-SP	2/20/2019 11:30	VG2862	M	8.21	1630	1.91	962	<4.0	106	108	345	<1.0	421	<1.0	<1.0	123	0.600	2.3	207			0.53	0.192	0.729	0.920	0.0200
RSEM-R6W-SP	2/21/2019 11:10	VG4542	M	8.42	1660	1.85	958	<4.0	108	111	356	5.0	422	5.9	<1.0	144	0.600	2.4	282			0.51	0.194	0.845	1.04	0.0224
RSEM-R6W-SP	2/22/2019 11:25	VG6141	M	8.41	1670	1.63	932	<4.0	102	113	361	4.6	429	5.5	<1.0	146	0.620	2.3	260			0.51	0.189	0.867	1.06	0.0208
RSEM-R6W-SP	2/23/2019 12:25	VG8589	M	8.32	1690	11.7	960	12.4	108	112	354	1.5	428	1.8	<1.0	124	0.620	2.2	278			0.49	0.196	0.874	1.07	0.0204
RSEM-R6W-SP	2/24/2019 12:15	VG8610	M	8.31	1700	1.91	978	<4.0	109	114	354	1.7	428	2.0	<1.0	124	0.610	2.2	276			0.47	0.182	0.892	1.07	0.0201
RSEM-R6W-SP	2/25/2019 12:05	VG8574	M	8.26	1700	1.82	1010	<4.0	111	114	356	<1.0	435	<1.0	<1.0	125	0.600	2.2	274			0.47	0.172	0.909	1.08	0.0198
RSEM-R6W-SP	2/26/2019 11:30	VH0046	M	8.17	1680	1.36	1010	<4.0	109	116	356	<1.0	435	<1.0	<1.0	128	0.620	2.4	306			0.46	0.169	0.951	1.12	0.0195
RSEM-R6W-SP	2/27/2019 11:20	VH2517	M	8.48	1690	0.85	994	<4.0	113	119	353	6.5	415	7.8	<1.0	126	0.630	2.3	304			0.38	0.168	0.917	1.08	0.0197
RSEM-R6W-SP	2/28/2019 12:00	VH4365	M	8.57	1750	1.42	996	<4.0	121	119	374	10.6	431	12.7	<1.0	130	0.670	2.4	261			0.41	0.160	0.903	1.06	0.0247
RSEM-R6W-SP	3/1/2019 11:50	VH5673	M	8.44	1750	0.92	1050	<4.0	112	115	375	6.0	443	7.2	<1.0	136	0.630	2.3	287			0.50	0.155	0.988	1.14	0.0199
RSEM-R6W-SP	3/2/2019 12:06	VH8127	M	8.32	1770	1.30	1010	<4.0	114	115	366	1.4	443	1.7	<1.0	133	0.620	2.3	292			0.44	0.154	1.03	1.18	0.0169
RSEM-R6W-SP	3/3/2019 13:55	VH7775	M	7.14	66.3	0.79	1010	<4.0	113	116	8.6	<1.0	10.5	<1.0	<1.0	134	0.700	2.3	285			0.39	0.139	0.881	1.02	0.0181
RSEM-R6W-SP	3/4/2019 16:30	VI1285	M	8.47	1770	1.27	1090	<4.0	116	123	380	7.6	445	9.1	<1.0	144	0.620	2.4	288			0.34	0.118	1.04	1.15	0.0177
RSEM-R6W-SP	3/5/2019 12:44	VI1635	M	8.47	1790	1.65	1120	<4.0	120	130	381	7.5	447	9.0	<1.0	129	0.620	2.5	299			0.39	0.114	1.09	1.20	0.0186
RSEM-R6W-SP	3/6/2019 13:35	VI3121	M	8.49	1840	43.2	1100	35	124	120	399	9.1	464	11.0	<1.0	137	0.720	2.3	319			0.36	0.114	1.15	1.26	0.0224
RSEM-R6W-SP	3/7/2019 13:55	VI4424	M	8.43	1850	15.9	1100	24	126	132	380	6.0	449	7.2	<1.0	135	0.740	2.5	273			0.37	0.111	1.15	1.26	0.0233
RSEM-R6W-SP	3/8/2019 11:47	VI4435	M	8.47	1810	0.59	1090	<4.0	124	126	376	6.9	442	8.3	<1.0	134	0.730	2.5	260			0.32	0.103	1.17	1.27	0.0221
RSEM-R6W-SP	3/9/2019 11:50	VI6895	M	8.41	1810	0.85	1100	<4.0	123	145	380	5.5	450	6.6	<1.0	134	0.660	2.1	285			0.31	0.0966	1.16	1.25	0.0282
RSEM-R6W-SP	3/10/2019 12:25	VI6956	M	8.48	1840	0.62	1090	<4.0	124	136	393	8.0	460	9.6	<1.0	133	0.730	2.5	267			0.26	0.0854	1.22	1.31	0.0273
RSEM-R6W-SP	3/11/2019 12:30	VI9559	M	8.22	1800	1.60	1060	4.8	123	132	379	<1.0	462	<1.0	<1.0	132	0.630	2.5	320			0.29	0.0722	1.25	1.32	0.0227
RSEM-R6W-SP	3/12/2019 11:25	VI8443	M	8.30	1820	0.70	1110	<4.0	120	123	391	1.7	473	2.0	<1.0	136	0.680	2.5	320			0.25	0.0618	1.27	1.33	0.0302
RSEM-R6W-SP	3/13/2019 11:40	VJ2179	M	8.27	1810	1.70	1060	<4.0	130	127	381	<1.0	465	<1.0	<1.0	133	0.650	2.5	321			0.28	0.0558	1.30	1.36	0.0265
RSEM-R6W-SP	3/14/2019 16:40	VJ4044	M	8.47	1830	3.09	1100	4.8	124	131	397	8.0	465	9.6	<1.0	143	0.620	2.4	314			0.26	0.0551	1.31	1.37	0.0264
RSEM-R6W-SP	3/15/2019 11:35	VJ4022	M	8.38	1830	8.95	1070	17.2	130	124	393	3.8	471	4.5	<1.0	131	0.630	2.5	329			0.24	0.0486	1.34	1.39	0.0375
RSEM-R6W-SP	3/16/2019 13:05	VJ7199	M	8.15	902	50.1	496	33.2	110	108	159	<1.0	194	<1.0	<1.0	102	0.340	1.4	141			0.20	0.0598	0.722	0.782	<0.0050
RSEM-R6W-SP	3/17/2019 11:40	VJ7215	M	8.18	868	88.8	520	48.0	117	112	161	<1.0	197	<1.0	<1.0	78.3	0.340	1.2	143			0.22	0.0601	0.843	0.903	0.0176
RSEM-R6W-SP	3/18/2019 11:53	VJ6967	M	8.11	731	95.8	416	81.2	97.2	96.2	137	<1.0	167	<1.0	<1.0	61.0	0.300	0.94	128			0.19	0.0510	0.712	0.763	0.0158
RSEM-R6W-SP	3/19/2019 13:33	VK0937	M	7.85	69.1	98.3	492	42.8	92.1	86.2	138	<1.0	168	<1.0	<1.0	59.8	0.310	0.89	136			0.24	0.0552	0.706	0.761	0.0132
RSEM-R6W-SP	3/20/2019 0:20	VK2371	M	8.07	683	66.0	398	25.2	92.0	89.7	137	<1.0	167	<1.0	<1.0	51.2	0.290	0.86	125			0.23	0.0420	0.643	0.685	0.0229

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-SP	1/2/2019 12:30	VA7317	M	2.7	3.8	1.07	0.00271	0.00675	0.0894	<0.0001	<0.001	0.313	0.000018	30.8	0.0059	0.0007	0.0029	0.726	0.00049	0.0467	14.0	0.04	0.0000043	0.0485	0.003		7.34	0.00571
RSEM-R6W-SP	1/3/2019 13:50	VA8829	M	1.4	0.91	0.429	0.0026	0.00602	0.0789	<0.0001	<0.001	0.384	0.000027	26.8	0.0044	0.00058	0.00246	0.289	0.00033	0.0558	14.4	0.0343	0.0000044	0.0444	0.0027		6.92	0.00562
RSEM-R6W-SP	1/4/2019 12:40	VA8826	M	1.1	0.64	0.449	0.00268	0.0063	0.0786	<0.0001	<0.001	0.364	0.000025	27.4	0.0044	0.00054	0.00232	0.352	0.00036	0.0527	13.7	0.0318	0.0000043	0.0454	0.0041		6.99	0.00555
RSEM-R6W-SP	1/5/2019 13:20	VB1443	M	1.2	1.8	0.574	0.00257	0.00577	0.0766	<0.0001	<0.001	0.314	0.000013	28.8	0.0048	0.00054	0.00223	0.423	0.00032	0.044	12.7	0.0297	0.0000034	0.0455	0.0025		7.10	0.00542
RSEM-R6W-SP	1/6/2019 11:55	VB1450	M	1.9	2.5	0.452	0.0026	0.00579	0.0752	<0.0001	<0.001	0.319	0.00001	29.7	0.0047	0.00054	0.00234	0.341	0.00026	0.0437	13.0	0.0285	0.0000032	0.0462	0.0024		7.15	0.00564
RSEM-R6W-SP	1/7/2019 10:45	VB3250	M	1.9	2.4	0.277	0.00265	0.00616	0.0702	<0.0001	<0.001	0.317	<0.00001	29.6	0.0045	0.00047	0.00229	0.119	<0.0002	0.0435	13.2	0.0276	0.0000027	0.0452	0.0022		7.27	0.00606
RSEM-R6W-SP	1/8/2019 11:40	VB4660	M	2.1	2.6	0.567	0.00286	0.0068	0.0868	<0.0001	<0.001	0.317	0.000016	33.9	0.0055	0.00053	0.00247	0.38	0.00026	0.0486	14.2	0.0313	0.0000024	0.0505	0.0026		8.11	0.00605
RSEM-R6W-SP	1/9/2019 11:30	VB6783	M	1.9	2.5	0.286	0.00283	0.00719	0.0827	<0.0001	<0.001	0.309	0.000017	31.2	0.0047	0.00047	0.00216	0.25	0.00021	0.0461	13.7	0.0296	0.0000027	0.0482	0.0024		7.84	0.00561
RSEM-R6W-SP	1/10/2019 11:40	VB7973	M	2.0	2.1	0.295	0.0028	0.00624	0.0809	<0.0001	<0.001	0.341	0.00001	28.2	0.0046	0.00046	0.00208	0.207	<0.0002	0.0474	13.8	0.0278	0.0000028	0.0486	0.0024		7.60	0.00522
RSEM-R6W-SP	1/11/2019 12:35	VB7978	M	2.0	2.3	0.586	0.00278	0.00621	0.0846	<0.0001	<0.001	0.335	0.000015	30.0	0.0049	0.00057	0.0028	0.433	0.00034	0.0461	13.6	0.0306	0.0000029	0.0488	0.0026		7.43	0.00549
RSEM-R6W-SP	1/12/2019 11:25	VC0271	M	2.6	3.2	0.379	0.00287	0.00678	0.0856	<0.0001	<0.001	0.336	0.00001	31.1	0.0052	0.00053	0.00296	0.383	0.00046	0.0465	13.9	0.0302	0.0000033	0.0493	0.0027		7.83	0.00582
RSEM-R6W-SP	1/13/2019 11:25	VC0276	M	2.5	3.6	0.405	0.00272	0.00616	0.0833	<0.0001	<0.001	0.319	0.000011	26.1	0.0047	0.00056	0.00235	0.364	0.00032	0.0436	12.8	0.0294	0.0000039	0.0461	0.0025		7.20	0.00518
RSEM-R6W-SP	1/14/2019 11:40	VC1962	M	2.8	2.8	1.67	0.0029	0.0072	0.0938	<0.0001	<0.001	0.324	0.000019	27.5	0.0067	0.00072	0.00331	0.94	0.00061	0.0464	12.5	0.0312	0.0000041	0.0481	0.0031		7.50	0.00583
RSEM-R6W-SP	1/15/2019 11:38	VC4151	M	1.9	1.2	0.455	0.00235	0.00537	0.064	<0.0001	<0.001	0.291	<0.00001	21.9	0.0041	0.00038	0.00181	0.29	0.00023	0.0369	9.75	0.0163	0.0000026	0.0395	0.0017		6.46	0.00436
RSEM-R6W-SP	1/16/2019 11:50	VC6535	M	1.2	2.8	0.729	0.0027	0.00653	0.0931	<0.0001	<0.001	0.341	0.000022	23.2	0.0047	0.00092	0.00346	0.795	0.00086	0.0418	10.9	0.035	0.0000055	0.0435	0.0032		6.41	0.0043
RSEM-R6W-SP	1/17/2019 11:40	VC7567	M	1.9	1.8	0.346	0.00271	0.00623	0.0721	<0.0001	<0.001	0.33	<0.00001	23.7	0.0043	0.0006	0.0026	0.3	0.00039	0.0415	11.7	0.0241	0.000004	0.0427	0.0026		6.84	0.0051
RSEM-R6W-SP	1/18/2019 10:45	VC7592	M	2.0	2.2	0.354	0.00281	0.00624	0.0805	<0.0001	<0.001	0.326	0.000024	23.6	0.0042	0.00057	0.00261	0.315	0.00046	0.0435	10.3	0.0228	0.0000043	0.0457	0.0024		6.84	0.00481
RSEM-R6W-SP	1/19/2019 12:15	VC9565	M	2.4	3.0	0.378	0.00286	0.00633	0.0894	<0.0001	<0.001	0.318	0.000022	24.7	0.0043	0.00066	0.00284	0.314	0.00052	0.043	10.3	0.0262	0.0000051	0.0436	0.0026		6.53	0.00459
RSEM-R6W-SP	1/20/2019 11:25	VC9571	M	2.1	2.5	0.903	0.00289	0.00685	0.0825	<0.0001	<0.001	0.359	0.000015	25.3	0.0054	0.00079	0.00338	0.845	0.00061	0.0449	12.1	0.0289	0.0000048	0.0456	0.0033		6.76	0.0052
RSEM-R6W-SP	1/21/2019 13:05	VD2272	M	2.4	2.3	1.5	0.00296	0.00725	0.0921	<0.0001	<0.001	0.346	0.000037	25.9	0.0064	0.00073	0.00336	0.921	0.00065	0.0469	12.0	0.0269	0.0000037	0.0486	0.0033		7.41	0.00541
RSEM-R6W-SP	1/22/2019 12:40	VD2308	M	0.51	2.1	1.28	0.00294	0.00708	0.0865	<0.0001	<0.001	0.345	0.000035	25.1	0.0057	0.00064	0.00323	0.823	0.00058	0.0468	11.6	0.025	0.0000045	0.0476	0.0028		7.15	0.00523
RSEM-R6W-SP	1/23/2019 12:40	VD3814	D	2.2	2.8	0.377	0.0031	0.00725	0.0841	<0.0002	<0.002	0.359	<0.00002	25.7	0.0044	0.0006	0.0026	0.347	0.00041	0.049	12.2	0.0236	0.0000036	0.0501	0.0026		7.30	0.00527
RSEM-R6W-SP	1/23/2019 12:40	VD3812	M	2.4	3.1	0.33	0.00305	0.00704	0.0799	<0.0001	<0.001	0.414	0.00002	25.3	0.0043	0.00053	0.00238	0.263	0.00036	0.0551	11.8	0.0212	0.0000032	0.0513	0.0023		7.21	0.00504
RSEM-R6W-SP	1/24/2019 13:25	VD5541	M	1.9	1.9	1.31	0.00289	0.00775	0.0827	<0.0001	<0.001	0.352	0.000018	22.4	0.0062	0.00066	0.00355	0.743	0.00057	0.0434	12.1	0.0235	0.0000037	0.0477	0.003		6.81	0.00532
RSEM-R6W-SP	1/25/2019 11:18	VD5641	M	1.7	1.8	0.388	0.00316	0.00719	0.0802	<0.0001	<0.001	0.416	0.000019	25.5	0.0044	0.00057	0.00257	0.282	0.00038	0.055	12.3	0.0209	0.0000039	0.0523	0.0025		7.38	0.00501
RSEM-R6W-SP	1/26/2019 15:45	VD7164	M	2.0	2.7	0.552	0.00288	0.00714	0.0742	<0.0001	<0.001	0.354	0.000027	24.6	0.0047	0.00061	0.00307	0.653	0.00045	0.0467	12.1	0.0242	0.0000041	0.0506	0.0026		6.74	0.00498
RSEM-R6W-SP	1/30/2019 13:10	VE2161	M	6.1	5.4	0.526	0.0023	0.00534	0.0634	<0.0001	<0.001	0.262	0.000018	16.9	0.004	0.00041	0.0117	0.336	0.00028	0.0328	7.76	0.0145	0.0000029	0.0367	0.0019		5.48	0.00379
RSEM-R6W-SP	1/31/2019 12:30	VE3665	M	3.7	2.7	0.181	0.0025	0.00524	0.0564	<0.0001	<0.001	0.287	0.000012	18.3	0.0041	0.00031	0.0064	0.136	<0.0002	0.0353	8.17	0.0088	<0.000002	0.0389	0.0017		5.91	0.00378
RSEM-R6W-SP	2/1/2019 11:35	VE3672	M	3.6	2.9	0.151	0.00264	0.00548	0.0572	<0.0001	<0.001	0.307	0.000014	19.1	0.0044	0.00032	0.00576	0.142	<0.0002	0.0375	8.42	0.0092	<0.000002	0.0403	0.0017		6.17	0.00398
RSEM-R6W-SP	2/2/2019 12:25	VE5319	M	3.2	3.2	0.169	0.00265	0.00553	0.0597	<0.0001	<0.001	0.326	0.00001	18.8	0.004	0.00029	0.00497	0.114	<0.0002	0.0383	8.07	0.0088	<0.000002	0.0377	0.0015		6.34	0.00386
RSEM-R6W-SP	2/3/2019 11:21	VE5316	M	2.2	2.8	0.307	0.00324	0.00736	0.0702	<0.0001	<0.001	0.398	<0.00001	24.0	0.0048	0.00031	0.00238	0.181	<0.0002	0.0476	9.62	0.0098	0.000002	0.0466	0.0019		6.91	0.00494
RSEM-R6W-SP	2/4/2019 0:35	VE6892	M	2.8	2.9	0.28	0.0033	0.00675	0.065	<0.0001	<0.001	0.357	<0.00001	21.7	0.0048	0.0003	0.0024	0.145	<0.0002	0.0446	9.82	0.0089	<0.000002	0.0469	0.0018		6.58	0.0049
RSEM-R6W-SP	2/5/2019 10:50	VE6873	M	1.5	1.0	0.263	0.00334	0.00693	0.0639	<0.0001	<0.001	0.348	<0.00001	21.6	0.005	0.00029	0.00234	0.13	<0.0002	0.046	10.2	0.0079	<0.000002	0.0472	0.002		7.06	0.0048
RSEM-R6W-SP	2/6/2019 13:15	VE9931	M	3.1	3.0	0.169	0.00323	0.00722	0.0657	<0.0001	<0.001	0.318	0.000035	22.7	0.0043	0.00024	0.00182	0.083	<0.0002	0.0372	10.0	0.0055	<0.000002	0.049	0.0017		6.58	0.00523
RSEM-R6W-SP	2/7/2019 11:20	VF0005	M	2.7	2.8	0.135	0.00313	0.00686	0.0612	<0.0001	<0.001	0.315	0.000028	21.5	0.0043	0.00022	0.00177	0.06	<0.0002	0.0355	9.66	0.0045	0.0000021	0.0471	0.0016		6.53	0.00504
RSEM-R6W-SP	2/8/2019 11:25	VF1454	M	2.8	1.1	0.13	0.00305	0.00676	0.0604	<0.0001	<0.001	0.368	0.000011	21.9	0.0042	0.00022	0.00181	0.053	<0.0002	0.0438	9.99	0.0044	0.0000045	0.0472	0.0015		6.70	0.00497
RSEM-R6W-SP	2/9/2019 13:15	VF3228	M	2.8	2.8	0.131	0.00311	0.00704	0.0624	<0.0001	<0.001	0.385	<0.00001	22.8	0.0044	0.00023	0.0021	0.045	<0.0002	0.0452	10.2	0.0046	0.0000062	0.0485	0.0017		6.69	0.0053
RSEM-R6W-SP	2/10/2019 13:40	VF3199	M	2.9	3.1	0.135	0.00321	0.0072	0.0649	<0.0001	<0.001	0.39	0.000011	23.9	0.0044	0.00024	0.00193	0.046	<0.0002	0.0457	10.1	0.0046	<0.000002	0.0502	0.0017		6.74	0.00549
RSEM-R6W-SP	2/11/2019 14:15	VF4317	M	2.8	2.5	0.113	0.00335	0.00758	0.0664	<0.0001	<0.001	0.356	0.00001	23.6	0.0048	0.00024	0.00205	0.043	<0.0002	0.0443	10.8	0.0046	0.0000048	0.0524	0.0018		7.20	0.00543
RSEM-R6W-SP	2/12/2019 12:57	VF6505	M	3.0	2.9	0.124	0.00345	0.00766	0.0689	<0.0001	<0.001	0.415	0.000013	24.9	0.0048	0.00024	0.00216	0.073	<0.0002	0.0521	11.0	0.0051	0.0000038	0.053	0.0018		7.15	0.00564
RSEM-R6W-SP	2/13/2019 12:00	VF7820	M	3.0	2.9	0.108	0.00355	0.00776	0.0698	<0.0001	<0.001	0.429	0.000015	24.8	0.0049	0.00026	0.00322	0.044	<0.0002	0.0531	11.2	0.006	0.0000058	0.056	0.0018		7.32	0.0056
RSEM-R6W-SP	2/14/2019 12:00	VF9047	M	2.4	2.5	0.0889	0.00325	0.0071	0.0666	<0.0001	<0.001	0.369	<0.00001	23.8	0.0045	0.00025	0.00191	0.04	<0.0002	0.0429	9.54	0.0077	0.0000041	0.0509	0.0016		6.90	0.00531
RSEM-R6W-SP	2/15/2019 11:50	VF9053	M	2.4	2.6	0.103	0.00336	0.0071	0.0692	<0.0001	<0.001	0.365	<0.00001	24.4	0.0045	0.00027	0.00224	0.055	<0.0002	0.0436	9.68	0.0091	0.0000058	0.0512	0.0018		7.00	0.0053
RSEM-R6W-SP	2/16/2019 12:50	VF9494	M	2.7	3.2	0.0979	0.00318	0.00675	0.065	<0.0001	<0.001	0.373	0.000011	23.1	0.0049	0.00029	0.00207	0.049	<0.0002	0.0418	10.4	0.0092	0.0000062	0.0497	0.0019		6.92	0.00523
RSEM-R6W-SP	2/17/2019 11:53	VG0948	M	2.2	2.4	0.105	0.00363	0.00725	0.0714	<0.0001	<0.001	0.34	<0.00001	24.7	0.0046	0.00027	0.00211	0.06	<0.0002	0.0492	10.3	0.0091	0.0000039	0.0531	0.0018		6.83	0.00532
RSEM-R6W-SP	2/18/2019 14:08	VG0933	M	2.6	2.6	0.11	0.00365	0.00744	0.0716	<0.0001	<0.001	0.346	<0.00001	24.4	0.0047	0.00028	0.00243	0.063	<0.0002	0.0472	10.7	0.0094	0.0000024	0.0553	0.0018		6.88	0.00535
RSEM-R6W-SP	2/19/2019 11:50	VG0986	M	3.1	2.5	0.0975	0.00361	0.00725	0.0712	<0.0001	<0.001	0.342	<0.00001		0.0045	0.00027	0.00247	0.05	<0.0002	0.0488		0.0092	0.0000061	0.0533	0.0018			0.00525
RSEM-R6W-SP	2/20/2019 11:30	VG2862	M	2.9	3.3	0.106	0.00342	0.00728	0.0679	<0.0001	<0.001	0.41	0.000011	25.2	0.0048	0.00027	0.00234	0.049	<0.0002	0.0478	10.5	0.0093	0.0000084	0.0522	0.0019		7.02	0.00547
RSEM-R6W-SP	2/21/2019 11:10	VG4542	M	2.7	3.3	0.0895	0.00346	0.00717	0.071	<0.0001	<0.001	0.373	0.000012	25.5	0.0049	0.00029	0.00229	0.044	<0.0002	0.0471	10.7	0.0099	0.0000074	0.0544	0.0019		7.29	0.00552
RSEM-R6W-SP	2/22/2019 11:25	VG6141	M	3.4	3.1	0.0919	0.00328	0.00688	0.0664	<0.0001	<0.001	0.386	0.000016	24.0	0.0046	0.00025	0.00232	0.044	<0.0002	0.0471	10.2	0.0097	0.0000033	0.0517	0.0018		6.89	0.00517
RSEM-R6W-SP	2/23/2019 12:25	VG8589	M	2.3	2.9	0.148	0.00343	0.00736	0.0818	<0.0001	<0.001	0.42	0.000019	25.7	0.0048	0.00039	0.00272	0.189	<0.0002	0.0502	10.7	0.0129	0.0000032	0.0531	0.0022		7.23	0.0055
RSEM-R6W-SP	2/24/2019 12:15	VG8610	M	3.9	3.1	0.086	0.0034	0.00734	0.07	<0.0001	<0.001	0.417	0.000014	25.8	0.0048	0.00027	0.00249	0.049	<0.0002	0.0514	10.8	0.0095	0.0000032	0.0533	0.0019		7.30	0.0054
RSEM-R6W-SP	2/25/2019 12:05	VG8574	M	3.0	3.5	0.0836	0.00355	0.00754	0.0709	<0.0001	<0.001	0.411	0.000011	26.2	0.0049	0.00028	0.00257	0.037	<0.0002	0.0498	11.1	0.0099	0.0000026	0.0546	0.0019		7.55	0.00561
RSEM-R6W-SP	2/26/2019 11:30	VH0046	M	2.9	3.3	0.0832	0.00344	0.00726	0.0703	<0.0001	<0.001	0.417	0.000011		0.0046	0.00026	0.00245	0.041	<0.0002	0.0493		0.0101	0.0000028	0.0502	0.0018			0.00546
RSEM-R6W-SP	2/27/2019 11:20	VH2517	M	3.4	3.1	0.0761	0.00349	0.00763	0.0719	<0.0001	<0.001	0.441	0.000011	27.8	0.0045	0.00026	0.00225	0.031	<0.0002	0.0505	10.5	0.0108	0.0000042	0.0527	0.0017		7.70	0.00568
RSEM-R6W-SP	2/28/2019 12:00	VH4365	M	2.3	3.3	0.0959	0.00377	0.00809	0.0794	<0.0001	<0.001	0.445	0.000014	28.7	0.0053	0.00029	0.0028	0.056	<0.0002	0.0573	11.9	0.0139	0.0000025	0.058	0.0021		7.83	0.00623
RSEM-R6W-SP	3/1/2019 11:50	VH5673	M	2.9	3.1	0.0683	0.00361	0.00756	0.0673	<0.0001	<0.001	0.354	0.000014	26.7	0.0051	0.00028	0.00244	0.03	<0.0002	0.0433	11.0	0.0121	0.0000027	0.0555	0.0019		7.45	0.00581
RSEM-R6W-SP	3/2/2019 12:06	VH8127	M	2.9	3.1	0.0716	0.00354	0.0077	0.0713	<0.0001	<0.001	0.404	0.000014	27.0	0.0049	0.00027	0.00239	0.028	<0.0002	0.0501	11.4	0.0123	0.0000021	0.0564	0.0019		7.44	0.0058
RSEM-R6W-SP	3/3/2019 13:55	VH7775	M	3.1	2.3	0.0635	0.00347	0.0074	0.0693	<0.0001	<0.001	0.397	<0.00001	26.7	0.0048	0.00026	0.00218	0.023	<0.0002	0.0496	11.2	0.0133	0.0000035	0.0558	0.0018		7.29	0.00568
RSEM-R6W-SP	3/4/2019 16:30	VI1285	M	2.6	3.8	0.0687	0.00352	0.0076	0.0719	<0.0001	<0.001	0.408	0.000018	27.5	0.0048	0.00028	0.00247	0.032	<0.0002	0.049	11.6	0.0159	0.000003	0.0554	0.0019		7.51	0.00579
RSEM-R6W-SP	3/5/2019 12:44	VI1635	M	3.3	3.6	0.0764	0.00371	0.00739	0.0746	<0.0001	<0.001	0.447	0.000023	29.2	0.0051	0.0003	0.00289	0.045	<0.0002	0.0521	11.5	0.0161	0.0000041	0.0542	0.002		7.93	0.0053
RSEM-R6W-SP	3/6/2019 13:35	VI3121	M	3.0	4.3	0.472	0.00367	0.00809	0.115	<0.0001	<0.001	0.42	0.00004	29.7	0.0056	0.00079	0.00403	0.709	0.00057	0.0514	12.1	0.0319	0.0000028	0.0573	0.0033		7.88	0.00595
RSEM-R6W-SP	3/7/2019 13:55	VI4424	M	3.3	3.4	0.261	0.0038	0.00753	0.0984	<0.0001	<0.001	0.465	0.000037	29.9	0.0054	0.00048	0.00322	0.394	0.00026	0.0538	12.4	0.019	0.0000032	0.0534	0.0026		7.99	0.00603
RSEM-R6W-SP	3/8/2019 11:47	VI4435	M	3.1	3.4	0.0641	0.00381	0.00742	0.074	<0.0001	<0.001	0.471	0.00003	30.1	0.005	0.00028	0.00249	0.03	<0.0002	0.0543	11.9	0.013	0.0000032	0.055	0.0021		7.45	0.00594
RSEM-R6W-SP	3/9/2019 11:50	VI6895	M	3.4	4.1	0.0586	0.00387	0.00755	0.0746	<0.0001	<0.001	0.462	0.000017	29.2	0.0051	0.00028	0.00241	0.022	<0.0002	0.0518	12.1	0.0132	0.0000032	0.0552	0.002		7.95	0.00578
RSEM-R6W-SP	3/10/2019 12:25	VI6956	M	3.3	2.8	0.0619	0.00394	0.00761	0.0754	<0.0001	<0.001	0.467	0.000022	29.4	0.0051	0.00028	0.00271	0.031	<0.0002	0.0542	12.4	0.0134	0.0000027	0.0568	0.0022		8.06	0.00589
RSEM-R6W-SP	3/11/2019 12:30	VI9559	M	3.9	3.6	0.0775	0.00379	0.00695	0.0767	<0.0001	<0.001	0.471	0.000016	29.1	0.005	0.0003	0.00231	0.055	<0.0002	0.0533	12.2	0.0138	0.0000023	0.0548	0.0019		8.03	0.00577
RSEM-R6W-SP	3/12/2019 11:25	VI8443	M	3.2	3.2	0.0699	0.00361	0.00689	0.0723	<0.0001	<0.001	0.468	0.000011	29.1	0.0049	0.00028	0.00242	0.036	<0.0002	0.051	11.6	0.0142	0.0000022	0.0534	0.002		7.79	0.0055
RSEM-R6W-SP	3/13/2019 11:40	VJ2179	M	2.9	2.9	0.0772	0.00393	0.00747	0.0779	<0.0001	<0.001	0.497	0.00001	31.3	0.0048	0.00028	0.00248	0.047	<0.0002	0.0544	12.7	0.0144	0.000004	0.0566	0.0021		8.44	0.00571
RSEM-R6W-SP	3/14/2019 16:40	VJ4044	M	4.2	6.7	0.0913	0.00354	0.00681	0.071	<0.0001	<0.001	0.45	0.00002	30.6	0.0047	0.00029	0.00288	0.08	<0.0002	0.0493	11.6	0.014	0.0000028	0.0538	0.002		7.79	0.00555
RSEM-R6W-SP	3/15/2019 11:35	VJ4022	M	3.8	4.2	0.206	0.0036	0.00705	0.0762	<0.0001	<0.001	0.441	0.000026	31.1	0.005	0.00034	0.00348	0.26	<0.0002	0.0494	12.6	0.0178	0.0000032	0.0547	0.0024		7.89	0.00562
RSEM-R6W-SP	3/16/2019 13:05	VJ7199	M	6.3	5.3	1.48	0.00164	0.00309	0.131	<0.0001	<0.001	0.19	0.00009	32.2	0.0048	0.00084	0.00902	1.5	0.00086	0.0236	7.20	0.0439	0.0000029	0.0231	0.0033		5.98	0.00234
RSEM-R6W-SP	3/17/2019 11:40	VJ7215	M	7.2	6.0	2.33	0.00171	0.00404	0.144	<0.0001	<0.001	0.185	0.000114	32.3	0.0067	0.00138	0.00712	2.81	0.00163	0.023	8.79	0.0613	0.000003	0.0234	0.0049		6.72	0.00256
RSEM-R6W-SP	3/18/2019 11:53	VJ6967	M	6.1	5.2	4.11	0.00145	0.00328	0.133	0.00015	<0.001	0.153	0.000095	26.3	0.0086	0.0014	0.00651	3.29	0.00166	0.0203	7.63	0.0595	0.0000034	0.0212	0.0052		5.82	0.0024
RSEM-R6W-SP	3/19/2019 13:33	VK0937	M	3.0	3.6	1.04	0.00128	0.00278	0.142	<0.0001	<0.001	0.153	0.000076	25.8	0.0038	0.00127	0.00923	1.99	0.00123	0.0203	6.69	0.0487	<0.000002	0.0216	0.0044		4.99	0.00272
RSEM-R6W-SP	3/20/2019 0:20	VK2371	M	5.1	2.9	1.62	0.00121	0.00215	0.148	<0.0001	<0.001	0.143	0.000074	26.5	0.0041	0.00111	0.0302	1.68	0.00113	0.0191	6.27	0.05	<0.000002	0.0182	0.004		4.73	0.00275

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-SP	1/2/2019 12:30	VA7317	M	6.98	<0.00002	259	0.205	106	0.000026	<0.005	0.0172	0.00285	0.0119	0.0231	0.00048	0.186	0.00266	0.00591	0.0682	<0.0001	<0.001	0.307	<0.00001	27.7	0.0043	0.00029	0.00182	<0.01
RSEM-R6W-SP	1/3/2019 13:50	VA8829	M	5.49	<0.00002	262	0.208	98.3	<0.00001	<0.005	<0.005	0.00272	0.0098	0.0221	0.00022	0.184	0.00259	0.00581	0.0658	<0.0001	<0.001	0.311	<0.00001	27.4	0.0042	0.00027	0.00163	<0.01
RSEM-R6W-SP	1/4/2019 12:40	VA8826	M	5.46	<0.00002	254	0.221	100	0.00001	<0.005	<0.005	0.00275	0.0098	0.037	0.00025	0.167	0.00256	0.00566	0.0645	<0.0001	<0.001	0.311	<0.00001	26.9	0.0041	0.00028	0.00145	<0.01
RSEM-R6W-SP	1/5/2019 13:20	VB1443	M	5.77	<0.00002	252	0.192	95.5	0.000016	<0.005	0.0085	0.00275	0.0108	0.0455	0.00024	0.148	0.0027	0.00586	0.0689	<0.0002	<0.002	0.325	<0.00002	29.1	0.0042	<0.0004	0.0015	0.121
RSEM-R6W-SP	1/6/2019 11:55	VB1450	M	5.73	<0.00002	260	0.193	97.0	0.000016	<0.005	0.0055	0.00275	0.0103	0.0455	0.00022	0.136	0.00257	0.00572	0.0644	<0.0001	<0.001	0.305	<0.00001	26.5	0.0041	0.00029	0.00157	0.015
RSEM-R6W-SP	1/7/2019 10:45	VB3250	M	5.39	<0.00002	269	0.189	104	0.000011	<0.005	<0.005	0.00265	0.0105	0.0403	0.00013	0.118	0.00276	0.00599	0.069	<0.0001	<0.001	0.314	<0.00001	27.9	0.0041	0.00031	0.00199	0.012
RSEM-R6W-SP	1/8/2019 11:40	VB4660	M	6.84	<0.00002	298	0.213	107	0.000019	<0.005	0.0126	0.00299	0.0121	0.0123	0.00045	0.0932	0.00278	0.00591	0.0713	<0.0001	<0.001	0.317	<0.00001	29.0	0.0043	0.00032	0.00169	<0.01
RSEM-R6W-SP	1/9/2019 11:30	VB6783	M	5.89	<0.00002	279	0.203	107	0.000014	<0.005	<0.005	0.00284	0.011	0.0108	<0.0001	0.0958	0.00286	0.00675	0.0761	<0.0001	<0.001	0.313	<0.00001	31.5	0.0044	0.0003	0.00163	<0.01
RSEM-R6W-SP	1/10/2019 11:40	VB7973	M	5.24	<0.00002	273	0.203	99.5	0.000016	<0.005	<0.005	0.00303	0.0105	0.0064	0.00016	0.0815	0.00289	0.00702	0.0746	<0.0001	<0.001	0.362	<0.00001	32.8	0.004	0.00025	0.00125	<0.01
RSEM-R6W-SP	1/11/2019 12:35	VB7978	M	6.09	<0.00002	268	0.205	101	0.000019	<0.005	0.0082	0.00292	0.0106	0.0078	0.00047	0.0886	0.0028	0.00706	0.0734	<0.0001	<0.001	0.343	<0.00001	31.6	0.0039	0.00024	0.00136	<0.01
RSEM-R6W-SP	1/12/2019 11:25	VC0271	M	5.76	<0.00002	285	0.206	101	0.000017	<0.005	0.0067	0.003	0.0112	0.01	0.00024	0.0702	0.00288	0.00599	0.0691	<0.0001	<0.001	0.307	<0.00001	26.7	0.0042	0.00028	0.00151	<0.01
RSEM-R6W-SP	1/13/2019 11:25	VC0276	M	4.95	<0.00002	266	0.194	92.2	0.000019	<0.005	0.0072	0.0028	0.0106	0.0063	0.00025	0.0754	0.00278	0.00588	0.0669	<0.0001	<0.001	0.313	<0.00001	26.5	0.0045	0.00029	0.00158	<0.01
RSEM-R6W-SP	1/14/2019 11:40	VC1962	M	7.61	<0.00002	274	0.192	95.5	0.000032	<0.005	0.0381	0.00308	0.0152	0.0105	0.00171	0.1	0.00293	0.00619	0.0692	<0.0001	<0.001	0.342	<0.00001	25.6	0.0041	0.00025	0.00152	<0.01
RSEM-R6W-SP	1/15/2019 11:38	VC4151	M	4.93	<0.00002	224	0.151	83.4	0.000016	<0.005	0.0074	0.00234	0.009	0.0344	0.00033	0.07	0.00231	0.00515	0.0555	<0.0001	<0.001	0.274	0.000013	22.0	0.0036	0.0002	0.00127	<0.01
RSEM-R6W-SP	1/16/2019 11:50	VC6535	M	5.06	0.000025	246	0.181	82.6	0.000021	<0.005	0.011	0.00294	0.0106	0.0083	0.00069	0.128	0.00292	0.00659	0.0638	<0.0001	<0.001	0.351	<0.00001	24.4	0.0037	<0.0002	0.00157	<0.01
RSEM-R6W-SP	1/17/2019 11:40	VC7567	M	4.76	<0.00002	276	0.159	95.9	0.000013	<0.005	<0.005	0.0027	0.0105	0.0254	0.00016	0.131	0.00273	0.00591	0.0607	<0.0001	<0.001	0.328	<0.00001	22.6	0.0039	<0.0002	0.00157	<0.01
RSEM-R6W-SP	1/18/2019 10:45	VC7592	M	4.69	<0.00002	241	0.175	87.4	0.000017	<0.005	<0.005	0.00286	0.0108	0.0278	0.00026	0.109	0.00292	0.00641	0.0619	<0.0001	<0.001	0.343	<0.00001	24.6	0.0039	<0.0002	0.00145	<0.01
RSEM-R6W-SP	1/19/2019 12:15	VC9565	M	4.71	<0.00002	236	0.174	87.7	0.000017	<0.005	<0.005	0.00293	0.0101	0.0089	0.00031	0.0973	0.00274	0.00645	0.0589	<0.0001	<0.001	0.318	<0.00001	24.2	0.004	0.00021	0.00172	<0.01
RSEM-R6W-SP	1/20/2019 11:25	VC9571	M	6.02	<0.00002	282	0.174	93.3	0.000024	<0.005	0.0175	0.00292	0.0124	0.0245	0.00055	0.098	0.00282	0.0063	0.0593	<0.0001	<0.001	0.328	<0.00001	24.2	0.0043	0.00026	0.00184	<0.01
RSEM-R6W-SP	1/21/2019 13:05	VD2272	M	7.63	<0.00002	280	0.18	95.7	0.000033	<0.005	0.034	0.00316	0.0148	0.0107	0.00109	0.109	0.0029	0.00648	0.0611	<0.0002	<0.002	0.358	<0.00002	24.0	0.0043	<0.0004	0.0023	0.021
RSEM-R6W-SP	1/22/2019 12:40	VD2308	M	7.33	<0.00002	276	0.174	93.4	0.000029	<0.005	0.0288	0.00302	0.0132	0.0158	0.0015	0.0971	0.00287	0.00641	0.0604	<0.0001	<0.001	0.335	0.000016	24.1	0.004	<0.0002	0.00161	<0.01
RSEM-R6W-SP	1/23/2019 12:40	VD3814	D	5.3	<0.00004	290	0.194	97.6	<0.00002	<0.01	<0.01	0.00307	0.011	<0.01	0.00021	0.118	0.00315	0.00711	0.0663	<0.0001	<0.001	0.452	<0.00001	24.8	0.0042	<0.0002	0.00143	<0.01
RSEM-R6W-SP	1/23/2019 12:40	VD3812	M	4.57	<0.00002	284	0.201	100	0.000014	<0.005	<0.005	0.00299	0.0105	0.009	0.00024	0.117	0.00314	0.00715	0.0656	<0.0001	<0.001	0.434	<0.00001	24.5	0.0041	<0.0002	0.00148	<0.01
RSEM-R6W-SP	1/24/2019 13:25	VD5541	M	6.14	<0.00002	277	0.18	91.6	0.000027	<0.005	0.0313	0.00318	0.0134	0.0145	0.00123	0.121	0.00314	0.00706	0.0647	<0.0001	<0.001	0.44	<0.00001	24.5	0.0041	<0.0002	0.0017	<0.01
RSEM-R6W-SP	1/25/2019 11:18	VD5641	M	4.73	<0.00002	302	0.202	102	0.000016	<0.005	<0.005	0.00309	0.0112	0.0088	0.00026	0.131	0.00322	0.00728	0.0641	<0.0001	<0.001	0.447	<0.00001	24.2	0.0041	<0.0002	0.00167	<0.01
RSEM-R6W-SP	1/26/2019 15:45	VD7164	M	5.15	<0.00002	297	0.209	95.5	0.000019	<0.005	0.0066	0.00302	0.0109	0.208	0.00035	0.0911	0.00296	0.00648	0.0605	<0.0001	<0.001	0.363	0.000015	24.6	0.0038	0.00027	0.00203	0.019
RSEM-R6W-SP	1/30/2019 13:10	VE2161	M	4.03	<0.00002	202	0.131	66.5	0.000018	<0.005	0.0121	0.00224	0.009	0.186	0.00048	0.0499	0.00227	0.00497	0.0522	<0.0001	<0.001	0.26	<0.00001	18.0	0.0031	0.00023	0.00929	<0.01
RSEM-R6W-SP	1/31/2019 12:30	VE3665	M	3.62	<0.00002	228	0.122	69.0	<0.00001	<0.005	<0.005	0.00246	0.0092	0.185	0.00013	0.0454	0.00255	0.00527	0.0523	<0.0001	<0.001	0.316	<0.00001	18.5	0.0039	0.00022	0.00489	<0.01
RSEM-R6W-SP	2/1/2019 11:35	VE3672	M	3.82	<0.00002	241	0.126	72.3	<0.00001	<0.005	<0.005	0.00259	0.0094	0.223	0.00015	0.0539	0.0026	0.00558	0.0552	<0.0002	<0.002	0.355	<0.00002	18.7	0.0046	<0.0004	0.0047	<0.02
RSEM-R6W-SP	2/2/2019 12:25	VE5319	M	4.23	<0.00002	226	0.123	79.3	0.000012	<0.005	<0.005	0.00248	0.009	0.222	0.00017	0.0472	0.00313	0.00625	0.0607	<0.0001	<0.001	0.368	<0.00001	22.6	0.0048	0.00026	0.00439	<0.01
RSEM-R6W-SP	2/3/2019 11:21	VE5316	M	5.68	<0.00002	270	0.148	93.3	0.000015	<0.005	<0.005	0.00326	0.0112	0.0216	0.00011	0.102	0.00336	0.0073	0.0589	<0.0001	<0.001	0.371	<0.00001	22.6	0.0048	<0.0002	0.00163	<0.01
RSEM-R6W-SP	2/4/2019 0:35	VE6892	M	4.83	<0.00002	277	0.153	88.4	0.000013	<0.005	<0.005	0.00318	0.0112	0.0087	0.00024	0.105	0.0033	0.00737	0.0596	<0.0001	<0.001	0.366	<0.00001	21.5	0.0047	<0.0002	0.00163	<0.01
RSEM-R6W-SP	2/5/2019 10:50	VE6873	M	4.85	<0.00002	284	0.153	88.7	0.000014	<0.005	<0.005	0.00324	0.0117	0.0074	0.00019	0.103	0.00323	0.00743	0.0589	<0.0001	<0.001	0.358	<0.00001	23.0	0.0045	<0.0002	0.00164	<0.01
RSEM-R6W-SP	2/6/2019 13:15	VE9931	M	4.32	<0.00002	278	0.178	89.4	0.000011	<0.005	<0.005	0.00331	0.0104	0.0059	0.00014	0.1	0.00345	0.00674	0.0641	<0.0001	<0.001	0.388	<0.00001	23.4	0.0046	<0.0002	0.00158	<0.01
RSEM-R6W-SP	2/7/2019 11:20	VF0005	M	4.05	<0.00002	270	0.167	86.9	0.000011	<0.005	<0.005	0.00312	0.0101	0.0164	0.00011	0.0868	0.00322	0.00668	0.0585	<0.0001	<0.001	0.368	<0.00001	22.6	0.0044	<0.0002	0.0015	<0.01
RSEM-R6W-SP	2/8/2019 11:25	VF1454	M	4.63	<0.00002	275	0.163	89.2	0.000011	<0.005	<0.005	0.00316	0.0103	<0.005	0.00011	0.0831	0.00319	0.00629	0.0591	<0.0001	<0.001	0.343	<0.00001	21.8	0.0042	<0.0002	0.00152	<0.01
RSEM-R6W-SP	2/9/2019 13:15	VF3228	M	4.93	<0.00002	280	0.167	91.2	0.000011	<0.005	<0.005	0.00332	0.0105	0.0054	0.00018	0.0789	0.00321	0.00701	0.0609	<0.0001	<0.001	0.37	<0.00001	22.5	0.0044	<0.0002	0.00173	<0.01
RSEM-R6W-SP	2/10/2019 13:40	VF3199	M	5.09	<0.00002	279	0.169	91.0	0.000012	<0.005	<0.005	0.00345	0.0108	<0.005	0.00011	0.0808	0.00337	0.00742	0.0639	<0.0001	<0.001	0.395	<0.00001	23.8	0.0045	0.00021	0.00167	<0.01
RSEM-R6W-SP	2/11/2019 14:15	VF4317	M	4.84	<0.00002	298	0.175	94.8	0.000025	<0.005	<0.005	0.00354	0.0114	0.0054	0.00011	0.075	0.00333	0.00738	0.0631	<0.0001	<0.001	0.354	0.000012	23.5	0.0044	0.00021	0.00156	0.012
RSEM-R6W-SP	2/12/2019 12:57	VF6505	M	5.44	0.000025	300	0.188	96.2	0.000013	<0.005	<0.005	0.0037	0.0113	<0.005	0.00013	0.0815	0.00343	0.00758	0.0661	<0.0001	<0.001	0.415	<0.00001	24.3	0.0046	<0.0002	0.00177	<0.01
RSEM-R6W-SP	2/13/2019 12:00	VF7820	M	5.5	<0.00002	309	0.189	99.7	0.000011	<0.005	<0.005	0.00378	0.0116	0.0056	0.00013	0.0645	0.00348	0.00755	0.068	<0.0001	<0.001	0.393	0.00001	24.4	0.0048	0.00023	0.00169	<0.01
RSEM-R6W-SP	2/14/2019 12:00	VF9047	M	5.23	<0.00002	269	0.178	92.1	<0.00001	<0.005	<0.005	0.00344	0.0106	<0.005	<0.0001	0.0552	0.00332	0.00732	0.0653	<0.0001	<0.001	0.375	0.000011	24.3	0.0045	0.00023	0.00166	<0.01
RSEM-R6W-SP	2/15/2019 11:50	VF9053	M	5.31	<0.00002	272	0.179	93.8	<0.00001	<0.005	<0.005	0.00354	0.0107	<0.005	0.00012	0.0521	0.0034	0.00714	0.0657	<0.0001	<0.001	0.376	<0.00001	24.4	0.0046	0.00024	0.00168	<0.01
RSEM-R6W-SP	2/16/2019 12:50	VF9494	M	4.55	<0.00002	289	0.162	90.3	0.000011	<0.005	<0.005	0.00342	0.0114	<0.005	<0.0001	0.0497	0.00341	0.0073	0.0664	<0.0001	<0.001	0.381	<0.00001	24.8	0.0047	0.00024	0.00167	<0.01
RSEM-R6W-SP	2/17/2019 11:53	VG0948	M	4.64	<0.00002	292	0.168	91.5	0.000013	<0.005	<0.005	0.00452	0.0109	0.0066	<0.0001	0.0486	0.0035	0.00735	0.0664	<0.0001	<0.001	0.343	<0.00001	23.9	0.0046	0.00023	0.0018	<0.01
RSEM-R6W-SP	2/18/2019 14:08	VG0933	M	4.54	<0.00002	294	0.166	95.0	0.000013	<0.005	<0.005	0.00446	0.0114	0.011	0.00012	0.0483	0.0037	0.00765	0.0701	<0.0001	<0.001	0.348	<0.00001	24.8	0.0046	0.00025	0.00208	<0.01
RSEM-R6W-SP	2/19/2019 11:50	VG0986	M	4.78	<0.00002		0.165	92.5	0.000013	<0.005	<0.005	0.00456	0.0109	0.006	0.0001	0.0479	0.00372	0.00757	0.0716	<0.0001	<0.001	0.357	<0.00001		0.0046	0.00023	0.00221	<0.01
RSEM-R6W-SP	2/20/2019 11:30	VG2862	M	5.6	<0.00002	284	0.185	95.6	0.000027	<0.005	<0.005	0.00359	0.011	<0.005	0.00014	0.0519	0.00355	0.00754	0.069	<0.0001	<0.001	0.409	<0.00001	25.6	0.0048	0.00025	0.00215	<0.01
RSEM-R6W-SP	2/21/2019 11:10	VG4542	M	5.38	<0.00002	292	0.184	95.0	0.000013	<0.005	<0.005	0.00362	0.0113	<0.005	0.00011	0.0479	0.00368	0.00763	0.0743	<0.0001	<0.001	0.382	<0.00001	26.7	0.0051	0.00028	0.00211	<0.01
RSEM-R6W-SP	2/22/2019 11:25	VG6141	M	5.22	<0.00002	278	0.176	91.6	0.000012	<0.005	<0.005	0.00346	0.0108	0.0062	0.00012	0.128	0.00357	0.00761	0.0699	<0.0001	<0.001	0.437	<0.00001	26.7	0.005	0.00026	0.0023	<0.01
RSEM-R6W-SP	2/23/2019 12:25	VG8589	M	5.64	<0.00002	291	0.186	96.4	0.000012	<0.005	<0.005	0.0037	0.0112	0.0144	0.00011	0.043	0.00356	0.00761	0.0693	<0.0001	<0.001	0.43	0.000014	26.3	0.0047	0.00026	0.0021	<0.01
RSEM-R6W-SP	2/24/2019 12:15	VG8610	M	5.64	<0.00002	291	0.188	96.6	0.000011	<0.005	<0.005	0.00365	0.0108	0.0061	<0.0001	0.0486	0.00362	0.00765	0.0701	<0.0001	<0.001	0.448	0.000011	26.8	0.0048	0.00026	0.00227	<0.01
RSEM-R6W-SP	2/25/2019 12:05	VG8574	M	5.53	<0.00002	306	0.193	101	0.000012	<0.005	<0.005	0.00377	0.0116	<0.005	<0.0001	0.0487	0.00358	0.00766	0.0694	<0.0001	<0.001	0.441	0.000014	26.8	0.0049	0.00025	0.00221	<0.01
RSEM-R6W-SP	2/26/2019 11:30	VH0046	M	5.73	<0.00002		0.168	107	0.000012	<0.005	<0.005	0.0036	0.0109	0.0051	<0.0001	0.0501	0.0037	0.00784	0.0709	<0.0001	<0.001	0.436	0.000011		0.0049	0.00026	0.00231	<0.01
RSEM-R6W-SP	2/27/2019 11:20	VH2517	M	6.01	<0.00002	303	0.179	106	0.000013	<0.005	<0.005	0.0038	0.0105	<0.005	<0.0001	0.0495	0.00355	0.00786	0.0718	<0.0001	<0.001	0.44	0.00001	28.2	0.0049	0.00025	0.00212	<0.01
RSEM-R6W-SP	2/28/2019 12:00	VH4365	M	6.39	<0.00002	324	0.211	110	0.000014	<0.005	<0.005	0.00396	0.012	0.0151	0.00011	0.0488	0.0037	0.00751	0.0725	<0.0001	<0.001	0.468	0.000015	27.7	0.005	0.00027	0.00248	<0.01
RSEM-R6W-SP	3/1/2019 11:50	VH5673	M	4.99	<0.00002	308	0.195	98.4	0.000016	<0.005	<0.005	0.00383	0.0112	0.0055	0.00011	0.0471	0.00376	0.00741	0.0719	<0.0001	<0.001	0.456	0.000012	27.1	0.005	0.00027	0.00226	<0.01
RSEM-R6W-SP	3/2/2019 12:06	VH8127	M	5.84	<0.00002	306	0.203	102	0.000011	<0.005	<0.005	0.00371	0.0111	0.0069	<0.0001	0.0467	0.0036	0.00733	0.07	<0.0001	<0.001	0.459	0.000017	27.2	0.0048	0.00024	0.00218	<0.01
RSEM-R6W-SP	3/3/2019 13:55	VH7775	M	5.63	<0.00002	301	0.198	101	0.000011	<0.005	<0.005	0.00364	0.0107	<0.005	<0.0001	0.0454	0.00353	0.00735	0.0681	<0.0001	<0.001	0.424	0.000016	27.9	0.0049	0.00026	0.00217	<0.01
RSEM-R6W-SP	3/4/2019 16:30	VI1285	M	5.74	<0.00002	312	0.203	103	<0.00001	<0.005	<0.005	0.00375	0.011	0.007	<0.0001	0.043	0.00372	0.00788	0.0727	<0.0001	<0.001	0.433	0.000017	28.5	0.0049	0.00028	0.00231	<0.01
RSEM-R6W-SP	3/5/2019 12:44	VI1635	M	5.8	<0.00002	338	0.179	110	0.000012	<0.005	<0.005	0.00375	0.0117	0.0125	0.00013	0.0457	0.00391	0.0076	0.0737	<0.0001	<0.001	0.469	<0.00001	31.1	0.0054	0.00027	0.00255	<0.01
RSEM-R6W-SP	3/6/2019 13:35	VI3121	M	6.51	<0.00002	323	0.214	108	0.000014	0.0075	0.0089	0.0039	0.0124	0.0299	0.00046	0.0294	0.00376	0.0076	0.0679	<0.0001	<0.001	0.443	<0.00001	27.8	0.0051	0.00031	0.00273	<0.01
RSEM-R6W-SP	3/7/2019 13:55	VI4424	M	6.3	<0.00002	330	0.185	104	0.000017	<0.005	0.0081	0.00399	0.0119	0.0233	0.00023	0.0405	0.00394	0.00787	0.0766	<0.0001	<0.001	0.497	0.000025	31.8	0.0048	0.00029	0.00258	<0.01
RSEM-R6W-SP	3/8/2019 11:47	VI4435	M	6.09	<0.00002	330	0.178	104	0.000014	<0.005	<0.005	0.00405	0.0112	0.0072	<0.0001	0.0513	0.00398	0.00788	0.0769	<0.0001	<0.001	0.48	0.00002	29.1	0.0049	0.00025	0.00246	<0.01
RSEM-R6W-SP	3/9/2019 11:50	VI6895	M	5.89	<0.00002	329	0.185	110	0.000012	<0.005	<0.005	0.00393	0.0118	<0.005	0.0001	0.0452	0.00383	0.00791	0.0742	<0.0001	<0.001	0.487	0.000011	31.9	0.0055	0.00027	0.00221	<0.01
RSEM-R6W-SP	3/10/2019 12:25	VI6956	M	6.04	<0.00002	350	0.193	115	0.000014	<0.005	<0.005	0.00402	0.0119	0.0068	0.0001	0.0455	0.00404	0.00796	0.0776	<0.0001	<0.001	0.505	0.000012	28.5	0.0056	0.00027	0.00226	<0.01
RSEM-R6W-SP	3/11/2019 12:30	VI9559	M	6.01	<0.00002	333	0.191	111	0.000013	<0.005	<0.005	0.00393	0.0112	<0.005	<0.0001	0.0419	0.00389	0.00784	0.0741	<0.0001	<0.001	0.482	<0.00001	30.7	0.005	0.00027	0.00223	<0.01
RSEM-R6W-SP	3/12/2019 11:25	VI8443	M	5.79	<0.00002	316	0.186	107	0.000013	<0.005	<0.005	0.00386	0.0116	0.0058	<0.0001	0.0419	0.00382	0.00731	0.072	<0.0001	<0.001	0.463	0.000013	29.8	0.005	0.00026	0.00228	<0.01
RSEM-R6W-SP	3/13/2019 11:40	VJ2179	M	6.47	<0.00002	353	0.194	121	0.000012	<0.005	<0.005	0.00403	0.0112	0.0071	<0.0001	0.0366	0.00387	0.00741	0.0736	<0.0001	<0.001	0.473	<0.00001	30.3	0.0049	0.00027	0.00207	<0.01
RSEM-R6W-SP	3/14/2019 16:40	VJ4044	M	6.09	<0.00002	335	0.183	106	0.000012	<0.005	<0.005	0.00373	0.0104	0.01	0.00013	0.0413	0.00381	0.00727	0.0733	<0.0001	<0.001	0.457	0.000019	30.3	0.005	0.00025	0.00251	<0.01
RSEM-R6W-SP	3/15/2019 11:35	VJ4022	M	6.26	<0.00002	329	0.186	111	0.000014	<0.005	<0.005	0.00383	0.0109	0.0177	0.00021	0.0364	0.00383	0.00714	0.0734	<0.0001	<0.001	0.437	0.000016	29.3	0.0046	0.00025	0.0025	<0.01
RSEM-R6W-SP	3/16/2019 13:05	VJ7199	M	5.74	0.00002	135	0.304	43.8	0.000032	<0.005	0.035	0.00182	0.0064	0.0094	0.0012	0.008	0.00172	0.00229	0.0957	<0.0001	<0.001	0.192	0.000062	31.6	0.0032	0.00028	0.00521	<0.01
RSEM-R6W-SP	3/17/2019 11:40	VJ7215	M	8.08	0.000034	132	0.247	52.1	0.000048	<0.005	0.0547	0.002	0.0101	0.0144	0.00179	0.0122	0.00172	0.0025	0.0798	<0.0001	<0.001	0.19	0.000042	30.9	0.0034	0.00025	0.00288	0.011
RSEM-R6W-SP	3/18/2019 11:53	VJ6967	M	11.6	0.000038	108	0.192	40.4	0.000064	<0.005	0.135	0.00189	0.0148	0.0149	0.00279	0.0094	0.00146	0.00197	0.0662	<0.0001	<0.001	0.134	0.000029	27.6	0.0025	0.00025	0.00235	0.016
RSEM-R6W-SP	3/19/2019 13:33	VK0937	M	4.21	0.00002	112	0.213	43.3	0.000028	<0.005	0.0136	0.00201	0.0051	0.0224	0.00064	0.0079	0.00139	0.00157	0.079	<0.0001	<0.001	0.148	0.000031	24.2	0.0019	0.00026	0.00371	<0.01
RSEM-R6W-SP	3/20/2019 0:20	VK2371	M	5.43	<0.00002	97.3	0.207	38.8	0.000043	<0.005	0.0435	0.00194	0.0056	0.0134	0.00162	0.0067	0.00124	0.00122	0.0844	<0.0001	<0.001	0.138	0.000031	25.5	0.0017	0.00028	0.00987	<0.01

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-SP	1/2/2019 12:30	VA7317	M	<0.0002	0.0427	13.9	0.0205	<0.000002	0.0463	0.0019		6.95	0.00528	4.83	<0.00002	269	0.203	98.5	0.000013	<0.005	<0.005	0.00256	0.0094	0.0082	<0.0001
RSEM-R6W-SP	1/3/2019 13:50	VA8829	M	<0.0002	0.0423	13.8	0.0138	<0.000002	0.0454	0.0018		6.80	0.00528	4.78	<0.00002	268	0.205	96.7	0.000011	<0.005	<0.005	0.00243	0.0093	0.0053	<0.0001
RSEM-R6W-SP	1/4/2019 12:40	VA8826	M	<0.0002	0.0424	13.5	0.0161	<0.000002	0.0448	0.0017		6.76	0.00506	4.7	<0.00002	263	0.202	95.2	0.000012	<0.005	<0.005	0.0024	0.0093	0.0134	<0.0001
RSEM-R6W-SP	1/5/2019 13:20	VB1443	M	<0.0004	0.0449	13.1	0.0385	<0.000002	0.0457	<0.002		7.19	0.00537	5.1	<0.00004	250	0.191	97.5	<0.00002	<0.01	<0.01	0.00266	<0.01	0.031	<0.0002
RSEM-R6W-SP	1/6/2019 11:55	VB1450	M	<0.0002	0.0431	12.3	0.0176	<0.000002	0.0452	0.0018		6.52	0.00528	4.6	<0.00002	247	0.184	86.3	<0.00001	<0.005	<0.005	0.00266	0.0089	0.0356	<0.0001
RSEM-R6W-SP	1/7/2019 10:45	VB3250	M	<0.0002	0.0451	12.4	0.0182	<0.000002	0.0474	0.0018		6.58	0.00569	4.85	<0.00002	249	0.194	92.8	0.000012	<0.005	<0.005	0.00275	0.0089	0.0309	<0.0001
RSEM-R6W-SP	1/8/2019 11:40	VB4660	M	<0.0002	0.0428	14.0	0.0188	<0.000002	0.0482	0.0019		7.21	0.00521	4.92	<0.00002	275	0.203	99.4	0.00001	<0.005	<0.005	0.00271	0.0097	0.0092	<0.0001
RSEM-R6W-SP	1/9/2019 11:30	VB6783	M	<0.0002	0.0478	13.7	0.0177	<0.000002	0.0499	0.002		7.70	0.00531	5.63	<0.00002	284	0.203	105	0.000012	<0.005	<0.005	0.00292	0.0101	0.0057	<0.0001
RSEM-R6W-SP	1/10/2019 11:40	VB7973	M	<0.0002	0.0489	12.8	0.0161	<0.000002	0.0485	0.0016		7.63	0.00622	6.01	<0.00002	261	0.204	110	0.000011	<0.005	<0.005	0.00291	0.0093	<0.005	<0.0001
RSEM-R6W-SP	1/11/2019 12:35	VB7978	M	<0.0002	0.0458	12.7	0.0149	<0.000002	0.0462	0.0015		7.43	0.00629	5.89	<0.00002	254	0.198	110	0.000011	<0.005	<0.005	0.00274	0.0088	<0.005	<0.0001
RSEM-R6W-SP	1/12/2019 11:25	VC0271	M	<0.0002	0.0456	12.8	0.0151	<0.000002	0.048	0.0018		6.69	0.00549	4.51	<0.00002	262	0.19	93.7	0.000011	<0.005	<0.005	0.00281	0.0094	0.0059	<0.0001
RSEM-R6W-SP	1/13/2019 11:25	VC0276	M	<0.0002	0.0445	12.7	0.0143	<0.000002	0.048	0.0018		6.70	0.00568	4.56	<0.00002	263	0.191	91.9	0.000012	<0.005	<0.005	0.00283	0.0094	<0.005	<0.0001
RSEM-R6W-SP	1/14/2019 11:40	VC1962	M	<0.0002	0.0444	12.2	0.0115	<0.000002	0.0476	0.0017		7.07	0.0053	4.64	<0.00002	264	0.186	95.5	0.000012	<0.005	<0.005	0.00293	0.0095	<0.005	<0.0001
RSEM-R6W-SP	1/15/2019 11:38	VC4151	M	<0.0002	0.0367	10.3	0.0095	<0.000002	0.0413	0.0013		6.42	0.00432	4.27	<0.00002	247	0.148	87.1	0.000011	<0.005	<0.005	0.00223	0.0079	0.0253	<0.0001
RSEM-R6W-SP	1/16/2019 11:50	VC6535	M	<0.0002	0.0444	10.7	0.0032	<0.000002	0.0473	0.0014		6.85	0.0051	4.74	<0.00002	256	0.172	91.6	0.000013	<0.005	<0.005	0.003	0.0091	<0.005	<0.0001
RSEM-R6W-SP	1/17/2019 11:40	VC7567	M	<0.0002	0.0422	10.1	0.0054	<0.000002	0.0438	0.0013		6.51	0.0051	4.22	<0.00002	244	0.163	86.6	0.000011	<0.005	<0.005	0.00274	0.0092	0.0061	<0.0001
RSEM-R6W-SP	1/18/2019 10:45	VC7592	M	<0.0002	0.0442	11.2	0.0055	<0.000002	0.0473	0.0016		7.04	0.00494	4.73	<0.00002	262	0.173	95.7	0.00001	<0.005	<0.005	0.00291	0.0093	0.0083	<0.0001
RSEM-R6W-SP	1/19/2019 12:15	VC9565	M	<0.0002	0.0395	11.4	0.0033	<0.000002	0.0432	0.0018		6.52	0.00481	4.4	<0.00002	260	0.162	90.4	0.000012	<0.005	<0.005	0.00279	0.0097	<0.005	<0.0001
RSEM-R6W-SP	1/20/2019 11:25	VC9571	M	<0.0002	0.0419	11.6	0.0044	<0.000002	0.0443	0.0018		6.78	0.00515	4.49	<0.00002	271	0.165	91.7	0.000012	<0.005	<0.005	0.00275	0.01	0.0096	<0.0001
RSEM-R6W-SP	1/21/2019 13:05	VD2272	M	<0.0004	0.0432	11.5	0.0022	<0.000002	0.0467	<0.002		6.95	0.00543	4.55	<0.00004	281	0.168	93.6	<0.00002	<0.01	<0.01	0.00297	0.01	<0.01	<0.0002
RSEM-R6W-SP	1/22/2019 12:40	VD2308	M	<0.0002	0.0415	11.3	0.0026	<0.000002	0.045	0.0016		6.90	0.00507	4.55	<0.00002	265	0.169	94.7	0.00001	<0.005	<0.005	0.00284	0.0097	<0.005	<0.0001
RSEM-R6W-SP	1/23/2019 12:40	VD3814	D	<0.0002	0.0581	11.8	0.002	<0.000002	0.0513	0.0016		7.18	0.00526	4.56	<0.00002	285	0.193	98.9	0.00001	<0.005	<0.005	0.00301	0.0102	<0.005	<0.0001
RSEM-R6W-SP	1/23/2019 12:40	VD3812	M	<0.0002	0.0564	11.9	0.0021	<0.000002	0.0516	0.0016		7.10	0.00524	4.5	<0.00002	283	0.199	98.3	0.000011	<0.005	<0.005	0.003	0.0103	<0.005	<0.0001
RSEM-R6W-SP	1/24/2019 13:25	VD5541	M	<0.0002	0.0578	12.1	0.0021	<0.000002	0.0508	0.0016		7.10	0.00528	4.59	<0.00002	292	0.191	98.4	0.00002	<0.005	<0.005	0.00305	0.0103	<0.005	<0.0001
RSEM-R6W-SP	1/25/2019 11:18	VD5641	M	<0.0002	0.0556	11.9	0.002	<0.000002	0.0506	0.0016		7.09	0.00538	4.65	<0.00002	294	0.192	98.8	0.000014	<0.005	<0.005	0.00313	0.0104	<0.005	<0.0001
RSEM-R6W-SP	1/26/2019 15:45	VD7164	M	<0.0002	0.0465	12.0	0.0097	0.0000033	0.0628	0.0017		6.71	0.00471	4.54	<0.00002	299	0.205	98.7	0.000011	<0.005	<0.005	0.003	0.0092	0.172	<0.0001
RSEM-R6W-SP	1/30/2019 13:10	VE2161	M	<0.0002	0.0316	8.34	0.0054	<0.000002	0.0365	0.0014		5.41	0.00377	3.11	<0.00002	210	0.125	68.2	<0.00001	<0.005	<0.005	0.00228	0.0076	0.125	<0.0001
RSEM-R6W-SP	1/31/2019 12:30	VE3665	M	<0.0002	0.0361	7.69	0.0049	<0.000002	0.037	0.0014		5.69	0.00402	3.66	<0.00002	229	0.118	71.7	0.000011	<0.005	<0.005	0.00238	0.0094	0.148	<0.0001
RSEM-R6W-SP	2/1/2019 11:35	VE3672	M	<0.0004	0.0383	8.09	0.0051	<0.000002	0.0403	<0.002		6.10	0.00449	3.81	<0.00004	243	0.13	76.8	<0.00002	<0.01	<0.01	0.00259	<0.01	0.192	<0.0002
RSEM-R6W-SP	2/2/2019 12:25	VE5319	M	<0.0002	0.0454	8.78	0.0051	<0.000002	0.0448	0.0017		7.09	0.00459	4.84	<0.00002	269	0.147	87.7	0.000011	<0.005	<0.005	0.00297	0.0105	0.246	<0.0001
RSEM-R6W-SP	2/3/2019 11:21	VE5316	M	<0.0002	0.0478	9.41	0.0018	<0.000002	0.0465	0.0018		6.90	0.00494	4.99	<0.00002	269	0.157	93.5	0.00001	<0.005	<0.005	0.00335	0.0108	0.0169	<0.0001
RSEM-R6W-SP	2/4/2019 0:35	VE6892	M	<0.0002	0.0462	10.2	0.0014	<0.000002	0.0497	0.0016		6.81	0.00511	4.97	<0.00002	284	0.171	93.2	<0.00001	<0.005	<0.005	0.00334	0.0108	0.0057	0.0001
RSEM-R6W-SP	2/5/2019 10:50	VE6873	M	<0.0002	0.045	10.3	0.0016	<0.000002	0.0493	0.0014		6.67	0.00538	4.91	<0.00002	282	0.174	92.7	0.00001	<0.005	<0.005	0.00327	0.0109	<0.005	0.00012
RSEM-R6W-SP	2/6/2019 13:15	VE9931	M	<0.0002	0.0468	9.97	0.0017	<0.000002	0.0473	0.0016		6.76	0.00501	4.89	<0.00002	280	0.161	88.6	0.000011	<0.005	<0.005	0.00341	0.0112	<0.005	<0.0001
RSEM-R6W-SP	2/7/2019 11:20	VF0005	M	<0.0002	0.0435	9.41	0.0019	<0.000002	0.045	0.0016		6.54	0.00499	4.76	<0.00002	268	0.153	88.3	0.00001	<0.005	<0.005	0.00317	0.0104	0.0272	<0.0001
RSEM-R6W-SP	2/8/2019 11:25	VF1454	M	<0.0002	0.0443	9.67	0.0013	<0.000002	0.0446	0.0015		6.75	0.00494	4.65	<0.00002	266	0.145	88.5	<0.00001	<0.005	<0.005	0.00305	0.0104	<0.005	<0.0001
RSEM-R6W-SP	2/9/2019 13:15	VF3228	M	<0.0002	0.0447	10.1	0.0017	0.0000034	0.0489	0.0016		6.75	0.00511	4.64	<0.00002	277	0.163	90.4	<0.00001	<0.005	<0.005	0.00332	0.0104	<0.005	0.00011
RSEM-R6W-SP	2/10/2019 13:40	VF3199	M	<0.0002	0.0463	10.4	0.0024	0.0000034	0.0514	0.0017		6.91	0.00554	4.81	<0.00002	283	0.176	94.5	<0.00001	<0.005	<0.005	0.00348	0.011	<0.005	0.00011
RSEM-R6W-SP	2/11/2019 14:15	VF4317	M	<0.0002	0.0459	10.3	0.0024	0.0000034	0.0509	0.0017		6.66	0.00542	4.66	<0.00002	285	0.176	92.9	0.000014	<0.005	<0.005	0.00341	0.0108	<0.005	0.00011
RSEM-R6W-SP	2/12/2019 12:57	VF6505	M	<0.0002	0.053	10.8	0.0031	0.0000029	0.0537	0.0017		7.09	0.00551	5.45	<0.00002	295	0.184	96.9	0.00001	<0.005	<0.005	0.00368	0.011	<0.005	<0.0001
RSEM-R6W-SP	2/13/2019 12:00	VF7820	M	<0.0002	0.0473	11.0	0.0043	<0.000002	0.054	0.0017		7.21	0.00554	4.94	<0.00002	308	0.183	97.5	<0.00001	<0.005	<0.005	0.00358	0.0112	<0.005	<0.0001
RSEM-R6W-SP	2/14/2019 12:00	VF9047	M	<0.0002	0.0468	10.5	0.0062	<0.000002	0.0513	0.0017		7.08	0.00545	5.18	<0.00002	294	0.18	95.1	0.000011	<0.005	<0.005	0.00347	0.0107	<0.005	0.0001
RSEM-R6W-SP	2/15/2019 11:50	VF9053	M	<0.0002	0.0444	10.3	0.0066	0.0000054	0.0533	0.0017		6.99	0.0055	5.11	<0.00002	293	0.175	96.4	<0.00001	<0.005	<0.005	0.00358	0.011	<0.005	<0.0001
RSEM-R6W-SP	2/16/2019 12:50	VF9494	M	<0.0002	0.045	10.6	0.0072	0.000003	0.0518	0.0017		7.13	0.00543	5.18	<0.00002	295	0.177	96.9	<0.00001	<0.005	<0.005	0.00356	0.0109	<0.005	0.0001
RSEM-R6W-SP	2/17/2019 11:53	VG0948	M	<0.0002	0.05	10.6	0.0074	0.0000047	0.053	0.0018		7.05	0.00529	4.78	<0.00002	301	0.169	95.8	0.000013	<0.005	<0.005	0.00453	0.0108	0.0056	<0.0001
RSEM-R6W-SP	2/18/2019 14:08	VG0933	M	<0.0002	0.0507	10.8	0.0078	0.0000053	0.0568	0.0018		7.13	0.00545	4.72	<0.00002	303	0.173	94.3	0.000013	<0.005	<0.005	0.00464	0.011	0.0108	<0.0001
RSEM-R6W-SP	2/19/2019 11:50	VG0986	M	<0.0002	0.0523	10.8	0.0081	0.0000038	0.0527	0.0018			0.00524	4.72	<0.00002		0.168	96.8	0.000013	<0.005	<0.005	0.0047	0.0111	0.0051	<0.0001
RSEM-R6W-SP	2/20/2019 11:30	VG2862	M	<0.0002	0.0486	10.7	0.0083	0.0000065	0.0533	0.0019		7.24	0.00568	5.42	<0.00002	293	0.19	98.7	0.000011	<0.005	<0.005	0.00371	0.0113	<0.005	0.0001
RSEM-R6W-SP	2/21/2019 11:10	VG4542	M	<0.0002	0.0486	10.8	0.0086	0.0000039	0.0547	0.0019		7.62	0.00537	5.46	<0.00002	308	0.18	95.0	0.000013	<0.005	<0.005	0.00372	0.0117	<0.005	<0.0001
RSEM-R6W-SP	2/22/2019 11:25	VG6141	M	<0.0002	0.0535	11.3	0.009	0.0000036	0.0552	0.0018		7.70	0.00567	5.71	<0.00002	312	0.197	103	0.000013	<0.005	<0.005	0.00382	0.0116	0.0051	<0.0001
RSEM-R6W-SP	2/23/2019 12:25	VG8589	M	<0.0002	0.0527	11.4	0.0091	0.0000021	0.0552	0.0018		7.55	0.00574	5.68	<0.00002	312	0.194	103	<0.00001	<0.005	<0.005	0.00373	0.0113	0.0071	<0.0001
RSEM-R6W-SP	2/24/2019 12:15	VG8610	M	<0.0002	0.0536	11.4	0.0089	0.0000022	0.0559	0.0018		7.72	0.00585	5.85	<0.00002	317	0.196	104	0.00001	<0.005	<0.005	0.00386	0.0115	0.0066	<0.0001
RSEM-R6W-SP	2/25/2019 12:05	VG8574	M	<0.0002	0.0534	11.4	0.0093	<0.000002	0.0555	0.0018		7.79	0.00576	5.58	<0.00002	319	0.197	104	<0.00001	<0.005	<0.005	0.00376	0.0114	<0.005	<0.0001
RSEM-R6W-SP	2/26/2019 11:30	VH0046	M	<0.0002	0.0515	11.2	0.0095	0.0000021	0.0542	0.0019			0.00607	6.03	<0.00002		0.18	108	0.000012	<0.005	<0.005	0.00379	0.0113	<0.005	<0.0001
RSEM-R6W-SP	2/27/2019 11:20	VH2517	M	<0.0002	0.0536	11.7	0.011	<0.000002	0.0528	0.0019		8.31	0.00586	6.05	<0.00002	329	0.18	117	0.000013	<0.005	<0.005	0.00377	0.0118	<0.005	<0.0001
RSEM-R6W-SP	2/28/2019 12:00	VH4365	M	<0.0002	0.0531	12.1	0.0119	<0.000002	0.0542	0.002		7.99	0.00544	5.45	<0.00002	328	0.184	107	0.000012	<0.005	<0.005	0.00364	0.0118	0.013	<0.0001
RSEM-R6W-SP	3/1/2019 11:50	VH5673	M	<0.0002	0.0547	11.6	0.0116	<0.000002	0.0538	0.0019		8.06	0.00563	5.53	<0.00002	330	0.174	112	0.000013	<0.005	<0.005	0.00373	0.0122	0.0052	0.0001
RSEM-R6W-SP	3/2/2019 12:06	VH8127	M	<0.0002	0.0514	11.3	0.0114	<0.000002	0.0537	0.0019		7.89	0.00538	5.52	<0.00002	324	0.171	108	0.000014	<0.005	<0.005	0.00375	0.0111	<0.005	0.0001
RSEM-R6W-SP	3/3/2019 13:55	VH7775	M	<0.0002	0.0502	11.3	0.013	<0.000002	0.0529	0.0019		7.76	0.00545	5.66	<0.00002	326	0.175	106	0.000013	<0.005	<0.005	0.00364	0.0111	<0.005	<0.0001
RSEM-R6W-SP	3/4/2019 16:30	VI1285	M	<0.0002	0.0475	12.5	0.0146	<0.000002	0.0579	0.0019		7.81	0.00605	5.34	<0.00002	345	0.197	106	0.000014	<0.005	<0.005	0.00396	0.0112	0.007	<0.0001
RSEM-R6W-SP	3/5/2019 12:44	VI1635	M	<0.0002	0.0503	12.7	0.0146	0.0000028	0.0565	0.0021		8.26	0.00597	6.41	<0.00002	357	0.188	113	0.000012	<0.005	<0.005	0.0039	0.0121	0.0123	<0.0001
RSEM-R6W-SP	3/6/2019 13:35	VI3121	M	<0.0002	0.0514	12.2	0.0169	<0.000002	0.0604	0.0022		7.93	0.00598	5.59	<0.00002	330	0.195	107	0.000013	<0.005	<0.005	0.00421	0.0114	0.02	<0.0001
RSEM-R6W-SP	3/7/2019 13:55	VI4424	M	<0.0002	0.055	12.7	0.0135	0.0000021	0.0616	0.0022		8.38	0.00632	6.86	<0.00002	357	0.215	118	0.000015	<0.005	<0.005	0.00417	0.011	0.0207	0.00012
RSEM-R6W-SP	3/8/2019 11:47	VI4435	M	<0.0002	0.0554	13.0	0.0127	<0.000002	0.0606	0.0022		8.37	0.00586	6.27	<0.00002	367	0.212	117	0.000013	<0.005	<0.005	0.00408	0.0113	0.0082	0.0001
RSEM-R6W-SP	3/9/2019 11:50	VI6895	M	<0.0002	0.055	15.8	0.014	<0.000002	0.0592	0.002		9.20	0.0064	7.05	<0.00002	417	0.216	141	0.000013	<0.005	<0.005	0.00415	0.0127	<0.005	<0.0001
RSEM-R6W-SP	3/10/2019 12:25	VI6956	M	<0.0002	0.0527	15.7	0.014	<0.000002	0.0612	0.0019		9.46	0.00592	6.09	<0.00002	399	0.215	138	0.000013	<0.005	<0.005	0.00421	0.0129	0.0053	<0.0001
RSEM-R6W-SP	3/11/2019 12:30	VI9559	M	<0.0002	0.0563	13.4	0.0132	<0.000002	0.0622	0.0021		8.44	0.00655	6.44	<0.00002	362	0.207	117	0.000012	<0.005	<0.005	0.00416	0.0115	<0.005	<0.0001
RSEM-R6W-SP	3/12/2019 11:25	VI8443	M	<0.0002	0.0535	11.8	0.0137	<0.000002	0.0573	0.002		7.70	0.0061	5.7	<0.00002	327	0.192	109	0.000012	<0.005	<0.005	0.00388	0.0113	<0.005	<0.0001
RSEM-R6W-SP	3/13/2019 11:40	VJ2179	M	<0.0002	0.0518	12.4	0.0135	0.0000026	0.0667	0.002		8.18	0.00599	5.96	<0.00002	337	0.207	116	0.00001	<0.005	<0.005	0.00423	0.0113	0.0055	0.00012
RSEM-R6W-SP	3/14/2019 16:40	VJ4044	M	<0.0002	0.0515	13.5	0.0137	0.0000021	0.0552	0.002		8.57	0.00575	6.22	<0.00002	372	0.185	120	0.000013	<0.005	<0.005	0.00399	0.0114	0.0077	<0.0001
RSEM-R6W-SP	3/15/2019 11:35	VJ4022	M	<0.0002	0.0504	12.5	0.0134	<0.000002	0.0548	0.0019		8.24	0.00565	5.89	<0.00002	356	0.186	116	0.000013	<0.005	<0.005	0.00392	0.0108	0.0207	<0.0001
RSEM-R6W-SP	3/16/2019 13:05	VJ7199	M	<0.0002	0.0213	7.17	0.0217	<0.000002	0.0237	0.0015		5.73	0.00246	2.98	<0.00002	144	0.306	43.8	0.00001	<0.005	<0.005	0.00176	<0.005	<0.005	<0.0001
RSEM-R6W-SP	3/17/2019 11:40	VJ7215	M	<0.0002	0.0211	8.55	0.0174	<0.000002	0.0253	0.0017		6.28	0.0028	3.24	<0.00002	138	0.242	52.0	<0.00001	<0.005	<0.005	0.00191	<0.005	<0.005	<0.0001
RSEM-R6W-SP	3/18/2019 11:53	VJ6967	M	<0.0002	0.0171	6.65	0.0172	<0.000002	0.0236	0.0014		5.23	0.00246	2.55	<0.00002	103	0.202	39.2	<0.00001	<0.005	<0.005	0.00181	<0.005	<0.005	<0.0001
RSEM-R6W-SP	3/19/2019 13:33	VK0937	M	<0.0002	0.0182	6.25	0.0206	<0.000002	0.0214	0.0015		4.91	0.00264	2.47	<0.00002	107	0.18	41.7	<0.00001	<0.005	<0.005	0.00193	<0.005	<0.005	<0.0001
RSEM-R6W-SP	3/20/2019 0:20	VK2371	M	<0.0002	0.0157	6.33	0.0241	<0.000002	0.0191	0.0015		4.39	0.0028	2.24	<0.00002	105	0.183	39.3	<0.00001	<0.005	<0.005	0.00191	<0.005	<0.005	<0.0001

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	pH-lab	Conductivity-lab	Turbidity-lab	TDS	TSS	T-Hard	D-Hard	ALK-T	Alk-PP	HCO3	CO3	OH	Cl	F	Br	D-SO4	T-S2-	H2S	N-NH3	N-NO2	N-NO3	N-NO2_NO3	PO4
				pH	uS/cm	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-SP	3/21/2019 12:30	VK3817	M	8.13	656	54.7	402	38.8	88.3	90.4	128	<1.0	156	<1.0	<1.0	51.8	0.300	0.85	119			0.23	0.0940	0.704	0.798	0.0100
RSEM-R6W-SP	3/22/2019 10:15	VK3714	M	8.06	508	40.3	290	23.6	83.4	76.0	103	<1.0	126	<1.0	<1.0	37.0	0.250	0.61	83.5			0.20	0.0571	0.642	0.699	0.0116
RSEM-R6W-SP	3/23/2019 15:00	VK6012	M	7.96	567	48.7	340	22.8	74.8	75.0	111	<1.0	135	<1.0	<1.0	43.1	0.320	0.71	98.6			0.21	0.0710	0.528	0.599	0.0111
RSEM-R6W-SP	3/24/2019 13:00	VK5941	M	8.00	581	75.1	358	41.2	85.0	84.2	114	<1.0	139	<1.0	<1.0	45.8	0.310	0.76	90.0			0.19	0.0381	0.568	0.606	0.0100
RSEM-R6W-SP	3/25/2019 14:25	VK7833	M	8.01	531	92.0	336	49.6	78.7	76.4	106	<1.0	129	<1.0	<1.0	41.5	0.320	0.69	88.9			0.19	0.0785	0.515	0.593	0.0105
RSEM-R6W-SP	4/17/2019 10:48	VN9788	M	8.44	1230	4.74	708	7.6	192	160	213	3.3	252	3.9	<1.0	78.5	0.340	1.3	247			0.31	0.252	1.41	1.67	0.0030
RSEM-R6W-SP	4/18/2019 10:55	VN9665	M	8.40	1210	5.00	724	6.0	189	169	210	2.4	251	2.8	<1.0	78.1	0.330	1.3	238			0.33	0.241	1.41	1.65	0.0034
RSEM-R6W-SP	4/19/2019 12:20	VO0356	M	8.34	1210	4.54	734	13.2	190	154	209	1.6	251	1.9	<1.0	79.3	0.350	1.3	271			0.30	0.236	1.43	1.67	0.0037
RSEM-R6W-SP	4/20/2019 12:40	VO0435	M	8.26	1210	15.1	702	34.8	206	191	213	<1.0	260	<1.0	<1.0	79.8	0.350	1.3	267			0.28	0.233	1.41	1.65	0.0050
RSEM-R6W-SP	4/21/2019 11:50	VO1979	M	8.49	1210	2.38	718	8.8	188	192	206	5.1	239	6.1	<1.0	78.6	0.340	1.2	257			0.39	0.233	1.39	1.63	0.0045
RSEM-R6W-SP	4/22/2019 12:40	VO3503	M	8.46	1220	2.66	704	6.4	190	184	220	4.4	258	5.2	<1.0	78.0	0.350	1.2	268			0.34	0.235	1.09	1.33	0.0043
RSEM-R6W-SP	4/23/2019 12:55	VO5416	M	8.39	1180	2.87	710	6.4	187	190	212	2.6	252	3.2	<1.0	80.8	0.330	1.2	264			0.23	0.217	1.13	1.35	0.0044
RSEM-R6W-SP	4/24/2019 14:40	VO7033	M	8.43	1200	2.80	688	15.6	196	190	217	3.5	257	4.2	<1.0	72.3	0.330	1.2	266			0.28	0.203	1.38	1.58	0.0041
RSEM-R6W-SP	4/25/2019 13:20	VO8682	M	8.32	1200	9.72	680	18.0	192	191	218	1.2	263	1.5	<1.0	69.1	0.320	1.2	240			0.17	0.203	1.34	1.54	<0.0030
RSEM-R6W-SP	8/19/2019 10:20	WI2768	M	8.27	920	130		106	155	145	172	<1.0	209	<1.0	<1.0	80	0.240	1.6	170			0.072	0.0710	0.442	0.513	0.017
RSEM-R6W-SP	8/20/2019 10:00	WI5437	M	8.33	950	70	590	46.4	151	152	176	1.1	212	1.3	<1.0	80	0.26	1.6	170			0.034	0.0763	0.482	0.558	0.0070
RSEM-R6W-SP	8/21/2019 11:30	WI5130	M	8.33	970	45	600	28	148	149	180	1.2	220	1.4	<1.0	83	0.26	1.7	180			0.11	0.0831	0.493	0.576	0.0042
RSEM-R6W-SP	8/22/2019 11:20	WI9245	M	8.40	1000	42	600	24	153	152	190	2.5	220	3.0	<1.0	70	0.25	1.6	180			0.033	0.109	0.550	0.659	0.0045
RSEM-R6W-SP	9/17/2019 14:20	WN2862	M	8.28	770	71	480	46.0	139	137	180	<1.0	220	<1.0	<1.0	55	0.23	1.2	120			0.060	0.0277	0.329	0.357	<0.0030
RSEM-R6W-SP	9/27/2019 11:30	WP3487	M	8.26	900	29	540	10.8	112	109	200	<1.0	240	<1.0	<1.0	70	0.31	1.8	160			0.18	0.0505	0.428	0.478	0.0067
RSEM-R6W-SP	10/3/2019 13:45	WQ4506	M	8.28	910	11	550	7.2	109	105	190	<1.0	230	<1.0	<1.0	72	0.30	1.8	150			0.13	0.0466	0.410	0.457	<0.0030
W-Septimus-Hill	3/30/2019 0:45	VL6618	M	7.72	113	114	68	44.4	52.6	23.2	42.9	<1.0	52.4	<1.0	<1.0	8.90	0.080	0.11	1.7			0.018	0.0115	0.252	0.264	0.0320

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	TOC	DOC	T-Al	T-Sb	T-As	T-Ba	T-Be	T-Bi	T-B	T-Cd	T-Ca	T-Cr	T-Co	T-Cu	T-Fe	T-Pb	T-Li	T-Mg	T-Mn	T-Hg	T-Mo	T-Ni	T-P	T-K	T-Se
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-SP	3/21/2019 12:30	VK3817	M	3.7	3.5	0.976	0.001	0.00189	0.132	<0.0002	<0.002	0.132	0.000068	24.6	0.003	0.00106	0.036	1.67	0.00101	0.0147	6.53	0.0484	0.0000081	0.0148	0.0041		4.49	0.00202
RSEM-R6W-SP	3/22/2019 10:15	VK3714	M	2.4	2.7	1.34	<0.001	0.00257	0.14	<0.0002	<0.002	0.113	0.000099	23.3	0.0041	0.0015	0.0498	2.76	0.0016	0.0123	6.10	0.0629	0.0000023	0.0118	0.0052		3.52	0.00171
RSEM-R6W-SP	3/23/2019 15:00	VK6012	M	2.6	2.5	0.797	0.00099	0.00172	0.0996	<0.0001	<0.001	0.101	0.000049	20.5	0.0024	0.00064	0.0125	0.944	0.00063	0.0143	5.73	0.0321	<0.000002	0.0147	0.0028		3.91	0.00204
RSEM-R6W-SP	3/24/2019 13:00	VK5941	M	3.0	2.3	0.987	0.00104	0.00209	0.117	<0.0001	<0.001	0.106	0.000087	23.7	0.003	0.00097	0.0151	1.73	0.00106	0.015	6.29	0.0546	<0.000002	0.0149	0.0039		4.29	0.00211
RSEM-R6W-SP	3/25/2019 14:25	VK7833	M	2.6	2.1	1.03	0.00095	0.00219	0.117	<0.0001	<0.001	0.096	0.00009	22.9	0.0032	0.00107	0.0114	1.93	0.00123	0.0133	5.22	0.0601	<0.000002	0.0127	0.0039		3.67	0.00172
RSEM-R6W-SP	4/17/2019 10:48	VN9788	M	2.4	2.2	0.276	0.003	0.00371	0.316	<0.0001	<0.001	0.235	0.00001	52.7	0.0026	0.00038	0.00526	0.15	<0.0002	0.036	14.7	0.009	<0.000002	0.0193	0.0024		4.07	0.00782
RSEM-R6W-SP	4/18/2019 10:55	VN9665	M	2.5	2.4	0.17	0.00304	0.00354	0.304	<0.0001	<0.001	0.243	0.000011	50.8	0.0025	0.00038	0.0052	0.107	<0.0002	0.0371	15.0	0.0091	<0.000002	0.019	0.0025		4.09	0.00775
RSEM-R6W-SP	4/19/2019 12:20	VO0356	M	2.4	2.2	0.286	0.0031	0.00358	0.311	<0.0001	<0.001	0.243	0.000015	51.7	0.0027	0.00042	0.00507	0.22	<0.0002	0.0367	14.7	0.012	<0.000002	0.0193	0.0025		4.18	0.00766
RSEM-R6W-SP	4/20/2019 12:40	VO0435	M	2.3	2.4	0.667	0.00304	0.00399	0.33	<0.0001	<0.001	0.227	0.000027	56.8	0.0033	0.0007	0.00562	0.86	0.00053	0.0383	15.5	0.0242	<0.000002	0.0195	0.0035		4.24	0.0079
RSEM-R6W-SP	4/21/2019 11:50	VO1979	M	2.2	1.9	0.149	0.00299	0.00344	0.3	<0.0001	<0.001	0.241	<0.00001	50.9	0.0024	0.00036	0.00449	0.094	<0.0002	0.0353	14.8	0.0059	<0.000002	0.02	0.0023		4.07	0.0079
RSEM-R6W-SP	4/22/2019 12:40	VO3503	M	2.3	2.0	0.183	0.00303	0.00345	0.296	<0.0001	<0.001	0.23	<0.00001	50.3	0.0025	0.00039	0.00439	0.133	<0.0002	0.0353	15.6	0.0071	<0.000002	0.0197	0.0024		4.23	0.0079
RSEM-R6W-SP	4/23/2019 12:55	VO5416	M	2.2	2.0	0.173	0.00284	0.00331	0.271	<0.0001	<0.001	0.205	0.000011	50.3	0.0023	0.00037	0.00393	0.127	<0.0002	0.0332	14.8	0.0063	<0.000002	0.0177	0.0023		3.73	0.00749
RSEM-R6W-SP	4/24/2019 14:40	VO7033	M	2.3	1.8	0.558	0.00304	0.0035	0.284	<0.0001	<0.001	0.247	0.000029	52.8	0.003	0.0006	0.00464	0.664	0.00038	0.0362	15.6	0.0181	<0.000002	0.0186	0.0031		4.10	0.00805
RSEM-R6W-SP	4/25/2019 13:20	VO8682	M	2.2	2.2	0.286	0.00288	0.00343	0.281	<0.0001	<0.001	0.226	0.00002	51.1	0.0029	0.00054	0.00487	0.49	0.00033	0.036	15.8	0.0155	<0.000002	0.0191	0.0028		3.82	0.00776
RSEM-R6W-SP	8/19/2019 10:20	WI2768	M	7.8	3.6	5.38	0.00209	0.00417	0.19	0.00018	<0.001	0.233	0.0001	45.4	0.0167	0.00186	0.0066	4.4	0.00226	0.0332	10.2	0.0748	0.0000048	0.0287	0.0064		10.6	0.00304
RSEM-R6W-SP	8/20/2019 10:00	WI5437	M	3.4	3.5	3.06	0.00195	0.00359	0.161	0.00012	<0.001	0.225	0.000073	43.6	0.0134	0.0015	0.00531	2.96	0.00167	0.0343	10.2	0.049	0.000003	0.029	0.0056		9.85	0.00318
RSEM-R6W-SP	8/21/2019 11:30	WI5130	M	4.0	3.9	1.37	0.00202	0.00293	0.121	<0.0001	<0.001	0.231	0.000047	43.1	0.011	0.00077	0.0035	1.29	0.00078	0.0331	9.87	0.027	0.0000031	0.0304	0.0031		9.64	0.00318
RSEM-R6W-SP	8/22/2019 11:20	WI9245	M	3.7	3.7	0.597	0.00209	0.00278	0.111	<0.0001	<0.001	0.252	0.000035	45.0	0.0104	0.0006	0.00302	0.826	0.00056	0.0335	9.93	0.0219	0.0000032	0.0313	0.0026		9.95	0.00335
RSEM-R6W-SP	9/17/2019 14:20	WN2862	M	3.5	4.7	1.01	0.00146	0.00302	0.171	<0.0001	<0.001	0.204	0.000065	41.9	0.0065	0.00105	0.00467	2.03	0.00124	0.0251	8.44	0.0406	0.0000026	0.0242	0.004		7.05	0.00189
RSEM-R6W-SP	9/27/2019 11:30	WP3487	M	3.4	4.3	0.571	0.00187	0.00274	0.112	<0.0001	<0.001	0.238	0.00003	34.6	0.012	0.00048	0.0028	0.857	0.00057	0.0286	6.12	0.0209	0.0000036	0.0356	0.0023		9.03	0.00242
RSEM-R6W-SP	10/3/2019 13:45	WQ4506	M	2.8	4.2	0.31	0.00206	0.00256	0.0983	<0.0001	<0.001	0.248	0.000013	34.3	0.0133	0.00026	0.00207	0.259	0.00023	0.029	5.75	0.009	<0.000002	0.0402	0.0015		9.55	0.00247
W-Septimus-Hill	3/30/2019 0:45	VL6618	M	2.3	2.3	5.29	<0.0005	0.00208	0.122	0.0002	<0.001	<0.05	0.000094	16.7	0.009	0.0015	0.00481	4.66	0.00228	0.0054	2.62	0.0584	<0.000002	<0.001	0.0061		2.83	0.00014

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	T-Si	T-Ag	T-Na	T-Sr	T-S	T-Tl	T-Sn	T-Ti	T-U	T-V	T-Zn	T-Zr	D-Al	D-Sb	D-As	D-Ba	D-Be	D-Bi	D-B	D-Cd	D-Ca	D-Cr	D-Co	D-Cu	D-Fe
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-SP	3/21/2019 12:30	VK3817	M	3.28	<0.00004	87.1	0.176	34.1	0.00003	<0.01	0.016	0.0017	<0.01	0.02	0.00074	0.0108	0.00115	0.00112	0.086	<0.0001	<0.001	0.135	0.000025	25.8	0.0015	0.00023	0.0132	<0.01
RSEM-R6W-SP	3/22/2019 10:15	VK3714	M	3.65	<0.00004	70.4	0.149	27.6	0.000045	<0.01	0.019	0.0014	<0.01	0.038	0.00055	0.0122	0.00089	0.00098	0.0758	<0.0001	<0.001	0.097	0.000021	21.6	0.0011	<0.0002	0.00602	0.011
RSEM-R6W-SP	3/23/2019 15:00	VK6012	M	3.2	<0.00002	88.9	0.146	33.1	0.000022	<0.005	0.0122	0.0014	<0.005	0.0111	0.0004	0.0072	0.00106	0.00109	0.0703	<0.0001	<0.001	0.111	0.000026	20.9	0.0014	<0.0002	0.00949	<0.01
RSEM-R6W-SP	3/24/2019 13:00	VK5941	M	3.41	0.000021	92.1	0.165	33.8	0.00003	<0.005	0.0183	0.0015	<0.005	0.0136	0.00045	0.0073	0.00106	0.001	0.0797	<0.0001	<0.001	0.106	0.00004	23.6	0.0014	0.00023	0.00693	0.011
RSEM-R6W-SP	3/25/2019 14:25	VK7833	M	3.66	0.000027	72.1	0.148	27.3	0.000029	<0.005	0.0232	0.00136	<0.005	0.0197	0.00047	0.0085	0.00092	0.00089	0.0761	<0.0001	<0.001	0.096	0.000029	23.0	0.0013	<0.0002	0.00446	0.013
RSEM-R6W-SP	4/17/2019 10:48	VN9788	M	4.12	<0.00002	166	0.314	95.7	0.000013	<0.005	0.0075	0.00283	<0.005	<0.005	0.00017	0.0672	0.0028	0.00314	0.278	<0.0001	<0.001	0.221	<0.00001	42.7	0.0019	0.00025	0.00439	<0.01
RSEM-R6W-SP	4/18/2019 10:55	VN9665	M	3.85	<0.00002	176	0.312	97.4	0.000013	<0.005	<0.005	0.00286	<0.005	<0.005	0.00017	0.0685	0.0029	0.0032	0.288	<0.0001	<0.001	0.235	<0.00001	44.6	0.002	0.00024	0.00444	<0.01
RSEM-R6W-SP	4/19/2019 12:20	VO0356	M	4.13	<0.00002	168	0.313	93.4	0.000017	<0.005	0.0078	0.00294	<0.005	<0.005	0.00014	0.0595	0.00272	0.00312	0.263	<0.0001	<0.001	0.218	<0.00001	41.0	0.0019	0.00023	0.00383	<0.01
RSEM-R6W-SP	4/20/2019 12:40	VO0435	M	4.97	0.000022	170	0.32	96.4	0.000022	<0.005	0.0216	0.00302	0.0058	0.0055	0.00059	0.0736	0.00333	0.00355	0.316	<0.0001	<0.001	0.249	<0.00001	49.7	0.0025	0.00034	0.00462	<0.01
RSEM-R6W-SP	4/21/2019 11:50	VO1979	M	3.89	<0.00002	185	0.32	96.4	0.000012	<0.005	<0.005	0.00293	<0.005	<0.005	<0.0001	0.0727	0.00312	0.00319	0.279	<0.0001	<0.001	0.236	<0.00001	51.6	0.0034	0.00029	0.00415	<0.01
RSEM-R6W-SP	4/22/2019 12:40	VO3503	M	3.87	<0.00002	176	0.315	96.9	0.000014	<0.005	<0.005	0.00297	<0.005	<0.005	0.00027	0.0726	0.00296	0.00329	0.277	<0.0001	<0.001	0.238	<0.00001	48.3	0.0022	0.00026	0.00358	<0.01
RSEM-R6W-SP	4/23/2019 12:55	VO5416	M	3.56	<0.00002	159	0.292	93.1	0.000012	<0.005	<0.005	0.00277	<0.005	<0.005	0.00011	0.0665	0.00303	0.00321	0.287	<0.0001	<0.001	0.235	<0.00001	50.4	0.0023	0.00027	0.00339	<0.01
RSEM-R6W-SP	4/24/2019 14:40	VO7033	M	4.27	<0.00002	181	0.324	92.5	0.000019	<0.005	0.0112	0.00306	0.005	<0.005	0.00355	0.0515	0.0031	0.00302	0.246	<0.0001	<0.001	0.223	<0.00001	51.3	0.0021	0.00031	0.00256	<0.01
RSEM-R6W-SP	4/25/2019 13:20	VO8682	M	3.73	0.000021	168	0.305	89.0	0.000016	<0.005	0.0056	0.00291	<0.005	<0.005	0.00016	0.0633	0.00297	0.00329	0.283	<0.0001	<0.001	0.26	<0.00001	50.6	0.0022	0.00024	0.00283	<0.01
RSEM-R6W-SP	8/19/2019 10:20	WI2768	M	16.5	0.000021	129	0.315	53.9	0.000088	<0.005	0.181	0.00179	0.0203	0.0253	0.00731	0.0653	0.00205	0.0023	0.0832	<0.0001	<0.001	0.225	0.00001	42.9	0.0092	<0.0002	0.00145	<0.01
RSEM-R6W-SP	8/20/2019 10:00	WI5437	M	10.7	0.000031	129	0.319	56.9	0.000058	<0.005	0.102	0.00176	0.0134	0.0204	0.00237	0.0653	0.00205	0.00233	0.0857	<0.0001	<0.001	0.239	<0.00001	44.4	0.0088	<0.0002	0.00151	<0.01
RSEM-R6W-SP	8/21/2019 11:30	WI5130	M	7.2	<0.00002	136	0.301	59.4	0.000033	<0.005	0.0406	0.00169	0.0084	0.0123	0.00125	0.0786	0.00199	0.00228	0.0823	<0.0001	<0.001	0.242	<0.00001	43.6	0.0089	<0.0002	0.00151	<0.01
RSEM-R6W-SP	8/22/2019 11:20	WI9245	M	5.73	<0.00002	147	0.293	62.1	0.000025	<0.005	0.0117	0.00166	0.0065	0.0067	0.00043	0.096	0.00214	0.00235	0.0855	<0.0001	<0.001	0.242	<0.00001	44.4	0.0096	<0.0002	0.0014	<0.01
RSEM-R6W-SP	9/17/2019 14:20	WN2862	M	5.98	<0.00002	113	0.21	38.5	0.000032	<0.005	0.0214	0.00125	0.0068	0.0163	0.00054	0.0558	0.00141	0.00197	0.102	<0.0001	<0.001	0.19	<0.00001	41.3	0.0047	<0.0002	0.00132	<0.01
RSEM-R6W-SP	9/27/2019 11:30	WP3487	M	6.18	<0.00002	141	0.196	48.8	0.000019	<0.005	0.0123	0.00108	0.0076	0.0069	0.0004	0.0815	0.00195	0.00251	0.091	<0.0001	<0.001	0.226	<0.00001	33.2	0.0117	<0.0002	0.00134	<0.01
RSEM-R6W-SP	10/3/2019 13:45	WQ4506	M	5.84	<0.00002	146	0.201	49.6	0.000015	<0.005	0.0072	0.00099	0.0073	<0.005	0.00039	0.0927	0.00197	0.00253	0.0887	<0.0001	<0.001	0.229	<0.00001	32.3	0.0124	<0.0002	0.00135	<0.01
W-Septimus-Hill	3/30/2019 0:45	VL6618	M	11.7	0.000042	0.479	0.0817	<3.0	0.000091	<0.005	0.203	0.00054	0.0197	0.0179	0.00541	0.014	<0.0005	0.0003	0.0467	<0.0001	<0.001	<0.05	<0.00001	16.8	<0.001	<0.0002	0.00086	0.064

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample

Appendix 3-B: 2019 Water Quality Analytical Results, Tabulated

Station	Collect Date/Time	Sample No.	Sample Class	D-Pb	D-Li	D-Mg	D-Mn	D-Hg	D-Mo	D-Ni	D-P	D-K	D-Se	D-Si	D-Ag	D-Na	D-Sr	D-S	D-Tl	D-Sn	D-Ti	D-U	D-V	D-Zn	D-Zr
				mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RSEM-R6W-SP	3/21/2019 12:30	VK3817	M	0.00029	0.0141	6.33	0.0209	0.0000065	0.0171	0.0016		4.03	0.00249	2.1	<0.00002	96.7	0.179	35.9	<0.00001	<0.005	<0.005	0.0017	<0.005	<0.005	<0.0001
RSEM-R6W-SP	3/22/2019 10:15	VK3714	M	<0.0002	0.0108	5.39	0.0147	<0.000002	0.0122	0.0011		2.99	0.00185	1.76	<0.00002	72.4	0.138	27.0	<0.00001	<0.005	<0.005	0.00129	<0.005	<0.005	<0.0001
RSEM-R6W-SP	3/23/2019 15:00	VK6012	M	<0.0002	0.0135	5.53	0.0182	<0.000002	0.0158	0.0012		3.72	0.00207	2.17	<0.00002	88.3	0.14	34.9	<0.00001	<0.005	<0.005	0.00141	<0.005	<0.005	<0.0001
RSEM-R6W-SP	3/24/2019 13:00	VK5941	M	<0.0002	0.0138	6.12	0.0216	<0.000002	0.0163	0.0014		4.30	0.00207	2.27	<0.00002	89.8	0.163	35.8	<0.00001	<0.005	<0.005	0.0015	<0.005	<0.005	<0.0001
RSEM-R6W-SP	3/25/2019 14:25	VK7833	M	<0.0002	0.0123	4.63	0.0195	<0.000002	0.0135	0.0013		3.39	0.00178	2.08	<0.00002	72.3	0.147	28.8	<0.00001	<0.005	<0.005	0.0013	<0.005	<0.005	<0.0001
RSEM-R6W-SP	4/17/2019 10:48	VN9788	M	<0.0002	0.0325	13.0	0.0031	<0.000002	0.0172	0.0019		3.34	0.00751	3.04	<0.00002	152	0.284	76.1	0.000011	<0.005	<0.005	0.00256	<0.005	<0.005	<0.0001
RSEM-R6W-SP	4/18/2019 10:55	VN9665	M	<0.0002	0.0334	14.0	0.0022	<0.000002	0.0183	0.002		3.54	0.00804	3.07	<0.00002	159	0.296	80.5	0.000011	<0.005	<0.005	0.00272	<0.005	<0.005	<0.0001
RSEM-R6W-SP	4/19/2019 12:20	VO0356	M	<0.0002	0.0319	12.7	0.0021	<0.000002	0.0169	0.0019		3.33	0.00756	2.81	<0.00002	153	0.261	74.9	0.00001	<0.005	<0.005	0.00245	<0.005	<0.005	<0.0001
RSEM-R6W-SP	4/20/2019 12:40	VO0435	M	<0.0002	0.0398	16.3	0.0024	<0.000002	0.0214	0.0026		4.25	0.00867	3.3	<0.00002	193	0.343	96.7	0.000012	<0.005	<0.005	0.00316	<0.005	<0.005	<0.0001
RSEM-R6W-SP	4/21/2019 11:50	VO1979	M	<0.0002	0.0376	15.4	0.0011	<0.000002	0.0195	0.0027		4.01	0.0083	3.46	<0.00002	184	0.31	94.3	0.000012	<0.005	<0.005	0.00298	<0.005	<0.005	<0.0001
RSEM-R6W-SP	4/22/2019 12:40	VO3503	M	<0.0002	0.0365	15.4	<0.001	<0.000002	0.0193	0.0021		4.05	0.00764	3.57	<0.00002	179	0.313	95.4	0.00001	<0.005	<0.005	0.00287	<0.005	<0.005	<0.0001
RSEM-R6W-SP	4/23/2019 12:55	VO5416	M	0.00022	0.0328	15.7	<0.001	<0.000002	0.0211	0.0022		3.90	0.00783	3.27	<0.00002	178	0.31	91.1	<0.00001	<0.005	<0.005	0.00291	<0.005	<0.005	<0.0001
RSEM-R6W-SP	4/24/2019 14:40	VO7033	M	<0.0002	0.0343	15.1	0.0048	<0.000002	0.0188	0.0022		3.66	0.00796	3.2	<0.00002	167	0.305	84.6	0.00001	<0.005	<0.005	0.00294	<0.005	<0.005	<0.0001
RSEM-R6W-SP	4/25/2019 13:20	VO8682	M	<0.0002	0.0337	15.8	<0.001	<0.000002	0.02	0.0021		4.03	0.00795	3.34	<0.00002	173	0.311	93.0	0.000011	<0.005	<0.005	0.00295	<0.005	<0.005	<0.0001
RSEM-R6W-SP	8/19/2019 10:20	WI2768	M	<0.0002	0.0313	9.31	<0.001	<0.000002	0.0309	0.0013		9.54	0.00306	4.58	<0.00002	129	0.304	57.1	0.000012	<0.005	<0.005	0.00153	<0.005	<0.005	0.00012
RSEM-R6W-SP	8/20/2019 10:00	WI5437	M	<0.0002	0.0315	9.86	0.0019	<0.000002	0.0306	0.0014		9.42	0.0033	4.65	<0.00002	139	0.3	60.4	0.000012	<0.005	<0.005	0.00156	<0.005	<0.005	0.00013
RSEM-R6W-SP	8/21/2019 11:30	WI5130	M	<0.0002	0.0326	9.80	0.0015	<0.000002	0.0307	0.0013		9.80	0.00329	4.52	<0.00002	142	0.291	63.1	0.000013	<0.005	<0.005	0.00161	<0.005	<0.005	<0.0001
RSEM-R6W-SP	8/22/2019 11:20	WI9245	M	<0.0002	0.0293	9.95	<0.001	<0.000002	0.0326	0.0013		10.1	0.00345	4.58	<0.00002	152	0.29	63.4	0.000015	<0.005	<0.005	0.00162	0.0051	<0.005	<0.0001
RSEM-R6W-SP	9/17/2019 14:20	WN2862	M	<0.0002	0.0249	8.15	0.001	<0.000002	0.0261	0.0012		7.86	0.00185	4.77	<0.00002	112	0.193	43.0	0.000011	<0.005	<0.005	0.00109	<0.005	<0.005	<0.0001
RSEM-R6W-SP	9/27/2019 11:30	WP3487	M	<0.0002	0.0295	6.33	<0.001	<0.000002	0.0382	0.0011		9.25	0.00256	4.96	<0.00002	144	0.203	49.9	0.000012	<0.005	<0.005	0.00109	0.0063	<0.005	<0.0001
RSEM-R6W-SP	10/3/2019 13:45	WQ4506	M	<0.0002	0.0283	5.86	<0.001	<0.000002	0.0385	0.0011		9.60	0.00245	5.5	<0.00002	145	0.216	47.6	0.000011	<0.005	<0.005	0.00104	0.0065	<0.005	<0.0001
W-Septimus-Hill	3/30/2019 0:45	VL6618	M	<0.0002	<0.002	2.02	<0.001	<0.000002	<0.001	<0.001		1.45	<0.0001	0.537	<0.00002	0.434	0.0716	<3.0	<0.00001	<0.005	<0.005	0.00028	<0.005	<0.005	0.00023

Notes: "M' denotes a monitoring sample, "D: denotes a duplicate sample